

BASIS OF DESIGN — MUSEUM ADDITION BUILDING PROJECT

Date: February 2014 Project Name: Las Vegas, NV Project #: 2014-02 Prepared By: Reader Revision Date: _____

BUILDING

New Construction Renovation Addition Square Feet: 24,000 No. of Floors Below Grade: 1 No. of Floors at and Above Grade: 2

UTILITIES

Electrical: New Upgrade Existing **Gas:** New Upgrade Existing **Steam:** New Upgrade Existing **Chilled Water:** New Upgrade Existing

Hot Water: New Upgrade Existing

Services from Utility for: Electric Gas District Energy Steam Existing

Campus Power Plant: Electric Gas Steam CHWS CWS Hot Water None

UTILITY DESIGN PARAMETERS

Electrical: 120/1/60 208/3/60 277/3/60 480/3/60 ___/3/60 Emergency Power

Emergency Power: New Diesel Oil Gas Existing None **Gas:** Design Parameters by Plumbing Engineer

Steam Pressure: Low @ 10 psig Medium @ ___ psig High @ ___ psig High @ ___ psig

Chilled Water Temperature: CHWS @ 42°F CHWR @ 56°F None

Condenser Water Temperature: CWS @ ___°F CWR @ ___°F None

Hot Water Temperature: HWS @ 160°F & HWR @ 120°F when 24°F OAT and HWS @ 90°F & HWR 70°F when OAT is 60°F Fixed HWS @ ___°F & HWR @ ___°F None

ASHRAE APPLICATION HANDBOOK

ASHRAE 2011 Handbook: Chapter { 23 } **ASHRAE 2012 Handbook:** Chapter { 1 } { 2 } { 3 }

OWNER MECHANICAL DESIGN PARAMETERS

Equipment Location: On Floor Being Served In Central Equipment Room(s) _____ In Penthouse Away From Building _____

Maintenance Outside Occupied Space: Yes Serving primary HVAC equipment No

Redundancy: For (List Equipment) N+? No

Equipment/System Expansion: Increase Equipment Size By ___% No

Indoor Air Quality at: MERV Rating of { 11 } for Pre-filters MERV Rating of { 15 } for Final Filters

Acoustic & Vibration Criteria: Design Parameters by Acoustic Consultant None

Specialty Room(s): for Basement Special Collections Room None

Occupancy Schedule: 24-7-365 Occupied/Unoccupied (List Hours of Occupancy)

DESIGN CRITERIA

Outdoor Dry Bulb & Wet Bulb: 28°F Heating Season 106°F/ 70°F Cooling Season

Public/Common Area, Residential Rooms, Cafeteria, and Administration Space: Occupied Period Unoccupied Warm-up & Cool Down

Set Points: 72°F 50%RH +/- 5% RH Heating Season & Cooling Season

Mechanical & Electrical Space and Back of the House Area: Occupied Period Unoccupied Warm-up & Cool Down

Set Points: 68°F Heating Season 78°F < 65%RH Cooling Space Pressure: {+} {-} {=}

_____ **Area:** Occupied Period Unoccupied Warm-up & Cool Down ___F ___%RH Heating Season - ___F ___%RH Cooling Season Space Pressure

ENERGY & ENVIRONMENT CRITERIA

LEED Certification: Yes No Other Certification (List the Program)

Annual Operating Budget: Energy Budget Organization Structure _____

Refer To The Facility File For Additional Operation & Maintenance Design Criteria

SPECIAL CONDITIONS & REQUIREMENTS

