Maryland Aviation Administration

Maryland Aviation Administration – Permits Section
Special Inspections Program
Statement of Special Inspections

Special Inspections Application

Location:				Project Name:					
Project Description:						Permit Number:			
Height/Stories:		Group(s):		Construction Type:		Risk Category:		Seismic Design:	

Prepared Fill ☐ Yes ☐ No Sprinkler ☐ Yes ☐ No Fire Alarm ☐ Yes ☐ No

Please select the special inspections needed for this project:

- ☐ Steel construction (1705.2)
- ☐ Concrete construction (1705.3)
- ☐ Masonry construction (1705.4)
- ☐ Soils (1705.6)
- ☐ Driven deep foundations (1705.7)
- ☐ Cast in place deep foundations (1705.8)
- ☐ Helical pile foundations (1705.9)
- ☐ Sprayed fire-resistant materials (1705.14)
- ☐ Mastic and intumescent fire-resistant coatings (1705.15)
- ☐ Exterior insulation and finish systems (1705.16)
- ☐ Special cases (1705.1.1)
- ☐ Fire-resistant penetrations and joints (1705.17)
- ☐ Smoke control systems (1705.18)

For Risk Categories III or IV check main wind or seismic resistance items listed below.

- ☐ Contractor's statement of responsibility for main wind or seismic resistance (1704.4)
- ☐ Special inspections for seismic resistance (1705.12)
- ☐ Testing and qualification for seismic resistance (1705.13)

For structures assigned to Seismic Design Categories D, E or F, check the item below as applicable.

- ☐ Structural observations (1704.6)

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Special Inspections Application

This statement of special inspections is submitted as a condition for permit issuance in accordance with the International Building Code (IBC). It includes a schedule of special inspections applicable to this project. The special inspections engineer of record shall keep records of specified special inspections and testing and shall furnish copies of corresponding reports to the Maryland Aviation Administration Permits Section and to the appropriate registered design professionals of record. Discrepancies from the approved plans and specifications and code violations observed in the field shall be brought to the immediate attention of the contractor, the Permits Section and the appropriate registered design professionals of record. A final special inspections report documenting completion of special inspections, discrepancies correction, and observed code violations shall be approved by the Permits Section prior to the final building inspection.

Structural Engineer of Record:		License Number:		Company:	
Signature:				Date:	
Email Address:				Phone Number:	
Architect of Record:		License Number:		Company:	
Geotechnical Engineer of Record:		License Number:		Company:	
Special Inspection Engineer of Record:		License Number:		Company:	
Signature:				Date:	
Email Address:				Phone Number:	
Inspection and Testing Agency Name:					
Building Tenant/Owner:				Company:	
Authorized Signature:				Date:	
Street Address:		City:		State:	Zip Code:
Email Address:				Phone Number:	
General Contractor:		License Number:		Company:	
Signature:				Date:	
Email Address:				Phone Number:	
Building Permits Section Signature:				Date:	

Maryland Aviation Administration

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Appendix A

Activity (IBC Reference)	Y/N	Scope of Service	Continuous	Periodic	Agent
TESTING AND INSPECTION FIRM NOTE IBC 1703.1.1		**1703.1.1 Independent** An approved agency (Appendix E) shall be objective, competent and **independent from the contractor** responsible for the work being inspected. The agency shall also disclose possible conflicts of interest so that objectivity can be confirmed			
Steel Construction (IBC 1705.2)					
Structural Steel (IBC 1705.2.1 AISC 360 for the tables below) ▪ Welding: Tables C-N5.4-1, C-N5.4-2, C-N5.4-3 ▪ Bolting: Tables C-N5.6-1, C-N5.6-2, C-N5.6-3		AISC 360 Chapter N, Quality Control and Quality Assurance			
Cold-formed steel deck (IBC 1705.2.2 and SDI QA/QC for the tables below 1.2, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, and 1.9		SDI QA/QC – 2011 Standard for Quality Control and Quality Assurance for Installation of Steel Deck			
Open-web steel joists and joist girders (IBC 1705.2.3, Table 1705.2.3) ▪ End connection – Welding or bolted ▪ Bridging – horizontal or diagonal 1- Standard Bridging 2- Bridging that differs from the SJI specifications listed in section 2207.1				√	
Cold-formed steel trusses spanning 60 feet or more (IBC 1705.2.4)					
Special seismic requirements (IBC 1705.12, 1705.13)					
Concrete Construction (IBC 1705.3, Table 1705.3)					
1- Inspect reinforcement including prestressing tendons and verify placement				√	
2- Reinforcing Bar welding: a. Verify weldability of reinforcing bars other than ASTM A706 b. Inspect single-pass fillet welds, maximum 5/16” c. Inspect all other welds			√	√	
3- Inspect anchors cast in concrete				√	
4- Inspect anchors post-installed in hardened concrete members a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension load b. Mechanical anchors and adhesive anchors not defined in 4a			√		
5- Verify use of required design mix					
6- Prior to concrete placement, fabricate specimen for strength tests, perform slump and air content tests, and determine the temperature of the concrete					
7- Inspect concrete and shotcrete placement for proper application techniques					
8- Verify maintenance of specified curing temperature and techniques					

9- Inspect prestressed concrete for: a. Application of prestressing forces b. Grouting of bonded prestressing tendons					
10- Inspect erection of precast concrete members.					
11- Verify in-situ concrete strength, prior to stressing of tendons in post- tensioned concrete and prior to removal of shores and forms from beams and structural slabs					
12- Inspect form work for shape, location and dimensions of the concrete member being formed, shoring, and reshoring					
Masonry Construction (IBC 1705.4)		***(see attached tables)***			
--Emp.-Cat. IV, Engr.-Cat. I, II, III (See Table 1.19.2 - Level B Quality Assurance of Building Code Requirements and specification for Masonry Structures TMS 402-11/ ACI 530-13/ ASCE 5-13 (See attached table) --Emp. – Cat IV See Table 1.19.3 - Level C Quality Assurance) of Building Code Requirements and specification for Masonry Structures TMS 402-11/ ACI 530- 13/ ASCE 513		(See TMS 402-11/ ACI 530-13/ ASCE 5-13)			
-Mortar & grout proportions, test specimens, Installation of masonry, anchors and ties Placement of reinforcement, Grouting operations					
-Cold weather/hot weather protection					
-Foundation strength prior to erection loads					
Soil (IBC 1705.6)					
Required Special Inspection and Tests of Soil (Table 1705.6)					
1. Verify materials below shallow foundation are adequate to achieve the design bearing capacity					
2. Verify excavations are extended to proper depth and have reached proper material					
3. Perform classification and testing of compacted fill material					
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill					
5. For steel elements, perform additional special inspections in accordance with section 1705.2					
6. For concrete elements and concrete-filled placements, perform tests and additional special inspections in accordance with section 1705.3					
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge					
Driven Deep Foundation (IBC 1705.7)					
Required Special Inspection and Tests of Driven Deep Foundation (Table 1705.7)					
1. Verify element materials, sizes, and length comply with the requirement					
2. Determine capacities of test elements and conduct additional load tests, as required					
3. Inspect driving operations and maintain complete and accurate records of each element					
4. Verify placement locations and plumbness, confirm type and size of hummer, record number of blows per foot of penetration, determine required penetration to					

achieve the design capacity, record tip and butt elevations, and document any damage to foundation element					
5. For steel elements, perform additional special inspections in accordance with section 1705.2					
6. For concrete elements and concrete-filled placements, perform tests and additional special inspections in accordance with section 1705.3					
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge					
Cast-In-Place Deep Foundation (IBC 1705.8)					
Required Special Inspection and Tests of Cast-In-Place Deep Foundation (Table 1705.8)					
1. Inspect drilling operations and maintain complete and accurate record for each element					
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment to bedrock (if applicable) and adequate end-bearing strata capacity					
3. Record concrete or grout volumes					
4. For concrete elements, perform tests and additional special inspections in accordance with Section 1705.3					
Helical Pile Foundation (IBC 1705.9)					
1. Installation equipment					
2. Verify pile geometry with shop drawings					
3. Pile pattern and spacing					
4. Tip Elevation					
5. Final Depth					
6. Final torque					
7. Cap elevation					
Earth Retention System (IBC 1705.1.1) and (Section 1201.1 of the Special Inspection Program)					
1. **Installation criteria and anchorage.** Verification of pile-tip depth, tie-backs, post-tensioned anchorage, geosynthetic restraints, or other items as specified by the system design.					
2. **Compaction**. Compaction process to determine that materials' quality and in-place density tests comply with the airport-approved specifications and geotechnical notes.					
3. **Backfill, drainage and waterproofing.** Backfill, foundation drainage systems, and waterproofing during and following their placement for compliance with airport-approved backfill, foundation drainage systems, and waterproofing specifications.					
4. **Inspection reports**. Inspection reports must be submitted to the appropriate registered design professionals and the Critical Structures/Building Inspections Permits Section					
5. **Deviations**. Deviations from the airport-approved earth retention system construction documents must be subject to approval by the appropriate registered					

design professionals, the Permits Section prior to work continuing in the affected area					
Sprayed Fire-Resistance Material (IBC 1705.14)					
1. Submit inspection agency qualification, experience to OFM for review and approval. Submit for every assigned inspector, qualification, experience to OFM for review and approval.					
2. Submit inspection agency NFCA SFRM Contractor Accreditation Program.					
3. Inspection agency to submit sample forms to OFM for review and approval.					
4. Inspection agency to submit an inspection schedule for the relevant 3rd party inspection period with specific on-site dates and time durations to OFM for review and approval.					
5. Inspection agency to submit direct contact information for every assigned inspector to OFM for record, (mobile phone number & email).					
6. Inspection agency to collect and maintain training for approved SFRM training for all installing contractors.					
7. Inspection agency to collect and maintain specific installer qualifications applicable to the penetration firestop system(s) being used.					
8. Inspection agency to document and report all failed inspections to OFM by close of business to fireprevention@bwiairport.com					
9. Inspection agency to collect all issued Engineering Judgments and submit to OFM for review and concurrence prior to installation.					
10. Inspection agency to document and report all inspection weekly activity to OFM by the following Monday to fireprevention@bwiairport.com All penetrations to be documented by approved sticker, photograph, and location on drawing.					
11. Inspection agency to collect and maintain all documentation and inspection report until the end of the 3rd party inspection period and submit a close-out record to fireprevention@bwiairport.com					
Mastic and Intumescent Fire-Resistance Coatings (IBC 1705.15)					
1. Submit inspection agency qualification, experience to OFM for review and approval. Submit for every assigned inspector, qualification, experience to OFM for review and approval.					
2. Submit inspection agency NFCA IFRM Contractor Accreditation Program accreditation.					
3. Inspection agency to submit sample forms to OFM for review and approval.					
4. Inspection agency to submit an inspection schedule for the relevant 3rd party inspection period with specific on-site dates and time durations to OFM for review and approval.					
5. Inspection agency to submit direct contact information for every assigned inspector to OFM for record, (mobile phone number & email).					
6. Inspection agency to collect and maintain training for approved IFRM training for all installing contractors.					
7. Inspection agency to collect and maintain specific installer qualifications applicable to the penetration firestop system(s) being used.					

8. Inspection agency to document and report all failed inspections to OFM by close of business to fireprevention@bwiairport.com					
9. Inspection agency to collect all issued Engineering Judgments and submit to OFM for review and concurrence prior to installation.					
10. Inspection agency to document and report all inspection weekly activity to OFM by the following Monday to fireprevention@bwiairport.com All penetrations to be documented by approved sticker, photograph, and location on drawing.					
11. Inspection agency to collect and maintain all documentation and inspection report until the end of the 3rd party inspection period and submit a close-out record to fireprevention@bwiairport.com					
Penetration Firestops (IBC 1705.17.1) Inspections of penetration firestop systems that are tested and listed in accordance with Sections 714.4.1.2 and 714.5.1.2 shall be conducted by an approved agency in accordance with ASTM E2174.					
1. Submit inspection agency qualification, experience to OFM for review and approval. Submit for every assigned inspector, qualification, experience to OFM for review and approval.					
2. Submit inspection agency IAS AC 291 accreditation.					
3. Inspection agency to submit sample forms to OFM for review and approval.					
4. Inspection agency to submit an inspection schedule for the relevant 3rd party inspection period with specific on-site dates and time durations to OFM for review and approval.					
5. Inspection agency to submit direct contact information for every assigned inspector to OFM for record, (mobile phone number & email).					
6. Inspection agency to collect and maintain FM 4991 Approved Firestop Contractor for all installing contractors.					
7. Inspection agency to collect and maintain specific installer qualifications applicable to the penetration firestop system(s) being used.					
8. Inspection agency to document and report all failed inspections to OFM by close of business to fireprevention@bwiairport.com					
9. Inspection agency to collect all issued Engineering Judgments and submit to OFM for review and concurrence prior to installation.					
10. Inspection agency to document and report all inspection weekly activity to OFM by the following Monday to fireprevention@bwiairport.com All penetrations to be documented by approved sticker, photograph, and location on drawing.					
11. Inspection agency to collect and maintain all documentation and inspection report until the end of the 3rd party inspection period and submit a close-out record to fireprevention@bwiairport.com					
Penetration Firestops (IBC 1705.17.2) Fire-resistant joint systems. Inspection of fire-resistant joint systems that are tested and listed in accordance with Sections 715.3 and 715.4 shall be conducted by an approved agency in accordance with ASTM E2393.					

Appendix A

1. Submit inspection agency qualification, experience to OFM for review and approval. Submit for every assigned inspector, qualification, experience to OFM for review and approval.					
2. Submit inspection agency IAS AC 291 accreditation.					
3. Inspection agency to submit sample forms to OFM for review and approval.					
4. Inspection agency to submit an inspection schedule for the relevant 3rd party inspection period with specific on-site dates and time durations to OFM for review and approval.					
5. Inspection agency to submit direct contact information for every assigned inspector to OFM for record, (mobile phone number & email).					
6. Inspection agency to collect and maintain FM 4991 Approved Firestop Contractor for all installing contractors.					
7. Inspection agency to collect and maintain specific installer qualifications applicable to the penetration firestop system(s) being used.					
8. Inspection agency to document and report all failed inspections to OFM by close of business to fireprevention@bwiairport.com					
9. Inspection agency to collect all issued Engineering Judgments and submit to OFM for review and concurrence prior to installation.					
10. Inspection agency to document and report all inspection weekly activity to OFM by the following Monday to fireprevention@bwiairport.com All penetrations to be documented by approved sticker, photograph, and location on drawing.					
11. Inspection agency to collect and maintain all documentation and inspection report until the end of the 3rd party inspection period and submit a close-out record to fireprevention@bwiairport.com					
Testing for Smoke Control (IBC 1705.18)					
1. If required by project design, consult with OFM for inspection criteria during design phase.					

Appendix B - Required Submission

Project Scope	Overview Site Plan	Addresses/Permits List	Pre-con Meeting Minutes
Inspection Agency	Resumes/Lab Certifications	Field/Lab Reports	Final Report
Structural Steel Plant Certification	Shop/Field Drawings Joists-Shop/Field Drawings	Connection Letter Deck-Shop/Field Drawings	Erect/Shore – Drawings Structural Light Gauge - Drawings
Concrete	Concrete Mix Formwork Drawings Stripping Letters	Rebar Drawings Reshoring Design/Calculations Concrete Field/Lab Tests	Post-Tension Drawings Stripping Criteria Cold Weather Temperature Log
Precast Concrete	Concrete Mix	Shop/Field/Bracing Drawings	Plant Certification
Masonry	Mortar/Grout Mix Wall Bracing Drawings	Mortar/Grout Tests Cold Weather Temperature Log	Rebar Drawings
Soils/Findings	Geotechnical Report/Revisions Deep Foundation– Drawings	Soils Field/Lab Tests Piles/Piers – Drawings	Shallow Foundation – Drawings Piles/Piers - Drawings
Earth Retention Systems	Geotechnical Report /Shop/Field Drawings	Soils Field/Lab Tests	Piling, P/T – Drawings
Fireproofing	Spray-On Design/Detail	Mastic/Intumescent Design/Details	Repair Specifications
Mechanical/Electrical/ Plumbing	Manufacturing Certifications/Instructions	Support Design/Drawings	Inspection Criteria
Jobsite	Fence/Barrier/Walkway	Concrete Batch Plant	
Crane/Hoist/Elevator	Specs/Plan/Building Mods	Footing/Assembly Reports	In-Service Letter
Pre-Engineered Building	Shop/Field Drawings	Plant Certification	Footing/Foundation Drawings

Appendix C – Approval Stamp Examples

APPROVAL FOR GENERAL COMPLIANCE WITH STRUCTURAL CONTRACT DOCUMENTS					
☐ APPROVED	Fabrication may proceed as shown.				
☐ APPROVED AS CORRECTED	Fabrication may proceed based on corrections indicated.				
☐ APPROVED AS CORRECTED RESUBMIT FILE COPY	Fabrication may proceed based on corrections indicated. Correct submission and resubmit for record purposes only.				
☐ REVISE AND RESUBMIT	Fabrication may not proceed. Correct submission for further review. only.				
☐ REVIEWED FOR INFORMATION	Approval not required. Accepted for information purposes only.				
Approval is for general compliance with the structural contract documents only. This approval assumes no responsibility for dimension, quantities and conditions that pertain to fabrication or installation or for processes and techniques of construction. The Contractor is responsible for the coordination of the work of all trades and the performance of this work in a safe and satisfactory manner.					
DATE		BY		COMPANY	

APPROVAL FOR DESIGN CONFORMITY					
☐ APPROVED	Construction may proceed as shown.				
☐ APPROVED AS NOTED	Construction may proceed based on corrections indicated.				
☐ APPROVED AS CORRECTED RESUBMIT FILE COPY	Construction may proceed based on corrections indicated. Correct submission and resubmit for record purposes only.				
☐ REVISE AND RESUBMIT	Construction may <u>not</u> proceed. Correct submission for further review. only.				
☐ REVIEWED FOR INFORMATION	Approval not required. Accepted for information purposes only.				
Notations do not authorize changes to contract sum. Submittal was reviewed for design conformity and general conformance to contract documents only. The Contractor is responsible for confirming and correlating dimensions at job sites for tolerances, clearances, quantities, fabrication processes and techniques of construction, coordination of his work with other trades and full compliance with contract documents.					
DATE		BY		COMPANY	

APPROVAL FOR DESIGN CONCEPT					
☐ APPROVED	Final Approval. Fabrication may proceed as shown.				
☐ APPROVED AS CORRECTED	Fabrication may proceed based on corrections indicated.				
☐ REVISE AND RESUBMIT	Fabrication may not proceed. Correct submission for further review. only.				
Approval is only for conformance with the design concept of the project and compliance with the information given in the contract documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job sites, for information that pertains solely to the fabrication processes or to techniques of construction, and for the coordination of the work of all trades.					
DATE		BY		COMPANY	

Appendix D – Final Letter Format

Maryland Aviation Administration – Special Inspections Program

Final Report of Special Inspections

Permit Number:							
Project:							
Location:							
Special Inspections Engineer of Record:							
Inspection reports numbered		to		, and test reports numbered		to	

all submitted prior to this final report, form a basis for, and are to be considered an integral part of, this final report of special inspections.

The special inspections specified for this project and itemized in the airport-approved statement of special inspections have been completed pursuant to the Special Inspections Program requirements. The building components and elements subject to special inspection and material tests have been found to be in compliance with airport-approved documents and in conformance with project specifications. Violations of the International Building Code observed in the conduct of special inspection and material test services were brought to the attention of the appropriate registered design professional of record, the airport, and the owner for resolution and the resolution was approved by the airport.

Professional Engineering Seal

Submitted by Special Inspections Engineer of Record:	Signature and date Type or Print Name	
Reviewed by Registered Design Professional:	Signature and date Type or Print Name	
Accepted by Building Official Permits Section	Signature and date Type or Print Name	

Appendix E – Lab/Inspections Requirements

Direct supervision. The inspection and testing agency personnel assigned to conduct special inspections at the Maryland Aviation Administration must work under the supervision of an approved registered design professional with demonstrated proficiency in the construction discipline to be evaluated.

Certification. Except for individuals who are registered design professionals, inspection and testing agency field inspection personnel must be certified by examination through WACEL, the American Concrete Institute, the American Welding Society, the American Society for Nondestructive Testing, the National Institute for Certification in Engineering Technologies, Mid-Atlantic Region Technician Certification Program (MARTCP) or other organizations whose programs are recognized by the airport. Inspection and testing agency personnel must be reviewed and approved by the Critical Structures/Building Inspections Permits Section on a case by case basis. The inspection and testing agency personnel must conduct only those special inspection and material test services in which they have demonstrated competency through an approved certification or registration program. Different levels or types of special inspections require different levels or types of expertise by the inspector, and competency certifications must match the tasks. Tests or inspections conducted by unqualified or unapproved inspection and testing agency personnel will be automatically rejected, and further construction work must not proceed until re-inspections are conducted and approved. Documentation of individual resume's and laboratory certification must be submitted, upon request, to the Permits Section.

Unusual functions. In the event there is no certification program applicable to a specific special inspection or material test function, the special inspections engineer of record must submit a signed statement attesting to the competency of inspection and testing agency personnel and identifying the basis upon which such statement is made.

All **laboratory facilities** conducting special inspection and material test services must meet the requirements of ASTM E 329, ASTM D 3740, and ASTM C 1077 as applicable and must be individually accredited by organizations such as WACEL, the American Association for Laboratory Accreditation, the National Institute of Standards and Technology, the National Voluntary Laboratory Accreditation Program, or other organizations whose programs are recognized by the airport. Where an inspection and testing agency has multiple offices and laboratory facilities conducting special inspection and material test services, each laboratory to be utilized on construction projects must be individually accredited and meet the requirements of ASTM E 329, ASTM D 3740, and ASTM C 1077, as applicable. Laboratories must be reviewed and approved by the Critical structures/Building Inspections Permits Section on a case by case basis and must conduct only those tests and analyses for which accreditation has been obtained. The special inspections engineer of record must approve on-site laboratories provided the on-site laboratory demonstrates that it has (and follows) an effective quality control program; equipment calibration program; and a technician certification program of an accredited laboratory.

Appendix F – Concrete Forms

Maryland Aviation Administration Special Inspections Program
Formwork/Shoring
Stripping/Stressing Authorization Request

Date: _____

Project Data: _____
Permit No. _____
Name _____ General Contractor _____
Location: _____ Concrete Contractor _____

Pour Data _____
Mix Designation _____ Strength (psi) _____
Date & time _____ Volume (cy) _____
Location _____

STRIPPING DATA	DESIGN/REQUIRED	ACTUAL	SATISFACTORY/UNSATISFACTORY
Age (hrs days(and/or			
Avg Temp (°F) and/or			
Concrete Strength			
STRESSING DATA:			
Concrete Strength (psi)			
Tendon Elongation			

ATTACHMENTS:
Key Plan _____
Concrete Break Plan _____
Stressing Record _____
Temperature Log _____
Stripping Criteria _____
Stripping Authorization _____
Other _____
Other _____
NOTES:

Special Inspections engineer of record	Structural Engineer of Record
Signature and seal	Signature and Seal

Appendix F – Concrete Forms

Maryland Aviation Administration Special Inspections Program **Cold Weather Concrete Slab Temperature Log**					Report Date:		
Pour Date:	PROJECT: _____ Permit # _____						
Start time	Description of Pour _____						
Finish time							
	Station #1	Station #2	Station #3	Station #4	Air Temp Under Slab	Ambient Air Temp	Remarks
Day 1 12 a.m.							
4 a.m.							
8 a.m.							
12 p.m.							
4 p.m.							
8 p.m.							
Day 2 12 a.m.							
4 a.m.							
8 a.m.							
12 p.m.							
4 p.m.							
8 p.m.							
Day 3 12 a.m.							
4 a.m.							
8 a.m.							
12 p.m.							
4 p.m.							
8 p.m.							
Day 4 12 a.m.							
4 a.m.							
8 a.m.							
12 p.m.							
4 p.m.							
8 p.m.							

1) Maintain data for 72 hours after finish of placement
2) Number of temperature monitoring stations may be increased as needed
3) Stations shall be located near the outer edges