Appendix B

Programmatic Allowances Under this Agreement

This list of Programmatic Allowances (Allowances) applies to activities at NIST's Building 1 at Boulder Laboratories that constitute individual undertakings under Section 106 of the National Historic Preservation Act, that based on NIST experience have no or minimal effect on historic properties if implemented as specified in this Appendix B and will not require additional review by the CO SHPO. The Allowances for Building 1 are divided into the following three categories**: Zone 1**: Wings 1, 2, 4, 5, Spine, and Front of the House**; Zone 2**: Wings 3 and 6, and the portion of the south elevation of the Spine between Wings 4 and 6; and **Zone 3**: Site Work (see **Appendix A Preservation Zone Maps**).

The FPO must make a determination of the applicability of these Allowances, as appropriate, for proposed undertakings. NIST staff will provide the FPO an opportunity to make a determination of applicability before work is commenced on **Zone 1** and where work on **Zone 2**, and/or **Zone 3** could detract from the historic integrity of Building 1.

1. Zone 1: Wings 1, 2, 4, 5, Spine, and the Front of the House

1.1 Foundations

1.1.1 Maintenance, repair or In-kind (as defined in Appendix E) replacement of above-ground footings, foundations, and retaining walls to match the materials, configuration, profile and appearance of the existing system. *If Historic Fabric (as defined in Appendix E) must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.1.2 Maintenance, repair, or In-kind replacement of below-grade footings, foundations, and retaining walls. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.2 Roofing

1.2.1 Maintenance, repair or In-kind replacement of roof materials, cladding and sheeting, underlayment sheathing, flashing, gutters, soffits, downspouts and catch basins with no change in roof pitch or configuration. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.2.2 Removal of non-historic, incompatible rooftop features (antennae, equipment, cabling and similar features), *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or substantial alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.2.3 Installation of external gutters and downspouts, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant Historic Fabric.*

1.2.4 Installation or reconfiguration of internal gutters that are not visible from the public viewshed, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant Historic Fabric.*

1.3 Exterior Walls, Siding, and Other Features

1.3.1 Maintenance, repair or In-kind replacement of existing exterior walls, siding, trim, rails, joints, stucco, or veneer; existing decking, porches, landings, stairs, railings, guardrails or handrails; existing canopies or awnings; or existing building numbers and signs. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.3.2 Repair or repointing of masonry features with the design, size, shape, materials, physical composition and repointing to match the original in color, texture, and tooling, and following the NPS *Preservation Brief #2: Repointing Mortar Joints in Historic Brick Buildings*.

1.4 Interior Walls, Finishes, and Other Features

1.4.1 Maintenance, repair or In-kind replacement of existing interior finishes, including plaster, drywall, trim, tile, and flooring. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.4.2 Alteration, removal or replacement of non-character-defining interior floorplan configurations, finishes, cabinetry, systems, equipment, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant Historic Fabric.*

1.4.3 Alteration, removal or replacement of non-historic, incompatible features, including non-period interior additions, equipment, and non-bearing wall and ceiling systems common to tenant improvement work, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.4.4 Minor seismic improvements limited to the concealed securement and bracing of plumbing, piping, conduits, ducts, antennas, equipment, communication devices, radio systems, cables, and phone

systems.

1.4.5 Installation of floor materials over non-character-defining flooring in a reversible manner, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1 resource, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.4.6 Installation or repair of concrete basement flooring in an existing basement.

1.5 Windows and Doors

1.5.1 Maintenance, repair or In-kind replacement of windows and/or doors. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.5.2 Replacement of non-historic, incompatible features and accessories with historically compatible features, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.5.3 In-kind replacement of broken or cracked glass window panes and glaze putty to match characteristics (thickness, color, texture, sheen, waviness) of the existing materials.

1.5.4 Installation of new glazing in non-character-defining windows or doors, including retrofitting for double and triple glazing, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.5.5 Replacement or alteration of existing non-character-defining hardware for the Architectural Barriers Act (ABA) and Code compliance, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.5.6 Reversible application of removable caulking, weather-stripping, and/or thermal insulation window film which is clear and non-reflective.

1.5.7 Installation of building access security devices, such as card readers, enhanced locks, and security scanners, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.6 Painting

1.6.1 Repainting of non-historic surfaces.

1.6.2 Repainting of Historic surfaces consistent with existing color and finish, *provided that abrasive surface preparation treatments such as water blasting, sandblasting, power sanding, and chemical cleaning are not used.*

1.6.3 Removal of paint by non-destructive means, limited to hand scraping, low pressure water wash (less than 200 p.s.i.), or paint-removal chemicals that do not harm the substrate, in accordance with guidance in NPS *Preservation Brief #6: Dangers of Abrasive Cleaning to Historic Buildings*.

1.6.6 Painting of Historic exterior and interior woodwork in accordance with guidance in NPS *Preservation Brief #10: Exterior Paint Problems on Historic Woodwork.*

1.7 Lighting

1.7.1 Maintenance, repair or In-kind replacement of light fixtures and lighting systems. *If Historic Fabric must be replaced, it will be replaced In-kind to match the configuration, material, size, detail, and construction method of the Historic Fabric.*

1.8 Research Equipment and Systems

1.8.1 Modification, repair, removal, or addition of non-historic equipment and/or systems utilized to support specialized research (e.g., steam ejectors, vacuum spheres, combustion equipment, process gas reclamation systems, above ground fuel storage tanks, bottle fields, crane and wench systems, satellite dishes, high pressure air production, and storage and distribution systems), *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant Historic Fabric.*

1.10 Mechanical and Electrical Systems

1.10.1 Replacement or installation of internal HVAC equipment, filters, plumbing, telecommunications equipment, or security systems, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.10.2 HVAC conversions to alternative fuels, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric*.

1.10.3 Replacement or installation of electrical systems, including conduit and wiring, *provided such*

alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.

1.10.4 Replacement or installation of telecommunications, computer, or security systems, including public address systems, facsimile systems, microwave and radio systems, fiber-optic cables, and phone systems, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, is not visible, and does not damage, alter, or remove significant Historic Fabric.*

1.10.5 Modification or In-kind replacement of fire detection and suppression systems, including routine upgrades to fire alarm systems, smoke detectors, and sprinkler systems, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric. Design and installation of new systems are specifically excluded from these programmatic allowances and shall be required to be evaluated under standard Section 106 procedures outlined in 36 C.F.R. § 800.5.*

1.10.6 Replacement of non-historic, incompatible features and fixtures with compatible features and fixtures, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.10.7 Upgrading or installing new electrical lines between or among buildings and facilities, *provided no exposed conduits, cables, or other equipment is installed.*

1.10.8 Replacement of exterior equipment, including generators, transformers, and condensers, within the dimensions of existing equipment and footprints, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.10.9 Replacement of elevators within existing elevator shafts, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant Historic Fabric.*

1.11 ABA Compliance

1.11.1 Improvement or installation of exterior and/or interior wheelchair ramps to meet current ABA requirements, consistent with the guidelines presented in NPS *Preservation Brief #32: Making Historic Properties Accessible*.

1.12 Health and Safety

1.12.1 Hazardous material (materials such as lead paint, lead piping, asbestos, and mold) testing, remediation, and abatement, *provided such alteration does not detract from the qualities that contribute to the significance of Building 1, does not involve removal or alteration of significant historic elements, and no significant Historic Fabric will be damaged, altered, or removed.*

1.12.2 General clean-up, encapsulation, removal, and disposal of non-significant asbestos-containing materials.

1.12.3 Replacement of asbestos-containing materials with similar functioning and visually consistent non-asbestos materials, *provided such alteration does not detract from the qualities that contribute to the significance of the Building 1 resource, does not involve removal or alteration of significant historic elements, and no significant Historic Fabric will be damaged, altered, or removed.*

1.12.4 Installation of new flooring (carpeting or sheet flooring) over damaged asbestos flooring and Non-historic subflooring.

1.12.5 Preventive measures to deter pests or removal of pests, such as termites, insects, and rodents, and animal debris, *provided that destructive treatments, such as harmful chemical agents, are not used or that Historic materials are not damaged or removed.*

1.12.6 Encapsulation or appropriate patching of lead-based paint by repainting to match existing or historically compatible colors and finishes.

1.12.7. Testing, remediation and abatement of lead-based paint and other toxic materials in accordance with guidance in NPS *Preservation Brief #37: Appropriate Methods for Reducing Lead Paint Hazards in Historic Housing*.

1.13 Destructive Testing

1.13.1 Conducting small-scale and select destructive testing to expose and assess concealed structural conditions (such as removal of small areas of plaster wall finish) and/or to assess material capacities (such as masonry push testing or concrete slab coring) when performed in areas that are easily repairable or otherwise inconspicuous.

1.13.2 Removal of materials in small areas designated for hazardous materials testing, *provided it does not require the removal of historic features or alteration of visible contributing elements of Building 1*.

1.14 Cleaning

1.14.1 Cleaning using treatment methods that do not alter or cause damage to Historic materials, following

guidance set forth in NPS *Preservation Brief # 6: Dangers of Abrasive Cleaning to Historic Buildings and provided it does not require the removal of Historic features or alteration of visible contributing elements of Building 1*.

2. Zone 2: Wings 3, 6, and the Portion of the South Elevation of the Spine Between Wings 4 and 6

2.1 Foundations

2.1.1 Maintenance, repair or replacement of above-ground and below-grade footings, foundations, and retaining walls.

2.1.2 Installation of below-grade waterproofing.

2.2 Roofing

2.2.1 Maintenance, repair or In-kind replacement of existing roof materials, cladding and sheeting, underlayment sheathing, flashing, gutters, soffits, downspouts and catch basins with no change in roof pitch or configuration.

2.2.2 Reframing of structural roof elements to improve the drainage or durability of the roof, *provided such alteration does not detract from the qualities that contribute to the historic integrity of the Building 1.*

2.2.3 Removal of rooftop features (antennae, equipment, cabling, and similar features).

2.2.4 Installation of rooftop features (antennae, equipment, cabling, and similar features), *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.3 Exterior Walls, Siding, and Other Features

2.3.1 Maintenance, repair or in-kind replacement of existing exterior walls, siding, trim, rails, joints, stucco, veneer, decking, porches, landings, stairs, railings, guardrails, handrails, canopies, awnings, building numbers, and signs, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.4 Interior Walls, Finishes, and Other Features

2.4.1 Maintenance, repair, replacement, or alteration of interior finishes, including plaster, drywall, ceiling tile, trim, tile, and flooring.

2.4.2 Alteration, removal or replacement of interior floorplan configurations, cabinetry, systems, and equipment.

2.4.3 Installation or repair of concrete basement floors.

2.5 Windows and Doors

2.5.1 Maintenance, repair or In-kind replacement of windows and doors.

2.5.2 Replacement or alteration of non-historic windows and doors, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.5.3 Installation, replacement or alteration of hardware for ABA and Code compliance *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.5.4 Energy conservation measures to meet standard reductions in energy use, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.5.5 Installation of building access security devices, such as card readers, enhanced locks, and security scanners, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.6 Painting/Lead Paint Abatement

2.6.1 Repainting of exterior surfaces, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.6.2 Encapsulation or appropriate patching of lead-based paint.

2.7 Lighting

2.7.1 Maintenance, repair of exterior light fixtures and lighting systems.

2.7.2 Replacement or alteration of exterior light fixtures and systems, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

2.7.3 Maintenance, repair, replacement, alteration, or removal of interior light fixtures or lighting systems,

provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.8 Research Equipment and Systems

2.8.1 Modification, repair, removal, or addition of equipment and/or systems utilized to support specialized research (e.g., steam ejectors, vacuum spheres, combustion equipment, process gas reclamation systems, above ground fuel storage tanks, bottle fields, crane and wench systems, satellite dishes, high pressure air production, and storage and distribution systems), *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1*.

2.10 Mechanical and Electrical Systems

2.10.1 Repair, replacement or installation of HVAC equipment, filters, plumbing, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.2 HVAC conversions to alternative fuels.

2.10.3 Repair, replacement or installation of electrical systems, including conduit and wiring, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.4 Repair, replacement or installation of telecommunications, computer, or security systems, including public address systems, facsimile systems, microwave and radio systems, fiber-optic cables, and phone systems, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.5 Repair, replacement or installation of fire detection and suppression systems, including routine upgrades to fire alarm systems, smoke detectors, and sprinkler systems. provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.6 Upgrading or installing new electrical lines between or among buildings and facilities, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.7 Replacement of equipment, such as generators, transformers, and condensers, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.10.8 Replacement of interior elevators.

2.11 ABA Compliance

2.11.1 ABA requirements, provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

2.12 Health and Safety

2.12.1 Hazardous material (materials such as lead paint, lead piping, asbestos, and mold) testing, remediation, and abatement.

2.12.2 General clean-up, encapsulation, removal, and disposal of asbestos-containing materials.

2.12.3 Replacement of asbestos-containing materials, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1*.

2.12.4 Preventative measures to deter pests or removal of pests, such as termites, insects, and rodents, and animal debris.

2.12.5 Regulatory permit compliance activities, including but not limited to, Resource Conservation and Recovery Act (RCRA) permits and National Pollutant Discharge Elimination System (NPDES) permits.

2.13 Destructive Testing

2.13.1 Destructive testing to expose and assess concealed structural conditions (such as removal of small areas of plaster wall finish) and/or to assess material capacities (such as masonry push testing or concrete slab coring).

2.13.2 Removal of materials in small areas designated for hazardous materials testing.

2.14 Demolition

2.14.1 Demolition of properties and associated infrastructure determined not eligible for the NRHP by the FPO with concurrence from the CO SHPO, *an undertaking shall not be segmented into separate undertakings to fit within this Allowance*.

2.15 Cleaning

2.15.1 Cleaning using treatment methods, *provided it does not require the removal of historic features or alteration of visible contributing elements of Building 1 and does not alter or damage Building 1*.

3. Zone 3: Site Work Only (Excludes Interior Renovation areas shown on Preservation Zone Maps – Appendix A)

3.1 Circulation Features

3.1.1 Maintenance, repair, or replacement of existing circulation features where activities conform to the original footprint, including:

a. Paved surfaces (such as roads, sidewalks, paths, curbs, gutters, driveways, and parking areas);

b. Traffic control devices (such as traffic signals and signs, lane delineators, pavement markings, and traffic surveillance systems); and

c. Street lights and street signs.

3.1.2 Placement of gravel or aggregate on existing unpaved dirt roads, paths, or lots, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

3.1.3 Restriping of existing paved surfaces for bike paths and routes.

3.1.4 Installation of the following circulation features for ABA and Code compliance:

a. Sidewalk curb cuts, ramp, and warning detection strips;

b. Contrasting stripes at curbs or exterior stairs; and

c. Painted stripes or symbols on paved surfaces

3.2 Landscaping

3.2.1 Maintenance of existing landscaping, including mowing, trimming, and pruning of grass, plantings, shrubs, or trees.

3.2.2 Vegetation control activities, including collection and removal of dead, diseased, hazardous, invasive, or potentially damaging vegetation, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

3.2.3 Prevention of pest (such as termites, insects, rodents) infestation through installation of nonpermanent traps and barriers, and removal of pests and animal debris, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

3.2.4 Erosion control activities (such as gravel or riprap placement) where activities are constructed in a reversible manner, are located at or adjacent to existing paved areas.

3.2.5 Planting or seeding ground cover.

3.2.6 Cleanout of existing drainage ditches.

3.2.7 Maintenance, repair, or replacement of contributing small-scale landscape features, including planters, statuary, trash bins, and signage, , provided such alteration does not detract from the historic integrity of Building 1.

3.2.8 Maintenance, repair, replacement, or alteration of non-contributing small-scale landscape features, including planters, statuary, trash bins, and signage, provided such alteration does not detract from the qualities that contribute to the.

3.2.9 Repair or replacement of existing recreational equipment (such as park benches or playground equipment), provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.

3.3 Wayfinding and Interpretive Signage

3.3.1 Placement of exterior interpretive signage and public exhibits installed in a reversible manner, located at existing walkways and paved areas, are no more than 6 sq. ft. in size and that are consistent with NIST's Design Guidelines, *and where there is no impact to the historic integrity and Character-defining features of Building 1*.

3.4 Utilities

3.4.1 Maintenance, repair, or replacement of existing below-grade utilities.

3.4.2 Maintenance, repair, or replacement of existing above-grade utilities and related features where activities consist of one of the following:

a. Conform to the original footprint and general size/volume;

b. Conform to the original footprint and size /volume is increased by a maximum of ten (10) percent, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1*; or

c. Are located within existing structures, as described in Stipulations 1.10 and 2.10 above.

3.4.3 Installation of new above-ground utilities or utility systems where activities are located on existing foundations or paved areas, support on-going existing operations, and are no more than forty (40) sq. ft. in volume, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

3.5 Ground Disturbing Activities

3.5.1 Any activity for the purposes of maintenance, repair, or replacement of below-grade systems.

3.5.2 Installation of new below-grade utilities.

3.6 Demolition

3.6.1 Demolition of properties and associated infrastructure determined not eligible for the NRHP by the FPO with concurrence from the CO SHPO, *an undertaking shall not be segmented into separate undertakings to fit within this Allowance*.

3. 7 Non-Construction Related Temporary Structures

3.7.1 Installation or removal of temporary structures (*e.g.*, annexes) for scientific research or offices, *provided such alteration does not detract from the qualities that contribute to the historic integrity of Building 1.*

3. 8 Construction-Related Temporary Structures

3.8.1 Temporary placement (not to exceed the duration of the construction project) of construction-related barriers and traffic control devices (such as concrete barriers, fencing, and traffic signals and signs) and standalone construction-related structures (such as scaffolding, barriers, screening, fences, protective walkways, signage, office trailers, construction trailers, tents, or self-contained restrooms).

3.9 Wildlife Habitat Conservation

3.9.1 Maintenance and repair of existing property, wetlands, and stream channels.

3.9.2 Installation, maintenance, or repair of nesting platforms, boxes, and burrows.

3.9.3 Installation, maintenance, repair, or extension of animal-secure fencing or barriers.

3.9.4 Maintenance of vegetation and ground surface features in wildlife habitat areas.

3.10 Antiterrorism and Force Protection Measures

3.10.1 Non-physical and non-visual antiterrorism and force protection measures designed and constructed to prevent or mitigate hostile actions, *provided such alteration does not detract from the qualities that*

contribute to the historic integrity of Building 1