

DESIGN SOLUTIONS

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Architectural Woodwork Institute
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Reston, VA 20190

COMBINING WOODWORK WITH ALUMINUM TO MAKE A SPECTACULAR HEADQUARTERS

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In the reception area, an AlumaX race car is mounted on quartered figured Sapele wood in front of the radiused reception desk made of mixed finishes using each of the project veneers and a polished black cylinder.

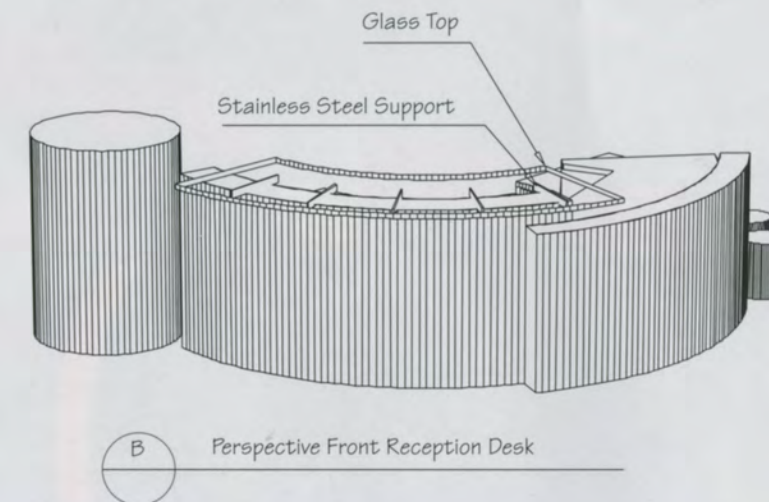
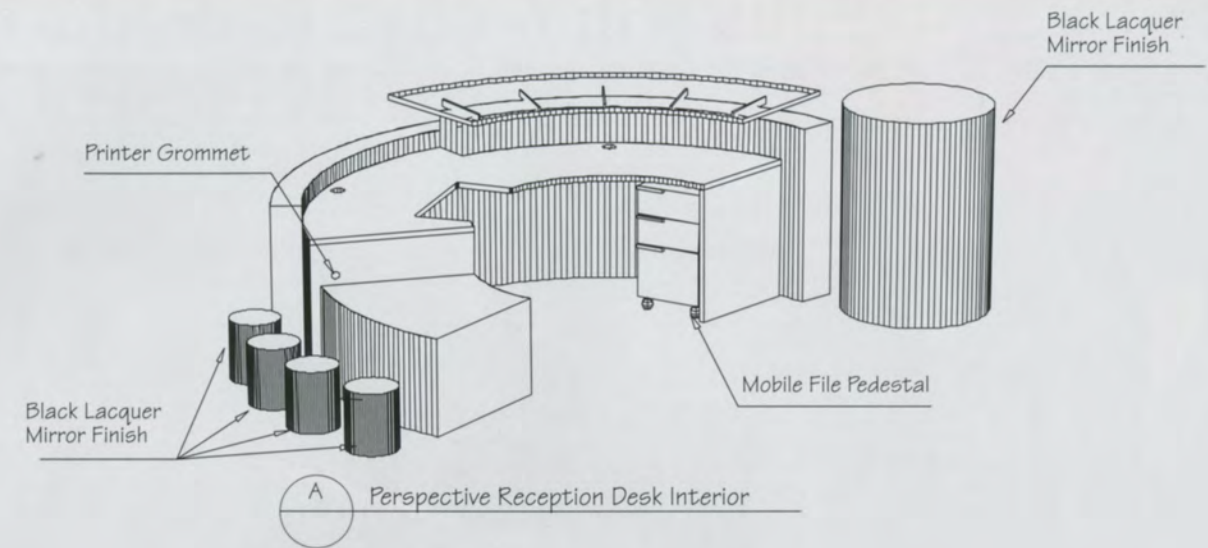
AlumaX, Inc., with offices and manufacturing subsidiaries worldwide, is the third largest aluminum producing company in the world. Monarch Tower, the new headquarters of AlumaX, is a new 24-story class-A tower in the heart of Atlanta's Buckhead office district. AlumaX moved its headquarters to this prestigious location and occupies approximately 80,000 square feet of space.

According to the architect, Richard Stonis, a principal of ASD, Inc., of

Atlanta, the primary design objective for the new headquarters was to move the client from an existing, single-occupant building in a suburban office park setting to an urban class-A office tower. Design considerations included timeless elements and the use of high-quality finish materials throughout reflecting the corporate personality of AlumaX as a world-class leader in the production of aluminum. Several AlumaX products were incorporated within the construction and for display.

Design objectives were realized

through the use of several finish and architectural design concepts. The strategic use and placement of specific finishes throughout the general and executive areas of the project provide a striking atmosphere and showcase an array of AlumaX products. These finishes included veneer panels, custom millwork, specialty wall applications, custom flooring, and engineered lighting. The architect took advantage of opportunities unique to the building and its location. These amenities include downtown and greenbelt vistas



RECEPTION DESK PERSPECTIVES

and 12' to 14' ceiling heights. To complete the process, the design incorporates custom furniture created specifically to satisfy the corporate identity and maximize functional requirements.

A splayed wall motif was used consistently in elevator lobbies, executive corridors, and the reception area. The theme was accomplished using wood veneer and fabric panel systems. Extensive use of wood veneer panels on architectural elements and custom furniture, in addition to a palette of materials that changed subtly from one area to another anchored the design and was evidenced throughout space.

The woodworker for the project was AWI member firm Merritt Woodwork of Mentor, Ohio. Merritt Woodwork

provided the fabrication, prefinishing, and installation for the entire project inclusive of:

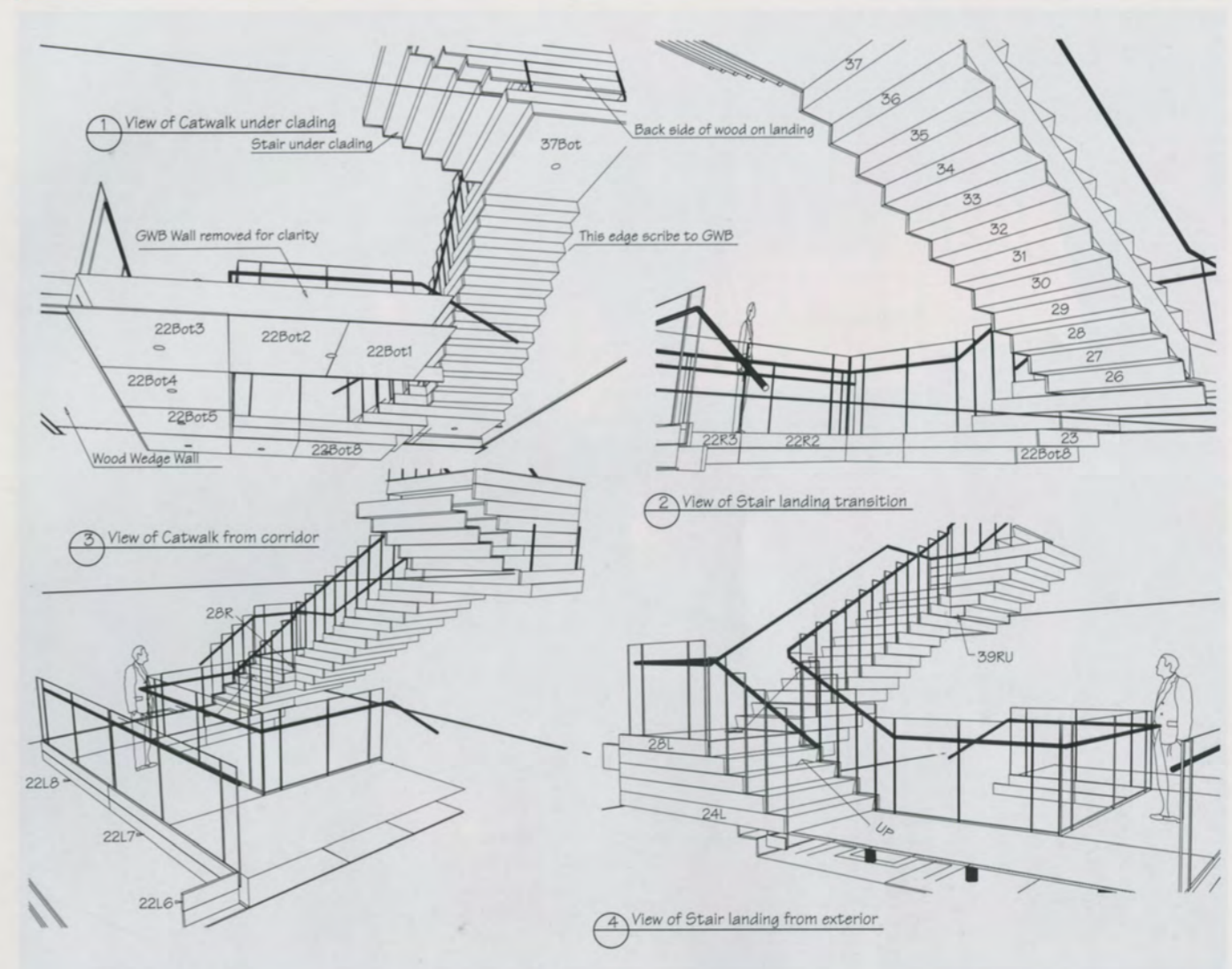
- Veneered 3/4" x 6" quartered figured Sapele base on MDF core on floors 21, 22 and 23.
- Veneered 1-1/8" x 10" quartered figured Sapele base on MDF core throughout the 24th floor and all elevator lobbies.
- Veneered quartered figured Sapele applied casings with splayed legs over metal door frames on all floors.
- Glass wall assemblies of plain sliced solid mahogany in the 23rd floor library and the 24th floor committee room.
- 3/0 x 7/0 and 3/3 x 9/8 quartered figured Makore flush doors provided

through AWI Associate Member Eggers Industries with the faces prepared by AWI Associate Member Bacon Veneer, the project veneer supplier. Full size door mockups were made to determine the veneer layout and minimum leaf width per face.

- 9000 square feet of quartered figured Sapele flush paneling with 3/32" reveals. The paneling was located on one wall in the four story monumental stair running vertically for 62 lineal feet in a true book and butt match, throughout the 24th floor corridors, 24th floor elevator lobby, board room and private administration offices.
- 3000 square feet of vaulted ceiling panels on the 24th floor mounted on a custom radius I beam system devel-



A view of the spectacular four-story stair system with the reception desk at the bottom. All exposed surfaces of the stairs were wrapped in veneer panels except for the treads and risers. All veneer is quartered figured Sapele.



STAIR PERSPECTIVES

oped by Merritt and certified by the structural engineer. The ceiling peaked at 14'-0" at the apex and dropped to 10'-4" at its widest projection from center. The veneer was a figured plain sliced Makore. All panels were a 3/4" 5-ply construction using two layers of 3/8" Fire Rated particle board with an inner layer of mahogany between the cores, face, and backing veneer. The panels were all bent plywood manufactured at Merritt Woodwork in a series of vacuum presses. The ceiling system spanned the elevator lobby, over the four story stair and into the board room. The entire ceiling is completely tied together and can move as a unit with the movement of the building. It is not tied into the surrounding partitions.

- The four-story stair system where all exposed surfaces of the stair were wrapped in veneered panels except for the treads and risers. All veneer was quartered figured Sapele.
 - A veneered AV wall in the board room where an 8/0 x 10/0 sliding door pockets behind the flush panel system.
 - Five private administration offices were developed with three walls of casework, filing, facsimile and printer towers and work surfaces with floating peninsula D-tops. All veneer was quartered figured Sapele.
- Merritt Woodwork also provided the following furniture pieces:
- Two quartered figured Makore credenzas with reverse diamond veneered doors, glass tops and mirror polished stainless steel accents.

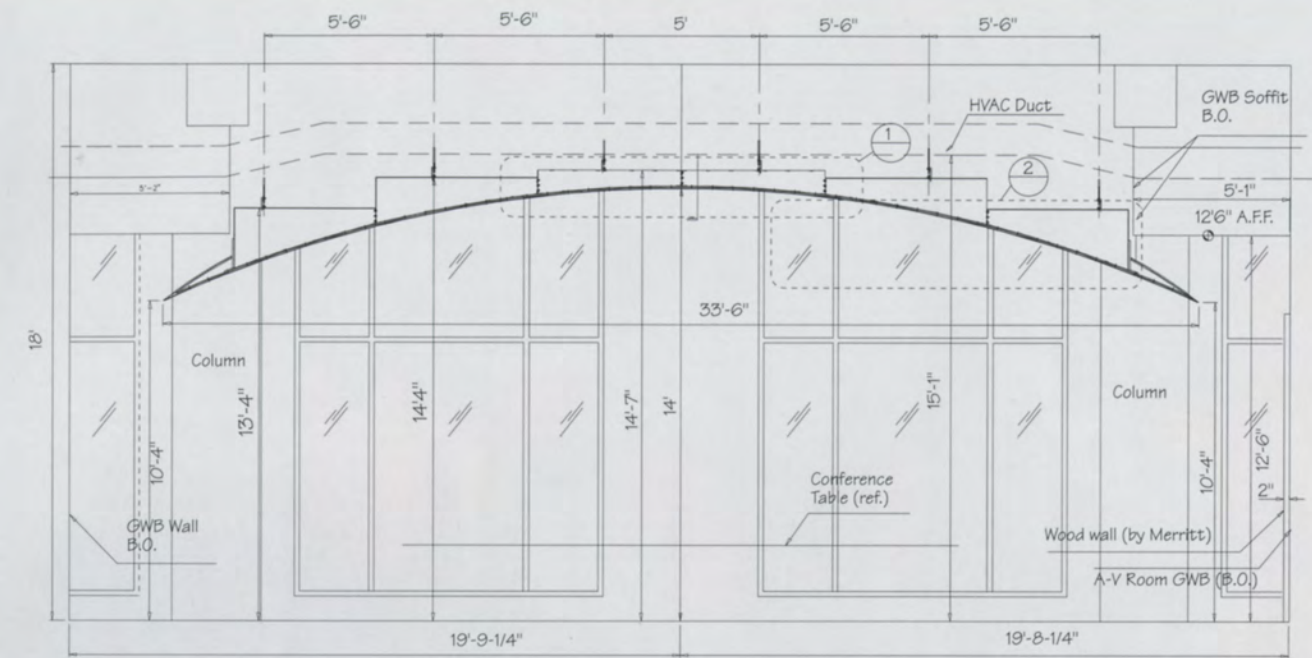
- A 30' board room table in a modified boat shape with a true starburst veneer pattern originating at the table's center. Each user's position was designated by twin 1/8" macassar ebony inlays (short grain). The base veneer was quartered figured Makore. The table included concealed raceways for all power, data and voice requirements.
 - Board room podium to accommodate all AV interface.
 - A radius reception desk of mixed finishes using each of the project veneers and a polished black cylinder.
 - A 70" diameter committee room table with a true starburst veneer face and macassar ebony inlays of 1/8" (short grain).
- G. Michael Merritt, the project principal for Merritt Woodwork, described



the care taken in selecting the wood. "Flitch selection was determined by our firm in conjunction with (AWI Associate Member) R.S. Bacon Veneers. We worked diligently to find the right wood species that achieved a tonal value the design team was looking for. The ASD design team criteria was, foremost, a heavy figure that remained iridescent after the staining process; next, unwavering continuity throughout the project; and finally, woods that would allow moderate perception of pores as a full filled finish was not desired. We reviewed 13 species and nearly 38 flitches until we found the two primary flitches that were large enough to produce the entire project."

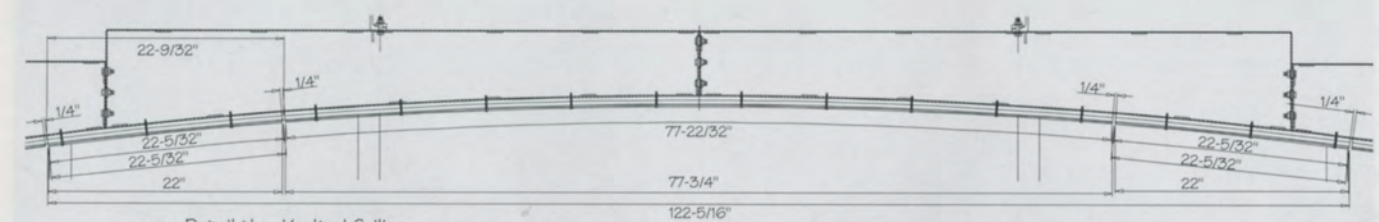
The majority of the woodwork was veneered out of quartered figured Sapele with a broken block mottle pat-

Above, a view of the stairs from below looking at the Sapele veneer surrounding all exposed surfaces except for treads and risers. A portion of the barrel vaulted ceiling is seen at the top. Right, a closer view of the stairs.

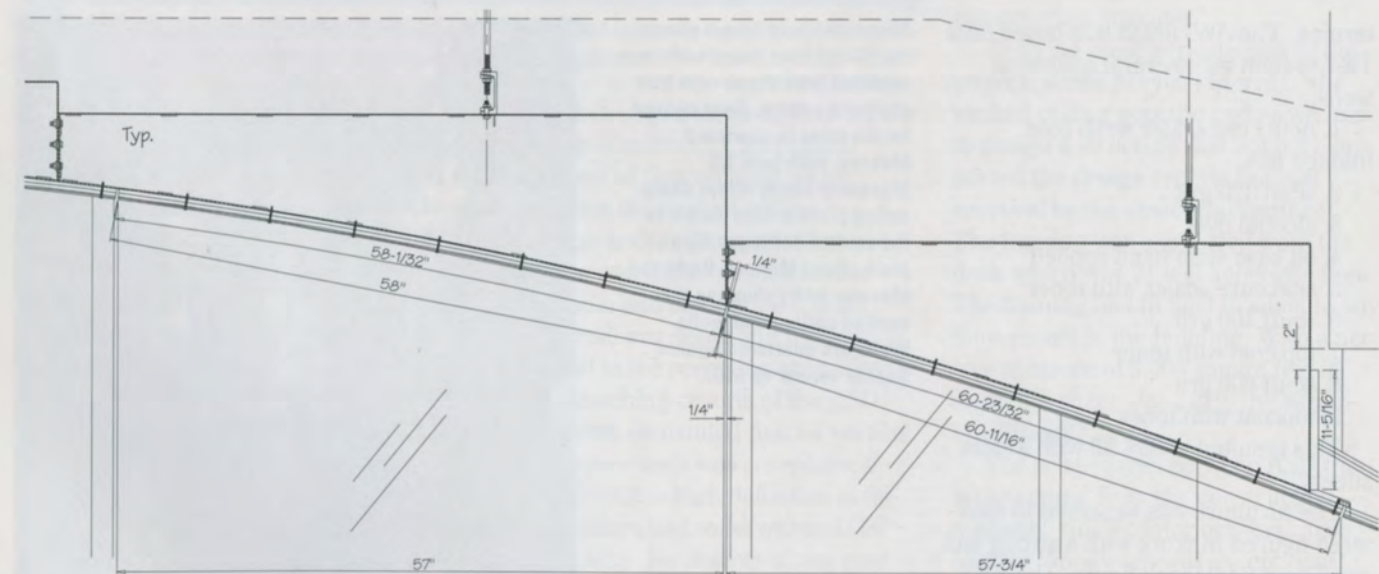


Section Thru Conference Room

CEILING SECTION



1 Detail thru Vaulted Ceiling



2 Detail thru Vaulted Ceiling

CEILING DETAIL



terning. The AWI finish was based on a TR-2 system with several additional steps.

1. Acid cure sealer wash coat thinned 65%.
2. scuff 320 grit .
3. alcohol dye
4. oil base stain hand applied
5. acid cure sealer with toner
6. scuff 400 grit
7. top coat with toner
8. scuff 600 grit
9. topcoat with toner

This resulted in 85% fill with a satin sheen.

The furniture was veneered in quartered figured Makore with a strong and consistent fiddleback figure. The AWI finish was based on a TR-2 for all items except for the board room and committee room table which was a TR-4. The steps are as follows:

Above, the board room shows the 30-foot long board table in a modified boat shape with true starburst pattern. Base veneer for the table is quartered Makore, with twin 1/8" Macassar ebony inlays designating places. Also visible is the vaulted ceiling of figured plain sliced Makore. Right, the elevator lobby showing the vaulted ceiling and walls. Walls are quartered figured Sapele veneer on MDF.



View of woodwork in the 24th floor elevator lobby. Wood is Makore in the center panel and sapele on the outsides. The center panel is a true book and butt match.

1. Acid cure sealer wash coat thinned 45%
2. scuff 320 grit
3. alcohol dye
4. oil base stain hand applied
5. acid cure sealer thinned 25%
6. scuff 320 grit
7. grain filler
8. acid cure sealer
9. scuff 400 grit
10. top coat
11. scuff 600 grit
12. top coat
13. Wet sand and machine polish for board and committee room tables.

The veneer consumption on the project was 91,000 square feet of quartered figured Makore (doors, woodwork accents and furniture), 72,000

square feet of quartered figured Sapele (majority of millwork), and 12,300 square feet of figured plain sliced Makore for the vaulted ceiling.

Unique and challenging veneer matching was accomplished on the board room and committee room tables, credenza doors and the four story wall in the reception area. The veneer matching criteria of the ASD design team demanded that no vertical slip of veneer leafs was acceptable if visible. With the high definition in figure, all splices had to be within 1/16" (vertical slip). No defects of any type were allowed. Waste on the Sapele was 5 to 1, and 7 to 1 on the Makore. Merritt Woodwork performed all veneering in-house to maintain the

quality of the matching and to support the production schedule. Total plant labor exceeded 11,000 hours. Field labor and supervision added another 5,000 hours.

According to the architect, the most intricate items produced by the woodworker included:

- Barrel vaulted wood ceiling panels
- Four story splayed wall veneer panel system
- Four story monumental stair panel cladding
- Custom furniture pieces including a 30' long boardroom table

For the woodworker, one of the most demanding parts of this project was on the 24th floor. The project design required four major design elements to come together on the 24th floor. These elements were the four story stair, vaulted wood ceiling, four story wall in the stair corridor and the elevator lobby. Michael Merritt stated, "In order for all of the wood surfaces to come together at a variety of geometric intersections, all gypsum partitions, stair bulkheads and precise locations of structural steel for the stairs were defined and directed by Merritt Woodwork. We completely surveyed the space and prepared layout drawings. Once approved, all lines were struck on the floors in a team effort of woodworker, gypsum contractor and construction manager."

As to the most intricate part of the project, stated Michael Merritt, "the vaulted ceiling gets the nod as we had to design a structure that not only supported the design criteria but met approval by the structural engineer. The framing was supported from the deck which was 21 feet above the floor. The framing had to float to adapt to any movements in the building. With a net face measure of 3,000 square feet in itself, the sheer size made the assembly difficult."

The relationship between ASD the architectural firm, the construction manager, Holder Interiors, Inc., and Merritt Woodwork was exceptional. "This is the third major project we have completed for the design firm and we have continued to push the envelope on each new project both in design and



The elevator lobby canted wall and the vaulted ceiling created some challenges for the woodworker. Veneers are quartered figured Sapele on the walls and figured plain sliced Makore on the ceiling.



Above and right, views of veneers showing quartered figured Makore on flush doors and figured Sapele flush paneling.



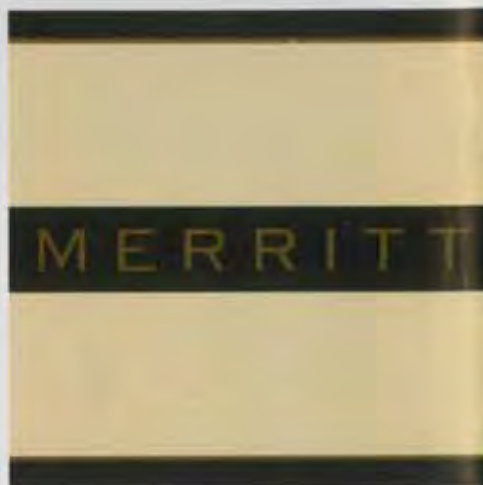
function,” Michael Merritt concluded. “The high level of mutual respect that each firm has for the other results in a more cohesive project for all. Extensive value engineering was required at the beginning of the project to help bring in the entire project under budget. It was critical for the design team that the major design elements remain. Our task was to craft the means and methods by which we could maintain a majority of the design themes yet find several hundred thousand dollars in reductions. Our sensitivity to the design allows us to operate in a mode that invites a closer relationship with a design professional thus allowing our task to be more extensive and effective.”

Project:	Alumax, Inc. International Headquarters	Atlanta, Georgia
Woodworker:	Merritt Woodwork	Mentor, Ohio
Architect/Design Firm:	ASD, Inc.	Atlanta, Georgia
General Contractor:	Holder Interiors, Inc.	Atlanta, Georgia

woodwork of merit



Holland & Knight, Atlanta



Sterling Commerce, Columbus



Allen Bradley, Cleveland



Atlanta, Atlanta