



THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

IFMA

October 15, 2008

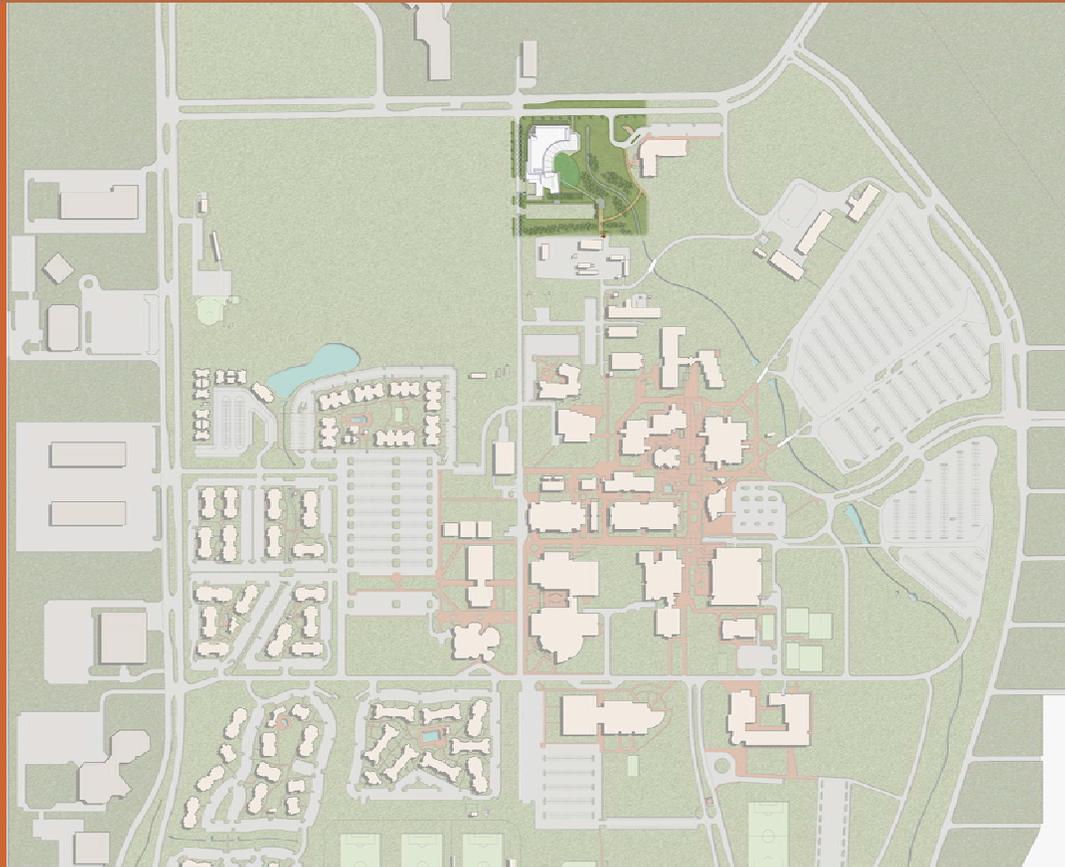
University of Texas at Dallas
Natural Science and Engineering Research Laboratory

Bruce Gnade



THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

1 k # x 3 x f ' fi <





$$X \sim |S\{x$$

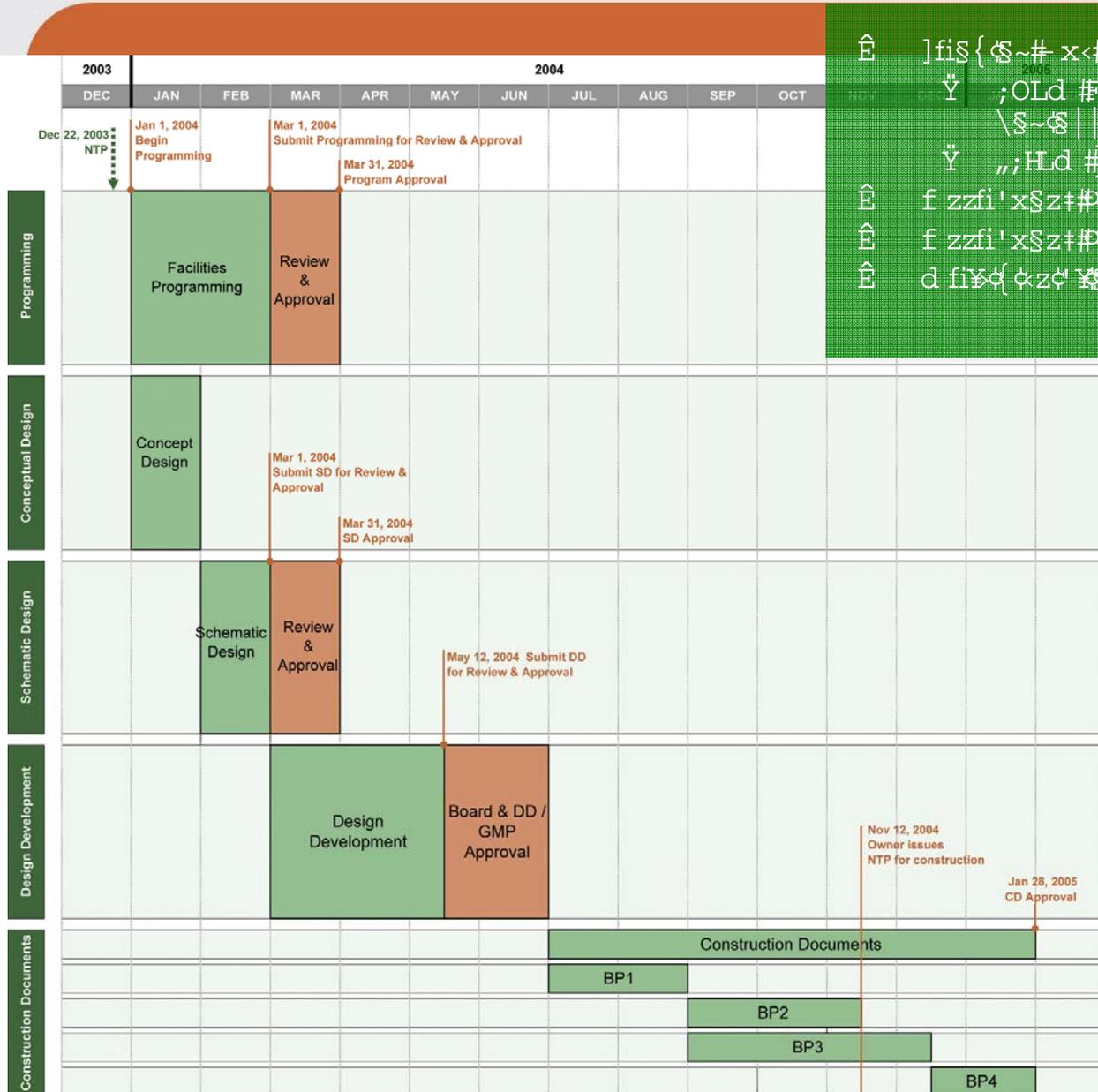
$$\hat{E} k_i | \#z_i | \{fi\# | \# \alpha \# - | \{$$

$$\hat{E} g_{\#} \# \# \# \# \sim \# \ll \alpha z | \ll$$

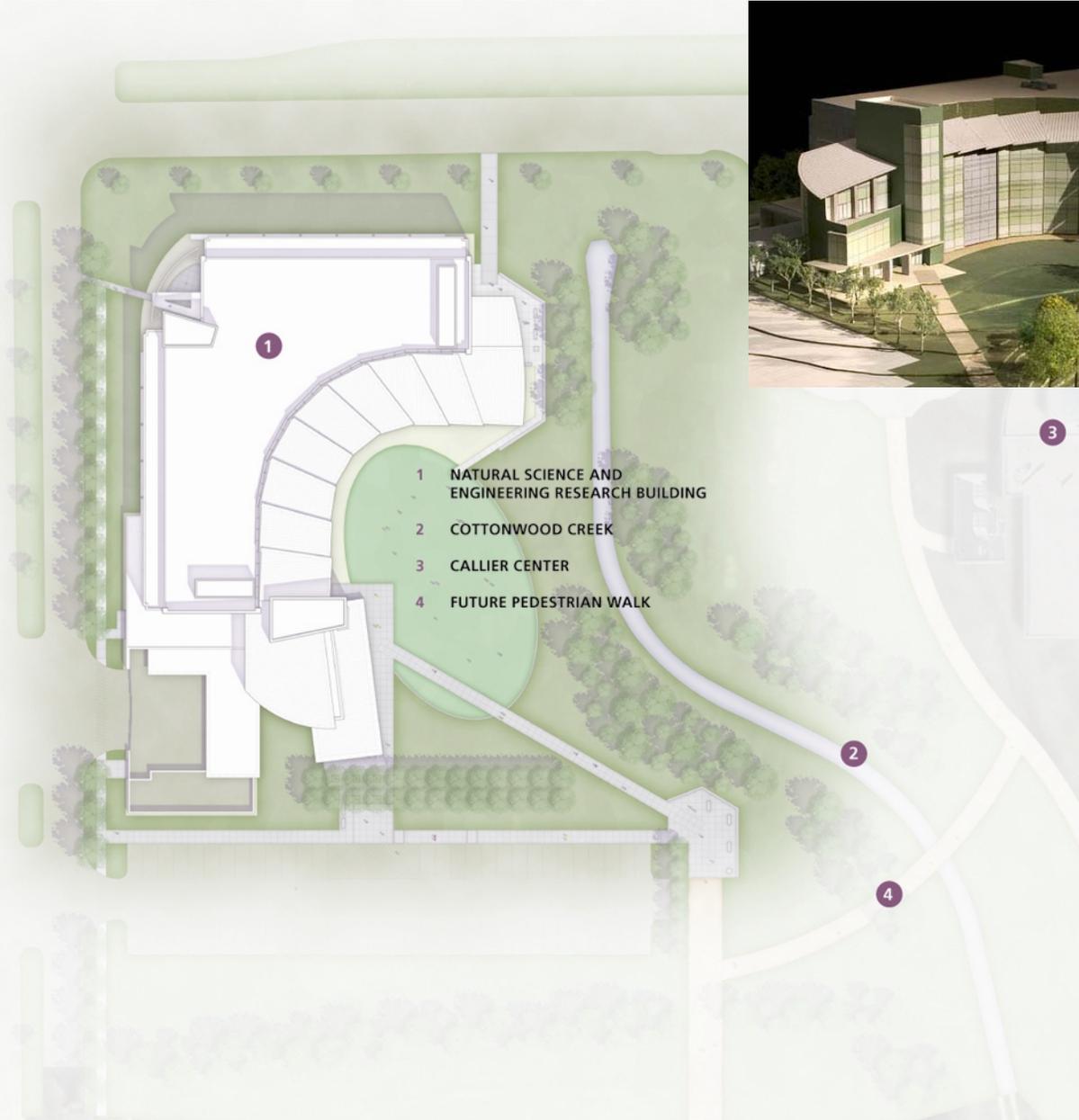
$$\hat{E} Z \alpha < \# \# \# i | \# yfi \# \# \# \sim$$

$$\hat{E} 1 \# \# \# fi | \# | x \# fi \ll | <$$

$$\hat{E} c | \ll \alpha \# \# \# x \ll \# | \{$$



Ê]fi\$ { \$~# x<# «fld | {#y+g««E z>#f f ç
 ÿ ;OLd #H IGGd #«#y ' «fl|#
 \ \$~\$ | «\$~
 ÿ „;Hld #««flx««if
 Ê f zzi'x\$z+#) #fi« \$~#IFJHFIGGM
 Ê f zzi'x\$z+#) #flx««if HIFJHFIGGO
 Ê d fi¥« çzç ¥\$x«t#| <|x«z;#





Ê e α#zç << «αα f <

Ê \$ > | «{ çzç' ççxç†# | < | xçz; # 'xz |

Ê „LGGG#}† zç | xç#αα f

Ê d xtç ç | #; | #çfiç y | «#}# | < | xçz; # «çfi' <

Df \$ | #xçziç†#

DODHG# ^ «x{fix> | # çfi{ | \$ >>

DHDI #çα<># { αz<

Ê cα\$~D | «f #ç | tççç†#}#çyα«x>αç†# 'xz |



Planning Process



Ê i | ' « | < | \$ » x > ¶ | # x z f i } † #
 Ÿ \ \ ¶ j \ ¶ ¶ ¶ ~ † ¶
 Z ; | f ¶ » † ¶ Y j
 Ê [| f | ¶ ' # | » # } # f i | < » ¶ S < # ¶ #
 { | > | « f ¶ # ¶ ; # ¶ >
 Ê Z ¶ S < ¶ » { x > | # | " f i ¶ | f | S > < #
 f l < ¶ S ¶ | D ¶ D ; x f l | <
 Ê [| f | ¶ ' # ¶ » » > † ' | # ¶ y < #
 y x < | { # ¶ S # ¶ » { # | S < ¶ †
 Ê I S { # | « » ¶ S # ¶ ; # x z f i } † #
 - ¶ « / ¶ ~ # « ¶ f i ' <
 Ê [| < ¶ S # ¶ † ¶ y ¶ | # ¶ y < # ; x > # ¶ ¶ #
 f ¶ » < # | | { <
 Ÿ c x y < # | « | # ¶ » # | < ¶ S | { # ¶ « #
 < ' | z ¶ ¶ z # x z f i } †

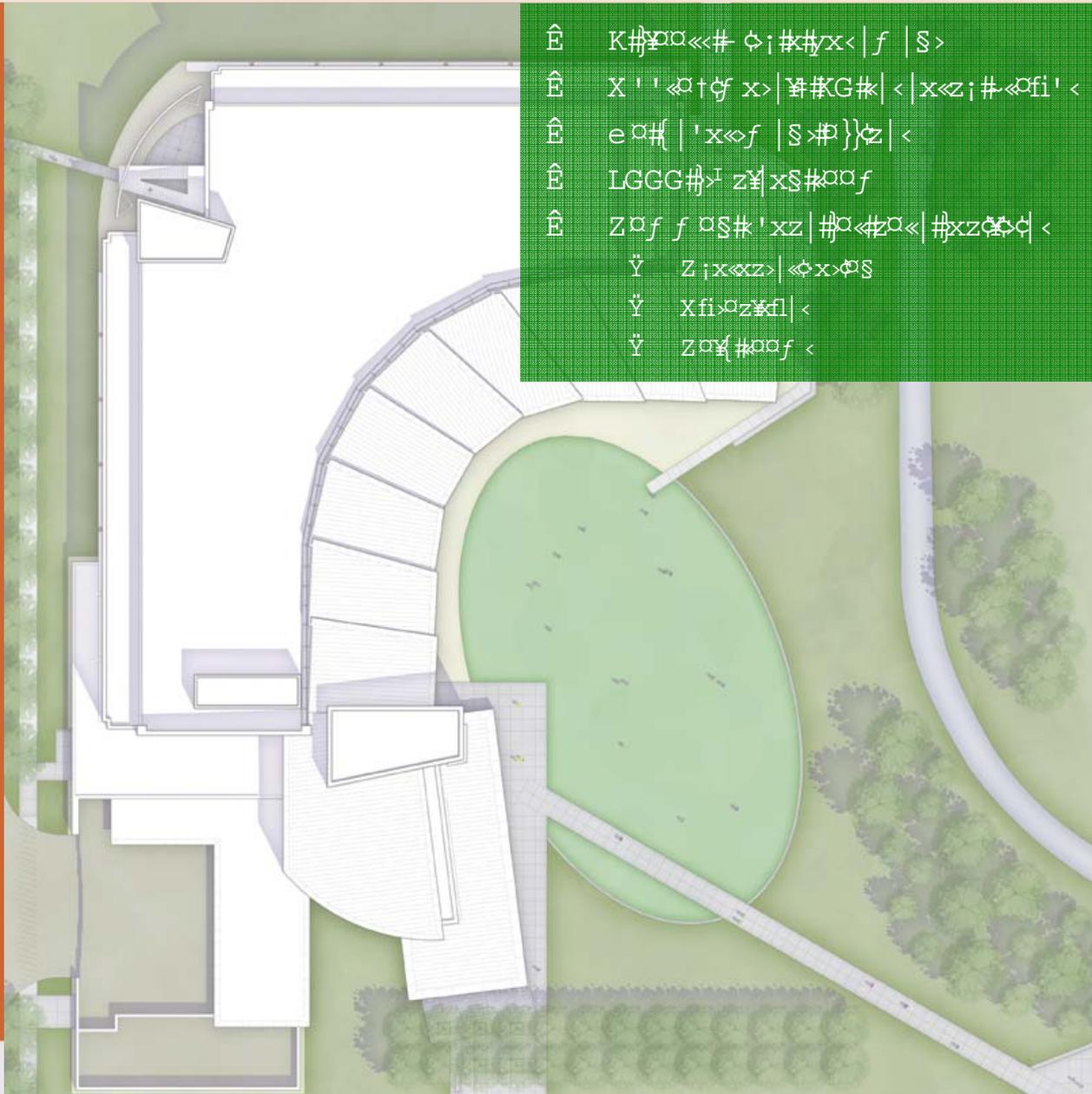


THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building





Overall outcome of planning process

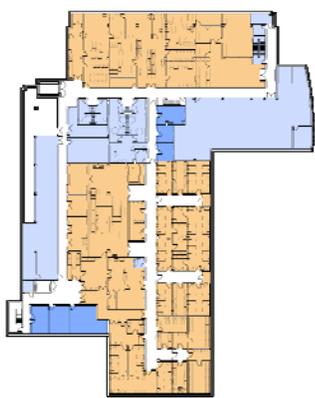


- K#yaa«# φ;#h/x< | f | s>
- X ' ' «+g x> | #K#G#< | x«z;# «ofi' <
- e a#(| 'x«f | s>#}}φ | <
- LGGG#} z#xS#aa f
- Z a f f aS# 'xz | #a«#z« | #xz«φ< | <
- Z ;x«cz> | «φx>φS
- Xfi>a z#f1 | <
- Z a y# a a f <



Overall building design

Ê HPICGG#>I
 Ê Yx<|f |S>
 ÿ d < < z0' +Gy x~S~CfCx<<fj
 Ê c|fl|#H
 ÿ Zx|xS#oo f
 Ê c|fl|#DK
 ÿ S>|<< &zC xSx<#ky# 'xz|



YXj\d \ek



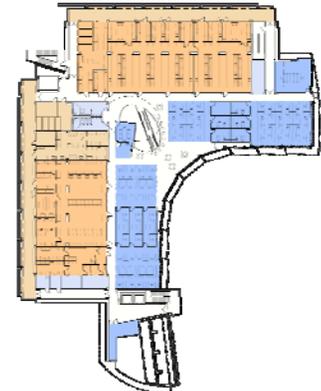
c\m\c#H



c\m\c#H



c\m\c#H



c\m\c#H



f «~x\$ç | #«ofi' <#y+#zayay«x»ç\$
«x»i | «#ix\$# çzç \$S |



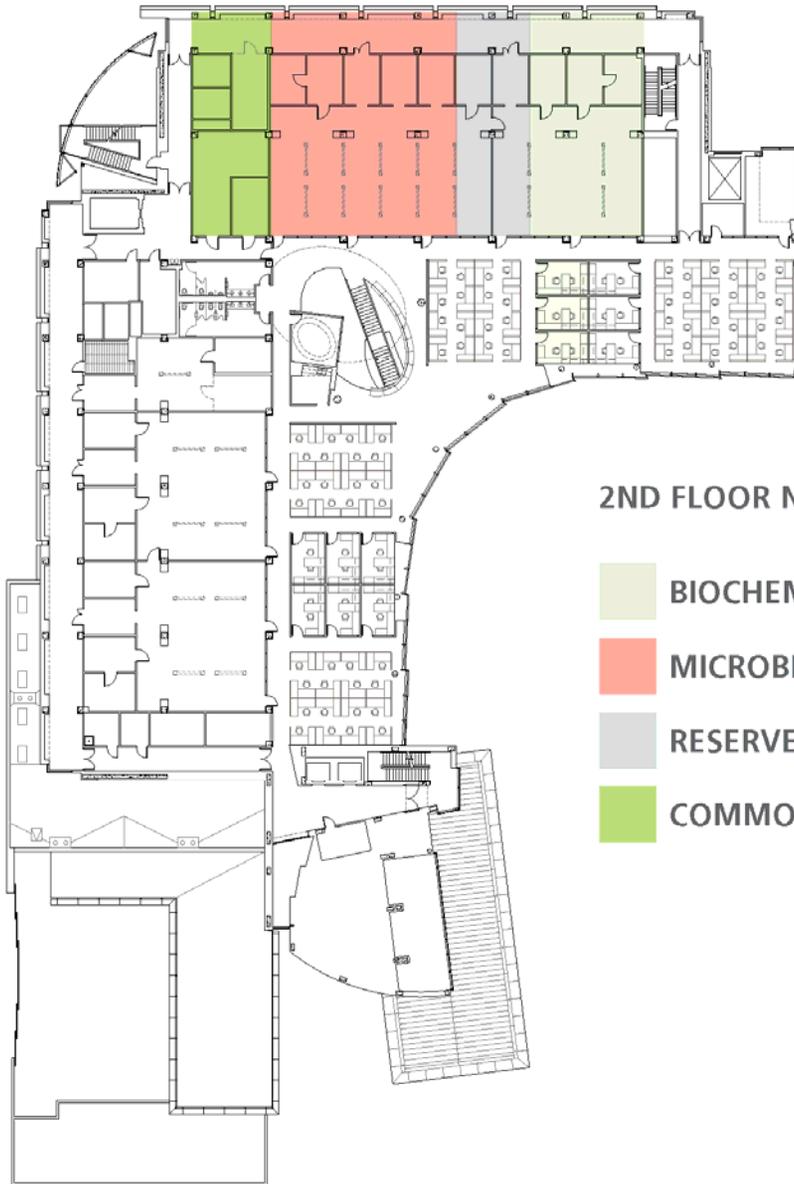
1ST FLOOR NORTH WING

- COMMON SPACE
- ELECTRICAL ENGINEERING
- NEUROSCIENCE

• \\#xzi\$# | fl|y' ç~d \d < { |flç | #ç\$ | fi«ç\$# | ~ | \$ | «x»ç\$
 • e |x«#y|x\$#ççf # ; |«# | flç | #«ç | #xy«çx» | {
 • e |x«\$ | fi«çzç \$z | #çç|x~fi | «#ix# | «# | flç | <



§ > | << { & z c' ¥ \$ x << † F d fi ¥ d { & z c' ¥ x \$ x << †
<< | < | x << z ; # x < # | †



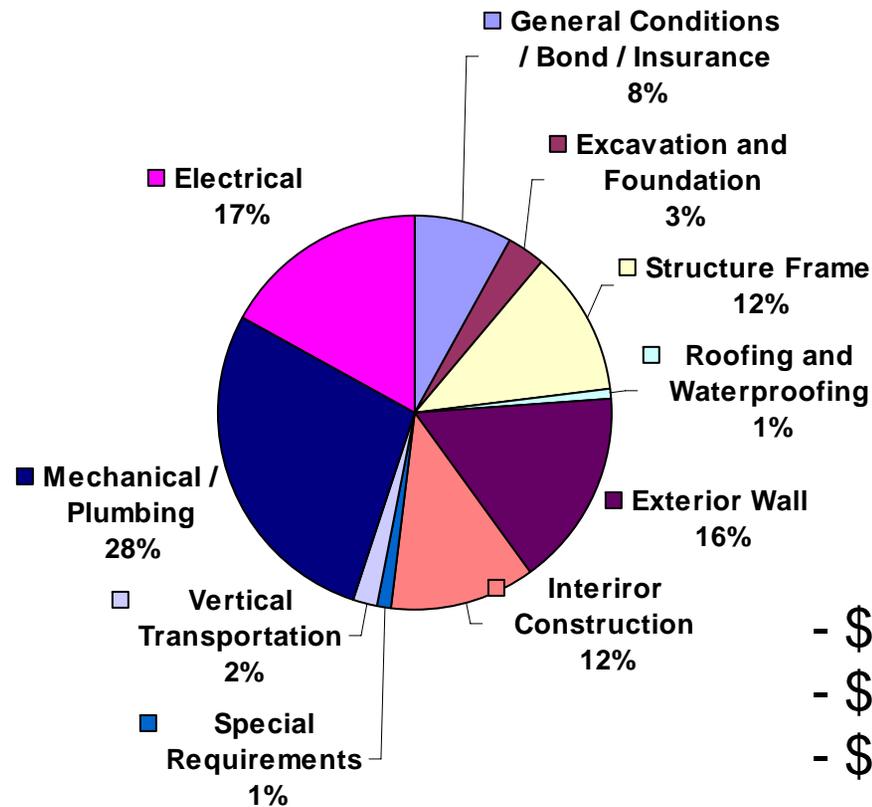
2ND FLOOR NORTH WING

-  BIOCHEMISTRY
-  MICROBIOLOGY
-  RESERVED FOR GROWTH
-  COMMON SPACE



Space retained for future expansion





- \$85M total project
- \$61.3M total construction
- \$15M total vivarium



Ê f ' | §# }x§# | x>ç ~#}ª«#<x { # }fi { | §><

Ê J#† ' | <# }#xy# | <ç § <

Dcª- ç | { çif #x§ { # ç ; #ªª { # | § <ç†

Ê dª { fi }x«#xy#}fi«çfi« |

Ê j ' | zç }†#xy# 'xz |

Ê cç | x«# "fiç' f | §>#ªªf

Ê Zª« | # ; x«xz > | «ç x>ç§# 'xz |

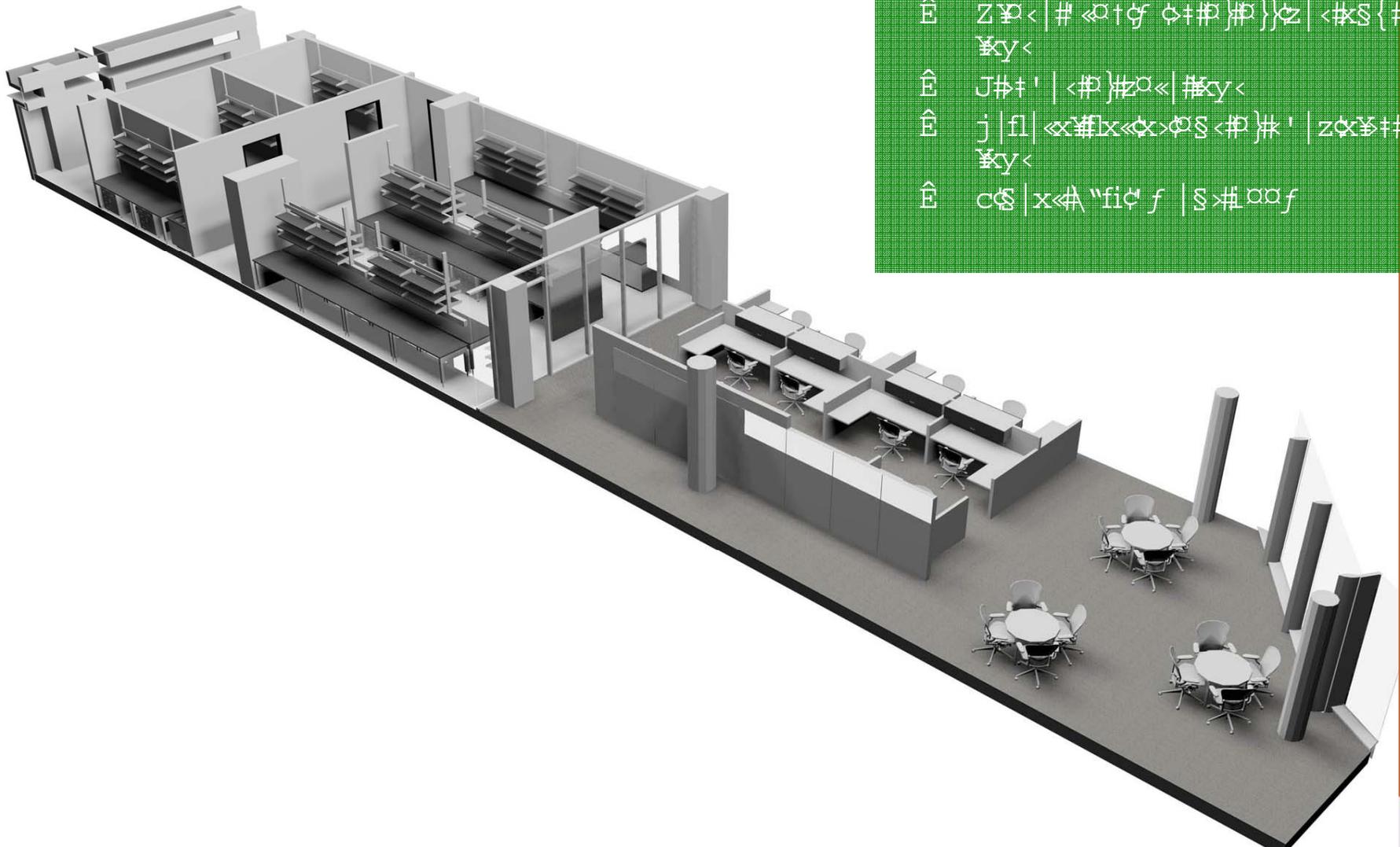
Ê m çlx«çif

Ê f ' | §# | x>ç ~

Ê]xzfi }†# } }ç | <



Building cross-section



Ê ex>fi<<#< ; >#; <<fi~ ; <fi>#
 yfi< <S~
 Ê Z< <#y< <<> <S#<< | x<# fl | <<- ; | <<|
 Ê Z< <# <<+ <f <+ # }# } } <# <#S { #
 <#y<
 Ê J#+' | <# }#< << | #<#y<
 Ê j | fl | <<# | x<<> <S< # }# ' | z<<#<+ #
 <#y<
 Ê c<S | x<<# "fi< f | S># <<f



THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Low hood density lab
- biology, neuroscience, etc.





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

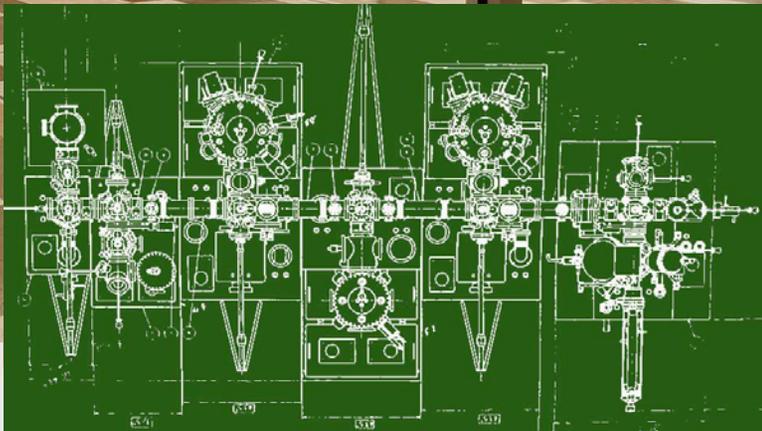
Specialty laboratories





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

d x> | «x¥#j zç | sz | #x\$ { #s ~ç | | «ç ~



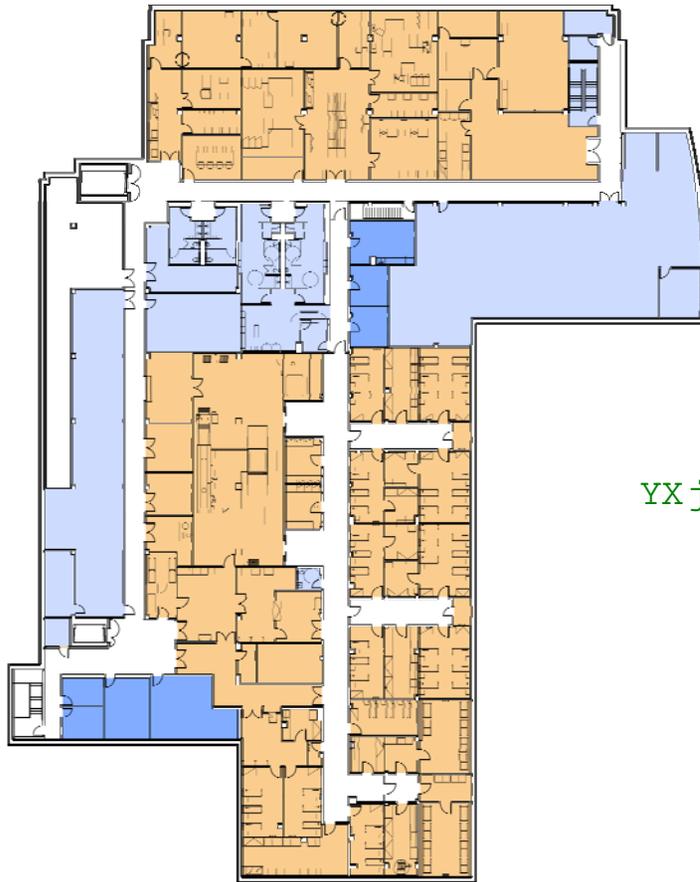


THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building





- KO#xzfiv#p }}z | <
- IOO#>fi { | \$>F' a<>D{ az#p }}z | <
- K#f x#z@s } | < | \$z | #aa f <
- K#<~ | #as } | < | \$z | #aa f <
- I#<~ | # | f \$x<#aa f



yxj\d \ek



THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Open plan offices





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Faculty offices





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Faculty office





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Large conference room





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

zαf f fi\$czx>α\$#y | > - || \$# ¥αα<<<





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

j f x y z } | « | \$ z | # l o o f





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building





THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building





- $d \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $j \propto x \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $d \propto x / \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $\left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $e \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $j \propto x \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$
- $i \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right| \propto \left| \frac{\partial x}{\partial t} \right|$



THE UNIVERSITY OF TEXAS AT DALLAS
Natural Science and Engineering Research Building

Thanks!

