

STRUCTURAL ROOF REHABILITATION

BLYTHE RECREATION CENTER

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A STRUCTURAL ROOF REHABILITATION
BLYTHE RECREATION CENTER
127 S. MAIN ST. BLYTHE CALIFORNIA

INSPECTION	
1. INSPECTIONS PER 2012 IBC & 2013 CBC SECTIONS 108 & 1704:	1.
THE FOLLOWING INSPECTION REQUIREMENTS OF THE 2010 IBC & 2013 CBC SHALL BE MADE AS APPLICABLE FOR THE CONSTRUCTION OF THE PROJECT. REFER ALSO TO THE PROJECT SPECIFICATIONS.	
FOUNDATIONS	1802.1, 1810.
WOOD, LATH, GYPSUM BOARD	108.5.4, 108.5.5
CONCRETE	1902.1, 1903.1, 1908.
BOLTS IN CONCRETE	1911, 1912, 2204.2.1.
REBAR & P.T. TENDONS	1701.5 4.
WELDING	2204.1
STRUCTURAL MASONRY	1701.5 7.
EXCAVATION & FILLING	1701.5 13.
SPECIAL INSPECTOR	110.3.9
PERIODIC INSPECTOR	1702.1 1710
APPROVED FABRICATOR	1701.7

CONCRETE MASONRY	
1. CONCRETE MASONRY:	1.
A. F _{cm} = 1500 PSI MINIMUM AND HIGHER OR AS SHOWN ON THE DRAWINGS.	
B. GRADE N UNITS, CONFORMING TO ASTM 90, WITH MINIMUM STRENGTH OF BLOCK TO BE DETERMINED BY REQUIRED F _{cm} .	
C. PROVIDE NORMAL WEIGHT UNITS FOR WALLS RETAINING EARTH & 8 UNITS FOR SHEAR WALLS. PROVIDE LIGHT WEIGHT UNITS AT ALL LOCATIONS.	
D. GROUT 200 PSI MIN. AND HIGHER AS REQUIRED BY SPECIFIED F _{cm} . EXAMINE DETAILS AND SCHEDULES. GROUT ALL CELLS, UNDS.	
E. MORTAR TYPE M, MINIMUM OR STRONGER AS REQUIRED TO MEET STRENGTH CRITERIA.	
F. SEE NOTE 2 BELOW FOR TESTING REQUIRED TO ESTABLISH F _{cm} .	
G. MINIMUM CMU REINFORCING: 10M	
VERTICAL BARS MAY NOT BE SPLICED EXCEPT TO FOOTING DOVELS.	
2. TESTING:	
PROVIDE COMPLIANCE WITH F _{cm} PER CBC REQUIREMENTS FOR FULL ALLOWABLE STRESSES IN ACCORDANCE WITH ONE OF THE FOLLOWING: MASONRY PRISM TESTING OR MASONRY PRISM TEST RECORD OR UNIT STRENGTH METHOD. CONTRACTOR SHALL PROVIDE ALL TESTS AND RECORDS FOR METHOD CHOSEN.	
3. GROUT LIFTS:	
MASONRY UNITS SHALL BE LAID TO A MAXIMUM HEIGHT OF FIVE FEET BEFORE GROUTING. HIGH LIFT GROUTING MAY NOT BE USED UNLESS CONTRACTOR SUBMITS PROPOSED METHOD AND OBTAINS APPROVAL FROM THE ENFORCEMENT AGENCY.	
4. REINFORCING IN MASONRY:	
SEE SECTION BELOW.	

REINFORCING BARS	
1. REBAR GRADES:	1.
UNLESS NOTED OTHERWISE BELOW, ALL REINFORCING STEEL, INCLUDING FOUNDATIONS AND MASONRY SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60. SEE "WELDING & CUTTING" FOR BARS TO BE WELDED.	
2. WELDED WIRE FABRIC:	
WELDED WIRE FABRIC SHALL CONFORM TO ASTM A62 AND A185.	
3. DOWELING:	
ALL WALLS SHALL BE DOWELED INTO FOOTINGS, OR SLABS WITH BARS OF THE SAME SIZE AND SPACING AS THE BARS ABOVE. UND. LAP 60 BAR DIAMETERS MIN.	
4. LAP SPLICES:	
A. DO NOT SPlice BARS EXCEPT WHERE SPECIFICALLY SHOWN ON DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.	
B. FOR CONCRETE, PROVIDE LAPS PER GENERAL DETAILS, UND.	
C. FOR CONCRETE MASONRY, PROVIDE 60 DIAMETER MINIMUM LAPS. UND. D. LAPS IN HORIZONTAL BARS SHALL BE STAGGERED.	
5. HOOKS AND BENDS:	
HOOKS AND BAR BENDING DETAILS SHALL CONFORM TO CBC 2013 AND ACI 315.	
6. INSTALLATION:	
A. PROVIDE TEMPLATES TO MAINTAIN SPECIFIED LOCATION OF DOVELS.	
B. PROVIDE ACCESSORIES TO MAINTAIN VERTICAL WALL BARS IN PLACE DURING POURING. SINGLE CURTAIN VERTICAL BARS SHALL BE SECURED WITH 1/4 INCH OF THE SPECIFIED LOCATION. SUPPORT SPACING FOR VERTICAL BARS SHALL NOT EXCEED 100 BAR DIAMETERS.	
C. ALL SUPPORTS, SPLICES AND ACCESSORIES.	
D. ALL BARS SHALL BE SECURED IN PLACE PRIOR TO PLACEMENT OF ANY CONCRETE.	
7. CONCRETE PROTECTION OF REINFORCING BARS:	
A. CAST IN PLACE CONCRETE, NON PRE-STRESSED MIN. COVER 3"	
CAST AGAINST PERMANENTLY EXPOSED EARTH	
FORMED, EXPOSED TO EARTH OR WEATHER	2"
#5 & LARGER	1 1/2"
#5 & SMALLER	
NOT EXPOSED TO EARTH OR WEATHER (SLABS, WALLS, JOISTS)	1 1/2"
#14 & LAR	1 1/2"
#11 & SMALLER	
BEAMS & COLUMNS	1 1/2"

SUBMITTALS	
1. SHOP DRAWINGS:	1.
A. SHOP DRAWINGS, CALCULATIONS, SAMPLES, ETC. FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW A MINIMUM OF 15 WORKING DAYS PRIOR TO FABRICATION OF WORK.	
1. CONCRETE MIX DESIGN SHALL BE STAMPED AND SIGNED BY TEST LAB'S PROFESSIONAL ENGINEER	
2. REBAR	
3. STRUCTURAL STEEL AND MISCELLANEOUS IRON.	
4. STEEL, STAIR FRAMING, RAILINGS, CONNECTIONS, AND EMBEDS SHALL BE STAMPED SIGNED BY STAIR MANUFACTURER'S PROFESSIONAL ENGINEER	
5. GLUED LAMINATED TIMBERS	
6. TRUSS JOISTS	
7. CONCRETE CURING METHODS	
8. WELDING PROCEDURE SPECIFICATIONS	
B. SHOP DRAWING SUBMITTALS SHALL INCLUDE A MINIMUM OF ONE SET OF TRANSPARENCIES.	
C. REVIEW OF SHOP DRAWINGS DOES NOT CONSIDER CHANGES OR DEVIATIONS TO THE CONTRACT DOCUMENTS AND SHOULD NOT BE CONSTRUED AS APPROVAL OF ANY SUCH ITEM.	

FOUNDATIONS	
1. DESIGN:	1.
SPREAD FOOTING WITH A.S.B.P. AT 1000 PSF (NET) FOUNDATION IS ASSUMED PER CBC CHAPTER 18.	
2. FOOTINGS:	
BOTTOM OF ALL FOOTINGS SHALL EXTEND A MINIMUM OF 24 INCHES BELOW LOWEST ADJACENT FINISHED FLOOR OR FINAL GRADE AND 18" MIN. INTO UNDISTURBED NATURAL SOIL. NON-BEARING RETAINING WALL FOOTINGS SHALL BE EMBEDDED MIN. 24" BELOW LOWEST ADJACENT FINISH FLOOR OR FINAL GRADE.	
3. INSPECTIONS:	
THE SOILS ENGINEER OR HIS REPRESENTATIVE SHALL INSPECT ALL WORK PRIOR TO THE PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE AND SHALL PROVIDE THE GOVERNING AGENCY WRITTEN VERIFICATION THAT EXPOSED BEARING CONDITIONS ARE IN CONFORMANCE WITH THE RECOMMENDATIONS GIVEN IN THE SOILS REPORT PRIOR TO INSPECTION BY THE GOVERNING AGENCY.	
4. RETAINING WALLS:	
PROVIDE SHORING OF ALL RETAINING WALLS UNTIL PERMANENT SUPPORT IS IN PLACE. PROVIDE WATERPROOFING & BACK FILL DRAIN SYSTEM PER SOILS REPORT FOR ALL SUB GRADE RETAINING WALLS.	

CONCRETE	
1. CONCRETE PLACEMENT & QUALITY:	1.
CONCRETE PLACEMENT AND QUALITY SHALL BE PER RECOMMENDATIONS IN A.C.I. SP-35. A COPY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE DURING CONSTRUCTION.	
2. DEBRIS:	
REMOVE ALL DEBRIS FROM FORMS BEFORE POURING. DO NOT PERMIT REINFORCING TO BE CONTAMINATED BY FORM RELEASE AGENTS.	
3. EMBEDDED ITEMS:	
A. ALL INSERTS SHALL BE CAST IN CONCRETE AND SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.	
B. DRILLED FASTENERS ARE NOT PERMITTED UNLESS THE CONTRACTOR FULLY DETAILS AND OBTAINS APPROVAL FROM THE ENFORCEMENT AGENCY FOR THEIR USE.	
C. POWER-DRIVEN FASTENERS WILL BE PERMITTED ONLY WHEN IT CAN BE SHOWN THAT THEY WILL NOT SPALL THE CONCRETE AND ARE LOCATED SO AS TO AVOID REINFORCING CONTRACTOR SHALL FULLY DETAIL AND OBTAIN APPROVAL FROM THE ENFORCEMENT AGENCY BEFORE INSTALLATION. ALL HARDWARE SHALL HAVE A CURRENT I.C.B.I. RESEARCH REPORT AND SHALL BE ACCEPTED BY THE STRUCTURAL ENGINEER, THE INSPECTOR, AND THE ENFORCEMENT AGENCY BEFORE INSTALLATION.	
4. CONSTRUCTION JOINTS:	
A. HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS IN WALLS AND FOOTINGS SHALL HAVE SURFACES RACED AND ROUGHENED TO A MINIMUM OF 1/4" AMPLITUDE AND KEYS AT 10" DIA. UND. SUBMIT SPECIFIC PROPOSED LOCATIONS FOR REVIEW BY STRUCTURAL ENGINEER.	
B. SLAB OR GRADE: NOMINAL 2X KEYS X 1/3 SLAB THICKNESS, CONTINUOUS, SEE DETAILS.	
C. ALL JOINTS NOTED ON THE DRAWINGS AS SLIP JOINTS SHALL BEARING SURFACE TROTTLED SMOOTH AND COVERED WITH 16 GAUGE GALVANIZED METAL SHEET FOLLOWED BY 2 LAYERS OF 6 MIL. VULCANIZED SLIP JOINTS SHALL NOT BE KEVED OR PREVENTED FROM SLIPPING IN ANY WAY.	
5. PIPES AND CONDUIT:	
PIPES AND ELECTRICAL CONDUIT SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT AS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. SUBMIT SHOP DRAWINGS SHOWING ALL PIPE AND CONDUIT SIZES, LOCATIONS AND SPACING. MAXIMUM SIZE SHALL BE 1/4 OF THE SLAB THICKNESS AND LOCATED AT THE MID DEPTH OF THE SLAB. MINIMUM SPACING IN SLABS SHALL BE 6 TIMES THE DIAMETER OF THE LARGEST PIPES AND CONDUIT SHALL NOT DISPLACE REBAR NOR IMPAIR THE STRENGTH OF THE CONCRETE.	
6. FORMWORK:	
A. DESIGN SHORING SUFFICIENT TO SUPPORT CONSTRUCTION DEAD AND LIVE LOADS.	
B. DESIGN WALL FORMING CONSISTENT WITH WALL DIMENSIONS AND EXPECTED RATE OF POURING.	
C. NO PORTION OF THE FORMING OR SHORING SYSTEM MAY BE REMOVED LESS THAN 12 HOURS AFTER PLACING CONCRETE.	
7. CEMENT:	
CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO CBC STANDARD 19-1	
8. CONCRETE AGE:	
NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY STRUCTURAL ENGINEER. (SEE ACI 318-11 FOR LIMITATIONS AND PRACTICES DUE TO HIGH TEMPERATURES.)	
9. FIELD FOREMAN:	
THE FIELD FOREMAN RESPONSIBLE FOR THE PLACEMENT OF ALL STRUCTURAL CONCRETE SHALL DEMONSTRATE A MINIMUM OF THREE YEARS EXPERIENCE IN THIS CAPACITY FOR THIS TYPE OF CONSTRUCTION.	
10. AGGREGATES:	
A. AGGREGATES SHALL NOT CONTAIN REACTIVE SUBSTANCES IN AMOUNTS THAT ARE DETERMINED TO BE DETERIMENTAL TO THE CONCRETE.	
B. AGGREGATE SIZES SHALL CONFORM TO THE SPECIFICATIONS.	
C. CONCRETE AGGREGATES SHALL CONSIST OF A CLEAN, HARD, FINE-GRAINED, SOUND CRUSHED GRANITE OR LIMESTONE, AND/OR WASHED GRAVEL AND SHALL BE FREE OF OIL, ORGANIC MATTER OR OTHER DETERIMENTAL SUBSTANCES AS LIMITED BY TABLE NO.3 ASTM C33.	
D. THE COARSE AGGREGATES SHALL NOT EXCEED 90 CUBIC FEET PER CUBIC YARD OF CONCRETE.	
11. ADMIXTURES:	
A. ADMIXTURES SHALL BE APPROVED BY THE ARCHITECT AND THE ENFORCEMENT AGENCY.	
B. ADMIXTURES CONTAINING CHLORIDE IONS NOT PERMITTED.	
C. ADMIXTURES TO REDUCE WATER CONTENT AND SHRINKAGE ARE ENCOURAGED.	
D. PROVIDE CURING FOR ALL CONCRETE SLABS IN ACCORDANCE WITH ACI 301 SEC 2.1. SUBMIT PROPOSED CURING METHOD FOR APPROVAL BY ARCHITECT.	

LUMBER & PLYWOOD	
1. GRADE & SIZE	1.
ALL STRUCTURAL LUMBER SHALL BE S4S DOUGLAS FIR OF THE FOLLOWING GRADES UNLESS NOTED OTHERWISE: ENGINEER	
STANDARDS, PLATES, AND BLOCKING	
STANDARD	
JOISTS AND PLANKS 2" TO 4" WIDE AND 6" AND DEEPER----- NO. 2	NO. 1
4X BEAMS, HEADERS, & STRINGERS----- NO. 2	NO. 1
BEAMS, HEADERS, & STRINGERS 6X AND LARGER----- NO. 1	
POSTS AND TIMBERS----- NO. 2	
ALL LUMBER SHALL BE GRADE STAMPED BY AN APPROVED GRADING AGENCY.	
2. MOISTURE CONTENT:	
MAXIMUM STORAGE CONTENT SHALL NOT EXCEED 19% MOISTURE UNLESS NOTED OTHERWISE.	
3. PLYWOOD:	
PLYWOOD SHOULD BE STRUCTURAL 1 OR CDX GRADE (WITH EXTERIOR TYPE GLUE) AND SHALL CONFORM TO PS-1-07. EACH SHEET SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE A.P.A. ALL HORIZONTAL PLYWOOD SHALL HAVE ALL EDGES NAILED TO JOISTS, BLOCKS, NAILERS & BEAMS.	
4. PRESSURE TREATED WOOD:	
ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR AND CONFORM TO C.B.C. STANDARD 25-12.	
ALL WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" TO THE EXPOSED GROUND SHALL BE PRESSURE TREATED OR NATURALLY DURABLE TO DECAY (CRC R317.1).	
FIELD CUTTING ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH ANPA M4 (CRC R317.1.1)	
5. BOLTS:	
ALL BOLTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS UNDER HEAD AND NOT UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE TIGHTENED PRIOR TO APPLICATION OF PLYWOOD, PLASTER, ETC.	
6. HOLES:	
HOLES FOR BOLTS SHALL BE BORED NO MORE THAN 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. DRILL PILOT HOLES 3/16" SMALLER IN DIAMETER THAN LAG BOLTS.	

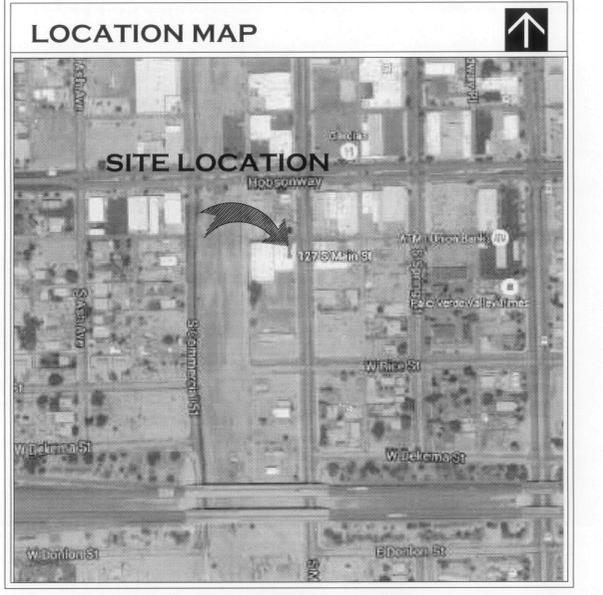
GENERAL	
1. TYPICAL DETAILS:	1.
CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE BUILT IN A MANNER CONSISTENT WITH THE DESIGN INTENT CONTAINED IN DETAILS SHOWN FOR SIMILAR WORK. ALL WORK OR CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATIONS AND SAFETY REQUIREMENTS.	
2. DISCREPANCIES:	
SITE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS AT THE JOB SITE AND BRING TO AMIR ENGINEERING ATTENTION ANY DISCREPANCIES. IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY AN ADDENDUM, THE MOST STRINGENT SHALL GOVERN AND THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECT'S INTERPRETATION.	
3. SHORING & BRACING:	
IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING AND TOWERING, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING THE CONSTRUCTION OF THE STRUCTURE.	
A. BRACING AND SHORING IS REQUIRED FOR RETAINING WALLS UNTIL ALL OTHER SUPPORTING ELEMENTS HAVE ATTAINED FULL DESIGN STRENGTH.	
B. PROVIDE SHORING FOR OTHER ELEMENTS AS REQUIRED TO TRANSMIT CONSTRUCTION LOADS TO ELEMENTS CAPABLE OF RESISTANCE WITHOUT DAMAGE TO PERMANENT STRUCTURE.	
4. EXCAVATION:	
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREET AND UTILITIES IN ACCORDANCE WITH THE ENFORCEMENT AGENCY.	
5. OTHER TRADES:	
SEE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAIL NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS.	
6. BACKFILL:	
BACKFILL AS IT OCCURS AROUND THE EXTERIOR PERIMETER OF WALLS SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED BY THE COMPLETION OF INTERIOR FLOOR SYSTEMS. DO NOT PROCEED WITH BACKFILL UNTIL 7 DAYS AS A MINIMUM AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEMS UNLESS WALLS ARE ADEQUATELY BRACED. BACKFILL SHALL NOT BE PLACED UNTIL AFTER COMPLETION, INSPECTION AND ACCEPTANCE OF WATERPROOFING WHERE OCCURS.	
7. SAFETY:	
A. THE CONTRACTOR IS RESPONSIBLE FOR SAFE CONDUCT OF THE CONSTRUCTION AND THE SAFETY OF THE WORKER. THIS INCLUDES, BUT IS NOT LIMITED TO, THE CONSTRUCTION OF SAFETY DEVICES, SAFETY APPLIANCES SUCH AS HANDRAILS, BARRIERS, ETC., TEMPORARY BRACING AND SHORING AND REMOVAL OF SAME. PERIODIC VISITS TO THE SITE BY THE STRUCTURAL ENGINEER FOR VERIFICATION, CLARIFICATION OR INTERPRETATION DO NOT CONSTITUTE SUPERVISION OR INSPECTION. ALL CONSTRUCTION SHALL CONFORM TO FEDERAL, STATE, AND CITY STANDARDS. B. PROVIDE PEDESTRIAN PROTECTION AT PUBLIC WAYS.	
8. GOVERNING CODES:	
A. THE 2010 CBC 2013 ORDINANCE 457 OF RIVERSIDE COUNTY DESIGN LOADS	
1. ROOF LIVE LOAD = 20 PSF - ROOF DEAD LOAD = 19 PSF	
TRUSS TOP CHORD LIVE LOAD = 20 PSF	
TRUSS TOP CHORD DEAD LOAD = 14 PSF	
2. WIND IMPORTANCE FACTOR 1.0 WIND ZONE	
WIND SPEED (3 SEC GUST) 110 MPH NOMINAL DESIGN SPEED.	
EXTERNAL PRESSURE COEFFICIENT (F10 28-4-1)	
INTERNAL PRESSURE COEFFICIENT (F11 28-4-1)	
COMPONENTS AND CLADDING DESIGN (F9 qWq (Gp)-(GGpp))	
EXPOSURE - RISK CATEGORY I-A	
3. SITE CLASS DEFINITION (D) OCCUPANCY CATEGORY II	
4. WIND PRESSURE CBC 2013 SECT 1603.1	
5. SEISMIC DESIGN CATEGORY (D) - COEFFICIENT Cs=0.15	
6. SEISMIC Ss=1.5g Sh=0.6g R= 6.5 SD=0.37 SDI=0.266	
7. BASIC SEISMIC FORCE-RESISTING SYSTEM (V-C&M) DESIGN BASE SHEAR (V=0.16V)	
ANALYSIS PROCEDURE USED CBC 2013 SECT 1603.1.5	
9. PERMITS:	
PERMITS FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, ARE REQUIRED FOR THE CONSTRUCTION OF BUILDINGS, STRUCTURES, OR SCAFFOLDING HIGHER THAN THREE STORIES OR THIRTY SIX FEET, AND FOR TRENCHES OR EXCAVATION DEEPER THAN FIVE FEET INTO WHICH WORKERS ARE REQUIRED TO DESCEND	
10. COORDINATION:	
IT IS THE DECLARED AND ACKNOWLEDGED INTENTION AND MEANING, THROUGH COORDINATION OF SPECIFICATIONS, DRAWINGS AND SCHEDULES, TO DESIGN AND SECURE THE CONTEMPLATED STRUCTURE, COMPLETE AND READY FOR USE, AND ALL ITEMS SHOWN OR CALLED FOR REASONABLY INFERRRED BY INTENT SHALL BE INCLUDED WHETHER SPECIFICALLY SHOWN OR NOT. THE CONTRACTOR SHALL COORDINATE THE WORK OF THE VARIOUS TRADES AND CRAFTS TO AVOID POSSIBLE INTERFERENCES, DUPLICATION OF WORK, OR UNFINISHED GAPS AND CONFLICTS BETWEEN OPERATIONS. THE VARIOUS TRADES AND CRAFTS SHALL AGREE THAT, DUE TO FIELD CONDITIONS, MINOR DEPARTURES FROM THE DRAWINGS BEING TO OCCUR, AND THAT SUCH DEPARTURES ARE SELF-COMPENSATING SO FAR AS COST OF ADDITIONS OR DEDUCTIONS ARE CONCERNED. NO CLAIMS FOR EXTRA WORK BE ALLOWED IN CONNECTION WITH SUCH MINOR CHANGES DUE SOLELY TO FIELD CONDITIONS.	
11. INSPECTION:	
ANY INSPECTION, SPECIAL OR OTHERWISE, THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENTS, OR THESE PLANS SHALL BE DONE BY AN INDEPENDENT INSPECTION COMPANY. JOB SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION.	
12. CERTIFIED FABRICATORS:	
FABRICATORS OF MANUFACTURED WOOD PRODUCTS, AND WELDED ASSEMBLIES OF ALL TYPES (INCLUDING STAIR AND HAND/GUARDRAILS) SHALL BE CERTIFIED IN ACCORDANCE WITH 2009 IBC 2013 SECTION 1707 BEFORE COMMENCING WORK. IF THE FABRICATOR IS NOT REGISTERED IN THE JURISDICTION WHERE THE COMPONENTS ARE TO BE INSTALLED, THE CONTRACTOR SHALL SUBMIT HIS CERTIFICATE FOR ANY OTHER JURISDICTION FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. PENDING CERTIFICATION BY THE GOVERNING AUTHORITY, WHEN THE SUPPLIER CANNOT SHOW COMPLIANCE WITH CRITERIA OF CBC, ENGINEER SHALL NOTIFY THE ENGINEER, THE CONTRACTOR MY PROPOSE TO SUPPLY SPECIAL INSPECTION AND TESTING IN LIEU OF CERTIFICATION, SUCH TESTING AND INSPECTION TO BE DONE BY THE OWNER'S REPRESENTATIVE BUT PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL INFORM THE OWNER AND THE ENGINEER OF HIS INTENTION TO UTILIZE NON-CERTIFIED FABRICATORS AS SOON AS POSSIBLE AFTER RECEIPT OF NOTICE TO PROCEED WITH THE PROJECT.	

GLUED LAMINATED TIMBER	
1. MATERIALS:	1.
MATERIALS, MANUFACTURE AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH COMMERCIAL STANDARD CS 253 "STRUCTURAL GLUED LAMINATED TIMBER"	
2. MATERIALS:	
GLUED LAMINATED BEAMS SHALL BE COMBINATION 1.6 V-6 OF ARCHITECTURAL APPEARANCE GRADE WHERE EXPOSED, AND INDUSTRIAL GRADE WHERE NOT EXPOSED, AND INDUSTRIAL GRADE WHERE NOT EXPOSED, EXTERIOR GLUE SHALL BE PROVIDED.	
3. MATERIALS:	
THE GLUED LAMINATED BEAMS SHALL BE FURNISHED BY A LICENSED FABRICATOR SPECIALIZING IN THIS TYPE OF WORK. THE FABRICATOR SHALL SUBMIT COMPLETE SHIP DRAWINGS AND HIS CERTIFICATION AS AN APPROVED FABRICATOR TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.	

PROJECT DESCRIPTION
Structural roof rehabilitation
Blythe Recreation Center
127 s. main street, Blythe, California

SCOPE WORKS
Roof Repair
Resurface old roof and coat elastomeric white top coat, primer caulking ceramic granules, tear off front patio and reroof with app (fr) torch on white. polyurethane foam on bad spots.
Drainage Repair
Remove current temporary drain piping and provide new & permanent drainage pipe (metal/steel/galvanized).

Trusses Repair
The proposed corrective measures for the remedial of the existing failing trusses are:
1. Existing 2x4's roof rafters to be reinforced (sistered) with 2x10 support members nailed with 16d @ 6 inches o.c. attached with Simpson lu28.
2. Existing 2x4's vertical & diagonal struts to be reinforced (sistered) with 2x6 support members nailed with 16d @ 6 inches o.c.
3. Reinforced existing 2x4 purlings with 2x6 members attached with Simpson lu26



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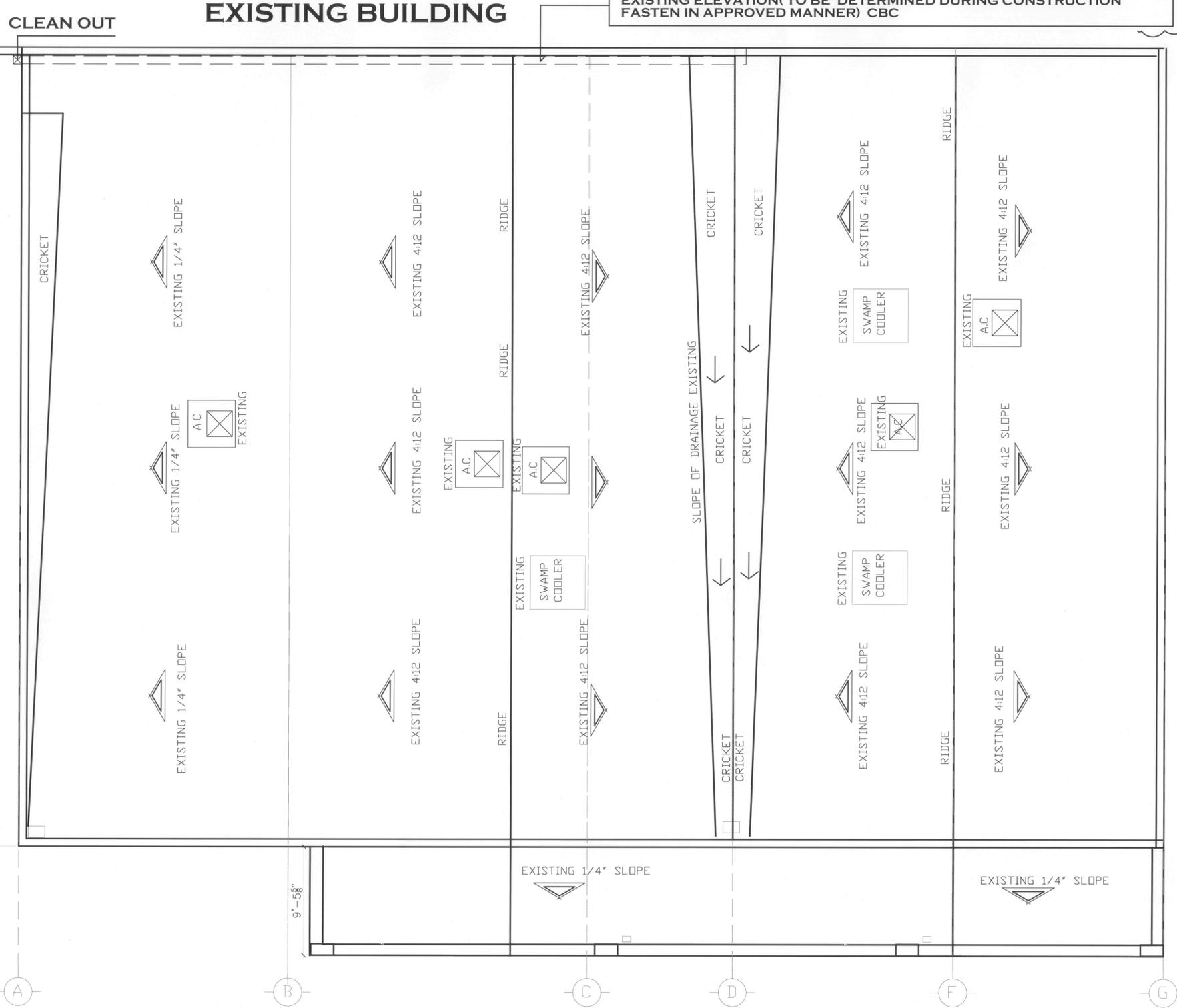


**A STRUCTURAL ROOF REHABILITATION CENTER
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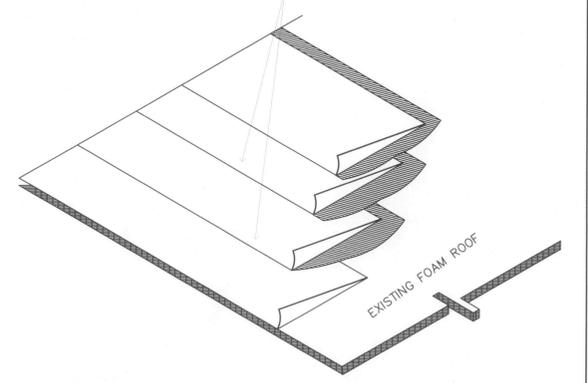
SHEET TITLE:
ROOF PLAN

DRAWN: EC
CHECKED: PLAN CHECK
DATE: 07/09/15
SCALE: AS NOTED
JOB NO.:

REMOVE CURRENT TEMPORARY DRAIN PIPING AND PROVIDE NEW AND PERMANENT DRAINAGE PIPE (METAL/ STEEL /GALVANIZED) TO DRAIN TO THE SOUTH SIDE. INCLUDE CLEAN-OUT PIPE SIZE TO MATCH EXISTING ELEVATION(TO BE DETERMINED DURING CONSTRUCTION FASTEN IN APPROVED MANNER) CBC



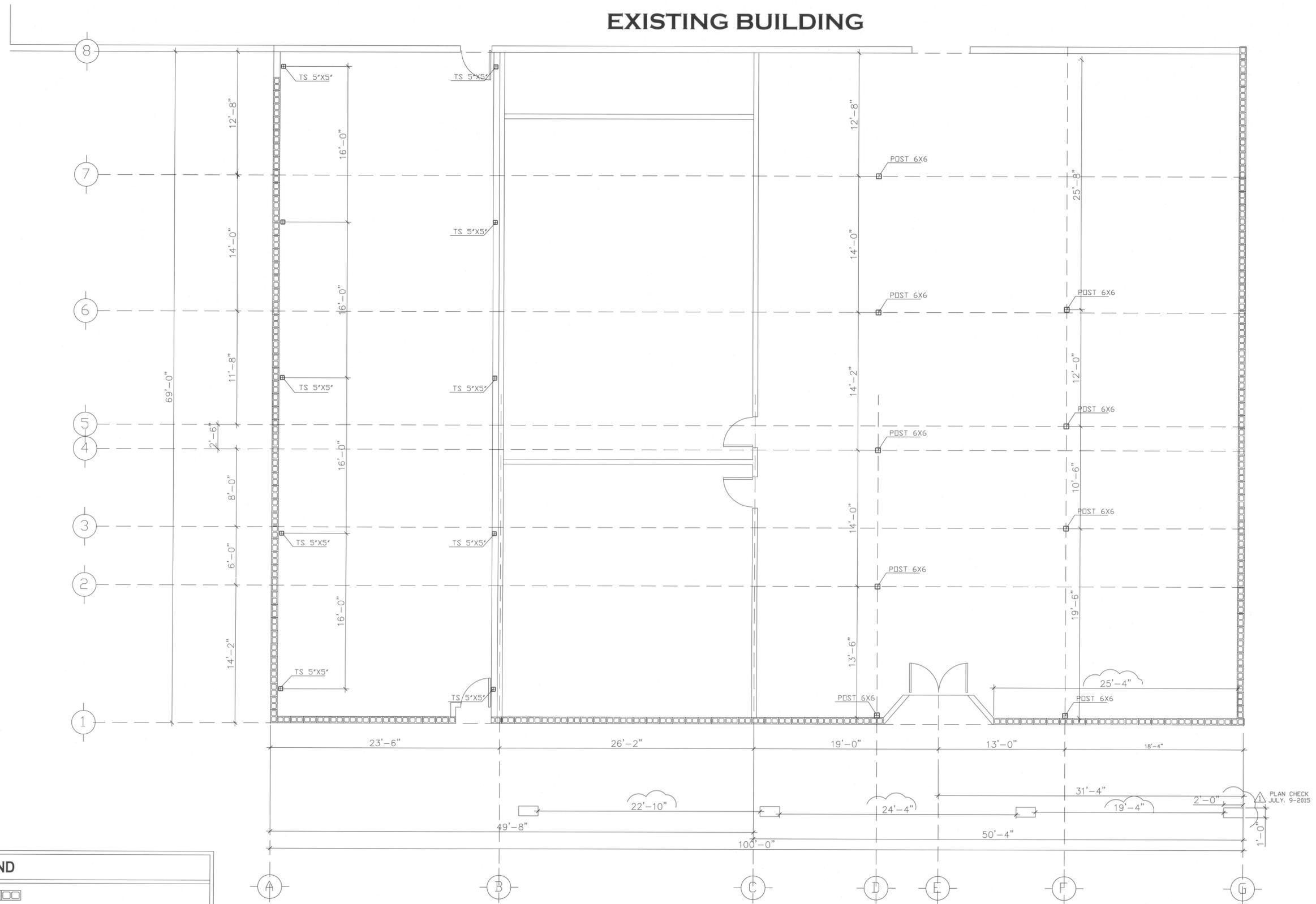
RESURFACE OLD ROOF AND COAT
TEAR OFF FRONT PATIO AND REROOF WITH APP (FR) TORCH ON WHITE.
ELASTOMERIC WHITE TOP COAT, PRIMER CAULKING CERAMIC GRANULES,
POLYURETHANE FOAM ON BAD SPOTS.



BUILT-UP ROOFING 1

ROOF PLAN
SCALE: 1/4" = 1'-0"

EXISTING BUILDING



LEGEND

- EXISTING 8" CMU
- EXISTING 2X WALLS
- EXISTING TS 5'x5' COLUMN
- EXISTING DOOR/WINDOW TO REMAIN
- EXISTING WOOD FRAMED COLUMN

CONTRACTOR SPECIAL NOTES
 CONTRACTOR IS RESPONSIBLE AND SHALL NOTIFY ENGINEER OF RECORD IF NEW OPENINGS ARE LOCATED ON THE EXISTING STRUCTURAL MEMBERS, SHEAR PANELS AND E.D.R. SHALL REVISE THE DESIGN AND SUBMIT TO CITY OF BLYTHE CA - BUILDING DEPARTMENT FOR REVIEW AND APPROVAL

CONTRACTOR SPECIAL NOTES
 GENERAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS



AMIR
 ENGINEERING & SURVEYING
 STRUCTURAL DESIGN
 180 LUNING DRIVE, SUITE A
 PALM SPRINGS, CA 92262
 CIVIL ENGINEER LICENSE NO. 42262
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**A STRUCTURAL ROOF REHABILITATION
 BLYTHE RECREATION CENTER
 127 S. MAIN ST. BLYTHE CALIFORNIA**

SHEET TITLE:
DIMENSION PLAN
 DRAWN: E.C.
 CHECKED: PLAN CHECK
 DATE: JULY 9-2015
 SCALE: AS NOTED
 JOB NO.:

SHEET
3

EXISTING BUILDING

- FRAMING NOTES**
- LUMBER FOR FRAMING SHALL BE AS FOLLOWS:
 A) HEADERS - 12" DF, OR NICKED LANS BY TRUSSLESS MC MILLAN
 B) BOARDS - 1" OR MORE LANS BY TRUSSLESS MC MILLAN
 C) ROOF TRUSSES - 12" DF OR NICKED LANS BY TRUSSLESS MC MILLAN
 D) ROOF TRUSSES - 12" DF OR NICKED LANS BY TRUSSLESS MC MILLAN
 E) FLOOR - 2" X 8" OR 2" X 10" DOUGLASS FIR-GREEN
 F) TOP PLATES - DOUGLASS FIR-GREEN
 G) SOLE PLATES - DOUGLASS FIR-GREEN
 H) LATH LUMBER - No. 2 K.S.
 - TRUSS LAYOUT SHALL BE PER WFR APPROVED CALCULATIONS & PLANS.
 - ROOF SHEATHING SHALL BE 1/2" CDX F5 PLYWOOD GRADE MARKED BY APA W/ SPAN INDEX 30/16 OR COMPARABLE 3/4" PARTICLE BOARD.
 - STRUCTURAL & MISC. STEEL AS REQ. SHALL BE A-36 GRADE.
 - DEFORMED REINFORCING SHALL BE ASTM A 603, A 606, A 617.
 - BOLTS, LAG BOLTS, ETC. SHALL BE CORNEN GRADE.
 - ALL BOLTS & LAG BOLTS CONNECTIONS IN WOOD SHALL HAVE ETS CUT WASHERS INSTALLED BETWEEN BOLT HEADS & NUTS & SURFACE OF WOOD.
 - LAG BOLTS SHALL BE PROVIDED WITH PILET HOLE 3/8" SMALLER THAN LAG SHANK. SQUARE MACHINE BOLTS SHALL BE PROVIDED WITH HOLE 1/8" CLEARANCE IN SQUARE.

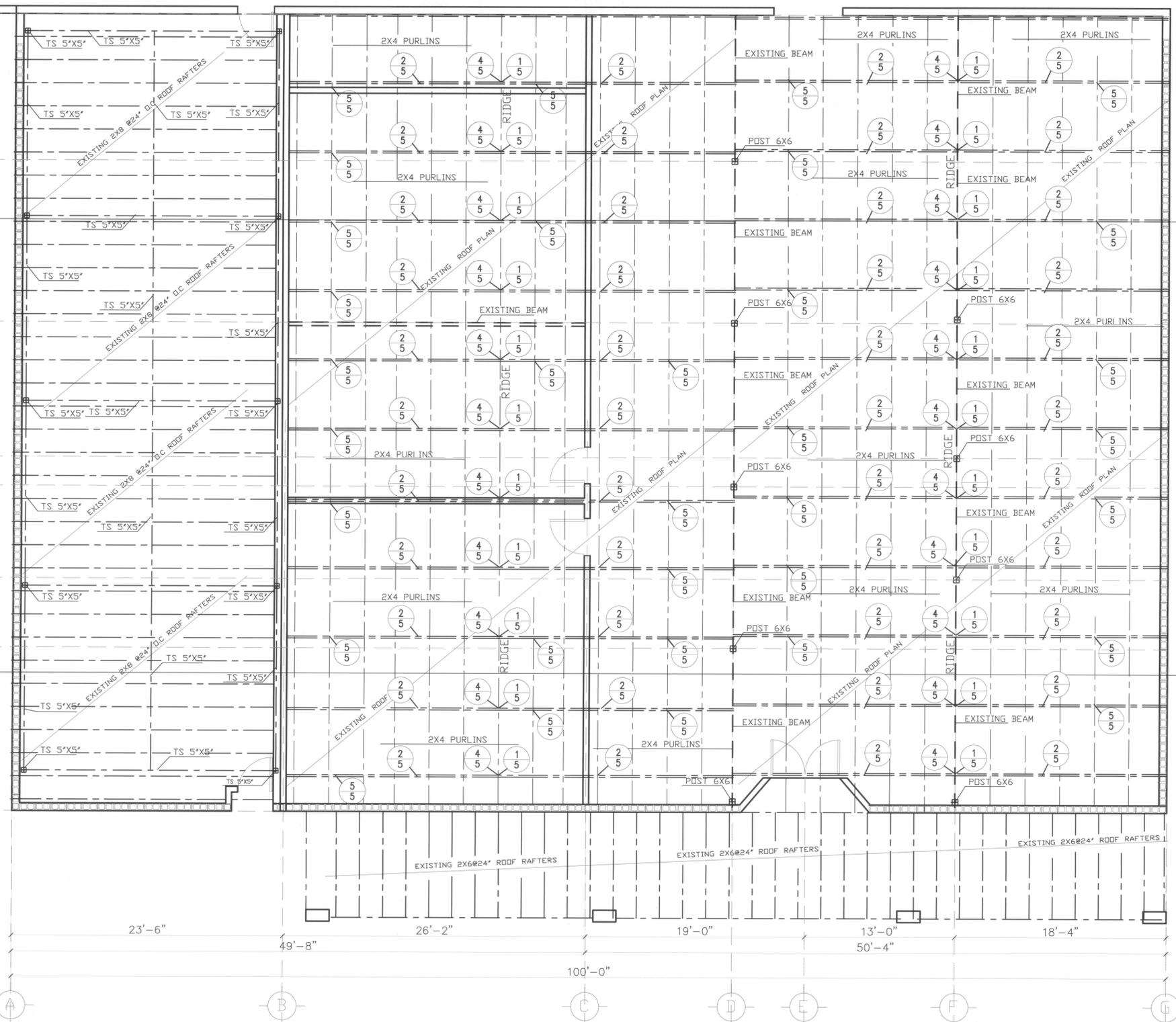
- CONTRACTOR SPECIAL NOTES**
- CONTRACTOR IS RESPONSIBLE AND SHALL NOTIFY ENGINEER OF RECORD IF NEW OPENINGS ARE LOCATED ON THE EXISTING STRUCTURAL MEMBERS, SHEAR PANELS AND E.O.R. SHALL REVISE THE DESIGN AND SUBMIT TO CITY OF BLYTHE CA - BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.

- CONTRACTOR RESPONSIBILITY**
- THE CONTRACTOR RESPONSIBLE FOR CONSTRUCTION OF THE LATERAL FORCE RESISTING ELEMENTS (SHEAR WALLS & DIAPHRAGMS) SHALL REFER CEC 17063.
- 17061 CONTRACTOR RESPONSIBILITY. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND-OR SEISMIC-FORCE-RESISTING SYSTEM DESIGNATED SEISMIC SYSTEM OR A WIND-OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
- ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
 - ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
 - PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS AND.
 - IDENTIFICATION AND QUALIFICATIONS OF THE PERSONS EXERCISING SUCH CONTROL AND THEIR POSITIONS IN THE ORGANIZATION.

LEGEND

	EXISTING 8" CMU		EXISTING 2X8 & 2X6
	EXISTING 2X WALLS		EXISTING ROOF FRAMING
	EXISTING TS 5'X5' COLUMN		EXISTING TS 5'X5' BEAM
	EXISTING DOOR/WINDOW TO REMAIN		EXISTING BEAM
	EXISTING WOOD FRAMED COLUMN		

- CONTRACTOR SPECIAL NOTES**
- GENERAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS



EXISTING ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

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A STRUCTURAL ROOF REHABILITATION
BLYTHE RECREATION CENTER
127 S. MAIN ST. BLYTHE CALIFORNIA

SHEET TITLE:

FRAMING PLAN

DRAWN	EC
CHECKED	PLAN CHECK
DATE	07/09/15
SCALE	AS NOTED
TBS NO.	

SHEET
4

