AMENDMENT OF SOLICITATION

1. AMENDMENT	2. EFFECTIVE DATE	3. REQUISITION NO./ P.O. NO. N/A	Page 1 of 143
A003	**June 22, 2016**		

4. ISSUED BY	Purchasing & Strategic Sourcing Division City of El Paso City 1 300 N. Campbell, 1st Floor El Paso, Texas 79901-1153

5A. AMENDMENT OF SOLICITATION NO. **2016-963** TITLED: EPIA Checked Baggage Inspection System	5B. BID DUE DATE: **July 6, 2016**

6. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in item 7. The hour and date specified for receipt of offers ☐ is EXTENDED or ☒ NOT EXTENDED

All amendments must be acknowledged on the "SOLICITATION OF OFFERS". Failure to do so may be cause for rejection of offer.

7. DESCRIPTION OF AMENDMENT

Please refer to attached information amending this solicitation.

EXCEPT AS PROVIDED HEREIN, ALL TERMS AND CONDITIONS OF THE DOCUMENTS, AS HERETOFORE CHANGED, REMAIN UNCHANGED AND IN FULL FORCE AND EFFECT.

CITY OF EL PASO
BRUCE D. COLLINS, CPPO
PURCHASING DIRECTOR

BY_____
Claudia Garcia
Procurement Analyst

Approved by Denise Baisley
~~Sandra Jimenez~~ Denise Baisley
~~Purchasing Agent~~ ASST. PURCHASING DIRECTOR

npi 2015 Award Winner

Clarifications and Revisions

Item	Description
Contract Time Change	Bidder agrees to commence work on a date to be specified in a written "Notice to Proceed" issued by the Owner. The Contract Time shall begin on the date to commence work specified in the Notice to Proceed and shall run for **SEVEN HUNDRED TWENTY (720)** additional **CONSECUTIVE CALENDAR DAYS** thereafter. Bidder shall substantially complete the project within **SIX HUNDRED NINETY (690)** CONSECUTIVE CALENDAR DAYS after the date to commence work in the Notice to Proceed. Bidder agrees to pay, as liquidated damages, the sum of **two thousand ten dollars and zero cents ($2,010.00)** for each consecutive calendar day after the date of Substantial Completion, as hereinafter provided in the General Conditions. Bidder further agrees to pay as liquidated damages the sum of **one thousand seven hundred sixty dollars and zero cents ($1,760.00)** for each consecutive calendar day after the expiration of the Contract Time for Remaining Work, as provided in Paragraph 6.8.3.1 of the General Conditions. The unit price quantities of this contract are estimated. Pages amended by this change: 1. I-B-7 and I-B-8 (section 11) 2. I-C-a-2 (Contract Time and Liquidated Damages) 3. II-A-1 (Contract Time Paragraph)
Last Day to Submit Questions	June 24, 2016 by 5:00 PM
Schedule of Values	"Offerors are directed to Exhibit A (APPENDIX A, BID UNIT PRICES) and EXHIBIT B (OVERALL PLAN FOR REIMBURSABLE AND NONREIMBURSABLE COST). Offerors shall submit a Schedule of Value for "Reimbursable Costs" and a schedule of value for "Nonreimbursable Costs". Schedule of values shall list all items of work associated with each, and the sum total of both schedules shall equal to the total amount of the Proposal." (13 pages)
Certificate of Interested Parties (Form 1295)	Instructions attached to this amendment. (2 Pages)
Revisions and Additional Information	Document attached to this amendment. (125 Pages)

Question/Answer Questionnaire

Question	Answer
In order to receive best pricing from subcontractors, we respectfully request a bid extension of three (3) weeks.	Not Possible.
Spec: 34 77 16. We respectfully request that BEUMER Glidepath be listed as an approved controls subcontractor on this job.	**ALL REQUESTS FOR PREQUALIFICATION MUST BE SUBMITTED BY JUNE 24, 2016 WITH CORRESPONDING SUPPORTING DOCUMENTATION.** The request cannot be considered without supporting documentation to "Authenticate a minimum of five years of demonstrable experience at US domestic Airports as a turnkey BHS Contractor where BEUMER Glidepath has performed as a BHS Controls developer and integrator for high speed automated baggage sortation systems with the completion of a minimum project value of $10,000,000 (per project) that utilized laser bar code scanning for the automatic processing of baggage, direct interfacing with the airline industry reservation systems for IATA License Plate bag tag information processing, high speed baggage diverters capable of operating at a minimum throughput rate of 60 bags per minute, integration with EDS devices, computerized sortation control systems controlling PLC systems, baggage tracking and computerized report generation for operational as well as maintenance status and graphic fault annunciation for the automated baggage system. Provide references for the projects where BEUMER self performed the controls.
Spec: 35 77 16/ B6.00 thru B6.50. On these drawings, the total sum of the maximum duration of all phases is 34 months (~1020 days). Item 11 in the Information for Bidders states that the Contract Time of completion is 600 days. Please clarify.	Maximum durations noted on the phasing drawings do not account for concurrent activities which shall be coordinated between the BHSC and General Contractor. Contract Time of completion shall be changed to 720 days to Final Completion and 690 to Substantial Completion.
Spec: 36 77 16/ B0.03 and BO.04. Conveyor manifest lists several conveyors as "(Cuttable)". Please define/explain what this is referring to.	Ignore. This is a reference used to develop the Revit families by the BHS consultant. Bid documents will be updated in a subsequent addendum.
Spec: 36 77 16/ B6.03 and B8.15. Since this is a temporary system - Is powder coated HRS an acceptable alternate to stainless steel for the Top Hat? Will alternate designs be considered?	Yes. Remove requirement for stainless steel Top Hat and replace with powder coated HRS. Alternative designs may be submitted by the bidder for review by the owner and their representative. Bid documents will be updated in a subsequent addendum.
Spec: 38 77 16/ B2.40 and B4.02. No guardrail is shown around make-up devices. Is guardrail required?	Yes. Guardrail is required around the make-up devices. Bid documents will be updated in a subsequent addendum.

EXHIBIT A

APPENDIX A

BID UNIT PRICES

A. OVERALL EQUIPMENT PRICE SCHEDULE

DESCRIPTION	PRICE
Mechanical and Electrical Subtotal – All Subsystems	$
BHS Maintenance Platforms	$
Maintenance Platform Crossovers	$
Maintenance Platform Pull-down Access Ladders	$
Maintenance Platform Maintenance Ladders	$
Maintenance Platform Ship's Ladders	$
SUB-TOTAL EQUIPMENT COST (FOB) - Total of above	$
Modified/Refurbished Existing BHS Equipment	$
Existing Conveyor Equipment Demolition	$
Mechanical Installation	$
Electrical Installation	$
Engineering	$
Program Management	$
Shipping	$
Insurance	$
Bonds	$
O&M Manuals	$
Training	$
Warranty Service	$
Temporary BHS System: Operations & Maintenance Service (During Construction)	$
Temporary BHS System: Operations & Maintenance Service (for 6 months after Final Acceptance of Main Baggage Handling System)	$
Other (List)	$
1. Field Advisor	$
2. P.E. Stamp	$
3. 30 Day support coverage	$

Taxes	$
SUB-TOTAL ENGRG/INSTALL/ETC.	$
TOTAL TURNKEY PRICE:	$

B. <u>EQUIPMENT PRICE SCHEDULE</u>:

Submit turnkey proposal to provide the Baggage Handling System as specified. Provide cost breakdown as shown on the following pages:

<u>NEW BAGGAGE HANDLING SYSTEM EQUIPMENT (ALLOCABLE)</u>

TSA REIMBURSIBLE CONVEYOR SUBSYSTEMS:

Mechanical Equipment – Subsystem: Clear Bag Transport (AL1)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (AL1)	**$**
SUBTOTAL – (AL1) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (AL2)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (AL2)	**$**
SUBTOTAL – (AL1) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (CL1)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (CL1)	**$**
SUBTOTAL – (CL1) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (CL2)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (CL2)	**$**
SUBTOTAL – (CL2) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (CL3)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (CL3)	**$**
SUBTOTAL – (CL3) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (CL4)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (CL4)	**$**
SUBTOTAL – (CL4) Subsystem	**$**

Mechanical Equipment – Subsystem: Clear Bag Transport (CL5)	**$**
Electrical Equipment -Subsystem: Clear Bag Transport (CL5)	**$**
SUBTOTAL – (CL5) Subsystem	**$**

Mechanical Equipment – Subsystem: Mainline (ML1)	**$**
Electrical Equipment -Subsystem: Mainline (ML1)	**$**
SUBTOTAL – (ML1) Subsystem	**$**

Mechanical Equipment – Subsystem: Out-of-Gauge Bag Transport (OG1)	**$**
Electrical Equipment -Subsystem: Out-of-Gauge Bag Transport (OG1)	**$**
SUBTOTAL – (OG1) Subsystem	**$**

Mechanical Equipment – Subsystem: Oddsize Transport (OS1)	**$**
Electrical Equipment -Subsystem: Oddsize Transport (OS1)	**$**
SUBTOTAL – (OS1) Subsystem	**$**

Mechanical Equipment – Subsystem: On Screen Resolution Transport (OSR1)	**$**
Electrical Equipment -Subsystem: On-Screen Resolution Transport (OSR1)	**$**
SUBTOTAL – (OSR1) Subsystem	**$**

Mechanical Equipment – Subsystem: On Screen Resolution Transport (OSR2)	**$**
Electrical Equipment -Subsystem: On-Screen Resolution Transport (OSR2)	**$**
SUBTOTAL – (OSR2) Subsystem	**$**

Mechanical Equipment – Subsystem: On Screen Resolution Transport (OSR3)	**$**
Electrical Equipment -Subsystem: On-Screen Resolution Transport (OSR3)	**$**
SUBTOTAL – (OSR3) Subsystem	**$**

Mechanical Equipment – Subsystem: Re-Insert Line - CBRA (RI1)	**$**
Electrical Equipment -Subsystem: Re-Insert Line - CBRA (RI1)	**$**
SUBTOTAL – (RI1) Subsystem	**$**

Mechanical Equipment – Subsystem: Security Feed (SF1)	**$**
Electrical Equipment -Subsystem: Security Feed (SF1)	**$**
SUBTOTAL – (SF1) Subsystem	**$**

Mechanical Equipment – Subsystem: Security Shunt (SS1)	**$**
Electrical Equipment -Subsystem: Security Shunt (SS1)	**$**
SUBTOTAL – (SS1) Subsystem	**$**

Mechanical Equipment – Subsystem: Security Shunt (SS2)	**$**
Electrical Equipment -Subsystem: Security Shunt (SS2)	**$**
SUBTOTAL – (SS2) Subsystem	**$**

Mechanical Equipment – Subsystem: Security Shunt (SS3)	**$**
Electrical Equipment -Subsystem: Security Shunt (SS3)	**$**
SUBTOTAL – (SS3) Subsystem	**$**

Mechanical Equipment – Subsystem: Baggage Measuring Array – BMA (Main Line)	**$**
Electrical Equipment -Subsystem: Baggage Measuring Array – BMA (Main Line)	**$**
SUBTOTAL – Baggage Measuring Array (BMA)	**$**

Mechanical Equipment – Subsystem: 12-head ATR (Main Line)	**$**
Electrical Equipment -Subsystem: 12-head ATR (Main Line)	**$**
SUBTOTAL – 12-head ATR	**$**

SUBTOTAL – ALL SUBSYTEMS	**$**

TEMPORARY SCREENING BAGGAGE HANDLING SYSTEM (TSA REIMBURSIBLE):

Mechanical Equipment – Subsystem: Temporary Main Line Transport (TML1)	**$**
Electrical Equipment -Subsystem: Temporary Main Line Transport (TML1)	**$**
SUBTOTAL – (TML1) Subsystem	**$**

Mechanical Equipment – Subsystem: Temporary Make-Up Feed (TMF1)	**$**
Electrical Equipment -Subsystem: Temporary Make-Up Feed (TMF1)	**$**
SUBTOTAL – (TMF1) Subsystem	**$**

Mechanical Equipment – Subsystem: Temporary Make-Up Device (TMU1)	**$**
Electrical Equipment -Subsystem: Temporary Make-Up Device (TMU1)	**$**
SUBTOTAL – (TMU1) Subsystem	**$**

SUBTOTAL – ALL SUBSYTEMS	**$**

NEW BAGGAGE HANDLING SYSTEM EQUIPMENT (NON-ALLOCABLE)

TSA NON-REIMBURSABLE CONVEYOR SUBSYSTEMS:

Mechanical Equipment – Subsystem: Ticket Counter (TC1)	**$**
Electrical Equipment -Subsystem: Ticket Counter (TC1)	**$**
SUBTOTAL – (TC1) Subsystem	**$**

Mechanical Equipment – Subsystem: Ticket Counter (TC2)	**$**
Electrical Equipment -Subsystem: Ticket Counter (TC2)	**$**
SUBTOTAL – (TC2) Subsystem	**$**

Mechanical Equipment – Subsystem: Ticket Counter (TC3)	**$**
Electrical Equipment -Subsystem: Ticket Counter (TC3)	**$**
SUBTOTAL – (TC3) Subsystem	**$**

Mechanical Equipment – Subsystem: Ticket Counter (TC4)	**$**
Electrical Equipment -Subsystem: Ticket Counter (TC4)	**$**
SUBTOTAL – (TC4) Subsystem	**$**

Mechanical Equipment – Subsystem: Ticket Counter (TC5)	**$**
Electrical Equipment -Subsystem: Ticket Counter (TC5)	**$**
SUBTOTAL – (TC5) Subsystem	**$**

Mechanical Equipment – Subsystem: Curbside (CS4)	**$**
Electrical Equipment -Subsystem: Curbside (CS4)	**$**
SUBTOTAL – (CS4) Subsystem	**$**

Mechanical Equipment – Subsystem: Main Line (ML1)	**$**
Electrical Equipment -Subsystem: Main Line (ML1)	**$**
SUBTOTAL – (ML1) Subsystem	**$**

Mechanical Equipment – Subsystem: Sort Line (SL1)	**$**
Electrical Equipment -Subsystem: Sort Line (SL1)	**$**
SUBTOTAL – (SL1) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Feed (MF1)	**$**
Electrical Equipment -Subsystem: Make-Up Feed (MF1)	**$**
SUBTOTAL – (MF1) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Feed (MF2)	**$**
Electrical Equipment -Subsystem: Make-Up Feed (MF2)	**$**
SUBTOTAL – (MF2) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Feed (MF3)	**$**
Electrical Equipment -Subsystem: Make-Up Feed (MF3)	**$**
SUBTOTAL – (MF3) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Feed (MF4)	**$**
Electrical Equipment -Subsystem: Make-Up Feed (MF4)	**$**
SUBTOTAL – (MF4) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Device (MU1)	**$**
Electrical Equipment -Subsystem: Make-Up Device (MU1)	**$**
SUBTOTAL – (MF1) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Device (MU2)	**$**
Electrical Equipment -Subsystem: Make-Up Device (MU2)	**$**
SUBTOTAL – (MF2) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Device (MU3)	**$**
Electrical Equipment -Subsystem: Make-Up Device (MU3)	**$**
SUBTOTAL – (MF3) Subsystem	**$**

Mechanical Equipment – Subsystem: Make-Up Device (MU4)	**$**
Electrical Equipment -Subsystem: Make-Up Device (MU4)	**$**
SUBTOTAL – (MF4) Subsystem	**$**

Mechanical Equipment – Subsystem: 12-head ATR (Sortation Line)	**$**
Electrical Equipment -Subsystem: 12-head ATR (Sortation Line)	**$**
SUBTOTAL – 12-head ATR	**$**

SUBTOTAL – ALL SUBSYTEMS	**$**

C. UNIT PRICE SUMMARY TABULATION (BASED ON QUANTITIES)

UNIT PRICES: The undersigned provides the following unit prices to be used when and if required by the Owner for additions and/or deletions to the Contract Quantities and shall be inclusive of furnishing and installing all materials, labor, overhead, profit, equipment, controls, hoisting, scaffolding, trucking, handling, submissions, layout, permits, applicable insurance, applicable taxes, coordination, deliveries, supervision, management, estimating, paperwork, etc. These Unit Prices shall remain in effect throughout the duration of the Contract Documents.

Items covered by these Unit Prices shall be furnished and installed in accordance with all terms and conditions of the Contract Documents and in quantities and locations as directed by the Owner. Unit prices are the same for work added or deleted.

Standard Conveyor Drive Section

New Standard Conveyor Drive Section $_____Unit

Standard Conveyor End Section

New Standard Conveyor End Section $_____Unit

Standard Conveyor Breakover Section

New Standard Conveyor Breakover Section $_____Unit

New Standard Conveyor Intermediate Section

0 - 15 feet $_____/ L.F.

16 - 40 feet $_____/ L.F.

41 - 70 feet $_____/ L.F.

Standard Ticket Counter Conveyor Drive Section

New Standard Ticket Counter Conveyor Drive Section $_____Unit

Standard Ticket Counter Conveyor End Section

New Standard Ticket Counter Conveyor End Section $_____Unit

New Ticket Counter Conveyor Intermediate Section

0 - 15 feet $_____/ L.F.

16 - 40 feet $_____/ L.F.

41 - 70 feet $_____/ L.F.

.

Oversize Conveyor Drive Section

New Oversize Conveyor Drive Section $_____Unit

Oversize Conveyor End Section

New Oversize Conveyor End Section	$_____Unit

Oversize Ticket Counter Conveyor End Section

New Oversize Ticket Counter Conveyor End Section	$_____Unit

New Oversize Conveyor Intermediate Section

0 - 15 feet	$_____/ L.F.
16 - 40 feet	$_____/ L.F.
41 - 70 feet	$_____/ L.F.

BHS Platforms

New Platform Crossovers Single Conveyor Width	$_____/ Unit
New Platform Crossovers Double Conveyor Width	$_____/ Unit
New Maintenance Ladder	$_____/ Unit
New Ship's Ladder	$_____/ Unit
New Swing Down Aluminum Ladder	$_____/ Unit
New BHS Platform	$_____/ S.F.

New Power/Spiral Turns

45° Power Turn	$_____Unit
60° Power Turn	$_____Unit
90° Power Turn	$_____Unit
45° Spiral Power Turn	$_____Unit
60° Spiral Power Turn	$_____Unit
90° Spiral Power Turn	$_____Unit

45° Merge Conveyor

New 45° Merge Conveyor	$_____Unit

Metering/Queue Conveyor

New Metering/Queue Conveyor	$_____Unit

High Speed Vertical Paddle Diverter

New High Speed Vertical Paddle Diverter	$_____Unit

45° Reverse Merge Conveyor

New 45° Reverse Merge Conveyor $_____Unit

Fixed Face Plow Diverter

New Fixed Face Plow Diverter $_____Unit

Perpendicular Transfer Plate

New Perpendicular Transfer Plate $_____Unit

Vertical Sort Unit

New VSU $_____Unit

Fire/Security Door

New Standard Fire/Security Door $_____Unit

New Oversize Fire/Security Door $_____Unit

Draft Curtain

New Draft Curtain $_____Unit

Impact Protection

New Impact Protection $_____Unit

Bollard

New Bollard $_____Unit

Vibration Isolator

New Vibration Isolator $_____Unit

Directional Input Device

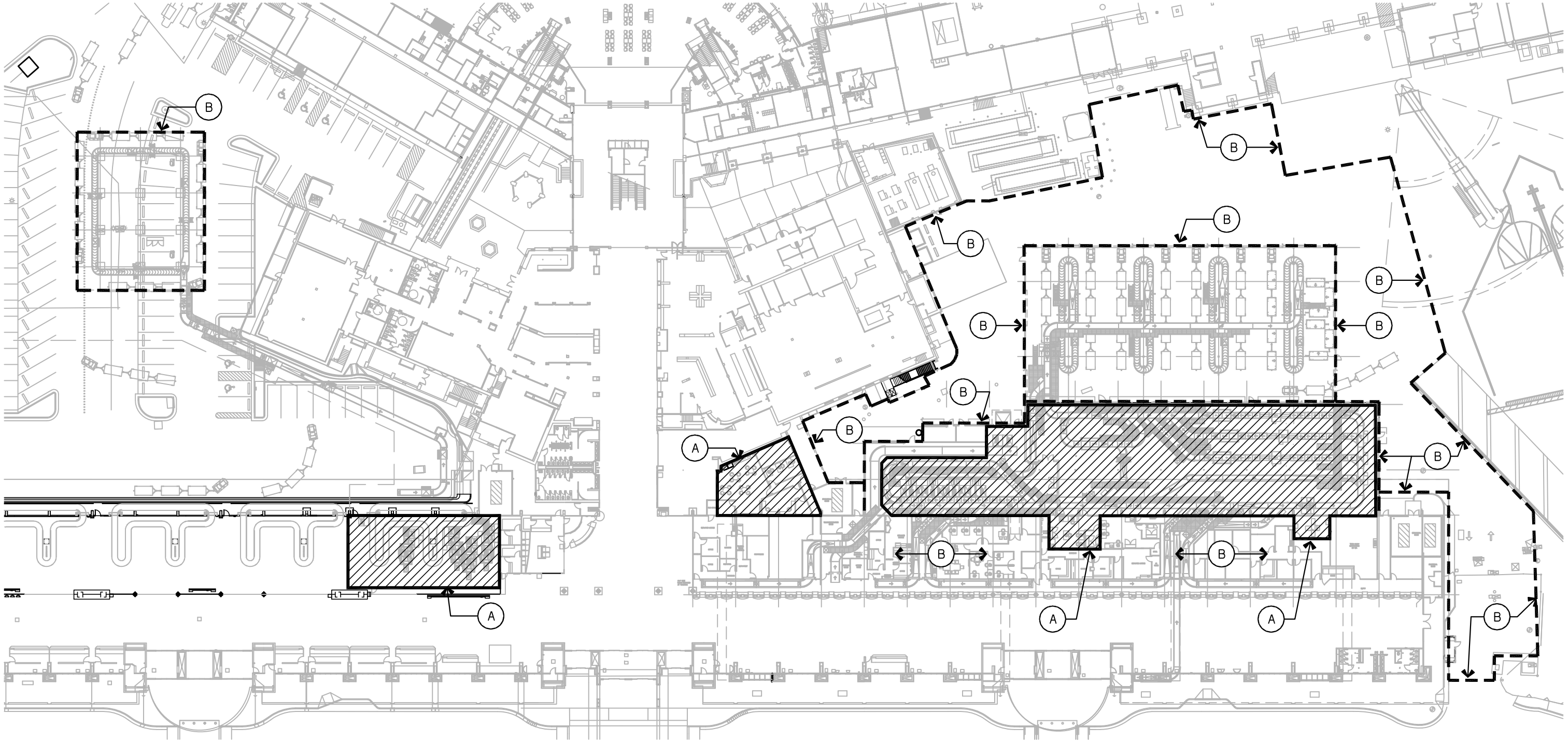
New Directional Input Device $_____Unit

Laser Scanner Array (ATR)

New Laser Scanner Array (ATR) $_____Unit

12-head Automatic Tag Reader Scanner Array (ATR)

New Laser Scanner Array (ATR)	$_____Unit
Baggage Measuring Array	
New Baggage Measuring Array	$_____Unit
Touch Screen Terminal	
New Touch Screen Terminal (for MDS Application)	$_____Unit
New Touch Screen Terminal (for CBRA Application)	$_____Unit
MDS Workstation	
New MDS Workstation	$_____Unit
Large Screen Graphics Display	
New Large Screen Graphics Display	$_____Unit
MDS/MIS Server Hard Disk Drive	
New MDS/MIS Server Hard Disk Drive	$_____Unit
Project Engineering	$_____Unit
Controls Engineering	$_____Unit
Any additional building modifications or alterations:	
Demolition and Removal of Temporary BHS System	$_____Unit
Demolition and replacement of any architectural finishes	$_____Unit



TSA REIMBURSABLE

(A) TSA REIMBURSABLE CONSTRUCTION: INTERIOR ARCHITECTURAL FINISHES, HVAC, PLUMBING, ELECTRICAL AND SPECIAL SYSTEMS.

TSA NON-REIMBURSABLE

(B) TSA NON-REIMBURSABLE CONSTRUCTION: DEMOLITION, UNDERGROUND UTILITIES RELOCATION, EARTHWORK, NEW CONCRETE PAVING, FOUNDATION SYSTEM, EXTERIOR WALLS, STRUCTURAL FRAMING SYSTEM, ROOF FRAMING SYSTEM, ROOFING SYSTEM AND REMODEL/RENOVATION AT AIRLINE TENANT SPACES.

EL PASO
INTERNATIONAL AIRPORT

EXHIBIT B
OVERALL PLAN FOR REIMBURSABLE AND NON-REIMBURSABLE COST

NOT TO SCALE

PLAN NORTH

REGISTERED ARCHITECT
JORGE L MORA
12526
STATE OF TEXAS

DATE 6-16-16

mijares • mora
ARCHITECTS INC.

Business Entity: Disclosure of Interested Parties Texas

Government Code § 2252.908

Form 1295

<u>This Form is required in the submission of your bid or proposal:</u>

The Texas Legislature adopted House Bill 1295 in 2015. HB 1295 added Section 2252.908 to the Government Code. Under this new law, any business entity that enters into a contract with the City of El Paso that requires the approval of the City Council must submit a "Disclosure of Interested Parties" to the City prior to the execution of the contract. This form, the "Disclosure of Interested Parties" form was promulgated by the Texas Ethics Commission, and is the "Form 1295".

The Texas Ethics Commission was also charged with promulgating rules to implement Section 2252.908 of the Government Code. The rules adopted by the Texas Ethics Commission are located at Sections 46.1, 46.3, and 46.5 of Title 1 of the Texas Administrative Code.

The Texas Ethics Commission's website is: www.ethics.state.tx.us. The area of their website pertaining to Form 1295 is: www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

All business entities are encouraged to visit the Texas Ethics Commission website, which contains Frequently Asked Questions, instructional videos, and much more information on HB1295/Section 2252.908 requirements and/or to consult with their own counsel.

Once the business entity has completed their electronic filing of Form 1295, then the business entity must print out the form and sign and notarize the form. The form must be submitted with your bid or proposal.

If your firm is selected for award, the Purchasing & Strategic Sourcing Department will go to the Texas Ethics Commission website to submit electronic confirmation of the City's receipt of the completed, signed, and notarized Form 1295.

EXAMPLE

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Please enter your business entity information

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

The City of El Paso

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the goods or services to be provided under the contract.

Enter City of El Paso contract, solicitation, or reference number

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary
For information see Section 2252.908 of the Texas Government Code, Sections 46.1, 46.3, and 46.5 of Title 1 of the Texas Administrative Code, and the Texas Ethics Commission website			

5 Check only if there is NO Interested Party.

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Please sign and notarize form before submitting to the City of El Paso Purchasing & Strategic Sourcing Department

_____
Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said_____, this the_____day of_____, 20_____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

ADD ADDITIONAL PAGES AS NECESSARY

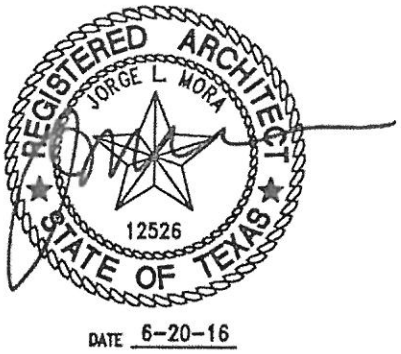
EXAMPLE

AMENDMENT NO. 3

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM PROJECT

FOR

THE CITY OF EL PASO



MIJARES MORA ARCHITECT, INC.
111 N. FESTIVAL
EL PASO, TEXAS
(915) 542-1591 FAX (915) 542-1594

JUNE 20, 2016

GENERAL

1. The following changes and/or additions to the Contract Documents shall apply to proposals made for and to the execution of the various parts of the work affected hereby.

2. Careful note of the Amendment shall be taken by all interested parties and all trades affected shall be fully advised in their performance of the work involved.

PROJECT MANUAL

1. **Specification Section 009500 Geotechnical Data Report**

   a. Delete the Geotechnical Data Report labeled "Draft" in its entirety and replace with the Final Geotechnical Report attached herein.

2. **Specification Section 321123 Crushed Aggregate Base Course**

   a. Delete specification section 321123 in its entirety and replace with revised section 321123 attached herein.

3. **Specification Section 321216 Asphaltic Concrete Pavement**

   a. Delete specification section 321216 in its entirety and replace with revised section 321216 attached herein.

4. **Specification Section 321313 Cast In Place Site Concrete**

   a. Delete specification section 321313 in its entirety and replace with revised section 321313 attached herein.

5. **Specification Section Division 34–Baggage Handling System Equipment**

   a. The following revisions will be made to the Bid Documents as follows:

PART II – PRODUCT SPECIFICATIONS

ACCEPTABLE MANUFACTURERS.

Section 2.02: Paragraph A. Item 1. – Add Logan Teleflex to the list of Approved BHS Contractors
f. Logan Teleflex, Inc., Louisville, KY

PART I – GENERAL SPECIFICATIONS

SUMMARY

Section 1.02: Paragraph C – System Description. Item 7 – Phasing Overview. Add item (d) to read as follows:
"After successful completion of 30-day run-in period and acceptance by the City of El Paso, the temporary screening BHS equipment indicated for removal shall be removed, salvaged and turned over to the City of El Paso. BHS Contractor to coordinate with City of El Paso as the agreed procedure for marking BHS equipment to salvage and keep. Storage of the salvaged components shall be coordinated with the construction manager and the City of El Paso in compliance with the specified requirements of this section (Part III). Equipment shall be turned over to the City of El Paso Airport Operations and transferred to the designated area within a 5-mile radius of the Airport Property. Dispose any equipment not desired by the Owner, in compliance with the specified requirements of this section (Part III)."

PART IV – QUALITY CONTROL SPECIFICATIONS

TESTING AND ACCEPTANCE

Section 4.02: Paragraph B. Item 9 – Conditional Acceptance. Items a – f. Timeframe that reads "thirty (30) day Operational Period" shall now read "180-day Operational Period."

9. Conditional Acceptance Operational Period
    a. Upon issue of a Certificate of Conditional Acceptance, a ~~thirty (30) day~~ one-hundred and eighty day (180-day) Operational Period to coincided with the TSA thirty (30) day run-in period, will commence in which the City of El Paso will put all systems into on-line operations processing the daily flow of baggage.
    b. During this ~~thirty (30) day~~ 180-day Operational Period, provide full-time technical site representation during the actual hours of operation with a minimum of 16 hours per day, 7 days per week. Ensure that the representatives shall be capable and duly qualified to provide service for any problems, which occur during this period. At a minimum, have two qualified personnel per shift to trouble shoot and immediately resolve any problems which may arise. The onsite personnel shall be capable of trouble shooting and resolving all electrical and controls related issues.
    c. During the ~~thirty (30) day~~ 180-day Operational Period, the BHS Contractor shall be responsible for all maintenance required on the BHS. During this time period the BHS Contractor will be responsible for ensuring that the BHS is fully operational during Airport Operational hours.

       Should any downtime occur during these hours due to major faults in the BHS (i.e., PLC fault, motor overloads, motor faults, Sort Controller Fault or any other faults deemed major by the City of El Paso) the BHS Contractor will be responsible for immediate rectification and assisting the City of El Paso in any way so that Operations is not impacted in any way.
    d. During the ~~thirty (30) day~~ 180-day Operational Period, keep a detailed computer log, as detailed in the Submittal Requirements of this specification.
    e. If, at the City of El Paso's discretion, site representation is deemed unnecessary, it shall be discontinued and the City of El Paso shall receive a prorated credit.
    f. If a problem occurs within the BHS system, and the City of El Paso has elected to not require full-time technical site representation during the ~~thirty (30) day~~ 180-day Operational Period, supply the name(s), address(s) and a 24-hour phone number of representative(s) that can be contacted who have the authority and experience to make immediate recommendations and assist the City of El Paso or the City of El Paso's Maintenance Contractor to return the system to a fully on-line state in the shortest possible time frame.

Section 4.02: Paragraph E. Item 1 – Final Acceptance. Timeframe that reads "thirty (30) day Operational Period" shall now read "180-day Operational Period."

1. Final Acceptance will only be considered after all phases have conformed to the Conditional Acceptance terms, all phases have successfully completed the ~~thirty (30) day~~ one-hundred and eighty day (180-day) Operational Period, and the following criteria is met:

DRAWINGS

6. Drawing C-6 – STANDARD DETAILS

a. Delete drawing C-6 in its entirety and replace with revised drawing C-6R attached herein.

7. **Drawing U1.0 – SANITARY SEWER RELOCATION**

   a. Delete drawing U1.0 in its entirety and replace with revised drawing U1.0R attached herein.

8. **Drawing SN.1 – OVERALL SITE/KEY PLAN AND SECURITY NOTES**

   a. Delete drawing SN1.0 in its entirety and replace with revised drawing SN1.R attached herein.

9. **Drawing FP.1 – FIRE PROTECTION FLOOR PLAN**

   a. Delete drawing FP.1 in its entirety and replace with revised drawing FP.1R attached herein.

10. **Drawing A1.1 – TEMPORARY BHS – PHASE I**

    a. Delete drawing A1.1 in its entirety and replace with revised drawing A1.1R attached herein.

11. **Drawing A1.2 – TEMPORARY BHS – PHASE I**

    a. Add drawing A1.2 to the construction drawings attached herein.

12. **Drawing A2.1 – REVISED FLOOR PLAN**

    a. Delete drawing A2.1 in its entirety and replace with revised drawing A2.1R attached herein.

13. **Drawing A2.2 – REVISED FLOOR PLAN**

    a. Delete drawing A2.2 in its entirety and replace with revised drawing A2.2R attached herein.

14. **Drawing A2.3 – REVISED FLOOR PLAN**

    a. Delete drawing A2.3 in its entirety and replace with revised drawing A2.3R attached herein.

15. **Drawing A2.4 – REVISED FLOOR PLAN**

    a. Delete drawing A2.4 in its entirety and replace with revised drawing A2.4R attached herein.

16. **Drawing A2.6 – SCHEDULES**

    a. Delete drawing A2.6 in its entirety and replace with revised drawing A2.6R attached herein.

17. **Drawing A3.1 – OVERALL REFLECTED CEILING PLAN**

    a. Delete drawing A3.1 in its entirety and replace with revised drawing A3.1R attached herein.

18. Drawing A3.2 – PARTIAL REFLECTED CEILING PLAN

a. Delete drawing A3.2 in its entirety and replace with revised drawing A3.2R attached herein.

19. Drawing A3.3 – PARTIAL REFLECTED CEILING PLAN

a. Delete drawing A3.3 in its entirety and replace with revised drawing A3.3R attached herein.

20. Drawing A7.1 – INTERIOR ELEVATIONS

a. Delete drawing A7.1 in its entirety and replace with drawing A7.1R attached herein.

21. Drawing M0.02 – MECHANICAL SCHEDULES

a. Delete drawing M0.02 in its entirety and replace with drawing M0.02R attached herein.

22. Drawing M1.01 – PARTIAL SITE PLAN

a. Delete drawing M1.01 in its entirety and replace with drawing M1.01R attached herein.

23. Drawing M2.00 – OVERALL MECHANICAL DEMOLITION FLOOR PLAN

a. Delete drawing M2.00 in its entirety and replace with drawing M2.00R attached herein.

24. Drawing M2.01 – PARTIAL MECHANICAL DEMOLITION FLOOR PLAN

a. Delete drawing M2.01 in its entirety and replace with drawing M2.01R attached herein.

25. Drawing M2.02 – PARTIAL MECHANICAL DEMOLITION FLOOR PLAN

a. Delete drawing M2.02 in its entirety and replace with drawing M2.02R attached herein.

26. Drawing M3.00 – OVERALL MECHANICAL DEMOLITION PIPING PLAN

a. Delete drawing M3.00 in its entirety and replace with drawing M3.00R attached herein.

27. Drawing M3.01 – PARTIAL MECHANICAL DEMOLITION PIPING PLAN

a. Delete drawing M3.01 in its entirety and replace with drawing M3.01R attached herein.

28. Drawing M3.02 – PARTIAL MECHANICAL DEMOLITION PIPING PLAN

a. Delete drawing M3.02 in its entirety and replace with drawing M3.02R attached herein.

29. Drawing M4.00 – OVERALL MECHANICAL FLOOR PLAN NEW WORK

a. Delete drawing M4.00 in its entirety and replace with drawing M4.00R attached herein.

30. Drawing M4.01 – PARTIAL MECHANICAL FLOOR PLAN NEW WORK

a. Delete drawing M4.01 in its entirety and replace with drawing M4.01R attached herein.

31. Drawing M4.02 – PARTIAL MECHANICAL FLOOR PLAN NEW WORK

a. Delete drawing M4.02 in its entirety and replace with drawing M4.02R attached herein.

32. Drawing M5.00 – OVERALL MECHANICAL PIPING PLAN NEW WORK

a. Delete drawing M5.00 in its entirety and replace with drawing M5.00R attached herein.

33. Drawing M5.01 – PARTIAL MECHANICAL PIPING PLAN NEW WORK

a. Delete drawing M5.01 in its entirety and replace with drawing M5.01R attached herein.

34. Drawing M5.02 – PARTIAL MECHANICAL PIPING PLAN NEW WORK

a. Delete drawing M5.02 in its entirety and replace with drawing M5.02R attached herein.

35. Drawing M5.03 – PARTIAL MECHANICAL PIPING PLAN NEW WORK

a. Delete drawing M5.03 in its entirety and replace with drawing M5.03R attached herein.

36. Drawing E1.0 – ELECTRICAL SITE PLAN

a. Delete drawing E1.0 in its entirety and replace with revised drawing E1.0R attached herein.

37. Drawing E2.0 – ELECTRICAL ENLARGED DEMOLITION PLAN

a. Delete drawing E2.0 in its entirety and replace with revised drawing E2.0R attached herein.

38. Drawing E2.1 – ELECTRICAL ENLARGED DEMOLITION PLAN

a. Delete drawing E2.1 in its entirety and replace with revised drawing E2.1R attached herein.

39. Drawing E3.0 – LIGHTING ENLARGED PLAN

a. Delete drawing E3.0 in its entirety and replace with revised drawing E3.0R attached herein.

40. Drawing E3.1 – LIGHTING ENLARGED PLAN

a. Delete drawing E3.1 in its entirety and replace with revised drawing E3.1R attached herein.

41. Drawing E3.2 – LIGHTING ENLARGED PLAN

a. Delete drawing E3.2 in its entirety and replace with revised drawing E3.2R attached herein.

42. Drawing E3.3 – TEMPORARY CANOPY LIGHTING ENLARGED PLAN

a. Add drawing E3.3 to the construction drawings attached herein.

43. Drawing E4.0 – POWER ENLARGED PLAN

a. Delete drawing E4.0 and replace with revised drawing E4.0R attached herein.

44. Drawing E4.1 – POWER ENLARGED PLAN

a. Delete drawing E4.1 and replace with revised drawing E4.1R attached herein.

45. Drawing E4.2 – POWER ENLARGED PLAN

a. Delete drawing E4.2 and replace with revised drawing E4.2R attached herein.

46. Drawing E4.3 – TEMPORARY AREA POWER ENLARGED PLAN

a. Delete drawing E4.3 and replace with revised drawing E4.3R attached herein.

47. Drawing E4.4 – TEMPORARY AREA RISER DIAGRAM AND PANELS

a. Delete drawing E4.4 and replace with revised drawing E4.4R attached herein.

48. Drawing E5.0 – SPECIAL SYSTEM ENLARGED PLAN

a. Delete drawing E5.0 and replace with revised drawing E5.0R attached herein.

49. Drawing E5.1 – SPECIAL SYSTEM ENLARGED PLAN

a. Delete drawing E5.1 and replace with revised drawing E5.1R attached herein.

50. Drawing E5.2 – SPECIAL SYSTEM ENLARGED PLAN

a. Delete drawing E5.2 and replace with revised drawing E5.2R attached herein.

51. Drawing E7.0 – RISER DIAGRAM

a. Delete drawing E7.0 and replace with revised drawing E7.0R attached herein.

52. Drawing E7.1 – PANEL SCHEDULES

a. Delete drawing E7.1 and replace with revised drawing E7.1R attached herein.

53. Drawing B0.03 – CONVEYOR MANIFEST

a. Delete drawing B0.03 in its entirety and replace with revised drawing B0.03R attached herein.

54. Drawing B0.04 – CONVEYOR MANIFEST

a. Delete drawing B0.04 in its entirety and replace with revised drawing B0.04R attached herein.

55. Drawing B2.21 – PROPOSED BHS PLAN - AREA 2 - LOWER CONVEYORS

a. Delete drawing B2.21 in its entirety and replace with revised drawing B2.21R attached herein.

56. Drawing B2.40 – PROPOSED BHS PLAN - AREA 4

a. Delete drawing B2.40 in its entirety and replace with revised drawing B2.40R attached herein.

57. Drawing B3.03 – OSR AND BHS CONTROL ROOMS AND EDS REMOVAL PATH

a. Delete drawing B3.03 in its entirety and replace with revised drawing B3.03R attached herein.

58. Drawing B3.04 – TSA IQ POINTS AND EGRESS PATH

a. Delete drawing B3.04 in its entirety and replace with revised drawing B3.04R attached herein.

59. Drawing B6.02 – BHS PHASING – PHASE 1 – TEMP 1

a. Delete drawing B6.02 in its entirety and replace with revised drawing B6.02R attached herein.

60. Drawing B6.03 – BHS PHASING – PHASE 1 – TEMP 2

a. Delete drawing B6.03 in its entirety and replace with revised drawing B6.03R attached herein.

61. Drawing B6.04 – BHS PHASING – PHASE 1 – TEMP 3

a. Delete drawing B6.04 in its entirety and replace with revised drawing B6.04R attached herein.

62. Drawing B7.11 – PROPOSED MCP PLAN – PDP 1E

a. Delete drawing B7.11 in its entirety and replace with revised drawing B7.11R attached herein.

63. Drawing B7.12 – PROPOSED MCP PLAN – PDP 2

a. Delete drawing B7.12 in its entirety and replace with revised drawing B7.12R attached herein.

64. Drawing B7.13 – PROPOSED MCP PLAN – PDP 3

a. Delete drawing B7.13 in its entirety and replace with revised drawing B7.13R attached herein.

65. Drawing B7.14 – PROPOSED MCP PLAN – PDP 4

a. Delete drawing B7.14 in its entirety and replace with revised drawing B7.14R attached herein.

END OF AMENDMENT NO. 3

Report of

Geotechnical Engineering Services

EPIA - Checked Baggage Inspection System
6701 Convair Road
El Paso, Texas 79925

Prepared for

Mijares Mora Architects
111 N. Festival Drive
El Paso, TX

Prepared by

Professional Service Industries, Inc.
4601 Ripley Drive
El Paso, TX 79922

June 7, 2016

PSI Project 06251116

Information To Build On
Engineering • Consulting • Testing

June 7, 2016

Mijares Mora Architects
111 N. Festival Drive
El Paso, TX

Attention: Mr. Jorge Mora, AIA

Subject: Geotechnical Engineering Services Report
EPIA – Checked Baggage Inspection System
6701 Convair Road
El Paso, Texas 79925
PSI Project No. 06251116

Dear Mr. Mora:

Professional Service Industries, Inc. (PSI) performed the geotechnical engineering site exploration for the above referenced project. PSI provided its services in general accordance with PSI Proposal No. 0625-149119R1 dated August 28, 2015.

PSI thanks you for choosing us as your consultant for this project. Please contact us at 915-584-1317 if you have any questions or we may be of further service.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.
Texas Firm Registration No. F-03307

Ruben Barrientos, Jr., EIT
Project Manager

William H. Kingsley P.E.
Principal Consultant

Danny R. Anderson, P.E.
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STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER

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APPENDIX A – BORING LOGS
APPENDIX B – KEY TO TERMS

1 PROJECT INFORMATION

1.1 PROJECT AUTHORIZATION

Professional Service Industries, Inc. (PSI) has completed a geotechnical exploration for the proposed Checked Baggage Inspection System at the El Paso International Airport (EPIA) located in El Paso, TX. The services were authorized by Mr. Mora by signing PSI Proposal No. 0625-149199R1 on April 26, 2016.

1.2 PROJECT DESCRIPTION

The subject property is located at 6701 Convair Road, within the El Paso International Airport. PSI understands that the proposed project will consist of a new single story, building enclosure that will serve as an inspection system with multiple conveyer lines. The size of the enclosure is estimated to be approximately 25,000 square feet. The new building enclosure will be attached to the existing airport wing on the east side of the airport.

Based on the Grading and Drainage Plan prepared by Quantum Engineering Consultants, Inc., the new addition will match the existing building finish floor elevation of 101.87 and the existing asphalt paving will be replaced with new concrete paving.

Structural loading information provided by Mr. Larry Zamora with Zamora Engineering indicated maximum column loads of 200 kips where a structural slab and grade beam framing system is used to support the proposed structure on drilled and belled pier foundations.

If the information referenced above is not correct, we should be contacted to confirm the recommendations presented in this report or to provide revised recommendations in a supplemental letter.

The geotechnical recommendations presented in this report are based on the available project information, structure locations, parking and drive areas and the subsurface materials described in this report. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

1.3 PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to explore the subsurface conditions at the subject site by drilling and sampling materials that will be supporting the proposed structures. The subsurface information was obtained from auger boring and Standard Penetration testing and sampling. Seven (7) test borings were advanced to a depth of approximately twenty-one and one half (21½) feet within the proposed building footprint. The approximate boring locations are shown on the Boring Plan (Figure 2) in the appendix of this report. The number, depths and locations of the borings were selected by PSI.

The borings were advanced utilizing hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. During the sampling operation Standard Penetration Tests (SPT) were performed in accordance with ASTM D1586. The SPT for soil borings is performed by driving a 2-inch diameter split-spoon sampler into the undisturbed formation located at the bottom of the advanced borehole with repeated blows of a 140-pound

hammer falling a vertical distance of 30-inches. The number of blows required to drive the sampler the last 12-inches of an 18-inch penetration depth is a measure of the soil consistency. The borings were backfilled with soil cuttings derived from the auger drilling process following completion of the drilling operations.

Soil samples were generally obtained beginning at the one half (½) foot depth followed by the two and one half (2½) foot depth and then at two and one half (2½) foot intervals to a depth of approximately ten (10) feet below the existing ground surface. Below a depth of approximately ten (10) feet, soil samples were obtained at approximately five (5) foot intervals to the total explored depth. The samples were sealed in plastic bags at the site to prevent loss of moisture during shipment to our laboratory.

This report briefly outlines the testing procedures, presents project information, describes the site and subsurface conditions and presents recommendations regarding the following:

- subsurface soil conditions, including depth and consistency of soil strata;
- groundwater levels as observed during field work, excluding quantitative determinations of flow or dewatering rates;
- recommendations for treatment and/or removal of unsuitable bearing soils, if encountered;
- recommendations for foundations suitable for the planned development including allowable soil bearing and uplift capacities and estimated movements;
- pier and beam foundation construction;
- seismic site class in accordance with IBC 2009;
- suitability of on-site material for engineered structural fill;
- recommendations for engineered structural fill; and
- flexible and rigid pavement recommendations.

Our scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental assessment is advisable.

2 SITE AND SUBSURFACE CONDITIONS

2.1 SITE AND LOCATION DESCRIPTION

As previously stated, the site is located within the El Paso International Airport. The project area is located near the southeast airfield apron, directly north of the ticket counters. The area is primarily comprised of asphaltic concrete and appears to be relatively level.

2.2 SUBSURFACE CONDITIONS

Ground surface elevations at the test boring locations were not provided. Therefore, references to depth of the various strata encountered are from existing grade at the time of our drilling operations (May 9-10, 2016).

Select soil samples were tested in our laboratory to determine material properties for our evaluation. Laboratory testing was generally accomplished in accordance with ASTM procedures. The soils encountered consisted of Silty to Poorly Graded Sands (SM, SC) within the upper seven and one half (7½) feet, underlain by Lean to Fat Clays to a depth of fifteen (15) feet. Below a depth of fifteen (15) feet, the soils encountered consisted of Silty to Poorly Graded Sands to boring termination. The upper sandy soils at the site exhibited loose to medium dense relative density conditions and the clay soils were in a stiff condition. The soils were found to be in a moist condition.

The above subsurface descriptions are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the Appendix should be reviewed for specific information at the boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples that were not altered by laboratory testing will be retained for 60 days from the date of this report and then discarded.

2.3 GROUNDWATER INFORMATION

The borings were dry while drilling and immediately following completion of drilling, indicating that the continuous groundwater level at the site at the time of the exploration was either below the terminated depths of the borings, or, that the soils encountered are relatively impermeable. Although groundwater was not encountered at this time, it is possible for a groundwater table to be present within the depths explored during other times of the year depending on climatic and rainfall conditions. Additionally, discontinuous zones of perched water may exist within the overburden materials and/or at the contact with clay lenses.

3 EVALUATION AND RECOMMENDATIONS

3.1 GEOTECHNICAL DISCUSSION

The following design recommendations have been developed based on the previously described project characteristics and subsurface conditions encountered. If there are any changes in the project criteria, including project location on the site, a review must be made by PSI to determine if any modifications in the recommendations will be required. The findings of such a review should be presented in a supplemental report. Once final design plans and specifications are available, a general review by PSI is recommended as a means to check that the conditions idealized in the project description are correct and that the earthwork and foundation recommendations are properly interpreted and implemented.

3.2 POTENTIAL VERTICAL RISE

Laboratory testing was performed and compared with the qualitative examinations. The laboratory test results indicate that the sub-soils in the area of the observed slab movement have a relatively high potential expansion. It was estimated that the soils at the site have a potential for vertical movement of approximately four (4) inches. Because of the low hydraulic conductivity of the soils the calculated amount may or may not actually occur, but the potential for the movement exists. This estimation was calculated using the Texas Department of Transportation Method TEX-124E and utilizes the moisture contents and Atterberg Limit test results of the soils within the seasonally active zone plus the thickness of soil that could be exposed to elevated moisture conditions.

The PVR value represents the vertical rise which can be experienced by dry sub-soils if they are subjected to conditions which allow them to become saturated; poor surface drainage and/or underground utility line leaks would be examples. The actual movement of the sub-soils is dependent on their degree of increased moisture content. Although PSI considers it unlikely at this site, significant drying of the moisture sensitive clays can also cause shrinkage which will reduce the heave. Differential vertical movements can potentially be equal to the expected total movements.

3.3 SITE PREPARATION

We recommend that the pavement at the project site be removed within the building footprint and, if any, trash and other deleterious materials in the construction areas. Deleterious material should be removed and disposed of off the site.

Due to the expansive clays encountered at the project site, a conventional slab on grade/shallow foundation system is not recommended. The following site improvements are to bring the existing grade to proposed finished floor elevations for the grade beam and drilled shaft foundation system recommended in the section 3.4 of this report.

General Soil Surface Preparation

To properly prepare the native soils to receive fill, over-excavated soil that can be used as engineered structural fill, as defined below, should be stockpiled on the site. The intent of this recommendation is to provide a suitable foundation and slab support material where possible without imported soils from offsite.

After excavation or surface preparation, the site should be proof-rolled with a loaded tandem axle dump truck, water truck or equivalent. Soils which are observed to rut or deflect excessively (greater than 1 inch) under the moving load should be undercut and replaced with properly compacted fill. The proof-rolling activities should be witnessed by a representative of the Geotechnical Engineer and should be performed during a period of dry weather.

After excavating and proof-rolling, the exposed subgrade, should be scarified to a depth of approximately eight (8) inches, be uniformly moisture conditioned to near optimum moisture content throughout the scarified section and then be compacted to at least 95 percent of the soil's maximum dry density per ASTM D1557 (modified proctor method). Engineered structural fill placement may then begin. The first layer of engineered structural fill should be placed in a uniform horizontal lift and be adequately keyed into the stripped and scarified subgrade soils. The

compacted engineered fill may then be brought to finished grade in lifts not to exceed six (6) inches in compacted thickness as required.

Structural Fill

Materials to be used for engineered structural fill should be free of organic or other deleterious materials and should have a maximum particle size less than three (3) inches. Soils proposed to be used as engineered structural fill material should be classified in accordance with procedures stated in ASTM D2487. The on-site soils meeting the following criteria could be reused as engineered structural fill. Soils will be considered satisfactory for engineered structural fill when classified as follows:

GW, GP, GC, GM, GC-GM, GP-GM, GP-GC

SW, SP, SC, SM, SC-SM, SP-SM, SP-SC

Soils will be considered unsatisfactory for engineered structural fill materials when classified as follows:

PT, OL, OH, MH, ML, CL and CH or

where the plasticity index exceeds 15.

The resulting engineered structural fill must produce a stable, uniform and consistent compacted fill body. Fill material should be placed in maximum lifts of 8 inches of loose material and should be compacted within the range of 2 percentage points below to 2 percentage points above the optimum moisture content value (-2% to +2% of OMC) for cohesionless soils and at optimum to 3 percentage points above optimum (0 to +3% of OMC) for cohesive soils, as determined by the Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557, modified proctor). It is considered unlikely, however, that the on-site materials meet the above criteria for Engineered Fill.

Compaction of the fill material should be performed with appropriate types of power, pneumatic or tamping equipment. Each lift of fill should be compacted to a density which is not less than 95 percent of maximum dry density. Maximum dry density should be determined in accordance with ASTM D1557. Monitoring of the backfilling should include sufficient compaction testing by the Geotechnical Engineering representative to document that each lift of fill has been compacted to the required density. If any lift or portion of a lift does not conform to the density requirements, the lift should be thoroughly scarified and re-compacted until the required density is obtained. If water must be added, it should be uniformly applied and thoroughly mixed into the soil by disking or scarifying. Each lift of compacted engineered fill should be tested by a representative of the Geotechnical Engineer prior to placement of subsequent lifts. Care should be taken to apply compactive effort throughout the fill and fill slope areas. The moisture content and the degree of compaction of the structural fill soils should be maintained until the construction of the structures within the area.

Non-Structural Site Infrastructure

Subgrade material below exterior flatwork, and other non-structural elements beyond the exterior walls of the buildings should be treated beginning with proof-rolling, scarification, moisture treatment and compaction as described above. Where fill material is required to bring the site to grade, the material should be compacted and meet the requirements of structural fill as outlined below.

Below Pavements

Below pavements, native subgrade material should be treated beginning with proof-rolling, scarification, moisture treatment and compaction as described previously. Fill may then be placed as required. Where fill is required to bring the site to subgrade elevation, it should meet the requirements of structural fill as outlined below and compacted.

3.4 FOUNDATION RECOMMENDATIONS

Deep Foundation Recommendations

PSI recommends that the grade beams and columns be supported by straight drilled shaft deep foundation elements. We present the following static compression and tension values for static axial design and LPILE parameters for lateral load evaluation.

The axial load carrying capacity of drilled shaft can be computed using the static method of analysis. According to this method, axial capacity, Q, at a given penetration is taken as the sum of the side shear on the side of the shaft, Q_s, and the end or point bearing at the shaft tip, Q_P, so that:

$$Q = Q_S + Q_P = fA_S + qA_p$$

Where, A_S and A_p represent, respectively, the embedded surface area (excluding any exclusion zones noted in this report) and the end area of the shaft; f and q represent, respectively, the unit side shear and the unit end or point bearing.

The total allowable axial capacity in compression will be the summation of the allowable frictional capacity and the allowable end bearing capacity. The total allowable axial capacity in tension will be the allowable frictional capacity alone, neglecting end bearing component, plus the weight of the pier. We recommend that the side shear capacity be reduced by 30 percent when computing tension capacity.

Axial Capacity

For the site, based on the evaluation of the soil conditions, field and laboratory test results, the recommended allowable unit side shear and end bearing values shown in Table 1 should be used while designing drilled shaft elements below grade. The design values presented in the table are allowable values based on a factor of safety of 2. PSI recommends the drilled shafts be embedded at a depth no shallower then fifteen (15) feet below existing grade. Once the design is finalized, PSI should be given the opportunity to check the final length, embedment depth and bearing elevation.

Table 1: Recommended Allowable Side Shear and End Bearing Values

Stratum (USCS Symbol)	Depth Below Grade (ft)	Axial Compression Unit Side Shear (psf)	End Bearing (psf)
Silty Sand (SM), Clayey Sand (SC) and Poorly Graded Sands (SP, SP-SM)	0 – 7.5	0	Not Recommended to Bear Above the 7.5' Depth
Lean to Fat Clay (CL, CH)	7.5 - 15	0	Not Recommended to Bear Above the 15' Depth
Clayey Sand (SM), Clayey Sand (SC) and Poorly Graded Sands (SP, SP-SM)	15 - 20	250	8,500

We recommend that side shear capacity be neglected to a minimum depth of 7.5 feet below grade or depth where lateral deflection is equal to or less than ¼ inch, whichever depth is greater.

Where pier groups may be required the spacing should be a minimum three times the selected diameter center-to-center. Drilled shaft elements with center-to-center spacing less than 10 feet should not be installed within 24 hours following completion of adjacent elements.

Settlement

An isolated drilled shaft having a diameter of less than 60 inches when designed as discussed, is not anticipated to settle greater than approximately ½-inch. A detailed group settlement analysis was not performed, as the actual configurations are not known at this time. If a group settlement analysis is desired, PSI should be contacted to perform such a settlement analysis.

Lateral Capacity

For drilled shafts, the soil as well as the rigidity of the shaft resists the lateral loads on the shaft. Once the locations, loads and other pertinent information are provided, PSI can assist in performing lateral load analysis based on methods ranging from chart solutions to the 'p-y' approach utilizing computer programs such as LPILE or COM 624, upon request. The lateral loads on the shaft can be designed based on the criteria provided in FHWA-Drilled Shaft Manual.

The lateral design information regarding the 'p-y' data is provided in Table 2. Appropriate factors of safety should be incorporated into the design. The relationship between the soil resistance (p) and pile deflection (y) is commonly referred as 'p-y'. Along the depth of shaft, soil resistance (p) is

expressed as a non-linear function of lateral shaft deflection (y). Various researchers developed 'p-y' criteria for different kind of soils. The 'p-y' curves can be automatically generated utilizing the computer program LPILE. The LPILE was developed by Lymon Reese and Shin-Tower Wang, Ensoft, Inc. 'p-y' parameters for LPILE analyses are provided for the analyses of individual shafts. Appropriate factors of safety should be incorporated into the lateral shaft capacity.

Table 2: Lateral Drilled Shaft Design Parameters

Stratum (USCS Symbol)	Depth Interval (feet below grade)	Wet Unit Weight (pcf)	Assumed Internal Angle of Friction (degrees) or, Cohesion (psf)	K (pci)	ε_{50}
Silty Sand (SM), Clayey Sand (SC) and Poorly Graded Sands (SP, SP-SM)	0 – 7.5	115	28	75	-
Lean to Fat Clay (CL, CH)	7.5 - 15	120	500	125	.005
Silty Sand (SM), Clayey Sand (SC) and Poorly Graded Sands (SP, SP-SM)	15 - 20	125	30	125	-

The successful completion of drilled shaft excavations will depend, to a large extent, on the suitability of the drilling equipment together with the skill of the operator. The sequence operations should be scheduled so that each shaft can be drilled, reinforcing steel placed, and the concrete placed in a continuous, rapid, and orderly manner to reduce the time that the excavation is open.

Where drilled and belled foundations are used to support the structure, the bells should be placed in the lean to fat clays between the 15 to 20 foot depths. Where SP or SP-SM materials are encountered at or below the 15 feet depth, the bell shall be placed at the contact with sand and in the Lean to Fat Clay or Sandy Clay.

Negative skin friction could occur between the depth of approximately eight (8) feet and fifteen (15) feet of the soil profile. Belling of the piers or the use of a reduced friction sleeve if the piers will not be belled should be considered.

Appropriate construction procedures should be incorporated into the installation that accounts for control of sloughing and raveling of the sand overburden materials.

Shafts should be clean and be free of all loose materials and water prior to placement of concrete. The drilled shafts should be installed in accordance with the guidelines provided in FHWA-IF-99-025. We recommend a PSI representative should verify the bearing stratum, bearing depth, bearing soil condition, and bearing area and that the drilled shaft installation procedures meet the specifications.

Detailed inspection of drilled shaft construction should be made to verify that the shafts are vertical and founded in the proper bearing stratum, and to verify that all loose materials have been removed prior to concrete placement.

Any accumulated water must be removed prior to the placement of concrete. A hopper and tremie should be utilized during concrete placement to control the maximum free fall of the wet concrete to less than 5 feet unless the mix is designed so that it does not segregate during free fall and provided the shaft excavation is dry.

If the shaft excavation has been cased, sufficient concrete should remain in the casing as the casing is withdrawn to prevent any discontinuities from forming within the concrete section. Concrete placed in drilled shafts should not be placed at slumps less than 6 inches unless it is consolidated with a vibrator or by other means. Concrete that is placed in shafts at a slump less than 6 inches increases the potential for honeycombing. Concrete used in shafts should be designed to achieve the required strength at the higher slumps as referenced above. For any given shaft, excavation, placement of steel and concreting should be completed within the same workday. Where water inflow or caving soils are encountered, excavation of shafts and placement of concrete within a very short time frame will frequently aid in proper shaft construction.

3.5 FLOOR SLAB RECOMMENDATIONS

A structural slab should be designed to be separated from the subgrade surface as an elevated slab. The elevation should be slightly greater than the predicted potential swell. PSI recommends that the void space below the slab be designed to allow a minimum of five (5) inches of clear space between the subgrade surface and the bottom of the slab. The structural slab should be supported on the drilled shafts as discussed in section 3.4.

To construct the new structural elevated slab, the concrete should be placed on compressible void forms. The void forms should be made of cellular corrugated paper such as those manufactured by SureVoid Products or other equivalent material that will lose strength after the concrete has cured and the void form material becomes saturated with moisture from the soil.

Void forms should be installed in accordance with the manufacturers' guidelines and recommendations in order to maintain warranties.

A structural engineer should be engaged to design the structural slab system. The geotechnical engineer should review the final design to verify it considers the elements referred to in these recommendations.

3.6 SEISMIC SITE CLASS AND SITE COEFFICIENTS

We understand that the project is governed by the International Building Code (IBC), 2009 edition. As part of this code, the design of structures must consider dynamic forces resulting from seismic events. These forces are dependent on the magnitude of the seismic event as well as the properties of the soils that underlie the site.

Part of the IBC code procedure to evaluate seismic forces requires the evaluation of the Seismic Site Class, which categorizes the site based upon the characteristics of the subsurface profile within the upper 100 feet of the ground surface.

To define the Seismic Site Class for this project, we have interpreted the results of our soil test borings drilled within the project site and estimated appropriate soil properties below the bottom of the boring to a depth of 100 feet, as permitted by the code. The estimated soil properties were based on data available in published geologic reports as well as our experience with subsurface conditions in the general site area.

Based upon our evaluation, it is our opinion that the subsurface conditions within the site are consistent with the characteristics of the Specific Site Class D as defined by the building code. The USGS-NEHRP probabilistic ground motion values for the site latitude 31.79962° N and longitude *-106.39508°*W which were obtained from the USGS geohazards web page (http://earthquake.usgs.gov/designmaps/us/application.php) are as follows:

Table 3: Ground Motion Values*

Period (sec)	Mapped MCE Spectral Response Acceleration** (g)		Site Coefficients		Adjusted MCE Spectral Response Acceleration (g)		Design Spectral Response Acceleration (g)	
0.2	S_s	0.336	F_a	1.532	S_{Ms}	0.514	S_{Ds}	0.343
1.0	S_1	0.108	F_v	2.367	S_{M1}	0.256	S_{D1}	0.171

**2% Probability of Exceedance in 50 years for Latitude 31.79962° and Longitude - 106.39508°*
***At B-C interface (i.e. top of bedrock).*
MCE = Maximum Considered Earthquake

If a thorough evaluation of the Seismic Site Class is desired, PSI can conduct a Refraction Microtremor (ReMi) study of the site to evaluate the shear wave velocity profile to a depth of 100 feet below the surface. This study involves the placement of geophones on the ground surface and recording vibrations. Through integration of the data, the characteristic shear wave velocity of each below-grade stratum can be interpreted and used to determine the Site Class in accordance with the provisions of the International Building Code 2009.

3.7 PAVEMENT RECOMMENDATIONS

The existing pavement at the site ranged from of 1½ to 6 inches of asphaltic concrete over 6 inches of graded gravel base. The existing asphalt concrete has longitudinal cracking with visible cracks ranging from ½" to 1 inch in width throughout the project site. A pavement evaluation was not included in the scope of the project, however, based on field observation and our experience in the area, it is recommended that a new pavement replace the existing surfacing. It is our opinion that the existing pavement has reached and exceeded the functional life and should be replaced. If a new pavement will be constructed, the pavement subgrade should be treated as previously discussed in the Site Preparation section of this report (Section 3.3).

The recommended pavement thicknesses presented below are considered typical and minimum for the assumed parameters in the general site area. We understand that budgetary considerations sometimes warrant thinner pavement sections than those presented. However, the client and the project designers should be aware that thinner pavement sections may result

in increased maintenance costs and lower than anticipated pavement life. The pavement subgrade should be prepared as discussed in the site preparation section of this report. We have estimated the subgrade soils will be prepared to achieve a minimum CBR of 10.

The design thickness of a pavement will depend on the magnitude of axle loads and the number of load repetitions. The anticipated traffic on the proposed pavement is not known at this time. Therefore, we have included a pavement design thickness that is typical to the one proposed. In addition, the capacity in equivalent single axle loads (ESALs) that the design section can sustain is also illustrated in the following table. The capacities of these design sections are computed based on AASHTO design methods.

Based on anticipated traffic, the design engineer should compute the number of ESALs that will be subjected to the pavement during its lifetime. The pavement should be designed based on the computed ESALs. If the computed ESALs are less than the ESALs shown in the tables, then the sections given on the tables should be considered as the minimum pavement thickness to be provided.

Table 4: Flexible Pavement Design Thickness

Pavement Material(s)	**Life Expectancy, ESALs**		
	25,000	**50,000**	**100,000**
Hot Mix Asphalt Concrete (a_1 = 0.44) Item 340*, TXDOT – Type D (Fine Surface)	2.0 inches	2.5 inches	2.5 inches
Crushed Limestone Base (a_2=0.14, CBR= 50) Item 247*, TXDOT – Type A, Grade 3 or Better	6.0 inches	8.0 inches	8.0 inches
Subgrade	8 inches Moisture Conditioned and Compacted Placed as Described Above		

*** TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2014**

Table 5: Rigid Pavement Design Thickness

Pavement Material(s)	**Life Expectancy, ESALs**		
	37,500	**75,000**	**150,000**
Portland Cement Concrete (4,000 psi)	6.0 inches	6.0 inches	6.5 inches
Subgrade	8 inches Moisture Conditioned and Compacted Placed as Described Above		

All related civil design factors such as drainage, cross-sectional configurations, surface elevations and environmental factors which will significantly affect the service life of the pavement must be included in the preparation of the construction drawings and specifications. Concrete pavement slabs should be provided with adequate steel reinforcement. Proper finishing of concrete pavements requires the use of sawed and sealed joints, which should be designed in accordance with current Portland Cement Association guidelines. Joint spacing is recommended at maximum 12-foot intervals for reinforced concrete. Dowel bars should be used to transfer loads at the transverse joints and planned expansion joints. Periodic maintenance will be required to achieve the noted capacities.

Crushed limestone base materials in flexible pavement areas should be placed in maximum eight (8) inch loose lifts and shall be compacted to at least 100 percent of the maximum dry density as determined by the modified proctor method (ASTM D 1557). The moisture content of the base materials should be maintained near the optimum moisture content.

Rigid concrete pavement consisting of seven (7) inches of concrete underlain by four (4) inches of crushed limestone base is recommended where trash dumpsters or semi-trailers are to be parked on the pavement or where a considerable load is transferred from relatively small steel wheels, such as truck dollies. This should provide better distribution of surface loads to the subgrade and reduce deformation of the pavement surface.

Water should not be allowed to pond behind curbs and saturate the pavement base. In down grade areas the base should extend through the slope to allow any water entering the base a path to exit.

4 CONSTRUCTION CONSIDERATIONS

4.1 MOISTURE SENSITIVE SOILS/WEATHER CONCERNS

Some of the soils encountered at this site are expected to be sensitive to disturbances caused by construction traffic and changes in moisture content. During wet weather periods, increases in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. In addition, soils which become wet may be slow to dry and thus significantly retard the progress of grading and compaction activities. It will, therefore, be advantageous to perform earthwork and foundation construction activities during dry weather.

4.2 DRAINAGE AND WATER CONCERNS

Water should not be allowed to collect in the foundation excavation or on prepared subgrade of the construction area either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the perimeter of the building. The grades should be sloped away from the building and surface drainage should be collected and discharged such that water is not permitted to infiltrate the backfill areas of the building.

As previously discussed, groundwater was not encountered at the time the field exploration was accomplished. However, it is possible that seasonal variations will cause fluctuations, or a water table to be present in the upper soils at a later time. Additionally, perched water may be encountered in discontinuous zones within the overburden and/or near the contact with clay lenses and bedrock. Any water accumulation should be removed from excavations by pumping. Should excessive and uncontrolled amounts of seepage occur, the Geotechnical Engineer should be consulted.

4.3 EXCAVATIONS

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better insure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that

excavations, whether they be utility trenches, basement excavation or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties' compliance with local, state, and federal safety or other regulations.

4.4 RECOMMENDED MINIMUM SAMPLING AND TESTING FREQUENCIES

It is recommended that PSI be retained to provide observation and testing of construction activities involved in the foundations, earthwork, and related activities of this project. PSI cannot accept any responsibility for any conditions that deviate from those described in this report, nor for the performance of the foundations if not engaged to also provide construction observation and testing for this project. The following are recommended minimum sampling and testing frequencies.

Earthwork:

- At least one (1) moisture-density (Proctor) test, Atterberg limits test and percent finer than #200 sieve test should be performed per soils type for subgrade, backfill, fill and base materials.

- In building and pavement areas, at least one (1) density and moisture content test per 2,500 square feet of surface area should be performed on the subgrade soils for each compacted 6-inch thickness of fill. Testing of backfilled trenches should be at least one (1) density and moisture content test per 100 linear feet of trench per 8-inch compacted fill thickness.

- At least three (3) densities and moisture content tests should be performed in the building area on the subgrade soils, and at least 3 densities and moisture content tests should be performed per 6-inch compacted thickness of fill in the building area. Testing of backfilled trenches should be at least one (1) density and moisture content test per 100 linear feet of trench per 6-inch compacted fill thickness.

Concrete:

- At least one (1) slump, air content and temperature test should be performed per 30 cubic yards of each type of concrete placed each day including when the concrete test cylinders are molded.

- At least one (1) set of four (4) concrete test cylinders should be molded for each type of

concrete per 100 cubic yards or fraction thereof placed in a day.

- Each set of cylinders should be tested for compressive strength with two (2) of the cylinders tested at seven (7) days and two (2) of the cylinders tested at 28 days.

- Reinforcing steel should be checked for size and placement prior to concrete placement.

5 REPORT LIMITATIONS

The recommendations submitted, in this report, are based on the available subsurface information obtained by PSI and a preliminary site plan provided by the client. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be notified immediately to determine if changes in the foundation recommendations are required. If PSI is not notified of such changes, PSI will not be responsible for the impact of those changes on the project.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional Geotechnical Engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the Geotechnical Engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations. If PSI is not retained to perform these functions, PSI will not be responsible for the impact of those conditions on the project. This report has been prepared for the exclusive use of Darden Restaurants, Inc., its subsidiaries and affiliates can rely upon the report under the same terms as if it was originally prepared for them, for the specific application to the EPIA Baggage Claim Inspection System, located at 6701 Convair Road in El Paso, TX.

FIGURES

psi Information To Build On Engineering • Consulting • Testing	PSI 4601 Ripley Drive El Paso, Texas 79922	**PROJECT NAME:** EPIA – Checked Baggage Inspection System 6701 Convair Road El Paso, TX PSI Project No. 06251116	**FIGURE 1** **Vicinity Map**

PSI
Information To Build On
Engineering • Consulting • Testing

PSI
4601 Ripley Drive
El Paso, Texas 79922

PROJECT NAME: EPIA – Checked Baggage Inspection System
6701 Convair Road
El Paso, TX
PSI Project No. 06251116

FIGURE 2
BORING PLAN
Approximate Boring Location
NOT TO SCALE

N

APPENDIX A – BORING LOGS

FIGURE: 1

BORING B1

DATE STARTED:	5/9/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/9/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79967°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39517°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

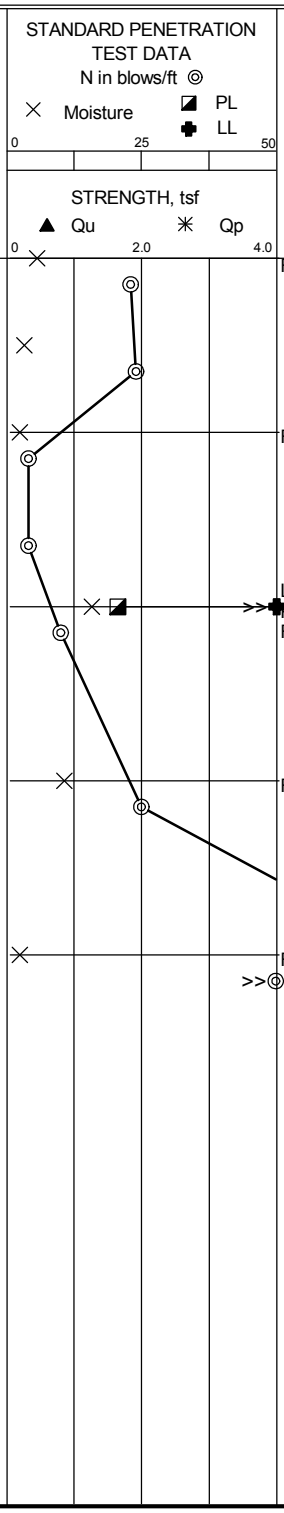
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay		N/A

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 3 inches thick **GRAVEL BASE** - 6 inches thick **POORLY GRADED SAND** - with silt, brown, medium dense, moist multicolored	SP-SM	6-10-13 N=23	6	Fines=9.5%
				SS2	18			6-11-3 N=24	3	
	5			SS3	18	**POORLY GRADED SAND** - multicolored, very loose, dry	SP	3-2-2 N=4	2	Fines=2.8%
				SS4	18			2-2-2 N=4		
	10			SS5	18	**CLAYEY SAND** - with gravel, brown, stiff, moist	SC	3-2-8 N=10	16	LL = 56 PL = 21 Fines=37.7%
	15			SS6	18	very stiff		9-10-15 N=25	11	Fines=33.6%
	20			SS7	18	**POORLY GRADED SAND** - with gravel, multicolored, very dense, dry	SP	17-40-45 N=85	2	Fines=5.1%
						Boring terminated at 21.5 feet below grade				



Professional Service Industries, Inc.
4601 Ripley Drive
El Paso, TX 79922
Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: TSA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 2

BORING B2

DATE STARTED:	5/10/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/10/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79973°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39465°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

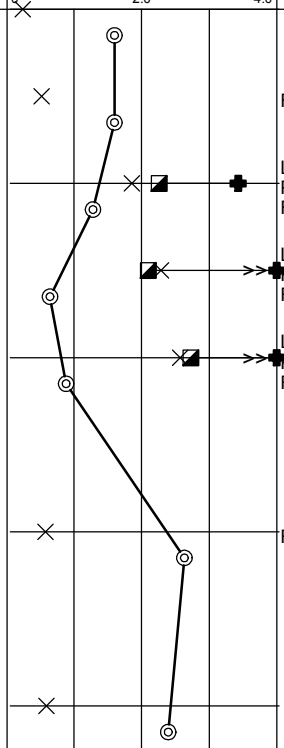
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 4.5 inches thick **GRAVEL BASE** - 6 inches thick **SILTY SAND** - multicolored, medium dense, dry		16-10-10 N=20	3	
				SS2	18	redish, moist	SM	6-9-11 N=20	6	Fines=17.4%
	5			SS3	18	**SANDY LEAN CLAY** - tan, very stiff, wet	CL	5-10-6 N=16	23	LL = 43 PL = 28 Fines=60.0%
				SS4	18	**FAT CLAY** - brown, firm, wet, with traces of carbonate cementation CCI - 1 ("Caliche")		3-3-5 N=8	29	LL = 106 PL = 26 Fines=89.9%
	10			SS5	18		CH	2-5-6 N=11	32	LL = 154 PL = 34 Fines=93.0%
	15			SS6	18	**SILTY SAND** - brown, dense, moist	SM	8-17-16 N=33	7	Fines=26.1%
	20			SS7	18	multicolored, with gravel		15-15-15 N=30	7	
						Boring terminated at 21.5 feet below grade				



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El Paso, TX 79922
Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: TSA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 3

BORING B3

DATE STARTED:	5/10/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/10/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79958°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39475°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

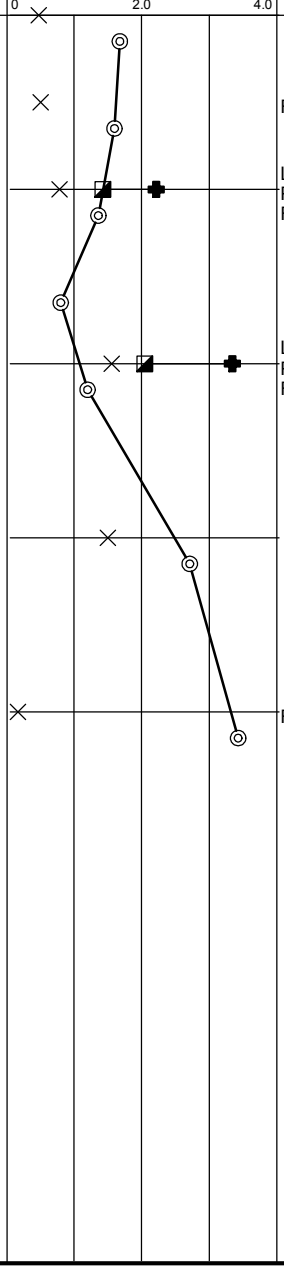
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 1.5 inches thick **GRAVEL BASE** - 6 inches thick **SILTY SAND** - redish, medium dense, moist	SM	16-10-11 N=21	6	
				SS2	18			12-11-9 N=20	6	Fines=18.4%
	5			SS3	18	**CLAYEY SAND** - brown, medium dense, moist	SC	3-9-8 N=17	10	LL = 28 PL = 18 Fines=25.3%
				SS4	18	loose		4-5-5 N=10		
	10			SS5	18	tan, medium dense, with traces of carbonate cementation CCI - 1 ("Caliche")		5-7-8 N=15	19	LL = 42 PL = 26 Fines=34.3%
	15			SS6	18			7-18-16 N=34	19	
	20			SS7	18	**POORLY GRADED SAND** - with gravel, multicolored, dense, dry	SP	10-17-26 N=43	2	Fines=3.6%
						Boring terminated at 21.5 feet below grade				



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Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: EPIA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 4

BORING B4

DATE STARTED:	5/10/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/10/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79941°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39459°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

REMARKS: None

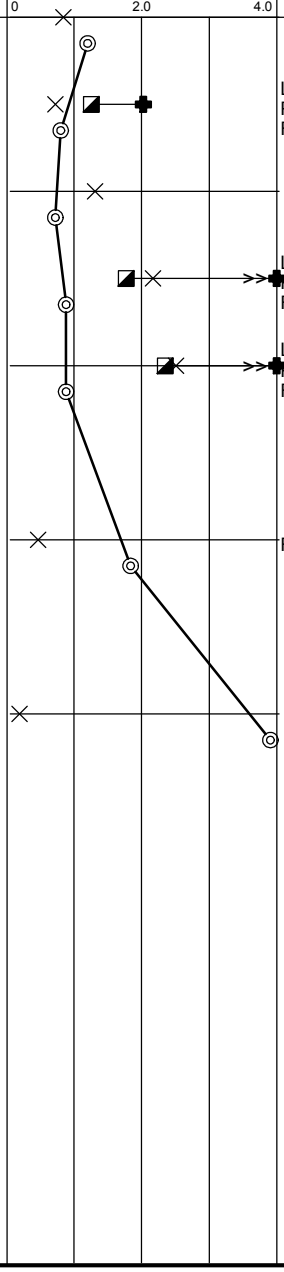
Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 2.75 inches thick **GRAVEL BASE** - 6 inches thick **SILTY SAND** - redish, medium dense, moist	SM	6-8-7 N=15	11	
				SS2	18	**CLAYEY SAND** - brown, loose, moist	SC	4-5-5 N=10	9	LL = 25 PL = 16 Fines=26.3%
	5			SS3	18			3-4-5 N=9	16	
				SS4	18	**FAT CLAY** - with sand, brown, stiff, wet	CH	2-4-7 N=11	27	LL = 89 PL = 22 Fines=83.8%
	10			SS5	18	**FAT CLAY** - brown, stiff, wet		3-4-7 N=11	31	LL = 111 PL = 29 Fines=92.2%
	15			SS6	18	**SILTY SAND** - brown, medium dense, moist	SM	6-10-13 N=23	6	Fines=16.2%
	20			SS7	18	with gravel, multicolored, dense, dry		13-23-26 N=49	2	

Boring terminated at 21.5 feet below grade



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4601 Ripley Drive
El Paso, TX 79922
Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: EPIA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 5

BORING B5

DATE STARTED:	5/9/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/9/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79951°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39474°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

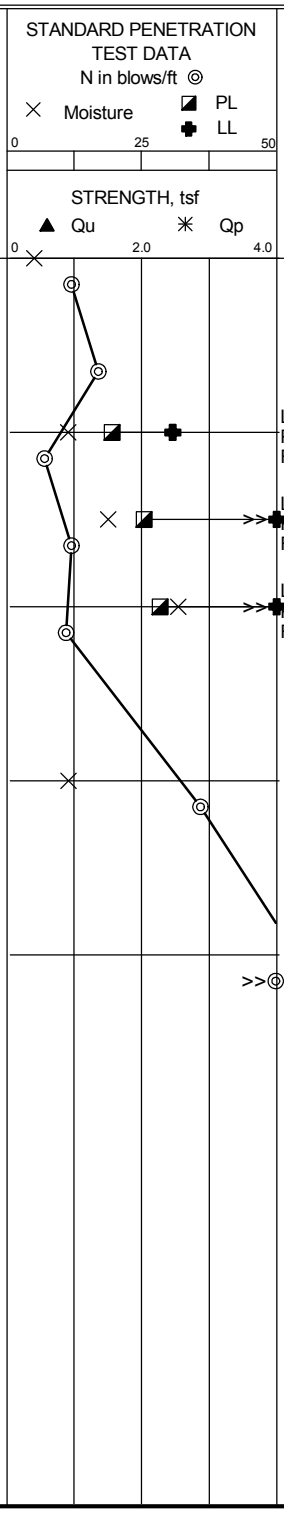
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 1.5 inches thick **GRAVEL BASE** - 6 inches thick **POORLY GRADED SAND** - with silt, brown, medium dense, moist	SP-SM	11-7-5 N=12	5	
				SS2	18	**CLAYEY SAND** - brown, medium dense, moist		3-3-14 N=17		
	5			SS3	18	loose	SC	3-4-3 N=7	11	LL = 31 PL = 20 Fines=28.4%
				SS4	18			6-7-5 N=12	19	LL = 98 PL = 25 Fines=49.8%
	10			SS5	18	**FAT CLAY** - brown, stiff, wet	CH	3-5-6 N=11	32	LL = 126 PL = 28 Fines=95.0%
	15			SS6	18	**CLAYEY SAND** - brown, dense, moist	SC	5-12-24 N=36	11	
	20			SS7	18	**POORLY GRADED SAND** - with gravel, multicolored, very dense, moist	SP	10-23-34 N=57		
						Boring terminated at 21.5 feet below grade				



Professional Service Industries, Inc.
4601 Ripley Drive
El Paso, TX 79922
Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: EPIA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 6

BORING B6

DATE STARTED:	5/9/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/9/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79951°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.395°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

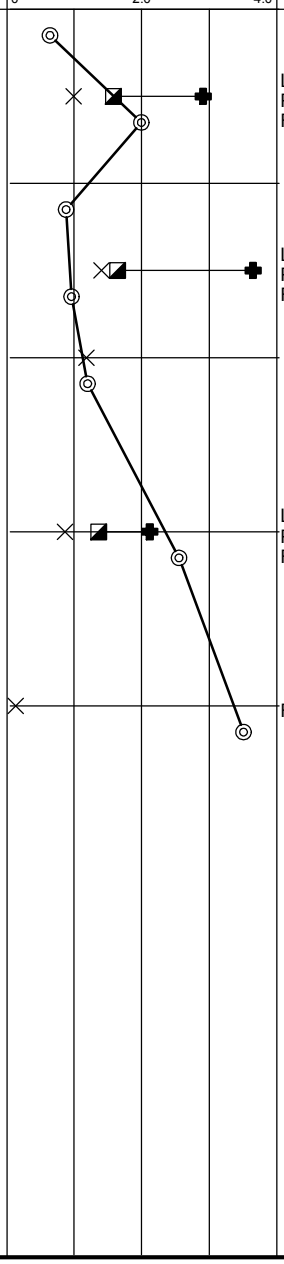
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 3.5 inches thick **GRAVEL BASE** - 6 inches thick **SILTY SAND** - brown, loose, moist	SM	6-5-3 N=8	12	LL = 36 PL = 20 Fines=37.3%
				SS2	18	**CLAYEY SAND** - tan, medium dense, moist	SC	3-9-16 N=25		
	5			SS3	18			6-6-5 N=11		
				SS4	18	**SANDY LEAN CLAY** - brown, medium dense, moist, with traces of carbonate cementation	CL	6-5-7 N=12	18	LL = 46 PL = 20 Fines=62.2%
	10			SS5	18			3-6-9 N=15	15	
	15			SS6	18	**CLAYEY SAND** - brown, dense, moist	SC	12-13-19 N=32	11	LL = 26 PL = 17 Fines=37.3%
	20			SS7	18	**POORLY GRADED SAND** - with gravel, multicolored, dense, dry	SP	7-15-29 N=44	2	Fines=3.2%
						Boring terminated at 21.5 feet below grade				



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Telephone: (915) 584-1317

PROJECT NO.: 06251116
PROJECT: EPIA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

FIGURE: 7

BORING B7

DATE STARTED:	5/9/16	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	5/9/16	**DRILLER:** AB	**LOGGED BY:** AF/JLR
COMPLETION DEPTH	21.5 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	31.79446°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-106.39526°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	William H. Kingsley, P.E.

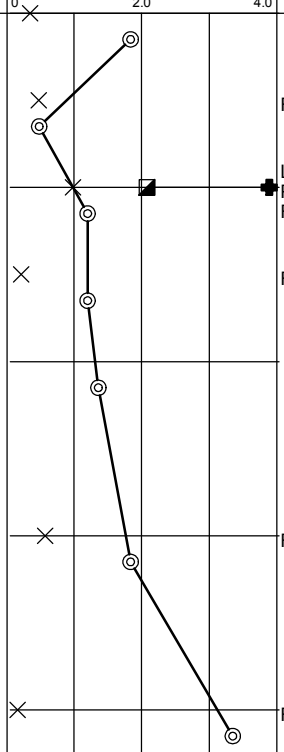
REMARKS: None

Water

While Drilling	None	feet
Upon Completion	None	feet
Delay	N/A	

BORING LOCATION:
see attached Boring Plan, Figure 2

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	Additional Remarks
	0			SS1	18	**ASPHALT** - 6 inches thick **GRAVEL BASE** - 8 inches thick **SILTY SAND** - brown, medium dense, moist		12-11-12 N=23	4	
				SS2	18	loose	SM	6-3-3 N=6	6	Fines=19.5%
	5			SS3	18	**CLAYEY SAND** - brown, stiff, moist	SC	5-6-9 N=15	12	LL = 49 PL = 26 Fines=30.9%
				SS4	18	**POORLY GRADED SAND** - multicolored, medium dense, dry		8-7-8 N=15	3	Fines=4.2%
	10			SS5	18		SP	8-8-9 N=17		
	15			SS6	18	**CLAYEY SAND** - brown, medium dense, moist, with traces of carbonate cementation CCI - 1 ("Caliche")	SC	6-8-15 N=23	7	Fines=27.0%
	20			SS7	18	**POORLY GRADED SAND** - with gravel, multicolored, dense, dry	SP	12-16-26 N=42	2	Fines=3.1%
						Boring terminated at 21.5 feet below grade				



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PROJECT: TSA Checked Baggage Inspection System
LOCATION: 6701 Convair Road
El Paso, TX

The stratification lines represent approximate boundaries. The transition may be gradual.

APPENDIX B – KEY TO TERMS

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (major portion retained on #200 sieve)
Includes (1) clean gravels and sands described as fine, medium or coarse, depending on distribution of grain sizes and (2) silty or clayey gravels and sands. Condition is rated according to relative density, as determined by laboratory tests or estimated from resistance to sampler.

PENETRATION RESISTANCE BLOWS / FOOT*	DESCRIPTIVE TERM	RELATIVE DENSITY**
0 – 10	Loose	0 – 40 %
11 – 30	Medium dense	40 – 70 %
31 – 50	Dense	70 – 90 %
Over 50	Very dense	90 – 100 %

* 140 pound hammer, 30 inch drop.
** From tests on undisturbed sand sample.

FINE GRAINED SOILS (major portion passing #200 sieve)
Includes (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings or by unconfined compression tests.

DESCRIPTIVE TERM	COMPRESSIVE STRENGTH tons/sq. ft.	DESCRIPTIVE TERM	COMPRESSIVE STRENGTH tons/sq. ft.
Very Soft	Less than 0.25	Stiff	1.00 to 2.00
Soft	0.25 to 0.50	Very Stiff	2.00 to 4.00
Firm	0.50 to 1.00	Hard	4.00 & higher

NOTE: Slickensided and fissured clays may have lower unconfined compressive strengths than shown above, because of planes of weakness or shrinkage cracks in the soil. The consistency ratings of such soils are bade on penetrometer readings.

TERMS CHARACTERIZING SOIL STRUCTURE

Slickensided – having inclined planes of weakness that are slick and glassy in appearance.
Fissured – containing shrinkage cracks, frequently filled with fine sand or silt; usually more or less vertical.
Sensitive – pertaining to cohesive soils that are subject to appreciable loss of strength when remolded.
Laminated – composed of thin layers of varying colors and texture.
Interbedded – composed of alternate layers of different soil types.
Calcareous – containing appreciable quantities of calcium carbonate.
Well Graded – having wide range in grain sizes and substantial amounts of all intermediate particle sizes.
Poorly Graded – predominantly of one grain size, or having a range of sizes with some intermediate size missing.

SECTION 321123 – CRUSHED AGGREGATE BASE COURSE

I. GENERAL

A. DESCRIPTIONS. This item shall consist of a crushed aggregate base course composed of crushed stone constructed on the prepared underlying course in accordance with these specifications and shall conform to the dimensions and typical cross-section shown on the plans and with the lines and grades approved by the Project Engineer.

B. SUBMITTALS. Materials certificate from supplier stating that base course meets specified requirements.

II. MATERIALS

A. STONE. The stone shall be either crushed stone or crushed gravel meeting the requirements of the Geotechnical Engineer. The fine stone shall be screenings obtained from crushed stone or gravel.

The material for the crushed aggregate base course shall meet the quality requirements as specified in Item 247 of the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets, and Bridges, current Edition.

The crushed aggregate stone shall have a percent of wear not more than 45 at 500 revolutions, as determined by AASHTO T 96 (Los Angeles Rattler Test).

The crushed stone shall not show evidence of disintegration nor show a total loss greater than 12% when subjected to 5 cycles of the sodium sulfate accelerated soundness test using AASHTO T 104.

Crushed aggregate base course shall meet the requirements for Type “A”, Grade 3 or better, material according to Item 247 Flexible Base, as described in the Texas Department of Transportation Standard Specifications for Construction of Highways, Streets and Bridges, current edition. All the requirements of this document shall be met, except where density is specified. The density shall not be less than 100% of ASTM D1557 at a moisture content maintained at or near the optimum moisture content. Base course shall be placed in loose lifts not exceeding 8 inches in thickness.

The gradations represent the limits that shall determine suitability of stone for use from the sources of supply. The final gradations decided on within the limits designated shall be well graded from coarse to fine and shall not vary from low limit on one sieve to the high limit on the adjacent sieves or vice versa.

B. TESTING FOR GRADATION OF STONE. Testing of flexible base materials shall be in accordance with the Texas Department of Transportation’s Standard Laboratory Test Procedures.

III. CONSTRUCTION METHODS. The construction shall meet the requirements of Item 247.3 of the Texas Department of Transportation’s Standard Specifications or the following, whichever is more stringent:

A. OPERATION AT SOURCES OF SUPPLY. All work involved in clearing and stripping of quarries and pits, including the handling of unsuitable material shall be performed by the Contractor at his own expense. The base material shall be obtained from approved sources. The material shall be handled in a manner that shall secure a uniform and satisfactory product.

B. EQUIPMENT. All equipment necessary for the proper construction of this work shall be on the project, in first class working condition, and approved by the Engineer before construction is permitted to start.

C. PREPARING UNDERLYING COURSE. Refer to the Geotechnical Report for additional specifications and recommendations on subgrade preparation. The underlying course shall be tested and accepted by the Engineer before placing and spreading operations are started. Any ruts or soft, yielding places caused by improper drainage conditions, hauling, or any other cause, shall be corrected and rolled to the required compaction before the base course is placed thereon. The underlying course shall consist of 8 inches of moisture conditioned and compacted select fill or scarified, prepared and compacted native soils that meet the criteria for suitable structural fill.

To protect the underlying course and to insure proper drainage, the spreading of the base shall begin along the centerline of the pavement on a crowned section or on the high side of the pavement with a one-way slope.

D. Areas to support pavements should be stripped of all pavement, concrete, construction debris, vegetation, organic topsoil and any foreign matter and the exposed subgrade shall be proof-rolled in accordance with the recommendations in the Geotechnical Investigation.

E. PLANT MIX. The base material shall be uniformly blended during crushing operations or mixed in an approved plant. The type of plant may be either a central proportioning and mixing plant or a traveling plant. The plant shall blend and mix the materials to meet these specifications and to secure the proper moisture content for compaction.

F. PLACING AND SPREADING.

1. Central Plant. The crushed aggregate base course material that has been proportioned in a crushing and screening plant, or proportioned and processed in a central mixing plant, shall be placed on the prepared underlying course and compacted in layers of the thickness shown on the plans. The depositing and spreading of the material shall commence where designated, and shall progress without breaks. The material shall be deposited and spread in lanes in a uniform layer and without segregation of size to such loose depth that when compacted, the layer shall have the required thickness. The base course shall be spread by spreader boxes or other approved devices or methods that shall spread the base in the required amount to avoid or minimize the need for rehandling the material and to prevent the rutting of the underlying course. The spreader boxes or other devices shall be equipped with strike-off templates or screeds that can be adjusted or controlled to secure the required thickness of the material. Dumping from vehicles in piles on the underlying course which will require rehandling shall not be permitted. Hauling over the uncompacted base course shall not be permitted.

2. Traveling Plant. If a traveling plant is used for mixing, the base material shall be placed on the underlying course in such condition to provide a base mixture conforming to the specified gradation and moisture content, and in such quantity to

develop the thickness of the layer of the base and the density after compaction. The material shall be shaped to a uniform section. The Geotechnical Engineer shall examine the moisture to determine that the mixing is complete and satisfactory and that the proper moisture content is maintained before compaction is started. No spreading shall be done except when authorized. Care shall be taken that no material from the underlying course is mixed with the base material.

If necessary, the base course shall be bladed until a smooth, uniform surface is obtained that is true to line, grade, and cross-section and until the mix is in condition for compacting.

3. Method of Placing. The base course shall be constructed in a layer not less than 2-1/2 inches nor more than 4-1/2 inches of compacted thickness. The base, as spread, shall be of uniform gradation with no segregation or pockets of fine or coarse materials. Unless otherwise permitted by the Engineer, the base shall not be spread more than 2,000 square yards or 500 lineal feet in advance of the rolling. Any necessary sprinkling shall be kept within these limits. No material shall be placed in snow or on a soft, muddy, or frozen underlying course.

   When more than one layer is required, the construction procedure described herein shall apply similarly to each layer.

   The Geotechnical Engineer shall make tests to determine the maximum density and the proper moisture content of the base material, and this information will be available to the Contractor. The base material shall have a satisfactory moisture content when rolling is started, and any minor variations prior to or during rolling shall be corrected by sprinkling or aeration, if necessary.

   During the placing and spreading, sufficient caution shall be exercised to prevent the incorporation of embankment, subbase, or shoulder material in the base course mixture.

4. Herbicide: An environmentally friendly, EPA approved, safe herbicide must be applied, as per manufacturer's specifications, to the crushed aggregate base course material prior to placing asphalt material. Herbicide shall be Sahara DG Herbicide or Engineer approved equivalent.

   a. Cautions:

      i. Apply herbicides, in any form, in strict accordance with the label instructions. The label provides complete specifications regarding the chemical content and directions for use of the herbicide. It is important to read the label carefully and then precisely follow instructions to assure the effectiveness and safety of the process.
      ii. After treatment is complete, it is important to pave the base course as soon as possible.
      iii. It is advisable to plant new vegetation, such as trees, shrubs, and flowers, sufficiently far from the sterilized area to protect their root systems from becoming contaminated by the herbicide.
      iv. Liquid herbicides can be carried by the wind during application. Should this occur, it could severely damage vegetation adjacent to the construction site. Never attempt to apply liquid herbicides when there are strong breezes or when rain is imminent.

v. Herbicides shall not be applied when EPIA or City of El Paso personnel and the general public are present. Contractor shall schedule this application during appropriate hours/times of day so as not to create a hazardous condition to the public.

vi. Do not apply liquid herbicides to water saturated soils such as may exist after a rainfall.

vii. Areas adjacent to surfaces where approved herbicide will be applied to shall be protected from overspray.

5. Finishing and Compacting. After spreading, the crushed stone shall be thoroughly compacted by rolling. The rolling shall progress gradually from the sides to the center of the area under construction, or from one side toward previously placed material by lapping uniformly each preceding rear wheel track by one half the width of such track. Rolling shall continue until the base is thoroughly set, the interstices of the material reduced to a minimum, and until creeping of the base ahead of the roller is no longer visible. Rolling shall continue until the base material has been compacted to not less than 100% density as per ASTM D1557, as specified. Density tests will be taken at every 500 square yards or at every 125 lineal feet with a minimum of two (2) density tests taken as recommended by the Geotechnical Engineer, the more stringent requirement applies. Blading and rolling shall be done alternately, as required or directed, to obtain smooth, even, and uniformly compacted base.

   The base course shall not be rolled when the underlying course is soft or yielding or when the rolling causes undulation in the base course. When the rolling develops irregularities that exceed ½ inch when tested with a 16-foot straightedge, the irregular surface shall be loosened, refilled with the kind of material as that used in constructing the course, and rolled again as required.

   In areas inaccessible to rollers, the base course material shall be tamped thoroughly with mechanical tampers as approved by Engineer.

   The sprinkling during rolling, if necessary, shall be in the amount and by equipment approved by the Engineer.

6. Surface Test. After the course has been completely compacted, the surface shall be tested for smoothness and accuracy of grade and crown. Surface tests will be taken at every 500 square yards or at every 125 lineal feet with a minimum of two (2) density tests taken. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified, reshaped, recompacted, and otherwise manipulated as the Engineer may direct until the required smoothness and accuracy are obtained. The finished surface shall not vary more than ½ inch from a 16-foot straightedge when applied to the surface parallel with, and at right angles to, the centerline.

7. Thickness. The thickness of the base course shall be eight (8) inches for all pavement structures, as recommended by the Geotechnical Engineer or as determined by depth tests or cores taken at every 500 square yards or at every 125 lineal feet with a minimum of two (2) density tests taken for each area. Refer to Construction Documents for exact location of new pavement structures. The thickness of the base course shall be eight (8) inches below all drainage structures including manholes, area inlets, junction boxes, etc. When the base deficiency is more than ½ inch, the Contractor shall correct such areas by scarifying, adding satisfactory base mixture, rolling, sprinkling, reshaping, and finishing in accordance with these specifications. The Contractor shall

replace, at his expense, the base material where borings have been taken for test purposes.

8. Protection. Work on the base course shall not be accomplished during freezing temperatures not when the subgrade is wet. When the stones contain frozen materials or when the underlying course is frozen, the construction shall be stopped.

   Hauling equipment may be routed over completed portions of the base course, provided no damage results and provided that such equipment is routed over the full width of the base course to avoid rutting or uneven compaction. However, the Engineer in charge shall have full and specific authority to stop all hauling over completed or partially completed base course when, in his opinion, such hauling is causing damage. Any damage resulting to the base course from routing equipment over the base course shall be repaired by the Contractor at his own expense.

9. Maintenance. Following the completion of the base course, the Contractor shall perform all maintenance work necessary to keep the base course in a condition satisfactory for priming. After priming, the surface shall be kept clean and free from foreign material. The base course shall be properly drained at all times. If cleaning is necessary, or if the prime coat becomes disturbed, any work or restitution necessary shall be performed at the expense of the Contractor.

10. Prime Coat. A tack cost of 0.25 gallons per square yard will be placed on approved base course surface.

TESTING AND MATERIAL REQUIREMENTS

Testing and Short Title	Material and Short Title
AASHTO T 96 – Abrasion	None
AASHTO T 104 – Soundness	
AASHTO T 11 and T 27 – Gradation	
AASHTO T 89 – Liquid Limit	
AASHTO T 90 – Plastic Limit and Plasticity Index	
AASHTO T 19 – Unit Weight	

END OF SECTION 321123

SECTION 321216 - ASPHALTIC CONCRETE PAVING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Asphaltic concrete paving for paved areas.

B. Curb markings.

1.2 RELATED SECTIONS

A. Section 312213 – Site Rough Grading: Preparation of site for paving and base.

B. Section 312323.13 – Backfilling: Compacted subbase for paving.

C. Section 321123 – Crushed Aggregate Base Course.

1.3 REFERENCES

A. Texas Department of Transportation (TxDOT) Standard Specifications for Construction of Highways, Streets, and Bridges, current edition.

1.4 PERFORMANCE REQUIREMENTS

A. Paving: Designed for the new parking areas.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with TxDOT Standard Specifications.

B. Mixing Plant: Conform to TxDOT Standard Specifications.

C. Obtain materials from same source throughout.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F or if surface is wet or frozen.

B. Place bitumen mixture when temperature is not more than 15 F degrees below bitumen suppliers' bill of lading and not more than maximum specified temperature.

PART 2 PRODUCTS

2.1 MATERIALS

A. Asphalt Cement: In accordance with Item 340.3, TxDOT Standard Specifications.

B. Aggregate for Wearing Course Mix: In accordance with TxDOT Standard Specifications.

C. Fine Aggregate: In accordance with TxDOT Standard Specifications.

D. Mineral Filler: In accordance with TxDOT Standard Specifications.

2.2 ASPHALT PAVING MIX

A. Use dry material to avoid foaming. Mix uniformly.

B. In accordance with Item 340.3, TxDOT Standard Specifications: Hot Mix Asphaltic Concrete (HMAC) surface course shall be TxDOT Type "D" for all pavement structures as shown on Construction Documents, and a compacted thickness of two and one half (2-1/2) inches as shown on Construction Documents.

C. Select fill materials that support the HMAC pavement shall be placed at 95% of the maximum dry density and at ±2 percentage points of the optimum moisture content as determined by ASTM D1557.

D. A crushed aggregate base course is recommended below vehicular flexible pavement structures, refer to Construction Documents and Section 321123 – Crushed Aggregate Base Course material for thickness requirements.

E. The job mix formula shall be established using the Marshall Design Mix method in accordance with TxDOT Standard Specifications and ASTM D1559.

2.3 SOURCE QUALITY CONTROL AND TESTS

A. Division 1 Specification Sections as they relate to mix design for asphalt.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify base conditions under provisions of these specifications.

B. Verify that compacted base is dry and ready to support paving and imposed loads.

C. Verify gradients and elevations of base are correct.

3.2 SUBBASE

A. Section 321123 – Crushed Aggregate Base Course forms the base construction for this work.

3.3 PREPARATION – PRIMER

A. Apply primer in accordance with manufacturer's instructions.

B. Apply primer to contact surfaces of curbs, gutters, and site structures.

C. Use clean sand to blot excess primer.

3.4 PREPARATION – TACK COAT

A. Apply tack coat in accordance with manufacturer's instructions.

B. Apply tack coat to contact surfaces of curbs, gutters and site structures.

C. Coat surfaces of manholes and catch basin frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

3.5 PLACING ASPHALT PAVEMENT – SINGLE COURSE

A. Install Work in accordance with TxDOT Standard Specifications.

B. Place asphalt within 24 hours of applying primer or tack coat.

C. Place two and one half (2-1/2) inches compacted thickness in all areas as designated on plans and Section 2.2.B of this specification. Refer to the Project Drawings for the limits of the proposed asphalt pavement structure areas and exact location of drives.

D. Compact pavement by rolling to density as specified. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.

E. Roll with consecutive passes to achieve an even and smooth finish without roller marks.

3.6 CURB MARKINGS

A. Sweep and clean surface to eliminate loose material and dust.

B. Do not apply curb markings until layout and placement has been verified by Project Engineer.

C. Apply paint with mechanical equipment to produce uniform straight edges.

D. Apply curb markings as per manufacturer's recommended rates.

3.7 TOLERANCES

A. Flatness: Maximum variation of 1/4 inch measured with 10-foot straight edge.

B. Scheduled Compacted Thickness: Within 0.01 feet.

C. Variation from True Elevation: Within 0.01 feet.

3.8 FIELD QUALITY CONTROL

A. At least one (1) set of laboratory densities, extractions, gradations, stabilities and flow tests shall be performed for each type of asphaltic concrete placed per day.

B. Temperature checks shall be performed as the asphaltic concrete is being placed to verify that the required temperature is being maintained.

C. At least one (1) asphaltic concrete core shall be taken per 5,000 square feet to verify asphaltic concrete pavement thickness and density.

D. Refer to Geotechnical Investigation report prepared by Professional Service Industries, Inc. for additional quality control requirements.

3.9 PROTECTION

A. Immediately after placement, protect pavement from mechanical injury for 7 days or until surface temperature is less than 140 degrees F (60 degrees C).

END OF SECTION 321216

SECTION 321313 – CAST IN PLACE SITE CONCRETE

I. GENERAL

A. RELATED DOCUMENTS. Drawings and general provisions of Contract, including Division I Specification Sections, apply to this Section.

B. SUMMARY. This section specifies cast-in place site concrete, including formwork, reinforcing, mix design, placement procedures, and finishes.

C. SUBMITTALS

1. General. Submit the following in accordance with Division I Specification Sections.

2. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, curing compounds, and others as requested by the Project Engineer.

3. Shop drawings for reinforcement, prepared by a registered Professional Engineer for fabrication, bending, and placement of concrete reinforcement. Comply with ACI SP-66 (88), "ACI Detailing Manual," showing bar schedules, stirrup spacing, diagrams of bent bars, and arrangement of concrete reinforcement. Include special reinforcement required for openings through concrete structures.

4. Laboratory test reports for concrete materials and mix design test.

5. Samples: Submit samples of materials as requested by Project Engineer including names, sources and descriptions.

6. Materials certificates in lieu of materials laboratory test reports when permitted by the Project Engineer. Materials certificates shall be signed by manufacturer and Contractor, certifying that each material item complies with or exceeds specified requirements. Provide certification from admixture manufacturers that chloride content complies with specification requirements.

D. QUALITY ASSURANCE

1. Codes and Standards. Comply with provisions of following codes, specifications, and standards, except where more stringent requirements are shown or specified:

a. ACI 301, ACI 614, CRSI Manual, ASTM C94.

b. ACI 318, "Building Code Requirements for Reinforced Concrete."

c. Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice."

2. Materials and installed work may require testing and retesting at any time during progress of work. Tests, including retesting of rejected materials for installed work, shall be done at Contractor's expense.

II. PRODUCTS

A. FORM MATERIALS

1. Forms for Exposed Finished Concrete. Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.

2. Forms for Unexposed Finished Concrete. Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.

3. Form Coatings. Provide commercial formulation form-coating compounds with a maximum VOC of 350 mg/l that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

4. Form Ties. Factory-fabricated, adjustable-length, removable or snap-off metal form ties, designed to prevent form deflection and to prevent spalling concrete upon removal. Provide units that will leave no metal closer than 1-1/2” to exposed surface.

   Provide ties that, when removed, will leave holes not larger than 1” diameter in concrete surface.

5. Earth as Forms. Footings may be formed by using the excavated earth surfaces. Earth forms may be used only if the cut earth surfaces can maintain their shape without risk of cave-in. Provide smooth, even and true vertical or horizontal planes for sides and bottoms of earth forms.

B. REINFORCING MATERIALS

1. Reinforcing Bars. ASTM A 615, Grade 60.

2. Steel Wire. ASTM A 82, plain, cold-drawn steel.

3. Welded Wire Fabric. ASTM A 185, welded steel wire fabric.

4. Supports for Reinforcement. Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire-bar-type supports complying with CRSI specifications.

   For slabs-on-grade, use supports with sand plats or horizontal runners where base material will not support chair legs.

   For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs that are plastic protected (CRSI, Class 1) or stainless steel protected (CRSI, Class 2).

C. CONCRETE MATERIALS

1. Portland Cement. ASTM C 150, Type “I”.

2. Use one brand of cement throughout project unless otherwise acceptable to Engineer.

3. Fly Ash. ASTM C 618, Type “C” or Type “F”.

4. Normal Weight Aggregates. ASTM C 33 and as herein specified. Provide aggregates from a sign source for exposed concrete.

   For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling-causing deleterious substances.

   Local aggregates not complying with ASTM C 33 but that special tests or actual service have shown to produce concrete of adequate strength and durability may be used when acceptable to the Project Engineer.

5. Water. Potable.

6. Admixtures – General. Provide admixtures for concrete that contain not more than 0.1 percent chloride ions.

7. Air-Entraining Admixture. ASTM C 260, certified by manufacturer to be compatible with other required admixtures. The Portland Cement Concrete shall be air-entrained to result in a 4% plus/minus 1% air.

   a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

      i. “Air-Tite,” Cormix.

      ii. “Air-Mix” or “Perma-Air,” Euclid Chemical Co.

      iii. “Darex AEA” or “Daravair,” W.R. Grace & Co.

      iv. “MB-VR” or “Micro-Air,” Master Builders, Inc.

      v. “Sealtight AEA,” W.R. Meadows, Inc.

      vi. “Sika AER,” Sika Corp.

8. Water-Reducing Admixture. ASTM C 494, Type “A”.

   a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

      i. “Chemtard,” ChemMasters Corp.

      ii. “PSI N,” Cormix.

      iii. “Eucon WR-75,” Euclid Chemical Co.

      iv. “WRDA,” W.R. Grace & Co.

      v. “Pozzolith Normal” or “Polyheed,” Master Builders, Inc.

      vi. “Prokrete-N,” Prokrete Industries.

      vii. “Plastocrete 161,” Sika Corp.

9. High-Range Water-Reducing Admixture (Super Plasticizer). ASTM C 494, Type “F” or Type “G”.

    a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

        i. “Super P,” Anti-Hydro Co., Inc.

        ii. “PSI Super,” Cormix.

        iii. “Eucon 37,” Euclid Chemical Co.

        iv. “WRDA 19” or “Daracem,” W.R. Grace & Co.

        v. “Rheobuild,” Master Builders, Inc.

        vi. “PSP”, Prokrete Industries.

        vii. “Sikament 300,” Sika Corp.

10. Water Reducing Accelerating Admixture. ASTM C 494, Type “E”.

    a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

        i. “Q-Set,” Conspec Marketing & Manufacturing Co.

        ii. “Gilco Accelerator,” Cormix.

        iii. “Accelguard 80,” Euclid Chemical Co.

        iv. “Daraset,” W.R. Grace & Co.

        v. “Pozzutec 20,” Master Builders, Inc.

11. Water-Reducing, Retarding Admixture. ASTM C 494, Type “D”.

    a. Available Products. Subject to compliance with requirements, product that may be incorporated in the work include, but are not limited to, the following:

        i. “A-H 3 Way Sealer,” Anti-Hydro Co., Inc.

        ii. “PSI-R Plus,” Cormix.

        iii. “Eucon Retarder 75,” Euclid Chemical Co.

        iv. “Daratard-17,” W.R. Grace & Co.

        v. “Pozzolith R,” Master Builders, Inc.

        vi. “Protard,” Prokrete Industries.

        vii. “Plastiment,” Sika Corp.

D. RELATED MATERIALS

1. Absorptive Cover. Burlap cloth made from jute or kenaf, weighing approximately 9 oz per sq. yd., complying with AASHTO M 182, Class 2.

2. Moisture-Retaining Cover. One of the following, complying with ASTM C 171.

3. Waterproof Paper.

4. Polyethylene Film.

5. Polyethylene-coated Burlap.

6. Liquid Membrane-Forming Curing Compound. Liquid-type membrane forming curing compound complying with ASTM C 309, Type "I", Class A. Moisture loss not more than 0.055 gr./sq. cm. when applied at 200 sq. ft./gal.

   a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

      i. "A-H 3 Way Sealer," Anti-Hydro Co., Inc.

      ii. "Spartan-Cote," The Burke Co.

      iii. "Conspec #1," Conspec Marketing & Mfg. Co.

      iv. "Hardtop," Cormix.

      v. "Day-Chem Cure and Seal," Dayton Superior Corp.

      vi. "Eurocure," Euclid Chemical Co.

      vii. "Horn Clear Seal," A.C. Horn, Inc.

      viii. "L&M Cure," L & M Construction Chemicals, Inc.

      ix. "Masterkure," Master Builders, Inc.

      x. "CS-309," W.R. Meadows, Inc.

      xi. "LR-151," Prokrete Industries.

      xii. "Kure-N-Seal," Sonneborn-Rexnord.

      xiii. "Stontop CS2," Stonhard, Inc.

7. Water-Based Acrylic Membrane Curing Compound. ASTM C 309, Type "I", Class B.

   a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

      i. "Highseal," Conspec Marketing and Mfg. Co.

      ii. "Safe Cure and Seal," Dayton Superior Corp.

iii. "Aqua-Cure," Euclid Chemical Co.

iv. "Dress & Seal #18WB," L & M Construction Chemicals, Inc.

v. "Masterseal W," Master Builders, Inc.

vi. "Intex," W.R. Meadows, Inc.

vii. "Sika Membrane," Sika Corp.

8. Evaporation Control. Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.

   a. Available Products. Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:

      i. "Aquafilm," Ardex, Inc.

      ii. "Eucobar," Euclid Chemical Co.

      iii. "E-Con," L & M Construction Chemicals, Inc.

      iv. "Confilm," Master Builders, Inc.

E. PROPORTIONING AND DESIGN OF MIXES

1. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method used, use an independent testing facility acceptable to the Owner and Project Engineer for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.

2. Limit use of fly ash to not exceed 20 percent of cement content by weight.

3. Submit written reports to the Project Engineer of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until proposed mix designs have been reviewed by Project Engineer.

4. Design mixes to provide normal weight concrete with the following properties, as indicated on drawings and schedules:

   - Standard Site Work Concrete: 3,000-psi (TxDOT Class A), 28-day compressive strength; W/C ratio: 0.46 maximum unless otherwise noted on Construction Documents.
   - Drainage Structures (Flumes): 3,500-psi (TxDOT Class C), 28-day compressive strength; W/C ratio: 0.46 maximum unless otherwise noted on Construction Documents.
   - Reinforced Concrete Pavement: 4,000-psi (TxDOT Class P), 28-day compressive strength; W/C ratio: 0.46 maximum unless otherwise noted on Construction Documents.

5. Adjustment to Concrete Mixes. Mix design adjustment may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by the Project Engineer. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Project Engineer before using in work.

6. Pumped Concrete. When Contractor elects to pump concrete, as approved by the Project Engineer, provide concrete in accordance with these specifications to suit the requirements of the equipment to be used. All concrete mixes required for pumping shall be designed by the testing laboratory at the Contractor's expense.

F. ADMIXTURES

1. Calcium chloride or admixtures containing more than 0.1% chloride ions are not permitted.

2. Use water-reducing admixture or high-range water-reducing admixture (Superplasticizer) in concrete as required for placement and workability.

3. Use non-chloride accelerating admixture in concrete slabs place at ambient temperatures below 50 degrees F (10 degrees C).

4. Use high-range water-reducing admixture (HRWR) in pumped concrete, concrete for industrial slabs, architectural concrete, parking structure slabs, concrete required to be watertight, and concrete with water/cement ratios above 0.46.

5. Use air-entraining admixture in all concrete. Add air-entraining admixture at point of placement having 4% total air content with a tolerance of plus or minus 1 percent.

6. Use admixtures for water reduction and set control in strict compliance with manufacturer's directions.

7. Slump Limits. Proportion and design mixes to result in concrete slump at point of placement as follows:

   a. Ramps, slabs, pavement, swales, concrete drainage structures, aprons, sidewalks: 3 inches.

   b. Concrete rip-rap, curb/gutter, and flumes: 2 inches.

   c. Other concrete. Provide as scheduled.

G. RIGID PAVEMENT

1. Rigid concrete pavement consisting of 6.0 inches of 4,000 psi concrete underlain by eight (8) inches of prepared and compacted structural fill or suitable subgrade soils.

2. Reinforcing steel as specified on the Project Documents.

3. Proper finishing of concrete pavement requires the use of sawed and sealed joints, in accordance with current Portland Cement Association Guidelines.

4. Joint spacing is recommended at 15 foot intervals for concrete pavement. Dowel bars, as shown on the project documents, shall be used to transfer loads at the transverse joints.

5. Joint Sealing Compound: Where joints in concrete construction are shown to be sealed, the joint sealing compound shall be a two-component polyurethane sealant specifically recommended by the manufacturer for use on airport runways, taxiways, and aprons. The handling prior to sealing shall be in strict accordance with the recommendations of the manufacturer. Joint sealing compound shall be Sikaflex-68TF mix or Engineer approved equivalent.

H. CONCRETE MIXING

1. Ready-Mix Concrete. Comply with requirements of ASTM C 94, and as specified.

   a. Delete references for allowing additional water to be added to batch for material with insufficient slump. Addition of water at the job site will not be permitted.

2. During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C94 may be required.

   a. When air temperature is between 85 degrees F (30 degrees C) and 90 degrees F (32 degrees C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 degrees F (32 degrees C), reduce mixing and delivery time to 60 minutes.

3. Do not permit trucks containing rejected concrete to return to the project site on the same day.

III. EXECUTION

A. GENERAL. Coordinate the installation of joint materials with placement of forms and reinforcing steel.

B. FORMS

1. General. Design, erect, support, brace, and maintain formwork to support vertical and lateral, static and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction tolerances complying with ACI-347.

   Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement past.

   Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, for easy removal.

Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

2. Provisions for Other Trades. Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.

3. Cleaning and Tightening. Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement as required to prevent mortar leaks and to maintain proper alignment.

C. PLACING REINFORCEMENT

1. General. Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.

Avoiding cutting or puncturing vapor retarder during reinforcement placement and concreting operations.

Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.

Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by the Project Engineer.

Place reinforcement to obtain at least minimum coverages for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

D. JOINTS

1. Construction Joints. Locate and install construction joints as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to the Project Engineer.

Provide keyways at least 1-1/2 inches deep in construction joints in walls and slabs and between walls and footings. Accepted bulkheads designed for this purpose may be used for slabs.

Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints.

Joint filler and joint sealant materials are specified on the Construction Documents.

E. INSTALLATION OF EMBEDDED ITEMS

1. General. Set and build into work anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached thereto.

2. Forms for Slabs. Set edge forms, bulkheads, and intermediate screed strips for slabs to obtain required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting type screeds.

F. PREPARATION OF FORM SURFACES

1. General. Coat contact surfaces of forms with an approved nonresidential, low-VOC, form-coating compound before reinforcement is placed.

   Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.

G. CONCRETE PLACEMENT

1. Inspection. Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work.

2. Engineer Inspection. Review by the Owner, Project Engineer or his designated representative does not relieve the Contractor from complying with the requirements of the Construction Documents and Specifications.

   a. Notify Project Engineer, Owner or his designated representative at least twenty four (24) hours prior to the placing of any concrete. Placing of concrete without notice to the individuals listed herein may be reason for rejecting concrete so placed.

3. General. Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.

   Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete that has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete to avoid segregation at its final location.

4. Placing Concrete in Forms. Deposit concrete in forms in horizontal layers not deeper than 24 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

Consolidate placed concrete by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.

Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

5. Placing Concrete Slabs. Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed.

   Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.

   Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.

   Maintain reinforcing in proper position during concrete placement.

6. Cold-Weather Placing. Comply with provisions of ACI 306 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

   a. When air temperature has fallen to or is expected to fall below 40 degrees F (4 degrees C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F (10 degrees C) and not more than 80 degrees F (27 degrees C) at point of placement.

   b. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

   c. Do not use calcium chloride, salt, and other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.

7. Hot-Weather Placing. When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

   a. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F (32 degrees C). Mixing water may be chilled, or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing water. Use of liquid nitrogen to cool concrete is Contractor’s option.

   b. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

c. Fog spray forms, reinforcing steel, and subgrade just before concrete is placed.

d. Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions, when acceptable to the Project Engineer.

H. FINISH OF FORMED SURFACES

1. Rough Form Finish. For formed concrete surfaces not exposed to view in the finish work or concealed by other construction. This is the concrete surface having texture imparted by form-facing material used, with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1-4 inch in height rubbed down or chipped off.

2. Smooth Form Finish. For formed concrete surfaces exposed to view or to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, damp proofing, veneer plaster, painting, or other similar system. This is an as-cast concrete surface obtained with selected form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas with fins and other projections completely removed and smoothed.

3. Grout-Cleaned Finish. Provide grout-cleaned finish to scheduled concrete surfaces that have received smooth form finish treatment.

   Combine one part Portland cement to 1-1/2 parts fine sand by volume and a 50:50 mixture of acrylic or styrene butadiene-based bonding admixture and water to consistency of thick paint. Blend standard Portland cement and white Portland cement, amounts determined by trial patches, so that final color dry grout will match adjacent surfaces.

   Thoroughly wet concrete surfaces, apply grout to coat surfaces, and fill small holes. Remove excess grout by scraping and rubbing with clean burlap. Keep damp by fog spray for at least 36 hours after rubbing.

4. Related Unformed Surfaces. At tops of walls, horizontal offsets, and similar unformed surfaces, occurring adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

I. MONOLITHIC SLAB FINISHES

1. Float Finish. Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as hereinafter specified; slab surfaces to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sand-bed terrazzo; and as otherwise indicated.

   After screeding, consolidating, and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using float blades or float shows only, when surface water has disappeared, when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Check and level surface plane to tolerances of Ff 18 – Fl 15. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

2. Trowel Finish. Apply trowel finish to monolithic slab surfaces to be exposed to view and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or other thin film finish coating system.

   After floating, begin first trowel finish operation using a power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and with surface leveled to tolerances of Ff 20- F1 17. Grind smooth surface defects that would telegraph through applied floor covering system.

3. Trowel and Fine Broom Finish. Where ceramic or quarry tile is to be installed with thin-set mortar, apply trowel finish as specified, then immediately follow with slightly scarifying surface by fine brooming.

4. Nonslip Broom Finish. Apply nonslip broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.

   Immediately after float finishing, slightly roughen concrete surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with the Project Engineer before application.

J. CONCRETE CURING AND PROTECTION

1. General. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling. For the curing of colored concrete slabs, refer to Manufacturer's recommendations.

   Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.

2. Curing Methods. Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified. For colored concrete slabs, refer to Manufacturer's recommendations.

   a. Provide moisture curing by following methods.

   b. Keep concrete surface continuously wet by covering with water.

   c. Use continuous water-fog spray.

   Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4 inch lap over adjacent absorptive covers.

   Provide moisture-cover curing as follows:

   Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

Provide curing and sealing compound to exposed interior slabs and to exterior slabs, walks, and curbs as follows:

a. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.

b. Use membrane-curing compounds that will not affect surfaces to be covered with finish materials applied directly to concrete.

3. Curing Formed Surfaces. Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

4. Curing Unformed Surfaces. Cure formed surfaces, such as slabs, floor topping, and other flat surfaces, by application of appropriate curing method.

Final cure concrete surfaces to receive liquid floor hardener or finish flooring by use of moisture retaining cover, unless otherwise directed.

K. REMOVAL OF FORMS

1. General. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees F (10 degrees C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing and protection operations are maintained.

Formwork supporting weight of concrete, such as beam soffits, joists, slabs, and other structural elements, may not be removed in less than 14 days and until concrete has attained at least 75 percent of design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location or members.

Form-facing material may be removed 4 days after placement only if shores and other vertical supports have been arranged to permit removal of form-facing material without loosening or disturbing shores and supports.

L. REUSE OF FORMS

1. Clean and repair surfaces of forms to be reused in work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

2. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces except as acceptable to the Project Engineer.

M. MISCELLANEOUS CONCRETE ITEMS

1. Filling In. Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

2. Reinforced Masonry. Provide concrete grout for reinforced masonry lintels and bond beams where indicated on drawings and as scheduled. Maintain accurate location of reinforcing steel during concrete placement.

N. PATCHING DEFECTIVE AREAS

1. Patching Defective Areas. Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to the Project Engineer.

   Cut out honeycomb, rock pockets, voids over ¼ inch in any dimensions, and holes left by tie rods and bolts, down to solid concrete but in no case to a depth of less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with specified bonding agent. Place patching mortar before bonding compound has dried.

   For exposed-to-view surfaces, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

2. Repair of Formed Surfaces. Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of the Project Engineer. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on surface, and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry-pack mortar, or precast cement cone plugs secured in place with bonding agent.

   Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

3. Repair of Unformed Surfaces. Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope and smoothness by using a template having required slope.

   Repair finished unformed surfaces that contain defects that affect durability of concrete. Surface defects, as such, include crazing and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through nonreinforced sections regardless of width, spalling, popouts, honeycomb, rock pockets, and other objectionable conditions.

   Correct high areas in uniformed surfaces by grinding after concrete has cured at least 14 days.

   Correct low areas in unformed surfaces during or immediately after completion of surface finishing operations by cutting out low areas and replacing with patching compound.

Finished repaired areas to blend into adjacent concrete. Proprietary underlayment compounds may be used when acceptable to the Project Engineer.

Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts, and expose reinforcing steel with at least ¾ inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

Repair isolated random cracks and single holes not over 1 inch in diameter by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean dust, dirt and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Mix dry-pack, consisting of one part Portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Place dry-pack before bonding compound has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for not less than 72 hours.

Perform structural repairs with prior approval of the Project Engineer for method and procedure, using specified epoxy adhesive and mortar.

Repair methods not specified above may be used, subject to acceptance of Engineer.

O. QUALITY CONTROL TESTING DURING CONSTRUCTION

1. General. The owner will employ a testing laboratory to perform tests and to submit test reports. The Contractor shall coordinate and provide advanced notice to the City of El Paso Construction Division/City Inspector and the designated project testing laboratory.

   Sampling and testing for quality control during placement of concrete may include the following, as directed by the Project Engineer and/or Materials Engineer.

   a. Sampling Fresh Concrete. ASTM C 172, except modified for slump to comply with ASTM C 94.

   b. Slump. ASTM C 143; one test at point of discharge for each day's pour of each type of concrete; one test per 30 cubic yards of each type of concrete placed each day including when the concrete cylinders are molded; additional tests when concrete consistency seems to have changed.

   c. Air Content. ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231 pressure method for normal weight concrete; one test per 30 cubic yards of each type of concrete placed each day including when the concrete cylinders are molded.

   d. Concrete Temperature. Test hourly when air temperature is 40 degrees F (4 degrees C) and below, when 80 degrees F (27 degrees C) and above, one test per 30 cubic yards of each type of concrete placed each day including when the concrete cylinders are molded, and each time a set of compression test specimens is made.

e. Compressive Strength Tests. ASTM C 39; one set of 4 cylinders or specimens for each type of concrete per 100 cubic yards or fraction thereof placed in a day; two specimens tested at 7 days, two specimens tested at 28 days, and one specimen retained in reverse for later testing if required.

f. Reinforcing steel shall be checked for size and placement prior to concrete placement.

When frequency of testing will provide fewer than 5 strength test for a given class of concrete, conduct testing from at least 5 randomly selected batches or from each batch if fewer than 5 are used.

When total quantity of a given class of concrete is less than 50 cubic yards, Engineer may waive strength test if adequate evidence of satisfactory strength is provided.

When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

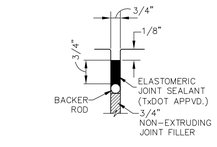
Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength, and no individual strength test result falls below specified compressive strength by more than 500 psi.

Test results will be reported in writing to Engineer, Structural Engineer, Ready-Mix Producer, and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7 day tests and 28 days tests.

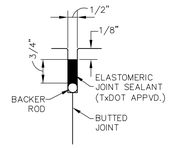
2. Nondestructive Testing. Impact hammer, sonoscope or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.

3. Additional Tests. The testing service will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Engineer. Testing service may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed. Contractor shall pay for such tests when unacceptable concrete is verified.

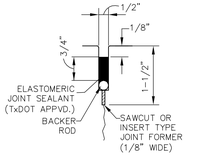
END OF SECTION 321313



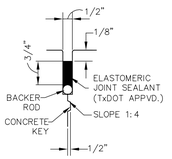
(EXPANSION JOINT)
TYPE "A" JOINT
SCALE: NTS



(CONSTRUCTION JOINT)
TYPE "C" JOINT
SCALE: NTS

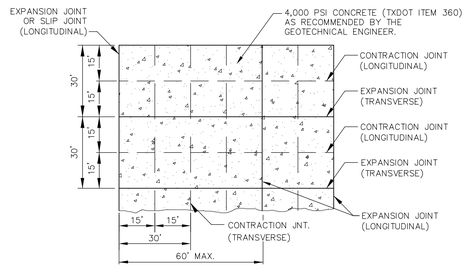


(CONTRACTION JOINT)
TYPE "B" JOINT
SCALE: NTS

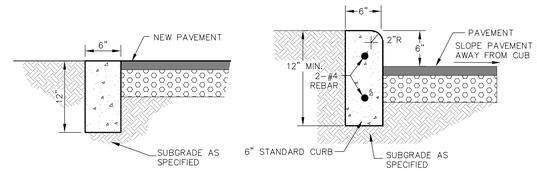


(CONSTRUCTION JOINT)
TYPE "D" JOINT
SCALE: NTS

JOINT SEALING COMPOUND NOTE:
WHERE JOINTS IN CONCRETE CONSTRUCTION ARE SHOWN TO BE SEALED, THE JOINT SEALING COMPOUND SHALL BE A TWO-COMPONENT POLYURETHANE SEALANT OR ENGINEER APPROVED EQUIVALENT SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR USE ON AIRPORT RUNWAYS AND APRON JOINTS. THE HANDLING PRIOR TO SEALING SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. JOINT SEALING COMPOUND SHALL BE SIKAFLEX-68TF MIX OR ENGINEER APPROVED EQUIVALENT.



JOINT LAYOUT



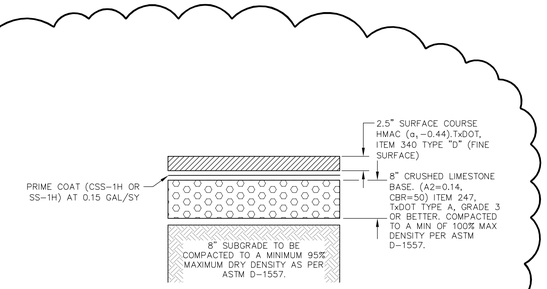
HEADER CURB

STANDARD CURB

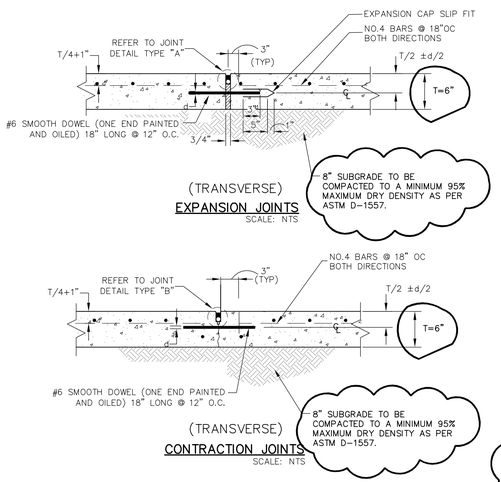
CONCRETE CURB NOTES:

1. CONCRETE TO BE 3000 PSI MIN. @ 28 DAYS.
2. CONCRETE CURB, GUTTER, AND RETURNS SHALL BE ASTM TYPE II, PORTLAND CEMENT.
3. DUMMY JOINT REQUIRED AT 10' O.C. FOR CURB & GUTTER.
4. EXPANSION MATERIAL REQUIRED AT CURB RETURNS, WITH 1/2" PRE-MOLDED BITUMINOUS EXPANSION JOINTS (AASHTO M-33).
5. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED TO 95% ASTM D1557.
6. EXPANSION JOINTS REQUIRED AT 50' O.C. WHEN FORMING FOR CURBS.

② CURB DETAILS
SCALE: N.T.S

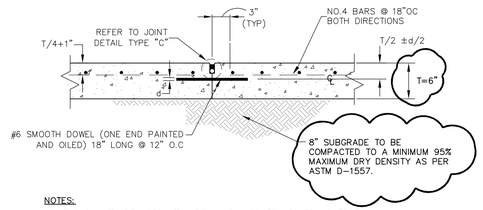


③ TYPICAL ASPHALT PAVEMENT SECTION (IF NEEDED)
SCALE: N.T.S



(TRANSVERSE)
EXPANSION JOINTS
SCALE: NTS

(TRANSVERSE)
CONTRACTION JOINTS
SCALE: NTS

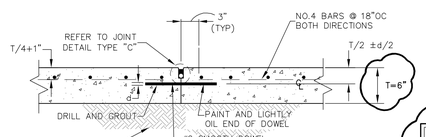


NOTES:

JOINT SHOWN TO BE USED AT A REGULARLY SCHEDULED TRANSVERSE CONSTRUCTION JOINT. FOR A TRANSVERSE CONSTRUCTION JOINT AT A LOCATION OTHER THAN REGULARLY SCHEDULED CONTRACTION JOINT:

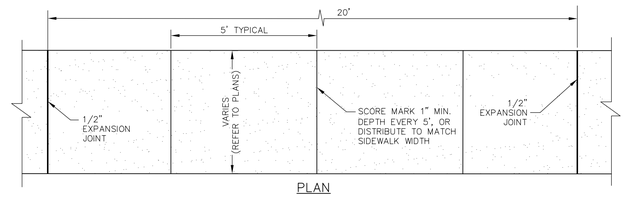
1. THE REINFORCING SHALL BE CARRIED THROUGH THE JOINT
2. DOWELS SHALL NOT BE PAINTED OR OILED.

(TRANSVERSE)
CONSTRUCTION JOINTS
SCALE: NTS

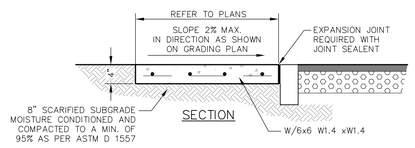


(TRANSVERSE OR LONGITUDINAL)
CONSTRUCTION JOINTS
(CONCRETING INTERRUPTED)
SCALE: NTS

CONCRETE PAVEMENT NOTE FOR TRASH DUMPSTER OR SEMI-TRAILERS PAVEMENT:
RIGID CONCRETE PAVEMENT CONSISTING OF SEVEN (7) INCHES OF CONCRETE UNDERLAIN BY FOUR (4) INCHES OF CRUSHED LIMESTONE BASE SHALL BE USED WHERE TRASH DUMPSTERS OR SEMI-TRAILERS ARE TO BE PARKED IN THE PAVEMENT OR WHERE A CONSIDERABLE LOAD IS TRANSFERRED FROM RELATIVELY SMALL STEEL WHEELS, SUCH AS TRUCK DOLLIES. THIS SHOULD PROVIDE BETTER DISTRIBUTION OF SURFACE LOADS TO THE SUBGRADE AND REDUCE DEFORMATION OF THE PAVEMENT SURFACE. REFER TO GEOTECHNICAL REPORT BY PSI DATED MAY 27, 2016. REFER TO REVISED GRADING AND DRAINAGE PLAN C-3R FOR PAVEMENT LIMITS AND COORDINATION WITH OWNER.



PLAN

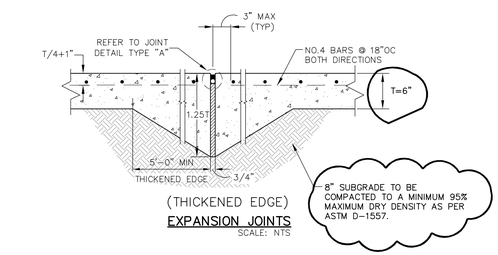


SECTION

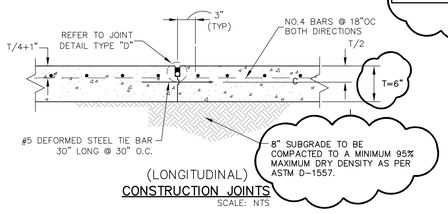
SIDEWALK NOTES:

1. CONCRETE SIDEWALK SHALL BE 3,000 P.S.I. @ 28 DAYS.
2. DUMMY JOINTS REQUIRED AT 5' O.C.
3. EXPANSION JOINTS SHALL BE AT 20' O.C. MAXIMUM, USE 1/2" PRE-MOLDED BITUMINOUS EXPANSION JOINTS (AASHTO M-33)
4. EXPANSION JOINT FILLER SHALL BE PLACED WHEREVER SIDEWALK ABUTS ROCK OR MASONRY STRUCTURES SUCH AS CURBS OR BUILDINGS.
5. SUBGRADE TO BE COMPACTED TO 95% ASTM D1557.
6. REINFORCEMENT SHALL INCLUDE 6"X6" #10 W.W.F. ON ALL CONCRETE SIDEWALK
7. WHERE JOINTS IN CONCRETE CONSTRUCTION ARE SHOWN TO BE SEALED, THE JOINT SEALING COMPOUND SHALL BE A TWO-COMPONENT POLYURETHANE SEALANT SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR USE ON AIRPORT RUNWAYS AND APRON JOINTS. THE HANDLING PRIOR TO SEALING SHALL BE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. JOINT SEALING COMPOUND SHALL BE SIKAFLEX-68TF MIX OR ENGINEER APPROVED EQUIVALENT.

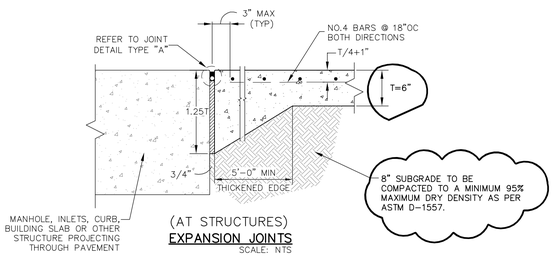
④ 4" THICK TYPICAL CONCRETE SIDEWALK DETAIL
SCALE: N.T.S.



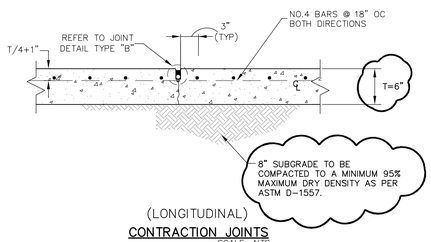
(THICKENED EDGE)
EXPANSION JOINTS
SCALE: NTS



(LONGITUDINAL)
CONSTRUCTION JOINTS
SCALE: NTS

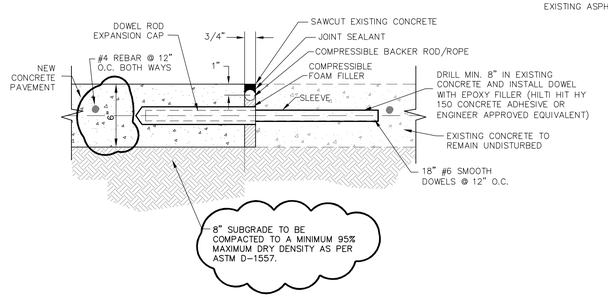


(AT STRUCTURES)
EXPANSION JOINTS
SCALE: NTS

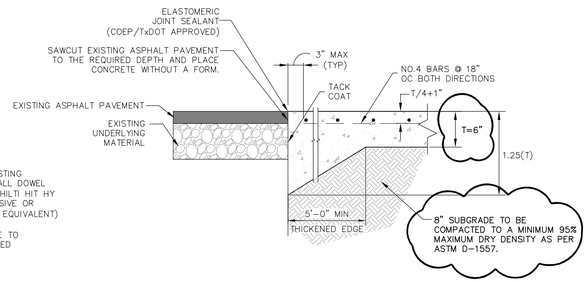


(LONGITUDINAL)
CONTRACTION JOINTS
SCALE: NTS

① REINFORCED CONCRETE PAVEMENT DETAILS & SECTIONS
SCALE: N.T.S.



⑤ JUNCTURE OF NEW REINFORCED CONCRETE PAVEMENT TO EXISTING CONCRETE PAVEMENT
SCALE: N.T.S



⑥ JUNCTURE OF NEW REINFORCED CONCRETE PAVEMENT TO EXISTING ASPHALT PAVEMENT
SCALE: NTS

QUANTUM engineering consultants incorporated
414 Executive Center Blvd
Ste 200 El Paso TX 79902
P 915.532.7272
F 915.532.7373
Texas Registered Engineering Firm F-005146

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME
mijares mora ARCHITECTS INC.
111 N. ESTRIPA
EL PASO, TEXAS 79912
TEL: 915-542-1991 FAX: 542-1944

ENGINEER'S SEAL
TEXAS ROBERT A. GONZALES 69920 REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Robert A. Gonzales, P.E. 69920.
Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act.

SCALE

DATE	MAY 27, 2016
DESIGN BY	DJF
DRAWN BY	CADD
CHKD. BY	JMR
APPD. BY	RAG
JOB NO.	1431

PROJECT NAME
EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD EL PASO, TEXAS
EL PASO International Airport

CITY OF EL PASO

SHEET TITLE
STANDARD DETAILS
C-6R
ADDENDUM No. 1
FILE NO. 238512
SHEET 6 OF 9

Jun 20,2016 3:17pm dfb
Q:\Active Drawings\1431 ERA Baggage Check Addition\Civil\Addendum #1\C6-7 - Details.dwg

END STA. 2+70.02±, LINE 'A'
CONNECT TO EXIST. 4" SS LINE
N: 5048.99±
E: 4927.24±

REMOVE AND REPLACE
EXIST. 4" SS LINE
W/ PROP. 4" x 12 LF
ASTM D3034, SDR-35 PVC
@ 1.0% SLOPE

EXIST. 4" SS LINE

STA. 2+57.7, LINE 'A'
PROP. 4' DIA. SAN. SEWER MH
RIM: (COORDINATE WITH CIVIL GRADING)
FL: 93.38
W/ 4" STUB-OUT (WEST)
N: 5036.77
E: 4927.56

STA. 2+34.8, LINE 'A'
WARNING!
EXIST. GAS LINE CROSSING

EXIST. 4" WATER LINE
TO BE RELOCATED
SEE SHT. U2.0

EXIST. GAS LINE

EXIST. SS LINE
(PREVIOUSLY ABANDONED)
(TO BE REMOVED)

SAN. SEWER LINE 'A'
REMOVE AND REPLACE
EXIST. 8" SS LINE
W/ PROP. 8" x 90 LF
ASTM D3034, SDR-35 PVC
@ 0.335% SLOPE

UNKNOWN CLEANOUT
ASSEMBLY

STA. 1+99.4, LINE 'A'
EXIST. 24" STORM DRAIN CROSSING

EXIST. UNDERGROUND
TELEPHONE LINE

EXIST. 24"
STORM DRAIN

P.I. STA. 0+96.41, LINE 'B'
INSTALL: 1-6" 22.5° BEND AND
1-CLEANOUT ASSEMBLY
N: 4954.10±
E: 4885.87±

STA. 1+91.28, LINE 'A'
EXIST. UNDERGROUND
TELEPHONE CROSSING

END STA. 1+15.32±, LINE 'B'
EXIST. 6" SS LINE CROSSING

SAN. SEWER LINE 'B'
PROP. 6" x 40 LF
ASTM D3034, SDR-35 PVC
@ 0.50% SLOPE

LOCATION SHOWN OF EXISTING
LINE IS APPROXIMATE.
CONTRACTOR IS TO
FIELD VERIFY LOCATION AND
ADJUST NEW
4" CONNECTION ACCORDINGLY

LINE 3:
EXIST. 6" SS LINE
(TO BE REMOVED)

STA. 0+81.88, LINE 'B'
PROP. STORM DRAIN
CROSSING

STA. 1+66.39, LINE 'A'
= START STA. 1+00.00, LINE 'B'
1-8"x6" WYE
N: 4945.39±
E: 4929.60±

EXIST. SS MANHOLE
TO BE REMOVED

EXIST. UNDERGROUND
TELEPHONE LINE

STA. 1+51.01±, LINE 'B'
1-6" WYE
N: 4942.64±
E: 4832.48±

CONNECT TO EXIST.
4" S.S. LINE
N: 4951.67±
E: 4811.93±

PROP. 4" x 11 LF
ASTM D3034, SDR-35 PVC
@ 1.0% SLOPE

STA. 1+68.16±, LINE 'B'
1-6"x4"WYE
1-6" 45° BEND
N: 4939.04±
E: 4815.71±

N83°20'40"W±

S77°53'13"W±

LINE 2:
EXIST. 6" SS LINE
(TO BE REMOVED)

LINE 1:
EXIST. 6" SS LINE
(TO BE REMOVED)

PROP. 6" x 6 LF
ASTM D3034, SDR-35 PVC
@ 0.50% SLOPE

SAN. SEWER LINE 'B'
PROP. 6" x 55 LF
ASTM D3034, SDR-35 PVC
@ 0.50% SLOPE

END STA. 1+70.73±, LINE 'B'
CONNECT TO EXIST. 6" SS LINE
1-6" WYE
1-CLEANOUT ASSEMBLY
N: 4938.50±
E: 4813.20±

STA. 1+39.04, LINE 'A'
PROP. STORM DRAIN
CROSSING

S01°09'53"E±

LINE 6:
EXIST. 6" SS LINE

SAN. SEWER LINE 'B'
PROP. 6" x 40 LF
ASTM D3034, SDR-35 PVC
@ 0.50% SLOPE

LINE 4:
EXIST. 8" SS LINE

STA. 1+55.24±, (4.2 RT.) LINE 'B'
CONNECT TO EXIST. 6" SS LINE
1-6" WYE
1-6" 45° BEND
1-CLEANOUT ASSEMBLY
N: 4937.62±
E: 4829.24±

P.I. STA. 0+56.71, LINE 'B'
INSTALL: 1-6" 45° BEND
N: 4949.52±
E: 4925.33±

EXIST. 4" WATER LINE

LINE 5:
EXIST. 6" SS LINE

EXIST. SS LINE
(PREVIOUSLY ABANDONED)
(TO BE REMOVED)

SAN. SEWER LINE 'B'
PROP. 6" x 20 LF
ASTM D3034, SDR-35 PVC
@ 0.50% SLOPE

REMOVE AND REPLACE
EXIST. 8" SS LINE
W/ PROP. 8" x 66 LF
ASTM D3034, SDR-26 PVC
@ 0.335% SLOPE

START STA. 1+03.00, LINE 'A'
CONNECT TO EXIST. 8" SS LINE
N: 4882.01±
E: 4930.89±

ANY EXISTING ROOF DRAINS CONNECTED
TO EXISTING SANITARY SEWER MUST BE
DISCONNECTED AND CONNECTED TO
STORM DRAIN.

1 SAN. SEWER RELOCATION

SCALE 1" = 10'

PLAN NORTH

GENERAL NOTES

A. ALL SEWER LINE INSTALLATION SHALL BE IN ACCORDANCE WITH DETAIL NO. 17/0/U3.0 AND DETAIL NO. 17/1/U3.0.

B. ALL SEWER LINE INSTALLATION SHALL BE INSTALLED TO DEPTH AND SLOPE MATCHING EXISTING LINES THAT ARE BEING REPLACED AS NOTED.

C. THE BAGGAGE MAKE-UP AREA IS TO REMAIN IN OPERATION FOR THE DURATION OF THE WORK. CONTRACTOR IS TO SUBMIT A PROPOSED PHASING PLAN FOR REVIEW AND APPROVAL.

D. CONTRACTOR REQUIRES EPIA APPROVAL FOR EACH PHASE INDICATED IN THE DEMOLITION AND IMPROVEMENT PLAN PRIOR TO MOVING TO THE NEXT PHASE.

E. ACTUAL SIZE AND LOCATION OF STAGING AREA SHALL BE COORDINATED WITH AIRPORT OPERATIONS.

F. LOCATION FOR CONTRACTOR PARKING WILL BE COORDINATED AND CONFIRMED BY EPIA PERSONNEL.

DEMOLITION GENERAL NOTES

A. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO START OF ANY WORK. ANY DISCREPANCY SHOULD BE NOTIFIED TO THE ARCHITECT OR THE OWNER IN WRITING BEFORE PROCEEDING WITH ANY WORK.

B. ALL ITEMS INDICATED TO BE PERMANENTLY REMOVED SHALL BE REMOVED FROM SITE ON A DAILY BASIS AND LEGALLY DISPOSED OF.

C. THE CONTRACTOR SHALL OVERSEE CLEANING AND ENSURE THAT THE PREMISES ARE MAINTAINED RUBBISH FREE DURING DEMOLITION WORK. DAILY AND FINAL CLEANUP IS THE RESPONSIBILITY OF THE CONTRACTOR.

D. CONTRACTOR REQUIRES EPIA APPROVAL FOR EACH PHASE INDICATED IN THE DEMOLITION AND IMPROVEMENT PLAN PRIOR TO MOVING TO THE NEXT PHASE.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
6/15/16	ADDENDUM NO. 1	EBA

CONSULTANT'S NAME

FREESE AND NICHOLS
414 Executive Center Blvd., Suite 200
El Paso, Texas 79902
Phone: (915) 260-4380
www.freese.com
Texas Registered Engineering Firm F-2144

ENGINEER'S SEAL

STATE OF TEXAS
ERIKA B. ANDERSON
100964
LICENSED PROFESSIONAL ENGINEER
06/13/16

SCALE

DATE	MAY 2016
DESIGN BY	DGH/RBA
DRAWN BY	DGH
CHKD. BY	DTB
APPD. BY	RBA
JOB NO.	16.0.3

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

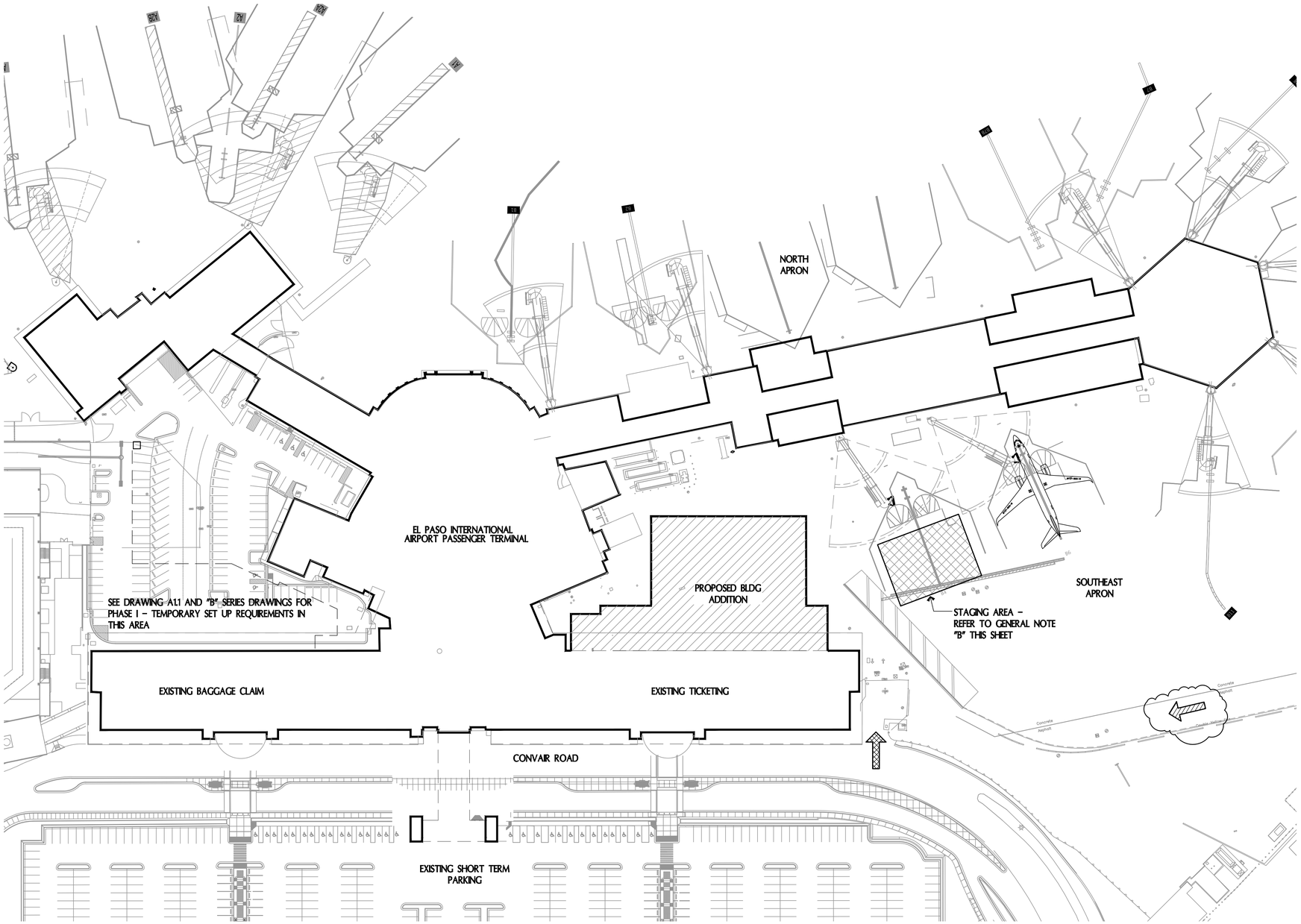
SHEET TITLE

SAN. SEWER RELOCATION

U1.0R

FILE NO. 238512

SHEET __ OF __



1 OVERALL SITE/KEY PLAN

SCALE 1" = 60'-0"

SECURITY NOTES

1. All work areas shall be locked and secured at the end of each workday.

2. Contractor access points and times to airport property shall be limited to those designated by airport operations.

3. Access to telephone rooms and security areas is strictly controlled by airport operations. Access to these areas shall require coordination with airport operations.

4. Contractor procedures for operating vehicles at the El Paso International Airport (ELP) are as follows:
   a. The procedures apply to all personnel who operate vehicles at ELP. The procedures must be reviewed and understood prior to beginning vehicle operations. Violations of these procedures will be subject to loss of identification badge and fines covered by the City of El Paso Municipal Code Title 14.
   b. Vehicles operating within security fencing are limited to those displaying company logos affixed on both sides of the vehicle and must be on official company business.
   c. All vehicle operations within the security fences at ELP shall be accomplished by persons who have passed the ELP ramp drivers test and have an "R" attached to their ELP identification badge. Training for the driving test is each individual's responsibility. Airport operations will provide the Contractor study manual. The material will be in English; translation to Spanish shall be the Contractor's responsibility.
   d. All vehicle escort/delivery operations within the security fences at ELP shall be supervised by persons who have passed the ELP ramap drivers test and have an "R" attached to their ELP identification badge. Additionally, an individual granted escort authorization in the SIDA and Sterile areas must have an "E" designation on their airport identification badge.
   e. Supervisors are responsible to ensure all construction vehicle operations on airport property are conducted in accordance with the El Paso International Airport operating instructions, ground vehicle operations rules and regulations.
   f. No vehicle may be operated on the aircraft movement area without prior arrangements with airport operations.

5. Contractor identification badge requirements at ELP are as follows:
   a. Contractors shall complete and submit a security badge agreement/contract with airport operations for approval.
   b. Contractors shall designate an individual as an Authorized Signatory. The Authorized Signatory is responsible for signing for badges for the contractor. The Authorized Signatory must meet the following requirements before airport identification badges are issued to the Contractor.
   i. All persons designated as an Authorized Signatory must submit documentation that establishes their identity and employment eligibility and undergo a Security Threat Assessment (STA) prior to performing Authorized Signatory responsibilities.
   ii. The designated Authorized Signatory must attend one Authorized Signatory training session. Subsequently, the Authorized Signatory must attend the Authorized Signatory training on a yearly basis. Schedule of sessions provided by the Airport Badging Office.
   iii. Additional requirements for the Authorized Signatory if the construction project is located in the Security Identification Display Area(s) (SIDA) or Sterile area of the airport:
   a. All persons will attend security training. Airport Operations shall provide the training and it will last not more than two hours.
   b. All persons seeking unescorted access to the Airport's SIDA and/or Sterile area will submit their fingerprints to the Airport Badging Office for criminal history check prior to authorizing approval for airport badges.

      Once the Authorized Signatory has completed the above mentioned requirements, the badging application process can begin for the Contractor.

   c. Airport Badging Application and Renewal Fees listed below are applicable to all persons seeking an airport identification badge:

Badging Fees Effective September 1, 2013

ITEM	FEE
SIDA / Sterile Badge Initial Application Fee (Includes fingerprinting)	$110.00 (non refundable)
SIDA / Sterile Badge Renewal Fee (Airport Badge expires annually)	$45.00 (non refundable)
AOA or Parking Badge Initial Application Fee	$45.00 (non refundable)
AOA or Parking Badge Renewal Fee (Airport Badge expires annually)	$35.00 (non-refundable)
Lost/Stolen/Not Returned Badge Fee	$110.00
Key Replacement Fee	$10.00

   d. All identification badges issued to the Contractor, the Contractor's employees and subcontractors badges shall be returned to airport operations at the conclusion of the scope of work. All workers must be badged and a $110.00 charge per badge will be deposited prior to acquiring a badge. This deposit will be returned and the final pay application paid when all badges have been returned to the Airport.
   e. All persons seeking an airport identification badge will attend security training. Airport operations shall provide the training.

(CONTINUED)

SECURITY NOTES CONT.

   f. All persons seeking an airport identification badge will submit a five-year work history to the airport badging office. The Contractor will verify five years of the five-year work history.
   g. All persons seeking an airport identification badge will submit documentation that establishes their identity and employment eligibility and undergo a Security Threat Assessment (STA) prior to receiving an airport identification badge. An airport identification badge will not be issued to the individual until approved by the Transportation Security Administration (TSA).
   h. All persons seeking unescorted access to the airports security identification display areas (SIDA) will submit their fingerprints to the airport badging office for criminal history check prior to receiving an airport identification badge.
   i. All persons who will be working on the regular basis in the sterile area of the airport will submit their fingerprints to the airport badging office for a criminal history records check (CHRC) prior to receiving access to the sterile area.
   j. All work tools and building supplies to be used in the sterile area shall be brought into the sterile area under the assigned escort of airport operations.
   k. All persons working in the sterile area during flight operations will present themselves to screening after an escort assigned by airport operations has secured their work tools and building supplies in the sterile area.
   l. The Contractor, supervisors and individuals issued an airport identification badge will ensure that all persons working in secure areas of the airport will display the proper identification badge for that area or are under the escort of a proper airport issued identification badge holder.
   m. It is the Contractor's responsibility to ensure that all deliveries made to airport property are done within the airport security regulations and that individuals with an airport issued identification badge, which grants access to that area, will escort all delivery vehicles and personnel.
   n. The Contractor, as well as individual identification badge holders will follow all security regulations and enforce all security rules and regulation. The Contractor and individual identification badge holders will be subject to fines between $2,000 and $10,000 and penalties as called for in the El Paso Municipal Code, Title 14. The Contractor and individual identification badge holders will be responsible to reimburse the airport for all fines or penalties imposed by the federal Government for security breaches caused by the Contractor, supervisors, and subcontractors.
   o. Failure to follow or enforce security rules and regulations can lead to work being stopped and the work site being closed until security violations have been corrected. The costs and expenses for closing the work site during a security violation shall be the responsibility of the Contractor.

6. DEFINITIONS:

   a. Security Identification Display Area (SIDA). That area of airport property outside of the terminal building and within the security fence where entry to the area is controlled by access card and/or guard posts. Additionally, all cargo facilities, descriptively known as Cargo 2, Cargo 3, and Cargo 4. An airport identification badge configured to the SIDA must be displayed by unescorted individuals in the area at all times.
   b. Secured Area. All areas of airport property within the security fence and outside of the SIDA. An airport identification badge configured to the area must be in possession of all unescorted individuals in the secured area.
   c. Sterile Area. Those portions of the airport terminal beyond the Transportation Security Administration screening inspection points. All contractors, supervisors and subcontractors must be processed through the screening inspection process or under the assigned escort of airport operations when entering the sterile areas of the airport.
   d. Escort. An individual granted unescorted access to secure areas of the airport may escort non-badged individuals into secure areas for official business purposes. Escort is a common sense process; the person/persons being escorted must have official business in the area and be strictly controlled by the badge individual. An individual granted escort authorization in the SIDA and Sterile areas must have an "E" designation on their airport identification badge.

GENERAL NOTES

A. CONTRACTOR IS TO SUBMIT A PROPOSED PLAN FOR REVIEW AND APPROVAL FOR ALL REQUIRED NIGHT WORK.

B. ACTUAL SIZE AND LOCATION OF CONTRACTOR STAGING AREA SHALL BE COORDINATED WITH AIRPORT OPERATIONS. STAGING AREA ENCLOSURE IS TO MAINTAIN 30'-0" FROM NEAREST AIRPLANE ENVELOPE.

C. LOCATION FOR CONTRACTOR PARKING WILL BE COORDINATED AND CONFIRMED BY AIRPORT PERSONNEL.

LEGEND

CONTRACTOR EQUIPMENT ACCESS-VEHICULAR.

CONTRACTOR TO COORDINATE WITH AIRPORT PERSONNEL FOR AVAILABLE ALTERNATE ACCESS ROUTE.

CONTRACTOR STAGING AREA

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2-1-	ADDENDUM NO. 1	

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REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/BRP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

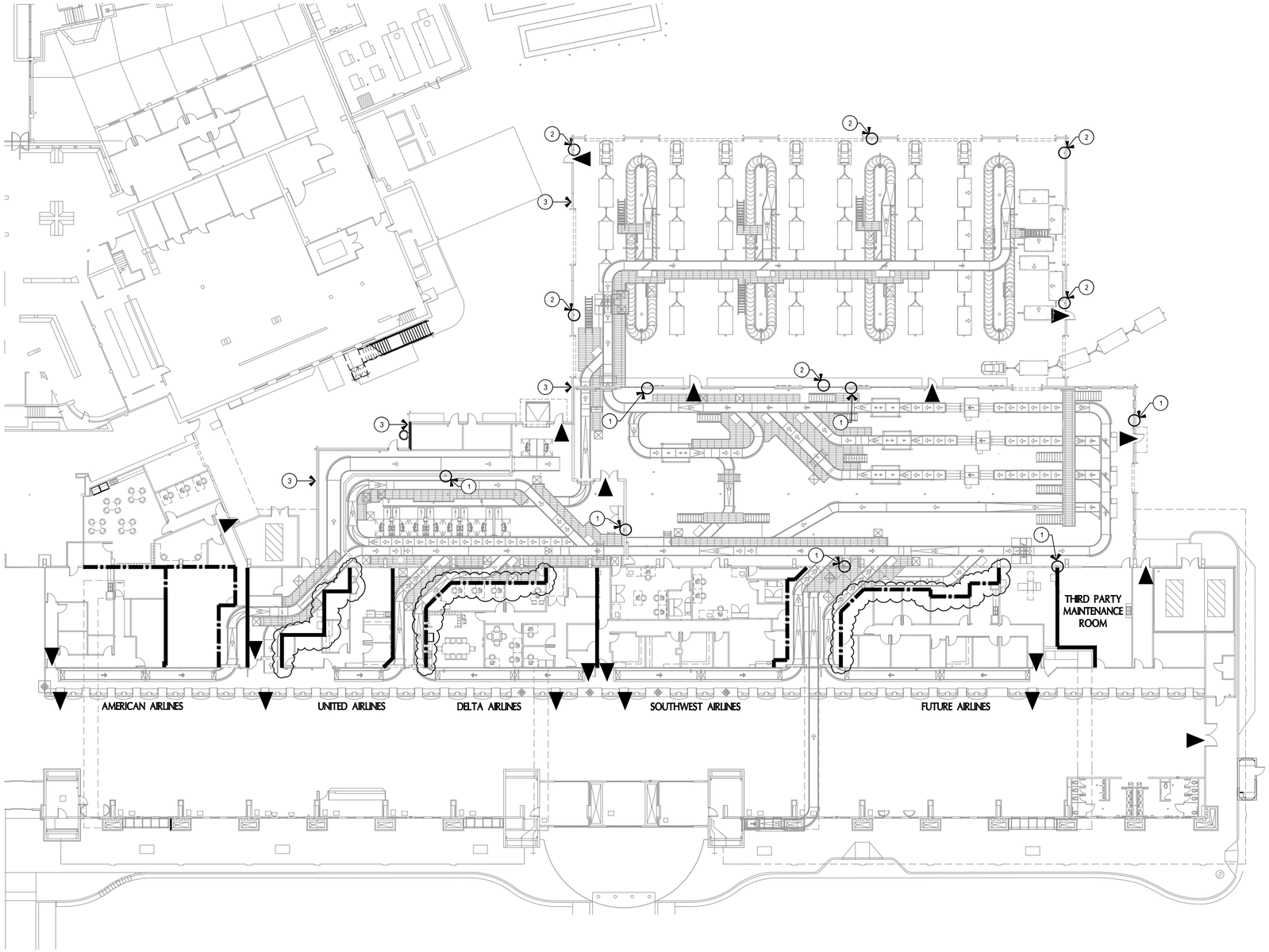
SHEET TITLE

OVERALL SITE/KEY PLAN

SN.1R

FILE NO. 238512

SHEET__OF___



2 FIRE PROTECTION FLOOR PLAN

SCALE: 1" = 20'-0"

PLAN NORTH

KEYED NOTES

1. MULTI-PURPOSE DRY CHEMICAL TYPE FIRE EXTINGUISHER AND RECESSED FIRE EXTINGUISHER CABINET EQUAL TO MODEL 2409-RA WITH LARSEN LOC, NO. 4 , SOLID DOOR, AND TYPE A DIE CUT LETTERS, AS MANUFACTURED BY LARSEN'S MANUFACTURING. PROVIDE "FLAME SHIELD (FS)" FIRE RATED CABINET WHERE CABINET IS TO BE LOCATED WITHIN A FIRE RATED PARTITION ONLY.
2. MULTI-PURPOSE FIRE EXTINGUISHER ON MOUNTING BRACKET, EQUAL TO FIRE EXTINGUISHER MODEL MP10 AND MOUNTING BRACKET MODEL B-2, AS MANUFACTURED BY LARSEN'S MANUFACTURING.
3. 1 HR. EXTERIOR NON-LOAD BEARING WALL - TABLE 601.

FIREPROOFING GENERAL NOTES

A. APPLIED FIREPROOFING ON STRUCTURAL BUILDING ELEMENTS WILL BE USED THROUGHOUT TO ACHIEVE THE REQUIRED FIRE RATINGS AS OUTLINED ON THIS SHEET.

B. COLUMNS SHALL BE PROTECTED WITH FIRE PROOFING MATERIAL IN ACCORDANCE WITH UNDERWRITERS LABORATORIES, INC. (UL) DESIGN NO. X771 AND X772, AS APPLICABLE TO SIZE AND TYPE OF COLUMN. SEE ALSO GENERAL NOTE "F."

C. REFERENCE UL NO. P710, APPLICABLE TO DECK, BEAM, JOISTS, GIRDERS, TRUSSES, ETC. PROVIDE WHITE FINISH ON FIRE PROOFING AT EXPOSED STRUCTURE LOCATIONS.

D. CONCRETE COLUMNS SHALL MAINTAIN A MINIMUM DIMENSION OF 8" AND 10" FOR ONE AND TWO HOUR FIRE-RESISTANT RATINGS, RESPECTIVELY, PER IBC TABLE 721.2.4.

E. CAST-IN-PLACE OR PRECAST CONCRETE WALLS, (LOAD BEARING OR NON-LOAD BEARING) SHALL MAINTAIN A MINIMUM DIMENSION OF 3.5" AND 5", FOR ONE AND TWO HOUR FIRE-RESISTANT RATINGS, RESPECTIVELY, PER IBC TABLE 721.2.1.1.

F. EXPOSED FIRE PROOFING OF COLUMNS AND STRUCTURE, WHERE FURRING IS NOT INDICATED, SHALL BE ACCOMPLISHED BY THE MEANS OF AN EXPOSED INTUMESCENT MASTIC FIRE RESISTIVE COATING, AS SPECIFIED. ARCHITECT TO SELECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

FIRE CODE DATA

INTERNATIONAL BUILDING CODE 2009
CONSTRUCTION TYPE: I B - TABLE 601
ALLOWABLE AREA - UNLIMITED - TABLE 503
ALLOWABLE HEIGHT - 11 STORIES - TABLE 503

OCCUPANCY:
GROUP B - BUSINESS (IBC SECTION 305)

NOTE: PER SECTION 303 SPACES THAT ARE ACCESSORY TO GROUP B ARE NOT CONSIDERED SEPARATE OCCUPANCIES IN A BUSINESS OCCUPANCY.

FIRE HYDRANT MAXIMUM DISTANCE REQUIREMENTS: (IFPC SECTION 507.5.1)
600' FROM HYDRANT TO BUILDING ON FIRE ACCESS ROAD.

EXISTING HYDRANTS: 1
HYDRANTS PROVIDED: 0

AUTOMATIC SPRINKLER SYSTEM:
YES (IBC SECTION 903.2.3)

FIRE ALARM AND DETECTION SYSTEM: (IBC SECTION 907.2.3)
FULLY SUPERVISED SYSTEM PROVIDED

FIRE EXTINGUISHERS: (IBC SECTION 906)
LOCATION: MAXIMUM TRAVEL DISTANCE-75'
NUMBER: MAXIMUM FLOOR AREA PER EXTING.-11,250 S.F.

FIRE RESISTANCE RATING REQUIREMENTS: (IBC TABLE 601)
FOR CONSTRUCTION TYPE I B:

- PRIMARY STRUCTURAL FRAME (COLUMNS, GIRDERS & TRUSSES) SUPPORTING ROOF: 1 HR. (WHERE SUPPORTING A ROOF ONLY).
  NOTE: PER IBC, METAL DECK AT ROOF IS NOT CONSIDERED PART OF THE PRIMARY STRUCTURAL FRAME AND THEREFORE IS NOT REQUIRED TO BE PROTECTED.
- EXTERIOR BEARING WALLS: 2 HR.
- INTERIOR BEARING WALLS: 1 HR. (WHERE SUPPORTING A ROOF ONLY).
- EXTERIOR NONBEARING WALLS AND PARTITIONS: 1 HR. (BASED ON FIRE SEPARATION DISTANCE BETWEEN 10 AND 30 FEET).
- INTERIOR NONBEARING WALLS AND PARTITIONS: 0 HR.
- FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS): N/A
- ROOF CONSTRUCTION AND SECONDARY MEMBERS: 1 HR.

INCIDENTAL ACCESSORY OCCUPANCY REQUIREMENTS: (IBC TABLE 508.2.5)

- FURNACE ROOM WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT: 1 HOUR.
- ROOMS WITH ANY BOILER OVER 15 PSI AND 10 HORSEPOWER: 1 HOUR

FIRE DOOR PROTECTION RATING: (IBC TABLE 715.4)

- 1-1/2 HR FOR A 2 HR FIRE RATED WALL
- 1 HR FOR 1 HR EXIT ENCLOSURE (STAIRS)
- 3/4 HR MIN. FOR A 1 HR FIRE RATED WALL

LEGEND

(1) SEE KEYED NOTES

EXIT DOORS

EXISTING 1 HOUR WALL CONSTRUCTION

1 HOUR FIRE RATED ASSEMBLY

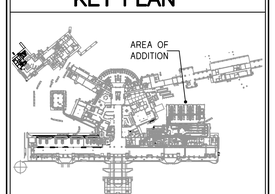
GYPSUM BOARD (SMOKE PROOF) PARTITION

3 5/8" METAL STUDS (UNLESS NOTED OTHERWISE) @ 16" O.C. WITH ONE LAYER OF 5/8" TYPE "X" GYPSUM BOARD ON EACH SIDE OF STUDS AND SHALL BE CONTINUOUS TO METAL DECK ABOVE, PER UL DESIGN NO. U465. SEAL ALL PENETRATIONS.

2 HOUR FIRE RATED ASSEMBLY

8 OR 10 INCH PRECAST CONCRETE WALL PANEL

KEY PLAN



REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS
DATE 6-20-16

SCALE

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CHKD. BY	S.D.
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JOB NO.	1603

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CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL

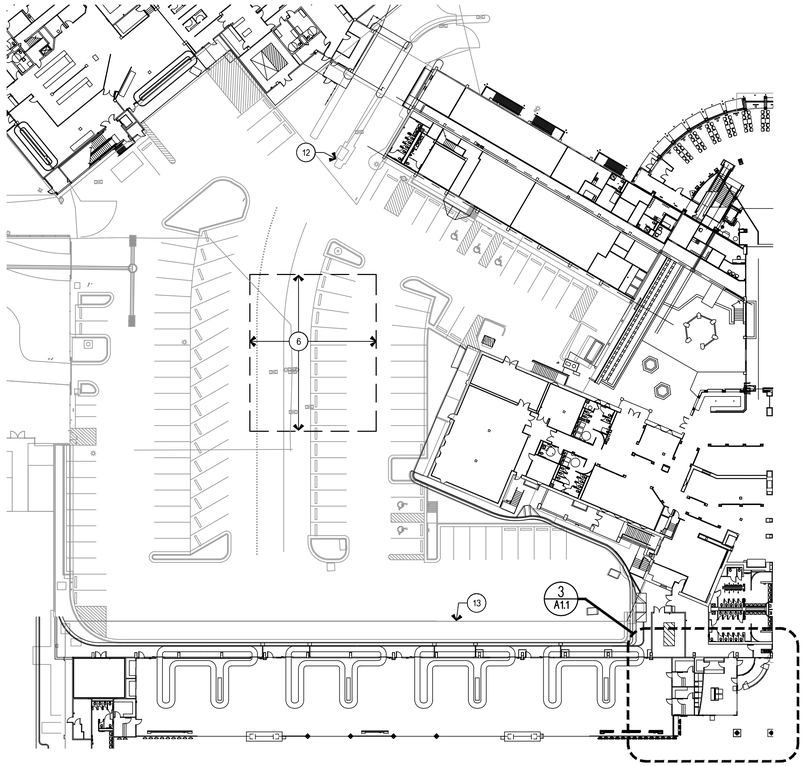
CITY OF EL PASO

SHEET TITLE
FIRE PROTECTION PLAN

FP.1R

FILE NO. 238512

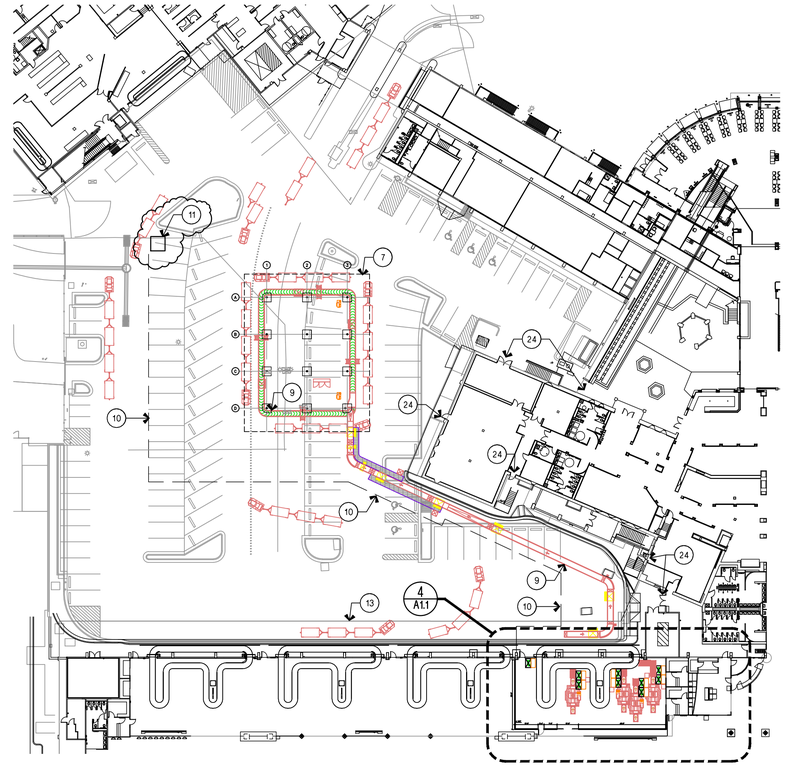
SHEET___OF___



1 DEMOLITION SITE PLAN

SCALE 1" = 40'-0"

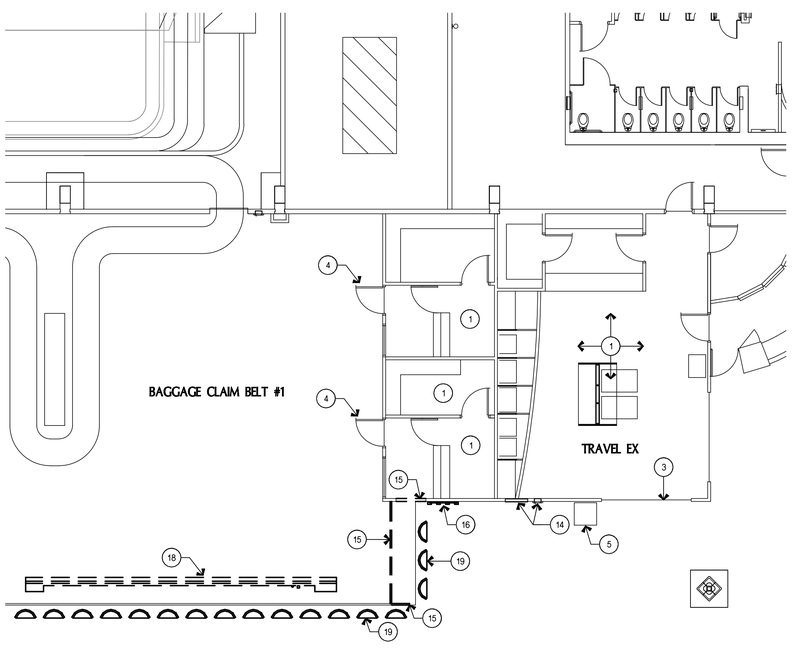
PLAN NORTH



2 REVISED SITE PLAN FOR TEMPORARY BHS - PHASE I

SCALE 1" = 40'-0"

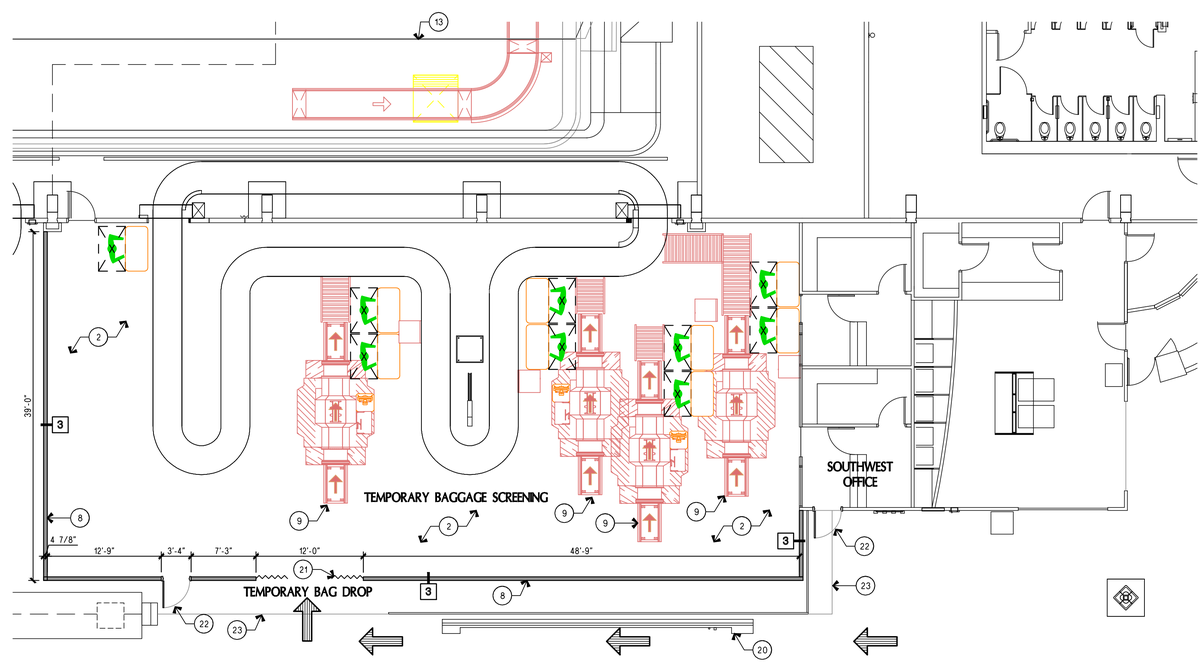
PLAN NORTH



3 DEMOLITION PLAN AT BAGGAGE BELT 1 - PHASE I

SCALE 1/8" = 1'-0"

PLAN NORTH



4 REVISED PLAN AT BAGGAGE BELT 1 - PHASE I

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1. EXISTING TO REMAIN. NO WORK IN THIS AREA.
2. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION FOR TEMPORARY BAGGAGE HANDLING AND SCREENING SET UP.
3. EXISTING RAIL TO BE REMAIN.
4. EXISTING DOOR TO REMAIN.
5. EXISTING ATM TO REMAIN.
6. AREA TO BE PREPARED FOR TEMPORARY BAG MAKE UP EQUIPMENT. SEE "B SERIES" DRAWINGS.
7. OVERHEAD CANOPY. SEE STRUCTURAL DRAWINGS AND ELECTRICAL DRAWINGS FOR LIGHTING.
8. TEMPORARY WALL PARTITIONS. CONTRACTOR IS TO TAKE EXTRA PRE-CAUTIONS NOT TO DAMAGE EXISTING FLOOR WHEN INSTALLING. CONTRACTOR WILL BE RESPONSIBLE FOR PATCHING AND REPAIRING TO EXISTING CONDITION AS A RESULT OF TEMPORARY CONSTRUCTION.
9. SEE "B SERIES DRAWINGS FOR BAGGAGE HANDLING SYSTEM AND SCREENING EQUIPMENT.
10. SECURITY FENCE. SEE CIVIL FOR FENCE DETAIL. CONTRACTOR IS TO VERIFY WITH OWNER FOR FINAL LAYOUT AND SECURITY FENCE REQUIREMENTS.
11. TEMPORARY GUARD SHACK.
12. EXISTING GUARD SHACK TO REMAIN.
13. LINE OF EXISTING OVERHANG ABOVE.
14. EXISTING FIRE EXTINGUISHER CABINET AND FIRE DEPARTMENT VALVE ARE TO REMAIN.
15. REMOVE A PORTION OF EXISTING WALL FOR NEW DOOR OPENING. PATCH AND REPAIR AS REQUIRED.
16. EXISTING GROUND TRANSPORTATION MONITOR AND COMMUNICATION DEVICES ARE TO BE RELOCATED. SEE REVISED FLOOR PLAN.
17. PORTION OF EXISTING RAIL IS TO BE REMOVED. PATCH AND REPAIR AS REQUIRED.
18. EXISTING BAGGAGE CARTS ARE TO BE REMOVED AND SALVAGED TO OWNER. VERIFY WITH AIRPORT PERSONNEL FOR NEW LOCATION. SEE REVISED PLAN.
19. REMOVE EXISTING FURNITURE AND SALVAGE TO OWNER. VERIFY WITH AIRPORT PERSONNEL FOR NEW LOCATION.
20. RELOCATED BAGGAGE CARTS.
21. 8'-0" TALL ACCORDION GATE WITH SECURITY LOCK.
22. NEW 3'-0" X 7'-0" X 1 3/4" SOLID CORE WOOD DOOR WITH HOLLOW METAL FRAME. COORDINATE DOOR HARDWARE REQUIREMENTS WITH AIRPORT PERSONNEL.
23. LINE OF FLOOR FINISH TRANSITION.
24. EXISTING DOORS, REGARDING ACCESS CONTROL AND FACING THE TEMPORARY BAGGAGE MAKE UP AREA TO MODIFIED AS REQUIRED. COORDINATE WITH AIRPORT PERSONNEL.

LEGEND

1	SEE KEYED NOTES
3	WALL TYPES
	PASSENGER TRAFFIC FLOW

GENERAL NOTES

A. WHERE WALLS ARE SHOWN TO BE REMOVED, PATCH AND REPAIR FLOOR FINISH, WALLS, CEILING AS REQUIRED TO MATCH EXISTING.

B. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION OF ALL FINISHES IN EXISTING BUILDING DURING CONSTRUCTION.

C. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES AS A RESULT OF NEW CONSTRUCTION.

D. SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND "B" SERIES DRAWINGS FOR ADDITIONAL WORK NOT SHOWN HERE.

E. CONTRACTOR IS TO COORDINATE AND VERIFY WITH AIRPORT PERSONNEL FOR ALL REQUIREMENTS FOR THE TEMPORARY BAGGAGE HANDLING SYSTEM AND SCREENING SHOWN ON THIS DRAWING. CONTRACTOR SHALL NOT PROCEED UNLESS AIRPORT PERSONNEL HAS REVIEWED AND APPROVED ALL PHASES OF WORK.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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REGISTERED ARCHITECT
JORGE L. MORA
12526
STATE OF TEXAS
DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/BMP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

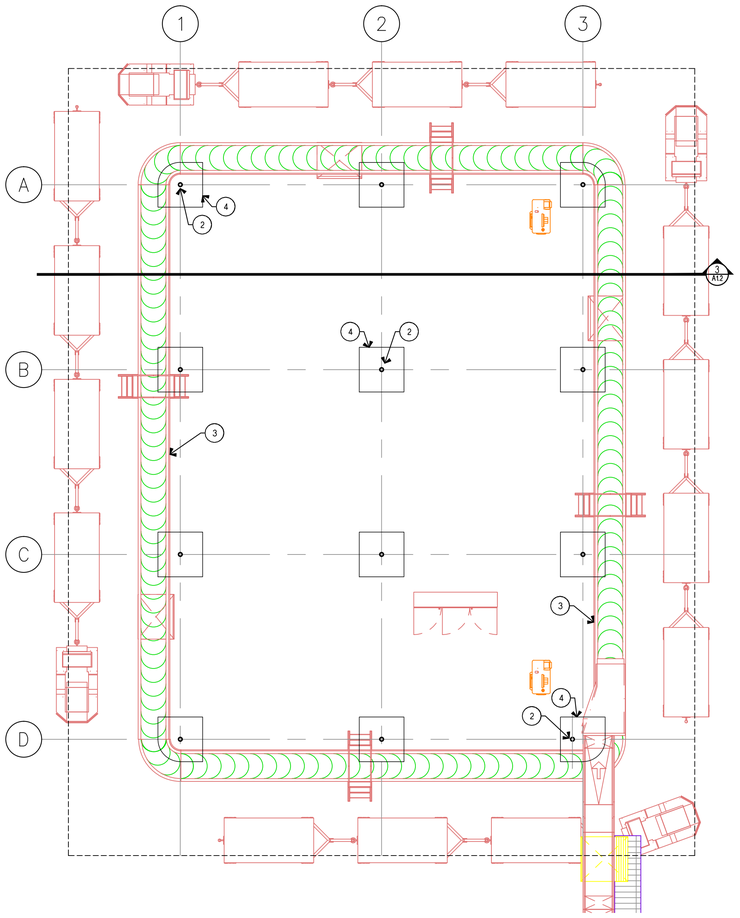
SHEET TITLE

TEMPORARY BHS-PHASE I

A1.1R

FILE NO. 238512

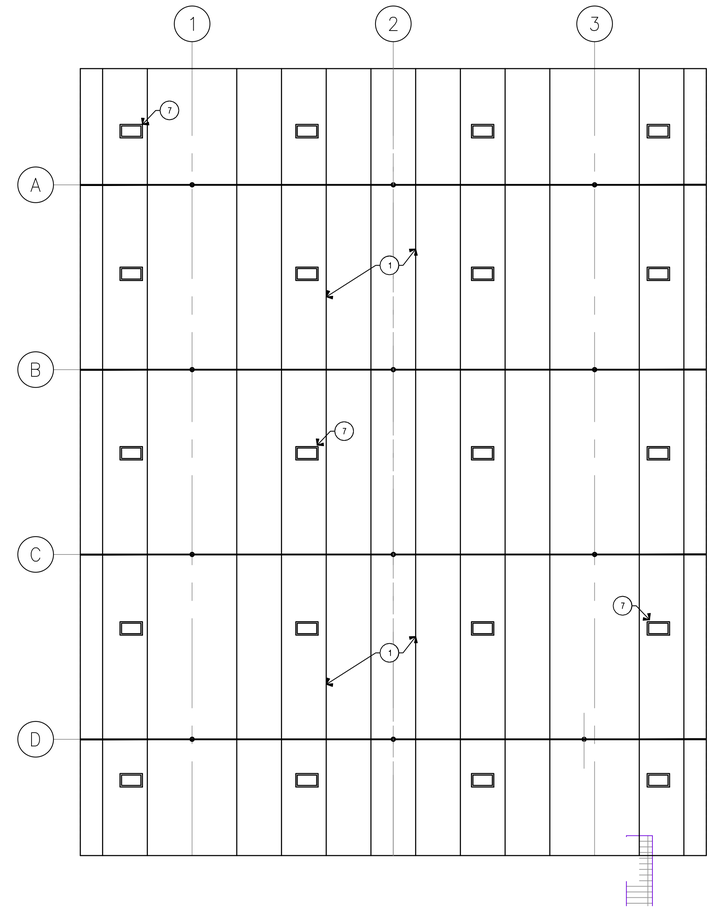
SHEET___OF___



1 FLOOR PLAN AT CANOPY

SCALE 1/8" = 1'-0"

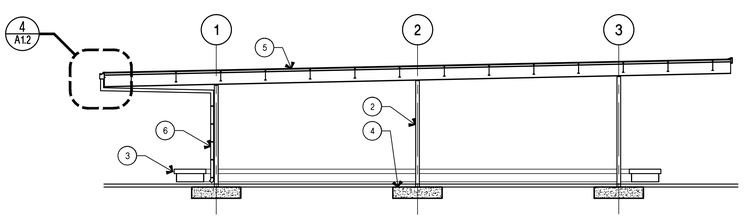
PLAN NORTH



2 REFLECTED CEILING PLAN AT CANOPY

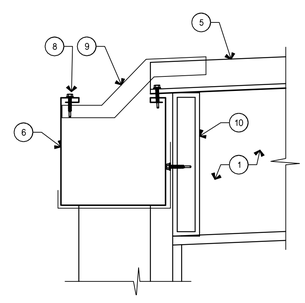
SCALE 1/8" = 1'-0"

PLAN NORTH



3 SECTION AT CANOPY

SCALE 1/8" = 1'-0"



4 EDGE DETAIL AT CANOPY

SCALE 3" = 1'-0"

KEYED NOTES

1. EXPOSED STRUCTURE PAINTED. SEE STRUCTURAL DRAWINGS.
2. STEEL COLUMN, PAINTED. SEE STRUCTURAL DRAWINGS.
3. BAGGAGE HANDLING SYSTEM. SEE "B" SERIES DRAWINGS.
4. CONCRETE FOOTING. SEE STRUCTURAL DRAWINGS.
5. METAL ROOF PANEL. SEE STRUCTURAL FOR TYPE.
6. GUTTER AND DOWNSPOUT.
7. LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
8. FASTENERS PER MANUFACTURERS RECOMMENDATIONS.
9. GUTTER BRACKET.
10. STEEL TUBE FOR GUTTER SUPPORT. SEE STRUCTURAL DRAWINGS.

LEGEND

(1) SEE KEYED NOTES

GENERAL NOTES

A. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES AS A RESULT OF TEMPORARY CONSTRUCTION.

B. SEE STRUCTURAL, MECHANICAL, ELECTRICAL AND "B" SERIES DRAWINGS FOR ADDITIONAL WORK NOT SHOWN HERE.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2-11	ADDENDUM NO. 1	

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ARCHITECT'S SEAL

REGISTERED ARCHITECT
JORGE L. MORA
12526
STATE OF TEXAS

DATE 6-20-16

SCALE

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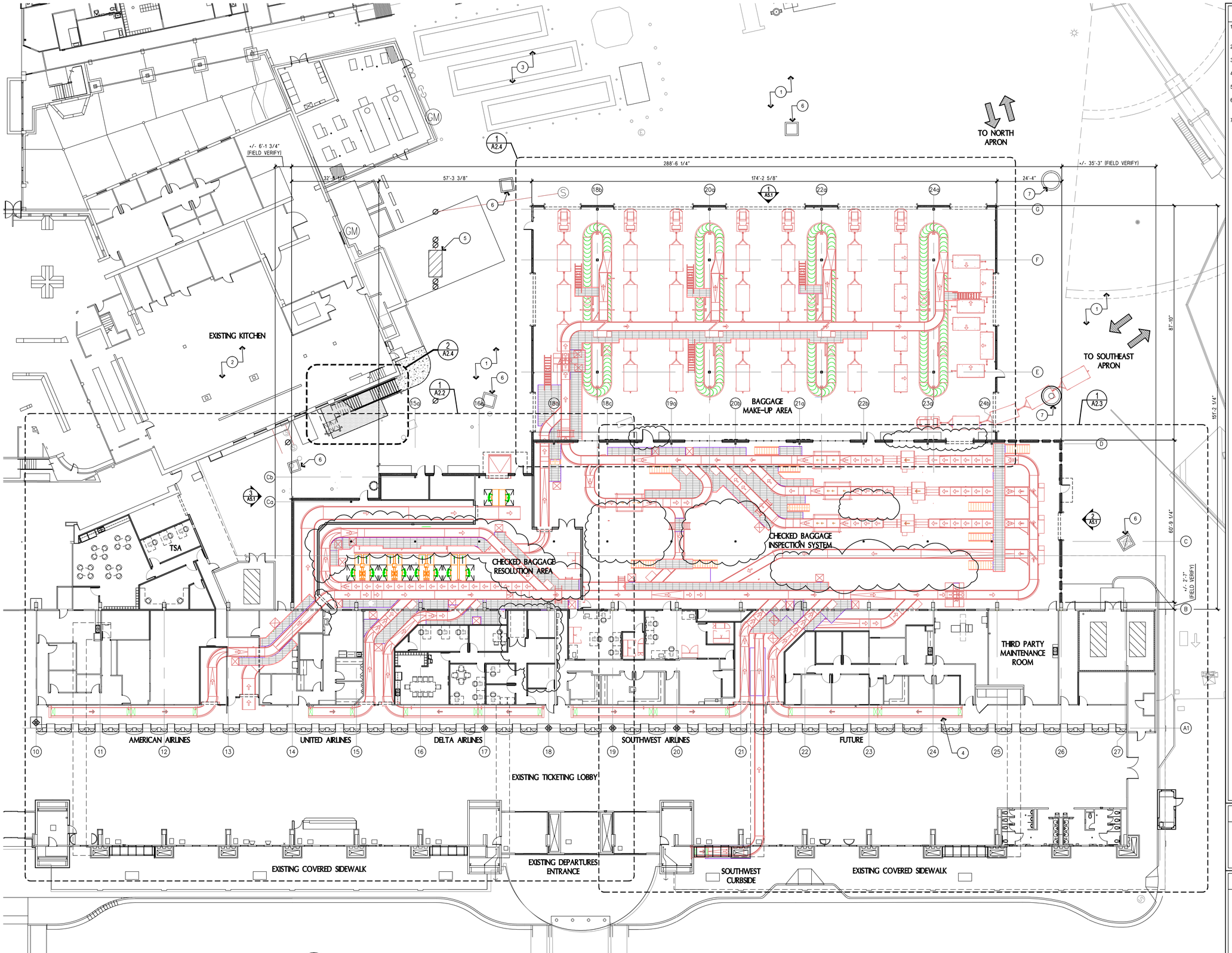

1 REVISED SITE/FLOOR PLAN

SCALE 1/16" = 1'-0"

PLAN NORTH

KEYED NOTES

1. SEE CIVIL DRAWINGS AND UTILITY DRAWINGS FOR SCOPE OF WORK IN THIS AREA.
2. EXISTING BUILDING. NO WORK IN THIS AREA.
3. EXISTING CHILLERS. NO WORK IN THIS AREA.
4. MILITARY AND BASEBALL TEAM BAGGAGE INPUT.
5. GREASE TRAP, SEE MECHANICAL DRAWINGS.
6. STORM DRAIN INLET, SEE CIVIL AND UTILITY DRAWINGS.
7. MANHOLE. SEE CIVIL AND UTILITY DRAWINGS.

LEGEND

1 SEE KEYED NOTES

GENERAL NOTES

A. WHERE WALLS ARE SHOWN TO BE REMOVED, PATCH AND REPAIR FLOOR FINISH, WALLS, CEILING AS REQUIRED TO MATCH EXISTING.

B. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION OF ALL FINISHES IN EXISTING BUILDING DURING CONSTRUCTION.

C. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES AS A RESULT OF NEW CONSTRUCTION.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECTS INC.
EL PASO, TEXAS 79912
FAX: 542-7934
111 N. EVERTON
TEL: 915-542-1391

ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/BRP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

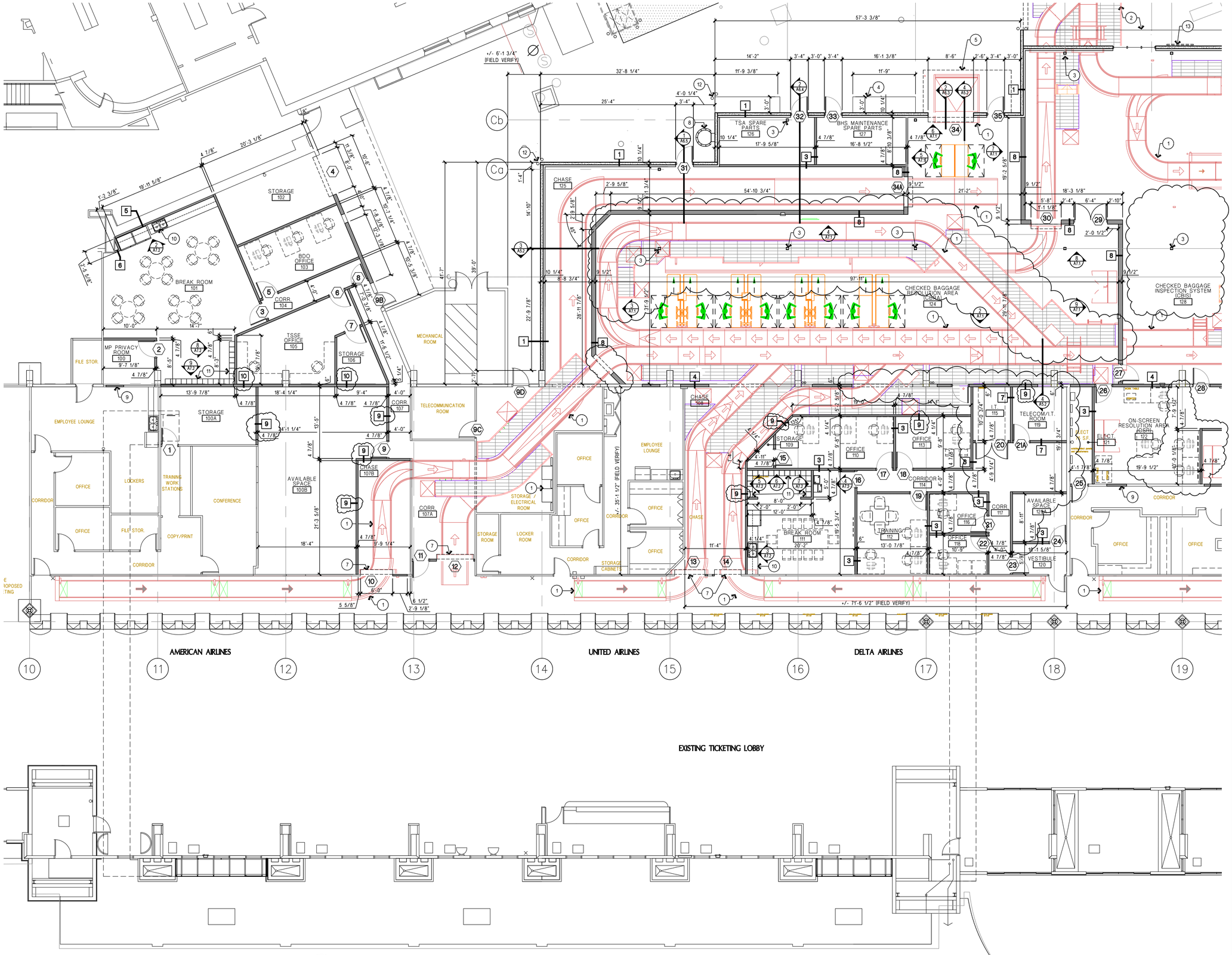
SHEET TITLE

REVISED FLOOR PLAN

A2.1R

FILE NO. 238512

SHEET__OF__



1 REVISED PARTIAL FLOOR PLAN

SCALE 1/8" = 1'-0"

KEYED NOTES

1. BAGGAGE CONVEYOR. SEE "B" SERIES DRAWINGS.
2. SEE DRAWING A2.4 FOR SCOPE OF WORK IN THIS AREA.
3. STEEL TUBE COLUMN. SEE STRUCTURAL DRAWINGS.
4. CONCRETE SIDEWALK/CURB.
5. OVERHEAD CANOPY ABOVE.
6. SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER.
7. OVERHEAD COILING SHUTTER DOOR.
8. ROOF LADDER AND SAFETY CAGE. SEE ROOF PLAN AND DETAILS.
9. NEW WALL CONSTRUCTION INFILL. MATCH EXISTING CONSTRUCTION AND FINISH.
10. MILLWORK.
11. METAL LOCKERS.
12. PAINTED PIPE BOLLARD.
13. FLIGHT INFORMATION DISPLAY SCREEN (FIDS), SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
14. RELOCATED ELECTRICAL EQUIPMENT. SEE ELECTRICAL DRAWINGS

LEGEND

(1)	SEE KEYED NOTES
1	DOOR NUMBER
A	WINDOW TYPE
XX	WALL TYPE

GENERAL NOTES

A. WHERE WALLS ARE SHOWN TO BE REMOVED, PATCH AND REPAIR FLOOR FINISH, WALLS, CEILING AS REQUIRED TO MATCH EXISTING.

B. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION OF ALL FINISHES IN EXISTING BUILDING DURING CONSTRUCTION.

C. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES AS A RESULT OF NEW CONSTRUCTION.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
2-2-11	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/GRP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL

CITY OF EL PASO

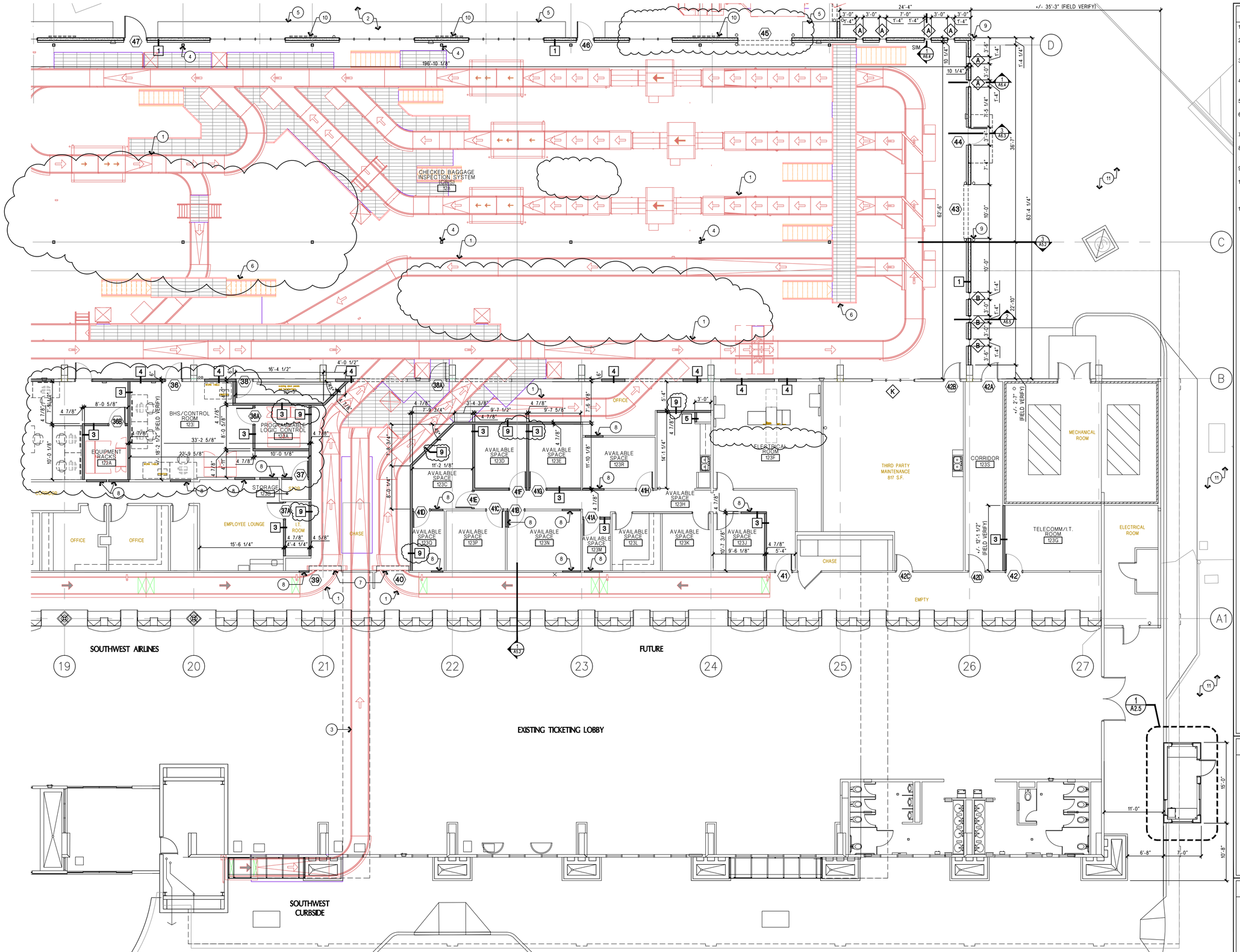
SHEET TITLE

REVISED FLOOR PLAN

A2.2R

FILE NO. 238512

SHEET___OF___



1 REVISED PARTIAL FLOOR PLAN

SCALE 1/8" = 1'-0"

KEYED NOTES

1. BAGGAGE CONVEYOR. SEE "B" SERIES DRAWINGS.
2. SEE DRAWING A2.4 FOR SCOPE OF WORK IN THIS AREA.
3. CURBSIDE/UNDERGROUND CONVEYOR. SEE "B" SERIES DRAWINGS.
4. STEEL TUBE COLUMN. SEE STRUCTURAL DRAWINGS.
5. CONCRETE SIDEWALK/CURB.
6. METAL STAIRS AND CATWALK SYSTEM. SEE "B" SERIES DRAWINGS.
7. OVERHEAD COILING SHUTTER DOOR.
8. NEW WALL CONSTRUCTION INFILL. MATCH EXISTING CONSTRUCTION AND FINISH.
9. PAINTED PIPE BOLLARDS.
10. FLIGHT INFORMATION DISPLAY SCREEN (FIDS), SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
11. SEE CIVIL DRAWINGS FOR EXTENT OF NEW WORK IN THIS AREA.

LEGEND

- (1) SEE KEYED NOTES
- (1) DOOR NUMBER
- (A) WINDOW TYPE
- (XX) WALL TYPE

GENERAL NOTES

A. WHERE WALLS ARE SHOWN TO BE REMOVED, PATCH AND REPAIR FLOOR FINISH, WALLS, CEILING AS REQUIRED TO MATCH EXISTING.

B. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROTECTION OF ALL FINISHES IN EXISTING BUILDING DURING CONSTRUCTION.

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REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

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ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/RMP
DRAWN BY	S.D.
CHKD. BY	S.D.
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JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

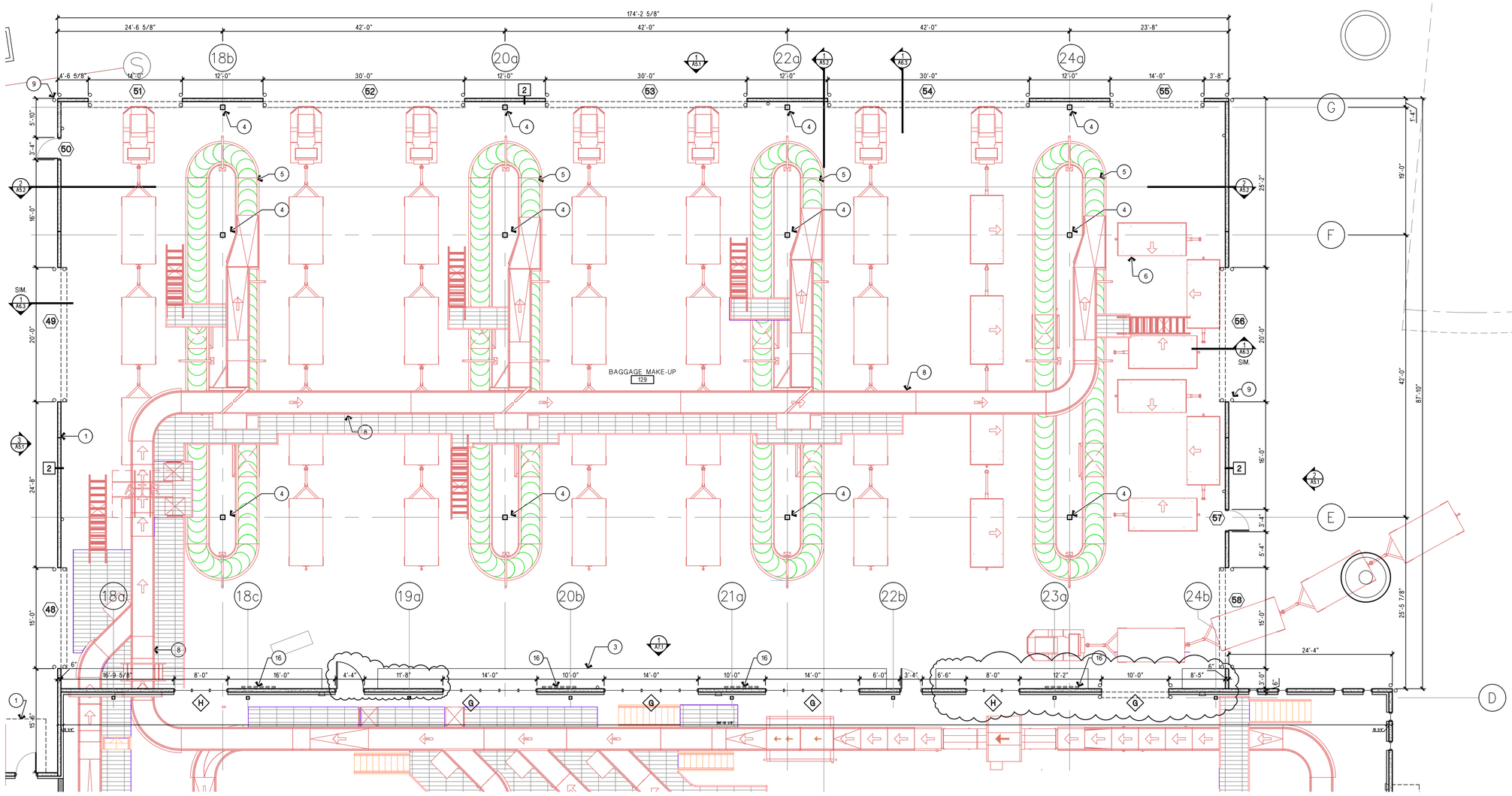
SHEET TITLE

REVISED FLOOR PLAN

A2.3R

FILE NO. 238512

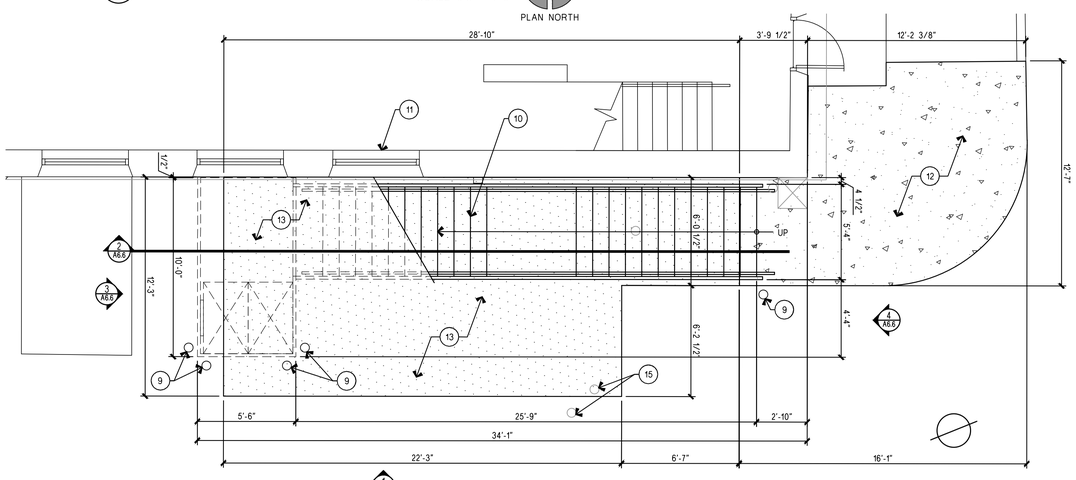
SHEET___OF___



1 REVISED PARTIAL FLOOR PLAN

SCALE 1/8" = 1'-0"

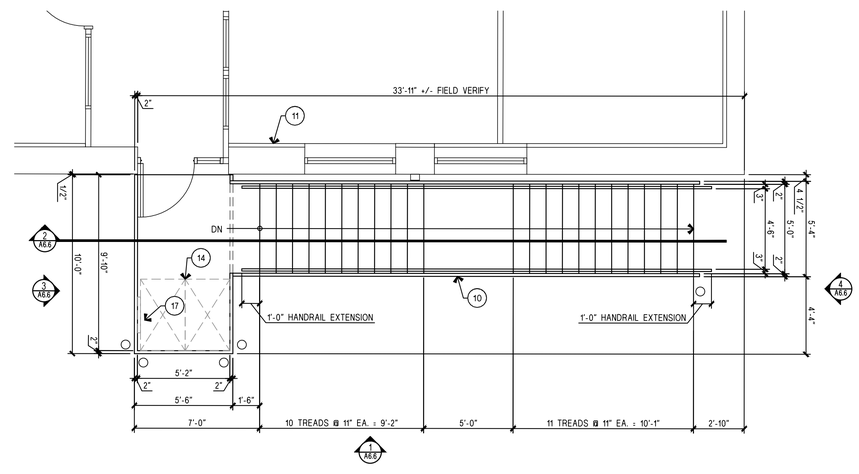
PLAN NORTH



2 STAIR PLAN - GROUND FLOOR

SCALE 1/4" = 1'-0"

PLAN NORTH



3 STAIR PLAN - SECOND FLOOR

SCALE 1/4" = 1'-0"

PLAN NORTH

KEYED NOTES

1. OVERHEAD CANOPY ABOVE.
2. PRE-FABRICATED CONCRETE BARRIER TO MATCH EXISTING.
3. CONCRETE CURB.
4. STEEL COLUMN. SEE STRUCTURAL DRAWINGS.
5. BAGGAGE MAKE-UP DEVICE. SEE "B" SERIES DRAWINGS.
6. BAGGAGE DISTRIBUTION CARTS.
7. STEEL COLUMN. SEE STRUCTURAL DRAWINGS.
8. BAGGAGE CONVEYOR. SEE "B" SERIES DRAWINGS.
9. PAINTED PIPE BOLLARDS.
10. METAL STAIR, REFER TO STRUCTURAL DRAWINGS.
11. EXISTING BUILDING TO REMAIN.
12. NEW CONCRETE WALK TO MATCH EXISTING, REFER TO CIVIL DRAWINGS.
13. NEW ASPHALT PAVEMENT TO MATCH EXISTING, REFER TO CIVIL DRAWINGS.
14. DASHED LINE INDICATES AREA OF RESCUE ASSISTANCE (30"x48" EA.)
15. EXISTING PIPE BOLLARDS TO BE REMOVED AND PATCH TO MATCH EXISTING.
16. FLIGHT INFORMATION DISPLAY SCREEN (FIDS), SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
17. REINSTALLED AREA OF RESCUE ASSISTANCE COMMUNICATIONS PANEL.

LEGEND

1	SEE KEYED NOTES
1	DOOR NUMBER
A	WINDOW TYPE
XX	WALL TYPE

GENERAL NOTES

A. WHERE WALLS ARE SHOWN TO BE REMOVED, PATCH AND REPAIR FLOOR FINISH, WALLS, CEILING AS REQUIRED TO MATCH EXISTING.

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REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/BRP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

REVISED FLOOR PLAN

A2.4R

FILE NO. 238512

SHEET___OF___

SCHEDULE OF FINISHES

Floor: 1 = SEALED CONCRETE, 2 = CARPET, 3 = LVT, 4 = ANTI-FATIGUE RUBBER FLOORING. Base: 1 = VINYL BASE. Walls: 1 = GYPSUM BOARD - PAINTED, 2 = CONCRETE - PAINTED. Ceilings: 1 = ACOUSTICAL LAY-IN, 2 = GYPSUM BOARD - PAINTED, 3 = TECTUM PANELS - PAINTED, 4 = EXP. STRUCTURE PAINTED.

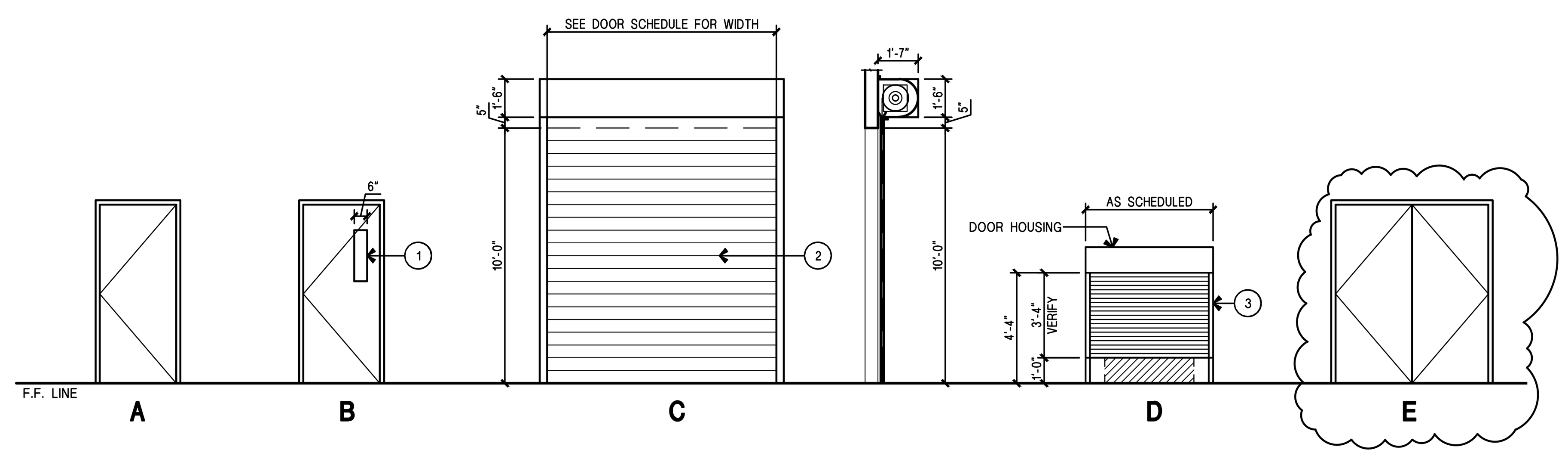
NO.	NAME	FLOOR	BASE	WALLS N	WALLS E	WALLS S	WALLS W	CEILINGS	CLG. HT.	REMARKS
100	MP PRIVACY ROOM	3	1	1	1	1	1	1	9'-0"	
100A	STORAGE	1	1	1	1	1	1	1	9'-0"	
100B	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
101	BREAK ROOM	3	1	1	1	1	1	1	9'-0"	
102	STORAGE	1	1	1	1	1	1	1	9'-0"	
103	BDO OFFICE	2	1	1	1	1	1	1	9'-0"	
104	CORRIDOR	3	1	1	1	1	1	1	9'-0"	
105	TSSE OFFICE	2	1	1	1	1	1	1	9'-0"	
106	STORAGE	3	1	1	1	1	1	1	9'-0"	
107	CORRIDOR	3	1	1	1	1	1	1	9'-0"	
107A	CORRIDOR	1	1	1	1	1	1	4		EXPOSED STRUCTURE
107B	CHASE	1	1	1	1	1	1	4		EXPOSED STRUCTURE
108	CHASE	1	1	1	1	1	1	4		EXPOSED STRUCTURE
109	STORAGE	3	1	1	1	1	1	1	9'-0"	
110	OFFICE	2	1	1	1	1	1	1	9'-0"	
111	BREAK ROOM	3	1	1	1	1	1	1	9'-0"	
112	TRAINING	2	1	1	1	1	1	1	9'-0"	
113	OFFICE	2	1	1	1	1	1	1	9'-0"	
114	CORRIDOR	3	1	1	1	1	1	1	9'-0"	
115	I.T.	3	1	1	1	1	1	1	9'-0"	
116	OFFICE	2	1	1	1	1	1	1	9'-0"	
117	CORRIDOR	3	1	1	1	1	1	1	9'-0"	
118	OFFICE	2	1	1	1	1	1	1	9'-0"	
119	TELECOMM/I.T. ROOM	3	1	1	1	1	1	1	9'-0"	
120	VESTIBULE	3	1	1	1	1	1	1	9'-0"	
120A	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
121	ELECTRICAL ROOM	1	1	1	1	1	1	1	9'-0"	
122	ON-SCREEN RESOLUTION AREA	2	1	1	1	1	1	1	9'-0"	
122A	EQUIPMENT RACKS	3	1	1	1	1	1	1	9'-0"	
123	BAGGAGE HANDLING SYSTEM/CONTROL RM. (BHS)	2	1	1	1	1	1	1	9'-0"	
123A	PROGRAMMABLE LOGIC CONTROL	3	1	1	1	1	1	1	9'-0"	
123B	STORAGE	3	1	1	1	1	1	1	9'-0"	
123C	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123D	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123E	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123F	ELECTRICAL ROOM	1	1	1	1	1	1	1	9'-0"	
123G	TELECOMM/I.T.	3	1	1	1	1	1	1	9'-0"	
123H	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123J	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123K	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123L	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123M	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123N	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123P	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123Q	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123R	AVAILABLE SPACE	3	1	1	1	1	1	1	9'-0"	
123S	CORRIDOR	3	1	1	1	1	1	1	9'-0"	SEE KEYED NOTE NO. 5
124	CHECKED BAGGAGE RESOLUTION AREA (CBRA)	4	1	1	1	1	1	3	14'-0"	SEE KEYED NOTE NO. 4
125	CHASE	1	1	1	1	1	1	4		EXPOSED STRUCTURE
126	TSA SPARE PARTS	1	1	1	1	1	1	2	9'-0"	
127	BHS MAINTENANCE SPARE PARTS	1	1	1	1	1	1	2	9'-0"	
128	CHECKED BAGGAGE INSPECTION SYSTEM (CBIS)	1	1	1	1	1	1	4		EXPOSED STRUCTURE
129	BAGGAGE MAKE-UP AREA	1	-	2	2	2	2	4		EXPOSED STRUCTURE
130	EAST GUARD SHACK	3	1	1	1	1	1	1	7'-4"	

DOOR SCHEDULE

MARK	ROOM	SIZE (W X H X THK)	TYPE	DOOR MATERIAL	GLASS	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	HEAD	JAMB	JAMB	THRES.	HDW. SET	FIRE RATING	REMARKS
1	-	3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		6		
2		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
3		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		9		
4		8'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		
5		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
6		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
7		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		6		
8		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
9		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
9A		NOT USED													
9B		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
9C		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
9D		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
10		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
11		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
12		7'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
13		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
14		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
15		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		7		
16		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		9		
17		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
18		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
19		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
20		2-3'-0" X 7'-0" X 1-3/4"	E	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		6		
21		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
21A		3'-0" X 7'-0" X 1-3/4"				PAINT		PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
22		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
23		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
24		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
25		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		6		
26		3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
27		3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	9/A2.8	10/A2.8	10/A2.8		3		PROVIDE ACCESS CONTROL INTERFACE
28		3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
29		2-3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	9/A2.8	10/A2.8	10/A2.8		5		PROVIDE ACCESS CONTROL INTERFACE
30		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	4/A2.8	8/A2.8	8/A2.8		1		
31		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7	6/A2.7	4		PROVIDE ACCESS CONTROL INTERFACE
32		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7	6/A2.7	4		PROVIDE ACCESS CONTROL INTERFACE
33		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7	6/A2.7	4		PROVIDE ACCESS CONTROL INTERFACE
34		9'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	3/A2.8	7/A2.8	7/A2.8		1		PROVIDE ACCESS CONTROL INTERFACE
34A		9'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	4/A2.8	8/A2.8	8/A2.8		1	1 HR	
35		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7	6/A2.7	4		PROVIDE ACCESS CONTROL INTERFACE
36		3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
36A		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
36B		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		6		
37		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		7		
37A		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		REUSE TENANT ACCESS CONTROL HARDWARE
38		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
38A		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
39		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
40		6'-0" X 4'-4"	D	STEEL		FAC-P	STEEL	FAC-P	2/A2.8	6/A2.8	6/A2.8		1	1 HR	PROVIDE ACCESS CONTROL INTERFACE
41		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
41A		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		7		
41B		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
41C		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
41D		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		7		
41E		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
41F		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
41G		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
41H		3'-0" X 7'-0" X 1-3/4"	B	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		8		
42		3'-0" X 7'-0" X 1-3/4"	A	S.C. WOOD		PAINT	H.M.	PAINT	3/A2.7	4/A2.7	4/A2.7		3		PROVIDE ACCESS CONTROL INTERFACE
42A		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
42B		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
42C		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
42D		EXISTING											2		PROVIDE ACCESS CONTROL INTERFACE
43		10'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		PROVIDE ACCESS CONTROL INTERFACE
44		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7	6/A2.7	4		PROVIDE ACCESS CONTROL INTERFACE
45		10'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
46		3'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7		4		PROVIDE ACCESS CONTROL INTERFACE
47		4'-0" X 7'-0" X 1-3/4"	B	H.M.		PAINT	H.M.	PAINT	1/A2.7	2/A2.7	2/A2.7		4		PROVIDE ACCESS CONTROL INTERFACE
48		15'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
49		20'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
50		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	23/A2.7	24/A2.7	24/A2.7	6/A2.7	11		
51		13'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
52		30'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
53		30'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
54		30'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
55		14'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
56		20'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
57		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	23/A2.7	24/A2.7	24/A2.7	6/A2.7	11		
58		15'-0" X 10'-0"	C	STEEL		FAC-P	STEEL	FAC-P	13/A2.7	14/A2.7	14/A2.7		1		ELECTRIC OPERATOR, SEE ELECTRICAL
59		3'-0" X 7'-0" X 1-3/4"	A	H.M.		PAINT	H.M.	PAINT	11/A2.8	12/A2.8	12/A2.8	6/A2.7	12		GUARD SHACK

ABBREVIATIONS

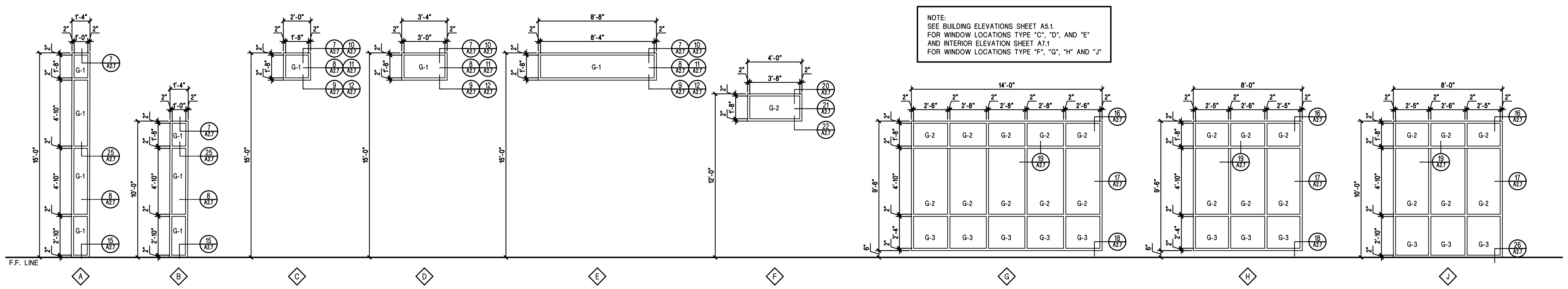
FAC	BY FACTORY
FAC-P	FACTORY PAINTED
FAC-ST:	FACTORY STAIN AND FINISH AS SPECIFIED
P	PAINT
S.C. WOOD	SOLID CORE WOOD
H.M.	HOLLOW METAL
ALUM	ALUMINUM
S.S.	STAINLESS STEEL



1 DOOR TYPES

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

NOTE:
SEE BUILDING ELEVATIONS SHEET A5.1.
FOR WINDOW LOCATIONS TYPE "C", "D", AND "E"
AND INTERIOR ELEVATION SHEET A7.1
FOR WINDOW LOCATIONS TYPE "F", "G", "H" AND "J"



2 WINDOW TYPES

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

KEYED NOTES

1. GLASS AS SCHEDULED.
2. STEEL OVERHEAD COILING DOOR AS SPECIFIED.
3. PROVIDE DRAFT CURTAIN AND STAINLESS STEEL TRIM AS SPECIFIED.
4. 1" THICK GREY SMARTCELLS, ANTI-FATIGUE FLOORING BY SATECH INC. TELEPHONE 360-748-8711, www.smartcellsusa.com.
5. 48" HIGH DIAMOND PLATED, STEEL WAINSCOT ON ALL WALLS.

GENERAL NOTES

A. ALL ALUMINUM FRAMED WINDOWS ARE TO HAVE A BRONZE FINISH AS SPECIFIED.

B. SEE SPECIFICATIONS FOR DOORS THAT ARE TO BE PROVIDED WITH "DIAMOND PLATED" KICK PLATES AT EACH SIDE OF DOOR.

GLASS SCHEDULE

G-1 1" TINTED, INSULATED GLASS.

G-2 1/4" CLEAR GLASS AS SPECIFIED.

G-3 1/4" CLEAR TEMPERED GLASS AS SPECIFIED.

LEGEND

(1) SEE KEYED NOTES

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
-2-1	ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares mora ARCHITECTS INC.
111 N. FESTIVAL TEL: 915-542-1591
EL PASO, TEXAS 79912 FAX: 542-1594

ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS
DATE 6-20-16

SCALE

DATE MAY 2016
DESIGN BY MMA/BNP
DRAWN BY S.D
CHKD. BY S.D.
APPD. BY J.L.M.
JOB NO. 1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

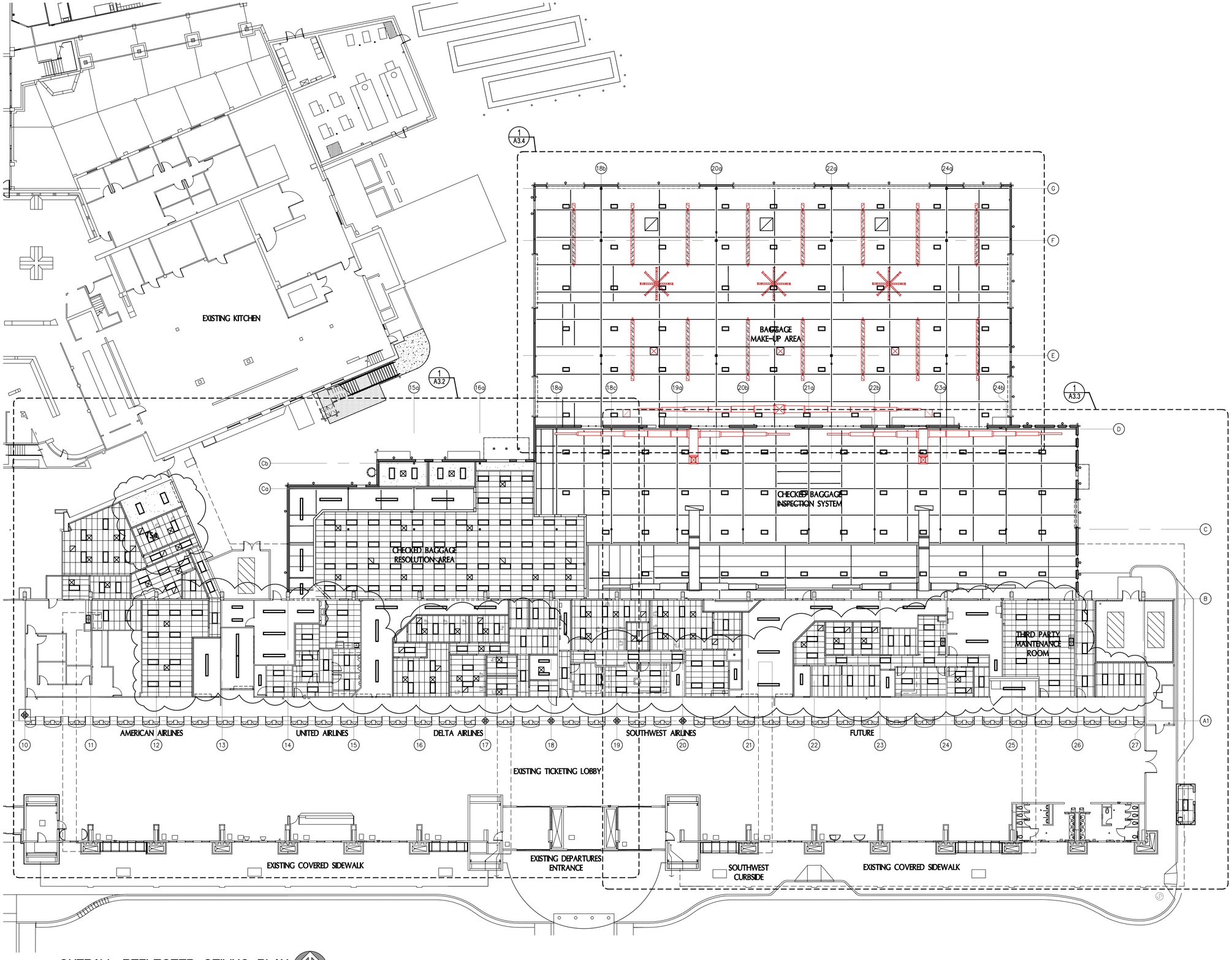
SHEET TITLE

SCHEDULES

A2.6R

FILE NO. 238512

SHEET__OF__



1 OVERALL REFLECTED CEILING PLAN

SCALE 1/16" = 1'-0"

PLAN NORTH

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECTS INC.
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TEL: 915-542-1391

ARCHITECT'S SEAL

REGISTERED ARCHITECT
JORGE L. MORA
12526
STATE OF TEXAS

DATE 6-20-16

SCALE

DATE MAY 2016
DESIGN BY MM/BRP
DRAWN BY S.D.
CHKD. BY S.D.
APPD. BY JLM
JOB NO. 1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

OVERALL REFLECTED CEILING PLAN

A3.1R

FILE NO. 238512

SHEET___OF___

1 PARTIAL REFLECTED CEILING PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1. 2 X 4 LAY-IN ACOUSTICAL TILE.
2. EXPOSED STRUCTURE WITH SPRAYED ON FIREPROOFING.
3. GYPSUM BOARD CEILING ON SUSPENSION SYSTEM.
4. NO WORK IN THIS AREA UNLESS NOTED OTHERWISE.
5. EXISTING CEILING IN THIS AREA TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW CONSTRUCTION.
6. EXISTING ROOF STRUCTURE. SEE STRUCTURAL DRAWINGS FOR CONVEYOR SUPPORTS. REPLACE EXISTING SPRAYED ON FIRE PROTECTION AS REQUIRED.
7. FURROUT AROUND EXISTING CONCRETE FASCIA PANEL. SEE BUILDING SECTIONS.
8. SEE MECHANICAL DRAWINGS FOR LOCATION OF NEW SUPPLY AND RETURN REGISTERS AT EXISTING AIRLINE TENANT SPACE. PROVIDE AND INSTALL NEW ACOUSTICAL CEILING TILE AND GRID AS SPECIFIED.

GENERAL NOTES

A. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR WORK NOT SHOWN HERE.

LEGEND

- SUPPLY AIR DIFFUSER SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- RETURN AIR GRILLE SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- EXHAUST FAN - SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- 2x4 FLUORESCENT LIGHT - SEE ELECTRICAL DRAWINGS.
- PENDANT LIGHT FIXTURE- SEE ELECTRICAL DRAWINGS.
- RECESSED CAN LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
- EXIT LIGHT- SEE ELECTRICAL DRAWINGS.
- EXTERIOR WALL MOUNTED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
- 2x2 SUSPENDED ACOUSTICAL LAY-IN CEILING TILE AS SPECIFIED.
- 2x4 SUSPENDED ACOUSTICAL LAY-IN CEILING TILE AS SPECIFIED.
- GYPSUM BOARD CEILING AS SPECIFIED.
- 9'-0" DENOTES CEILING HEIGHT

LEGEND

1 SEE KEYED NOTES

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2-1-	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECTS INC.
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111 N. FESTIVAL
TEL: 915-542-1991

ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/RMP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

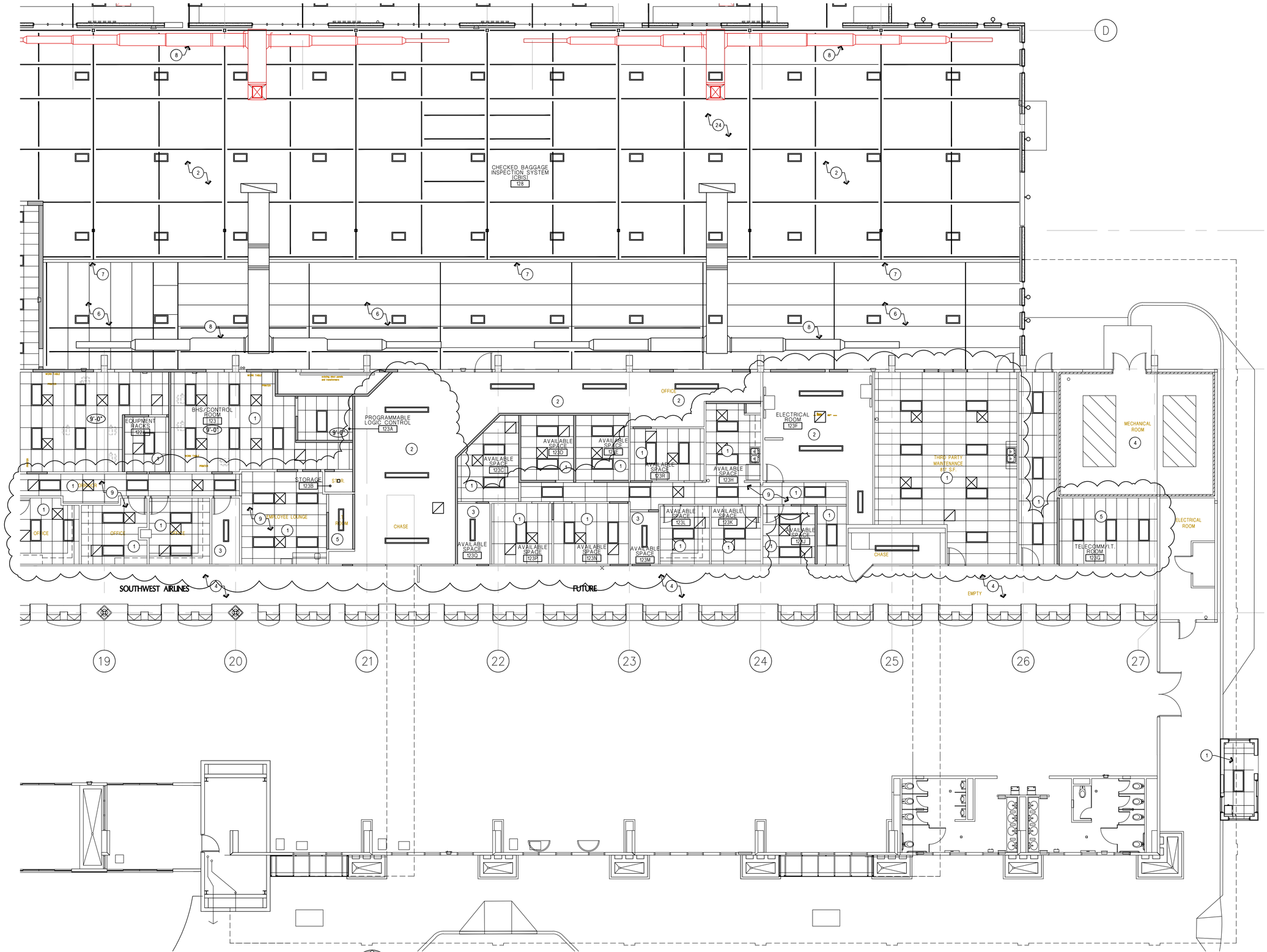
SHEET TITLE

PARTIAL REFLECTED CEILING PLAN

A3.2R

FILE NO. 238512

SHEET___OF___



1 PARTIAL REFLECTED CEILING PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1. 2 X 4 LAY-IN ACOUSTICAL TILE.
2. EXPOSED STRUCTURE WITH SPRAYED ON FIREPROOFING.
3. GYPSUM BOARD CEILING ON SUSPENSION SYSTEM.
4. NO WORK IN THIS AREA UNLESS NOTED OTHERWISE.
5. EXISTING CEILING IN THIS AREA TO REMAIN. PATCH AND REPAIR AS REQUIRED FOR NEW CONSTRUCTION.
6. EXISTING ROOF STRUCTURE. SEE STRUCTURAL DRAWINGS FOR CONVEYOR SUPPORTS. REPLACE EXISTING SPRAYED ON FIRE PROTECTION AS REQUIRED.
7. FURROUT AROUND EXISTING CONCRETE FASCIA PANEL. SE BUILDING SECTIONS.
8. MECHANICAL DUCT. SEE MECHANICAL DRAWINGS.
9. SEE MECHANICAL DRAWINGS FOR LOCATION OF NEW SUPPLY AND RETURN REGISTERS AT EXISTING AIRLINE TENANT SPACE. PROVIDE AND INSTALL NEW LAY-IN ACOUSTICAL CEILING TILE AND GRID AS SPECIFIED.
10. TROLLY HOIST BEAM. SEE STRUCTURAL AND "B" SERIES DRAWINGS FOR LOCATION AND REQUIREMENTS.

GENERAL NOTES

A. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR WORK NOT SHOWN HERE.

LEGEND

- SUPPLY AIR DIFFUSER SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- RETURN AIR GRILLE SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- EXHAUST FAN - SEE MECHANICAL DRAWINGS FOR SIZE REQUIRED.
- 2x4 FLUORESCENT LIGHT - SEE ELECTRICAL DRAWINGS.
- PENDANT LIGHT FIXTURE- SEE ELECTRICAL DRAWINGS.
- RECESSED CAN LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
- EXIT LIGHT- SEE ELECTRICAL DRAWINGS.
- EXTERIOR WALL MOUNTED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
- 2x2 SUSPENDED ACOUSTICAL LAY-IN CEILING TILE AS SPECIFIED.
- 2x4 SUSPENDED ACOUSTICAL LAY-IN CEILING TILE AS SPECIFIED.
- GYPSUM BOARD CEILING AS SPECIFIED.
- 9'-0" DENOTES CEILING HEIGHT

LEGEND

- (1) SEE KEYED NOTES

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2-1-	ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECTS INC.
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FAX: 542-7984
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ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/RMP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

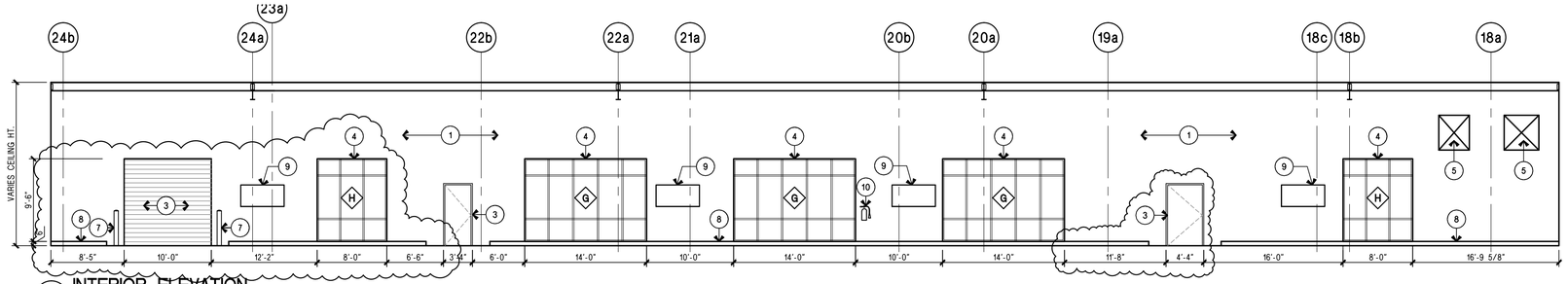
SHEET TITLE

PARTIAL REFLECTED CEILING PLAN

A3.3R

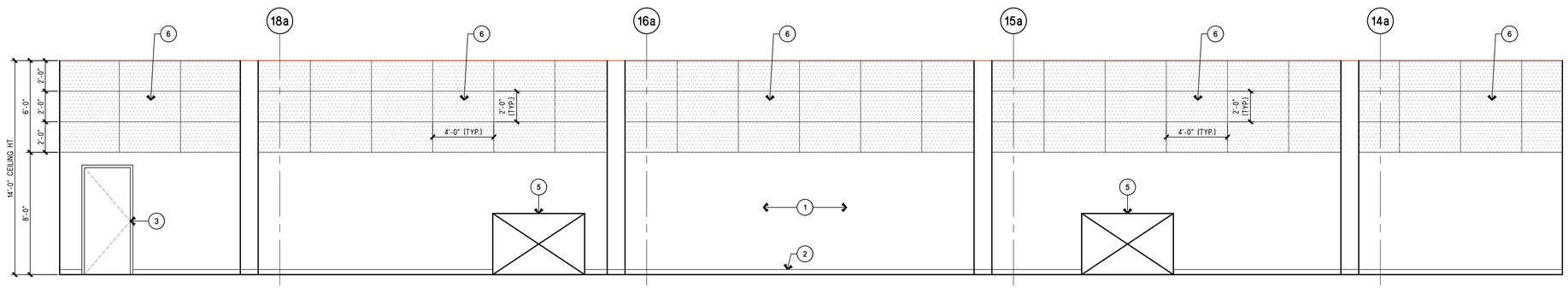
FILE NO. 238512

SHEET__OF___



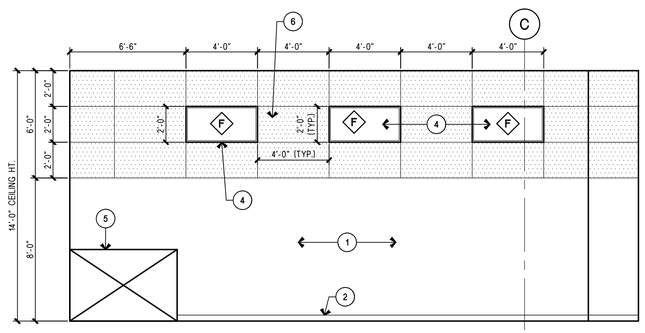
1 INTERIOR ELEVATION

SCALE: 1/8"=1'-0"



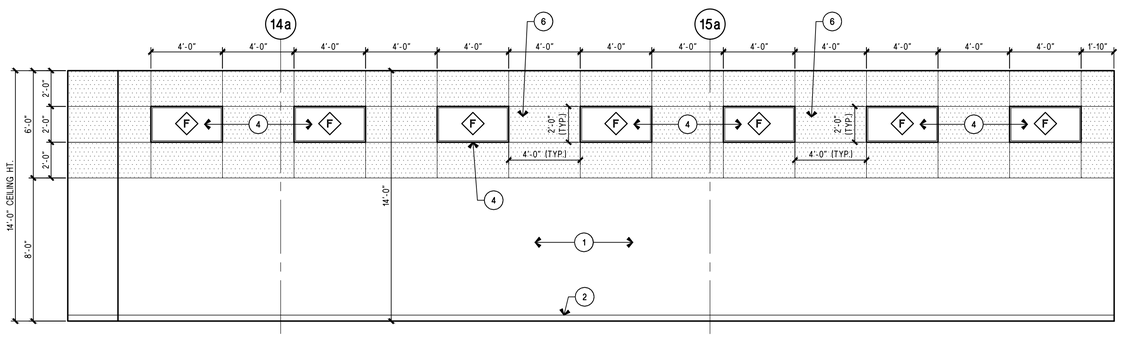
2 INTERIOR ELEVATION

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



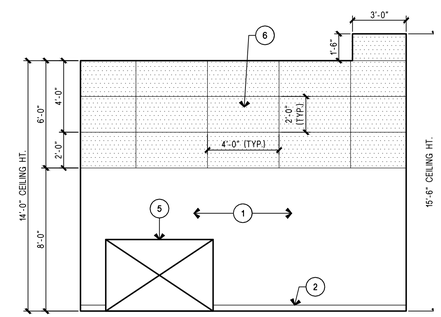
3 INTERIOR ELEVATION

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



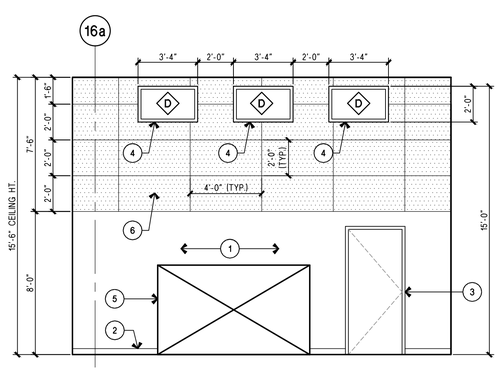
4 INTERIOR ELEVATION

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



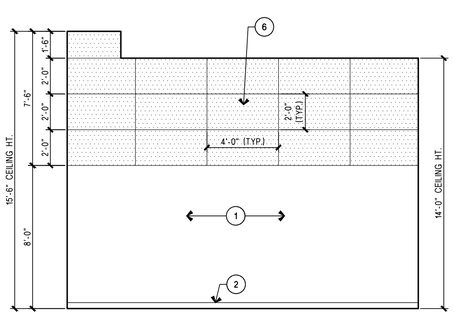
5 INTERIOR ELEVATION

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



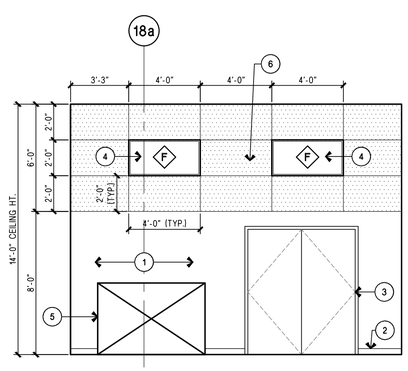
6 INTERIOR ELEVATION

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



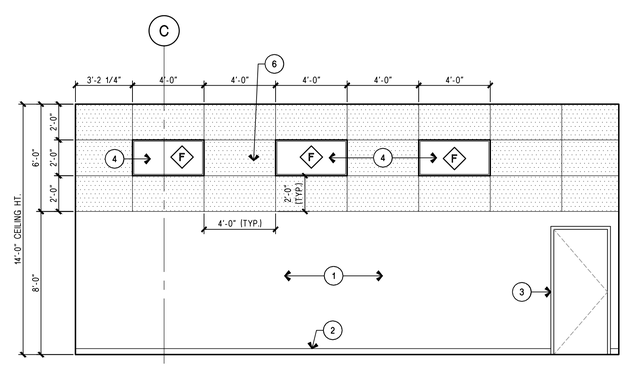
7 INTERIOR ELEVATION

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



8 INTERIOR ELEVATION

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



9 INTERIOR ELEVATION

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

KEYED NOTES

1. WALL FINISH AS SCHEDULED - REFER TO ROOM FINISH SCHEDULE.
2. BASE AS SCHEDULED.
3. DOOR AS SCHEDULED.
4. WINDOW AS SCHEDULED.
5. WALL OPENING FOR CONVEYOR BELT.
6. ACOUSTICAL WALL PANEL AS SPECIFIED.
7. STEEL BOLLARD - PAINTED.
8. CONCRETE CURB.
9. FLIGHT INFORMATION DISPLAY SCREEN (FIDS), SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
10. FIRE EXTINGUISHER AS SPECIFIED.

LEGEND

(1) SEE KEYED NOTES

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
-2 -1	ADDENDUM NO. 1	

CONSULTANT'S NAME

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EL PASO, TEXAS 79912
FAX: 542-7934
TEL: 915-542-1391

ARCHITECT'S SEAL

REGISTERED ARCHITECT JORGE L. MORA 12526 STATE OF TEXAS

DATE 6-20-16

SCALE

DATE	MAY 2016
DESIGN BY	MM/RMP
DRAWN BY	S.D.
CHKD. BY	S.D.
APPD. BY	JLM
JOB NO.	1603

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

INTERIOR ELEVATIONS

A7.1R

FILE NO. 238512

SHEET___OF___

CONDENSING UNIT SCHEDULE - MINI-SPLIT

TAG	SERVICE	TYPE	MAX CAPACITY (MBH)	MIN. CAPACITY (MBH)	REFRIG. TYPE	MIN. SEER	VOLTS/ PHASE	MCA (AMPS)	MOCP (AMPS)	AIR COOLED CONDENSER AMB. TEMP. (DEG.F)	AIR COOLED CONDENSER MIN. OPERATING TEMP.(DEG.F)	AIR COOLED CONDENSER NO. OF FANS	OPERATING WEIGHT(LBS.)	MANUFACTURER	MODEL	NOTES
CU-1	FC-1	AIR-COOLED	34.2	12.0	R-410A	14.0	208/1	25.0	30	115	0	1	170	MITSUBISHI	PUY-A36NHA3	1,2,3,4,5,6,7
CU-2	FC-2	AIR-COOLED	30.0	12.0	R-410A	15.5	208/1	25.0	30	115	0	1	170	MITSUBISHI	PUY-A30NHA3	1,2,3,4,5,6,7
CU-3	FC-3	AIR-COOLED	30.0	12.0	R-410A	15.5	208/1	25.0	30	115	0	1	170	MITSUBISHI	PUY-A30NHA3	1,2,3,4,5,6,7
CU-4	FC-4	AIR-COOLED	24.0	12.0	R-410A	17.0	208/1	18.0	25	115	0	1	170	MITSUBISHI	PUY-A24NHA3	1,2,3,4,5,6,7
CU-5	FC-5	AIR-COOLED	24.0	12.0	R-410A	17.0	208/1	18.0	25	115	0	1	170	MITSUBISHI	PUY-A24NHA3	1,2,3,4,5,6,7
CU-6	FC-6	AIR-COOLED	34.2	12.0	R-410A	14.0	208/1	25.0	30	115	0	1	170	MITSUBISHI	PUY-A36NHA3	1,2,3,4,5,6,7
CU-7	FC-7	AIR-COOLED	34.2	12.0	R-410A	14.0	208/1	25.0	30	115	0	1	170	MITSUBISHI	PUY-A36NHA3	1,2,3,4,5,6,7
CU-8	FC-8	AIR-COOLED	141.4	103.5	R-410A	11.0	460/3	27.1	45	115	0	2	450	CARRIER	38AUZA14	1,2,3,4,5,6,8,9

NOTES:
1. ACTUAL COOLING CAPACITY OF UNIT SHALL BE SUITABLE FOR MATCHING FAN COIL UNIT PERFORMANCE SCHEDULED. ASSUME 2 DEG.F SUCTION LINE LOSS.
2. IN ADDITION TO THE STANDARD FEATURES AND CONTROLS OF THE REFERENCED UNIT, PROVIDE THE FOLLOWING ACCESSORIES:
   - SOLID STATE CONTROL TO PREVENT RAPID CYCLING OF THE COMPRESSOR.
   - BIFLOW LIQUID LINE FILTER/DRYER.
3. PROVIDE WITH EXTERNAL SERVICE VALVES WITH SERVICE PORT.
4. RS & RL LINES MUST BE INSULATED.
5. RS & RL LINES TO BE SIZED A PER MANUFACTURER'S RECOMMENDATION.
6. PROVIDE AND INSTALL SIGHT GLASS ON RS REFRIGERANT LINE.
7. PROVIDE WITH NEOPREAN VIBRATION ISOLATORS.
8. PROVIDE WITH NON-PENETRATIVE SUPPORT FRAMES WITH ADJUSTABLE LEG ASSEMBLIES.
9. PROVIDE WITH NON-FUSED DISCONNECT.

FAN SCHEDULE

TAG	SERVICE	TYPE	WHEEL DIAMETER (IN.)	AIR FLOW (CFM)	TOTAL STATIC PRESSURE (IN.W.G.)	OUTLET VELOCITY (FPM)	SOUND POWER BY OCTAVE BAND INLET/RADIATED 63	125	250	500	1,000	2,000	4,000	8,000	DRIVE TYPE	FAN SPEED (RPM)	MOTOR SIZE (HP)	MOTOR SPEED (RPM)	VOLTS/ PHASE	APPROX. OPERATING WEIGHT(LB.)	MANUFACTURER	MODEL	NOTES
EF-1	BAGGAE MAKE-UP	BI	30.5	5,600	0.35	1,018	74	75	71	66	64	58	52	46	BELT	472	3/4	1,725	208/3	300	GREENHECK	CUBE-300-VGD	1,2,3,4,5,6,7,10
EF-2	BAGGAE MAKE-UP	BI	30.5	5,600	0.35	1,018	74	75	71	66	64	58	52	46	BELT	472	3/4	1,725	208/3	300	GREENHECK	CUBE-300-VGD	1,2,3,4,5,6,7,10
EF-3	CONVEYOR CHASE	FC	16.6	2,800	0.35	1,522	76	79	83	73	69	66	62	57	BELT	1,163	3/4	1,725	120/1	120	GREENHECK	GB-161-7	1,2,4,5,6,7,8,9,10
EF-4	CONVEYOR CHASE	FC	16.6	2,000	0.35	1,087	73	76	77	68	64	60	55	49	BELT	927	1/3	1,725	120/1	120	GREENHECK	GB-161-3	1,2,4,5,6,7,8,9,10
EF-5	CONVEYOR CHASE	FC	18.5	3,100	0.35	1,498	77	76	77	72	66	65	57	51	BELT	950	3/4	1,725	120/1	120	GREENHECK	GB-180-7	1,2,4,5,6,7,8,9,10

NOTES:
1. PROVIDE WITH ALUMINUM HOUSING, ALUMINUM WHEEL, AND CURB CAP WITH PREPUNCHED MOUNTING HOLES.
2. PROVIDE WITH NEMA-1 FUSED DISCONNECT SWITCH.
3. PROVIDE WITH VARI-GREEN DRIVE AND VOC-VARI-GREEN INDOOR AIR QUALITY CONTROL.
4. FAN SHALL BE HIGH WIND RATED (+/- 150 PSF RATING).
5. PROVIDE WITH RE-GREASBLE BEARING, EXTENED LUBE LINES, AND GALVANIZED BIRDSCREEN.
6. PROVIDE WITH AUTOMATIC BELT TENSIONER, GRIP NOTCH BELT(S), AND 1 SPARE BELT.
7. PROVIDE WITH 18" ROOF CURB AND GRAVITY OPERATED BACKDRAFT DAMPER.
8. CONTROLS CONTRACTOR SHALL PROVIDE AND INTERLOCK WITH SMOKE DETECTOR.
9. PROVIDE WITH MOTOR STARTER.
10. PROVIDE WITH SPARE BELTS.

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FAN COIL UNIT SCHEDULE - MINI-SPLIT

TAG	SERVICE	TYPE	MATCHING CONDENSING UNIT	SUPPLY AIR FLOW (CFM)	MOTOR DRIVE	MCA	MOCP	VOLT/PHASE (V)	COOLING COIL TYPE	COOLING COIL MAX TOTAL CAPACITY(MBH)	COOLING COIL MIN. TOTAL CAPACITY(MBH)	COOLING COIL REFRIGERANT TYPE	APPROX. OPERATING WEIGHT(LBS)	MANUFACTURER	MODEL	NOTES
FC-1	123G TELECOMM/I.T. ROOM	DX	CU-1	810	DIRECT	1	15	208/1	AIR-COOLED	34.2	12.0	R-410A	50	MITSUBISHI	PKA-A36KA	1,2,3,4,5
FC-2	123A PROGRAMMABLE LOGIC CONTROL	DX	CU-2	705	DIRECT	1	15	208/1	AIR-COOLED	30.0	12.0	R-410A	50	MITSUBISHI	PKA-A30KA	1,2,3,4,5
FC-3	122A EQUIPMENT RACKS	DX	CU-3	705	DIRECT	1	15	208/1	AIR-COOLED	30.0	12.0	R-410A	50	MITSUBISHI	PKA-A30KA	1,2,3,4,5
FC-4	IT ROOM 1	DX	CU-4	705	DIRECT	1	15	208/1	AIR-COOLED	24.0	12.0	R-410A	50	MITSUBISHI	PKA-A24KA	1,2,3,4,5
FC-5	115 IT ROOM	DX	CU-5	705	DIRECT	1	15	208/1	AIR-COOLED	24.0	12.0	R-410A	50	MITSUBISHI	PKA-A24KA	1,2,3,4,5
FC-6	TELECOMM/I.T. ROOM 1	DX	CU-6	810	DIRECT	1	15	208/1	AIR-COOLED	34.2	12.0	R-410A	50	MITSUBISHI	PKA-A36KA	1,2,3,4,5
FC-7	119 TELECOMM/I.T. ROOM	DX	CU-7	810	DIRECT	1	15	208/1	AIR-COOLED	34.2	12.0	R-410A	50	MITSUBISHI	PKA-A36KA	1,2,3,4,5
FC-8	TEMPORARY BAGGAGE INSPECTION	DX	CU-8	6250	DIRECT	3.3	15	460/3	AIR-COOLED	141.4	103.5	R-410A	700	CARRIER	40RUAA14	3,4,5,6,7,8,9

NOTES:
1. PROVIDE FAN SWITCH WITH OFF - LOW - MED - HIGH SETTINGS.
2. PROVIDE BOTTOM ACCESS RETURN FILTER GRILLE.
3. PROVIDE WITH REMOTE CONTROLLER AND REMOTE TEMPERATURE SENSOR.
4. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
5. PROVIDE WITH CONDENSATE PUMP.
6. PROVIDE WITH FACTORY SUPPLIED FLOOR MOUNT BASE (SUBBASE).
7. PROVIDE WITH FACTORY SUPPLIED DISCHARGE PLENUM.
8. PROVIDE WITH FACTORY SUPPLIED RETURN AIR GRILLE.
9. PROVIDE WITH CONDESATE OVERFLOW SWITCH ASSEMBY.

MAKE-UP AIR UNIT SCHEDULE

TAG	SERVICE	FAN TYPE	FAN SUPPLY AIRFLOW (CFM)	FAN E.S.P. (IN.W.G.)	FAN DRIVE TYPE	FAN SPEED (RPM)	FAN MOTOR SIZE (HP)	FAN MOTOR SPEED (RPM)	FAN MCA (A)	FAN MOCP (A)	FAN VOLTS/ PHASE	HEATING TYPE	HEATING MIN. TOTAL CAPACITY (MBH)	HEATING ENTERING AIR TEMP. DB/WB (F)	HEATING LEAVING AIR TEMP. DB/WB (F)	HEATING ENTERING WATER TEMP. (DEG. F)	HEATING LEAVING WATER TEMP. (DEG. F)	HEATING WATER FLOW (GPM)	HEATING WATER PRESSURE DROP (FT OF HEAD)	UNIT WEIGHT (LB)	MANUFACTURER	MODEL	NOTES
MUA-1	BAGGAGE MAKE-UP	FC	15,000	0.75	BELT	673	10	1725	17.7	30	460/3	HW	1,058.4	20	95.3	180	160	109	5.4	1,900	GREENHECK	MSX-122-H35	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16

NOTES
1. PROVIDE UNIT WITH OA/RA DAMPERS AND MERV 13 FILTERS.
2. PROVIDE UNIT WITH WEATHER HOOD: ALUMINUM MESH 20"X25"X2"(9).
3. PROVIDE UNIT WITH DOUBLE WALL INSULATION ON ENTIRE UNIT.
4. PROVIDE UNIT WITH OUTDOOR INTAKE AT THE END OF UNIT.
5. PROVIDE UNIT WITH 24" ROOF CURB WITH 1" INSULATION.
6. PROVIDE UNIT WITH SUPPLY AIR DISCHARGE AT BOTTOM OF UNIT.
7. PROVIDE WITH HINGED ACCESS AT RIGHT HAND SIDE.
8. PROVIDE UNIT WITH GALVANIZED COATING.
9. MANUFACTURER SHALL PROVIDE SERVICE RECEPTACLE; 115V, GFCI, NEMA 3R.
10. PROVIDE AND INSTALL SMOKE DETECTOR.
11. MANUFACTURER PROVIDE UNIT WITH SUPPLY DAMPER; ACTUATORS BY EMCS CONTRACTOR.
12. MANUFACTURER SHALL PROVIDE UNIT WITH DIRTY FILTER SWITCH.
13. PROVIDE UNIT WITH SPRING ISOLATION.
14. PROVIDE 1 NO.1 ON SUPPLY STARTER.
15. PROVIDE UNIT WITH EMCS INTERFACE (MONITORING AND CONTROL) AND BACNET PROTOCOL CARD.
16. HEATING COILS SHALL BE PROVIDED WITH 3-WAY CONTROL BALL VALVE, UNION CONNECTION, ISOLATION BALL VALVES, DRAIN VALVE WITH HOSE END CAP, AND MANUAL AIR VENT. P/T PLUGS, MANUAL BALANCING VALVE, ACTUATORS AND CONTROL VALVES TO BE SUPPLIED BY EMCS CONTRACTOR. AT CONTRACTOR'S OPTION A PRE-PIPED CONTROL VALVE PACKAGE WITH THE ABOVE MENTIONED COMPONENTS MAY BE PROVIDED.

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	CW*	HW*	W*	V*	REMARKS
S-1	SINK - TWO COMPARTMENT	1/2"	1/2"	2"	1-1/4"	ELKAY MODEL # LRAD3321; STAINLESS STEEL DOUBLE BOWL TOP MOUNT SINK. OVERALL DIMENSIONS ARE 33" X 21-1/4" X 4". SINK IS MANUFACTURED FROM 18 GAUGE 304 STAINLESS STEEL WITH A LUSTROUS HIGHLIGHTED SATIN FINISH, REAR CENTER DRAIN PLACEMENT AND FULL SPRAY SIDES AND BOTTOM.
	FAUCET					ZURN MODEL # Z871J4-XL-16F; POLISHED CHROME-PLATED 8" [203MM] BRASS DECK FAUCET WITH QUARTER TURN CERAMIC DISC CARTRIDGES AND A 9-1/2" [241MM] TUBULAR BRASS SWING SPOUT UNIT IS FURNISHED WITH A 1.0 GPM VANDAL RESISTANT PRESSURE COMPENSATING AERATOR, 4" VANDAL RESISTANT COLOR CODED METAL WRIST BLADE HANDLES, MOUNTING HARDWARE AND 1/2" NPSM COUPLING NUTS FOR STANDARD LAVATORY RISERS. PROVIDE OFFSET WHEELCHAIR GRID DRAIN; 1-1/4" CAST BRASS P-TRAP WITH CLEANOUT; XL LEAD FREE HEAVY-DUTY LOOSE KEY STOP AND LAVATORY SUPPLY KIT (CONNECTIONS 1/2" IPS X 3/8" OD) WITH BRAIDED STAINLESS STEEL SUPPLIES; ADA COMBINATION OFFSET TRAP AND SUPPLY WRAP PROTECTOR KIT.
DF-1	DRINKING FOUNTAIN - ELECTRIC COOLED BI LEVEL WITH BOTTLE FILLER	1/2"	--	2	1-1/4"	ELKAY MODEL # EZSTL8WSLK; ELETRIC DRINKING FOUNTAIN WITH BOTTLE FILLING STATION AND BOTTLE COUNTER. UNIT SHALL DELIVER 8 GPH OF 50°F DRINKING WATER AT 90°F AMBIENT AND 80°F INLET WATER COOLER UNITS SHALL HAVE PUSHBAR ACTIVATION. BOTTLE FILLING UNIT SHALL INCLUDE AN ELECTRONIC SENSOR FOR TOUCHLESS ACTIVATION WITH AUTO 20-SECOND SHUT-OFF TIMER. SHALL INCLUDE DISPLAYING COUNT OF PLASTIC BOTTLES SAVED FROM WASTE. BOTTLE FILLER SHALL PROVIDE 1.1-1.5 GPM FLOW RATE WITH LAMINAR FLOW TO MINIMIZE SPLASHING. SHALL INCLUDE INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS UNIT SHALL MEET ADA GUIDELINES. UNIT SHALL BE LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 AND 372 AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS. UNIT SHALL BE CERTIFIED TO UL399 AND CAN/CSA 22.2 NO. 120. PROVIDE MANUFACTURER RECOMMENDED CARRIER, AND XL LEAD FREE HEAVY-DUTY LOOSE KEY STOP AND LAVATORY SUPPLY KIT (CONNECTIONS 1/2" IPS X 3/8" OD) WITH BRAIDED STAINLESS STEEL SUPPLIES.
GT-1	GREASE TRAP	--	--	4	--	SCHIER MODEL # GB-250; 100 GPM WITH 1,000 LBS GREASE CAPACITY WITH INTEGRATED/BUILT IN FLOW CONTROL, PROVIDE WITH H-20 TRAFFICE RATED PICKABLE COVER AND EXTENSION RING AS REQUIRED. UNIT IS CERTIFIED TO ASME A112.14.3 AND CSA B481.1 PROVIDE AND INSTALL WITH SEWER VIEWER SAMPLING PORT SV24-L4 WITH H-20 TRAFFIC RATED PICKABLE COVER AND EXTENSION RINGS AS REQUIRED.
RPBP-1	REDUCED PRESSURE BACKFLOW PREVENTER	1/2"	--	--	--	WILKINS # 375; REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER, PRESSURE DIFFERENTIAL RELIEF VALVE, SPRING LOADED CENTER GUIDE CHECK VALVES, "Y" PATTERN BODY, FOUR RESILIENT BALL VALVE TEST PORTS.
FCO	FLOOR CLEANOUT	--	--	**	--	ZURN Z-1402; SIZE SAME AS PIPE UP TO 4"
DCO	DOUBLE CLEANOUT	--	--	**	--	ZURN Z-1402; SIZE SAME AS PIPE UP TO 4"
GCO	GROUND CLEANOUT	--	--	4"	--	ZURN Z-1402; SIZE SAME AS PIPE UP TO 4"
WCO	WALL CLEANOUT	--	--	2"	--	ZURN Z-1446 OR APPROVED EQUAL WITH ROUND WALL ACCESS STAINLESS STEEL COVER.

* - SIZES SHOWN ARE FOR ROUGH-IN PURPOSES ONLY

** - SIZES INDICATED ON DRAWINGS

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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

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ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

SCALE

DATE JUNE 2016
DESIGN BY ALEGRO
DRAWN BY GAG
CHKD. BY GAG
APPD. BY RL
JOB NO. 14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

CITY OF EL PASO

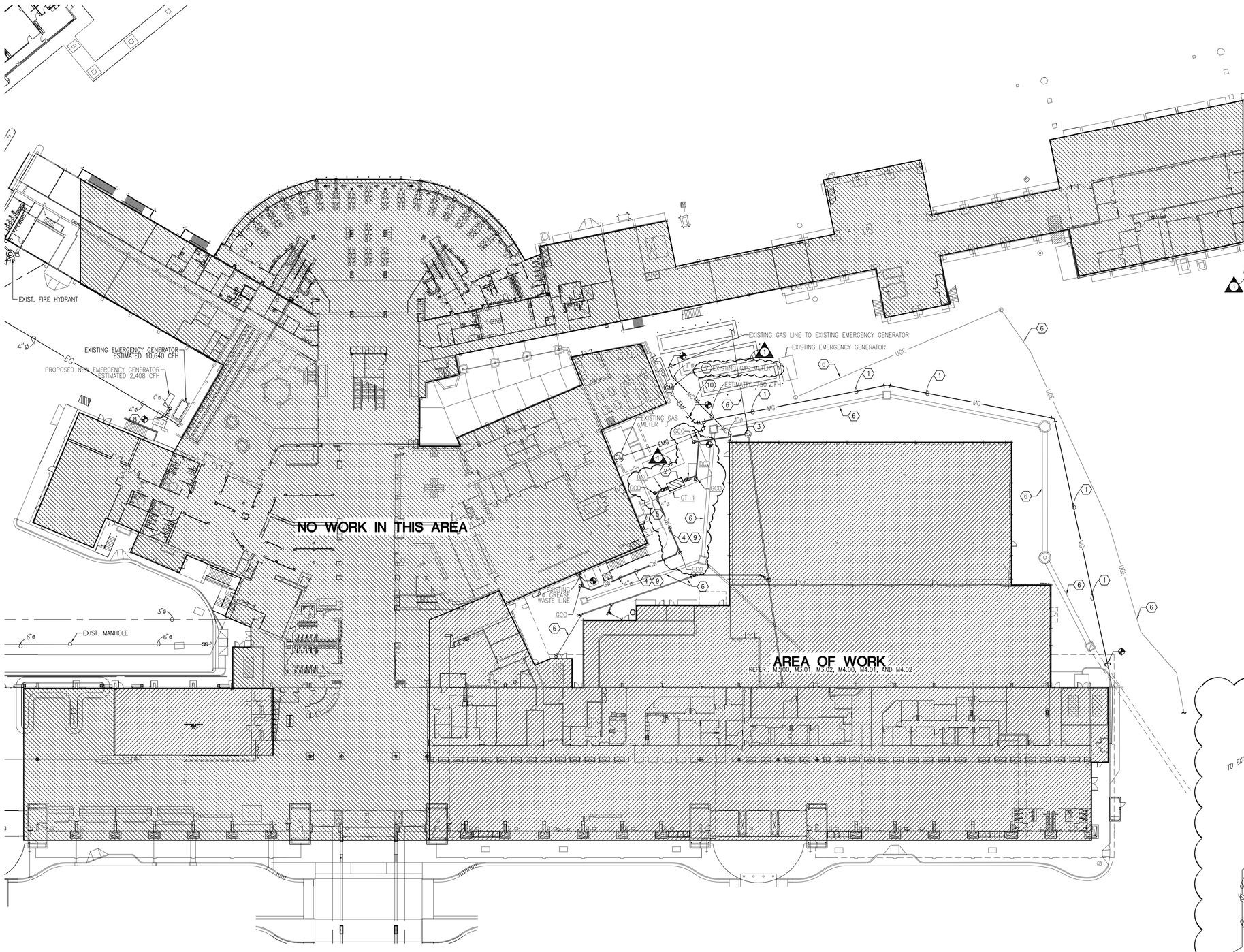
SHEET TITLE

MECHANICAL SCHEDULES

M0.02R

FILE NO. 238512

SHEET 3 OF 34



1 PARTIAL SITE PLAN

SCALE: 1" = 30'

30' 15' 0' 30' 60'

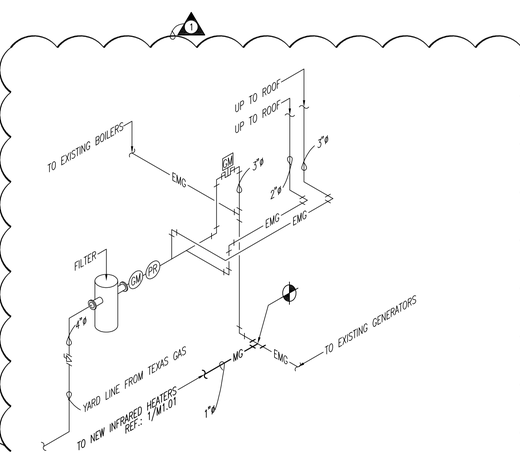
SCALE: 1" = 30'

GENERAL NOTES:

1. SITE UTILITIES SHOWN ON DRAWINGS WERE OBTAINED FROM EXISTING DRAWINGS AND PROVIDED BY OTHERS AND HAVE NOT BEEN VERIFIED IN THEIR ENTIRETY. CONTRACTOR TO COORDINATE SITE UTILITIES ON SITE AND WITH CIVIL DRAWINGS.
2. DUE TO POSSIBLE COMPLICATIONS DUE TO UNFORESEEN UTILITY LOCATIONS; CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES BEFORE COMMENCING ANY WORK. EXPOSING OF EXISTING UTILITIES SHALL BE DONE WITH SHOVELS.
3. GAS YARD LINE RE-ROUTING TO BE COORDINATED WITH TEXAS GAS TO SHUT DOWN GAS SERVICE AT NIGHT ONLY. OWNER CANNOT BE LEFT WITHOUT GAS SERVICE DURING HOURS OF OPERATION.
3. GREASE TRAP RELOCATION TO BE COORDINATED TO RUN NEW GREASE LINE BEFORE DISCONNECTING GREASE TRAP. CONTRACTOR TO COORDINATE INSTALLED TO HAVE DOWNTIME AT NIGHT ONLY. OWNER CANNOT BE LEFT WITHOUT GREASE WASTE SYSTEM DURING HOURS OF OPERATION.

KEYED NOTES:

1. NEW PROPOSED ROUTING OF TEXAS GAS YARD LINE. CONTRACTOR TO COORDINATE ROUTING WORK TEXAS GAS AT THE BEGINNING OF THE PROJECT BEFORE COMMENCING ANY WORK. FINAL ROUTING OF GAS LINE TO BE COORDINATED ON SITE AND WITH CIVIL ENGINEER. RE-ROUTING OF YARD LINE TO BE PERFORMED BY TEXAS GAS.
2. NEW PROPOSED LOCATION OF GT-1 CONTRACTOR TO COORDINATE FINAL LOCATION ON SITE AND WITH CIVIL ENGINEER.
3. EXTEND AND CONNECT NEW 4"ø SANITARY SEWER LINE TO NEW RE-ROUTED SEWER LINE BY CIVIL. SANITARY SEWER LINE SHOWN ON SITE PLAN FOR REFERENCE ONLY REFER TO CIVIL DRAWINGS FOR EXACT LOCATE OF RE-ROUTED SANITARY SEWER LINE ON SITE. CONTRACTOR SHALL VERIFY THAT THE NEW 4"ø SANITARY SEWER LINE WILL MEET THE INVERT ELEVATIONS OF NEW MANHOLE BEFORE COMMENTING ANY WORK. INVERT ELEVATIONS FOR MANHOLE ON NEW RE-ROUTED SEWER LINE ARE SHOWN ON CIVIL DRAWINGS.
4. PROVIDE AND INSTALL HEAT TRACE SYSTEM FOR GREASE LINE TEMPERATURE MAINTENANCE HEAT TRACE SYSTEM TO BE RAYCHEM XL-TRACE SYSTEM MODEL # 8XL1-CT AT 8 WATTS PER FOOT WITH 120/1. PROVIDE WITH ELECTRONIC TEMPERATURE CONTROL SYSTEM WITH LINE SENSING RAYCHEM MODEL C910-485.
5. PROPOSED LOCATION FOR HEAT TRACE TEMPERATURE CONTROL SYSTEM WITH LINE SENSING.
6. SANITARY SEWER, STORM SEWER, UNDERGROUND ELECTRICAL, AND DOMESTIC WATER LINES ARE SHOWN FOR REFERENCE ONLY, REFER TO CIVIL DRAWINGS FOR FINAL LOCATIONS OF UTILITIES.
7. CONTRACTOR TO COORDINATE WITH TEXAS GAS AT THE BEGINNING OF THE PROJECT TO UPSIZING OF THE EXISTING GAS METER. REFER TO GAS LOAD CALCULATIONS FOR NEW GAS LOAD DEMAND.
8. EXTEND AND CONNECT NEW 4"ø GAS LINE FROM NEW EMERGENCY GENERATOR TO EXISTING EXISTING 4"ø GAS LINE.
9. GREASE WASTE PIPING TO BE CAST IRON, HEAT TRACED, AND INSULATED WITH 2" FIBERGLASS INSULATION WITH JACKETING APPROVED FOR INSTALLATION BELOW GRADE.
10. MEDIUM PRESSURE GAS LINE SIZED BASED ON TABLE 7-9 OF THE 2006 ASPE PLUMBING ENGINEERING DESIGN HANDBOOK VOLUME 2 AT A DISTANCE OF 1000' FROM THE GAS METER TO THE FARTHEST PRESSURE REGULATOR.



2 GAS RISER DIAGRAM (GAS METER "A")

NOT TO SCALE

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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	ADDENDUM NO. 1	

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ALTERATION OF A SEALED DOCUMENT WITHOUT THE CONSENT OF THE REGISTERED PROFESSIONAL ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

SCALE

DATE	JUNE 2016
DESIGN BY	AEG80
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE
PARTIAL SITE PLAN

M1.01R

FILE NO. 238512

SHEET 8 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
2. KEYED NOTES ARE SHOWN ON PARTIAL PLANS.

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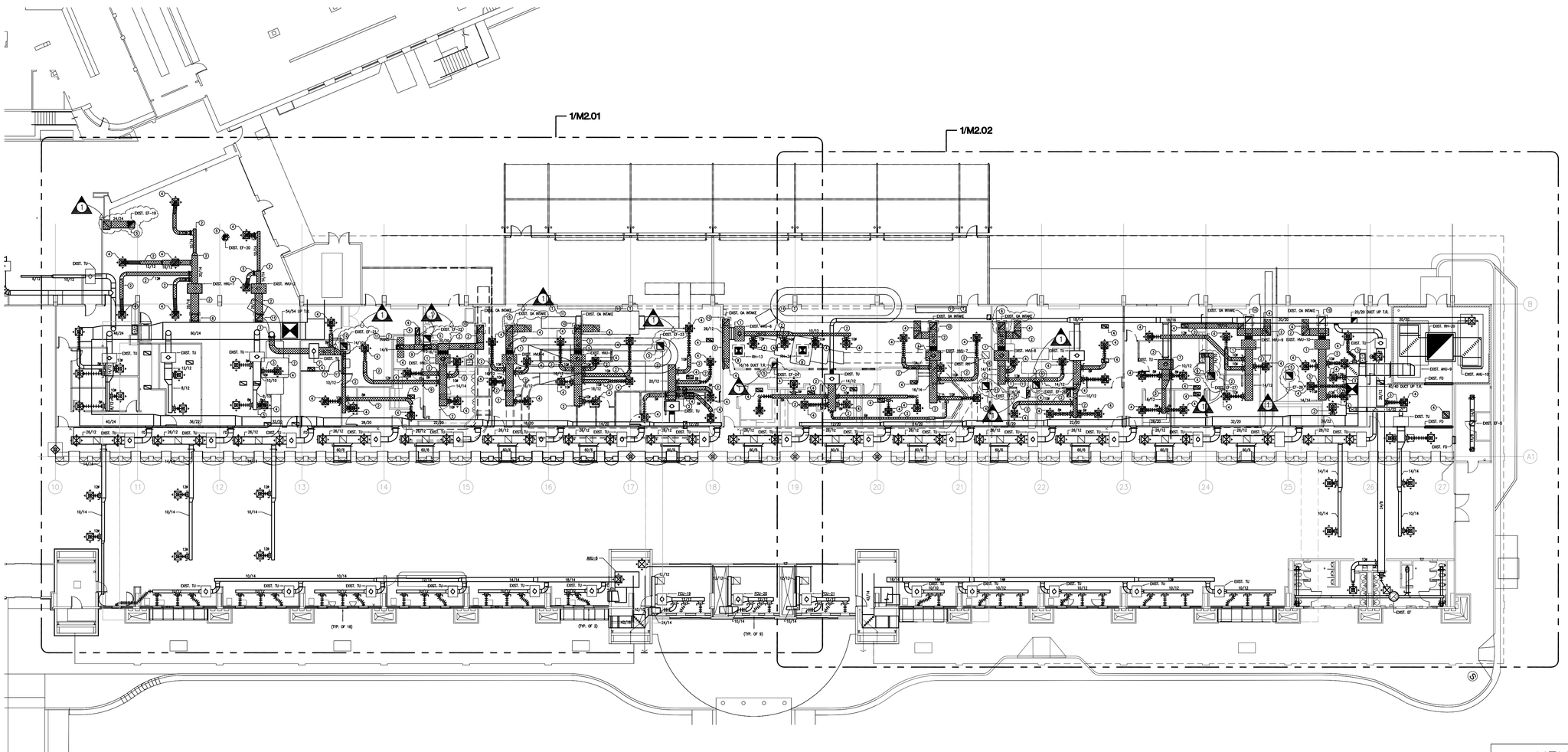
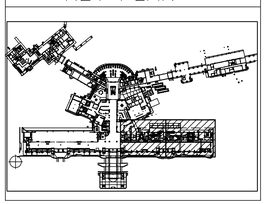


N 1 **OVERALL MECHANICAL DEMOLITION FLOOR PLAN**
SCALE:1/16"=1'-0"

16' 8' 0 16' 32'
SCALE: 1/16" = 1'

KEY PLAN



ALTERATION OF A SEALED DOCUMENT WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

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LICENSED PROFESSIONAL ENGINEER
2-01-16

SCALE

DATE	JUNE 2016
DESIGN BY	ALEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME
EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS
EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

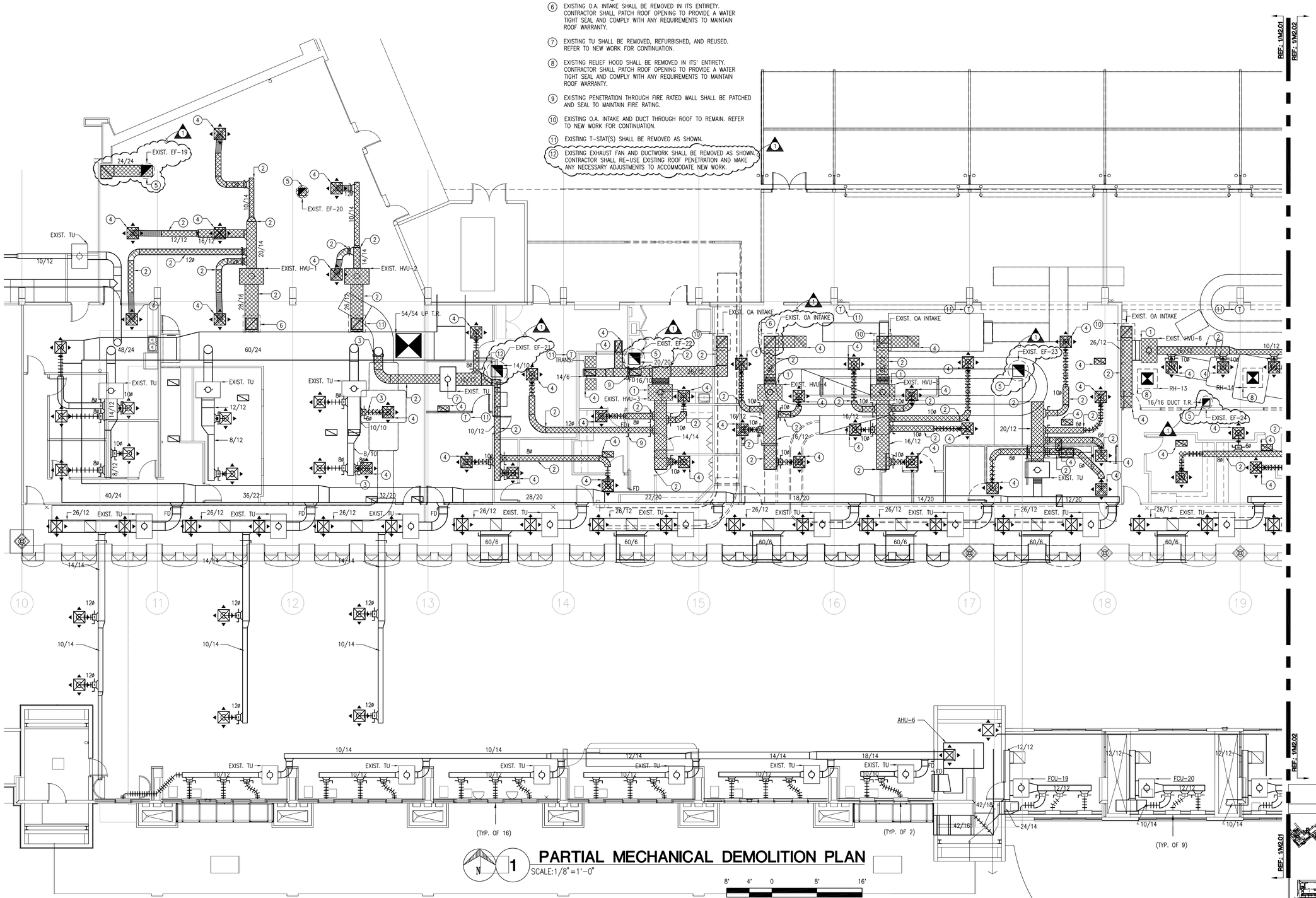
SHEET TITLE
OVERALL MECHANICAL DEMOLITION FLOOR PLAN
M2.00R
FILE NO. 238512
SHEET 9 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.

DEMOLITON NOTES:

1. EXISTING HEATING VENTILATING UNIT AND IT'S ACCESSORIES SHALL BE REMOVE IN ITS ENTIRETY.
2. EXISTING DUCTWORK SHALL BE REMOVED IN ITS ENTIRETY AS SHOWN.
3. EXISTING DUCTWORK WORK SHALL BE CUT, CAPPED, REMOVED AND MODIFIED AS SHOWN. REFER TO NEW WORK FOR CONTINUATION.
4. EXISTING AIR DEVICE(S) TO BE REMOVED IN ITS ENTIRETY.
5. EXISTING EXHAUST FAN AND DUCTWORK SHALL BE REMOVED IN ITS ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
6. EXISTING O.A. INTAKE SHALL BE REMOVED IN ITS ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
7. EXISTING TU SHALL BE REMOVED, REFURBISHED, AND REUSED. REFER TO NEW WORK FOR CONTINUATION.
8. EXISTING RELIEF HOOD SHALL BE REMOVED IN ITS' ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
9. EXISTING PENETRATION THROUGH FIRE RATED WALL SHALL BE PATCHED AND SEAL TO MAINTAIN FIRE RATING.
10. EXISTING O.A. INTAKE AND DUCT THROUGH ROOF TO REMAIN. REFER TO NEW WORK FOR CONTINUATION.
11. EXISTING T-STAT(S) SHALL BE REMOVED AS SHOWN.
12. EXISTING EXHAUST FAN AND DUCTWORK SHALL BE REMOVED AS SHOWN. CONTRACTOR SHALL RE-USE EXISTING ROOF PENETRATION AND MAKE ANY NECESSARY ADJUSTMENTS TO ACCOMMODATE NEW WORK.

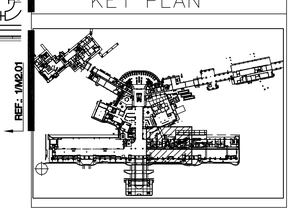


PARTIAL MECHANICAL DEMOLITION PLAN

SCALE:1/8"=1'-0"

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Crono Dr, Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares mora
ARCHITECTS INC.
EL PASO, TEXAS 79912
FAX: 542-1984
111 N. FESTIVAL
TEL: 915-542-1991

ALTERATION OF A SEALED DOCUMENT WITHOUT THE CONSENT OF THE ARCHITECT OR PROFESSIONAL ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED PROFESSIONAL ENGINEER
2016

SCALE

DATE	JUNE 2016
DESIGN BY	ALE&O
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL DEMOLITION FLOOR PLAN

M2.01R

FILE NO. 238512

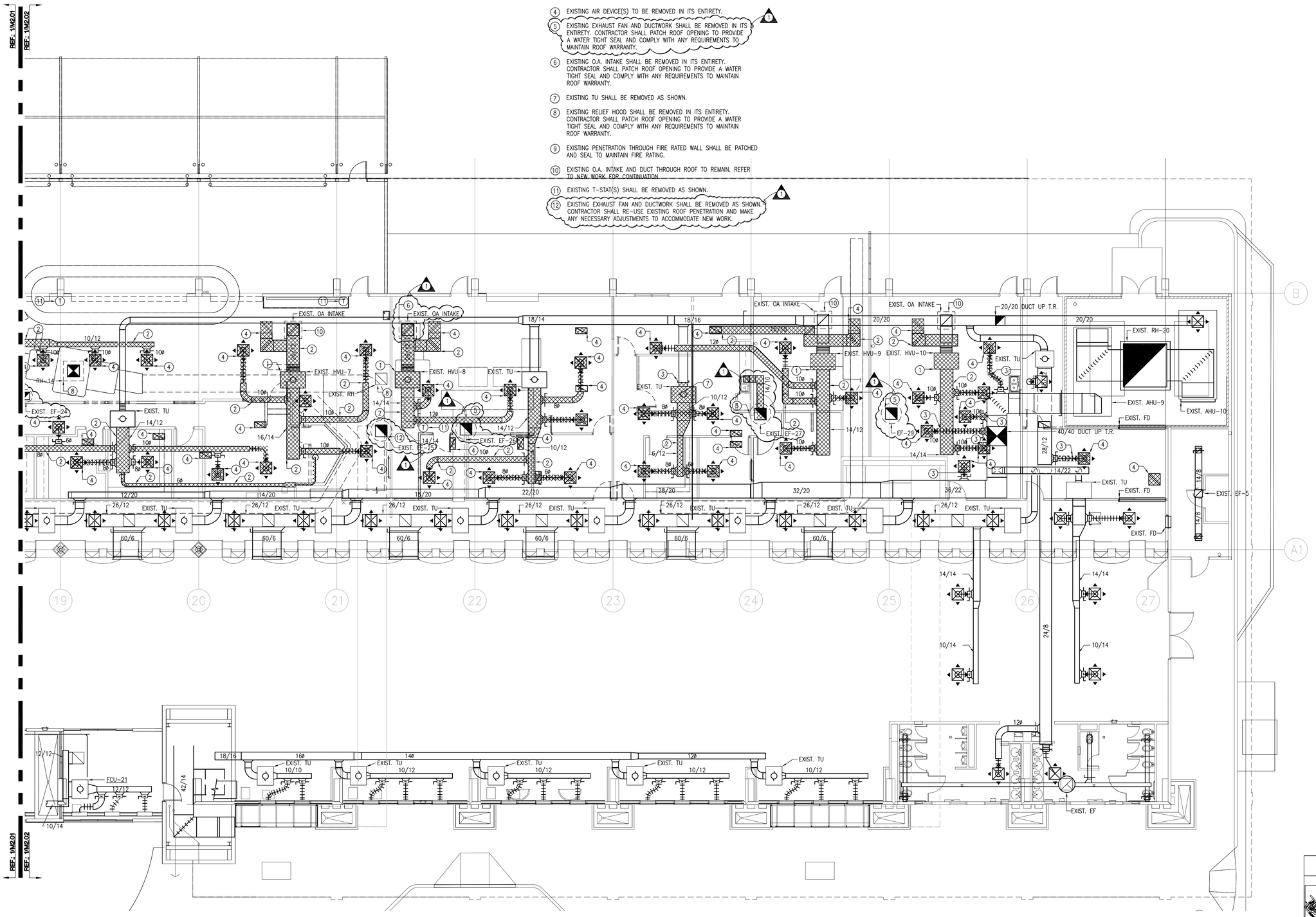
SHEET 9 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.

DEMOLITON NOTES:

1. EXISTING HEATING VENTILATING UNIT AND IT'S ACCESSORIES SHALL BE REMOVE IN ITS ENTIRETY.
2. EXISTING DUCTWORK SHALL BE REMOVED IN ITS ENTIRETY AS SHOWN.
3. EXISTING DUCTWORK WORK SHALL BE CUT, CAPPED, REMOVED AND MODIFIED AS SHOWN. REFER TO NEW WORK FOR CONTINUATION.
4. EXISTING AIR DEVICE(S) TO BE REMOVED IN ITS ENTIRETY.
5. EXISTING EXHAUST FAN AND DUCTWORK SHALL BE REMOVED IN ITS ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
6. EXISTING O.A. INTAKE SHALL BE REMOVED IN ITS ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
7. EXISTING TU SHALL BE REMOVED AS SHOWN.
8. EXISTING RELIEF HOOD SHALL BE REMOVED IN ITS ENTIRETY. CONTRACTOR SHALL PATCH ROOF OPENING TO PROVIDE A WATER TIGHT SEAL AND COMPLY WITH ANY REQUIREMENTS TO MAINTAIN ROOF WARRANTY.
9. EXISTING PENETRATION THROUGH FIRE RATED WALL SHALL BE PATCHED AND SEAL TO MAINTAIN FIRE RATING.
10. EXISTING O.A. INTAKE AND DUCT THROUGH ROOF TO REMAIN. REFER TO NEW WORK FOR CONTINUATION.
11. EXISTING T-STAT(S) SHALL BE REMOVED AS SHOWN.
12. EXISTING EXHAUST FAN AND DUCTWORK SHALL BE REMOVED AS SHOWN. CONTRACTOR SHALL RE-USE EXISTING ROOF PENETRATION AND MAKE ANY NECESSARY ADJUSTMENTS TO ACCOMMODATE NEW WORK.



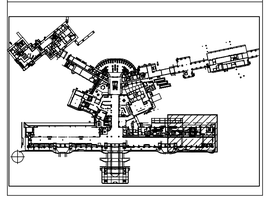
1 PARTIAL MECHANICAL DEMOLITION PLAN

SCALE:1/8"=1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr, Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

ALTERATION OF A SEALED DOCUMENT WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

REVISIONS		
DATE		BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares mora
ARCHITECTS INC.
EL PASO, TEXAS 79912
FAX: 542-1984
111 N. FESTIVAL
TEL: 915-542-1991

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED PROFESSIONAL ENGINEER
6/20/16

SCALE

DATE	JUNE 2016
DESIGN BY	ALEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL DEMOLITION FLOOR PLAN

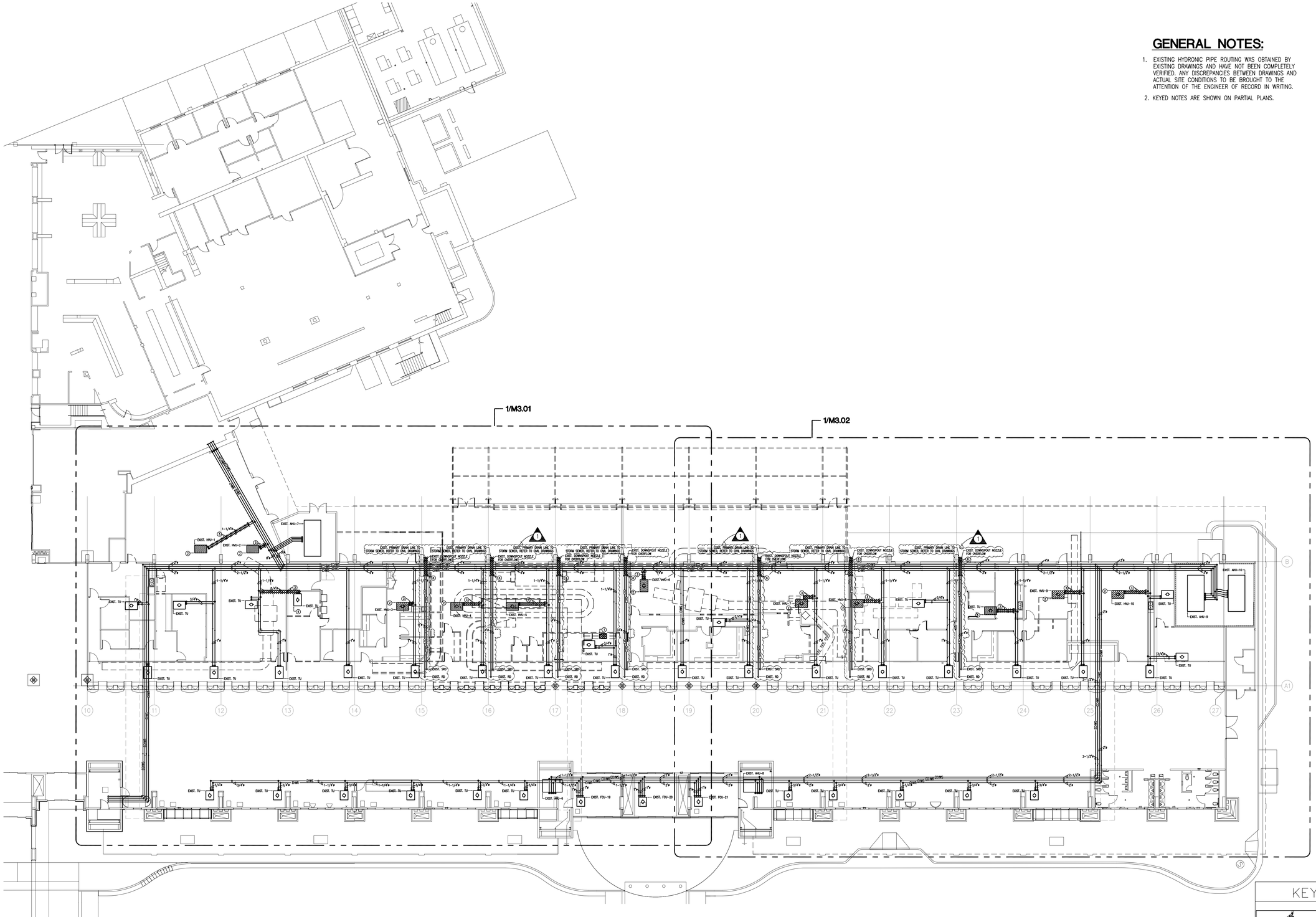
M2.02R

FILE NO. 238512

SHEET 10 OF 34

GENERAL NOTES:

1. EXISTING HYDRONIC PIPE ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
2. KEYED NOTES ARE SHOWN ON PARTIAL PLANS.



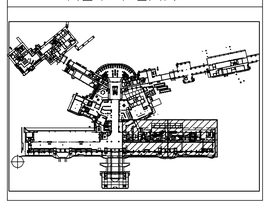
1 OVERALL MECHANICAL DEMOLITION PIPING PLAN

SCALE: 1/16" = 1'-0"

16' 8' 0 16' 32'

SCALE: 1/16" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr., Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER AUTHORIZATION BY A LICENSED ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares mora
ARCHITECTS INC.
EL PASO, TEXAS 79912
FAX: 542-7984
111 N. FESTIVAL
TEL: 915-542-1991

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED
PROFESSIONAL ARCHITECT

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO

CITY OF EL PASO

SHEET TITLE

OVERALL MECHANICAL DEMOLITION PIPING PLAN

M3.00R

FILE NO. 238512

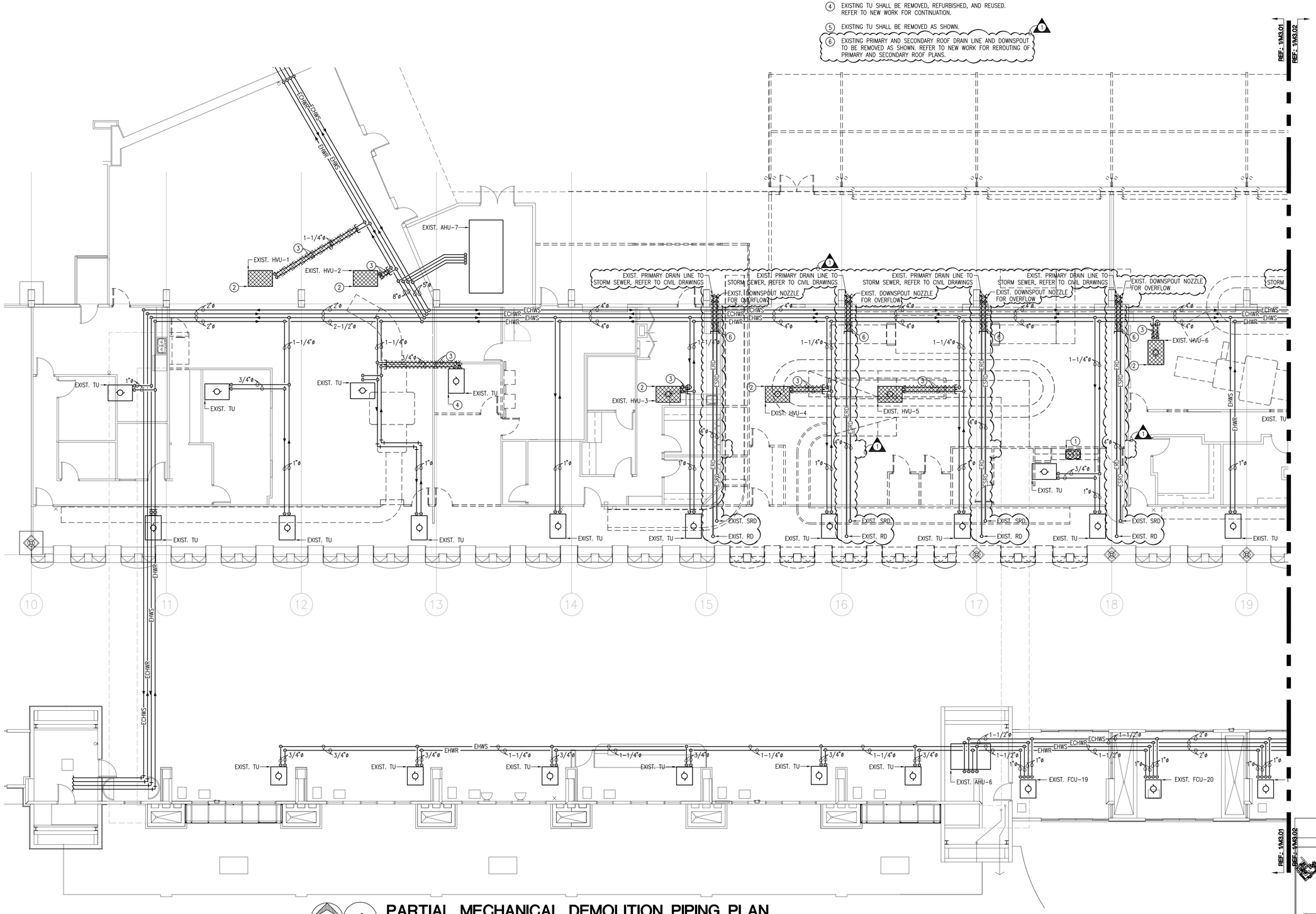
SHEET 11 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.

DEMOLITON NOTES:

1. EXISTING SINK TO BE REMOVED IN ITS ENTIRETY. EXISTING SANITARY SEWER LINE TO BE CAPPED AND SEALED TO PROVIDE AIR TIGHT SEAL BELOW FINISHED GRADE. EXISTING DOMESTIC COLD AND HOT WATER AND SANITARY VENT TO BE CAPPED SEALED ABOVE CEILING.
2. EXISTING HVU SHALL BE REMOVED IN ITS ENTIRETY AS SHOWN.
3. EXITING HYDRONIC LINE SHALL BE CUT, CAPPED, AND REMOVED AS SHOWN. REFER TO NEW WORK FOR CONTINUATION.
4. EXISTING TU SHALL BE REMOVED, REFURBISHED, AND REUSED. REFER TO NEW WORK FOR CONTINUATION.
5. EXISTING TU SHALL BE REMOVED AS SHOWN.
6. EXISTING PRIMARY AND SECONDARY ROOF DRAIN LINE AND DOWNSPOUT TO BE REMOVED AS SHOWN. REFER TO NEW WORK FOR REROUTING OF PRIMARY AND SECONDARY ROOF PLANS.



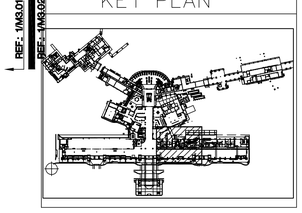
1 PARTIAL MECHANICAL DEMOLITION PIPING PLAN

SCALE: 1/8" = 1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr. Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

ALTERATION OF A SEALED DOCUMENT WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
D. PASO, TEXAS 79912
TEL: 915-542-1991
FAX: 542-1994

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL DEMOLITION PIPING PLAN

M3.01R

FILE NO. 238512

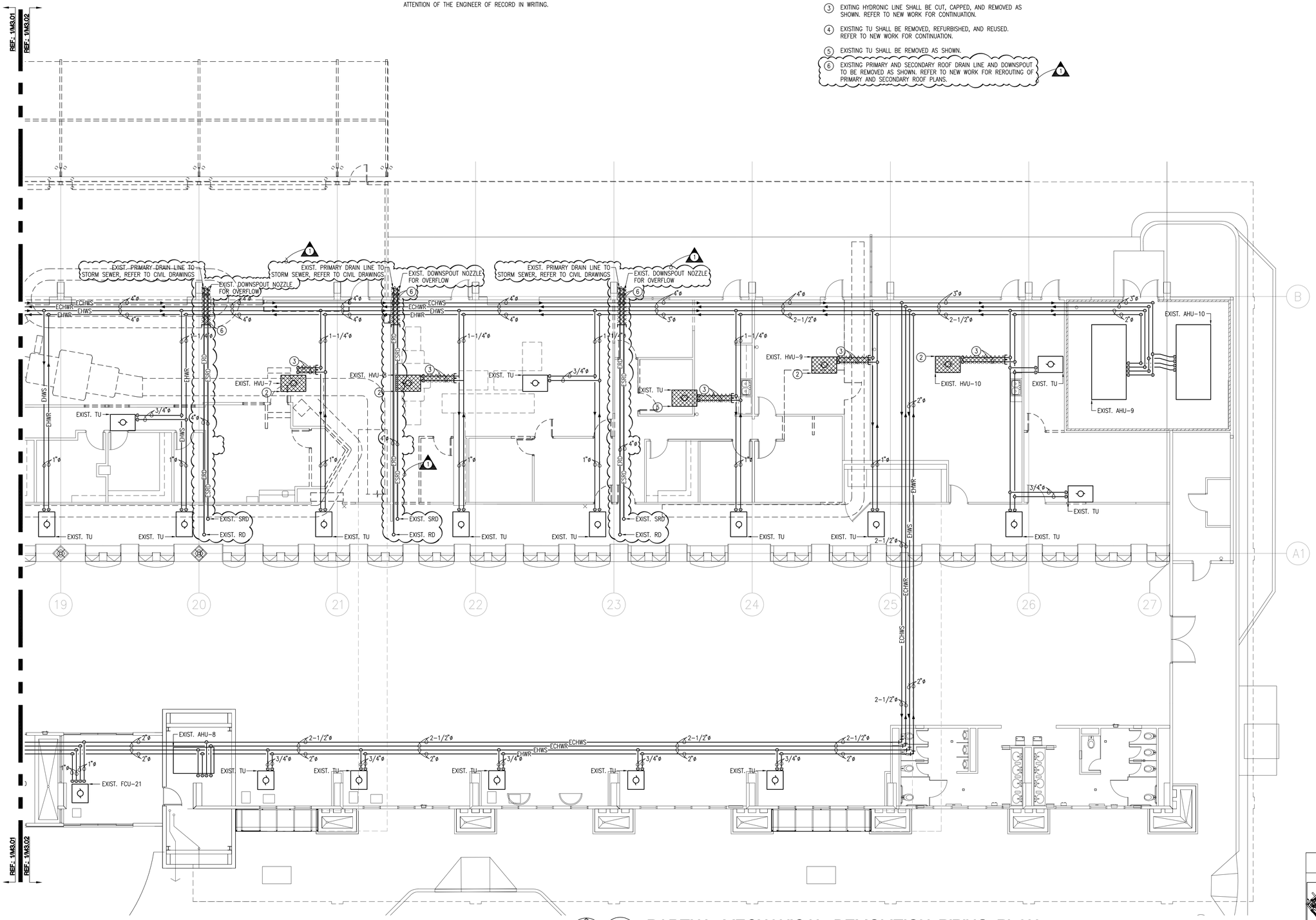
SHEET 13 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.

DEMOLITON NOTES:

1. EXISTING SINK TO BE REMOVED IN ITS ENTIRETY. EXISTING SANITARY SEWER LINE TO BE CAPPED AND SEALED TO PROVIDE AIR TIGHT SEAL BELOW FINISHED GRADE. EXISTING DOMESTIC COLD AND HOT WATER AND SANITARY VENT TO BE CAPPED SEALED ABOVE CEILING.
2. EXISTING HVU SHALL BE REMOVED IN ITS ENTIRETY AS SHOWN.
3. EXITING HYDRONIC LINE SHALL BE CUT, CAPPED, AND REMOVED AS SHOWN. REFER TO NEW WORK FOR CONTINUATION.
4. EXISTING TU SHALL BE REMOVED, REFURBISHED, AND REUSED. REFER TO NEW WORK FOR CONTINUATION.
5. EXISTING TU SHALL BE REMOVED AS SHOWN.
6. EXISTING PRIMARY AND SECONDARY ROOF DRAIN LINE AND DOWNSPOUT TO BE REMOVED AS SHOWN. REFER TO NEW WORK FOR REROUTING OF PRIMARY AND SECONDARY ROOF PLANS. (1)



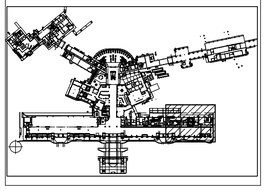
1 PARTIAL MECHANICAL DEMOLITION PIPING PLAN

SCALE:1/8"=1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr. Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

ALTERATION OF A SEALED DOCUMENT WITHOUT THE ENGINEER'S WRITTEN CONSENT IS A VIOLATION OF THE ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
D. PASO, TEXAS 79912
111 N. FESTIVAL
TEL: 915-542-1991
FAX: 542-1994

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL DEMOLITION PIPING PLAN

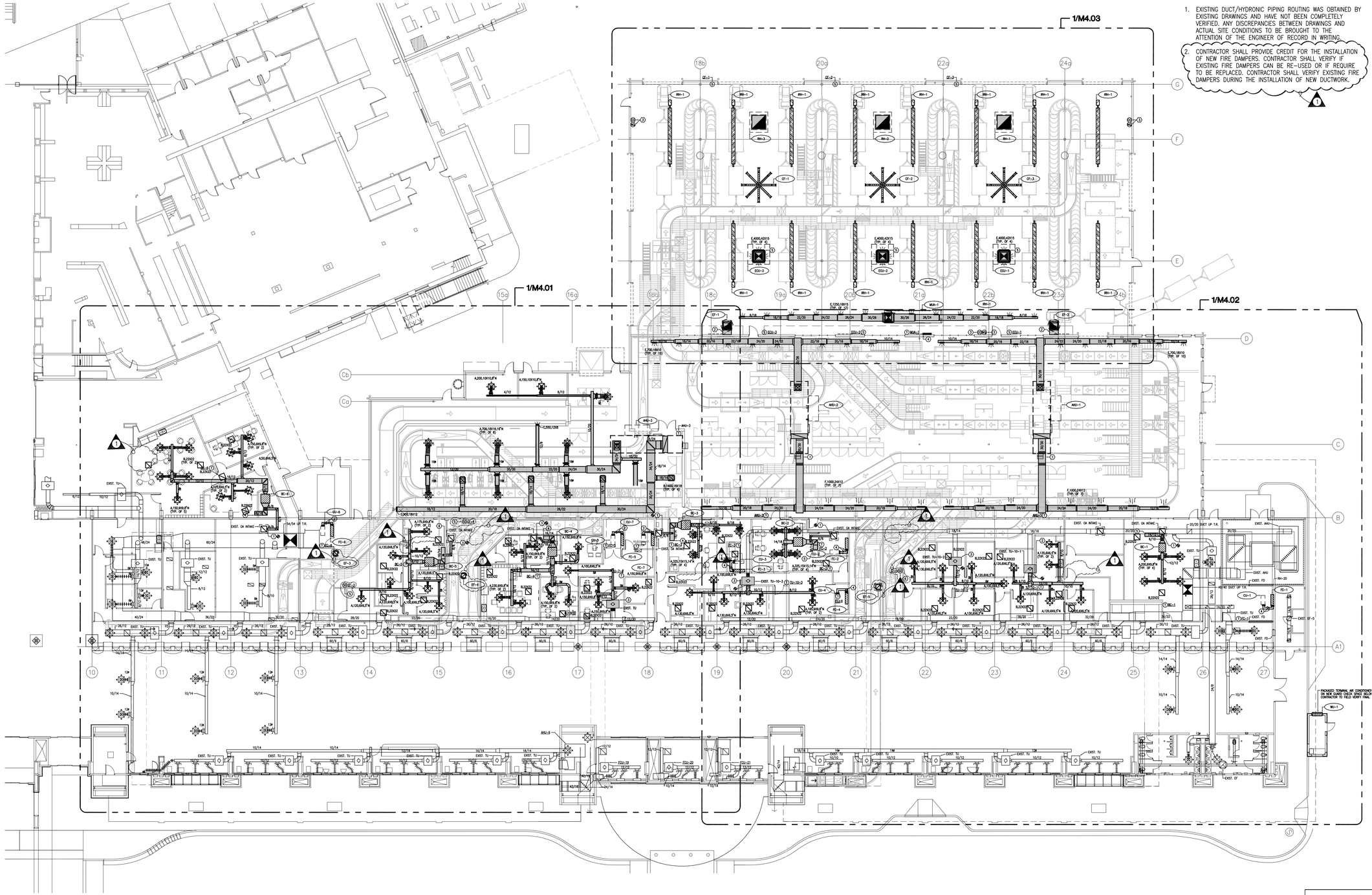
M3.02R

FILE NO. 238512

SHEET 14 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
2. CONTRACTOR SHALL PROVIDE CREDIT FOR THE INSTALLATION OF NEW FIRE DAMPERS. CONTRACTOR SHALL VERIFY IF EXISTING FIRE DAMPERS CAN BE RE-USED OR IF REQUIRE TO BE REPLACED. CONTRACTOR SHALL VERIFY EXISTING FIRE DAMPERS DURING THE INSTALLATION OF NEW DUCTWORK.



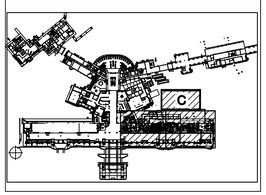
1 OVERALL MECHANICAL FLOOR PLAN - NEW WORK

SCALE:1/16"=1'-0"

16' 8' 0 16' 32'

SCALE: 1/16" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Crono Dr. Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
EL PASO, TEXAS 79912
FAX: 542-1984
TEL: 915-542-1991

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED PROFESSIONAL ENGINEER

ALTERATION OF A SEALED DOCUMENT WITHOUT THE ENGINEER'S SEAL IS A VIOLATION. THE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

OVERALL MECHANICAL FLOOR PLAN NEW WORK

M4.00R

FILE NO. 238512

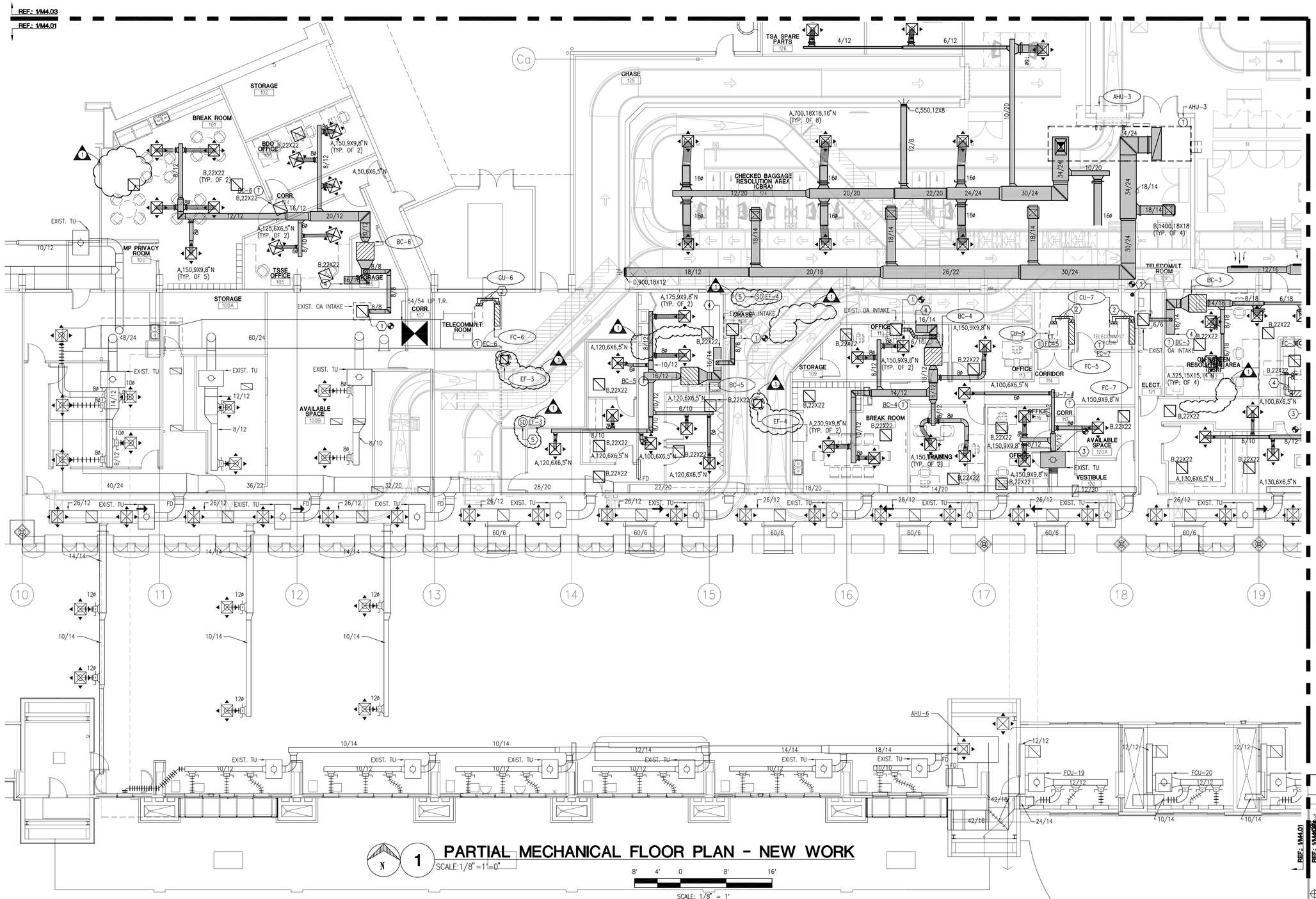
SHEET 15 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
2. CONTRACTOR SHALL PROVIDE CREDIT FOR THE INSTALLATION OF NEW FIRE DAMPERS. CONTRACTOR SHALL VERIFY IF EXISTING FIRE DAMPERS CAN BE RE-USED OR IF REQUIRE TO BE REPLACED. CONTRACTOR SHALL VERIFY EXISTING FIRE DAMPERS DURING THE INSTALLATION OF NEW DUCTWORK.

KEYED NOTES:

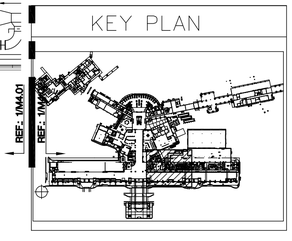
1. CONTRACTOR SHALL EXTEND FULL SIZE (24/24) DUCT SERVING EXISTING O.A. INTAKE AND CONNECT NEW O.A. DUCT AS SHOWN.
2. RL/RS LINES TO BE SIZED AND INSTALLED AS MANUFACTURERS RECOMMENDATIONS.
3. CONTRACTOR SHALL CONNECT TO EXISTING TU AS SHOWN CONTRACTOR SHALL RE-FURBISH EXISTING TU TO LIKE NEW CONDITIONS.
4. CONTRACTOR SHALL PROVIDE MESH SCREEN AT DUCT OPENING.
5. CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL NEW SMOKE DETECTORS AND INTERLOCK WITH EXHAUST FAN.



1 PARTIAL MECHANICAL FLOOR PLAN - NEW WORK
SCALE:1/8" = 1'-0"

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr. Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

ALTERATION OF A SEALED DOCUMENT WITHOUT THE CONSENT OF THE ARCHITECT OR PROFESSIONAL ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
D. PASO, TEXAS 79912
FAX: 542-1984
TEL: 915-542-1991

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEG80
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6101 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL FLOOR PLAN NEW WORK

M4.01R

FILE NO. 238512

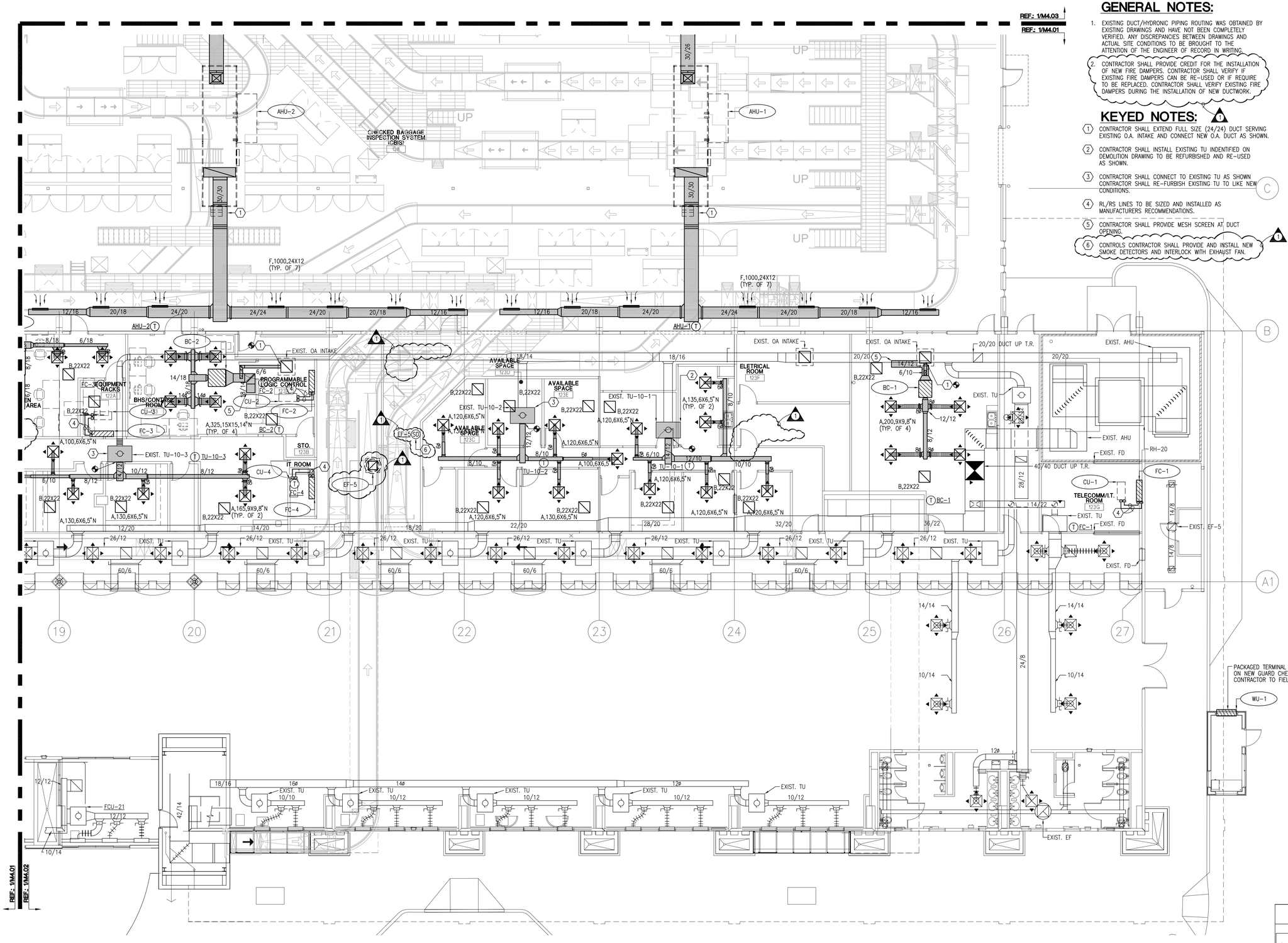
SHEET 16 OF 34

GENERAL NOTES:

1. EXISTING DUCT/HYDRONIC PIPING ROUTING WAS OBTAINED BY EXISTING DRAWINGS AND HAVE NOT BEEN COMPLETELY VERIFIED. ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
2. CONTRACTOR SHALL PROVIDE CREDIT FOR THE INSTALLATION OF NEW FIRE DAMPERS. CONTRACTOR SHALL VERIFY IF EXISTING FIRE DAMPERS CAN BE RE-USED OR IF REQUIRE TO BE REPLACED. CONTRACTOR SHALL VERIFY EXISTING FIRE DAMPERS DURING THE INSTALLATION OF NEW DUCTWORK. 1

KEYED NOTES:

1. CONTRACTOR SHALL EXTEND FULL SIZE (24/24) DUCT SERVING EXISTING O.A. INTAKE AND CONNECT NEW O.A. DUCT AS SHOWN.
2. CONTRACTOR SHALL INSTALL EXISTING TU INDENTIFIED ON DEMOLITION DRAWING TO BE REFURBISHED AND RE-USED AS SHOWN.
3. CONTRACTOR SHALL CONNECT TO EXISTING TU AS SHOWN CONTRACTOR SHALL RE-FURBISH EXISTING TU TO LIKE NEW CONDITIONS.
4. RL/RS LINES TO BE SIZED AND INSTALLED AS MANUFACTURERS RECOMMENDATIONS.
5. CONTRACTOR SHALL PROVIDE MESH SCREEN AT DUCT OPENING.
6. CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL NEW SMOKE DETECTORS AND INTERLOCK WITH EXHAUST FAN. 1



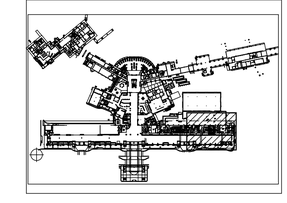
1 PARTIAL MECHANICAL FLOOR PLAN - NEW WORK

SCALE:1/8"=1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



TEXAS REGISTRATION: F-000014
Alegro Engineering
Consulting Engineers
5822 Cromo Dr, Suite 105
El Paso, Texas 79912
Tel. 915.533.0700

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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
111 N. FESTIVAL
EL PASO, TEXAS 79912
TEL: 915-542-1991
FAX: 542-1994

ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEG80
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

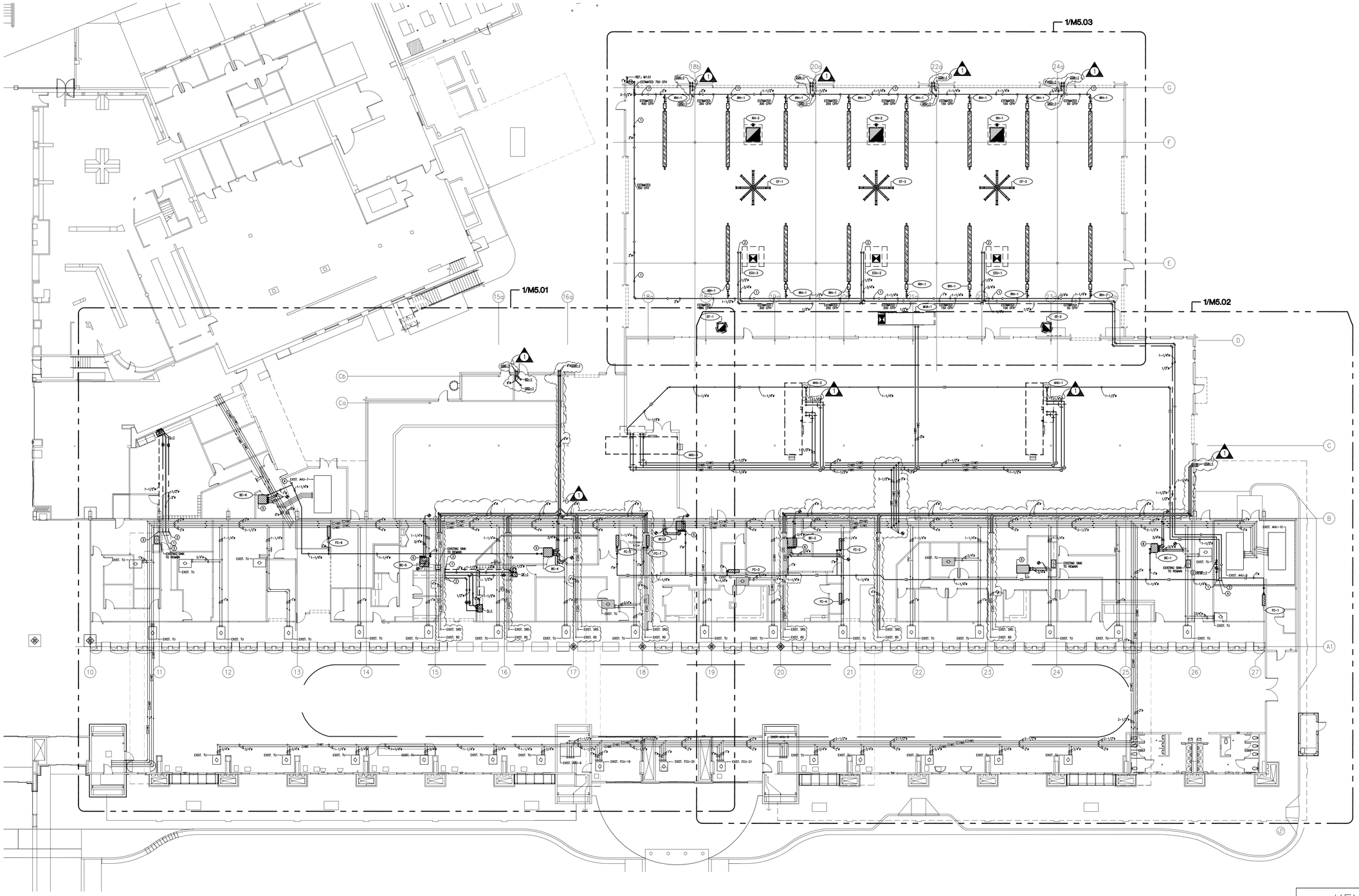
SHEET TITLE

PARTIAL MECHANICAL FLOOR PLAN NEW WORK

M4.02R

FILE NO. 238512

SHEET 16 OF 34



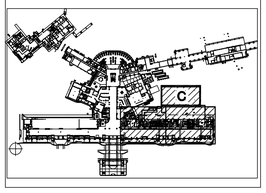
1 OVERALL MECHANICAL PIPING FLOOR PLAN - NEW WORK

SCALE:1/16" =1'-0"

16' 8' 0 16' 32'

SCALE: 1/16" = 1'

KEY PLAN



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DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

CONSULTANT'S NAME

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ARCHITECT'S SEAL

STATE OF TEXAS
ROLANDO LEGARRETA
84714
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

OVERALL MECHANICAL PIPING PLAN NEW WORK

M5.00R

FILE NO. 238512

SHEET 19 OF 34

KEYED NOTES:

1. EXTEND AND CONNECT NEW 2"ø SANITARY WASTE LINE TO NEAREST MINIMUM 2"ø EXISTING SANITARY WASTE LINE.
2. EXTEND AND CONNECT NEW 1/2"ø DOMESTIC COLD AND HOT WATER LINES TO NEAREST MINIMUM 1/2"ø EXISTING DOMESTIC COLD AND HOT WATER LINES.
3. EXTEND AND CONNECT NEW 1-1/2"ø SANITARY VENT LINES NEAREST MINIMUM 1-1/2"ø EXISTING SANITARY VENT LINES.
4. EXTEND AND DISCHARGE 1-1/4"ø CONDENSATE DRAIN LINE TO EXISTING FLOOR SINK IN EXISTING MECHANICAL ROOM.
5. EXTEND AND CONNECT TO EXISTING TU THAT HAS BEEN RELOCATE. CONTRACTOR TO REFURBISH TO LIKE NEW CONDITIONS.
6. CONTRACTOR SHALL EXTEND AND CONNECT NEW 3/4"ø HWS/HWR AND CHWS/CHWR TO NEW BC'S AS SHOWN.
7. EXTEND AND CONNECT PIPING BELOW GRADE TO STORM SEWER SYSTEM, REFERENCE CIVIL DRAWINGS FOR CONTINUATION.

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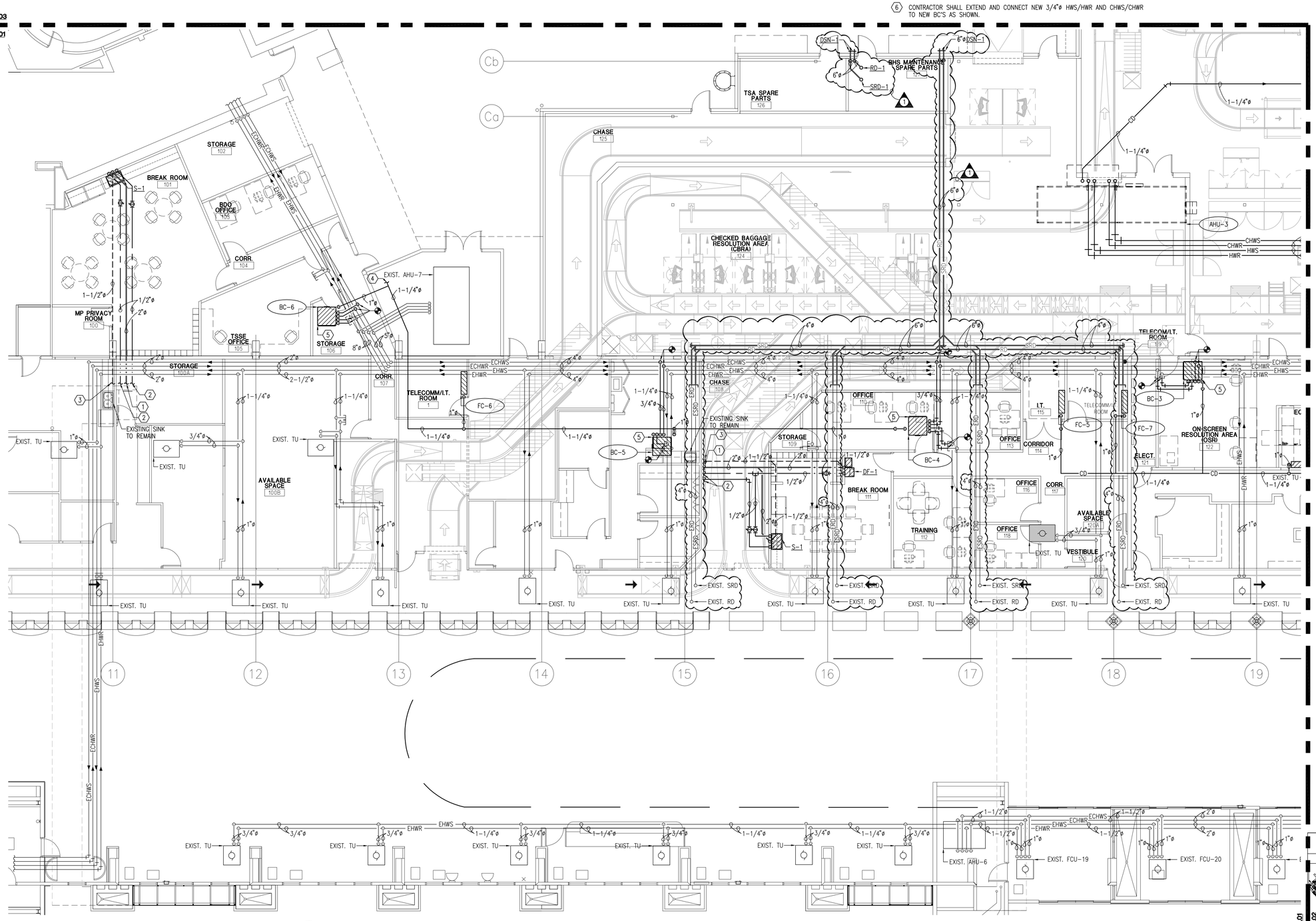


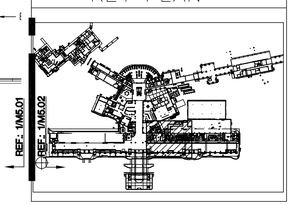
1 PARTIAL MECHANICAL PIPING PLAN - NEW WORK

SCALE: 1/8" = 1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



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REFERENCES -- BENCHMARK

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CONSULTANT'S NAME

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LICENSED
PROFESSIONAL ARCHITECT

SCALE

DATE	JUNE 2016
DESIGN BY	ALEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

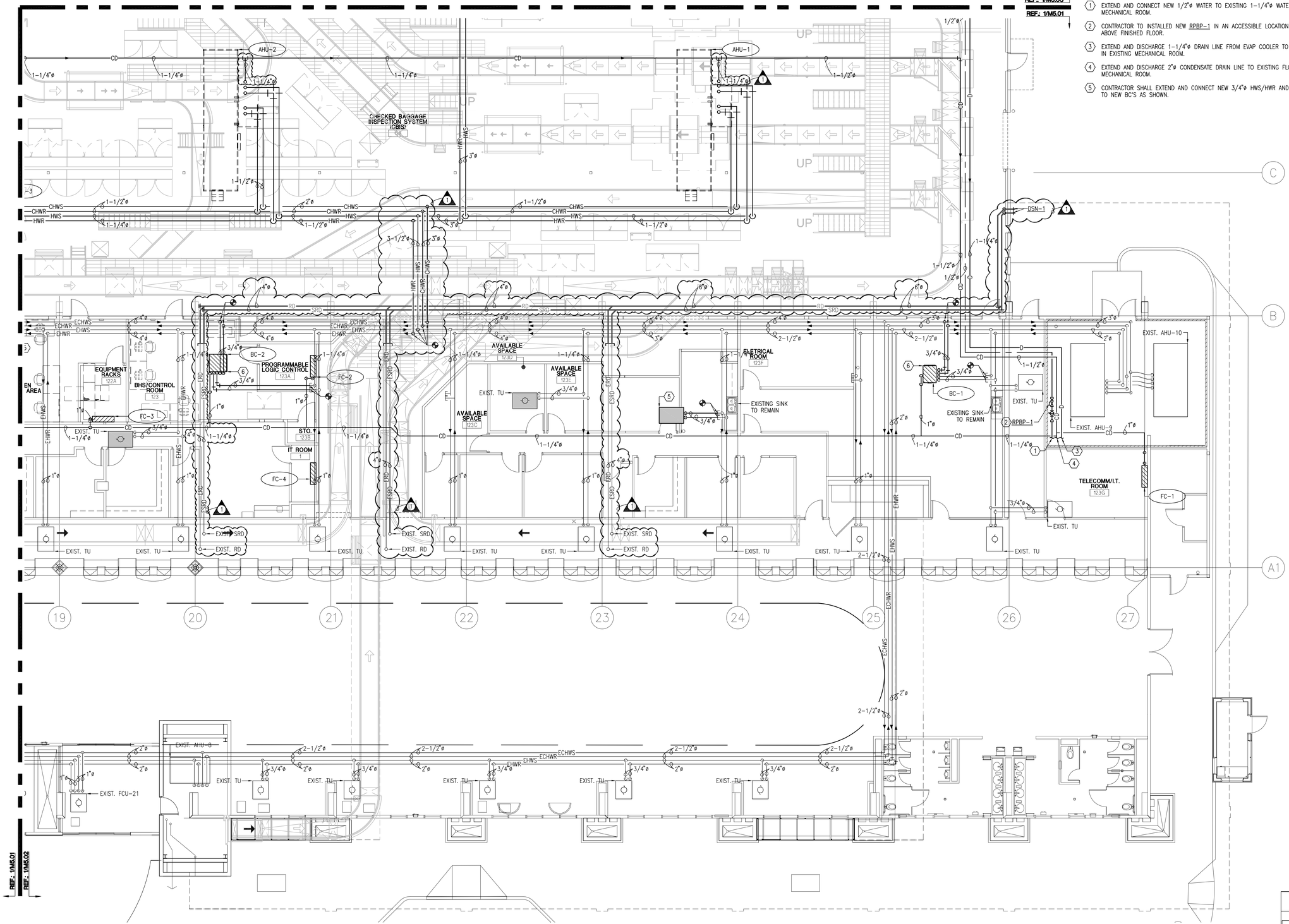
SHEET TITLE

PARTIAL MECHANICAL PIPING PLAN NEW WORK

M5.01R

FILE NO. 238512

SHEET 20 OF 34



KEYED NOTES:

1. EXTEND AND CONNECT NEW 1/2"ø WATER TO EXISTING 1-1/4"ø WATER LINE IN EXISTING MECHANICAL ROOM.
2. CONTRACTOR TO INSTALLED NEW RPBP-1 IN AN ACCESSIBLE LOCATION APPROXIMATE 5' ABOVE FINISHED FLOOR.
3. EXTEND AND DISCHARGE 1-1/4"ø DRAIN LINE FROM EVAP COOLER TO EXISTING FLOOR SINK IN EXISTING MECHANICAL ROOM.
4. EXTEND AND DISCHARGE 2"ø CONDENSATE DRAIN LINE TO EXISTING FLOOR SINK IN EXISTING MECHANICAL ROOM.
5. CONTRACTOR SHALL EXTEND AND CONNECT NEW 3/4"ø HWS/HWR AND CHWS/CHWR TO NEW BC'S AS SHOWN.

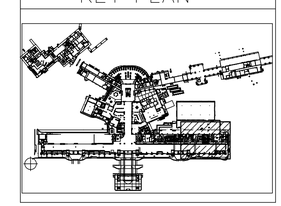
1 PARTIAL MECHANICAL PIPING PLAN - NEW WORK

SCALE:1/8" = 1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
6/20/16	1 ADDENDUM NO. 1	

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ARCHITECT'S SEAL

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LICENSED
PROFESSIONAL ENGINEER
2016

SCALE

DATE	JUNE 2016
DESIGN BY	AEGRO
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORTS

CITY OF EL PASO

SHEET TITLE

PARTIAL MECHANICAL PIPING PLAN NEW WORK

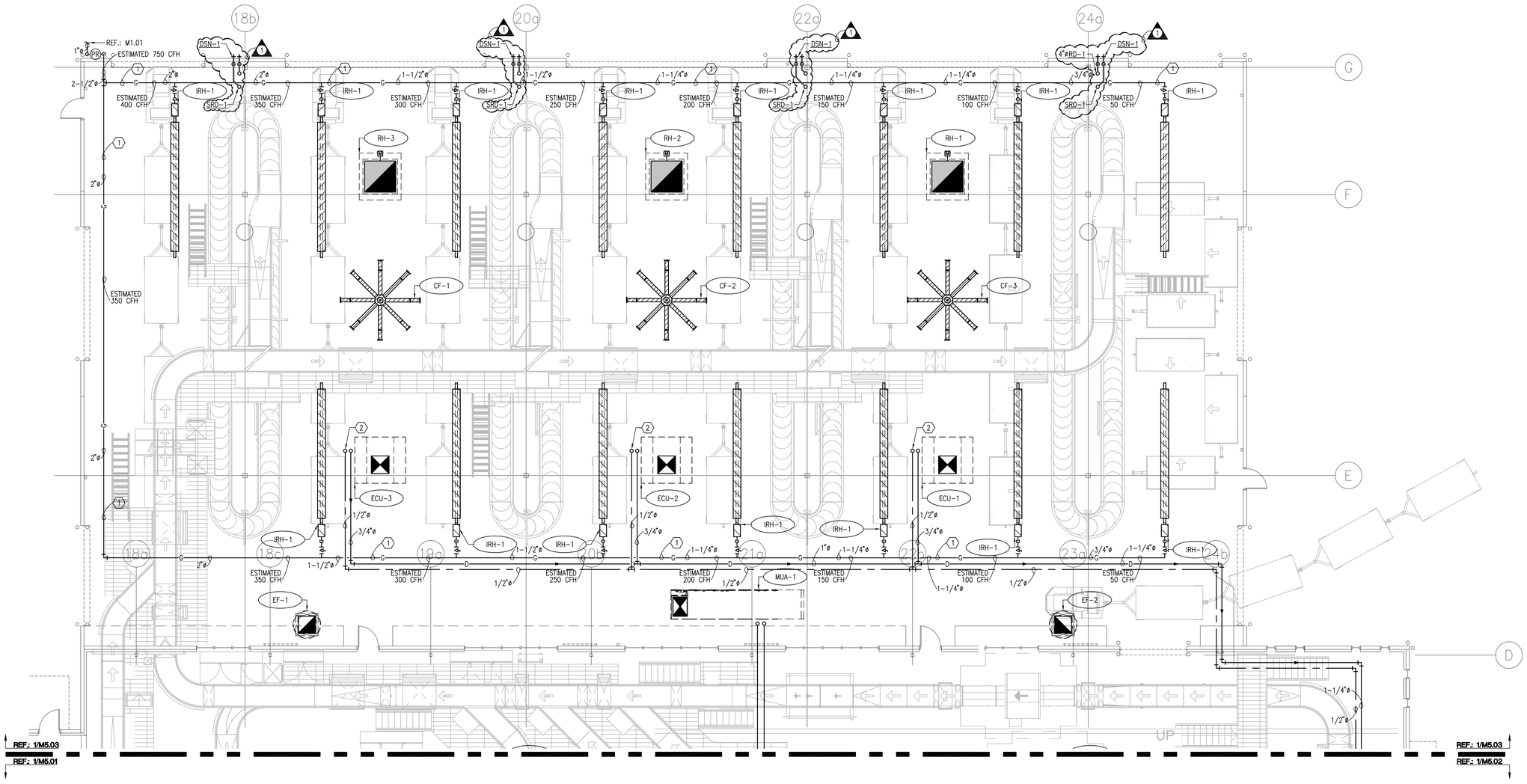
M5.02R

FILE NO. 238512

SHEET 21 OF 34

KEYED NOTES:

1. LOW PRESSURE GAS LINE SIZED BASED ON TABLE 402.4(2) OF THE 2009 IFGC AT A DISTANCE OF 350' FROM PRESSURE REGULATOR TO FARTHEST PRESSURE GAS CONSUMING EQUIPMENT.
2. 1/2"ø WATER LINE UP T.R. TO EVAP COOLER. PROVIDE ISOLATION VALVE ON WATER LINE ABOVE ROOF.



N

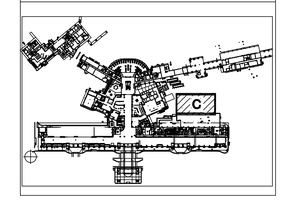
1 PARTIAL MECHANICAL PIPING PLAN - NEW WORK

SCALE:1/8"=1'-0"

8' 4' 0 8' 16'

SCALE: 1/8" = 1'

KEY PLAN



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ARCHITECT'S SEAL

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84714
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	JUNE 2016
DESIGN BY	AEG80
DRAWN BY	GAG
CHKD. BY	GAG
APPD. BY	RL
JOB NO.	14-154

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAR RD. EL PASO, TEXAS

EL PASO

CITY OF EL PASO

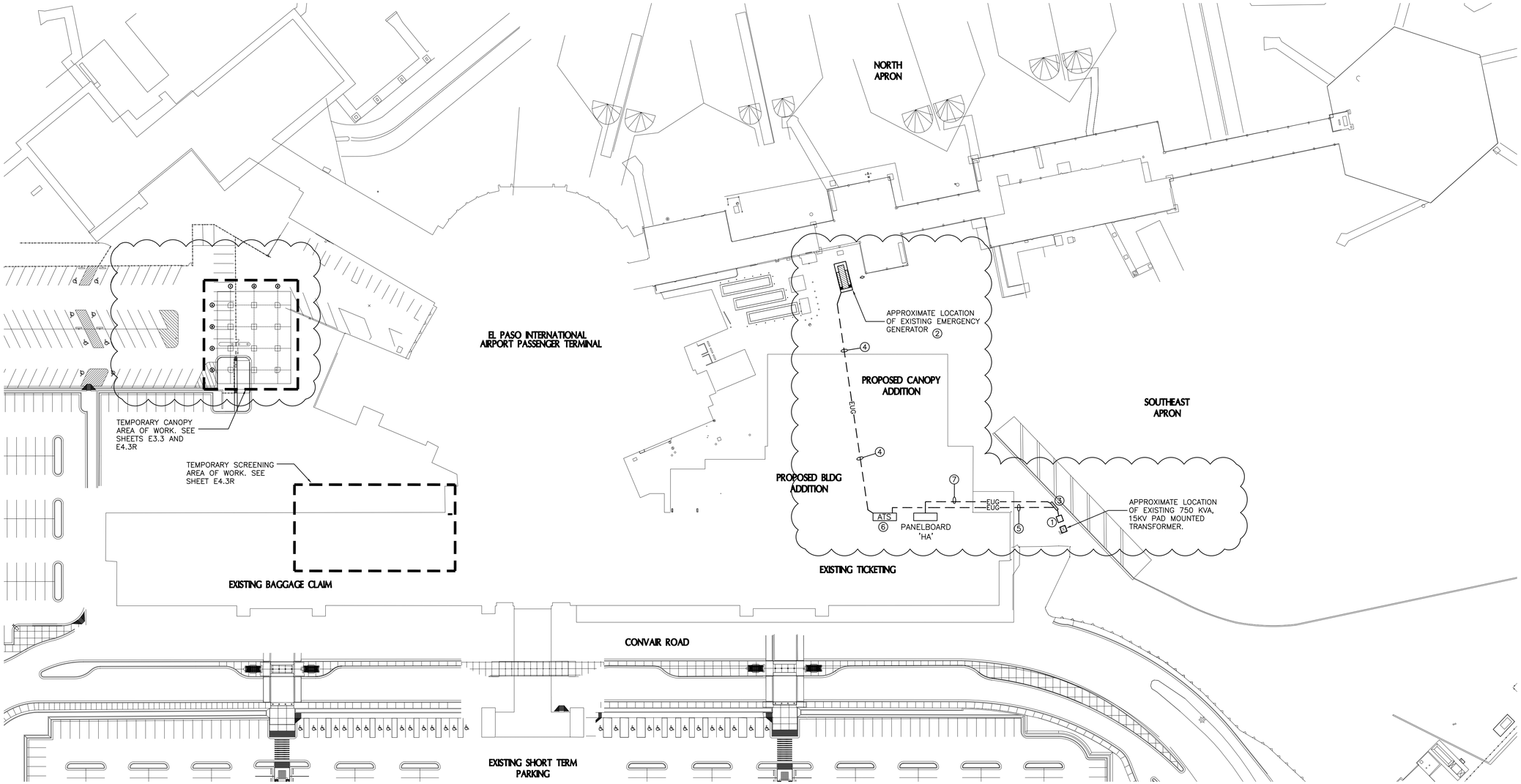
SHEET TITLE

PARTIAL MECHANICAL PIPING PLAN NEW WORK

M5.03R

FILE NO. 238512

SHEET 22 OF 34



1 ELECTRICAL SITE PLAN

SCALE 1" = 50'-0"

PLAN NORTH

KEYED NOTES:

1. PROPOSED LOCATION OF NEW EPEC PAD MOUNTED TRANSFORMER NEXT TO EXISTING 750KVA, 15KV TRANSFORMER. COORDINATE WITH EPEC AS SOON AS CONTRACT IS LET AND COORDINATE WITH EXISTING UTILITIES.
2. APPROXIMATE LOCATION OF EXISTING 480V, 3PH, 1563KVA, 1000 KW, 0.8 P.F. GENERATOR. SEE RISER DIAGRAM ON SHEET E7.0R FOR DETAILS.
3. PROPOSED LOCATION OF CT METER, MAIN 1000A & 600A DISCONNECT SWITCHES. SEE ELECTRICAL RISER DIAGRAM ON SHEET E7.0R
4. (4) 3" U.G. CONDUITS EACH WITH 4-#350 MCM CU. CONDRS. AND 1-#1 CU. GND. FROM AUTOMATIC TRANSFER SWITCH TO EMERGENCY GENERATOR. SEE RISER DIAGRAM ON SHEET E7.0R. CONTRACTOR TO COORDINATE WITH CIVIL PLANS FOR EXACT CONDUIT ROUTE LOCATION. COORDINATE WITH OWNER FOR EXISTING CONCRETE DEMOLITION SCHEDULE FOR CONDUITS INSTALLATION.
5. (2) 3" CONDS EACH WITH 4-#350 MCM CU. CONDRS. AND 1-#1 CU. GND. FROM AUTOMATIC TRANSFER SWITCH TO 600A MAIN DISCONNECT. SEE RISER DIAGRAM ON SHEET E7.0R. CONTRACTOR TO CUT AND PATCH EXISTING CONCRETE SIDEWALKS AND ASPHALT DRIVEWAYS AS NECESSARY FOR CONDUIT INSTALLATION.
6. PROVIDE AND INSTALL NEW AUTOMATIC TRANSFER SWITCH, 600A, 277/480V, 3PH, TYPE 1 IN ELECTRICAL ROOM 123F. SEE ELECTRICAL RISER DIAGRAM ON SHEET E7.0R.
7. (3) 3" CONDUITS EACH WITH 4-#500 MCM CU. CONDRS. AND 1-#1 CU. GND. FROM PANELBOARD 'HA' TO 1000A MAIN DISCONNECT SEE RISER DIAGRAM ON SHEET E7.0R. CONTRACTOR TO CUT AND PATCH EXISTING CONCRETE SIDEWALKS AND ASPHALT DRIVEWAYS AS NECESSARY FOR CONDUIT INSTALLATION.

ALPHA ENGINEERING, INC.
ENGINEERING CONSULTANTS
1818 E. RIO GRANDE • EL PASO, TEXAS 79902
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REGISTRATION # F005238

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME

mijares mora ARCHITECTS INC.
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ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED PROFESSIONAL ENGINEER
8/1/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	Felix Padilla
APPD. BY	P1619
JOB NO.	

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

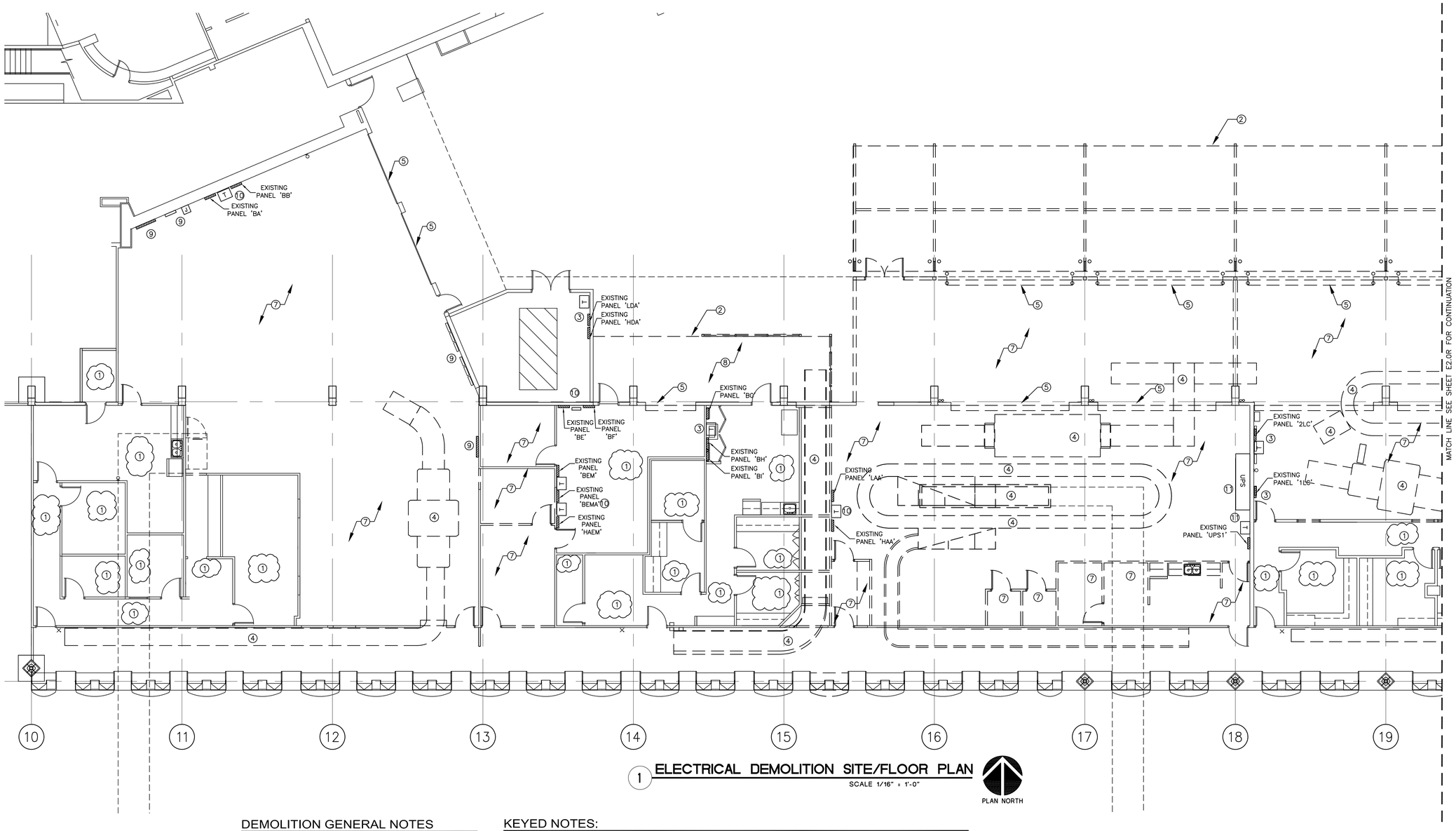
SHEET TITLE

ELECTRICAL SITE PLAN

E1.0R

FILE NO. 238512

SHEET 1 OF 22



1 ELECTRICAL DEMOLITION SITE/FLOOR PLAN

SCALE 1/16" = 1'-0"

PLAN NORTH

DEMOLITION GENERAL NOTES

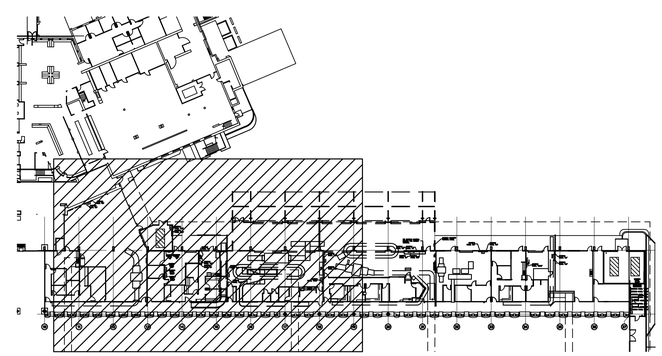
A. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ACHIEVE THE SCOPE OF DEMOLITION, EVEN IF DEMOLITION IS NOT SHOWN OR NOTED. CONTRACTOR MUST COORDINATE WITH ARCHITECT FOR SCOPE OF DEMOLITION BEFORE DOING ANY WORK.

B. CONTRACTOR MUST VISIT SITE BEFORE BIDDING ON THIS PROJECT.

C. ELECTRICAL CONTRACTOR MUST RETURN ALL EPIA BAGGAGE EQUIPMENT AND ANY OTHER ELECTRICAL DEVICES IF NOT USED TO OWNER.

KEYED NOTES:

1. REMOVE EXISTING ROOM LIGHTS AND MAINTAIN EXISTING ASSOCIATED LIGHTING CIRCUIT FOR REUSE DURING NEW WORK.
2. EXISTING ROOF OVERHEAD ABOVE. ELECTRICAL CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL DEVICES (LIGHT FIXTURES, RECEPTACLES, SPECIAL SYSTEMS, J-BOXES, PULL BOXES, CONDUIT, WIRING, ETC). CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF SCOPE OF DEMOLITION. COORDINATE WITH ARCHITECT FOR EXTENT OF DEMOLITION BEFORE DOING ANY WORK.
3. EXISTING ELECTRICAL PANELS AND TRANSFORMERS TO REMAIN. NO WORK REQUIRED.
4. EXISTING BAGGAGE SYSTEM/EQUIPMENT TO BE REMOVED. ELECTRICAL CONTRACTOR TO REMOVE ASSOCIATED MOTORS, WIRING, CIRCUIT AND CONTROLS(IF EXISTING). COORDINATE WITH EPIA PERSONNEL AND ARCHITECT FOR EXTENT OF DEMOLITION BEFORE DOING ANY WORK.
5. EXISTING GARAGE DOOR TO BE REMOVED. CONTRACTOR TO REMOVED ASSOCIATED MOTOR, WIRING, CIRCUIT AND CONTROL (IF EXISTING) BACK TO SOURCE.
6. EXISTING PORTION OF WALL TO BE REMOVED. CONTRACTOR TO REMOVE ANY ELECTRICAL DEVICE INCLUDING SPECIAL SYSTEMS (IF EXISTING) BACK TO SOURCE. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR DEVICES OUT OF SCOPE OF DEMOLITION. SEE NEW FLOOR PLAN AS NECESSARY.
7. ELECTRICAL CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL DEVICES (LIGHT FIXTURES, RECEPTACLES, SPECIAL SYSTEMS, J-BOXES, PULL BOXES, CONDUIT, WIRING, ETC) IN THIS ROOM. MAINTAIN EXISTING LIGHTING CIRCUIT FOR REUSE DURING NEW WORK. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF SCOPE OF DEMOLITION AND RELOCATE EXISTING DEVICES AS NECESSARY. COORDINATE WITH ARCHITECT FOR EXTENT OF DEMOLITION.
8. CONTRACTOR TO REMOVE ANY ELECTRICAL DEVICE INCLUDING SPECIAL SYSTEMS ON EXTERIOR AREA OR WORK. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR DEVICES OUT OF SCOPE OF DEMOLITION.
9. EXISTING FIRE ALARM DEVICES/TELECOM DEVICES TO BE REMOVED. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF EXTENT OF DEMOLITION. CONTRACTOR TO RELOCATE EXISTING DEVICES IF NECESSARY, EXTEND CIRCUITS AS NECESSARY AND COORDINATE NEW LOCATION WITH OWNER.
10. EXITING PANELBOARDS AND ASSOCIATED TRANSFORMER TO BE REPLACED AND/OR RELOCATED. SEE SHEET E4.0 FOR NEW LOCATION AND DETAILS.
11. EXISTING UPS AND ASSOCIATED TRANSFORMER AND PANELBOARD 'UPS1' TO BE REMOVED. REMOVE EXISTING ASSOCIATED CONDUITS AND FEEDERS BACK TO SOURCE.



KEY PLAN

SCALE : N.T.S.

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REGISTRATION # F005238

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME

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ARCHITECTS INC.
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TEL: 915-542-1991 FAX: 542-1994

ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED PROFESSIONAL ENGINEER
8/17/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

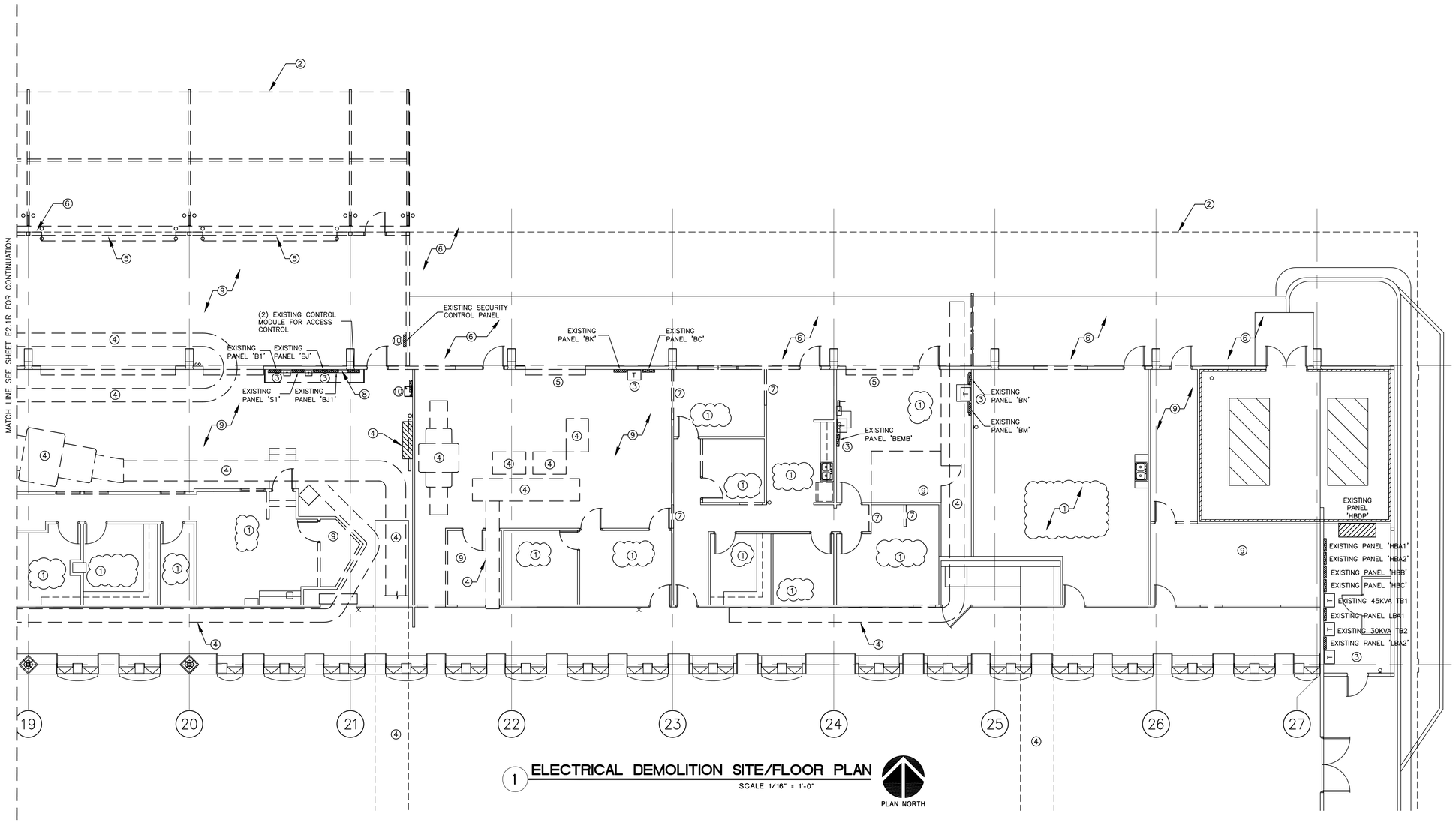
SHEET TITLE

ELECTRICAL ENLARGED DEMOLITION PLAN

E2.0R

FILE NO. 238512

SHEET 2 OF 22



1 ELECTRICAL DEMOLITION SITE/FLOOR PLAN

SCALE 1/16" = 1'-0"

DEMOLITION GENERAL NOTES

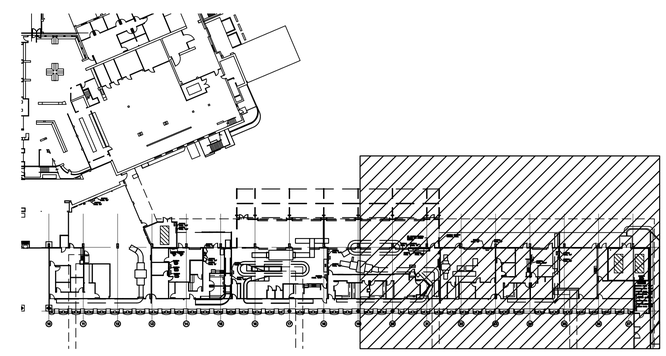
A. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ACHIEVE THE SCOPE OF DEMOLITION, EVEN IF DEMOLITION IS NOT SHOWN OR NOTED. CONTRACTOR MUST COORDINATE WITH ARCHITECT FOR SCOPE OF DEMOLITION BEFORE DOING ANY WORK.

B. CONTRACTOR MUST VISIT SITE BEFORE BIDDING ON THIS PROJECT.

C. ELECTRICAL CONTRACTOR MUST RETURN ALL EPIA BAGGAGE EQUIPMENT AND ANY OTHER ELECTRICAL DEVICES IF NOT USED TO OWNER.

KEYED NOTES:

1. REMOVE EXISTING ROOM LIGHTS AND MAINTAIN EXISTING ASSOCIATED LIGHTING CIRCUIT FOR REUSE DURING NEW WORK.
2. EXISTING ROOF OVERHEAD ABOVE. ELECTRICAL CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL DEVICES (LIGHT FIXTURES, RECEPTACLES, SPECIAL SYSTEMS, J–BOXES, PULL BOXES, CONDUIT, WIRING, ETC). CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF SCOPE OF DEMOLITION. COORDINATE WITH ARCHITECT FOR EXTENT OF DEMOLITION BEFORE DOING ANY WORK.
3. EXISTING ELECTRICAL PANELS AND TRANSFORMERS TO REMAIN. NO WORK REQUIRED.
4. EXISTING BAGGAGE SYSTEM/EQUIPMENT TO BE REMOVED. ELECTRICAL CONTRACTOR TO REMOVE ASSOCIATED MOTORS, WIRING, CIRCUIT AND CONTROLS(IF EXISTING). COORDINATE WITH EPIA PERSONNEL AND ARCHITECT FOR EXTENT OF DEMOLITION BEFORE DOING ANY WORK.
5. EXISTING GARAGE DOOR TO BE REMOVED. CONTRACTOR TO REMOVED ASSOCIATED MOTOR, WIRING, CIRCUIT AND CONTROL (IF EXISTING) BACK TO SOURCE.
6. CONTRACTOR TO REMOVE ANY ELECTRICAL DEVICE INCLUDING SPECIAL SYSTEMS ON EXTERIOR AREA OR WORK. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR DEVICES OUT OF SCOPE OF DEMOLITION.
7. EXISTING PORTION OF WALL TO BE REMOVED. CONTRACTOR TO REMOVE ANY ELECTRICAL DEVICE INCLUDING SPECIAL SYSTEMS (IF EXISTING) BACK TO SOURCE. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR DEVICES OUT OF SCOPE OF DEMOLITION. SEE NEW FLOOR PLAN AS NECESSARY.
8. ALL UNUSED ELECTRICAL AND TELEPHONE/DATA CABLE TO BE REMOVED IN ITS ENTIRETY ON THIS WALL. CONTRACTOR TO ENSURE CIRCUIT CONTINUITY FOR REMAINING DEVICES. COORDINATE WITH EPIA PERSONNEL FOR REQUIREMENTS BEFORE DOING ANY WORK.
9. ELECTRICAL CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL DEVICES (LIGHT FIXTURES, RECEPTACLES, SPECIAL SYSTEMS, J–BOXES, PULL BOXES, CONDUIT, WIRING, ETC) IN THIS ROOM. MAINTAIN EXISTING LIGHTING CIRCUIT FOR REUSE DURING NEW WORK. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF SCOPE OF DEMOLITION. COORDINATE WITH ARCHITECT FOR EXTENT OF DEMOLITION.
10. EXISTING FIRE ALARM DEVICES/TELECOM DEVICES TO BE REMOVED. CONTRACTOR TO IDENTIFY AND ENSURE CIRCUIT CONTINUITY FOR ALL DEVICES OUT OF EXTENT OF DEMOLITION. CONTRACTOR TO RELOCATE EXISTING DEVICES IF NECESSARY, EXTEND CIRCUITS AS NECESSARY AND COORDINATE NEW LOCATION WITH OWNER.



KEY PLAN

SCALE : N.T.S.

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REGISTRATION # F005236

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME

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TEL: 915-542-1991
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ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED
PROFESSIONAL ENGINEER
8/11/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

CITY OF EL PASO

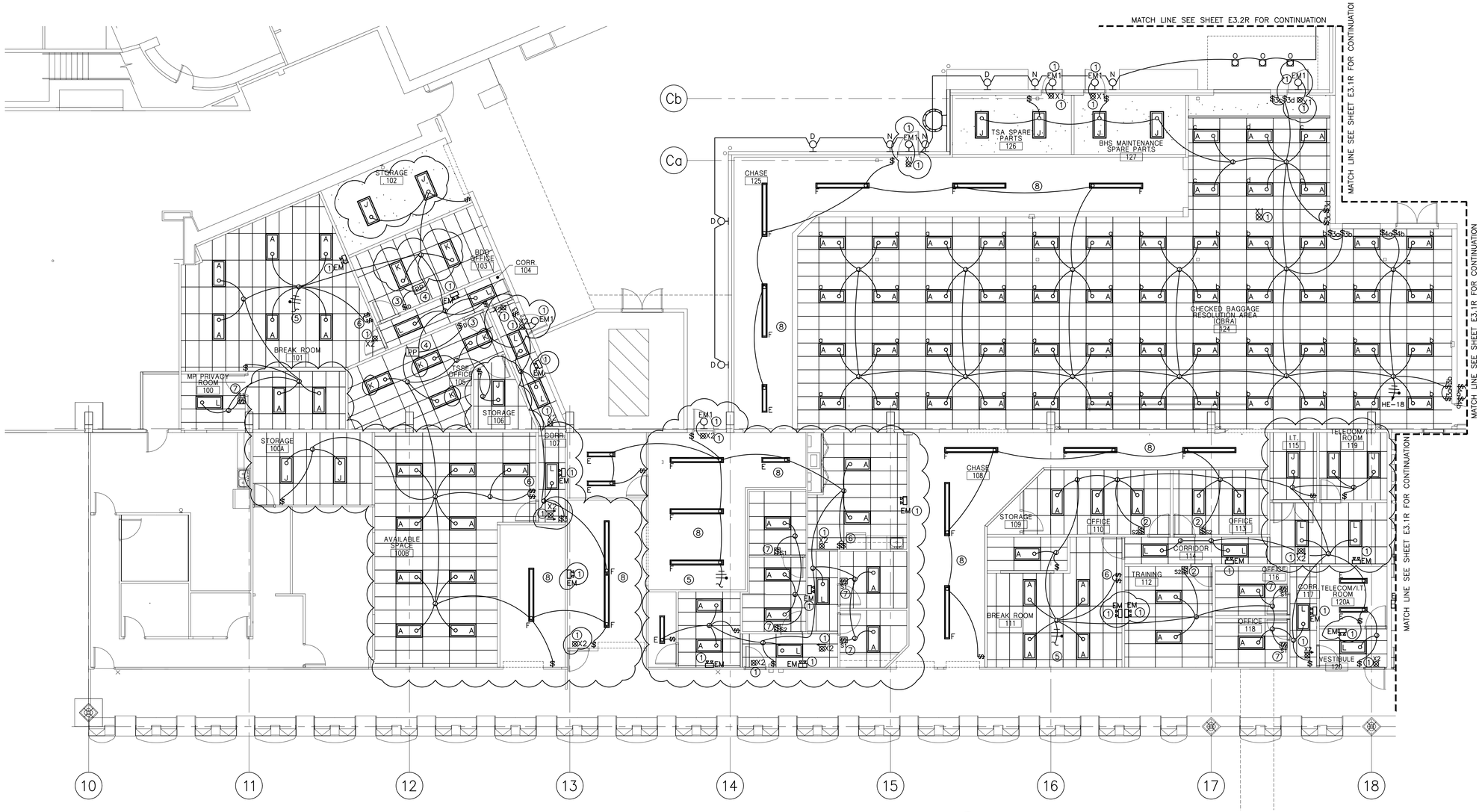
SHEET TITLE

ELECTRICAL ENLARGED DEMOLITION PLAN

E2.1R

FILE NO. 238512

SHEET 3 OF 22



1 LIGHTING ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

FIXTURE SCHEDULE

TYPE	DESCRIPTION & MFR. CAT. No.	LAMPS & WATTS	MOUNTING	NOTES
A	CREE CR24 40L 40K S	LED 40W	RECESSED	
B	CREE KR6-13L-40K-277 10V	LED 18W	RECESSED	
C	HUBBELL LWS-35HL-W-EU	LED 110W	PENDANT @14'-0" A.F.F.	
C1	HUBBELL LWS-35HL-W-E	LED 110W	PENDANT @14'-0" A.F.F.	(3)
D	CREE SEC-EDG 3M WM 08 E UL CBA 350 40K OR EQUAL	LED 90W	WALL @10'-0" A.F.F.	(1)
E	HUBBELL LCL4-30LW-EU-CSHC	LED 48W	PENDANT @14'-0" A.F.F.	(2)
F	HUBBELL LCL8-30LW-EU-CSHC	LED 48W	PENDANT @14'-0" A.F.F.	(2)
J	CREE ZR24 32L 40K 10V	LED 32W	RECESSED	(2)
K	CREE CR24 40L 40K 10V	LED 44W	RECESSED	
L	CREE CR24 40L 35K S	LED 32W	RECESSED	
N	HUBBELL LD6LED 4 D W 40K 7 FL35 277V DM CBA	LED 28W	WALL @ 14'-0"	(1)
O	PRESCOLITE LC6LED 277 6LCLED 5 40K 8 WH WT B24 OR EQUAL	17W LED	RECESSED	(1)(2)
P	HUBBELL LWS-35HL-W-EU	LED 110W	PENDANT @12'-0" A.F.F.	
EM	DUALITE LX U R W E	INCLUDED	SURFACE CEILING	
EM1	EXITRONIX TR WB BR	INCLUDED	WALL @ 9'-0" A.F.F.	(1)
X1	DUALITE LX U R W E	INCLUDED	SURFACE CEILING	
X2	DUALITE LX U R W	INCLUDED	SURFACE CEILING	

(1) ARCHITECT WILL DICTATE LIGHT FIXTURE COLOR AND HEIGHT MOUNTING.
(2) CONTRACTOR TO PROVIDE ALL MATERIAL NECESSARY FOR LIGHT FIXTURE MOUNTING TYPE.
(3) LIGHT FIXTURE CONTROLLED BY DAY LIGHT SENSOR CONTROL. SEE LIGHTING FLOOR PLAN FOR DETAILS.

LIGHTING GENERAL NOTES:

A. ALL NEW BUILDING ADDITION LIGHTING, INTERIOR AND EXTERIOR, IS SERVED FROM EMERGENCY GENERATOR, THEREFORE, NO INTERIOR OR EXTERIOR EMERGENCY LIGHTING WILL BE NECESSARY.

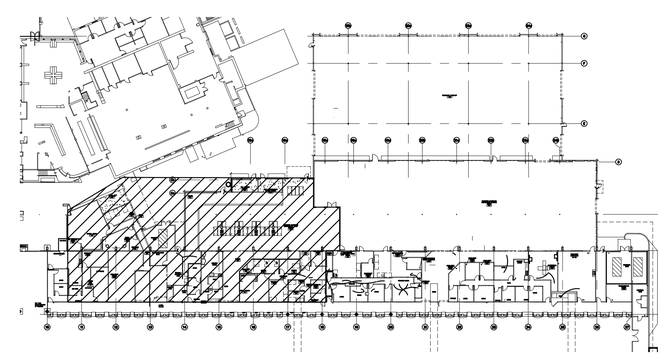
B. COORDINATE MOUNTING HEIGHTS FOR ALL LIGHT FIXTURES, INTERIOR AND EXTERIOR, WITH ARCHITECT BEFORE ROUGH-IN.

C. ALL PENDANT MOUNTED LIGHT FIXTURES TO BE HUNG USING 1/4" THREAD RODS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.

D. CONTRACTOR TO CUT AND PATCH EXISTING WALLS AS NECESSARY FOR THE INSTALLATION OF NEW ELECTRICAL DEVICES.

KEYED NOTES:

1. ALL EXIT AND EMERGENCY LIGHTS MUST BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
2. PROVIDE AND INSTALL WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. SENSOR TO BE HUBBELL LH MT D 2 OR EQUAL. SENSOR TO BE PROVIDED WITH TWO BUTTONS. CONNECT EACH BUTTON TO ONE LEAD ON EACH LIGHT FIXTURE. ONE BUTTON SHALL CONTROL 50% OF EACH FIXTURE IN ROOM AND BE BE SET TO AUTO-ON/AUTO-OFF. OTHER BUTTON SHALL CONTROL 50% OF EACH FIXTURE IN ROOM AND BE SET TO MANUAL-ON/AUTO-OFF. SEED DETAIL 1/E7.2R ON SHEET E7.2R FOR OCCUPANCY SENSOR WIRING.
3. PROVIDE AND INSTALL 0-10V DIMMER SWITCH. DIMMER TO BE LUTRON DIVA DVTV-IV. DIMMER SWITCH MUST BE COMPATIBLE WITH LIGHT FIXTURE. COORDINATE WITH LIGHT FIXTURE MANUFACTURER FOR COMPATIBLE DIMMERS. MAKE CONNECTIONS TO POWER PACK ABOVE CEILING. SEE DETAIL 2/E7.1R ON SHEET E7.1R. EACH DIMMER MUST BE INSTALLED IN INDIVIDUAL BOX. INSTALL DIMMER 6" FROM THE EDGE OF THE DOOR ON WALL.
4. PROVIDE AND INSTALL POWER PACK ABOVE ACCESSIBLE CEILING FOR DIMMER SWITCH. POWER PACK TO BE LUTRON PP-277H OR EQUAL. MAKE CONNECTIONS TO LIGHT FIXTURES AND DIMMER. INSTALL POWER PACK INSIDE 8"X8"X4" J-BOX ABOVE CEILING. SEE DETAIL 2/E7.2R ON SHEET E7.2R.
5. CONNECT NEW LIGHTING TO EXISTING LIGHTING CIRCUIT MAINTAINED DURING DEMOLITION.
6. CONTRACTOR TO CONNECT EACH SWITCH TO CONTROL 50% OF EACH LIGHT FIXTURE OUTPUT.
7. PROVIDE AND INSTALL WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. SENSOR TO BE HUBBELL LH MT S 1 OR EQUAL. WIRE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE DETAIL 4/E7.2R ON SHEET E7.2R.
8. COORDINATE NEW LIGHTING IN THIS AREA WITH CONVEYOR SYSTEM.



KEY PLAN

SCALE : N.T.S.

ALPHA ENGINEERING, INC.
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REGISTRATION # F005238

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

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ENGINEER'S SEAL
STATE OF TEXAS
FELIX PADILLA
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REGISTERED PROFESSIONAL ENGINEER
6/17/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F. P.
CHKD. BY	F. P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME
EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS

CITY OF EL PASO

SHEET TITLE
LIGHTING ENLARGED PLAN

E3.0R

FILE NO. 238512

SHEET __ OF 22

1 LIGHTING ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

LIGHTING GENERAL NOTES:

A. ALL NEW BUILDING ADDITION LIGHTING, INTERIOR AND EXTERIOR, IS SERVED FROM EMERGENCY GENERATOR, THEREFORE, NO INTERIOR OR EXTERIOR EMERGENCY LIGHTING WILL BE NECESSARY.

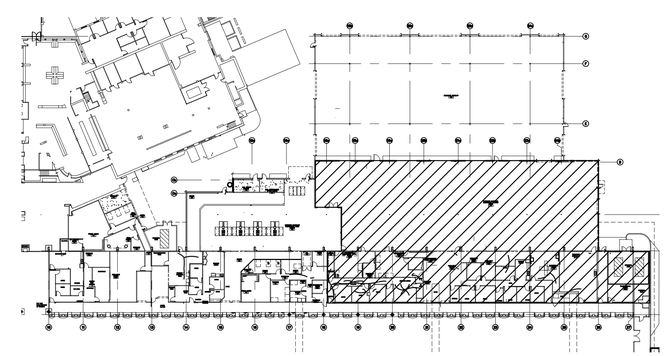
B. COORDINATE MOUNTING HEIGHTS FOR ALL LIGHT FIXTURES, INTERIOR AND EXTERIOR, WITH ARCHITECT BEFORE ROUGH-IN.

C. ALL PENDANT MOUNTED LIGHT FIXTURES TO BE HUNG USING 1/4" THREAD RODS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.

D. CONTRACTOR TO CUT AND PATCH EXISTING WALLS AS NECESSARY FOR THE INSTALLATION OF NEW ELECTRICAL DEVICES.

KEYED NOTES:

1. ALL EXIT AND EMERGENCY LIGHTS MUST BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
2. HOME RUN CIRCUIT THRU TIMER CONTACTOR. USE 3/4" CONDUIT WITH 4-#8 CONDRS AND 2-#10 CU. GND FOR EACH CIRCUIT. COORDINATE WITH OWNER FOR LIGHTING TIME SCHEDULE. REFER TO RISER DIAGRAM ON SHEET E7.0R.
3. PROVIDE AND INSTALL 0-10V DIMMER SWITCH. DIMMER TO BE LUTRON DIVA DVTV-IV. DIMMER SWITCH MUST BE COMPATIBLE WITH LIGHT FIXTURE. COORDINATE WITH LIGHT FIXTURE MANUFACTURER FOR COMPATIBLE DIMMERS. MAKE CONNECTIONS TO POWER PACK ABOVE CEILING. SEE DETAIL 2/E7.1R ON SHEET E7.1R. EACH DIMMER MUST BE INSTALLED IN INDIVIDUAL BOX. INSTALL DIMMER 6" FROM THE EDGE OF THE DOOR ON WALL.
4. PROVIDE AND INSTALL POWER PACK ABOVE ACCESSIBLE CEILING FOR DIMMER SWITCH. POWER PACK TO BE LUTRON PP-277H OR EQUAL. MAKE CONNECTIONS TO LIGHT FIXTURES AND DIMMER. INSTALL POWER PACK INSIDE 8"X8"X4" J-BOX ABOVE CEILING. SEE DETAIL 2/E7.2R ON SHEET E7.2R.
5. PROVIDE AND INSTALL WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. SENSOR TO BE HUBBELL LH MT D 2 OR EQUAL. SENSOR TO BE PROVIDED WITH TWO BUTTONS. CONNECT EACH BUTTON TO ONE LEAD ON EACH LIGHT FIXTURE. ONE BUTTON SHALL CONTROL 50% OF EACH FIXTURE IN ROOM AND BE BE SET TO AUTO-ON/AUTO-OFF. OTHER BUTTON SHALL CONTROL 50% OF EACH FIXTURE IN ROOM AND BE SET TO MANUAL-ON/AUTO-OFF. SEED DETAIL 1/E7.2R ON SHEET E7.2R FOR OCCUPANCY SENSOR WIRING.
6. CONNECT NEW LIGHTING TO EXISTING LIGHTING CIRCUIT, MAINTAINED DURING DEMOLITION.
7. PROVIDE AND INSTALL WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. SENSOR TO BE HUBBELL LH MT S 1 OR EQUAL. WIRE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE DETAIL 4/E7.2R ON SHEET E7.2R.
8. COORDINATE LIGHTS WITH NEW CONVEYOR SYSTEM. IN THIS AREA
9. CONTRACTOR TO CONNECT EACH SWITCH TO CONTROL 50% OF EACH LIGHT FIXTURE OUTPUT.
10. NO LIGHTING WORK REQUIRED IN THIS AREA



KEY PLAN

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REFERENCES -- BENCHMARK

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DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

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CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

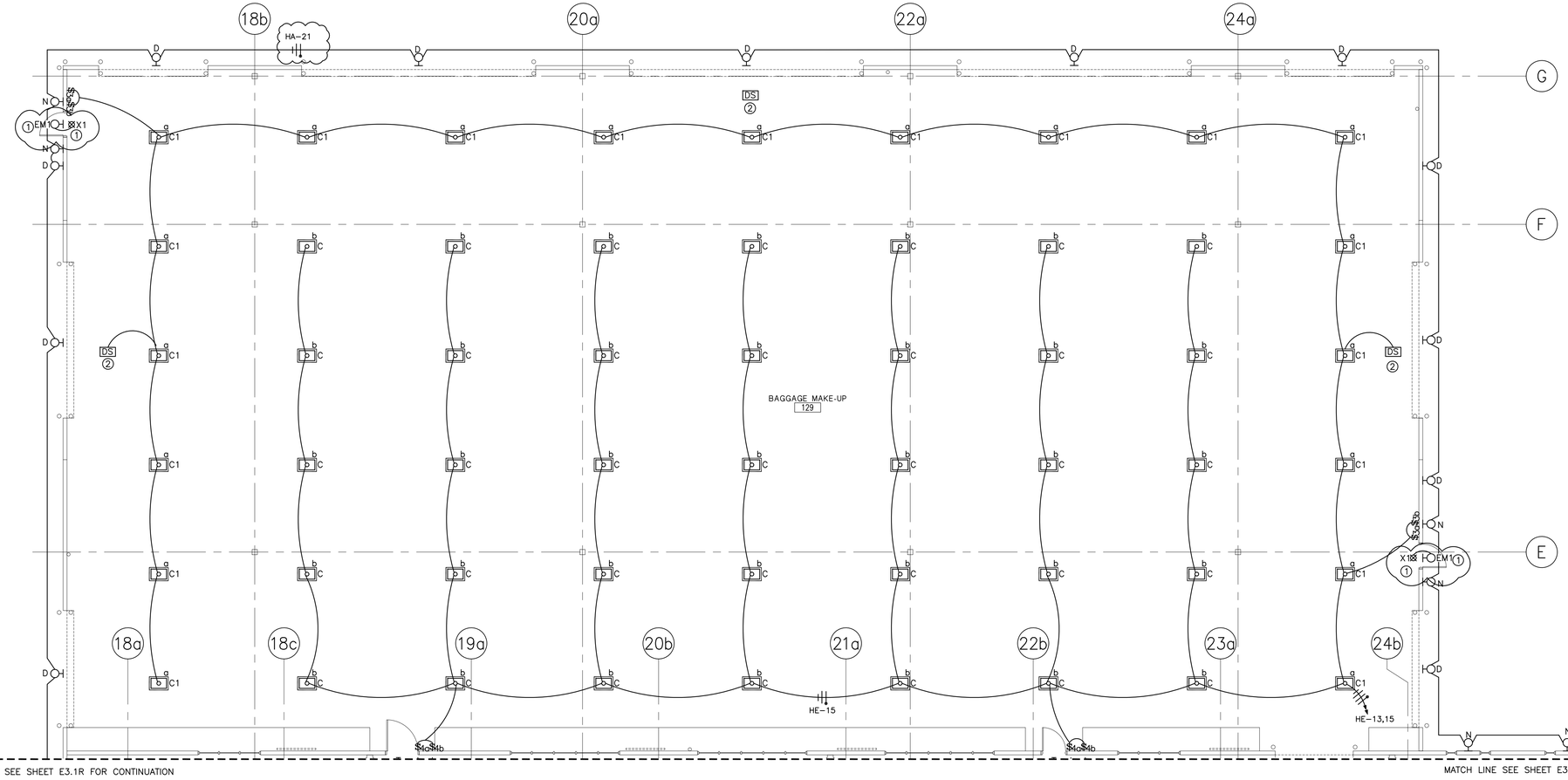
SHEET TITLE

LIGHTING ENLARGED PLAN

E3.1R

FILE NO. 238512

SHEET 5 OF 22



1 LIGHTING ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

OCCUPANCY SENSOR LEGEND

DEVICE	HUBBELL MODEL	DESCRIPTION
DS	DLC7 OR EQUAL	DAYLIGHT CONTROL SENSOR.
$S1	LHMTS1 OR EQUAL	WALL SWITCH DUAL TECHNOLOGY, SELF POWERED, ONE SWITCH
$S2	LHMTD2 OR EQUAL	WALL SWITCH DUAL TECHNOLOGY, SELF POWERED, TWO SWITCH

NOTES:

1. ALL SENSOR LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
2. ULTRASONIC CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX FEET FROM HVAC SUPPLY/RETURN VENTS.
3. CONTRACTOR IS RESPONSIBLE FOR: PROPER SENSITIVITY & TIME DELAY SETTINGS (FOR NON-ADAPTIVE PRODUCTS), RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH IN RESPECT TO POWER PLACEMENT.
4. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS:
   - ONE POWER PACK IS REQUIRED FOR EACH CIRCUIT TO BE CONTROLLED.
   - ONE POWER PACK IS REQUIRED FOR EVERY THREE SENSORS IN THE ZONE.
   - IF MULTIPLE CIRCUITS ARE TO BE CONTROLLED BY A SENSOR, AN AUXILIARY RELAY CAN BE USED IN CONJUNCTION WITH THE POWER PACK.
   - THE MAXIMUM NUMBER OF SENSORS THAT CAN BE PUT ON A POWER PACK IS TO BE REDUCED BY ONE FOR EACH SLAVE PACK USED.
5. SENSORS MOUNTED OVER THE DOOR MUST BE PLACED ONE FOOT INSIDE THE THRESHOLD.
6. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SENSOR BILL OF MATERIALS COMPLIES WITH THE SENSOR DESIGN AND LAYOUT SPECIFICATIONS.
7. CONTRACTOR IS RESPONSIBLE FOR INSTALLING EQUIPMENT IN COMPLIANCE WITH LOCAL CODE.
8. ALL SENSORS TO BE SET TO TURN OFF AT 15 MINUTES.
9. WALL MOUNTED OCCUPANCY SENSORS MUST NOT BE INSTALLED BEHIND DOORS.

LIGHTING GENERAL NOTES:

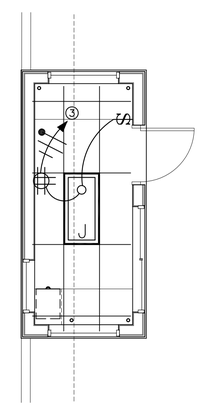
A. ALL NEW BUILDING ADDITION LIGHTING, INTERIOR AND EXTERIOR, IS SERVED FROM EMERGENCY GENERATOR, THEREFORE, NO INTERIOR OR EXTERIOR EMERGENCY LIGHTING WILL BE NECESSARY.

B. COORDINATE MOUNTING HEIGHTS FOR ALL LIGHT FIXTURES, INTERIOR AND EXTERIOR, WITH ARCHITECT BEFORE ROUGH-IN.

C. ALL PENDANT MOUNTED LIGHT FIXTURES TO BE HUNG USING 1/4" THREAD RODS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.

KEYED NOTES:

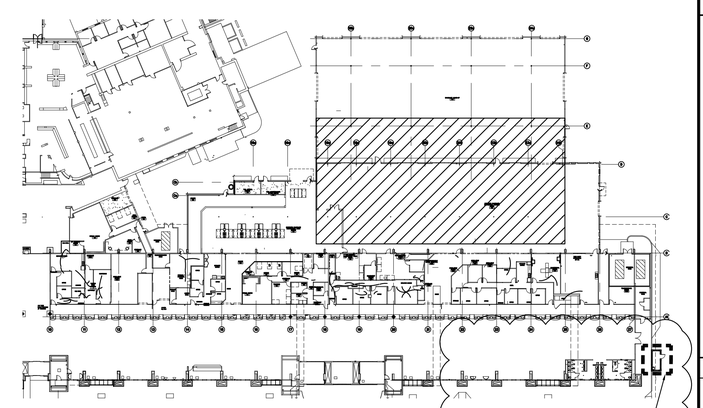
1. ALL EXIT AND EMERGENCY LIGHTS MUST BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
2. PROVIDE AND INSTALL HUBBEL DLC7 DAYLIGHTING CONTROL SENSOR. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SENSOR TO CONTROL LIGHTS TYPE "C1" AS SHOWN. SEE DETAIL 5/E7.2R ON SHEET E7.2R. SENSOR MUST BE CALIBRATED TO SENSE LIGHTING LEVELS AT 30" A.F.F. SENSOR TO BE SET TO MAINTAIN 30 FOOT CANDLE AVERAGE. INSTALL SENSOR ON ROOF STRUCTURE.
3. HOME RUN CIRCUIT TO EXISTING AVAILABLE 20A/1P SPARE CB ON SPACE 19 IN EXISTING PANELBOARD 'LDA' LOCATED IN ELECTRICAL ROOM. SEE SHEET E4.1R FOR EXISTING PANEL 'LDA' LOCATION.



GUARD SHACK ENLARGED PLAN

1 E3.2R

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



KEY PLAN

SCALE : N.T.S.

SEE ENLARGED PLAN ON THIS SHEET. 1 E3.2R

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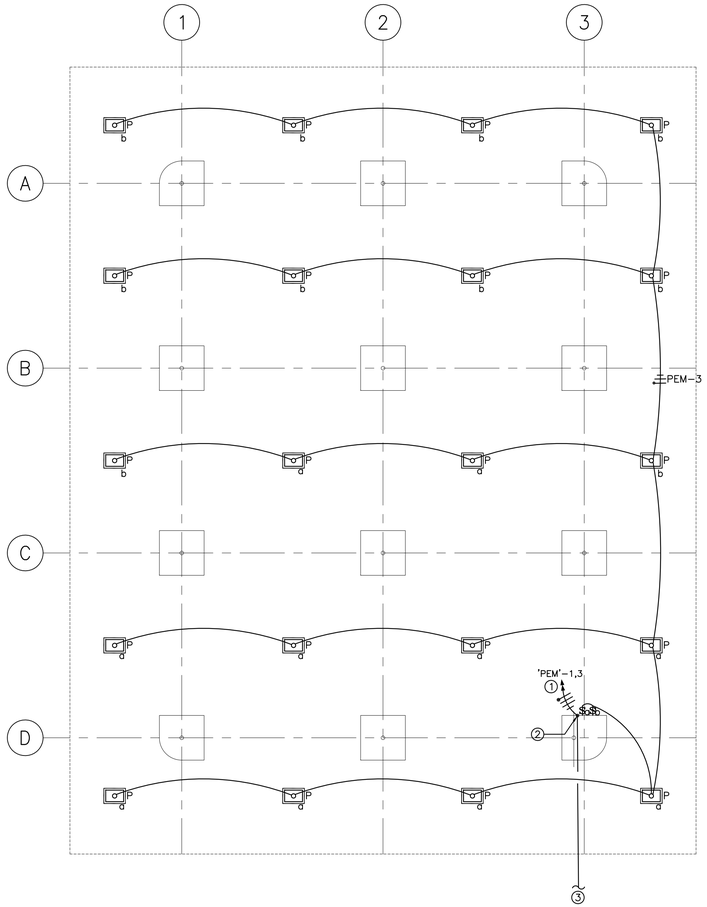
LIGHTING ENLARGED PLAN

E3.2R

FILE NO. 238512

SHEET 6 OF 22



1 TEMPORARY CANOPY LIGHTING PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

LIGHTING GENERAL NOTES:

A. COORDINATE MOUNTING HEIGHTS FOR ALL LIGHT FIXTURES, INTERIOR AND EXTERIOR, WITH ARCHITECT BEFORE ROUGH-IN.

B. ALL PENDANT MOUNTED LIGHT FIXTURES TO BE HUNG USING 1/4" THREAD RODS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT.

KEYED NOTES:

1. HOME RUN CIRCUITS TO EXISTING EMERGENCY PANELBOARD 'PEM' LOCATED IN BASEMENT. CONTRACTOR TO REPLACE EXISTING 20A/1P CB IN SPACES #1 AND #3. PROVIDE AND INSTALL (2) NEW 20A/1P CB ON EACH SPACE FOR POWER TO CANOPY LIGHTS.
2. RISE UP CANOPY COLUMN WITH 3/4" CONDUIT WITH 4-#8 THHN CU. CONDRS. AND 2-#10 CU GND. CONNECT EACH CIRCUIT TO EACH CANOPY SWITCHES FOR LIGHTING CONTROL. RUN CONDUIT SURFACE MOUNTED BELLOW CANOPY ROOF. PAINT CONDUIT TO MATCH CANOPY COLOR.
3. 3/4" U.G. CONDUIT FROM CANOPY LIGHT SWITCHES TO EXISTING PULL BOX. REFER TO SHEET E4.3R FOR DETAILS.

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Interior Lighting Compliance Certificate

Section 1: Project Information

Energy Code: **2009 IECC**
Project Title:
Project Type: Alteration

Construction Site: Owner/Agent: Designer/Contractor:

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Transportation	47669	1	47669
Total Allowed Watts =			47669

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Transportation (47669 sq.ft.)				
A: LED Panel 40W.	1	142	46	5680
B: LED PAR 18W.	1	1	18	18
C: LED Panel 110W.	1	85	110	9350
C1: LED Panel 110W.	1	19	110	2090
E: Other:	1	14	48	672
F: Other:	1	26	48	1248
J: Other:	1	12	32	384
K: LED Panel 44W.	1	19	44	836
L: Other:	1	29	32	928
Total Proposed Watts =				21206

Section 4: Requirements Checklist

Interior Lighting PASSES

Lighting Wattage:
☐ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
47669	21206	Passes

Controls, Switching, and Wiring:
☐ 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.
☐ 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:
Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

☐ 4. Independent controls for each space (switch/occupancy sensor).

Exceptions:
Areas designated as security or emergency areas that must be continuously illuminated.
Lighting in stairways or corridors that are elements of the means of egress.

☐ 5. Master switch at entry to hotel/motel guest room.
☐ 6. Individual dwelling units separately metered.
☐ 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.
☐ 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:
Only one luminaire in space.
An occupant-sensing device controls the area.
The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
Areas that use less than 0.6 Watts/sq.ft.

☐ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:
Sleeping units, patient care areas, and spaces where automatic shutoff would endanger safety or security.

☐ 10. Photocell/astronomical time switch on exterior lights.

Exceptions:
Lighting intended for 24 hour use.

☐ 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:
Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

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Exterior Lighting Compliance Certificate

Section 1: Project Information

Energy Code: **2009 IECC**
Project Title:
Project Type: Alteration
Exterior Lighting Zone: 3 (Other)

Construction Site: Owner/Agent: Designer/Contractor:

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Illuminated length of facade wall or surface	708 ft	3.75	No	2655	1607
Free standing/attached sales canopy	9720 ft2	0.8	Yes	7776	2200
Total Tradable Watts* =				7776	2200
Total Allowed Watts =				10431	
Total Allowed Supplemental Watts** =				750	

* Wattage tradeoffs are only allowed between tradable areas/surfaces.
** A supplemental allowance equal to 750 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Illuminated length of facade wall or surface (708 ft): Non-tradable Wattage				
D: EXTERIOR: LED Other Fixture Unit 90W.	1	12	90	1080
N: EXTERIOR: LED Other Fixture Unit 28W.	1	17	28	476
O: EXTERIOR: Other:	1	3	17	51
Free standing/attached sales canopy (9720 ft2): Tradable Wattage				
P: Other:	1	20	110	2200
Total Tradable Proposed Watts =				2200

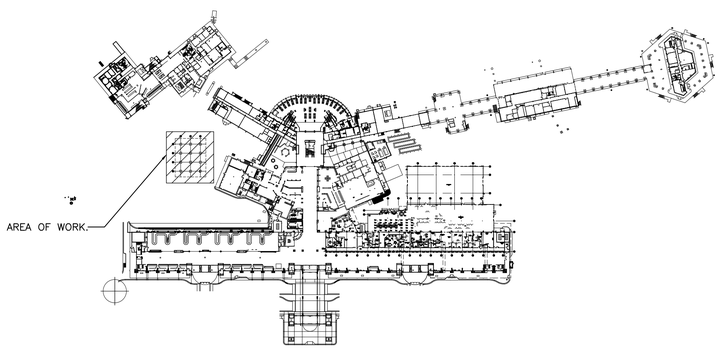
Section 4: Requirements Checklist

Lighting Wattage:
☐ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.
Compliance: Passes.

Controls, Switching, and Wiring:
☐ 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
☐ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.
☐ 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.
☐ 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

Exterior Lighting Efficacy:
☐ 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:
Lighting that has been claimed as exempt and is identified as such in Section 3 table above.
Lighting that is specifically designated as required by a health or life safety statue, ordinance, or regulation.
Emergency lighting that is automatically off during normal building operation.
Lighting that is controlled by motion sensor.



KEY PLAN

SCALE : N.T.S.

ALPHA ENGINEERING, INC.
ENGINEERING CONSULTANTS
1818 E. RIO GRANDE • EL PASO, TEXAS 79902
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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

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ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED
PROFESSIONAL ENGINEER
5/7/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F. P.
CHKD. BY	F. P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

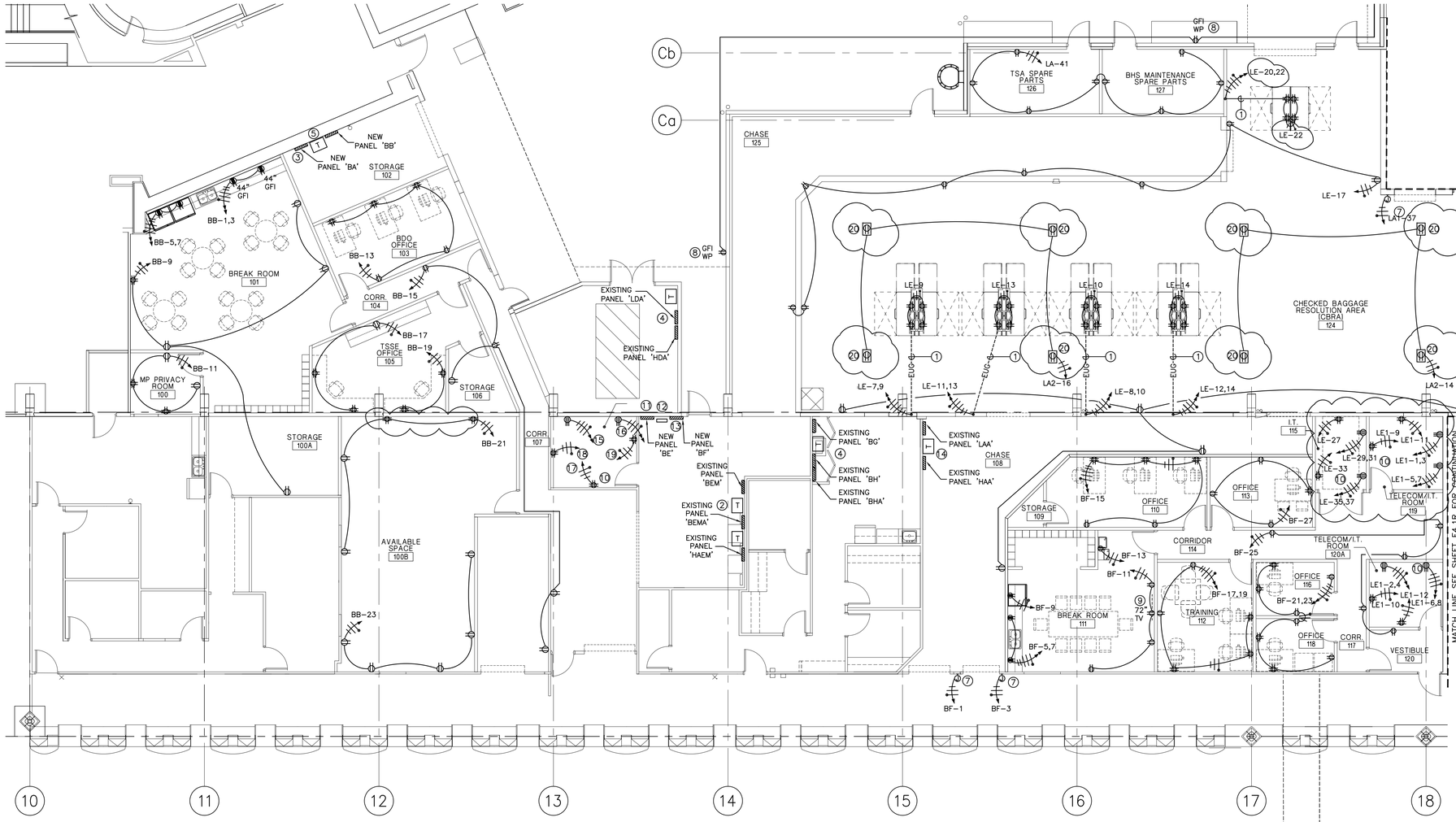
SHEET TITLE

TEMPORARY CANOPY LIGHTING ENLARGED PLAN

E3.3

FILE NO. 238512

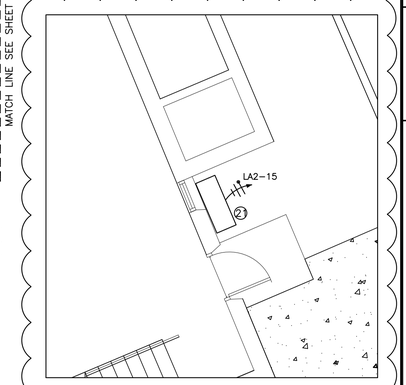
SHEET 7 OF 22



1 POWER ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH



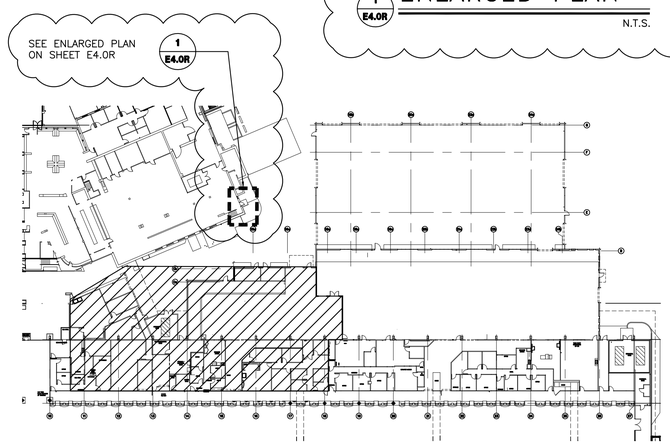
HEAT CONTROLLER ENLARGED PLAN

1 E4.0R

N.T.S.

KEYED NOTES:

1. CONTRACTOR TO CUT COORDINATE WITH OWNER FOR EXISTING CONCRETE DEMOLITION SCHEDULE FOR CONDUIT INSTALLATION. NECESSARY TO INSTALL 1" UG CONDUIT TO PROVIDE POWER TO WORK STATION. RUN CONDUIT FROM HALF WALL AT WORK STATION BACK TO NEAREST WALL AND THEN UP TO ABOVE SUSPENDED CEILING.
2. EXISTING PANELBOARDS 'HAEM', 'BEMA', AND 'BEM' AS WELL AS THEIR ASSOCIATED TRANSFORMERS TO BE RELOCATED AS SHOWN. CONTRACTOR TO IDENTIFY AND EXTEND EXISTING ASSOCIATED BRANCH CIRCUITS, CONDUITS AND MAIN FEEDERS AS NECESSARY TO NEW LOCATION. CONTRACTOR TO ENSURE CIRCUIT CONTINUITY OF EXISTING CIRCUITS. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY. COORDINATE NEW CIRCUIT ROUTING WITH NEW CONVEYOR SYSTEM AND EXISTING FACILITIES.
3. CONTRACTOR TO REPLACE AND RELOCATE EXISTING PANEL BOARD 'BA' AS SHOWN. PROVIDE AND INSTALL NEW PANELBOARD 'BA' 277/480V,3 PH, 4W, 225A CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR, 42 CIRCUITS. CONTRACTOR TO PULL EXISTING MAIN FEEDERS BACK TO MAIN PANEL AND ABANDON EXISTING CONDUIT CONDUIT. RUN A NEW 2 1/2" FROM MAIN PANEL WITH 4-#4/0 CU CONDUCTORS AND 1-#2 CU GND. COORDINATE WITH OWNER FOR MAIN PANEL LOCATION AND CONDUIT ROUTE. CONTRACTOR TO IDENTIFY AND RECONNECT WORKING BRANCH CIRCUITS AND ENSURE CIRCUIT CONTINUITY. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY.
4. EXISTING PANELS AND TRANSFORMERS ARE SHOWN AS REFERENCE ONLY NO WORK REQUIRED.
5. PROVIDE AND INSTALL NEW 75KVA TRANSFORMER 'BAB', 480-120/208V, DELTA-WYE, COPPER WINDINGS, K-4 FACTOR, HIGH EFFICIENCY TO POWER TO NEW PANELBOARD 'BB'. PROVIDE AND INSTALL 1-#4 CU GND.
6. CONTRACTOR TO REPLACE AND RELOCATE EXISTING PANEL BOARD 'BB' AS SHOWN. PROVIDE AND INSTALL NEW PANELBOARD 'BB' 120/208V, 3 PH, 4W, 200A CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR, 42 CIRCUITS. RUN A NEW 2" CONDUIT FROM NEW 75 KVA 'BAB' WITH 4-#3/0 CU CONDUCTORS AND 1-#4 CU GND. CONTRACTOR TO IDENTIFY AND RECONNECT WORKING BRANCH CIRCUITS AND ENSURE CIRCUIT CONTINUITY. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY.
7. PROVIDE AND INSTALL J-BOX ADJACENT TO NEW FIRE DOOR FOR POWER TO DOOR. CONTRACTOR TO MAKE ALL NECESSARY CONNECTIONS TO CONNECT NEW FIRE DOOR TO EXISTING FIRE ALARM CONTROL PANEL.
8. PROVIDED AND INSTALL GFI OUTLET ON EXTERIOR WALL PROVIDE IN-USE METAL WATER PROOF COVER.
9. PROVIDE AND INSTALL OUTLET FOR POWER TO TV AT 72" A.F.F. COORDINATE WITH OWNER FOR EXACT LOCATION BEFORE ROUGH-IN
10. PROVIDE AND INSTALL (2) 30 AMP. 208, 1PH, NEMA LG-30 IN IT ROOM FOR SERVER RACK. CONTRACTOR TO RUN 30 AMP CIRCUIT WITH 3/4" CONDUIT WITH 2-#10 CU. CONDRS. AND 1-#10 CU. GND. PROVIDE AND INSTALL (2) 20 AMP, 120V, 1 PH DEDICATED QUAD OUTLETS FOR SERVER RACK. COORDINATE WITH IT PERSONNEL FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
11. CONTRACTOR TO REPLACE EXISTING PANEL BOARD 'BE' WITH A NEW PANELBOARD 'BE' 277/480V,3 PH, 4W, 100A CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR, 42 CIRCUITS. CONTRACTOR MAY REUSE EXISTING MAIN FEEDERS AND CONDUIT. CONTRACTOR TO IDENTIFY AND RECONNECT WORKING BRANCH CIRCUITS AND ENSURE CIRCUIT CONTINUITY. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY.
12. PROVIDE AND INSTALL NEW 45KVA TRANSFORMER 'BEF', 480-120/208V, DELTA-WYE, COPPER WINDINGS, K-4 FACTOR, HIGH EFFICIENCY TO POWER TO NEW PANELBOARD 'BF'. PROVIDE AND INSTALL 1-#CU GND.
13. CONTRACTOR TO REPLACE PANEL BOARD 'BF' WITH A NEW PANELBOARD 'BF' 120/208V, 3 PH, 4W, 125A CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR, 42 CIRCUITS. RUN A NEW 1 1/4" CONDUIT FROM NEW 45 KVA 'BEF' WITH 4-#1 CU CONDUCTORS AND 1-#6 CU GND. CONTRACTOR TO IDENTIFY AND RECONNECT WORKING BRANCH CIRCUITS AND ENSURE CIRCUIT CONTINUITY. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY.
14. EXISTING PANELBOARDS 'HAA' AND 'LA' AS WELL AS THEIR ASSOCIATED TRANSFORMERS TO BE RELOCATED AS SHOWN. CONTRACTOR TO IDENTIFY AND EXTEND EXISTING ASSOCIATED BRANCH CIRCUITS, CONDUITS AND MAIN FEEDERS AS NECESSARY TO NEW LOCATION. CONTRACTOR TO ENSURE CIRCUIT CONTINUITY OF EXISTING CIRCUITS. CONTRACTOR TO IDENTIFY AND REMOVE UNUSED BRANCH CIRCUITS AS NECESSARY. COORDINATE NEW CIRCUIT ROUTING WITH NEW CONVEYOR SYSTEM AND EXISTING FACILITIES.
15. HOME RUN CIRCUIT TO EXITING PANELBOARD 'BEM' LOCATED IN EXISTING ELECTRICAL ROOM. CONTRACTOR TO REMOVE EXISTING 20A/1P CB IN SPACES 21 AND 23 AND PROVIDE AND INSTALL NEW 30A/2P CB ON THESE SPACES. CONTRACTOR TO PROVIDE AND INSTALL 3/4" CONDUIT WITH 3-#10 CU CONDUCTORS AND 1-#10 CU GND.
16. HOME RUN CIRCUIT TO EXITING PANELBOARD 'BEM' LOCATED IN EXISTING ELECTRICAL ROOM. CONTRACTOR TO REMOVE EXISTING 20A/1P CB IN SPACES 25 AND 27 AND PROVIDE AND INSTALL NEW 30A/2P CB ON THESE SPACES. CONTRACTOR TO PROVIDE AND INSTALL 3/4" CONDUIT WITH 3-#10 CU CONDUCTORS AND 1-#10 CU GND.
17. HOME RUN CIRCUIT TO EXISTING AVAILABLE 20A/1P SPARE CB ON SPACE 29 IN EXISTING PANELBOARD 'BEM' LOCATED IN ELECTRICAL ROOM.
18. HOME RUN CIRCUIT TO EXISTING AVAILABLE 20A/1P SPARE CB ON SPACE 31 IN EXISTING PANELBOARD 'BEM' LOCATED IN ELECTRICAL ROOM.
19. HOME RUN CIRCUIT TO EXISTING AVAILABLE 20A/1P SPARE CB ON SPACE 33 IN EXISTING PANELBOARD 'BEM' LOCATED IN ELECTRICAL ROOM.
20. PROVIDE AND INSTALL OUTLET ON ROOF STRUCTURE FOR POWER TO MONITOR. CONTRACTOR TO COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE ROUGH-IN.
21. HEAT TRACE SYSTEM CONTROLLER PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR. PROVIDE AND INSTALL 3/4" CONDUIT WITH 2-#8 THHN CU CONDUCTORS AND 1-#10 CU GND FOR POWER TO CONTROLLER. CONTRACTOR TO FIELD VERIFY EXACT CONDUIT ROUTE AND COORDINATE WITH MECHANICAL FOR REQUIREMENTS BEFORE DOING ANY WORK.



KEY PLAN

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REGISTERED PROFESSIONAL ENGINEER
9/7/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

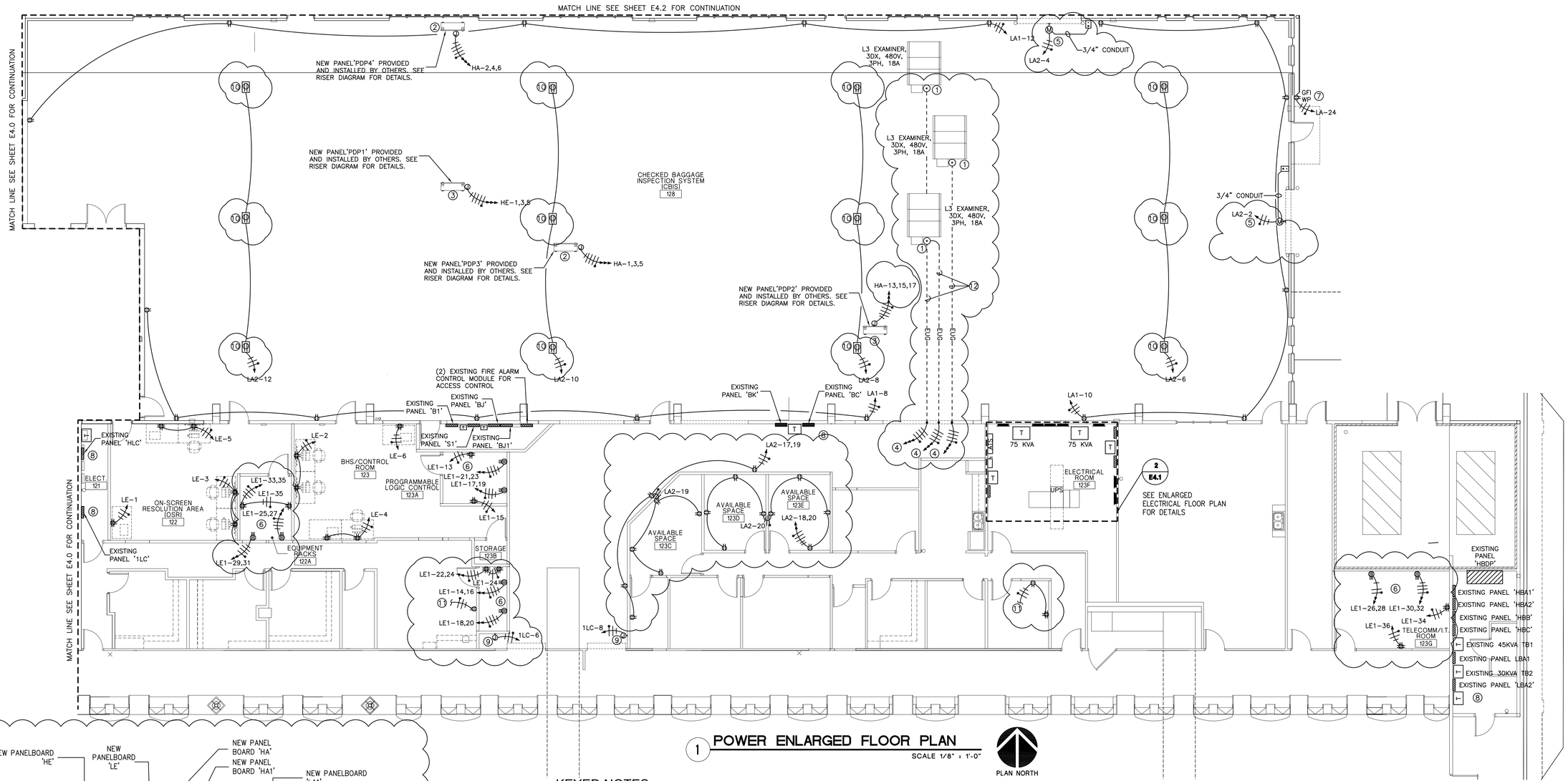
SHEET TITLE

POWER ENLARGED PLAN

E4.0R

FILE NO. 238512

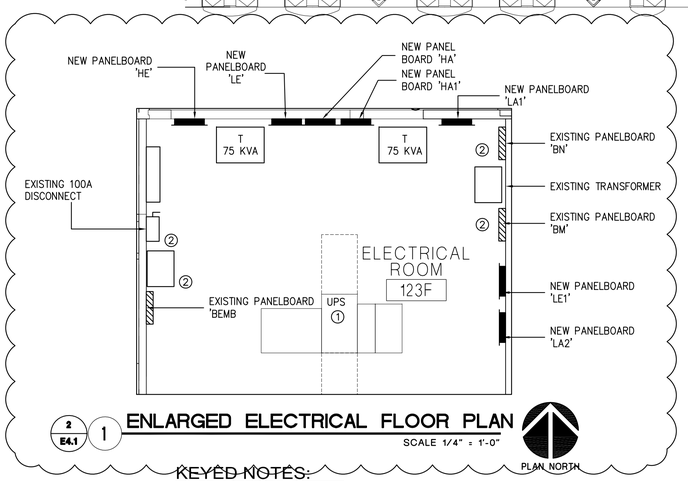
SHEET 8 OF 22



1 POWER ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH



2 E4.1 1 ENLARGED ELECTRICAL FLOOR PLAN

SCALE 1/4" = 1'-0"

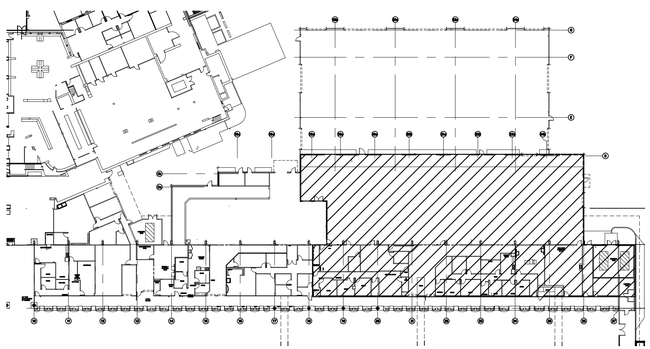
PLAN NORTH

KEYED NOTES:

1. NEW 60KW. UPS PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR. SEE RISER DIAGRAM ON SHEET E7.O.
2. EXISTING PANELBOARDS AND ASSOCIATED TRANSFORMERS TO REMAIN AS IS.

KEYED NOTES:

1. STUBB–UP CONDUIT AND MAKE CONNECTIONS TO L3 EXAMINER TRANSFORMER. VERIFY EXACT STUB–UP LOCATION AND REQUIREMENTS WITH BNP BEFORE ROUGH–IN.
2. APPROXIMATE LOCATION OF CONVEYOR CONTROL PANEL. CONTROL PANEL TO BE INSTALLED BY BAGGAGE HANDLING SYSTEM CONTRACTOR (SEE 'B' SERIES DRAWINGS). CONTRACTOR TO LEAVE 20FT OF WIRING PIGTAIL FOR CONNECTIONS BY BAGGAGE HANDLING SYSTEM CONTRACTOR. COORDINATE WITH CONVEYOR INSTALLER BEFORE DOING ANY WORK. SEE DETAILS 6/E7.1R ON SHEET E7.1R.
3. APPROXIMATE LOCATION OF EMERGENCY CONVEYOR CONTROL PANEL. CONTROL PANEL TO BE PROVIDE AND INSTALLED BY BNP CONTRACTOR (SEE 'B' SERIES DRAWINGS). CONTRACTOR TO LEAVE 20FT OF WIRING PIGTAIL FOR POWER TO PDP PANEL. COORDINATE WITH BNP AND EPIA PERSONNEL FOR EXACT LOCATION BEFORE DOING ANY WORK. SEE DETAILS 6/7.2 ON SHEET E7.2
4. HOME RUN CIRCUIT THROUGH UPS FOR EMERGENCY POWER SUPPLY. REFER TO RISER DIAGRAM ON SHEET E7.0R FOR DETAILS.
5. PROVIDE AND INSTALL J–BOX ADJACENT TO ROLLING DOOR TO PROVIDE POWER TO MOTOR. CONTRACTOR TO INSTALL 3/4" CONDUIT BACK TO MOTOR CONTROL AND MAKE ALL NECESSARY CONNECTION COORDINATE WITH ROLLING DOOR INSTALLER FOR
6. EXACT REQUIREMENTS BEFORE DOING ANY WORK. PROVIDE AND INSTALL (2) 30 AMP. 208, 1PH, NEMA LG–30 IN IT ROOM FOR SERVER RACK. CONTRACTOR TO RUN 30 AMP CIRCUIT WITH 3/4" CONDUIT WITH 2–#10 CU. CONDRS. AND 1–#10 CU. GND. PROVIDE AND INSTALL (2) 20 AMP, 120V, 1 PH DEDICATED QUAD OUTLETS FOR SERVER RACK. COORDINATE WITH IT PERSONNEL FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
7. PROVIDED AND INSTALL GFI OUTLET ON EXTERIOR WALL PROVIDE IN–USE METAL WATER PROOF COVER PLATE.
8. EXISTING PANELS AND TRANSFORMERS AS SHOWN AS REFERENCE ONLY. NO WORK REQUIRED.
9. PROVIDE AND INSTALL J–BOX ADJACENT TO NEW FIRE DOOR FOR POWER TO DOOR. CONTRACTOR TO MAKE ALL NECESSARY CONNECTIONS TO CONNECT NEW FIRE DOOR TO EXISTING FIRE ALARM CONTROL PANEL.
10. PROVIDE AND INSTALL OUTLET ON ROOF STRUCTURE FOR POWER TO MONITOR. CONTRACTOR TO COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE ROUGH–IN.
11. CONNECT NEW RECEPTACLES TO EXISTING POWER ROOM CIRCUIT. EXTEND CIRCUIT AS NECESSARY FOR CONNECTION.
12. PROVIDE AND INSTALL 1" UG CONDUIT TO PROVIDE POWER TO L3 MACHINE. RUN CONDUIT FORM L3 MACHINE LOCATION BACK TO ASSOCIATED UPS. CONTRACTOR TO COORDINATE WITH OWNER FOR EXISTING CONCRETE DEMOLITION SCHEDULE FOR CONDUIT INSTILLATION.



KEY PLAN

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36294
REGISTERED
PROFESSIONAL ENGINEER
9/7/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

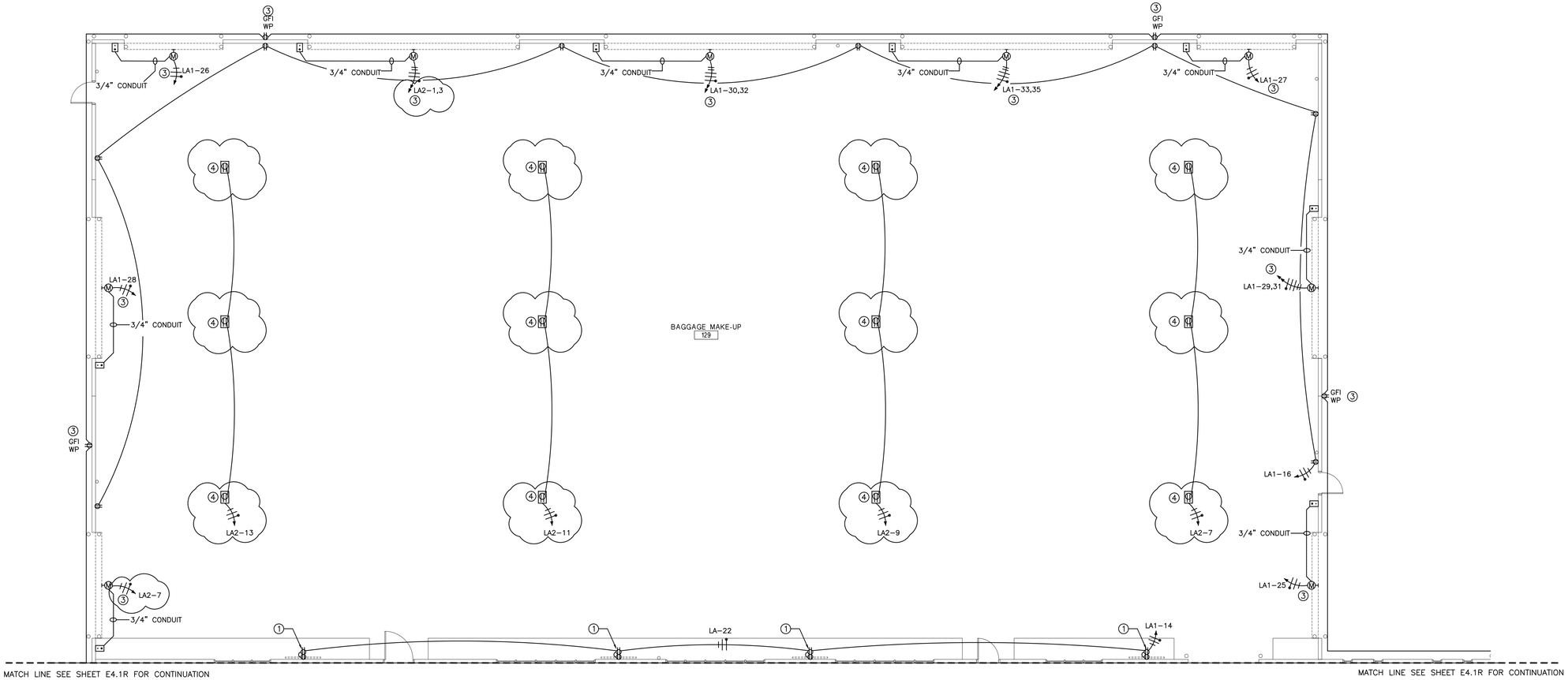
SHEET TITLE

POWER ENLARGED PLAN

E4.1R

FILE NO. 238512

SHEET 9 OF 22



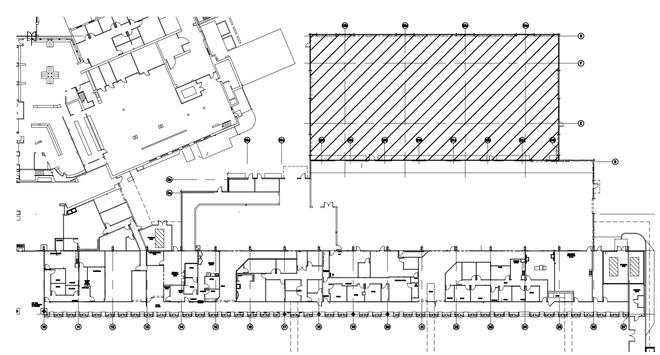
1 POWER ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES:

1. PROVIDE AND INSTALL RECEPTACLE FOR POWER TO SCREEN. CONTRACTOR TO COORDINATE WITH EPIA PERSONNEL FOR EXACT LOCATION AND HEIGHT MOUNTING BEFORE ROUGH-IN.
2. PROVIDE AND INSTALL J-BOX ADJACENT TO ROLLING DOOR TO PROVIDE POWER TO MOTOR. CONTRACTOR TO INSTALL ¾" CONDUIT BACK TO MOTOR CONTROL AND MAKE ALL NECESSARY CONNECTION COORDINATE WITH ROLLING DOOR INSTALLER FOR EXACT REQUIREMENTS BEFORE DOING ANY WORK.
3. PROVIDED AND INSTALL GFI OUTLET ON EXTERIOR WALL PROVIDE IN-USE METAL WATER PROOF COVER PLATE.
4. PROVIDE AND INSTALL OUTLET ON ROOF STRUCTURE FOR POWER TO MONITOR. CONTRACTOR TO COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE ROUGH-IN.



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5/11/16

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CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO

CITY OF EL PASO

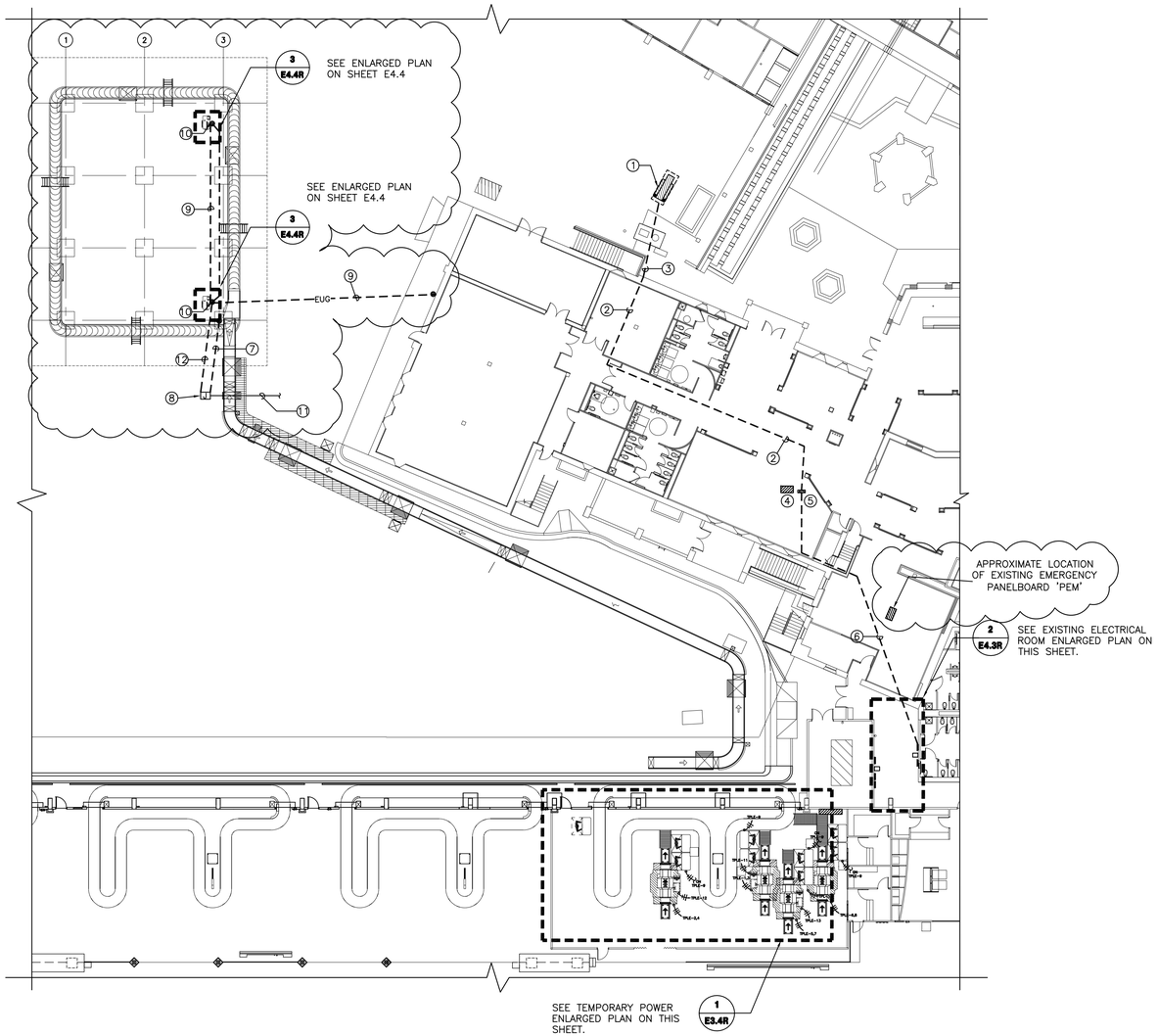
SHEET TITLE

POWER ENLARGED PLAN

E4.2R

FILE NO. 238512

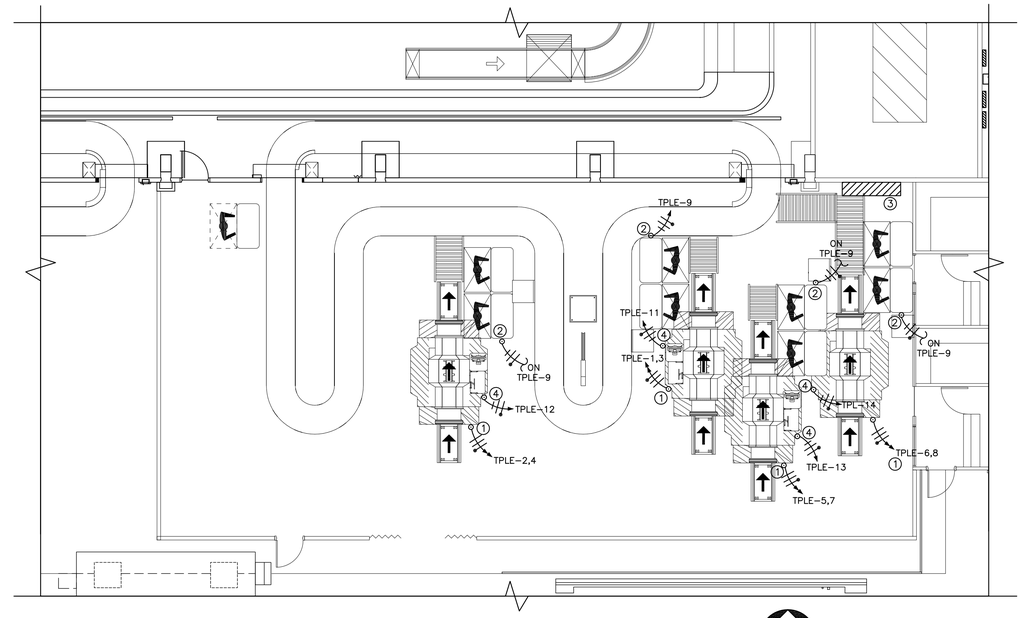
SHEET 10 OF 22



1 TEMPORARY BAGGAGE SYSTEM SITE PLAN

SCALE 1" = 20'-0"

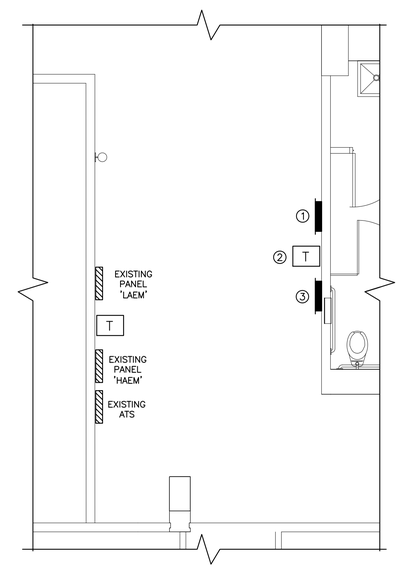
PLAN NORTH



1/E4.3R 2 TEMPORARY POWER ENLARGED PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH



2/E4.3R 3 ELECTRICAL ROOM ENLARGED PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES:

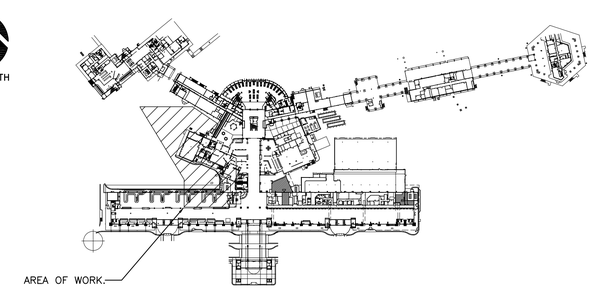
1. CONTRACTOR TO PROVIDE AND INSTALL NEW ANGLE IRON TO PROVIDE POWER AND DATA TO CT-80 MACHINES. SEE DETAIL 2/E3.5R ON SHEET E3.5R. COORDINATE WITH EPIA AND BNP PERSONNEL FOR EXACT LOCATION, TYPE OF NEMA PLUG, AND REQUIREMENTS BEFORE DOING ANY WORK.
2. CONTRACTOR TO PROVIDE AND INSTALL NEW ANGLE IRON TO PROVIDE POWER AND DATA TO WORK STATIONS. SEE DETAIL 1/E3.5R ON SHEET E3.5R. COORDINATE WITH EPIA AND BNP PERSONNEL FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
3. APPROXIMATE LOCATION OF CONVEYOR CONTROL PANEL. CONTROL PANEL TO BE PROVIDED AND INSTALLED BY BNP. ELECTRICAL CONTRACTOR TO LEAVE 20FT OF WIRING PIGTAIL FOR POWER TO CONTROL PANEL. COORDINATE WITH EPIA AND BNP PERSONNEL BEFORE DOING ANY WORK. SEE RISER DIAGRAM ON SHEET E3.5R.
4. CONTRACTOR TO PROVIDE AND INSTALL NEW ANGLE IRON TO PROVIDE POWER AND DATA TO EDS AND BVS. SEE DETAIL 1/E3.5R ON SHEET E3.5R. COORDINATE WITH EPIA AND BNP PERSONNEL FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.

KEYED NOTES:

1. CONTRACTOR TO INSTALL EXISTING 480V, 217KVA, 174KW, 3PH, 261 AMP SPARE GENERATOR ON THIS LOCATION. CONTRACTOR TO COORDINATE WITH EPIA PERSONNEL FOR EXACT LOCATION. GENERATOR IS TO BE PROVIDE BY EPIA AND INSTALLED BY CONTRACTOR
2. 2" CONDUIT WITH 4-#4/0 CU. CONDRS. AND 1-#6 CU. GND. FROM NEW AUTOMATIC TRANSFER SWITCH TO EMERGENCY GENERATOR. SEE RISER DIAGRAM ON SHEET E3.5R. CONTRACTOR TO FIELD VERIFY EXACT CONDUIT ROUTE BEFORE DOING ANY WORK.
3. CONTRACTOR TO CUT AND PATCH EXISTING CONCRETE AS NECESSARY TO INSTALL NEW 2" CONDUIT. CONTRACTOR TO FIELD VERIFY EXACT CONDUIT ROUTE BEFORE DOING ANY WORK.
4. APPROXIMATE LOCATION OF EXISTING 1600A, 277/480V, 3PH, 4W PANELBOARD 'HCDP' IN BASEMENT. COORDINATE WITH EPIA FOR EXACT LOCATION.
5. PROVIDE AND INSTALL NEW 277/480V, 3PH, 4W, 100A AUTOMATIC TRANSFER SWITCH 'TATS' IN BASEMENT ADJACENT TO EXISTING PANELBOARD 'HCDP'. SEE RISER DIAGRAM ON SHEET E3.5R.
6. 2" CONDUIT WITH 4-#4/0 CU. CONDRS. AND 1-#6 CU. GND. FROM AUTOMATIC TRANSFER SWITCH TO PANELBOARD 'TPHE'. SEE RISER DIAGRAM ON SHEET E4.5R. CONTRACTOR TO FIELD VERIFY EXACT CONDUIT ROUTE BEFORE DOING ANY WORK.
7. CONTRACTOR TO PROVIDE AND INSTALL 3/4" U.G. CONDUIT WITH 4-#10 THHN CONDRS. AND 2-#10 CU. GND. FOR POWER TO CANOPY LIGHTS. RUN CONDUIT FROM EXISTING PULL BOX TO NEAREST CANOPY COLUMN. RISE UP CONDUIT ON CLOUMN UP TO SWITCH BOXES. REFER TO SHEET E3.3R FOR DETAILS.
8. EXISTING INGRADE PULL-BOX WITH EXISTING EMERGENCY CIRCUITS #2, #4 AND #6 FROM EXISTING EMERGENCY PANELBOARD 'PEM'.
9. PROVIDE AND INSTALL (1) 1 1/2" UG CONDUIT WITH PULL STRING TO PROVIDE DATA TO WORK STATIONS. RUN CONDUIT UP TO BUILDING WALL AND THEN BACK TO ABOVE ACCESSIBLE CEILING. CONTRACTOR TO FIELD VERIFY EXACT CONDUIT ROUTE. COORDINATE WITH OWNER FOR EXISTING CONCRETE DEMOLITION SCHEDULE FOR CONDUIT INSTALLATION.
10. STUB OUT POWER AND DATA CONDUITS AT WORK STATION LOCATION. PROVIDE AND INSTALL (1) QUAD RECEPTACLE AND (2) 2"X4" EMPTY BOX WITH SINGLE DEVICE PLASTER RING FOR DATA OUTLET. SEE WORK STATION ENLARGED PLAN ON SHEET E4.4R FOR DETAILS. COORDINATE WITH OWNER EXACT POWER AND DATA OUTLETS LOCATIONS AT WORK STATION. SEE DETAIL 3/E4.4R ON SHEET E4.4R.
11. EXISTING 2" U.G. CONDUIT FROM EXISTING PULL BOX TO EMERGENCY PANELBOARD 'PEM' LOCATED IN BASEMENT. REMOVE EXISTING CABLES IN EXISTING 2" CONDUIT. CONTRACTOR MAY USE EXISTING CABLE AS PULLSTRING TO PULL NEW CIRCUIT CABLES. PROVIDE AND INSTALL (8) NEW #10 THHN CU. CONDRS. AND (4) NEW - #10 CU. GND. FOR POWER TO CANOPY LIGHTS AND WORK STATIONS OUTLETS. SEE SHEETS E3.3R AND E4.4R AS NECESSARY.
12. CONTRACTOR TO PROVIDE AND INSTALL 3/4" U.G. CONDUIT WITH 4-#10 THHN CONDRS AND 2-#10 CU. GND. FOR CIRCUITS 'PEM'-5 AND 7 FOR POWER TO WORK STATIONS. CONTRACTOR TO COORDINATE WITH OWNER FOR EXACT STUB-OUT LOCATION AT WORK STATION. SEE DETAIL 3/E4.4R FOR INFORMATION.

KEYED NOTES:

1. PROVIDE AND INSTALL NEW TEMPORARY 277/480V, 3PH, 4W, 225A PANELBOARD 'TPHE'. SEE RISER DIAGRAM ON SHEET E3.5R.
2. PROVIDE AND INSTALL NEW TEMPORARY 480VA-120V/208Y, 3PH, 75 KVA TRANSFORMER 'TXT'. SEE RISER DIAGRAM ON SHEET E3.5R.
3. PROVIDE AND INSTALL NEW 120V/208, 3PH, 4W, 125A PANELBOARD 'TPLE'. SEE RISER DIAGRAM ON SHEET E3.5R.



KEY PLAN

SCALE : N.T.S.

ALPHA ENGINEERING, INC.
ENGINEERING CONSULTANTS
1818 E. RIO GRANDE • EL PASO, TEXAS 79902
TEL. (915) 838-9900• FAX. (915) 838-9909
REGISTRATION # F005236

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME

mijares • mora
ARCHITECTS INC.
EL PASO, TEXAS 79912
TEL: 915-542-1991
FAX: 542-1994

ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED PROFESSIONAL ENGINEER
8/1/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

TEMPORARY AREA POWER ENLARGED PLAN

E4.3R

FILE NO. 238512

PANELBOARD SCHEDULE

PANELBOARD "TMH": 277/480 V, 3 PHASE, 4 WIRE, 250 AMP. M.C.B.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A	PHASE B	PHASE C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
PANELBOARD 'TPHE'	1	200/3				45/3	2	CU-8
277/480V, 3PH, 4W	3						4	480V, 3PH
VIA ATS	5						6	27.1 MCA
FC-8, 2.9 HP	7	15/3				--	8	SPACE
480V, 3PH	9					--	10	SPACE
3.3 MCA	11					--	12	SPACE

PANELBOARD 'TMH' LOAD CALCULATIONS

	LOAD (VA)
PANELBOARD 'TPHE'	146,382
CU-8 @ 125%	28,150
FC-8	2,750
TOTAL	177,282 VA

I = 177,282 VA/ (480V)(1.73) = 213 AMPS
400 AMP, 277/480V, 3 PH., TYPE 1 DISCONNECT 'TPD'
FUSED AT 250 AMPS MAIN CB
2 1/2" CONDUIT WITH 4-#4/0 THHN CU. CONDRS.
1-#4 CU. GND.
FEED TO TRANSFORMER 'TXT'-1: 1-1/2" CONT. W/ 3-#2
THHN CU. CONDRS. AND 1-#8 CU GND.

PANELBOARD SCHEDULE

PANELBOARD "TPHE": 277/480 V, 3 PHASE, 4 WIRE, 200 AMP. M.C.B.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A	PHASE B	PHASE C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
BNP MOTOR CONTROL	1	150/3				90/3	2	TRANSFORMER 'TXT'
PANEL 480V/3PH/4W	3						4	480-120/208V, 3PH, 4W
122 FLA	5						6	75 KVA
SPACE	7	--				--	8	SPACE
SPACE	9	--				--	10	SPACE
SPACE	11	--				--	12	SPACE

PANELBOARD 'TPHE' LOAD CALCULATIONS

	LOAD (VA)
LIGHTING @125%	101,382
BNP MCP	101,382
PANELBOARD 'TPLE' VIA TRANSFORMER	45,000
TOTAL	146,382 VA

I = 106,382 VA/ (480V)(1.73) = 176 AMPS
225 AMP, 277/480V, 3 PH., TYPE 1 250 AMP PANELBOARD
PANELBOARD 'TPHE' FED FROM 200AMP MAIN CB
2 1/2" CONDUIT WITH 4-#4/0 THHN CU. CONDRS.
1-#4 CU. GND.
FEED TO TRANSFORMER 'TXT'-1: 1-1/2" CONT. W/ 3-#2
THHN CU. CONDRS. AND 1-#8 CU GND.

PANELBOARD SCHEDULE

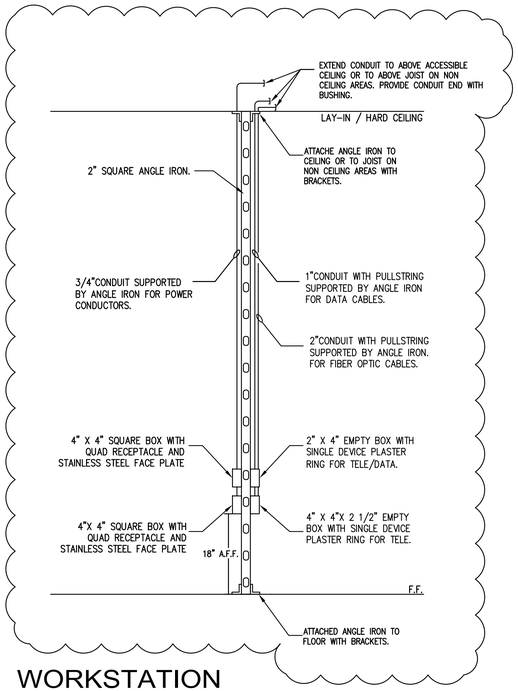
PANELBOARD "TPLE": 120/208 V, 3 PHASE, 4 WIRE, 200 AMP. M.C.B.
SURFACE MOUNTED, COPPER BUS

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A	PHASE B	PHASE C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
REVEAL CT-80	1	20/2				20/2	2	REVEAL CT-80
208V, 1PH, 30A	3						4	208V, 1PH, 30A
REVEAL CT-80	5	20/2				20/2	6	REVEAL CT-80
208V, 1PH, 30A	7						8	208V, 1PH, 30A
WORK STATIONS (X4)	9	20/1				20/1	10	BVS MACHINE (X4)
ETD AND BVS STATIONS	11	30/1				30/1	12	ETD AND BVS STATIONS
ETD AND BVS STATIONS	13	30/1				30/1	14	ETD AND BVS STATIONS
SPACE	15	--				20/1	16	SPACE
SPACE	17	--				--	18	SPACE
SPACE	19	--				--	20	SPACE
SPACE	21	--				--	22	SPACE
SPACE	23	--				--	24	SPACE
SPACE	25	--				--	26	SPACE
SPACE	27	--				--	28	SPACE
SPACE	29	--				--	30	SPACE
SPACE	31	--				--	32	SPACE
SPACE	33	--				--	34	SPACE
SPACE	35	--				--	36	SPACE
SPACE	37	--				--	38	SPACE
SPACE	39	--				--	40	SPACE
SPACE	41	--				--	42	SPACE

PANELBOARD 'TPLE' LOAD CALCULATIONS

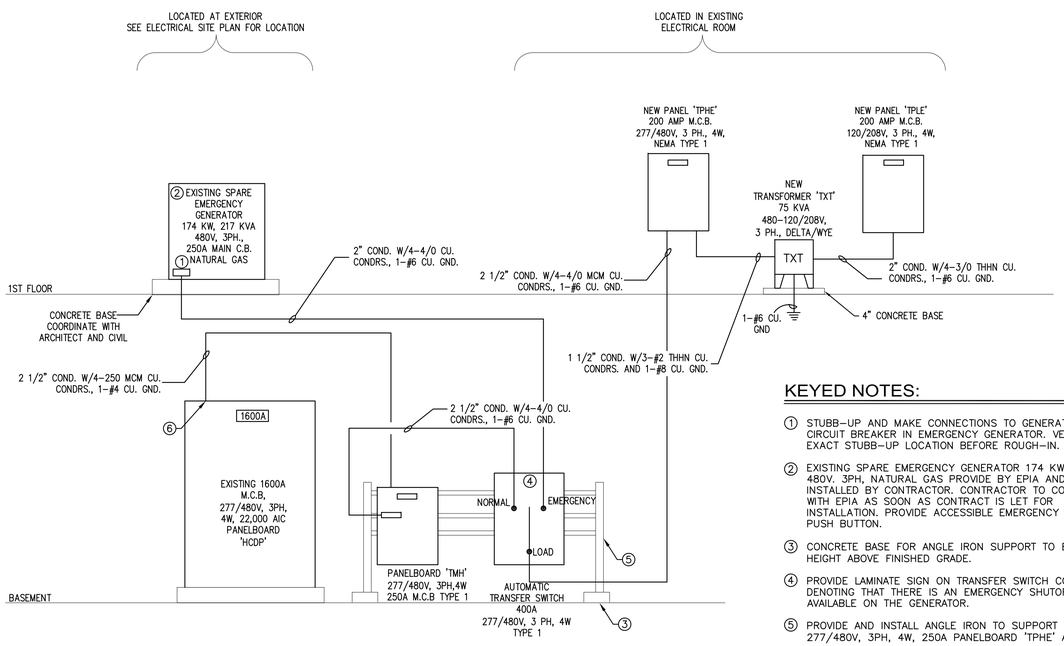
	LOAD (VA)
CT-80 MACHINE (X4)	31,680
WORK STATIONS (X4)	1,920
BVS MACHINE (X4)	1,920
ETD STATIONS (X4)	9,600
TOTAL	45,120 VA

I = 45,120 VA/ (208V)(1.73) = 125 AMPS
200 AMP, 120/208V, 3 PH., 4 WIRE, PANELBOARD 'TPLE'
FED BY 75 KVA TRANSFORMER
2" CONDUIT WITH 4-2/0 THHN CU. CONDRS.
1-#6 CU. CONDR. GND.



1 / E4.4 WORKSTATION ANGLE IRON MOUNTING DETAIL

NTS

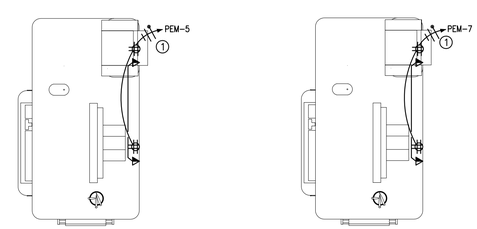


TEMPORARY RISER DIAGRAM

NTS

KEYED NOTES:

1. STUBB-UP AND MAKE CONNECTIONS TO GENERATOR MAIN CIRCUIT BREAKER IN EMERGENCY GENERATOR. VERIFY EXACT STUBB-UP LOCATION BEFORE ROUGH-IN.
2. EXISTING SPARE EMERGENCY GENERATOR 174 KW, 217KVA 480V. 3PH, NATURAL GAS PROVIDE BY EPIA AND INSTALLED BY CONTRACTOR. CONTRACTOR TO COORDINATE WITH EPIA AS SOON AS CONTRACT IS LET FOR INSTALLATION. PROVIDE ACCESSIBLE EMERGENCY SHUT-OFF PUSH BUTTON.
3. CONCRETE BASE FOR ANGLE IRON SUPPORT TO BE 4" HEIGHT ABOVE FINISHED GRADE.
4. PROVIDE LAMINATE SIGN ON TRANSFER SWITCH COVER DENOTING THAT THERE IS AN EMERGENCY SHUTOFF AVAILABLE ON THE GENERATOR.
5. PROVIDE AND INSTALL ANGLE IRON TO SUPPORT NEW 277/480V, 3PH, 4W, 250A PANELBOARD 'TPHE' AND ATS.
6. CONTRACTOR TO CONNECT 4-250 MCM. AND 1-#4 CU. GND. NEW FEEDERS (ONE PER PHASE) TO EXISTING PANELBOAR 'HCDP' BUS. CONTRACTOR TO PROVIDE MATERIAL AS NECESSARY FOR INSTALLATION.

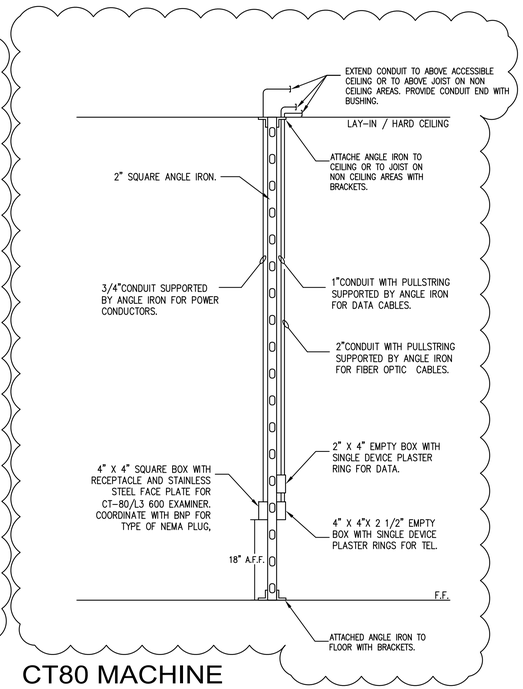


3 / E4.4 WORSTATIONS A & B ENLARGED PLAN

NTS

KEYED NOTES:

1. HOME RUN CIRCUIT TO EXISTING EMERGENCY PANELBOARD 'PEM' LOCATED IN BASEMENT. CONTRACTOR TO REPLACE EXISTING 20A/1P CB IN SPACES #5 & #7AND PROVIDE AND INSTALL (2) NEW 20A/1P CB ON EACH SPACE FOR POWER TO WORK STATIONS. REFER TO SHEET E4.3R FOR DETAILS.



2 / E4.4 CT80 MACHINE ANGLE IRON MOUNTING DETAIL

NTS

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TEL: 915-542-1991 FAX: 542-1994

ENGINEER'S SEAL

STATE OF TEXAS
FELIX J. PADILLA
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6/7/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
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JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

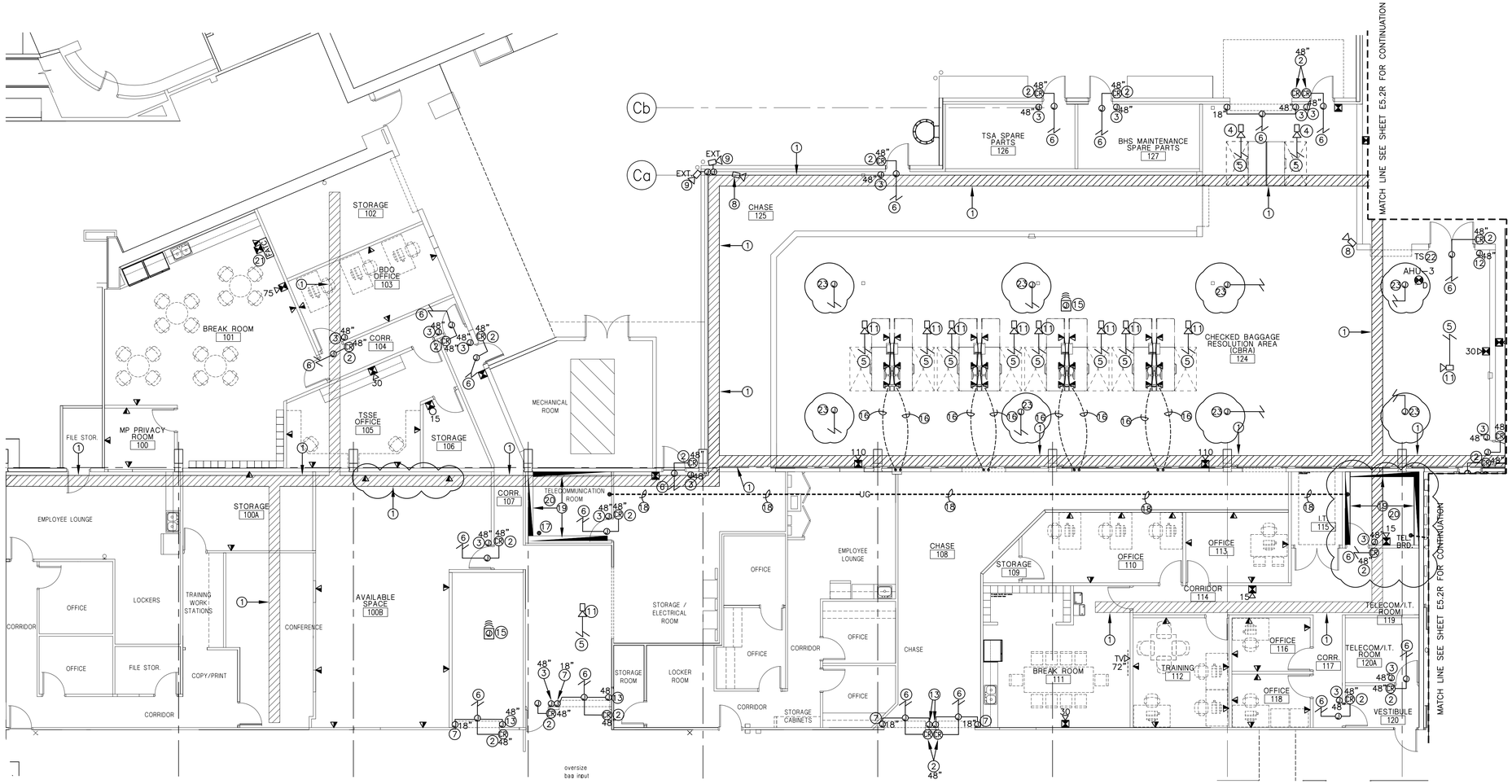
SHEET TITLE

TEMPORARY AREA RISER DIAGRAM AND PANELS

E4.4R

FILE NO. 238512

SHEET 12 OF 22



1 SPECIAL SYSTEM ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

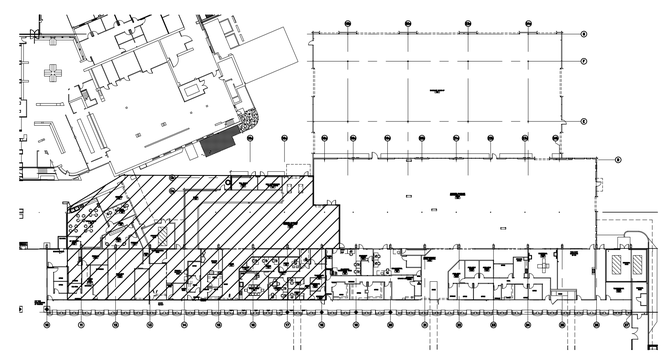
PLAN NORTH

KEYED NOTES:

1. CONTRACTOR TO PROVIDE AND INSTALL 12" WIDE, 4" HIGH, WIRE-MESH CABLE TRAY. CABLE TRAY TO BE LEGRAND CABLOFIL CF105/300 OR EQUAL APPROVED BY OWNER. INSTALL WALL BRACKET SUPPORTS OR HANGING SUPPORTS AS NEEDED. EXACT LOCATION OF CABLE TRAY MUST BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL PLANS, SECURITY PLANS, AND WITH OWNER BEFORE ROUGH-IN. CABLE TRAY TO BE LABELED "COEP DOITS". CABLE TRAY MUST HAVE A #6 BARE COPPER GROUND ALONG ITS ENTIRE LENGTH. THIS BARE COPPER GROUND TO BE ATTACHED TO THE GROUND BAR IN EVERY I.T. OR TELECOMMUNICATIONS ROOM.
2. PROVIDE AND INSTALL DOOR CARD READER AT 48" A.F.F. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
3. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 1/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
4. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON THREADED ROD AT CAMERA LOCATION. SEE DETAIL 7/E7.2 ON SHEET E7.2 COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING NEW CABLE TRAY. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
5. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM CAMERA J-BOX TO NEW CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
6. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM J-BOX ABOVE DOOR TO NEAREST CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
7. PROVIDE AND INSTALL SINGLE GANG J-BOX AT 18" A.F.F. FOR DOOR CONTACT WITH 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 7/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
8. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON WALL AT 10' A.F.F. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
9. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX INSIDE BUILDING. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO PENETRATE THROUGH EXTERIOR WALL. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM J-BOX TO NEAREST ACCESSIBLE CABLE TRAY. SEE DETAIL 8/E7.3 ON SHEET E7.3. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
10. NOT USED.
11. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ABOVE CEILING AT CAMERA LOCATION. SEE DETAIL 9/E7.2 ON SHEET E7.2. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
12. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 5/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
13. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 7/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
14. NOT USED.
15. PROVIDE AND INSTALL J-BOX ABOVE CEILING FOR WIFI CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS.
16. CONTRACTOR TO CUT AND PATCH CONCRETE AS NECESSARY TO INSTALL 1" U.G. CONDUIT TO PROVIDE DATA TO WORK STATION. RUN CONDUIT FROM HALF WALL AT WORK STATION BACK TO NEAREST WALL AND RISE UP CONDUIT THRU WALL TO CABLE TRAY. CONDUIT MUST HAVE BUSHINGS AND PULLSTRING.
17. PROVIDE AND INSTALL 4" CONDUIT WITH BUSHINGS AND PULLSTRING FROM BASEMENT I.T. SYSTEM TO TELECOMMUNICATIONS ROOM ON FIRST FLOOR. STUBB-UP CONDUIT 2" A.F.F. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
18. PROVIDE AND INSTALL 4" CONDUIT WITH BUSHINGS AND PULLSTRING FROM TELECOMMUNICATIONS ROOM ON FIRST FLOOR TO TELECOMMUNICATIONS/I.T. ROOM 119. STUBB-UP CONDUIT 2" A.F.F. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
19. INSTALL 3/4"X4'X8' A-C GRADE FIRE RETARDANT TREATED PLYWOOD BOARD ON THREE WALLS FROM CORNER TO CORNER. WITH 2" CONDUIT WITH PULLSTRING FROM TELEPHONE BOARD TO LOCAL TELEPHONE SERVICE POINT. COORDINATE WITH OWNER BEFORE DOING ANY WORK.
20. CONTRACTOR TO INSTALL COPPER GROUND BAR AT EACH I.T. ROOM. GROUND BAR MUST BE GROUNDED WITH 1-#6 COPPER CONDUCTOR TO GROUND BAR IN NEAREST PANEL. SEE DETAIL 8/E7.2 ON SHEET E7.2.
21. PROPOSED LOCATION OF NEW FIRE ALARM TERMINAL CABINET. CONTRACTOR TO MAKE CONNECTIONS TO EXISTING FIRE ALARM CONTROL PANEL LOCATED IN AIRPORT DISPATCH OFFICES. NEW TERMINAL CABINET AND DIGITAL DEVICES MUST BE COMPATIBLE TO EXISTING FIRE ALARM SYSTEM. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
22. CONTRACTOR TO PROVIDE AND INSTALL DUCT SMOKE DETECTOR TEST SWITCH ON CEILING. COORDINATE WITH MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS.
23. PROVIDE AND INSTALL J-BOX ABOVE SUSPENDED CEILING FOR MONITOR. RUN 1" CONDUIT WITH PULL STRING TO NEAREST CABLE TRAY. TERMINATE CONDUIT WITH END BUSHINGS. COORDINATE WITH OWNER EXACT FINAL LOCATION BEFORE ROUGH-IN. SEE DETAIL 7/E7.2 ON SHEET E7.2.

GENERAL NOTES: (THIS SHEET ONLY)

CONTRACTOR MUST FOLLOW THE "CITY OF EL PASO TELECOMMUNICATIONS DESIGN AND CONTRUCTIONS STANDARDS REVISION DATE MAY 23RD 2016" FOR EXACT REQUIREMENTS BEFORE DOING ANY WORK.



KEY PLAN

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APPD. BY	Felix Padilla
JOB NO.	P1619

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EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

8701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

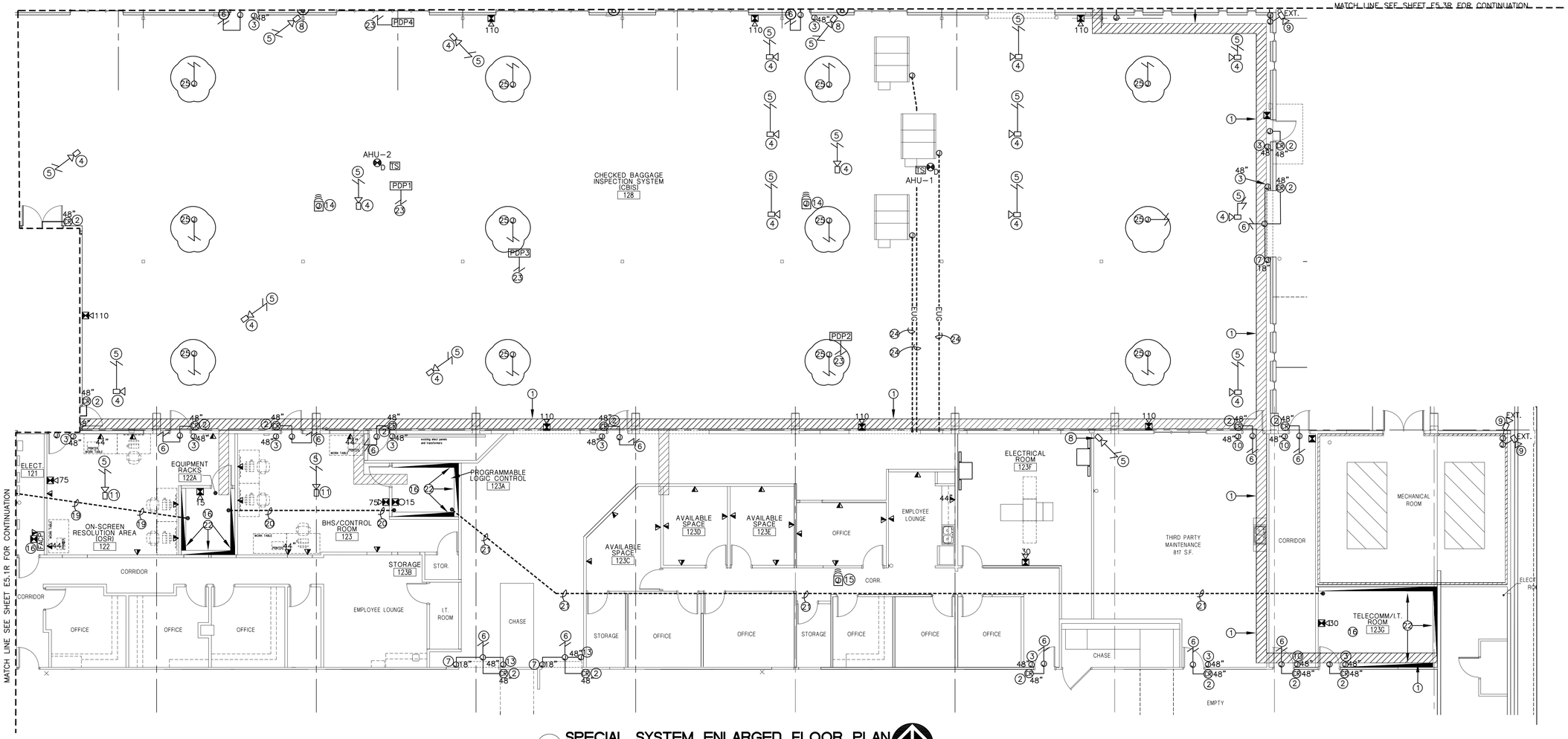
SHEET TITLE

SPECIAL SYSTEM ENLARGED PLAN

E5.0R

FILE NO. 238512

SHEET 13 OF 22



1 SPECIAL SYSTEM ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

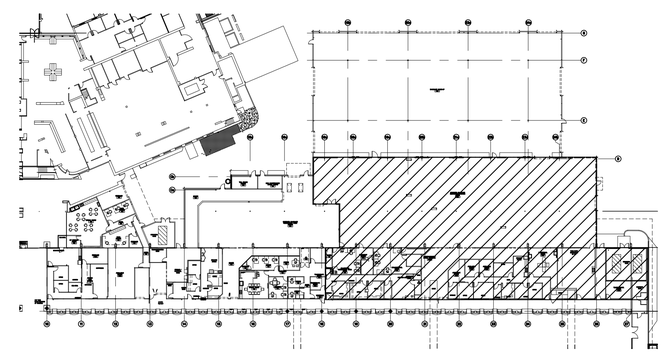
PLAN NORTH

KEYED NOTES:

1. CONTRACTOR TO PROVIDE AND INSTALL 12" WIDE, 4" HIGH, WIRE-MESH CABLE TRAY. CABLE TRAY TO BE LEGRAND CABLOFIL CF105/300 OR EQUAL APPROVED BY OWNER. INSTALL WALL BRACKET SUPPORTS OR HANGING SUPPORTS EVERY 3 FEET MINIMUM AS NEEDED. EXACT LOCATION OF CABLE TRAY MUST BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL PLANS, SECURITY PLANS, AND WITH OWNER BEFORE ROUGH-IN. CABLE TRAY TO BE LABELED "COEP DOITS". CABLE TRAY MUST HAVE A #6 BARE COPPER GROUND ALONG ITS ENTIRE LENGTH. THIS BARE COPPER GROUND TO BE ATTACHED TO THE GROUND BAR IN EVERY I.T. OR TELECOMMUNICATIONS ROOM.
2. PROVIDE AND INSTALL DOOR CARD READER AT 48" A.F.F. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
3. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 1/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
4. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON THREADED ROD AT CAMERA LOCATION. SEE DETAIL 7/E7.2 ON SHEET E7.2. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING NEW CABLE TRAY. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
5. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM CAMERA J-BOX TO NEW CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
6. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM J-BOX ABOVE DOOR TO NEAREST CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
7. PROVIDE AND INSTALL SINGLE GANG J-BOX AT 18" A.F.F. FOR DOOR CONTACT WITH 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 7/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
8. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON WALL AT 10' A.F.F. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
9. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX INSIDE BUILDING. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING TO PENETRATE THROUGH EXTERIOR WALL. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM J-BOX TO NEAREST ACCESSIBLE CABLE TRAY. SEE DETAIL 8/E7.3 ON SHEET E7.3. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
10. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 3/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
11. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ABOVE CEILING AT CAMERA LOCATION. SEE DETAIL 9/E7.3 ON SHEET E7.3. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
12. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 5/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
13. PROVIDE AND INSTALL SINGLE GANG DEEP J-BOX WITH PLASTER RING AT 48" A.F.F. FOR CARD READER CONNECTIONS. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO J-BOX 6" ABOVE DOOR. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. SEE DETAIL 7/E7.3 ON SHEET E7.3. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
14. PROVIDE AND INSTALL J-BOX ABOVE JOIST LEVEL FOR WIFI CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS.
15. PROVIDE AND INSTALL J-BOX ABOVE SUSPENDED CEILING FOR WIFI CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS.
16. CONTRACTOR TO INSTALL COPPER GROUND BAR AT EACH I.T. ROOM. GROUND BAR MUST BE GROUNDED WITH 1-#6 COPPER CONDUCTOR TO GROUND BAR IN NEAREST PANEL. SEE DETAIL 8/E7.2 ON SHEET E7.2
17. NOT USED.
18. NOT USED.
19. PROVIDE AND INSTALL 4" CONDUIT WITH BUSHINGS AND PULLSTRING FROM TELECOMMUNICATIONS/I.T. ROOM119 TO EQUIPMENT RACK ROOM 122. STUBB-UP CONDUIT 2" A.F.F. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
20. PROVIDE AND INSTALL 4" CONDUIT WITH BUSHINGS AND PULLSTRING FROM EQUIPMENT RACK ROOM 122 TO PROGRAMMABLE LOGIC ROOM 123A. STUBB-DOWN CONDUIT 2' BELOW CEILING. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
21. PROVIDE AND INSTALL 4" CONDUIT WITH BUSHINGS AND PULLSTRING FROM PROGRAMMABLE LOGIC ROOM 123A TO TELECOMMUNICATIONS/I.T. ROOM 123G. STUBB-DOWN CONDUIT 2' DOWN ON WALL. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
22. INSTALL 3/4"X4'X8' A-C GRADE FIRE RETARDANT TREATED PLYWOOD BOARD ON THREE WALLS FROM CORNER TO CORNER. WITH 2" CONDUIT WITH PULLSTRING FROM TELEPHONE BOARD TO LOCAL TELEPHONE SERVICE POINT. COORDINATE WITH OWNER BEFORE DOING ANY WORK.
23. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM PDP CONTROL BOX TO NEAREST ACCESSIBLE CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK.
24. PROVIDE AND INSTALL 2" U.G. CONDUIT WITH PULL STRING TO PROVIDE DATA TO WORK STATION. RUN CONDUIT FROM J-BOX INSTALLED ADJACENT TO L3 EXAMINER MACHINE TO NEAREST WALL. RISE UP CONDUIT THRU WALL AND STUB-OUT CONDUIT INTO CABLE TRAY. TERMINATE CONDUIT WITH END BUSHINGS.
25. PROVIDE AND INSTALL J-BOX ON ROOF STRUCTURE FOR MONITOR. RUN 1" CONDUIT WITH PULL STRING TO NEAREST CABLE TRAY. TERMINATE CONDUIT WITH END BUSHINGS. COORDINATE WITH OWNER EXACT FINAL LOCATION BEFORE ROUGH-IN. SEE DETAIL 7/E7.2 ON SHEET E7.2.

GENERAL NOTES: (THIS SHEET ONLY)

19. CONTRACTOR MUST FOLLOW THE "CITY OF EL PASO TELECOMMUNICATIONS DESIGN AND CONTRUCTIONS STANDARDS REVISION DATE MAY 23RD 2016" FOR EXACT REQUIREMENTS BEFORE DOING ANY WORK.



KEY PLAN

SCALE : N.T.S.

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REFERENCES -- BENCHMARK

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ENGINEER'S SEAL

STATE OF TEXAS
FELIX P. PADILLA
36294
REGISTERED
PROFESSIONAL ENGINEER
8/1/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

SPECIAL SYSTEM ENLARGED PLAN

E5.1R

FILE NO. 238512

SPECIAL SYSTEMS LEGEND

(ALL DIGITAL DEVICES MUST BE ADDRESSABLE)

- 15 STROBE, NUMBER DENOTES 'cd' RATING
- 15 HORN/STROBE, NUMBER DENOTES 'cd' RATING
- PULL STATION WITH STOPPER
- S SMOKE DETECTOR
- D DUCT SMOKE DETECTOR WITH REMOTE TEST SWITCH
- DATA OUTLET, 4" SQ. DEEP BOX WITH SINGLE DEVICE PLASTER RING. INSTALL 1" CONDUIT WITH PULLSTRING AND BUSHINGS FROM BOX TO NEAREST CABLE TRAY.
- FARA FIRE ALARM REMOTE ANNUNCIATOR
- FACP FIRE ALARM CONTROL PANEL WITH DIGITAL NOTIFIER
- TS DUCT SMOKE DETECTOR TEST SWITCH.
- CCTV CAMERA (PROVIDED AND INSTALLED BY OTHERS). PROVIDE AND INSTALL 4"X4"X2 1/8" J-BOX. SEE DETAIL 7/E7.1, 8/E7.2, 9/E7.3.
- EXT EXTERIOR CCTV CAMERA (PROVIDED AND INSTALLED BY OTHERS). PROVIDE AND INSTALL 4"X4"X2 1/8" J-BOX. SEE DETAIL 8/E7.2
- CR CARD READER (PROVIDED AND INSTALLED BY OTHERS). PROVIDE AND INSTALL 4"X4" J-BOX. SEE DETAILS 1/E7.2, 2/E7.2, 3/E7.2, 4/E7.2, SEE DETAILS 5/E7.2, 6/E7.2, 7/E7.2, 4/E7.2,

SPECIAL SYSTEMS NOTES

A. FIRE ALARM INSTALLER TO INSTALL SYSTEM TO MEET ALL NATIONAL AND LOCAL FIRE CODES. INSTALLER TO SUBMIT TO ARCHITECT "AS BUILT" DRAWINGS.

B. FIRE ALARM INSTALLER TO COORDINATE AND CONNECT SMOKE DETECTION SYSTEM TO A/C DUCT SYSTEM. PROVIDE AND INSTALL DUCT SMOKE DETECTORS ON SUPPLY AND RETURN SIDE OF EXISTING AIR HANDLERS ON ROOF. PROVIDE AND INSTALL DUCT SMOKE DETECTORS ON SUPPLY AND RETURN SIDE FOR NEW AIR HANDLER AHU-1.

C. NEW F.A. ALARM DEVICES MUST BE COMPATIBLE WITH THE EXISTING NOTIFIER 5000 PANEL.

D. F.A. INSTALLER MUST BE CERTIFIED BY THE STATE AND SUBMIT ALL REQUIRED PLANS AND DRAWINGS, F.A. SYSTEM CALCULATIONS AND ALL APPLICABLE SUBMITTALS TO THE GOVERNING AUTHORITIES TO OBTAIN A PERMIT.

E. THE F.A. INSTALLER MUST BID ON A COMPLETE F.A. SYSTEM THAT CONFORMS TO ALL APPLICABLE CODES.

F. FIRE ALARM PANEL MUST HAVE PHONE DIALER AND BE CONNECTED TO PHONE SYSTEM.

G. F.A. INSTALLER MUST VISIT SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS BEFORE BIDDING ON THIS PROJECT.

H. ALL FIRE ALARM WIRING MUST BE PLENUM RATED. FIRE ALARM WIRING MAY BE RUN IN EXISTING CABLE TRAY ABOVE CEILING.

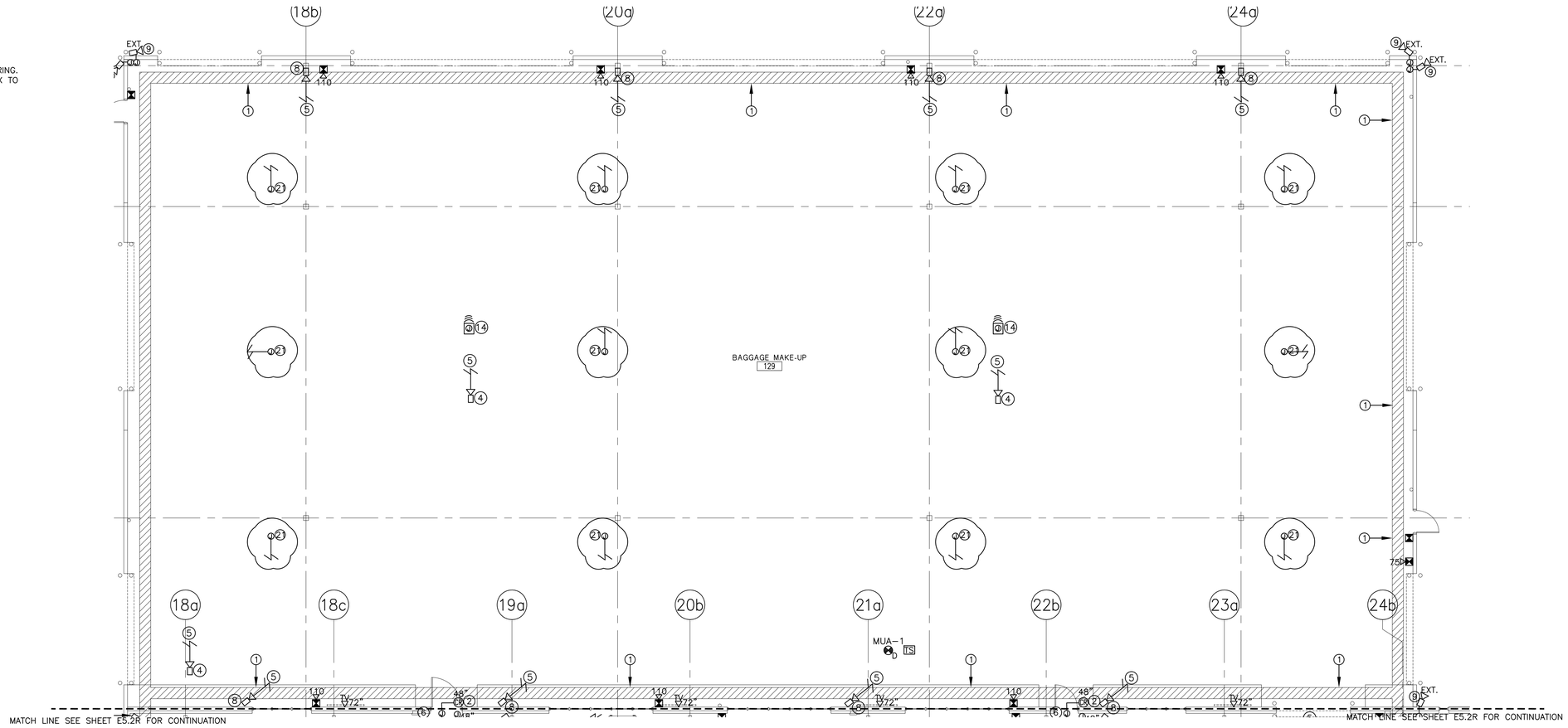
I. CONTRACTOR MUST VERIFY EXACT ROUGH-IN REQUIREMENTS AND LOCATIONS OF ALL CCTV, INTRUSION, AND ACCESS CONTROL DEVICES WITH OWNER'S SECURITY CONTRACTOR BEFORE DOING ANY WORK.

J. CONTRACTOR SHALL CUT, PATCH, AND PAINT EXISTING WALLS WHERE NECESSARY TO INSTALL NEW DEVICES ON EXISTING WALLS. EXISTING WALLS MUST BE PATCHED AND PAINTED TO ORIGINAL SPECIFICATIONS. NO EXPOSED CONDUIT WILL BE ALLOWED, UNLESS APPROVED BY ENGINEER. IF EXISTING CONDITIONS DO NOT ALLOW FOR CUTTING AND PATCHING CONTRACTOR SHALL NOTIFY ENGINEER IN A TIMELY MANNER.

K. ALL CONDUITS MUST BE PROVIDED WITH BUSHINGS.

L. CONTRACTOR MUST VERIFY EXACT ROUGH-IN REQUIREMENTS AND LOCATIONS OF ALL NEW DATA/TEL. OUTLETS WITH CITY OF EL PASO I.T. DEPARTMENT BEFORE DOING ANY WORK.

M. CONTRACTOR MUST FOLLOW THE "CITY OF EL PASO TELECOMMUNICATIONS DESIGN AND CONTRUCTIONS STANDARDS REVISION DATE MAY 23RD 2016" FOR EXACT REQUIREMENTS BEFORE DOING ANY WORK.



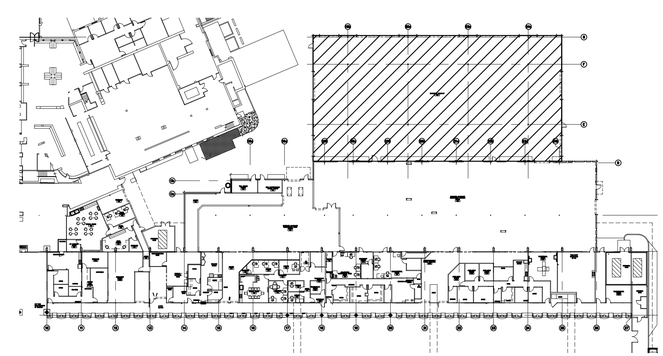
1 SPECIAL SYSTEM ENLARGED FLOOR PLAN

SCALE 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES:

1. CONTRACTOR TO PROVIDE AND INSTALL 12" WIDE, 4" HIGH, WIRE-MESH CABLE TRAY. CABLE TRAY TO BE LEGRAND CABLOFIL CF105/300 OR EQUAL APPROVED BY OWNER. INSTALL WALL BRACKET SUPPORTS OR HANGING SUPPORTS AS NEEDED. EXACT LOCATION OF CABLE TRAY MUST BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL PLANS, SECURITY PLANS, AND WITH OWNER BEFORE ROUGH-IN. CABLE TRAY TO BE LABELED "COEP DOITS". CABLE TRAY MUST HAVE A #6 BARE COPPER GROUND ALONG ITS ENTIRE LENGTH. THIS BARE COPPER GROUND TO BE ATTACHED TO THE GROUND BAR IN EVERY I.T. OR TELECOMMUNICATIONS ROOM.
2. PROVIDE AND INSTALL DOOR CARD READER AT 48" A.F.F. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
3. NOT USED.
4. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON THREADED ROD AT CAMERA LOCATION. SEE DETAIL 7/E7.2 ON SHEET E7.2. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING NEW CABLE TRAY. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
5. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM CAMERA J-BOX TO NEW CABLE TRAY. COORDINATE WITH OWNER'S SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
6. NOT USED.
7. NOT USED.
8. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP TWO GANG J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX ON WALL AT 10' A.F.F. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
9. PROVIDE AND INSTALL 4"X4"X2 1/8" DEEP J-BOX WITH COVER PLATE FOR CCTV CAMERA. INSTALL J-BOX INSIDE BUILDING. PROVIDE AND INSTALL 3/4" CONDUIT WITH PULLSTRING TO PENETRATE THROUGH EXTERIOR WALL. PROVIDE AND INSTALL 1" CONDUIT WITH PULLSTRING FROM J-BOX TO NEAREST ACCESSIBLE CABLE TRAY. SEE DETAIL 8/E7.3 ON SHEET E7.3. COORDINATE WITH OWNER SECURITY CONTRACTOR FOR EXACT LOCATION AND REQUIREMENTS BEFORE DOING ANY WORK. CONTRACTOR TO CUT, PATCH, AND PAINT EXISTING WALL OR CEILING IF NECESSARY TO INSTALL NEW DEVICE.
10. NOT USED.
11. NOT USED.
12. NOT USED.
13. NOT USED.
14. PROVIDE AND INSTALL J-BOX ABOVE JOIST LEVEL FOR WIFI CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS.
15. NOT USED.
16. NOT USED.
17. NOT USED.
18. NOT USED.
19. PROVIDE AND INSTALL J-BOX ABOVE JOIST LEVEL FOR WIFI CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION AND REQUIREMENTS.
20. NOT USED.
21. PROVIDE AND INSTALL J-BOX ON ROOF STRUCTURE FOR MONITOR. RUN 1" CONDUIT WITH PULL STRING TO NEAREST CABLE TRAY. TERMINATE CONDUIT WITH END BUSHINGS. COORDINATE WITH OWNER EXACT FINAL LOCATION BEFORE ROUGH-IN. SEE DETAIL 7/E7.2 ON SHEET E7.2.
22. INSTALL 3/4"X4'X8' A-C GRADE FIRE RETARDENT TREATED PLYWOOD BOARD ON THREE WALLS FROM CORNER TO CORNER. WITH 2" CONDUIT WITH PULLSTRING FROM TELEPHONE BOARD TO LOCAL TELEPHONE SERVICE POINT. COORDINATE WITH OWNER BEFORE DOING ANY WORK.



KEY PLAN

SCALE : N.T.S.

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REGISTRATION # F005236

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME

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ENGINEER'S SEAL

STATE OF TEXAS
FELIX PADILLA
36294
REGISTERED
PROFESSIONAL ENGINEER
8/1/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL

CITY OF EL PASO

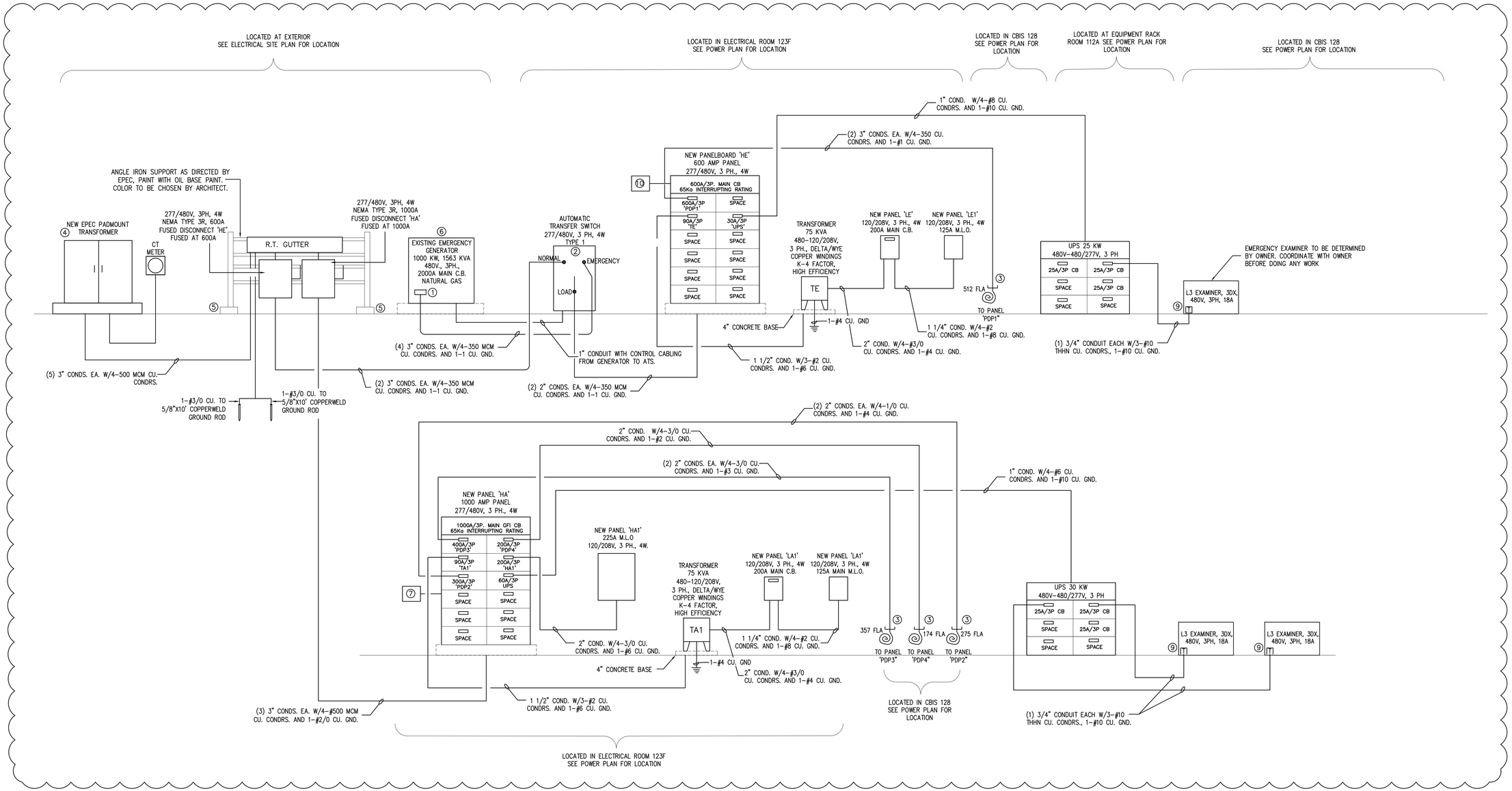
SHEET TITLE

SPECIAL SYSTEM ENLARGED PLAN

E5.2R

FILE NO. 238512

SHEET 15 OF 22



NEW ELECTRICAL SERVICE FOR BAGGAGE CLAIM SYSTEM

KEYED NOTES:

1. STUBB-UP CONDUIT AND MAKE CONNECTIONS TO NEW 1,000A CIRCUIT BREAKER IN EMERGENCY GENERATOR. VERIFY EXACT STUBB-UP LOCATION AND REQUIREMENTS WITH MANUFACTURER BEFORE ROUGH-IN.
2. PROVIDE LAMINATE SIGN ON TRANSFER SWITCH COVER DENOTING THAT THERE IS AN EMERGENCY SHUTOFF AVAILABLE ON THE GENERATOR.
3. CONTRACTOR TO INSTALL CONDUIT DOWN TO 24" AFF, AT THE END OF THE CONDUIT CONTRACTOR TO THEN LEAVE 20' OF WIRE FOR CONNECTION TO CONVEYOR CONTROL PANEL. CONTROL PANEL TO BE INSTALLED BY BAGGAGE HANDLING SYSTEM CONTRACTOR (SEE 'B' SERIES DRAWINGS). COORDINATE WITH CONVEYOR INSTALLER BEFORE DOING ANY WORK. SEE DETAILS 6/E7.1 ON SHEET E7.1.
4. COORDINATE WITH EPEC FOR NEW ELECTRICAL SERVICE AS SOON AS CONTRACT IS LET.
5. CONCRETE BASE FOR ANGLE IRON SUPPORT TO BE 4" HEIGHT ABOVE FINISHED GRADE. CONTRACTOR TO VERIFY WITH EPEC FOR EXACT REQUIREMENTS BEFORE DOING ANY WORK.
6. EXISTING EMERGENCY GENERATOR CONTRACTOR TO COORDINATE CONNECTION WITH EPIA AS SOON AS CONTRACT IS LET. SEE SITE PLAN FOR APPROXIMATE LOCATION.
7. PROVIDE AND INSTALL 2 POLE, ELECTRONIC, 7 DAY PROGRAMMABLE TIMER CONTACTOR FOR CKTS. HA-19,21. TIMER TO BE ET8415CR OR EQUAL. COORDINATE WITH OWNER FOR LIGHTING TIME SCHEDULE.
8. 60 KW UPS PROVIDED BY OTHERS AND TO BE INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO MANUFACTURER DAS AS NECESSARY FOR INSTALLATION.
9. INPUT POWER TRANSFORMER. CONTRACTOR TO MAKE ALL CONNECTIONS NECESSARY FROM MAIN POWER SUPPLY TO TRANSFORMER. FIELD COORDINATE EXACT STEP-UP LOCATION.
10. PROVIDE AND INSTALL METER FOR METERING THE FOLLORWING: KW, VOLTAGE, KVAR, KVA, AMPERAGE, AND POWER FACTOR. MAKE CONNECTIONS AS NECESSARY AND INSTALL METER ADJACENT TO PANEL 'HE'. COORDINATE WITH MANUFACTURER FOR REQUIREMENTS BEFORE DOING ANY WORK.

FAULT CURRENT CALCULATION:

1,500 KVA TRANSFORMER, 480/244V, 3PH., Z=3.1%

I(MAX) = 1,500,000/(480)(1.732) = 1,805A
I(FAULT) = 1,805A/.031 = 58,225 A

BREAKER TO HAVE 65 Ka MIN. INT. CAPABILITY

VOLTAGE DROP CALCULATION FROM GENERATOR TO ATS

(4) PARALLEL RUNS EA WITH 4-#350 MCM CU CONDRS AND 1-3/0 CU GND.

EFFECTIVE 350 MCM IMPEDANCE IN PVC CONDUIT = 0.174

VOLTAGE DROP = $\frac{1.73\ (600A/4)\ (0.174/1000FT)\ (250FT)}{480V}$

VOLTAGE DROP %= 0.0235 x 100 = 2.35%

THEREFORE 350 MCM CU WIRE IN (4) PARALLEL RUNS IS SUFFICIENTLY SIZED FOR 600A AT 250FT OF LENGTH.

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REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

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REGISTERED PROFESSIONAL ENGINEER
8/1/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
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APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME
EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
6701 CONVAIR RD. EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE
RISER DIAGRAM

E7.0R

FILE NO. 238512

SHEET 19 OF 22

PANELBOARD SCHEDULE

PANELBOARD "HE": 277/480 V, 3 PHASE, 4 WIRE, 600 AMP,
600A MAIN CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
CONTROL PANEL 'PDP1'	1	600 / 3		--	2	SPACE
277/480V, 3PH, 4W	3			--	4	SPACE
512 FLA	5			--	6	SPACE
TRANSFORMER 'TE'	7	90 / 3		30	8	UPS *
480-120/208V, 3PH	9				10	277/480V, 3PH
75 KVA	11			3	12	25 KW
BAGGAGE MAKE UP LIGHTS	13	20/1		20/1	14	CBIS 128 LIGHTS
BAGGAGE MAKE UP LIGHTS	15	20/1		20/1	16	CBIS 128 LIGHTS
OSR & BHS LIGHTS	17	20/1		20/1	18	CBRA 124 LIGHTS
SPACE	19	--		--	20	SPACE
SPACE	21	--		--	22	SPACE
SPACE	23	--		--	24	SPACE
SPACE	25	--		--	26	SPACE
SPACE	27	--		--	28	SPACE
SPACE	29	--		--	30	SPACE
SPACE	31	--		--	32	SPACE
SPACE	33	--		--	34	SPACE
SPACE	35	--		--	36	SPACE
SPACE	37	--		--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

* UPS IS PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR

PANELBOARD 'HE' LOAD CALCULATIONS

	LOAD (VA)
CONTROL PANEL 'PDP1'	425,472
UPS	14,958
LIGHTING @125%	15,000
TRANSFORMER 'TE'	45,000
TOTAL	500,430

I = 500,430 VA/ (480V)(1.73) = 599A
PANELBOARD 'HE' FED FROM 600 AMP, 277/480V, 3 PH., TYPE 3R DISCONNECT 'HE' FUSED AT 600 AMPS
(2) 3" CONDUIT WITH 4-#350 MCM CU. CONDRS. 1-#1 CU. CONDR. GND.

PANELBOARD SCHEDULE

PANELBOARD "LE": 120/208 V, 3 PHASE, 4 WIRE, 200 AMP. M.C.B.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
OSR OUTLETS	1	20/1		20/1	2	BHS/CONTROL OUTLETS
OSR OUTLETS	3	20/1		20/1	4	BHS/CONTROL OUTLETS
OSR OUTLETS	5	20/1		20/1	6	BHS/CONTROL OUTLETS
CBRA AREA STATION OUTLETS	7	20/1		20/1	8	CBRA AREA STATION OUTLETS
CBRA AREA STATION OUTLETS	9	20/1		20/1	10	CBRA AREA STATION OUTLETS
CBRA AREA STATION OUTLETS	11	20/1		20/1	12	CBRA AREA STATION OUTLETS
CBRA AREA STATION OUTLETS	13	20/1		20/1	14	CBRA AREA STATION OUTLETS
CBRA OUTLETS	15	20/1		30 / 1	16	CU-1 208V ,1PH
CBRA OUTLETS	17	20/1			18	25 MCA
PANEL BOARD 'LE1'	19	100 / 3		20/1	20	CBRA AREA STATION OUTLETS
277/480V, 3PH, 4W	21			20/1	22	CBRA AREA STATION OUTLETS
412 FLA	23			--	24	SPACE
SPACE	25	--		--	26	SPACE
I.T. ROOM 115 QUAD	27	20/1		--	28	SPACE
I.T. ROOM 115 NEMA OUTLET	29	30 / 2		--	30	SPACE
208V, 1PH, L6-30	31			--	32	SPACE
I.T. ROOM 115 QUAD	33	20/1		--	34	SPACE
I.T. ROOM 115 NEMA OUTLET	35	30 / 2		--	36	SPACE
208V, 1PH, L6-30	37			--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

PANELBOARD 'LE' LOAD CALCULATIONS

	LOAD (VA)
OUTLETS	10,000
PANELBOARD 'LE1'	35,000
TOTAL	45,000 VA

I = 45,900 VA/ (208V)(1.73) = 125 AMPS
225 AMP, 120/208V, 3 PH., 4W, PANELBOARD 'LE'
SERVED BY 75 KVA, 480-120/208V, 3PH, 4W TRANSFORMER 'TE'
2" CONDUIT WITH 4-#3/0 THHN CU. CONDRS.
1-#4 CU. CONDR. GND.

PANELBOARD SCHEDULE

PANELBOARD "LE1": 120/208 V, 3 PHASE, 4 WIRE, 125 AMP. M.L.O.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
I.T. ROOM 119 NEMA OUTLET	1	30 / 2		30 / 2	2	I.T. ROOM 119 NEMA OUTLET
208V, 1PH, L6-30	3				4	208V, 1PH, L6-30
I.T. ROOM 119 NEMA OUTLET	5	30 / 2		30 / 2	6	I.T. ROOM 119 NEMA OUTLET
208V, 1PH, L6-30	7				8	208V, 1PH, L6-30
I.T. ROOM 119 QUAD	9	20/1		20/1	10	I.T. ROOM 120 QUAD
I.T. ROOM 119 QUAD	11	20/1		20/1	12	I.T. ROOM 120 QUAD
PLC ROOM 123 QUAD	13	20/1		30 / 2	14	I.T. ROOM NEMA OUTLET
PLC ROOM 123 QUAD	15	20/1			16	208V, 1PH, L6-30
PLC ROOM 123	17	30 / 2		30 / 2	18	I.T. ROOM NEMA OUTLET
L6-30A OUTLET	19				20	208V, 1PH, L6-30
PLC ROOM 123	21	30 / 2		20/1	22	I.T. ROOM 120 QUAD
L6-30A OUTLET	23			20/1	24	I.T. ROOM 120 QUAD
I.T. ROOM 122 NEMA OUTLET	25	30 / 2		30 / 2	26	I.T. ROOM NEMA OUTLET
208V, 1PH, L6-30	27				28	208V, 1PH, L6-30
I.T. ROOM 122 NEMA OUTLET	29	30 / 2		30 / 2	30	I.T. ROOM NEMA OUTLET
208V, 1PH, L6-30	31				32	208V, 1PH, L6-30
I.T. ROOM 119 QUAD	33	20/1		20/1	34	I.T. ROOM 120 QUAD
I.T. ROOM 119 QUAD	35	20/1		20/1	36	I.T. ROOM 120 QUAD
SPACE	37	--		--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

PANELBOARD 'LE1' LOAD CALCULATIONS

	LOAD (VA)
OUTLETS	35,000
TOTAL	35,000 VA

I = 35,000 VA/ (208V)(1.73) = 97 AMPS
125 AMP, 120/208V, 3 PH., 4W, PANELBOARD 'LE1'
SERVED BY 80A/3P BREAKER IN PANELBOARD 'LE'
1 1/4" CONDUIT WITH 4-#2 THHN CU. CONDRS.
1-#8 CU. CONDR. GND.

PANELBOARD SCHEDULE

PANELBOARD "HA": 277/480 V, 3 PHASE, 4 WIRE, 1000 AMP,
1000 GF MAIN CB, SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
CONTROL PANEL 'PDP3'	1	400 / 3		200 / 3	2	CONTROL PANEL 'PDP4'
277/480V, 3PH, 4W	3				4	277/480V, 3PH, 4W
357 FLA	5				6	174 FLA
75 KVA TRANSFORMER 'TA1'	7	90 / 3		150 / 3	8	PANELBOARD 'HA1'
480-120/208V, 3PH	9				10	277/480V, 3PH, 4W
DELTA/WYE	11				12	123 FLA
CONTROL PANEL 'PDP2'	13	300 / 3		60 / 3	14	UPS *
277/480V, 3PH, 4W	15				16	277/480, 3PH
275 FLA	17				18	30 KW
EXTERIOR WALL PACKS	19	20/1		--	20	SPACE
EXTERIOR WALL PACKS	21	20/1		--	22	SPACE
SPACE	23	--		--	24	SPACE
SPACE	25	--		--	26	SPACE
SPACE	27	--		--	28	SPACE
SPACE	29	--		--	30	SPACE
SPACE	31	--		--	32	SPACE
SPACE	33	--		--	34	SPACE
SPACE	35	--		--	36	SPACE
SPACE	37	--		--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

* UPS IS PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR

PANELBOARD 'HA' LOAD CALCULATIONS

	LOAD (VA)
CONTROL PANEL 'PDP3'	296,667
CONTROL PANEL 'PDP4'	144,594
CONTROL PANEL 'PDP2'	228,525
TRANSFORMER 'TA1'	52,200
PANELBOARD 'HA1'	81,000
TOTAL	802,986

I = 802,286 VA/ (480V)(1.73) = 966 AMPS
PANELBOARD 'HA' FED FROM 1000 AMPS, 277/480V, 3 PH., TYPE 3R DISCONNECT 'HA' FUSED AT 1000AMPS
(3) 3" CONDUIT WITH 4-#500 MCM CU. CONDRS.
1-#2/0 CU. CONDR. GND.

PANELBOARD SCHEDULE

PANELBOARD "HA1": 277/480 V, 3 PHASE, 4 WIRE, 225 AMP. M.L.O.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
SPACE	1	--		--	2	SPACE
SPACE	3	--		--	4	SPACE
SPACE	5	--		--	6	SPACE
ECU-3	7	15 / 3		20 / 3	8	AHU-1
460V, 3PH, 4W	9				10	460V, 3PH
7.4 MCA	11				12	17.4 MCA 14500
AHU-2	13	20 / 3		20 / 3	14	AHU-3
460V, 3PH	15				16	460V, 3PH
17.4 MCA	17				18	14 MCA 11600
ECU-2	19	15 / 3		15 / 3	20	ECU-1
460V, 3PH, 4W	21				22	460V, 3PH, 4W
7.4 MCA	23				24	7.4 MCA 6200
SPACE	25	--		30 / 3	26	MUA-1
SPACE	27	--			28	460V, 3PH, 4W
SPACE	29	--			30	21 MCA 14500
SPACE	31	--		--	32	SPACE
SPACE	33	--		--	34	SPACE
SPACE	35	--		--	36	SPACE
SPACE	37	--		--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

PANELBOARD 'HA1' LOAD CALCULATIONS

	LOAD (VA)
MUA-1 @125%	21,800
ECU (TYPICAL OF 3)	18,600
AHU-1,2	29,000
AHU-3	11,600
TOTAL	81,000

I = 81,000 VA/ (480V)(1.73) = 98 AMPS
225 AMP, 277/480V, 3 PH., PANELBOARD 'HA1'
FED FROM 150A C.B. IN PANEL 'HA'
2" CONDUIT WITH 4-1/0 THHN CU. CONDRS.
1-#6 CU. CONDR. FOR EQUIPMENT GND.
1-#6 CU. CONDR. FOR SERIVCE GND.

PANELBOARD SCHEDULE

PANELBOARD "LA1": 120/208 V, 3 PHASE, 4 WIRE, 200 AMP. M.C.B.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
CF-1	1	15 / 3		20/1	2	AHU-1 COURTESY CIRCUIT
CF-2	3			20/1	4	AHU-2 COURTESY CIRCUIT
CF-3	5			20/1	6	AHU-3 COURTESY CIRCUIT
INFRARED HEATERS	7	20/1		20/1	8	CBIS 128 OUTLETS
EVAP. COOLER DRAIN PUMPS	9	20/1		20/1	10	CBIS 128 OUTLETS
EVAP. COOLER PUMPS	11	20/1		20/1	12	CBIS 128 OUTLETS
EVAP. COOLER DRAIN PUMPS	13	20/1		20/1	14	MAKE-UP 129 OUTLETS
EVAP. COOLER PUMPS	15	20/1		20/1	16	MAKE-UP 129 OUTLETS
EVAP. COOLER DRAIN PUMPS	17	20/1		20/1	18	ROOF OUTLET
EVAP. COOLER PUMPS	19	20/1		20/1	20	MAKE-UP 129 OUTLETS
CO/NO2 MONITER/CONTROLLER	21	20/1		20/1	22	MAKE-UP 129 OUTLETS
CEILING FAN # 4,5	23	20/1		20/1	24	MAKE-UP 129 OUTLETS
ROLL UP DOORS	25	20/1		20/1	26	ROLL UP DOORS
ROLL UP DOORS	27	20/1		20/1	28	ROLL UP DOORS
ROLL UP DOORS	29	20 / 2		20 / 2	30	ROLL UP DOORS
208V, 1PH	31				32	208V, 1PH
ROLL UP DOORS	33	20 / 2		100 / 3	34	PANELBOARD 'LA2'
208V, 1PH	35				36	277/480V, 3PH, 4W
CBRA CONVEYOR DOOR	37	20/1			38	125 M.L.O.
CBRA OUTLETS	39	20/1		--	40	SPACE
TSA BSH OUTLETS	41	20/1		--	42	SPACE

PANELBOARD 'LA1' LOAD CALCULATIONS

	LOAD (VA)
OUTLETS	10,000
CEILING FAN 1,2,3	3,500
WU-1	1,500
ROLL-UP DOOR @125%	3,400
ROLL-UP DOORS	13,400
PANELBOARD 'LA2'	20,400
TOTAL	52,200 VA

I = 52,200 VA/ (208V)(1.73) = 145 AMPS
225 AMP, 120/208V, 3 PH., 4W, PANELBOARD 'LA1'
SERVED BY 75 KVA, 480-120/208V, 3PH, 4W TRANSFORMER 'TA1'
2" CONDUIT WITH 4-#3/0 THHN CU. CONDRS.
1-#4 CU. CONDR. GND.

PANELBOARD SCHEDULE

PANELBOARD "LA2": 120/208 V, 3 PHASE, 4 WIRE, 125 AMP. M.L.O.
SURFACE MOUNTED, COPPER BUS, DOOR-IN-DOOR

LOAD SERVED	CKT. NO.	BREAKER AMPS, POLE	PHASE A B C	BREAKER AMPS, POLE	CKT. NO.	LOAD SERVED
ROLL UP DOORS	1	20 / 2		20/1	2	ROLL UP DOORS
208V, 1PH	3			20/1	4	ROLL UP DOORS
ROLL UP DOORS	5	20/1		20/1	6	CBIS MONITORS
MAKE-UP MONITORS	7	20/1		20/1	8	CBIS MONITORS
MAKE-UP MONITORS	9	20/1		20/1	10	CBIS MONITORS
MAKE-UP MONITORS	11	20/1		20/1	12	CBIS MONITORS
MAKE-UP MONITORS	13	20/1		20/1	14	CBRA MONITORS
HEAT CONTROLLER	15	30/1		20/1	16	CBRA MONITORS
CHASE OUTLETS	17	20/1		20/1	18	CBRA MONITORS
ROOM 123C OUTLETS	19	20/1		20/1	20	ROOM 123D OUTLETS
SPACE	21	--		15 / 3	22	EF-1
SPACE	23	--			24	208V, 3PH
SPACE	25	--			26	3.5 MCA
SPACE	27	--		15 / 3	28	EF-2
SPACE	29	--			30	208V, 3PH
SPACE	31	--			32	3.5 MCA
SPACE	33	--		--	34	SPACE
SPACE	35	--		--	36	SPACE
SPACE	37	--		--	38	SPACE
SPACE	39	--		--	40	SPACE
SPACE	41	--		--	42	SPACE

PANELBOARD 'LA2' LOAD CALCULATIONS

	LOAD (VA)
OUTLETS	10,000
ROLL-UP DOOR @125%	3,400
ROLL-UP DOORS	4,500
HEAT CONTROLLER	2,500
EF-1	1,300
EF-2	1,300
TOTAL	20,400 VA

I = 20,400 VA/ (208V)(1.73) = 57 AMPS
125 AMP, 120/208V, 3 PH., 4W, PANELBOARD 'LA2'
1-#8 CU. CONDR. GND.

ALPHA ENGINEERING, INC.
ENGINEERING CONSULTANTS
1818 E. RIO GRANDE • EL PASO, TEXAS 79902
TEL. (915) 838-9900• FAX. (915) 838-9909
REGISTRATION # F005238

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY

CONSULTANT'S NAME
mijares mora
ARCHITECTS INC.
111 N. FESTIVAL
EL PASO, TEXAS 79912
TEL: 915-542-1991 FAX: 542-1994

ENGINEER'S SEAL
CITY OF EL PASO FELIX P. PADILLA 36294 REGISTERED PROFESSIONAL ENGINEER
5/11/16

SCALE

DATE	MAY 2016
DESIGN BY	ALPHA ENG.
DRAWN BY	F.P.
CHKD. BY	F.P.
APPD. BY	Felix Padilla
JOB NO.	P1619

PROJECT NAME
EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM
8701 CONVAIR RD. EL PASO, TEXAS
EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE
PANEL SCHEDULES

E7.1R

FILE NO. 238512

SHEET 20 OF 22

CBIS AREA

CBRA AREA

CONVEYOR MANIFEST - AL1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
AL1-01	Conveyor - Transport	17' - 8"		150.0 ft/min	2 A	1 hp	
AL1-02	Conveyor - Transport	33' - 5"		150.0 ft/min	3 A	2 hp	
AL1-03	Conveyor - Transport	17' - 11"		150.0 ft/min	2 A	1 hp	
AL1-04	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-05	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-06	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-07	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-08	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-09	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-10	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-11	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
AL1-12	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-13	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-14	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-15	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-16	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-17	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-18	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-19	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
AL1-20	Conveyor - Transport	4' - 1"		90.0 ft/min	2 A	1 hp	
Grand total: 20		137' - 0"			43 A		

TOTAL FLA (TOTAL + 15A Transformer): 58 FLA

CBIS AREA

CONVEYOR MANIFEST - AL2

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
AL2-01	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
AL2-02	Conveyor - Incline	4' - 0"	5°	180.0 ft/min	2 A	1 hp	
AL2-03	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
AL2-05	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
AL2-06	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
AL2-04	Conveyor - Incline	12' - 11"	4°	180.0 ft/min	2 A	1 hp	
AL2-07	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 7		44' - 3"			20 A		

TOTAL FLA (TOTAL + 15A Transformer): 35 FLA

CBIS AREA

CONVEYOR MANIFEST - CL1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CL1-01	Conveyor - Breakover	15' - 11"	12°	120.0 ft/min	2 A	1 hp	
CL1-02	Conveyor - Transport	14' - 0"		150.0 ft/min	2 A	1 hp	
CL1-03	Conveyor - Transport	12' - 3"		150.0 ft/min	2 A	1 hp	
CL1-04	Conveyor - Transport	17' - 2"		180.0 ft/min	2 A	1 hp	
CL1-05	Conveyor - Breakover	28' - 2"	15°	180.0 ft/min	3 A	2 hp	
CL1-06	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
CL1-07	Conveyor - Breakover	9' - 8"	18°	180.0 ft/min	2 A	1 hp	
CL1-08	Conveyor - Transport	14' - 11"		180.0 ft/min	2 A	1 hp	
Grand total: 8		121' - 2"			19 A		

TOTAL FLA (TOTAL + 15A Transformer): 34 FLA

CBIS AREA

CONVEYOR MANIFEST - CL2

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CL2-01	Conveyor - Breakover	9' - 9"	15°	120.0 ft/min	2 A	1 hp	
CL2-03	Conveyor - Power Turn	4' - 6"		150.0 ft/min	3 A	2 hp	
CL2-02	Conveyor - Transport	4' - 11"		180.0 ft/min	2 A	1 hp	
CL2-04	Conveyor - Transport	5' - 3"		180.0 ft/min	2 A	1 hp	
CL2-05	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 5		30' - 8"			15 A		

TOTAL FLA (TOTAL + 15A Transformer): 30 FLA

CBIS AREA

CONVEYOR MANIFEST - CL3

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CL3-01	Conveyor - Breakover	10' - 7"	15°	120.0 ft/min	2 A	1 hp	
CL3-02	Conveyor - Power Turn	4' - 6"		150.0 ft/min	3 A	2 hp	
CL3-03	Conveyor - Transport	15' - 0"		180.0 ft/min	2 A	1 hp	
CL3-04	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL3-05	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL3-06	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 6		44' - 5"			17 A		

TOTAL FLA (TOTAL + 15A Transformer): 32 FLA

CBRA AREA

CONVEYOR MANIFEST - CL4

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CL4-01	Conveyor - Breakover	10' - 7"	15°	180.0 ft/min	2 A	1 hp	
CL4-02	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL4-03	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL4-04	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
CL4-05	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
CL4-06	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 6		38' - 4"			18 A		

TOTAL FLA (TOTAL + 15A Transformer): 33 FLA

CBIS AREA

CONVEYOR MANIFEST - CL5

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CL5-01	Conveyor - Transport	35' - 0"		90.0 ft/min	3 A	2 hp	
CL5-02	Conveyor - Transport	30' - 7"		90.0 ft/min	3 A	2 hp	
CL5-03	Conveyor - Power Spiral Incline	9' - 3"	12°	120.0 ft/min	3 A	2 hp	
CL5-04	Conveyor - Breakover	29' - 4"	15°	150.0 ft/min	5 A	3 hp	
CL5-05	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL5-06	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CL5-07	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
CL5-08	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 8		123' - 0"			27 A		

TOTAL FLA (TOTAL + 15A Transformer): 42 FLA

1

CONVEYOR MANIFEST - MF1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
MF1-01	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
MF1-02	Conveyor - Breakover	15' - 0"	18°	180.0 ft/min	2 A	1 hp	
MF1-03	Tip Chute						
Grand total: 3		24' - 0"			6 A		

TOTAL FLA (TOTAL + 15A Transformer): 21 FLA

CONVEYOR MANIFEST - MF2

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
MF2-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
MF2-01	Conveyor - Breakover	19' - 7"	18°	180.0 ft/min	2 A	1 hp	
MF2-02	Tip Chute						
Grand total: 3		19' - 7"			6 A		

TOTAL FLA (TOTAL + 15A Transformer): 21 FLA

CONVEYOR MANIFEST - MF3

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
MF3-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
MF3-01	Conveyor - Breakover	18' - 6"	18°	180.0 ft/min	2 A	1 hp	
MF3-02	Tip Chute						
Grand total: 3		18' - 6"			6 A		

TOTAL FLA (TOTAL + 15A Transformer): 21 FLA

CONVEYOR MANIFEST - MF4

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
MF4-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
MF4-01	Conveyor - Breakover	18' - 6"	18°	180.0 ft/min	2 A	1 hp	
MF4-02	Tip Chute						
Grand total: 3		18' - 6"			6 A		

TOTAL FLA (TOTAL + 15A Transformer): 21 FLA

CONVEYOR MANIFEST - ML1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
ML1-01	Conveyor - Transport	9' - 9"		180.0 ft/min	2 A	1 hp	
ML1-02	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
ML1-03	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
ML1-04	Conveyor - Transport	22' - 9"		180.0 ft/min	3 A	2 hp	
ML1-05	Conveyor - Transport	27' - 0"		180.0 ft/min	3 A	2 hp	
ML1-06	Conveyor - Breakover	8' - 7"	18°	180.0 ft/min	2 A	1 hp	
ML1-07	Conveyor - Transport	25' - 8"		180.0 ft/min	3 A	2 hp	
ML1-07	Conveyor - Transport	20' - 1"		180.0 ft/min	3 A	2 hp	
ML1-08	Conveyor - Decline	12' - 1"	6°	180.0 ft/min	2 A	1 hp	
ML1-09	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
ML1-10	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
ML1-11	Conveyor - Transport	31' - 2"		180.0 ft/min	3 A	2 hp	
ML1-12	Conveyor - Transport	19' - 0"		180.0 ft/min	2 A	1 hp	
ML1-13	Conveyor - Breakover	21' - 8"	15°	180.0 ft/min	2 A	1 hp	
ML1-14	Conveyor - Transport	15' - 10"		180.0 ft/min	2 A	1 hp	
Grand total: 15		229' - 7"			38 A		

TOTAL FLA (TOTAL + 15A Transformer): 53 FLA

CONVEYOR MANIFEST - MAKE UP DEVICE

NEW ID	EQUIPMENT TYPE	CONVEYOR LENGTH	MOTOR COUNT	DEVICE SPEED	FLA	CONDITION
MU1	FLAT PLATE CAROUSEL	132' - 5"	2	90.0 ft/min	22 A	
MU2	FLAT PLATE CAROUSEL	132' - 5"	2	90.0 ft/min	22 A	
MU3	FLAT PLATE CAROUSEL	132' - 5"	2	90.0 ft/min	22 A	
MU4	FLAT PLATE CAROUSEL	132' - 5"	2	90.0 ft/min	22 A	
Grand total: 32		529' - 10"	8		88 A	

TOTAL FLA (TOTAL + 15A Transformer): 103 FLA

CBIS AREA

CONVEYOR MANIFEST - OG1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
OG1-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
OG1-01	Conveyor - Transport	5' - 0"		210.0 ft/min	2 A	1 hp	
OG1-02	Conveyor - Decline	35' - 0"	1°	180.0 ft/min	3 A	2 hp	
OG1-03	Conveyor - Transport	35' - 0"		180.0 ft/min	3 A	2 hp	
OG1-04	Conveyor - Transport	16' - 11"		180.0 ft/min	2 A	1 hp	
OG1-05	Conveyor - Power Turn	3' - 0"		180.0 ft/min	3 A	2 hp	
OG1-06	Conveyor - Transport	21' - 6"		180.0 ft/min	3 A	2 hp	
OG1-07	Conveyor - Power Turn	3' - 0"		180.0 ft/min	3 A	2 hp	
Grand total: 8		119' - 5"			25 A		

TOTAL FLA (TOTAL + 15A Transformer): 40 FLA

CBIS AREA

CONVEYOR MANIFEST - OS1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
OS1-01	Conveyor - Transport	5' - 0"		90.0 ft/min	2 A	1 hp	
OS1-02	Conveyor - Transport	6' - 6"		90.0 ft/min	2 A	1 hp	
OS1-03	Conveyor - Power Turn	4' - 6"		120.0 ft/min	3 A	2 hp	
OS1-04	Conveyor - Transport	26' - 7"		90.0 ft/min	3 A	2 hp	
OS1-05	Conveyor - Power Turn	4' - 6"		120.0 ft/min	3 A	2 hp	
OS1-06	Conveyor - Transport	29' - 4"		90.0 ft/min	3 A	2 hp	
OS1-07	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
OS1-08	Conveyor - Transport	32' - 0"		150.0 ft/min	3 A	2 hp	
OS1-09	Conveyor - Transport	33' - 8"		180.0 ft/min	3 A	2 hp	
OS1-10	Conveyor - Transport	8' - 1"		180.0 ft/min	2 A	1 hp	
Grand total: 10		159' - 2"			30 A		

TOTAL FLA (TOTAL + 15A Transformer): 45 FLA

CBIS AREA

CONVEYOR MANIFEST - OSR1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
OSR1-01	Conveyor - Transport	20' - 5"		120.0 ft/min	2 A	1 hp	
OSR1-02	Conveyor - Transport	19' - 5"		150.0 ft/min	2 A	1 hp	
OSR1-03	Conveyor - Incline	38' - 1"	1°	180.0 ft/min	3 A	2 hp	
OSR1-04	Conveyor - Power Spiral Incline	9' - 1"	6°	180.0 ft/min	3 A	2 hp	
OSR1-05	Conveyor - Incline	4' - 6"	6°	180.0 ft/min	2 A	1 hp	
OSR1-06	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
OSR1-07	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
OSR1-08	Diverter - VSU	10' - 0"		180.0 ft/min	11 A	6 hp	
Grand total: 8		114' - 6"			30 A		

TOTAL FLA (TOTAL + 15A Transformer): 45 FLA

1

CBIS AREA

CONVEYOR MANIFEST - OSR2

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
OSR2-01	Conveyor - Transport	10' - 6"		120.0 ft/min	2 A	1 hp	
OSR2-02	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
OSR2-03	Conveyor - Power Turn	4' - 6"		150.0 ft/min	3 A	2 hp	
OSR2-04	Conveyor - Transport	5' - 3"		180.0 ft/min	2 A	1 hp	
OSR2-05	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 5		30' - 6"			15 A		

TOTAL FLA (TOTAL + 15A Transformer): 30 FLA

CBIS AREA

CONVEYOR MANIFEST - OSR3 (3EDS)

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
OSR3-01	Conveyor - Transport	10' - 5"		120.0 ft/min	2 A	1 hp	
OSR3-02	Conveyor - Power Turn	4' - 6"		150.0 ft/min	3 A	2 hp	
OSR3-03	Conveyor - Incline	3' - 9"	3°	180.0 ft/min	2 A	1 hp	
OSR3-04	Conveyor - Transport	10' - 8"		180.0 ft/min	2 A	1 hp	
OSR3-05	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
OSR3-06	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
OSR3-07	Conveyor - Merge (Cuttable)	6' - 3"		180.0 ft/min	5 A	3 hp	
Grand total: 7		43' - 6"			19 A		

TOTAL FLA (TOTAL + 15A Transformer): 34 FLA

1

GENERAL NOTES: CONVEYOR MANIFEST

1. ALL SPEEDS ARE LISTED FOR REFERENCE ONLY. BHS CONTRACTOR IS TO VERIFY AND ENSURE ALL CONVEYOR SPEEDS MAXIMIZE SYSTEM THROUGHPUT AND MINIMIZE BAG-IN-SYSTEM TIME.

2. QUEUES UPSTREAM OF EDS DEVICES WILL UTILIZE VFD'S AND OPERATE ON DUAL SPEEDS AS REQUIRED TO MAINTAIN AND MAZIMIZE THROUGHPUT OF MACHINES.

CONVEYOR MANIFEST NOTE - HVAC AREAS

CBIS - INDICATES THE CONVEYORS FOUND IN THE CHECKED BAGGAGE INSPECTION SYSTEM AREA (CBIS) - FOR HVAC ONLY

CBRA - INDICATES THE CONVEYORS FOUND IN THE CHECKED BAGGAGE RESOLUTION AREA (CBRA) - FOR HVAC ONLY

DRAFT - NOT FOR CONSTRUCTION

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

CONSULTANT'S NAME

mijares ● mora
ARCHITECTS INC.
111 N. FESTIVAL
EL PASO, TEXAS 79912
TEL: 915-542-1989
FAX: 915-542-1994

ARCHITECT'S SEAL

STATE OF TEXAS
ASHER N. DAVID
119023
MAY 31, 2016
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	MAY 2016
DESIGN BY	P.C.
DRAWN BY	P.C.
CHKD. BY	C.S.
APP'D. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

CONVEYOR MANIFEST

B0.03R

FILE NO. 238512

SHEET OF

CBRA AREA

CONVEYOR MANIFEST - RI1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
RI1-01	Conveyor - Incline	4' - 1"	14°	90.0 ft/min	2 A	1 hp	
RI1-02	Conveyor - Power Spiral Incline	9' - 3"	12°	120.0 ft/min	3 A	2 hp	
RI1-03	Conveyor - Incline	8' - 7"	2°	150.0 ft/min	2 A	1 hp	
RI1-04	Conveyor - Power Spiral Incline	9' - 3"	12°	180.0 ft/min	3 A	2 hp	
RI1-05	Conveyor - Breakover	39' - 0"	15°	180.0 ft/min	5 A	3 hp	
RI1-06	Conveyor - Transport	12' - 11"		180.0 ft/min	2 A	1 hp	
RI1-07	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
RI1-08	Conveyor - Transport	13' - 8"		180.0 ft/min	2 A	1 hp	
RI1-09	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
RI1-10	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
RI1-11	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 11		115' - 8"			32 A		

TOTAL FLA (TOTAL + 15A Transformer): 47 FLA

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CBIS AREA

CONVEYOR MANIFEST - SF1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
SF1-01	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SF1-02	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SS1-ATR	Scanner - ATR						
SF1-03	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SF1-04	Conveyor - Transport	19' - 6"		180.0 ft/min	2 A	1 hp	
SF1-05	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
SF1-06	Conveyor - Transport	15' - 0"		180.0 ft/min	2 A	1 hp	
SF1-07	Conveyor - Transport	12' - 0"		180.0 ft/min	2 A	1 hp	
SF1-08	Conveyor - Transport	12' - 0"		180.0 ft/min	2 A	1 hp	
Grand total: 9		78' - 1"			18 A		

TOTAL FLA (TOTAL + 15A Transformer): 33 FLA

CONVEYOR MANIFEST - SL1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
SL1-01	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SL1-02	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SL1-ATR	Scanner - ATR						
SL1-03	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SL1-04	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
SL1-05	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
SL1-06	Conveyor - Transport	34' - 2"		180.0 ft/min	3 A	2 hp	
SL1-07	Conveyor - Transport	40' - 2"		180.0 ft/min	5 A	3 hp	
SL1-08	Conveyor - Transport	35' - 0"		180.0 ft/min	3 A	2 hp	
SL1-09	Conveyor - Transport	19' - 4"		180.0 ft/min	2 A	1 hp	
Grand total: 10		151' - 8"			26 A		

TOTAL FLA (TOTAL + 15A Transformer): 41 FLA

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CBIS AREA

CONVEYOR MANIFEST - SS1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
SS1-01	Conveyor - Power Turn	9' - 0"		180.0 ft/min	3 A	2 hp	
SS1-02	Conveyor - Decline	5' - 6"	3°	180.0 ft/min	2 A	1 hp	
SS1-03	Conveyor - Transport	4' - 0"		150.0 ft/min	2 A	1 hp	
SS1-04	Conveyor - Transport	4' - 0"		150.0 ft/min	2 A	1 hp	
SS1-05	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
SS1-06	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
SS1-07	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	
SS1-08	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	DUAL SPEED (40/60 FPM)
SS1-09	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS1-10	SS - L3 Examiner 3DX 6000			40.2 ft/min			
SS1-11	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS1-12	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS1-13	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	
SS1-14	Conveyor - Incline	4' - 0"	4°	90.0 ft/min	2 A	1 hp	
SS1-15	Diverter - VSU	10' - 0"		120.0 ft/min	11 A	6 hp	
Grand total: 15		68' - 6"			40 A		

TOTAL FLA (TOTAL + 15A Transformer): 55 FLA

CBIS AREA

CONVEYOR MANIFEST - SS2 (3EDS)

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
SS2-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
SS2-01	Conveyor - Transport	5' - 0"		210.0 ft/min	2 A	1 hp	
SS2-02	Conveyor - Decline	4' - 0"	1°	180.0 ft/min	2 A	1 hp	
SS2-03	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
SS2-04	Conveyor - Transport	4' - 0"		150.0 ft/min	2 A	1 hp	
SS2-05	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
SS2-06	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
SS2-07	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	DUAL SPEED (40/60 FPM)
SS2-08	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS2-10	SS - L3 Examiner 3DX 6000			40.2 ft/min			
SS2-11	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS2-12	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS2-13	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	
SS2-14	Conveyor - Incline	4' - 0"	4°	90.0 ft/min	2 A	1 hp	
SS2-15	Diverter - VSU	10' - 0"		120.0 ft/min	11 A	6 hp	
Grand total: 15		59' - 0"			40 A		

TOTAL FLA (TOTAL + 15A Transformer): 55 FLA

CBIS AREA

CONVEYOR MANIFEST - SS3 (3EDS)

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
SS3-HSD	Diverter - HSPD (Cuttable)				3 A	2 hp	
SS3-01	Conveyor - Transport	5' - 0"		210.0 ft/min	2 A	1 hp	
SS3-02	Conveyor - Decline	4' - 0"	1°	180.0 ft/min	2 A	1 hp	
SS3-03	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
SS3-04	Conveyor - Transport	4' - 0"		150.0 ft/min	2 A	1 hp	
SS3-05	Conveyor - Transport	4' - 0"		120.0 ft/min	2 A	1 hp	
SS3-06	Conveyor - Transport	4' - 0"		90.0 ft/min	2 A	1 hp	
SS3-07	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	
SS3-08	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	DUAL SPEED (40/60 FPM)
SS3-09	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS3-10	SS - L3 Examiner 3DX 6000			40.2 ft/min			
SS3-11	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS3-12	Conveyor - Transport	4' - 0"		40.0 ft/min	2 A	1 hp	
SS3-13	Conveyor - Transport	4' - 0"		60.0 ft/min	2 A	1 hp	
SS3-14	Conveyor - Incline	4' - 0"	4°	90.0 ft/min	2 A	1 hp	
SS3-15	Diverter - VSU	10' - 0"		120.0 ft/min	11 A	6 hp	
Grand total: 16		63' - 0"			42 A		

TOTAL FLA (TOTAL + 15A Transformer): 57 FLA

CONVEYOR MANIFEST - TC1

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TC1-01	Conveyor - Check-in	30' - 0"		90.0 ft/min	3 A	2 hp	
TC1-02	Conveyor - Check-in	24' - 9"		90.0 ft/min	3 A	2 hp	
TC1-03	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TC1-04	Conveyor - Incline	11' - 3"	15°	150.0 ft/min	2 A	1 hp	
TC1-05	Conveyor - Power Spiral Incline	9' - 3"	12°	180.0 ft/min	3 A	2 hp	
TC1-06	Conveyor - Breakover	14' - 3"	18°	180.0 ft/min	3 A	2 hp	
TC1-07	Conveyor - Power Turn	4' - 6"		120.0 ft/min	3 A	2 hp	
TC1-08	Conveyor - Decline	25' - 6"	2°	180.0 ft/min	3 A	2 hp	
TC1-09	Conveyor - Power Turn	4' - 6"		120.0 ft/min	3 A	2 hp	
Grand total: 9		133' - 2"			29 A		

TOTAL FLA (TOTAL + 15A Transformer): 44 FLA

CONVEYOR MANIFEST - TC2

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TC2-01	Conveyor - Check-in	17' - 2"		90.0 ft/min	3 A	2 hp	
TC2-02	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TC2-03	Conveyor - Incline	21' - 0"	15°	150.0 ft/min	3 A	2 hp	
TC2-04	Conveyor - Power Spiral Incline	4' - 8"	12°	180.0 ft/min	3 A	2 hp	
TC2-05	Conveyor - Incline	3' - 9"	8°	180.0 ft/min	2 A	1 hp	
TC2-06	Conveyor - Incline	3' - 6"	4°	180.0 ft/min	2 A	1 hp	
TC2-07	Conveyor - Transport	3' - 6"		180.0 ft/min	2 A	1 hp	
TC2-08	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 8		68' - 10"			25 A		

TOTAL FLA (TOTAL + 15A Transformer): 40 FLA

CONVEYOR MANIFEST - TC3

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TC3-01	Conveyor - Check-in	24' - 0"		90.0 ft/min	3 A	2 hp	
TC3-02	Conveyor - Check-in	27' - 11"		90.0 ft/min	3 A	2 hp	
TC3-03	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TC3-04	Conveyor - Incline	16' - 6"	16°	150.0 ft/min	3 A	2 hp	
TC3-05	Conveyor - Power Spiral Incline	4' - 8"	12°	180.0 ft/min	3 A	2 hp	
TC3-06	Conveyor - Incline	12' - 2"	2°	180.0 ft/min	2 A	1 hp	
TC3-07	Conveyor - Power Spiral Incline	4' - 8"	12°	180.0 ft/min	3 A	2 hp	
TC3-08	Conveyor - Incline	4' - 0"	6°	180.0 ft/min	2 A	1 hp	
TC3-09	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
TC3-10	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
TC3-11	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 11		117' - 7"			35 A		

TOTAL FLA (TOTAL + 15A Transformer): 50 FLA

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CONVEYOR MANIFEST - TC4

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TC4-01	Conveyor - Check-in	30' - 0"		90.0 ft/min	3 A	2 hp	
TC4-02	Conveyor - Check-in	28' - 7"		90.0 ft/min	3 A	2 hp	
TC4-03	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TC4-04	Conveyor - Incline	19' - 4"	15°	150.0 ft/min	3 A	2 hp	
TC4-05	Conveyor - Incline	4' - 1"	11°	180.0 ft/min	2 A	1 hp	
TC4-06	Conveyor - Power Spiral Incline	4' - 8"	12°	180.0 ft/min	3 A	2 hp	
TC4-07	Conveyor - Incline	3' - 6"	4°	180.0 ft/min	2 A	1 hp	
TC4-09	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 8		105' - 5"			26 A		

TOTAL FLA (TOTAL + 15A Transformer): 38 FLA

CONVEYOR MANIFEST - TC5

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TC5-01	Conveyor - Check-in	31' - 8"		90.0 ft/min	3 A	2 hp	
TC5-02	Conveyor - Check-in	33' - 6"		90.0 ft/min	5 A	3 hp	
TC5-03	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TC5-04	Conveyor - Incline	14' - 5"	15°	150.0 ft/min	3 A	2 hp	
TC5-05	Conveyor - Power Spiral Incline	4' - 8"	12°	180.0 ft/min	3 A	2 hp	
TC5-06	Conveyor - Incline	7' - 9"	13°	180.0 ft/min	2 A	1 hp	
TC5-07	Conveyor - Incline	4' - 0"	6°	180.0 ft/min	2 A	1 hp	
TC5-08	Conveyor - Incline	4' - 0"	4°	180.0 ft/min	2 A	1 hp	
TC5-09	Conveyor - Incline	4' - 0"	2°	180.0 ft/min	2 A	1 hp	
TC5-10	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 10		119' - 3"			32 A		

TOTAL FLA (TOTAL + 15A Transformer): 50 FLA

CONVEYOR MANIFEST - CS4

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
CS4-01	Conveyor - Check-in	5' - 3"		90.0 ft/min	2 A	1 hp	
CS4-02	Conveyor - Decline	14' - 4"	20°	120.0 ft/min	2 A	1 hp	
CS4-03	Conveyor - Power Turn	9' - 0"		150.0 ft/min	3 A	2 hp	
CS4-04	Conveyor - Transport	49' - 6"		180.0 ft/min	5 A	3 hp	
CS4-05	Conveyor - Incline	24' - 11"	12°	180.0 ft/min	5 A	3 hp	
CS4-06	Conveyor - Power Spiral Incline	9' - 3"	12°	180.0 ft/min	3 A	2 hp	
CS4-07	Conveyor - Incline	31' - 11"	1°	180.0 ft/min	3 A	2 hp	
CS4-08	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CS4-09	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CS4-10	Conveyor - Power Turn	4' - 6"		180.0 ft/min	3 A	2 hp	
CS4-11	Conveyor - Transport	4' - 0"		180.0 ft/min	2 A	1 hp	
CS4-12	Conveyor - Merge (Cuttable)	6' - 3"		210.0 ft/min	5 A	3 hp	
Grand total: 12		166' - 11"			39 A		

TOTAL FLA (TOTAL + 15A Transformer): 54 FLA

TEMPORARY SCREENING ONLY

CONVEYOR MANIFEST - TML1 (TEMPORARY SCREENING)

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TML-01	Conveyor - Transport	20' - 0"		90.0 ft/min	2 A	1 hp	
TML-02	Conveyor - Power Turn	9' - 0"		120.0 ft/min	3 A	2 hp	
TML-03	Conveyor - Transport	19' - 6"		150.0 ft/min	2 A	1 hp	
TML-04	Conveyor - Power Turn	6' - 6"		180.0 ft/min	3 A	2 hp	
TML-05	Conveyor - Transport	70' - 6"		180.0 ft/min	8 A	5 hp	
TML-06	Conveyor - Breakover	38' - 5"	18°	180.0 ft/min	8 A	5 hp	
TML-08	Conveyor - Transport	9' - 7"		180.0 ft/min	2 A	1 hp	
TML-07	Conveyor - Transport	35' - 11"		180.0 ft/min	3 A	2 hp	
TML-09	Conveyor - Power Turn	6' - 6"		180.0 ft/min	3 A	2 hp	
Grand total: 9		216' - 1"			35 A		

TOTAL FLA (TOTAL + 15A Transformer): 50 FLA

1

CONVEYOR MANIFEST - TMF (TEMPORARY SCREENING)

NEW ID	Family	CONVEYOR LENGTH	ANGLE	BELT SPEED	FLA	HP	CONDITION
TMF1-01	Conveyor - Transport	7' - 0"		180.0 ft/min	2 A	1 hp	
TMF1-02	Conveyor - Breakover	19' - 11"	18°	180.0 ft/min	2 A	1 hp	
TMF1-03	Tip Chute	0' - 0"			0 A		
Grand total: 3		26' - 11"			4 A		

TOTAL FLA (TOTAL + 15A Transformer): 54 FLA

1

CONVEYOR MANIFEST - TMU - MAKE UP DEVICE (TEMPORARY SCREENING)

NEW ID	EQUIPMENT TYPE	CONVEYOR LENGTH	MOTOR COUNT	DEVICE SPEED	FLA	CONDITION
TMU1		232' - 10"	3	90.0 ft/min	33 A	
Grand total: 11		232' - 10"	3		33 A	

TOTAL FLA (TOTAL + 15A Transformer): 48 FLA

GENERAL NOTES: CONVEYOR MANIFEST

1. ALL SPEEDS ARE LISTED FOR REFERENCE ONLY. BHS CONTRACTOR IS TO VERIFY AND ENSURE ALL CONVEYOR SPEEDS MAXIMIZE SYSTEM THROUGHPUT AND MINIMIZE BAG-IN-SYSTEM TIME.

2. QUEUES UPSTREAM OF EDS DEVICES WILL UTILIZE VFD'S AND OPERATE ON DUAL SPEEDS AS REQUIRED TO MAINTAIN AND MAZIMIZE THROUGHPUT OF MACHINES.

CONVEYOR MANIFEST NOTE - HVAC AREAS

CBIS - INDICATES THE CONVEYORS FOUND IN THE CHECKED BAGGAGE INSPECTION SYSTEM AREA (CBIS) - FOR HVAC ONLY

CBRA - INDICATES THE CONVEYORS FOUND IN THE CHECKED BAGGAGE RESOLUTION AREA (CBRA) - FOR HVAC ONLY

DRAFT - NOT FOR CONSTRUCTION

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

CONSULTANT'S NAME

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LICENSED
MAY 31, 2016
PROFESSIONAL ENGINEER

SCALE

DATE	MAY 2016
DESIGN BY	P.C.
DRAWN BY	P.C.
CHKD. BY	C.S.
APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

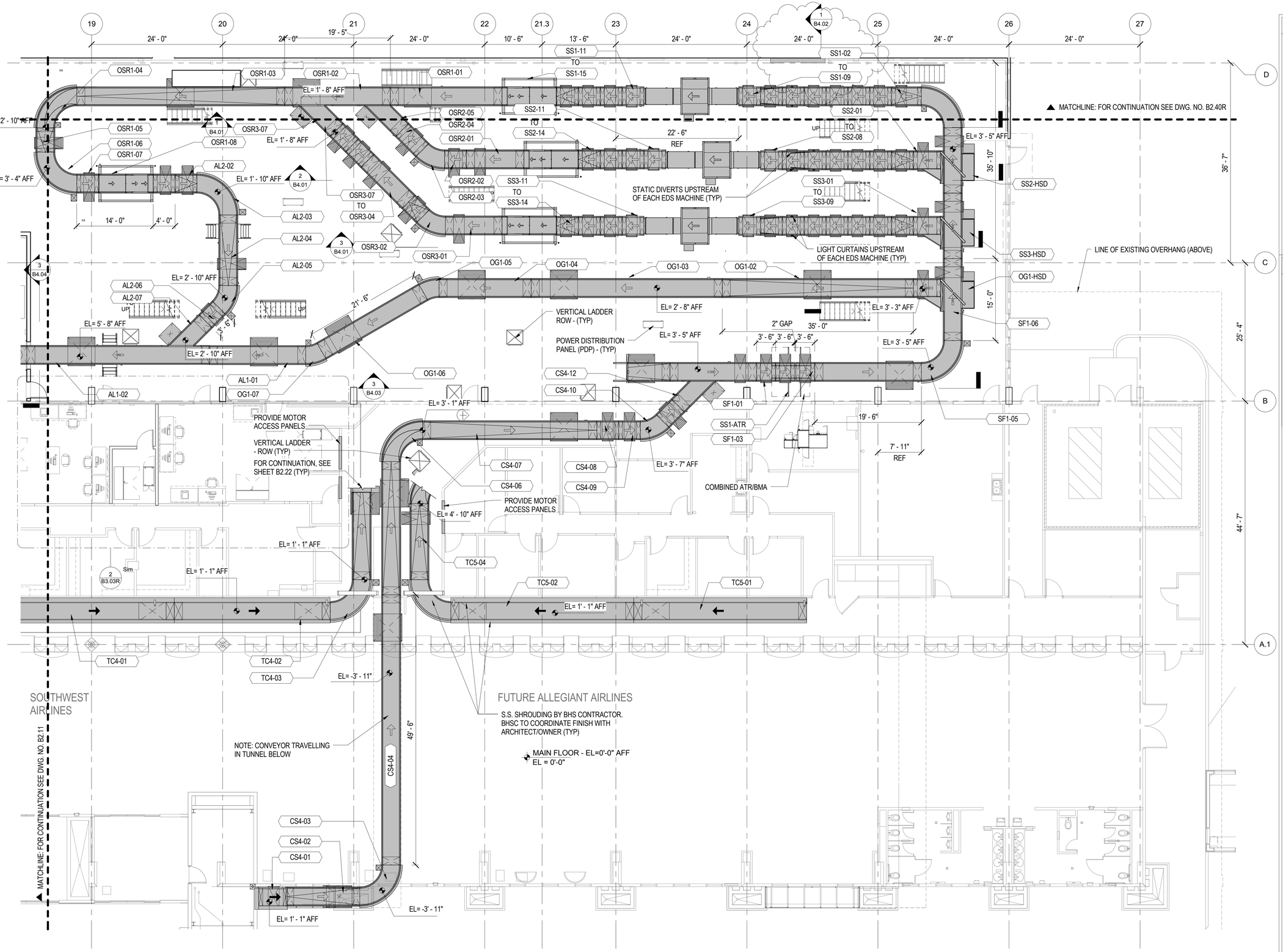
SHEET TITLE

CONVEYOR MANIFEST

B0.04R

FILE NO. 238512

SHEET OF



1 PROPOSED BHS LAYOUT - AREA 2 - LOWER CONVEYORS
1/8" = 1'-0"

PLAN NORTH

LEGEND

CONVEYOR LEGEND

- NEW CONVEYORS INSTALLED
- EXISTING CONVEYORS
- CONVEYORS DEMOLISHED OR REMOVED

NOTES

BHS CONVEYOR NOTES:

ALL VERTICAL DIMENSIONS ARE REFERENCED ABOVE FINISHED FLOOR RELATIVE TO THE CURRENT FLOOR ELEVATION. REFER TO ARCHITECTURAL FLOOR ELEVATION. REFER TO ARCHITECTURAL AND CIVIL DRAWINGS FOR ACTUAL FLOOR GRADING AND ELEVATIONS. BHS CONTRACTOR TO FIELD VERIFY ALL FLOOR ELEVATIONS BEFORE BEGINNING WORK.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

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EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION
SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF
EL PASO

SHEET TITLE

PROPOSED BHS
PLAN – AREA 2 –
LOWER CONVEYORS

B2.21R

FILE NO. 238512

SHEET OF

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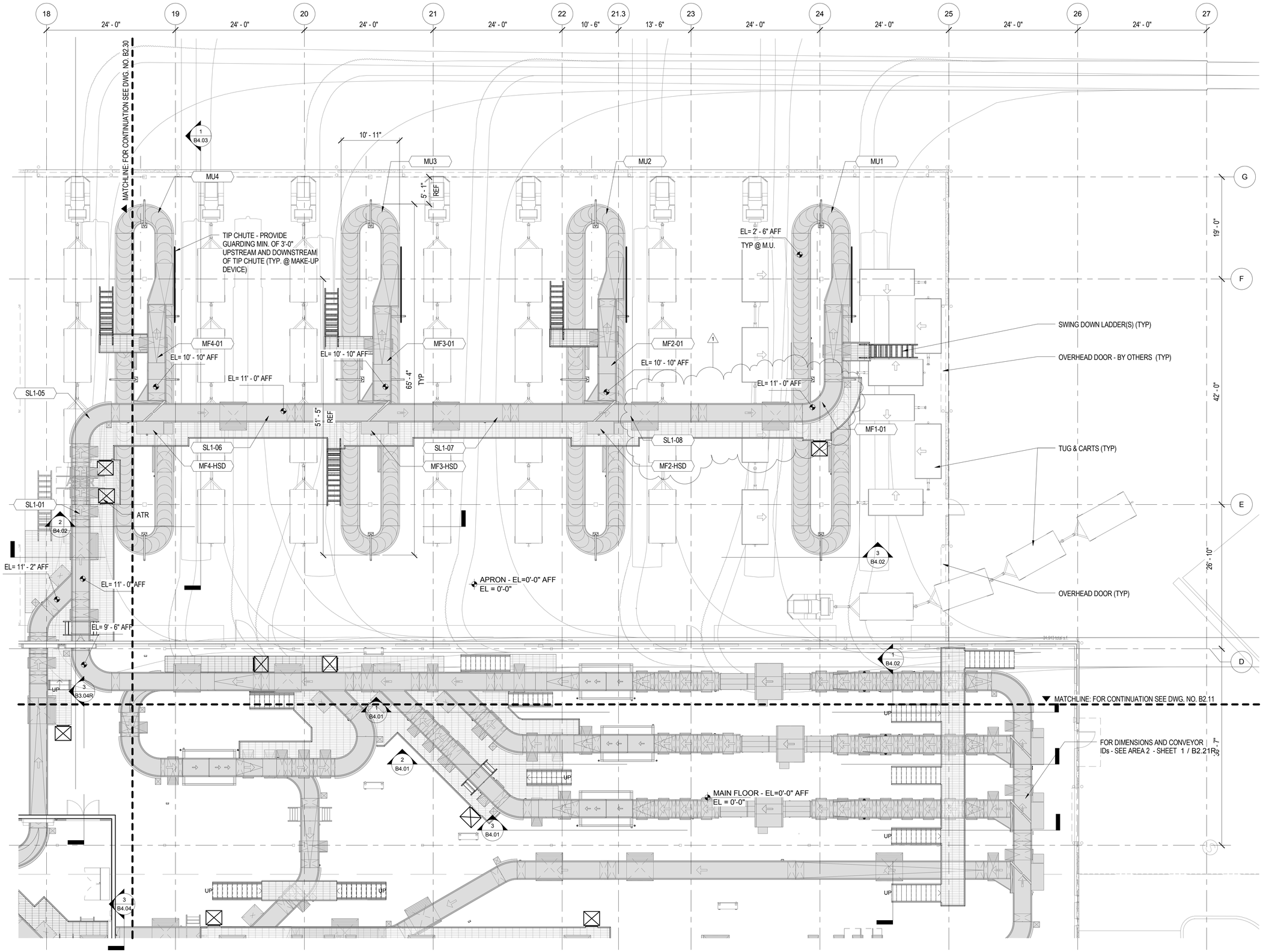

1 PROPOSED BHS LAYOUT - AREA 4
1/8" = 1'-0"

PLAN NORTH

LEGEND

CONVEYOR LEGEND

- NEW CONVEYORS INSTALLED
- EXISTING CONVEYORS
- CONVEYORS DEMOLISHED OR REMOVED

NOTES

BHS CONVEYOR NOTES:

ALL VERTICAL DIMENSIONS ARE REFERENCED ABOVE FINISHED FLOOR RELATIVE TO THE CURRENT FLOOR ELEVATION. REFER TO ARCHITECTURAL FLOOR ELEVATION. REFER TO ARCHITECTURAL AND CIVIL DRAWINGS FOR ACTUAL FLOOR GRADING AND ELEVATIONS. BHS CONTRACTOR TO FIELD VERIFY ALL FLOOR ELEVATIONS BEFORE BEGINNING WORK.

NOTE: FOR DIMENSIONS FOR CBIS AREA - SEE AREA 2 - SHEET B2.21

REFERENCES – BENCHMARK

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EL PASO INTERNATIONAL AIRPORT
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6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

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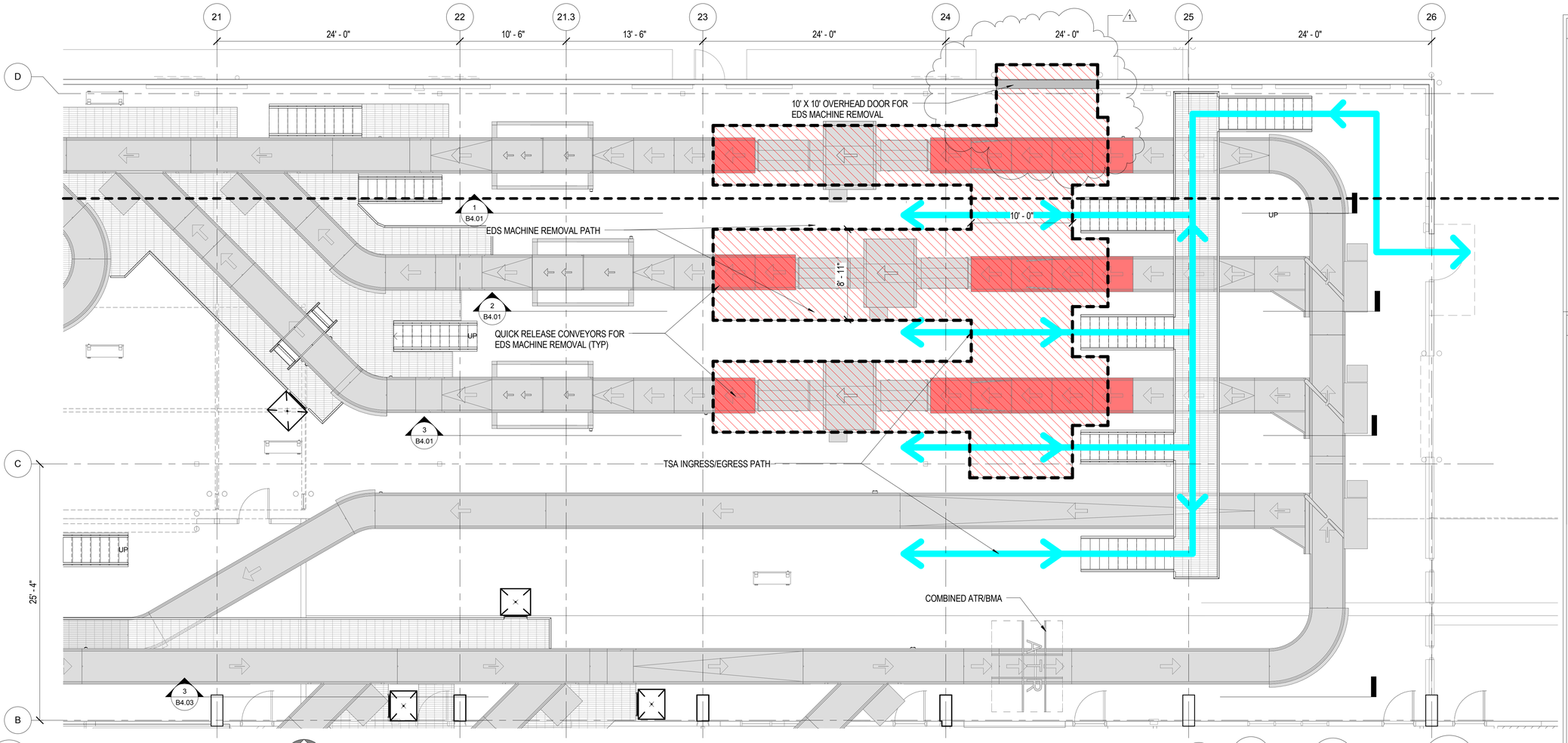
SHEET TITLE

PROPOSED BHS PLAN – AREA 4

B2.40R

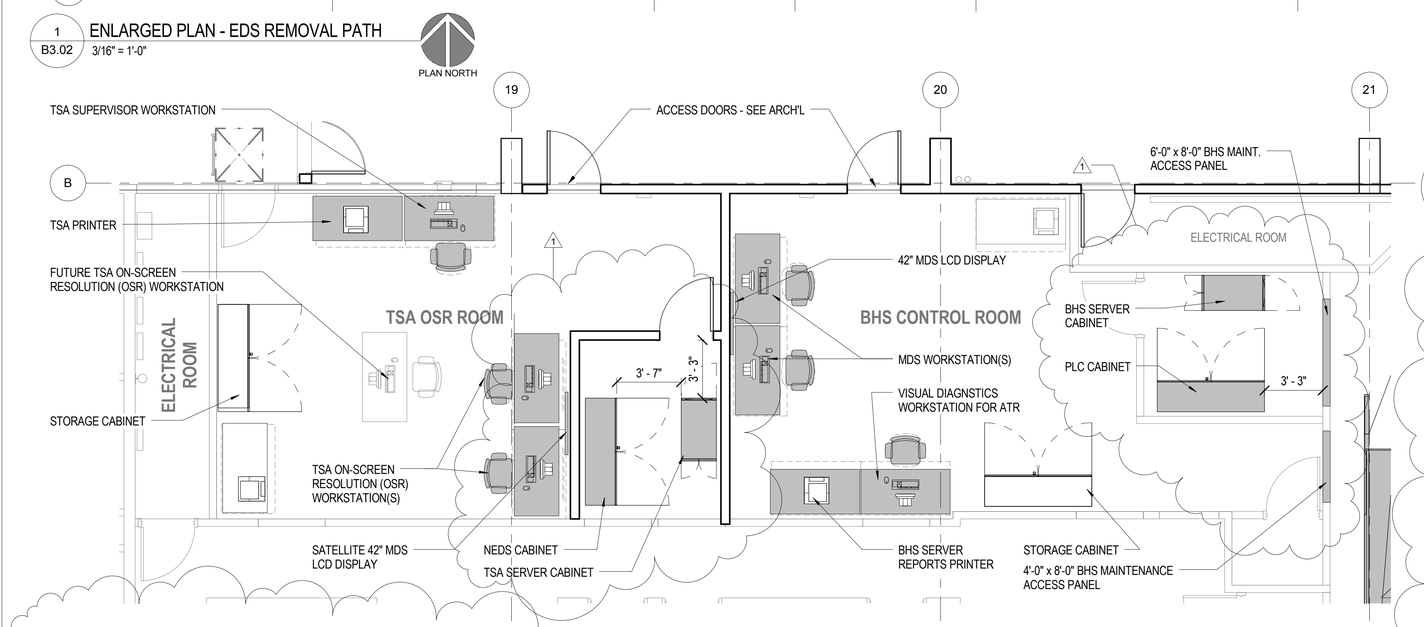
FILE NO. 238512

SHEET OF



1 B3.02 ENLARGED PLAN - EDS REMOVAL PATH
3/16" = 1'-0"

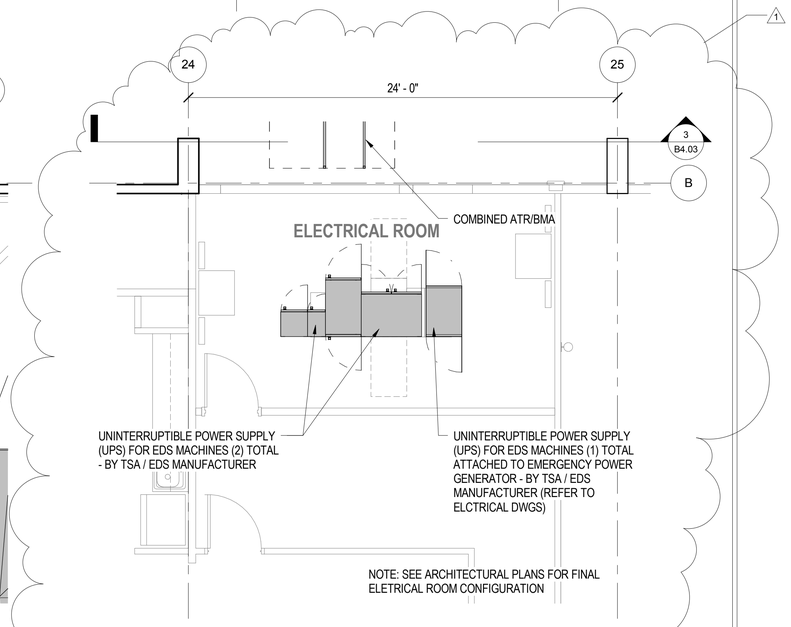
PLAN NORTH



NOTE: SEE ARCHITECTURAL PLANS FOR FINAL OSR ROOM & BHS CONTROL ROOM CONFIGURATION

2 B2.00 OSR/BHS CONTROL ROOMS - ENLARGED PLAN
1/4" = 1'-0"

PLAN NORTH



NOTE: SEE ARCHITECTURAL PLANS FOR FINAL ELETRICAL ROOM CONFIGURATION

3 B2.00 UPS / ELECTRICAL ROOM - ENLARGED PLAN
1/4" = 1'-0"

PLAN NORTH

LEGEND

CONVEYOR LEGEND

- QUICK RELEASE CONVEYORS
- EDS MACHINE REMOVAL PATH
- TSA PERSONNEL EGRESS/ INGRESS PATH

NOTES

REFERENCES -- BENCHMARK

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PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

OSR & BHS CONTROL ROOMS AND EDS REMOVAL PATH

B3.03R

FILE NO. 238512

SHEET OF

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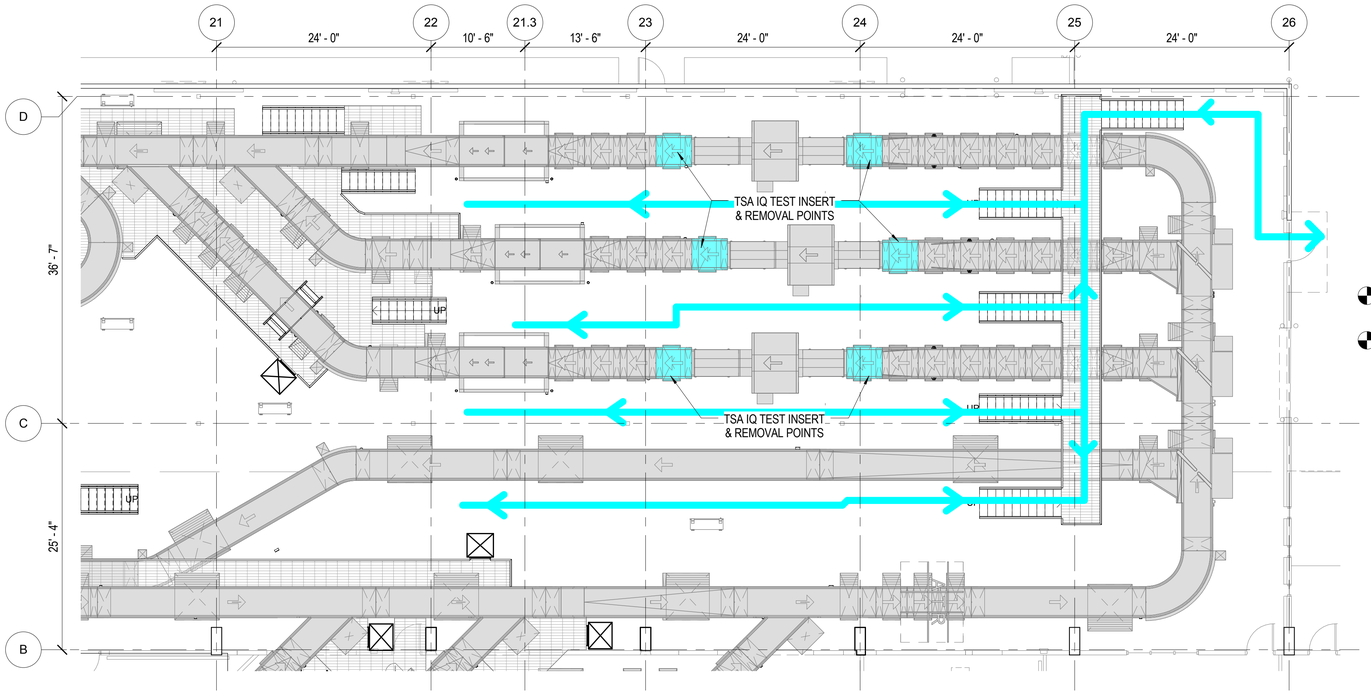
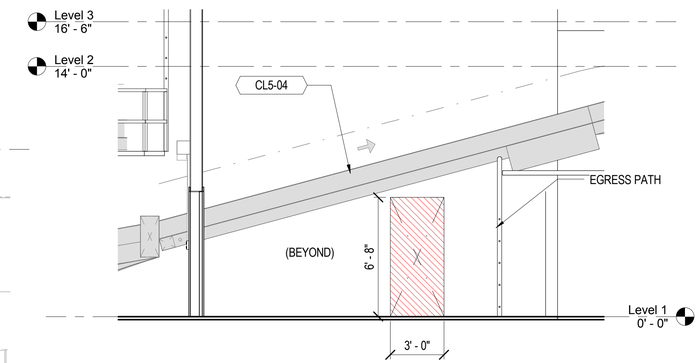
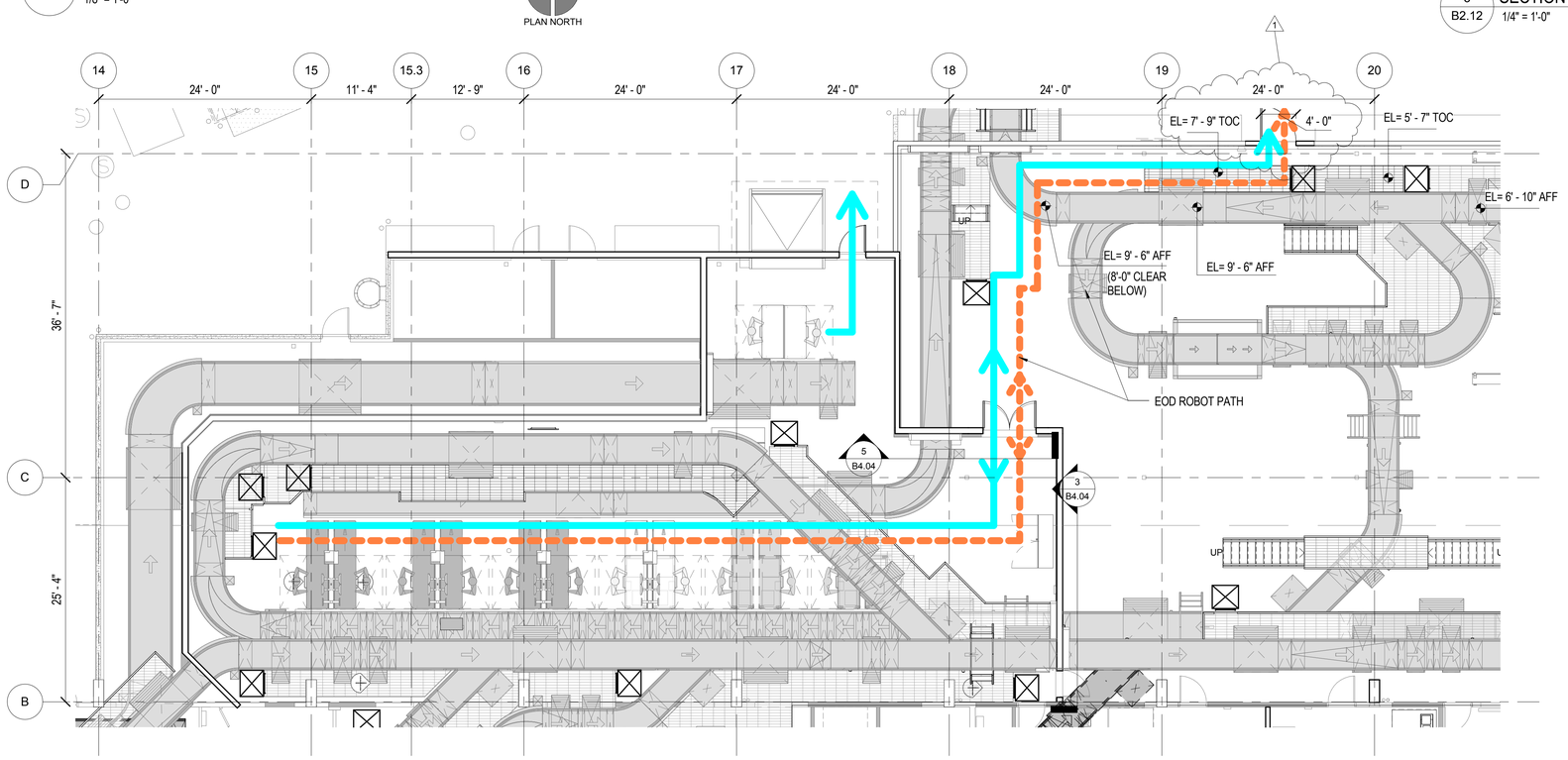


1 CBIS - ENLARGED PLAN - TSA INGRESS/EGRESS
1/8" = 1'-0"

PLAN NORTH



3 B2.12 SECTION @ TSA EGRESS PATH
1/4" = 1'-0"



2 CBRA - ENLARGED PLAN - TSA INGRESS/EGRESS
1/8" = 1'-0"

PLAN NORTH

LEGEND

CONVEYOR LEGEND

- IQ TEST INPUT CONVEYORS
- TSA PERSONNEL EGRESS/ INGRESS PATH
- EOD ROBOT PATH

NOTES

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
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PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

TSA IQ POINTS & EGRESS PATH

B3.04R

FILE NO. 238512

SHEET OF

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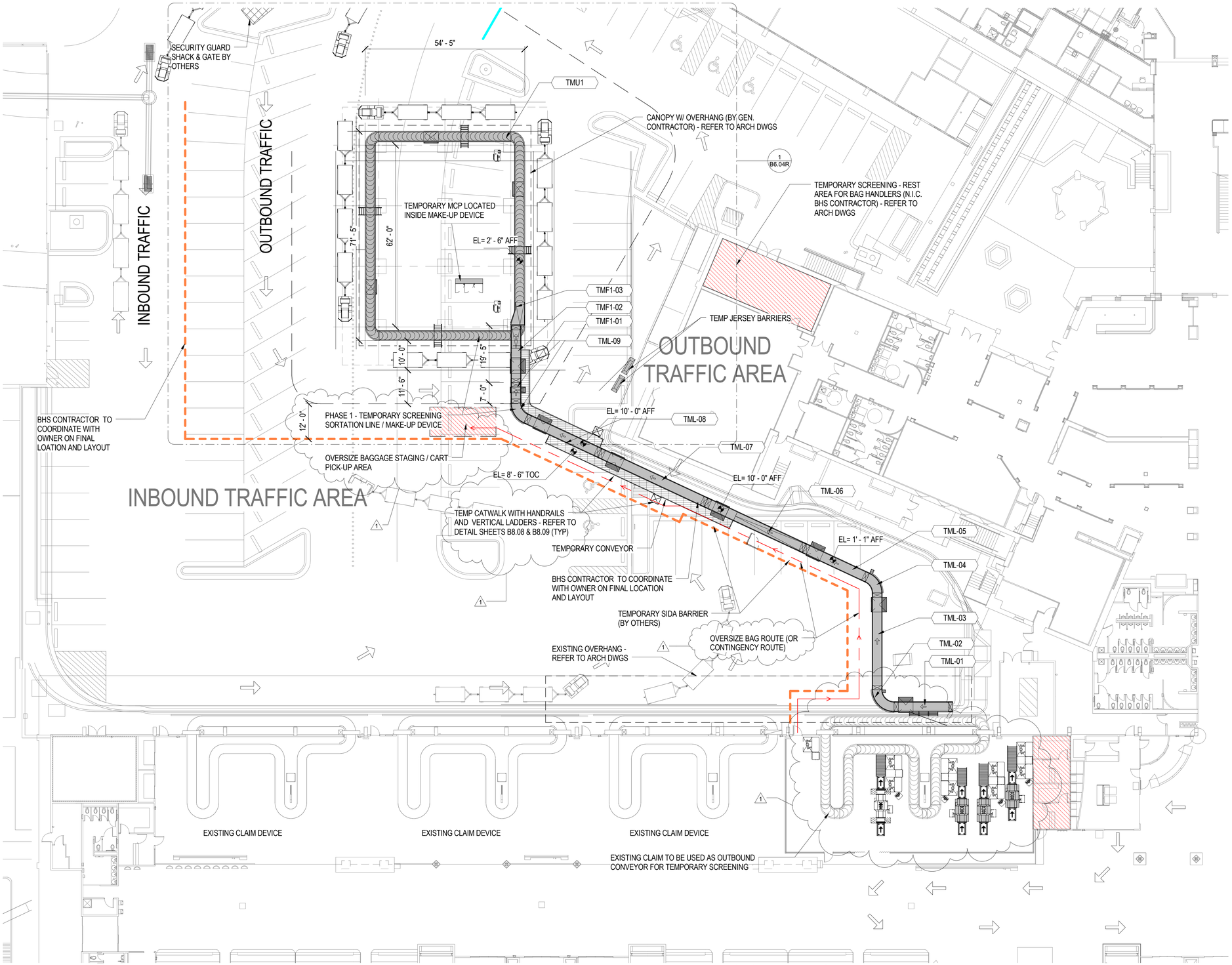

1 PHASE 1 - TEMPORARY - TEMP SORTATION & SCREENING
1/16" = 1'-0"

PLAN NORTH

PHASING NOTES: PHASE 1 SCOPE

		CONVEYOR SUBSYSTEMS INSTALLED:
MAXIMUM DURATION:	9 MONTHS	TEMPORARY LINES: TML1, TMF, TMU
PHASE PREDECESSOR:	NONE	
CONCURRENT WORK:	NONE	

LEGEND

CONVEYOR LEGEND

- NEW CONVEYORS INSTALLED
- EXISTING CONVEYORS
- CONVEYORS DEMOLISHED OR REMOVED

NOTES

BHS PHASING NOTES:

1) BHS CONTRACTOR SHALL ABIDE BY ALL RULES AND GUIDELINES SET ON ARCHITECTURAL PLANS - PHASING NOTES. REFER TO ARCH'L PHASING PLANS AND NOTES.

2) COORDINATE WITH OTHER DISCIPLINES TO MAINTAIN BHS CONVEYOR RIGHT-OF-WAY.

3) ALL EXTERIOR CONVEYORS TO BE PROTECTED FROM THE ELEMENTS. IF CONVEYOR NOT COVERED BY CANOPY, CONVEYOR MUST HAVE STAINLESS STEEL "TOP-HAT". REFER TO DETAILS SHEET B8.15.

4) ALL EXTERIOR MOTORS & CONTROLS TO BE EXTERIOR NEMA RATED 4. SEE BHS SPECIFICATIONS.

5) REFER TO BHS SPECIFICATIONS FOR ALL OTHER MOTORS, BELTS, CONTROLS, ETC. CONSIDERATIONS FOR EXTERIOR USE.

BHS PHASING NOTES:
Phase 1 Operations

OPERATIONS:
- CHECK-IN: Existing
- SCREENING: Temporary
- MAKE-UP: Temporary

CONSTRUCTION:
- Construction of temporary screening, sortation and make-up device

TESTING:
- INTERNAL: BHSC and Owners acceptance testing occurs at end of phase
- TSA: No TSA testing occurs
- GENERAL: No system wide testing

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
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MAY 31, 2016
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE:	MAY 2016
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JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

BHS PHASING – PHASE 1 – TEMP 1

B6.02R

FILE NO. 238512

SHEET OF

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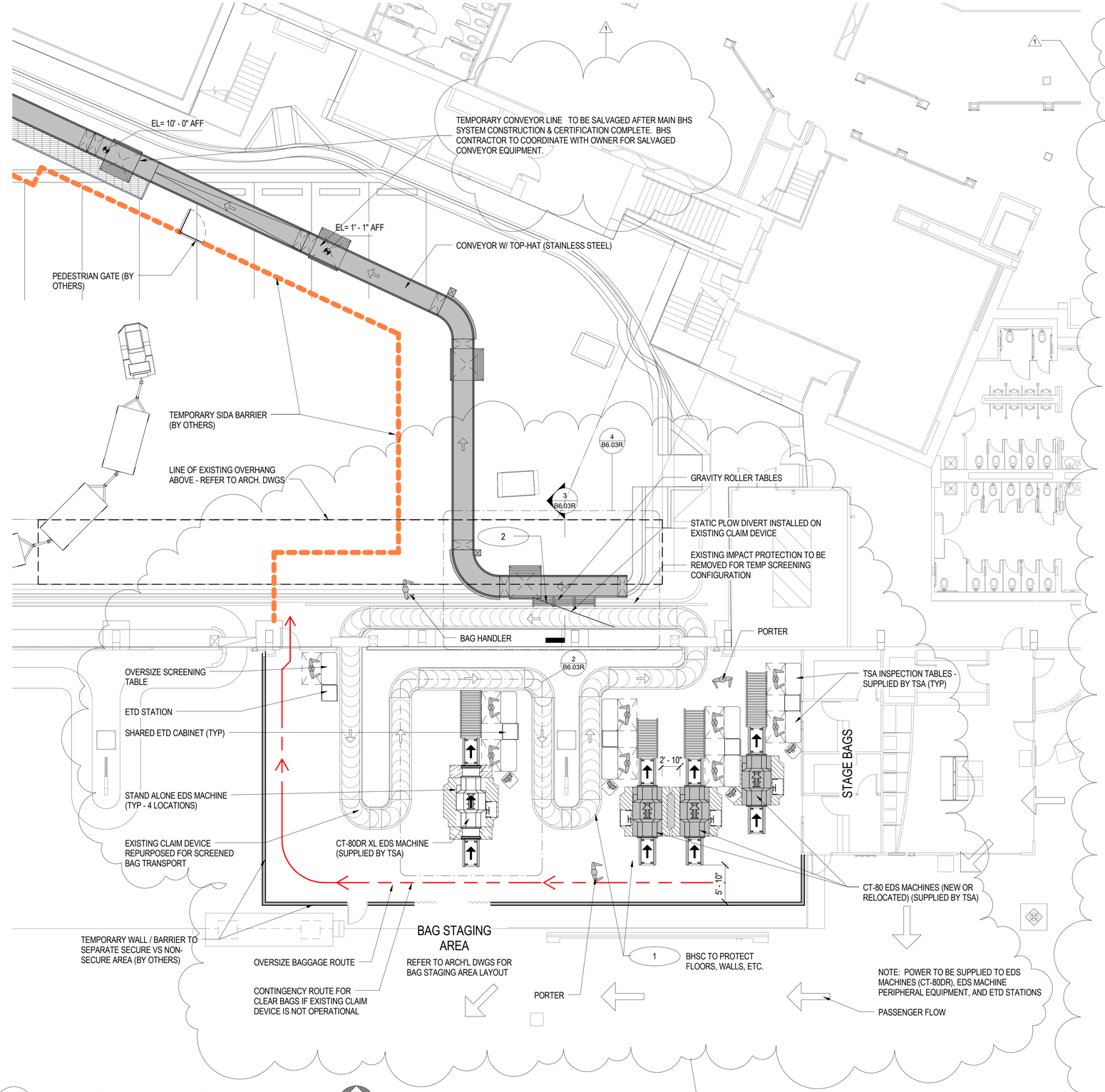
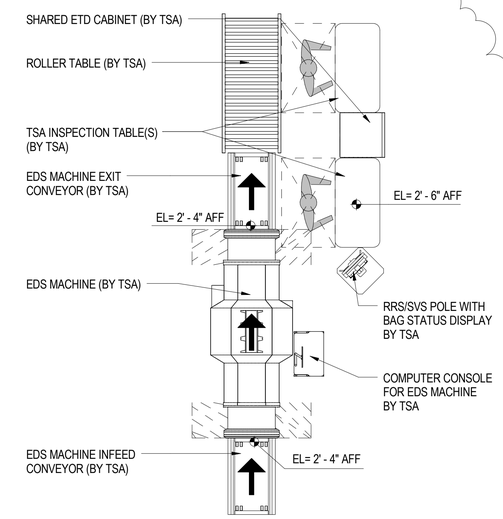
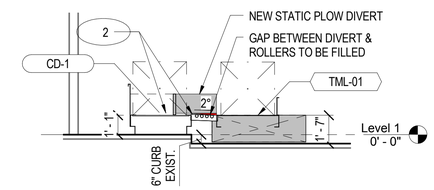


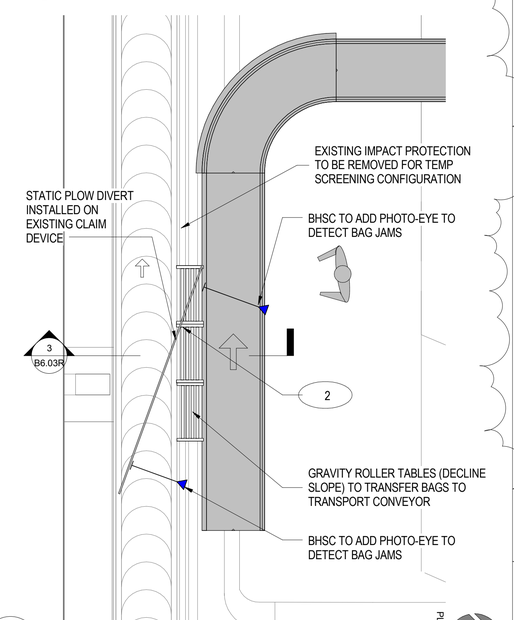
1 PHASING - TEMPORARY - SCREENING AREA - AREA P1B
1/8" = 1'-0"



2 B6.03R PHASING - TEMPORARY - TYPICAL STAND ALONE LAYOUT
1/4" = 1'-0"



3 SECTION @ TML1 (STATIC PLOW)
1/4" = 1'-0"



4 B6.03R TEMP SCREENING - DETAIL PLAN - STATIC PLOW
1/4" = 1'-0"

LEGEND

CONVEYOR LEGEND

- NEW CONVEYORS INSTALLED
- EXISTING CONVEYORS
- CONVEYORS DEMOLISHED OR REMOVED

NOTES

BHS PHASING NOTES:

1) BHS CONTRACTOR SHALL ABIDE BY ALL RULES AND GUIDELINES SET ON ARCHITECTURAL PLANS - PHASING NOTES. REFER TO ARCH'L PHASING PLANS AND NOTES.

2) COORDINATE WITH OTHER DISCIPLINES TO MAINTAIN BHS CONVEYOR RIGHT-OF-WAY.

3) ALL EXTERIOR CONVEYORS TO BE PROTECTED FROM THE ELEMENTS. IF CONVEYOR NOT COVERED BY CANOPY, CONVEYOR MUST HAVE STAINLESS STEEL "TOP-HAT". REFER TO DETAILS SHEET B8.15.

4) ALL EXTERIOR MOTORS & CONTROLS TO BE EXTERIOR NEMA RATED 4. SEE BHS SPECIFICATIONS.

5) REFER TO BHS SPECIFICATIONS FOR ALL OTHER MOTORS, BELTS, CONTROLS, ETC. CONSIDERATIONS FOR EXTERIOR USE.

BHS PHASING KEY NOTES:

1. BHS CONTRACTOR TO PROTECT FLOORING, WALLS, CLAIM DEVICE, & ALL OTHER ARCHITECTURAL FINISHES DURING TEMPORARY SCREENING. SEE BHS CONTRACTOR NOTE.
2. FILLER/BRUSH REQUIRED BELOW STATIC PLOW DIVERTER TO PREVENT BAGGAGE / STRAPS FROM GETTING 'TRAPPED' BETWEEN GRAVITY ROLLER TABLE & STATIC PLOW OR CLAIM DEVICE & STATIC PLOW
3. CT-80 EDS MACHINES (NEW OR RELOCATED) - SEE BHS CONTRACTOR NOTES BELOW.

BHS CONTRACTOR NOTE:

1 - BHS CONTRACTOR TO TAKE NECESSARY STEPS TO PROTECT FLOORING, WALLS, CLAIM DEVICE, & ALL OTHER ARCHITECTURAL FINISHES DURING TEMPORARY SCREENING. ELECTRICAL AND BHS/EDS MACHINES AND EQUIPMENT NOT TO BE SECURED TO TILE FLOORING OR SUBFLOOR.

2 - EDS MACHINES ARE TO BE EITHER 'TRANSITIONAL' MACHINES FROM OFF-SITE LOCATION , SUPPLIED BY TSA OR RELOCATED MACHINES FROM ELP EXISTING OUTBOUND BHS SYSTEM. STILL TO BE COORDINATED BETWEEN LOCAL 7 REGIONAL TSA.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
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APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

EL PASO, TEXAS

6701 CONVAIR ROAD

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.

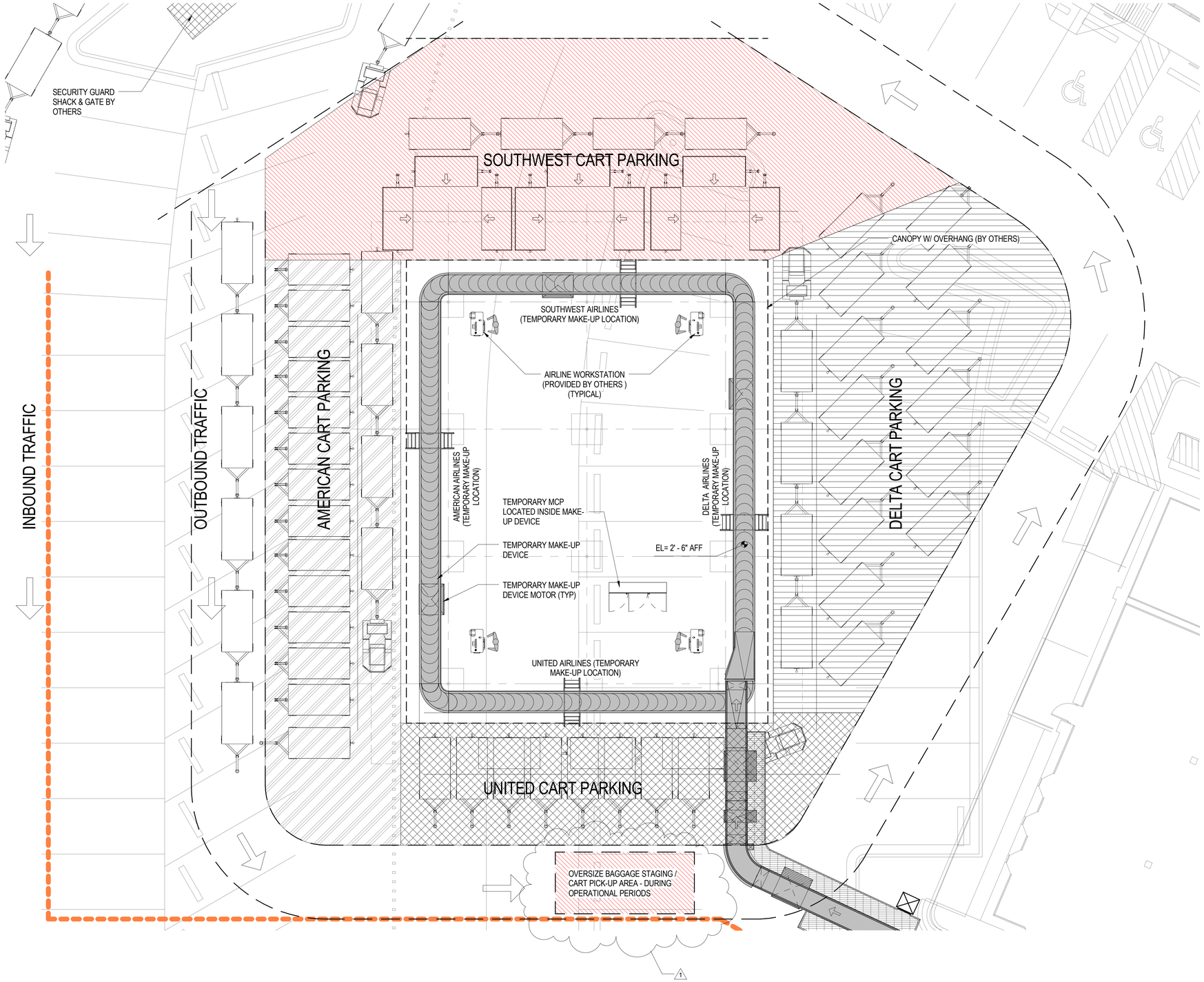
SHEET TITLE

BHS PHASING – PHASE 1 – TEMP 2

B6.03R

FILE NO. 238512

SHEET OF



1 PHASE 1 - TEMPORARY - TEMP SORTATION & SCREENING - STORAGE
1/8" = 1'-0"

PLAN NORTH

LEGEND

CONVEYOR LEGEND

- NEW CONVEYORS INSTALLED
- EXISTING CONVEYORS
- CONVEYORS DEMOLISHED OR REMOVED

NOTES

BHS PHASING NOTES:

1) BHS CONTRACTOR SHALL ABIDE BY ALL RULES AND GUIDELINES SET ON ARCHITECTURAL PLANS - PHASING NOTES. REFER TO ARCH'L PHASING PLANS AND NOTES.

2) COORDINATE WITH OTHER DISCIPLINES TO MAINTAIN BHS CONVEYOR RIGHT-OF-WAY.

3) ALL EXTERIOR CONVEYORS TO BE PROTECTED FROM THE ELEMENTS. IF CONVEYOR NOT COVERED BY CANOPY, CONVEYOR MUST HAVE STAINLESS STEEL "TOP-HAT". REFER TO DETAILS SHEET B8.15.

4) ALL EXTERIOR MOTORS & CONTROLS TO BE EXTERIOR NEMA RATED 4. SEE BHS SPECIFICATIONS.

5) REFER TO BHS SPECIFICATIONS FOR ALL OTHER MOTORS, BELTS, CONTROLS, ETC. CONSIDERATIONS FOR EXTERIOR USE.

REFERENCES – BENCHMARK

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CHKD. BY	C.S.
APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

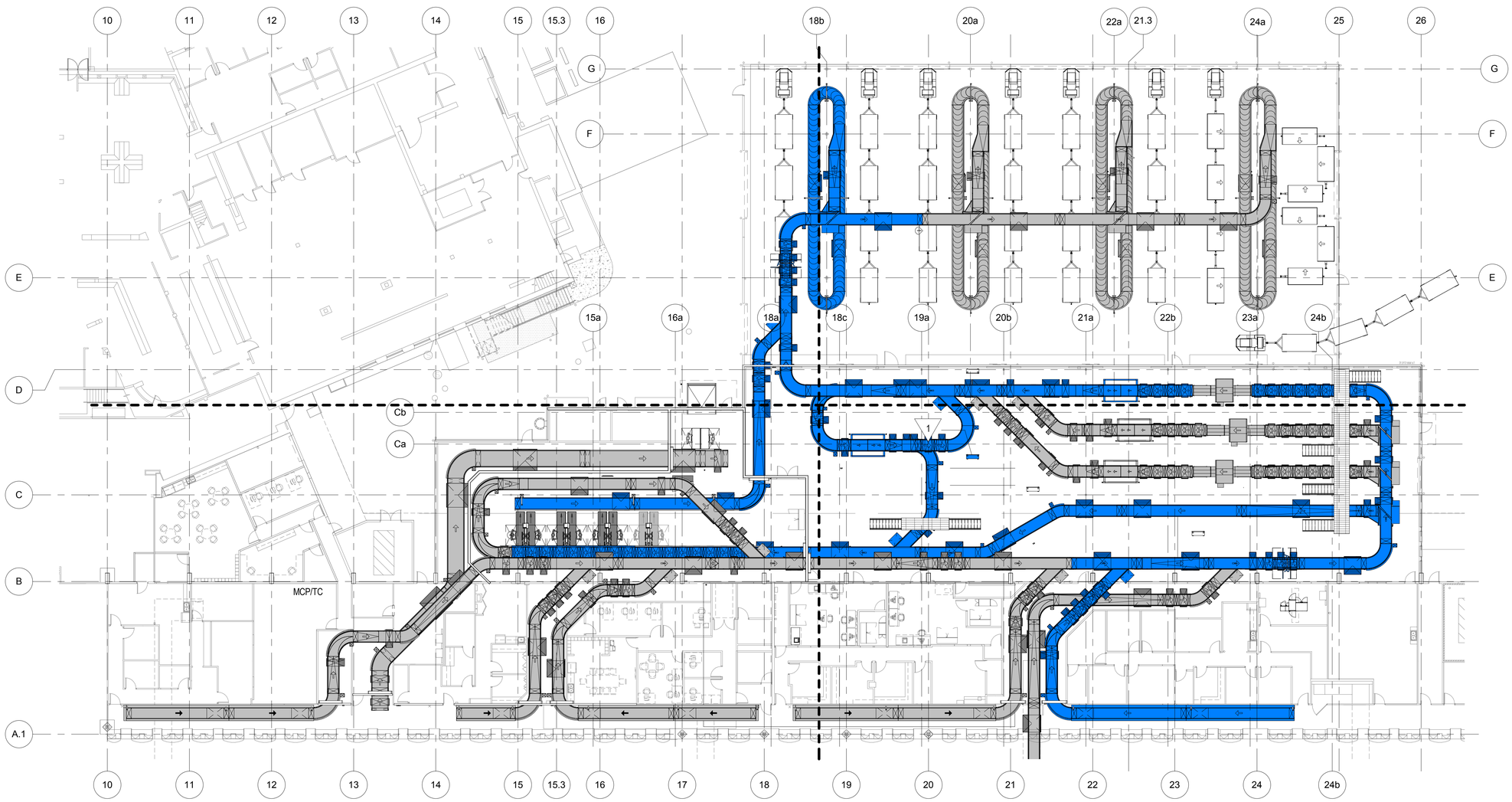
BHS PHASING – PHASE 1 – TEMP 3

B6.04R

FILE NO. 238512

SHEET OF

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.



1 PROPOSED BHS PDP LOCATIONS - PDP 1 (Emergency)
1/16" = 1'-0"

PLAN NORTH

PDP 1E

PDP 1E - REQUIRES EMERGENCY POWER

SUBSYSTEMS:	TC5, ML1-12-14, SF1, SS1, OSR1, CL1, CL4, AL1, AL2, OG1, CL5, SL1-01 -SL-06, MF4, MU4
FLA - 512 A	

LEGEND

CONVEYOR LEGEND

CONVEYORS ASSOCIATED WITH PDP

ASSOCIATED POWER DISTRIBUTION PANEL (PDP)

NOTES

DISTRIBUTED I/O NOTES:

CONVEYORS ARE CONTROLLED WITH A DISTRIBUTED I/O SYSTEM. THIS IS A CENTRALIZED PLC DESIGN WITH A DISTRIBUTED I/O LAYOUT.

VARIABLE FREQUENCY DRIVE (VFD) COMPONENTS ARE INSTALLED REMOTELY AT DRIVE UNIT WHERE NECESSARY.

EMERGENCY POWER NOTE:

- BAGGAGE HANDLING SYSTEM IS RUNNING ON EMERGENCY POWER
- ONLY ONE EDS MACHINE IS ON EMERGENCY POWER WITH A THROUGHPUT RATE OF 505 BPH
- ALL OVERSIZE BAGS WILL BE MANUAL TRANSPORTED TO THE CBRA FOR SCREENING.
- RE-INSERT LINE IS DIABLED
- ONLY ONE MAKE-UP DEVICE IS OPERATIONAL

KEY PLAN

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

CONSULTANT'S NAME

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ARCHITECT'S SEAL

STATE OF TEXAS
ASHER N. DAVID
119023
MAY 31, 2016
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	MAY 2016
DESIGN BY	P.C.
DRAWN BY	P.C.
CHKD. BY	C.S.
APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

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CITY OF EL PASO

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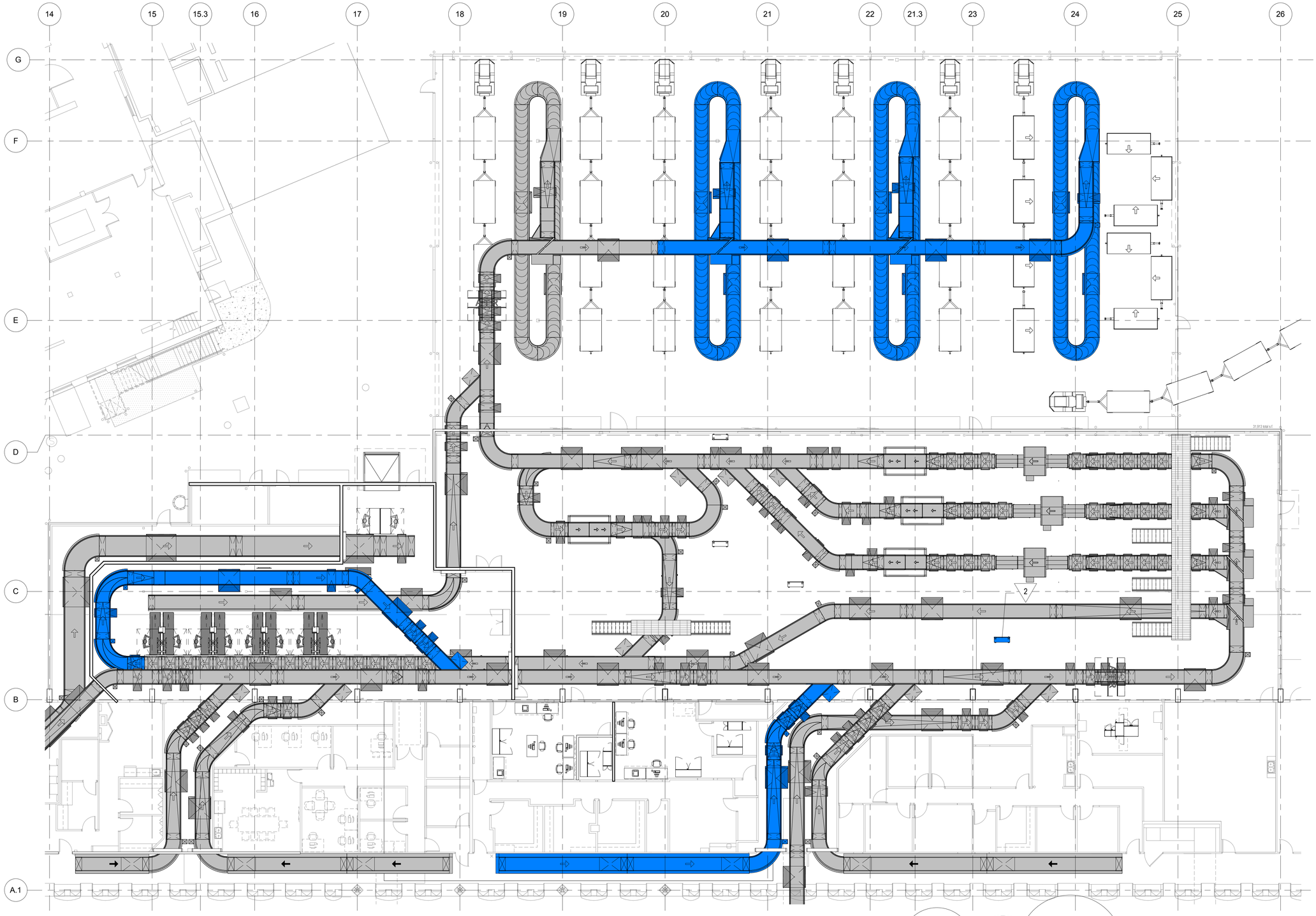
SHEET TITLE

PROPOSED MCP PLAN – PDP 1E

B7.11R

FILE NO. 238512

SHEET OF



1 PROPOSED BHS MCP LOCATIONS - PDP 2
3/32" = 1'-0"

PLAN NORTH

PDP 2

SUBSYSTEMS:	RI1, SL1-07 - SL1-09, MF1 - MF4, MU1 - MU4
FLA - 275 A	

LEGEND

CONVEYOR LEGEND

- CONVEYORS ASSOCIATED WITH PDP
- ASSOCIATED POWER DISTRIBUTION PANEL (PDP)

NOTES

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VARIABLE FREQUENCY DRIVE (VFD) COMPONENTS ARE INSTALLED REMOTELY AT DRIVE UNIT WHERE NECESSARY.

REFERENCES -- BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

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SCALE

DATE	MAY 2016
DESIGN BY	P.C.
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CHKD. BY	G.S.
APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PROPOSED MCP PLAN – PDP 2

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.

B7.12R

FILE NO. 238512

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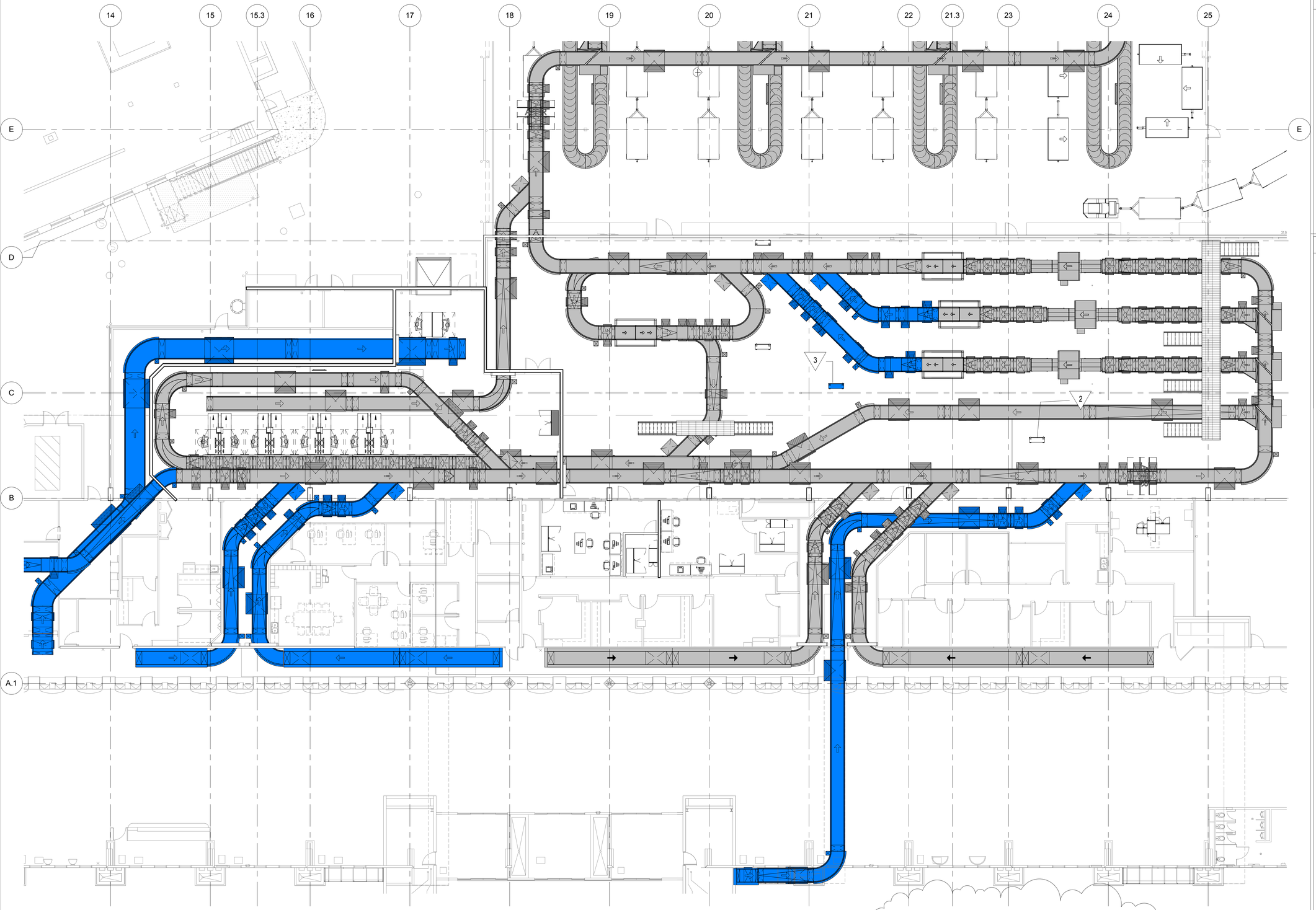

1 PROPOSED BHS PDP LOCATIONS - PDP 3
3/32" = 1'-0"

PLAN NORTH

PDP 3

SUBSYSTEMS: TC1, TC2, TC3, CL2, CL3, CS4, OS1, OSR2, & OSR3
FLA - 357 A

LEGEND

CONVEYOR LEGEND

- CONVEYORS ASSOCIATED WITH PDP
- ASSOCIATED POWER DISTRIBUTION PANEL (PDP)

NOTES

DISTRIBUTED I/O NOTES:

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VARIABLE FREQUENCY DRIVE (VFD) COMPONENTS ARE INSTALLED REMOTELY AT DRIVE UNIT WHERE NECESSARY.

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

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ASHER N. DAVID
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MAY 31, 2016
LICENSED
PROFESSIONAL ENGINEER

SCALE

DATE	MAY 2016
DESIGN BY	P.C.
DRAWN BY	P.C.
CHKD. BY	C.S.
APPD. BY	J.M.
JOB NO.	2013170

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
CHECKED BAGGAGE INSPECTION SYSTEM

6701 CONVAIR ROAD

EL PASO, TEXAS

EL PASO INTERNATIONAL AIRPORT

CITY OF EL PASO

SHEET TITLE

PROPOSED MCP PLAN – PDP 3

FOR BIDDING & PERMITTING ONLY, NOT FOR CONSTRUCTION PURPOSES.

B7.13R

FILE NO. 238512

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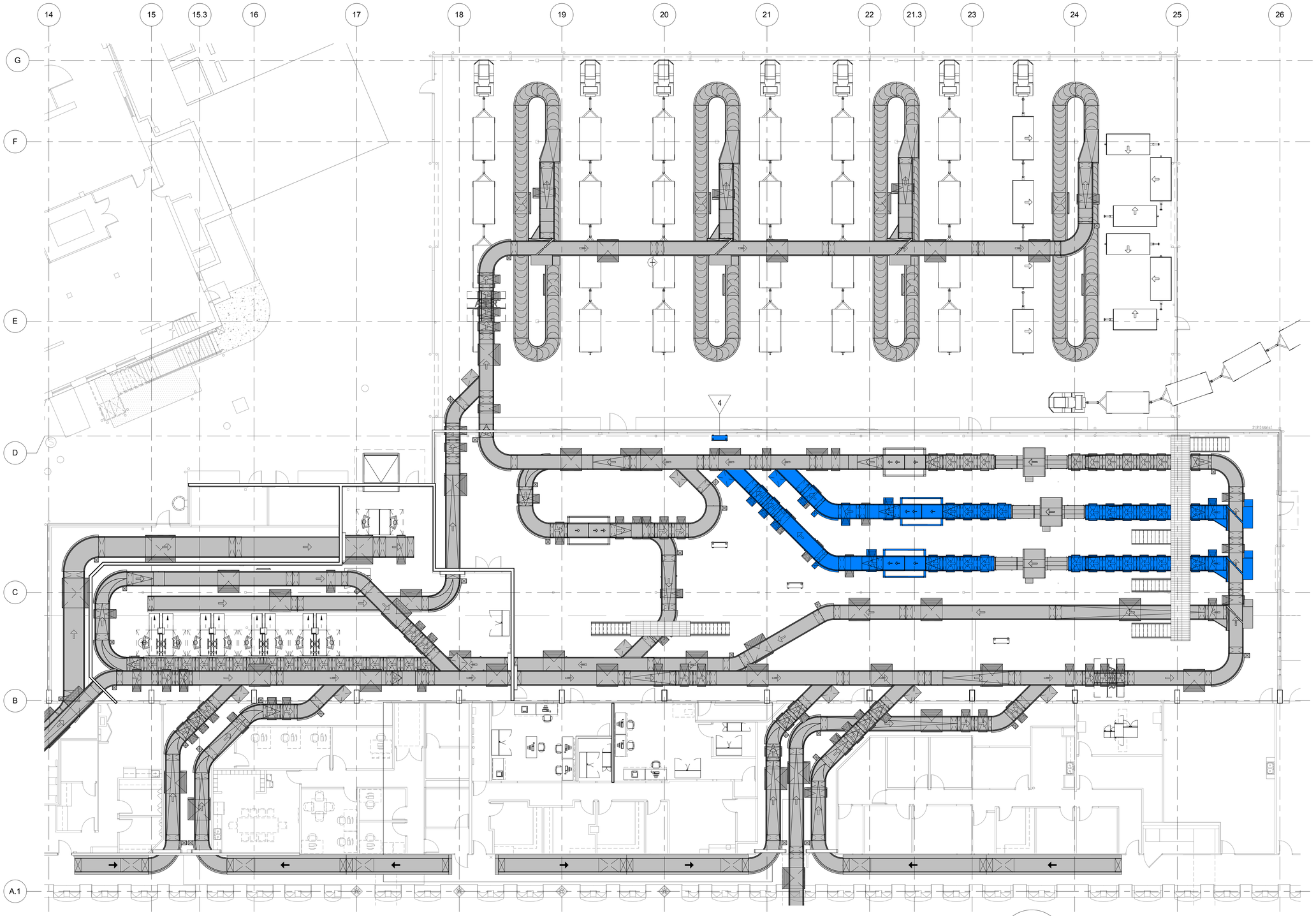

1 PROPOSED BHS MCP LOCATIONS - PDP 4
3/32" = 1'-0"

PLAN NORTH

PDP 4

SUBSYSTEMS:	CL2, CL3, SS2, & SS3
FLA - 174 A	

LEGEND

CONVEYOR LEGEND

- CONVEYORS ASSOCIATED WITH PDP
- ASSOCIATED POWER DISTRIBUTION PANEL (PDP)

NOTES

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TOTAL PDP:

POWER DROPS:	LOAD (FLA)
PDP - 1	512 A
PDP - 2	275 A
PDP - 3	357 A
PDP - 4	174 A
TOTAL:	**1318 A**

REFERENCES – BENCHMARK

DATE	REVISIONS	BY
06/20/16	Addendum # 1	

CONSULTANT'S NAME

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SCALE

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APPD. BY	J.M.
JOB NO.	201370

PROJECT NAME

EL PASO INTERNATIONAL AIRPORT
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SHEET TITLE

PROPOSED MCP PLAN – PDP 4

B7.14R

FILE NO. 238512

SHEET OF