APPENDIX C

CODES AND STANDARDS

A. GENERAL REQUIREMENTS

1. The Project Architect/Engineer shall design UT System construction projects to comply with the current Office of Facilities Planning and Construction (OFPC) approved editions of the following codes and standards and advise the Owner of code revisions having impact on the project design.

2. The State Fire Marshal is the code authority having jurisdiction (AHJ) for all issues pertaining to NFPA 101 Life Safety Codes. The UT System Office of Facilities Planning and Construction is the code authority having jurisdiction (AHJ) for UT System construction projects for all codes other than NFPA 101 Life Safety Codes. OFPC is responsible for facilitating resolution of conflicts and interpretations for these non-NFPA 101 codes after a thorough and joint discussion with the Institution.

3. The Project Architect/Engineer shall prepare a written codes and standards analysis, "Building Code Analysis," for each project for review by OFPC. This analysis shall provide a side-by-side comparison of the requirements of the below listed codes and standards for each code issue and an indication of which code requirement is being applied to the project (see sample analysis Exhibit 1). In the absence of a careful and thorough discussion by the design team of a specific conflict between the codes, the default is to design to the more restrictive or more protective code. These code discussions are project-specific and on a point-by-point basis within the codes. The final approved Building Code Analysis shall be placed in the project construction document drawings for future reference by the Owner. See Appendix "L" for submittal requirements.

4. If deemed necessary for local authority to review any aspect of the project, such review shall be arranged to allow an OFPC or institutional representative to attend with the Project Architect/Engineer.

5. In the event of the need for interpretation among the codes and standards, the Project Architect/Engineer shall inform OFPC of the need for an interpretation and OFPC will establish the requirements for compliance.

6. OFPC also requires the Project Architect/Engineer to comply with certain provisions of the local fire department that provides fire protection services for the Institution. These provisions may include locations and dimensions for fire fighting access, including fire lanes; locations and specifications for stand pipes, fire hose cabinets, fire control room, and fire hose connections; elevator requirements; and other similar matters.

7. The Project Architect/Engineer shall be required to provide an affirmation statement that the project is designed in compliance with applicable codes and standards. The following statement shall be located on the drawing index page or adjacent the project building code summary:

"Life Safety Code Compliance: The Project Architect/Engineer acknowledges that construction projects for the University of Texas System must, at a minimum, be designed in accordance with the requirements of National Fire Protection Association (NFPA) 101, Life Safety Code, as currently adopted by the State Fire Marshal, Texas Government Code sec. 417.008(e). Therefore, the Project Architect/Engineer affirms that, to the best of his/her professional judgment, knowledge, and belief, the design of this project satisfies the requirements of NFPA 101, Life Safety Code, as well as any other codes or standards made applicable to the project by the professional services agreement."

B. DESIGN BASIS

1. National Fire Protection Association National Fire Codes, with emphasis on NFPA 101 - 2009 Edition Life Safety Codes (LSC) including all referenced standards.

2. International Building Code 2009 Edition

C. ARCHITECTURAL DESIGN

1. NFPA 45 2004 Edition Standard on Fire Protection for Laboratories Using Chemicals as applicable

2. Texas Department of Licensing and Regulation (TDLR)
   a. Elimination of Architectural Barriers Texas Government Code Chapter 469, Texas Administrative Code 16 TAC part 4 chapter 68 and Texas Accessibility Standards (TAS)

      NOTE: If commencement of construction begins on or after March 15, 2012, then new construction or alterations shall comply with the 2012 TAS.

   b. Elevators and Escalators, Health & Safety Code chapter 754 and 16TAC § 74
      (see 16TAC § 74.100 for effective dates of ASME standards)
      (see 754.014(k) for date of installation definition)

   c. Boilers, Health & Safety Code chapter 755 and 16TAC § 65

3. Americans with Disabilities Act, 28 CFR Part 35 Nondiscrimination on the Basis of Disability in State and Local Government Services, Final Rule, as published in the Federal Register Friday, July 26, 1991

a. NOTE: If physical construction or alterations commence on or after September 15, 2010 and before March 15, 2012, then new construction and alterations may comply with one of the following: the 2010 ADA Standards, or the 1991 ADA Standard. Physical construction or alterations commence when the General Construction agreement is signed.

b. If physical construction or alterations commence on or after March 15, 2012, then new construction and alterations shall comply with the 2010 ADA Standards

D. CIVIL/STRUCTURAL DESIGN

1. ACI – 318 current edition, building code requirements for reinforced concrete
2. AISC current edition, for Design, Fabrication and Erection of Structural Steel
3. Texas Department of Insurance Windstorm Inspection Program
4. FEMA 100-year flood plain

E. MECHANICAL & PLUMBING DESIGN

1. International Mechanical Code 2009 Edition
2. International Plumbing Code 2009 Edition
3. International Fuel Gas Code
4. OFPC Guideline Specifications for Division 1 - 33

F. ELECTRICAL DESIGN

1. National Electrical Code 2008 Edition
2. OFPC Guideline Specifications for Division 1 - 33

G. ENERGY & WATER CONSERVATION DESIGN

1. Energy Conservation Design Standard for New State Buildings (including major renovation projects), current edition, State Comptroller's Office, Government Code sec. 447.004 and 34 TAC § 19.32

2. ASHRAE / IESNA 90.1 2010 Edition (effective September 1, 2011)

3. International Energy Conservation Code (IECC) 2009 Edition (Residential) (effective June 1, 2011)

4. SECO's Water Efficiency Standards for State Buildings and Institutions of Higher Education Facilities dated January 2011 (effective September 1, 2011)

H. CODE COMPLIANCE CONFIRMATION REVIEWS

1. An independent project design "Code Compliance Confirmation Review" will be performed, documented and submitted to the Owner at DD and 75% CD submission to ensure compliance with the following codes as they apply to a specific project. The Owner's Project Manager will direct the A/E to obtain this code confirmation review or will direct the Owner's Code Consultant to perform this code confirmation review. (non-inclusive code review list, editions as listed in sections above):

   - International Building Code (IBC)
   - International Mechanical Code (IMC)
   - International Plumbing Code (IPC)
   - National Electrical Code (NEC)
   - NFPA 101 Life Safety Code
   - NFPA Codes as applicable, with emphasis on the following:
     - NFPA 101 Referenced Required Codes
     - NFPA 12A
     - NFPA 20
     - NFPA 22
     - NFPA 92A
     - NFPA 92B
     - NFPA 203
     - NFPA 204
     - NFPA 2001

   - FEMA 100-year flood plain verification
   - Texas Department of Insurance (TDI) First Tier Coastal Counties wind load criteria

2. This Code Compliance Confirmation Review does not relieve the A/E firm from complying with the approved codes and standards for the project. See Exhibit 2 for sample code review template.

I. ACOUSTICAL DESIGN - BACKGROUND NOISE DESIGN CRITERIA FOR TYPICAL OCCUPANCIES

1. Design in accordance with good practice to achieve conventional ambient noise levels qualified in Noise Criteria (NC) defined in current ASHRAE Applications Volume, Chapter 42 and ANSI S1.8 Reference Quantities for Acoustical Levels – ASA 84.

2. The ambient sound level of an occupied space is not to exceed the following NC listed for its respective typical occupancy unless specifically directed otherwise by the involved Institution's statement of project program requirements. Spatial forms, materials, assemblies, systems and equipment selections are to be designed as required to achieve a standard quality of specified level of maximum background noise.

a. Typical Occupancy	Max. Noise Criteria NC
(1) Apartments/Dorms:	
(a) Individual rooms/suites	35
(b) Meeting/banquet rooms	35
(c) Halls, corridors, lobbies	40
(d) Service/support areas	45
(2) Offices:	
(a) Executive	30
(b) Conference rooms	30
(c) Private	35
(d) Open-plan areas	40
(e) Computer/Business machine areas	45
(f) Public circulation	45
(3) Research, Hospital, and Clinics:	
(a) Private rooms	30
(b) Wards	35
(c) Operating rooms	25
(d) Laboratories:	
Research & General	35
Teaching	30
At Hoods: 4' AFF, 3' in front	
0-50% sash position	55
(e) Corridors	35
(f) Public areas	40
(4) Schools:	
(a) Lecture and classrooms	30
(b) Open-plan classrooms	35
(c) Lecture theaters	30
(5) Libraries	35

(6)	Performing Arts:	
	(a) Theater	25
	(b) Stagehouse	25
	(c) Trap room	25
	(d) Orchestra pit	25
	(e) Rehearsal rooms	25
	(f) Teaching studios	30
	(g) Practice rooms	30
	(h) Ensemble rooms	30
	(i) Shop	45
(7)	Recording studios:	
	(a) Recording room	20
	(b) Sound control room	25
	(c) Other control rooms	25

3. These conventional standards of the level of ambient noise in a space are independent of and prior to the installation of any Owner-furnished equipment, furniture and furnishings unless specified otherwise. Other resource material describing conventional ambient noise criteria is available in the current edition of Ramsey/Sleeper Architectural Graphic Standards.

APPENDIX C

EXHIBIT 1

BUILDING CODE ANALYSIS [TEMPLATE]

Project Name:
Institution:
Project No.

Code/Standards Analysis
Date:
Project Phase:

Applicable Codes

1. NFPA 101 Life Safety – 2009 Edition
2. International Building Code – 2009 Edition
3. Texas Accessibility Standard
4. etc.

Note: The code requirements selected as the basis for design are bolded.

Code Issue	NFPA 101	IBC
Occupancy Classification		
1. Offices and college classrooms With less than 50 occupants	**Business 6.1.2.2**	Group B 304.
Construction Classification		
1. Main Building	Not addressed	**Type IIA 403.3.1**
Stair Pressurization	Not Required	**1005.3.2.5**
Distance between exits	**250 ft. if sprinkled**	250 ft. if sprinkled

Etc.

APPENDIX C

EXHIBIT 2

CODE COMPLIANCE CONFIRMATION REVIEW [TEMPLATE]

[Date]

[Project Manager]
The University of Texas System
Office of Facilities Planning and Construction
702 Colorado
Suite 4.100
Austin, TX 78701

Reference: Review Comments on [100%DD or 75% CD]
[Project name]
[Institution]
OFPC Project No. XXX-XXX

Dear [Project Manager]:

[Code Consulting Firm (CCF)] has complete its Code Compliance Confirmation review and has prepared review comments on the documents for the [DD or 75% Construction Documents] package for the referenced project.

In performing this current service, [CCF] reviewed the following documents, furnished by A/E.

- DD or 75% Construction Documents Drawings dated [month dd, yyyy].
- DD or 75% Construction Documents Project Manual, Architectural Volume I Divisions 1-14, dated [month dd, yyyy].
- DD or 75% Construction Documents Project Manual, M.E.P. Volume II Divisions 21 - 33, dated [month dd, yyyy].

The principal codes used in this review are as follows:

- International Building Code, 2009 Edition (IBC).
- NFPA 101, *Life Safety Code*, 2009 Edition (LSC).

Other applicable codes, standards, and regulations are listed in the Project Data shown on the Building Code Analysis Drawing 1.1 and in the Project Information Manual. Additionally, FEMA 100-year flood plain verification and TDI First Tier Coastal County wind load criteria were reviewed where applicable.

Description of Project

The [Project] consists of …

Note: The follow major headings in this Code Compliance Confirmation Review Template are for reference only to demonstrate process.

Building Code Issues

Comments:

[Drawing 5.1, Drawing 10.21, Drawing 11.41 indicates there are accessible dwelling units. There is no table that indicates the discrete Apartment ID and Building ID for each accessible dwelling unit so that a user of the plans can see in one place the summary of accessible units.]

Requirements for Hazardous Materials and Laboratories

Insert comments as necessary.

Means of Exit Access

Insert comments as necessary.

Emergency and Standby Power

Insert comments as necessary.

Fire Water Supply

Insert comments as necessary.

FEMA 100-year Flood Plain

Insert comments as necessary.

TDI Windstorm Inspection Program

Insert comments as necessary.

Other Major Code Headings as Necessary

Insert comments as necessary.

Summary

Compliance with the comments stated in this letter does not relieve the A/E from complying with the Owners Design Guidelines, Owner's insurance/underwriting requirements, applicable NFPA Standards and State requirements.

Sincerely,

Project Manager
Texas License No. xxxxx

cc: UT System Office of Risk Management
OFPC Executive Director of Facilities Design and Construction Services

APPENDIX C

Revision Log
Appendix C

Rev. Date	Remarks
3/1/06	Adopt use of Master Format for specs. (change Div 15 & 16 to Div 1-33)
10/1/06	Adopt 2006 NFPA 101 LSC and 2006 IBC
1/1/09	Add Revision Log
	Adopt ASHRAE 90.1 – 2007 edition effective 1/1/09 per SECO
	Add effective date language to TDLR Elevator requirements
	Add language to use current edition of ACI 318 & AISC
10/12/09	Adopt 2009 NFPA 101 LSC and 2009 IBC effective 10-15-09
10/1/10	Changed more stringent to more restrictive or more protective, added 2010 ADA Standard effective date
3/1/11	Updated International Energy Conservation Code Edition to 2009 effective 4/1/11
9/1/11	Adopt International Energy Conservation Code 2009 Edition effective 6/1/11, adopt ASHRAE 90.1 – 2010 edition effective 9-1-11, adopt Water Efficiency Standard for State Buildings and Institutions of Higher Edu. effective 9/1/11
3/1/12	Adopt 2012 TAS effective 3/15/12