DESIGN CRITERY

DC-1 BINLOWG CODE: UFC 1-200-01: IBC 2003

DC-2 LATERAL LOAD DESIGN CRITERIA 110 MPH 1. BASIC WIND SPEED (V . WAND IMPORTANCE FACTOR (IW) Seisikic design criteria I. USE GROUP . SEISMIC IMPORTANCE FACTOR (Ie) SITE CLASS D (ASSUMED) 5. SHORT PERIOD SPECTRAL ACCELERATION (Ss) = 1.5

6. ONE SECOND SPECIFIAL ACCELERATION (S1) =
7. SESSIC RESISTING SYSTEM:
A. R = 5.0 8. ANALYSIS METHOD: EQUIVALENT LATERAL FORCE PROCEDURE

OC-3 GRAVITY LOADS

A. DEAD LOADS 1.07 KPA (22 PSF) 1. ROOF AMINIMUM (FOR UPLIFT) 0.34 KPA (7 PSF) 2. FL00R 3.07 KPA (64 PSF)

0.96 KPA (20 PSF) MINIMIAY OR SNOW LOAD 1. ROOF 4.79 KPA (100 PSF) 12.0 KPA (250 PSF) 3. ACCESS FLOOR WST BAY FLOOR H20 WHEEL LOADIN 4.79 KPA (100 PSF) CORRIDORS

STAIRS 4.79 KPA (100 PSF) 7. STORAGE 6.00 KPA (125 PSF) MECHANICAL SNOW LOADS 7.18 KPA (150 PSF) 1. GROUND SNOW LOAD (Pg)
2. RGOF SNOW LOAD (Pf) 3.11 KPA (65 PSF) 2.20 KPA (46 PSF) 3. SNOW IMPORTANCE FACTOR (Is) 1.0
4. SNOW EXPOSURE FACTOR (Ce) 1.0

ADDITIONAL SHOW DRIFT AS PER APPLICABLE BUILDING CODE(S). CONSTRUCTION LOADS

1. NOT TO EXCEED THE DESIGN LIVE LOADS.

OC-4 FOUNDATION DESIGN CRITERIA
A FOUNDATION DESIGN IS BASED UPON THE FOLLOWING SOIL PARAMETERS:

 NET ALLOWABLE SOIL BEARING PRESSURE (SPREAD FOOTINGS)
 LATERAL EARTH PRESSURE PARAMETERS (WITHIN BUILDING FOOTPRINT): [2500 PSF]

 SOIL DENSITY = [125 PCF] COEFFICIENT OF ACTIVE PRESSURE (Kg) = 0.27 COFFFICIENT OF AT-REST PRESSURE (Ko) = 1.0

COEFFICIENT OF PASSIVE EARTH PRESSURE (Kp) = 3.70 5. ANGLE OF INTERNAL FRICTION (phi)= 35 DEGREES

6. COEFFICIENT OF FRICTION (U) = 0.6
7. MODULUS OF SUB-GRADE REACTION (ks) = 61.1 N/CM³ [225 PC]

- G-1 METHOUS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND IMPLEMENTING THE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT
- G-2 TEMPORARY BRACING, SHEETING, SHORING, ETC, REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY/STABILITY OF THE EXISTING BUILDINGS, SDEMALKS, UTILITIES, ETC, DURRING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR AND STALL SE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE CONTRACTOR.
- G-3 IMPLEMENTATION OF JOB SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR
- C-4 SLEEVES OR BLOCK-OUTS REQUIRED FOR PASSAGE OF DUCTWORK, PIPING, DRAINS, CONDUT, ETC, IN ADDITION TO ANCHORS AND HANGERS REQUIRED FOR EQUIPMENT AND PIPING AND UNDER-SLAB UTILITIES ARE NOT SPECIFICALLY, NOR GENERALLY, INDICATED ON THE STRUCTURAL DEAMINS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINE SUCH REQUIREMENTS PROFIT OF FABRICATION OR ERECTION OF THE STRUCTURE. PENETRATIONS ARE SUBJECT TO APPROVAL BY THE CONTRACTOR OFFICER.
- C-5 CHIENSIONS AND DISTALLATION DETAILS OF PURCHASED FOURPMENT MUST BE VERIFIED AND ORIENTALISM AND INTERFERENCE OF PURPOSED COMPANIES MAD SEE VENTED AND COORDINATED WITH THE SUPPORTING STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING SUCH REQUIREMENTS FROM SUBCONTRACTORS AND EQUIPMENT SUPPLIES ADMINISTRATION OF THE SUPPORTING STRUCTURE. ANY CONFLOTS BETWEEN PROR TO FARRICATION OF THE SUPPORTING STRUCTURE. ANY CONFLOTS BETWEEN THESE ITEMS AND THE BUILDING STRUCTURE IS TO BE BROUGHT TO THE ATTENTION OF THE
- G-6 THE STRUCTURAL DRAWINGS GOVERN THE WORK FOR STRUCTURAL FEATURES, UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ON PLANS AND DETAILS ARE TO GOVERN THE STRUCTURAL WORK. THE CONTRACTOR IS TO REFER TO THE ARCHITECTURAL DRAWNIGS FOR
- G-7 IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, SPECIFICATIONS, AND DRAWINGS, THE MOST RIGID REQUIREMENTS AS DETERMINED BY THE CONTRACTING OFFICER WILL GOVERN.
- G-8 Work not indicated on a part of the drawings, but reasonably implied to be simplar to that shown at corresponding locations, is to be repeated.
- C-9 EXISTING RUILDING INFORMATION SHOWN IS BASED UPON EXISTING BUILDING DOCUMENTS AND/OR FROM FIELD GISERYATION, THE INFORMATION CONTAINED HERBIN MAY REQUIRE ADJUSTMENTS AND/OR MODIFICATIONS TO CONFORM TO EXISTING CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING BUILDING INFORMATION SHOWN (DIMENSIONS, ELEVATIONS, ETC) AND NOTIFY THE OF ANY DISCREPANCIES PRIOR TO FABRICATION OF ANY
- G-10 DETAILS DESIGNATED AS "TYPICAL DETAILS," APPLY GENERALLY TO THE DRAWINGS IN AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE DETAILS.
- G-11 SHOP DRAWINGS:
- A SHOP DRAWINGS FOR ALL MATERIALS ARE TO BE SUBMITTED TO THE CONTRACTING DEFICER FOR REVIEW PRIOR TO THE START OF FABRICATION OR COMMENCEMENT OF
- B. SHOP DRAWINGS MUST BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO Subjussion. The contractor's stamp of approval will constitute certification that he has verified all field measurements, construction criteria, materials AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION,
- C. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONTRACT DRAWINGS FOR
- SUBJUTTAL AS SHOP DRAWINGS IS PROHIBITED.

 D. CHANGES TO SHOP DRAWINGS THAT ARE RE-SUBJUTTED MUST BE CLOUDED OR SOMEHOW INDICATE THAT A CHANGE HAS BEEN MADE TO PREVIOUSLY ISSUED AND REVIEWED DRAWING.

G-12 THE CONTRACTOR IS TO PROMDE THE CONTRACTING OFFICER WITH WRITTEN MOTICE OF DEVIATIONS OF ANY TYPE FROM THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. THE NOTICE HUST BE RECENTED PRIOR TO SHOP DRAWING SUBMITTAL. THE CONTRACTOR REMANS LIABLE FOR ANY DEVATION UNLESS REVIEWED BY THE CONTRACTING OFFICER AND ACKNOWLEDGED IN WRITING, PRIOR TO THE RECEIPT OF THE SHOP DRAWINGS.

- F-1 FOUNDATIONS HAVE BEEN DESIGNED AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHITERIA ESTABLISHED BY MICHAEL BAKER JR., INC. IN THEIR GEOTECHNICAL REPORT PREPARED FOR 114'S PROJECT DATED MAY 2005. THIS REPORT IS CONSIDERED PART OF
- F-2 FOUNDATIONS ARE TO BE PLACED ON UNDISTURBED SOIL OR COMPACTED FILL CONFORMING TO THE SPECIFICATIONS OR 95% STANDARD DENSITY PER ASTM 0 1557 (MAXIMUM FILL LIFT
- F-3 THE CONTRACTOR IS TO RETAIN THE SERVICES OF A PROFESSIONAL GEOTECHNICAL ENGINEER, SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER, TO VERIFY THAT THE MATERIAL OF WHICH FOUNDATIONS BEAR HAS AT LEAST THE CAMPOTY AS NOTED IN THE DESIGN CONTENTAL THE GEOTECHNICAL ENGINEER IS TO MAKE RECOMMENDATIONS FOR IMPROVING THE AREAS THAT OO NOT WEET THE DESIGN CRITERIA.
- F-4 ELEVATIONS SHOWN ON THE DRAWINGS AT WHICH FOUNDATIONS BEAR ARE APPROXIMATE AND MAY VARY TO SUIT SUBSURFACE SOIL CONDITIONS. STEP—IN FOOTING LOCATIONS SHOWN ON THE DRAWINGS ARE TO BE FIELD VERFIED AND ADJUSTED AS REQUIRED SO THAT FOUNDATIONS BEAR ON WATERIAL OF AT LEAST THE CAPACITY NOTED ABOVE. ALL EXTERIOR FOOTINGS ARE TO BEAR A MINIMUM OF 1500MM 1423MM (4"-8") BELOW FINISHED GRADE.
- F-5 PRIOR TO PLACING CONCRETE, ANY WATER PRESENT IS TO BE PUMPED OUT FROM THE BOTTOM OF EXCAVATIONS TO A LEVEL APPROVED BY THE CONTRACTING OFFICER.
- F-6 CONCRETE SLABS ON GRADE HAVE BEEN DESIGNED TO BEAR ON PROPERLY COUPACTED SUB-GRADE SOILS AS PER THE DESIGN CRITERIA. THE SUB-BASE MATERIAL BENEATH THE SLAB-ON-GRADE IS TO CONFORM TO ASTM D 1241, TYPE 1, GRADATION 8 AND BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS OR 95% STANDARD DENSITY PER ASTM 0 1557 (NAXIMUM FILL LIFT = 200MM [8"]).
- F-7 NO BACKFILLING AGAINST WALLS IS TO BE DONE UNTIL THE SLABS AT THE TOP AND BOTTOM HAVE BEEN PLACED OR ADEQUATE SHORING HAS BEEN PROVIDED. WALLS AND GRADE BEAMS HAVING BACKFILL AGAINST BOTH SIDES ARE TO HAVE BACKFILL PLACED ON BOTH SIDES
- F-8 OPERABLE EQUIPMENT WITH WEIGHT GREATER THAN THE DESIGN SURCHARGE MUST MAINTAIN A SAFE HORIZONTAL CLEAR DISTANCE FROM BASSMENT AND RETAINING WALLS. A SAFE HORIZONTAL CLEAR DISTANCE IS DEFINED AS THE DISTANCE FROM THE BASE OF THE RETAINING WALL TO THE TOP OF FINSHED GRADE. DESIGN SURCHARGE EQUALS 4.78 KPA

REINFORCED CONCRET

- C-1 REINFORCED CONCRETE WORK IS TO BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE— ACI 318 (LATEST EDITION) AND THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS— ACI
- C-2 MIXING, TRANSPORTING, PLACING AND TESTING OF CONCRETE IS TO BE DONE IN ACCORDANCE
- C-3 PRIOR TO CONCRETE PLACEMENT, THE CONTRACTOR MUST SUBMIT A CONCRETE MIX DESIGN PREPARED IN ACCORDANCE WITH THE SPECIFICATIONS TO THE CONTRACTING OFFICER FOR
- C-4 CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'c) AS INDICATED ON THE CONCRETE MATERIALS SCHEDULE ON DRAWING SO.3.
- C-5 The sluup at point of placement is not to exceed 100mM+/-25mm ($4^*+/-1^*$) and the water/cenent ratio is not to exceed 0.45. If additional slump (up to 200mm (8")) IS DESRED FOR PUMPING, A SUPER-PLASTICIZER ADMIXTURE MAY 8E ADDED.

 A. AIR ENTRAINMENT: 5% TO 7% IN CONCRETE EXPOSED TO FREEZE/THAW.
- C-6 REINFORCEMENT: A. DEFORMED BARS: ASTM A 615/A 615M, GRADE 420 (GRADE 60)

 8. WELDED WIRE REINFORCEMENT: ASTM A 185
- C-7 REINFORCEMENT IS TO BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE ACI "DETAILING MANUAL NO. SP--66" (LATEST EDITION).
- C-8 REINFORCEMENT IS TO BE SECURELY HELD IN PLACE WHILE PLACING CONCRETE. IF REQUIRED, ADDITIONAL BARS, STIRRUPS, OR CHAIRS WILL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL BARS WHERE NECESSARY DURING CONSTRUCTION.
- C-9 CONTINUOUS REINFORCING BARS TO BE TURNED AND LAPPED AT CORNERS AND INTERSECTIONS OF WALLS AND FOOTINGS. LAP SPLICES TO BE CLASS B TENSION SPLICES PER ACI 318. HOCKED BARS TO HAVE STANDARD ACI HOOKS UNO.
- C-10 CONTINUOUS TOP BARS TO BE SPLICED AT MID-SPAN. CONTINUOUS BOTTOM BARS TO BE SPLICED AT CENTERLINE OF SUPPORTS (OR AS SHOWN ON DETAILS).
- C-11 WELDED WIRE REINFORCEMENT IS TO BE SUPPLIED IN FLAT SHEETS ONLY. LAP WELDED WIRE REINFORCEMENT TWO FULL HESH LENGTHS (OR 150MM (6") MIN) AT SPLICES AND WIRE TOGETHER. WELDED WIRE REINFORCEMENT TO BE PLACED 25MM (1") FROM THE TOP OF SLABS UNLESS NOTED OTHERWISE.
- C-12 concrete slabs to be cured by method compatible with specified floor finish, where acceptable use a liquid membrane-curing compound at the manufacturers recommended coverage. Sam joints to be cut as soon as possible without
- C-13 DMDE FLOOR SLASS-ON-GRADE INTO SEGMENTS BY MEANS OF EXPANSION, CONTROL AND CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS. POSITION OF CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE DRAWINGS ARE TO BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL.
- C-14 SLAB-ON-GRADE CONSTRUCTION JOINTS TO BE PLACED ON COLLAIN CENTERLINES. CONTROL JOINTS TO BE PLACED AT EQUAL INTERVALS IN EACH DIRECTION AS INDICATED ON THE PLANS. ADAPT CONTROL JOINT LOCATION AT ODD BAYS.
- C-15 LEVELING GROUT TO BE NON-SHRINK, NON-METALLIC TYPE, FACTORY PREMIXED GROUT IN ACCORDANCE WITH ASTM C 1107, HAWING A MINIMUM COMPRESSME STRENGTH OF NOT LESS THAN 34.5 MPA (5000 PSI).
- C-16 PROVIDE FINISHED SLAB-ON-GRADE WITH OVERALL VALUES OF FLATNESS F(F)=35 AND LEVELNESS F(I)=25 ALONG WITH LOCAL VALUES OF FLATNESS F(s)=24 AND LEVELNESS

- C-17 SLEEVES, INSERTS, MECHANICAL OPENINOS, CONDUTS, PIPES, RECESSES. DEPRESSIONS, CURBS AND OTHER EMBEDGED ITEMS TO BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL, MICHARCH, AND LECTRICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. INSTALLATION OF THESE ITEMS TO BE COORDINATED AND PROVIDED FOR PRIOR TO PLACING CONCRETE.
- C-18 PROVIDE BLOCK-DUTS AS REQUIRED FOR PRE-CAST CONCRETE PANEL ANCHORAGE. FILL WITH CONCRETE ONCE PANEL IS IN PLACE.
- C-19 ANCHOR RODS TO BE ASTM F 1554 FY=248 MPA (36 KSI) MINIMUM, GALVANIZED.

STRUCTURAL STEEL

- 5-1 STRUCTURAL STEEL WORK IS TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" (NINTH EDITION) AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDIN and Bridges" except section 4.2 of the code, which will not be applicable to this
- S-2 STRUCTURAL STEEL, UNLESS NOTED OTHERWISE, TO BE NEW STEEL CONFORMING TO THE RECOGREMENTS OF ASTN A 6/A 6M AND AS INDICATED ON THE STEEL MATERIAL SCHEDULE
- S-3 PRIOR TO FABRICATION, THE STEEL FABRICATION IS TO SUBMIT TO THE CONTRACTING OFFICER FOR REVIEW THE FOLLOWING: FOR REVIEW THE FOLLOWING:

 A DESIGN CALCULATIONS OF STRUCTURAL STEEL CONNECTIONS, PREPARED BY OR UNDER THE SUPERMISION OF, A PROFESSIONAL ENGINEER REDISTERED IN THE STATE OF WHICH THE PROJECT IS CONSTRUCTED AND BEARING THE SEAL OF THE PROFESSIONAL ENGINEER, B. SHOP DRAWINGS SHOWING ERECTION PLANS, PIECE DRAWINGS, AND CONNECTION DETAILS.
- S-4 THE STRUCTURAL STEEL FABRICATOR, AND/OR GENERAL CONTRACTOR, MUST VERIFY AL EXISTING DIJENSIONS AND CONDITIONS AT THE SITE. ALL DISCREPANICIS FOUND ARE TO BE REPORTED TO THE CONTRACTING OFFICER PRIOR TO PREPARATION OF SHOP DRAWINGS. SHOP DRAWINGS ARE TO INCLUDE ALL FIELD MEASUREMENTS AND CONDITIONS.
- S-5 STRUCTURAL STEEL FABRICATOR IS TO PROVIDE FOR VERTICAL AND HORIZONTAL FIELD ADJUSTMENT OF ALL SUPPORT ASSEMBLIES.
- S-6 Cuts, Holes, Coping, ETC required for other trades must be shown on the shop drawings and made in the shop. Cuts or burning of holes in the field will not
- S-7 STEEL BEAMS ARE TO BE EQUALLY SPACED IN BAYS UNLESS OTHERWISE HOTED.
- S-8 FABRICATE AND INSTALL BEANS WITH NATURAL CAMBER UP UNLESS CAMBER IS NOTED ON
- S-9 PROVIDE CAMBER IN REAMS WHERE INDICATED ON THE DRAWINGS, CAMBER INDICATED ON PLANS AFTER BEAM SIZE THUS: C=#. ALL BEAMS HAVING THE SAME DESIGN DESIGNATION
- S-10 ALL STRUCTURAL STEEL FRANES ARE TO BE SECURELY BRACED UNTIL ALL FLOOR SLABS, ROOF DECKS AND SHEAR WALLS HAVE BEEN INSTALLED AND BECOME CAPABLE OF STABILIZING
- S—11 BOLTEO CONNECTIONS TO BE MADE ACCORDING TO AISC TABLE II OR III FRAMED BEAM CONNECTIONS. THE MINIMUM DEPTH OF THE CONNECTION MUST BE MORE THAN 75% OF THE BEAM DEPTH EXCEPT THAT BEAMS FRANING TO COLUMNS TO HAVE FULL DEPTH CONNECTIONS
 - USING 9.5MM (3/8") MINIMUM CONNECTION ANGLES OR PLATES.

 A NON-COMPOSTE BEAM CONNECTIONS TO BE DESIGNED FOR ONE HALF THE UNIFORM LDAD CAPACITY OF THE BEAM AS TABULATED BY AISC UNLESS HIGHER LOADS ARE INDICATED ON THE DRAWNINGS.
 - B. Couposite beans (shear studs on top flange) require connection capacities to be increased to 75% load capacity of the bean unless higher loads are
- S-12 UNLESS OTHERWISE NOTED, STRUCTURAL STEEL CONNECTIONS TO BE SHOP WELDED AND FIELD BOLTED. CONNECTIONS ARE TO BE DESIGNED AND DETAILED IN ACCORDANCE WITH AISC STANDARO 341 "SEISHIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS." A BOLTS; 9.5MM (3/8") DAMAETER ASTM A 325M (A 325) UND WITH MATCHING WASHERS AND HEAVY HEX NUTS. USE TENSION CONTROL BOLT ASSEMBLIES CONFORMING TO ASTM
- S-13 SUBSTITUTION OF EXPANSION ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS
- S-14 WELDING TO BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE-ANS/AWS D1.1" (LATEST EDITION), USE E70XX ELECTRODES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- S-15 HEADED SHEAR STUDS CONNECTORS TO CONFORM TO ASTM A 108, GRADE 1015 OR 1020, COLD-FINISHED CARBON STEEL
- s-16 shear stud connectors to be 19Mm [3/4"] diameter x 100Mm (4") long (in place height) and securely welded to the beams. Inviber of study is indicated thus (XX) AFTER BEAM SIZE ON PLAY. NUMBER OF STUDS INDICATED THUS (XX-XX-XX ETC) SHALL BE PLACED IN CORRESPONDING GROUPS BETWEEN INTERSCRING MEMBERS AND SUPPORTING MEMBERS (NO STUDS ON CANTILEVERS). BEAMS HAVING THE SAME DESIGN DESIGNATION ARE TO HAVE THE SAME NUMBER OF STUDS.
 - A. WHERE DECK IS PERPENDICULAR TO COMPOSITE BEAM (IE FILLER BEAM), PLACE A SINGLE STILD IN EVERY OTHER DECK CELL STARTING AT EACH BEAM END AND WORKING TOWARD THE CENTER OF THE BEAM. ANY REMAINING STUDS ARE TO BE PLACED IN EMPTY CELLS STARTING AGAIN AT EACH BEAM END AND WORKING TOWARD THE CENTER. ADDITIONAL STUDS OR "PUDDLE WELDS" MUST BE USED FOR REMAINING FIRPTY FILTIES. IF MINISPER OF STUDE IS MORE THAN HUMBER OF FLUTES, PLACE DOUBLE OR TREPE ROMS AS NEEDED STARTING FROM EACH BEAM END AND WORKING TOWARD THE CENTER OF THE BEAM. A MINIMUM OF ONE STUD IS TO BE PLACED IN EVERY FLUTE.
 - B. WHERE DECK IS PARALLEL TO COMPOSITE BEAM (IE GIRDER), STUDS ARE TO BE EQUALLY SPACED OVER THE LENGTH OF THE BEAM. STUDS IN GROUPS BETWEEN INTERSECTING MEMBERS ARE TO BE FOLKLLY SPACED.
 - C. MINIMUM CENTER-TO-CENTER SPACING OF STUDS TO BE 6 DAMETERS 115MM (4-1/2") ALONG LONGITUDINAL AXIS OF COMPOSITE BEAM AND 4 DIAMETERS (75MM (3"))
 TRANSVERSE TO THE LONGITUDINAL AXIS OF COMPOSITE BEAM. PLACE SINGLE ROW STUDS ON BEAM CENTER LINE. FOR STAGGERED ARRANGEMENT OF STUDS MAINTAIN MINIMUM 95MM (3-3/4") SPACE BETWEEN STUDS, AND 22MM (7/8") MINIMUM DISTANCE FROM EDGE OF BEAN FLANGE. STUD SPACING IS NOT TO EXCEED 915MM (38") ON
 - CENTER.

 D. SHOP DRAWING OF STUD PLACEMENT MUST BE SUBMITTED TO THE CONTRACTING OFFICER

- S-17 STEEL BRACING AND CONNECTIONS WITH AXIAL FORCES: A. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAIL OF ALL CONNECTIONS.
 - LOADS INDICATED THUS (±LOAD) ON FRAMING PLANS AND ELEVATIONS ARE AXIAL FORCES LOUND HUMCHEU HIND (ELDAD) ON PROMING PLANS AND ELEVATIONS ARE AND FUNCES IN MEMBERS. A PLUS (1) SIGN INDICATES TENSILE LOAD WHILE A MINUS (-) SIGN INDICATES A COMPRESSIVE LOAD. THESE FORCES ARE MAXIMUMS ON INDIMIDUAL MEMBERS AND ARE NOT INCESSABILITY FOR THE SAME LOAD COMBINATION.

 B. ALL CONNECTIONS TO BE DESIGNED BY THE FASRICATOR TO DEVELOP THE ACTUAL AXIAL FORCES SHOWN ON THE DRAWNINGS. NO INCREASE IN ALLOWABLE STRESSES IS ALLOWED.

 - C. WHERE AN AXIAL LOAD INDICATED THIS (±LOAD) IS SHOWN ON A FRANKING MEMBER, THE CONNECTION SHALL BE DESIGNED FOR THE MAXIMUM CONNECTION REACTION INDICATED PLUS THE BOLT PRINGS ACTION GENERATED BY THE LESSER OF THE TWO CONNECTING DELICIONS THE DATE OF THE TWO CONNECTING
 - MEMBER AVAIL FORCES SHOWN ON THE PLANS.

 D. SEE TYPICAL BRACING DETAILS FOR NOTES CONCERNING THE DESIGN OF VERTICAL BRACING CONNECTIONS.
 - E. BOLTS TO BE MINIMUM 19MM [3/4"] DAWLETER ASTN A 325M (A 325) UNO, QUANTITY TO BE AS REQUIRED TO DEVELOP FORCES INDICATED (WINIMUM 2 BOLT CONNECTION FOR ANGLES AND 4 BOLT CONNECTION FOR WITS AND WIDE FLANGE MEMBERS LIND
 - F. GUSSET AND CONNECTION PLATE SIZES AND THICK RESSES SHOWN ARE MINIMUM, FABRICATOR TO DESIGN PLATES FOR ACTUAL LOADS INDICATED,
 G. SECTION AT OF AISC 9TH EDITION IS AMENDED SUCH THAT THE FABRICATOR IS
 - RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL CONNECTIONS.
- S-18 MANUFACTURE STEEL GRATING IN ACCORDANCE WITH THE "NETAL BAR GRATING MANUAL" AS PUBLISHED BY THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS, LATEST
 - A STEEL FOR GRATING TO CONFORM TO ASTM A 1011/A 1011M. GRATING TO BE AS INDICATED WITH GALVANIZED FINISH

S-19 PAINT AND PROTECTION:

- A STRUCTURAL STEEL, UNLESS INDICATED OTHERWISE, TO BE SHOP CLEANED PER SSPC SP3 A SINGULARY SIEC, UNICES INCOMED OF THE MYSE, TO BE SHOP CLEARED PER SSPC SYS AND PAINTED ONE SHOP COAT OF FABRICATOR'S STANDARD RUST INHIBITING PRIVER. TOUCH UP AFTER ERCCIION.

 B. OO MOT PAINT STEEL WHERE ENCASED WITH CONCRETE, OR AT FIELD WELD AREAS.

 C. DO MOT PAINT STEUCOMAL STEEL TO BE FIREPROOFED. SHOP CLEAME PER SSPC SPS.

 D. DO MOT PAINT STRUCTURAL STEEL TO BECENT PAINTED FIRMS TO BE COMPOSITE SHEAR CONNECTORS.

 E. EXPOSED STRUCTURAL STEEL TO RECEIVE PAINTED FIRMS TO BE SHOP CLEAMED AND PRIVE PAINTED PRIVE THE SPECIFICATIONS. REFERENCE ARCHITECTURE FOR FINISH PAINT SYSTEMS.

- STITLES.

 F. EXPOSED STRUCTURAL STEEL FOR SCREEN WALLS, EQUIPMENT PLATFORMS, LOOSE ANGLE LINTELS ETC, TO BE HOT DIPPED GALVANIZED PER ASTN A-123
- G. PROVIDE MINIMUM 75MM (3") CONCRETE COVER FOR ALL STEEL BELOW GRADE.

LIGHT CAGE STEEL FRAMING

- LG-! STRUCTURAL MEMBERS MUST BE DESCRIED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AIS). "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (LATEST EDITION).
- LG-2 STRUCTURAL MEMBERS TO BE FORMED FROM CORROSION RESISTANT STEEL CONFORMING TO ASTIN A 653/A 653N WITH MINIMUM YIELD STRESS (Fy) OF 345 MPA (50 KSI) FOR STUDS
- LG-3 LIGHT GAGE MEMBERS AND DETAILS SHOWN ON THE ARCHITECTURAL OR STRUCTURA DRAYINGS ARE FOR BID PURPOSES ONLY. STRUCTURAL STUD AND/OR JOIST FRAMING MEXIBERS AND CONNECTIONS ARE TO BE ENGINEERED BY THE MANUFACTURER. DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING ALL JAMBS, POSTS, HEADERS, BRACING AND PIECES NECESSARY FOR CONSTRUCTION SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW. DESIGN CALCULATIONS ARE TO BE PREPARED BY OR LINDER THE SUPERASION OF A PROFESSIONAL DESIGNER REGISTERED IN THE STATE OF WHICH THE PROJECT IS CONSTRUCTED AND BEARING THE SEAL OF THE PROFESSIONAL ENGINEER.
- EG-4 Exterior Stud Walls to be designed for a minimum uniform wind pressure per the applicable building code components and cladding load and a maximum permissible. HORIZONTAL DEFLECTION OF L/360 (L/600 FOR BRICK VENEER).
- LG-5 MAXIMUM STUD SPACING TO BE 400MM [16"] ON CENTER WITH DOUBLED STUDS (MINIMUM) AT EACH SIDE OF OPENINGS.
- LG-6 Framing components are to be cut squarely for attachment to perpendicular members or as required for an angular fit against abutting members. LG-7 FIELD CUITING OF STUDS MUST BE DONE BY SAWING OR SHEARING, TORCH CUITING OF

COLD-FORMED MEMBERS IS UNACCEPTABLE.

- LG—8 FASTERING OF COMPONENTS IS TO BE WITH SELF-DRILLING SCREWS OR WELDING, WELDING
 OF STUDS MUST COMPLY WITH AWS D 1.3. ALL WELDS TO BE TOUCHED-UP WITH ZINC-RICH
 PAINT, SCREWS AND WELDS TO BE OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS IS NOT PERMITTED. POWDER DRIVEN FASTENERS ARE NOT ACCEPTABLE FOR STRUCTURAL APPLICATIONS,
- LG-9 LIGHT GAGE STEEL FRAMING MEMBERS ARE TO BE SECURELY ATTACHED TO THE STRUCTURE WHERE INDICATED ON THE DRAWINGS, OR APPROVED SHOP DRAWINGS. FASTENERS TO BE COMPATIBLE TO THE STRUCTURAL MEMBERS.
- LG-10PROVIDE VERTICAL SUBE TRACKS, OR SUDE CUPS, WHERE INDICATED ON THE ORAWINGS OR OTHERWISE REQUIRED TO ALLOW FOR VERTICAL STRUCTURAL MOVEMENTS. MARSHUM EXPECTED STRUCTURE LINE LOAD DEFLECTION IS L/360 AT FLOORS AND L/240 AT ROOFS.
- LG-11REFERENCE ARCHITECTURAL ORAWINSS FOR ADDITIONAL INFORMATION, INCLUDING SHEATHING TYPE, PINISHES, OPENINGS, LOCATIONS ETC

DEFERRED SUBMITTAL ITEMS

onstruction, and inspection

"Roof Truss Design

The following items are deferred submittal items. They must be submitted to Building Safety Pian Review for review and approved prior to installation, SAPPROVE JUNE 2 2006 RTU Seismic Restrain



BDS Bezek Durst Seiser, Inc. 3330 C Street, Suite 200 Anchorage Alaska 99503 P.907.562.6076 F.907.562.6635

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COMMUNITY LAND TRUST MV

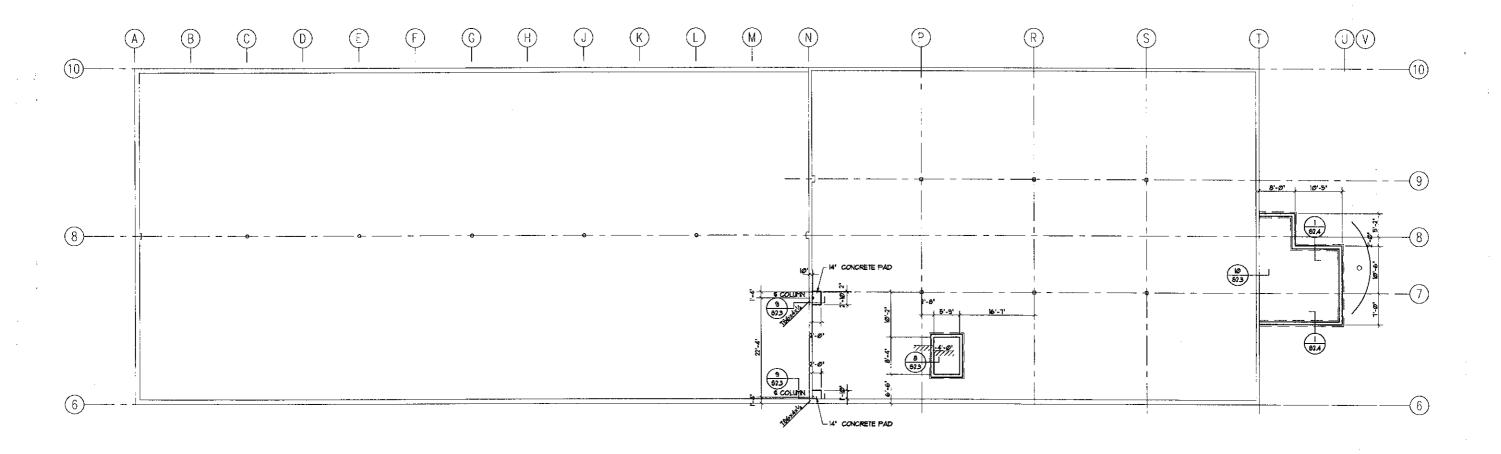
ANCHORAGE

COMMERCE CENTER

ANCHORAGE ALASKA

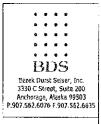
BDS PROJECT #: CONSTRUCTION DOCUMENTS APRIL 21, 2006

S0.1





FOUNDATION & SLAB PLAN



ANCHORAGE COMMUNITY LAND TRUST

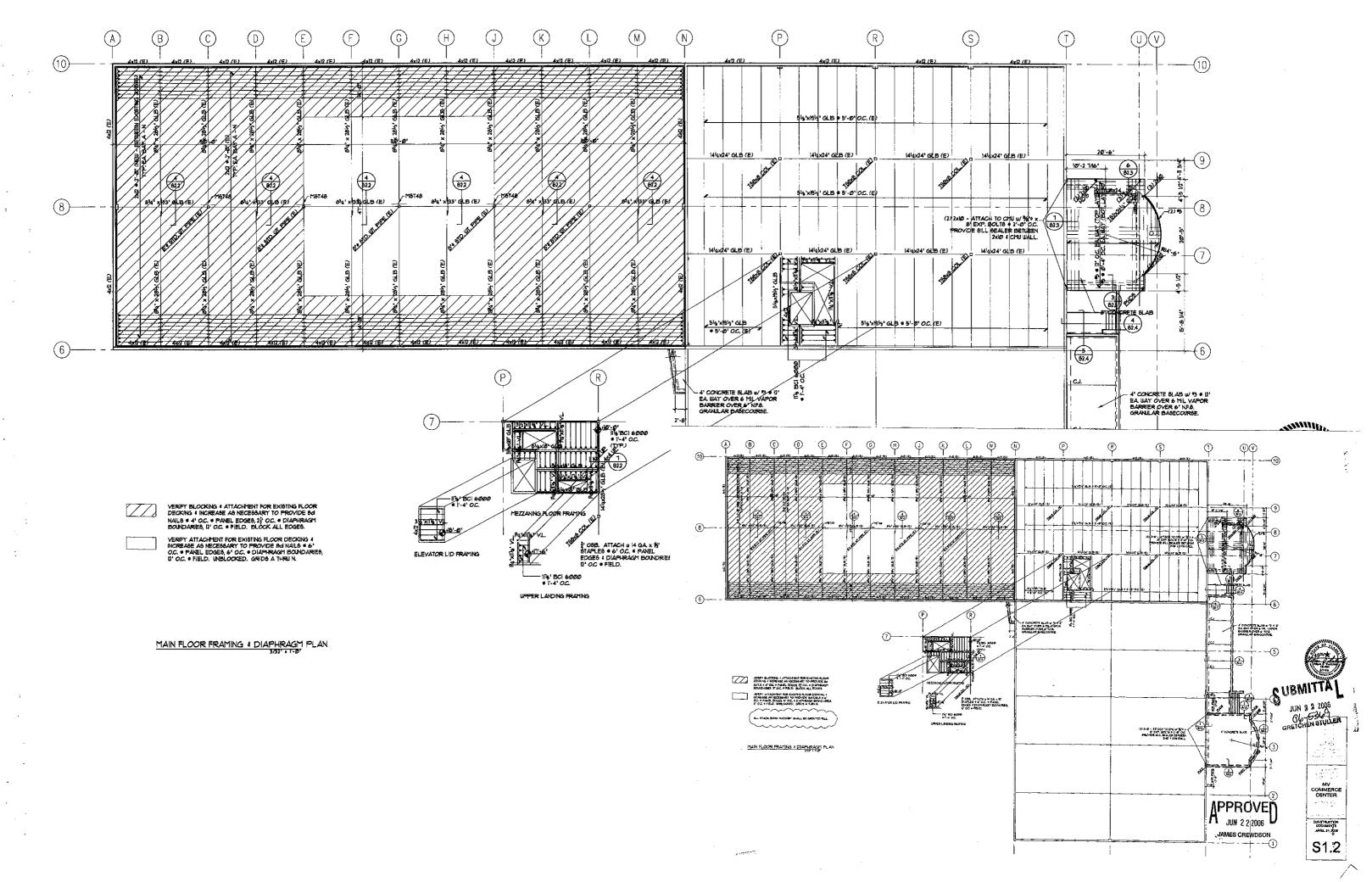
MV COMMERCE CENTER ANCHORAGE, ALASKA

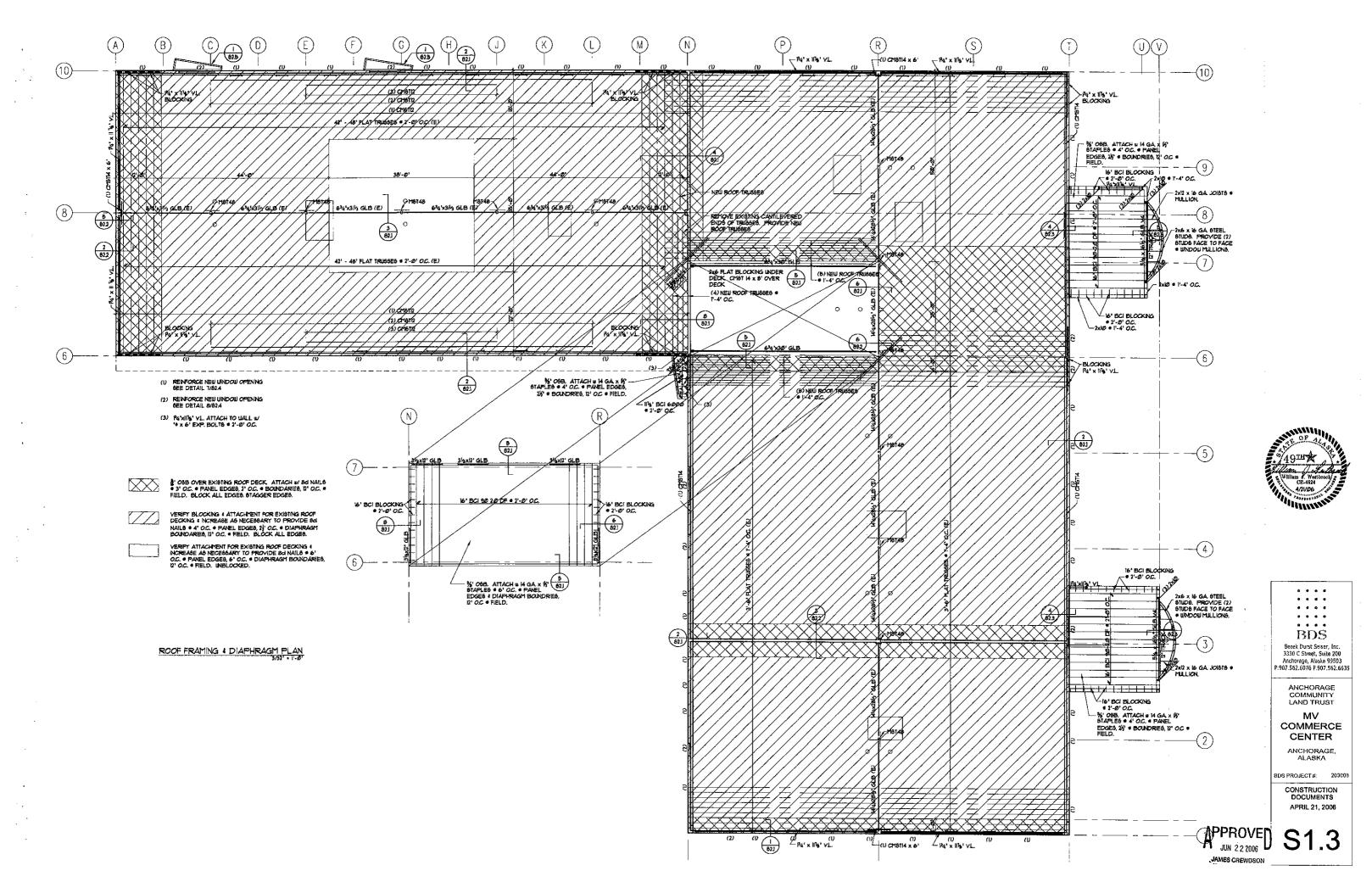
BDS PROJECT #: 203003

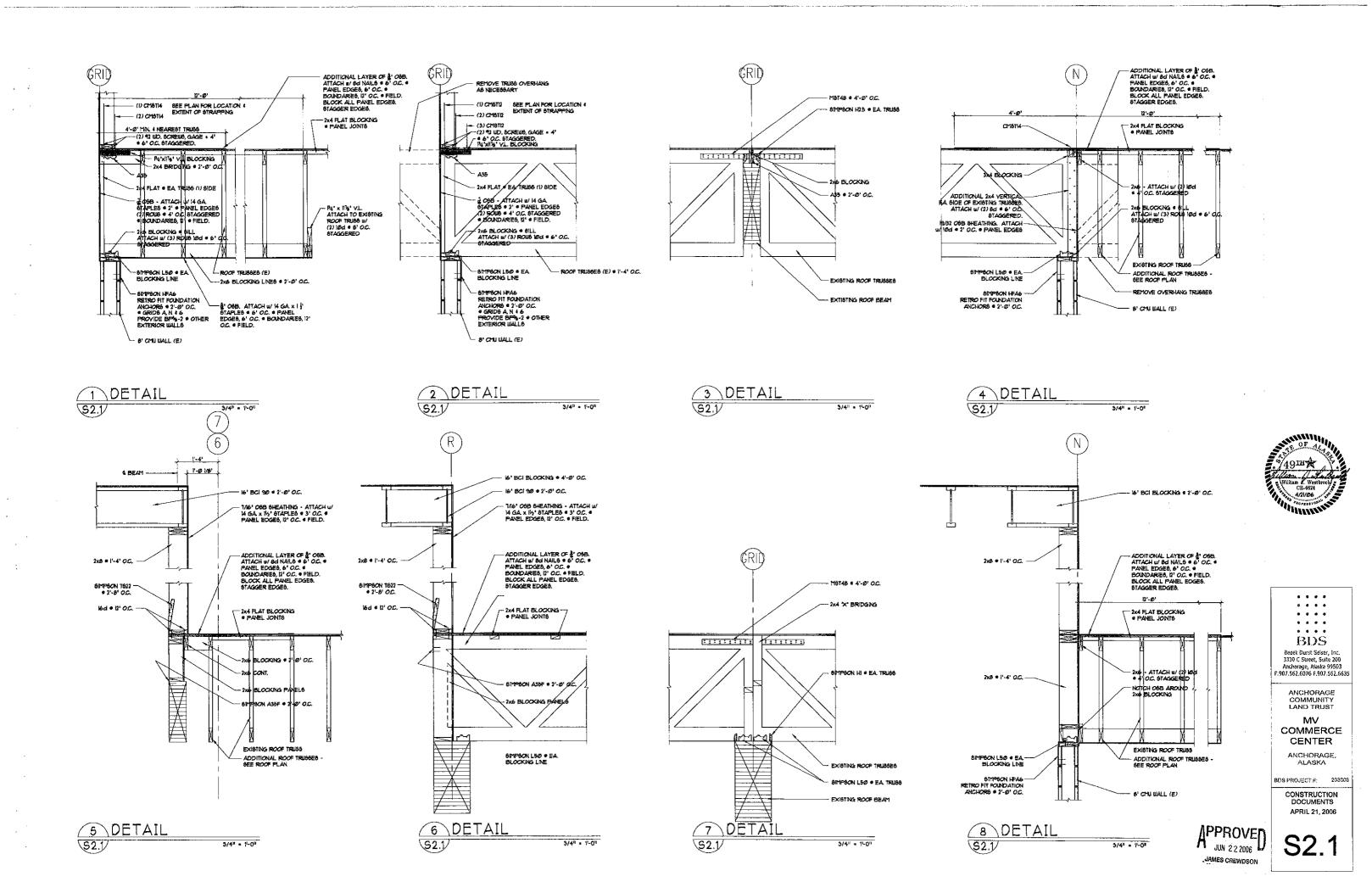
APPROVED
JUN 2 2 2006
JAMES CREWDSON

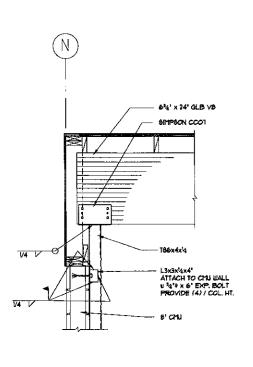
CONSTRUCTION DOCUMENTS APRIL 21, 2006

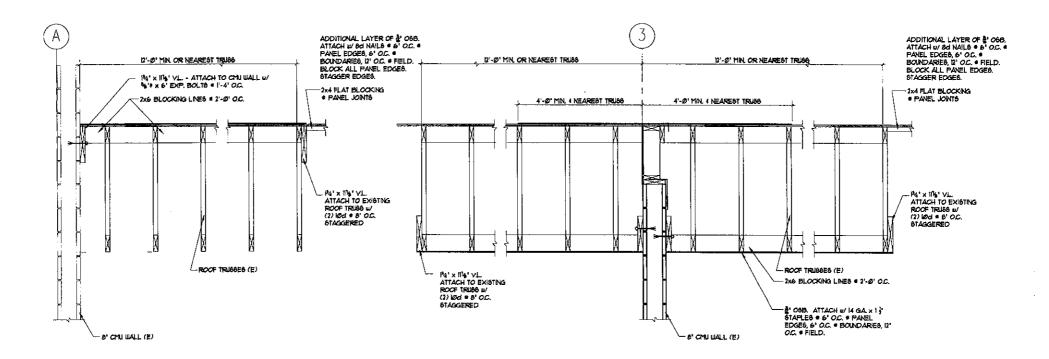
S1.1







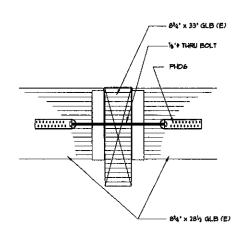


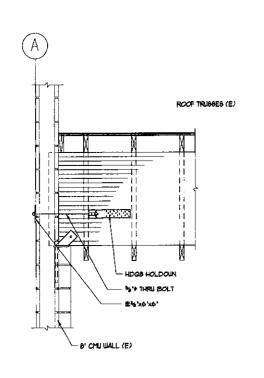


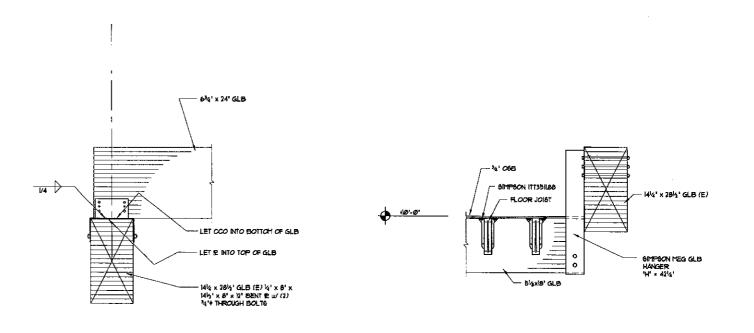






















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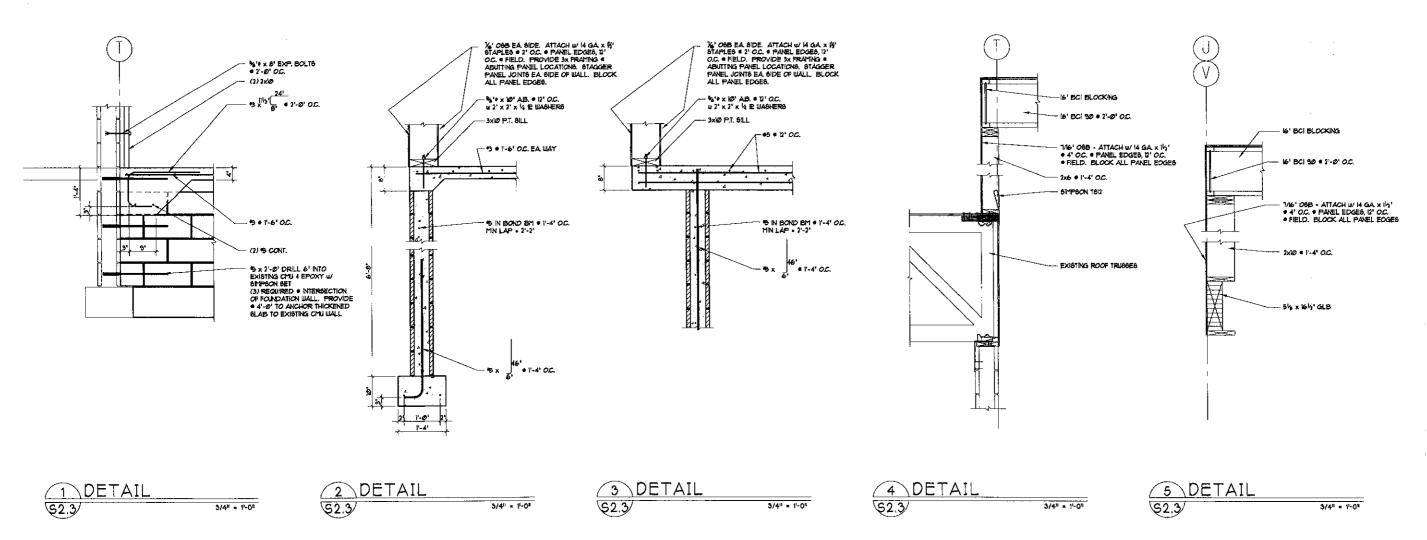
ANCHORAGE, ALASKA

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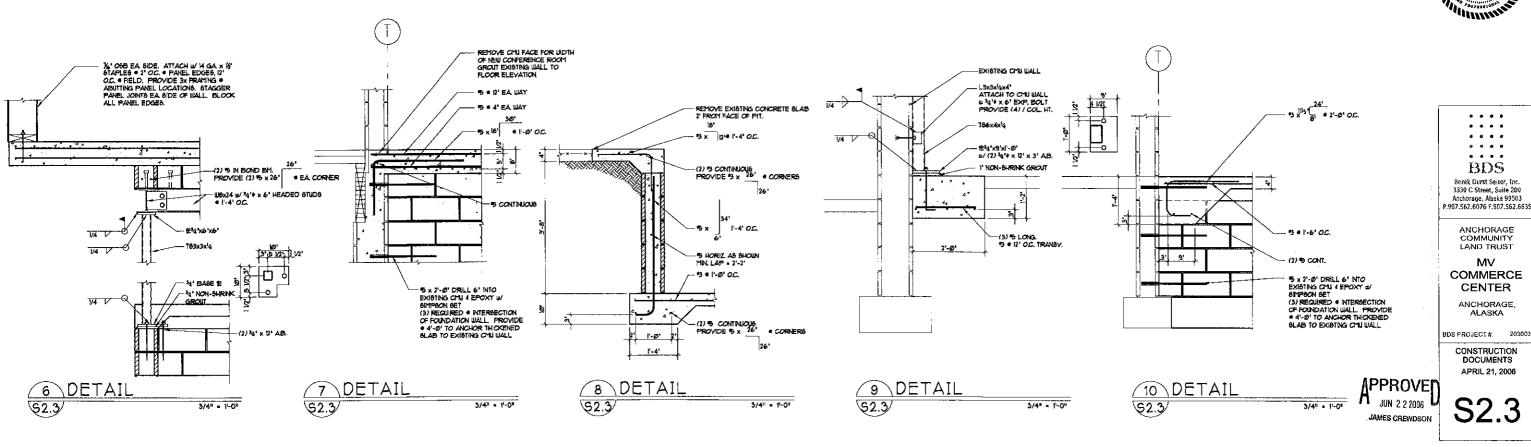
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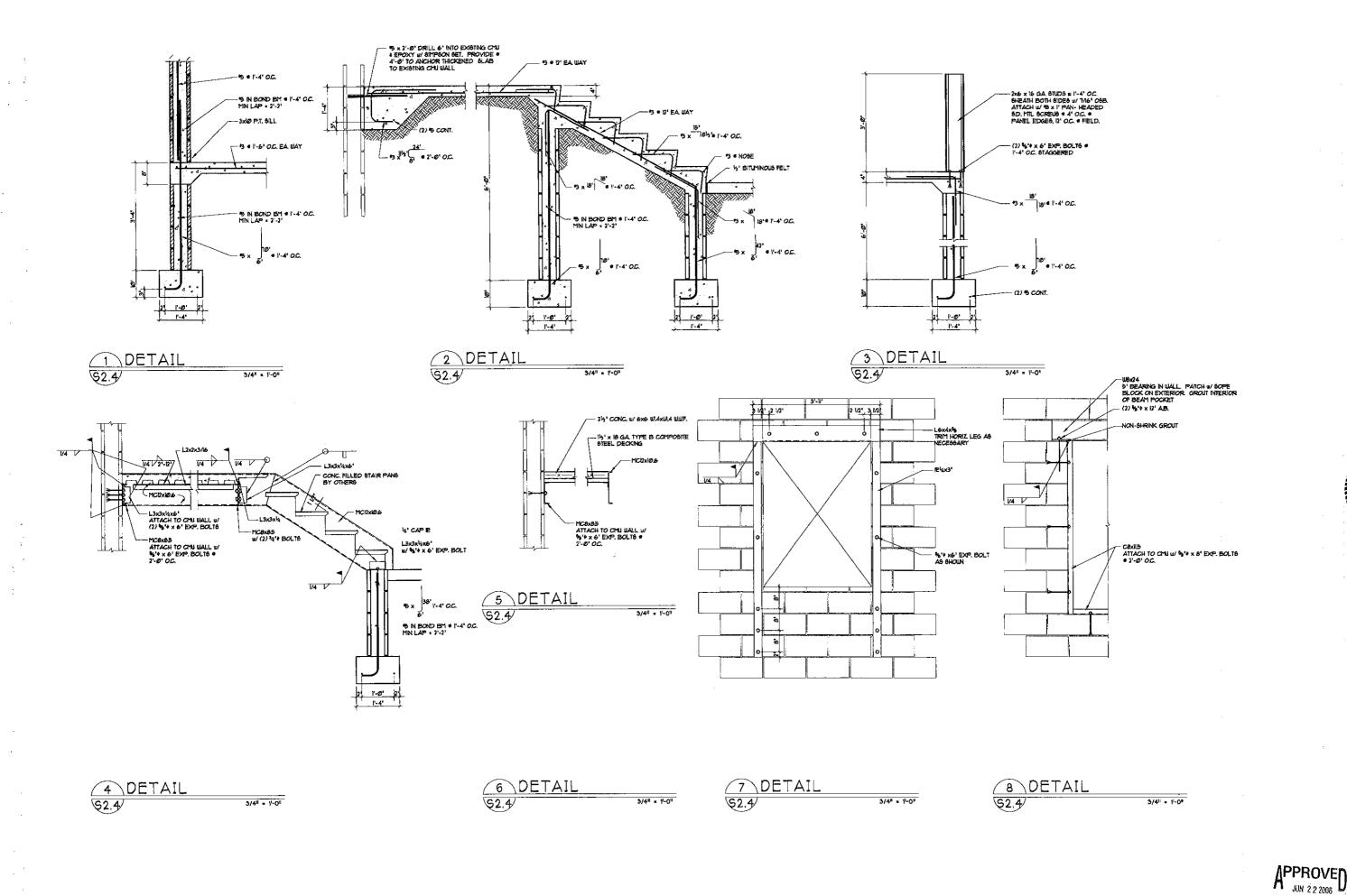
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S2.2











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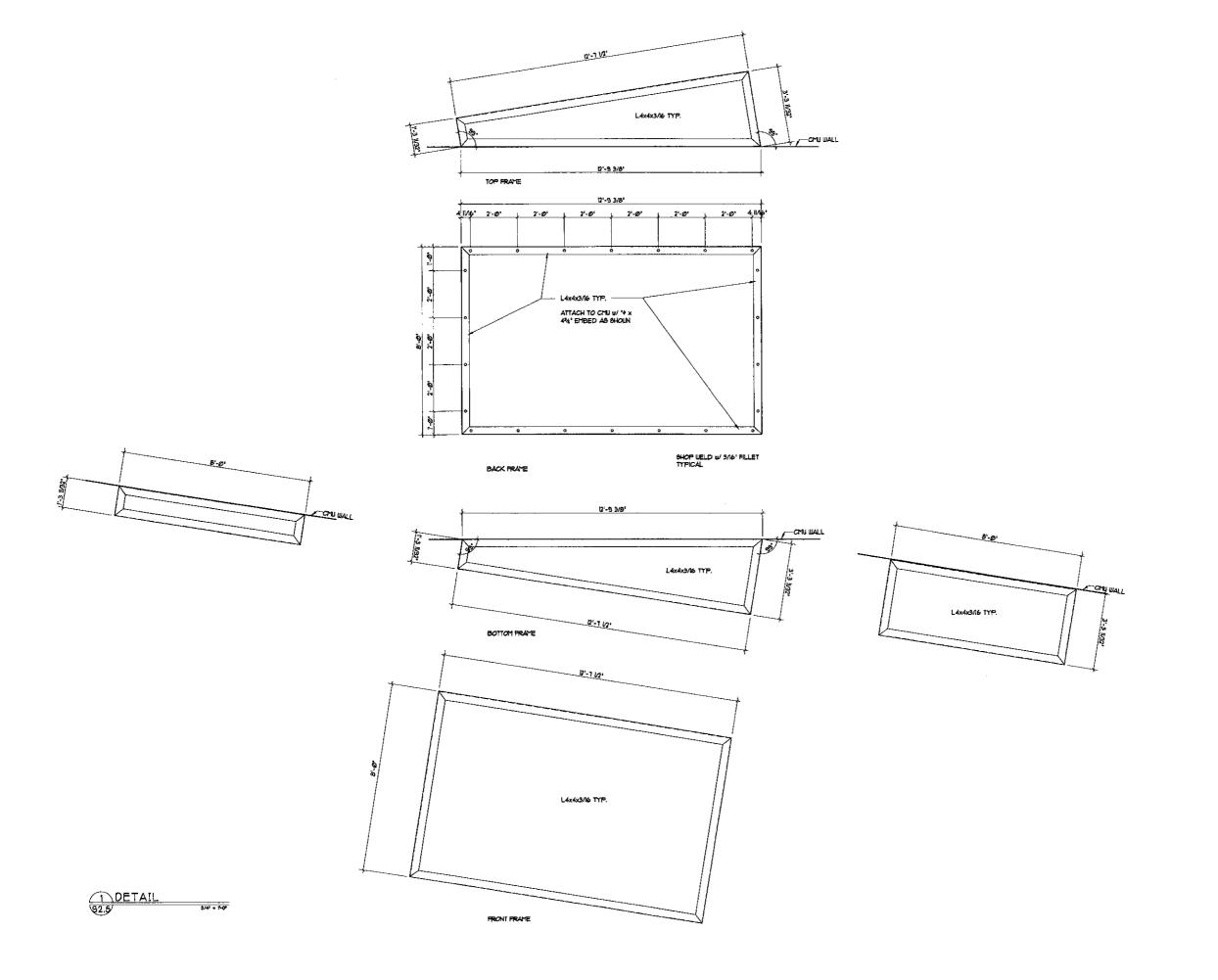
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BDS PROJECT#: 203003

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S2.4





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S2.5