CITY OF ALBUQUERQUE AVIATION DEPARTMENT PLANNING AND DEVELOPMENT ALBUQUERQUE, NEW MEXICO AUGUST 2010

construction plans for the

DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

7401 Paseo Del Volcan N.W. Albuquerque, New Mexico 87121

A.I.P. Project Number: 3-35-0002-16-2010



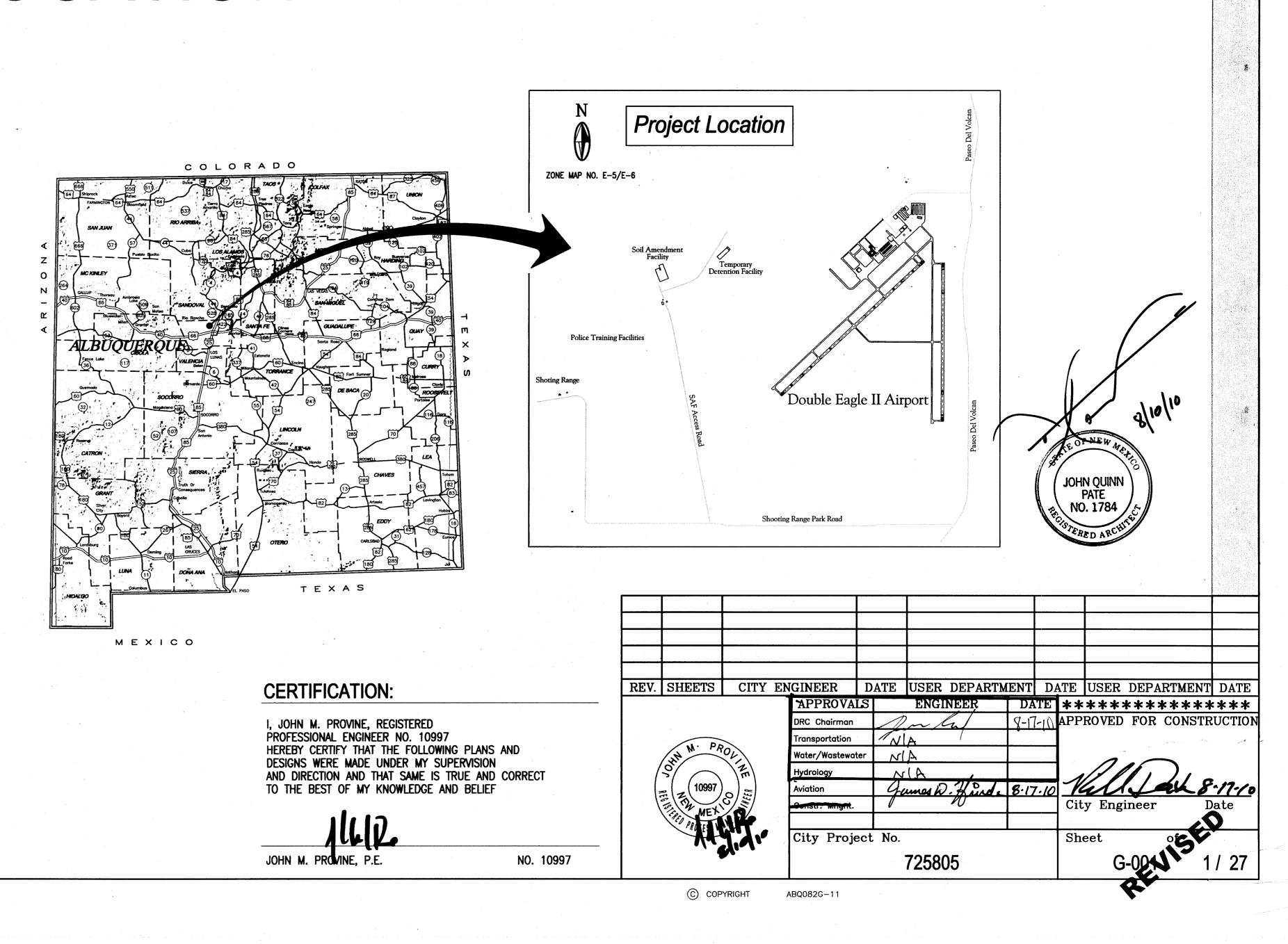




THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR THE CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

THESE DRAWINGS REFLECT INFORMATION ON UTILITIES GATHERED BY SITE INSPECTION, DISCUSSIONS WITH MUNICIPAL OFFICIALS, AND PREVIOUS CONSTRUCTION DOCUMENTS. IT IS POSSIBLE THAT THE EXACT LOCATION OF LINES AND UTILITY CONNECTION POINTS IN THE VICINITY OF REQUIRED WORK MAY BE DIFFERENT FROM THE LOCATION SHOWN ON THESE DRAWINGS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHALL A CONFLICT EXIST THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN

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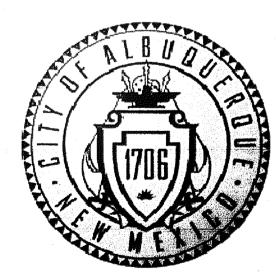
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CERTIFICATION:

JOHN M. PROVINE, REGISTERED PROFESSIONAL ENGINEER NO. 10997 HEREBY CERTIFY THAT THE FOLLOWING PLANS AND DESIGNS WERE MADE UNDER MY SUPERVISION AND DIRECTION AND THAT SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

JOHN M. PROVINE, P.E.

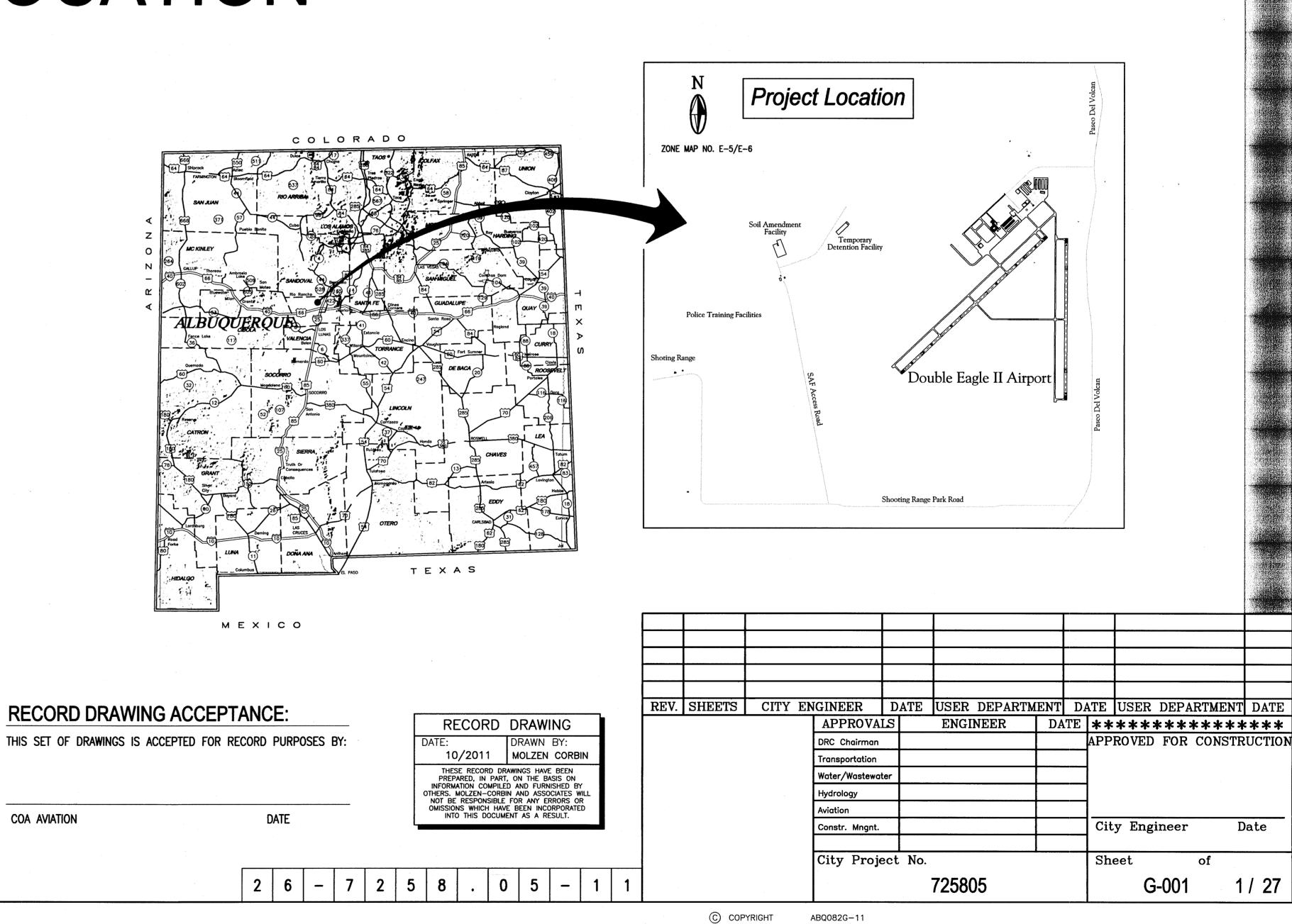
NO. 10997

COA AVIATION



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#Airport

DRC GENERAL NOTES

- 1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION THROUGH UPDATE #7, INCLUDING AMENDMENT NO. 1, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
- 2. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS
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- 4. CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- 5. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650
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- 7. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO DMD, CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE DMD, CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF STANDARD SPECIFICATIONS.
- 8. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260–1990) FOR LOCATION OF EXISTING UTILITIES.
- 9. CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- 10. AT HIS OWN EXPENSE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE, PER STANDARD SPECIFICATIONS.
- 11. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
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- 16. CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.
- 17. CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED AT A MAXIMUM OF EVERY FIFTEEN (15) FEET, CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.
- 18. ALL FINAL BACKFILL FOR TRENCHES WITHIN THE COA RIGHT-OF-WAY SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY STANDARD SPECIFICATIONS SECTION 701.14.2 AND STANDARD DRAWING
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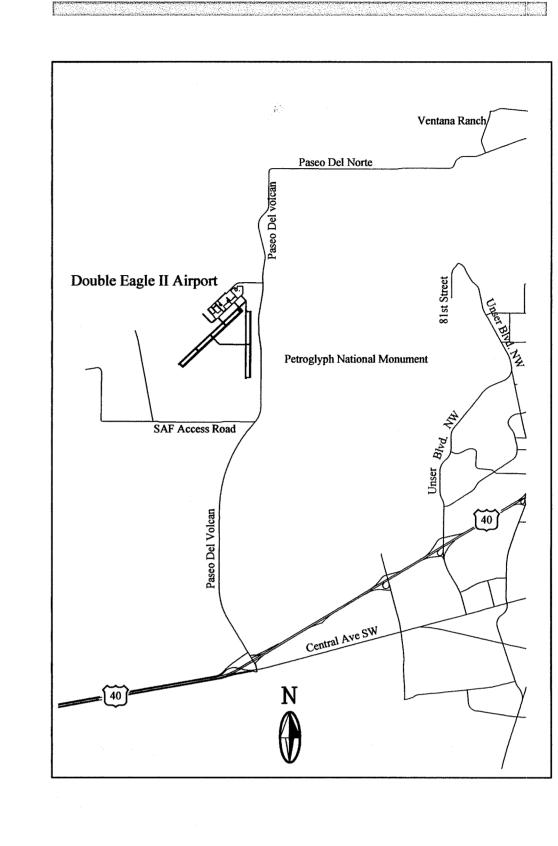
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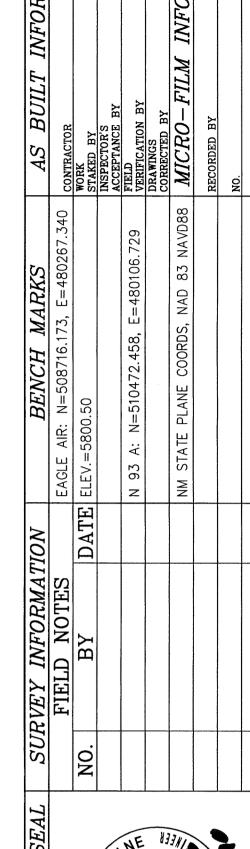
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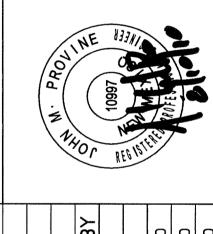
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VICINITY MAP







MOLZEN-CORBIN & Associates

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION PROJECT INFORMATION SHEET Design Person Commetat City Engineer Approval CITY ENGINEER REVIEW COMMITTEE City Project No. Zone Map No. 725805 E-5 & E-6

ALBUQUERQUE, NM 87106 TEL: 505.242-5700

FAX: 505.242-0673

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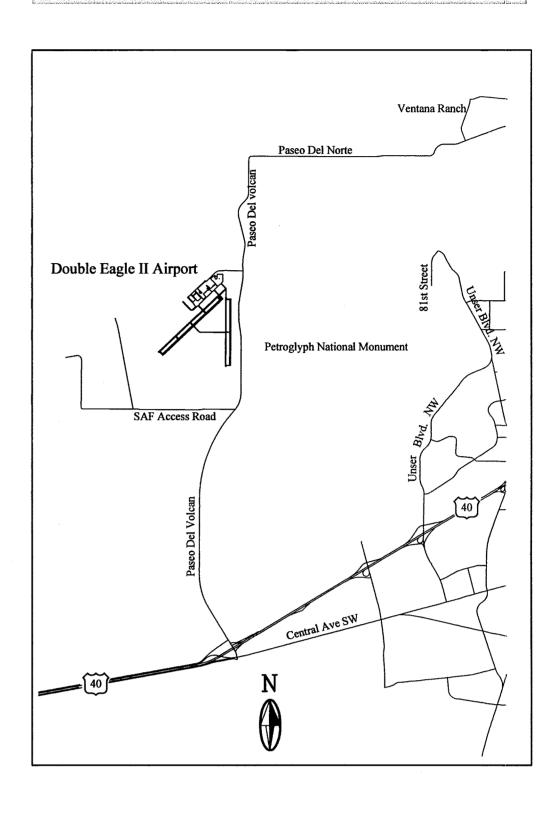
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VICINITY MAP



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					INSPECTOR'S ACCEPTANCE BY
				N 93 A: N=510472.458, E=480106.729	FIELD VERIFICATION BY
					DRAWINGS CORRECTED BY MOLZE
				NM STATE PLANE COORDS, NAD 83 NAVD88 MICRO-FILM	MICRO-FILM
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RECORD DRAWING DRAWN BY: 10/2011 | MOLZEN CORBIN THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS ON INFORMATION COMPILED AND FURNISHED BY OTHERS. MOLZEN—CORBIN AND ASSOCIATES WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT AS A RESULT.

2701 MILES RD SE ALBUQUERQUE, NM 87106 FAX: 505.242-0673 MOLZEN-CORBIN & Associates ENGINEERS/ARCHITECTS/PLANNERS

725805

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

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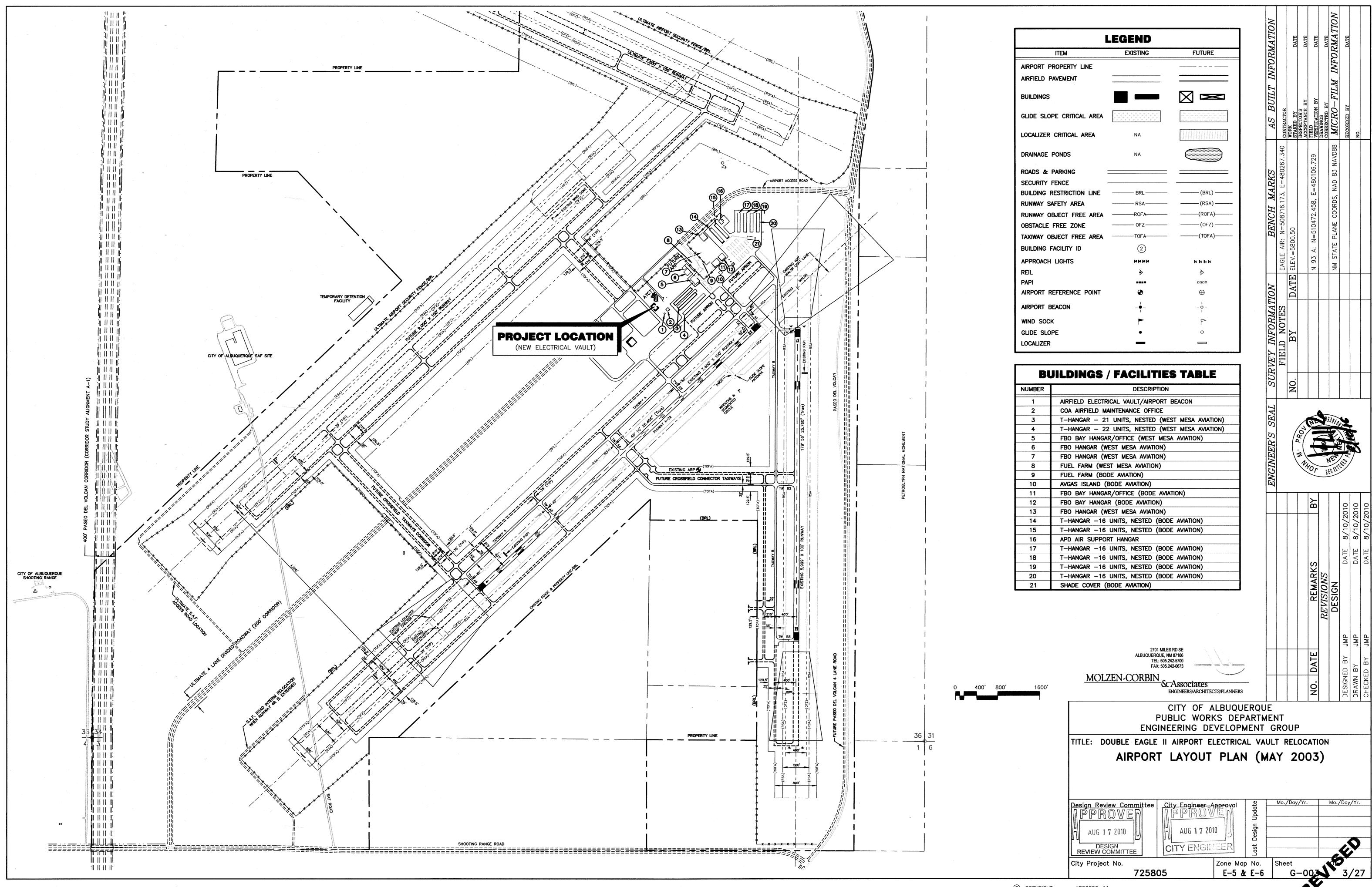
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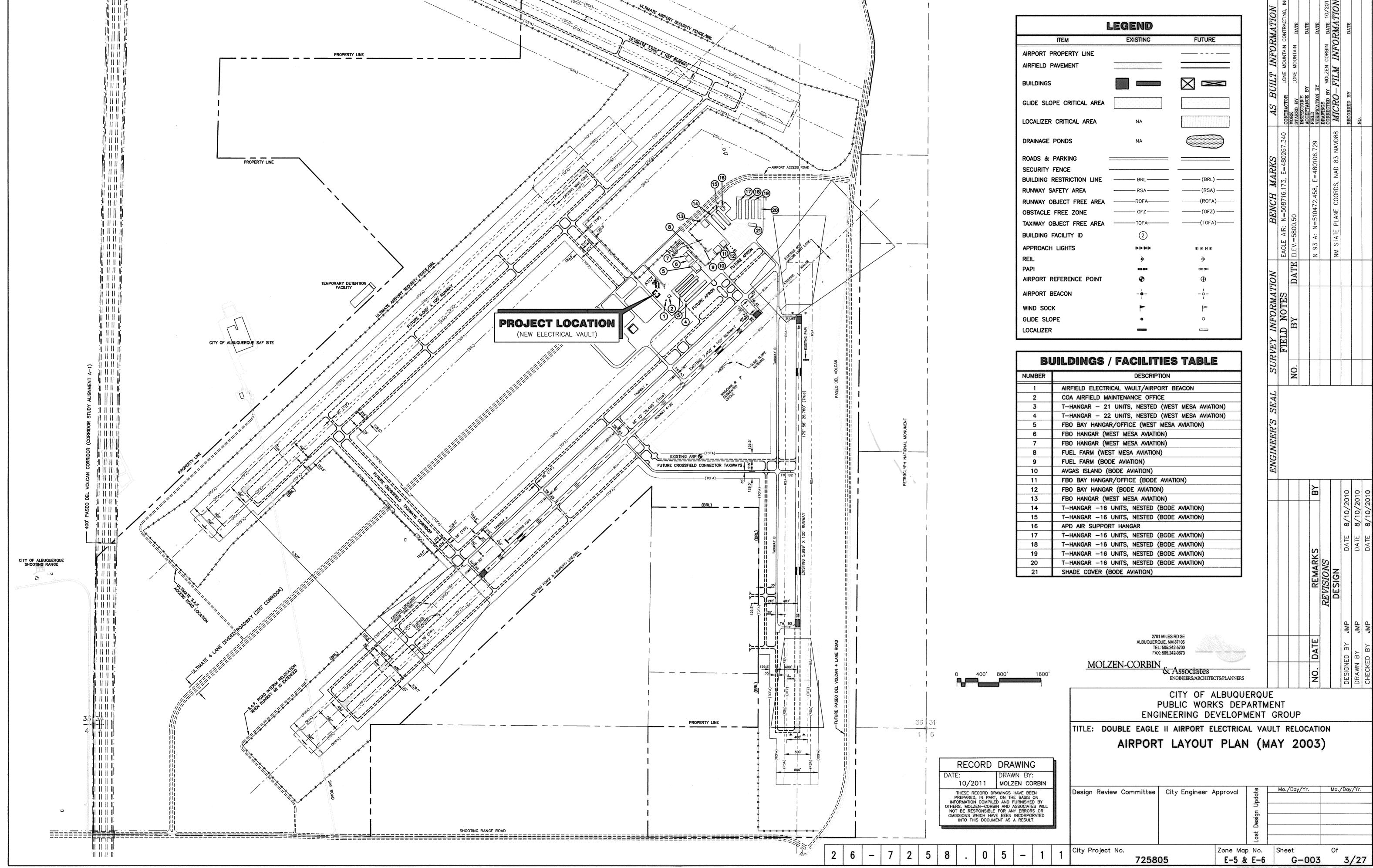
Mo./Day/Yr. Mo./Day/Yr. Design Review Committee | City Engineer Approval City Project No. Zone Map No.

E-5 & E-6 2/27 REDRAWN FOR RECORD PURPOSES

G-002

ABQ082G-11





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REDRAWN FOR RECORD PURPOSES

BARRICADING AND SAFETY NOTES

- 1. THE AIRPORT WILL BE OPEN TO AIRCRAFT DURING THIS PROJECT. THE CONTRACTOR SHALL KEEP MEN AND EQUIPMENT CLEAR OF ALL ACTIVE RUNWAYS. THE CONTRACTOR SHALL SET AND MAINTAIN CONSTRUCTION BARRICADES SEPARATING CONSTRUCTION ZONE FROM AREAS OPEN FOR TRAFFIC.
- 2. THE CONTRACTOR SHALL BE ALERT TO THE POSSIBILITY OF EMERGENCY SITUATIONS ARISING AT ANY TIME AND SHALL COOPERATE FULLY WITH THE AIRPORT MANAGER IN COPING WITH ANY EMERGENCIES INVOLVING AIRCRAFT.
- 3. ALL OPERATIONS SHALL BE CONDUCTED IN FULL CONFORMITY WITH FEDERAL AVIATION ADMINISTRATION TRAFFIC AND SAFETY REGULATION WITHIN THE AIRPORT PROPERTY AND IN CONFORMITY WITH ANY APPLICABLE LAWS AND REGULATIONS OUTSIDE THE AIRPORT BOUNDARIES. SAFETY INFRACTIONS REGARDING AIR TRAFFIC WILL RESULT IN IMMEDIATE SHUTDOWN OF THE WORK UNTIL REMEDIED.
- 4. PERMISSIBLE ACCESS ROUTES FOR CONSTRUCTION TRAFFIC OF ANY SORT SHALL BE DESIGNATED BY THE OWNER. ALL CONSTRUCTION TRAFFIC SHALL BE CONFINED TO THE DESIGNATED ROUTES WHEN OUTSIDE THE IMMEDIATE LIMITS OF CONSTRUCTION. NO CONSTRUCTION TRAFFIC WILL BE PERMITTED ON OR ACROSS ANY OPERATIONAL RUNWAY, TAXIWAY, OR PARKING APRON EXCEPT AS SPECIFICALLY PROVIDED.
- 5. CONTRACTOR SHALL KEEP AREA SURROUNDING CONSTRUCTION ZONES, INCLUDING ALL ACCESS AND TRAVEL ROUTES CLEAN AND FREE OF DEBRIS.
- 6. ALL THE CONTRACTORS VEHICLES AND MOVING EQUIPMENT WITHIN THE AIRPORT PROPERTY SHALL BE CLEARLY IDENTIFIED AND SHALL CARRY RED AND WHITE CHECKERED FLAGS (SEE AC 150/5370-2E). AND THAT THE CONTRACTOR EQUIP ALL EQUIPMENT AND VEHICLES WITH FLASHING YELLOW DOME LIGHTS. BARRICADING WITH BRIGHT COLORED PLASTIC FLAGGING SHALL BE PROVIDED AND PLACED AS DIRECTED BY THE ENGINEER AS REQUIRED TO DEFINE AIRCRAFT TAXILANES ETC.
- 7. REQUIREMENTS INDICATED ON THIS SHEET DO NOT RELEASE CONTRACTOR OF HIS SOLE REPONSIBILITY FOR CONSTRUCTION SAFETY.
- 8. SINCE THE EXTENT AND DURATION OF TEMPORARY MEASURES NECESSARY FOR AIRPORT SECURITY AND SAFETY DURING THE CONSTRUCTION PERIOD ARE LARGELY DEPENDENT ON THE CONTRACTOR SCHEDULING AND EFFICIENT PROSECUTION OF THE WORK, THE COST OF SUCH MEASURES (BARRICADING, MARKING, TEMPORARY ACCESS ROADS, FENCING, CONSTRUCTION AREA MAINTENANCE AND CLEANUP, ETC.) SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND NO SEPARATE MEASUREMENT OF PAYMENT WILL BE MADE THEREFOR, EXCEPT AS OTHERWISE MAY BE SPECIFICALLY PROVIDED FOR IN THE CONTRACT DOCUMENTS AND BID PROPOSAL.
- 9. ALL PAVEMENT DAMAGED BY CONSTRUCTION OPERATIONS SHALL BE REPLACED TO THE OWNER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.
- O. WATER FOR CONSTRUCTION IS AVAILABLE AT THE AIRPORT FROM A ABCWUA OWNED FIRE HYDRANT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE CITY FOR ACCESS TO THE HYDRANT AND CHARGES FOR THE
- 11. WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA PART 29.
- 2. CONTRACTOR MUST PROMINENTLY MARK OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE WITH RED OR ORANGE FLAGS, AND LIGHT THEM WITH RED LIGHTS DURING HOURS OF RESTRICTED VISIBILITY OR DARKNESS. OPEN TRENCHES ARE NOT PERMITTED WITHIN 200 FEET OF THE RUNWAY CENTERLINE AND AT LEAST THE EXISTING RSA DISTANCE FROM THE RUNWAY THRESHOLD WHILE THE RUNWAY IS OPEN.

GENERAL NOTES

- ACCESS MUST BE PROVIDED DURING ALL PHASES OF CONSTRUCTION FOR ARRIVAL, DEPARTURE, AND TAXIING OF AIRCRAFT TO THE MAIN TERMINAL AREA AND THE OPERATIONAL RUNWAYS AND TAXIWAYS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY CLOSURE BARRICADES AND LIGHTING TO SEPARATE THE CONSTRUCTION AREAS FROM THE OPERATIONAL AIRFIELD AND TO PROTECT THE PUBLIC AND PROJECT PERSONNEL DURING CONSTRUCTION. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, FLAG PERSONS, LIGHTED AND UNLIGHTED BARRICADES, FENCING, SIGNAGE, AND MARKINGS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY CABLING AND LIGHT INSTALLATIONS AS REQUIRED TO MAINTAIN OPERATIONAL PORTIONS OF THE AIRFIELD DURING CONSTRUCTION.
- 4. CONTRACTOR SHALL PROTECT ALL FAA, NWS, AND OTHER INSTALLATIONS ENCOUNTERED DURING CONSTRUCTION, AND SHALL COORDINATE ALL ACTIVITIES AFFECTING SUCH INSTALLATIONS THROUGH THE ENGINEER.

5. IF APPLICABLE, CONTRACTOR SHALL PROVIDE COMPETENT FLAG PERSONS WITH TWO WAY CONTROL TOWER RADIOS AT

- ALL CONSTRUCTION AREA/TAXIWAY/RUNWAY CROSSINGS, OR AS INDICATED. (TO BE COORDINATED FURTHER AT THE PRE-CONSTRUCTION MEETING).

 6. CONTRACTOR SHALL HAVE AT LEAST ONE OPERATIONAL VACUUM BROOM AVAILABLE AT ALL TIMES AND SHALL KEEP
- 6. CONTRACTOR SHALL HAVE AT LEAST ONE OPERATIONAL VACUUM BROOM AVAILABLE AT ALL TIMES AND SHALL KEEF ALL ACTIVE AIRCRAFT TAXIWAYS WITHIN THE CONSTRUCTION AREA SWEPT CLEAN AND FREE OF FOREIGN OBJECT DAMAGE HAZARDS.
- 7. SEE THE SPECIAL PROVISIONS OF THE CONTRACT DOCUMENTS FOR MORE DETAILED REQUIREMENTS WITH REGARD TO CONSTRUCTION PHASING AND TRAFFIC CONTROL IN AIR OPERATIONS AREAS.
- B. NO NAVAIDS ARE AFFECTED BY THIS PROJECT.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR REPORTING AND CLEANUP OF SPILLS WHICH ARE ASSOCIATED WITH THIS PROJECT'S CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND ANY OTHER MATERIALS WHICH MAY BE CONSIDERED A THREAT TO THE PUBLIC HEALTH OR ENVIRONMENT. THESE REPORTS SHALL BE MADE IMMEDIATELY TO THE NEW MEXICO ENVIRONMENTAL DEPARTMENT'S EMERGENCY RESPONSE TEAM AT 505-827-4308 OR 505-470-3657, AND TO THE AIRPORT MANAGER.
- 10. THE CONTRACTOR SHALL COORDINATE WITH AIRPORT OPERATIONS AND THE ENGINEER IN CASE THE AIRPORT MOVEMENT AREAS ARE TO BE AFFECTED WITH THIS PROJECT, A MIN. OF 72 HOURS IN ADVANCE. THE AIRPORT MANAGER MAY ISSUE A NOTAM TO COMMUNICATE TO USERS THE AIRPORT CONDITIONS THAT ARE AFFECTED. THIS WOULD ALSO INCLUDE ANY UTILITY OUTAGES, EMERGENCY NOTIFICATION PROCEDURES, AND ANY NATURAL WILDLIFE ENCOUNTERED.
- 11. CONSTRUCTION VEHICLES, CONTRACTOR EMPLOYEE PARKING, AND MATERIAL STOCKPILING SHALL BE LIMITED TO THE CONSTRUCTION STAGING AREA WHEN THESE ITEMS ARE NOT IN USE, UNLESS APPROVED OTHERWISE BY THE OWNER.
- 12. ALL CONSTRUCTION PERSONNEL, INCLUDING OPERATING VEHICLES ON AIRPORT PROPERTY WILL BE REQUIRED TO OBTAIN AN AIRPORT BADGE. A BACKGROUND CHECK, AND CLASSROOM INSTRUCTION IS REQUIRED PRIOR TO ISSUANCE OF BADGE AND WILL BE COORDINATED PRIOR TO CONSTRUCTION ACTIVITIES. THE BADGE MUST BE PROMINENTLY DISPLAYED ON EACH PERSON AT ALL TIMES.
- 13. CONTRACTOR NON-COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN THIS SAFETY PLAN, DESIGN DRAWINGS, AND SPECIFICATIONS OF THIS PROJECT MAY RESULT IN THE LOSS OF THIS PROJECT, AND MONETARY FINES BASED ON FEDERAL, STATE, AND/OR LOCAL LAWS AND REGULATIONS. PERIODIC INSPECTIONS BY AIRPORT OPERATIONS, AND/OR REPRESENTATIVES WILL BE CONDUCTED TO ENSURE COMPLIANCE.

CONSTRUCTION PHASING

PHASE A CONSTRUCTION

INFRASTRUCTURE.

INSTALL ALL ELECTRICAL DUCT AND CONDUCTORS FROM EXISTING ELECTRICAL VAULT, AND FAA TRANSFORMER SITE TO NEW FACILITIES. CONSTRUCT NEW ELECTRICAL VAULT BUILDING AND ASSOCIATED

EXISTING AIRFIELD ELECTRICAL VAULT AND FAA TRANSFORMER SITE TO REMAIN UNDISTURBED AND ACTIVE.

CONTRACTOR SHALL REMAIN OUTSIDE OF TAXIWAY SAFETY AREA AT ALL TIMES (14.5' FROM TAXIWAY NORTH EDGE). COORDINATE WITH AIRPORT MANAGER WHEN CONSTRUCTION ACCESS TO TAXIWAY AREA IS REQUIRED.

PHASE B CONSTRUCTION

PHASE B CONSTRUCTION TO BEGIN ONLY AFTER PREVIOUS PHASE (A) HAS BEEN COMPLETED AND ACCEPTED BY OWNER.

CONTRACTOR SHALL RELOCATE EXISTING FAA TRANSFORMERS FROM EXISTING SITE LOCATION TO NEW SITE LOCATION, AND CONNECT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH FAA REPRESENTATIVES AND AIRPORT MANAGER PRIOR TO THE START OF CONSTRUCTION PHASE.

TEST AND VERIFY ALL AFFECTED FAA INFRASTRUCTURE IS OPERATIONAL AND COMPLETE.

PHASE C CONSTRUCTION

PHASE C CONSTRUCTION TO BEGIN ONLY AFTER PREVIOUS PHASE (B) HAS BEEN COMPLETED AND ACCEPTED BY OWNER.

CONTRACTOR SHALL RELOCATE EXISTING AIRFIELD REGULATORS AND LIGHT

CONTROL EQUIPMENT FROM EXISTING ELECTRICAL VAULT TO NEW VAULT SYSTEMATICALLY AND CONNECT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH AIRPORT MANAGER PRIOR TO THE START OF CONSTRUCTION PHASE.

TEST AND VERIFY ALL AFFECTED AIRFIELD INFRASTRUCTURE IS OPERATIONAL AND COMPLETE.

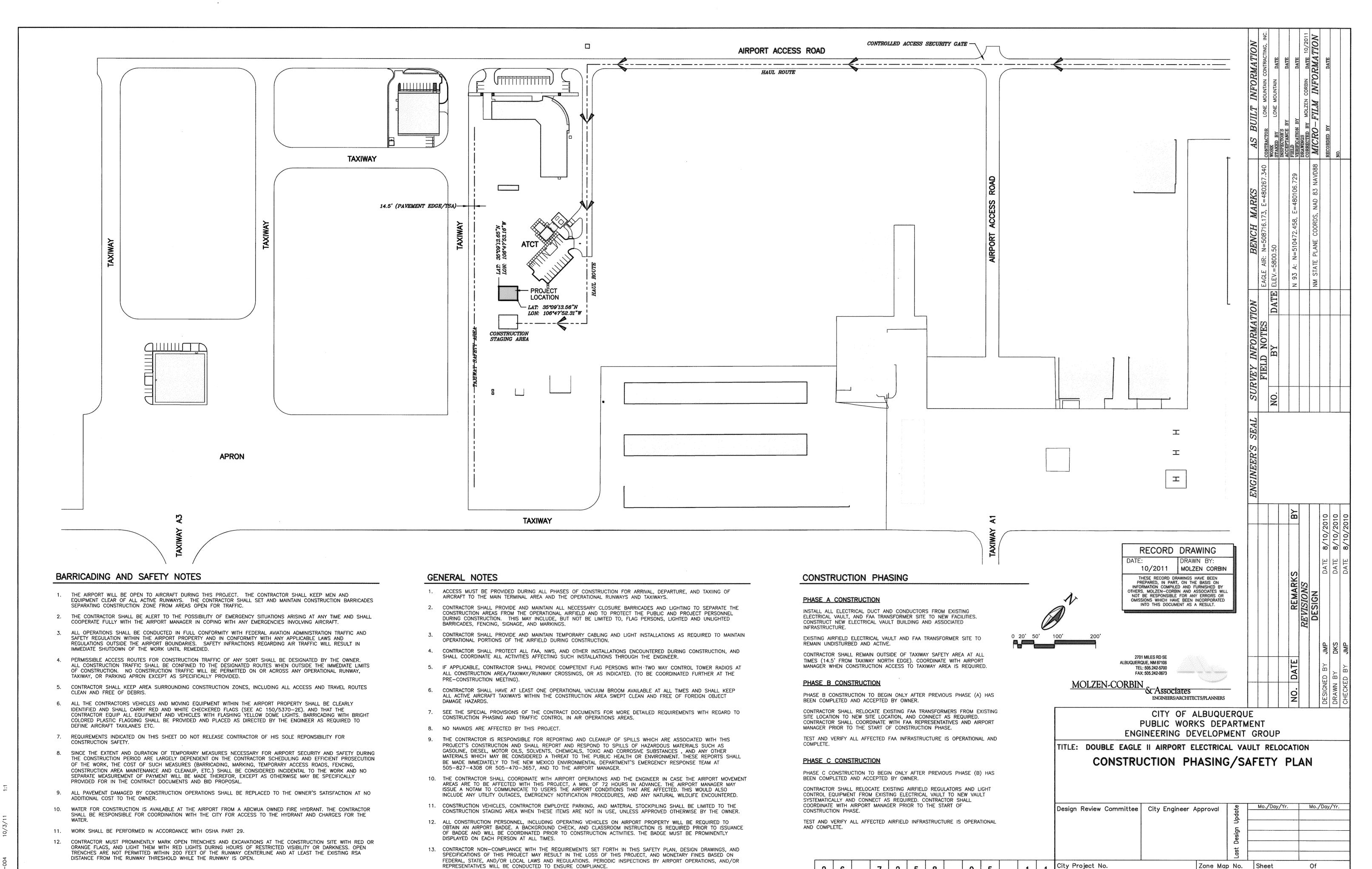
WOLZEN-CORBIN SERVISIONS WOLDESIGNED BY JMP DESIGNED BY JMP DESIGNED BY JMP DATE 8/10 CHECKED BY JMP DATE 8/10 CHECKED BY JMP DATE 8/10

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

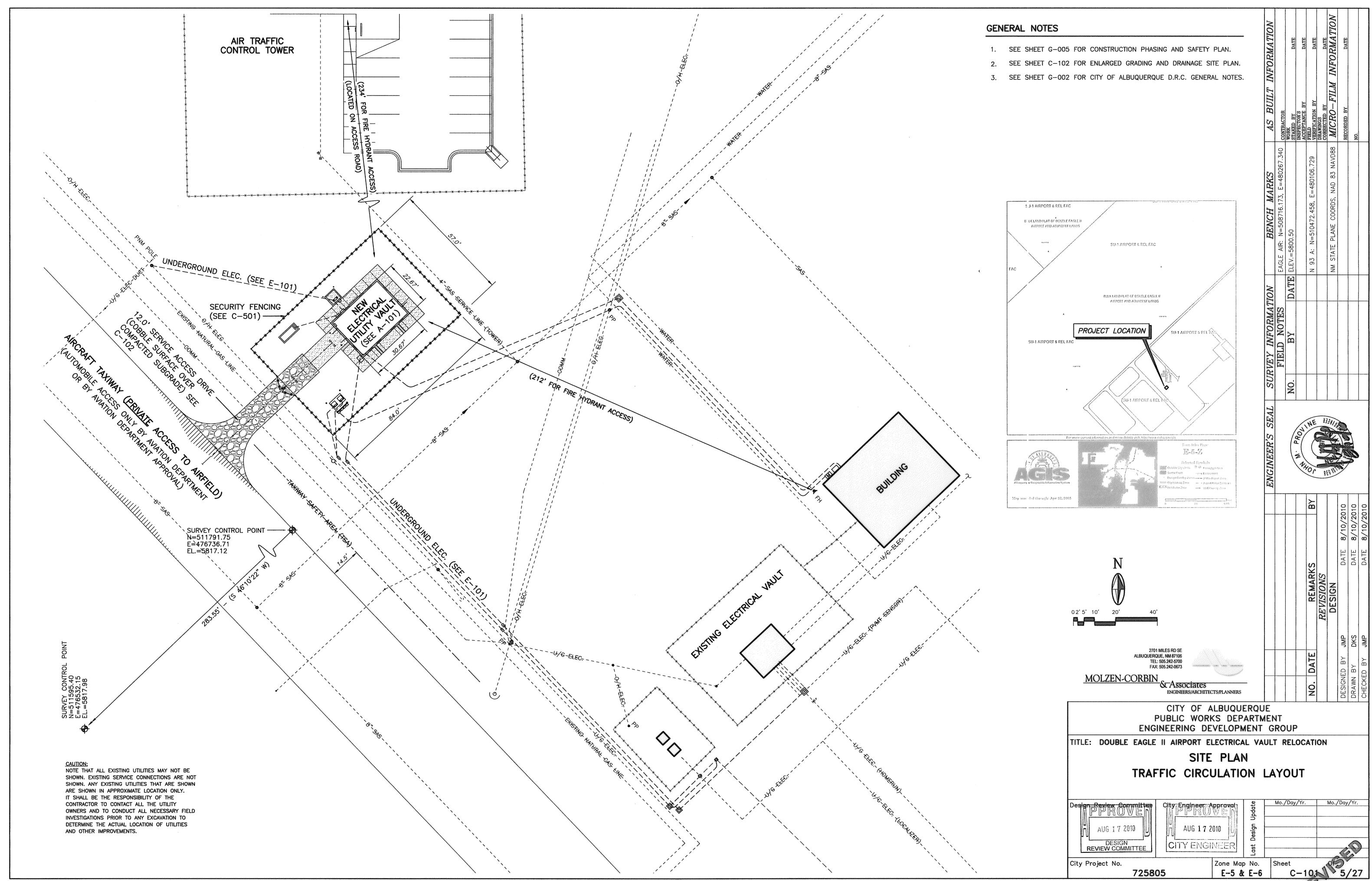
TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

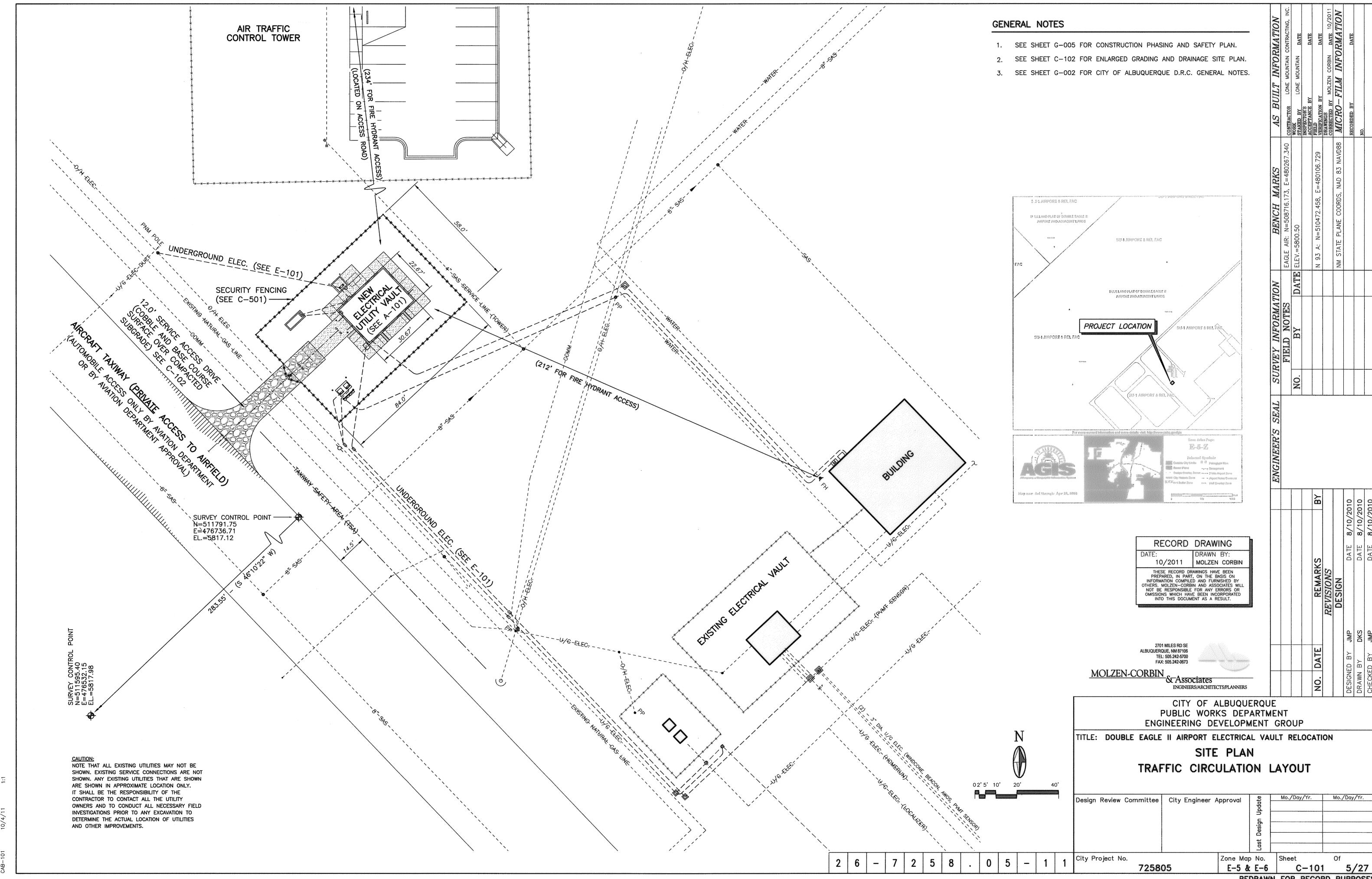
CONSTRUCTION PHASING/SAFETY PLAN

DESIGN REVIEW COMMITTEE City Project No. 72580		Zone Map No. E-5 & E-6	Sheet G-004	062
Design Review Committee PPROVE AUG 17 2010 DESIGN	AUG 17 201	Design Upda	Mo./Day/Yr.	Mo./Day/Yr.



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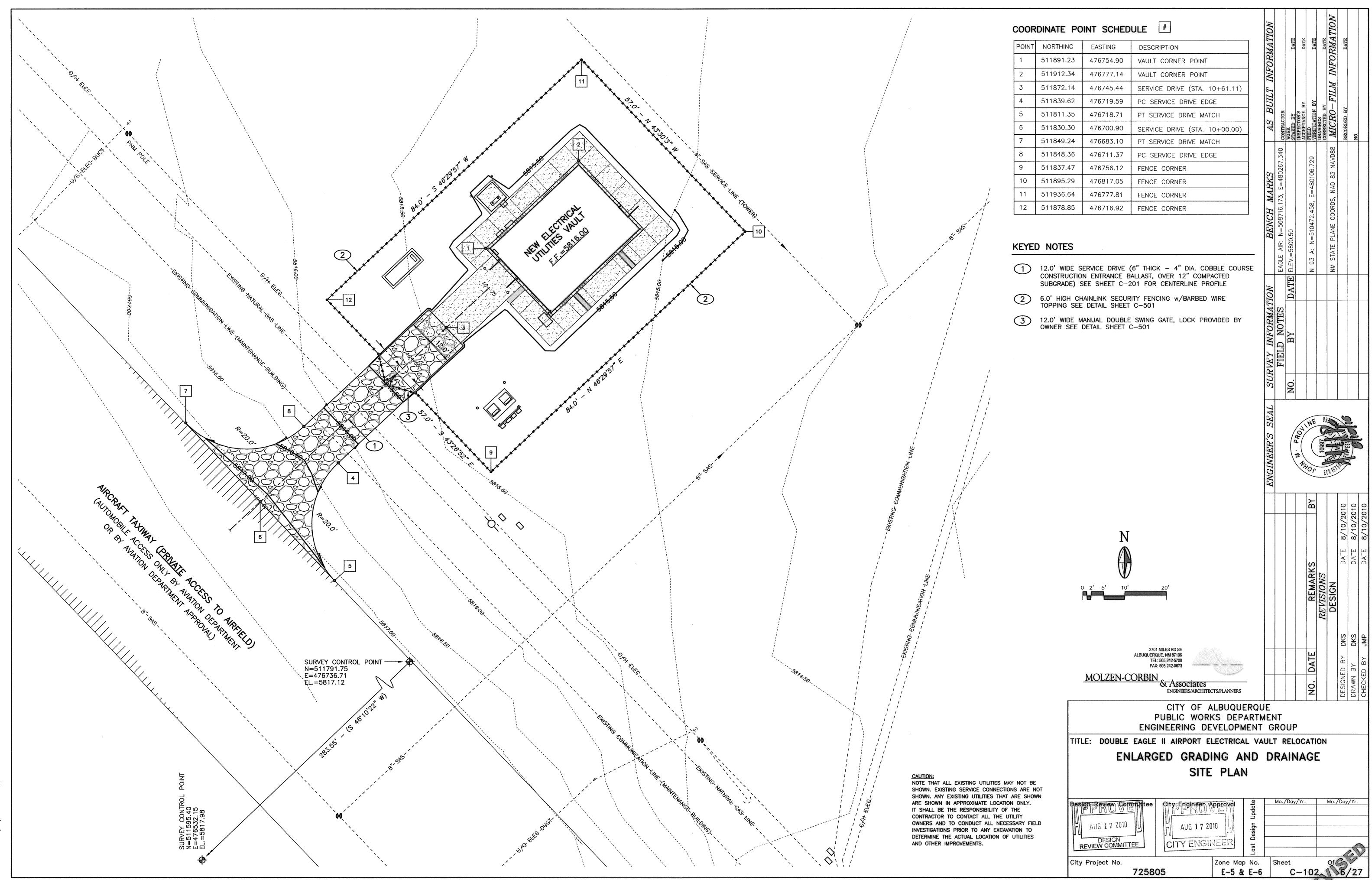


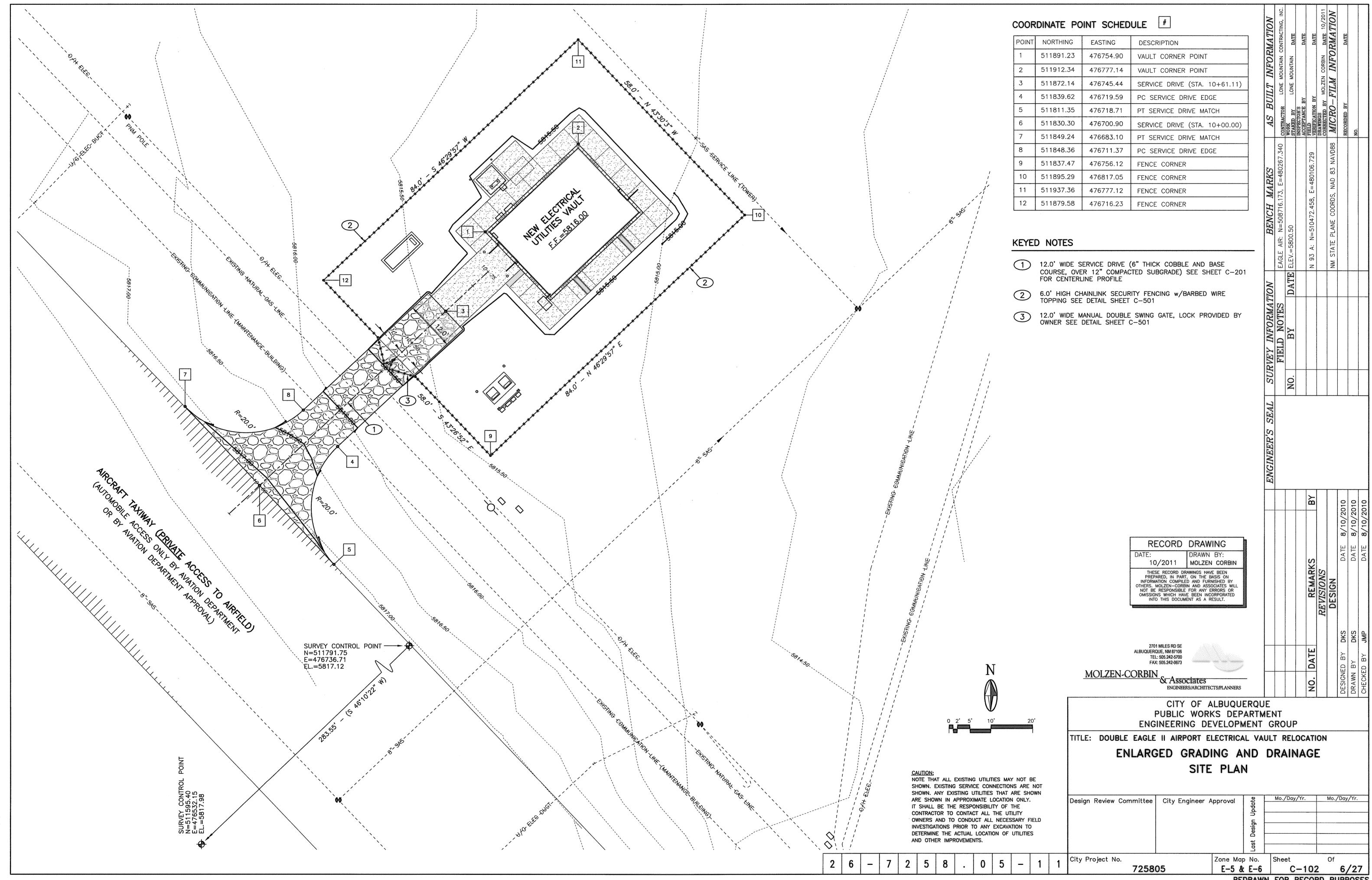


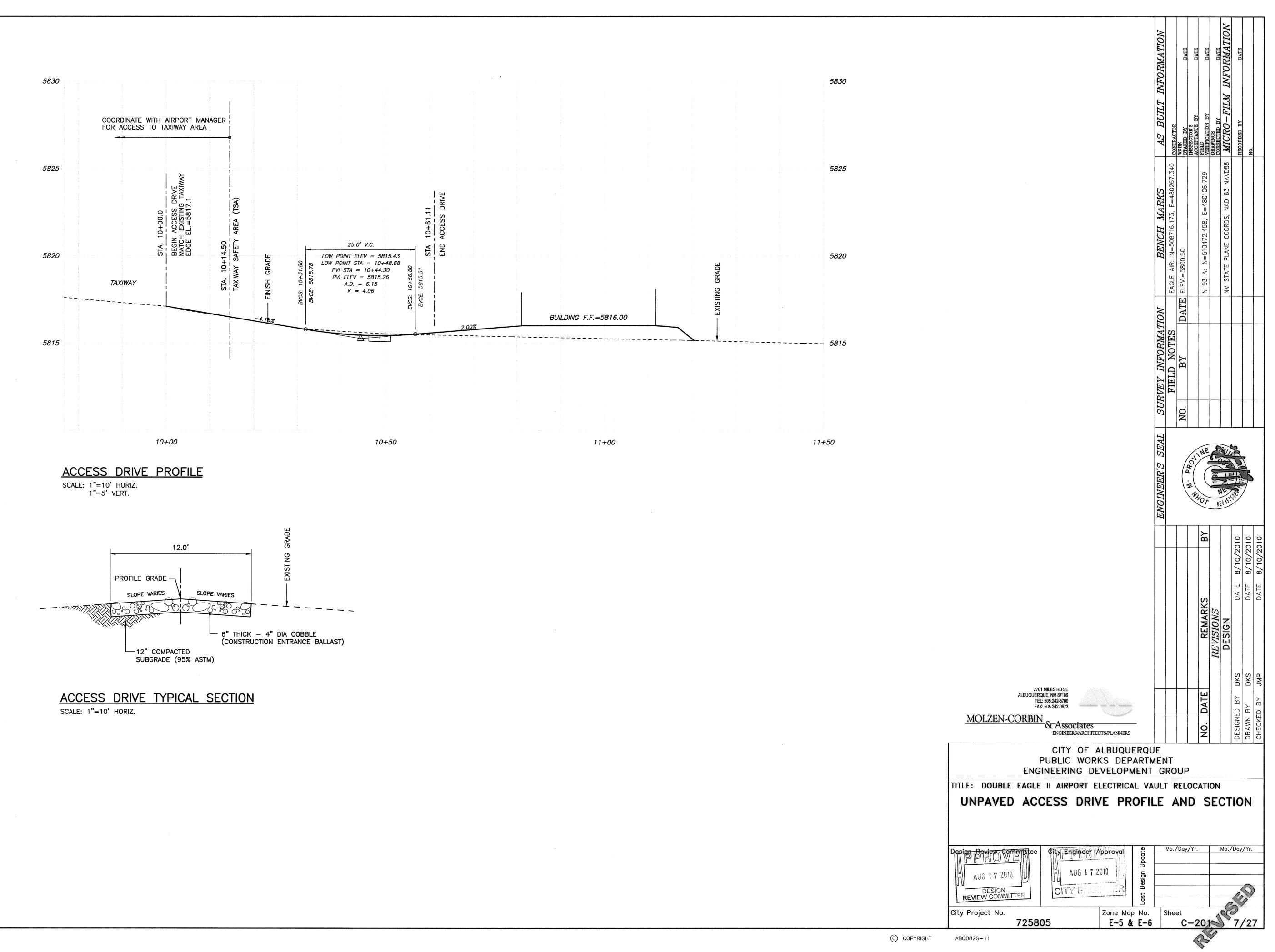
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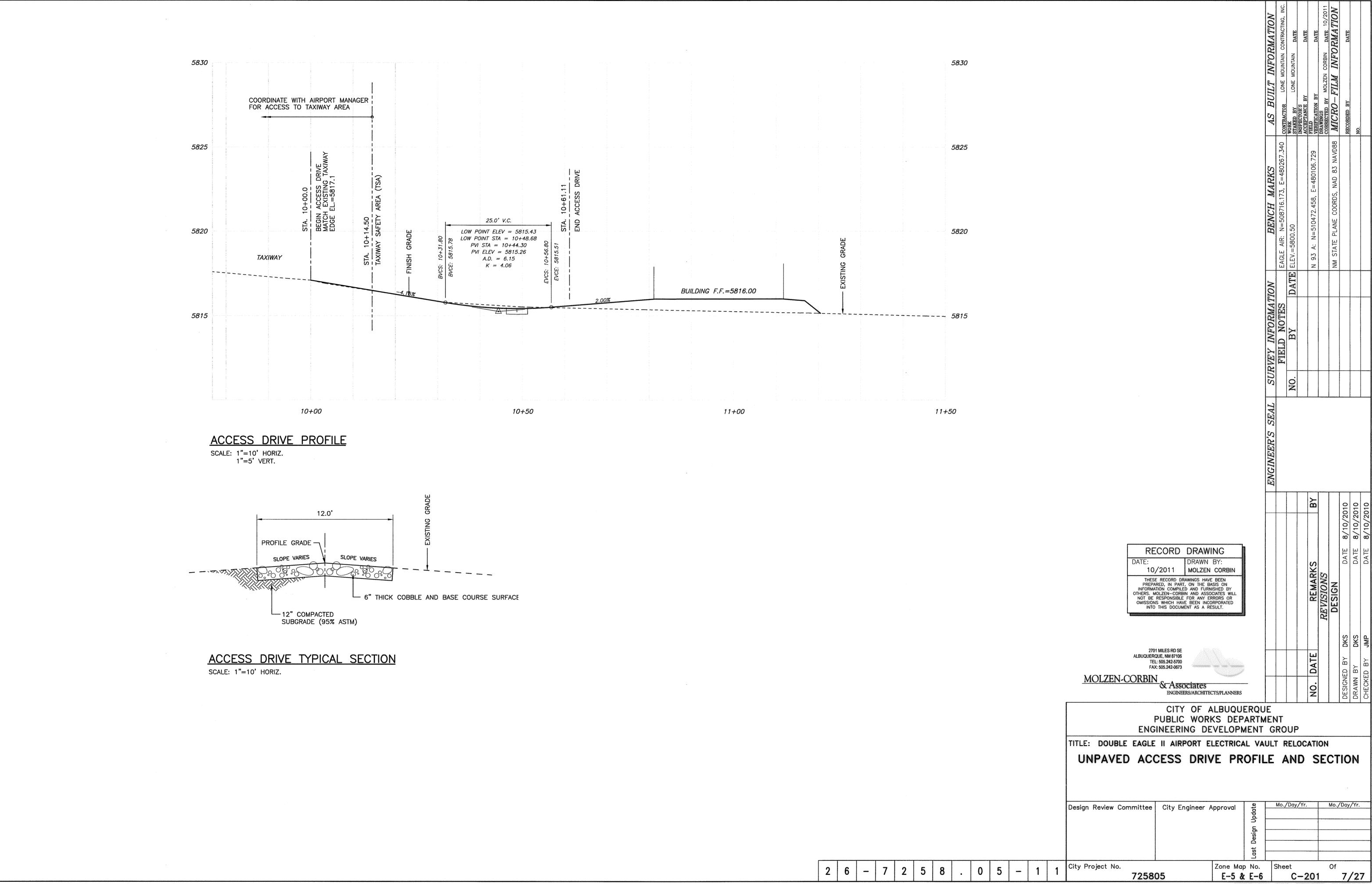
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REDRAWN FOR RECORD PURPOSES







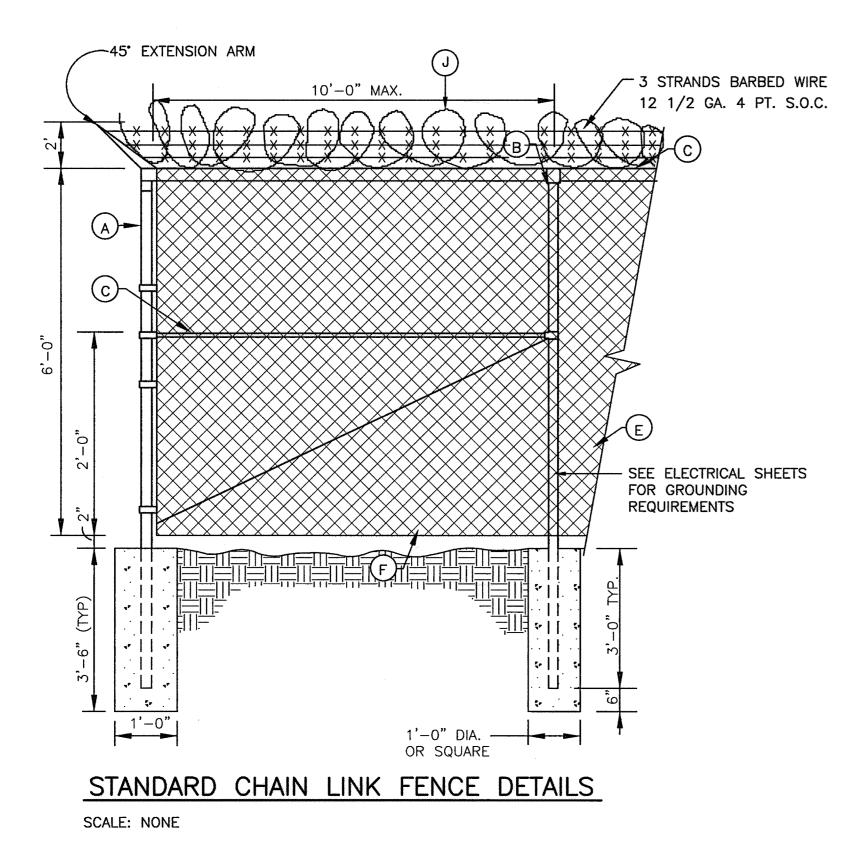


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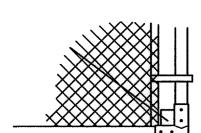
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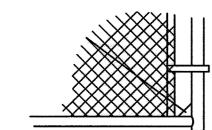
REDRAWN FOR RECORD PURPOSES



USE 1.66" O.D. 2.27 LBS./FT. OR 1.836 161FT. (55-40) TOP AND BRACE RAILS AND GATE FRAMES TO 6' WIDTH. USE 1.90" O.D. 2.72 LBS./FT. OR 2.280 101FT (55-40) FOR LINE POSTS AND GATE FRAMES TO 13' WIDTH. USE 2.875" O.D. 5.79 LBS./FT. OR 4.64 LB/FT (55-40) FOR END POSTS, CORNER POSTS AND GATE POSTS FOR SINGLE GATE OPENINGS TO 6' WIDTH.

USE 4.00" O.D. 9.1 LBS./FT. OR 6.56 LB/FT (55-40) FOR GATE POSTS FOR SINGLE GATE OPENINGS TO 13' WIDTH AND DOUBLE GATE OPENINGS.



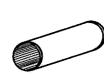


FITTED GATE CORNER

WELDED GATE CORNER

OPTIONAL GATE CORNER TYPES

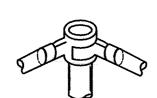
SCALE: NONE



APPROX. 20' © EXPANSION (SPRING) COUPLING AT 100' INTERVALS IN SECTIONS OVER 100'

RAIL COUPLING





BALL TOP FOR GATE POST



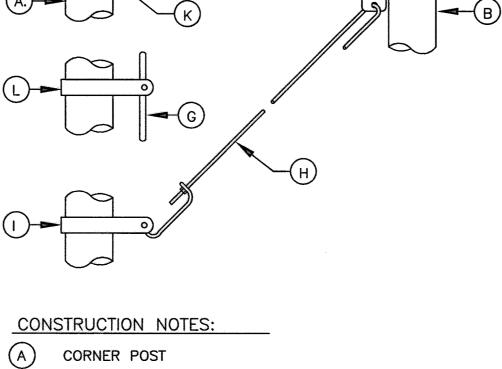
EXTENSION ARM FOR END AND CORNER POST

CORNER CLAMP

KEY WIRE LOCKS BARBED WIRE INTO EXTENSION ARM (USE ON ROUND OR SQUARE POST)

FENCE POST AND RAIL ATTACHMENTS

SCALE: NONE



CONSTRUCTION NOTES:

- B LINE POSTS
- TOP & BRACE
- CONCRETE FOOTING
- 2" MESH No. 9 GAGE WIRE GALVANIZED FABRIC WIRE REINFORCEMENT, #7 GA.
- STRETCHER BAR 1/4"x3/4" FLAT
- TRUSS BAR 3/8" DIA.
- TRUSS BAND
- COIL RAZOR RIBBON
- END CLAMP
- STRETCHER BAR BAND

BRACE DETAIL

METHOD OF TYING FABRIC LINE POST,

TOP AND BRACE RAIL

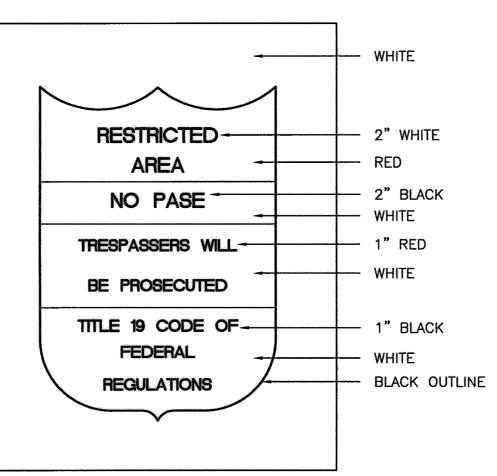
CROSS SECTION

-BARBED TOP & BOTTOM SELVAGES ---

CHAIN LINK MESH ATTACHMENT DETAIL

TOP RAIL TIE WIRES

SCALE: NONE



GENERAL NOTES:

BARBED FINISH.

1. SPOT WELD OR UPSET THE THREADS ON NUTS AND BOLTS.

TOP AND BOTTOM SELVAGES TO HAVE A TWISTED AND

3. DIAMETER (O.D.) SHOWN HEREON ARE NOMINAL SIZES AS ESTABLISHED BY THE AMERICAN NATIONAL STANDARDS

EXTENSION ARMS TO BE HOT-DIP GALVANIZED. LINE POST

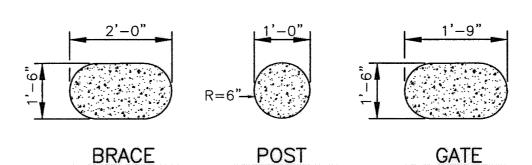
IN SLOTS BY HEAVY WIRE PINS. ARMS HAVING PROJECTIONS TO BE BENT DOWN OVER BARBED WIRE MAY NOT BE USED.

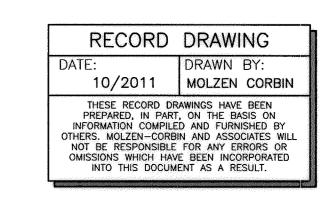
ARMS TO BE PRESSED STEEL, END AND CORNER POST ARMS TO BE MALLEABLE IRON, GATE POSTS TO HAVE A

18"x24" ALUMINUM SIGN

- 1. SIGNS ARE TO BE PLACED AT INTERVALS NOT TO EXCEED 200 FT. (THIS PROJECT: PLACE 1 SIGN ON EACH FENCE FACE; 4 TOTAL)
- 2. SIGNS ARE TO BE SECURELY ATTACHED AT EACH CORNER WITH WIRE CLIPS OR 2 EA. 1/4" GALVANIZED MACHINE BOLTS AND FENDER WASHERS.

TYPICAL PERIMETER FENCE WARNING SIGN SCALE: NONE





2701 MILES RD SE ALBUQUERQUE, NM 87106 TEL: 505.242-5700 FAX: 505.242-0673

MOLZEN-CORBIN & Associates ENGINEERS/ARCHITECTS/PLANNERS

> PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

AIRPORT SECURITY FENCING DETAILS

CITY OF ALBUQUERQUE

Design Review Committee | City Engineer Approval

City Project No. Zone Map No. 725805 E-5 & E-6 C-501

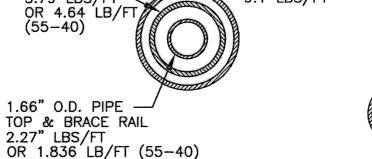
ALTERNATE FOOTING DETAILS

SCALE: NONE

OPTIONAL "H" COLUMN LINE POST 2.8 LBS/FT

2.875" O.D. POST 5.79 LBS/FT ~ OR 4.64 LB/FT (55-40) 1.66" O.D. PIPE —/ TOP & BRACE RAIL 2.27" LBS/FT

4.0" O.D. POST 9.1 LBS/FT





1.90" O.D. PIPE LINE POST 2.72 LBS/FT OR 2.280 LB/FT (55-40)

1.66" O.D. PIPE GATE FRAME 2.27 LBS/FT

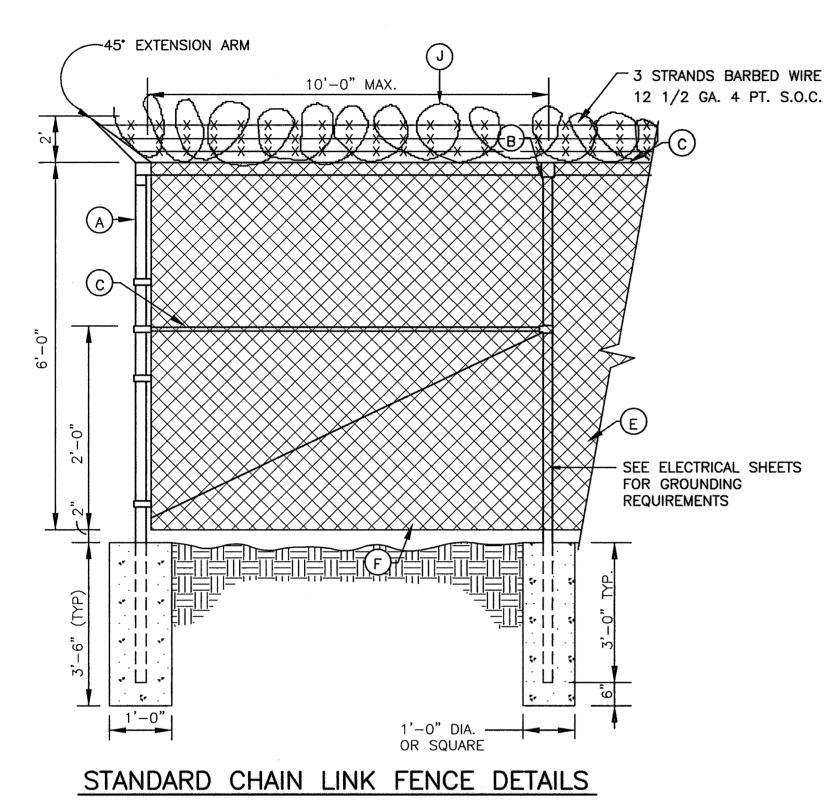
OR 1.836 LB/FT (55-40)

USE 1.66" O.D. TOP AND BRACE RAILS AND GATE FRAMES TO 6' WIDTH. USE 1.90" O.D. FOR LINE POSTS AND GATE FRAMES TO 13' WIDTH. USE 2.875" O.D. FOR END POSTS, CORNER POSTS AND GATE POSTS FOR SINGLE GATE OPENINGS TO 6' WIDTH. USE 4.00" O.D. FOR GATE POSTS FOR SINGLE GATE OPENINGS TO 13' WIDTH AND DOUBLE GATE OPENINGS.

FENCE POSTS

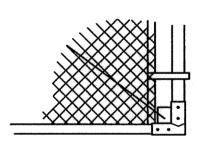
SCALE: NONE

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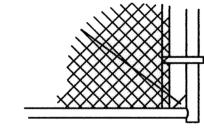


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USE 4.00" O.D. 9.1 LBS./FT. OR 6.56 LB/FT (55-40) FOR GATE POSTS FOR SINGLE GATE OPENINGS TO 13' WIDTH AND DOUBLE GATE OPENINGS.



SCALE: NONE



FITTED GATE CORNER

WELDED GATE CORNER

OPTIONAL GATE CORNER TYPES

SCALE: NONE



APPROX. 20' © EXPANSION (SPRING) COUPLING AT 100' INTERVALS IN SECTIONS OVER 100'

RAIL COUPLING









EXTENSION ARM FOR END AND CORNER POST

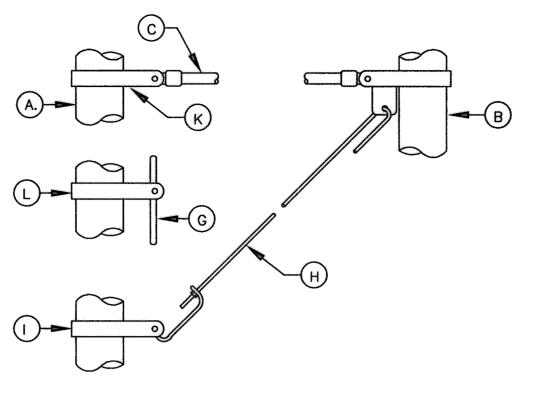
CORNER CLAMP



KEY WIRE LOCKS BARBED WIRE INTO EXTENSION ARM (USE ON ROUND OR SQUARE POST)

FENCE POST AND RAIL ATTACHMENTS

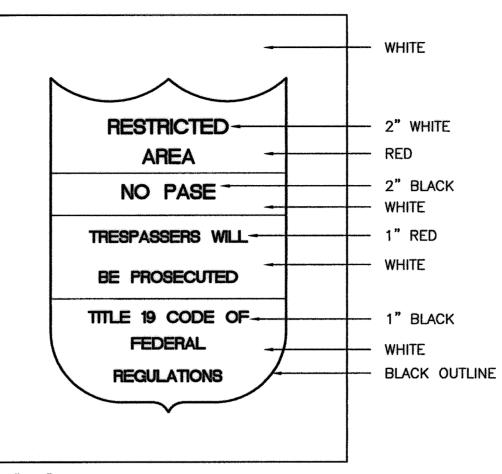
SCALE: NONE



CONSTRUCTION NOTES:

- A CORNER POST
- B LINE POSTS
- TOP & BRACE
- CONCRETE FOOTING
- 2" MESH No. 9 GAGE WIRE
- GALVANIZED FABRIC WIRE REINFORCEMENT, #7 GA.
- STRETCHER BAR 1/4"x3/4" FLAT
- TRUSS BAR 3/8" DIA.
- TRUSS BAND
- COIL RAZOR RIBBON
- STRETCHER BAR BAND

BRACE DETAIL



GENERAL NOTES:

BARBED FINISH.

1. SPOT WELD OR UPSET THE THREADS ON NUTS AND BOLTS.

2. TOP AND BOTTOM SELVAGES TO HAVE A TWISTED AND

3. DIAMETER (O.D.) SHOWN HEREON ARE NOMINAL SIZES AS ESTABLISHED BY THE AMERICAN NATIONAL STANDARDS

EXTENSION ARMS TO BE HOT-DIP GALVANIZED. LINE POST

ARMS TO BE PRESSED STEEL, END AND CORNER POST

ARMS TO BE MALLEABLE IRON, GATE POSTS TO HAVE A

BALL TOP. EACH ARM TO CARRY 3 BARBED WIRES AT AN

12" IN OR CUT FROM FENCE LINE, AS DIRECTED BY THE ENGINEER. ALL BARBED WIRES TO BE SECURELY FASTENED

IN SLOTS BY HEAVY WIRE PINS. ARMS HAVING PROJECTIONS

TO BE BENT DOWN OVER BARBED WIRE MAY NOT BE USED.

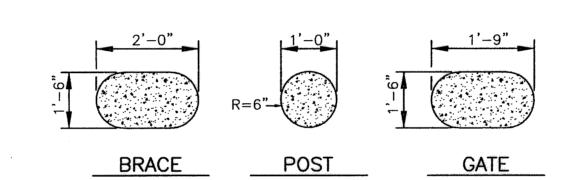
18"x24" ALUMINUM SIGN

GENERAL NOTES:

- 1. SIGNS ARE TO BE PLACED AT INTERVALS NOT TO EXCEED 200 FT. (THIS PROJECT: PLACE 1 SIGN ON EACH FENCE FACE; 4 TOTAL)
- 2. SIGNS ARE TO BE SECURELY ATTACHED AT EACH CORNER WITH WIRE CLIPS OR 2 EA. 1/4" GALVANIZED MACHINE BOLTS AND FENDER WASHERS.

TYPICAL PERIMETER FENCE WARNING SIGN

SCALE: NONE



ALTERNATE FOOTING DETAILS

2.875" O.D. POST 5.79 LBS/FT OR 4.64 LB/FT (55-40)

SCALE: NONE



725805

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

REVISIONS DESIGN

TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

AIRPORT SECURITY FENCING DETAILS

AUG 17 2010 DESIGN REVIEW COMMITTEE CITY ENGINEER City Project No. Zone Map No.

E-5 & E-6

C-501

1.66" O.D. PIPE —/ TOP & BRACE RAIL 2.27" LBS/FT OR 1.836 LB/FT (55-40) USE 1.66" O.D. TOP AND BRACE RAILS AND GATE FRAMES TO 6' WIDTH. USE 1.90" O.D. FOR LINE POSTS AND GATE FRAMES TO 13' WIDTH. USE 2.875" O.D. FOR END POSTS, CORNER POSTS AND GATE POSTS FOR SINGLE GATE OPENINGS TO 6' WIDTH. USE 4.00" O.D. FOR GATE POSTS FOR SINGLE GATE OPENINGS TO 13' WIDTH AND DOUBLE GATE OPENINGS.

4.0" O.D. POST 9.1 LBS/FT

OPTIONAL "H" COLUMN LINE POST 2.8 LBS/FT

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GATE FRAME 2.27 LBS/FT

OR 1.836 LB/FT (55-40)

1.90" O.D. PIPE LINE POST 2.72 LBS/FT

OR 2.280 LB/FT (55-40)

FENCE POSTS

SCALE: NONE

TOP RAIL TIE WIRES

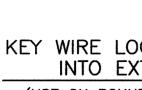
BARBED TOP & BOTTOM SELVAGES -

CROSS SECTION CHAIN LINK MESH ATTACHMENT DETAIL

METHOD OF TYING FABRIC LINE POST,

TOP AND BRACE RAIL

SCALE: NONE



GENERAL CRITERIA

	SIGN LOADS: VERTICAL DEAD LOADS	IBC 2006
	ROOF	20.0 psf
В.	VERTICAL LIVE LOADS ————————————————————————————————————	20.0 psf NON-REDUCIBLE
C.	WIND LOADS	SECTION 1609, IBC 2006
	BASIC WIND SPEED	V _{3S} = 90 MPH
	EXPOSURE	"C"
	BUILDING GROUP	II
	IMPORTANCE FACTOR	I = 1.00
	EXPOSURE AND GUST FACTOR -	Ce = 1.21 [0-15'] Ce = 1.29 [20'] Ce = 1.35 [25'] Ce = 1.40 [30']
D.	SEISMIC LOADS	SECTION 1613, IBC 2006
	SITE CLASS	D
	SEISMIC DESIGN CATEGORY SMs = 0.7 SM1 = 0.33 Fa = 1.4 Ev = 2.2	В

ALLOWABLE 1/3 STRESS INCREASE FOR COMBINED VERTICAL AND WIND/SEISMIC LOADS

- CAST-IN-PLACE CONCRETE:
 - a. F'c = 4000psi @ 28 DAYS (AIR ENTRAINED)
 - b. F'c = 4000psi @ 28 DAYS (NON- AIR ENTRAINED) ALL BUILDING
- REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 OR A706, GRADE 60.
- UNLESS NOTED OTHERWISE, LAP SPLICED OR EMBEDMENT LENGTHS SHALL CONFORM TO TABLE A, CLASS B SPLICE. SEE TABLE A, THIS SHEET.
- UNLESS NOTED OTHERWISE, CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE MINIMUMS REQUIRED BY CURRENT EDITION OF ACI 318.
- REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315, EXCEPT WHERE OTHERWISE INDICATED.

FOUNDATION NOTES

- FOR COMPACTED FILL AND EXCAVATION REQUIREMENTS FOR WELL HOUSE, SEE EXCAVATION/FILL DETAIL, THIS SHEET AND GEOTECHNICAL REPORT BY GEOTEST, JÓB NO. 1-20809 DATED DECEMBER 12, 2002
- WELL HOUSE DESIGN FOUNDATION BEARING PRESSURE (NET) 2000 PSF DEAD + LIVE LOAD FILL DESIGN PRESSURE MAY BE INCREASED BY 1/3 FOR COMBINED VERTICAL AND WIND/SEISMIC LOADS.
- REINFORCEMENT SHALL BE PLACED MID-DEPTH OF SLAB, UNLESS NOTED OTHERWISE.
- CHAMFER EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED OTHERWISE.
- SUBGRADE PREPARATION:
 - A. EXISTING FOUNDATIONS AND UTILITIES AT ANY POINT BENEATH OR WITHIN 3'-0" OF THE NEW STRUCTURE SHALL BE REMOVED ENTIRELY. ANY FILL MATERIAL FROM PREVIOUS CONSTRUCTION ACTIVITIES WHICH IS ENCOUNTERED WITHIN THE BUILDING FOOTPRINT SHOULD ALSO BE REMOVED ENTIRELY. SEE EXCAVATION/FILL DETAIL, THIS SHEET.
- WELL HOUSE FILL:
 - A. ALL NON-EXPANSIVE STRUCTURAL FILL PLACED UNDER BUILDING SLABS SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM DENSITY ACCORDING TO ASTM D-1557.

MASONRY

- 1. UNLESS NOTED OTHERWISE, ALL CONCRETE MASONRY UNITS (CMU) SHALL BE 2-CELL BLOCK AND HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON NET AREA.
- 2. ALL MASONRY BOND BEAMS, LINTELS AND BLOCKS WITH EMBEDDED ANCHOR BOLTS SHALL BE FILLED WITH 2000 PSI GROUT
- 3. LAP ALL MASONRY REINFORCING BARS 40 DIAMETERS OR 18" MINIMUM UNLESS NOTED OTHERWISE.
- 4. GROUTED VERTICAL CELLS SHALL MAINTAIN A VERTICAL ALIGNMENT SUFFICIENT TO PROVIDE A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL NOT LESS THAN 2"x3" IN PLAN DIMENSIONS.
- 5. FOUNDATION DOWELS SHALL EXTEND A MINIMUM OF 40 DIAMETERS OR 18" MINIMUM INTO THE FOUNDATION CONCRETE AND 40 DIAMETERS INTO THE MASONRY WALL OR PARTITION. LAPS OR SPLICES OF REINFORCING STEEL IN MASONRY SHALL BE 2'-0" OR 40 DIAMETERS WHICHEVER IS GREATER. THERE SHALL BE A FOUNDATION DOWEL FOR EACH VERTICAL REINFORCING BAR.
- 6. VERTICAL WALL REINFORCING SHALL EXTEND CONTINUOUSLY FROM THE TOP OF FOUNDATION TO EMBED AT LEAST 6" INTO TOP OF WALL BOND BEAM.
- 7. AN ADDITIONAL VERTICAL BAR WITH FOUNDATION DOWEL, SAME SIZE AND LENGTH AS NORMAL REINFORCING BAR, SHALL BE PLACED.
 - A. ON EACH SIDE OF CONTROL JOINTS. B. AT INTERSECTION OF EXTERIOR WALLS.
- 8. BOND BEAM REINFORCING STEEL FOR INTERIOR AND EXTERIOR WALLS SHALL BE CONTINUOUS THROUGHOUT
 - A. AT CONTROL JOINTS, INTERMEDIATE BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS, REINFORCEMENT IN BOND BEAMS AT FLOOR AND ROOF DIAPHRAGM LEVELS SHALL BE CONTINUOUS.
- 9. LOCATION AND DETAILS OF CONTROL AND ISOLATION WALL JOINTS SHALL BE AS DETAILED ON CONTRACT DRAWINGS.
- 10. BARS AROUND PERIMETER OF OPENINGS SHALL EXTEND NOT LESS THAN 40 BAR DIAMETERS OR 24", WHICHEVER IS LARGER, BEYOND CORNER OF OPENING. FOUNDATION DOWELS ARE ONLY REQUIRED WHEN BAR DEVELOPMENT LENGTH DOES NOT EXIST BELOW THE OPENING.
- 11. VERTICAL REINFORCING SHALL BE SPACED AT 24" O.C. FOR ALL CMU UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 12. HORIZONTAL REINFORCING SHALL BE SPACED NO GREATER THAT 48" O.C. UNLESS NOTED OTHERWISE ON THE DRAWINGS.

MANUFACTURED STEEL JOISTS/JOIST GIRDERS

- 1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S
- 2. BRACING, BRIDGING AND BLOCKING OF JOISTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS
- 3. JOIST TO BE SPACED AS SHOWN, REDUCE SPACING IF NECESSARY TO MEET THE SPECIFIED CRITERIA FOR DESIGN LOADS AND DEFLECTIONS.
- 4. MAXIMUM SPACING OF BRIDGING FOR ALL JOISTS SHALL BE IN ACCORDANCE WITH IBC 2006 AND MANUFACTURERS RECOMMENDATIONS.

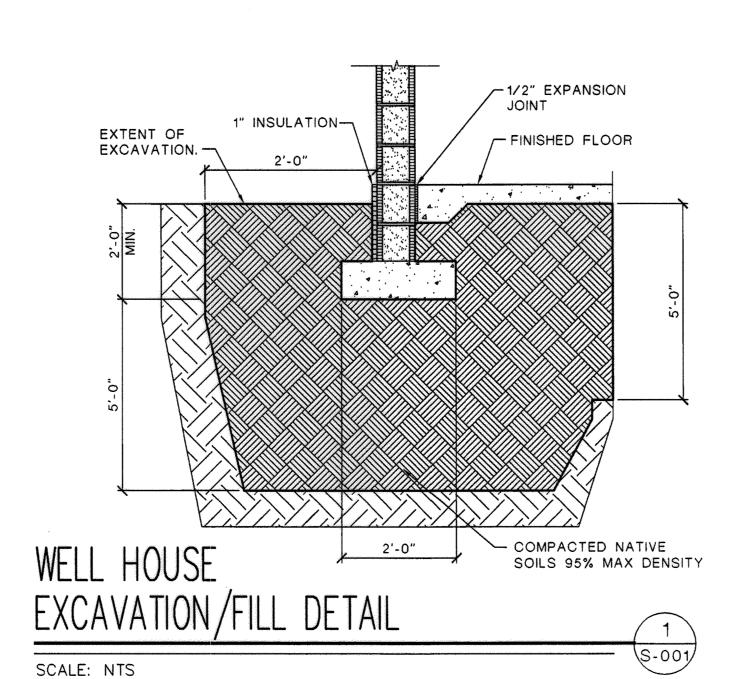
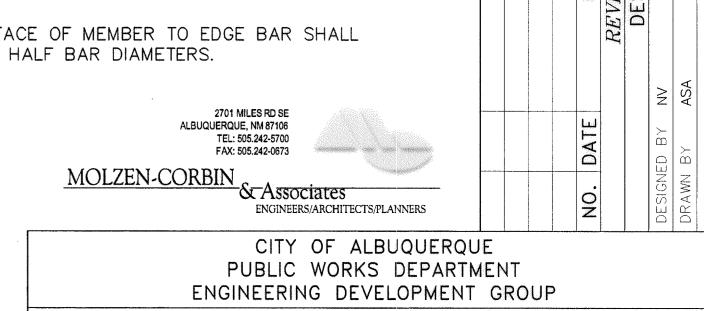


TABLE A - REINFORCEMENT TENSION LAPS,																
		E	MBEL	DH	\cdot		ENG		•		<u> </u>					
		†y	= 6	000)()	psi	1	f'c		3000) p:	SI	(2) (3)		
(p)	CLEAR SPACING				EMBEDMENT AND CLASS A LAP (IN) 5 6 7					CLASS B LAP (IN)					6	
SIZE ((1	N) (4)		TOP	BAR	10	ОТНІ	ER B	ARS	TOP	BAR	10	OTH	ER B	ARS	(N)
l i				<3d	(1)	(13)	/2d	(1	(12)	.3d	(1)	(12)	<3d	\bigoplus	(£2)	1 1
BAR	2d	3d	5d	2d<\$<	S≥3d	S>5D	2d<5<	S≥3d	S ₂ 5D	2d <s<3d< td=""><td>S≥3d</td><td>S≥5D</td><td>2d<5<</td><td>S≥3d</td><td>S>5D</td><td>HOOK</td></s<3d<>	S≥3d	S≥5D	2d<5<	S≥3d	S>5D	HOOK
3	3/4	1 1/8	1 7/8	16	16	16	13	13	13	21	21	21	16	16	16	9
4	1	1 1/2	2 1/2	22	22	22	17	17	17	28	28	28	22	22	22	11
5	1 1/4	1 7/8	3 1/8	27	27	27	21	21	21	35	35	35	27	27	27	14
6	1 1/2	2 1/4	3 3/4	35	32	32	27	25	25	46	42	42	35	32	32	17
7	1 3/4	2 5/8	4 3/8	48	38	38	37	29	29	63	49	49	48	38	38	20
8	2	3	5	63	45	43	49	35	33	82	59	56	63	45	43	22
9	2.256	3 3/8	5 5/8	80	57	48	62	44	37	104	74	63	80	57	48	25
10	2.54	3.81	6.35	102	73	58	78	56	45	132	94	76	102	73	58	28
11	2.82	4.23	7.05	125	89	71	96	69	55	162	116	93	125	89	71	31

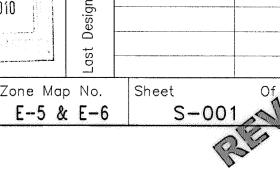
NOTES FOR TABLE A

- LENGTHS SHOWN CONFORM WITH NON SEISMIC PROVISIONS OF ACI 318. CURRENT EDITION FOR UNCOATED BARS NOT ENCLOSED BY CLOSELY SPACED SPIRALS OR TIES. DEVELOPMENT OF REINFORCEMENT NOT COVERED BY THE TABLE SHALL CONFORM WITH ACI 318, CURRENT EDITION.
- 2. MULTIPLY LENGTHS SHOWN BY 0.87 FOR 4000 PSI. CONCRETE, BUT LENGTH OF LAP SHALL NOT BE LESS THAN 12 INCH.
- 3. MULTIPLY LENGTHS SHOWN BY 1.3 FOR LIGHTWEIGHT AGGREGATE CONCRETE.
- 4. BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS TWO BAR DIAMETERS WHEN ALL BARS ARE LAPPED AT THE SAME LOCATION. WHEN BAR LAPS ARE STAGGERED, AND LAP HALF THE BARS ARE LAPPED AT THE SAME LOCATION, THE BAR CLEAR SPACING IS TWICE THE CENTER TO CENTER BAR SPACING MINUS TWO BAR DIAMETERS. WHEN ALL BARS ARE EMBEDDED AT THE SAME LOCATION, THE BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.
- 5. CLASS A LAP LENGTHS APPLY ONLY WHERE NOTED ON THE DRAWINGS.
- 6. LAP AND EMBEDMENT LENGTHS SHOWN APPLY WHEN MINIMUM CONCRETE COVER OVER BARS CONFORMS WITH VALUES GIVEN IN THE TABLE FOR "CONCRETE COVER". THESE COVER VALUES CONFIRM WITH ACI 318, CURRENT EDITION
- 7. CLASS A LAP AND EMBEDMENT LENGTH ARE EQUIVALENT.
- 8. CLASS B LAP LENGTHS APPLY FOR ALL SPLICES UNLESS NOTED
- 9. HOOK LENGTH GIVEN IS THE STRAIGHT LINE DISTANCE FROM THE LOCATION OF MAXIMUM STRESS IN THE BAR TO THE OUTSIDE END OF THE HOOK. MULTIPLY LENGTHS GIVEN BY 0.7 FOR HOOKS WITH SIDE COVER NORMAL TO THE HOOK NOT LESS THAN 2-1/2 INCH AND FOR 90 DEGREE HOOKS COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2 INCHES.
- 10. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
- 11. MULTIPLY LAP AND EMBEDMENT LENGTHS GIVEN BY 2.0 FOR BARS WITH CLEAR SPACING OF TWO BAR DIAMETERS OR LESS OR CONCRETE COVER OF ONE BAR DIAMETER OR LESS.
- 12. MINIMUM CONCRETE COVER FROM FACE OF MEMBER TO EDGE BAR SHALL NOT BE LESS THAN TWO AND ONE HALF BAR DIAMETERS.



TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION STRUCTURAL GENERAL NOTES Mo./Day/Yr. AUG 17 2010 AUG 17 2010 DESIGN REVIEW COMMITTEE City Project No. Zone Map No.

725805



INFORMATION

REGISTE TO

GENERAL CRITERIA

1. DESIGN LOADS:	JD 0 0000
A. VERTICAL DEAD LOADS	—— IBC 2006
ROOF	20.0 psf
B. VERTICAL LIVE LOADS	IBC 2006
ROOF	20.0 psf NON-REDUCIBLE
FLOOR	100 psf
C. WIND LOADS	SECTION 1609, IBC 2006
BASIC WIND SPEED	
EXPOSURE	"C"
BUILDING GROUP	——— II
IMPORTANCE FACTOR	I = 1.00
	Ce = 1.21 [0-15']
	Ce = 1.29 [20']
EXPOSURE AND GUST FACTOR≺	—— Ce = 1.35 [25']
	Ce = 1.40 [30']
D. SEISMIC LOADS	SECTION 1613, IBC 2006
SITE CLASS	D
SEISMIC DESIGN CATEGORY SMs = 0.7	— В
SMS = 0.7 SM1 = 0.33	
Fa = 1.4 Fv = 2.2	•
ALLOWARD F 4/2 OTDERO INOREACE FOR COMPIN	ED VEDTICAL AND WIND (SEISMIC

- ALLOWABLE 1/3 STRESS INCREASE FOR COMBINED VERTICAL AND WIND/SEISMIC LOADS
- CAST-IN-PLACE CONCRETE:
 - a. F'c = 4000psi @ 28 DAYS (AIR ENTRAINED)
 - b. F'c = 4000psi @ 28 DAYS (NON- AIR ENTRAINED) ALL BUILDING
- REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 OR A706, GRADE 60.
- UNLESS NOTED OTHERWISE, LAP SPLICED OR EMBEDMENT LENGTHS SHALL CONFORM TO TABLE A. CLASS B SPLICE. SEE TABLE A. THIS SHEET.
- UNLESS NOTED OTHERWISE, CONCRETE COVER OVER STEEL REINFORCEMENT SHALL CONFORM TO THE MINIMUMS REQUIRED BY CURRENT EDITION OF ACI 318.
- REINFORCEMENT DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315, EXCEPT WHERE OTHERWISE INDICATED.

FOUNDATION NOTES

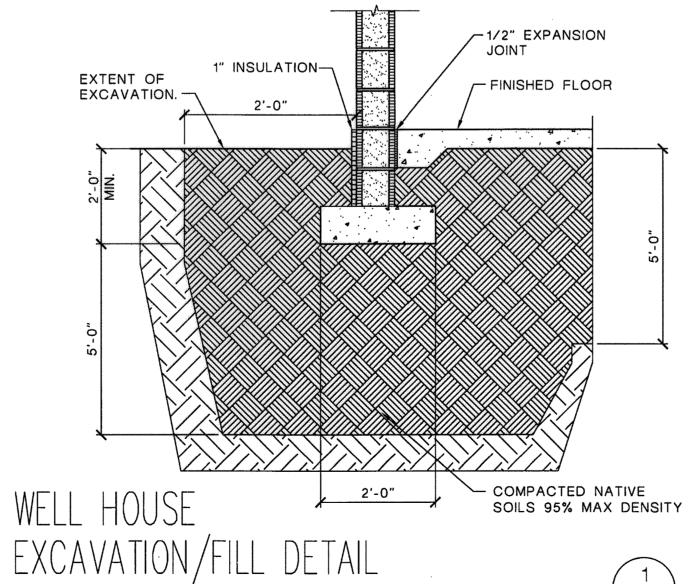
- FOR COMPACTED FILL AND EXCAVATION REQUIREMENTS FOR WELL HOUSE, SEE EXCAVATION/FILL DETAIL, THIS SHEET AND GEOTECHNICAL REPORT BY GEOTEST, JOB NO. 1-20809 DATED DECEMBER 12, 2002
- WELL HOUSE DESIGN FOUNDATION BEARING PRESSURE (NET) 2000 PSF DEAD + LIVE LOAD FILL DESIGN PRESSURE MAY BE INCREASED BY 1/3 FOR COMBINED VERTICAL AND WIND/SEISMIC LOADS.
- REINFORCEMENT SHALL BE PLACED MID-DEPTH OF SLAB, UNLESS NOTED OTHERWISE.
- CHAMFER EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED OTHERWISE.
- SUBGRADE PREPARATION:
- A. EXISTING FOUNDATIONS AND UTILITIES AT ANY POINT BENEATH OR WITHIN 3'-0" OF THE NEW STRUCTURE SHALL BE REMOVED ENTIRELY. ANY FILL MATERIAL FROM PREVIOUS CONSTRUCTION ACTIVITIES WHICH IS ENCOUNTERED WITHIN THE BUILDING FOOTPRINT SHOULD ALSO BE REMOVED ENTIRELY. SEE EXCAVATION/FILL DETAIL, THIS SHEET.

MASONRY

- UNLESS NOTED OTHERWISE, ALL CONCRETE MASONRY UNITS (CMU) SHALL BE 2-CELL BLOCK AND HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON NET AREA.
- 2. ALL MASONRY BOND BEAMS, LINTELS AND BLOCKS WITH EMBEDDED ANCHOR BOLTS SHALL BE FILLED WITH 2000 PSI GROUT
- 3. LAP ALL MASONRY REINFORCING BARS 40 DIAMETERS OR 18" MINIMUM UNLESS NOTED OTHERWISE.
- 4. GROUTED VERTICAL CELLS SHALL MAINTAIN A VERTICAL ALIGNMENT SUFFICIENT TO PROVIDE A CLEAR UNOBSTRUCTED CONTINUOUS VERTICAL CELL NOT LESS THAN 2"x3" IN PLAN DIMENSIONS.
- 5. FOUNDATION DOWELS SHALL EXTEND A MINIMUM OF 40 DIAMETERS OR 18" MINIMUM INTO THE FOUNDATION CONCRETE AND 40 DIAMETERS INTO THE MASONRY WALL OR PARTITION. LAPS OR SPLICES OF REINFORCING STEEL IN MASONRY SHALL BE 2'-0" OR 40 DIAMÉTERS WHICHEVER IS GREATER. THERE SHALL BE A FOUNDATION DOWEL FOR EACH VERTICAL REINFORCING BAR.
- 6. VERTICAL WALL REINFORCING SHALL EXTEND CONTINUOUSLY FROM THE TOP OF FOUNDATION TO EMBED AT LEAS 6" INTO TOP OF WALL BOND BEAM.
- 7. AN ADDITIONAL VERTICAL BAR WITH FOUNDATION DOWEL, SAME SIZE AND LENGTH AS NORMAL REINFORCING BAR, SHALL BE PLACED. A. ON EACH SIDE OF CONTROL JOINTS. B. AT INTERSECTION OF EXTERIOR WALLS.
- 8. BOND BEAM REINFORCING STEEL FOR INTERIOR AND EXTERIOR WALLS SHALL BE CONTINUOUS THROUGHOUT
 - A. AT CONTROL JOINTS, INTERMEDIATE BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS. REINFORCEMENT IN BOND BEAMS AT FLOOR AND ROOF DIAPHRAGM LEVELS SHALL BE CONTINUOUS.
- 9. LOCATION AND DETAILS OF CONTROL AND ISOLATION WALL JOINTS SHALL BE AS DETAILED ON CONTRACT DRAWINGS
- 10. BARS AROUND PERIMETER OF OPENINGS SHALL EXTEND NOT LESS THAN 40 BAR DIAMETERS OR 24", WHICHEVER IS LARGER, BEYOND CORNER OF OPENING. FOUNDATION DOWELS ARE ONLY REQUIRED WHEN BAR DEVELOPMENT LENGTH DOES NOT EXIST BELOW THE OPENING.
- 11. VERTICAL REINFORCING SHALL BE SPACED AT 24" O.C. FOR ALL CMU UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 12. HORIZONTAL REINFORCING SHALL BE SPACED NO GREATER THAT 48" O.C. UNLESS NOTED OTHERWISE ON THE DRAWINGS.

MANUFACTURED STEEL JOISTS/JOIST GIRDERS

- 1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.
- 2. BRACING, BRIDGING AND BLOCKING OF JOISTS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
- 3. JOIST TO BE SPACED AS SHOWN, REDUCE SPACING IF NECESSARY TO MEET THE SPECIFIED CRITERIA FOR DESIGN LOADS AND DEFLECTIONS.
- 4. MAXIMUM SPACING OF BRIDGING FOR ALL JOISTS SHALL BE IN ACCORDANCE WITH IBC 2006 AND MANUFACTURERS RECOMMENDATIONS.



RECORD DRAWING

ABQ Engineering

6739 Academy Rd. NE, Suite 130, Albuquerque, NM 87109

Planners Construction Services

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

ENGINEERS/ARCHITECTS/PLANNERS

TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

2701 MILES RD SE

ALBUQUERQUE, NM 87106 TEL: 505.242-5700 FAX: 505.242-0673

MOLZEN-CORBIN & Associates

725805

GENERAL NOTES

Mo./Day/Yr. Mo./Day/Yr. Design Review Committee | City Engineer Approval

Zone Map No.

S-001/

505.255.7802

ABQ082G-11

City Project No.

(C) COPYRIGHT

TABLE A - REINFORCEMENT TENSION LAPS,

EMBEDMENT AND CLASS

A LAP (IN) 5 6 7

CLEAR SPACING

3d

O NOTES FOR TABLE A

CONCRETE.

CURRENT EDITION

ONE BAR DIAMETER OR LESS.

5d

3 3/4 1 1/8 1 7/8 16 | 16 | 16 | 13 | 13 | 13

EMBEDMENT AND HOOK LENGTHS 1

fy = 60000 psi f'c = 3000 psi ② ③

TOP BAR 10 OTHER BARS TOP BAR 10 OTHER BARS

1 1/2 2 1/2 22 | 22 | 22 | 17 | 17 | 17 | 28 | 28 | 28 | 22 | 22 | 22 | 11

| 5 | 63 | 45 | 43 | 49 | 35 | 33 | 82 | 59 | 56 | 63 | 45 | 43 | 22

5 | 1 1/4 | 1 7/8 | 3 1/8 | 27 | 27 | 21 | 21 | 21 | 35 | 35 | 35 | 27 | 27 | 27 | 14

6 1 1/2 2 1/4 3 3/4 35 | 32 | 32 | 27 | 25 | 25 | 46 | 42 | 42 | 35 | 32 | 32 | 17

| 7 | 1 3/4 | 2 5/8 | 4 3/8 | 48 | 38 | 38 | 37 | 29 | 29 | 63 | 49 | 49 | 48 | 38 | 38 | 20

| 9 | 2.256 | 3 3/8| 5 5/8| 80 | 57 | 48 | 62 | 44 | 37 | 104 | 74 | 63 | 80 | 57 | 48 | 25 |

10 2.54 3.81 6.35 102 73 58 78 56 45 132 94 76 102 73 58 28 11 2.82 4.23 7.05 125 89 71 96 69 55 162 116 93 125 89 71 31

1. LENGTHS SHOWN CONFORM WITH NON SEISMIC PROVISIONS OF ACI 318.

SPACED SPIRALS OR TIES. DEVELOPMENT OF REINFORCEMENT NOT

2. MULTIPLY LENGTHS SHOWN BY 0.87 FOR 4000 PSI. CONCRETE, BUT

3. MULTIPLY LENGTHS SHOWN BY 1.3 FOR LIGHTWEIGHT AGGREGATE

LENGTH OF LAP SHALL NOT BE LESS THAN 12 INCH.

CLASS A LAP AND EMBEDMENT LENGTH ARE EQUIVALENT.

8. CLASS B LAP LENGTHS APPLY FOR ALL SPLICES UNLESS NOTED

9. HOOK LENGTH GIVEN IS THE STRAIGHT LINE DISTANCE FROM THE

12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.

NOT BE LESS THAN TWO AND ONE HALF BAR DIAMETERS.

CURRENT EDITION FOR UNCOATED BARS NOT ENCLOSED BY CLOSELY

COVERED BY THE TABLE SHALL CONFORM WITH ACI 318, CURRENT EDITION.

4. BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS TWO

BAR DIAMETERS WHEN ALL BARS ARE LAPPED AT THE SAME LOCATION.

AT THE SAME LOCATION, THE BAR CLEAR SPACING IS TWICE THE

WHEN BAR LAPS ARE STAGGERED, AND LAP HALF THE BARS ARE LAPPED

CENTER TO CENTER BAR SPACING MINUS TWO BAR DIAMETERS. WHEN ALL

BARS ARE EMBEDDED AT THE SAME LOCATION. THE BAR CLEAR SPACING

IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.

5. CLASS A LAP LENGTHS APPLY ONLY WHERE NOTED ON THE DRAWINGS.

6. LAP AND EMBEDMENT LENGTHS SHOWN APPLY WHEN MINIMUM CONCRETE

"CONCRETE COVER". THESE COVER VALUES CONFIRM WITH ACI 318,

COVER OVER BARS CONFORMS WITH VALUES GIVEN IN THE TABLE FOR

LOCATION OF MAXIMUM STRESS IN THE BAR TO THE OUTSIDE END OF THE

HOOKS COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2 INCHES.

CLEAR SPACING OF TWO BAR DIAMETERS OR LESS OR CONCRETE COVER OF

HOOK. MULTIPLY LENGTHS GIVEN BY 0.7 FOR HOOKS WITH SIDE COVER NORMAL TO THE HOOK NOT LESS THAN 2-1/2 INCH AND FOR 90 DEGREE

10. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN

11. MULTIPLY LAP AND EMBEDMENT LENGTHS GIVEN BY 2.0 FOR BARS WITH

12. MINIMUM CONCRETE COVER FROM FACE OF MEMBER TO EDGE BAR SHALL

CLASS B LAP (IN)

| 21 | 21 | 21 | 16 | 16 | 16 | 9

WELL HOUSE FILL: A. ALL NON-EXPANSIVE STRUCTURAL FILL PLACED UNDER BUILDING SLABS SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM DENSITY ACCORDING TO ASTM D-1557. WELL HOUSE SCALE: NTS

SURVEY INFORMAT FIELD NOTES

D. BY

DATE
DATE

CORBIN DATE

INFORMAT

DATE

REVISIONS DESIGN

DATE Š.

STRUCTURAL

Sheet

E-5 & E-6 S-001 REDRAWN FOR RECORD PURPOSES

QUALITY ASSURANCE PLAN

- A. GENERAL REQUIREMENTS:
 - 1. THE CONTRACTOR SHALL EMPLOY SPECIAL TESTING IN ACCORDANCE WITH SECTION 1704.1 OF THE IBC 2006 THROUGH THIS CONTRACT AND THROUGH A SEPARATE CONTRACT FOR SOILS, CONCRETE AND ASPHALT TESTING, OWNER/ARCHITECT WILL APPROVE SELECTED TESTING LAB. THIS CONTRACTOR IS RESPONSIBLE TO PROVIDE THE OWNER WITH CERTIFIED RESULTS OF SPECIAL TESTING EXCEPT FOR SOIL, CONCRETE AND ASPHALT TESTING.
 - 2. THE PERMIT APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PER SECTION 1704.1 OF THE IBC-2006. SEE BELOW.
 - 3. SPECIAL INSPECTORS SHALL SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. THE REPORT SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED IN SECTION 1704.1.2 OF THE IBC-2006.
 - 4. THE REQUIRED SPECIAL INSPECTIONS FOR THE FACILITY ARE LISTED BELOW. ALL OTHER NORMAL INSPECTIONS AND TESTING NOT LISTED IN THE SPECIAL INSPECTIONS LISTED BELOW (SOILS COMPACTION TESTING, CONCRETE SAMPLING AND TESTING, PERMIT AGENCY INSPECTIONS, ETC.) SHALL BE PAID FOR BY THE GENERAL CONTRACTOR. ALL TESTING AND INSPECTIONS, AS WELL AS ALL QUALITY ASSURANCE TESTING AND INSPECTIONS, SHALL BE COORDINATED AND SCHEDULED BY THE GENERAL CONTRACTOR TO FIT WITHIN THE WORK FLOW OF THE PROJECT.
 - 5. ALL STRUCTURAL LOAD BEARING MEMBERS AND ASSEMBLIES FABRICATED IN THE FABRICATORS' SHOP SHALL BE REQUIRED TO HAVE SPECIAL INSPECTIONS. THESE SPECIAL INSPECTIONS SHALL CONSIST OF VERIFICATION BY SPECIAL INSPECTOR THAT FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATORS' ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THESE INSPECTIONS ARE NOT REQUIRED IF THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION THE FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE ENGINEER/ARCHITECT/OWNER/BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS FOR THE CONCRETE ELEMENTS OF THIS FACILITY ARE:
 - 1. PERIODIC INSPECTION IS REQUIRED FOR ALL REINFORCING STEEL AND ALL CAST-IN-PLACE ANCHORS, BOLTS AND RODS.
 - 2. PERIODIC INSPECTION IS REQUIRED TO VERIFY THE APPROVED DESIGN MIX.
 - 3. CONTINUOUS INSPECTION IS REQUIRED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND TO DETERMINE THE TEMPERATURE OF THE CONCRETE.
 - 4. CONTINUOUS INSPECTION IS REQUIRED TO VERIFY PROPER APPLICATION TECHNIQUES, INCLUDING CONVEYING AND DEPOSITING OF MATERIAL.
 - 5. PERIOD INSPECTION IS REQUIRED TO VERIFY THE SPECIFIED CURING TEMPERATURE AND TECHNIQUES.

CONCRETE CONSTRUCTION	ON TABLE 1704.	4-IBC 2006 ×	2
VERIFICATION & INSPECTION ITEM	CONTINUOUS	DEDIODIO	
L INSPECTION HEM I	CONTINUOUS	PERIODIC	
1.4.7.9		X	

× SEE TABLE 1704.4 FOR REFERENCED STANDARDS AND IBC REFERENCES

- C. CMU CONSTRUCTION. THE SPECIAL INSPECTION FOR THE MASONRY ELEMENTS OF THIS FACILITY ARE:
 - VERIFICATION OF SITE-PRÉPARED MORTAR MIX DESIGN PLACEMENT
 - 2. PERIODIC INSPECTION OF REINFORCING STEEL PLACEMENT
 - 3. PERIODIC INSPECTION OF CMU STRUCTURAL EMBEDS
 - 4. PERIODIC INSPECTION OF GROUT SPACE TO ENSURE SPACE IS CLEAN

MASONRY TABLE 1704.5.1-IBC-2006 CMILLEVEL 4 SPECIAL INSPECTION

CIVIO LEVEL	I SPECIAL INSP	ECTION	
VERIFICATION & INSPECTION ITEM	CONTINUOUS	PERIODIC	
1.a, 1.b, 1.c		X	
2.a, 2.b, 2.c, 2.e		X	
3.a, 3.b, 3.c, 3.d		X	
4	X		
5	X		

- D. SEISMIC RESISTANCE REQUIREMENTS:
 - 1. SEISMIC-FORCE-RESISTING SYSTEM FOR THIS BUILDING CONSISTS OF LOAD BEARING CONCRETE AND MASONRY SHEAR WALLS.
 - 2. THE SPECIAL INSPECTIONS AND TESTING TO BE PROVIDED SHALL BE IN ACCORDANCE WITH THE SECTIONS 1704, 1707, AND 1708 OF THE IBC-2006
 - 3. THE TESTING AND SPECIAL INSPECTION REPORTS SHALL BE DISTRIBUTED DURING THE CONSTRUCTION PERIOD. SUBMIT THE REPORTS TO THE FOLLOWING:
 - a. BUILDING OFFICIALS
 - b. DESIGN PROFESSIONALS (ENGINEER & ARCHITECT) AND FACILITY OWNER.
- E. STRUCTURAL OBSERVATIONS
- 1. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY A REGISTERED ENGINEER FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM.
- 2. SIGNIFICANT CONSTRUCTION STAGES ARE:
 - a. AFTER FOUNDATION REINFORCING IS IN PLACE BEFORE CONCRETE PLACEMENT
 - b. AFTER FOUNDATION CONCRETE PLACEMENT
 - c. DURING MASONRY CONSTRUCTION
 - d. AFTER ALL STRUCTURAL SYSTEMS IN PLACE
- F. CONTRACTOR RESPONSIBILITY: EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF ANY OF THE SYSTEMS LISTED ABOVE SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL, THE REGISTERED DESIGN PROFESSIONAL PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTORS' STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
- 1. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS QUALITY ASSURANCE PLAN.
- 2. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.
- 3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTORS' ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF REPORTS.
- 4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.
- G. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL SPECIAL INSPECTIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTORS OF THE TIME AND DATE OF THE INSPECTIONS.

SURVEY INFORMATION
FIELD NOTES
NO. BY DATI 2701 MILES RD SE ALBUQUERQUE, NM 87106 TEL: 505.242-5700 FAX: 505.242-0673 MOLZEN-CORBIN & Associates ENGINEERS/ARCHITECTS/PLANNERS CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION QUALITY ASSURANCE **PLAN** Mo./Day/Yr. City Engineer Approval AUG 17 2010 REVIEW COMMITTEE City Project No. Zone Map No. E-5 & E-6 725805



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- 2. THE PERMIT APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PER SECTION 1704.1 OF THE IBC-2006. SEE BELOW.
- 3. SPECIAL INSPECTORS SHALL SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. THE REPORT SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED IN SECTION 1704.1.2 OF THE IBC-2006.
- 4. THE REQUIRED SPECIAL INSPECTIONS FOR THE FACILITY ARE LISTED BELOW. ALL OTHER NORMAL INSPECTIONS AND TESTING NOT LISTED IN THE SPECIAL INSPECTIONS LISTED BELOW (SOILS COMPACTION TESTING, CONCRETE SAMPLING AND TESTING, PERMIT AGENCY INSPECTIONS, ETC.) SHALL BE PAID FOR BY THE GENERAL CONTRACTOR. ALL TESTING AND INSPECTIONS, AS WELL AS ALL QUALITY ASSURANCE TESTING AND INSPECTIONS, SHALL BE COORDINATED AND SCHEDULED BY THE GENERAL CONTRACTOR TO FIT WITHIN THE WORK FLOW OF THE PROJECT.
- 5. ALL STRUCTURAL LOAD BEARING MEMBERS AND ASSEMBLIES FABRICATED IN THE FABRICATORS' SHOP SHALL BE REQUIRED TO HAVE SPECIAL INSPECTIONS. THESE SPECIAL INSPECTIONS SHALL CONSIST OF VERIFICATION BY SPECIAL INSPECTOR THAT FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATORS' ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THESE INSPECTIONS ARE NOT REQUIRED IF THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. THE FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE ENGINEER / ARCHITECT / OWNER / BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS FOR THE CONCRETE ELEMENTS OF THIS FACILITY ARE:
 - 1. PERIODIC INSPECTION IS REQUIRED FOR ALL REINFORCING STEEL AND ALL CAST-IN-PLACE ANCHORS, BOLTS AND RODS.
 - 2. PERIODIC INSPECTION IS REQUIRED TO VERIFY THE APPROVED DESIGN MIX.
 - 3. CONTINUOUS INSPECTION IS REQUIRED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS. AND TO DETERMINE THE TEMPERATURE OF THE CONCRETE.
 - 4. CONTINUOUS INSPECTION IS REQUIRED TO VERIFY PROPER APPLICATION TECHNIQUES, INCLUDING CONVEYING AND DEPOSITING OF MATERIAL.
 - 5. PERIOD INSPECTION IS REQUIRED TO VERIFY THE SPECIFIED CURING TEMPERATURE AND TECHNIQUES.

CONCRETE CONSTRUCTION TABLE 1704 4-IBC 2006

CONCRETE CONSTRUCTION	ON TABLE 1704.	4-100 2000
VERIFICATION &		
INSPECTION ITEM	CONTINUOUS	PERIODIC
1,4,7,9		X
5.6	Χ	

- × SEE TABLE 1704.4 FOR REFERENCED STANDARDS AND IBC REFERENCES
- C. CMU CONSTRUCTION. THE SPECIAL INSPECTION FOR THE MASONRY ELEMENTS OF THIS FACILITY ARE:
 - 1. VERIFICATION OF SITE-PREPARED MORTAR MIX DESIGN PLACEMENT
 - 2. PERIODIC INSPECTION OF REINFORCING STEEL PLACEMENT
 - 3. PERIODIC INSPECTION OF CMU STRUCTURAL EMBEDS
 - 4. PERIODIC INSPECTION OF GROUT SPACE TO ENSURE SPACE IS CLEAN

MASONRY TABLE 1704.5.1-IBC-2006 OMILIEVEL 4 ODEOLAL INCREOTION

CMU LEVEL	1 SPECIAL INSP	ECTION
VERIFICATION & INSPECTION ITEM	CONTINUOUS	PERIODIC
1.a, 1.b, 1.c		X
2.a, 2.b, 2.c, 2.e		X
3.a, 3.b, 3.c, 3.d		X
4	X	
5	X	

- D. SEISMIC RESISTANCE REQUIREMENTS:
 - 1. SEISMIC-FORCE-RESISTING SYSTEM FOR THIS BUILDING CONSISTS OF LOAD BEARING CONCRETE AND MASONRY SHEAR WALLS.
 - 2. THE SPECIAL INSPECTIONS AND TESTING TO BE PROVIDED SHALL BE IN ACCORDANCE WITH THE SECTIONS 1704, 1707, AND 1708 OF THE IBC-2006.
 - 3. THE TESTING AND SPECIAL INSPECTION REPORTS SHALL BE DISTRIBUTED DURING THE CONSTRUCTION PERIOD. SUBMIT THE REPORTS TO THE FOLLOWING:
 - a. BUILDING OFFICIALS
 - b. DESIGN PROFESSIONALS (ENGINEER & ARCHITECT) AND FACILITY OWNER.

E. STRUCTURAL OBSERVATIONS

- 1. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY A REGISTERED ENGINEER FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM.
- 2. SIGNIFICANT CONSTRUCTION STAGES ARE:
 - a. AFTER FOUNDATION REINFORCING IS IN PLACE BEFORE CONCRETE PLACEMENT
 - b. AFTER FOUNDATION CONCRETE PLACEMENT
 - c. DURING MASONRY CONSTRUCTION
 - d. AFTER ALL STRUCTURAL SYSTEMS IN PLACE
- F. CONTRACTOR RESPONSIBILITY: EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF ANY OF THE SYSTEMS LISTED ABOVE SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL, THE REGISTERED DESIGN PROFESSIONAL PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTORS' STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
- 1. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS QUALITY ASSURANCE PLAN.
- 2. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.
- 3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTORS' ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF REPORTS.
- 4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.
- G. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL SPECIAL INSPECTIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTORS OF THE TIME AND DATE OF THE INSPECTIONS.

DATE

DATE

CORBIN DATE 10/2011

INFORMATION MOLZEN FILM N 93 NM ST DATE 2701 MILES RD SE ALBUQUERQUE, NM 87106 TEL: 505,242-5700 FAX: 505.242-0673 MOLZEN-CORBIN & Associates ENGINEERS/ARCHITECTS/PLANNERS CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

RECORD DRAWING



TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

QUALITY ASSURANCE **PLAN**

Design Review Committee | City Engineer Approval Mo./Day/Yr.

725805

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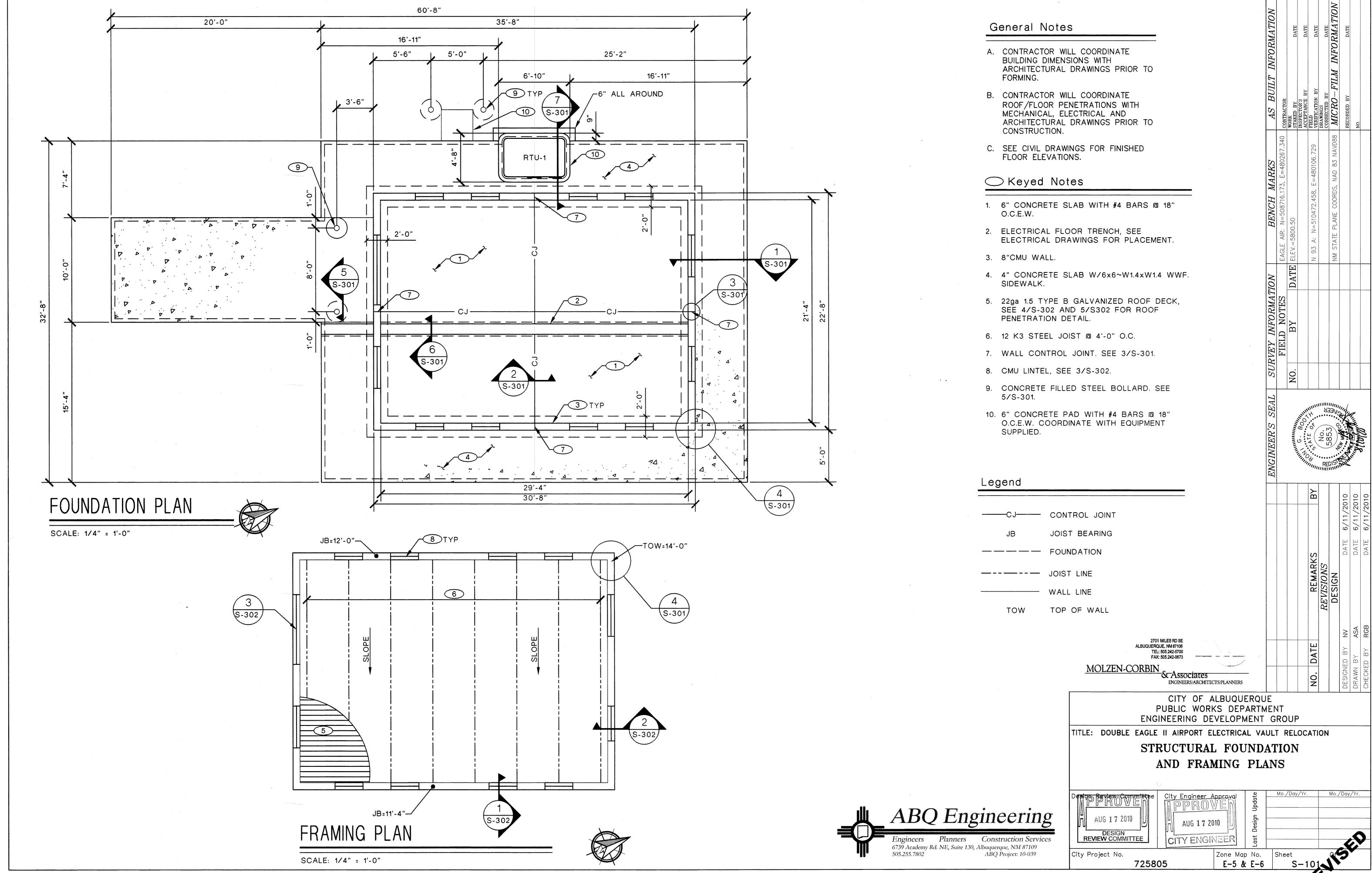
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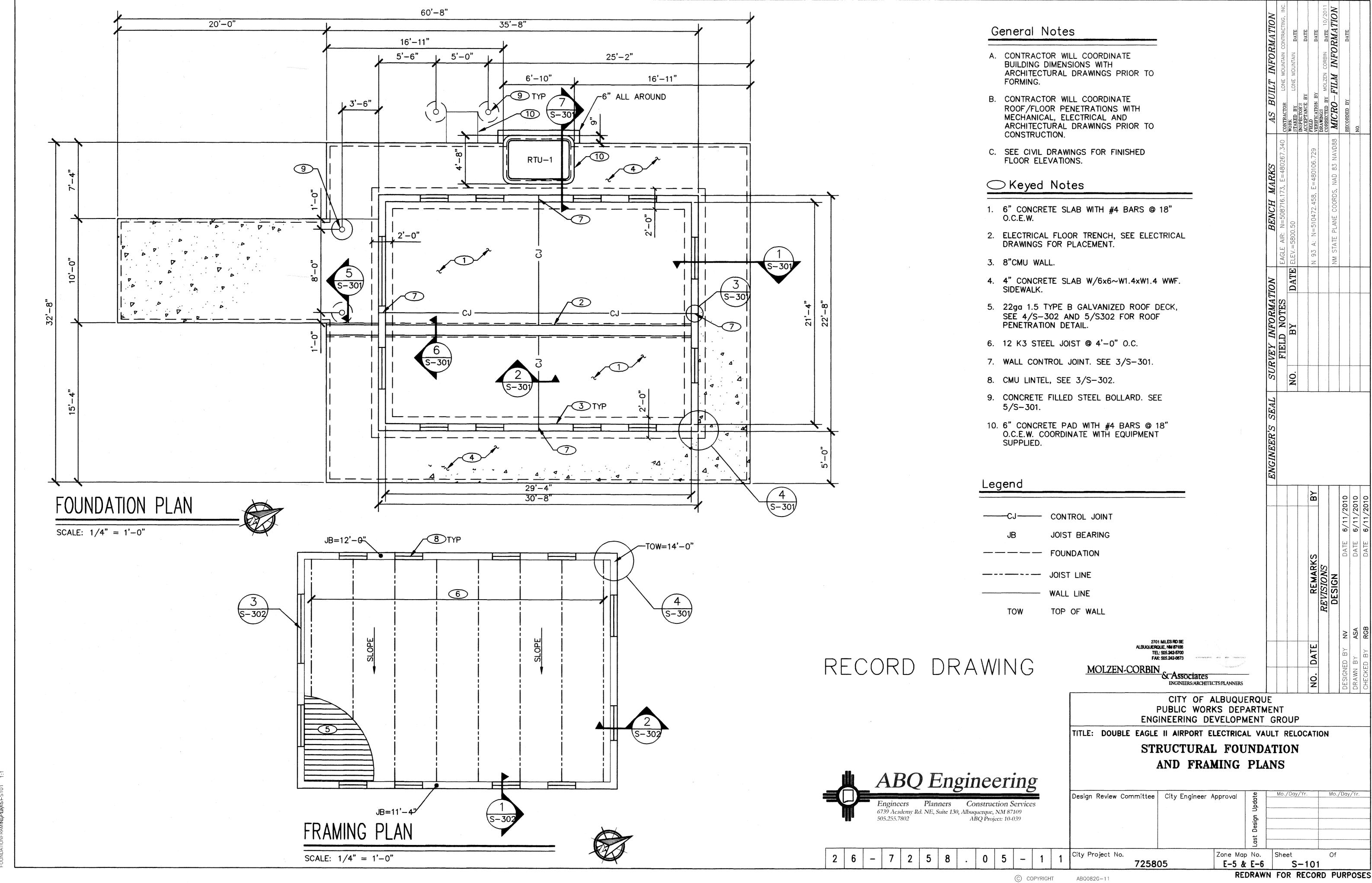
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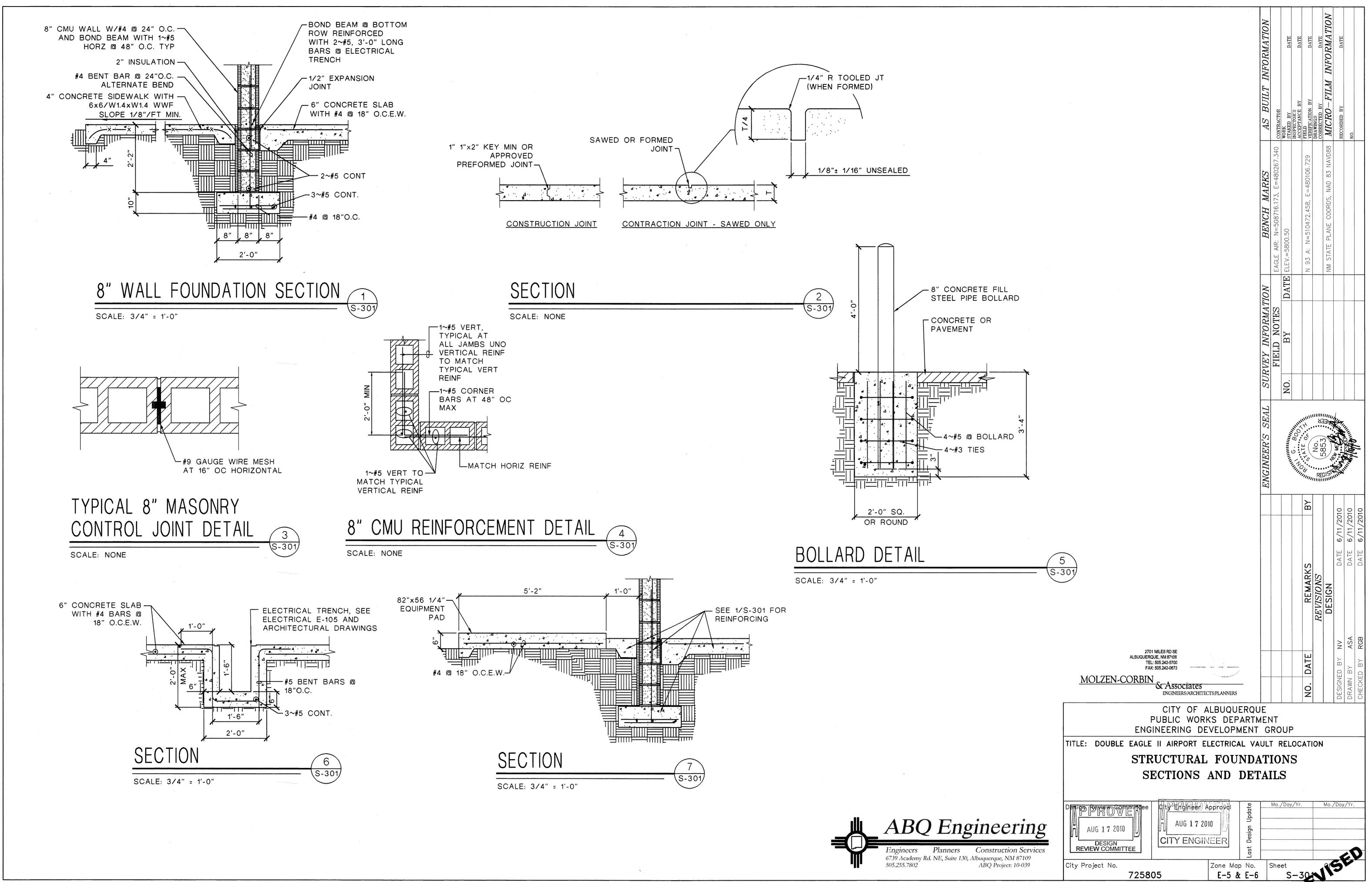
Zone Map No. | Sheet

Mo./Day/Yr.

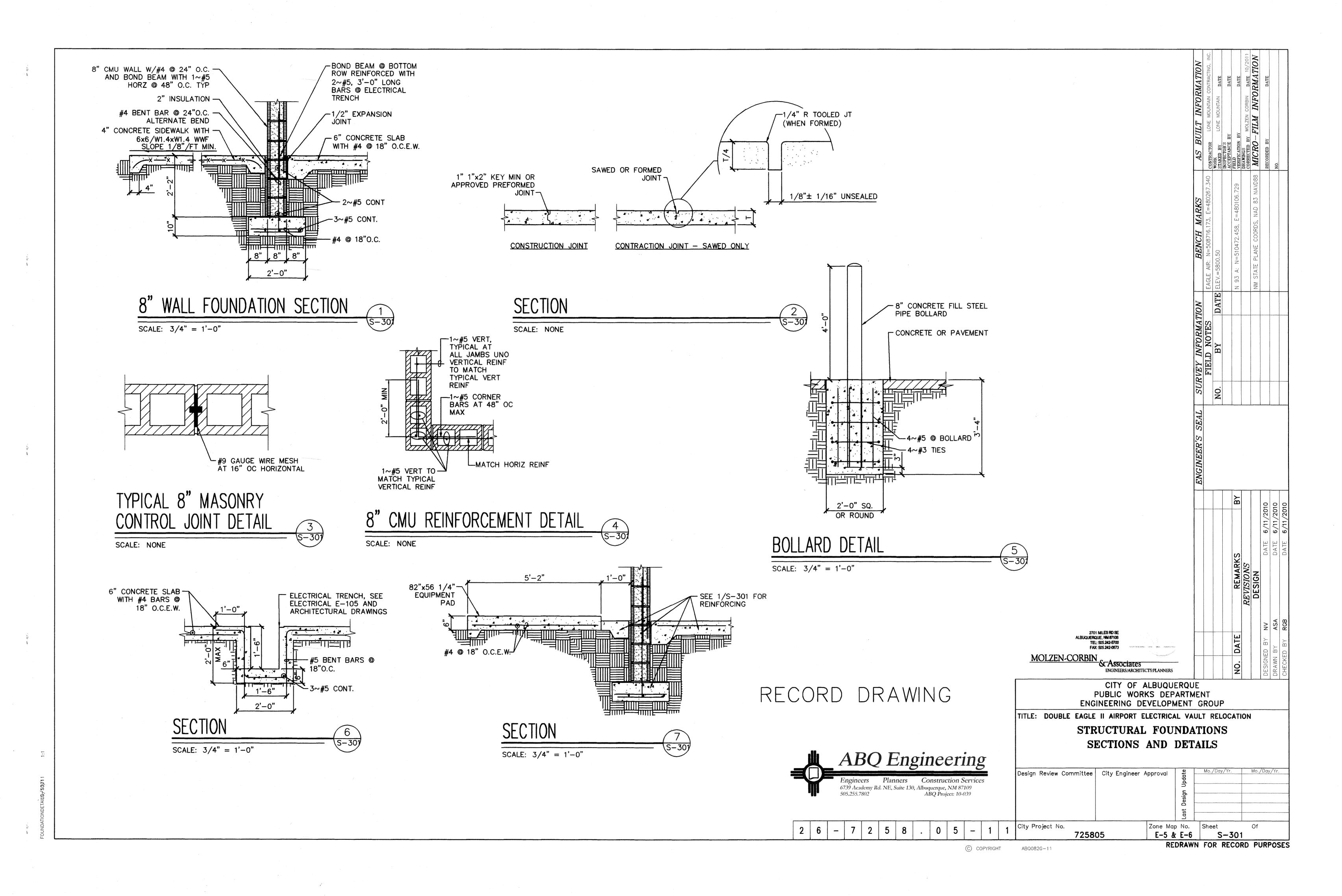


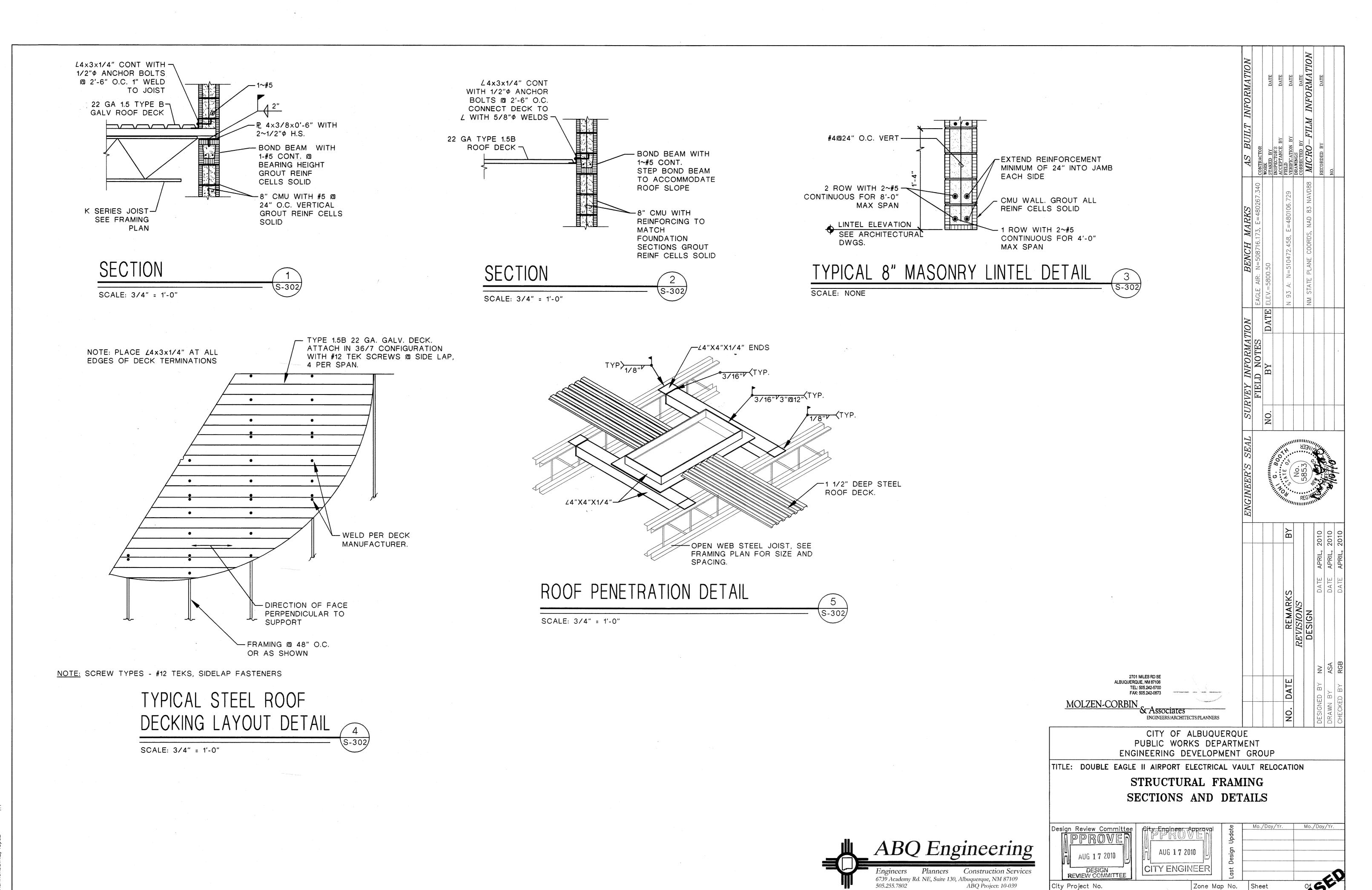
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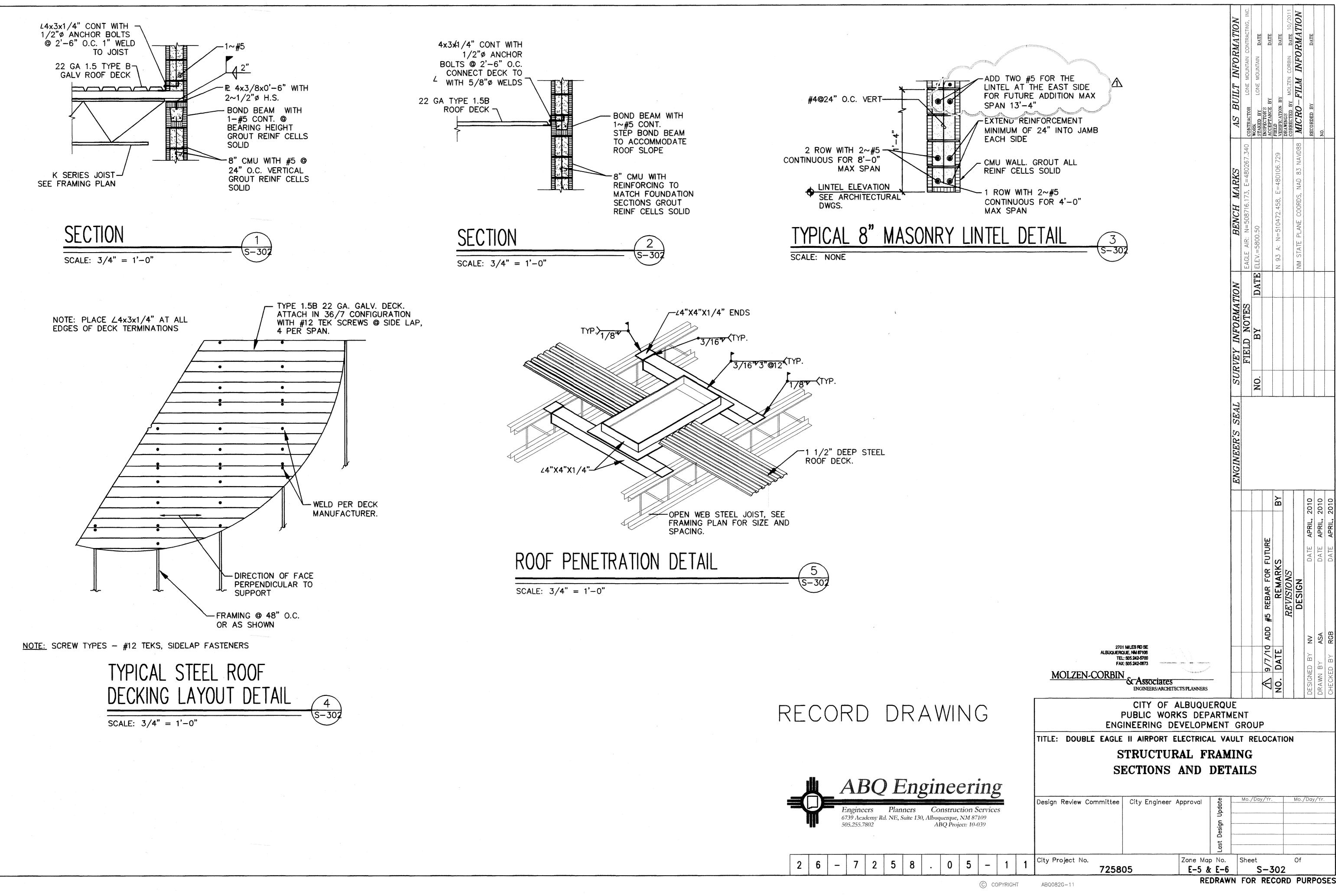


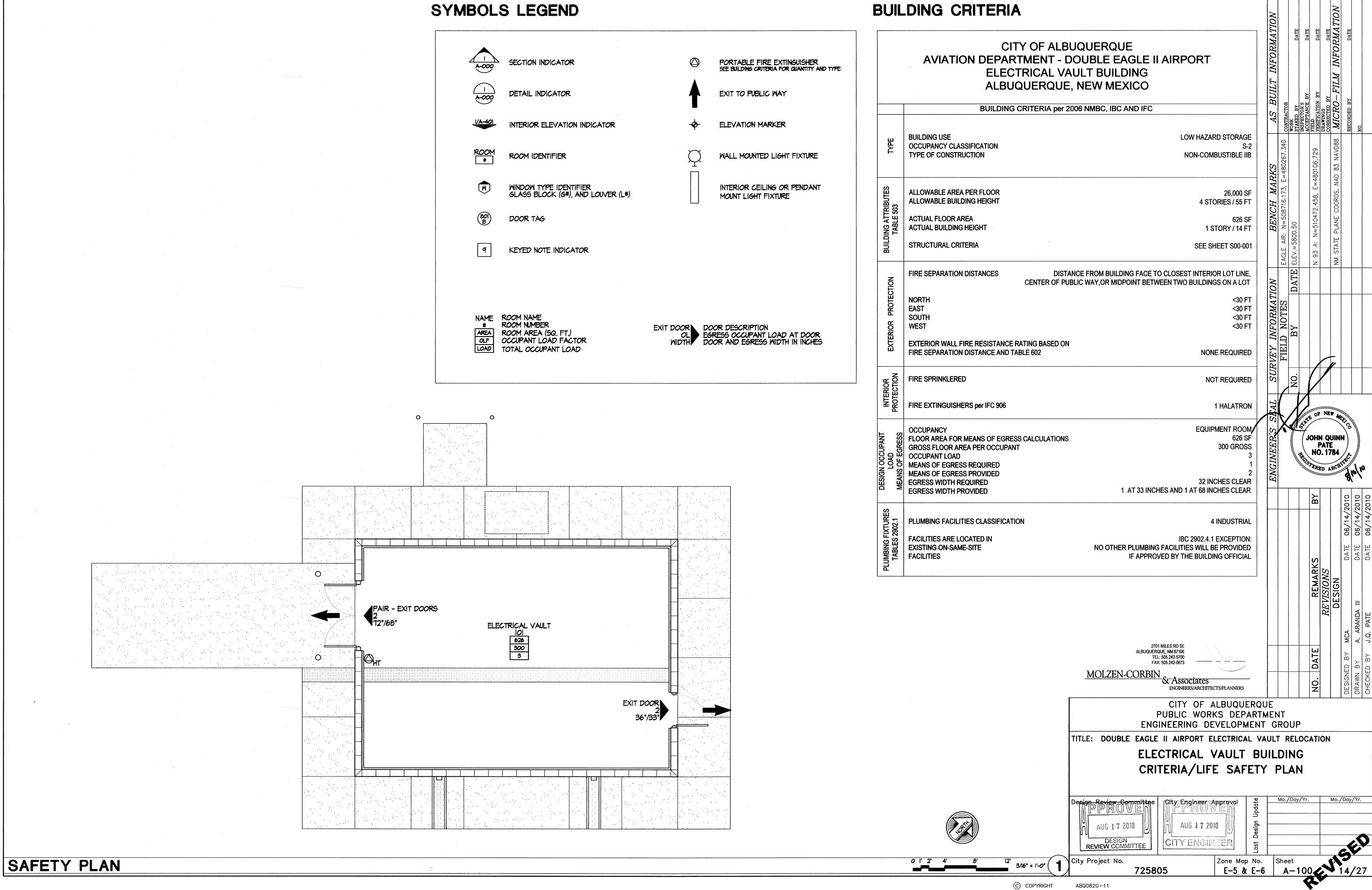


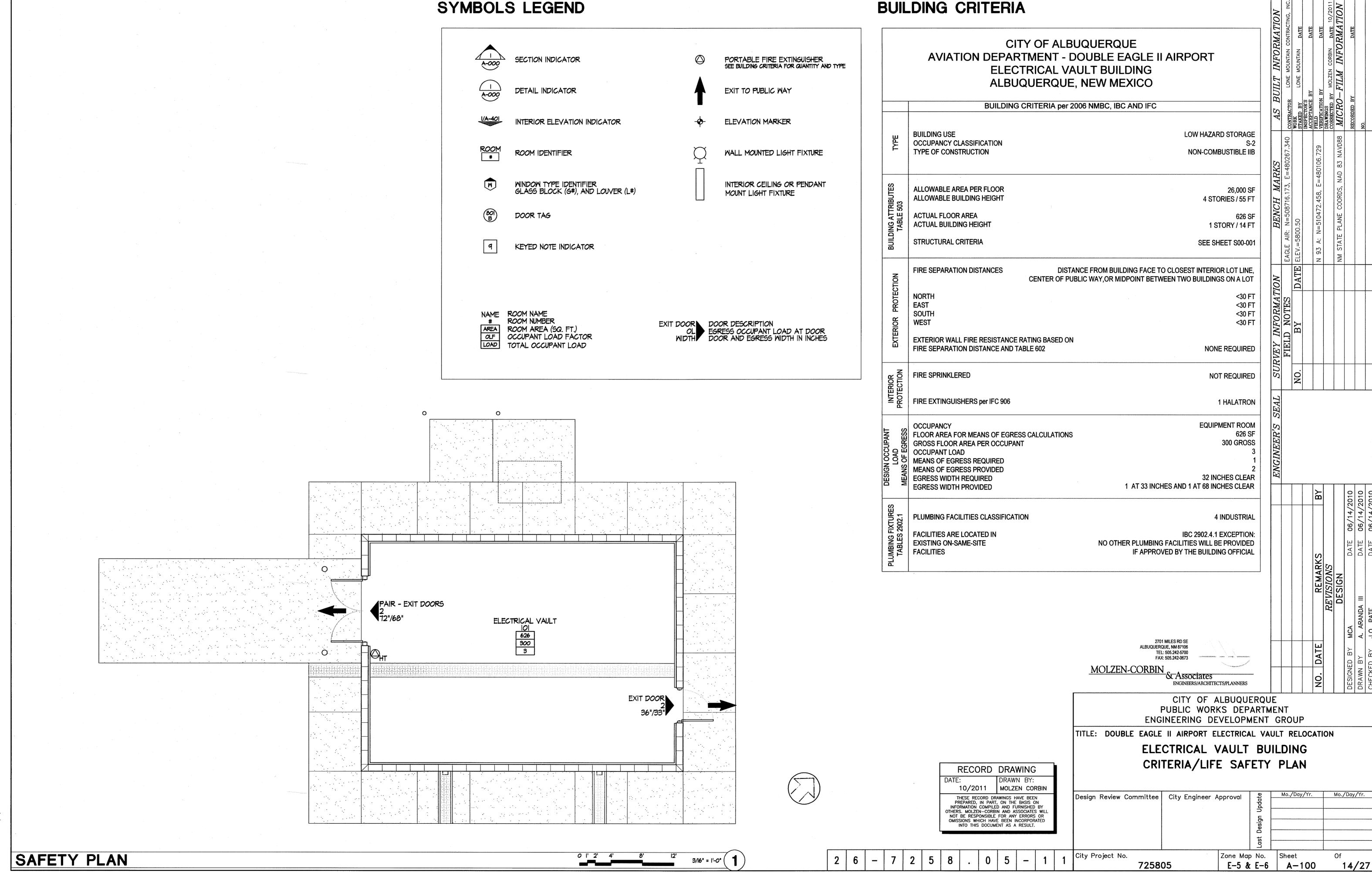
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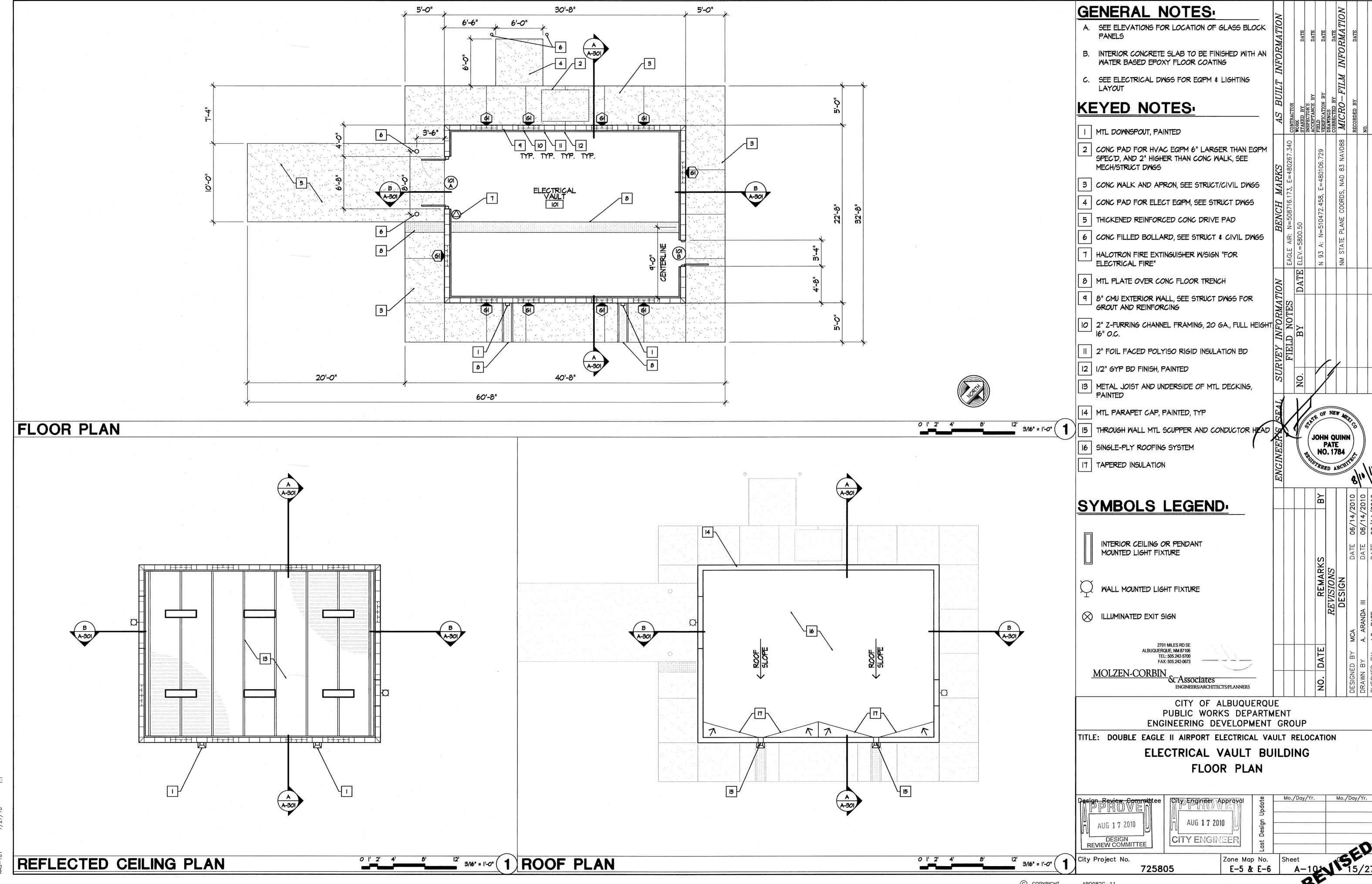


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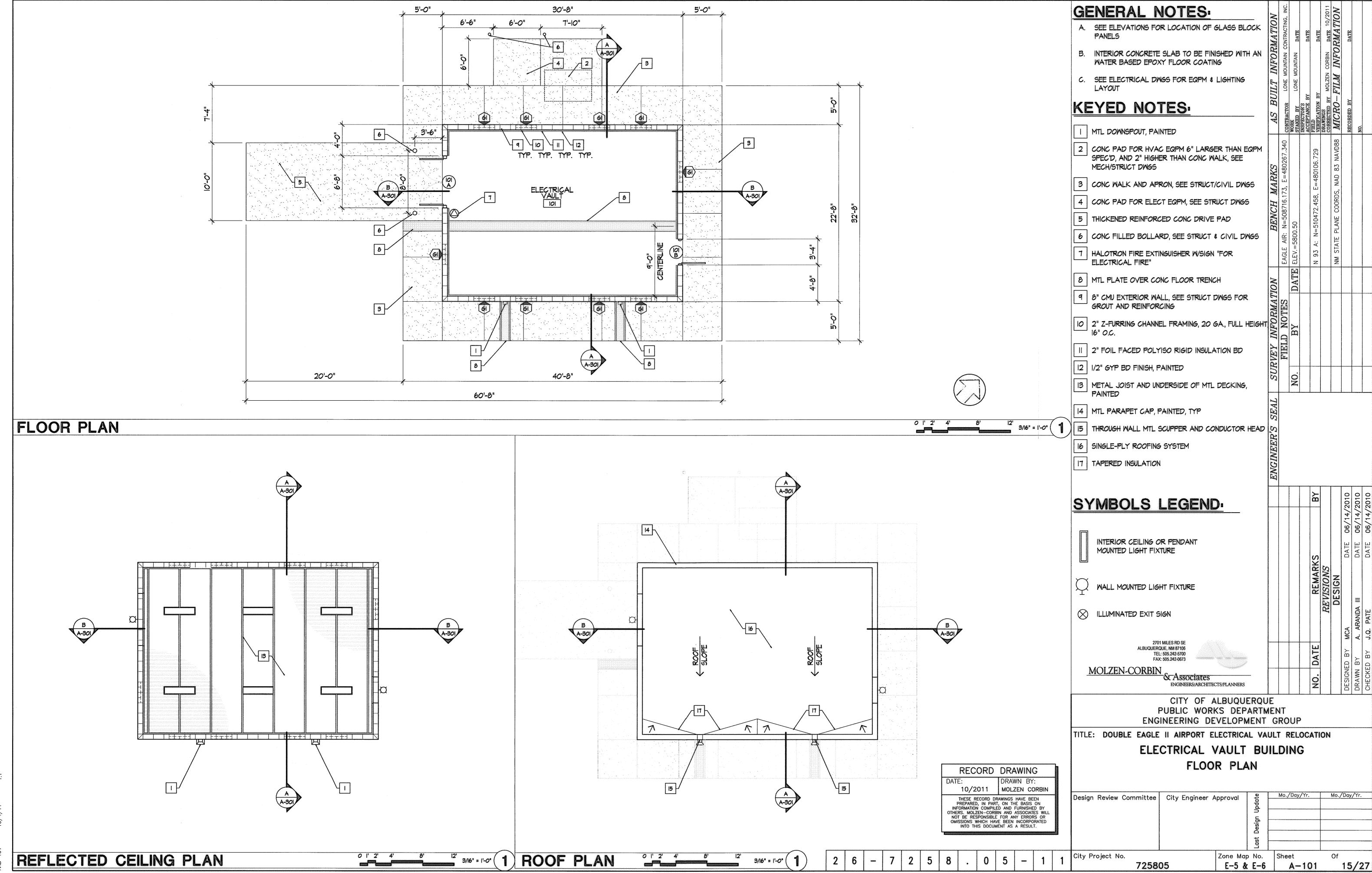
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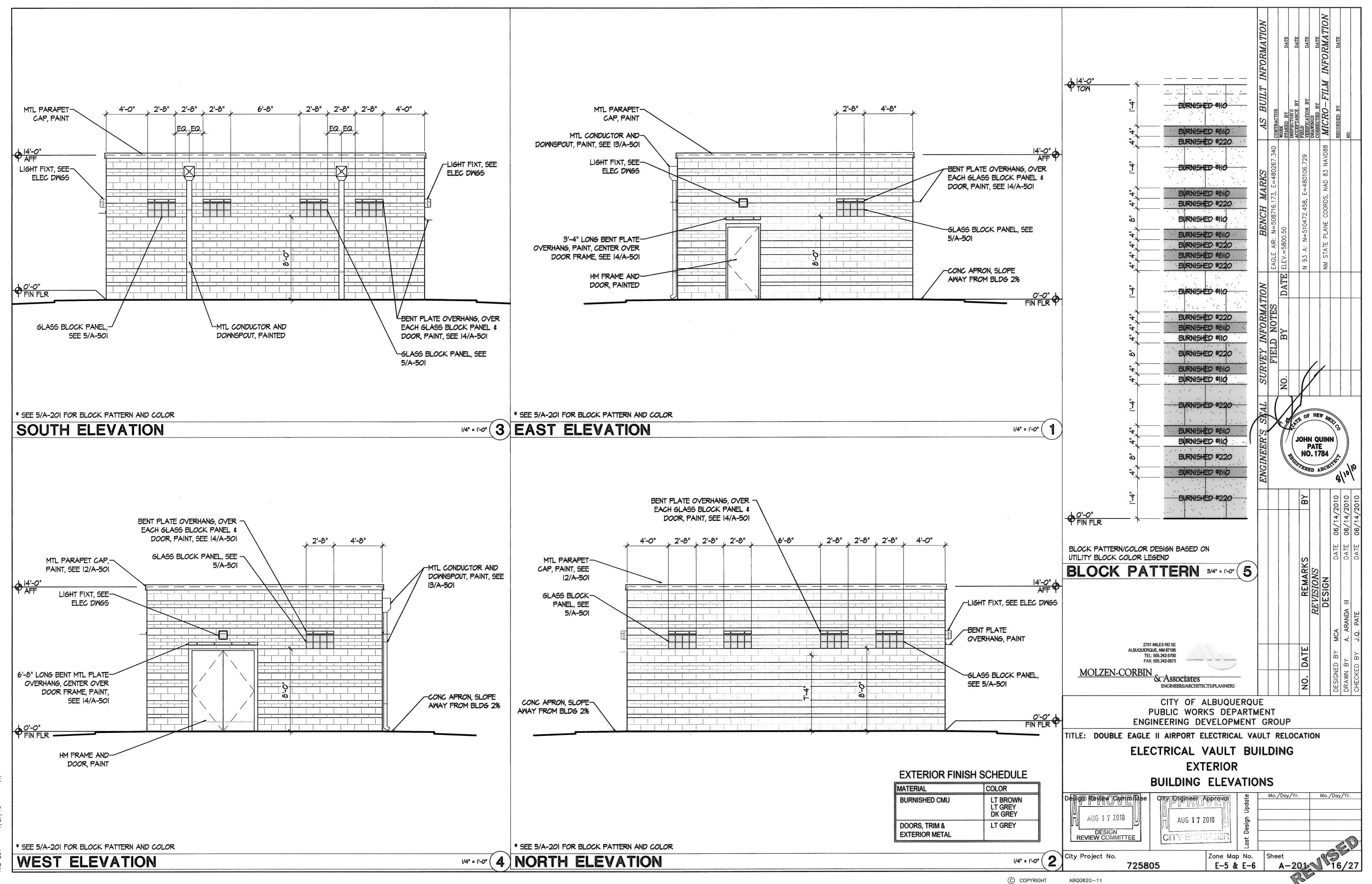
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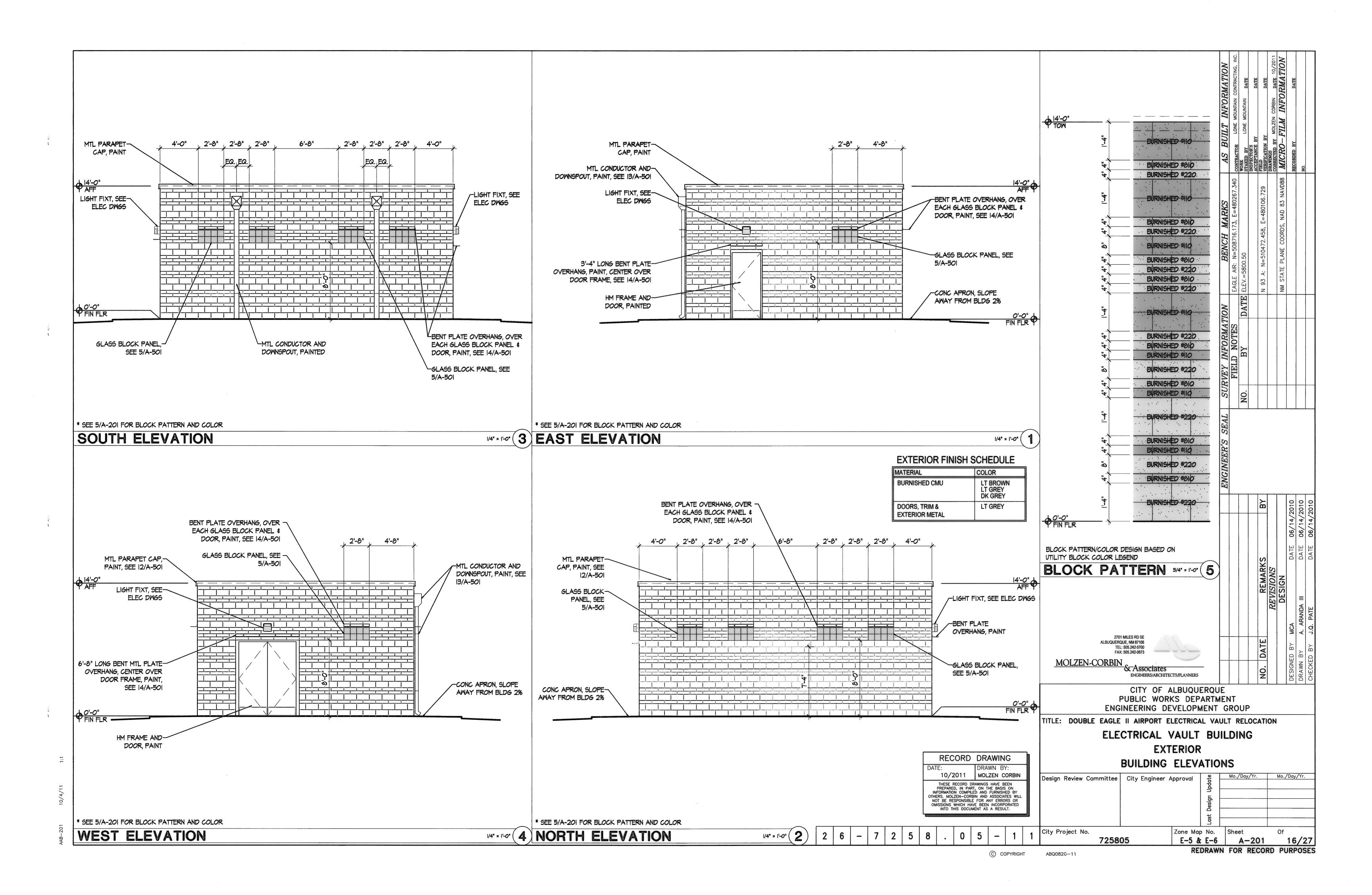


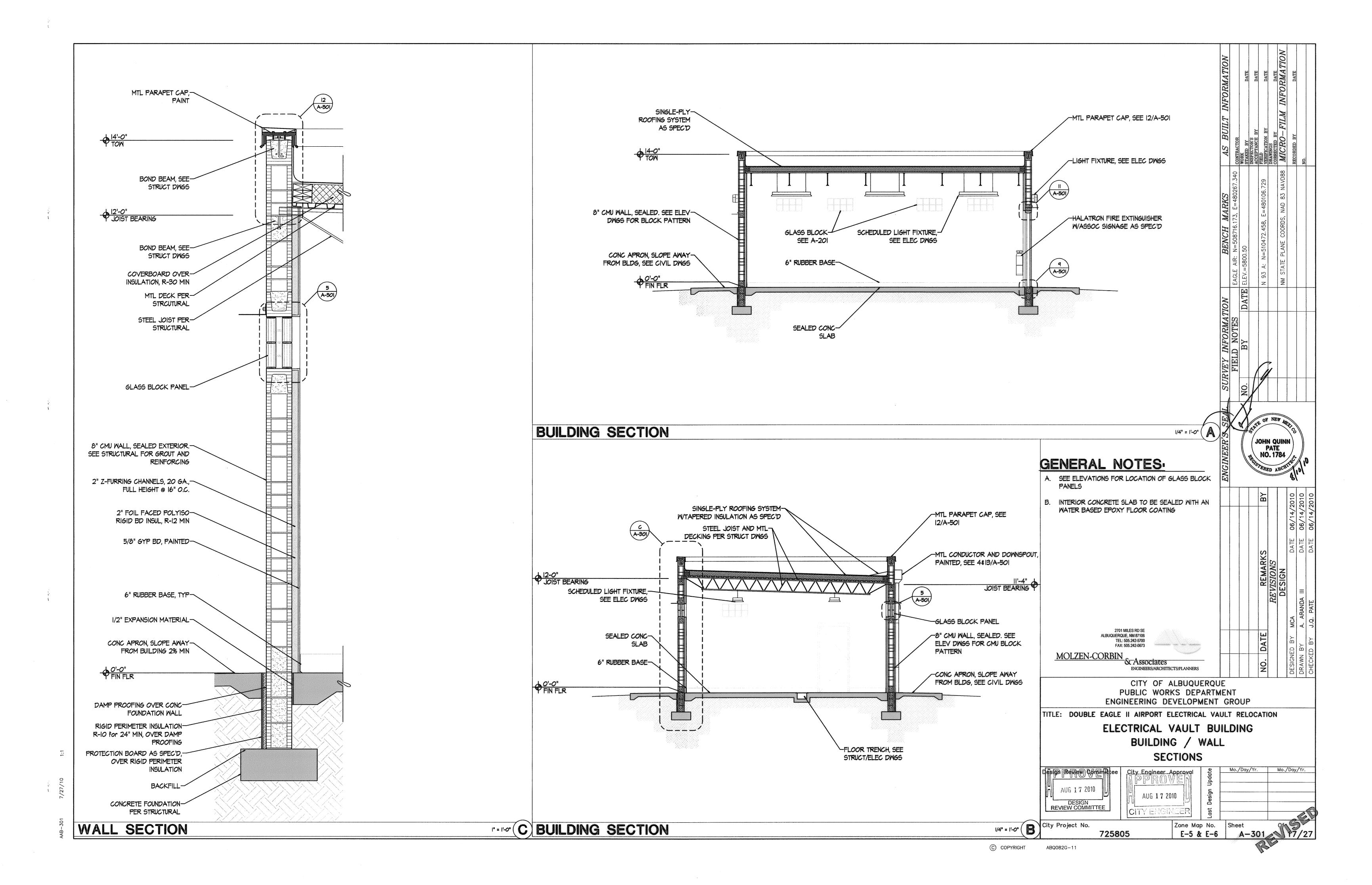
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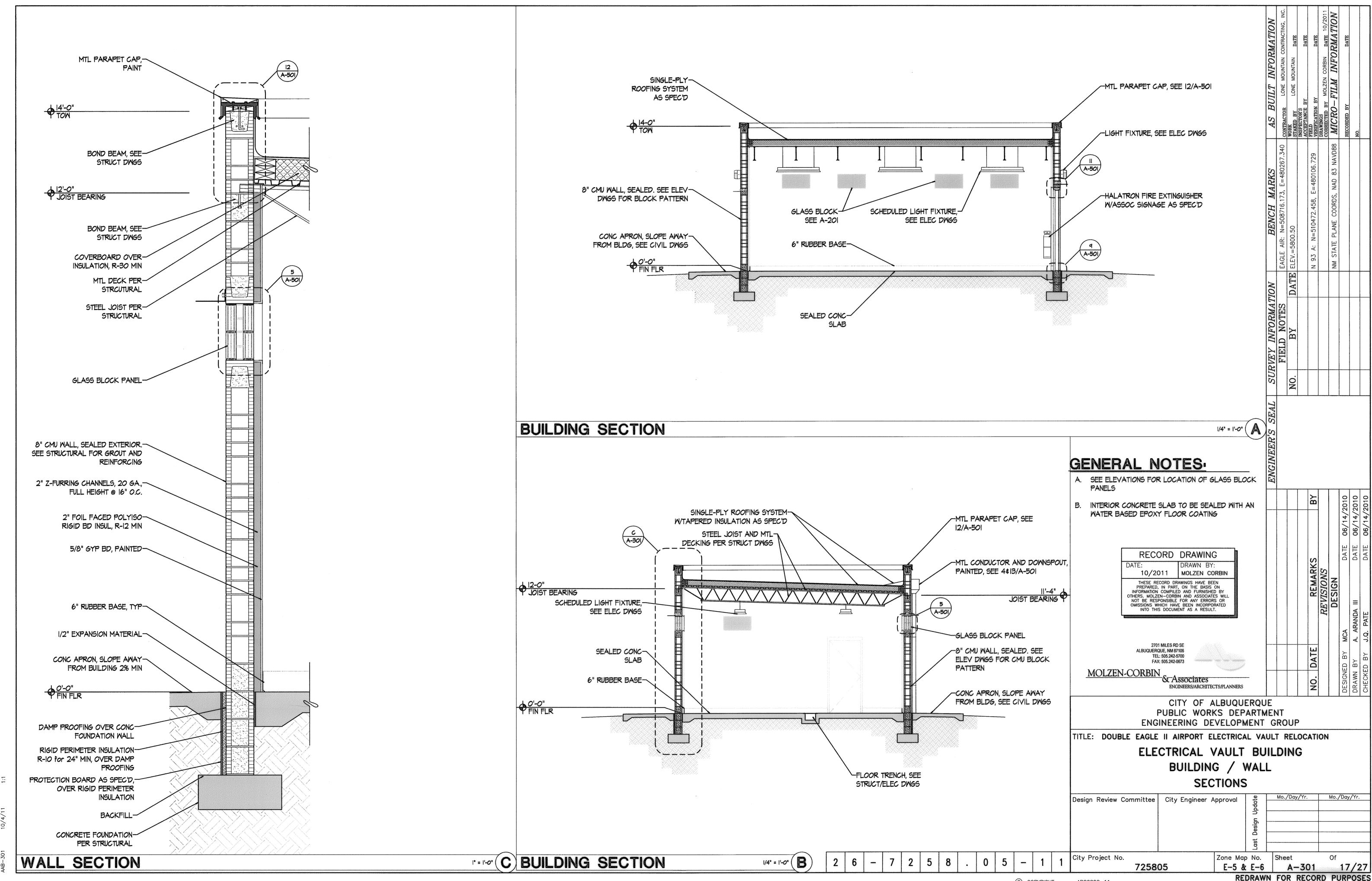
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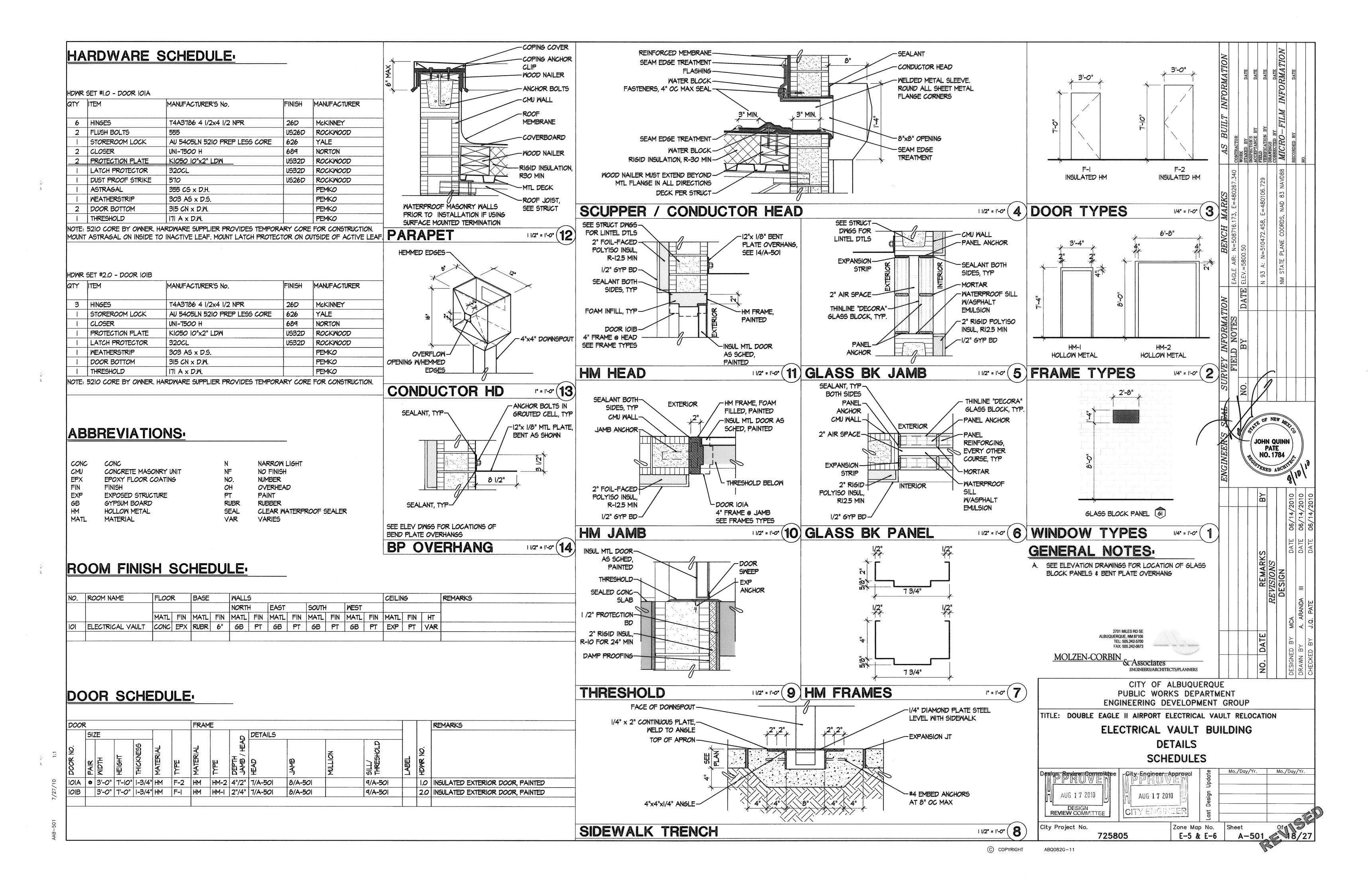


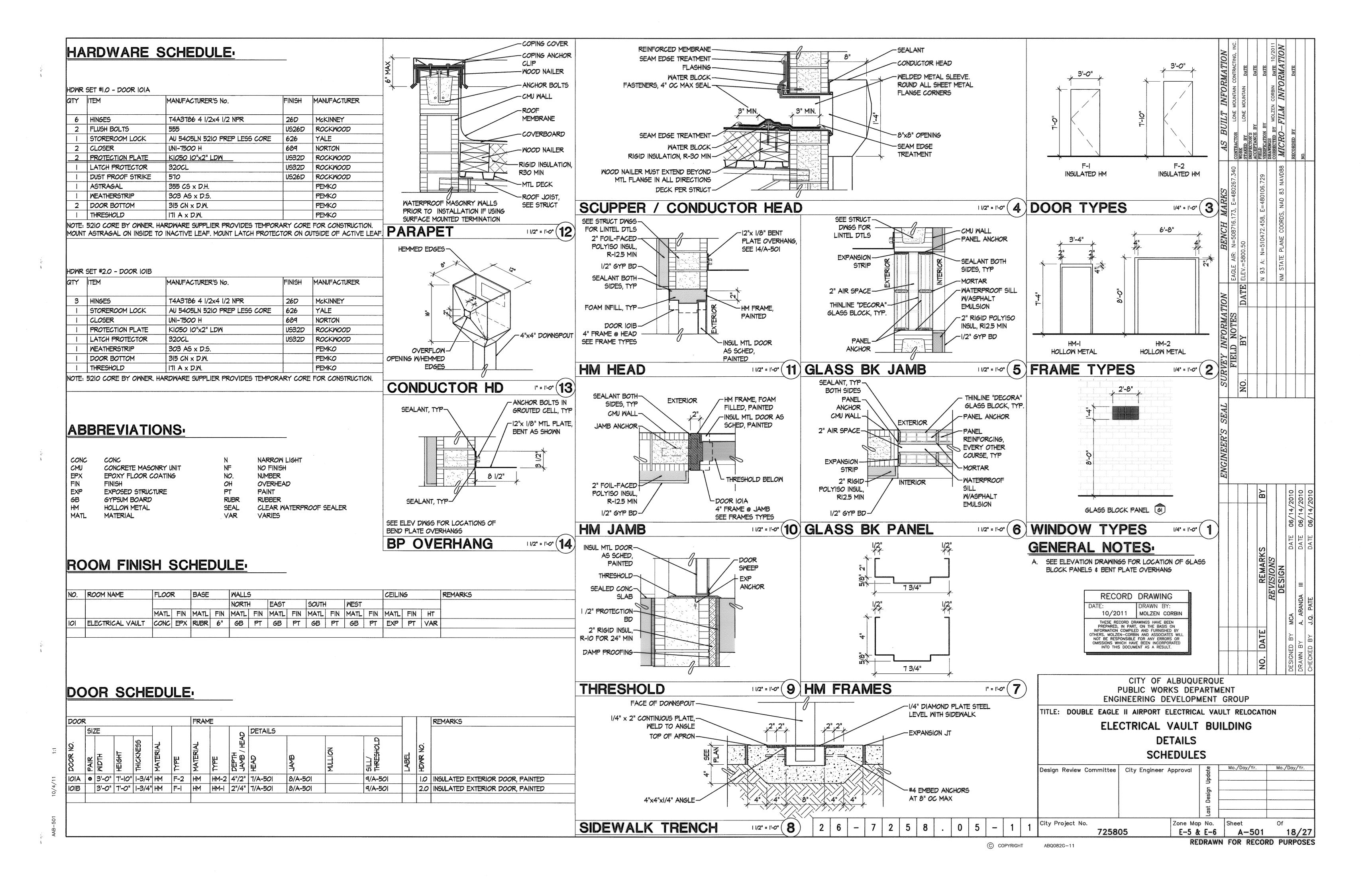


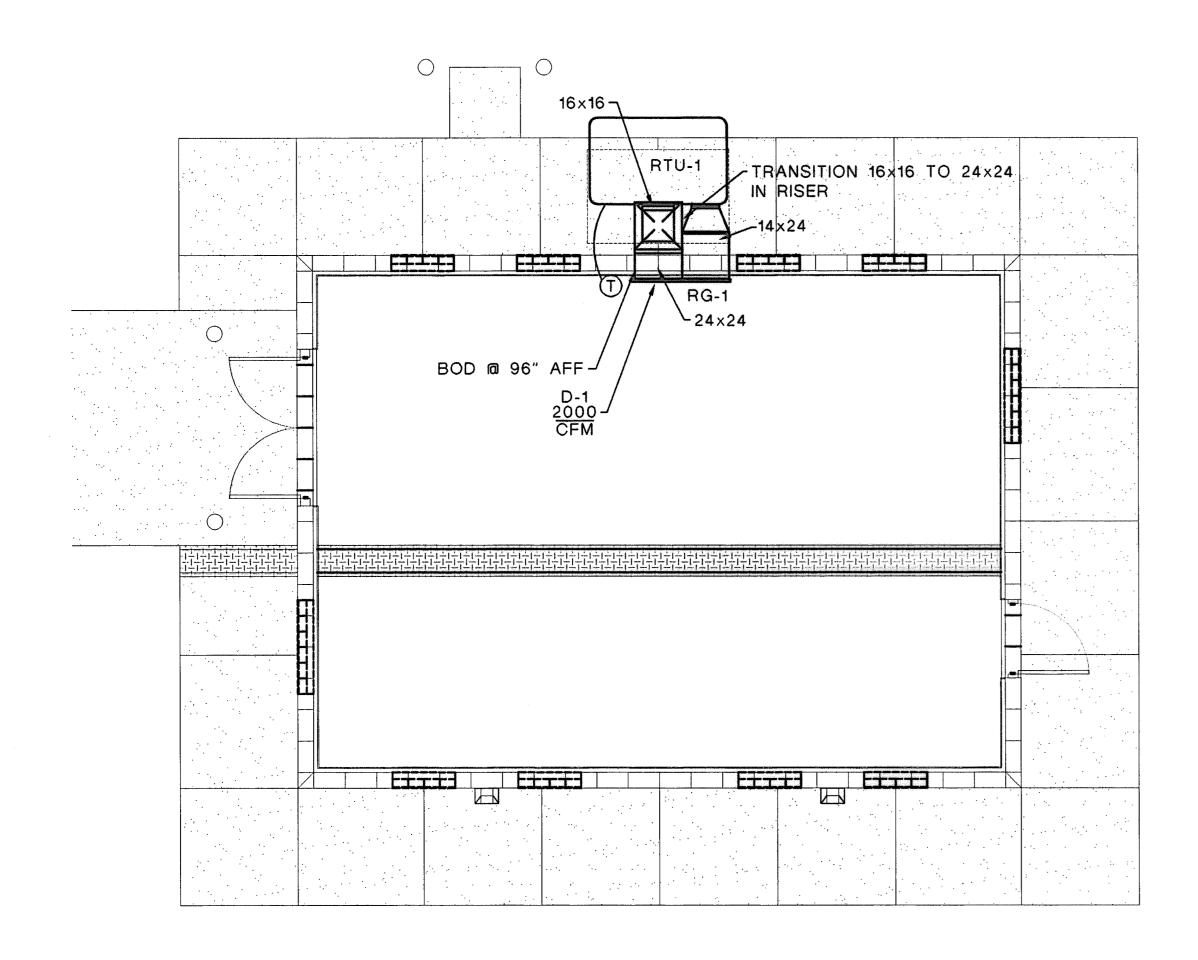




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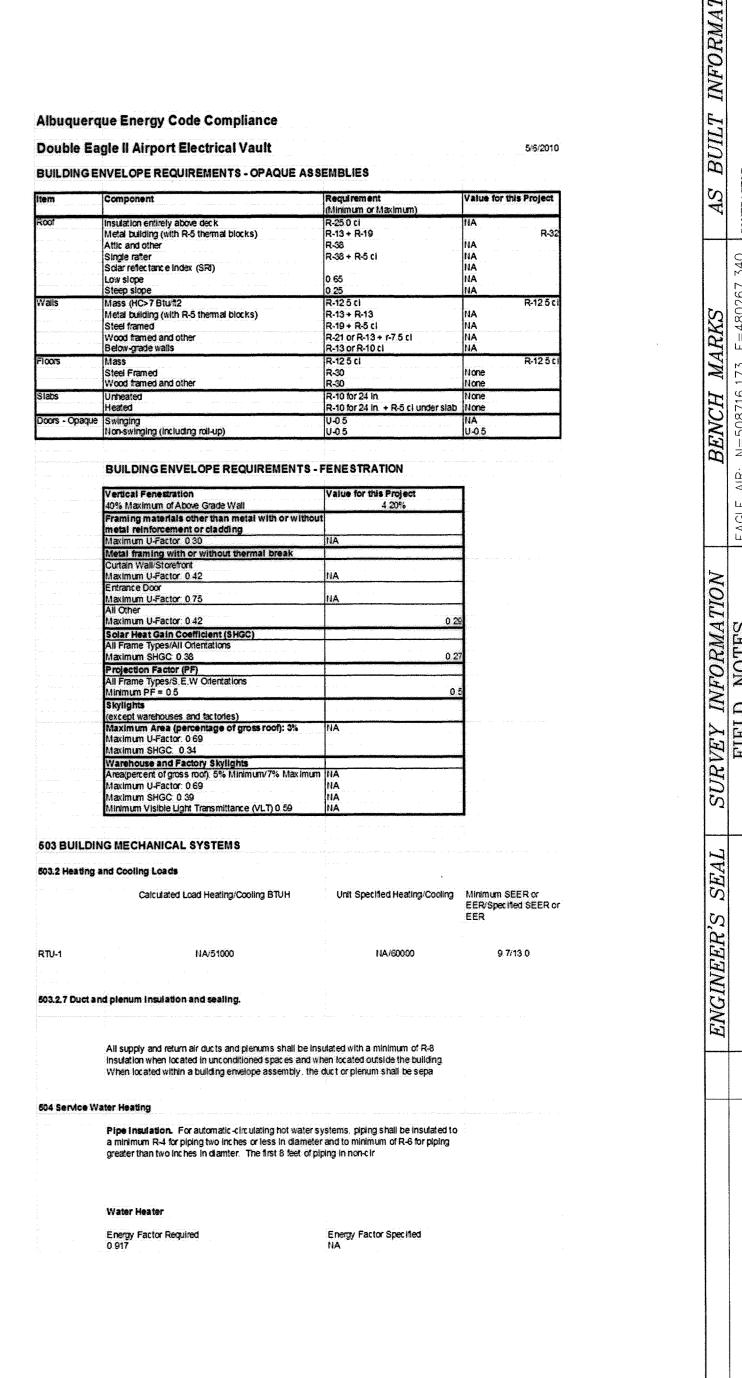


MECHANICAL PLAN SCALE: 1/4" = 1'-0" NORTH

General Notes

A. COORDINATE EXACT LOCATION OF DIFFUSERS AND GRILLES WITH ARCHITECTURAL AND ELECTRICAL EQUIPMENT.

	EQUIPMENT SCHEDULE										
SYMBOL DESCRIPTION											
RTU-1	PACKAGED COOLING ROOFTOP UNIT: CONVERTIBLE AIRFLOW; 0-115 F OPERATING RANGE; FACTORY ASSEMBLED; FULLY WIRED AND CHARGED WITH R-22; ARI CERTIFIED; UL LISTED, LABELED, AND CLASSIFIED IN ACCORDANE TO UL 1995/CAN/CSA NO. 236-M90.										
	CASING: HEAVY GAUGED GALVANIZED STEEL, CLEANED, PHOSPHATIZED, AND FINISHED WITH WEATHER RESISTANT BAKED ENAMEL; ONE PIECE TOP DOUBLE HEMMED IF A SEAM EXISTS.										
	FILTERS: 2 INCH THROWAWAY.										
COMPRESSORS: HIGH EFFICIENCY DIRECT-DRIVE, HERMETIC, SCROLI WITH CENTRIFUGAL TYPE OIL PUMPS; SUCTION GAS COOLED MOTO +/- 10% VOLTAGE UTILAZATION AND INTERNAL OVERLOADS.											
	REFRIGERANT CIRCUITS: SERVICE PORTS; FACTORY INSTALLED FILTER/DRIER.										
	EVAPORATOR/CONDENSER COILS: 3/8" COPPER TUBES MECHANICALLY BONDED TO ALUMINUM PLATE FINS; REMOVABLE, REVERSIBLE, DOUBLE-SLOPED CONDENSATE DRAIN PAN WITH CONDENSATE DRAIN PROVISION; HAIL PROTECTION COIL GUARD.										
	OUTDOOR FAN: DIRECT-DRIVE STATICALLY AND DYNAMICALLY BALANCED, FAN MOTOR PERMANENTLY LUBRICATED WITH BUILT-IN THERMAL OVERLOAD PROTECTION.										
	INDOOR FAN: DIRECT OR BELT DRIVE; STATICALLY AND DYNAMICALLY BALANCED WITH THERMAL OVERLOAD PROTECTION										
	CONTROLS: COMPLETELY FACTORY-WIRED WITH ALL NECESSARY CONTROLS AND CONTACTOR PRESSURE LUGS OR TERMINAL BLOCKS; MICROPROCESSOR CONTROL WITH RESIDENT CONTROL ALGORITHMS TO MAKE ALL HEATING, COOLING, AND/OR VENTILATING DECISIONS IN RESPONSE TO ELECTRONIC SIGNALS FROM SENSORS MEASURING INDOOR AND OUTDOOR TEMPERTURES; ANTI-SHORT CYCLE TIMING AND TIME DELAY BETWEEN COMPRESSORS.										
ECONOMIZER: FACTORY INSTALLED WITH BAROMETRIC DAMPER; 0-100 FULLY MODULATING MOTORS AND DAMPERS, MINIMUM POSITION SETTIN PRE-SET LINKAGE; WIRING HARNESS WITH PLUG AND FIXED DRY BULB CONTROL.											
	CLOGGED FILTER/FAN FAILURE SWITCH: DEDICATED DIFFERENTIAL PRESSURE SWITCH TO ACHIEVE ACTIVE FAN FAILURE OR CLOGGED FILTER INDICATION.										
SMOKE DETECTORS: SUPPLY AIR DETECTORS TO SHUT DOWN UNI											
	SYMBOL MODEL COOL BTU CFM ESP VAC/P/HZ MCA										
	RTU-1 THC060A40A 58,000 2,000 1.0 208/3/60 29.5										
D-1	DIFFUSER: "TITUS" SUPPLY AIR GRILLE; MODEL 300RL; STEEL CONSTRUCTION; DOUBLE DEFLECTION; 3/4" BLADE SPACING; ADJUSTABLE BLADES PARALLEL TO LONG DIMENSION; OPPOSED BLADE DAMPER ADJUSTABLE THROUGH FACE; \$26 WHITE FINISH.										
	SYMBOL SIZE										
RG-1	D-1 24"X24" RETURN GRILLE: TITUS HEAVY DUTY STEEL RETURN GRILLE: 1/2" BLADE SPACING: 38° FIXED DEFLECTION: 16 GAUGE BORDER: 14 GAUGE BLADES; FINISH #26 WHITE. MODEL NO. IS TITUS.										
	SYMBOL MODEL NO. SIZE RG-1 33RL 24X24"										
<u>kan data yang dalam an meripang dan dal</u>											



ALBUQUERQUE, NM 87106 TEL: 505.242-5700 MOLZEN-CORBIN & Associates

ENGINEERS/ARCHITECTS/PLANNERS FAX: 505.242-0673

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION ELECTRICAL VAULT BUILDING MECHANICAL PLAN, DETAILS, & EQUIPMENT SCHEDULE

FILM INFORMATION

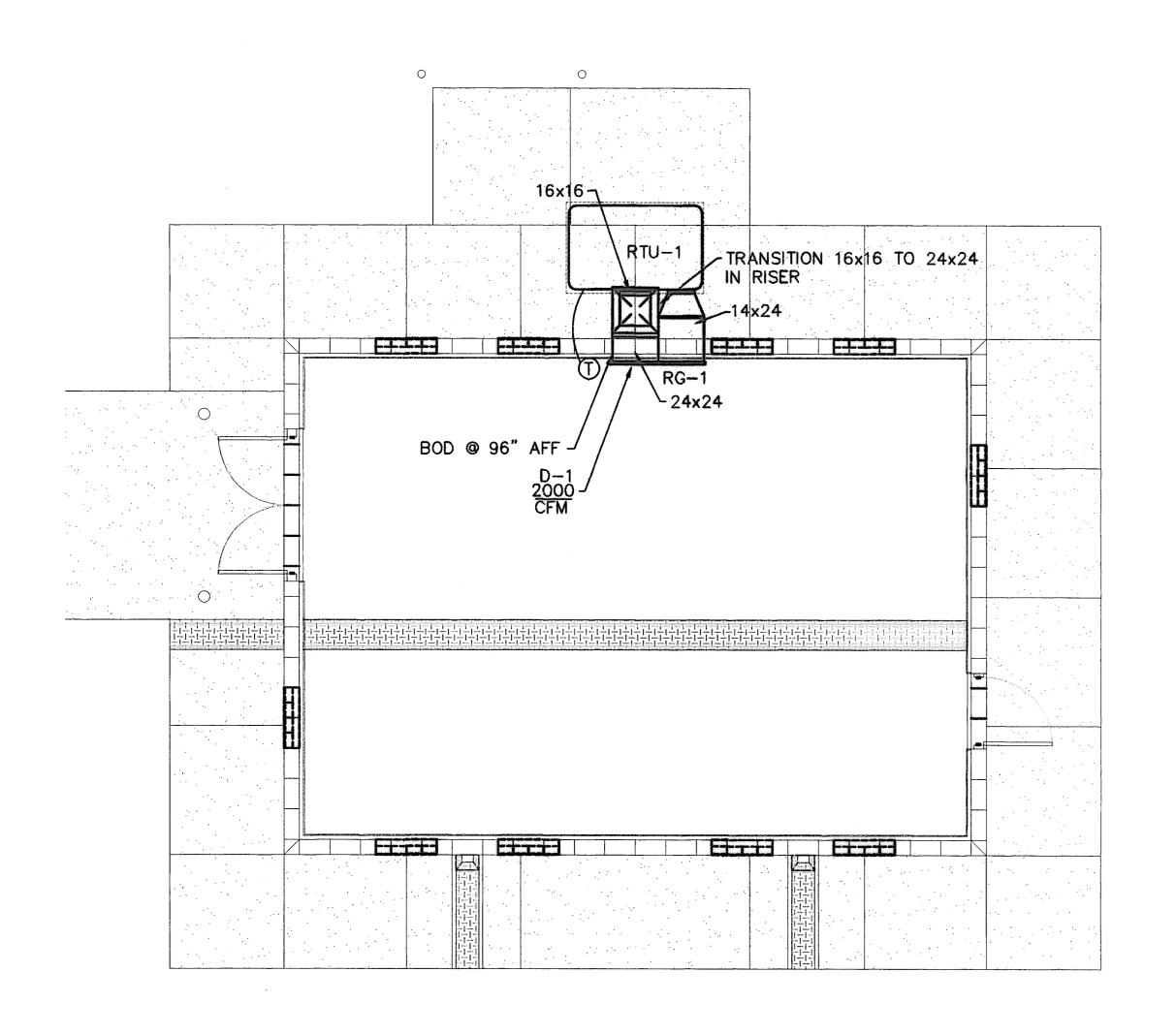
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MECHANICAL PLAN SCALE: 1/4" = 1'-0"

General Notes

A. COORDINATE EXACT LOCATION OF DIFFUSERS AND GRILLES WITH ARCHITECTURAL AND ELECTRICAL EQUIPMENT.

YMROL	DESCRIP	TION											
TWIBOL	DESCRI	11014			······································								
RTU-1	PACKAGED COOLING ROOFTOP UNIT: CONVERTIBLE AIRFLOW; 0-115 F OPERATING RANGE; FACTORY ASSEMBLED; FULLY WIRED AND CHARGED WITH R-22; ARI CERTIFIED; UL LISTED, LABELED, AND CLASSIFIED IN ACCORDANE TO UL 1995/CAN/CSA NO. 236-M90.												
	CASING: HEAVY GAUGED GALVANIZED STEEL, CLEANED, PHOSPHATIZED, AND FINISHED WITH WEATHER RESISTANT BAKED ENAMEL; ONE PIECE TOP DOUBLE HEMMED IF A SEAM EXISTS.												
	FILTERS: 2	INCH THROW	VAWAY.										
	COMPRESSORS: HIGH EFFICIENCY DIRECT-DRIVE, HERMETIC, SCROLL TYPE WITH CENTRIFUGAL TYPE OIL PUMPS; SUCTION GAS COOLED MOTOR WITH +/- 10% VOLTAGE UTILAZATION AND INTERNAL OVERLOADS.												
	REFRIGERAN	T CIRCUITS:	SERVICE PO	RTS; FACTO	ORY INST	TALLED FILTER/C	ORIER.						
	BONDED TO CONDENSAT	ALUMINUM P	LATE FINS; R WITH CONDE	EMOVABLE	, REVERS	MECHANICALLY SIBLE, DOUBLE-! //SION; HAIL	SLOPEC						
	OUTDOOR FAN: DIRECT-DRIVE STATICALLY AND DYNAMICALLY BALANCED, FAN MOTOR PERMANENTLY LUBRICATED WITH BUILT-IN THERMAL OVERLOAD PROTECTION.												
			R BELT DRIVE L OVERLOAD			DYNAMICALLY							
	CONTROLS: COMPLETELY FACTORY-WIRED WITH ALL NECESSARY CONTROLS AND CONTACTOR PRESSURE LUGS OR TERMINAL BLOCKS; MICROPROCESSOR CONTROL WITH RESIDENT CONTROL ALGORITHMS TO MAKE ALL HEATING, COOLING, AND/OR VENTILATING DECISIONS IN RESPONSE TO ELECTRONIC SIGNALS FROM SENSORS MEASURING INDOOR AND OUTDOOR TEMPERTURES; ANTI-SHORT CYCLE TIMING AND TIME DELAY BETWEEN COMPRESSORS.												
	ECONOMIZER: FACTORY INSTALLED WITH BAROMETRIC DAMPER; 0-100% FULLY MODULATING MOTORS AND DAMPERS, MINIMUM POSITION SETTING; PRE-SET LINKAGE; WRING HARNESS WITH PLUG AND FIXED DRY BULB CONTROL.												
	CLOGGED FI SWITCH TO	LTER/FAN FA ACHIEVE ACT	ILURE SWITCH	: DEDICA JRE OR CL	TED DIFF OGGED I	ERENTIAL PRES	SURE)N.						
	SMOKE DETECTORS: SUPPLY AIR DETECTORS TO SHUT DOWN UNIT IN THE EVENT OF SMOKE DETECTION.												
	CVMDOI	MODEL	COOL BTU	CFM	ESP	VAC /D /UZ	MCA						
	SYMBOL RTU-1	THC060A40A		2,000		VAC/P/HZ 208/3/60	MCA 29.:						
D-1	DOUBLE DEF	300RL; JUSTABLI	STEEL CONSTRUE BLADES PARA BLE THROUGH F	LLEL									
	SYMBOL	SIZE											
RG-1	SPACING; 3	8. LIXED DEL	EAVY DUTY S LECTION; 16 (EL NO. IS TIT	SAUGE BOR	JRN GRIL RDER; 14	LE; 1/2" BLADE GAUGE BLADES	: S;						
	SYMBO												
	RG-1	33RL	24X	24"									

Albuquerque Energy Code Compliance Double Eagle II Airport Electrical Vault BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES Requirement (Minimum or Maximum) Insulation entirely above deck Metal building (with R-5 thermal blocks) R-13 + R-19 Attic and other Single rater Solar refectance Index (SRI) R-35 + R-5 () R-125 ci R-13 + R-13 Metal building (with R-5 thermal blocks) R-19 + R-5 cl R-21 or R-13 + 6-7 5 cl Wood framed and other Steel Framed Wood framed and other R-10 for 24 in. None R-10 for 24 in. + R-5 cl under slab. None BUILDING ENVELOPE REQUIREMENTS - FENESTRATION Vertical Fenestration 40% Maximum of Above Grade Wall Framing materials other than metal with or without metal reinforcement or cladding laximum U-Factor 030

Metal framing with or without thermal break
Cutain Wall-Storefort Maximum U-Factor 0.42 Entrance Door Maximum U-Factor 0.75 All Other Maximum U-Factor 0.42 Maximum SHGC 0 38 linimum PF = 05 Maximum Area (percentage of gross roof): 3% Maximum U-Factor 0 69 Maximum SHGC 0 34 Warehouse and Factory Skylights
Area(percent of gross roof) 5% Minimum/7% Maximum INA
Maximum U-Factor 0 69 Maximum SHGC 0.39 Minimum Visible Light Transmittance (VLT) 0.59 603 BUILDING MECHANICAL SYSTEMS

503.2 Heating and Cooling Loads

Unit Specified Heating/Cooling Minimum SEER or EER/Specified SEER or Calculated Load Heating/Cooling BTUH

603.2.7 Duct and plenum Insulation and sealing.

All supply and return air ducts and plenums shall be insulated with a minimum of R-8 insulation when located in unconditioned spaces and when located outside the building When located within a building envelope assembly, the duct or plenum shall be sepa

Pipe Insulation. For automatic <irc ulating hot water systems, piping shall be insulated to a minimum R-4 for piping two inches or less in diameter and to minimum of R-5 for piping greater than two inches in diameter. The first 6 feet of piping in non-cir.

Energy Factor Required 0 917

Energy Factor Specified NA

2701 MILES RD SE ALBUQUERQUE, NM 87108 TEL: 505.242-5700 FAX: 505.242-0673

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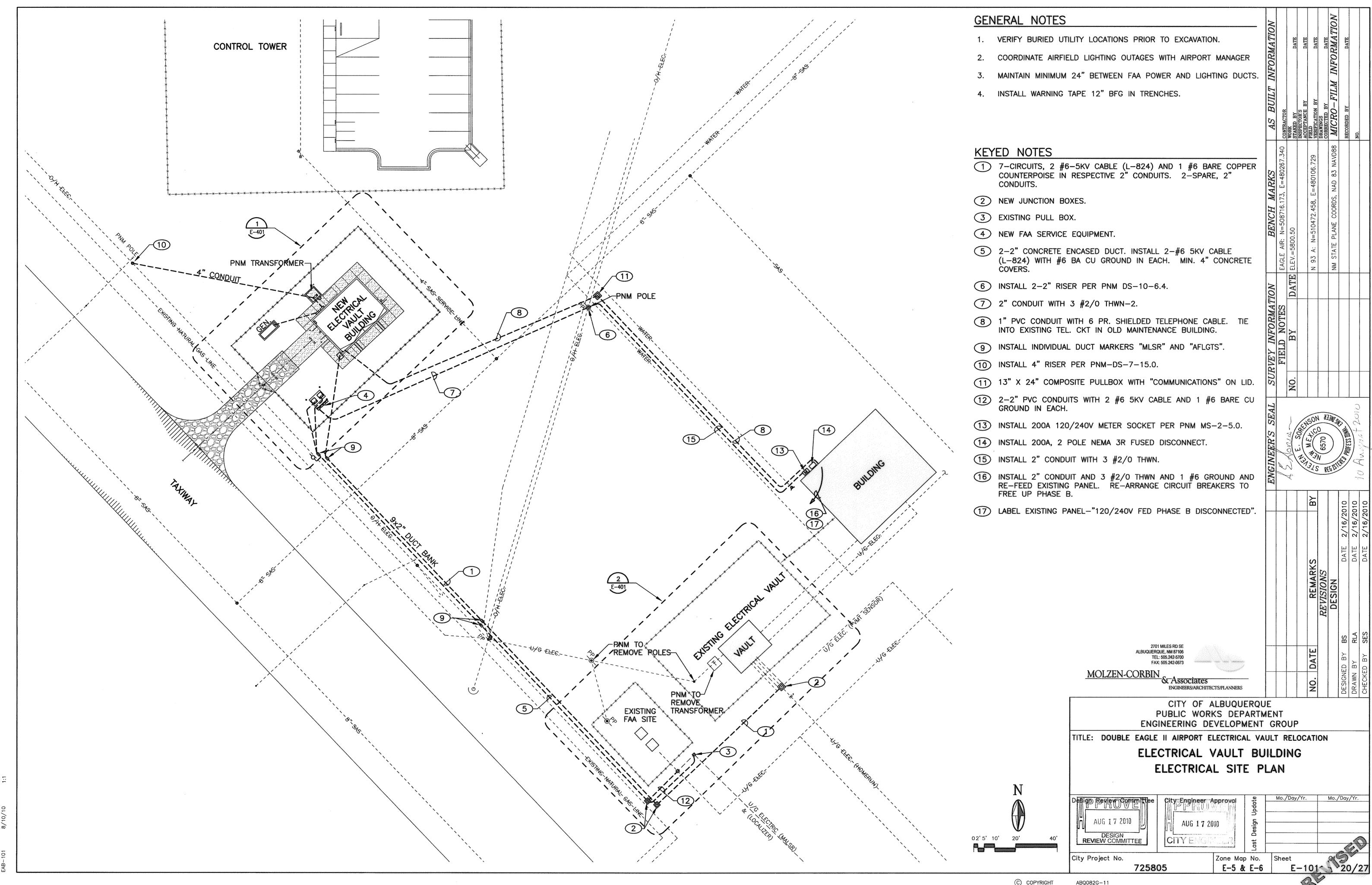
ENGINEERING DEVELOPMENT GROUP

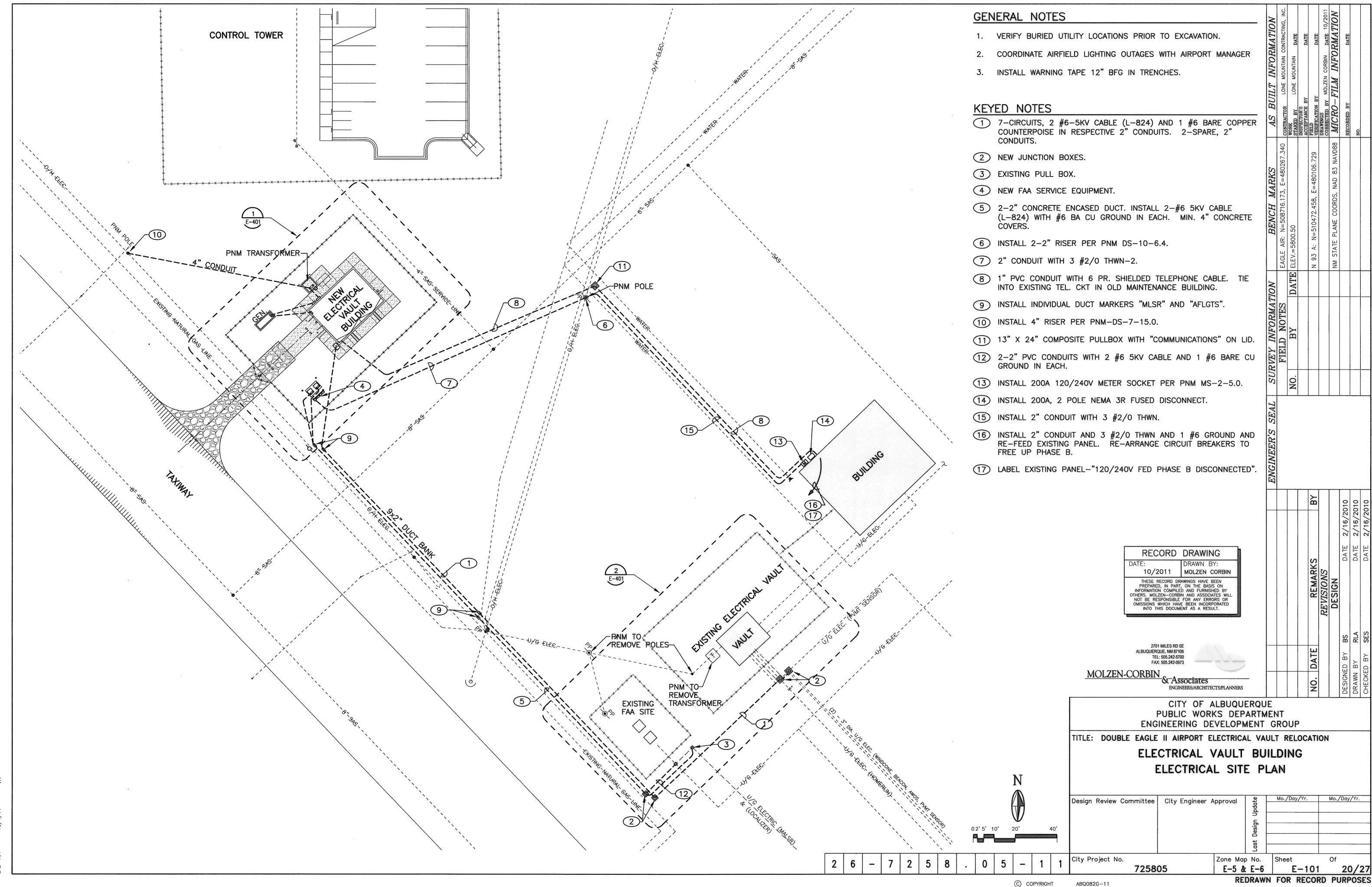
TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION ELECTRICAL VAULT BUILDING MECHANICAL PLAN, DETAILS, &

EQUIPMENT SCHEDULE Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr.

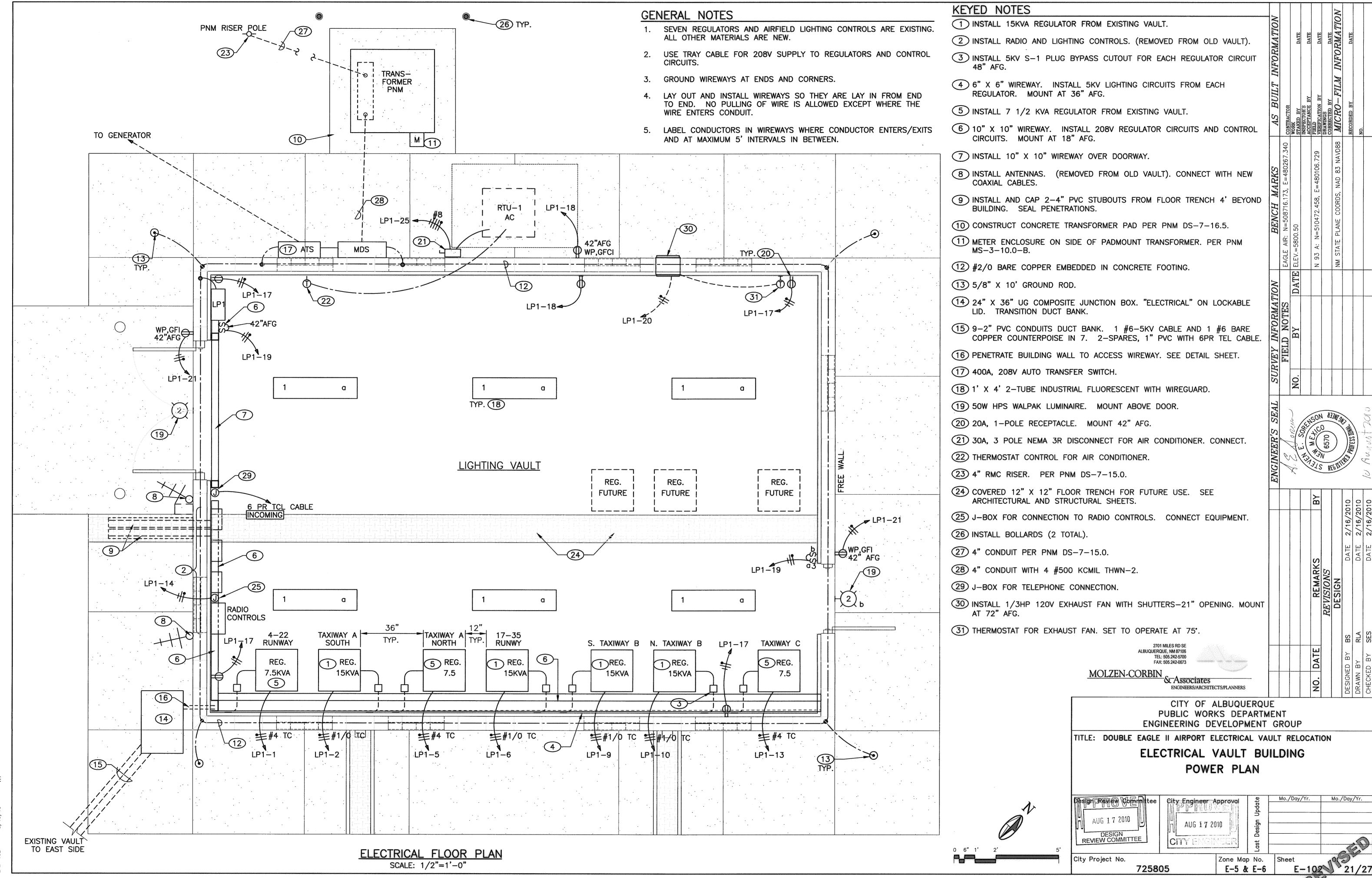
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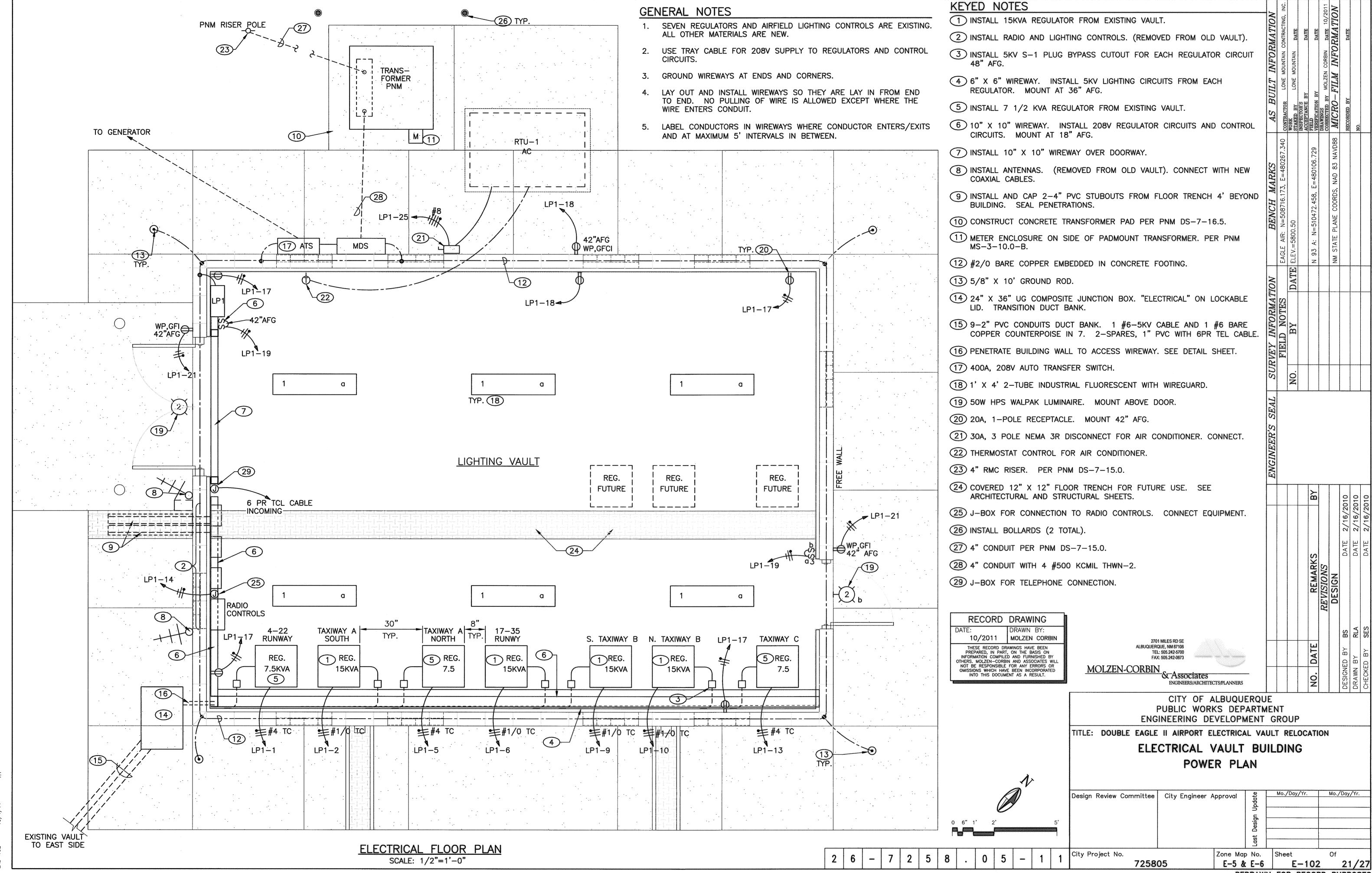
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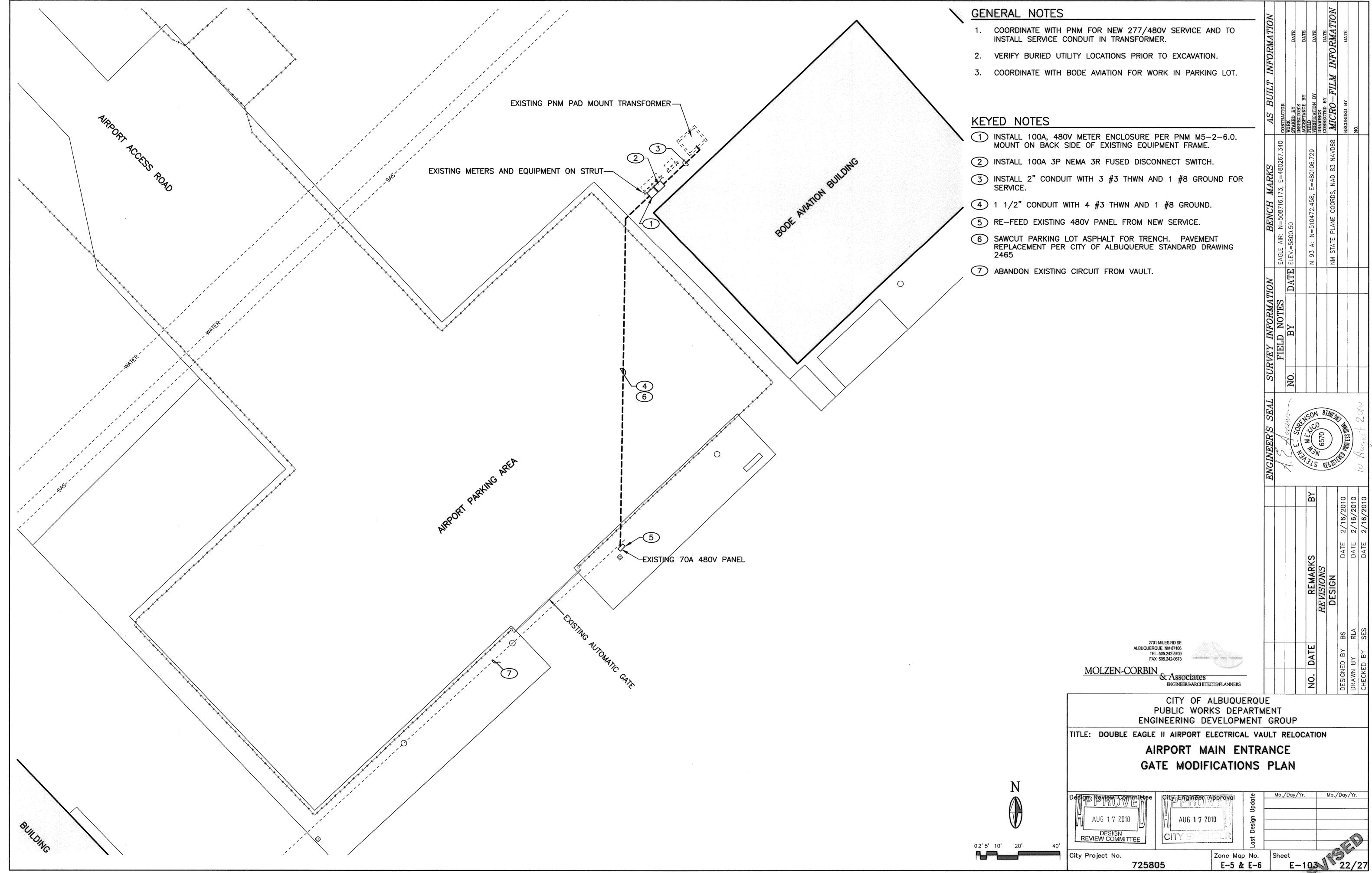
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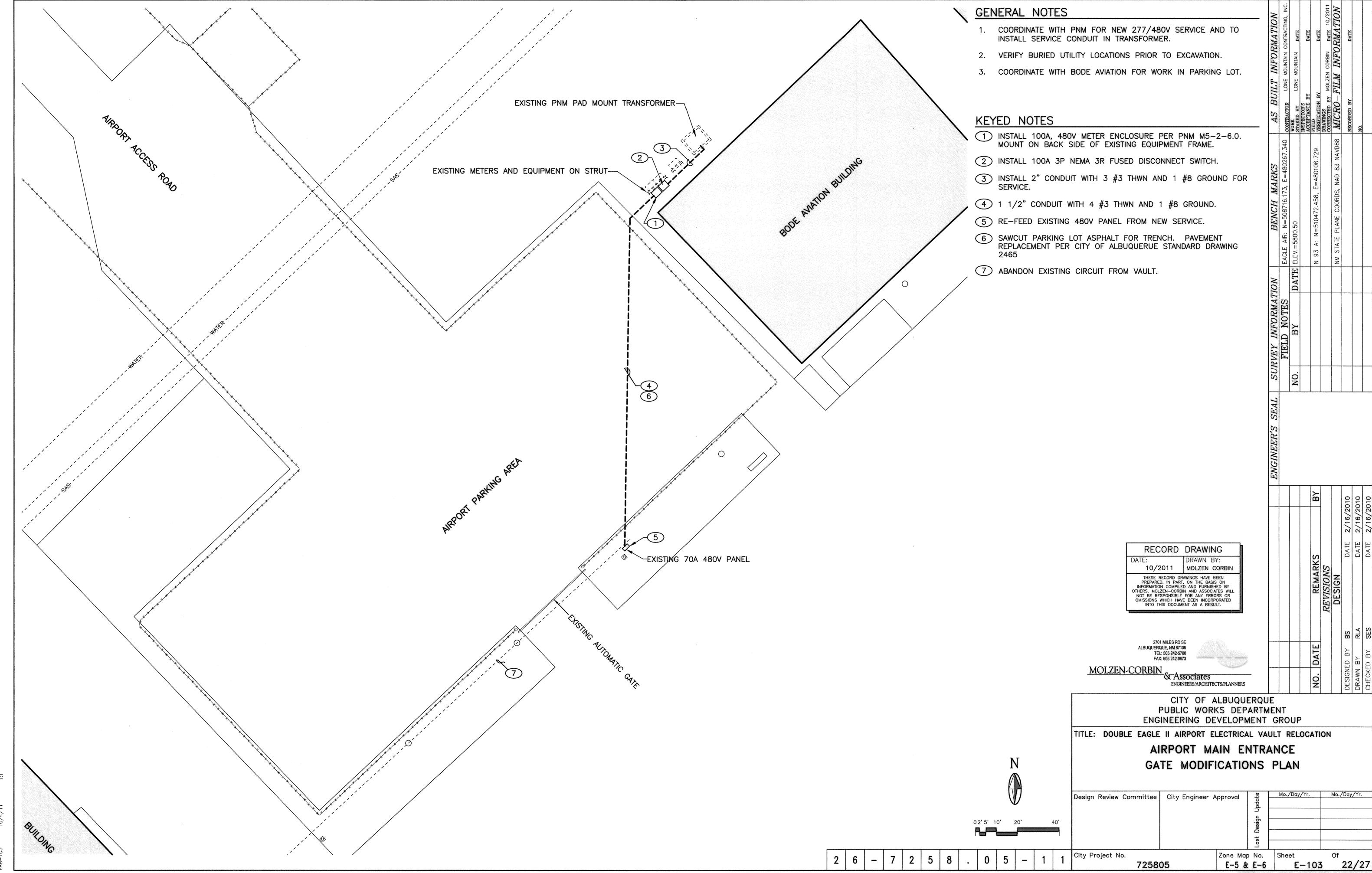
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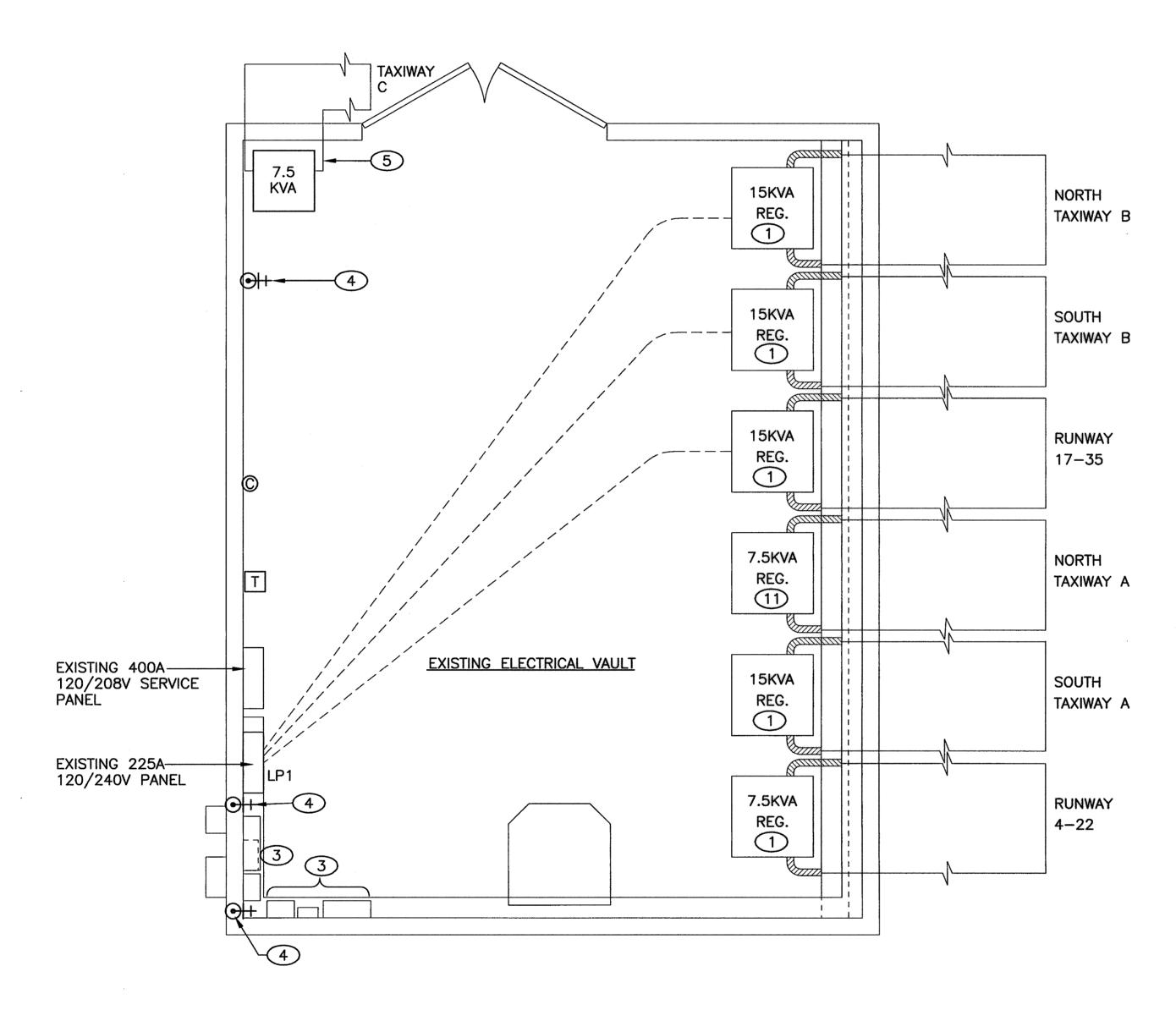
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ELECTRICAL FLOOR PLAN
SCALE: 1/2"=1'-0"

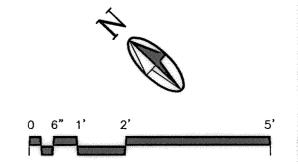
GENERAL NOTES 1. REMOVE 5KV BYPASS CUTOUTS AND ASSOCIATED REGULATOR CONDUCTORS AND EQUIPMENT TO SALVAGE. KEYED NOTES 1 REMOVE 15KVA REGULATOR. PRESERVE FOR INSTALLATION IN NEW VAULT. 2 NOT USED. 3 REMOVE RUNWAY LIGHTING CONTROL EQUIPMENT. PRESERVE FOR INSTALLATION IN NEW VAULT. 4 REMOVE LIGHTING CONTROL ANTENNAS. PRESERVE FOR INSTALLATION ON NEW VAULT. 5 REMOVE 7 1/2KVA REGULATOR. PRESERVE FOR INSTALLATION IN NEW VAULT. 2701 MILES RD SE ALBUQUERQUE, NM 87106 TEL: 505.242-5700 FAX: 505.242-0673 MOLZEN-CORBIN & Associates

ENGINEERS/ARCHITECTS/PLANNERS

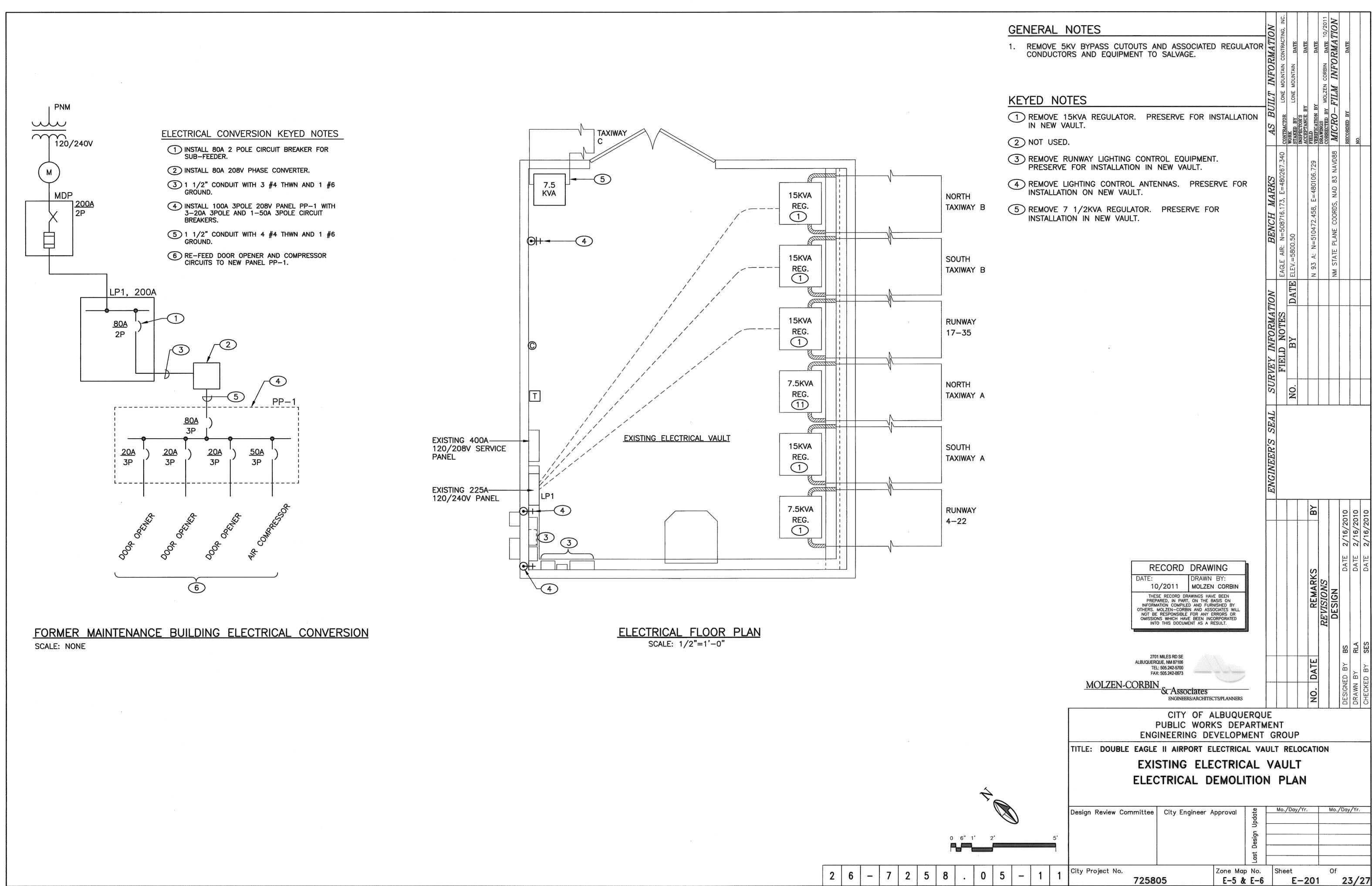
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP

TITLE: DOUBLE EAGLE II AIRPORT ELECTRICAL VAULT RELOCATION

EXISTING ELECTRICAL VAULT ELECTRICAL DEMOLITION PLAN

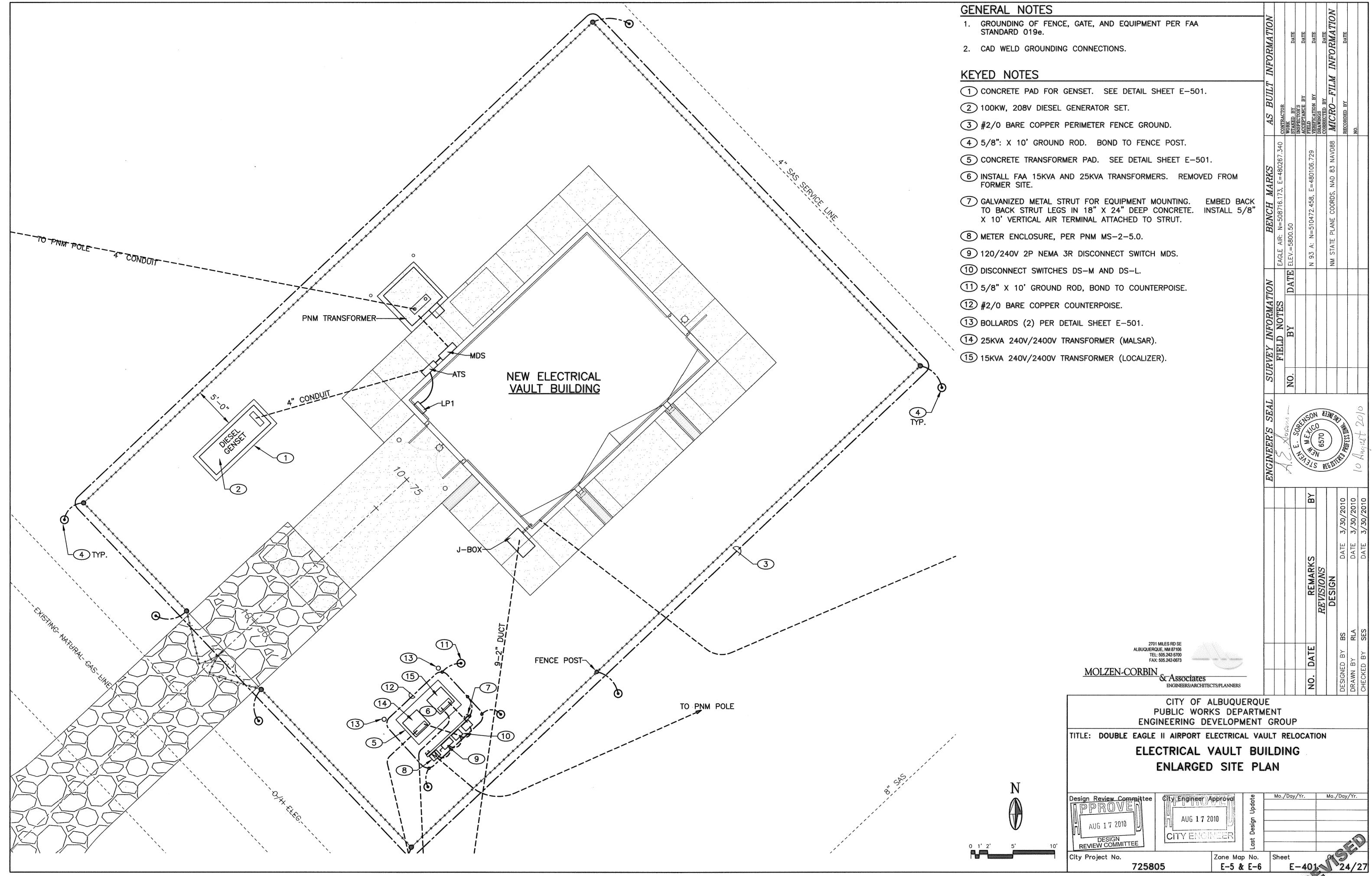


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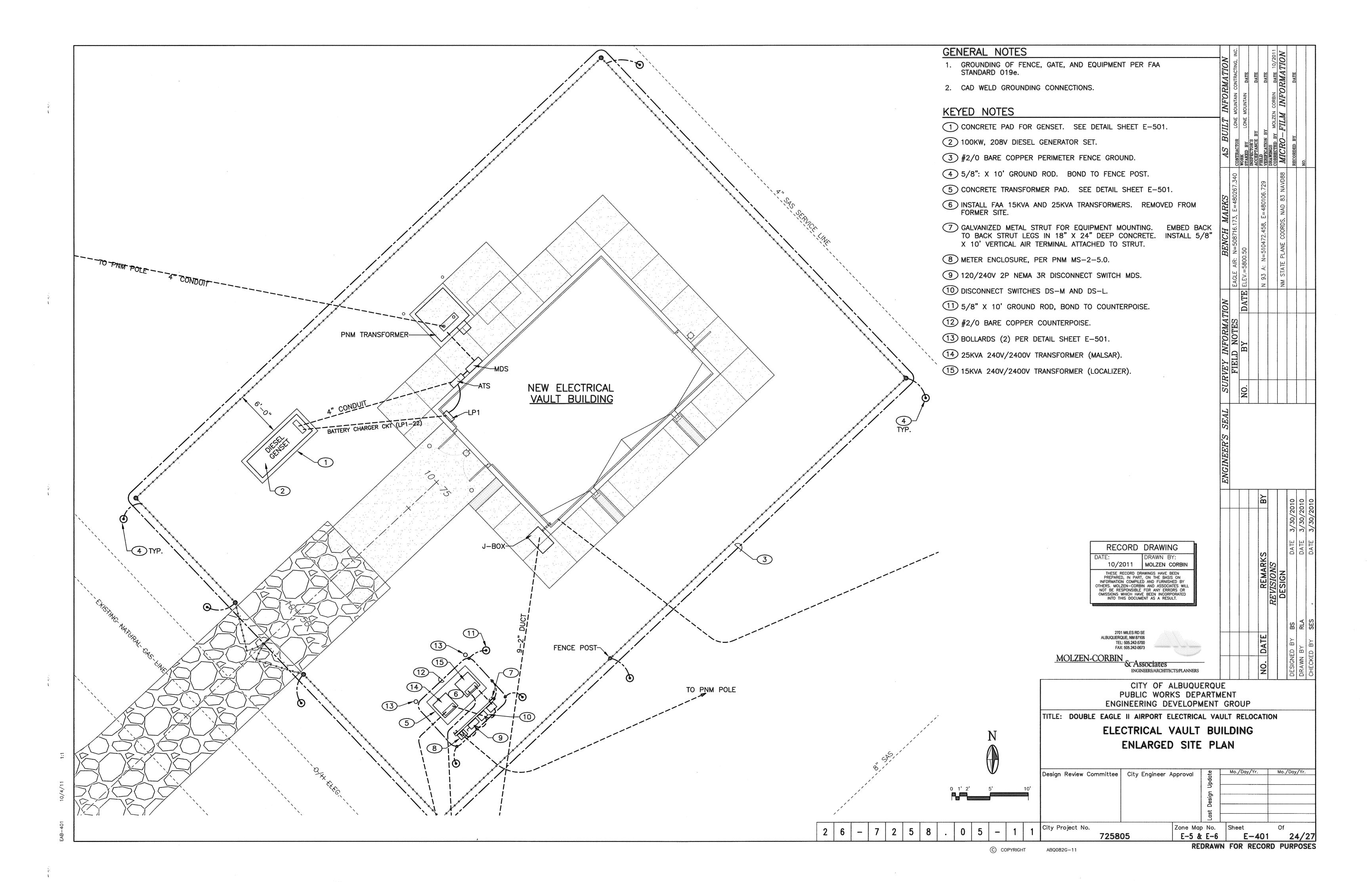
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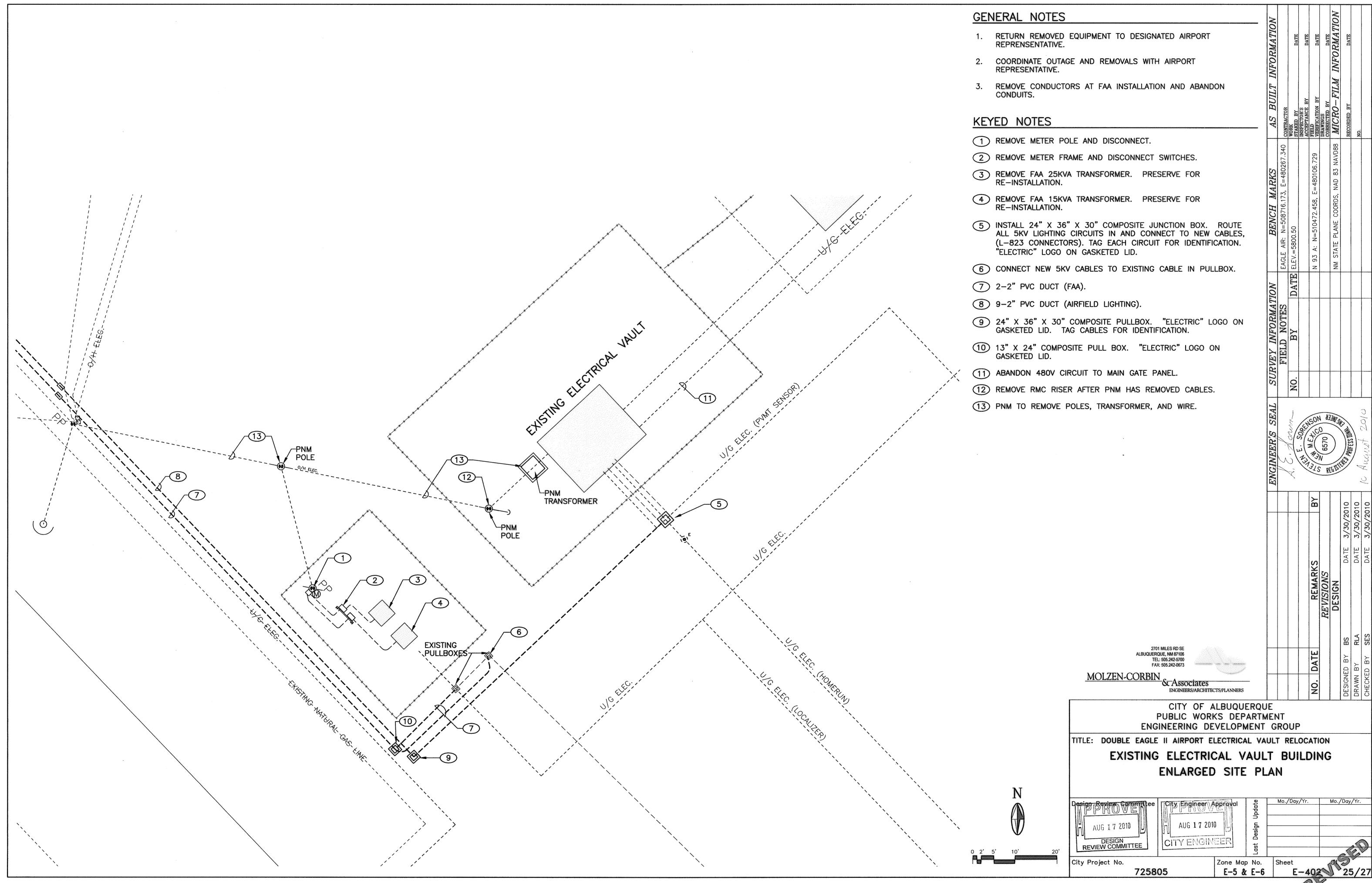
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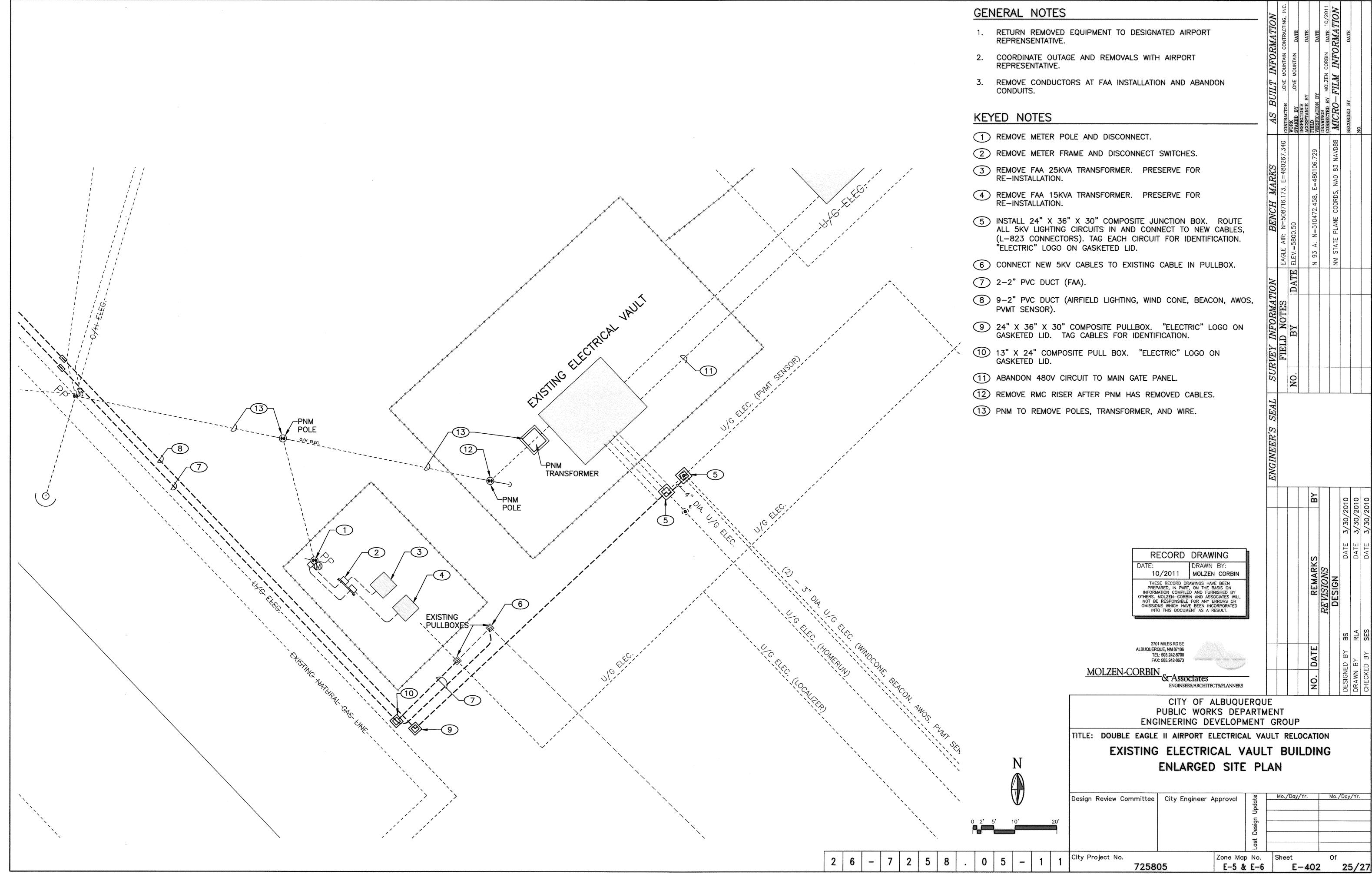


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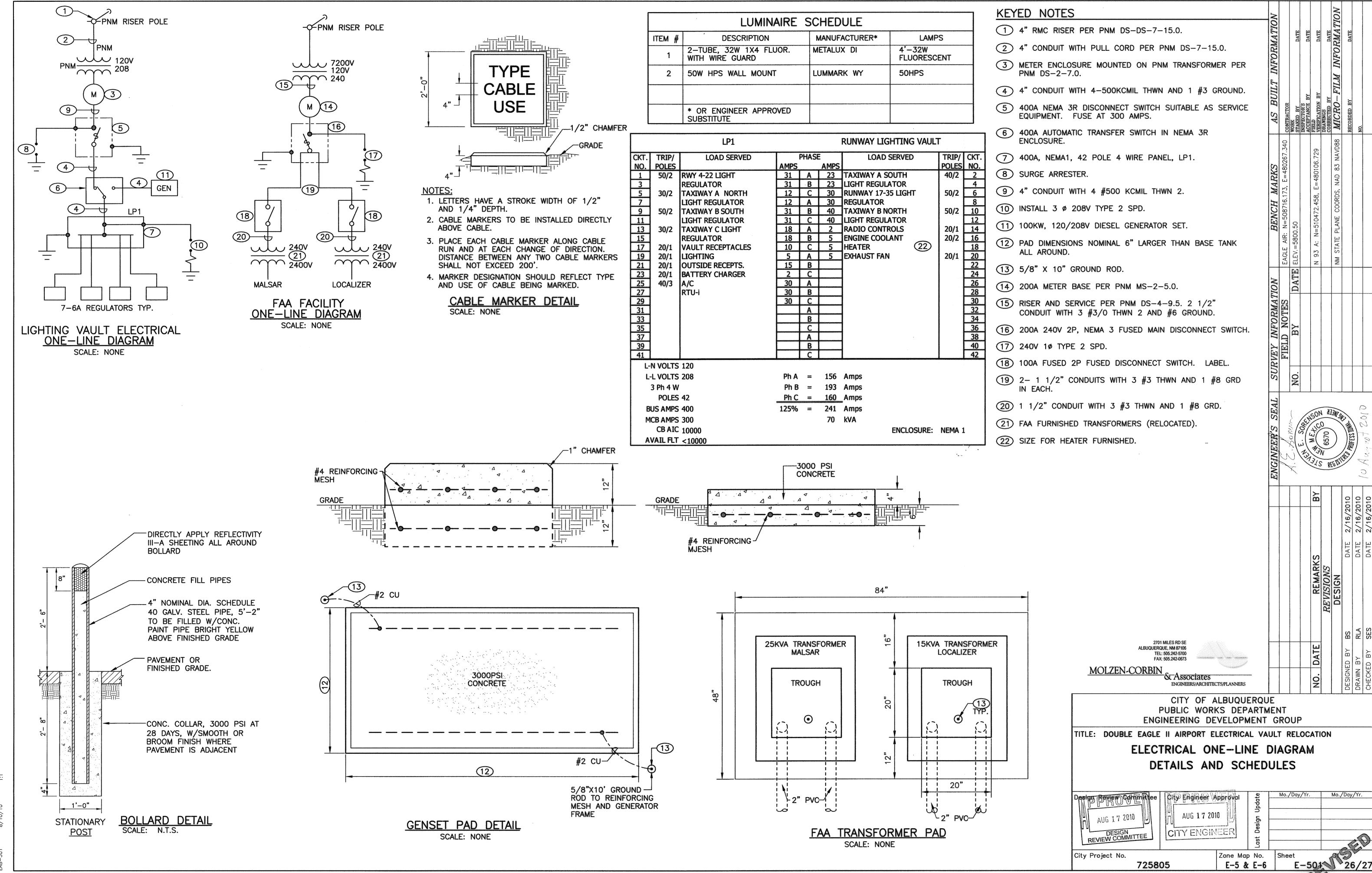


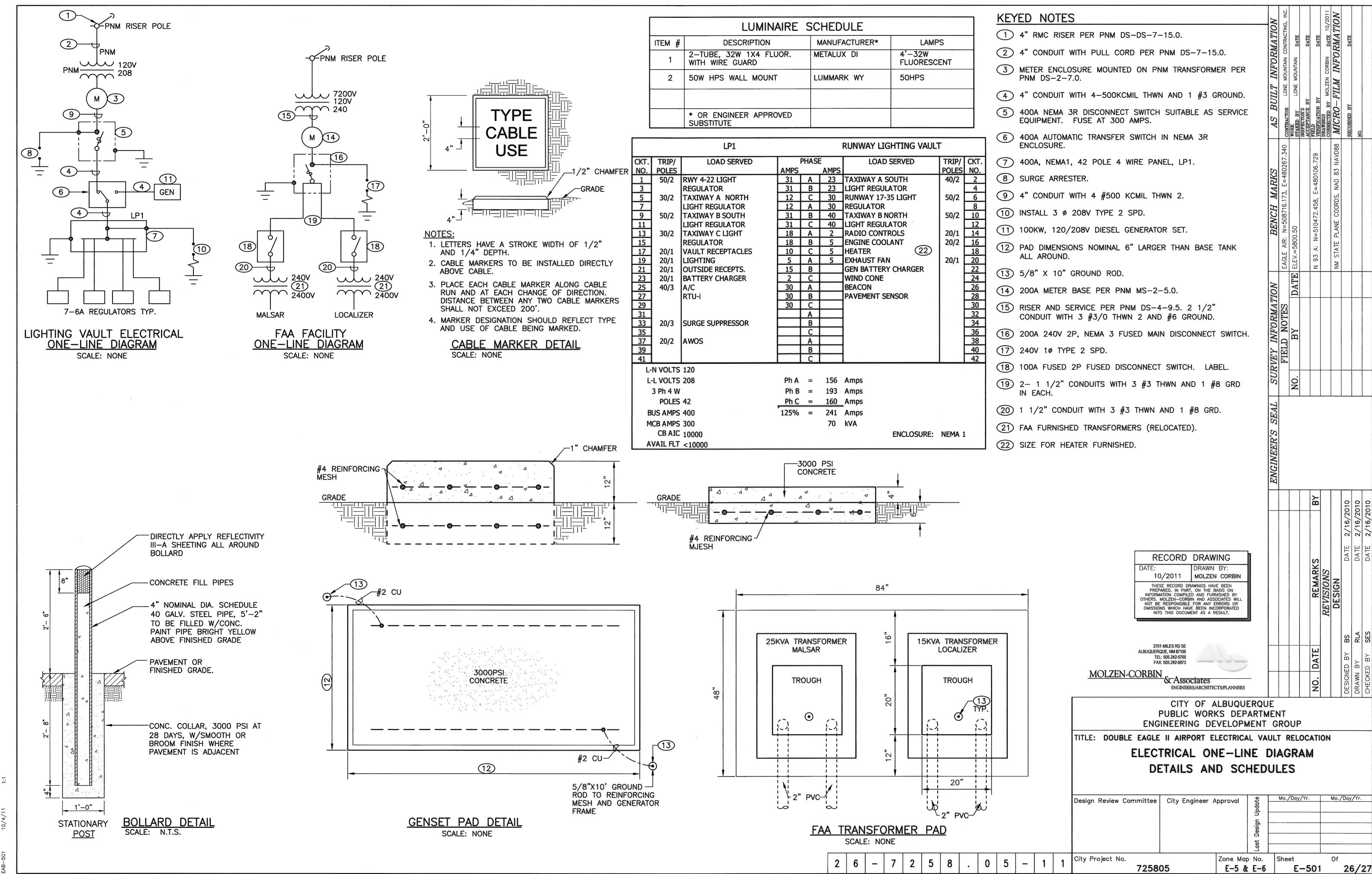


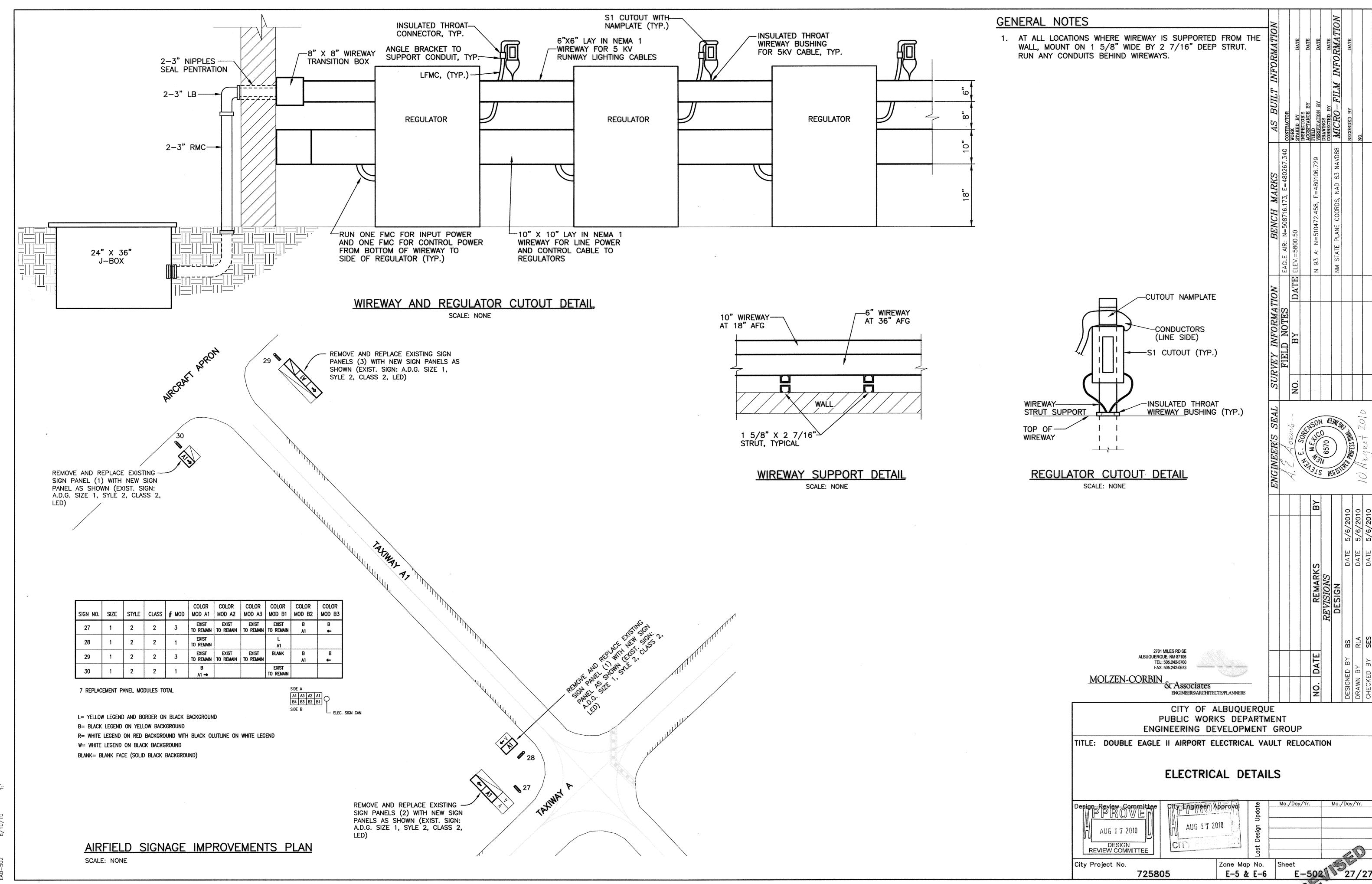


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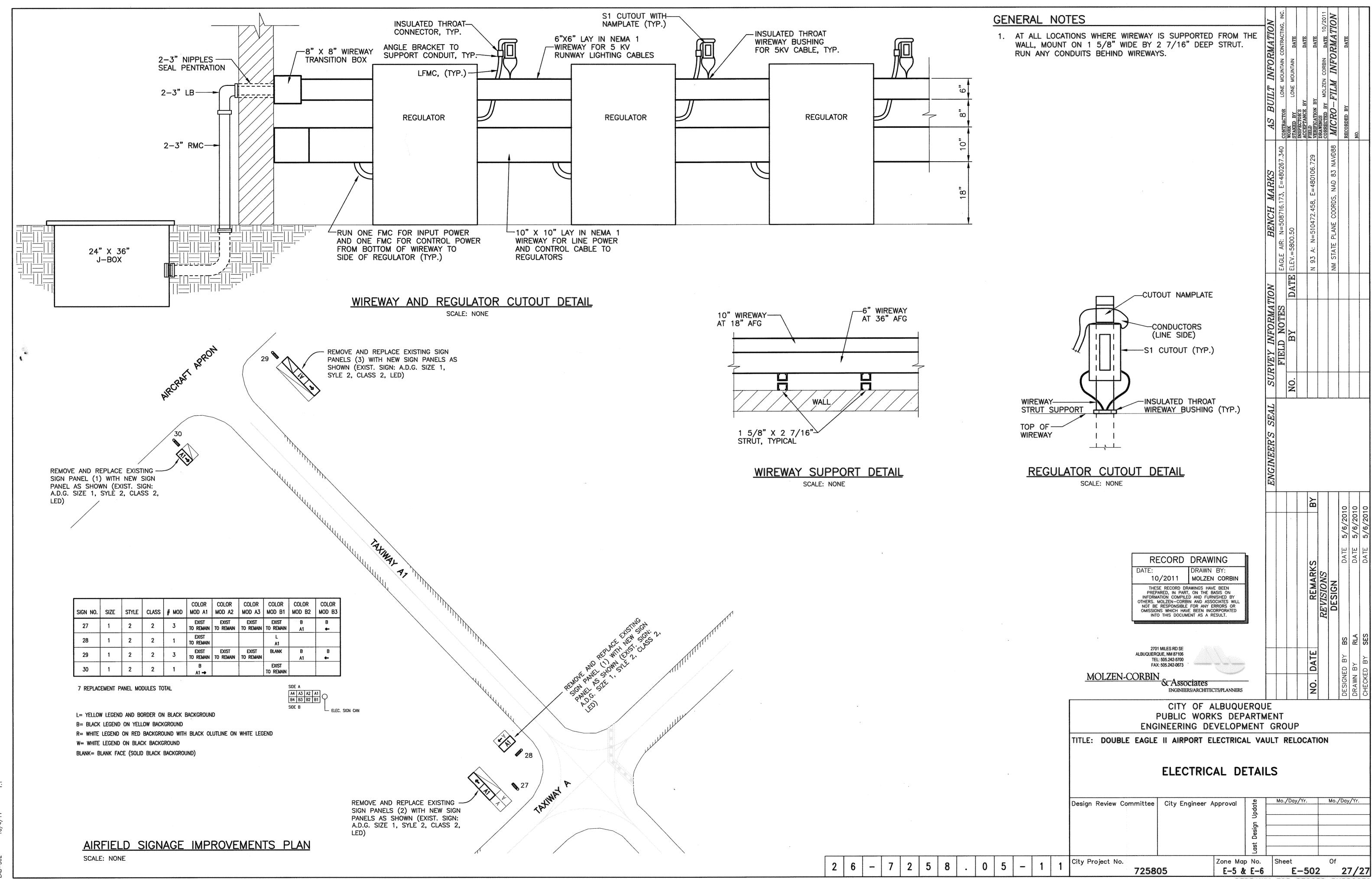
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