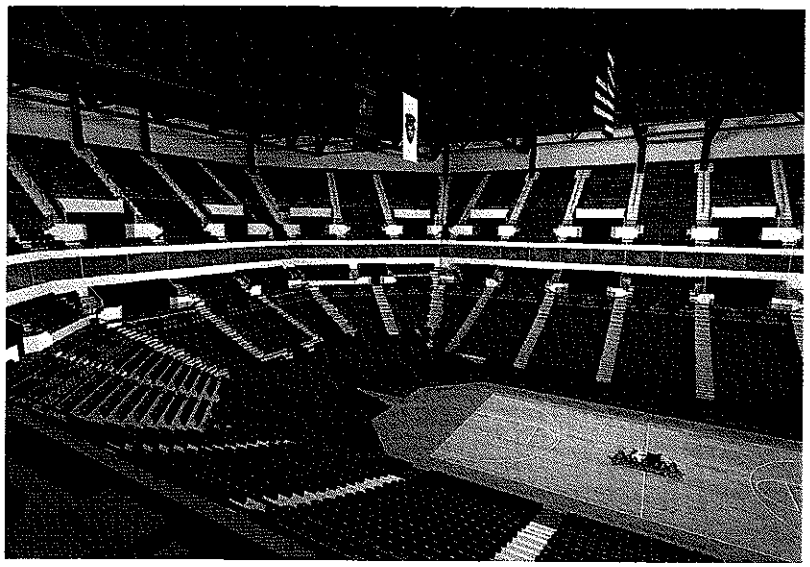

PROPOSAL PREPARED FOR:

Minneapolis
City of Lakes

ARCHITECTURAL, ENGINEERING AND PROJECT MANAGEMENT SERVICES AT THE TARGET CENTER

Firm Representative:

Frank Anderson, AIA
Associate, Project Manager
612.341.9559
faanderson@leoadaly com

LEO A DALY

LEO A DALY
730 Second Avenue South
Suite 1100
Minneapolis, MN 55402
612.338.8741 phone
612.338.4840 fax

LEO A DALY

PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS

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ATLANTA
AUSTIN
DALLAS
FORT WORTH
HONG KONG
HONOLULU
HOUSTON
LAS VEGAS
LOS ANGELES
MIAMI
MINNEAPOLIS
OMAHA
PHOENIX
SAN ANTONIO
WACO
WASHINGTON, DC

July 6, 2005

Mr. Jerome Patton
Project Coordinator
City of Minneapolis
105 Fifth Avenue South – Suite 200
Minneapolis, MN 55401

RE: Proposal for Architectural, Engineering and Project Management Services at the Target Center

Dear Mr. Patton;

As you know, LEO A DALY has had the pleasure of working with the City of Minneapolis at the Target Center since 1996. It has been one of our most enjoyable experiences to develop wonderful relationships with the various people involved from the City of Minneapolis, Midwest Entertainment Group, Timberwolves/Lynx, Northwest Athletic Club and NBA City.

These relationships, and more than ten years of experience, has helped create some unique differentiators of our proposed LEO A DALY team:

- **First hand knowledge of the inner-workings of the Target Center, its Tenants and Users.** We have experience coordinating several projects at the same time and we understand the critical nature of phasing allowing the facility's events to proceed with no disruption.

- **First hand knowledge of working with the City of Minneapolis.** We have the experience working with the various departments at the City of Minneapolis and know how to incorporate your standards into each project.

- **Full architecture and engineering services in-house.** Our size and personalized full-service team has the capacity to meet your needs for any size project from the beginning to the end.

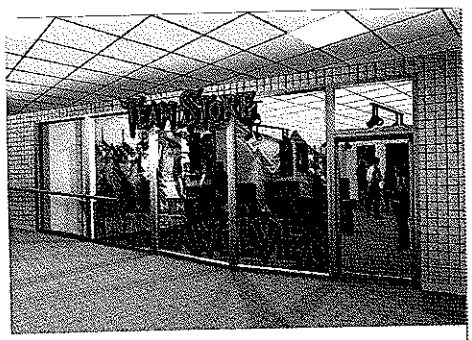
Thank you for this opportunity. We look forward to continuing our relationship with the City of Minneapolis well into the future.

Sincerely,

Frank A. Anderson, AIA
Associate and Project Manager

730 SECOND AVENUE SOUTH
SUITE 1100
MINNEAPOLIS, MN 55402-2455
TEL 612 338 8741
FAX 612 338 4840
www.leoadaly.com

- SCOPE OF SERVICES — TAB 1
- EXPERIENCE AND CAPABILITY — TAB 2
- REFERENCES — TAB 3
- PERSONNEL LISTING — TAB 4
- COST — TAB 5
- INSURANCE — TAB 6
- GRANT-FUNDED SERVICES — TAB 7
- APPENDIX – EXAMPLE OF WORKPLAN — TAB 8



Target Center Team Store
Minneapolis, MN

STUDY ON SCOPE OF WORK

For each Target Center proposed project, the Architect's Project Manager, Frank Anderson, AIA, will work with the City of Minneapolis' Owner Representative (Community Planning & Economic Development – CPED), Target Center's Management Representative (Midwest Entertainment Group – MEG) and the various Tenants and User Groups within the facility (Timberwolves/Lynx, Northwest Athletic Club, NBA City, etc.) to develop a Study on the Scope of Work involved. The Study, with input of all appropriate LEO A DALY design team members, will identify the extent of work involved and include options that are available to meet the intended goals. The Study will also include a schedule of time required to do the work and an estimate of the probable construction cost.

From the Study, a project Workplan will be developed that includes key meetings, actions, deliverables, decision points and responsible person (including Owner and Architect team members), to complete Design, Construction Documents, Bidding and Construction. This plan will be reviewed and approved by the Owner Representative and shared with Midwest Entertainment Group and the various User Groups. We will monitor and update the Workplan throughout the Project.

Target Center Skyway
Minneapolis, MN

STUDY AND SCHEMATIC DESIGN PHASE

Description of Services:

- Conduct meetings with Owner Representatives and User Groups and prepare and issue meeting notes
- Verify facility's existing conditions and existing documentation
- Validate and finalize Space Program
- Obtain Owner Approval of Program
- Prepare Schematic Demolition Plans, Architectural Floor Plan, Furniture Fit Plan and Elevations, Mechanical, Electrical and Technology Systems Plans
- Conduct Code and Life Safety Assessments
- Prepare Schematic Outline Specification
- Prepare Schematic Cost Estimate
- Obtain Owner Approval of Schematic Design

Deliverables:

- Meeting Notes
- A set of interim review Presentation Documents for Schematic Design
- Sets of final Written Program
- Sets of final Schematic Drawings and Cost Estimate

As CPED, MEG and LEO A DALY decide on the best course of action for the facility, LEO A DALY will proceed into Design Development and Construction Document phases of the project.

DESIGN DEVELOPMENT PHASE

Description of Services:

- Conduct review meetings with User Groups and Owner Representatives of progress documents
- Design Development Demolition Plans, Code Plan, Architectural Floor Plan, Reflected Ceiling Plan, Space Sections, Furniture Fit Plan, Mechanical, Electrical and Technology Systems Plans
- Design Development Specification
- Design Development Construction Cost Estimate
- Review Documents with Jurisdictional Authorities
- Obtain Owner Approval of Design Development

Deliverables:

- Meeting notes
- A set of interim review Presentation Documents for Design Development.
- Sets of final Design Development Drawings, Specifications and Cost Estimate

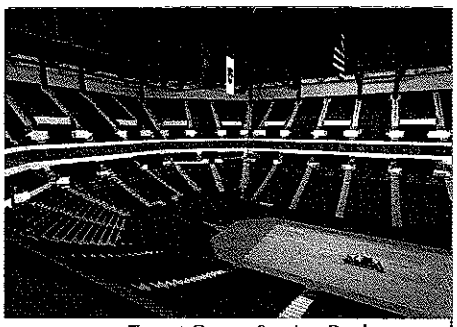
CONTRACT DOCUMENT PHASE

Description of Services:

- Prepare Construction Document Demolition Plans, Code Plan, Architectural Floor Plan, Reflected Ceiling Plan, Space Sections, Details, Opening Schedules, Mechanical HVAC and Plumbing Plans, Fire Sprinkler Plan, Details and Schedules, Electrical Power, Low Voltage and Lighting Plans, Technology Plans, Details and Schedules
- Prepare Construction Document Specifications
- Prepare Construction Document Cost Estimate
- Obtain Owner Approval of Construction Documents

Deliverables:

- Sets of Construction Documents, (Drawings and Specifications) and Cost Estimate for Owner records



Target Center Seating Replacement
Minneapolis, MN

BIDDING OR NEGOTIATION PHASE

Description of Services:

- Assist the Owner Representatives and identify potential qualified interested Bidders
- Issue Contract Documents to potential Bidders and Plan Rooms
- Assist Owner with selection of Independent Testing Lab
- Conduct the pre-bid conference
- Respond to requests for information
- Prepare and issue Addendum
- Review with Owner material substitutions
- Assist Owner with receipt of bids
- Prepare a Bid Tab
- Assist with negotiating revisions
- Review bids and make a recommendation to Owner
- Assist Owner with writing a Contract

Deliverables:

- Addendum
- Bid Tab
- Final Bid review and recommendation
- Assist with the development of Contract for Construction

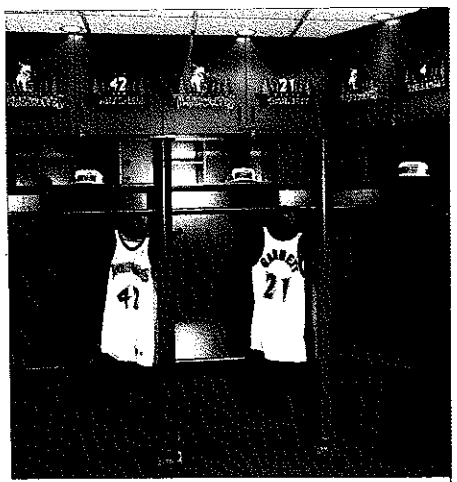
CONSTRUCTION PHASE – ADMINISTRATION OF THE CONSTRUCTION CONTRACT

Description of Services:

- Review and distribute contractors submittals for schedule, sub-contractors, bonds, insurance and construction cost break-down
- Convene pre-construction conference
- Review and process Shop Drawings, Product Data and Samples
- Perform Site Observations during construction, review and monitor contractors progress
- Review Test reports
- Respond in a timely manner (or respond within 24 hours) to requests for information from the Contractor
- Attend construction meetings
- Process Certificate for payments
- Conduct substantial completion inspection
- Issue Certificate of Substantial Completion
- Review and distribute close-out documents
- Review final certificate for payment and lien waivers

Deliverables:

- Meeting Minutes
- Certified Pay Applications
- Site Observations notes
- Punch List
- Certificate of Substantial Completion
- Documents for Owner records



Timberwolves Locker Room
Minneapolis, MN

QUALITY CONTROL

At the completion of the Contract Document and prior to issuing the Contract Documents for Bidding, the Project Manager initiates a review process to assure quality control and completeness of the Documents. The review process incorporates a peer review by the director of each discipline, a coordination review by the director of Construction Administration, a program review by the Project Manager and an Owner review by the Owners Representative.

ESTIMATING THE COST

We provide construction cost estimates for Schematic Design (unit cost with 10% contingency), Design Development (CSI Format system quantity take-off with 10% contingency) and Mid-Construction Documents (updated CSI Format quantity take-off with 10% contingency).

The Owner Representative and Architect will review each cost estimate for compliance with the budget at each phase. If adjustments are required to align the cost estimate with the budget (over or under), the Architect will offer alternative systems for Owner approval, to align the budget and estimate. This process has been proven effective through dozens of publicly bid projects all of which have been delivered below project budget

EXAMPLE PROJECT OF SIMILAR SIZE AND SCOPE

An example project of similar size and scope that includes design and project management components is located in Tab 8 of this proposal.

LEO A DALY

PLANNING
ARCHITECTURE
ENGINEERING
INTERIORS

EST. 1915

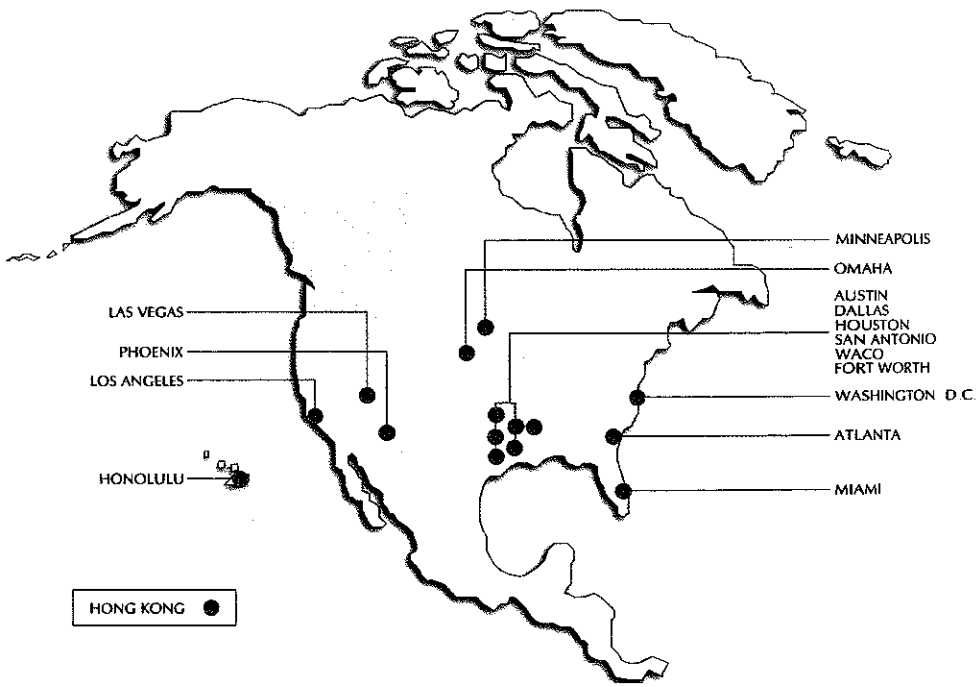
COMPANY BACKGROUND

LEO A DALY is an internationally recognized, award-winning architecture, planning, engineering and interior design firm. With more than 1,100 professionals in 16 offices, we are consistently ranked among the top 10 largest architecture and engineering firms in the U.S.

Since 1915, we have been providing excellence beyond our clients' expectations. Our diverse portfolio includes award-winning work in a range of industries in more than 50 countries, all 50 U.S. states and the District of Columbia.

With a legacy of innovative leadership and the resources of a large firm, our professionals work creatively in flexible teams, which are customized specifically for each project.

LEO A DALY OFFICE LOCATIONS:



LEO A DALY

Minneapolis Office

OUR CAPACITY

The Minneapolis office of LEO A DALY is a full service planning, architecture, engineering, and interiors firm with an establish reputation for excellence within the City of Minneapolis and surrounding communities. Additional company expansion will not be required to provide services to the Target Center.

	Minneapolis	Nationwide
Administrative	19	229
Architects	30	328
CADD Experts/Technicians	7	91
Construction Administration	1	33
Engineering		
Civil	4	173
Electrical	9	32
Mechanical	11	45
Refrigeration	4	4
Structural	16	35
Interior Design	4	75
Project Managers	3	64
Specification Writers	2	3
TOTAL	**110**	**1,112**

LEO A DALY

Timberwolves Locker Room
Target Center
Minneapolis, MN

CITY OF MINNEAPOLIS, TARGET CENTER
MINNEAPOLIS, MN

Since 1996, LEO A DALY has been working as a consultant providing full professional services for the City of Minneapolis (Community Planning & Economic Development), Target Center Management Representative (Midwest Entertainment Group) and the various Tenants and User Groups within the facility. During this time, LEO A DALY completed more than 50 projects of various sizes and complexity.

Some of these projects include:

- Timberwolves Locker Room
- Timberwolves and Lynx Practice Facility
- Lynx Locker Room
- Skyway
- Arena Seating Replacement
- Arena Lights Out
- Security Improvements
- Acoustical Improvements
- Lighting Control System Renovation
- Emergency Power Study
- Roof Replacement Study

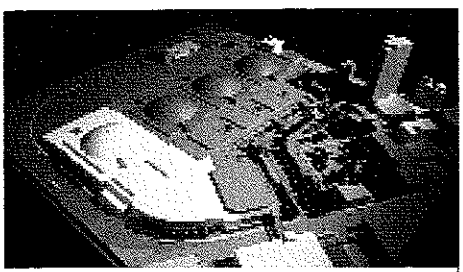
The critical nature of these projects is the development of consensus from the various stakeholders and the coordination of work involved. The Target Center is an event driven facility and projects have to be delivered with no disruption or inconvenience to the cliental, events and users. We have developed and represented on Contract Documents several methods for sequencing and phasing of work that allows the full use of the facility during construction

LEO A DALY, with the City of Minneapolis and Midwest Entertainment Group, has worked together to develop a Facility Maintenance Plan and a Long Term Maintenance Program. We also assisted the City of Minneapolis and Midwest Entertainment Group with an ADA Audit.

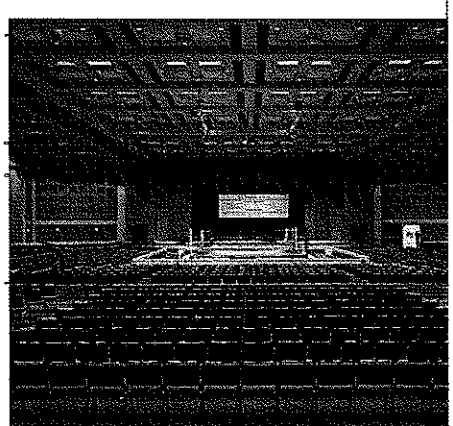
As a consultant providing full professional services, LEO A DALY has represented the City of Minneapolis as an Owner Representative for various projects preformed by the facilities Tenants. This work has involved review of Design Documents (developed by the Tenants Professional) for incorporation of the facility's standards, integration to the facility's infrastructure and compliance to governing agencies.

Some of this work includes:

- NBA City Restaurant
- Cambria Club
- First Bank Theater
- Lynx Sales Office



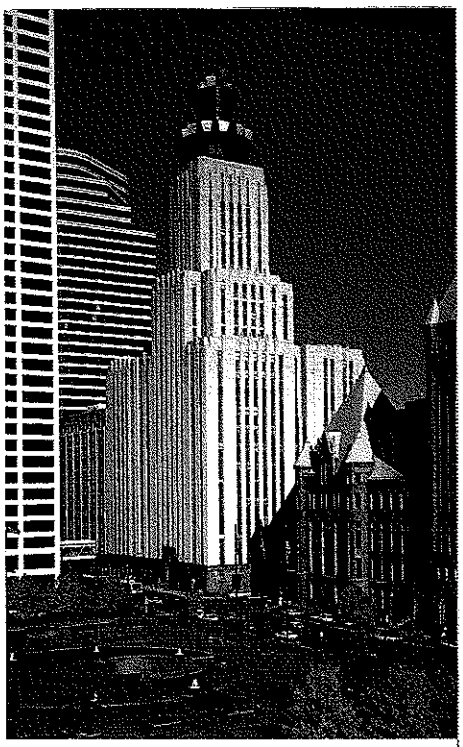
Minneapolis Convention Center
Phase II Expansion Model
Minneapolis, MN



Minneapolis Convention Center
General Assembly Auditorium
Minneapolis, MN

MINNEAPOLIS CONVENTION CENTER PHASE II EXPANSION & GENERAL ASSEMBLY AUDITORIUM
MINNEAPOLIS, MN

The Phase II Expansion of the Minneapolis convention center provided a fourth dome which included the potential for 37 new meeting rooms, two 100,000 sf exhibit halls and a general assembly auditorium that seats 3,400. Our technology engineering group provided several design aspects on this project. The design involved voice and data-cabling infrastructure which included a new main telecommunications room. This infrastructure connected into the existing facility with backbone cabling from the new main room to the existing closets. Single mode and multimode fiber optic cables were routed to the new and existing closets. To provide for flexibility in the facility, voice and data cables were brought to every floor box in the exhibition halls and to numerous locations in meeting room, pre-function areas and public spaces. The Minneapolis Convention Center remained in operation while Phase II expansion was constructed.



Qwest
Corporate Headquarters
Minneapolis, MN

Qwest
Conference Center Auditorium
Minneapolis, MN

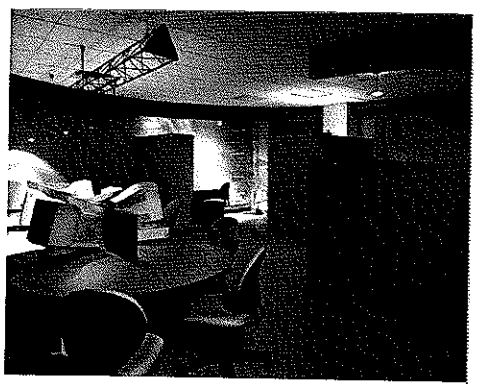
QWEST CORPORATE HEADQUARTERS AND CONFERENCE CENTER, OFFICE EXPANSION
MINNEAPOLIS, MN

Approximately half of this 850,000 sf facility houses the sophisticated computer, digital switching and teleconferencing centers for Qwest's Midwest operations, with the other half being support office facilities. Over a five-year period, LEO A DALY led the phased replacement of virtually all mechanical and electrical infrastructure systems with the facility in full operation.

Redundant electrical systems included a computer-operated diesel generation plant, UPS systems, and multi-bus distribution. Electromagnetic compatibility issues were considered with respect to electronic equipment in locating major power feeders.

Several new interconnected chiller and cooling tower plants satisfied significant cooling loads with dual crossover risers for total redundancy. Depending on specific conditions, one of two designs was used for electronic equipment and office spaces: either raised computer floor and Liebert systems or redundant supply and return fans with overhead ducted distribution.

The 7,100 sf Qwest Conference Center consists of an auditorium seating 136 people, 3 conference rooms and a boardroom. Special features include high-end audio-visual systems including rear screen projection equipment and video conferencing capabilities, anteroom with kitchenettes, variable air volume ventilation/cooling systems and indirect/direct fluorescent lighting.



University of Minnesota
Akerman Hall
Minneapolis, MN

UNIVERSITY OF MINNESOTA, AKERMAN HALL, DEPARTMENT OF AEROSPACE ENGINEERING & MECHANICS MINNEAPOLIS, MN

This project consisted of transforming an underutilized lab and storage space in the lower level of Akerman Hall into experiment areas, computer room spaces and offices. Work was completed on budget, teaming with the University's Construction Services Group.

Department Library Remodel:
In the worn out library space of the Main Office for Akerman Hall, the Aerospace Engineering group envisioned a versatile yet formal atmosphere. The new design allows for an open research space that incorporates meetings and discussions, as well as presentations and thesis review spaces. The area serves as the main gathering, study and research space for the department. New ceiling and indirect light provide a consistent level of light throughout the space as lighting is sensitive for computer use. Wood furniture and bookcases provide a human scale and present the space in a formal setting. The warm colors tie the space to the rest of the department and provide a relaxing atmosphere.

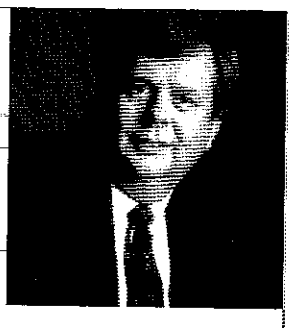
REFERENCES

Peggy Kukielka
Project Manager
Qwest Real Estate
600 Stinson Boulevard
Room 1N–172
Minneapolis, MN 55413
612.664.4092 office

Richard Anderson
Operations Manager
T-Mobile
3070 Lunar Lane
Eagan, MN 55121
952.833.4239 office

Susan Raiche, ASID, CID
Manager
Carlson Companies, Inc.
P.O. Box 59159
Minneapolis, MN 55459
763.212.6797 office

Tom Daniel, AICP
Manager, Business Development
Minneapolis Community Planning & Economic Development
Crown Roller Mill
105 Fifth Avenue South
Suite 200
Minneapolis, MN 55401
612.673.5079 office



FRANK ANDERSON
Project Manager

Education
Bachelor of Science, Architectural Studies
North Dakota State University

Bachelor of Architecture
North Dakota State University

Registration
Architecture
Minnesota Registration #23530

Architecture
Wisconsin Registration #7928

Certified Interior Designer
Minnesota Certification #C00968

Professional Affiliations
American Institute of Architects

Background
With more than 25 years of experience in architecture, Frank will provide leadership in project management. He has extensive experience working with clients who have complex projects, particularly projects in which the complicated integration of architectural and engineering systems is critical to the success of the facility He will be responsible for the day to day management and communication with the design team

Relevant Project Experience

ST. PAUL FESTIVAL AND HERITAGE FOUNDATION
2004 Ice Palace
2003 Ice Maze
St Paul, MN

T MOBILE
Office and Computer Room Expansion
Eagan, MN

CITY OF MINNEAPOLIS
COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT
Target Center
Timberwolves Practice Facility
Timberwolves Locker Room
Lynx Locker Room
Arena Lights
Arena Seating Replacement
Security Improvements
Acoustic Improvements
Lighting Control System Renovation
Emergency Power Study
Roof Replacement Study
First Bank Theater
Minneapolis, MN

QWEST
Electric Service and Generator Upgrade
HVAC Upgrade for Telecom Switch Expansion
Fire Alarm and Detection System Upgrade
Office Space Remodel
Downtown Central Office
HVAC/Electrical Service/Generator Upgrade
Office Space Remodel
Computer Room Expansion
Integrated Testing Lab Expansion
600 Stinson Offices
Minneapolis, MN

INFLOW, INC
Data Centers and Offices
Minneapolis, MN
Eden Prairie, MN
Atlanta, GA
Phoenix, CA
Irvine, CA
Pittsburgh, PA
Princeton, NJ
Boston, MA
Philadelphia, PA

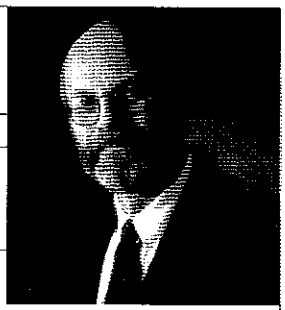
GREATER MINNEAPOLIS CONVENTION
& VISITORS ASSOCIATION
Headquarters Office Space
Minneapolis, MN

FRANK ANDERSON
Project Manager

AMERICAN EXPRESS FINANCIAL
SERVICES INC
Office Remodeling
Installation of Mainframe CPUs
Training and Classroom Facilities
Computer Space Remodeling
Tape Library Expansion
Video & Audio Production Studios
Usability Lab
Minneapolis, MN

MARQUETTE BANKS
Main Teller & Personal Bank Space
Main Office Remodeling
Skyway Bank
Office Remodeling
Minneapolis, MN

CITY OF OAKDALE
New Municipal Building
Oakdale, MN



STEVEN SINGER
Senior Project Architect

Education
Bachelor of Architecture
University of Houston

Registration
Architecture
Minnesota Registration #15361

Certified Interior Designer
Minnesota Certification #C00435

Background
Steve will work closely with you and the Project Manager in developing the design of your project He has more than 28 years of architectural design experience with multiple client types.

Relevant Project Experience

CITY OF MINNEAPOLIS
COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT
Target Center
Lynx Locker Rooms
Timberwolves Locker Rooms
Exiting Study
Restaurant Concept Study
VIP Courtside Club
Minneapolis, MN

ASTRODOME U.S A
Planning Studies
Houston, TX

MINNEAPOLIS CONVENTION CENTER
Phase II Expansion
Minneapolis, MN

PUSAN CONVENTION CENTER
Pusan, Korea

DEPARTMENT OF THE AIR FORCE
Visitors Quarters
Kunsan Air Base, Republic of Korea

DEFENSE LOGISTICS AGENCY
Consolidated Maintenance Facility
Concept Design
DDC/DDSP New Cumberland, PA

MINNEAPOLIS CLUB
Pool Installation and Renovations to
a Private Club
Minneapolis, MN

LONG LAKE REGIONAL PARK
Picnic Pavilion & Refectory Building
New Brighton, MN

COMO PARK LAKESIDE PAVILION
Renovation
St. Paul, MN

CHEROKEE PARK SUPPORT FACILITY
St Paul, MN

CITY OF GALVESTON
Transit System Study
Galveston, TX

CITY OF BEAUMONT
Traffic Signal Study
Houston, TX

METROPOLITAN AIRPORTS
COMMISSION
Lindbergh Terminal Security Upgrades
Modifications to the General Office
Building
Minneapolis/St. Paul Airport

LEO A DALY

STEVE NELSON, PE, RCDD
Director of Technology Engineering

Education
Bachelor of Science
Electrical Engineering
University of Minnesota

Registration
Electrical Engineering
Minnesota Registration #14186
Registered in 19 other states

Registered Communication Distribution Designer 062044

Background
Steve Nelson is an electrical engineer and focuses on the design of security, computer networking, telecommunications systems and lighting control design for a wide range of building types. Steve's expertise in technology design and coordination ensures modern and forward-looking systems within the structure.

Relevant Project Experience

MINNEAPOLIS CONVENTION CENTER
Phase II Expansion
Voice/Data Cabling Infrastructure
Access Control and Security System
Closed Circuit Television System with Digital Recording
Minneapolis, MN

METROPOLITAN AIRPORTS COMMISSION
General Office Building Addition and Remodel
Voice/Data Cabling Infrastructure
Relocation of Data Center
Minneapolis/St Paul International Airport

HENNEPIN COUNTY
Public Safety Facility
Voice/Data/Cable Television Cabling Infrastructure
Minneapolis, MN

CITY OF MINNEAPOLIS
COMMUNITY PLANNING & ECONOMIC DEVELOPMENT
Target Center
Practice Facility
Security Improvements
Lighting Control System Renovation
Emergency Power Study
Minneapolis, MN

CITY OF MINNEAPOLIS
COMMUNITY PLANNING & ECONOMIC DEVELOPMENT
Fraser Early Childhood Family Development Center (Security Systems, Access Control System, Closed Circuit Television System, Integrated Intercom/Door Control System)
Park Place Early Childhood Family Development Center
Grant Park Early Childhood Family Development Center
Towne Hall Early Childhood Family Development Center
Minneapolis, MN

MINNEAPOLIS CLUB
Pool Installation and Renovations to a Private Club
Minneapolis, MN

QWEST COMMUNICATIONS
Central Office Modernization
Minneapolis, MN

ST PAUL FESTIVAL AND HERITAGE FOUNDATION
2004 Ice Palace
St. Paul, MN

LEO A DALY

MICHAEL J. ALEXANDER, PE, LEED®
Director, Mechanical Engineering

Education
Bachelor of Science
Mechanical Engineering
University of Notre Dame

HVAC Design, Part II
Northeastern University

Technical Development and Computer Training Programs, Carrier Corporation

Computer Training, Trane Company

Registration
Mechanical Engineering
MN Registration # 25192
Registered in 49 states, Washington DC & Alberta and British Columbia, Canada

U S Green Building Council
LEED® Accredited Professional

Background
As Director of Mechanical Engineering, Mike is responsible for design engineering, preparation of contract documents, energy analysis, construction oversight and project management. In his more than 25 years of experience, he has worked on a variety of project types, including municipal facilities, industrial and manufacturing facilities, computer operation facilities, housing complexes, educational facilities, central plants, hospitals, and laboratory buildings

Relevant Project Experience

MINNEAPOLIS CONVENTION CENTER
Phase II Expansion
Minneapolis, MN

HENNEPIN COUNTY
Public Safety Facility
24/7 Operation with Utility Back Ups
Minneapolis, MN

CITY OF MINNEAPOLIS
Hawthorne Transportation Center
Parking Ramp with Integrated Greyhound Bus Depot on Ground Level
Minneapolis, MN

HENNEPIN COUNTY JUVENILE DETENTION CENTER
Preliminary Planning and Design for Juvenile Detention Satellite Facility
Golden Valley, MN

METROPOLITAN AIRPORTS COMMISSION
Curtainwall Replacement
Green Concourse Automated People Mover
Central Automated People Mover
General Office Building Addition and Remodel
Minneapolis/St. Paul Airport

MINNEAPOLIS CLUB
Pool Installation and Renovations to a Private Club
Minneapolis, MN

MINNESOTA CORRECTIONAL FACILITY-MOOSE LAKE
Renovations to Building 60
Moose Lake, MN

DEPARTMENT OF ADMINISTRATION
Office Building and Parking Garage
Providence, RI

ROCHESTER FIRE STATION NO. 4
Central Fire Station (5-bay) with Living Quarters, Training Room, Exercise Area and Offices
Rochester, MN

ST. PAUL FESTIVAL AND HERITAGE FOUNDATION
2004 Ice Palace
St. Paul, MN

TONY SCHOENECKER, PE, FPE
Project Mechanical Engineer
Fire Protection Engineer

Education
Bachelor of Science
Mechanical Engineering
North Dakota State University
Fargo, ND

Registration
Minnesota Registration #41876
(Dual Registration in Mechanical and Fire Protection Engineering)
LEED® Accredited Professional

Background
Tony possesses eight years of mechanical engineering experience, with the last several years emphasizing in fire protection engineering and project management experience. He has been involved in projects for medical, education, government, institutional, commercial, utility, and industrial clients. As a mechanical engineer his design expertise includes heating, ventilation, air conditioning, piping, fuel, gas, and plumbing systems. As a fire protection engineer his experience includes code analysis, hydraulic calculations, detection and alarm devices, and suppression system designs

Relevant Project Experience

GSA – B H. WHIPPLE BUILDING
Renovation
HVAC, Hydronic, Plumbing and Preliminary Fire Protection Systems
Minneapolis, MN

BLUE EARTH COUNTY COURTHOUSE
Renovation
HVAC, Hydronic, Gas, Plumbing and Preliminary Fire Protection Systems
Mankato, MN

BROWN COUNTY JAIL & JUVENILE DETENTION CENTER
HVAC, Hydronic, Gas, and Plumbing Systems
Green Bay, WI

MINNEAPOLIS CLUB
Pool Installation and Renovations to a Private Club
HVAC, Hydronic, Gas, and Plumbing Systems
Minneapolis, MN

METROPOLITAN AIRPORTS COMMISSION
Elevator Modifications
HVAC and Hydronic Systems
Minneapolis/St. Paul International Airport

FEDERATED INSURANCE COMPANY
Corporate Office
HVAC, Hydronic, Gas, Plumbing and Preliminary Fire Protection Systems
Chiller Plant Renovation and Addition
Owatonna, MN

QWEST COMMUNICATIONS
Communication Floor Remodel
Chilled Water Plant Remodel
Generator Plant Addition
HVAC, Hydronic, Gas, and Plumbing Systems
Minneapolis, MN

MINNEAPOLIS PUBLIC SCHOOLS
Lincoln Elementary K-8 Conversion
Hydronic Systems
Minneapolis, MN

DEPARTMENT OF THE AIR FORCE
Visitors Quarters
HVAC, Hydronic, Gas, Plumbing and Preliminary Fire Protection Systems
Kunsan Air Base, Korea

MAGNUS CARLSSON
Structural Engineer E.I T

Education
Master of Science, Structural Engineering
Bachelor of Science, Civil Engineering
University of Minnesota
Minneapolis, MN

Background
Magnus works on a variety of warehouse, retail, entertainment and medical facility projects Steel structures with concrete or masonry shear walls have been his design focus throughout his five years of structural engineering experience

Relevant Project Experience

CITY OF MINNEAPOLIS
COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT
Target Center
First Bank Theater
Minneapolis, MN

TYSON EVENTS CENTER
Sioux City, IA

GRAND RAPIDS CONVENTION CENTER
Grand Rapids, MI

TARGET CORPORATION
Retail Stores
Nationwide

DEPARTMENT OF THE AIR FORCE
Golf Maintenance Facility
Visitor Control Center
Gate & Security Improvements
Ellsworth AFB, SD

QWEST COMMUNICATIONS
Burnsville Addition
Burnsville, MN

WALGREEN'S CORPORATION
Retail Stores
Minnesota and Colorado

STATE FARM INSURANCE CO
New Mountain States Regional office
Greeley, CO

SHRINERS CHILDREN'S HOSPITAL
Chicago, IL

LEO A DALY

JIM SHABATURA
Construction Administration

Education
Bachelor of Science
Construction Management
Minnesota State University
Mankato, MN

Background
Jim has been involved in building construction since 1983, performing project estimating, bidding and scheduling work, with particular specialization in project management and construction observation work His primary responsibilities include maintaining project communications between the design team and the field and handling project records

Relevant Project Experience

CITY OF MINNEAPOLIS
COMMUNITY PLANNING &
ECONOMIC DEVELOPMENT
Target Center
Seating Replacement
Minneapolis, MN

MINNEAPOLIS CONVENTION CENTER
Phase II Expansion
Minneapolis, MN

HENNEPIN COUNTY
Public Safety Facility
Minneapolis, MN

THE HINDU SOCIETY OF MINNESOTA
Traditional Hindu Temple
Maple Grove, MN

UNIVERSITY OF MINNESOTA
Fire Protection Upgrade
Como Student Housing
St Paul, MN

CITY OF SEATTLE
Public Parks Improvements
Seattle, WA

DEPARTMENT OF VETERANS AFFAIRS
Ambulatory Remodel
Acute Care Remodel
Tomah, WI

DEPARTMENT OF THE ARMY
Site Work & Utilities
Fort Lewis, WA

DEFENSE LOGISTICS AGENCY
Controlled Humidity Warehouse
Special Purpose Warehouse
General Purpose Warehouse
DDC/DDSP New Cumberland, PA

FRANK POTTER & ASSOCIATES
Printing Plant
Seattle, WA

THE BOEING COMPANY
Hazardous Materials Storage Facility
Renton, WA

GRACO, INC.
Corporate Office Building and Skyway
Minneapolis, MN

THE BOEING COMPANY
Office Remodeling
Seattle, WA

FEDERATED INSURANCE COMPANY
Corporate Offices
Owatonna, MN

LEO A DALY

PROFESSIONAL SERVICES

The LEO A DALY Project Manager will listen to the Client and User Groups within the facility and develop a scope of work for each proposed project. From the scope of work, review of existing conditions and review of existing documents, a project Workplan is developed by the various professional disciplines and a budget is created based on what is required to complete the Workplan. The Workplan and budget is reviewed by several other Project Manages and Principals for consistency and accuracy and a proposal is written. A payment billing schedule can be developed and included in the proposal at this time.

As a check and balance, LEO A DALY, will compare the budget to budgets of other projects of a similar nature
It is not unusual for professional fees to be between 6% and 12% of construction costs depending on the project size and complexity.

A copy of Labor Rates by classification of employee is attached.

Direct costs will include our costs associated with the project. Example of what those costs include are:

- Printing
- Plotting
- Travel/Transportation
- Postage/Delivery
- Telephone

LEO A DALY

FORMERLY SETTER LEACH & LINDSTROM

PLANNING

ARCHITECTURE

ENGINEERING

INTERIORS

EST 1915

ATLANTA
AUSTIN
DALLAS
FORT WORTH
HONG KONG
HONOLULU
HOUSTON
LAS VEGAS
LOS ANGELES
MIAMI
MINNEAPOLIS
OMAHA
PHOENIX
SAN ANTONIO
WACO
WASHINGTON, DC

SCHEDULE A

CONSULTANT COMPENSATION RATES

LEO A DALY

Position Title	Not to Exceed Hourly Rate
Principal – Jerome A. Ritter	$155.00
Project Manager	$140.00
Discipline Technical Leader	$140.00
Senior Project Architect/Engineer	$125.00
Project Architect/Engineer	$110.00
Architect/Engineer Specialist	$100.00
Architect/Engineer	$90.00
Interior Designer	$85.00
Architect Intern/Engineer EIT	$80.00
CAD Technician	$80.00
Word Processor	$60.00

730 SECOND AVENUE SOUTH
SUITE 1100
MINNEAPOLIS, MN 55402-2455
TEL 612 338 8741
FAX 612 338 4840
www leoadaly com

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

01/01/2007

DATE (MM/DD/YY) 12/20/2005

PRODUCER
Lockton Companies
444 W 47th Street, Suite 900
Kansas City Mo 64112-1906
(816) 960-9000

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
1039975
LEO A. DALY
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

INSURER A: TRANSPORTATION INSURANCE CO. (CNA)
INSURER B: VALLEY FORGE INSURANCE CO. (CNA)
INSURER C: AMERICAN HOME ASSURANCE COMPANY
INSURER D: CONTINENTAL CASUALTY **
INSURER E: ** (A MEMBER OF CNA COMPANIES)

COVERAGES PC

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
D	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC	1015651942	01/01/2006	01/01/2007	EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	1015651956	01/01/2006	01/01/2007	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX
	GARAGE LIABILITY ANY AUTO	NOT APPLICABLE			AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ XXXXXXX $ XXXXXXX $ XXXXXXX
C	EXCESS LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE UMBRELLA FORM X RETENTION $ 10,000	BE 4952471	01/01/2006	01/01/2007	EACH OCCURRENCE AGGREGATE	$ 20,000,000 $ 20,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX
B B B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	1015651973 (AOS) 1063334422 (CA) 2076231879 (DC)	01/01/2006 01/01/2006 01/01/2006	01/01/2007 01/01/2007 01/01/2007	X WC STATUTORY LIMITS OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
D	OTHER PROPERTY	1015651942	01/01/2006	01/01/2007	BUSINESS PERSONAL PROPERTY AND VALUABLE PAPERS-SPECIAL FORM INCLUDING THEFT	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

CERTIFICATE HOLDER

ADDITIONAL INSURED; INSURER LETTER: _____

2084942
CITY OF MINNEAPOLIS
LEE SHEEHY, DEPARTMENT HEAD
CPED
105 5TH AVE SOUTH, STE 200
MINNEAPOLIS MN 55401

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

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ACORD™ CERTIFICATE OF LIABILITY INSURANCE

06/10/2007

DATE (MM/DD/YY) 06/06/2006

PRODUCER
Lockton Companies
444 W. 47th Street, Suite 900
Kansas City Mo 64112-1906
(816) 960-9000

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INSURED
1039977
LEO A. DALY
8600 INDIAN HILLS DRIVE
OMAHA, NE 68114-4039

INSURERS AFFORDING COVERAGE

INSURER A: CNA INSURANCE COMPANIES**
INSURER B: **(VICTOR O. SCHINNERER)
INSURER C: LEXINGTON INS. CO.
INSURER D:
INSURER E:

COVERAGES PC

THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY CLAIMS MADE / OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PROJECT / LOC	NOT APPLICABLE			EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS	NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
	GARAGE LIABILITY ANY AUTO	NOT APPLICABLE			AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ XXXXXXX $ XXXXXXX $ XXXXXXX
	EXCESS LIABILITY OCCUR / CLAIMS MADE UMBRELLA FORM DEDUCTIBLE RETENTION $	NOT APPLICABLE			EACH OCCURRENCE AGGREGATE	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	NOT APPLICABLE			WC STATUTORY LIMITS / OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ XXXXXXX $ XXXXXXX $ XXXXXXX
A C	OTHER PROF LIAB (33.33%) PROF LIAB (66.66%)	AEA00-616-13-40 6761418	06/10/2006 06/10/2006	06/10/2007 06/10/2007	$15,000,000 EACH CLAIM AND IN THE ANNUAL AGGREGATE	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

CERTIFICATE HOLDER ADDITIONAL INSURED; INSURER LETTER: ____

2084944
CITY OF MINNEAPOLIS
LEE SHEEHY, DEPARTMENT HEAD
CPED
105 5TH AVE SOUTH, STE 200
MINNEAPOLIS MN 55401

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

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A copy of the audit report was sent directly to Jerome Patton under separate cover

Please find attached an example of a Workplan from Frank Anderson and LEO A DALY.

LEO A DALY

Facility Assessment and
Project Scope Document

QWEST Communications
Douglas Central Office

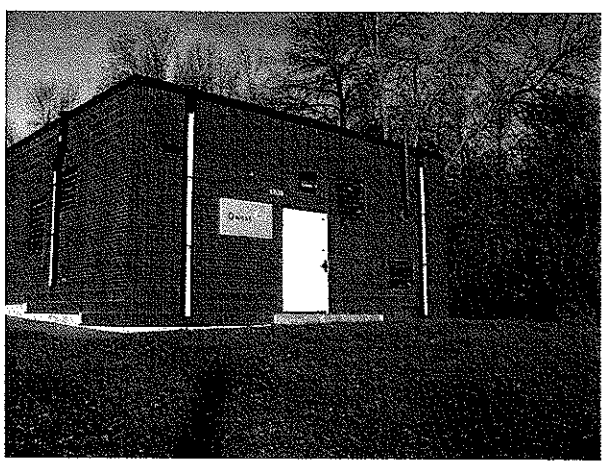
1203 Commonwealth Ave
Duluth, MN 55808

Adrs ID: M72109
Qwest Proj #: 51M8P42

November 11, 2005

Peggy Kukielka
QWEST
612 664-4092

Frank A. Anderson
LEO A DALY
612 341-9559



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- Storm Water Management
- Parking and Drives

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- Plumbing System
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- Fire Protection System

Electrical Review
- Electrical Service
- Power Distribution System
- Fire Detection and Alarm System
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- Lighting, Grounding and Miscellaneous

Architectural Review
- Exterior Systems
- Interior Systems

Structural Review
- Structural System

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Appendix

INTRODUCTION

QWEST Communications engaged LEO A DALY to conduct an on-site facility assessment of its Douglas Central Office facility. On Thursday, October 27, 2005, representatives from QWEST and LEO A DALY visited the site to evaluate the condition of the facility.

The assessment is based upon the field observations of those present, conversations with other QWEST personnel, local code and zoning officials, and a review of the construction drawings of the original building.

The various types and kinds of mechanical and electrical equipment, the condition of the existing equipment, and the condition of the building and auxiliary support systems have been investigated and documented.

This assessment provides a description of the existing mechanical and electrical systems, and verification of existing civil, structural, and architectural conditions and components. It will serve as a reference source for the preparation of the design of the proposed addition and improvements to the existing facility.

FACILITY DESCRIPTION

The existing Douglas facility is located at 1203 Commonwealth Avenue, Duluth, Minnesota. The 50' x 100' (lots 32 & 33 in Block 10 Gary 1st Addition) site is on the corner of Commonwealth Avenue and McGonagle Street is abutted by an alley to the West, a converted commercial building to residential building is located on the opposite side of the alley. A vacant lot is on the North side. This site slopes from West (high) to East (low) and grade meets at the building entrance at the building entrance.

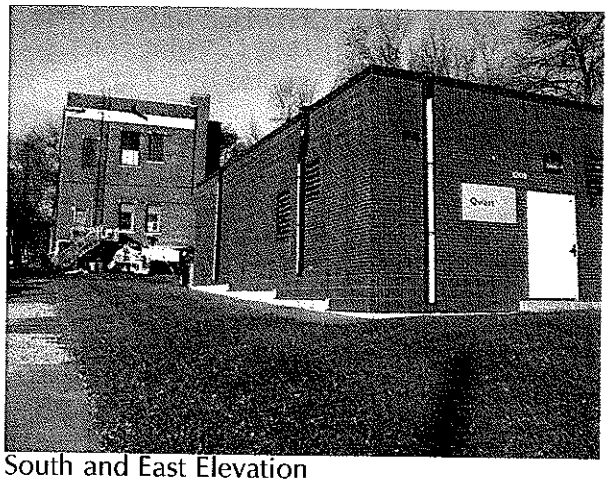
The 1,380 gross Square foot (GSF) building is faced in brick veneer and has a single ply membrane roof. The building houses telecommunications equipment and supporting infrastructure (i.e.; supply and relief fan units, emergency generator, etc.) There are two condensing units sitting on the roof.

The property and the vacant lot to the North are zoned commercial. The property on the opposite side of the alley (West) is zoned residential.

SUMMARY

The facility appears to be in good condition and is well kept. The following deficiencies were noted:

1. The above ground fuel storage tank does not have dual containment with leak detection, a requirement of the current building code.
2. The roofing system developed a leak and QWEST staff had the roof repaired. Ceiling and wall damage in the toilet roof remain from the leak. The roofing system is nearing the end of its useful life.


South and East Elevation

CIVIL/SITE REVIEW

A. Utilities:
The site is served with municipal utilities. The domestic water supply and sanitary sewer lines enter the site at Commonwealth Avenue. A duct bank containing (12) 4" diameter PVC conduits enters the South side of the building, turns and runs West to the alley. The electrical service enters the site underground from a utility pole on the northwest corner of the site, runs underground from this pole east to a 200 amp meter socket on the outside of the building on the North elevation, then enters the building from the meter socket.

B. Drainage:
The site generally drains from the Northwest to the Southeast. The building is sited on an elevated area cuts into the site at the West. The finish grade is at a higher elevation than the finish floor slab at the West end of the facility. There does not appear to be a moisture or water problem at this location. Surface runoff is diverted to Commonwealth and McGonagle Street to the City's storm water system.

C. Paving:
The site has a paved parking area between the alley and the building and the West property line.

D Miscellaneous:
The site is not fenced. The secure perimeter of the facility is the exterior building walls themselves.

MECHANICAL REVIEW

A. HVAC:
1. One 3600 CFM air-handling unit serves the facility. It provides a cooling capacity of 8 nominal tons. The unit has dual refrigeration circuits, two cooling coils, and two condensing units. The condensing units are outside on the roof. The system manufacturer is Carrier, commercial grade, and is in good condition. It is within its service life, installed in 1987, and easily replaceable if for some reason this becomes necessary.
2. The HVAC system capacity is adequate for the existing equipment space. Our calculations reveal that it is currently 70 percent loaded. Its dual circuit design provides cooling system redundancy.
3. The system has 100 percent outdoor air economy capability. Relief air is served by a Cook axial fan. It is in very good condition.

4. The ductwork, where visible, is in very good condition and is installed as shown on the July 7, 1987 drawings. Unique to the Douglas facility is the utilization of a gypsum board ceiling in the C.O. space, the main supply duck is exposed and under the ceiling with branch ductwork hidden above the ceiling. This is shown on the 1987 plans. Investigation reveals that diffuser locations in the gyp board ceiling generally agree with the plans. The supply ductwork, wrapped in insulation, could not be inspected.
5. There are two humidifiers; Carnes model HCAD, with nameplate capacity of 10 lb/hr each. However, they are not in service and are missing their "bottle" steam generators. The omission of humidification is consistent with Qwest's current standards.
6. The building management system is an Andover direct digital control (DDC) system. It has no or few spare output points. The system is expandable.
7. The toilet room exhaust fan has been damaged from a roof leak. The fan will have to be replaced.

B. Emergency Generator: The emergency generator is fitted with an integral radiator and radiator fan. There are circulation dampers, which work in sequence with the exhaust louver damper to recirculate heated air into the space for winter operation. The intake louver has a motorized damper to open in concert with the exhaust damper. The existing above ground fuel tank doesn't meet code for containment or leak detection.

C. Plumbing: The site utilities are described elsewhere in this report. The 4-inch underground sanitary leaves the building at the East wall and flows East. It flows by gravity and there is no sump pump or sewage ejector.

D. Fire protection: The building is not equipped with a sprinkler system.

E. The existing HVAC system is in good condition and adequately sized to serve current and anticipated future needs of the existing equipment space. The most economical approach is to retain the existing HVAC system. This will offer an advantage in lack of disruption during construction.

No new humidification is proposed. DDC controls will be employed. The controls require an expanded input/output board.

PROPOSED MECHANICAL REVISIONS

A. New Generator:
   1. Required revisions
      a. Intake louver will be replaced with a new 36" x 48" louver.
      b. Exhaust louver will be replaced with a new 36" x 36" louver. All exhaust ductwork needs to be replaced.
      c. New muffler system.
      d. New diesel fuel system.

B. New addition:
   1. Capacity needs; our calculations reveal that based on equipment heat gain of 50 w/sf for switch space and 10 w/sf for wire frame and battery space, the addition will need an additional 1200 CFM and 3 nominal tons of cooling.
   2. Options; there are two options for cooling
      a. Provide a 3 ton split system, Liebert Challenger 3000 with an outdoor prop-fan air cooled condensing unit. Ductwork would be installed from the unit and serve the area of the addition. The indoor AHU would be located along an outside wall with-in the addition. This design would be similar to QWEST Chisholm Central Office.
      b. Provide a new mechanical room with-in the addition for 3 ton air handling unit (AHU). This would include an air cooled condensing unit on the roof. Duct work would be installed from the AHU and serve the addition.

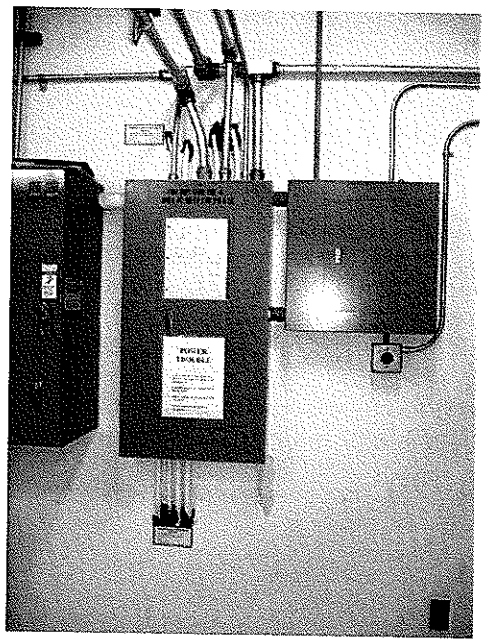
ELECTRICAL REVIEW

A. Electrical Service:

Normal Power: The existing service is 200 amps, single phase, 120/240 volts. A utility power pole located northwest and across the alley from the facility has a pole-mounted transformer that transforms the higher utility voltage to the service voltage. From this pole, overhead secondary service conductors cross the alley and attach to a newer utility pole at the northwest corner of the property. The conductors then run down this pole and then run, in conduit, below grade to the wall-mounted meter socket on the north wall where the electrical service enters the building. The electric service conductors appear to have been replaced sometime in the past few years due to damage to the existing service conductors. This service can provide 38 kW of power to the facility

Emergency Power:

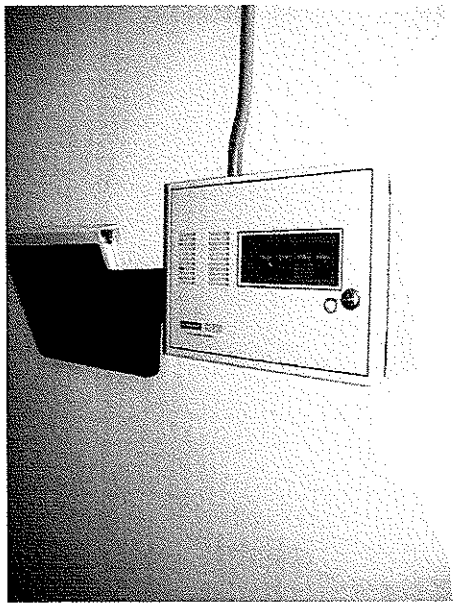
A 30 kW Onan generator provides emergency power to the facility. An Onan automatic 200-amp open transition transfer switch is located adjacent to the main 200 amp main service disconnect near the northeast corner of the switch space connects the electrical load to the generator in the event of a utility power failure. The generator and fuel storage tank are located in a separate room. The generator exhaust has a small silencer that does not reduce exhaust noise to a desirable level. The containment pan under the single-wall fuel tank appears undersized. No leak detection equipment is installed. No fuel fill-spill box with alarm is installed to reduce chances of spill from overfilling the fuel tank. A battery charger charges the emergency generator battery.



B. Distribution:

Electrical components are surface mounted on walls. The automatic transfer switch, main service disconnect, two panelboards, and Joslyn surge arrestor are located on the south wall of the telecommunications equipment space. One of these panelboards serves building loads in addition to four rectifiers. A third panelboard is located in the generator room and serves mostly equipment in this room. The inverters/battery plant was providing power to the telecommunications equipment. The remaining electric loads include and air handling units, two rooftop compressor/condensing units, lights, water heater, and electric heat for the building.

C. Fire Detection and Alarm System: An Edwards two-zone hard-wired (non-addressable) Fire Alarm Control panel monitors the smoke detection, heat detection, and manual pull station devices and provides signals to the audible signaling devices. There appear to be no ADA-compliant strobes in the facility, only audible alarm devices.

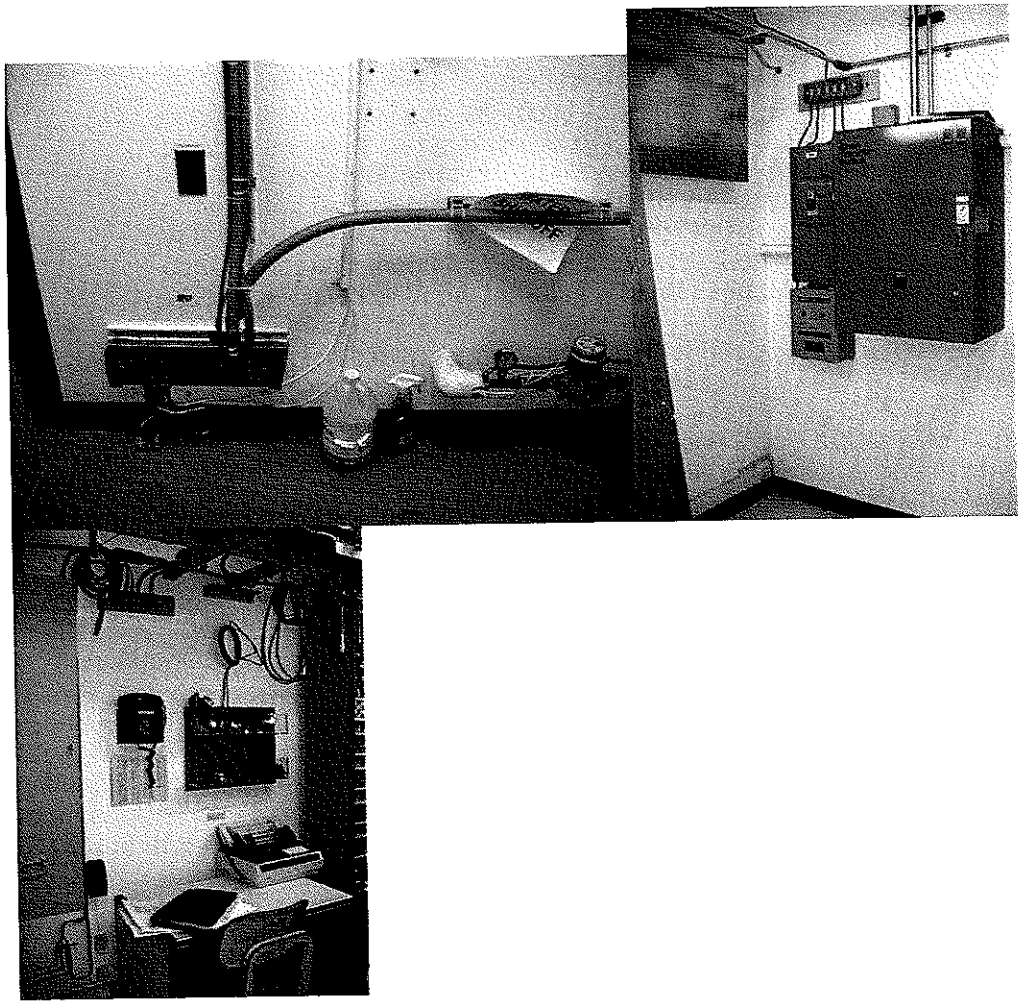


D. Security System: A Locknetics security panel is the security equipment. A card access system provides access to the facility.

E. Lighting, Grounding and Miscellaneous:

Lighting: Fluorescent fixtures, each having two 40-watt lamps per fixture, are the main lighting source used at this facility. A battery powered emergency fixture is located in the emergency generator room. It is unclear how many fluorescent fixtures in the facility have been converted to provide emergency lighting using the 48-volt central office battery for power. The exterior high pressure sodium cutoff wall-pack light above the entry door has a damaged lens. The lens appears to be damaged due to heat from the lamp.

Grounding: A central office ground bar, office principle ground point bar, and standard grounding procedures are in place at this facility.



PROPOSED ELECTRICAL REVISIONS

The existing electrical service, at 200 amps, is not large enough to reliably handle the present electrical load plus load for a 13′ X 30′ building expansion and related future telecommunication equipment load. The 30KW, single phase rating of the generator also is not large enough to reliably handle the existing and future electrical load. We recommend changing the electrical service to 400 amps, 120/240 volt, single phase. The service will be fused at 350 amps, which provides a maximum connected load of 67KW. The service and distribution wire and electrical equipment sizes will be sized at 400 amps so the service size could be increased, if necessary, in the future. See "Service Calculation Summary" and "Generator Size Calculation Summary" in the appendix for calculations that resulted in the above service and generator size increase recommendations. The electrical service size change will require the following:

Electrical Service:

1. Provide temporary electrical connections including a temporary generator to maintain building operation during electrical service and distribution work.
2. Replace the 200 amp automatic transfer switch with a 400 amp automatic transfer switch.
3. Replace the 200 amp service disconnect with a 400 amp service disconnect, fused at 350 amps.
4. Replace the 200 amp self-contained meter socket on the building exterior with a 400 amp self-contained meter socket compatible with the utility.

5 Coordinate with the utility and provide new 400 amp service conductors from the pole-mounted transformer to the existing pole on the northwest corner of the property, run these conductors down the pole, and run the conductors in conduit below grade to the meter location, then enter the building with new conduit and wire to the main service disconnect.
6. Provide a new 400 amp, 120/240 volt, single phase power panelboard capable of handling branch circuit breakers up to 200 amps. This power panelboard will be connected on the load-side of the 400 amp transfer switch. This power panelboard will then be connected to serve the existing three panelboards and loads associated with the building addition and additional telecommunications equipment loads.
7. Revise the service entrance grounding and bonding to the correct size for the larger 400 amp service entrance conductors.

Emergency Power - we recommend changing the generator to a 120/240 volt, single phase, 45KW prime-rated, 50KW standby-rated generator. This generator is only slightly longer (approximately 1'-2") than the existing Onan generator and can be installed while maintaining electrical code-required clearances. The generator will have an indoor residential-grade silencer that will result in noticeably less exhaust noise than the existing generator's silencer. The generator will also have a dual-containment with leak detection "belly tank", which allows the old tank to be removed. A 140-gallon (36 hour run-time) or a 280 gallon (72-hour run-time) minimum-size tank can be custom-built by the manufacturer to work with the generator. The run-times listed above are for a generator running at 100% load, so actual run-times experienced will likely be longer than those listed. A new battery charger will be provided. New circuits will be provided for the generator anti-condensation and coolant heaters. Electrical connections and monitoring/alarms associated with a fuel "fill/spill" box will be provided to reduce chances of overfill of the fuel tank. A leak detection system will also be provided to monitor the integrity of the fuel tank, with connections to the central alarm system.

Fire Alarm System – we recommend changing the existing Edwards two-zone fire alarm system to an addressable system. This change will require the following:

1. Replace the existing fire alarm panel with an addressable fire alarm panel.
2. Replace all existing detection and manual pull station devices with addressable devices.
3. Replace all audible signaling devices with ADA-compliant horn/strobe devices.
4. Replace all fire alarm wiring in conduit with addressable fire alarm cable in existing conduit.
5. Add new devices for the building addition

Lighting – we recommend replacing all fluorescent lighting fixtures using 34 watt, T-12 lamps and magnetic ballasts with more efficient 32 watt, T-8 lamps and electronic ballasts. This change will result in lower electrical use because the new fixtures will use less energy and because the electronic ballasts generate less heat for the cooling system to remove. Remodeling rebates for upgrading lighting may be available from the uitility, Mn. Power. We also recommend replacing the exterior wall-pack light with the damaged lens located above the entry door with a similar cutoff wall-pack light fixture.

Grounding – if battery containment basins are provided, these will be grounded per Qwest standards.

Qwest monitoring equipment – if Qwest monitoring equipment is upgraded to transmit more equipment monitoring and energy use data, electrical monitoring equipment including B.A.T. Boxes , E.A.T. Boxes, and related current and voltage –monitoring transformers will be provided and connections will be made to the Qwest remote-monitoring equipment.

ARCHITECTURAL REVIEW

A. Building Code Information

Building Code Authority: Building Safety Office
City of Duluth
210 City Hall
401 West 1st Street
Duluth, MN 55802

Contact: Skye Zeleznikar, Plan/Code Review (218) 730-5158

Governing Building Code: Minnesota Building Code incorporating elements of the International Building Code (IBC), 2000 Edition
See Appendix for building code review

B. Zoning Information

Zoning Code Authority: Building Safety Office
City of Duluth
210 City Hall
401 West 1st Street
Duluth, MN 55802

Contact: Cindy Hall, Zoning Coordinator
(218) 723-3318

Zoning Ordinance: City of Duluth Zoning Ordinance

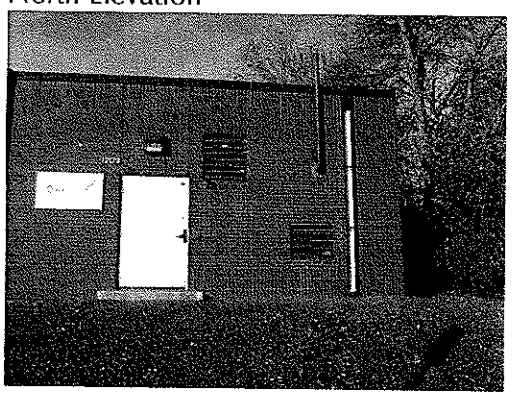
C. Exterior:

The exterior walls are face brick veneer and light gauge metal stud walls. These items are in good condition and require no work. Cleaning is required at areas of graffiti.

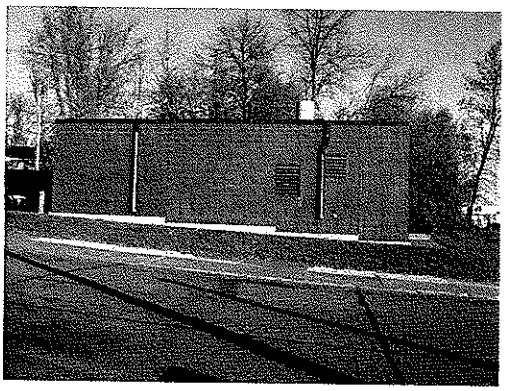
The roofing system is a single ply membrane roof system (EPDM). The 18 year old membrane roof appears to be in fair condition, rock ballast shows signs of splitting. Roof edge flashings appeared to be in good condition. Roof scuppers were present on all four edges of the roof. The expected life of a single ply membrane roof system is 20 to 25 years.

The building is constructed as a Type II-Building, which is atypical for a Central Office building. This construction type is generally defined as non-fire rated construction with non-combustible construction materials. Usually, Central Office Buildings are constructed to a Type I-A, which is fire rated construction with non-combustible construction materials. These materials are usually concrete and masonry or steel protected fire rated assemblies.

North Elevation

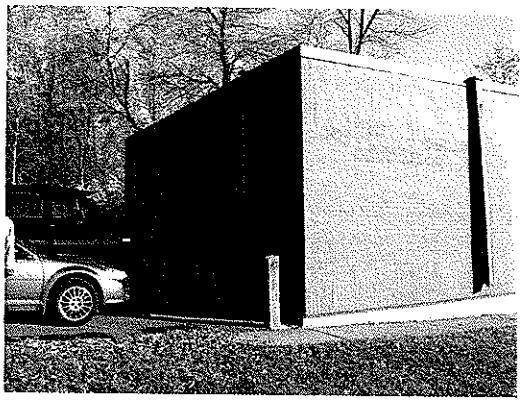


South Elevation

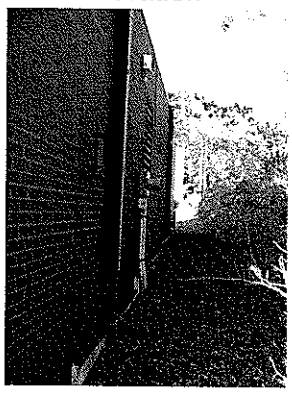


West Elevation

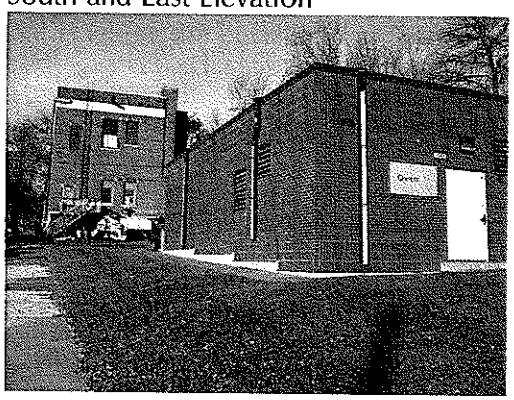
West Elevation



North Elevation



South and East Elevation



D. Interior:

The interior consists of painted gypsum wallboard partitions and ceilings with resilient tile flooring in the entry, corridor and equipment room. The partitions appear to be the equivalent of one-hour fire-resistive construction The flooring in the emergency generator room and mechanical equipment room is sealed concrete. The finishes are in good condition and require no work The ceiling height is 10'-8" in the equipment room.

The battery line up is located along the North exterior wall within 4" of that wall, making visual inspection of the containers impractical It is open to the entire equipment room. There is no spill containment around the base of the battery rack.
There is a container of absorption material stored at the end of the battery rack. Two portable eyewash stations are in place, one at each end of the battery rack.

There is one exit from the equipment space approximately centered on the East wall of the room. It is identified with an exit light and emergency battery pack lighting is located in the space.

The cable entrance comes from under the building and enters at the South exterior wall of the building.

STRUCTURAL REVIEW

General:
The building foundation is standard concrete block on concrete spread footings. The footings and foundation step with the finish grade. The floor slab is a 4" concrete slab reinforced with a welded wire mesh poured over a polyethylene vapor barrier.

The above grade structure is comprised of a steel frame with light gauge metal stud wall with brick masonry veneer. The roof structure is metal roof joists and metal deck.

OPTIONS

The goal is to identify the most economical option for expansion that will accommodate potential future expansions. In other words, select an expansion option that will not hinder any potential future growth on the site.

Current zoning and building configuration -
Front setback (East - Commonwealth Avenue) is 25', that is where the building sits. Side setback (South - McGonagle Street) is 15', that is where the building sits. Back setback (West - alley) is 25' which can include half the alley. There remains 30' between the building and the property line + 8' of alley equals 38', minus 25' for setback will allow a 13' building addition to the West. Thus a 13' x 30' addition is allowed for the site.

Option 1:

Provide a 13' x 30' addition to the West side of the building inline with the existing switch equipment. Install new 400 AMP 120/208 single phase electrical service. Replace generator with a 45 kw generator and bellytank in the existing generator room. The Dryers and panels will remain in the generator room, but the panels will have to be relocated within the space to conform to codes. The new construction will provide an additional 3 tons of conditioned air in the equipment room. A Liebert unit will be installed on the floor of the equipment room with a rooftop condensing unit. Air would be distributed and returned by duct and diffusers. This approach provides adequate conditioned air for the facility that matches the projected power needs (provided by QWEST) and is a cost effective way in distributing the conditioned air to the new space.

Option 2:

Purchase the open lot to the North and provide a 25' x 46' addition. This option will provide not only equipment room space, but space for an additional mechanical room, battery room and dryer room. Install new 400 AMP 120/208 single phase electrical service. Replace generator with a 45 kw generator and bellytank in the existing generator room. The new construction will provide an additional 3 tons of conditioned air for the added equipment room. The Air Handling Unit will be installed in the floor of the new mechanical room with a rooftop condensing unit. Air would be distributed and returned by duct and diffusers.

Option 1 will provide for QWESTS' needs and is the least expensive to construct while Option 2 will provide for QWEST future needs. Option 1 will land lock QWEST for any future growth at this site.

The result of meeting QWESTS' needs and keeping construction cost low, LEO A DALY recommends Option 1. LEO A DALY also recommends purchasing the lot to the North and allow for any future growth.

APPENDIX

University of Minnesota
400 Donhowe Building
319 Fifteenth Avenue SE
Minneapolis, MN 55455

Moos Hall – 2006 AHC Classroom Renovation

Project Number 142-06-1617

LEO A DALY
730 Second Avenue South
Suite 1100
Minneapolis, MN 55402

2000 International Building Code

Topics	Requirements	Sections	Remarks	May 23, 2006
1. Type of Construction	**Type I-A**	**Table 601 Pg. 89**	**Existing building is protected steel and poured concrete construction w/ concrete panel and brick veneer.**	
2. Occupancy Classification	**Group A-3 Auditorium Seating Group B Breakout Classrooms**	**304.1 Pg. 26,**	**B-Occupancy Area- 1,380 SF**	
3. Occupancy Separation			**None Required**	
4. Allowable Height	**Unlimited**	**Table 503 Pg. 80**	**Existing building is nineteen-stories**	
5. Allowable Floor Area	**Unlimited (A-3 Occ)** Unlimited (B Occ)	**Table 503 Pg. 80 Sec. 506.1**		
6. Fire Resistive Requirements and Exterior Wall/Opening Protection	For Type I-A	**Table 601 Pg. 89**	Existing building systems meet these criteria	
Exterior Bearing Walls	**1 if <10 feet**	**Table 602**		
Interior Bearing Walls	**1**	**Pg. 89**		
Exterior Nonbearing Walls	**1 if <10 feet**	**503.2**		
Structural Frame	**3**			
Partitions	**0 or 1 if <10 feet**			
Floors and Ceilings	**2**			
Roofs/ceiling assemblies	**1 1/2**			
7. Occupant Load **Auditoriums**	**PWB 2-470 Total 315 (fixed seats) Moos 2-520 Total 87 (fixed seating) Moos 2-530 Total 200 (fixed seating) Moos 2-580 Total 40 (fixed seating) Moos 2-620 Total 236 (fixed seating) Moos 2-650 Total 346 (fixed seating) Moos 2-690 2,580/15=172 Moos 2-116A 576/20=29 Moos 2-116B 288/20=15 Moos 2-116C**	**1003.2.2 Pg 213 Table 1003.2.2.2 Pg. 213 1003.2.2.9 Pg. 214**	**2 exits min if > 50 occupants** **PWB 2-470 2 exits required 3 exits provided Moos 2-520 2 exits required 2 exits provided Moos 2-530 2 exits required 3 exits provided Moos 2-580 1 exit required 2 exits provided Moos 2-620 2 exits required 3 exits provided Moos 2-650 2 exits required 3 exits provided Moos 2-690 2 exits required 3 exits provided Moos 2-116A 1 exit is required and provided Moos 2-116B 1 exit is required and provided Moos 2-116C 1 exit is required and provided**	

University of Minnesota
400 Donhowe Building
319 Fifteenth Avenue SE
Minneapolis, MN 55455

Moos Hall – 2006 AHC Classroom Renovation

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Suite 1100
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2000 International Building Code

Topics	Requirements	Sections	Remarks	**May 23, 2006**
	288/20=15			

Topics	Requirements	Sections	Remarks	**May 23, 2006**
8. Travel Distance Sprinkled	**250 ft maximum - A Occupancy 300 ft maximum - B Occupancy**	**1004.2.4 Pg. 232**	Travel distances in renovated areas meet this criteria	
9. Dead End Corridor	**20 ft maximum - A Occupancy 50 ft maximum - B Occupancy**	**1004.3.2.3, Pg. 234**		
10 Minimum Exit Width	**PWB 2-470 315 x .2 = 63″ Moos 2-520 87 x .2 = 18″ Moos 2-530 200 x .2 = 40″ Moos 2-580 40 x .2 = 8″ Moos 2-620 236 x .2 = 48″ Moos 2-650 346 x .2 = 70″ Moos 2-690 172 x .2 = 35″ Moos 2-116A 29 x .2 = 6″ Moos 2-116B 15 x .2 = 3″ Moos 2-116C 15 x .2 = 3″ Minimum is 1 exit at 32″ each Minimum 36" width for stairs/corridors**	**Table 1003.2.3, Pg. 215 1004.1 Pg. 230 1004.3.2.2 Pg. 233**	**PWB 2-470 3 x 32 = 96″ Moos 2-520 2 x 32 = 64″ Moos 2-530 3 x 32 = 96″ Moos 2-580 2 x 32 = 64″ Moos 2-620 3 x 32 = 96″ Moos 2-650 3 x 32 = 96″ Moos 2-690 3 x 32 = 96″ Moos 2-116A 1 x 32 = 32″ Moos 2-116B 1 x 32 = 32″ Moos 2-116C 1 x 32 = 32″**	
11 Fixed Seating Aisles	**Minimum clear width of 12″ is required where seating of rows with 14 or fewer seats. Chairs with self rising seats are measured with seat in the raised position. Folding tablet arms, rows measured with arm in down position**	**1008.8 Pg. 244**	**PWB 2-470 3′-2″– 12″= 26″ Fixed Chair Moos 2-520 2′-10″– 12″= 22″ Fixed Chair Moos 2-530 3′-2″– 12″= 26″ Fixed Chair Moos 2-580 3′-2″– 12″= 26″ Fixed Chair Moos 2-620 3′-2″– 12″= 26″ Fixed Chair Moos 2-650 3′-2″– 12″= 26″ Fixed Chair**	

Topics	Requirements	Sections	Remarks	May 23, 2006
12. Aisle Width	**48" Minimum for aisle stairs with seats on both sides. 36" Minimum for aisle stairs with seats on one side.**	**1008.7.1 Pg. 243**	**Aisle widths in renovated areas meet this criteria.**	
13. Aisle Handrails	**Handrails are required when the gradient is greater then 1 unit vertical to in 8 units horizontal.**	**1008.11 Pg. 245**	**Discontinuous Handrail will be incorporated as part of this work.**	
14 Discontinuous Handrail	**22" to 36" gaps at intervals not exceeding five rows. Handrail shall have rounded termination.**	**1008.11.1 Pg. 246**	**Discontinuous Handrail will be incorporated as part of this work.**	
15. Intermediate Handrail	**Where handrail is located in the center of the aisle, an additional intermediate handrail 12" below the main handrail shall be added.**	**1008.11.2**	**Discontinuous Handrail will be incorporated as part of this work.**	
16 Interior Finishes	**Interior finishes in an A-3 and B Occupancy sprinkled space shall be Class C flame spread. Textiles for wall covering and seating shall be Class A flame spread**	**803.4 & 803.5 Pg. 172 Table 803.4 Pg. 173**	**Existing material comply**	
17 Accessible Wheelchair Spaces	**Minimum of 1 space for areas seating 4 to 25 Minimum of 2 spaces for areas seating 26 to 50 Minimum of 4 spaces for areas seating 51 to 300 in an area up to 1 cluster Minimum of 6 space for areas seating 301 to 500 in an area up to 2 clusters**	**2003 MN State Building Code Chapter 1341, Section 1341.0482, subpart 3**	**PWB 2-470 – 6 required /2 clusters Moos 2-520 – 4 required Moos 2-530 – 4 required Moos 2-580 – 2 required Moos 2-620 – 4 required Moos 2-650 – 6 required /2 clusters Moos 2-690 - 4 required** The University of Minnesota has asked for additional locations in rooms that have access at the front of the auditorium space.	

Qwest

Project No.: 023-10039-000
Douglas CO Remodel
Duluth, MN
January 12, 2006

	%	TOTALS		STUDY		SD		DD		CD		BID		CA	
					3%		10%		20%		40%		5%		22%
		HRS	$	HRS	$	HRS	$	HRS	$	HRS	$	HRS	$	HRS	$
PM/PIC	18.2%	19	3,681	1	122	1	284	3	648	4	810	2	304	8	1,515
ARCH	20.3%	40	4,103	1	146	6	567	10	972	18	1,782	1	101	5	535
MECH	16.7%	31	3,390	1	122	3	365	7	810	13	1,458	1	101	5	535
ELEC	16.7%	32	3,390	1	122	3	365	8	810	14	1,458	1	101	5	535
STRUC	7.9%	15	1,592	0	36	2	162	3	324	8	810	1	81	2	178
INT															
SPEC	5.3%	10	1,073							9	972	1	101		
CIVIL	5.5%	11	1,106	0	36	2	162	3	324	3	324	1	81	2	178
CONST. ADMIN	4.8%	6	968					1	81	1	162	1	101	4	624
OS	4.7%	15	948	0	24	2	122	1	81	5	324	1	41	6	356
TOTAL	100.0%	180	$20,250	5 $	608	19 $	2,025	36 $	4,050	75 $	8,100	8 $	1,013	36 $	4,455

NOTES: