APPENDIX I

Buildings and Structures Subject to Renovation, Demolition, and/or Material Alteration

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Buildings and Structures Subject to Renovation, Demolition, and/or Material Alteration

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Minneapolis-St. Paul International Airport
2020 Improvements
Environmental Assessment/
Environmental Assessment Worksheet

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APPENDIX I
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INTRODUCTION

For the management of buildings and structures subject to renovation, demolition or material alteration, Liesch has reviewed historic development projects within the Study Area.

Liesch reviewed information provided by project personnel for this Environmental Assessment (EA) regarding pending impact to buildings and structures and the likelihood of encountering regulated materials subject to removal and/or decommission requirements.

Section 1 of this technical memorandum discusses methodologies used to evaluate regulated materials in buildings or structures at the Minneapolis-St. Paul International Airport (MSP) and thresholds of significance that define the regulatory status of the materials.

Section 2 of this technical memorandum discusses the Study Area, including Terminal 1-Lindbergh, Terminal 2-Humphrey and Outlying Area buildings and structures.

1 Methodology and Thresholds

1.1 Asbestos-Containing Material (ACM) Characterization Methods

Methods used to determine whether ACM is present in buildings or structures are performed in the field and in accordance with the federal, state and local regulations governing ACM. The primary agencies overseeing the regulation of ACM at MSP include the Minnesota Pollution Control Agency (MPCA) and Minnesota Department of Health (MDH). Field survey methods for the assessment of buildings and structures are as follows:

Field Survey – Comprehensive building and property surveys conducted in accordance with Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) (40 CFR 763), National Emissions Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61) and Minnesota Department of Health (MDH) Asbestos Abatement Rules 4620.3000 to 4620.3724 utilize protocol for materials suspected to contain asbestos fiber in regulated concentrations. Samples of suspect building materials are collected and analyzed by polarized light microscopy (PLM) in order to determine the presence and concentration of asbestos fiber.

1.2 Asbestos-Containing Material Characterization Thresholds

Thresholds of significance in determining whether ACM is present in buildings or structures are as follows:

Asbestos-Containing Material – Building materials determined to contain greater than 1% asbestos fiber are considered Regulated Asbestos Containing Material (RACM). Items determined to be ACM must be abated prior to renovation, demolition or any building material alteration that would render the materials friable and pose the release of visible emissions into the air.

Building materials, including surfacing and thermal products, installed prior to 1981 are required to be considered "Presumed Asbestos Containing Material" (PACM) unless confirmed by laboratory analysis to be non-asbestos containing.

1.3 Lead-Based Paint (LBP) Characterization Methods

Methods used to determine whether LBP is present in buildings or structures are performed in the field and in accordance with the federal, state and local regulations governing LBP. The primary agencies overseeing the regulation of LBP at MSP include MPCA and MDH. Field survey methods for the assessment of buildings and structures are as follows:

Field Screening – Direct read instruments are used for the detection of lead in paint or coatings present on building materials. The methodology used is by means of x-ray fluorescence (XRF) to determine the presence and concentration of lead.

1.4 Lead-Based Paint Characterization Thresholds

Thresholds of significance in determining whether LBP is present in buildings or structures are as follows:

Lead-Based Paint – Building materials determined to contain a lead concentration of 1.0 mg/cm^2 or greater by XRF determination are defined to be "Lead-Based Paint." These materials must be removed or stabilized prior to renovation, demolition, or any building material alteration if they are in a damaged or deteriorated condition.

LBP and coatings present on building materials that demonstrate adherence to the substrate, may be left in place at time of demolition.

Paints and coatings installed on or before 1978 are suspected to contain lead.

1.5 Polychlorinated Biphenyl (PCB) Containing Caulk Characterization Methods

Methods used to determine whether PCBs are present in buildings or structures are performed in the field and in accordance with the federal, state and local regulations governing PCBs. The primary agency overseeing the regulation of PCBs at MSP is the MPCA.

Field survey methods for the assessment of buildings and structures are as follows:

Field Survey – Comprehensive building and property surveys conducted in accordance with EPA 40 CFR 761 and in compliance with Minn. R. 7035.0805 (Renovation and Demolition).

1.6 PCB-Containing Caulk Characterization Thresholds

Thresholds of significance in determining whether LBP is present in buildings or structures are as follows:

PCB-Containing Caulk – Caulking present on building materials installed prior to 1979 and containing a concentration of 50 parts per million (ppm) or greater are defined as "PCB-Containing Caulk."

These materials must be removed prior to impact caused by renovation, demolition, or any building material alteration. These materials are considered either Toxic Substances Control Act (TSCA) or hazardous waste and must be properly containerized, labeled and manifested prior to transportation and disposal.

Samples of caulking determined to be installed prior to 1979 are field collected and submitted for analysis to determine the presence and concentration of PCBs in caulking.

1.7 Other Regulated Material (ORM) Characterization Methods

Methods used to determine whether ORM are present in buildings or structures are performed in the field and in accordance with the federal, state, and local regulations governing ORM. The primary agency overseeing the regulation of ORM at MSP is the MPCA.

ORM potentially present in buildings and structures include the following:

- mixed municipal solid waste, including furniture, carpeting unattached to the substrate, bedding, mattresses, clothing, small appliances, food and food waste;
- household hazardous waste as defined in Minnesota Statutes, section 115A.96, subdivision 1, including automotive fluids, lawn and garden chemicals, pest control products, household cleaners, paint and home improvement products;
- materials that constitute industrial solid waste or hazardous waste;

- waste tires as defined in Minnesota Statutes, section 115A.90, subdivision 11;

- appliances that meet the definition of "major appliances" in Minnesota Statutes, section 115A.03, subdivision 17a;

- items that contain elemental mercury, including batteries found in smoke detectors, emergency lighting systems, elevator control panels, exit signs, and security systems and alarms; lighting, including fluorescent lights and high intensity discharge lights, such as metal halide, high pressure sodium, mercury vapor and neon; switches; thermostats and similar devices, including aquastats, pressurestats, firestats, manometers and thermometers; devices associated with boilers, furnaces, heaters and tanks, including mercury flame sensors by pilot lights, manometers, thermometers and gauges, pressure-trol, float or level controls, and space heater controls; devices associated with electrical systems, including load meters and supply relays, phase splitters, microwave relays, and mercury displacement relays; and miscellaneous devices that may contain mercury;

- items that contain PCBs, including transformers, transistors, capacitors in old appliances and electronic equipment, heat transfer equipment and light ballasts;

- items that contain chlorofluorocarbons (CFCs) as defined in Minnesota Statutes, section 116.70, subdivision 3, including fire extinguishers; both portable and installed halon suppression systems; rooftop, room, and central air conditioners; walk-in coolers for refrigeration or cold storage areas; water fountains and dehumidifiers; refrigerators, freezers, and chillers; heat pumps; vending machines; and food display cases;

- oils, including used oil, hydraulic oils in door closers and elevator-related tanks and piping, and oils located in heating oil tanks, piping, sumps, and traps;

- lead-containing items, including lead-acid batteries, lead pipes, lead sheeting, lead flashing in roof vents, and lead paint that is not firmly adhered to the substrate. For purposes of this item, "lead paint" means a coating that contains one-half of one percent (0.5 percent) or more or 5,000 parts per million (5,000 ppm) or more of total lead by weight in the dried film, as determined by acid digestion and analysis, or contains one milligram per square centimeter (1.0 mg/cm2) or more of lead, as determined by X-ray fluorescence analyzer;

- electronic products containing a cathode ray tube, as described in Minnesota Statutes, section 115A.9565, including televisions and computers;

- electronic products containing a circuit board;

- asbestos that is required to be removed under part 7011.9920;

- material trapped in sumps and traps, unless characterized as nonhazardous and non-liquid;
- radioactive waste defined in Minnesota Statutes, section 116C.71, subdivision 6; and
- materials or items that are prohibited from disposal at the facility intended to receive the renovation or demolition waste for processing or disposal.

Field survey methods for the assessment of buildings and structures are as follows:

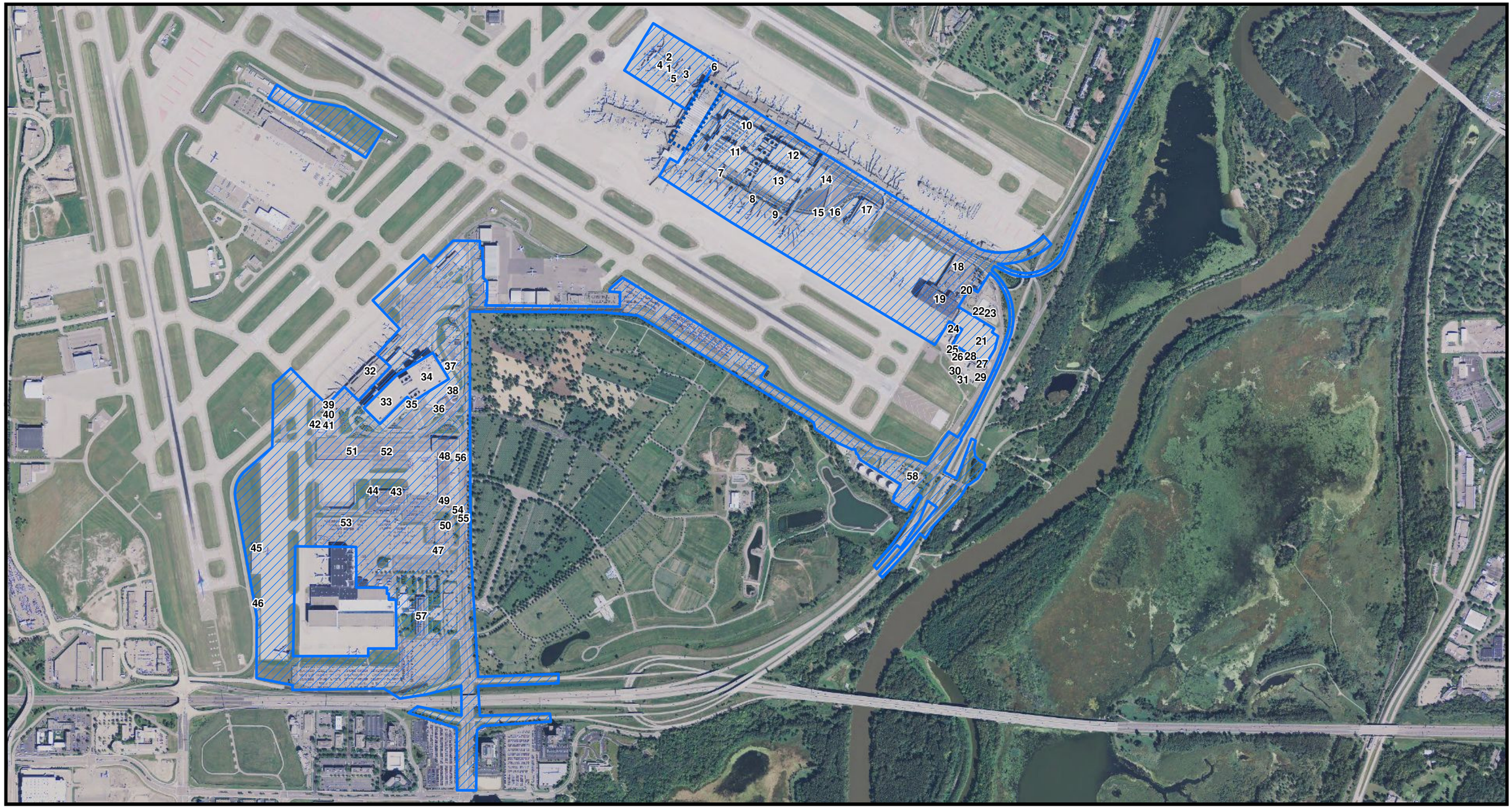
Field Survey – Comprehensive building and property surveys conducted in accordance with Minn. R. 7035.0805 (Renovation and Demolition).

1.8 Other Regulated Material Characterization Thresholds

All items and materials removed must be properly characterized, tested, managed and disposed of and reused or recycled in accordance with applicable federal and state standards and in compliance with Minn. R. 7035.0805.

2 Study Area Discussions

The Study Area around Terminal 1-Lingbergh, Terminal 2-Humphrey and adjacent outlying spaces contain numerous buildings and structures that may be subject to inspection, abatement and decommission whenever renovation and/or demolition are required to facilitate use of the area. These structures are shown on **Figure I.2-1** and listed in **Table I.2.1.**



LEGEND

Study Area

Structures Within The Study Area

N

0 700 1,400 2,800 4,200 Feet

Source: Data compiled and maintained by Liesch Associates, Inc. Base Map provided by MDNR

Disclaimer: This map was generated by Liesch Associates, Inc. using GIS (Geographic Information System) software. No claims are made to the accuracy or completeness of the information shown herein nor to its suitablity for a particular use. The scale and location of all mapped data are approximate.

Table I.2.1

Buildings and Structures Located Within the Study Area

Terminal 1-Lindbergh		**Terminal 2 -Humphrey**	
#	**Building Name**	**#**	**Building Name**
1	Terminal 1-Lindbergh Concourse E	32	Terminal 2-Humphrey
2	Glycol Tanks by Gate E8	33	Terminal 2-Humphrey Purple Parking Ramp
3	Glycol Tanks by Gate E4	34	Terminal 2-Humphrey Orange Parking Ramp
4	Glycol Tanks by Gate E9	35	Terminal 2-Humphrey PMO
5	Glycol Tanks by Gate E5	36	Terminal 2-Humphrey Snow Melters
6	Trash Compactors – Southwest Corner of Concourse D	37	Terminal 2-Humphrey LRT building
7	Terminal 1-Lindbergh Concourse G	38	Terminal 2-Humphrey LRT Maintenance Buildings
8	Trash Compactors by Gate G14	39	Servisair Office Building
9	Electrical Vault - West of G17	40	Servisair Fueling Station
10	Terminal 1-Lindbergh Green Parking Ramp	41	Integrated De-Icing Services Maintenance Building
11	Terminal 1-Lindbergh Gold Parking Ramp	42	Terminal 2-Humphrey Fuel Farm Tanks and Piping
12	Terminal 1-Lindbergh Blue Parking Ramp	43	Skychef Building
13	Terminal 1-Lindbergh Red Parking Ramp	44	Skychef Fuel Tank
14	Terminal 1-Lindbergh PMO	45	MAC Storage Building
15	Guard Shack by Gate 113 - East of Concourse G	46	U.S. Customs & Border Protection Shack
16	Post Office Maintenance Building	47	Delta Parking Lot Employee Pick-up Booth - North of Delta Building C
17	Post Office Building	48	Delta Building F
18	Delta Building B	49	Delta Building F – Generators, Transformers, AC units
19	Delta Hangers 7 & 8	50	Delta Building G
20	Delta Boiler Building	51	Delta Building H Employee West Bus Shelters - South of Humphrey Fuel
21	Maroon Parking Ramp - East of Delta Building B	52	Delta Building H Employee East Bus Shelters - South of Humphrey Fuel
22	Delta Reservoir Building - East of Delta Building B	53	Delta Employee East Bus Shelters - North of Delta Hangers
23	Electric Substation - East of Delta Building B	54	Transformers & Shed - Northeast Corner of Delta Building G Parking Lot on East Side of Building
24	Fueling Station by Delta Parking Ramp - East of Delta Hangars 7 and 8	55	Shed - East of Delta Building G Adjacent to 34th Avenue
25	Pipeline Receiving Station	56	Shed - East of Delta Building G Adjacent to 34th Avenue
26	Pipeline Receiving Station Shed	57	Delta Office Complex
27	VMF/Swissport Office Building		
28	Swissport Storage Shed		
29	Swissport Maintenance Building		
30	Swissport Tank - West of Maintenance Building	**Outlying Improvement Area**	
31	Pipe Line building - Building in AOA south of VMF	58	SuperAmerica Convenience Complex

Source: Liesch Associates, Inc. 2011.

2.1 Roadways / Parking and General Study Area

Although roadways and parking areas are generally considered to be free of building related environmental concerns, there are typically lights, ballasts, and associated electrical duct banks that may have ACM, LBP, PCBs and ORM present.

These items are typically energized and require coordination prior to any inspections needed for the determination of regulated materials.

2.2 Terminal 1-Lindbergh Area

Portions of Terminal 1-Lindbergh that will undergo renovation or building material alteration will require a comprehensive inspection for regulated materials that may be present. If regulated materials are determined to be present and subject to disturbance or impact, they must be removed, abated, or decommissioned prior to impact.

Additionally, the Terminal 1-Lindbergh Area includes portions of the Building-B Complex. This area includes hangars, a boiler house, offices, former plating shop, and engine test cell. Prior to renovation, demolition, or building material alteration, a comprehensive inspection for regulated materials must be performed.

2.3 Terminal 2-Humphrey Area

Portions of Terminal 2-Humphrey that will undergo renovation or building material alteration will require a comprehensive inspection for regulated materials that may be present. If regulated materials are determined to be present and subject to disturbance or impact, they must be removed, abated, or decommissioned prior to impact.

The Terminal 2-Humphrey Area includes Building F. This area includes cargo handling areas as well as administrative office area. Prior to renovation, demolition, or building material alteration, a comprehensive inspection for regulated materials must be performed.

Additionally, the Terminal 2-Humphrey Area includes a portion of the Building C Complex. This area includes mechanical areas, offices, and maintenance shops. Prior to renovation, demolition, or building material alteration, a comprehensive inspection for regulated materials must be performed.

2.4 Outlying Area

The outlying areas have structures, including a SuperAmerica convenience store, that will require inspection prior to renovation, demolition, or building material alteration.