Transmission Systems Business Unit





AT&T's COMMON BOND puts to paper today the values demonstrated for over fifty years by the people of Merrimack Valley, setting a standard of excellence worldwide that rewards our shareowners, our customers and all AT&T people.

lexander Graham Bell came to Haverhill, Massachusetts, in 1870 to work with a deaf child. An "idea" had its beginnings here, and six years later in Boston that "idea" became the telephone.

In 1943 a Western Electric facility opened in Haverhill, ready to meet growing demands for coils and transformers. What began as a temporary need for increased production capability set the groundwork for a 50-year tradition of growth and stability that continues today with ever increasing worldwide demands for transmission equipment.

Merrimack Valley Works opened in 1956, populated by growing numbers of industrious people. The great industrial teacher W. Edwards Deming demonstrated new ways to achieve greatness, and a quest for excellence began that earned the people of Merrimack Valley the prestigious Malcolm Baldrige National Quality Award along the way. AT&T owes its long presence in the community to continuous improvement in manufacturing and flexibility in the satisfaction of customers' changing needs.

The 1990s bring new challenges, new products, new successes in working together as teams, and new people following the same proven traditions.

Welcome to Merrimack Valley









Today the TSBU at Merrimack Valley supports diverse teams of talented people — each focused on MV's mission to bring the highest value transmission solutions to customers worldwide.



Merrimack Valley's Auto-Insert Quality Improvement Team targeted missing SIPs (Single In-line Packages) as their "fat rabbit."

When their carefully collected data revealed a particular part was prone to fall out of boards, they wanted to know why. They found square shaped leads were being inserted into round holes.

The supplier of the SIPs with the square leads became a part of the team, changed the leads to round at no extra cost to AT&T, and helped the team meet their goal.



Merrimack Valley is an award-winning manufacturing facility, recognized worldwide for a commitment to excellence. Our people lead the industry in innovative processes.

Achievements/Awards

ISO9001 certified — 1992

1992 Malcolm Baldrige National Quality Award

1992 Feigenbaum Massachusetts Quality Award

1991 AT&T Chairman's Quality Award, Bronze Improvement

1990 & 1989 AT&T Bonnie B. Small Quality Awards

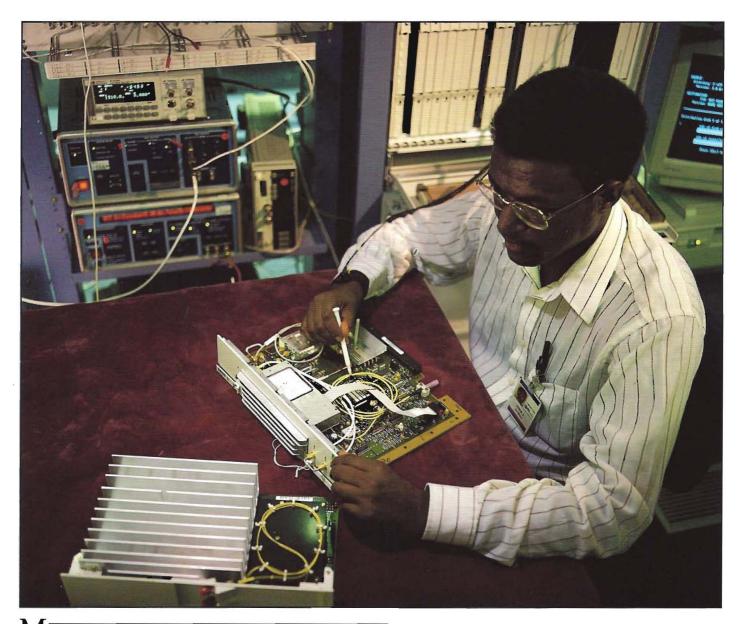
1992 Massachusetts Safety Council President's Award (5th consecutive year)

Since 1986, Merrimack Valley annually recognizes those suppliers to our business who partner with us and continue to improve *their* quality, delivery time and service, enabling us to remain on our course of continuous quality improvement.

Kemet Electronics' Eastern Area Sales Manager Ken Carletta, left, is just one of 98 suppliers honored in 1993, shown accepting congratulations from TSBU Vice President Jack McKinnon.



Merrimack Valley's transmission equipment reaches around the globe, bringing people, businesses and nations closer through effective management and movement of information ...



Merrimack Valley's Optical Amplifier Systems offer breakthrough technology for AT&T's global fiber optic network.

... offering telecommunications companies virtually everything they need to build and operate their networks.

errimack Valley offers more than just high quality products to its customers — we offer solutions to problems and technical support along the way.

Our teams of technical people include an on-site staff of the world renowned Bell Laboratories research and development group, designing tomorrow's products with the customer in mind.

"Self-healing systems" are engineered for trouble free operations, saving costly and annoying service disruptions.

Built-in SONET capability in our 2000 family of products guarantees the very best for our customers.

ISO9001 certification emphasizes our ability to adapt our products to all markets — in all corners of the globe.

Our newest 2000 family of products offers solutions individualized to customer needs.

Lightwave

Leading edge Lightwave Transmission Systems are key elements in a wideband system architecture. Merrimack Valley's lightwave systems offer the highest capacity commercially available.

DACS

Merrimack Valley's state-of-the-art Digital Access and Cross-Connect Systems give customers the flexibility they need in configuring transmission circuits.

Multiplexers

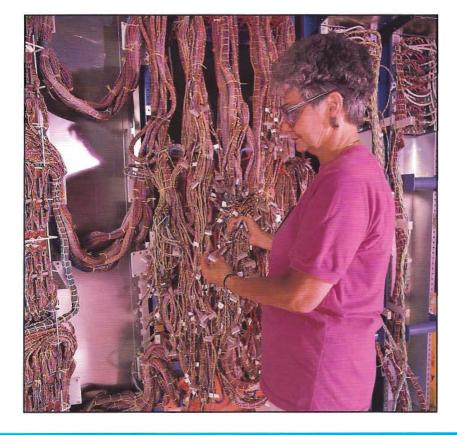
The outgrowth of Merrimack Valley's unparalleled experience, our digital type multiplexers set the standards for capability, reliability, flexibility and capacity.

Signal Processing Systems

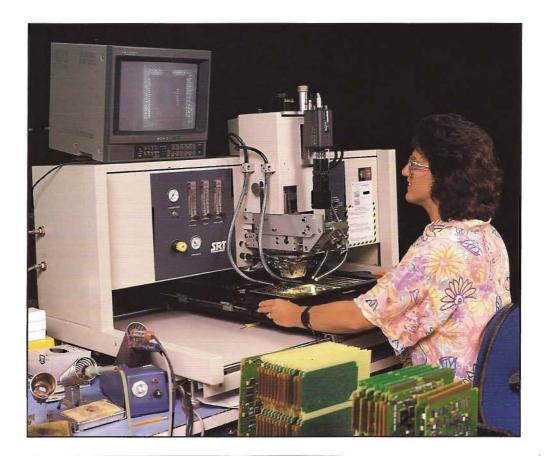
Merrimack Valley's Digital Echo Cancelling Systems are deployed worldwide. These systems use stateof-the-art circuitry and algorithms to enhance the quality of audio and video transmission networks.

Video Systems

Merrimack Valley's Video Messaging and Broadcast Systems provide breakthrough quality and performance in support of our customers' expanding needs to deliver multimedia services.



QUALITY — a total commitment — all the time — by all our people



Merrimack Valley, dedication to Customer Service is a way of life

At

ur Customer Service representatives team up with our production people to do whatever it takes to deliver total satisfaction.

Customer Service at Merrimack Valley involves all employees. This team of installer cable shop production associates, engineers and support people received the 1992 Customer Service BEST AWARD for reaching beyond established boundaries, fostering team spirit, and continually seeking new horizons — all in support of putting the customer first.



es, we care. Merrimack Valley is a team of people working together to bring businesses, nations and people closer through advanced technology.

We also are a team of people working together to make our global and local neighborhoods better places in which to live and work.

AT&T historically has been protective of the environment and concerned with the safety of our workers and communities.

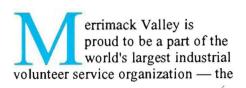
In April of 1993, AT&T announced it virtually eliminated all ozone-depleting substances from its consumer and business products manufacturing operations, two and a half years ahead of a worldwide ban on these substances. The U.S. Environmental Protection Agency (USEPA) stipulates that, after May 15, 1993, all products manufactured using class I ozone-depleting substances will be required to carry a warning label. Consumer and business products, including those made at Merrimack Valley, will not need these labels.

Because there is no single replacement for the many uses of the ozone-depleting substances in manufacturing, AT&T invested more than \$25 million to develop multiple technologies that go beyond traditional approaches. AT&T was the first company in the world to announce that sophisticated electronics can be cleaned without the use of the CFCs that destroy the ozone layer.

AT&T shares information on alternatives worldwide as a founding member of the Industry Cooperative for Ozone Layer Protection.



Equipment such as AT&T's Low Solids Fluxer Series 2000 enables Merrimack Valley to continue its role as environmental champion.



Telephone Pioneers of America answering the call of those in need.





Founded by telephone veterans in 1911 with Alexander Graham Bell as a charter member, the Pioneer association now boasts more than 750,000 active and retired long-service employees. 105 United States and Canadian Pioneer chapters offer member involvement in scores of off-hour activities. Pioneers participate in community service, ecology projects, and social and fellowship programs.

Members of the Merrimack Valley Chapter are dedicated to serving the handicapped, the elderly and other needy persons. They raise funds to organize activities and services for nursing home patients, sponsor Special Field Games for the handicapped, and provide a clown troupe to entertain hospital patients.

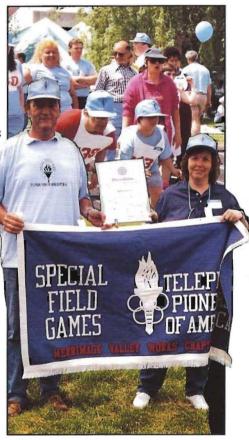
Perhaps their most widely known project is the audioball for blind children. The beeping softball allows these children to throw, catch and bat during their special games. Merrimack Valley Pioneers volunteer their services each week at the plant to manufacture the audioball, meeting a worldwide demand.

Yes, Merrimack Valley people care . . . about the down-toearth job of saving the sky, leading efforts to ensure a safe environment for the future ...

... and about the people who live and work in the communities around us.







"Here at Merrimack Valley, we do what we say we will do — and we WILL provide our customers with the highest value transmission equipment – never losing sight of our commitment to quality and service."









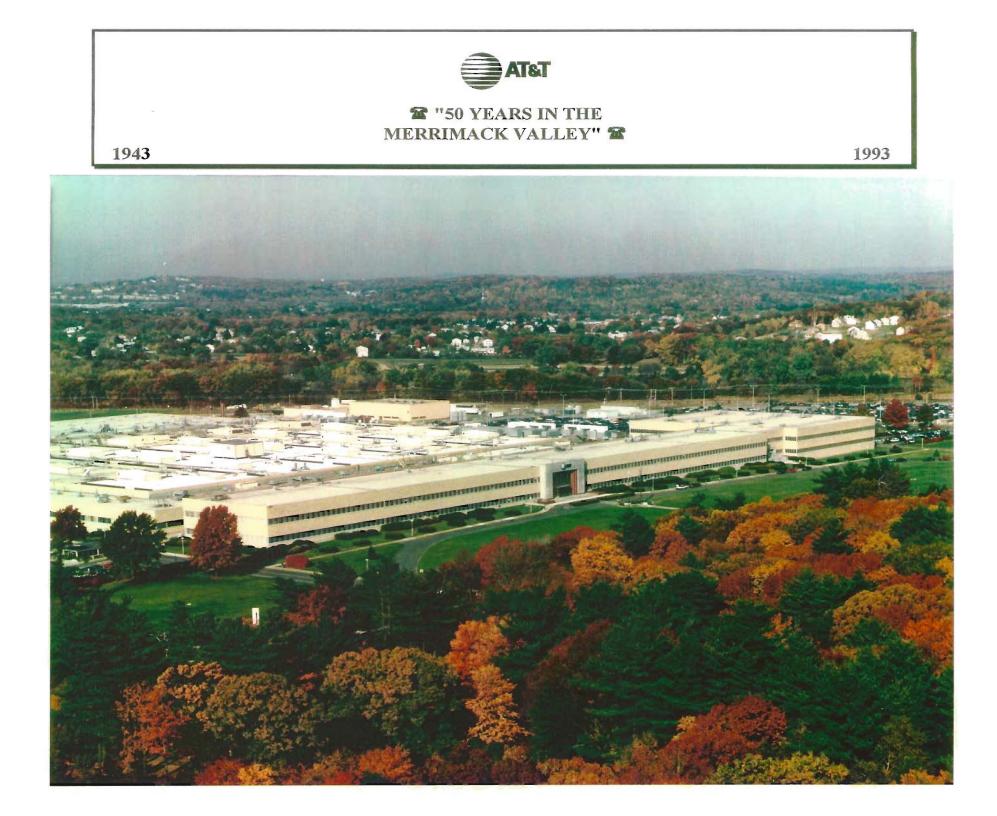
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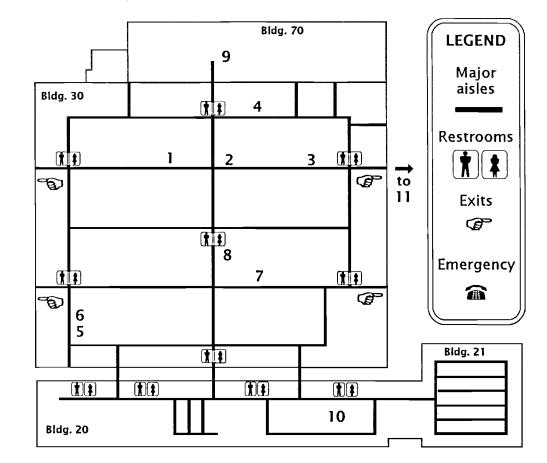


Welcome to AT&T Merrimack Valley's 50th Anniversary Open House

September 11, 1993

1st Floor Areas of Interest

- 1 DACS System Test (30-1K26)
- 2 DACS Panels (30-1U26)
- 3 DACS Bays (30-1P26)
- 4 DACS Cables (30-1R31)
- 5 Vision Mini-Assembly & QI Displays (30-1D6)
- 6 ESD/Van de Graaff generator (30-1D8)
- 7 Lightwave Panels (30-1R19)
- 8 Lightwave Bays (30-1022)
- 9 Material Provisioning Center (70-1043)
- 10 Engineering Information Services Copy Center, Reproduction, Mail Room, Engineering Files, Text Processing (20-1V2)
- 11 Installer Cable Shop Bldg. 37 (main aisles)



PLEASE!

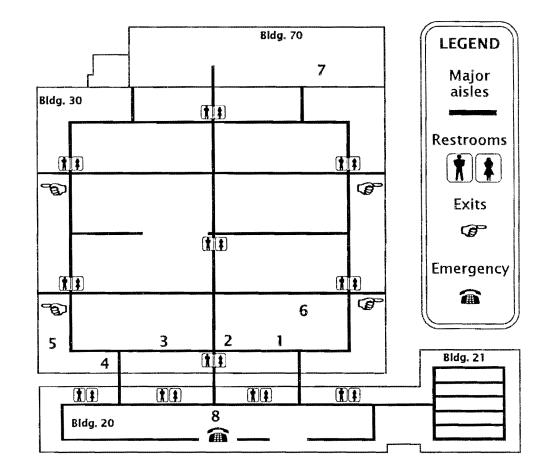
In order to make your visit a happy and safe one, we ask that you adhere to the following precautions:

No smoking!!!
Keep all children in sight.

- Keep all personal belongings with you.
 Keep all food and drink in the cafeteria.
- Avoid touching shop products. Our products are extremely sensitive to low levels of static electricity which is transmitted by the human touch.
- In case of emergency (sudden illness, lost child, etc.), contact the nearest person wearing a white AT&T baseball cap or call x2002.

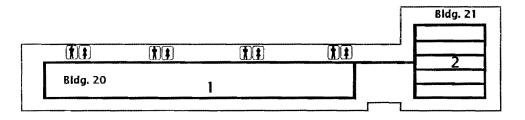
2nd Floor Areas of Interest

- 1 Environmental Past Achievements & Future Goals, Waste Treatment Process, Recycling (30-2T7)
- 2 Western Electric products radios, etc. (30-207)
- 3 "Stroll Down Memory Lane" Historic photos & newsletters from the past 50 years (30-2 outside walls)
- 4 Continuous video program in Auditorium (30-2E4)
- 5 Refreshments (cake, coke, ice cream) and music by Dixie Land Trio in cafeteria (30-2C6)
- 6 Entertainment Pole & Drape Area (30-259) Kids On The Block Puppets — Shows at 1 & 3p.m. Pioneer Strummers — Show at 1:30 p.m. Vin Mitchell Band — Shows at 12:30, 2 & 3:30 p.m.
- 7 FIC Final Inspection (70-2W35)
- 8 Customer Conference Center (CCC) (20-2K3)
 - New "Welcome to Merrimack Valley" video shown every half hour starting at 12:30
 - Malcolm Baldrige National Quality Award on display
 - Restored Switchboard & DACS Bay
 - VideoPhone 2000





- 1 Vice President's Office visit Jack McKinnon in his office (20-3X1)
- 2 Digital Video demonstration (21-3D34)



Thank you for coming. We hope you enjoyed your visit with us!