DIVISION OF FINANCE
& ADMINISTRATION
Facilities Department

University Design and Construction Standards

~~April~~ November 2026 Release

email the UNT Parking and Transportation Office to confirm that this particular vendor is frequently on campus. Valid in FS and Eagle lots and for two hours in Visitor lots.

3. All contractors are responsible for informing their employees that they cannot park at any locations on the campus other than the designated or allocated spaces. All existing University parking regulations are enforced.
4. Park large storage trailers inside the job site only. If additional trailer parking is required, contact the Project Manager to coordinate an approved location.

Q. 01 56 00 Temporary Barriers and Enclosures

1. Enclose the construction area with a six-foot (6') high (minimum) chain link type fence with top rail. At the completion of the project the Contractor shall remove the construction fence completely including below ground level. Fence posts shall not be sawed off flush with the soil line.
2. Temporary interior construction walls/barriers shall be fire-rated. When plastic sheeting is used, approved manufacturer is Americovering, FR4-Mill Black Polyethylene protective plastic sheeting. Other construction materials must be submitted and reviewed for approval by UNT Fire Marshal.

R. 01 56 39 Temporary Tree and Plant Protection

3. Give special attention to any trees, shrubs or lawn remaining inside the construction area. To protect such materials, install a landscape protection fence prior to the initial stage of grading, excavation or tree removal. This fence or barricade must be a minimum of 3 feet high and is required to remain in place for as long as is practical. The landscape protection area shall extend to at least the drip line of any trees or shrubs that are to remain.
4. No storage, access or activity of any kind is permitted in the landscape protection areas. This specifically includes the felling of trees into the landscape protection areas. No limbs, tops, stumps, fill, material storage or equipment is permitted in the landscape protection areas at any time.
5. Take care to protect trees and shrubs from damage by cranes, falling objects, etc. The Contractor shall not move or prune trees and shrubs. When pruning or moving is necessary, ~~notify the Designer and the Owner shall in turn perform the work at no cost to the Contractor.~~Contractor will be responsible for trimming of trees and shrus with prior guidance and approval from UNT Facilities.
6. Protect plants and trees outside the construction limits from:
    a. Compaction of root areas by equipment, materials, or fill dirt.
    b. Trunk damage by moving equipment, material storage, mauling or bolting.
    c. Poisoning by pouring solvents, gas, paint, etc. on or around roots.
    d. Damage of branches by improper equipment activity.
    e. Cutting of roots within the drip line of the tree.
7. It is specifically prohibited to fell or bulldoze trees into a wooded area that is adjacent to the site being cleared for construction. Site clearing should be done so as to prevent damage to wooded areas adjacent to the project.
8. Do not use trees as props or anchors for materials, guy wires, cables or utility wires.

10) Existing roof decks will be checked by a registered structural engineer if roof loads are in question.

11) On re-roof projects, where a consultant is utilized, an evaluation will be done by the consultant and the owner. Core samples and other testing results will be recorded and evaluated.

12) Roof access will be evaluated, and roof access hatches, ladders and other components will be installed as required by the owner.

13) Avoid complex flashing details. Minimize use of pitch pans or sealant pockets. Maintain minimum 8" flashing height, 12" is preferred.

14) Minimize roof penetrations. If structural penetrations are unavoidable, use round or square structural steel shapes to facilitate flashing. Equipment supports for rooftop mounted equipment shall be a minimum 14" height. Use prefabricated equipment supports where possible. Equipment support frames or stands shall provide following working clearances:

Width of Equipment (inches)	Height of Legs (inches)
Up to 25	14
25 – 37	18
37 – 49	24
49 – 61	30
Over 61	48

15) Provide safe and lockable roof access with UNT master core. Provide permanent ladder(s) to all roof levels. Permanently affixed ladders should be a minimum of 8 inches from wall. Roofs with numerous mechanical devices, such as exhaust fans on laboratory buildings, must have one stairwell or ships ladder extend to the roof.

08 Openings

A. 08 10 00 Doors and Frames

1. General

a. Minimum door size 3’0” width and ~~70~~84” height.

b. Frameless glass doors are not permitted. Use hollow metal doors with glass panels.

c. Other acceptable door system options: knock-down frames with solid core wood doors, anodized aluminum storefronts.

d. Exterior double doors must have a lockable, removable mullion.

e. All metal storefront frames are 4-1/2'' wide.

f. Metal door frames are for a 4-7/8'' set up for 3-5/8'' metal stud with 5/8'' sheetrock on both sides. All door openings require wood reinforcement.

~~f.~~g. Sliding doors are not permitted for interior or exterior applications

B. 08 41 00 Entrances and Storefronts

1. General

a. Provide an air lock or vestibule at each entrance to the building for energy conservation purposes and thermal comfort.

b. Preferred entry floor mats and frames are recessed aluminum frame with carpet type insert. Carpet and backing insert will be Class 1 fire rating with a minimal pile weight of 32 ounces per square yard. Color will be from manufacturer's available standards. Coordinate with UNT Project Manager. Cocoa fiber products are not acceptable. Consideration should be given to branding opportunities within the carpet at entries. Also, consideration should be given to carpet selection that meets LEED certification requirements.

c. Acceptable manufacturer's products:

1) Tandus Centiva Abrasive Action II

2) Tarkett Action II

3) Patcraft: Foot In The Door II

4) Mohawk: Tuff Stuff II

5) Bentley: Rough Idea

6) Forbo Coral Brush Activ

d. Glaze exterior storefronts with insulated glass in 4-1/2'' thick frames that conform to fire codes.

C. 08 42 29 Automatic Entrances

1. Where ever possible, automatic door openers shall be installed on main entry doors to a building and in at least one individual restroom per floor.

2. Door openers should be tied into the electronic locking access control system, so openers shut down when the building is locked. The openers shall be hard-wired into the building's electrical system, no battery-operated openers allowed without prior approval.

D. 08 50 00 Windows

1. Glazing

a. Use double-glazed Low-E insulated windows in conditioned spaces. The orientation and solar gain potential of windows is always an important consideration; however, the use of mirror glass is discouraged.

b. When possible, provide windows that can be washed on both sides from inside the building. When that is not possible, provide safety belt anchors placed on the outside of all windows. Provide guardrails on windows with sills less than two feet from the floor.

15. All underground piping systems will have a #12 AWG copper wire attached to the pipe for a tracing wire. Label and terminate wire in an accessible location. No splices in the wire are allowed.
16. All insulated exterior, exposed piping will have an aluminum jacket installed to protect the insulation. Jacket will be weather-resistant, waterproof, smooth surfaced aluminum with a minimum thickness of 0.016 inches.
17. All insulated interior piping that is exposed in occupied areas, and is within 6 feet of the finished floor, will have a PVC jacket installed, color-coded per ASHRAE.
18. All insulated interior piping that is exposed in mechanical rooms will have a color-coded PVC jacket (per ASHRAE) installed.
19. Domestic water line insulation will be insulated with fiberglass insulation. Mechanical rooms with piping six feet and lower will have a protective jacket.
20. All piping systems, unless specified below, will be tested at a minimum of one and one-half times the expected working pressure, or a minimum of 100 psi and a maximum of the design pressure of the pipe and fittings. Test all systems for a minimum of four hours with no more than 5 lb. of pressure. If more than 5 lb. pressure loss, detailed written explanation and or repairs required.
21. When test pressure exceeds 125psi, test pressure will not exceed a value which produces a hoop stress in the piping greater than 50% of the specified minimum yield strength of the pipe.
    a. Natural gas: test at twice the working pressure or a minimum of three psi.
    b. Sanitary sewer: test at 10 foot of head pressure for no less than four hours.
22. Thrust blocks shall be designed to meet the needs of the project and application.

B. Piping Penetrations

1. All penetrations of foundation walls will be leak proofed.
2. All penetrations, except steam tunnels, will be individual pipes or conduits. Groups of pipes or conduits in a common penetration is not allowed.
3. Minimum thickness of steel pipe penetrating foundation walls will be equal to Schedule 40; PVC pipe to be equal to Schedule 80, and installed with a steel sleeve.
4. Escutcheons to be used when piping penetrates through wall.
5. Recommended seal for wall penetrations is “Link-Seal” or approved equal.
6. Copper Viega ProPress, ~~, Nibco,~~ or an approved equivalent pressed fittings for domestic pipe up to 4” approved for use on campus.

C. Access Panels

1. Provide adequately sized access panels, 24”x 24” where possible. Ensure alignment of access panel with valves/components to pipe chases and valves above ceilings or otherwise concealed. Under rooms which have reasonable possibilities of water in them, such as rest rooms with floor drains, provide access panels in plaster or gypsum board ceilings. Access panels should not require a special tool to unlock.
2. Provide access to manifolds with integral factory or field-installed valves.
3. Provide enough access to all full-open valves and shutoff valves.

3. In a suspended ceiling installation, it is preferred diffusers use a 24" x 24" mounting plate. A small diffuser mounted in a large ceiling tile is not acceptable.
4. Diffusers for VAV systems to be specified using sound and user comfort as the top priorities.
5. Insulated diffusers are required.

M. Fume Hoods and Laboratory Systems

1. General

a. All systems, whether new or replacement, should be designed using VAV (Variable Air Volume) hoods.

b. If the complete exhaust-supply system cannot be installed at time of fume hood installation, VAV controllers for the new equipment will be installed at a minimum. This may require a constant velocity type fume hood be installed. If so, select a fume hood that can be converted to a VAV type fume hood.

1) All fume hood systems will be designed according to ANSI Z9.5. Design face velocity will be 100 FPM at full sash. Use a proximity sensor to reduce face velocity to 70-80 FPM when no one is in the immediate vicinity of the front of the fume hood.

2) For all fume hood installations or alterations, the balance of make-up air to exhaust air for the affected zone or building will be evaluated. Fume hoods that will cause or aggravate an imbalance between the makeup air and exhaust air will not be installed unless the imbalance is corrected. The preliminary design for a project may proceed on the basis of existing drawings and/or balance data. The final design must be based on actual test data.

3) Supply air diffusers will not be located in front of a fume hood. Design per ASHRAE guidelines. (i) Fume hood shall be located out of traffic ways, preferably in corners with one foot from the perpendicular wall.

4) Fume hoods in laboratories are to remain in place. It is against UNT practice to move fume hoods from one location to another due to the unique HVAC requirement and equipment specific to a given location.

c. Critical Room Control Equipment is not permitted.

2. Exhaust System

a. All exhaust fans should be direct drive with motors isolated from the exhaust air stream.

b. Exhaust Systems will be designed in accordance with the latest edition of the Industrial Ventilation Manual by the American Conference of Government Industrial Hygienist.

c. Manifold central exhaust systems are preferred over individual exhaust systems where feasible.

d. Perchloric and radioactive systems will be completely separate from other exhaust systems.

2. Exterior Windows

a. Windows are not desirable in auditoriums, but they are desirable in public areas and offices. In general, do not extend windows below 30 inches above the floor or more than seven feet above the floor in offices. The general orientation of the building should consider the east and west solar exposure in the arrangement of windows and glass to minimize direct sunlight.

E. 08 71 00 Door Hardware

1. General

a. Contractor shall request keying instructions from UNT Access Control a minimum of eight (8) weeks in advance of installation to provide to factory pin cores for UNT

b. Contracted jobs with less than 20 cores will be handled in-house by UNT Facilities. In these cases, the contractor shall order and deliver (can be sent factory direct) uncut keys and uncombined cores to UNT Facilities

c. Changes to the below specifications must be approved by UNT Facilities

Table 8-1

Fixture Type	Sub-Type	Manufacturer	Part Number	Style	Finish	Notes
Cylindrical Locksets	Typical	Best	93K Heavy Duty Grade One	Operation: Lever	26D	Note 1
Stand Alone Card Access (Offline)	Keypad Only	Schlage	CO-100 CY70-KP-SPA-626-BD			
	Card Swipe Lock	Schlage	CO-200-CY70 - MSK-SPA-626 BD			
Lever Lock	Hardwired	Schlage	AD300-993R-MSK-SPA/ATH-626-643a-BD	Trim: Von Duprin 996		
	No Exit Device Used	Schlage	CY70 (Can substitute the CY70 for the 993R if no exit device is used)	Trim: Von Duprin 996		
	Wireless	Schlage	AD400-993R-MSK-SPA/ATH-626/626/643a with PIM485 Wireless Hub	Trim: Von Duprin 996		
	No Exit Device Used	Schlage	CY70 (Can substitute the CY70 for the 993R if no exit device is used)	Trim: Von Duprin 996		
Cores		Best - UNT-Restricted Keyway	Preferred	7-Pin	26D	Note 4
Rose				3" Convex - no ring	Type D	
Card Reader		Schlage	MTMS15			
Electrified E-Latches		ASSA ABLOY	HES 5000C			
Door Closers	For hollow metal, solid wood, or exterior wide style	LCN	4040		Match frame	Notes 1 and 2
	For interior storefront narrow style doors	LCN	1461		Match frame	Notes 1 and 2
Exit/Panic Devices	Typical	Von Duprin	99EO-26D or 33EO-26D, dependent on door type	Trim: 996L	26D	Notes 1, 3, and 7
Offline, Electronic Stand Alone	with Keypad Only Lockset	Schlage	CO-100-003R-DP-SPA-626-BD			
	with Card Swipe Lockset	Schlage	CO-200-993MR-MSK-SPA-626-BD			
Online, Electronic Locking		Von Duprin	99EO-26D or 33EO-26D, dependent on door type	Trim: 996L	26D	Notes 1, 3, and 7
E-Locking Kit		Von Duprin	QEL 958003 or EL 050070			
	Power Supply	Von Duprin	914 Power Supply (4 amp), one (1) per pair of EL Kits			Note 7
Control Boards	Input/Output board	Schlage	IONX8			Note 7
	Reader Interface Board	Schlage	RINX			Note 7
	Reader Controller Board	Schlage				Note 7
Power Supply		Schlage	906-BB8			Note 7
Power Transfer	Wired	Von Duprin	EPT2			Note 5
	Wireless Reader Interface	Schlage				Note 6

Notes:
1. Installation shall meet factory specifictions and provide positive latching and function of hardware
2. Installation shall provide the smooth operation of the door.
3. Use proper fastening deices, thru bolts and screws to install device.
4. Keying cores shall be
5. This concealed electronic power transfer is preferred to over armored door loops whenever possible
6. Use when running wire is not possible
7. No Substitutions

Fixture Type	Sub-Type	Manufacturer	Part Number	Style	Finish	Notes
Cylindrical Locksets	Typical	Best	93K Heavy Duty Grade One	Operation: Lever	26D	Note 1
Stand Alone Card Access (Offline)	Keypad Only	Schlage	CO-100 CY70-KP-SPA-626-BD			
	Card Swipe Lock	Schlage	~~CO-200-CY70 - MSK-SPA-626 BD~~			
Lever Lock	Hardwired	Schlage	~~AD300-993R-MSK-SPA/~~ATH-626-643a-BD	Trim: Von Duprin 996		
	No Exit Device Used	Schlage	CY70 (Can substitute the CY70 for the 993R if no exit device is used)	Trim: Von Duprin 996		
	Wireless	Schlage	~~AD400-993R-MSK-SPA/~~ATH-626/626/643a with PIM485 Wireless Hub	Trim: Von Duprin 996		
	No Exit Device Used	Schlage	CY70 (Can substitute the CY70 for the 993R if no exit device is used)	Trim: Von Duprin 996		
Cores		Best - UNT-Restricted Keyway	Preferred	7-Pin	26D	Note 4
Rose				3" Convex - no ring	Type D	
Card Reader		Schlage	MTMS15~~-~~485			8,9
	with Keypad	Schlage	MTMSK15-485			
Electrified E-Latches		ASSA ABLOY	HES 5000C or HES5200C			
Door Closers	For hollow metal, solid wood, or exterior wide style storefront	LCN	4040		Match frame	Notes 1 and 2
	For interior storefront narrow style doors	LCN	1461		Match frame	Notes 1 and 2
Exit/Panic Devices	Typical	Von Duprin	99EO-26D ~~or 33EO-26D, dependent on door type~~	Trim: 996L	26D	1, 3, 7, 12
Offline, Electronic Stand Alone	with Keypad Only Lockset	Schlage	CO-100-003R-DP-SPA-626-BD			
	with Card Swipe Lockset	Schlage	~~CO-200-993MR-MSK-SPA-626-BD~~			
Online, Electronic Locking E-Locking Kit		Von Duprin	99EO-26D or 33EO-26D, dependent on door type	Trim: 996L	26D	Notes 1, 3, and 7
		Von Duprin	QEL 958003 or EL 050070			
	Power Supply	Von Duprin	914 Power Supply (4 amp), one (1) per pair of EL Kits			Note 7
Control Boards	~~Input/Output board~~ Intelligent Controller	~~Schlage~~ Mercury	~~IONX8~~ MP1501 or MP1502			~~Note 7~~ 10, 11
	Subcontroller / Reader Interface ~~Board~~	~~Schlage~~ Mercury	~~RINX~~ MR52 or MP54			~~Note 7~~ 10, 11
	~~Reader Controller Board~~	~~Schlage~~				~~Note 7~~
Power Supply †		~~Schlage~~ Life Safety Power	~~906-BB8~~			~~Note 7~~
Power Transfer	Wired	Von Duprin	EPT2			Note 5
	Wireless Reader Interface	Schlage				Note 6

Notes:
1. Installation shall meet factory specifictions and provide positive latching and function of hardware
2. Installation shall provide the smooth operation of the door.
3. Use proper fastening deices, thru bolts and screws to install device.
4. Keying cores shall be perfomed by Dormakaba - Best Access Systems, Distributed by Fairway Supply
5. This concealed electronic power transfer is preferred to over armored door loops whenever possible
6. Use when running wire is not possible
7. No Substitutions
8. Shall be connected via OSDP with compatible wiring for new installations.
9. Reader shall be connected via OSDP with compatible wiring for new installations
10. With Acre DNA Fusion OEM code
11. All controlers shall be integrated into existing campus-wide DNA instance with additional controller licenses provided by contractor. Coordinate
12. 5.5" style to be used for all new doors. Existing doors may use matching hardware

† Power enclosure shall be sized appropriately for all Mercury controllers with ample power for controllers and locks. Enclosures should be centralized

F. 08 81 00 Bird Safety Glass

1. In order to prevent bird collisions on exterior glazing effectively, provide glass that birds can detect as an obstacle. Acceptable solutions include laminated glass containing a film with a pattern or a coating or other glass tested system that is approved by owner.

3. Domestic hot water should not exceed 110 degrees Fahrenheit (exceptions are kitchen or lab areas).

G. Drains

1. Provide floor drains in all equipment rooms, custodial closets, rest rooms and locker rooms with floors sloped to drains. Floor drains shall empty into the sanitary sewer. Infrequently used floor drains shall have traps resealed by trap primer or trap guard from clear water fixtures. Drains of exterior stairwells shall be a drain well with grate type cover.
2. Public restrooms with more than one station will have a floor drain located under a stall partition. Provide plumbed drain lines for hand dryers.
3. All horizontal drains shall be provided with cleanouts located not more than 100 feet apart.

H. Safety Showers and Eyewash Stations

1. General Requirements

a. Emergency eyewash stations and safety showers shall be provided where personnel may be exposed to hazardous chemicals or other materials capable of causing injury to the eyes or body.

b. Guardian Equipment is the preferred manufacturer. Substitute, equivalent equipment must be approved by UNT Environmental Health & Safety (EHS)

c. All equipment shall comply with ANSI/ISEA Z358.1-2014 (R2020), applicable plumbing codes, and manufacturer installation requirements

d. The type and location of emergency equipment shall be coordinated with UNTE HS during the design phases of the project.

~~1. Provide emergency eyewash stations and/or safety showers where chemicals harmful to the body and eyes are handled and stored. Supply safety showers and eyewash stations with tepid water at no more than 30 psi. Provide an audible alarm when the safety shower is activated.~~

~~2. No floor drains allowed in safety showers.~~

1. Water Supply and Piping

e. Emergency eyewash stations and safety showers shall be connected to a reliable potable water upply capable of providing the required flow continuously for a minimum of 15 minutes.

f. Minimum flow requirements:

Equipment	Minimum Flow
Eyewash	0.4 GPM
Eye/Face Wash	3.0 GPM
Emergency Shower	20.0 GPM
Combo Shower and Eyewash	20.4 GPM
Combo Shower and Eyewash	23.0 GPM

g. Combination units shall be capable of operating both components simultaneously at their required flow rates.

h. Supply piping shall be sized to maintain adequate flow and operatin pressure at the equipment. Pipe sizing shall account for available water pressure, pipe length, elevation changes, friction losses, and simultaneous operation.

i. Preferred Equipment Models:

Fixture Type	Mounting	Manufacturer	Part Number **	Supply Connection †	Notes
Eyewash/Drench Hose	Deck-Mounted	Guardian	G5022*	3/8" NPT Male	
Eyewash/Drench Hose	Wall-Mounted	Guardian	G5026*	3/8" NPT Male	
Eyewash	Wall-Mounted	Guardian	G1814	1/2" NPT Female	
Eye/Face Wash	Wall-Mounted	Guardian	G1750	1/2" NPT Female	
PVC Eye/Face Wash	Pedestal-Mounted	Guardian	G1786	1/2" NPT Female	
Emergency Shower	Vertical	Guardian	G1635	1" NPT Female	
Emergency Shower	Free-Standing	Guardian	G1662	1-1/4" NPT Female	
Combo Shower/eyewash		Guardian	G1902	1-1/4" NPT Female	1
Combo Shower/eyewash		Guardian	G1902P	1-1/4" NPT Female	2
Combo Shower/eyewash		Guardian	G1950P	1-1/4" NPT Female	2

Notes:
1. Stainless Steel Bowl
2. Plastic Bowl

* Preferred option for Dining Services and similar applications
** Listed models are provided as examples for reference. Final equipment selection shall be based on the application, installation requirements, and approval by RMS EHS
† These are equipment connection sizes and shall not be used as the sole basis for sizing upstream supply piping. Actual piping sizes shall be determined by the plumbing design professional based on the required flow and available pressure.

j. Equipment selection shall be based on available mounting space, accessibility, and the hazards present

k. Water pressure shall be maintained within the operating range specified by the equipment manufacturer while providing the required flow. Pressure and flow shall be verified under operating conditions

2. Water Temperature

l. Emergency eyewash stations and safety showers shall provide cold water. Compliance shall be verified under the antipiated seasonal operating conditions

m. Thermostatic mixing valves shall not be specified for emergency eyewash stations or safety showers.

3. Equipment Location and Installation

n. Emergency equipment shall be located within approximately 10 seconds of the identified hazard, on the same level, with a clear and unobstruction path of travel.

o. Where strong acids, caustics, or other particularly hazardous materials are present, equipment may need to be located immediately adjacent to the hazard. These should be identified jointly with RMS EHS.

p. Eyewash flushing streams shall be positioned between 33 and 53 inches above the finished floor and at least 6 inches from the nearest obstruction

q. Emergency shower flushing columns shall be positioned between 82 and 96 inches above the finished floor, with the required clearances maintained.

r. All equipment shall be readily accessible, clearly identified with appropriate signage, and provided with adequate lighting.

s. Equipment shall activate in one second or less through a single operation and remain operational without requiring the user to hold the valve open.

4. Audible Alarms

t. Audible Alarms shall not be required on all emergency eyewash stations and safety showers. Alarm requirements shall be determined based on the location, hazards, and operational needs of the area.

u. Where an alarm is warranted, the requirement shall be identified during the project design in coordination with RMS EHS.

5. Drainage

v. Safety Showers: Floor drains are not allowed at emergency safety shower locations

w. Eyewash Stations: drainage shall be connected to an appropriate drainage system where required by the equipment configuration and applicable plumbing codes

x. The design shall account for water discharged during emergency use and routine testing, including potential water accumulation and slip hazards.

6. Testing and Commissioning

y. Prior to acceptance, all newly installed or modified emergency eyewash stations and safety showers shall be tested to verify:

1) Proper activation and continuous operation

2) Required water flow and operating pressure

3) Water temperature within the required range

4) Simultaneous operation of combination units

5) Proper installation, accessibility, and clearances

6) Proper operation of alarms where provided

7) RMS EHS shall test per standards noted in section *H-1-c General Requirements* above

z. Testing must demonstrate that the equipment can provide the required water flow and temperature for the prescribed flushing period

aa. Testing result and manufacturer operation and maintenance documentation shall be provided to UNT Facilities and UNTE HS.

I. Water Pressure

1. Designer to be aware that Denton water pressure is maintained at lower pressures (35 – 50 psi) than other cities in the Dallas/Ft. Worth metroplex and that a booster will be required on any multiple story building design.

2. Anticipated domestic water pressure on top floor of high-rise buildings shall be stated. Provide pressure reducing valves in high pressure areas. Due to wide seasonal fluctuations in the City of Denton's water pressure and to allow the building main water tap to be downsized thus reducing tap fees, all of UNT's new construction is to have duplex house pumps, and, if required, a fire sprinkler pump. Pre-design water pressure readings should not be relied upon as the sole source of information regarding normal operating pressure. Do not connect cooling tower water supply to domestic water supply; should be connected to irrigation supply, or connected to its own meter.

J. 22 40 00 Plumbing Fixtures

1. General

a. Kohler, Crane, and American Standard are acceptable manufacturers for porcelain toilets, urinals and sink basins.

b. New toilets at 1.6 gallons per flush, and new urinals at .5 gallons per flush. All fixtures should be commercial grade, and white in color.

c. All fixture hardware (faucets, flush valves, etc.) will be chrome.

d. All faucets, urinal & water closet flush valves will be automatic. Battery operation is preferred. Campus standard is Sloan auto flush valves and auto sink valves. Hands-free flush valves will have a manual override function.

e. T&S or Chicago faucets are preferred.

~~f.~~ T&S or Chicago shower valves are preferred, and must be anti-scald mixing valves.

~~g.~~f. ~~Provide Saniflow dual flow plus M12a hand dryers with plumbed in drain line.~~

~~h.~~g. Provide StepNpull (stepnpull.com) foot operated door openers on pull side of door.

~~i.~~h. Provide Dyson Airblade HU02 V Series and HEPA filtration, Dyson Airblade Tap combo faucet with heat, or approved equal. Provide a solid surface down to the cove base when these fixtures are installed on the wall. Note: Quartz may not be cut or otherwise disturbed once on the job site as it creates an environmental hazard that does not meet UNT's indoor air quality standards.

2. Fixture Mounting

a. Install all wall-mounted toilets and sinks using chair carriers for extra stability, strength and security.

3. Distilled Water

a. T&S or Chicago faucets are preferred. Piping system should be all PVC or PurePipe. Mixing of the two piping types and systems is not recommended.

4. Water Coolers

a. All water coolers will be refrigerated type. Halsey Taylor or approved equal are preferred.

K. Building Sewers

a. Provide cleanouts no more than 100 feet apart for building sewers, measured from the upstream entrance of the cleanout.

4. Where tables are being used for computer workstations, coordinate cable management system with UNT.

N. Clock System

1. Coordinate clock system requirements with UNT.
2. Consider wireless Primex Atomic or Primex OneVue Sync.
3. Wall clock face design should conform to UNT branding standards.

O. Receptacles and Cover Plates

1. Receptacles
   a. All receptacles to be installed in a ground-up orientation as shown in Fig. 26-01. Contractor must receive prior approval from UNT Facilities for exceptions to this orientation.
   ~~a.~~b. All receptacles and switches to have a minimum rating of 20 amps and are to be commercial grade.
   ~~b.~~c. Preferred color for receptacles and switches is white. Other colors may be used to match existing devices or for special uses.
2. Cover plates
   a. Cover plates in mechanical rooms, kitchens, restrooms, corridors, and common areas shall be stainless steel.
   b. Other cover plates to be heavy duty nylon. Plastic is unacceptable.
   c. Designer to evaluate the need for stainless steel, nylon or other special types of covers depending on the usage of the area.
3. In areas requiring to have ground fault interrupting capability, it is preferred GFI receptacles be used rather than GFI breakers.
   a. GFI breakers are to be used in lieu of GFI receptacles for the following:
      1) Vending machines
      2) Refrigerators and kitchen refrigeration equipment
      3) Equipment requiring GFI protection where device is not readily accessible.
4. Center of receptacle to be 18” AFF.
   a. Coordinate other device mounting heights and device heights at equipment and casework.
5. Install receptacles as dictated by NEC and on all walls along an unbroken floor line every 10’ except for corridors and other similar spaces.
   a. Provide 20-amp, 120-volt receptacle every 30’ in corridors, on each stairway landing and close to each exterior door. Circuit these receptacles so that more than one piece of high amperage floor maintenance equipment can be operated simultaneously in each corridor.
   b. Receptacles at stairway landing shall not compromise fire rating of stairwells.
6. Refer to Appendix D for Distributed Learning Classroom requirements.
7. Receptacles are not permitted above ceilings.