



LATHAN ASSOCIATES • ARCHITECTS, P.C.  
 1736 OXMOOR ROAD • SUITE 208 • HOMEWOOD, ALABAMA 35209  
 205-879-9110 • FAX 205-879-9831

ADDENDUM NO. 2  
 NEW LIBERTY PARK MIDDLE SCHOOL - PHASE II  
 Architect's Job No. 06-48  
 May 22, 2007

**BIDS DUE:**

Thursday, June 7, 2007, until 2:00 p.m. local time  
 Vestavia Hills Board of Education  
 1204 Montgomery Highway  
 Birmingham, AL 35216

The Plans and Specifications are here by amended. The following supersedes all contrary and/or conflicting information and is made part of the contract documents.

**SPECIFICATIONS**

1. The **BID DATE** has been changed from May 31, 2007 to June 7, 2007.

**BIDS DUE:** Thursday, June 7, 2007, until 2:00 p.m. local time, Vestavia Hills Board of Education, 1204 Montgomery Highway, Birmingham, AL 35216

2. **PRE-BID CONFERENCE**

A Pre-Bid Conference shall be held on Thursday, May 24, at 2:00 p.m., local time, at Vestavia Hills Board of Education, 1204 Montgomery Highway, Birmingham, AL 35216

3. **Section 10532 - Insulated Translucent Canopy Systems.**

Add this section to the Specification Manual in its entirety.

3. **Section 12300 - Casework** - All exposed cabinet interiors shall be matching laminate interiors in lieu of thermofused melamine previously specified.

**DRAWINGS**

1. See attached Supplemental Drawings **AD2.1 and AD2.2** for detail change on Enlarged Toilet Plan.
2. The 12 type "B" windows indicated on the plans and elevations in **Gymnasium D111** are hereby **deleted**. Provide 12" CMU and face brick in lieu of the windows. Brick color shall be "A". Brick patterns shall remain as shown. The pre-finished metal sun control indicated on **D/A3.1.2** shall also be deleted.
3. **Sheet No. P2.1.1 - First Floor Gravity - Area "C" and Sheet No. P3.1.1 - First Floor Pressure - Area "C"** - See Attached Supplemental Drawings **PSD - 1 and PSD - 2**.



**APPROVED MANUFACTURERS**

The following manufacturers have submitted data for prior approval and have been approved by our office, contingent upon the stipulation that their products must meet or exceed the contract specifications.

<u>Product</u>	<u>Manufacturer</u>
Section 07411 - Standing Seam Roof System (Loc-Seam) .....	Superior Metal Systems Dothan, AL., 334-983-9632
Section 15050 - Butterfly Valve .....	Mueller
Thermometers .....	Weiss
Pressure Gauges .....	Weiss
Temperature Pressure Plugs .....	Sisco
Section 15080 - Calibrated Balancing Valve .....	Taco
Flow Limiters .....	Nexus
Section 15140 - Pumps (#KS Split Case) (Verify prior to bid that pumps will fit in space provided) . .	Taco
	Represented by: Jamco, Inc., Birmingham, AL., 205-833-3390

INSULATED TRANSLUCENT CANOPY SYSTEMS - SECTION 105321.0 - GENERAL

## 1.1 Related Documents:

- A. The General Conditions of the Contract, including Supplementary Conditions and Division 1 - General Requirements, apply to the work of this Section.

## 1.2 Work Included:

- A. Design, manufacture and installation of translucent insulating glazing system. An assembly of extruded tight-cell polycarbonate glazing panels incorporated into a complete aluminum framed system that has been tested and warranted by the manufacturer as a single source system.
- B. All anchors, brackets, and hardware attachments necessary to complete the specified structural assembly, weatherability and water-tightness performance requirements. All flashing up to but not penetrating adjoining work are also required as part of the system and shall be included.
- C. Trained and factory authorized labor with supervision to complete the entire panel installation.

## 1.3 Related Work Specified Elsewhere:

- A. Section 05120 - Structural Steel  
Section 07910 - Caulking and Sealants

## 1.4 Quality Assurance

- A. Skylight system must be evaluated and listed by recognized building code authorities: International Council Evaluation Service Inc (ICC-ES) and SBCCI - Public Safety Testing and Evaluation Services Inc.
- B. Materials and Products shall be manufactured by a company continuously and regularly employed in the manufacture of skylights using polycarbonate (not glass) panel systems for a period of at least ten (10) years. Manufacturers shall provide a list of at least ten (10) projects having been in place a minimum of ten (10) years, with similar size, scope, climate and type.
- C. Erection shall be by a factory-approved installer which has been in the business of erecting similar material for at least five (5) consecutive years and can show evidence of satisfactory completion of projects of similar size, scope and type.
- D. The manufacturer shall be responsible for the configuration and fabrication of the complete panel system, and will ensure that it fully meets all requirements of this specification.
- E. **APPROVED MANUFACTURERS:**  
All manufacturers acceptable for use on this project under this section must be approved prior to bid. Manufacturers must submit evidence of compliance with all performance criteria specified herein. This evidence must include proof of conformance and test reports as specified below. Any exceptions taken from this specification must be noted on the approval request. If no exceptions are noted and approval is given, product performance will be as specified. Should non-compliance be subsequently discovered, the previously given approval will be invalidated and use of the product on the project will be disallowed. Requests for

approval, with all appropriate submittal data and samples must be received no less than 10 days prior to bid date. Approved manufacturers and products will be issued by addendum. No verbal approval will be given.

#### 1.5 Submittals:

- A. Submit shop drawings and color samples in accordance with Shop Drawing Submittals – Section 01350.
- B. The manufacturer shall submit written guarantee accompanied by substantiating data, stating that the products to be furnished are in accordance with or exceed these specifications.
- C. The manufacturer shall submit certified test reports made by an independent organization for each type and class of panel system. Reports shall verify that the material will meet all performance requirements of this specification. Previously completed test reports will be acceptable if they are current and indicative of products used on this project. Test reports required are:
  1. Self Ignition Temperature (ASTM 1929-3)
  2. Smoke Density (ASTM D-2843)
  3. Burning Extent (ASTM D-635)
  4. Interior Flame Spread (ASTM E-84)
  5. Color Difference (ASTM D-2244-85)
  6. Weathering (ASTM D-4364)
  7. Yellowing Index (ASTM D-1925)
  8. Weathering Evaluation before and after exposure to 300°F, 25 minutes include Light Transmission, Color Change, and Yellowing Index, per ASTM E-1175, ASTM D-2244 and ASTM D-1925 respectively.
  9. Shatter Resistance (ASTM D-3841/SPI Method B)
  10. Large Missile Test - Impact Resistance per SFBC PA 201-94
  11. Insulation "U" Factor per ASTM C-236 configured for/or NFRC100 test conditions of 15mph
  12. Air Infiltration (ASTM E-283)
  13. Water Penetration (ASTM E-331)
  14. Load Bearing Capability (ASTM E-330-90)
  15. OSHA Life Safety Fall and Walk Through Protection for 300 lb. point load per STD 29 CFR 1910.23 (e)(8)
  16. OSHA Life Safety STD 29 CFR - Impact loading by blunt object of 500 ft. lbs. per ASTM E-695-03
  17. Performance of exterior windows, curtain walls when impacted by wind-borne debris per ASTM E 1996-02, Level D
  18. IES LM-44-90 Testing for Total and Diffused Reflectometry (Diffused Light Transmission)
- D. **Maintenance Data:** The manufacturer shall provide recommended maintenance procedures, schedule of maintenance and materials required or recommended for maintenance.

#### 1.6 Warranty:

- A. Provide a single source walkway / canopy system manufacturer warranty for glazing panels and framing system – third party warranty for glazing panels shall not be acceptable.
- B. Provide manufacturer 10 year warranty to include:

1. Change in light transmission of no more than 6% per ASTM D-1003
2. No delamination of panel affecting appearance, performance or structural integrity of the panel or the system.
3. Thermal aging - the light transmission and the color shall not change after exposure to heat of 300°F for 25 minutes. (When measured per ASTM D-1003 and ASTM D-2244 respectively).

## 2.0 - PRODUCTS

### 2.1 Translucent Insulating Tight Cell Glazing System:

- A. The design and performance criteria of this job are based upon the products manufactured by CPI International, Inc., telephone (800) 759-6985, (847) 816-1060, fax (847) 816-0425; and as locally represented by Emack Slate Co., Inc., 205-879-3424.
- B. Other translucent polycarbonate systems will be considered provided that they fully meet all specification, warranty, module and aesthetic intent and are approved by written addendum 10 days prior to bid. All submittals for prior approval shall include samples and complete test data as prescribed in Section 1.05 of this specification and per Division 1. Fiberglass skins are unacceptable.

### 2.2 Translucent Panel Performance

- A. Tight Cell Panel Technology - Longevity and Resistance to Buckling and Pressure
  1. Translucent Panels must be of Tight-Cell technology. Wide Cell technology (cell size exceeding 0.18") shall not be acceptable.
  2. The extruded panel shall include an integral extruded Tight-Cell structural core. The panel's exterior skins shall be connected with supporting continuous ribs, perpendicular to the skins, at a spacing not to exceed 0.18" (truss-like construction). In addition, the space between the two exterior skins shall be divided by multiple parallel horizontal surfaces, at a spacing not to exceed 0.18".
- B. Appearance:
  1. Panel assembly thickness shall be a minimum .47" (12mm) single panel with exposed interlocking 1.25" wide U battens.
  2. Panel Width: Shall not exceed 2' to ensure best performance for wind uplift, vibration, oil canning and visual appearance. Panels over 2' wide will not be approved.
- C. Thermal and solar performance:  
Color : Green
- D. Translucent Panel Joint System:
  1. Panel shall be extruded in one single formable length. Maximum panel width shall not exceed 2'. Transverse connections are not acceptable.
  2. The panels should be manufactured with grip-lock double tooth upstands that are integral to the unit. The upstands shall be 90 degrees to the panel face (standing seam dry glazed concept). Welding or gluing of upstands or standing seam is not acceptable.
  3. The U or H battens shall have a grip-lock double tooth locking mechanism to ensure maximum uplift capability.

4. The metal retention clip shall be configured with a 0.4" wide top flange that extends continuously across the web from end to end and from side to side. To allow a safety factor, the clip must be tested to meet a wind uplift standard of 90 psf per ASTM E330-97.
5. The panel system U connection shall meet wind load performance requirements without deterioration after 100 months of Florida outdoor exposure. This performance must be demonstrated by providing independent lab comparison test reports for a weathered vs. a new panel assembly. As a standard for all systems, provide test reports for a 16mm panel assembly, 6' wide x 12' long with connectors that have been exposed to Florida weather conditions for 100 months per ASTM E-330-97 for loading, ASTM E 1886-97 for cycling and ASTM E-1996-02 for missile impact at design load of 70 PSF.
6. Air Infiltration: Must meet standard of ASTM D-283 at test pressures of 12.0 PSF - 0.06 SCFM per linear ft. of panel U / H joint connection length.
7. Water Penetration: No water penetration of the panel U / H joint connection length at test pressure of 12.0 PSF per ASTM E-331
8. Free movement of the panels shall be allowed to occur without damage to the weather tightness of the completed system.

#### E. Flammability

1. The exterior and interior faces shall be an approved light transmitting panel with a CC1 fire rating classification per ASTM D-635. Flame spread no greater than 25 per ASTM E-84. Smoke density no greater than 75 per ASTM D2843 and a minimum self-ignition temperature of 1000°F per ASTM 1929. The panel shall be self-extinguishing.

#### F. Impact Resistance - the panels shall pass the following tests:

1. ASTM D-3841/SPI - Impact and Shatter Resistance of 200 ft. lbs.
2. SFBC - PA 201-94, impact resistance of 350 ft. lbs.
3. ASTM E-1996-02 - Must comply with standard specification for performance of exterior windows or curtain walls when impacted by windborne debris at level D and after cyclic wind loading at the specified design load.

#### G. OSHA Life Safety Standards 29 CFR 1926.502 (l)(2) and 29 CFR 1910.23 (e)(8)

1. Panel assembly shall withstand impact loading by blunt object of 500 ft. lbs. per ASTM E695-03
2. Panel assembly shall withstand a 300 lb. point load at 4' span

#### H. Cyclic Wind Load - Translucent Panels shall be tested for cyclic wind loads and impact resistance per ASTM E 1886-97 and ASTM E 1996-02 at test load to verify the positive and negative design loads and level D impact.

#### I. Weatherability:

1. The light transmission as measured by ASTM D1003, shall not decrease more than 6% over 10 years, or after exposure to temperature of 300°F for 25 minutes (thermal aging).
2. The panel shall be tested by recognized laboratory for weathering evaluation per ASTM D4364-84 (EMMAQUA, UNBACKED), after exposure to minimum concentrated natural sunlight radiation of 56000 MJ/M<sup>2</sup> (1540 MJ/M<sup>2</sup> of UV, 200 - 385 N.M). The panel shall not change in color more than 5.0 units Delta E, 5.0 units Delta L and Delta B.
3. The panel shall not change color more than 5.0 units (DELTA-E by ASTM D2244) after 60 months outdoor weathering in Arizona determined by an average of at least two samples.
4. Thermal aging - the interior and exterior faces shall not change color in excess of 0.75 Delta E by ASTM D2244 and shall not darken more than 0.3 units (Delta L

by ASTM D2244) and 0.2 units Delta Y (YI) by ASTM D1925 and shall not show cracking or crazing when exposed to 300°F for 25 minutes.

5. The faces shall not become readily detached when exposed to temp of 300°F and 0°F for 25 minutes.
6. Panels shall consist of a polycarbonate resin with a permanent, co-extruded, ultra-violet protective layer. Post-applied coating or films of dissimilar materials are unacceptable. Fiberglass skins are unacceptable.
7. UV Maintenance: The system shall require no scheduled re-coating to maintain its performance or for UV protection.
8. Panel shall be factory sealed at the sill to restrict dirt ingress.

**J. Diffused Light Transmission:**

As a reference for measuring the quality of the diffused light through the panel assembly, the IES (Illuminating Engineering Societies) LM-44-1990 Approved Method for Total and Diffuse Reflectometry procedure shall be used. Results for a Pentaglas / Single Glazed panel assembly shall be provided as a base standard for comparison.

For Pentaglas / Single Glazed systems with total illuminator flux output at 60 lumens,] diffused light transmission requirements are:

Zonal Zone	% of transmittance from the maximum total lumens transmitted through the panels
0-30	66.0
0-40	78.5
0-60	94.0
0-90	100.0

- L. The minimum ratio of the panel weight to the panel thickness should be:  
For 0.47" thick Pentaglas 12 panel, 0.54 LB. per S.F.

**2.3 METAL MATERIALS**

- A. Extruded Aluminum shall be ANSI/ASTM B221; 6063-T6; 6063-T5 or 6005-T5.
- B. Flashing:
  - 1) 5005 H34 aluminum 0.04" minimum thickness.
  - 2) Sheet metal flashings/closures/claddings are to be furnished shop formed to profile - when lengths exceed 10 ft. in nominal 10-ft lengths. Field trimming of the flashing and field forming the ends is necessary to suit as-built conditions. Sheet metal ends are to overlap at least 6-in. to 8-in., set in a full bed of sealant and riveted if required.
- C. All Fasteners for aluminum framing to be stainless steel or cadmium plated steel, excluding the final fasteners to the building.
- D. All exposed ALUMINUM FINISH shall be standard color CPICRF Standard Paint Clear Anodize.

**3.0 - EXECUTION**

**3.01 EXAMINATION**

- A. General Contractor to verify when structural support is ready to receive all work in this section and to convene a Pre-Installation Conference at least one week prior to commencing work of this Section. Attendance required of General Contractor, skylight installer and all parties directly affecting and effected by the work of this section.
- B. All submitted opening sizes, dimensions and tolerances are to be field verified by general contractor unless otherwise stipulated.

- C. Installer to examine area of installation to verify readiness of site conditions. Notify general contractor about any defects requiring correction. Do not work until conditions are satisfactory.

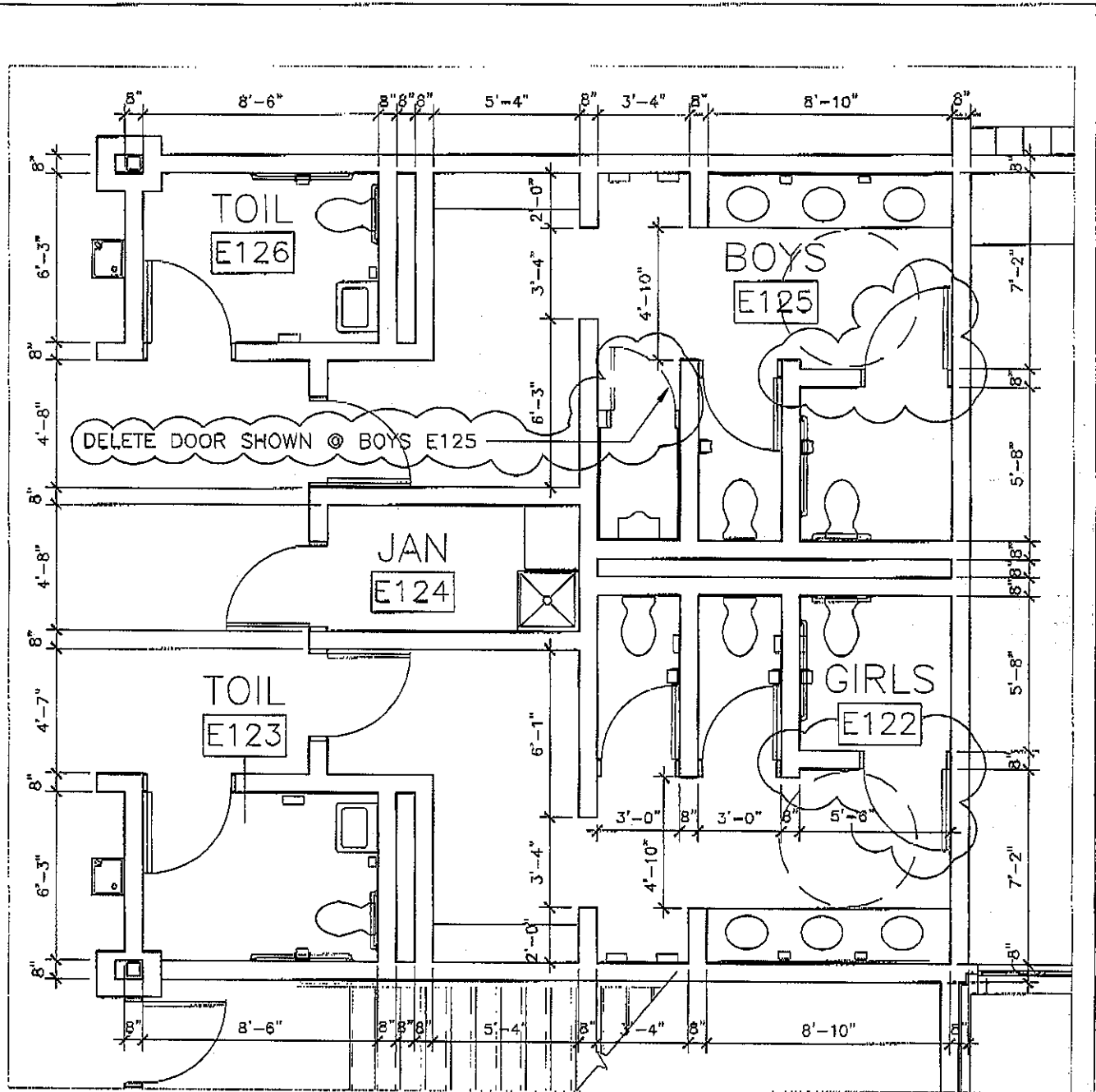
### 3.02 INSTALLATION

- A. Install components in strict accordance with manufacturer's instructions and approved shop drawings. Use proper fasteners and hardware for material attachments as specified.
- B. Use methods of attachment to structure allowing sufficient adjustment to accommodate tolerances.
- C. Remove all protective coverings on panels immediately after installation.

### 3.03 CLEANING

- A. Follow manufacturer's instructions when washing down exposed panel surfaces using a solution of mild detergent in warm water that is applied with soft, clean wiping cloths.
- B. Follow strict panel manufacturer guidelines when removing foreign substances from panel surfaces requiring mineral spirits or any solvents that are acceptable for use.
- C. Installers shall leave panel system clean at completion of installation. Final cleaning is by others upon completion of project, following manufacturer's cleaning instructions.

END OF SECTION



# 1 ENLARGED TOILET PLAN @ TOILET E126, E123 BOYS E125, & GIRLS E122

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

SIM CONDITION @ TOILETS E146, E150,  
BOYS E147, GIRLS E149, E230, E235,  
BOYS E231, & GIRLS E233, E208, E212,  
BOYS E209, & GIRLS E211

LIBERTY PARK MIDDLE SCHOOL  
PHASE II  
VESTAVIA HILLS BOARD OF EDUCATION  
VESTAVIA HILLS, ALABAMA



LATHAN ASSOCIATE'S  
ARCHITECTS, P.C.  
1138 GRANDON ROAD SUITE 208  
HOMEROOD, ALABAMA 36209  
PHONE: 205 879-9110

DRAWN: MSC
DATE: 05.22.07
SHEET TITLE:
TOILET ROOM PLAN

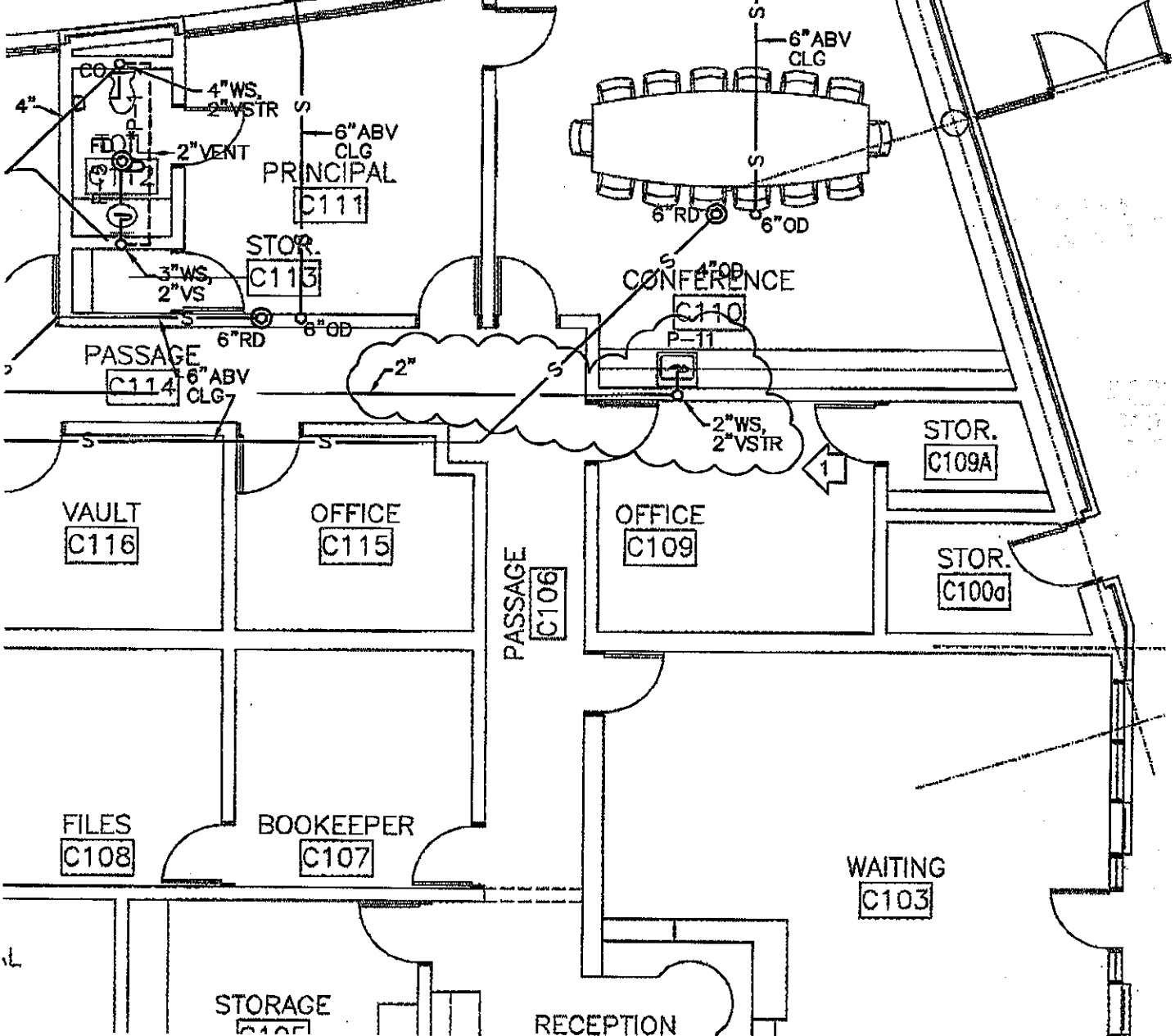
JOB NO. 06-48
SHEET NO:
AD2.1
1 OF 2



SEE CIVIL  
ES PLAN

J.R. SMITH MOD-1770  
DOWNSPOUT NOZZLE

VESTIB  
C10



**LIBERTY PARK MIDDLE SCHOOL - PH. II  
VESTAVIA HILLS, ALABAMA**

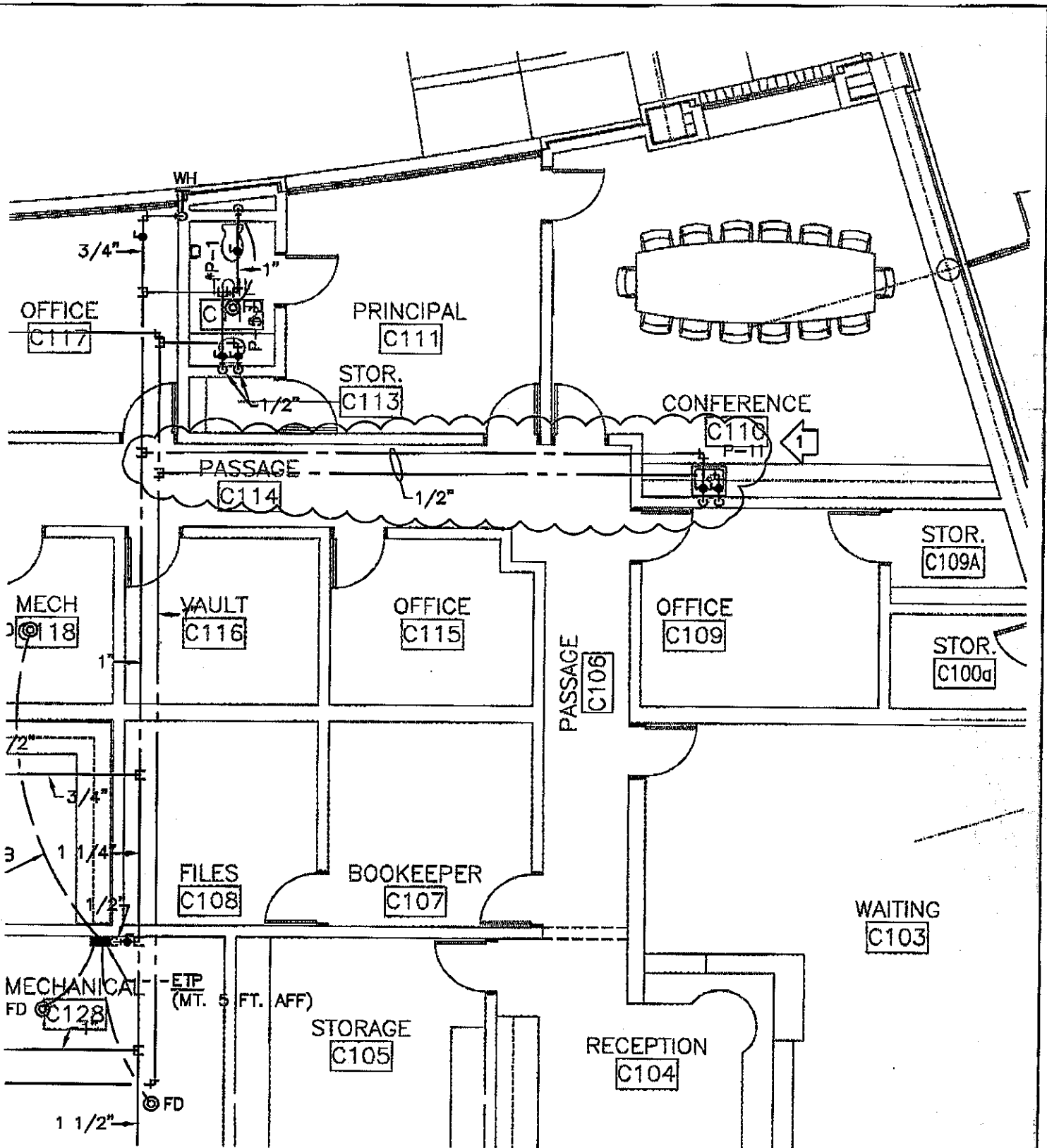
**VESTAVIA HILLS BOARD OF EDUCATION**



LATHAN ASSOCIATES  
ARCHITECTS, P.C.  
1720 OAKBROOK ROAD, SUITE 208  
HUNTSVILLE, ALABAMA 35896  
PHONE 256 893-3110

DRAWN: W.B.
DATE: 05-18-07
SHEET TITLE:
1ST FLOOR GRAVITY AREA "C"
<b>ADDENDUM</b>

JOB NO. 06-48
SHEET NO. P2.1.1
REV. 1
<b>PSD-1</b>
1 of 2
SEQUENCE NO. 7



**LIBERTY PARK MIDDLE SCHOOL - PH. II**  
**VESTAVIA HILLS, ALABAMA**  
**VESTAVIA HILLS BOARD OF EDUCATION**



LATHAN ASSOCIATES  
 ARCHITECTS, P.C.  
 1728 CHANDLER ROAD, SUITE 208  
 HOUSTON, ALABAMA 36208  
 PHONE 205 578-3110

DATE: 05-18-07
SHEET TITLE:
1ST FLOOR PRESSURE AREA "G"
<b>ADDENDUM</b>

JOB NO. 06-48
SHEET NO. P3.1.1
REV. 1
PSD-2
2 OF 2
SEQUENCE NO.