

UNIVERSITY OF SOUTH CAROLINA DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION STRUCTURE

BID PACKAGE 2: STRUCTURE DECEMBER 09, 2011

OSE PROJECT NO: H27-6069-AC-2

BUSINESS PARTNERSHIP FOUNDATION 1705 COLLEGE STREET COLUMBIA, SC 29208 TEL: 803 777 3176 FAX: 803 777 9123

USC CAMPUS PLANNING & CONSTRUCTION 743 GREENE STREET COLUMBIA, SC 29208 TEL: 803 777 4022 FAX: 803 777 4084

ARCHITECT

RAFAEL VINOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858

CONSTRUCTION MANAGER

GILBANE BUILDING COMPANY 700 PONTE VEDRA LAKES BOULEVARD PONTE BEDRA BEACH, FL 32082 TEL: 678 282 1362 FAX: 770 729 9701

STRUCTURAL ENGINEER, MEP ENGINEER, CIVIL ENGINEER, FIRE PROTECTION ENGINEER

STEVENS & WILKINSON 1501 MAIN STREET, FLOOR 1 COLUMBIA, SC 29201-5801 TEL: 803 765 0320 FAX: 803 254 6209

SPECIFICATIONS

ROBERT SCHWARTZ & ASSOCIATES 589 8TH. AVE., 17TH. FLOOR NEW YORK, NY 10018 TEL: 212 691 3248 FAX: 212 633 1613

TELECOM., AUDIOVISUAL & ACOUSTICS

JAFFE HOLDEN ACOUSTICS, INC. 114A WASHINGTON STREET NORWALK, CT 06854-3007 TEL: 203 838 4167 FAX: 203 838 4168

LANDSCAPE ARCHITECT

GRIMBALL-COTTERILL ASSOCIATES 600 BELTLINE BOULEVARD COLUMBIA, SC 29205 TEL: 803 738 9525 FAX: 803 782 3916

SIGNAGE & WAYFINDING

RAFAEL VINOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858

SURVERYOR

BP BARBER & ASSOCIATES, INC. 101 RESEARCH DRIVE COLUMBIA, SC 29202-1116 TEL: 803 454,4400 FAX: 803 771 6676

HUGHES ASSOCIATES 3610 COMMERCE DRIVE, SUITE 817 BALTIMORE, MD 21227-1652

BUILDING CODE

TEL: 410 737 8677

FAX: 410 737 8688

LIGHTING DESIGNER ONE LUX STUDIO, LLC 39 WEST 13TH. STREET

NEW YORK, NY 10011

TEL: 212 201 5792 FAX: 212 615 3700

SHEET #	ARCHITECTURE
A0 SERIES	GENERAL INFORMATION
A00	COVER SHEET
A0101 A0111	DRAWING LIST GENERAL NOTES, SYMBOLS & ABBREVIATIONS
A0120.1	CODE TABLES
A0120.2 A0202B	CODE TABLES TEMPORARY CONSTRUCTION FENCING (FOR REFERENCE ONLY)
A0203 A0302	TEMPORARY CONSTRUCTION FENCING ELEVATIONS (FOR REFERENCE ONLY) ACCESSIBILITY AND FIRE DEPARTMENT ACCESS PLAN (FOR REFERENCE ONLY)
A0401	BUILDING GEOMETRY PLAN - HORIZONTAL CONTROL PLAN
A0700 A0700.1	LIFE SAFETY PLAN - LEVEL 0 LIFE SAFETY PLAN - LEVEL 0.5 TUNNEL
A0710	LIFE SAFETY PLAN - LEVEL 1
A0720 A0730	LIFE SAFETY PLAN - LEVEL 2 LIFE SAFETY PLAN - LEVEL 3
A0740 A0741	LIFE SAFETY PLAN - LEVEL 4 LIFE SAFETY PLAN - LEVEL 4 OCCUPANCY CALCULATIONS
A0750	LIFE SAFETY PLAN - LEVEL 5
SHEET #	CIVIL
C1300	INTERMEDIATE GRADING & STORM DRAINAGE PLAN (FOR REFERENCE ONLY)
C1500	FINAL STORM DRAINAGE PLAN (FOR REFERENCE ONLY)
SHEET #	ARCHITECTURE
A1 CEDIEC	DLANC
A1 SERIES	PLANS
A1100 A1100.1	FLOOR PLAN - LEVEL 0 (FOR REFERENCE ONLY) FLOOR PLAN - LEVEL 0.5 TUNNEL (FOR REFERENCE ONLY)
A1110	FLOOR PLAN - LEVEL 1 (FOR REFERENCE ONLY)
A1120 A1120.1	FLOOR PLAN - LEVEL 2 (FOR REFERENCE ONLY) FLOOR PLAN - SETTING OUT PLAN LEVEL 2 ENCLOSURE (FOR REFERENCE ONLY)
A1130 A1140	FLOOR PLAN - LEVEL 3 (FOR REFERENCE ONLY) FLOOR PLAN - LEVEL 4 (FOR REFERENCE ONLY)
A1150	FLOOR PLAN - KEY PLAN LEVEL 5 ADA ACCESS PLAN (FOR REFERENCE ONLY)
A1160	FLOOR PLAN - KEY PLAN ROOF LEVEL (FOR REFERENCE ONLY)
A1600	SLAB EDGE PLAN - LEVEL 0
A1600A A1600B	ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE A ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE B
A1600C A1600D	ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE C ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE D
A1600E	ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE E
A1600F A1610	ENLARGED SLAB EDGE PLAN - LEVEL 0 - ZONE F SLAB EDGE PLAN - LEVEL 1
A1610A A1610B	ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE A ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE B
A1610C	ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE C
A1610D A1610E	ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE D ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE E
A1610F A1620	ENLARGED SLAB EDGE PLAN - LEVEL 1 - ZONE F SLAB EDGE PLAN - LEVEL 2
A1620A	ENLARGED SLAB EDGE PLAN - LEVEL 2 - ZONE A
A1620B A1620C	ENLARGED SLAB EDGE PLAN - LEVEL 2 - ZONE B ENLARGED SLAB EDGE PLAN - LEVEL 2 - ZONE C
A1620D A1620E	ENLARGED SLAB EDGE PLAN - LEVEL 2 - ZONE D ENLARGED SLAB EDGE PLAN - LEVEL 2 - PLANTERS
A1630	SLAB EDGE PLAN - LEVEL 3
A1630A A1630B	ENLARGED SLAB EDGE PLAN - LEVEL 3 - ZONE A ENLARGED SLAB EDGE PLAN - LEVEL 3 - ZONE B
A1630C	ENLARGED SLAB EDGE PLAN - LEVEL 3 - ZONE C
A1630D A1640	ENLARGED SLAB EDGE PLAN - LEVEL 3 - ZONE D SLAB EDGE PLAN - LEVEL 4
A1640A A1640B	ENLARGED SLAB EDGE PLAN - LEVEL 4 - ZONE A ENLARGED SLAB EDGE PLAN - LEVEL 4 - ZONE B
A1640C	ENLARGED SLAB EDGE PLAN - LEVEL 4 - ZONE C
A1640D A1650	ENLARGED SLAB EDGE PLAN - LEVEL 4 - ZONE D SLAB EDGE PLAN - LEVEL 5
A1650A A1650B	ENLARGED SLAB EDGE PLAN - LEVEL 5 - ZONE A ENLARGED SLAB EDGE PLAN - LEVEL 5 - ZONE B
A1650C	ENLARGED SLAB EDGE PLAN - LEVEL 5 - ZONE C
A1650D A1660	ENLARGED SLAB EDGE PLAN - LEVEL 5 - ZONE D SLAB EDGE PLAN - ROOF
A1660A A1660B	ENLARGED SLAB EDGE PLAN - ROOF - ZONE A ENLARGED SLAB EDGE PLAN - ROOF - ZONE B
A1660C	ENLARGED SLAB EDGE PLAN - ROOF - ZONE C
A1660D	ENLARGED SLAB EDGE PLAN - ROOF - ZONE D
A3 SERIES	BUILDING SECTIONS AND PARTIAL BUILDING SECTIONS
A3101	BUILDING SECTIONS - NS (FOR REFERENCE ONLY)
A3111	BUILDING SECTIONS - EW (FOR REFERENCE ONLY)
A4 SERIES	CORE & SHELL BUILDING COMPONENTS
A4111	ELEVATIONS - RETAINING WALLS (FOR REFERENCE ONLY)
A4112 A4113	ELEVATIONS - FOUNDATION WALLS ELEVATIONS - FOUNDATION WALLS
A4114	ELEVATIONS - FOUNDATION WALLS ELEVATIONS - FOUNDATION WALLS
A4121	ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY)
A4122	ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY)
A4123 A4124	ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY) ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY)
A4125 A4126	ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY) ENLARGED SECTIONS - RETAINING WALLS (FOR REFERENCE ONLY)
A4131 A4132	ENLARGED SECTIONS - FOUNDATION WALLS ENLARGED SECTIONS - FOUNDATION WALLS
A4133	ENLARGED SECTIONS - FOUNDATION WALLS

A4134	ENLARGED SECTIONS - FOUNDATION WALLS
A4135	ENLARGED SECTIONS - FOUNDATION WALLS
A4136	ENLARGED SECTIONS - FOUNDATION WALLS
A4137 A4138	ENLARGED SECTIONS - FOUNDATION WALLS ENLARGED SECTIONS - FOUNDATION WALLS
A4139	ENLARGED SECTIONS - FOUNDATION WALLS
A4140 A4141	ENLARGED SECTIONS - FOUNDATION WALLS ENLARGED SECTIONS - FOUNDATION WALLS
A4142	ENLARGED SECTIONS - FOUNDATION WALLS
A4143	ENLARGED SECTIONS - FOUNDATION WALLS
A4144 A4145	ENLARGED SECTIONS - FOUNDATION WALLS ENLARGED SECTIONS - FOUNDATION WALLS
A4146	ENLARGED SECTIONS - FOUNDATION WALLS
A / 1/ 7	TAIL ADCED CECTIONS AUDITODIUMS (FOR DEFENSALES ONLY)
A4147	ENLARGED SECTIONS - AUDITORIUMS (FOR REFERENCE ONLY)
A4191	DETAILS - FOUNDATIONS
A4192	DETAILS - FOUNDATIONS
A4201	CORE OVERVIEW & LOCATION PLAN
A4211 A4212	ENLARGED PLANS AND SECTIONS - CORE 1 ENLARGED ELEVATIONS - CORE 1
A4221	ENLARGED PLANS AND SECTIONS - CORE 2
A4222	ENLARGED ELEVATIONS - CORE 2
A4231 A4232	ENLARGED PLANS AND SECTIONS - CORE 3 ENLARGED ELEVATIONS - CORE 3
44241	ENLARGED PLANS AND SECTIONS - CORE 4
A4242	ENLARGED ELEVATIONS - CORE 4
A4243 A4244	ENLARGED ELEVATIONS - CORE 4 ENLARGED ELEVATIONS - CORE 4
A4291	DETAILS - CORES
A4292	DETAILS - CORES
A4385	ENLARGED PLANS & SECTION - SITE ELEVATOR
A4386	ENLARGED ELEVATIONS - SITE ELEVATOR
A4610.0	EWS-0.1 - ENLARGED ELEVATION - WEST FAÇADE
A4610.1	EWS-0.1 - ENLARGED PLAN, SECTION, & ELEVATION @ LOADING DOCK
A4610.2	EWS-0.1 - ENLARGED PLAN, SECTION, & ELEVATION @ EMERGENCY GENERATOR ROOM
A4610.4	EWS-0.1 - ENLARGED ELEVATION - NORTH & SOUTH FAÇADE
SHEET #	STRUCTURE
S0101	STRUCTURAL NOTES
S0102	STRUCTURAL NOTES
S1100	FOUNDATION PLAN - LEVEL 0
S1100A	FOUNDATION PLAN - LEVEL 0 - ZONE A
S1100B	FOUNDATION PLAN - LEVEL 0 - ZONE B
S1100C S1100D	FOUNDATION PLAN - LEVEL 0 - ZONE C FOUNDATION PLAN - LEVEL 0 - ZONE D
S1100E	FOUNDATION PLAN - LEVEL 0 - ZONE E
S1100F S1100.1	FOUNDATION PLAN - LEVEL 0 - ZONE F FOUNDATION PLAN - LEVEL 0.5 - TUNNEL AND AUDITORIUM
S1100.1 S1100.1A	FOUNDATION PLAN - LEVEL 0.5 - TUNNEL AND AUDITORIUM - ZONE A
S1110	FRAMING PLAN - LEVEL 1
S1110A S1110B	FRAMING PLAN - LEVEL 1 - ZONE A FRAMING PLAN - LEVEL 1 - ZONE B
S1110C	FRAMING PLAN - LEVEL 1 - ZONE C
S1110D	FRAMING PLAN - LEVEL 1 - ZONE D
S1110E S1110F	FRAMING PLAN - LEVEL 1 - ZONE E FRAMING PLAN - LEVEL 1 - ZONE F
S1120	FRAMING PLAN - LEVEL 2
S1120A	FRAMING PLAN - LEVEL 2 - ZONE A
S1120B S1120C	FRAMING PLAN - LEVEL 2 - ZONE B FRAMING PLAN - LEVEL 2 - ZONE C
S1120D	FRAMING PLAN - LEVEL 2 - ZONE D
S1130	FRAMING PLAN - LEVEL 3
S1130A S1130B	FRAMING PLAN - LEVEL 3 - ZONE A FRAMING PLAN - LEVEL 3 - ZONE B
S1130C	FRAMING PLAN - LEVEL 3 - ZONE C
S1130D	FRAMING PLAN - LEVEL 3 - ZONE D
S1140 S1140A	FRAMING PLAN - LEVEL 4
	FRAMING PLAN
S1140B	FRAMING PLAN - LEVEL 4 - ZONE B
S1140C	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C
S1140C S1140D	FRAMING PLAN - LEVEL 4 - ZONE B
S1140C S1140D S1150	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D
S1140C S1140D S1150 S1150A S1150B	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B
S1140C S1140D S1150 S1150A S1150B S1150C	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A
S1140C S1140D S1150 S1150A S1150B S1150C S1150D	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C	FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D	FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105 S2106	FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS
S1140B S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105 S2106	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS FOUNDATION SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105 S2106	FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105 S2106 S3101 S4101 S4102	FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 4 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FRAMING SECTIONS AND DETAILS
S1140C S1140D S1150 S1150A S1150B S1150C S1150D S1160 S1160A S1160B S1160C S1160D S2101 S2102 S2103 S2104 S2105 S2106 S3101	FRAMING PLAN - LEVEL 4 - ZONE B FRAMING PLAN - LEVEL 4 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE A FRAMING PLAN - LEVEL 5 - ZONE B FRAMING PLAN - LEVEL 5 - ZONE C FRAMING PLAN - LEVEL 5 - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE D FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE A FRAMING PLAN - ROOF LEVEL - ZONE B FRAMING PLAN - ROOF LEVEL - ZONE C FRAMING PLAN - ROOF LEVEL - ZONE D TYPICAL FOUNDATION SECTIONS AND DETAILS TYPICAL FOUNDATION SECTIONS AND DETAILS

S4106 FRAMING SECTIONS AND DETAILS

S5101	TYPICAL SHEAR WALL DETAILS
S5102	SHEAR WALL ELEVATIONS
S5103	SHEAR WALL ELEVATIONS
S5104	SHEAR WALL ELEVATIONS
S5105	SHEAR WALL ELEVATIONS
S5106	SHEAR WALL ELEVATIONS
S5107	EXTERIOR WALL ELEVATION AND DETAIL
S5110	SHEAR WALL PLANS AND DETAILS
S5111	SHEAR WALL PLANS AND DETAILS
S5112	SHEAR WALL PLANS AND DETAILS
S5113	SHEAR WALL PLANS AND DETAILS
S5114	SHEAR WALL PLANS AND DETAILS
S5115	SHEAR WALL PLANS AND DETAILS
S6101	TYPICAL BRACED FRAME DETAILS
S6102	BRACED FRAME ELEVATIONS AND DETAILS
S6110	PALMETTO PLANTER FRAMING PLAN AND DETAILS

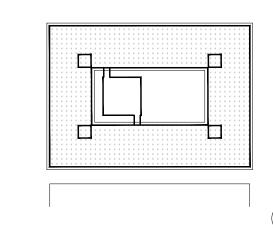
ON BEHALF OF USC CAMPUS PLANNING & CONSTRUCTION PROJECT NAME: UNIVERSITY OF SOUTH CAROLINA
DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION STRUCTURE OSE PROJECT NUMBER: H27-6069-AC-2 743 GREENE STREET COLUMBIA, SC 20298 TEL: 803 777 4022 FAX: 803 777 0484

USC BUSINESS PARTNERSHIP FOUNDATION

ARCHITECT: RAFAEL VINOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858 STRUCTURAL ENGINEER, MEP ENGINEER, CIVIL ENGINEER, FIRE PROTECTION ENGINEER:
STEVENS & WILKINSON, SC
1501 MAIN STREET, FLOOR G
COLUMBIA, SC 29201–5801
TEL: 803 765 0320 FAX: 803 254 6209 TELECOMMUNICATIONS, AUDIOVISUAL & ACOUSTICS:
JAFFE HOLDEN ACOUSTICS, INC.
114A WASHINGTON STREET
NORWALK, CT 06854-3007
TEL: 203 838 4167 FAX: 203 838 4168 LANDSCAPE ARCHITECT: GRIMBALL-COTTERILL ASSOCIATES
600 BELTLINE BOULEVARD
COLUMBIA, SC 29205
TEL: 803 738 9525 FAX: BP BARBER & ASSOCIATES, INC. 101 RESEARCH DRIVE COLUMBIA, SC 29202-1116 TEL: 803 429 4028 FAX: **BUILDING CODE:** HUGHES ASSOCIATES
3610 COMMERCE DRIVE, SUITE 817
BALTIMORE, MD 21227-1652
TEL: 410 737 8677 FAX: 410 737 8688 LIGHTING DESIGNER ONE LUX STUDIO, LLC
39 WEST 13TH. STREET
NEW YORK, NY 10011
TEL: 212 201 5792 FAX: 212 615 3700 FOOD & WASTE MANAGEMENT: WILLIAM CARUSO & ASSOCIATES, INC. 8055 EAST TUFTS AVE, SUITE 1320 DENVER, CO 80237 TEL: 303.649.1600 FAX: 303.649.1660 SIGNAGE & WAYFINDING: RAFAEL VINOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858 SPECIFICATIONS:
ROBERT SCHWARTZ & ASSOCIATES
589 8TH. AVE., 17TH. FLOOR
NEW YORK, NY 10018
TEL: 212 691 3248 FAX: 212 633 1613 BID PACKAGE 2:

DECEMBER 09, 2011

SEAL & SIGNATURE ISSUE ISSUE ISSUE ISSUE ISSUE ISSUE NO. DATE



KEY PLAN & NORTH SIGN



DRAWING LIST

TABLE 5-1 FLOOD HAZARD INFORMATION and FLOOD LOADS FLOOD HAZARD AREA MAP#45079C0094H 2/20/2002 NGVD or FIRM Base Flood Elevation Design Flood Elevation IBC 1612.3 and ASCE 24 NON HIGH-VELOCITY WAVE ACTION 230'-8"MSL Meet ASCE 24 Section 2.6.2.1 Elevation of Lowest Proposed Floor Dry floodproofing **≥**no □yes per ASCE 24 HIGH-VELOCITY WAVE ACTION Elevation of bottom of Lowest Horizontal Structural Member of lowest floor 230'-2" MSL per ASCE 24 Flotation resistant **■** no □yes Breakaway wall per ASCE 24 **≥** no □ yes IBC 1612 and SE-900, as applicable ZONING CERTIFICATION "I hereby certify that, to the best of my knowledge, these plans comply with applicable zoning ordinances, and that plans have been submitted to appropriate authority for their review and/or approval." Architect/Engineer If the project does not require a National Pollution Discharge Elimination System (NPDES) permit from SCDHEC, include the following certification on the Site Plan(s): N/A -Requires NPDES EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT Designer's Certification: "I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the Regulations contained in Chapter 72, Article 2, SC Code of Regulations (Erosion and Sediment Reduction and Stormwater Management Regulations)." Engineer or Registered Landscape Architect (Circle one)

TABLE 5-2 SOILS & SITE			
SOILS INVESTIGATION (If available	e)		
	▼ no □ yes per IBC 1802.2		
SOILS CLASSIFICATION			
Site Class (seismic class)	<u>C</u> per IBC 1613.5.2		
Classes Soil of Materials (UCS System)	See Geotechnical Report per IBC 1802.3		
Allowable Footing Bearing Pressure	<u>3000 psf</u>		
MINIMUM DESIGN SOIL BEARING	GLOAD		
	1500 psf per IBC table 1804.2.1		
COMPACTION			
Subgrade 98 Percent	□ASTM D698 ■ASTM D1557 □AASHTO (only for paving & roads)		
Base 100 Percent	■ASTM D698 □ASTM D1557 □AASHTO(only for paving & roads)		
Other Percent	□ASTM D698 □ASTM D1557 □AASHTO(only for paving & roads)		
MINIMUM DESIGN SOIL LATERAL	LLOAD		
FOOTINGS			
Undisturbed footings	□ no ☑yes		
Compacted Fill Material	□ no ☑yes per IBC 1803.5		
ELEVATIONS			
Elevation of Water Table	222'-205' MSL Per Geotechnical Report		
Elevation of lowest footing	225' MSL		
Elevation of lowest floor or basement	<u>230-8' MSL</u>		
NOTE:	Where a fire wall is necessary to separate buildings, each building is to be provided individual code criteria tables 5-3 through 5-14. See IBC 503.1.2.		

Does building have Accessory

What percent of story is accessory (Incidental use only).

OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES

extinguishers, smoke- evacuation/control/compartments. Note IBC 414.1.3.)

Fire Extinguishers – Refer to lifesafety drawings for location (A0700 series)

Pressurized Exit Stairs – Fans are shown on M1150 series sheets & are VFD controlled.

Occupancy (ies)?

Mixed Occupancy

Non separated

Separated

occupancy?

≥ no □yes

□ no **≥**yes

□ no ⊌yes

≥ no □yes

If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire

Pressurized Elevator Hoistways - For stairs ST01 through ST04. Fans are shown on M1150 series sheets & are

(IBC 508.3.1)

(IBC 508.3)

(IBC 508.3.2)

(IBC 508.3.3)

(IBC506.4.1)

SEPERATIONS		
Fireblocking Required	□ no 🗷 yes	per IBC Section 717
Draftstopping Required	■ no □ yes	per IBC Section 717
	□ no 🗷 yes	per IBC Section 909
Smoke Control System Required	(Stair & Elevator Pressurization)	
Smoke Barriers Required	<u>⊠no</u> □ yes	per IBC Sections 407 and 408
Smoke Partitions Required	□ no 🗷 yes	per IBC Sections 407
Fire Partition Required	■ no □ yes	per IBC Section 419
Fire Barrier Required	□ no 🗷 yes	per IBC Section 706
ALARM & DETECTION		
Fire Alarm System Required	□ no 🗷 yes	per IFC Section 907
Emergency Alarm System Required	□ no 🗷 yes	per IFC 908
SUPPRESSION		
Standpipes Required	□ no 🗷 yes	per IFC Section 905
Sprinklers Required	□ no 🗷 yes	per IFC Section 903
Sprinklers Provided	□ no 🗷 yes	
Portable extinguishers required	□ no 🗷 yes	per IFC 906
	□ no 🗷 yes	per IFC 904
Other suppression systems required	(Kitchen Suppression)	
Smoke & heat vents required	ıno □ yes	per IFC 910

TABLE 5-3 BASIC BUILDING CODE INFORMATION			TABLE 5-4 BUILDING AREA		
CONSTRUCTION	Classified as Type IB noncomb	oustible construction. Based on applicable	AREA LIMIT BY TABLE 503 OF IBC	UNLIMITED	
CLASSIFICATION		e rating of building is permitted to be	(Do not indicate increases for sprinklers & street frontage.)	SF	
OCCUPANCY GROUP (indicate		(IBC 302)		(area limitation per story)	
all)			AREA MODIFICATION FROM EQUATION 5-1 OF		
(Note IBC 506.4.1)	Basement:		IBC (Insert equation from IBC 506.1 with completed	UNLIMITED	
	Kitchen/fire Command Center	- Group B	calculations in this box)	UNDAMITED	
	MEP/Storage	- Incidental	(Equation 5-1)		
	Level 1:				
	Auditorium/Performance Hall	- Group A-1	$Aa = At + [At \times If] + [At \times Is]$	SF	
	Lecture Halls, Classrooms, Stu	dy Areas, Case Rooms,		(maximum modified area per story)	
	Discussion/Recitation	- Group A-3	Aa = Allowable area per floor (square feet).		
	Conference/Seminar	- Group B	At = Tabular area per floor in accordance with Table		
	Level 2:		If = Area increase factor due to frontage (percent) as		
	Library and Classrooms	- Group A-3	calculated		
	Café	- Group A-2	in accordance with Section 506.2.		
	Classrooms, Open Work Statio	ns, Open Work Stations,	Is = Area increase due to sprinkler protection as		
	Group Study	- Group B	calculated in accordance with		
	MEP/Storage	- Incidental	Section 506.3.		
	Level 3:	merdentar	(Repeat equation for each story of differing occupancies,		
	Classrooms - Group A-3	IBC 506.4.1)			
		•			
	Student Organization	- Group A-3	Note: footnote "e." from table 601		
	Office Area, Meeting Rooms	- Group B		SF	
	Level 4:			(maximum area per story)	
	Future Garden	- Group A-3	Total Allowed Area of Building	UNLIMITED	
	Office Areas	- Group B	(summary of all stories)	SF	
	Project Meetings, Focus Room	s - Group B	AREA AS DESIGNED PER STORY	Level 0 – 27623 SF	
	MEP/Storage	- Incidental	(Repeat for each story)	Level 1 – 76775 SF	
	MEP/Storage	- Incidental		Level 3 – 43236 SF	
	<u>Level 5:</u>			Level 4 – 68392 SF	
	Terrace	- Group A-3			
OCCUPANCY GROUP (indicate most restrictive)	A-1, A-2, A-3	(IBC Table 503)	Total Designed Area of Building	25,3801 SF	
Does building require Incidental Use Area Separation?	□ no ⊠yes	(IBC 508.2.2)			

	AS DESIGNED		AS ALLOWED BY IBC	
	In Feet	In Stories	In Feet	In Stories
Without any Allowable Increase (per IBC Table 503)				
	91ft -8inch.	6 Stories	160 Ft.	5 Stories
Allowable Height Increase				
(per IBC 504.2)	91ft -8inch.	6 Stories	20 Ft.	1 Story
Total Height including any Allowable Increase				
	91ft -8inch.	6 Stories	180 Ft.	6 Stories

TABLE 5-5 BUILDING HEIGHT

	Rating As Required	Rating As Designed	Testing Agency & Design No.	Designers Wall/Partition
BUILDING ELEMENT	(in hours)	(in hours)	(UL, FM, etc)	Key Code
Structural Frame			UL Des. # X829	
(per IBC Table 601)	1 Hr.	1 Hr.		
Bearing Walls	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
Exterior				
Interior				
(per IBC Table 601)				
Nonbearing Walls & Partitions	0	0	Refer to attached partition types (drawing	
Exterior	Noncombustible	1 Hr.	A8101 to A8103).	A8101 to A8103) and corresponding floor plans (A1100 to 1140D).
Interior		2 Hrs.		incorpians (ittroo to 11 102).
(per IBC Table 601 & 602)				
Floor Construction including supporting beams & joists			Meet 1 Hr. rating per IBC table 721.2.2.1	
(per IBC Table 601)	1 Hr.	1 Hr.		
Roof Construction including supporting beams & joists			Meet 1 Hr. rating per IBC table 721.2.2.1	
(per IBC Table 601)	1 Hr.	1 Hr.		
Fire Walls	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
(per IBC Section 705)				
Fire Barriers	1 Hr.	1 Hr.	1 Hr. Rated =	Refer to attached partition types (drawin
(per IBC Section 706)	2 Hrs.	2 Hrs.	UL Des. #U419, U442	A8101 to A8103) and corresponding floor plans (A1100 to 1140D).
			2 Hr. Rated=	
			UL Des. #U419, U442, U906, U905	
Shaft Enclosures	1 Hr.	1Hr.	UL Des. #U415 system A – 1Hr.	1.3 – for 1 Hr. shaft wall
(per IBC Section 707)	2 Hrs.	2 Hrs.	UL # Des. #U415 system B – 2 Hrs.	2.3 – for 2 Hr. shaft wall
	-708.4			(refer to drawing A8101)
Fire Partitions	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
(per IBC Section 708)				
Opening & Protective Listing by	Doors on rated walls –	45 min. (1 Hr. rated walls)	Fire rated doors –	· Refer to attached door schedule.
Category (fire shutters, doors, etc. per IBC Section 715)			Assemblies complying with NFPA 80	
250000 . 15 ,	45 min. (1 Hr. rated walls)	90 min. (2 Hr. rated walls).	listed and labeled by a testing and inspection agency.	
	(1 111. 14104 114115)	5 5 mm. (2 mm. mans).	moreonen agenej.	

Stories & Levels	Classification	Function of Space	A Floor Area	B Max Area allowed /Occupant	C Persons on floor for this Function	D Design Occupant Lo
	Basement:					
	В	Kitchen	2147 sf	100	23	
	I	Storage	18146 sf	300	62	
0		Mechanical Unassigned				
	A-3	Large Storage	781 sf	15	58	
			Subtotal I	Design Occupant I	Load for This Story	
	Level 1:					
	A-3	Auditorium/Performance Hall Stage	3237 sf	15 sf	1511	
		Case Room/Lecture Room Reconfigurable Classrooms				
1	В	Discuss/Recitation	17142 sf	100 sf	875	
		Conference/Seminar				
	I	MEP/Storage – Incidental	654 sf	300 sf	5	
		Dedicated Maintenance Staff	Subtotal I	Design Occupant I	Load for This Story	
	Level 2:		Subioidi I	- corgn Occupant I		2
	В	OCM Workstations	11701 sf	100	319	
		Center for Business/Comm				
		Bookable Room				
		Graduate Lounge Staff Offices/Collections/Service Desk				
2	A-3	Museum Greeting/Pavilion	8462 sf	15	559	
		Distribution Informal learning				
		Terrace	2940 sf	15	196	
	A-2	Café	2047 sf	15	136	
	1	Servery	431 sf	300	0	
					Load for This Story	1
	Level 3:					
	В	Undergrad work area/Div. Offices Associate Dean/Dean's Office/Offices	21837 sf	100	450	
		Team collaboration room				
		Exec. Edu. Staff/Reception				
		BPF Director's office/ Advancement Director/Staff				
3		Bookable Project Space - B Multi-purpose display area/Reception				
		Focus room/Classroom Lobby				
	S-2	Janitor	143 sf	3	0	
	I	Electrical Room/Telecom Room	431 sf	300	0	
	A-3	Video/Conference Room /Working lounge	6964 sf	15	339	
		Shallow "U" case rom. (fixed seats)				
		Reconfigurable Classrooms –				
			Subtotal I	Design Occupant I	Load for This Story	,
	Level 4:					
	A-3	Conference / Seminar room	1684 sf	15	112	
	В	PHD Workspace	42149 sf	100	629	
4		Offices – B Reception/Admin/Staff work				
		space/Focus room Mail/copy/Kitchen/Breakroom				
	I	MEP/storage	1853 sf	300	9	
					Load for This Story	,
	Level 5:					

Subtotal Design Occupant Load for This Story

Total Building Design Occupant Load

		USC BUSINESS PARTNERSHIP FOUNDATION ON BEHALF OF USC CAMPUS PLANNING & CONSTRUCTION
n nis	D Design Occupant Load	PROJECT NAME: UNIVERSITY OF SOUTH CAROLINA DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION STRUCTURE OSE PROJECT NUMBER:
		743 GREENE STREET COLUMBIA, SC 20298 TEL: 803 777 4022 FAX: 803 777 0484
		ARCHITECT: RAFAEL VIÑOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858
Story	143	STRUCTURAL ENGINEER, MEP ENGINEER, CIVIL ENGINEER, FIRE PROTECTION ENGINEER: STEVENS & WILKINSON, SC 1501 MAIN STREET, FLOOR G COLUMBIA, SC 29201–5801
		TEL: 803 765 0320 FAX: 803 254 6209 TELECOMMUNICATIONS, AUDIOVISUAL & ACOUSTICS: JAFFE HOLDEN ACOUSTICS, INC. 114A WASHINGTON STREET NORWALK, CT 06854-3007 TEL: 203 838 4167 FAX: 203 838 4168
Story	2391	LANDSCAPE ARCHITECT: GRIMBALL-COTTERILL ASSOCIATES 600 BELTLINE BOULEVARD COLUMBIA, SC 29205 TEL: 803 738 9525 FAX:
	2391	SURVEYOR: BP BARBER & ASSOCIATES, INC. 101 RESEARCH DRIVE COLUMBIA, SC 29202-1116 TEL: 803 429 4028 FAX:
		BUILDING CODE: HUGHES ASSOCIATES 3610 COMMERCE DRIVE, SUITE 817 BALTIMORE, MD 21227-1652 TEL: 410 737 8677 FAX: 410 737 8688
		LIGHTING DESIGNER ONE LUX STUDIO, LLC 39 WEST 13TH. STREET NEW YORK, NY 10011 TEL: 212 201 5792 FAX: 212 615 3700
		FOOD & WASTE MANAGEMENT: WILLIAM CARUSO & ASSOCIATES, INC. 8055 EAST TUFTS AVE, SUITE 1320 DENVER, CO 80237 TEL: 303.649.1600 FAX: 303.649.1660
Story	1210	SIGNAGE & WAYFINDING: RAFAEL VIÑOLY ARCHITECTS PC 50 VANDAM STREET NEW YORK, NY 10013 TEL: 212 924 5060 FAX: 212 924 5858
		SPECIFICATIONS: ROBERT SCHWARTZ & ASSOCIATES 589 8TH. AVE., 17TH. FLOOR NEW YORK, NY 10018 TEL: 212 691 3248 FAX: 212 633 1613
		BID PACKAGE 2: STRUCTURE
		DECEMBER 09, 2011 PHASE:
Story	789	SEAL & SIGNATURE
		^
		2011.12.09

ISSUE ISSUE ISSUE ISSUE ISSUE NO. DATE NO. DATE NO. DATE

KEY PLAN & NORTH SIGN

OSE CODE TABLES

SUPPLEMENTAL CODE INFORMATION

- THE DMSB IS CLASSIFIED AS A HIGH-RISE BUILDING AND COMPLIES WITH APPLICABLE REQUIREMENTS AS SPECIFIED BY IBC 403. A DEDICATED FIRE COMMAND CENTER IS LOCATED ON LEVEL 0 ADJACENT TO STAIR 3.

- A FIRE PUMP IS PROVIDED TO BOOST WATER PRESSURE TO THE AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS. THE FIRE PUMP ROOM IS LOCATED ON LEVEL 0 AND IS ACCESSIBLE DIRECTLY FROM THE OUTSIDE.

- EXIT ACCESS CORRIDORS DO NOT REQUIRE A FIRE RESISTANCE RATING SINCE THE BUILDING IS FULLY SPRINKLERED [IBC TABLE 1017.1].
- ALL ELEVATOR HOISTWAYS CONNECTING MORE THAN THREE STORIES ARE PRESSURIZED IN LIEU OF ENCLOSED ELEVATOR LOBBIES [IBC 708.14.1].

- TWO CONVENIENCE STAIRS CONNECTING LEVELS 1 THROUGH 4 ARE LOCATED IN AND OPEN TO THE COURTYARD. PROTECTION AND/OR FIRE SEPARATION OF THESE STAIRS IS NOT REQUIRED SINCE THESE STAIRS ARE NOT USED FOR EGRESS AND ARE NOT CONTAINED WITHIN THE BUILDING.

- TWO CONVENIENCE STAIRS CONNECT LEVELS 1 AND 2 ON THE EAST AND WEST SIDES OF THE COURTYARD. THESE STAIRS OPEN INTO CORRIDORS ON LEVEL 1 AND INTO VESTIBULES ON LEVEL 2. THE STAIRS ARE NOT PART OF THE MEANS OF EGRESS AND ARE PERMITTED IN ACCORDANCE WITH IBC 708.2, EX.7.

- EXCEPT AS NOTED, THE EXTERIOR WALLS OF THE DMSB ARE NOT FIRE-RESISTANCE RATED.

- a). THE DMSB HAS A MINIMUM FIRE SEPARATION DISTANCE OF 30 FT ON ALL SIDES, WITH EXCEPTION OF THE SOUTH FAÇADE, ALLOWING NON-FIRE-RATED EXTERIOR WALLS AND LINI IMITED OPENINGS.
- b). THE EXTERIOR WALL ON LEVEL 1 HAS A 1-HOUR FIRE RESISTANCE RATING ON THE EAST, WEST AND NORTH SIDES OF THE BUILDING TO SEPARATE THE EXIT DISCHARGE COURT FROM THE INTERIOR OF THE BUILDING.
- c). ON THE SOUTH FAÇADE, THE EXISTING COLISEUM IS LOCATED APPROXIMATELY 61 FT AWAY (MEASURED FROM FAÇADE TO FAÇADE). THE COLISEUM ALSO HAS EXTERIOR STRUCTURAL COLUMNS LOCATED APPROXIMATELY 45 FT FROM THE SOUTH FAÇADE OF THE DMSB. THIS DISTANCE EXCEEDS THE MINIMUM REQUIRED SEPARATION DISTANCE OF 40 FT IN ORDER TO ALLOW NON-RATED EXTERIOR WALLS AND UNLIMITED OPENINGS (30 FT FOR DMSB TYPE IB CONSTRUCTION + 10 FT FOR COLISEUM TYPE IIB CONSTRUCTION) [IBC TABLE 602].

INTERIOR FINISH COMPLIES WITH IBC TABLE 803.9:

Occupancy	Exits	Corridors	Other Areas
Group B	В	С	С
Group A-1	В	В	С
Group A-2	В	В	С
Group A-3	В	В	С

- MEANS FOR POST-FIRE SMOKE REMOVAL ARE PROVIDED IN ACCORDANCE WITH IBC 403.4.6. FIXED WINDOWS WITH GLAZING THAT CAN BE CLEARED BY THE FIRE DEPARTMENT WILL BE PROVIDED. [IBC 403.4.6 (1) {EX.2}]

- ACCESSIBLE MEANS OF EGRESS ARE PROVIDED BY AT-GRADE EXITS, ENCLOSED EXIT STAIRS AND ACCESSIBLE EGRESS ELEVATORS PER IBC 1007. ALL ACCESSIBLE EGRESS ELEVATORS ARE PROVIDED WITH STANDBY POWER. TWO-WAY COMMUNICATION IS PROVIDE AT ELEVATOR LANDINGS.

TABLE 5-9 STRUCTURAL DESIGN INFORMATION			
OCCUPANCY CATEGORY(IES)	See structural drawing S0101 for occupancy category.		
LIVE LOADS	See structural drawing S0101 for live loads.		
WIND LOADS	See structural drawing S0101 for wind loads.		
SEISMIC LOADS	See structural drawing S0101 for seismic loads.		
ARCHITECTURAL-MECHANICAL-ETC. LOADS	Provide as applicable: architectural items, mechanical, plumbing, etc. per ASCE 7		
SPECIAL LOADS Provide as applicable: abnormal items, moving loads, impact hoisting, etc. per ASCE)			
	initial Structural Sheet of the drawings or on Sheet with other code gn loads on structural plans.		

WATER SYSTEM	City of Columbi	a		
Service Line Size 8 Inches				
Peak 283GPM				
Total Demand 1,283 No. Fixture U	Inits 1,600			
SANITARY SEWER SYSTEM	City of Columbi	a		
Loading 61,340GPD				
Service Line Size 6 Inches				
Slope 0.12 min inches/ft				
MINIMUM PLUMBING FIXTURE	S REQUIRED/PROVIDED		per IPC Section 403 & Table 403.1	
	Male-Required	Male-Provided	Female-Required	Female-Provided
Water Closets	45	58	59	64
Lavatories	31	51	31	53
Urinals*		25*		
Note*:Number of urinals to replace	required W/C's per I	PC 403.		
Drinking Fountains		27	36	
Unisex toilet				
Service Sink		5		
Others (list)				
* Urinals – See IPC 419.2				
Where mixed Occupancies occur within buildings, expand this table to indicate Occupant loads for each				
The minimum required toilet fixtures are calculated for the total Design Occupant Load indicated in Table 5-6				

AIR COMFORT SYSTEMS		
Overall Thermal Transfer Value (OTTV):	Roof:5.71 Btu/hr×ft2;	Wall 19.99 Btu/hr×ft2
Building Cooling Load	332.5 SF / Ton	
Building Heating Load	11.1 BTU / SF	
OTHER LOADING FEATURES		
Glass	U Factor 0.45 or less	Window to wall ratio37.2%_
Insulation Values	Roof0.061	Exterior Walls 0.246
Outside Air minimum while occupied CFM Occupants		
Outside Air minimum while occupied:		
Seminar Room	260 CFM 18 Occupants	
Shallow Case Room	1270 CFM 91 Occupants	
Deep Case Room	845 CFM 61 Occupants	
Sm. Recitation Room	480 CFM 31 Occupants	
Lrg. Recitation Room	680 CFM 46 Occupants	
Reconfig. Classoom (60 seat)	845 CFM 61 Occupants	
Reconfig. Classoom (45 seat)	620 CFM 46 Occupants	
Tiered Lecture Hall	1690 CFM 121 Occupants	
Medium Lecture Hall	1500 CFM 251 Occupants	
Performance Hall	3405 CFM 600 Occupants	
Office Space	17 CFM/PERSON 200 FT 2 /Occu	apant
MECHANCIAL SYSTEMS, SERVICE SYST	·	
Dedicated Outdoor Air Systems provide treate	ed fresh air either directly to classroom spaces	s or to AHUs serving those areas.
Modular AHUs with hydronic cooling &/or he	eating supply air to their respective zones.	
Steam to HW converters to provide heating ho	ot water to air handling equipment	
Level 0 – Combination of fan coil units (FCUs	s), ventilation fans & unit heaters	
Level 1- Chilled beams for the classrooms & o	conference rooms, single zone VAV AHUs fo	or the auditorium & performance hall, fan-co
and blower coil units for the corridors.		
and blower coil units for the corridors. Level 2 – Underfloor air distribution w/underf	floor fan powered VAVs @ perimeter, FCU f	or Café

SERVICE TRANSFORMER		■ by utility co.	☐ By Agency(if by Agency)
			KVA Primary Voltage/Phase
ELECTRICALSERVICE INFORM	IATION		
Service Voltage/Phase	480/277V, 3-p	phase: 3000 Amperes	
Service Entrance Conductors Size		500MCM Quanti	ty per Phase: 8
Total Connected Load		2600	KVA
Estimated Maximum Demand		1800	KVA
Available Fault Current in Symmetr	-	50,000	
Available Fault Current in Symmetr Interrupting Capacity of Service Ov	rercurrent Device 100 KAIC		
Available Fault Current in Symmetr Interrupting Capacity of Service Ov GROUNDING ELECTRODE SYS(NEC 250)	rercurrent Device 100 KAIC		
Available Fault Current in Symmetr Interrupting Capacity of Service Ov GROUNDING ELECTRODE SYS	rercurrent Device 100 KAIC		Voltage/Phase_ Fuel 480/277/3
Available Fault Current in Symmetr Interrupting Capacity of Service Ov GROUNDING ELECTRODE SYS(NEC 250) EMERGENCY SERVICE INFORM	TEM COMPONENTS: MATION No Yes		Voltage/Phase_ Fuel
Available Fault Current in Symmetr Interrupting Capacity of Service Ov GROUNDING ELECTRODE SYS(NEC 250) EMERGENCY SERVICE INFORM EmergencyGenerator	TEM COMPONENTS: MATION No Yes		Voltage/Phase_ Fuel 480/277/3 — □ Integral □ Generator
Available Fault Current in Symmetr Interrupting Capacity of Service Ov GROUNDING ELECTRODE SYS(NEC 250) EMERGENCY SERVICE INFORM EmergencyGenerator Exit/Emergency Lights Backup Pov	TEM COMPONENTS: MATION No Yes Wer	600 KVA	Voltage/Phase_ Fuel 480/277/3 □ Integral ☑ Generator Battery ☑ Addressable □ Class A

		5		6	
TABLE 5-14 DESIGN-RELAT	ED CONSTRUC	CTION PERMITS/APPRO	VALS		
The following list is not all-inclusive	e of every, permit a	and standards applicable to eac	h project.		
Agencies and A/Es must delete non-a	pplicable listings a	nd add others for each specific p	project.		
Type of Development		SC Law or Reg.	Where to Obtain Permit/Approval	Status	
Air pollutant discharge		48-1-100, R61-62.1	SCDHEC - Air Quality Control	N/A Project does not have boilers	
Ambulatory surgical facilities		R61-91	SCDHEC - Health Facilities Construction	N/A No health facilities	
, ,		101 71		N/A No existing building remodeling. If there w	
Asbestos abatement		R61-86.1	SCDHEC - Air Quality Control	to be, no Design-Phase Asbestos Permit is require	
Building construction, Zoning		City	City of Columbia	Approved 6/9/2011	
Community residential care facilities		R61-84	SCDHEC - Health Facilities Construction	N/A No care facilities	
Construction in critical coastal areas		48-39-10, 130, 190	SCDHEC - Ocean & Coastal Res. Mgmnt.	N/A Not in coastal area	
Construction in navigable waters		49-1-16	SCDHEC - Water Pollution Control	N/A Not in water	
Dams and reservoirs		49-11-200, R72-1, 2, 3	SCDHEC - Water Pollution Control	N/A No dam	
Demolition of Real Property		R61-86.1	SCDHEC - Air Quality Control	N/A No demolition of structures	
Design Review Board (BARs, SC De History, etc.)	pt Archives &	City	City of Columbia	Approved 6/9/2011	
Educational facilities (K through 12)		59-23-40	SC Department of Education – Office of District Facilities Management	N/A Not K-12	
Elevators		14-16-90	SC Department of Labor, Licensing & Regulation	No Design-Phase permit required	
Fire Department (Local)	1	City	City of Columbia	Approved 8/18/2011	
Fire Protection Sprinkler		SC LLR	State Fire Marshal	Approved 9/9/2011	
Fire suppression systems		R19-300.7	State Fire Marshal	No Design-Phase permit required	
Floodplains, construction in		Exec. Order 82-19	Office of State Engineer	N/A Site is not in a floodplain	
Food service establishments		R61-25	SCDHEC – Local County Health Dept.	No Design-Phase permit required but Food Serv design will be submitted for approval to SCDHE with Bid Package 3, as recommended by SCDHE	
Historical building rehabilitation		R12-125, 126	Archives and History, Local Authority	N/A No historic structures on site	
Hospitals & infirmaries		R61-16	SCDHEC – Health Facilities Construction	N/A No health facilities on site	
Road encroachment, local		City	City of Columbia	Approved 7/18/2011	
Road encroachment, state		57-5-1080	Local SCDOT Maintenance Office	Approved	
Sanitary sewer; treatment & disposal		R61-56, 57	City of Columbia	Approved 9/9/2011	
Storm water discharge, erosion and s	sediment control	R61-9; R72-100-108	City of Columbia / SCDHEC	Approved 9/9/2011	
Swimming areas, natural public		R61-50	SCDHEC – Water Supply Construction	N/A No swimming areas	
Swimming pools, public		R61-51	SCDHEC – Water Supply Construction	N/A No swimming areas	
Underground storage tanks		R61-92	SCDHEC – Groundwater Protection	In Progress for BP3	
Waste discharge (sewage, industrial v	vaste, etc.)	48-1-100, 110, R61-9	SCDHEC – Water Pollution Control	N/A City of Columbia has reviewed for Water/Sewer	
Water Service	1	City	City of Columbia	Approved 9/9/2011	
Wells, Underground injection		R61-71, 87	SCDHEC – Groundwater Protection	N/A No wells	
Zoning(Municipal, County or District	:)	City	City of Columbia	Approved 6/9/2011	
For completion of this Table in the Bi (A/E, Agency, Contractor or Other) is TABLE 5-15 STATEMENT OF	s to provide that doo	cumentation and anticipated date	nch permit by insertion of "approved" and date in the status column. If not approved, e.	indicate pending approval, phased approval and who	
Project Name:	Darla Moore So	chool of Business			
-	Construction				
Project Number:	H27-6069-AC				
		om the requirements of Sec	project requiring Special Inspections. The Special Inspection requiremetion 1704 must be approved by OSE.	ents shall be based on Section 1704 of the 20 AREA/ BLDG SPEC. SECTION	
109.3.1 Footing or foundation inspection			be made after excavations for footings are complete and any required rein any required forms shall be in place prior to inspection. Materials for the		

	Construction H27 6060 AC					
Project Number:	H27-6069-AC					
The Designer(s) of Record shal International Building Code. A	I determine the material and/or work on the party deviations from the requirements of Section 1.	oroject requiring ion 1704 must be	Special Inspections. e approved by OSE.	The Special Inspection requirements sha	ll be based on Secti	ion 1704 of the 20
MATERIAL	TYPE OF INSPECTION				AREA/ BLDG	SPEC. SECTIO
109.3.1 Footing or foundation inspection	Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.					
109.3.2 Concrete slab or under-floor inspection	Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.					
109.3.4 Frame inspection	Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.					
S406.6.6 Inspection of fill.	Placement of the fill material shall be inspected by the code official.					
M107.1 Mechanical Required Inspections						
M107.1.1 Underground Inspection	Underground inspection shall be made after trenche When excavated soil contains rocks, broken concre action, clean backfill shall be on the job site.					
P107.1 Plumbing Required Inspections						
P107.1.1 Underground Inspection	Underground inspection shall be made after trenche	es or ditches are exc	cavated and bedded, pipir	ng installed, and before any backfill is put in plac	e.	
Electrical Required Inspections						
Underground Inspection	Underground inspection shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after trenche inspection of all building grounding connections shall be made after the connection of all building grounding connections are connected by the connection of all building grounding connections are connected by the			duit installed, and before backfill is placed. Also,		
MATERIAL	TYPE OF INSPECTION	FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY		Τ
Concrete	Rebar Placement	(Periodic)	033000, par 3.17	Arch.	Eng.	Other X
	Verify Use of Design Mix	(Periodic)	033000, par 3.17			X
	Sample Slump, Air, Temperature	(Continuous)	033000, par 3.17			X
	Concrete Placement	(Continuous)	033000, par 3.17			X
	Curing Verification of In-Situ Strength via Compressive Testing of Cylinders	(Periodic)	033000, par 3.17 033000, par 3.17			X X
	Inspection of Embeded Anchors	(Periodic)				
	Inspection of Formwork for Shape Location & Dimensions	(Periodic)				
Structural Steel	Verifications of High-Strength Bolts/Washers	(Periodic)	051200, par 2.1.F			X
	Inspection of High-Strength Bolting	(Periodic)	051200, par 3.5.F			X
	Verifications of Structural Steel Materials		051200, par 2.1			X
	Verification of Weld Filler Materials		051200, par 2.1.H			X
	Inspection of Structural Steel Welding:					
	a)Complete & Partial penetration groove	(Continuous)	051200, par 3.5 G			X
	b)Multi-pass fillet welds	(Continuous)	051200, par 3.5 G			X
	c)Single-pass fillet welds >5/16"	(Periodic)	051200, par 3.5 G			X
	d)Single-pass fillet welds <5/16"	(Periodic)	051200, par 3.5 G			X
	Details such as Bracing and Stiffening	(Periodic)	(Periodic)			
	Member Locations	(Periodic)	IBC Ref 1704.3.2			
	Application of Joint Details at Each Location	(Periodic)				
Steel Deck	Inspection of Roof Deck Materials	(Periodic)	053100, par 3.5 A			X
Soil	Deck Attachments Verification of Materials Below Shallow	(Periodic)	053100, par 3.5 B			X
SUII	Foundation are Adequate to Achieve the Design Bearing Capacity.					
	Verify Excavations are Extended to Proper Depth and Have Reached Proper Material.	(Periodic)				
	Perform Classification and Teasting of Compacted Fill Materials.	(Periodic)				
	Verify Use of Proepr Materials, Densities and Lift Thickness during Placement and Comparing of Compacted Fill.	(Continuous)				
	Prior to Placement of Compacted Fill, Observe Subgrade and Verify that Site has been Prepared Properly.	(Periodic)				

USC BUSINESS PARTNERSHIP FOUNDATION
ON BEHALF OF
USC CAMPUS PLANNING & CONSTRUCTION
PROJECT NAME:
UNIVERSITY OF SOUTH CAROLINA
DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION
STRUCTURE

STRUCTURE

OSE PROJECT NUMBER:
H27-6069-AC-2

743 GREENE STREET COLUMBIA, SC 20298 TEL: 803 777 4022 FAX: 803 777 0484

ARCHITECT:
RAFAEL VIÑOLY ARCHITECTS PC
50 VANDAM STREET
NEW YORK, NY 10013
TEL: 212 924 5060 FAX: 212 924 5858

STRUCTURAL ENGINEER, MEP ENGINEER,
CIVIL ENGINEER, FIRE PROTECTION
ENGINEER:
STEVENS & WILKINSON, SC
1501 MAIN STREET, FLOOR G
COLUMBIA, SC 29201-5801
TEL: 803 765 0320 FAX: 803 254 6209

TELECOMMUNICATIONS, AUDIOVISUAL & ACOUSTICS:

JAFFE HOLDEN ACOUSTICS, INC.

114A WASHINGTON STREET

NORWALK, CT 06854-3007

TEL: 203 838 4167 FAX: 203 838 4168

TEL: 203 838 4167 FAX: 203 838 4168

LANDSCAPE ARCHITECT:
GRIMBALL-COTTERILL ASSOCIATES
600 BELTLINE BOULEVARD
COLUMBIA, SC 29205
TEL: 803 738 9525 FAX:

SURVEYOR:
BP BARBER & ASSOCIATES, INC.
101 RESEARCH DRIVE
COLUMBIA, SC 29202-1116
TEL: 803 429 4028 FAX:

BUILDING CODE:
HUGHES ASSOCIATES
3610 COMMERCE DRIVE, SUITE 817
BALTIMORE, MD 21227-1652
TEL: 410 737 8677 FAX: 410 737 8688

ONE LUX STUDIO, LLC
39 WEST 13TH. STREET
NEW YORK, NY 10011
TEL: 212 201 5792 FAX: 212 615 3700
FOOD & WASTE MANAGEMENT:

LIGHTING DESIGNER

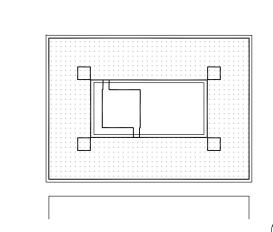
FOOD & WASTE MANAGEMENT:
WILLIAM CARUSO & ASSOCIATES, INC.
8055 EAST TUFTS AVE, SUITE 1320
DENVER, CO 80237
TEL: 303.649.1600 FAX: 303.649.1660

SIGNAGE & WAYFINDING:
RAFAEL VIÑOLY ARCHITECTS PC
50 VANDAM STREET
NEW YORK, NY 10013
TEL: 212 924 5060 FAX: 212 924 5858

SPECIFICATIONS:
ROBERT SCHWARTZ & ASSOCIATES
589 8TH. AVE., 17TH. FLOOR
NEW YORK, NY 10018
TEL: 212 691 3248 FAX: 212 633 1613
BID PACKAGE 2:
STRUCTURE

PHASE :

SEAL & SIGNATURE

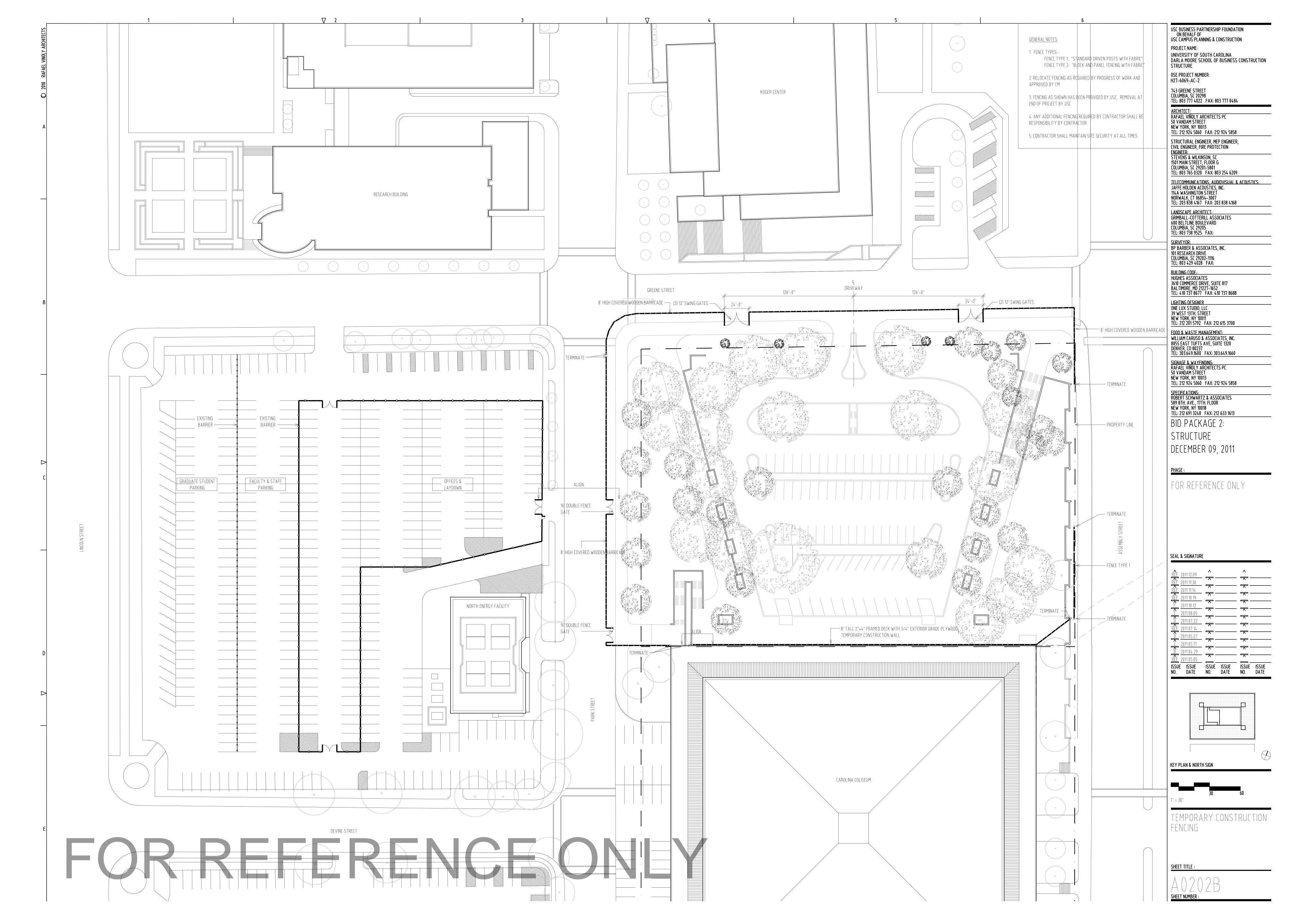


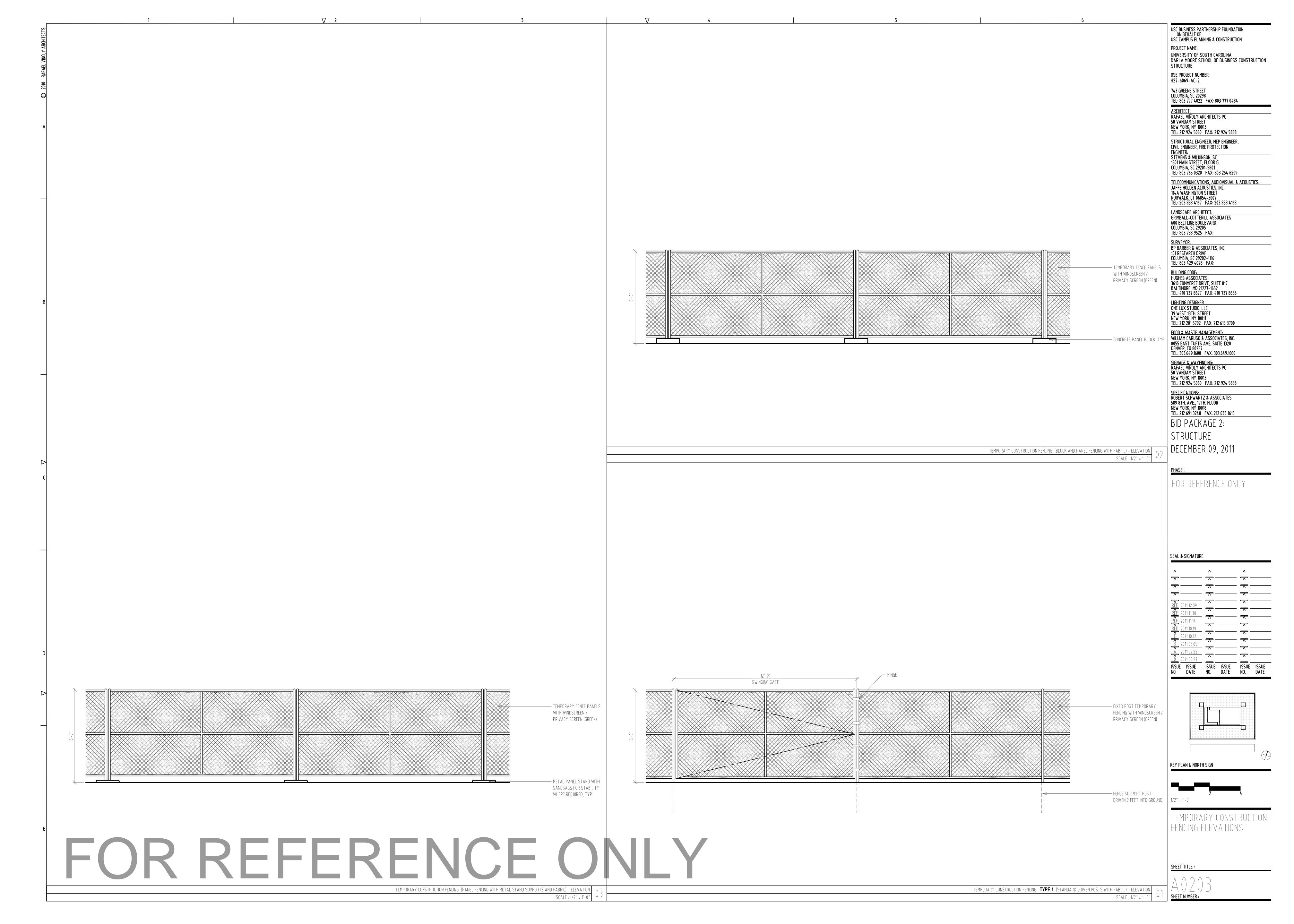
KEY PLAN & NORTH SIGN

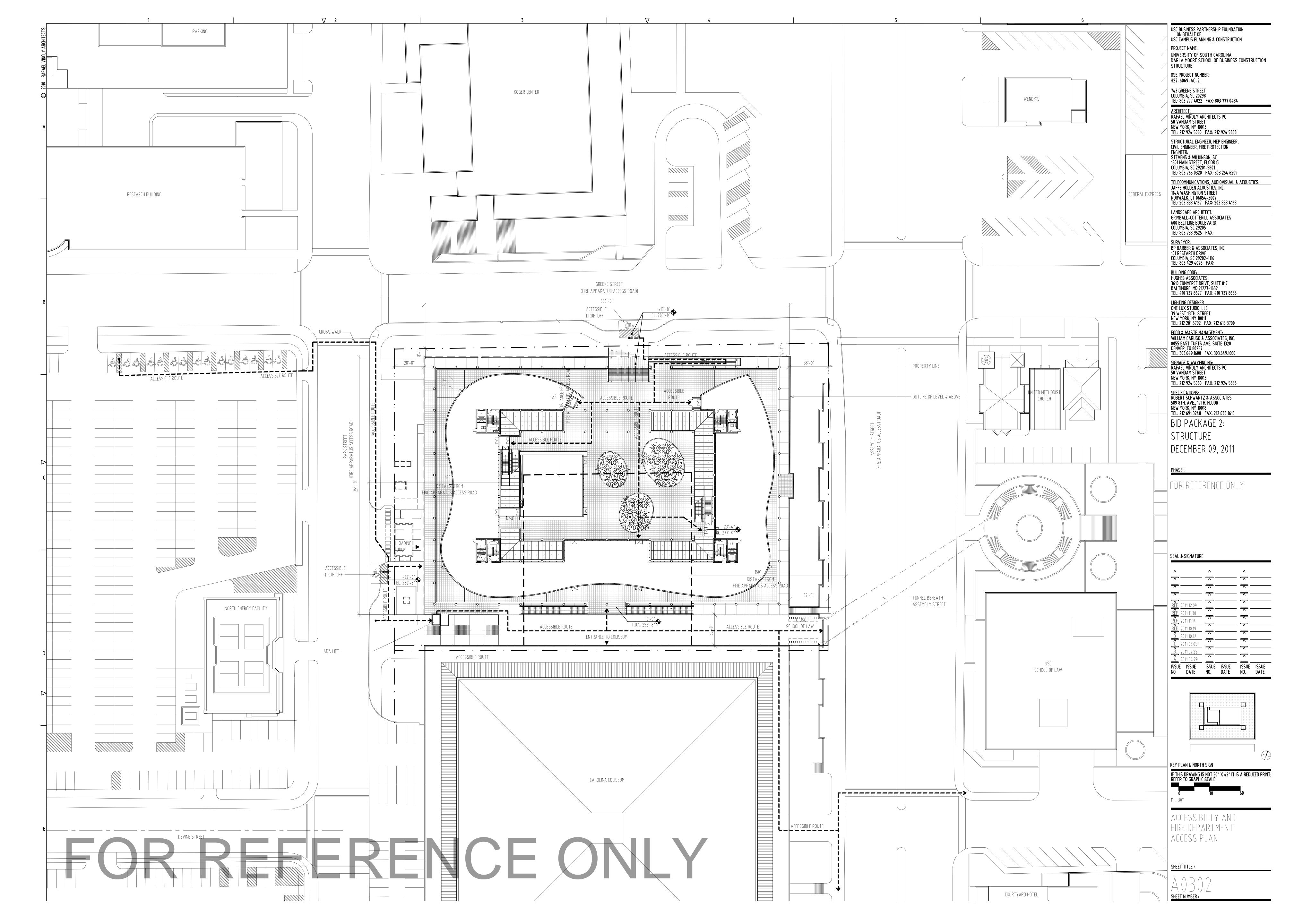


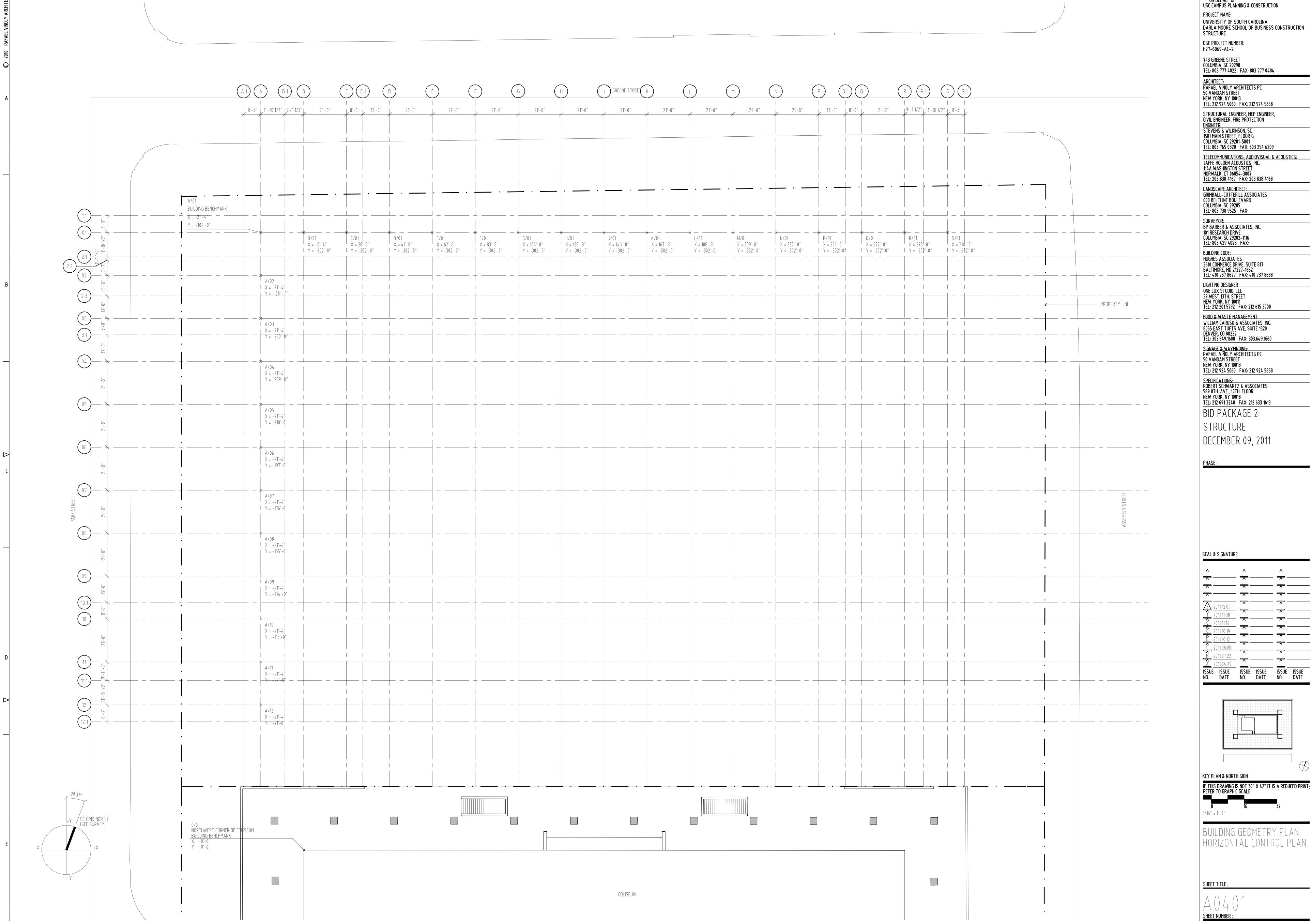
OSE CODE TABLES & SUPPLEMENTAL CODE INFORMATION

SHEET TITLE:









USC BUSINESS PARTNERSHIP FOUNDATION ON BEHALF OF USC CAMPUS PLANNING & CONSTRUCTION

^	٨	٨
$\overline{\wedge}$	$\overline{}$	_ ~
<u></u>		
$\overline{\wedge}$	~	_ ~
$\overline{\wedge}$	~	
2011.12.09	~	
<u>1</u> 2011.11.30		
0 2011.11.14		
$\overline{}$	$\overline{}$	_ ~
2011.10.19	$\overline{}$	- ~ —
<u>D</u> 2011.10.12		_ 🚍
<u>C</u> 2011.08.05		
<u>B</u> 2011.07.22		
A 2011.04.29		_ _
ICCIIE ICCIIE		

HORIZONTAL CONTROL PLAN

