APPENDIX 1 SCOPE DOCUMENTS

Developer is responsible for the D&C Work, the scope of which is described in Appendix 1-A below and the Scope Exhibits set forth as Appendix 1-B to the Technical Requirements (the "Scope Exhibits"). In the event of any inconsistency or conflict between the Scope Exhibits or Appendix 1-C to the Technical Requirements and the narrative component of these Scope Documents set forth in Appendix 1-A below, the specific matters contemplated in the relevant Scope Exhibits and Appendix 1-C, as applicable, shall take precedence.

These Scope Documents describe and define the scope of work and basis of design for the Terminal Improvements, and outline the disposition and adjacencies of the Functional Areas. The Scope Exhibits provide the agreed upon use and occupancy space list outlined in the Area Space Program and the associated net square feet requirements (excluding unknown partitions and currently unknown internal circulation). As the Design Work progresses, this schedule of net square feet areas may be varied by mutual written agreement of the Parties.

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1-A TERMINAL IMPROVEMENTS

1.1 Physical Scope of Work (General Requirements)

Developer shall redevelop, reconfigure, renovate, upgrade, and/or relocate all uses, occupancies and elements related to such Terminal Improvements, as further described below and in these Scope Documents.

The layouts shown in the Scope Exhibits have been agreed between the Owner and Developer, but will be further developed and will go through Owner review and comment of Schematic Design (30%), Design Development (60%) and IFR and IFC packages in accordance with Section I.8.3 of the Technical Requirements.

Developer shall perform and provide, as applicable:

- all D&C Work for the Terminal Improvements as arranged by Functional Areas and associated support Areas, as identified in Section I.4 of the Technical Requirements.
- all Design Work required to obtain and complete all Construction Documents for Governmental Approval;
- all finishes, and all furniture, fixtures and equipment (FF&E), as indicated in the Scope Exhibits in a complete and functional state, so that all DEN, TSA and Airline occupants who are the primary occupants of Functional Areas 3, 4, 5, 6, 7, 8, 11, and 19, are "move-in ready" (assumptions considered for defining move-in ready areas are included in these Scope Documents);
- all (FF&E) are considered included if shown in the FF&E tables in the Scope Exhibits;
- all public space FF&E within the O&M Limits as indicated in the Scope Exhibits, including public seating and power access for the public;
- Airline ticket counters, bag drops and kiosks in the amounts and locations shown in the Scope Exhibits; which will be considered as Allowance Items under Section 13.4.1 of the Agreement;
- all conduits, cable and wiring for all fiber, power, data, and communications as the preliminary concept described in these Scope Documents; adequate spare conduits shall be provided per the Technologies Capabilities and Associated Standards manual;
- start-up testing and coordination services necessary to operate the Airline ticket counters, kiosks, and bag drop equipment and conveyance; excluding any activity relating to items using Airline proprietary software and licenses;
- moveable walls in the Security Screening Areas, as indicated in Scope Documents;
- power walls, which shall be designed to maintain structural integrity and security of the TSA Functional Areas ;
- space for TSA K-9 operations;
- FIDS/BIDS to be provided in key locations as shown in the preliminary concept in the Scope Exhibits;

- all new Building Systems and modifications to existing Building Systems as required by these Contract Documents; and as necessary to implement the Terminal Improvements in accordance with Contract Documents;
- all Building Systems, including Low Voltage and IT systems as described in the Scope Exhibits; this includes all freestanding racks required, separation of systems, cable management systems, along with clearances for access;
- finish upgrades to elevator cabs within the allowance established as provided in the Scope Exhibits
- all new and modified conveyances as identified in the Scope Exhibits;
- all structural modifications necessary to accommodate the Work as indicated in the Scope Exhibits;
- any modifications to existing structure shall be designed to ensure that the new structure
 or configuration meets the loads allowed by the DEN Structural DSM which accounts for
 vibration and Airport Systems, unless otherwise specifically agreed by the Owner in writing,
 in its sole discretion (but subject to the Required Design Exception/Deviation process set
 forth in Section 12.3.2 of the Agreement);
- all due diligence required to verify existing as-built conditions pursuant to the D&C Work;
- all design and engineering necessary to integrate the Project with existing building, except to the extent expressly otherwise provided in the Technical Requirements;
- all demolition work necessary to perform the Construction Work within any Construction Work Area following handover of such area by the Owner to Developer;
- coordination with the Owner in respect of all equipment that is currently under the DEN asset management system for proper decommissioning prior to removal from services and taken offsite;
- establishment of temporary utilities necessary to perform the Construction Work;
- restroom shall be developed to meet the restroom design standards outlined in the DEN Architectural DSM; and
- clean in place existing roof mast columns;

Developer is not responsible for snow melt systems at exterior paving and hardscape locations.

1.2 D&C Work Physical Scope

1.3.1 1.2.1 Create New Security Screening Areas and Associated TSA Support Space

The Security Screening Areas are located within Functional Areas 7, 8 and 11.

Developer shall complete the required Work necessary to host in Level 6, the Security Screening Areas and related DPD activities, including both DEN, DPD and TSA support and operational areas, allowing the removal of TSA from Level 5, and from the A Bridge, as shown in the Scope Exhibits.

TSA support spaces and Public Circulation Space are to be move-in ready; the assumptions considered for defining move-in ready areas are provided in the FF&E tables of the Scope Exhibits.

As part of the Work, Developer shall:

- account for current TSA guidelines unless they contradict the Scope Exhibits and collaboration with TSA and DPD as necessary;
- provide for all connectivity and coordination with the Owner for the installation of new TSA equipment. TSA screening lane equipment, testing and calibration of the screening lane equipment is to be provided by the Owner; Developer shall coordinate with the Owner and designated installer to provide integration and access as needed;
- provide the ancillary DPD and TSA support spaces indicated in the Scope Exhibits
- provide all Building Systems and modifications to existing Building Systems as required by the Contract Documents.
- provide an escalator (east-west orientation) from Level 5 to 6 to accommodate the flow of passengers for screening of international arrivals who are connecting to domestic flights at DEN as identified in the Scope Exhibits.
- provide for the "Pet Shop" screening of bags per TSA direction.
- Denver Police Department and emergency services access, egress and staging as identified in the Scope Exhibits;
- employee portals and known crew member access as identified in the Scope Exhibits;
- required Airport security systems and surveillance, which shall be designed to comply
 with Airport Rules and Regulations and provide for Core Airport Operational needs as
 stated in the Scope Exhibits; and
- all data and power to enable the installation and operation of Security Screening Area equipment as included in the Scope Exhibits

1.3.2 1.2.1.1 Additional Security Screening Area and TSA Requirements

The support space locations and adjacencies are shown on the Scope Exhibits.

Security screening equipment will be provided by the Owner, and installed, tested and calibrated by the Owner or Owner designated agents. Developer will coordinate with the installer and coordinate access as needed.

1.3.3 1.2.2 Reconfigure Airline Areas on Level 6

These Airline requirements apply to Functional Areas 3, 4, 5, and 6, with additional support spaces on Level 5.

Developer shall complete the required Work necessary to host in Level 6, Airline Exclusive Use Space, Airline Shared Use Space, and baggage drop areas provided within the layouts as shown in the Scope Exhibits 1.

Airline queuing area flexibility and allow changes in fixture positions or locations to accommodate relocation and modification of kiosk locations, without structural impact to the integrity of the floor.

Airlines areas are to be move-in ready; the assumptions considered for defining move-in ready areas are provided in the Scope Exhibits.

In addition to the general scope included in this Section, Terminal Improvements shall include the following unless noted otherwise in the Scope Exhibits:

- all finishes and utilities so that Airline and Core Airport Operation areas are move-in ready (excluding Concessions Space) as per the FF&E tables in the Scope Exhibits;
- all millwork;
- all Airline counters, bag-drop devices and kiosks, in the amounts and locations shown in the Scope Exhibits, all conduits and wiring for power and data (excluding Airline specific licenses and software) and other services necessary to operate the kiosks;
- Baggage Handling System conveyance from the point of bag drop to induction into the
 existing Airport Baggage Handling System and interface with the existing system as
 necessary to accommodate Work;
- Display monitors (excluding video walls) for counter positions and for Airline branding as included in the FIDS/BIDS Table in the Scope Exhibits;
- Airline personnel access from Level 6 to airline operational areas on Level 5 and Level 3, as shown in the Scope Exhibits;
- provide for required space to accommodate airline ATO and BSO operations and space as shown in the Area Space Program; and
- Required space to accommodate Core Airport Operations TSA designated in this Functional Area, as shown in the Area Space Program included in the Scope Exhibits; including TSA "Pet Shop" for special baggage screening.

1.2.2.2 Additional Airline Area Requirements

Developer shall provide the ancillary Airport and Airline support spaces, and functions and systems indicated in the Scope Exhibits.

For each Airline area the Developer shall provide all Building Systems and modifications to existing Building Systems as required by the Contract Documents.

Developer shall coordinate with the Owner and provide as part of the Terminal Improvements:

- self-tag, self-bag drop equipment as approved by Owner in accordance with the Technical Requirements; and
- provide an Airport security layout that includes Airport security systems in coordination with Core Airport Operations needs and that comply with the Airport Rules and Regulations as preliminarily described in the Scope Exhibits

1.3.4 1.2.3 AOB Corridor Expansion

These requirements apply to Functional Area 11.

Developer shall build an expansion to Level 6 along the AOB Corridor between the Terminal and the AOB, to accommodate new and displaced users and occupancies as indicated in the Area Space Program and drawings of the Scope Work Documents. This expansion should include access both secured and non-secured to the AOB lobby, including an employee portal between the landside and airside spaces.

The AOB Corridor is primarily shown in Functional Area 11. Within this Functional Area, TSA support spaces and Public Circulation Space are to be move-in ready (excluding the CBP offices) the assumptions considered for defining move-in ready areas are provided in the Scope Exhibits.

Developer shall coordinate with the Owner and provide as part of the Terminal Improvements:

- mechanical, electrical and plumbing rough-in for locker room facilities within the gym space (lockers and/or their relocation excluded);
- airside and landside restrooms;
- concession offices on Level 5;
- TSA break room to be move in ready per the tables included in the Scope Exhibits; and
- TSA Remote Viewing room to be move in ready per TSA Guidelines

1.3.5 1.2.4 Core Airport Operations (DEN Operational Areas and Core Support Functions)

The Developer shall provide the functions listed below:

- Airport administration: operational and office space for the exclusive use of the Airport operations and administration staff as shown in the Scope Exhibits
- Airport services and public interface points, including customer service areas, meditative chapels, parking booth as shown in the Area Space Program;
- Owner service areas, inducing DPD and paramedic staging;
- Owner leasable space;
- administrative offices should be move-in ready spaces, including typical finishes and connectivity and FF&E as shown in the Scope Exhibits;
- specialized equipment is to be provided by the Owner or its tenant; and
- occupancies and uses, locations and adjacencies of all these areas are shown in the Scope Exhibits and in the associated Area Space Program.

1.3.6 1.2.5 Optimize Curbside Passenger Arrival Experience

These requirements apply to Functional Areas 1 and 2.

Developer shall provide additional curb, building a median on both the east and west Level 6 and reconfigure the drive lanes as shown in the Scope Exhibits.

- (1) As part of the Work, Developer shall provide a median and canopy footprint over the median at both the east and west Level 6 curbside as shown in the Scope Exhibits.
- (2) As part of the Work, Developer shall:
 - reconfigure the drive lanes;
 - update the curb wayfinding, signage for Levels 4, 5 and 6;
 - provide curb wayfinding and signage for median;
 - maintain current curbside check-in and bag drop facilities.
 - maintain and protect existing vehicles barriers for Level 5 and 6
- (3) As part of the Work, Developer shall provide new exterior curtain wall and entrances on Level 6 as shown in the Scope Exhibits.

1.3.7 1.2.6 Redevelop and Reconfigure the Concessions Space and Public Circulation Space

1.2.6.1 Public Circulation and Conveyance

Public Circulation and conveyance are provided in every Functional Area; the assumptions, quantities, disposition and location for all conveyances are provided in the Scope Exhibits.

Throughout the Concessions Space and Public Circulation Space, Developer shall provide clear, intuitive way-finding from all points of departure and arrival, through processing functions, to the concourse train, hotel, and any other points of interest or necessary for the convenience or safety of the traveling public.

Work shall also include:

- the finishes indicated in these Scope Documents
- provide the following amenities to Users: drinking fountains, bottle fills, trash and recycling receptacles, and charging stations;
- FIDS and BIDS as shown in the in the Scope Exhibits;
- Smart Cart locations, power and data (excluding Smart Cart vendor system)
- Public pay phones and airport phone locations power and data (excluding phone devices); and
- ATM locations, power and data (excluding ATM vendor device).

The Developer shall develop a quality concession experience and efficient public circulation for both landside and airside customers as defined in the Concessions Development and Management Plan. The layout, areas and adjacencies of the concession spaces are shown in the Scope Exhibits

1.2.6.2 Landside Plaza

The Landside Plaza requirements apply to Functional Area 12.

Terminal Improvements on Level 5 shall maintain the area directly adjacent to the Landside Plaza vestibule in the central area of the southernmost mod as non-secure.

As part of the D&C Work, Developer shall:

- provide customer interface points that allow the Owner to respond to customer needs and provide services in the locations and areas as shown in the Scope Exhibits;
- provide customer amenities including seating and power access as shown in these Scope Documents; and
- provide for a significant meet and greet arrival experience as identified in the Scope Exhibits;

1.2.6.3 Airside Plaza

The Airside Plaza requirements apply to Functional Areas 13 and 14.

As part of the D&C Work, Developer shall:

- FIDS and BIDS key locations as shown in the preliminary concept in the Scope Exhibits;
- provide any interface with the AGTS to accommodate new passenger flow to the existing departing and arrival platforms as defined in the Scope Exhibits;
- maintain the terminal station configuration (AGTS) that allows for several operating modes to be executed on an almost immediate basis in a method that is seamless to the User, including Irregular Operations.
- coordinate the vertical circulation to and from Level 5 and the existing AGTS platforms as defined in the Scope Exhibits;
- ensure that there is no reduction in the AGTS systems current capacity or back up operating modes due to Developer's Work; and
- utilize displays that integrate technology to provide relevant information to passengers (i.e. wait times and distances)(Owner will provide the data on train arrivals as contemplated in Section I.1.3.2 of the Technical Requirements)

As part of the D&C Work, Developer shall:

- provide access to and from the hotel and Transit Center through the south face of the Terminal as shown in the Scope Exhibits;
- accommodate employee access from arrival points to secure work areas and to AOB as shown in the Scope Exhibits;
- allow for regular passage of screened passengers to and from concourse A across the A Bridge as shown in the Scope Exhibits; and
- accommodate Irregular Operations across the A Bridge (e.g. resulting from disabling of concourse train) as shown in the Scope Exhibits;

1.2.6.4 International Arrival Plaza

As part of the D&C Work, Developer shall:

- follow all the requirements of the Landside Area plaza;
- install currency exchange booth location, data and power; and
- provide and install interactive kiosk element for Multilanguage messaging and signage

1.3.8 1.2.7 Develop Goods and Materials Screening

The goods and materials screening requirements apply to Functional Area 18.

Work shall include provision of:

- modifications to accommodate the movement of goods between the Level 4 screening area and the new secure (airside) Concessions Space environment in Level 5, as shown in the Scope Exhibits;
- all areas necessary for the delivery and screening of goods that will take place at the Terminal; and
- all equipment and services necessary to screen and store goods and materials

During the D&C Work, Developer will not have exclusive use of the existing loading dock; all planned uses will need to be coordinated through the Owner. Final D&C Work shall not encroach upon or limit the existing ROW for the CBRA or Concourse Baggage extensions.

1.3.9 1.2.8 Relocate the Central Monitoring Facility

The Central Monitoring Facility requirements defined in Appendix 12 of the Technical Requirements apply to Functional Area 19.

As part of the D&C Work, Developer shall provide:

- the finishes indicated in the Scope Exhibits so that all areas are move-in ready; the assumptions considered for defining move-in ready areas are shown in Scope Documents;
- all millwork;
- all conduits and wiring for power and data as defined in Appendix 12 to the Technical Requirements;
- electrical and data outlets; and
- watertight roof system for the facility that would divert any potential water from above;

All Work necessary as defined in the Denver International Airport - Architectural Program for a New Central Monitoring Facility (CMF) dated April 17, 2017 and included in Appendix 12 to the Technical Requirements.

1.3.10 1.2.9 AGTS Area and Platform Modifications

The AGTS requirements apply to Functional Areas 15, 16 and 17.

The quantity of conveyance and general locations and adjacencies are shown in these Scope Documents. Conveyance quantities and locations, emergency egress and access and locations of real-time dynamic signage to be provided by Developer, on the AGTS platform and Level 5 Airside Plaza, as shown in the Scope Exhibits.

As part of the D&C Work, Developer shall provide:

- all finishes to the arrival and departure platforms as shown in the Scope Exhibits and,
- retain and protect the "mountain wall" at both arrival platforms

1.3.11 1.2.10 Refresh Baggage Claim Areas

The requirements included in this Section apply to Areas 21 and 22.

D&C Work includes refresh of floor and wall finishes with a new ceiling system and lighting coordinated with all Building Systems within the ceiling.

All modified BSO spaces are to be move-in ready including millwork and finished as shown in the Scope Exhibits and the Area Space Program.

D&C Work will coordinate with the L 5.5 Project through the Owner. D&C Work will need to be coordinated so that this area can be maintained for public occupancy during hours of Airline operation during Construction Work. Developer will not be responsible for any Work in respect of the baggage claim devices.

1.3.12 1.2.11 Develop and Implement Unique Customer Experience Elements

Provide Customer Experience Elements as located and defined in the Scope Exhibits.

As part of the D&C Work, Developer shall design and install the Customer Experience Elements listed below:

- Media escalators 1 from Level 6 to Level 5 on Airside plaza;
- Media escalators 2 Level 6 to Level 5 in the Airside Plaza;
- Media Wall, from gridline 18 to gridline 24
- Overhead cloud feature;
- Interactive kids area 1 at Landside Plaza; and
- Iconic Sphere and Interactive Floor.

The Customer Experience Elements will be considered standalone elements and do not need to be completed as a condition precedent to Functional Area Readiness for the Functional Areas in which they are located; however, all Customer Experience Elements need to be completed by Project Substantial Completion.

These Customer Experience Elements are subject to the Executive Design Review process, and once incorporated into Construction Documents they will be subject to the Technical Design Review process.

1.3.13 1.2.12 Modification to South Vestibule

The following requirement set forth in this Section apply to Functional Area 12: Developer shall upgrade the existing plaza vestibule with three (3) pairs of new doors and over door heaters.

1.3.14 1.2.13 Modification to Terminal Water Service Utility

Developer will design and construct an additional domestic water service line from the service provider main line to the terminal distribution pump room as necessary increase the overall capacity of water service in the terminal, the final capacity of which shall be confirmed during Design Development; Developer to install new 6" domestic water line, with a demarcation point of not more than 100 LF outside the face of the building.

Water supply design calculations shall include redundancy within the terminal of 20% additional capacity over proposed new work and concessions calculations.

1.3.15 1.2.14 Media Broadcast Location

Developer will design and construct a location within the public area of the Terminal for media outlets to broadcast from the terminal including necessary power and data connections, similar to the existing Media Broadcast Locations within the Terminal.

1.3 Project Wide Features and Other Areas

As part of the D&C Work, Developer shall include the following project wide features, facilities and services. The following may be located in all or any or several Functional Areas.

1.3.16 Circulation and Path of Travel

Terminal Improvements shall accommodate the following Users paths and flows:

- arriving passengers from curb and Transit Center to AGTS including modifications to the curbside in accordance with the Scope Exhibits;
- departing passengers from AGTS to curb and Transit Center;
- staff and employees from parking and Transit Center to work areas (secure and nonsecure);
- goods delivery;
- waste disposal;
- sterile passenger to and from the A concourse across A Bridge;
- irregular operation passengers across the A Bridge;
- on-parity experience for Users with disabilities;
- users to and from the AOB; and
- emergency egress paths (airside and landside through the Terminal).

The Scope Exhibits include a representation of the flows listed in this section and includes the specific escalator and elevator conveyances which are to be removed, built or modified in support of the requirements listed in this Section.

1.3.17 Signage and Wayfinding

Developer shall provide clear, intuitive way-finding from all points of departure and arrival, through processing functions, to the concourse train, hotel, and any other points of interest and as necessary for the convenience or safety of the Users. All signage shall be compliant with these Scope Documents and more particularly the <u>DEN Signage and Wayfinding</u> Guidelines. The Scope Exhibits identify the number and location of the key decision points.

It is the Developer's responsibility to collaborate with the Owner appointed signage consultant to ensure that the design of all new signage and wayfinding is consistent with Owner's signage strategy. Developer shall integrate technology and means of passenger information wayfinding that provides up to the moment relevant information to passengers (i.e. facilitate passage such as wait times and distances). These Scope Documents identify the number and location of the dynamic and static displays that provide such passenger wayfinding elements. Owner will provide data for these dynamic and static displays, in the Terminal, which includes:

- 1) information about the schedule for the next four (4) trains;
- 2) information about the frequency of trains; and
- 3) information about the time for the train to reach each concourse.

The Developer shall provide the hardware and associated D&C Work for these dynamic and static displays.

Any modifications to the agreed location and definition for key wayfinding elements contemplated in the Scope Exhibits shall be mutually agreed between Developer and the Owner.

1.3.18 Provision of Tornado Shelters

Storm Shelter protection will not be less than as provided in the existing Terminal, as shown in the Scope Exhibits.

1.3.19 Art and Exhibits

The Developer shall coordinate with the requirements of the City and County of Denver Ordinance for Art, which allocates a percentage of all new construction expenditures for public art programs.

Developer shall provide D&C Work associated with the final integration of artworks into the Project, which Work will be an Owner Change

The Owner shall:

- confirm artwork to de-assess and work with the City Art Department to manage this deassessment process;
- remove and store existing art and exhibits not being de-assessed in a timely manner to meet the Turnover Dates; and
- reinstall and/or relocate existing art and exhibits in mutually agreed upon locations.

The Developer shall:

- collaborate with and help the Owner to reinstall and/or relocate existing art and exhibits in coordination with Owner;
- collaborate with the Owner to identify and provide locations for the existing art pieces; and
- specifically identify the existing art pieces in the art inventory as identified in Scope Documents that will be affected by the Project.

New Art installations and existing art and exhibit installations will be considered standalone elements and do not need to be completed as a condition precedent to the Functional Area Readiness for the Functional Areas in which they are located.

Developer shall incorporate art elements into the Issued for Construction Document, where they will be subject to the Technical Design Review process for the technical aspects that affect the D&C Work.

In addition, the following existing elements shall be handled as follows:

- a) Existing Jeppesen Exhibits
 - Display cases for the Jeppesen displays should be integrated into the Project.
 - The Jeppesen statue should be incorporated into the Landside Plaza arrivals area.
- b) Ansbaucher Hall display cases are to be reinstalled in the Project.

1.3.20 Audio, Visual, Acoustics, Noise and Vibration Control Design and Construction Services

D&C Work shall include design and construction of audio, visual, acoustics, noise and vibration control systems in accordance with the Scope Exhibits, as part of design, Acoustic modeling of the affected spaces within the Terminal shall be performed by the Developer to ensure intelligibility, as outlined in the [Scope Exhibits]. Developer shall tie in and coordinate the same with the existing BAS and Low Voltage systems.

1.3.21 Aesthetics and Finishes

The preliminary schedule of finishes and cut sheets as agreed to by Owner is included in the Scope Exhibits. The complete final finish schedule will be provided as part of the Design Development Package Submittal.

1.3.22 Building Systems

Developer shall provide design, engineering and construction services for all Building Systems, including HVAC systems, life safety systems, building management system, plumbing, lighting, electrical, door hardware, that are part of the Work or interface with the Project as outlined in the Scope Exhibits. The D&C Work includes all necessary temporary and permanent Building Systems and coordination required for the Temporary Certificate of Occupancy of each Functional Area, for Functional Area Readiness of each Functional Area, and for the Certificate of Occupancy. Developer shall identify required activities to comply with these requirements in the Construction Documents and Transition and Phasing Plan, by Functional Area.

1.3.23 Airport Special Systems

Work shall include all design, engineering and construction services required for the integration of Airport Special Systems within the Project as shown in the preliminary concept described in in the Scope Exhibits.

Airport Special Systems comprise:

- Baggage Handling System in Level 6 to the check-in pod injection points;
- FIDS/BIDS; key locations as shown in the preliminary concept in the Scope Exhibits;
- Common use passenger processing systems, common use systems;
- Power and data for the "Beacon" location systems;(Owner to provide the "Beacon" devices)
- Security surveillance CCTV;
- Door hardware systems;
- Access control systems including security access control network;
- Public (TVn) media access drop locations
- power and data for public pay phones and courtesy phones (excluding phone devices);
- DEN TV distribution;

- Radio frequency distribution systems;
- Emergency communications systems;
- Dynamic and static signage;
- Network and network monitoring systems; and
- Premise Wiring and Communications infrastructure (PWCS) connecting systems

Developer shall not limit the function of any Airport Special System without specific coordination with and approval by the Owner. Developer shall provide all systems related hardware as part of the D&C Work. The only exception to this is Airline specific proprietary hardware. Final testing and checkout of some of these systems will require a joint effort between the Developer and Owner.

All Airport Special Systems shall be designed and constructed in accordance with the <u>DEN</u> <u>Design Principles Guidelines</u>, and with the Design and Construction Specifications.

1.3.24 IT and Low Voltage Systems

As part of the D&C Work, Developer shall provide all design engineering and construction services for IT, data and communication, and low voltage systems to include all required copper and fiber optic cabling, patch panels, frames, racks, UPS units, communications room appurtenances such as cable tray, conduit paths, equipment backboards and cable management systems as defined in the Scope Exhibits. Fiber optic and copper capacity shall be upgraded, whenever possible, to leave Owner with the same / similar expansion capacity as before the implementation of the Project.

In general, low voltage systems should be relocated and/or expanded in a "like and kind" fashion, except where existing system technology has become obsolete. In the case of obsolescence, system functionality shall be provided by using current generation technology. The design, construction and implementation of such systems (including current generation technology) shall be performed by the Developer.

Where specified in the Design and Construction Specifications, Developer shall utilize DEN Technologies approved Contractors to perform Premise Wiring and Communications Systems (PWCS) work. Additionally, approved and licensed contractors shall be utilized for all proprietary systems which are to be extended.

Many IT and low voltage systems are considered "mission critical" for Core Airport Operations at DEN. Consequently, any and all system outages due to the Work shall be approved in advance by the Owner and carefully coordinated with the respective operational users.

The following SOW shall be addressed in the design development drawings:

- specialty IT and Communication for Denver Police Department, with secure connection to other law enforcement systems;
- adequate site storage for CCTV video as mandated by TSA, DPD, DFD, TSA, and DEN;
- creating heat maps to confirm emergency radio (DPD, DFD, TSA, DEN) transmissions on 800 and/or 900 mhz bands, and provide repeaters as necessary to provide coverage;
- identify separate IT s for DEN, Airlines, and TSA, and space for DPD;

- provide adequate facility wide coverage for DEN carrier for Wifi and cell phone coverage; and
- provide stand alone and secure IT connections for ATM and/or credit card locations as mandated by federal financial security requirements.

1.3.25 Other Project Requirements

- at no time shall there be a reduction in the existing baggage claim capacity in the Terminal due to Developer's D&C Work; and
- at no time shall there be a reduction in the AGTS systems capacity or back up operating modes due to Developer's D&C Work.