

SAN ANTONIO INTERNATIONAL AIRPORT LEASE

STATE OF TEXAS §
 §
COUNTY OF BEXAR §

This San Antonio International Airport Lease (hereinafter "Lease" or "Lease Agreement") is entered into by and between the **CITY OF SAN ANTONIO** ("Lessor" or "City"), a Texas home-rule municipal corporation, acting by and through its City Manager pursuant to Ordinance No. _____, and **ROCKING M HANGAR SERVICES, LLC** ("Lessee"), a Texas Limited Liability Company, acting by and through its duly authorized officers. The initial addresses of the parties are as follows:

City
Aviation Director
City of San Antonio
9800 Airport Blvd.
San Antonio, Texas 78216

Lessee
Rocking M Hangar Services,
LLC Attn: Mark P. Mays
250 W. Nottingham, Suite 400
San Antonio, Texas 78209

ARTICLE 1. DEFINITIONS

As used herein, the following words and phrases shall have the meanings set forth below:

1.01 Affiliate. "Affiliate" is any corporation or other entity which directly or indirectly controls or is directly or indirectly controlled by or is under common control with Lessee; "control" shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such entity, whether through the ownership of voting securities or by contract or otherwise.

1.02 Airport. "Airport" means San Antonio International Airport.

1.03 Appraisal Process. "Appraisal Process" shall mean the process followed by the parties to arrive at a fair market value, that will be utilized to set rental rates during the term of this Lease Agreement. Said process consists of the following: Lessor and Lessee shall, at their respective cost, cause an appraisal to be conducted of the Leased Premises (Lessor's Appraisal or Lessee's Appraisal, as the case may be). The appraisal shall be undertaken by a recognized, qualified and impartial MAI or equivalent appraiser, experienced in airport appraisals, and be performed within the six (6) month period preceding the date upon which a change of rental rates, based upon the Appraisal Process, is due to be implemented. In the event that (i) Lessee states, in writing, to the Aviation Director that it does not agree with the Lessor's Appraisal, or (ii) Lessor states, in writing, to the Lessee that it does not agree with the Lessee's Appraisal then and in such event Lessee or Lessor (as the case may be) shall appoint a recognized, qualified and impartial MAI or equivalent appraiser, experienced in airport appraisals (hereinafter, "Rebuttal Appraiser") to conduct an appraisal of the Leased Premises at such party's cost (hereinafter, "Rebuttal Appraisal"). Such appointment shall be signed and noticed in writing, by such party. If Lessor and Lessee cannot agree on a rental rate based upon their respective appraisals, then the Lessor's Appraiser along with the Lessee's Appraiser shall, in turn, appoint

a third appraiser, qualified as stated above to render an opinion of value of the ground and building premises and the cost of such opinion shall be shared and paid equally by Lessee and Lessor. If Lessee or Lessor shall fail to so appoint an appraiser to conduct a Rebuttal Appraisal for a period of twenty (20) days after written notice from Lessor or Lessor (as the case may be) to make such appointment, then the Lessor's or Lessee's Appraisal (as the case may be) shall stand as if uncontested. No two (2) appraisers may be employed by, or office within, the same company, firm or organization, or family of organizations or companies.

1.04 Aviation Director. "Aviation Director" means the Director of Airports of the City of San Antonio or Deputy Aviation Director.

1.05 Capital Improvement. "Capital Improvement" means the addition of a structural change or the restoration or upgrade of some aspect of a property that will either enhance the property's overall value, prolong its useful life, or adapt it to new uses.

1.06 DOT. "DOT" means the United States Department of Transportation, and any federal agency succeeding to its jurisdiction.

1.07 Effective Date. "Effective Date" means the date the Lease is executed by all parties.

1.07 FAA. "FAA" means the Federal Aviation Administration of the United States government, and any federal agency succeeding to its jurisdiction.

1.08 Sign. "Sign" means any advertising sign, billboard, identification sign or symbol, or other similar device, regardless of content.

1.09 Leased Premises. "Leased Premises" means those certain premises at Airport more particularly described in Article 2.

1.10 Fiscal Year. "Fiscal Year" means a period of twelve (12) consecutive months commencing on October 1 and ending on September 30.

1.11 Subsidiary. "Subsidiary" shall mean any corporation or other entity not less than fifty percent (50%) of whose outstanding stock (or other form of equity ownership) shall, at the time, be owned directly or indirectly by Lessee or the entity owning directly or indirectly 50% or more of Lessee, as applicable.

1.12 Trade Fixtures. "Trade Fixtures" shall mean, but shall not be limited to, any signs (electrical or otherwise) used to identify Lessee's business; all shelves, bins, racking, machinery and equipment used in connection with Lessee's required or permitted activities pursuant to this Lease Agreement, whether or not such machinery or equipment is bolted or otherwise attached to the Leased Premises; and all other miscellaneous office equipment and furnishings.

1.13 TSA. "TSA" means the Transportation Security Administration, and any federal agency succeeding to its jurisdiction.

ARTICLE 2. DESCRIPTION OF LEASED PREMISES

2.01 Lessor, for and in consideration of the rents, covenants and promises herein contained to be kept, performed and observed by Lessee, does hereby lease unto Lessee, and Lessee does

hereby accept from Lessor, the property listed below (collectively referred to as "Leased Premises") located at 347 Sandau Road., San Antonio, TX 78216 at the San Antonio International Airport in San Antonio, Bexar County, Texas and identified in Exhibit 1 which is attached hereto and made a part hereof for all intents and purposes.

2.01.01 Ground Space: A parcel comprised of 108,900 square feet of ground space.

2.01.02 Building Space: a hangar building with office covering 26,896 square feet of building space.

ARTICLE 3. RENTAL

3.01 Lessee agrees to pay Lessor as rental as indicated on the table below, monthly in advance (without notice or demand, both of which are expressly waived) for the use and occupancy of the Leased Premises, at the times and in the manner hereinafter provided. All rentals shall be calculated on an annual basis and shall be paid by Lessee to Lessor in advance without invoicing, notice or demand, in equal monthly installments on or before the first day of each calendar month beginning on the Commencement Date and continuing throughout the remainder of the term of this Lease Agreement and any extension(s) hereof. In the event that the term of this Lease Agreement shall commence on the day other than the first day of any calendar month or expire on a day other than the last day of a calendar month, then, and in such event, rental installments will be prorated for the first or last month as the case may be. All rental amounts shall be initially determined according to the Appraisal Process, as defined herein.

<u>Leased Premises</u>	<u>Sq. Ft.</u>	<u>Annual Rate Per Sq. Ft.</u>	<u>Annual Rental</u>	<u>Monthly Rental</u>
Hangar With Office	26,896	\$ 8.50	\$ 228,616	\$ 19,051.33
Ground Space	108,900	\$ 0.40	\$ 43,560	\$ 3,630.00
TOTAL RENTAL				\$ 22,681.33

Rental amounts shown above are based on an appraisal performed by the JLL Valuation & Advisory Services, LLC , completed on January 19, 2022

3.02 Fees and charges for miscellaneous items and services, including, but not limited to, employee badges, parking charges, airfield driver's and security classes, personal property storage, shall be agreed to, in writing, by the parties hereto or be assessed by City ordinance, in connection with the ordinary usage of Airport facilities.

3.03 All rentals and payments that become due and payable by the Lessee shall be made to the City of San Antonio, Office of the Aviation Director, San Antonio International Airport, 9800 Airport Blvd., San Antonio, Bexar County, Texas, 78216 unless otherwise notified in writing. All rentals and payments unpaid for ten (10) days after the date due shall bear interest at the rate of ten (10) percent per annum from that date.

3.04 All rentals, fees and charges payable by Lessee to Lessor under the terms hereof, whether or not expressly denominated as rent, shall constitute rent for all purposes, including, but not limited to, purposes of the United States Bankruptcy Code.

3.05 At the end of the fifth (5th) lease year, ground and building rental payments shall be subject to a flat fifteen percent (15%) increase over those listed in Section 3.01, above, or those in effect at that time, subject to the Appraisal Process and Appraisal Rights as set forth in Section 10.2 hereof. At the end of the tenth (10th) lease year, a new appraisal shall be performed, and ground and building rental rates shall be reset according to the terms of that appraisal. At the end of the fifteenth (15th) lease year, ground and building rental payments shall again be subject to a flat fifteen percent (15%) increase over those established by the aforementioned appraisal.

ARTICLE 4. USE OF LEASED PREMISES

Lessee shall use the premises solely for the maintenance of offices, operation and storage of noncommercial aircraft, maintenance of aircraft, overhaul of aircraft accessories, modification of aircraft and engines, including the repair, overhauling, rebuilding, and modification thereof, and such other corporate aviation related purpose as may be approved in writing by the Aviation Director, and such other activities reasonably incidental thereto or aeronautical in nature. Such activities are defined in Article 26.09 herein. However, no commercial activities or services for hire may be conducted upon the premises without the Aviation Director's written approval.

It is the understanding of the parties hereto that fuel sales may be made by Lessee only to Lessee's sublessees, tenants, and occupants of the Lease Premises.

No other activities shall be conducted on the Leased Premises unless authorized in writing by the Aviation Director.

ARTICLE 5. LEASE TERM

5.01 The primary term of the Lease Agreement shall be ten (10) years, commencing on the Effective Date and expiring at midnight, ten (10) calendar years from the Effective Date (the "Primary Term"). On or before the expiration of the first eight (8) years of the Primary Term, Lessee shall be required to make a minimum of One Million Dollars (\$1,000,000) in Capital Improvements and other improvements or upgrades to the Premises (to be approved by the Aviation Director, which approval shall not be unreasonably withheld or delayed, and coordinated with the airport through the regular approval process and with the submission of a Tenant Alteration form); Lessee shall submit invoices and proof of payment so that Lessor can validate the capital improvement requirements have been met, which must be completed on or before the first eight (8) years of the Primary Term. In addition to the Primary Term, Lessee shall have the option, in its sole discretion if primary term capital improvement requirement is met during the Primary Term, and there are no then-current material breaches of the Lease, to extend this Lease for an additional term of five (5) years (the "First Option Period"). If the Capital Improvements requirement has not been met on or before the expiration of the first eight (8)

years of the Primary Term, the lease shall expire on the tenth (10th) anniversary of the Effective Date.

On or before the expiration of the first four (4) years of the First Option Period, if so exercised, Lessee, if it wishes to exercise the Second Option Period, shall be required to make an additional Five Hundred Thousand Dollars (\$500,000) in Capital Improvement and other improvements or upgrades to the Premises (to be approved by the Aviation Director, which approval shall not be unreasonably withheld or delayed, and coordinated with the airport through the regular approval process and with the submission of a Tenant Alteration form), and Lessee shall submit invoices and proof of payment so that Lessor can validate the capital improvement requirements have been met. In addition to the First Option Period, Lessor, acting by and through the Aviation Director, shall have the option, in its sole discretion if the capital improvement requirement is met during the First Option Period and there are no then-current material breaches of the Lease, to extend this Lease for an additional term of five (5) years (the "Second Option Period").

ARTICLE 6. INDEMNIFICATION

6.01 **LESSEE** covenants and agrees to the extent of its negligence or willful misconduct, to **FULLY INDEMNIFY, DEFEND and HOLD HARMLESS**, the **CITY** and the elected officials, employees, officers, directors, volunteers and representatives of the **CITY**, individually and collectively, from and against any and all costs, claims, liens, damages (specifically excluding consequential and incidental damages), losses, expenses, fees, fines, penalties, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including but not limited to, personal or bodily injury, death and property damage, made upon the **CITY** directly or indirectly arising out of, resulting from or related to **LESSEE's** activities under this **LEASE**, including any acts or omissions of **LESSEE**, any agent, officer, director, representative, employee, consultant or subcontractor of **LESSEE**, and their respective officers, agents, employees, directors and representatives while in the exercise of performance of the rights or duties under this **LEASE**, all without however, the City waiving any governmental immunity available to the **CITY** under Texas Law and without waiving any defenses of the parties under Texas Law. **IT IS FURTHER COVENANTED AND AGREED THAT SUCH INDEMNITY SHALL APPLY EVEN WHERE SUCH COSTS, CLAIMS, LIENS, DAMAGES, LOSSES, EXPENSES, FEES, FINES, PENALTIES, ACTIONS, DEMANDS, CAUSES OF ACTION, LIABILITY AND/OR SUITS ARISE IN ANY PART FROM THE NEGLIGENCE OF CITY, THE ELECTED OFFICIALS, EMPLOYEES, OFFICERS, DIRECTORS AND REPRESENTATIVES OF CITY, UNDER THIS LEASE.** The provisions of this **INDEMNITY** are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity. **LESSEE** shall promptly advise the **CITY** in writing of any claim or demand against the **CITY** or **LESSEE** known to **LESSEE** related to or arising out of **LESSEE's** activities under this **LEASE** and shall see to the investigation and defense of such claim or demand at **LESSEE's** cost. The **CITY** shall have the right, at its option and at its own expense, to participate in such defense without relieving **LESSEE** of any of its obligations under this paragraph.

6.02 It is the **EXPRESS INTENT** of the parties to this **LEASE**, that the **INDEMNITY** provided for in this Article 6, is an **INDEMNITY** extended by **LESSEE** to **INDEMNIFY, PROTECT and HOLD HARMLESS**, the **CITY** from the consequences of the **CITY's OWN NEGLIGENCE**, provided however, that the **INDEMNITY** provided for in this Article **SHALL APPLY** only when the **NEGLIGENT ACT** of the **CITY** is a **CONTRIBUTORY CAUSE** of the resultant injury, death,

or damage, and shall have no application when the negligent act of the CITY is the sole cause of the resultant injury, death, or damage. **LESSEE further AGREES, TO THE EXTENT OF ITS NEGLIGENCE OR WILLFUL MISCONDUCT, TO DEFEND, AT ITS OWN EXPENSE and ON BEHALF OF THE CITY AND IN THE NAME OF THE CITY**, any claim or litigation brought against the CITY and its elected officials, employees, officers, directors, volunteers and representatives, in connection with any such injury, death, or damage (specifically excluding consequential or incidental damages) for which this **INDEMNITY** shall apply, as set forth above.

ARTICLE 7. INSURANCE

7.01 Prior to occupancy of the Leased Premises and the conduct of any business thereupon, Lessee shall furnish original Certificates of Insurance to City and all applicable endorsements, which shall be completed by an agent authorized to bind the named underwriter(s) and their company to the coverage, limits, and termination provisions shown thereon, and which shall furnish and contain all required information referenced or indicated thereon. Lessor will not accept Memorandum of Insurance or Binders as proof of insurance. The original certificate(s) or form must have the agent's original signature, including the signer's company affiliation, title and phone number, and be mailed, with copies of all applicable endorsements, directly from the insurer's authorized representative to the City. The City shall have no duty to perform under this Agreement until such certificate and endorsements have been received and approved by the City's Aviation Department. No officer or employee, other than the City's Risk Manager, shall have authority to waive this requirement.

7.02 The City reserves the right to review the insurance requirements of this Article during the effective period of this Agreement and any extension or renewal hereof and to modify insurance coverages and their limits when deemed necessary and prudent by City's Risk Manager based upon changes in statutory law, court decisions, or circumstances surrounding this Agreement. In no instance will City allow modification whereupon City may incur increased risk.

7.03 LESSEE's financial integrity is of interest to the City; therefore, subject to LESSEE's right to maintain reasonable deductibles in such amounts as are approved by the City, LESSEE shall obtain and maintain in full force and effect for the duration of this Agreement, and any extension hereof, at LESSEE's sole expense, insurance coverage written on an occurrence basis, by companies authorized and admitted to do business in the State of Texas and with an A.M Best's rating of no less than A- (VII), in the following types and for an amount not less than the amount listed:

	<u>Type</u>	<u>Amount</u>
(1)	Worker's Compensation & Employer's Liability	Statutory \$1,000,000/\$1,000,000/\$1,000,000
** (2)	Commercial General Liability Aviation Policy to include coverage for the following:	Combined Single Limit for Bodily Injury and Property Damage of \$5,000,000 per occurrence or its equivalent with an aggregate of not less than \$5,000,000
	(A) Premises Operations	
	* (B) Independent Contractors	
	(C) Products/Completed Operations	

- (D) Personal Injury
 - (E) Contractual Liability
 - (F) Damage to Rented Premises
- (3) Property Insurance for physical damage to the property of Lessee, including improvements and betterments the Leased Premises Coverage for replacement value with a minimum co-insurance factor of eighty percent (80%) of the cost of Lessee's property
- *(4) Automobile Liability (any auto) Combined Single Limit for Bodily Injury and Property Damage of \$5,000,000 per occurrence or its equivalent.
- *(5) Above Ground and/or Underground Storage Tank Storage Tank Liability \$10,000,000 per claim
- *(6) Aircraft Liability \$10,000,000 per occurrence, Combined single limit, written on an occurrence form. (A lower limit may be approved by the Risk Manager for non-turbine powered aircraft if the above state limit is not commercially available.)

* If applicable

** In the event third party aircraft are stored/maintained on the Leased Premises, a Hangar Keeper's Liability Endorsement will be required.

7.04 The City shall be entitled, upon request and without expense, to receive copies of the policies, declaration page and all endorsements thereto as they apply to the limits required by the City, and may require the deletion, revision, or modification of particular policy terms, conditions, limitations or exclusions (except where policy provisions are established by law or regulation binding upon either of the parties hereto or the underwriter of any such policies). LESSEE shall be required to comply with any such requests and shall submit a copy of the replacement certificate of insurance to City at the address provided below within 10 days of the requested change. LESSEE shall pay any costs incurred resulting from said changes.

CITY OF SAN ANTONIO
 ATTN: Airport Properties Division
 9800 Airport Blvd.
 San Antonio, Texas 78216-9990

7.05 LESSEE agrees that with respect to the above required insurance, all insurance policies are to contain or be endorsed to contain the following provisions:

- Name the City, its officers, officials, employees, volunteers, and elected representatives as additional insureds by endorsement, as respects operations and activities of, or on behalf of, the named insured performed under contract with the City, with the exception of the workers' compensation and professional liability policies;

- Provide for an endorsement that the “other insurance” clause shall not apply to the City of San Antonio where the City is an additional insured shown on the policy;
- Workers’ compensation and employers’ liability policies will provide a waiver of subrogation in favor of the City.
- Provide thirty (30) calendar days advance written notice directly to City of any suspension, cancellation, non-renewal or material change in coverage, and not less than ten (10) calendar days advance notice for nonpayment of premium.

7.06 Within twenty (20) calendar days of a suspension, cancellation or non-renewal of coverage, LESSEE shall provide a replacement Certificate of Insurance and applicable endorsements to City. City shall have the option to suspend LESSEE’s performance should there be a lapse in coverage at any time during this contract. Failure to provide and to maintain the required insurance shall constitute a material breach of this Agreement.

7.07 Nothing herein contained shall be construed as limiting in any way the extent to which LESSEE may be held responsible for payments of damages to persons or property resulting from LESSEE’s or its subcontractors’ performance of the work covered under this Agreement.

7.08 It is agreed that LESSEE’s insurance shall be deemed primary and non-contributory with respect to any insurance or self insurance carried by the City of San Antonio for liability arising out of operations under this Agreement.

7.09 All personal property placed in the Leased Premises shall be at the sole risk of LESSEE. CITY shall not be liable, and LESSEE waives all claims for any damage either to the person or property of LESSEE or to other persons: (i) due to the Leased Premises or any part of appurtenances thereof becoming out of repair; (ii) arising from bursting or leaking of water, gas, waste pipes, or defective wiring or excessive or deficient electrical current (unless caused by the sole negligence or willful misconduct of CITY or its elected officials, employees, officers, directors, volunteers and/or representatives); (iii) from any act or omission of employees, or other occupants of the Leased Premises, or any other persons; or (iv) due to the happening of any accident in or about the Leased Premises. LESSEE shall save and hold harmless CITY from any claims arising out of damage to LESSEE’S property or damage to LESSEE’S business, including subrogation claims by LESSEE’S insurers.

7.10 It is understood and agreed that the insurance required is in addition to and separate from any other obligation contained in this Agreement.

7.11 The City of San Antonio Aviation Department, Properties and Concessions Division, utilizes an insurance certificate tracking firm to verify all insurance forms required from lessees, contractors and subcontractors associated with any lease or contract. The Division’s current provider is **myCOI**. Upon lessee’s or contractor’s receipt of this executed lease or contract, an email will be sent to Lessee asking Lessee to register online with myCOI. Please make sure the following address is added to Lessee’s “safe sender” list to ensure Lessee receives this email communication (registration@mycoitracking.com). It is critical that Lessee provide the Division with Lessee’s accurate email address. Part of the registration process includes providing contact information for Lessee’s insurance agent(s). Lessee will also need this information available to Lessee at the time of registration. Once Lessee have registered and entered the

email address for Lessee's insurance agent(s), an email will be sent to the insurance agent(s) requesting them to upload Lessee's Certificate of Insurance (COI) directly into the myCOI website. Certificates of Insurance cannot be mailed, emailed or faxed to the Aviation Department, Properties and Concessions Division. Lessee's agreement will not be in compliance, nor will Lessee be allowed to occupy, operate nor begin construction until registration is completed and a compliant COI and all required endorsements are received from Lessee's agent(s).

ARTICLE 8. PERFORMANCE GUARANTEE & LANDLORD'S LIEN

8.01 Lessee shall deliver to the Aviation Director, on or before the execution of this Lease, and shall keep in force throughout the term hereof, an irrevocable standby letter of credit or performance bond in favor of Lessor, drawn upon a bank satisfactory to Lessor and payable to City of San Antonio, Aviation Department. The foregoing shall be in a form and content satisfactory to Lessor, shall be conditioned upon satisfactory performance of all terms, conditions and covenants contained herein during the term hereof and shall stand as security for payment by Lessee of all valid claims by Lessor hereunder. The amount of the irrevocable standby letter of credit or performance bond shall be at least ONE HUNDRED AND THIRTY-SEVEN THOUSAND AND 00/100 DOLLARS (\$137,000.00). Said amount shall be adjusted, as necessary, so that it shall at all times equal at least one-half (1/2) of the total annual rental payable by Lessee to Lessor hereunder.

8.02 Lessee hereby gives to Lessor a lien upon all of its property now, or at any time hereafter, in or upon the Leased Premises, to secure the prompt payment of charges herein stipulated to be paid for the use of said Premises. This clause excludes aircraft owned, operated, or otherwise stored by the Lessee.

8.03 In the event that the amount of the Performance Guarantee provided by Lessee under the terms of this Lease Agreement, at all times during the term hereof, shall equal the greater of the rentals, fees and charges payable by Lessee to Lessor for the current calendar year, or double the amount of the Performance Guarantee set forth in Section 8.01 above, then the provisions set forth in Section 8.02 above, shall not apply hereto.

ARTICLES 9. [RESERVED]

ARTICLE 10. RENTAL ADJUSTMENTS & OTHER FEES

10.1. Rental Adjustment. Subject to the Appraisal Process and the Appraisal Rights set forth in Section 10.2 hereof, on the fifth (5th) anniversary of the Effective Date of this Lease, the ground and building rent shall be increased by fifteen (15%), pursuant to Article 3.05, herein.

10.2 Appraisal Rights. In the event (i) Lessee believes the fair market value of the Leased Premises is likely lower than the then rent would be as a result of the rental increases pursuant to Section 10.1, or (ii) Lessor believes the fair market value of the Leased Premises is likely higher than the then rent would be as a result of the rental increases pursuant to Section 10.1,

then either party may request an appraisal of the Building located on the Leased Premises, so long as such appraisal is delivered to the other party hereto at least one hundred-eighty (180) days prior to the effective date of the proposed rental adjustment. Upon receipt of such appraisal, the party receiving the appraisal shall have ninety (90) days following receipt to obtain its own appraisal. Annual rental rates established pursuant to the Appraisal Process shall be ten percent (10%) of the appraised fair market value of the fee simple provided that such value is calculated using the same approach as used by the parties hereto to establish the initial rental rate pursuant to Section 3 hereof.

10.02 ADDITIONAL FEES AND CHARGES

A. Fuel flowage fees shall be paid by Lessee, its sublessees, permittees and licensees (hereinafter, for purposes of Section 10. collectively "Lessee"), to the Lessor for fuel delivered to Lessee at the Airport, in the amount per gallon, now or hereafter, established by City ordinance. Lessee agrees to keep accurate books, records and accounts of its purchase and sale of aircraft fuel delivered to it on the Airport premises. All such books, records, accounts, and supporting documentation, shall be preserved by Lessee for thirty-six (36) months, either at the Leased Premises or at the home or regional offices of Lessee, and made available, for audit purposes, to Lessor and its authorized agents or representatives, at the Leased Premises, upon request. Lessee agrees to remit, to the Aviation Director, payment and related statements, certified by the various suppliers, as to the amount of aircraft fuel delivered to the Leased Premises, by the 10th day of the month following such delivery. If no such delivery is made during a particular month, Lessee shall provide the Aviation Director with a written statement to that effect.

B. Lessee and all tenants and operators at the Airport, other than those engaged in the carriage of persons, cargo, mail or other property for hire (commercial aircraft operators), pursuant to City ordinance, are obligated to pay a fuel flowage fee on aircraft fuel delivered to them. Nothing herein shall relieve Lessee, its customers or others, from any field use charges levied generally by Lessor, directly or indirectly, upon the operation of aircraft at the Airport.

C. Fees and charges for miscellaneous items and services, including, but not limited to, employee badges, shall be assessed, by City ordinance, in connection with the ordinary usage of Airport facilities.

D. All rentals, fees and charges payable by Lessee to Lessor under the terms hereof, whether or not expressly denominated as rent, shall constitute rent for all purposes, including, but not limited to, purposes of the United States Bankruptcy Code.

ARTICLE 11. PRIVILEGES AND CONDITIONS

11.01 Lessor hereby grants to Lessee the following general, non-exclusive privileges, uses and rights, subject to the terms, conditions and covenants herein set forth:

A. The general use by Lessee, for General Aviation activities, of all common aircraft facilities and improvements, which are now, or may hereafter be, connected with or appurtenant to said Airport, except as hereinafter provided. "Common airport facilities" shall include all necessary landing area appurtenances, including, but not limited to, approach areas, runways, taxiways, aprons, roadways, sidewalks, navigational and aviation aids, lighting facilities, terminal facilities or other common or public facilities appurtenant to said Airport.

B. The right of ingress to and egress from the Leased Premises, over and across common or public roadways serving the Airport for Lessee, its agents, servants, patrons, invitees, suppliers of service and furnishers of material. Said right shall be subject to such ordinances, rules and regulations as now, or may hereafter, apply at the Airport.

11.02 The granting and acceptance of this Lease Agreement is conditioned upon compliance with the covenant that the right to use said common Airport facilities, in common with others so authorized, shall be exercised subject to and in accordance with the laws of the United States, State of Texas and City of San Antonio, the rules and regulations promulgated by their authority with reference to aviation and navigation, and all reasonable and applicable rules, regulations and ordinances of Lessor, now in force or hereafter prescribed or promulgated by charter authority or by law.

11.03 Lessor reserves the right to enter the Leased Premises at any reasonable time for the purpose of inspecting same or verifying that fire, safety, sanitation regulations and other provisions contained in this Lease Agreement are being adhered to by Lessee.

ARTICLE 12. AS IS ACCEPTANCE AND CONDITION OF PREMISES

12.01 The parties agree that this Lease is granted by Lessor, at Lessee's request, and that the Leased Premises were formerly leased to and occupied by Lessee.

12.02 Lessee has had full opportunity to examine the Leased Premises. Except for environmental matters not caused by or reasonably discoverable by Lessee prior to the commencement of this Lease Agreement, Lessee's taking possession of the Leased Premises shall be conclusive evidence of Lessee's acceptance thereof in an "AS IS" condition, and Lessee hereby accepts same in its present condition as suitable for the purpose for which leased.

12.03 Lessee agrees that no representations respecting the condition of the Leased Premises and no promises to improve same, either before or after the execution hereof, have been made by Lessor or its agents to Lessee, unless contained herein or made a part hereof by specific reference.

ARTICLE 13. CONSTRUCTION BY LESSEE

13.01 Lessee shall have the right to erect, alter, remodel and renovate buildings and other improvements on the Leased Premises, provided that it shall submit to the Aviation Director plans and specifications prepared by registered architects and engineers setting forth the renovations, construction, alterations or improvements that Lessee desires to perform, in such detail as may be required by the Aviation Director, and provided that approval of such plans and specifications by said Director is obtained as set forth below. When seeking Aviation Director's approval, Lessee shall submit five (5) sets of plans and specifications, detailing the improvements to be made by Lessee and prepared by a registered architects and engineers. Any renovations, construction, alterations or improvement performed by Lessee or its agents, employees or subcontractors must conform to the specifications outlined in the City of San Antonio Design Criteria Manual, attached hereto as **Exhibit 3**.

13.02 Lessor agrees to examine and approve or disapprove plans and specifications submitted in accordance with the provisions above, within sixty (60) business days after receipt thereof,

and to give Lessee written notification of same. The approval by Lessor of such plans and specifications refers only to the conformity of same to the general architectural plan for the Leased Premises, as opposed to their architectural or engineering design. Lessor, by giving its approval, assumes no liability or responsibility therefor or for any defect in any work performed according to such plans and specifications. Lessee agrees not to commence any renovations, construction, alterations or improvements until Lessor, through the Aviation Director, has given written approval regarding Lessee's plans and specifications.

13.03 Further, prior to the commencement of construction, Lessee shall procure any and all additional approvals of the plans and specifications for its buildings and improvements required by any federal, state or municipal authorities, agencies, officers and departments having jurisdiction thereof and shall obtain any and all requisite building or construction licenses, permits or approvals. Construction shall comply with applicable building code requirements and with applicable regulations promulgated by any federal, state or municipal agency or department having jurisdiction thereof. Lessee specifically agrees that it shall hold Lessor completely harmless from and against any and all claims, causes of action or liabilities, whether actual or potential, associated with any construction undertaken by Lessee hereunder.

13.04 The cost of any renovations, construction, alterations or improvements upon the Leased Premises shall be borne and paid for solely by Lessee. Except as may be otherwise set forth herein, Lessor has no financial or other obligation of any kind under this Lease Agreement, other than the renting to Lessee of the premises which are the subject hereof for the term and consideration hereinbefore set forth.

13.05 Upon completion of all renovations, construction, alterations or improvements, a conformed set of "as built" plans and a Certificate of Occupancy shall be provided by Lessee to the Aviation Director.

13.06 In undertaking any such renovations, construction, alterations or improvements, it is expressly understood that, where applicable, unless otherwise agreed to in writing by the parties, Lessee shall be responsible, at its sole expense, for any and all construction and maintenance of taxiways and connections to the Airport's runway and taxiway system, along an alignment and in accordance with designs and plans approved in advance, in writing, by the Aviation Director. It is further expressly understood and agreed that any improvements and access thereto constructed by Lessee on the Leased Premises shall be performed in such a manner that shall not cause flowage of surface drainage onto adjacent tracts or interrupt flow to the storm drainage system.

ARTICLE 14. LIENS PROHIBITED

14.01 Lessee shall not suffer or permit any mechanics' or other liens to be filed against the fee of the Leased Premises, or against Lessee's leasehold interest in the land, buildings or improvements thereon, by reason of any work, labor, services or materials supplied, or claimed to have been supplied, to Lessee or to anyone holding the Leased Premises, or any part thereof, through or under Lessee. The only exception to the provision shall be if Lessee pledges its leasehold interest to a third party through the execution of a subordination agreement, with the consent of the Director of Airports or the City's Chief Financial Officer. Such subordination agreement must be in a form previously approved by City Council, such as that authorized through Ordinance 207-10-05-0752.

14.02 If any such mechanics' lien or materialmen's lien described in Section 14.01 above shall be recorded against the Leased Premises, or any improvements thereon, Lessee shall cause the same to be removed or, bonded around pursuant to the terms of the Texas Property Code. In the alternative, if Lessee, in good faith, desires to contest the same, it shall be privileged to do so; however, in such case, Lessee hereby agrees to indemnify and save Lessor harmless from all liability for damages occasioned thereby and shall, in the event of a judgment of foreclosure on said mechanics' lien, cause the same to be discharged and removed prior to sale of the property or execution of such judgment.

ARTICLE 15. MAINTENANCE AND REPAIR

15.01 Lessee shall pay or cause to be paid, any and all charges for water, heat, gas, electricity, sewer and any and all other utilities used on the Leased Premises, throughout the term of, or any extension of, this Lease Agreement, including, but not limited to, any connection fees and any and all additional costs related to utility connection, metering, maintenance, repair and usage.

15.02 Except as may be otherwise provided herein, Lessee shall, throughout the term of this Lease Agreement and any extension hereof, assume the entire responsibility, cost and expense, for all repair and maintenance of the Leased Premises and all buildings and improvements thereon, whether such repair or maintenance be ordinary, extraordinary, structural or otherwise. Additionally, without limiting the foregoing, Lessee shall:

- A. at all times maintain the buildings and improvements in a good state of repair and preservation, excepting ordinary wear and tear and obsolescence in spite of repair; and
- B. replace or substitute any fixtures and equipment which have become inadequate, obsolete, worn out, unsuitable or undesirable, with replacement or substitute fixtures and equipment, free of all liens and encumbrances, which shall automatically become a part of the buildings and improvements; and
- C. at all times keep the Leased Premises, its buildings, improvements, fixtures, equipment and personal property, in a clean and orderly condition and appearance; and
- D. provide, and maintain in good working order, all obstruction lights and similar devices, fire protection and safety equipment, and all other equipment of every kind and nature required by applicable laws, rules, orders, ordinances, resolutions or regulations of any competent authority, including Lessor and Aviation Director; and
- E. observe all insurance regulations and requirements concerning the use and condition of the Leased Premises, for the purpose of reducing fire hazards and insurance rates on the Airport; and
- F. repair any damage caused by Lessee to paving or other surfaces of the Leased Premises or the Airport, in connection with the scope of the Lease Agreement, caused by any oil, gasoline, grease, lubricants, flammable liquids and/or substances having a corrosive or detrimental effect thereon, or by any other reason whatsoever; and
- G. take measures to prevent erosion, including, but not limited to, the planting and replanting of grass on all unpaved or undeveloped portions of the Leased Premises; the planting, maintaining and replanting of any landscaped areas; the designing and

constructing of improvements on the Leased Premises; and the preservation of as many trees as possible, consistent with Lessee's construction and operations; and

H. be responsible for the maintenance and repair of all utility services lines upon the Leased Premises, including, but not limited to, water and gas lines, electrical power and telephone conduits and lines, sanitary sewers and storm sewers; and

I. keep and maintain all vehicles and equipment operated by Lessee on the Airport in safe condition, good repair and insured, as required by this Lease Agreement; and

J. replace broken or cracked plate glass, paint/repaint structures upon the Leased Premises and, where applicable, mow the grass; and

K. provide and use suitable covered metal receptacles for all garbage, trash and other refuse; assure that boxes, cartons, barrels or similar items are not piled in an unsightly, unsafe manner, on or about the Leased Premises; provide a complete and proper arrangement, satisfactory to the Aviation Director, for the adequate sanitary handling and disposal away from the Airport, of all trash, garbage and refuse caused as a result of the operation of Lessee's business.

15.03 The adequacy of the performance of the foregoing maintenance and repair by Lessee shall be determined by the Aviation Director, whose reasonably exercised judgment shall be conclusive. Should Lessee refuse or neglect to undertake any such maintenance or repair, or if Lessor is required to perform any maintenance or repair necessitated by the negligent acts or omissions of Lessee, its employees, agents, assignees, subtenants or licensees, then Lessor shall have the right, but not the obligation, to perform such maintenance or repair on behalf of and for Lessee. The costs of such maintenance or repair, plus any associated overhead reasonably determined by Lessor, shall be reimbursed by Lessee to Lessor no later than ten (10) days following receipt by Lessee of written demand from Lessor for same. In cases not involving maintenance or repair requiring exigent action, Lessor shall provide Lessee a written request that Lessee perform such maintenance or repair, at least thirty (30) days before Lessor effects such maintenance or repair on behalf of Lessee. The Aviation Department's "Maintenance Checklist," attached hereto as **Exhibit 4**, shall be completed quarterly by Lessee, and submitted to the Properties and Concessions Division.

ARTICLE 16. TITLE

16.01 It is expressly understood and agreed that any and all items of personal property owned, placed or maintained by Lessee on the Leased Premises during the term hereof shall be and remain Lessee's property. Provided that Lessee is not in default under this Lease Agreement, it may remove or cause to be removed all such items from the Leased Premises. At Lessor's sole election, any such items remaining on the Leased Premises more than thirty (30) days after the expiration of the term hereof, shall then belong to Lessor without payment of consideration therefor.

16.02 All foundations, buildings, alterations, additions or improvements (hereinafter "Improvements") made upon the Leased Premises by Lessee are and shall be the property of Lessee during the Lease Term hereof. During said term, absent the Aviation Director's written approval, such Improvements shall be conveyed, transferred or assigned, only to a person or entity to whom this Lease Agreement simultaneously is being transferred or assigned,

whereupon the holder of the leasehold interest hereunder shall own the Improvements. Absent such written approval of the Director any attempted conveyance, transfer or assignment of Improvements, to any person or entity, whether voluntary, by operation of law or otherwise, shall be void and of no effect.

16.03 With the exception of fuel storage facilities as set forth in Article 17 below, at Lessor's sole option, title to Improvements made upon the Leased Premises by Lessee, shall vest in and become the property of Lessor, at no cost to Lessor and without any instrument of conveyance, upon the expiration of the primary term, or any extension periods exercised, of this Lease Agreement or upon earlier termination thereof. Notwithstanding the foregoing, Lessee covenants and agrees, upon Lessor's demand, on or after termination of the Lease Agreement, to execute any instruments requested by Lessor in connection with the conveyance of such Improvements. Lessor shall notify Lessee whether or not Lessor intends take title to Improvements, or any portion thereof, as herein provided, at least sixty (60) days prior to the expiration of the primary term of this Lease Agreement or earlier termination thereof. Lessor's failure to provide such notice, however, shall not act as a waiver of its rights hereunder; provided that Lessor, within a reasonable time after receipt of Lessee's written request, advises Lessee of its election hereunder.

16.04 Should Lessor elect not to take title to Improvements, or any portion thereof, as provided in Section 16.03 above, same shall be removed by Lessee, at its sole cost and risk, in compliance with all applicable laws and regulations and, to the degree reasonably possible, the Leased Premises shall be restored to the condition that existed prior to the construction of same. Should Lessee fail to undertake such removal within ninety (90) days following the expiration or termination of this Lease Agreement, Lessor may undertake such removal at Lessee's expense. The Performance Guarantee, required under this Lease Agreement, may, at Lessor's option, be applied towards any costs incurred by Lessor for such removal.

ARTICLE 17. ENVIRONMENTAL COMPLIANCE

17.01 Lessee acknowledges that it is the owner of any and all fuel storage equipment presently existing upon the Leased Premises and Lessee is aware of there being fuel storage facilities on or under the Leased Premises. (For purposes of this provision, "facilities" are defined as any mobile or fixed, onshore building, structure, installation, equipment, pipe, or pipeline used in fuel storage, fuel gathering, fuel transfer, or fuel distribution.) Lessee agrees that it shall, at its sole expense, comply with all applicable federal, state and local statutes, laws, ordinances, rules and regulations concerning fuel storage facilities, including, but not limited to, regulations promulgated by the Environmental Protection Agency, as well as all inspection, financial liability and inventory control recording requirements, and that it shall provide Lessor with copies of certificates of registration from the Texas Commission on Environmental Quality (hereinafter "TCEQ") for any existing or new fuel storage facilities, together with copies of any required proof of financial responsibility and other documentation reasonably required by the Aviation Director or applicable regulatory agency.

17.02 During the term of this Lease Agreement and any extensions thereof, should changes in applicable statutes, laws, rules or regulations regarding fuel storage facilities necessitate the removal, modification or replacement of such fuel storage facilities in, on, upon or under the Leased Premises, then such removal, modification or replacement shall be timely undertaken and performed by Lessee, at its sole cost and expense. Ownership of the fuel storage facilities shall, at all times, remain in the Lessee, its sublessees, licensees and permittees. Furthermore, if requested by Lessor, Lessee shall within ninety (90) days following the termination or

expiration of this Lease Agreement, at its sole cost, remove said Items from the Leased Premises, perform any required soil or other investigations, perform regulatory remediation and restore the Leased Premises to a condition in compliance with all applicable statutes, laws, rules, or regulations governing fuel storage facilities. The Performance Guarantee required under the terms of this Lease Agreement shall not be returned or restored to Lessee until such removal, if requested, is accomplished and/or remediation is accomplished to the satisfaction of TCEQ.

17.03 Lessee shall, in conducting any activity or business on the Leased Premises, including environmental response or remedial activities, comply with all environmental laws, including, but not limited to, those regarding the generation, storage, use, transportation and disposal of solid wastes, hazardous materials, toxic chemicals, special wastes or other contaminants, and all laws, regulations and notice requirements pertaining to releases or threatened releases of hazardous materials, toxic chemicals, special wastes or other contaminants into the environment. Lessee shall not cause the release, or permit its employees, agents, permittees, contractors, subcontractors, sublessees, or others in Lessee's control, supervision, or employment, to release (whether by way of uncapping, pouring, spilling, spraying, spreading, attaching or otherwise), into or onto the Leased Premises or any other location upon or above the Airport (including the air, ground and ground water thereunder and the sewer and storm water drainage systems thereon), any quantity of hazardous substances (as defined or established from time to time by applicable local, state, or federal law and including, among other things, hazardous waste and any other substances that have been or may in the future be determined to be toxic, hazardous or unsafe). To the extent any such release may exceed quantities or volumes permitted by applicable federal, Texas or local law, Lessee shall immediately notify the Aviation Director, TCEQ, and Local Emergency Planning Committee, as may be required under the federal Emergency Planning and Community Right To Know Act. The Lessee, or any occupant of Leased Premises, shall be responsible for compliance with said Act, in the event of any such release.

17.04 Lessee shall remedy any release or threatened release caused by Lessee's operations at the Airport, as described above and, whether resulting from such release or otherwise, remove any hazardous materials, special wastes and any other environmental contamination caused by Lessee on, under or upon the Leased Premises, as may be required by a governmental or regulatory agency responsible for enforcing environmental laws and regulations. Such work shall be performed, at Lessee's sole expense, after Lessee submits to Lessor a written plan for completing such work. Lessor shall have the right to review and inspect all such work at any time, using consultants and representatives of its choice, at Lessor's sole cost and expense. Specific cleanup levels for any environmental remedial work shall be designed to meet all of the applicable environmental laws and regulations, to the satisfaction of the appropriate government or regulatory agency responsible for enforcing environmental laws and regulations.

17.05 Lessee agrees, to the extent of its negligence or willful misconduct, to defend, indemnify and hold harmless Lessor, its elected and appointed officials, officers, agents and employees, from and against any and all reasonable losses, claims, liability, damages (specifically excluding consequential and incidental damages), injunctive relief, injuries to person, property or natural resources, costs, expenses, enforcement actions, actions or causes of action, fines and penalties, arising as a result of action or inaction of Lessee, its employees, agents or contractors, in connection with the release, threatened release or

presence of any hazardous material, contaminants, or toxic chemicals at, on, under, over or upon the Leased Premises and Airport, whether or not foreseeable, regardless of the source or timing of occurrence, release, threatened release, presence or discovery of same. The foregoing indemnity includes, without limitation, all reasonable costs at law or in equity for removal, clean-up, remediation and disposal of any kind, as well as all reasonable costs associated with determining whether the Airport is in compliance, and causing the Airport to be in compliance with, all applicable environmental laws and regulations and all reasonable costs associated with claims for damages to persons, property or natural resources arising from the actions or inaction of Lessee, its employee of Lessee, its employees, agents or contractors in connection with any release of hazardous materials contamination or toxic chemical through the activities of Lessee. In the event that Lessor is named in any enforcement action or lawsuit by any party in connection with the environmental condition of the Leased Premises caused by the action or inaction of the Lessee, Lessee shall, to the extent of its negligence or willful misconduct, defend Lessor and indemnify and hold harmless Lessor from any reasonable costs, damages (specifically excluding consequential and incidental damages), fines and penalties resulting therefrom.

17.06 In addition to any other rights of access herein regarding the Leased Premises, Lessor shall, upon reasonable notice and during normal business hours, have access thereto in order to inspect and confirm that the Lessee is using same in accordance with all applicable environmental laws and regulations. Lessee shall, upon the Aviation Director's demand and at Lessee's sole expense, demonstrate to said Director (through such tests, professional inspections, samplings, or other methods as may be reasonably required by said Director) that Lessee has not caused or permitted any release of hazardous substances or contaminants in excess of quantities or volumes permitted by applicable federal, Texas or local law. Qualified independent experts, chosen by Lessee, subject to Lessor's approval, which approval shall not be unreasonably withheld, shall conduct any such tests and assessments. Lessee shall provide copies of reports from any such testing or assessments to Lessor upon receipt. Should Lessee not provide same to Lessor, Lessor may conduct, or cause to be conducted, such tests, inspections, samplings and assessments, and Lessee shall reimburse Lessor for all costs of such actions, no later than thirty (30) days following receipt by Lessee of invoices therefor. Lessor reserves the right to conduct any of the above actions, at the Aviation Director's discretion, when in the opinion of same, additional or supplemental assessments are in Lessor's best interest.

17.07 Lessee, at Lessor's request, shall make available for inspection and copying, upon reasonable notice and at reasonable times, any or all of the non-privileged documents and materials Lessee has prepared pursuant to any environmental law or regulation, which may be retained by Lessor or submitted to any governmental regulatory agency; provided, such documents and materials relate to environmental regulatory compliance and pertain to the Airport or the Leased Premises. If any environmental law or regulation requires Lessee to file any notice or report of a release or threatened release of regulated materials on, under or about the Leased Premises or the Airport, Lessee shall promptly submit such notice or report to the appropriate governmental agency and simultaneously provide a copy of such report or notice to Lessor. In the event that any written allegation, claim, demand, action or notice is made against Lessee regarding Lessee's failure or alleged failure to comply with any environmental law or

regulation, Lessee, as soon as practicable, shall notify Lessor in writing and provide same with copies of any such written allegations, claims, demands, notices or actions so made.

17.08 The parties to this Lease Agreement, including the tenants or sublessees who may enjoy a future right of occupation through Lessee, acknowledge a right and a duty in Lessor, exercised by the Aviation Director, to review safety and potential environmental impacts of any proposed operation, business, maintenance or other activity of the Lessee and its sublessees. To this end, said Director shall have authority to disapprove an activity of the Lessee and/or any sublessee, on the basis of a risk assessment. The parties understand that Airport premises are not intended for use involving refining, processing, manufacturing, maintenance, overhaul, or similar heavy industrial activities entailing use, storage, manufacture, or transport of critical volumes of regulated or hazardous materials or toxic chemicals. For purposes of this Lease Agreement, "critical volumes" are those which, in the discretion and judgment of the Aviation Director, pose or may pose an unreasonable risk to Airport property, its occupants, employees or the traveling public. Discretion and judgment are reserved to the Aviation Director due to the fact that combinations and proximity of such materials are synergistic. The Aviation Director's decision in this regard is final, and said Director shall exercise such review prior to any lease or sublease, from time to time, as he may deem necessary for appropriate risk assessment of existing leases and subleases.

ARTICLE 18. SIGNS

Lessee shall neither erect signs nor distribute advertising matter upon Airport Premises, without the prior written consent of the Aviation Director, which consent shall not be unreasonably withheld or delayed. Notwithstanding anything to the contrary contained in this Article 18, Lessee may keep in place any existing signage as of the Effective Date on the Premises.

ARTICLE 19. REGULATIONS

Lessee's officers, agents, employees and servants shall obey all rules and regulations promulgated by Lessor, its authorized agents in charge of the Airport, or other lawful authority, to insure the safe and orderly conduct of operations and traffic thereon.

ARTICLE 20. QUALITY OF SERVICES

Lessee shall, at all times, furnish good, prompt and efficient commercial aviation services, adequate to meet demand for same at the Airport, furnish said services on a non-discriminatory basis to all users thereof, and charge non-discriminatory prices for each unit of sale or service; provided, however, that Lessee will be allowed to make reasonable and non-discriminatory discounts, rebates or other similar types of price reductions to volume purchasers.

ARTICLE 21. TIME OF EMERGENCY

During time of war or national emergency, Lessor shall have the right to lease the landing area or any part thereof to the United States for government use, and, if such lease is executed, the

provisions of this Lease Agreement, insofar as they are inconsistent with those of the Government lease, shall be suspended.

ARTICLE 22. SUBORDINATION OF LEASE & RIGHT OF RECAPTURE

22.01 This Lease Agreement shall be subordinate to the provisions of any existing or future agreement between Lessor and the United States of America regarding operation or maintenance of the Airport, the execution of which has been or may be required as a condition precedent to the expenditure of Federal funds for the development of the Airport. Should the effect of such agreement with the United States be to take any of the property under lease, or substantially alter or destroy the commercial value of the leasehold interest granted herein, Lessor shall not be held liable therefore, but, in such event, Lessee may cancel this Lease Agreement upon ten (10) days' written notice to Lessor. Notwithstanding the foregoing, Lessor agrees that, in the event it becomes aware of any such proposed or pending agreement or taking, Lessor shall utilize its best efforts to (i) give the maximum possible notice thereof to Lessee. Any portion of the Leased Premises recaptured from Lessee under this provision shall result in a proportionate abatement of rent as of the date the recapture is effectuated.

22.02 Lessor shall have the right to recapture any or all of the Leased Premises to the extent that such are necessary for the City's development, improvement, and or maintenance of the Airport's runways and taxiways; for protection or enhancement of flight operations; or for other development in compliance with any current or future Airport Master Plan. In the event of any such recapture, Lessee and Lessor shall execute a writing reflecting a corresponding adjustment to the Leased premises and rent. If Lessee is required to relocate to other Airport premises pursuant to this Section 22.02, Lessor shall assist Lessee to identify other substitute premises on the Airport, if available. Lessor shall assist Lessee with relocation costs without impact to the rental terms of this Lease Agreement. If no suitable relocation premises shall be identified, Lessor shall compensate Lessee in an amount equal to the net present value of the remaining rental due under this Lease Agreement, including extension periods, and for all amounts invested by Lessee in the Premises.

ARTICLE 23. SECURITY

23.01 Lessee shall provide for the security of the Air Operations Area (hereinafter "A.O.A.") and/or Security Identification Display Area (hereinafter "S.I.D.A.") to prevent entry or movement of unauthorized persons thereupon, in accordance with Chapter 3 , Section 3-23, of the City Code of San Antonio, Texas, as currently written, or as amended or replaced in future. In appropriate cases, physical barriers to prevent access to the A.O.A. and/or the S.I.D.A. must be placed and supervised by Lessee during construction upon the Leased Premises.

23.02 Lessee shall comply with all rules, regulations, statutes, orders, directives or other mandates of the United States or State of Texas, regarding Airport security requirements or measures.

23.03 Lessee shall comply with all current and future mandates of the Transportation Security Administration, of successor agency, for background investigations of its personnel.

23.04 Lessee shall indemnify and hold harmless Lessor, its officers and employees from any charges, fines or penalties that may be assessed or levied by any department or agency of the United States or State of Texas, by reason of Lessee's failure to comply with any applicable security provision and/or requirement for compliance set forth herein.

ARTICLE 24. DEFAULT AND REMEDIES

24.01 Each of the following shall constitute an event of default by Lessee:

A. Lessee shall fail to pay any rent as provided for in this Lease Agreement and such failure shall continue for a period of ten (10) days after receipt by Lessee of written notice thereof.

B. Lessee shall neglect or fail to perform or observe any of the material terms, provisions, conditions or covenants herein contained, and if such neglect or failure should continue for a period of thirty (30) days after receipt by Lessee of written notice of same, or if more than thirty (30) days shall be required because of the nature of the default, if Lessee shall fail within said thirty (30) day period to commence and thereafter diligently proceed to cure such default.

C. Lessee shall become insolvent; take the benefit of any present or future insolvency statute; make a general assignment for the benefit of creditors; file a voluntary petition in bankruptcy or a petition or answer seeking a reorganization or the readjustment of its indebtedness under the federal bankruptcy laws, or under any other law or statute of the United States or of any state thereof; or consent to the appointment of a receiver, trustee or liquidator of all or substantially all of its property.

D. An Order of Relief shall be entered, at the request of Lessee or any of its creditors, under federal bankruptcy, reorganization laws or any law or statute of the United States or any state thereof.

E. A petition under any part of the federal bankruptcy laws, or an action under any present or future insolvency law or statute, shall be filed against Lessee and shall not be dismissed within thirty (30) days after the filing thereof.

F. Pursuant to, or under the authority of, any legislative act, resolution, rule, or any court, governmental, agency or board order or decree or officer, a receiver, trustee, or liquidator shall take possession or control of all or substantially all of the property of Lessee and such possession or control shall continue in effect for a period of fifteen (15) days.

G. Lessee shall become a corporation in dissolution or voluntarily or involuntarily forfeit its corporate charter.

H. The rights of Lessee hereunder shall be transferred to, pass to or devolve upon, by operations of law or otherwise, any other person, firm, corporation or other entity, in connection with or as a result of any bankruptcy, insolvency, trusteeship, liquidation or other proceeding or occurrence described in Paragraphs C through G of this Section 24.01.

I. Lessee shall voluntarily discontinue its operations at the Airport for a period of ninety (90) consecutive days, unless such discontinuation is the result of a force majeure, as set forth in Section 32 hereof.

24.02 In the event any default shall occur, Lessor then, or at any time thereafter, but prior to the removal of such condition of default, shall have the right, at its election, either to terminate this Lease Agreement, by giving at least five (5) days written notice to Lessee, at which time Lessee will then quit and surrender the Leased Premises to Lessor, but Lessee shall remain liable as hereinafter provided, or enter upon and take possession of the Leased Premises (or any part thereof in the name of the whole), without demand or notice, and repossess the same as of the Lessor's former estate, expelling Lessee and those claiming under Lessee, forcibly if necessary, without prejudice to any remedy for arrears of rent or preceding breach of covenant and without any liability to Lessee or those claiming under Lessee for such repossession.

24.03 Lessor's repossession of the Leased Premises shall not be construed as an election to terminate this Lease Agreement nor shall it cause a forfeiture of rents or other charges remaining to be paid during the balance of the term hereof, unless a written notice of such intention be given to Lessee, or unless such termination is decreed by a court of competent jurisdiction.

24.04 Upon repossession, Lessor shall have the right, at its election and whether or not this Lease Agreement shall be terminated, to relet the Leased Premises or any part thereof for such period(s), which may extend beyond the term hereof, at such rent and upon such other terms and conditions as Lessor may, in good faith, deem advisable. Notwithstanding any law or anything contained herein to the contrary, to the full extent permitted under applicable law, Lessee and Lessor agree that Lessor's duty to relet the Leased Premises or otherwise to mitigate damages hereunder shall be limited to those requirements set forth in the Texas Property Code, as amended. Lessor shall in no event be liable, and Lessee's liability shall not be affected or diminished whatsoever, for failure to relet the Leased Premises, or in the event the Leased Premises are relet, for failure to collect any rental under such reletting, so long as the Lessor uses objectively reasonable efforts to comply with said Property Code. Lessor and Lessee agree that any such duty shall be satisfied and Lessor shall be deemed to have used objective reasonable efforts to relet the Leased Premises and mitigate Lessor's damages by: (1) posting a "For Lease" sign on the Leased Premises; (2) advising Lessor's lease agent, if any, of the availability of the Leased Premises; and (3) advising at least one (1) outside commercial brokerage entity of the availability of the Premises.

24.05 In the event that Lessor elects to relet, rentals received by same from such reletting shall be applied: first, to the payment of any indebtedness, other than rent due hereunder from Lessee under this Lease Agreement; second, to the payment of any cost of such reletting; third, to the payment of rent due and unpaid hereunder; and finally, the residue, if any, shall be held by Lessor and applied hereunder. Should that portion of such rentals received from such reletting during any month, which is applied to the payment of rent hereunder, be less than the rent payable during that month by Lessee hereunder, then Lessee shall pay such deficiency to Lessor. Such deficiency shall be calculated and paid monthly. Lessee shall also pay to Lessor, as soon as ascertained, any costs and expenses incurred by Lessor in such reletting not covered by the rentals received from such reletting of the Leased Premises.

24.06 If Lessor shall terminate this Lease Agreement or take possession of the Leased Premises by reason of a condition of default, Lessee and those holding under Lessee, shall forthwith remove their goods and effects from the Leased Premises. If Lessee or any such

claimant shall fail to effect such removal forthwith, Lessor may, without liability to Lessee or those claiming under Lessee, remove such goods and effects and store same for the account of Lessee or of the owner thereof at any place selected by Lessor, or, at Lessor's election, and upon giving fifteen (15) days' written notice to Lessee of date, time and location of sale, Lessor may sell the same at public auction or private sale on such terms and conditions as to price, payment and otherwise, as Lessor in its sole discretion may deem advisable. If, in Lessor's judgment, the cost of removing and storing, or of removing and selling any such goods and effects, exceeds the value thereof or the probable sale price thereof, as the case may be, Lessor shall have the right to dispose of such goods in any manner Lessor may deem advisable.

24.7 Lessee shall be responsible for all costs of removal, storage and sale, and Lessor shall have the right to reimburse the Airport Revenue Fund from the proceeds of any sale for all such costs paid or incurred by Lessor. If any surplus sale proceeds remain after such reimbursement, Lessor may deduct from such surplus any other sum due to Lessor hereunder and shall pay over to Lessee any remaining balance of such surplus sale proceeds.

24.08 If Lessor shall enter into and repossess the Leased Premises as a result of Lessee's default in the performance of any of the terms, covenants or conditions herein contained, then Lessee hereby covenants and agrees that it will not claim the right to redeem or re-enter the said Premises to restore the operation of this Lease Agreement, and Lessee hereby waives the right to such redemption and re-entrance under any present or future law, and does hereby further, for any party claiming through or under Lessee, expressly waive its right, if any, to make payment of any sum or sums of rent, or otherwise, of which Lessee shall have made default under any of the covenants of the Lease Agreement and to claim any subrogation of the rights of Lessee under these presents, or any of the covenants thereof, by reason of such payment.

24.09 All rights and remedies of Lessor herein created or otherwise existing at law are cumulative, and the exercise of one or more rights or remedies shall not be taken to exclude or waive the right to the exercise of any other. All such rights and remedies may be exercised and enforced concurrently, whenever and as often as deemed desirable.

24.10 If proceedings shall, at any time, be commenced for recovery of possession, as aforesaid, and compromise or settlement shall be effected either before or after judgment whereby Lessee shall be permitted to retain possession of the Leased Premises, then such proceeding shall not constitute a waiver of any condition or agreement contained herein or of any subsequent breach thereof or to this Agreement.

24.11 Any amount paid or expense or liability incurred by Lessor for the account of Lessee may be deemed to be additional rental and the same may, at the option of Lessor, be added to any rent then due or thereafter falling due hereunder.

ARTICLE 25. HOLDING OVER

It is agreed and understood that any holding over by Lessee, with Lessor's consent, after the termination of this Lease Agreement, shall not renew and extend same, but shall operate and be construed as a tenancy from month-to-month, upon all the terms and conditions set forth herein, except that rental shall be paid to Lessor by Lessee for all buildings on the Leased Premises at one hundred fifteen percent (115%) the total rental in effect as of the end of the primary term of this Lease Agreement or the ground rental rate established through appraisal. In the event that Title to any buildings shall vest upon City at the end of the primary term, then

Lessee shall also pay rent for such building at rental rates established by the Appraisal Process. Should Lessee hold over against Lessor's will, Lessee agrees to pay to Lessor, as monthly rent during such period of holding over, for such Premises (including all buildings located thereon, whether title to such buildings is in the name of Lessor or Lessee) for each month of such tenancy, one hundred and fifty percent (150%) the Ground and Building Rental paid for the last month of the Lease Agreement term, plus all applicable fees including but not limited to, Fuel Flowage Fees and any other fees authorized by this Agreement and/or authorized by Ordinance. Lessee shall be liable to Lessor for all loss or damage resulting from such holding over against Lessor's will after the termination of this Lease Agreement, whether such loss or damage may be contemplated at this time or not. It is expressly agreed that acceptance of the foregoing rental by Lessor, in the event that Lessee fails or refuses to surrender possession, shall not operate to give Lessee any right to remain in possession beyond the period for which such amount has been paid nor shall it constitute a waiver by Lessor of its right to immediate possession thereafter.

ARTICLE 26. ASSIGNMENT AND SUBLET

26.01 Lessee shall not transfer or assign this Lease Agreement or Lessee's interest in or to the Leased Premises, or any part thereof, without having first obtained Lessor's prior written consent, which may be given only by or pursuant to an ordinance enacted by the City Council of the City of San Antonio, Texas; provided, however, that the foregoing shall not apply to and prevent the assignment of this Lease Agreement to any corporation, or other entity with which Lessee may merge or as part of a corporate restructuring. Notwithstanding the foregoing and for so long as any pledge or collateral assignment of Lessee's interest in the Lease Agreement shall be by instrument substantially in such form as shall have previously been approved by the City Council, the consent of Lessor to such pledge or collateral assignment may be given by Lessor acting by and through the Aviation Director. For purposes of any assignment, Lessor shall have the right to renegotiate rental rates and all other terms of this Lease Agreement.

26.02 Lessee shall not sublet the Leased Premises or any part thereof without having first obtained the Aviation Director's written consent, which consent shall not be unreasonably withheld or delayed. In the event Lessee requests permission to sublease, the request shall be submitted to the said Director, prior to the effective date of the sublease requested, and shall be accompanied by a copy of the proposed sublease agreement(s) and of all agreement(s) collateral thereto. The identity of the sublessee, the area or space to be subleased, the rental to be charged, the type of business to be conducted, reasonable financial history and all other information requested by said Director shall be specified.

26.03 In the event of a sublease where the rental per square foot established in the sublease exceeds the rental for same established in the Lease Agreement, Lessee shall pay to Lessor, as additional rent, the excess of the rental received from the sublessee over that specified to be paid by Lessee herein per square foot, provided that Lessee may charge a reasonable fee for administrative costs in addition to the sublease rental, not to exceed fifty percent (50%) of the specified sublease rental. Such fifty percent (50%) shall not be considered as excess rental. Nothing herein shall prevent Lessee from charging a reasonable fee to others for the use of capital equipment and facilities on the subleased premises and charging for use of utilities and other services being paid for by Lessee. Should any method of computation of rental to be paid by a sublessee, other than computation based upon a rental rate per square foot be employed, the provisions of this paragraph will apply if the rental received for the proportionate area of the Leased Premises by Lessee exceeds the rental paid to Lessor for said proportionate area of the Leased Premises.

26.04 Each transfer, assignment or subletting to which there has been consent shall be by written instrument, in a form satisfactory to Lessor, and shall be executed by the transferee, assignee or sublessee who shall agree, in writing, for the benefit of Lessor to be bound by and to perform the terms, covenants and conditions of this Lease Agreement. Four (4) executed copies of such written instrument shall be delivered to Lessor. Failure either to obtain Lessor's prior written consent or to comply with the provisions herein contained, shall operate to prevent any such transfer, assignment or subletting from becoming effective.

26.05 Should the subletting of the Leased Premises be approved by Lessor, however, Lessee agrees and acknowledges that it shall remain fully and primarily liable under this Lease Agreement, notwithstanding any such sublease and that any such sublessee shall be required to attorn to Lessor hereunder.

26.06 The receipt by the Lessor of rent from an assignee, subtenant or occupant of the Leased Premises shall not be deemed a waiver of the covenant in this Lease Agreement against assignment and subletting or an acceptance of the assignee, subtenant or occupant as a tenant or a release of the Lessee from further observance or performance by Lessee of the covenants contained in this Lease Agreement. No provision of this Lease Agreement shall be deemed to have been waived by the Lessor, unless such waiver be in writing, signed by the Aviation Director.

26.07 If Lessee subleases any portion of the Leased Premises to any entity performing commercial activities upon those Premises, the City ("Lessor") shall receive five percent (5%) of gross monthly revenues generated from such arrangement, and any Sublessee must obtain, and operate subject to the applicable provisions of a San Antonio International Airport commercial operating permit. Any entity falling under the ownership of the Lessee is exempt from this 5% monthly revenue provision.

26.08 If Lessee should ever decide to sell, in whole or in part, its interests under this Lease to any third party, City shall receive two percent (2%) of the gross purchase price received by Lessee.

26.09 Any Lessee, Sublessee or Assignee must abide by the requirements of Article 4, herein, and continue to conduct activities of an aeronautical nature. An aeronautical activity shall be defined as any activity that involves, makes possible, or is required for the operation of aircraft or that contributes to or is required for the safety of such operations. Activities within this definition, commonly conducted on airports, include, but are not limited to, the following: general and corporate aviation, air taxi and charter operations, scheduled and nonscheduled air carrier operations, pilot training, aircraft rental and sightseeing, aerial photography, aerial news reporting, law enforcement aircraft activities, crop dusting, aerial advertising and surveying, aircraft sales and services, aircraft storage, sale of aviation petroleum products, repair and maintenance of aircraft, sale of aircraft parts, parachute or ultralight activities, and any other activities that, because of their direct relationship to the operation of aircraft, can appropriately be regarded as aeronautical activities. Activities, such as model aircraft and model rocket operations, are not aeronautical activities.

ARTICLE 27. FIRE AND OTHER DAMAGE

27.01 In the event a City-owned building on the Leased Premises shall be partially damaged by fire or other casualty through no fault of Lessee, Lessee shall give immediate notice thereof to Lessor and the same shall be repaired, at Lessor's expense, without unreasonable delay, unless Lessor determines that the damage is so extensive that repair or rebuilding is not feasible. From the date of such casualty until repair, monthly rental payments hereunder shall abate based on the proportion the part of the building destroyed, or rendered untenable, bears to the total building space; provided, however, that if said building shall be so slightly injured in any such casualty as not to be rendered unfit for occupancy, the rent hereunder shall not cease or be abated during any repair period. In the event that the damage to the building, by fire or other casualty, is so extensive that the building is rendered wholly untenable, and such damage to the building, in the exclusive judgment of Lessor, makes rebuilding same to be impractical, then at the option of the Lessor, and upon notice to Lessee, this Lease Agreement, as it applies to said building, shall cease, and the rent hereunder shall be apportioned and paid up to date of such damage. If Lessor elects to rebuild such building, Lessor shall notify Lessee of such intention within thirty (30) days of the date of the damage, otherwise the Lease Agreement, as applicable to said building, shall be deemed canceled and of no further force or effect. Notwithstanding any provision above, should the destruction or damage to said building (to the extent of work that is to be provided as part of Lessor's obligation) be so great that it will not be reasonably repaired or restored by Lessor within one hundred twenty (120) days to the state of fitness that existed prior to the commencement of improvements, if any, performed by Lessee, Lessee may, at its option, terminate this Lease Agreement, as it applies to said building, by written notification of same given to Lessor within thirty (30) days after the occurrence of such casualty, or upon notification that the work will not be completed within the one hundred twenty (120) days.

27.02 Lessor's obligations to rebuild or repair under this Article shall, in any event, be limited to restoring said building to substantially the condition that existed prior to the commencement of improvements, if any, performed by Lessee and shall further be limited to the extent of the insurance proceeds available to Lessor for such restoration. Lessee agrees that if Lessor elects to repair or rebuild as set forth in this Article, then Lessee will proceed with reasonable diligence, at its sole cost and expense, to rebuild, repair and restore its improvements, signs, fixtures, furnishings, equipment and other items provided or installed by Lessee in or about the Leased Premises in a manner and to a condition at least equal to that which existed prior to the damage or destruction.

27.03 In the event that the building or other improvements upon the Leased Premises constructed by and/or owned by Lessee are damaged or destroyed by fire or any other casualty during the term of this Lease Agreement or any extension hereof, regardless of the extent of such damage or destruction, the rent payable hereunder shall not abate. Furthermore, Lessee shall, no later than one hundred twenty (120) days following the date of such damage or destruction, commence to repair, reconstruct or replace the damaged or destroyed building or improvement and prosecute the same with reasonable diligence, so that the building or improvement shall, at Lessee's sole expense, be restored no later than one (1) year following such damage or destruction to substantially the condition it was in prior to said damage or destruction. Should the commencement, construction or completion of said repair, reconstruction or replacement be prevented or delayed by reason of war, civil commotion, acts of God, strikes, governmental restrictions or regulations, fire or other casualty, or any other reason beyond the control of Lessee, the time for commencing or completing the repair,

reconstruction or replacement, as the case may be, shall automatically be extended for the period of each such delay.

ARTICLE 28. LAWS AND ORDINANCES

Lessee agrees to comply promptly with all laws, ordinances, orders and regulations affecting the Leased Premises, including, but not limited to, those related to its cleanliness, safety, operation, use and business operations. Lessee shall comply with all Federal and State regulations concerning its operation on the Airport, attached hereto as **Exhibit 2**, and shall indemnify and hold harmless Lessor, its officers and employees, from any charges, fines or penalties that may be assessed or levied by any department or agency of the United States or the State of Texas, by reason of Lessee's failure to comply with the terms of this Article or with any other terms set forth in this Lease Agreement.

ARTICLE 29. TAXES AND LICENSES

Lessee shall, at its sole cost and expense, pay on or before their respective due dates, to the appropriate collecting authority, all Federal, State and local taxes and fees, which are now or may hereafter be levied upon the Lessee, Leased Premises, the business conducted thereon or upon any of Lessee's property used in connection therewith including, but not limited to, any possessory interest taxes. Lessee shall also maintain, in current status, all Federal, State and local licenses and permits required for the operation of its business.

ARTICLE 30. NONDISCRIMINATION & AFFIRMATIVE ACTION REGULATIONS

30.01 Any discrimination by Lessee, its sublessees, agents or employees, based on race, color, creed, sex, age, religion, national origin or handicap, in employment practices, use of or admission to the Leased Premises, is prohibited.

30.02 Lessee for itself, its heirs, representatives, successors and assigns, as a part of the consideration hereof, does hereby covenant and agree, as a covenant running with the land, that in the event facilities are constructed, maintained or otherwise operated on the Leased Premises, for a purpose for which a DOT program or activity is extended or for another purpose involving the provision of similar services or benefits, Lessee shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended.

30.03 Lessee for itself, its representatives, successors and assigns, as a part of the consideration hereof, does hereby covenant and agree, as a covenant running with the land, that: (1) no person, on the grounds of race, color, creed, sex, age, religion, national origin or handicap, shall be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination, in the use of said facilities; (2) that in the construction of any improvements on, over or under such land and the furnishing of services thereon, no person on the grounds of race, color, creed, sex, age, religion, national origin or handicap shall be excluded from participation, denied the benefits of, or otherwise be subjected to discrimination;

and (3) that Lessee shall use the Leased Premises in compliance with all other requirements imposed by or pursuant to 49 CFR Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, and as said Regulations may be amended, as are shown in **Exhibit 2**.

30.04 Lessee agrees that it will comply with applicable statutes, Executive Orders and such rules as are promulgated by applicable state, federal or municipal agencies to assure that no person shall be excluded from participating in any activity conducted with or benefiting from Federal assistance on the basis of race, creed, color, national origin, sex age, or handicap.

Lessee, its successors and assigns, shall be obligated to comply with the provisions of this Section 30.04 for the period during which Federal assistance is extended to the Airport, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures of improvements thereon. In these cases, this Section 30.04 shall apply to Lessee, its successors and assigns, through the later of: (a) the period during which such property is used by Lessor, its successors and assigns for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or (b) the period during which Lessor, its successors or assigns, retains ownership or possession of the Leased Premises.

ARTICLE 31. WAGES

Lessee shall pay at least the minimum wage, as required by Federal and State statutes and City ordinances, to employees of its operations hereunder.

ARTICLE 32. FORCE MAJEURE

If either party shall be delayed or prevented from the performance of any act required hereunder by reason of acts of God, pandemics, riots, strikes, lockouts, labor troubles, war, terrorism, inability to procure materials, restrictive governmental laws or regulations or other cause, without fault and beyond the control of the party obligated (the financial inability of the party excepted, unless such financial inability is caused by a force majeure event), performance of such act shall be extended by a period equal to the period of such delay; provided, however, that nothing in this paragraph shall excuse Lessee from the prompt payment of any rental except as may be expressly provided otherwise in this Lease; and further provided that the party relying on this paragraph shall provide written notice to the other party notifying such other party of the force majeure event promptly after such force majeure event, and shall proceed with all diligence to complete the performance of the act upon the cessation of the force majeure event.

ARTICLE 33. ATTORNEYS' FEES

In the event that either Lessor or Lessee brings an action under this Lease Agreement, and prevails therein, the prevailing party shall be entitled to recover from the non-prevailing party its reasonable attorneys' fees, not to exceed the actual amount of attorneys' fees incurred in the defense or prosecution thereof.

ARTICLE 34. SEVERABILITY

If any clause or provision of this Lease Agreement is illegal, invalid or unenforceable under present or future laws, it is the parties' intention that the remainder hereof not be affected. In lieu of each clause or provision that is illegal, invalid or unenforceable, the parties intend that there be added, as a part of this Lease Agreement, a clause or

provision, as similar in terms to such illegal, invalid or unenforceable clause or provision, as may be possible, yet be legal, valid and enforceable.

ARTICLE 35. AMENDMENT

This Lease Agreement, together with its authorizing ordinance, constitutes the entire agreement between the parties. No amendment, modification or alteration of the terms of this Lease Agreement shall be binding, unless the same be in writing, dated subsequent to the date hereof, and duly executed by the parties hereto. Administrative amendments not altering the material terms of the Lease Agreement, may be executed by the Aviation Director. All other amendments must be approved by City Council by passage of an ordinance thereto.

ARTICLE 36. NOTICES

Notices to Lessor shall be deemed sufficient if in writing and sent, registered or certified mail, postage prepaid, addressed to City Clerk, P. O. Box 839966, San Antonio, Texas 78283-3966 and to Aviation Director, City of San Antonio, Department of Aviation, 9800 Airport Boulevard, San Antonio, Texas 78216, and to such other address as may be designated, in writing, by the Aviation Director from time to time. Notices to Lessee shall be deemed sufficient if in writing and sent, registered or certified mail, postage prepaid, addressed to Lessee at the address shown herein. Either party to this Lease Agreement may change its address by giving notice of such change as herein provided.

ARTICLE 37. RELATIONSHIP OF PARTIES

Nothing contained herein shall be deemed or construed by the parties hereto, or by any third party, as creating the relationship of principal and agent, partners, joint venturers or any other similar such relationship, between the parties hereto. It is understood and agreed that neither the method of computation of rent, nor any other provision contained herein, nor any acts of the parties hereto, creates a relationship other than one of Lessor and Lessee.

ARTICLE 38. CUMULATIVE REMEDIES NO WAIVER - NO ORAL CHANGE

The specific remedies of the parties under this Lease Agreement are cumulative and do not exclude any other remedies to which they may be lawfully entitled, in the event of a breach or threatened breach hereof. The failure of either party ever to insist upon the strict performance of any covenant of this Lease Agreement, or to exercise any option herein contained, shall not be construed as its future waiver or relinquishment thereof. Lessor's receipt of a rent payment, with knowledge of the breach of any covenant hereof, shall not be deemed a waiver of such breach. Further, no waiver, change, modification or discharge by either party of any provision of this Lease Agreement shall be deemed to have been made or be effective, unless in writing and signed by the party to be charged. In addition to other remedies herein, the parties shall be entitled to an injunction restraining the violation, or attempted violation, of any of the covenants, conditions or provisions hereof, or to a decree compelling performance of same; subject, however, to other provisions herein.

ARTICLE 39. CONFLICT OF INTEREST

The Charter of the City of San Antonio and the City of San Antonio Code of Ethics prohibit a City officer or employee, as those terms are defined in Section 2-52 of the Code of Ethics, from having a direct or indirect financial interest in any contract with the City. An officer or employee has a "prohibited financial interest" in a contract with the City or in the sale to the City of land, materials, supplies or service, if any of the following individual(s) or entities is a party to the contract or sale:

- a City officer or employee; his or her spouse, sibling, parent, child or other family member within the first degree of consanguinity or affinity;
- an entity in which the officer or employee, or his or her parent, child or spouse directly or indirectly owns (i) 10 percent or more of the voting stock or shares of the entity, or (ii) 10 percent or more of the fair market value of the entity; or
- an entity in which any individual or entity listed above is (i) a subcontractor on a City contract, (ii) a partner or (iii) a parent or subsidiary entity.

Pursuant to the subsection above, Lessee warrants and certifies, and this Agreement is made in reliance thereon, that by contracting with the City, Lessee does not cause a City employee or officer to have a prohibited financial interest in the Contract. Lessee further warrants and certifies that it has tendered to the City a Contracts Disclosure Statement in compliance with the City's Ethics Code.

ARTICLE 40. GENERAL PROVISIONS

40.01 Incorporation of Exhibits. All exhibits referred to in this Lease Agreement are intended to be and hereby are specifically made a part of this Lease Agreement.

40.02 Incorporation of Required Provisions. Lessor and Lessee incorporate herein by this reference all provisions lawfully required to be contained herein by any governmental body or agency.

40.03 Nonexclusive Rights. It is understood and agreed that nothing herein contained shall be construed to grant to Lessee any exclusive right or privilege within the meaning of Section 308 of the Federal Aviation Act for the conduct of any activity on the Airport, except that, subject to the terms and provisions hereof, Lessee shall have the right to exclusive possession of the Leased Premises.

40.04 Removal of Disabled Aircraft. Lessee shall promptly remove any disabled aircraft that is in the care, custody, or control of Lessee from any part of the Airport (other than the Leased Premises) (including, without limitation, runways, taxiways, aprons, and gate positions) and place any such disabled aircraft in such storage areas as may be designated by the Aviation Director. Except as to aircraft subject to bailment and/or for which Lessee is owed money from a customer, Lessee may store such disabled aircraft only for such length of time and on such terms and conditions as may be established by Lessor. If Lessee fails to remove any of disabled aircraft promptly, the Aviation Director may, but shall not be obligated to, cause the removal of such disabled aircraft, provided, however, the obligation to remove or store such disabled aircraft shall not be inconsistent with federal laws and regulations and Lessee agrees to reimburse Lessor for all costs of such removal, and Lessee further hereby releases Lessor

from any and all claims for damage to the disabled aircraft or otherwise arising from or in any way connected with such removal by Lessor unless caused by the negligence or recklessness of Lessor.

40.05 Airport Access License/Permit. Lessor reserves the right to establish a licensing or permit procedure for vehicles requiring access to the Airport operational areas and to levy directly against Lessee or its suppliers a reasonable regulatory or administrative charge (to recover the cost of any such program) for issuance of such Airport access license or permit.

40.06 Compliance with Part 77, Title 14, CFR. Lessee agrees to comply with the notification and review requirements covered in Part 77, Title 14, Code of Federal Regulations, FAA Regulations, in the event future construction of a building is planned for the Leased Premises, or in the event of any planned modification or alteration of any present or future building or structure situated on the Leased Premises.

40.07 Reservations re: Airspace and Noise There is hereby reserved to Lessor, its successors, and assigns, for the use and benefit of the public, a right of flight for the passage of aircraft in the airspace above the surface of the Leased Premises.

40.08 Inspection of Books and Records. Each party hereto, at its expense and on reasonable notice, shall have the right from time to time to inspect and copy the books, records, and other data of the other party relating to the provisions and requirements hereof, provided such inspection is made during regular business hours and such is not prohibited by the U.S. Government. This inspection is limited in scope to activities directly related to the leased property, not to include ancillary activities of the Lessee.

40.09 Independent Contractor. Lessee is not an employee or agent of City by reason of this Lease Agreement, or otherwise. Lessee shall be solely responsible for its acts and omissions arising from or relating to its operations or activities at Airport, or lease of property herein.

40.10 Authority of Agreement. Lessee warrants and represents that it has the right, power, and legal capacity to enter into, and perform its obligations under this Lease Agreement, and no approvals or consents of any persons are necessary in connection with it. The execution, delivery, and performance of this Lease Agreement by the undersigned Lessee representatives have been duly authorized by all necessary corporate action of Lessee, and this Lease Agreement will constitute a legal, valid, and binding obligation of Lessee, enforceable in accordance with its terms.

40.11 Authority of the Aviation Director. The Aviation Director shall administer this Lease Agreement on behalf of Lessor. Whenever this Lease Agreement calls for approval by Lessor, such approval shall be evidenced, in writing, by either the Aviation Director or the City Manager of the City of San Antonio or his designee. In no event shall this language be considered a waiver by Lessee to object to decisions by the Aviation Director which it considers to be arbitrary, capricious or inconsistent with any express obligations to act reasonably set forth herein.

40.12 Consent. Whenever the consent or approval of either party hereto is required or authorized hereunder, such consent or approval shall not be unreasonably withheld, unreasonably conditioned, or unreasonably delayed.

40.13 Net Agreement. It is the intent and purpose of the City and Lessee that all rental payable by Lessee herein shall be absolutely net to the City so that this Lease Agreement shall yield to City the entire rent specified, in each year of this Lease Agreement, free of any charges, assessments, impositions or deductions of any kind or character which may be charged, assessed, or imposed on or against Lessee or the Leased Premises, without abatement, deduction or set-off by Lessee.

40.14 Noise Control. Lessee, for itself and each of its officers, representatives, agents, employees, guests, patrons, contractors, subcontractors, licensees, subtenants, invitees, or suppliers shall not conduct any operation or activity on the Leased Premises, or elsewhere at Airport, in which the sound emitting therefrom is of such volume, frequency or intensity at such time as to constitute a nuisance. The Aviation Director shall have the sole and exclusive authority to determine what constitutes a nuisance under the provisions of this Lease Agreement except that operations and activities having noise levels not in violation of federal, State, or local governmental standards shall not be deemed a nuisance.

40.15 Time is of the Essence. Time shall be of the essence in complying with the terms, conditions and provisions of this Lease Agreement.

40.16 Vehicular and Equipment Parking. Vehicular and equipment parking in areas other than the Leased Premises by Lessee, its officers, representatives, agents, employees, guests, patrons, volunteers, contractors, subcontractors, licensees, suppliers or other invitees shall be restricted to such areas at Airport as are designated by the Airport Director.

40.17 Leasing Policy. If, at any time, City or Aviation Department should adopt a comprehensive SAT Leasing Policy, Lessee agrees to abide by the terms and conditions contained therein to the extent such SAT Leasing Policy is delivered to Lessee by Lessor.

40.18. Third-Party Operating Permits. Lessee understands and agrees that any third party entering into Lessee's leasehold to conduct business must apply for, and be granted, a commercial operating permit by the Aviation Department. Lessee must provide to Aviation Department a complete listing of any sub-tenants or contractors conducting business within the Leased Property, prior to commencement of any commercial activities. This list must include specific contact information (name of contact, phone number and email address) for any party listed.

ARTICLE 41. PARTIES BOUND

This Lease Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors and assigns, as permitted hereby.

ARTICLE 42. TEXAS LAW TO APPLY

All obligations under this Lease Agreement are performable in Bexar County, Texas, and shall be construed pursuant to the laws of the State of Texas, except where state law shall be preempted by any rules, laws or regulations of the United States.

ARTICLE 43. GENDER

Words of either gender used in this Lease Agreement shall be held and construed to include the other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires.

ARTICLE 44. CAPTIONS

The captions of the provisions contained herein are for convenience in reference and are not intended to define, extend or limit the scope of any provision of this Lease Agreement.

ARTICLE 45. ENTIRE AGREEMENT

This Lease Agreement comprises the final and entire agreement, including all terms and conditions thereof, between the parties hereto, and supersedes all other agreements, oral or otherwise, regarding the subject matter hereof, none of which shall hereafter be deemed to exist or to bind the parties hereto. The parties intend that neither shall be bound by any term, condition or representation not herein written.

IN WITNESS WHEREOF, the undersigned have duly executed this Lease Agreement as of the dates set forth below.

LESSOR: CITY OF SAN ANTONIO

ROCKING M HANGAR SERVICES, LLC

By: _____
Erik J. Walsh, City Manager

By: Mark P. Mays

Date: _____

Date: 3-8-23

Approved as to form:

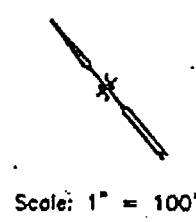
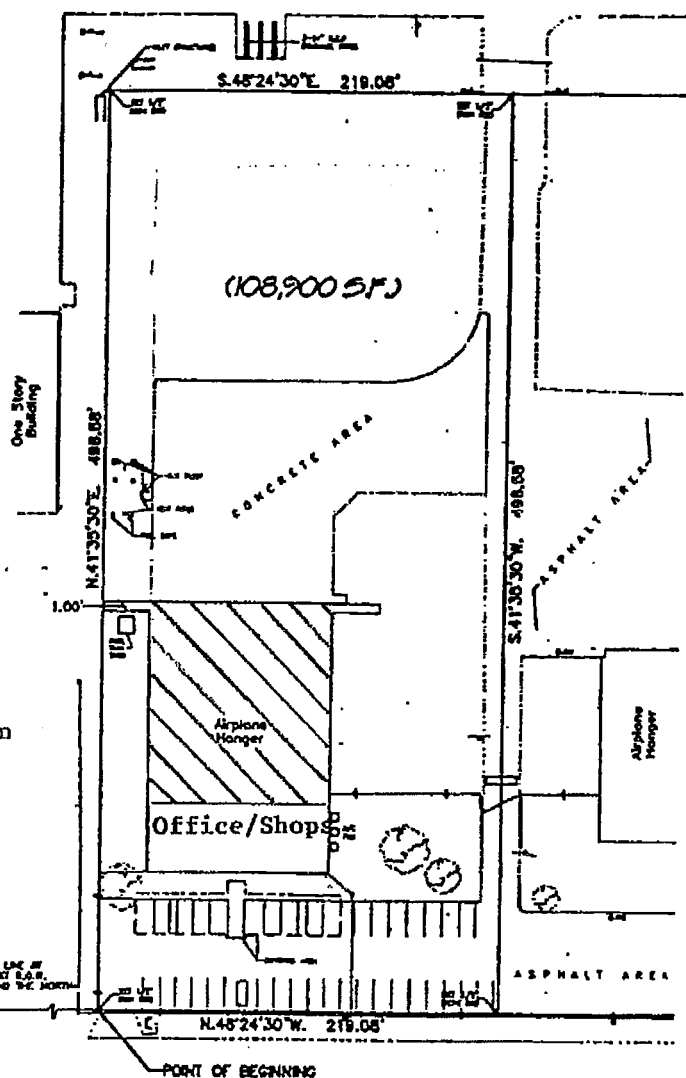
Mark P. Mays
manager

City Attorney

EXHIBIT 1—PREMISES

PERIMETER ROAD

FOUND 1/2" IRON ROD AT ALL PROPERTY CORNERS OR AS SHOWN



 "Demolition Area"

BEARING AND DISTANCE TO SOUTH END OF OLD BLDG LINE AT THE INTERSECTION OF THE OLD S.A.S. LINE W/ S.L. HIGHWAY 281 AND THE NORTH END BLDG. OF SMOKE SH.

LEGEND

- ⊙ WATER VALVE
- ⊕ WATER WAVE BOX
- ⊠ FIRE HYDRANT
- ⊞ POWER POLE
- - - CHAIN LINK FENCE
- ⊞ STREET LIGHT
- ⊞ TRAFFIC SIGN
- ⊞ BA. SIGN
- ⊞ MAN-HOLE ELECTRIC
- ⊞ TELEPHONE PEDESTAL
- ⊞ GUANO POST
- ⊞ LIGHT STANDARD
- ⊞ WOT PIPE
- ⊞ FUEL CAP



Reymundo J. Medina

A METES AND BOUNDS DESCRIPTION OF EVEN DATE HEREWITH ACCOMPANIES THIS SURVEY PLAT.

6214-7-8-78

 **BAIN MEDINA BAIN, INC.**
ENGINEERS & SURVEYORS
1888 Canyon Parkway, Suite 100
San Antonio, Texas 78202
214/344-1222

EXHIBIT 2
FOR PREMISES LEASED
to
P. G. & E. HANGAR LEASE SPACE
San Antonio
International Airport
LEASE No. 124127

Dwyer & Co.

Metes and bounds description for 2.50 acres (108,900 sq. ft.) of land being out of NCB 12052, San Antonio International Airport, Bexar County, Texas and being more particularly described by metes and bounds as follows:

BEGINNING: At a found ½ inch diameter iron pin in the northeast R.O.W. line of Sandau Rd. for the west corner of the herein described parcel, said point being S 48° 24' 30" E, 120.29 feet from the south end of a cut-back line at the intersection of the east R.O.W. line of U.S. Highway 281 and the northeast R.O.W. line of Sandau Rd.

THENCE: N 41° 35' 30" E, 496.58 feet along the west line of the herein described parcel to a set ½ inch diameter iron pin for the east corner of same;

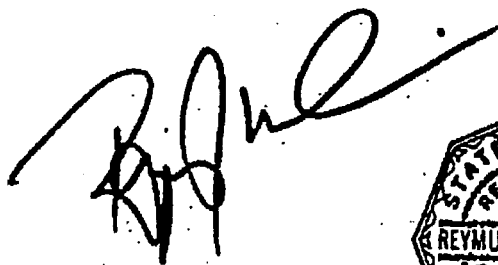
THENCE: S 48° 24' 30" E, 219.08 feet along the north line of the herein described parcel to a set ½ inch diameter iron pin for the east corner of same;

THENCE: S 41° 35' 30" W, 496.58 feet along the east line of the herein described parcel to a found ½ inch diameter iron pin in the northeast Right-of-Way line of Sandau Road for the south corner of same;

THENCE: N 48° 24' 30" W, 219.08 feet along the northeast R.O.W. line of Sandau Rd. to the POINT OF BEGINNING containing 2.50 acres of land.

A survey plat of even date herewith accompanies this metes and bounds description.

Complied by: Bain Medina Bain, Inc.
Date: July 8, 1998
BMB J.O.#: S-4231a



**EXHIBIT 2
REQUIRED FEDERAL CONTRACT PROVISIONS**

Compliance with Nondiscrimination Requirements

During the performance of this Lease, Lessee, for itself, its assignees, and successors in interest (hereinafter referred to as the "Lessee") agrees as follows:

1. **Compliance with Regulations:** Lessee (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this Lease.
2. **Non-discrimination:** Lessee, with regard to the work performed by it during the Lease, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Lessee will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 C.F.R. Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by Lessee for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Lessee of Lessee's obligations under this Lease and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** Lessee will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the City or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of Lessee is in the exclusive possession of another who fails or refuses to furnish the information, Lessee will so certify to the City or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of Lessee's noncompliance with the Non-discrimination provisions of this Lease, City will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the Lessee under the Lease until Lessee complies; and/or
 - b. Cancelling, terminating, or suspending the Lease, in whole or in part.
6. **Incorporation of Provisions:** Lessee will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. Lessee will take action with respect to any subcontract or procurement as the City or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if Lessee becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, Lessee may request the City to enter into any litigation to protect the interests of the City. In addition, Lessee may request the United States to enter into the litigation to protect the interests of the United States.

Federal Fair Labor Standard Act (Federal Minimum Wage)

All contracts and subcontracts that result from this solicitation shall incorporate by reference the provisions of 29 C.F.R. Part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

Lessee has full responsibility to monitor compliance to the referenced statute or regulation. Lessee must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

Occupational Safety and Health Act of 1970

All contracts and subcontracts that result from this solicitation shall incorporate by reference the requirements of 29 C.F.R. Part 1910 with the same force and effect as if given in full text. Lessee must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. Lessee retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 C.F.R. Part 1910). Lessee must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

DRUG-FREE WORKPLACE

(a) Definitions. As used in this clause—

“Controlled substance” means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

“Conviction” means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

“Criminal drug statute” means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

“Drug-free workplace” means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

“Employee” means an employee of a Contractor directly engaged in the performance of work under a Government contract. “Directly engaged” is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

“Individual” means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall—within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration—

- (1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor’s workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- (2) Establish an ongoing drug-free awareness program to inform such employees about—
 - (i) The dangers of drug abuse in the workplace;
 - (ii) The Contractor’s policy of maintaining a drug-free workplace;
 - (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (3) Provide all employees engaged in performance of the contract with a copy of the statement required by paragraph (b)(1) of this clause;
- (4) Notify such employees in writing in the statement required by paragraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will—
 - (i) Abide by the terms of the statement; and
 - (ii) Notify the employer in writing of the employee’s conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;

- (5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
 - (6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
 - (i) Taking appropriate personnel action against such employee, up to and including termination; or
 - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
 - (7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) through (b)(6) of this clause.
- (c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.
- (d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.

EXHIBIT 3
CITY OF SAN ANTONIO DESIGN CRITERIA MANUAL



CITY OF SAN ANTONIO

AVIATION DEPARTMENT

**STANDARDS AND
SPECIFICATIONS FOR
CONSTRUCTION**

San Antonio International Airport Standards and Specifications for Construction

Table of Contents

	Page
SECTION 1 – INTRODUCTION.....	1
1.1. Introduction	1
1.2. Definitions:	1
1.3. Abbreviations:	2
SECTION 2 – SECURITY, ESCORTS AND DELIVERIES	3
2.1. Introduction	3
2.2. Security Badging Procedure	3
2.3. Security of Existing Facilities and Special Airport Conditions.....	4
2.4. Escorts across Airfield Operations Area (AOA).....	6
2.5. Airport Security and Materials Delivery.....	6
2.6. Curb Side Deliveries	6
2.7. Ramp side Deliveries	7
2.8. Materials Delivery	7
SECTION 3 – DESIGN CRITERIA	8
3.1. Introduction	8
3.2. General Requirements for all Submissions:	9
3.3. Concession Design Elements	9
3.4. Conceptual Plans Submission:	10
3.5. Final Drawing Submission:	11
3.6. Changes After Final Drawing Approval:.....	14
3.7. Physical On-Site Inspection:.....	14
3.8. Aviation Department Drawing Review and Approval:.....	14
3.9. Drawings Submittal Address:.....	15
3.10. Construction Requirements and Project Close-Out.....	15
3.11. Tenant IT and Cable Policies.....	17
3.12. Temporary Construction Barricade Design.....	20
SECTION 4 – CONSTRUCTION CRITERIA	21
4.1. Purpose of Construction Criteria.....	21
4.2. Use of Construction Criteria.....	21

San Antonio International Airport Standards and Specifications for Construction

Table of Contents

	Page
4.3. City/Tenant Work	22
4.4. HVAC, Electrical, Plumbing, IT and Fire Protection	23
4.5. Construction Requirements	28
4.6. Contractors and Subcontractors Insurance	29
4.7. Pre-Construction Meetings and General Procedures	29
4.8. Aviation Properties and Concessions Division	31
4.9. Progress Meetings	31
4.10. Interruptions to Existing Facilities	31
4.11. Keys and Locks.....	32
4.12. Hazardous Material.....	32
4.13. Dust Control	33
4.14. Noise Control	33
4.15. Welding Notification in the Concession Space	33
4.16. Barricades	34
4.17. Parking.....	35
4.18. Trash and Debris Removal	35
4.19. Floor and Roof Penetrations	35
4.20. Close-Out Requirements	36
4.21. Construction Deposit, if applicable.	37
4.22. General Construction Documents and Miscellaneous Items.....	37
SECTION 5 – STRUCTURED CABLING INFRASTRUCTURE GUIDELINES	41
PART 1 - DOCUMENT PURPOSE	41
PART 2 - DOCUMENT HISTORY.....	42
PART 3 - INDUSTRY STANDARDS.....	42
PART 4 - CONTRACTOR QUALIFICATIONS.....	43
PART 5 - WARRANTY ON PARTS AND LABOR.	43
PART 6 - NOMENCLATURE	44
PART 7 - CITY INFRASTRUCTURE STANDARDS	44
PART 8 - SUMMARY OF STANDARDS.....	69
PART 9 - EXHIBITS	69

**San Antonio International Airport
Standards and Specifications for Construction**

Table of Contents

	<u>Page</u>
SECTION 6 – CONCESSION SIGNAGE CRITERIA	111
6.1. Scope	111
6.2. Applicability	111
6.3. Procedure	111
6.4. General Rules	111
6.5. Promotional Signs	112
6.6. Miscellaneous Signs	112
6.7. Blade Signs	113
SECTION 7 – CLEANING AND PREVENTATIVE MAINTENANCE REQUIREMENTS	115
SECTION 8 – WILDLIFE CONCERNS	116

SECTION 1 – INTRODUCTION**1.1. Introduction**

The City of San Antonio (City) is the operator of San Antonio International Airport (SAT). The City is responsible for providing consumer services to the public within the airport and has the right to lease certain areas for the operation of concession facilities within the Terminals as well as for airline, tenant or concession construction processes.

This Specification Manual and the FAA Standards for Specifying Construction of Airports is to provide guidelines for design and construction at SAT. It is not intended to amend, modify, or supersede any provisions of federal, state, or local law, or any specific contractual agreement of the City with which it may conflict; provided, however, that this Specification Manual shall, insofar as possible, be interpreted such that a conflict shall not exist.

This Specification Manual, together with the lease agreement or concession agreement, any referenced documents herein, any permits and documents as may be required by the City shall govern the construction coordination process along with the FAA Standards for Specifying Construction of Airports, Advisory Circular 150/5370-10G, which can be found on their website at www.faa.gov.

1.2. Definitions:

1. "Agreement" shall mean the lease agreements and concession agreements between the City of San Antonio and each tenant leasing space and/or operating a concession in the Terminals at SAT.
2. "Tenant" shall mean a person, group, or company to whom a space has been leased (under contract), to operate a subsidiary business or service.
3. "Tenant's Work" shall mean Tenant's total responsibility (or any portion thereof) for the construction and improvement of the Premises. Tenant's Work shall be performed at Tenant's sole cost and expense. Tenant's Work shall include, but not be limited to, all work necessary or required to complete the Premises.
4. "Properties and Concessions Management" shall mean SAT staff or SAT contractor assigned to oversee the program for the Aviation Department.
5. "Specification Manual" shall mean this document: San Antonio International Airport Standards and Specifications for Construction, which was developed for Tenants, their Consultants and Contractors, intending to construct improvements, alterations, and/or new facilities at SAT. It is the intent of the Specification Manual to assist applicants so Tenant Permit Application (CPA) submissions can be complete; time frames for review can be more predictable; and construction and closeout requirements can be understood. The procedures outlined and referenced in this Specification Manual are applicable to all types of construction, alterations,

equipment additions/replacements, and maintenance work performed by a Tenant within their leasehold.

6. The term "City's Work" shall mean City's total responsibility for construction of improvements within the Terminal as set forth in the lease Agreement. City's Work shall be of a design, type, size, location, quality and nature as may be selected by City from time to time. Any item of work necessary to complete the Premises, which is not hereinafter specifically included as part of City's Work, shall be considered as part of Tenants Work.
7. The term "Tenant's Requirements" includes, but is not limited to, the following; this Specification Manual, the Agreement, the CPA and its process requirements, and all of the requirements set forth in the most current edition of local codes.

1.3. Abbreviations:

ADA	Americans with Disabilities Act
AOA	Airfield Operations Area
BPA	Building Permit Application also referred to as Building Permit
CADD	Computer Aided Drafting and Design
COSA	City of San Antonio
CMS	Cable Management System
CPA	Concessionaire Permit Application
EMT	Electrical Metallic Tubing
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
GC	General Contractor
IDF	Intermediate Distribution Frames
IP	Internet protocol
ISP	Internet Service Provider
IT	Information Technology
MACs	Moves, Adds and Changes
MDF	Main Distribution Frame
MSDS	Material Safety Data Sheets
OSHA	Occupational Safety and Health Administration
PDS	Perimeter Distribution System
Pre-Con	Pre-Construction Meeting
SAAS	San Antonio Airport System
SAT	San Antonio International Airport
TAS	Texas Accessibility Standards
TGB	Telecommunications Grounding Busbar
TMGB	Telecommunications Main Grounding Busbar
TI	Tenant Improvement
TSA	Transportation Security Administration

SECTION 2 – SECURITY, ESCORTS AND DELIVERIES**2.1. Introduction**

This section summarizes some of the rules and regulations that apply to tenants, their consultants and contractors in regards to security, escorts and deliveries. Please refer to the entire San Antonio Airport System Airport Rules & Regulations document online at [www.sanantonio.gov/Portals/0/Files/Aviation/Documents/Airport%20Rules%20and%20Regs%20-%202015%20\(full-size\).pdf](http://www.sanantonio.gov/Portals/0/Files/Aviation/Documents/Airport%20Rules%20and%20Regs%20-%202015%20(full-size).pdf).

2.2. Security Badging Procedure

Due to the volume of construction taking place and the short duration of the Tenant's work, the Tenant under contract to City will be responsible for Tenant's Contractors badges and required background checks. All Contractors and Subcontractors prior to the preconstruction meeting will be required to comply with the security identification badging process as required by Airport Police, if the concession location is post security.

The badging procedure is as follows:

The Tenant, General Contractor and all subcontractors to be employed by the Tenant will arrange a time with the Airport Badging/ID office to complete the necessary forms, stand for the required pictures and schedule a security training class prior to receiving the appropriate security badge. Application forms are available from the Airport Badging/ID Office located west of the Terminals and must be executed by the individual employee, the Contractor and authorized Tenant representative.

All individuals must bring two (2) forms of identification (social security card, military id and valid driver's license or passport) and complete the security badge application at the Badging/ID office for badge processing to begin.

The badging process usually takes from 24 to 72 hours.

White badges will allow an individual to pass through the Security Checkpoint only, and do not allow the individual access to the Airfield or activate secure doors. All white badges must be escorted by an individual with an appropriate yellow or red badge when accessing the airfield or passing through secure doors.

Yellow badges will allow an individual to pass through Security Checkpoints, access to the immediate airfield area surrounding the terminal buildings.

The Tenant will be responsible for collecting and returning all contractor badges to the Airport Police, upon completion and opening of the concession location. The cost associated with any badge not returned will be deducted from the Contractors deposit.

2.3. Security of Existing Facilities and Special Airport Conditions

All materials, equipment, tools, gang boxes, vehicles, supplies and personnel are subject to security inspection at the beginning and end of each work shift. When in the Airport or on Airport property, all personnel will be required to maintain a visible site access badge on their person at all times. Any breach in security or failure to follow mandated rules can result in the removal of both the individual(s) involved as well as the General Contractor.

Contractor shall perform Contractor's Work so as not to: (i) unreasonably interfere with any other construction being performed at the Terminal or (ii) unreasonably impair the use, occupancy or enjoyment at the Terminal and/or the Airport by City, the City, other airlines, (iii) other Tenants.

Tenant shall (i) take all safety measures required to protect the Terminal and/or the Airport from injury or damage caused by or resulting from the performance of Contractor's Work and defend, protect and indemnify' City and the City's (including their respective agents, commissioners, officers, directors and employees), other airlines, other Tenants operating concession facilities or customers of any of them from any and all claims arising from or in connection with the death of or accident, injury, loss or damage whatsoever caused to any natural person or to the property of any person or entity arising out of, in connection with, or as a result of Contractor 's Work; (ii) repair any and all damage to the Terminals and or the Airport as a result of Contractor's Work; and (iii) require all contractors and subcontractors to comply with all of the requirements and Permits for the performance of Contractor's Work.

Terminal A

All materials, equipment, and workers must enter Terminal A through the Loading Dock, off load and transfer all material, equipment and workers via the freight elevator to the concourse level. All materials, equipment and workers will be required to enter the concourse through security doors adjacent to the freight elevator, which will require activation by a yellow or red security badge. All security doors require badges to be swiped through the reader, prior to entering the concourse area. A security checkpoint will be provided either on the loading dock or outside the freight elevator on the concourse level. All deliveries, materials, equipment, tools and workers are subject to search and an inventory will be provided to the Airport Police, an Aviation Department representative or their designee . All personnel entering the concourse will be required to display an SAT security badge; there will be no exceptions. If a General Contractor wishes to use a subcontractor who does not have a badge, that subcontractor must allow adequate time prior to reporting for work for the badging process, no escorts or special permits will be provided. In all cases the General Contractor and ultimately the Tenant are responsible for the actions of all involved with the construction of the space.

Once off-loaded, all vehicles will be relocated to a parking area that is designated by the Aviation Department or Airport Security for the duration of the shift.

In certain circumstances, Contractors will be allowed to off load oversize equipment or supplies curbside on the ticketing level. All requests for curbside delivery will require 48 hours' notice to Properties and Concession Division Consulting and a Police escort for the vehicle and entry through the curbside secure doors.

Terminal B

All materials, equipment, and workers entering Terminal B require entrance through a pre-determined Security Checkpoint. All deliveries, materials, equipment, tool and workers are subject to search prior to entering the airfield operations area. All tools, materials and equipment will be inventoried and the list will be provided to the Airport Police, an Aviation Department representative or their designee upon arrival at the checkpoint. All personnel entering the concourse will be required to display an SAT security badge; there will be no exception.

Construction hard hat, hard soled footwear, safety glasses, and safety vest are required site equipment.

Once offloaded, all vehicles will be relocated to a parking area, designated by the Aviation Department or Airport Security for the duration of the shift.

If any contractor/subcontractor employee wishes to exit the work area during work hours, the employee must store all tools and supplies in the work area job box.

Tenant shall perform Tenant's Work so as not to: (i) unreasonably interfere with any other construction being performed at the Terminals or (ii) unreasonably impair the use, occupancy or enjoyment at the Terminals and/or the Airport by City, the City, other airlines, (iii) other Tenants operating concession facilities (iv) customers of any Tenant or (v) the traveling public.

Tenant shall (i) take all safety measures required to protect the Terminals and/or the Airport from injury or damage caused by or resulting from the performance of Tenant's Work and defend, protect and identify the City (including their respective agents, commissioners, officers, directors and employees), other airlines, other Tenants operating concession facilities or customers of any of them from any and all claims arising from or in connection with the death of or accident, injury, loss or damage whatsoever caused to any natural person or to the property of any person or entity arising out of, in connection with, or as a result of Tenant's Work; (ii) repair any and all damage to the Terminals and/or the Airport as a result of Tenant's Work and (iii) require all contractors and subcontractor to comply with all of the requirements and Permits for the performance of Tenant's Work.

2.4. Escorts across Airfield Operations Area (AOA)

Escorts will be badged and AOA Licensed. All requirements for escort across the AOA will be coordinated with the Properties and Concession's Division. The Properties and Concession's Division will develop a standing schedule for work shift commencement and ending, and notify Airport Operations and the Airport Police for escort availability. Delivery of materials which cannot be accommodated by the contractor's vehicles and requires supplier vehicles to be escorted across the AOA requires 72 hours' notice to the Properties and Concession's Division. All scheduled escorts are subject to priority conditions on the airfield and may not be provided as scheduled. For operation of vehicles within the AOA, refer to Section 3-78 of the Airport Rules & Regulations, which can be found online at the link below:

[www.sanantonio.gov/Portals/0/Files/Aviation/Documents/Airport%20Rules%20and%20Regs%20-%202015%20\(full-size\).pdf](http://www.sanantonio.gov/Portals/0/Files/Aviation/Documents/Airport%20Rules%20and%20Regs%20-%202015%20(full-size).pdf).

2.5. Airport Security and Materials Delivery

Most of the work will take place on the Concourse Level and the security clearance required on this level is the mandatory SAT security badge. After the last flight, the security checkpoint will be closed and only yellow- or red-badged personnel are allowed access to the Concourse through secured doors. The Tenant's General Contractor is required to notify Properties and Concessions Office at least three days in advance of all deliveries so they can coordinate with all parties involved to allow access. Yellow badges may be provided to Tenant Contractor's on limited bases for access through secured doors and all other personal including subcontractors will be provided White badges for identification. The Tenant and Tenant's General Contractor are responsible for ensuring that all individuals follow the rules concerning access to the Terminals. Failure to comply with these rules can lead to the removal of the individual(s) involved as well as the Tenant's General Contractor.

At no time will hard cast steel wheels be allowed to cross facility flooring in Terminals. It is imperative that extreme caution be taken to avoid any damage to the flooring. General Contractors and their subs are subject to repair charges if damages to the terrazzo flooring occur during construction.

2.6. Curb Side Deliveries

For extremely large items and depending on the location of the space, a Curbside delivery may be necessary. Contact the Properties and Concessions office at least five working days prior to delivery. Only soft-wheeled dollies may be used; no forklifts, pallet jacks, debris containers or extremely heavy objects are allowed. General Contractor and their sub's are subject to repair charges if damages to the terrazzo flooring occur during construction. The Terminals floors are constructed and designed primarily for pedestrian usage, therefore the Tenant/Contractor must utilize the necessary floor protection. Since this type of delivery require several departments to be notified, it is imperative to contact the Properties and Concessions Office early in the project.

2.7. Ramp side Deliveries

Larger items may be delivered to the ramp side of the Terminal. These deliveries require an official escort. Contact the Properties and Concession's Office at least 5 working days to arrange for all ramp side deliveries. Delivery drivers will be inspected and enter through Gate 20 and will follow the escort and observe all posted speed limits and signage.

ALL AIRCRAFT HAVE THE RIGHT OF WAY.

2.8. Materials Delivery

- Walk route with Airport Personnel prior to delivery
- Notify the Communications Center of schedule for the arrival of the delivery vehicle Start delivery after 7 p.m. and finish by 5 a.m.
- Use the loading dock freight elevator in Terminal A
- Special deliveries to loading dock ramps require an escort and prior approval

SECTION 3 – DESIGN CRITERIA**3.1. Introduction**

It is the responsibility of the Tenant to field-verify the as-built conditions of each lease space.

Tenant's Work shall be subject to the Aviation Department's and the Development Services Department's prior approval. Such approval shall be determined in their sole discretion, and shall be designed, fabricated, constructed, and installed to comply with all of the Tenant's Requirements.

The design, fabrication, construction, and installation of Tenant's Work must comply with each of the following requirements:

- a. This Specification Manual (to include specifications and procedures)
- b. Current local codes
- c. Tenant's Final Drawings, as approved by the Aviation Department
- d. All applicable laws, ordinances, codes, regulations, and the requirements of all federal, state, and/or local permitting, building, and inspection agencies.
- e. All applicable standards of the American Insurance Association, the American Society of Heating, Refrigeration, and Air Conditioning, Engineer's Guide (latest edition) the City's Insurance Carriers, the local building codes and regulations and all other agencies having jurisdiction.
- f. All provisions for access to the construction site as determined by Aviation Department.
- g. All safety measures, including, but not limited to, safety training classes as required by the Aviation Department, Properties and Concession Management, and the Transportation Security Administration (TSA).
- h. Tenant will be required to comply with standard finishes established by the Aviation Department.

In the event of a conflict between any of the aforementioned items, the most stringent requirement shall govern each increment of Tenant's Work.

All aspects of Tenant's Work shall be performed in a professional, first-class and workmanlike manner and shall be in a good, first-class and usable condition as of the date of completion and maintained in such condition at all times. All materials used in Tenant's Work, Tenant's construction of the Premises, and installations made as a part of Tenant's Work shall be of new, commercial grade, and first-class quality.

After Tenant's initial construction of the Premises, any and all elective remodeling and alterations required of Tenant by the Aviation Department under the applicable provisions of the Agreement shall be performed.

Tenant shall be solely responsible for the investment required for the planning, design, development, construction, fabrication, and installation of all Fixed Improvements and Operating Equipment necessary to complete the premises as required by the Lease Agreement. The Tenant is responsible for all demolition

and preparation of the lease space for new construction. Such investment shall be subject to the detailed review and approval by the Aviation Department as provided elsewhere in the Lease Agreement and in the Tenant's Construction Requirements.

3.2. General Requirements for all Submissions:

Within five (5) calendar days after the effective date of the Agreement and lease date, Tenant shall notify the Properties and Concession Management of the identity of the licensed architect engaged by Tenant for the preparation of the drawings for Tenant Work.

Tenant and/or Tenant's architect shall immediately engage mechanical, electrical, plumbing, and fire protection system engineers and notify the Properties and Concession Management of such, in writing, as soon as possible thereafter.

All architects and engineers, obtained in accordance with the above 2 paragraphs, must be licensed in the state of Texas, as required.

Tenant's architect and engineers shall submit all drawing documentation, in hard copy and electronic versions (AutoCAD and PDF), to the Properties and Concession Management Office. Properties and Concession Management shall distribute drawings for review and reply via email, fax, or mail to Tenant with comments and any applicable illustrations to further convey comments.

The Aviation Department will review the drawings at 30%, 60% and 100% for general compliance with all applicable Design criteria for the Airport facilities.

3.3. Concession Design Elements

The designers of the concession are encouraged to design visually stimulating spaces that incorporate complimentary building finishes. The design elements consist of the following:

- 1) Mainly open store fronts with rolling overhead grilles by Tenant;
- 2) Blade sign (by tenant to Aviation standards);
- 3) Signage (by tenant); mounting, size and material as approved by the Aviation Department;
- 4) Ceilings;
- 5) Remainder of furr down and existing finish out to extend to lease line only, all surfaces within lease line to be finished by tenant including, but not limited to a pier, flooring, walls and ceiling;
- 6) All millwork used within lease spaces must be durable and high-design quality;
- 7) All areas planned to be a wet surface like a kitchen, mop sink area, and dish washing area should be designed with a membrane floor with suitable floor covering to match the areas use. The use of a proper floor drain or floor sinks when required.
- 8) Areas equipped with grease interceptors should have an automatic chemical injection system to assist in preventing excessive grease and food accumulation in the drain lines. The chemical introduced should be non-destructive to the piping system.

3.4. Conceptual Plans Submission:

- 1) Tenant shall prepare five (5) 24"x36" sets of conceptual plans for the Premises in accordance with the provisions of the Standards and Specifications for Construction and current local code and submit them to the Properties and Concessions Management Office for Aviation Department approval, such approval to be determined in its sole discretion. The Conceptual Plans must be submitted to the Properties and Concessions Management Office no later than thirty (30) calendar days from the effective date of the lease Agreement and lease date or such shorter period of time as may be required for Tenant to open for business as per contract, and shall include at a minimum the following (as applicable to work scope):
 - a. Cover Page - To include code information, contact information for complete design team, location/site maps, Table of Contents, address, etc.
 - b. Demolition Plan - To include items proposed to be removed.
 - c. Floor Plan to include overall dimensions, interior finishes, construction components, and location of construction barricades.
 - d. Elevations - To include all interior and storefront elevations of the Premises visible to the public, storefront details illustrating architectural compatibility with surrounding areas.
 - e. Material Board - To include material boards referenced to floor plans and elevations for the Premises illustrating floor, base, wall, millwork, door, trim, ceiling materials, and color selections. Material boards shall include color photos and catalog cuts of furniture and/or fixtures where required; one (1) board for colors and materials for all storefront and interior components. One (1) Color rendering of Tenant's proposed storefront design.
 - f. Reflected Ceiling Plan - To include locations of all lighting fixtures.
 - g. Signage Drawings - To include the shape, size, color, and location of signs (including Blade Sign), and a description of all materials, methods of fabrication, installation, and construction.
 - h. Mechanical, Electrical, Engineering & Plumbing - To include connections to base building system and locations of piping, ductwork, equipment, materials, catalog cut, and/or details for the make, model, and capacity of all new equipment including location and electrical requirements, location of return air systems, incorporation of all applicable design criteria, floor plan and riser diagram for all new plumbing fixtures, show interface with base building smoke control system and building automation system. Floor plans showing outlets, other electrical equipment, location of panel board and switchboards, projected electrical loads, and incorporation of applicable design criteria contained in the electrical requirements. Shall also include special system, such as telephone and data

transmission line systems, fire alarm system, airport access control system (if applicable), paging system (if applicable), cable access television system (if applicable), and master clock system (if applicable) .

- 2) The Aviation Department shall have the right to require modifications to the Conceptual Plan and any approval granted by the Aviation Department is subject to the Tenant's incorporation of the required modifications and draft set of Tenant specifications to ensure compliance with the Standards and Specifications for Construction and the current local codes. In the event the Aviation Department requires any such modifications to the Conceptual Plans, Tenant shall prepare and submit the same for the Aviation Department's review and approval within five (5) calendar days after receipt of the Aviation Department's modifications.

3.5. Final Drawing Submission:

- 1) Tenant shall prepare and submit five (5) 24" x 36" sets of final construction drawings and specifications ("Final Drawings") which are based on the Aviation Department's approved Conceptual Plans for the Premises as described herein within six (6) weeks from receipt of the approved Conceptual Plans, or earlier as may be required, to open the Premises for business no later than the Latest Rental Commencement Date specified in the Agreement. The Final Drawings shall be prepared and all calculations must be signed and sealed by the registered architect and/or the registered engineer licensed in the State of Texas, at a minimum, to include the following:

a. Drawings

- (i) Cover Page
- (ii) Demolition Plan
- (iii) Floor Plan
- (iv) Elevations
- (v) Sections
- (vi) Details
- (vii) Finish, hardware, door, room, fixture, storefront and window schedules
- (viii) Fixture Plans
- (ix) Reflected Ceiling Plan
- (x) Signage Drawings
- (xi) Temporary Construction Barricade
- (xii) Finish out of or Modifications to Storage Space

b. Applicable Specifications

- c. Reflected Ceiling Plans - To include ceiling material, grid, soffits, drops, recesses, coves, etc., ceiling heights for each space, all light fixtures, type of ceiling system with fire rating, any items attached to or coming through the ceiling, if any, Reflected Ceiling Plan to be at 1/4" = 1'-0" scale or larger. Also include details of rolling grille and/or security gate assembly.

- d. Structural Drawings - To include structural drawings and calculations of proposed structural elements. Base building structural components shall not be altered.
 - e. Mechanical Drawings - To include load calculations submitted as required in the Standards and Specifications for Construction and current local code, gas lines, and proposed locations & connections of all equipment.
 - f. Plumbing Drawings - If applicable, to include location and size of water and supply lines, drains, vents, grease traps and grease waste lines, and water and sanitary riser diagrams.
 - g. Fire Protection & Monitoring Systems - To include fire suppression and monitoring systems, fire alarm, location of connection point to the base building systems, location of addressable initiating devices such as; smoke detectors, duct detectors, and heat detectors as per the Standards and Specifications for Construction, national codes, current local codes, local amendments and all other applicable codes and regulations. If base building systems are not available or fully utilized or do not satisfy current local code requirement, Tenant shall provide make and model numbers and specifications of intended fire suppression and monitoring systems for approval by the Aviation Department. If base building system resources are not available or if such system resources are fully utilized or do not satisfy current local code requirements, the Tenant is required to contract with a private provider of fire alarm monitoring services, which will have the ability to monitor the Tenant's fire alarm system 24 hours per day, 365 days per year and provide immediate notification to the San Antonio Fire Department, the Airport communications center and any other individual or agency required by the Aviation Department from time to time.
 - h. Electrical Plans - To include power and lighting layout with circuits and home runs, electrical load requirements, on panel schedules, service riser diagrams, telephone conduits, and load calculations.
 - i. Special Systems - Such as telephone and data transmission line systems, airport access control system (if applicable), paging system (if applicable), cable access television system (if applicable), and master clock system (if applicable).
 - j. Locking System - Tenant shall install a lock keying system compatible with the City's system on all entrances to the premises and mechanical room entrances located therein for police, security, fire protection, and maintenance reasons.
- 2) Tenant shall submit to the Aviation Department as part of the Conceptual Plans and Final Drawings, drawings (in color) showing storefronts, window displays, signage, and any advertising structures, plus a lighting plan.
- 3) When Tenant submits any plans and specifications to the Aviation Department it shall include complete sets for each submittal as specified in the Standards and Specifications for Construction and current local codes.

- 4) Tenant's Work shall include the procurement of all necessary building permits, licenses, variances, and additional utility services required to facilitate Tenant's construction and occupancy of the Premises, and the payment of any fees associated therewith as may be required by the Aviation Department, other public agencies, and utility companies. Within ten (10) calendar days after approval of the Final drawings or such shorter period of time as may be required for Tenant to open the Premise for business no later than the Latest Rental Commencement Date, Tenant shall make all necessary applications, provide all necessary information, pay all required fees and take all necessary actions to obtain such items and shall endeavor to use due diligence and its best efforts to procure the same as quickly as possible.
- 5) Tenant shall comply in all respects with the Tenant's Construction requirements including, but not limited to, applicable local/state health department requirements, U.S. Department of Labor, Construction Safety, Health Regulation, Part 1926, and this Construction Specification. Tenant shall comply and be liable for all costs associated with adherence to the Texas Accessibility Standards (TAS).
- 6) On all premises, the Tenant shall:
 - a. Obtain the Architect's/Engineer's Texas Seal on two (2) sets of final construction drawings or as may otherwise be specified by the current local code process submitted for a building permit,
 - b. Obtain from the Tenant's contractor(s) a written warranty of all materials and workmanship for a period of one (1) year effective from the date of beneficial occupancy of the premises. Tenant's contractor(s) shall be required by Tenant in its construction contract to repair and/or replace all defective materials, equipment and workmanship at no cost to the Aviation Department of the Tenant occupying the Premises, obtain all required manufacturer' guarantees, maintenance manuals and other pertinent documents, and (iv) furnish to the Aviation Department one (1) set of "as-built" drawings (and preferably specifications) and Computer Aided Drafting and Design (AutoCAD) drawings, duly certified by a Texas registered architect or registered engineer, no later than ninety (90) calendar days after opening for business s in the Premises.
- 7) Tenant shall not be permitted to commence any work until all requirements of the Standards and Specifications for Construction and current local codes have been completed.
- 8) Security clearance, safety training, and any other related requirements necessary must be completed as required by the Aviation Department and TSA.
- 9) In its construction plans Tenant must ensure that the Premises have strong visual appeal and are inviting to the customers and that the Premises accommodate customers with luggage and meet all Americans with Di abilities Act (ADA), Texas

Accessibility Standard (TAS), and all current local code requirements relating to ingress, egress, access, and other architectural matters, for example, large print price signs for the visually impaired and the ability to communicate with hearing impaired.

- 10) Plans to finish out or modify storage rooms included as part of the Agreement must be submitted with all conceptual drawing and final drawing submissions.
- 11) When Aviation Department shall determine that the construction drawings and specifications conform to the Preliminary Plans and design/construction requirements, Aviation Department shall cause one (1) copy thereof to be electronically stamped and initialed on behalf of Aviation Department, thereby evidencing the approval thereof by Aviation Department and shall return such counterpart so initialed to Tenant or Tenant's Representative. The construction drawings and specifications or the revised final drawings and specifications shall become and are hereinafter referred to as the Final Construction Drawings.

3.6. Changes After Final Drawing Approval:

- 1) Final Drawings must also be submitted to the Properties and Concessions Management Office, at the address below, for Aviation Department review and approval. Forward five (5) 24"x 36" complete sets (architectural, mechanical, electrical, plumbing, & fire suppression) to that office for review. Upon review and approval Aviation Department, the Tenant will be allowed to apply to the City of San Antonio for its building permit.
- 2) After the Aviation Department's approval of the Final Construction Drawings, no changes shall be made in the final construction drawings by the Tenant, except with prior approval of the Aviation Department. Aviation Department reserves the right to make changes in, on, or about the building as may be required. Tenant shall be notified of such changes and adjust the Final Construction Drawings to accommodate such changes.

3.7. Physical On-Site Inspection:

During all phases of drawing development and prior to bidding documents and/or commencing construction, Tenant shall make a physical on-site inspection of the Demised Premises or cause Tenant's architect and engineers to do, to verify the as-built location, conditions, and physical dimensions of the Demised Premises and the conformance of the Final Working Drawings thereof. Failure to do so shall be at the risk and sole expense of Tenant. Tenant's architects or Tenant's engineers are required to contact the Properties and Concession Management Office prior to visiting the site. Hard hats and proper footwear are required in the construction zones. All persons visiting the site must abide by the Aviation Department's and TSA's security guidelines.

3.8. Aviation Department Drawing Review and Approval:

No responsibility for proper engineering, safety, and design of facilities or compliance with all applicable governing codes and regulations implied or inferred on the part of Aviation Department by drawing approval. Aviation

Department's drawing review and approval is for compliance with this Specification Manual only, and this approval does not relieve Tenant of responsibility for:

- 1) Compliance with Agreement;
- 2) Field verification of dimensions and existing conditions;
- 3) Discrepancies between final drawings and as-built conditions of Tenant's space;
- 4) Coordination with other trades and job conditions; and
- 5) Compliance with all governing codes and regulations applicable to this work.

3.9. Drawings Submittal Address:

At the Tenant's sole expense, all drawings, samples, and related documentation shall be submitted for review and approval to the Properties and Concessions Management Office:

Properties and Concessions Management Office
San Antonio International Airport
9800 Airport Blvd., Suite 2091
San Antonio, Texas 78216

The Properties and Concessions Management Office will then distribute drawings to the Aviation Department for review.

3.10. Construction Requirements and Project Close-Out

See Section 4, CONSTRUCTION CRITERIA, for more specific information regarding items below.

- 1) Terminal A will soon be updating room numbers throughout. It will be required that the Tenant coordinate with Aviation Department staff during. Storefronts as well as any interior rooms will require proper signage that meets Aviation standards and ADA requirements.
- 2) All areas of construction must have a barricade erected prior to the start of construction and the contractor shall use all means necessary to keep dust to a minimum by having dust control. Dust is a major element in construction that needs to be controlled at all times. See Section 3.12, Temporary Construction Barricade Design Criteria, for the specification drawing. The aviation Department Fire Protection Team shall be contacted prior to start of any Demolition work or any activity which will dispense dust or construction particles into the air in order to avoid nuisance and or false fire alarms and Terminal Evacuation.
- 3) Contractor shall be responsible for the repair and/or replacement of any damages caused by Tenant's contractor or his subcontractor to the Facility or surrounding tenants. All damage must be repaired within a twenty-four (24) hour time period, or Aviation will complete all necessary repairs at the ole cost and expense to the contractor, plus an administrative fee, as defined in the lease agreement.
- 4) Prior to opening, contractor shall deliver to Properties and Concessions Manager office a copy of the Certificate of Occupancy with respect to the premises.

- 5) X-ray or SRP of existing concrete structural members is required if any attachments or penetration is required. Any unused penetrations shall be filled and sealed with appropriate materials
- 6) Cutting and patching on roof must be performed by roofing contractor to ensure warranty, American Roofing is the Terminal A contact and Fifth Wall Roofing is the Terminal B contact. Currently, roof penetrations are not allowed except for kitchen uses. At those times, all penetrations must be coordinated with Properties and Concessions Management office. Only authorized contractors are allowed access to the roof and must be authorized by the Properties and Concession Manager and only City's authorized roofer can be used. The Contractor is to contact the Properties and Concession Manager for information.
- 7) If additional HVAC is required per design to any lease space. Tenant must provide their own Split or package unit. Testing and Balancing report must be submitted upon completion of installation.
- 8) Commercial epoxy, or terrazzo flooring required for all wet areas (kitchen, bar and serving areas). Floor and base of wall to be applied monolithic to avoid seams where possible. Six-hour water test required.
- 9) Grease traps are required at every food and beverage unit with sinks.
- 10) Cutting and patching on roof must be performed by roofing contractor to ensure warranty, American Roofing is the Terminal A contact. Currently, roof penetrations are not allowed except for kitchen uses. At those times, all within 60 days after opening for business in the Premises, Contractor shall:
 - a. Provide a written warranty of all materials and workmanship for a period of one (1) year effective from the date of beneficial occupancy of the Premises. Contractor(s) shall be required in its construction contract to repair and/or replace all defective materials, equipment and workmanship at no cost to the City, or the Tenant occupying the Premises;
 - b. Submit all required manufacturers guarantees, maintenance manuals and other pertinent documents; preventative maintenance program details and schedule;
 - c. One (1) set of "as-built" drawings (and preferably specifications) and Computer Aided Drafting and Design (CADD) drawings, on CD duly certified by a Texas registered architect or registered engineer, no later than 60 days after opening for business in the Premises;
 - d. Executed copies of all mechanics lien waivers and/or releases or other lien waivers and/or releases on account of contractors work, notarized and unconditional, in such form as COSA shall have reasonable approved along with an architect's certification that the Premises have been constructed in

accordance with the approved Final Drawings and are fully complete in accordance with all of such requirements specified or reference herein;

- e. Statements of the total construction costs incurred by Contractor which is certified by a responsible officer of Contractor as correct together with copies of all supporting documentation required by the City under the Agreement with the City including copies of paid invoices;

3.11. Tenant IT and Cable Policies

IT SERVICE REQUEST PROCEDURES: SAT recognizes two types of service requests based upon size and scope of the request: (1) Major construction requests are considered Tenant Improvement (TI) Projects; and (2) Non-major requests are referred to as Moves, Adds, and Changes (MACs) and are treated as routine operations. Both types of service requests and their respective processes are documented below:

- 1) TENANT IMPROVEMENT (TI): SAT Properties and Concessions Office is the central point of contact for all Tenant Improvement projects, including IT project s. Tenants will be required to provide necessary submittal documents for TI projects to SAT Properties and Concessions Office at (210) 207-3565. SAT Properties will make a final determination whether the service request constitutes a TI or a MAC. Until specific policies and procedures are established by SAT for the management of TI, all TI requests shall be made to SAT pursuant to the procedures established herein. Projects that are a part of major operations including new construction, demolition, renovation, installation or removal of non- load bearing walls or partitions require TI approval. SAT IT will review Tenant's documented requests for completion and will perform site inspections to verify that installation progress in accordance to SAT technical specifications.
 - a. SUBMITTAL DOCUMENTS - All submittal documents required herein must be provided to SAT Properties and Concessions Office at (210) 207-3565. SAT Properties and Concessions office will then coordinate with all related divisions, including SAT IT, as applicable. This includes two (2) complete sets of documents to SAT IT for review at least ten (10) business days prior to the anticipated project start date. The information submitted for SAT IT review shall include the following:
 - I. Tenant Name & Contact Information
 - II. Type of Services Requested
 - III. Building Floor (Lease Space)
 - IV. Drawing -Physical Cabling Pathways
 - V. Telecommunications bonding and grounding plan
 - b. SAT IT RESPONSE - In response to Tenants request to initiate a TI project, SAT IT will send written review comments and a PDS utilization plan to the Tenant as applicable. This letter will advise Tenant to either forward original

drawings or reproducible documents for signature, or revise and resubmit the documents. The response will also contain a SAT plan for PDS usage showing all termination locations, cross-connect points, and co-location assignments: Approximate time required: **five (5) business days from receipt of submittal.**

- c. SAT AUTHORIZATION - When all review comment have been addressed, SAT IT will approve the Tenant's IT submittal documents and recommend authorization to SAT Properties for coordination with other SAT divisions recommendations.
 - d. RECORD DRAWINGS - Within fifteen (15) business days of completion of construction, Tenant must provide to SAT IT record drawings and Cable Management Documentation which accurately represent all as-built conditions, including the following documentation:
 - I. Submit two (2) hardcopies of full size drawings of the project. The submittal shall include a cover sheet identifying Tenant space occupant, key plan of portion(s) of SAT illustrated in drawing set, installing Contractor and date of submittal.
 - II. Submit one (1) electronic file softcopy of the project drawings saved in AutoCAD format compatible with current AutoCAD version in use at SAT.
 - III. Submit one (1) electronic file softcopy of project schedule spreadsheets saved in a CSV (Comma Separated Value) fo1mat on CD media. Coordinate with SAT for exact format requirements.
- 2) MOVES, ADDS, AND CHANGES (MACs): MACs are non-major telephony and data related improvement operations consisting of single or multiple moves of phone, data, and/or addition of lines and routing or adding cabling. These are minor, non-structural change, leaving walls, floors, ceiling, and fixed equipment in place. For support and coordination on all Tenant MACs, please contact (210) 207-3565 or aviation.support@sanantonio.gov and a SAT IT representative will respond.
- a. SUBMITTAL DOCUMENTS - Tenant will be required to provide necessary submittal documents depending on the requirement. This includes two (2) complete sets of document to SAT IT for review at least two (2) business days prior to the anticipated project start date. The information submitted to SAT IT shall include the following:
 - I. Tenant Name & Contact Information
 - II. Type of Services Requested
 - III. Building Floor (Lease Space)
 - IV. Drawing - Physical Cabling Pathways
 - V. Telecommunications bonding and grounding plan
 - b. SAT IT RESPONSE - In response to MAC requests, SAT IT will send written review comments and a utilization plan to the Tenant. This letter will advise Tenant to either forward original drawings or reproducible documents for signature, or revise and resubmit the documents. Approximate time required:

Two (2) business days from receipt of submittal.

- c. SAT AUTHORIZATION - When all review comments have been addressed, SAT will sign the Tenant's submittal documents and issue an authorization letter.
- d. RECORD DRAWINGS - Within fifteen (15) business days of completion of construction, Tenant must provide to SAT IT record drawings and Cable Management Documentation which accurately represent all as-built conditions, including the following documentation:
 - I. Submit one (1) electronic file softcopy of as-built project drawings saved in AutoCAD format compatible with current AutoCAD version in use at SAT.
 - II. Submit one (1) electronic file softcopy of project schedule spreadsheets saved in a CSV (Comma Separated Value) format on CD media. Coordinate with SAT for exact format requirements.

SITE ESCORT SERVICES: Only SAT IT, or its authorized representative, will have permission to access the MDF or IDFs. SAT IT will arrange for escort services as necessary when Tenant representative is need access to the MDF or any IDF. Requests for escort to perform routine maintenance should be submitted at least 72 hours in advance. Site escort services for emergency repairs will be provided according to the service level required at the time.

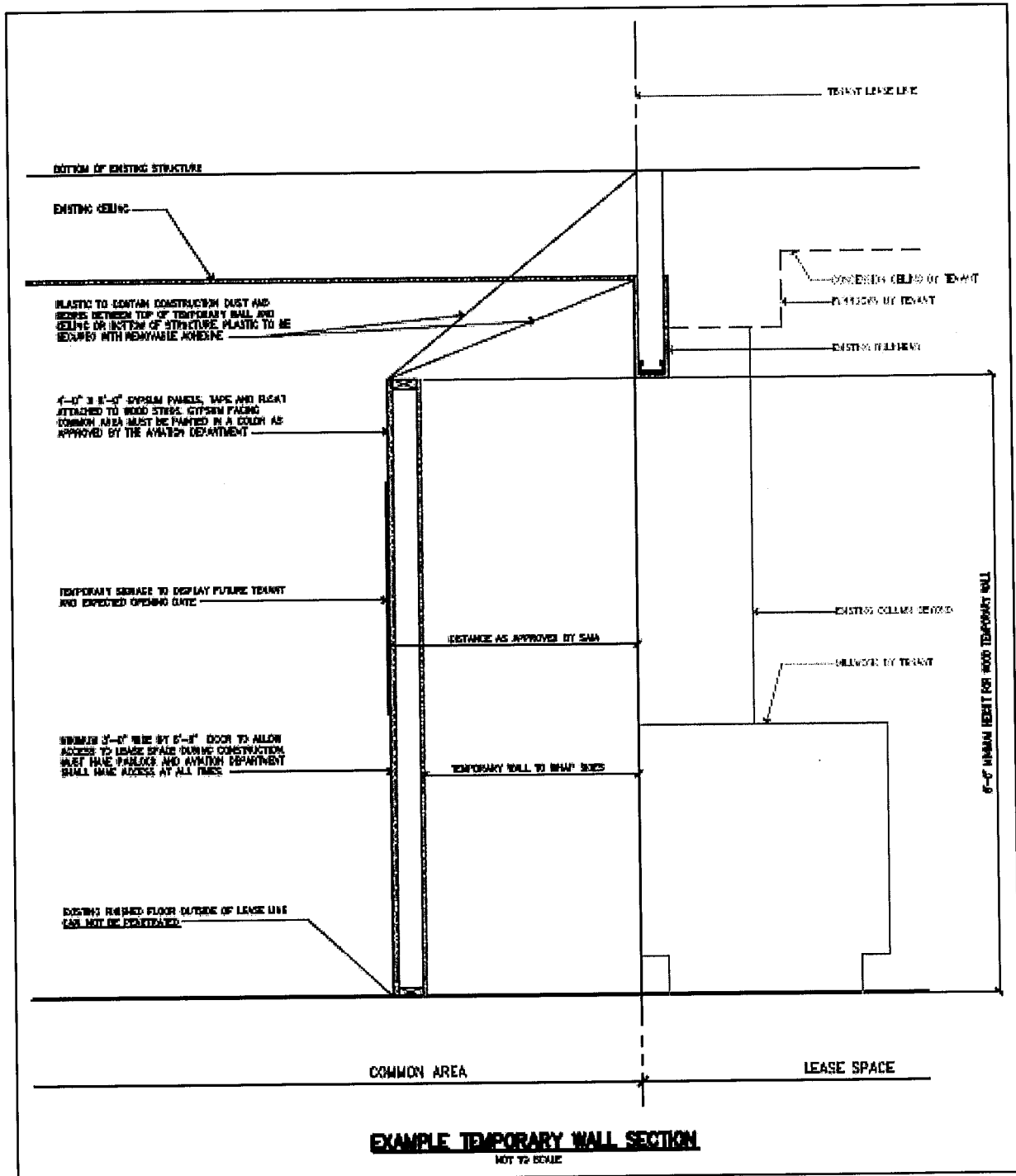
SATELLITE SERVICE REQUIREMENTS: Tenants requiring satellite installation for cable television services shall submit installation requirements and plans including roof penetration and mounting details, to SAT IT utilizing the process described in Section 6.0 of this document, prior to the commencement of installation. The installation of a satellite dish utilizing space on the roof top of Terminal B will require a separate license agreement as prescribed by the San Antonio City Code for the use of City property. Such satellite dish installations shall be performed according to SAT technical specifications.

WIRELESS POLICY: Tenants may install private Wi-Fi hotspots that utilize unlicensed spectrum within their own exclusively leased space. Tenant takes full responsibility of devices; Airport is not responsible for any wireless devices belonging to Tenant. Airport is not responsible for any detriments to the Tenant's Wi-Fi hotspot that occurs as a result of lack of security. Tenant is responsible for monitoring the RF spectrum to prevent any interference with licensed spectrum and Airport wireless equipment and transmissions. In the event of such interference, and subject to reasonable notice, SAT reserves the right to disable the wireless signal in order to protect public safety and welfare.

REQUEST FOR CABLE TELEVISION SERVICE: Although coax cable is not part of the PDS, until specific policies and procedures are established by SAT for the management of coax cable infrastructure in Terminal B, any requests for the installation of cable television service shall be made to SAT pursuant to the procedures established in Section 2.0 of this document, prior to the commencement of in installation.

TO DEVIATE FROM POLICY: Any request to deviate from these policies and procedures shall be requested in writing to SAT IT at aviation.support@sanantonio.gov. No exception will be granted without SAT written authorization.

3.12. Temporary Construction Barricade Design



SECTION 4 – CONSTRUCTION CRITERIA**4.1. Purpose of Construction Criteria**

This criteria has been developed for Tenants, their Consultants and Contractors, intending to construct improvements, alterations, and/or new facilities at SAT. It is the intent of this criteria to assist applicants so Tenant Permit Application (CPA) submissions can be complete; time frames for review can be more predictable; and construction and closeout requirements can be understood. The procedures outlined and referenced are applicable to all types of construction, alterations, equipment additions/replacements, and maintenance work performed by a Tenant within their leasehold.

This Specification Manual, together with the Agreement, including Exhibits and approved design and construction drawings required by Properties and Concession Management and Aviation Construction & Development, comprise the Tenant's Package. Tenants are strongly encouraged to become familiar with the intent and details of these documents prior to the commencement of work, and to become aware of the special characteristics of the terminal buildings and how their architectural elements, finishes, and materials will affect individual concession design solutions. Tenants must comply with the requirements and conditions set forth in the Tenant Package. Should there be any discrepancies between the Standards and Specifications for Construction for Concession improvements and the Agreement, the latter shall govern.

The City's Properties and Concessions Manager Office and Aviation Construction and Development shall have absolute right of review and approval over all aspects of Lease Space Improvements, as well as the discretion to waive any of the Standards and Specifications for Construction so long as the concept, quality, and character of the project are not significantly affected.

4.2. Use of Construction Criteria

Each Tenant their Consultants and Contractors must be familiar with the intent, scope, and detailed requirements of this Specification Manual before the construction process begins. It is the Tenant's, their Consultants and Contractors responsibility to visit the site and verify existing conditions. The Aviation Department and the City of San Antonio Development Services Department must approve each Tenant design and a Permit must be issued as well as other pre-construction requirements which will be described further within before construction is allowed to begin.

4.3. City/Tenant Work

City's Work to be performed or provided at City's sole cost and expense shall be limited to the following: City shall not have any obligation to improve any portion of the Premises unless specified in Lease Agreement. Premises are being delivered by City to Tenant in its then existing, "AS IS," "WHERE LOCATED" condition. City may perform the safe remediation or removal of any pre-existing Hazardous Materials located within the Premises. City may provide additional items of basic building shell or utility conduit services for the Premises as part of City's Work. If applicable, such additional items, if any, shall be provided in accordance with City's specifications.

City's Work shall include all work necessary to demolish any existing improvements located within the Premise, if any, If required to return the Premises to a shell condition (including removal of ceiling grids, finish materials, storefront, light fixtures, partitions (excluding demising partitions) and all existing utility systems and components that will not be reused to serve the Premises.

Tenant's Work shall include all work necessary or required to complete the Premises, except those items of work that are specifically included under City's Work. Tenant's Work shall be subject to City and Properties and Concessions Division and Construction and Development prior approval. Tenant's work shall be designed, fabricated, constructed and installed to comply with all of the requirements set forth in this document and all requirements set forth in the most current edition of Standards and Specifications for Construction.

City personnel shall have access to the Premises/Lease Space to inspect all phases of construction.

The Tenant/general contractor will always assume the responsibility of quality control throughout the duration of the project; however, the City reserves the right to inquire and check randomly select areas as a form of quality assurance throughout all phases of construction.

The design, fabrication, construction and installation of Tenant's Work must comply with each of the following requirements:

- 1) This Specification Manual and the Design Development Drawings.
- 2) The CPA and its process requirements.
- 3) Tenant's Final Drawings, as approved by City of San Antonio's Aviation Construction and Development and Concessions Division.
- 4) All applicable laws, ordinances, codes, regulations and the requirements of all federal, state or local permitting, building and inspection agencies, including the City, State and Federal Codes.
- 5) All applicable standards of the American Insurance Association, The National Electric Code (latest edition), the American Society of Heating, Refrigeration and Air Conditioning Engineer 's Guide (latest edition), the City's and City's insurance carriers, the local building codes and regulations and all other agencies having jurisdiction.

In the event of a conflict between any of the above-referenced items, the most stringent requirement shall govern each increment of Tenant's Work.

All aspects of Tenant's Work shall be performed in a professional, first-class and workmanlike manner and shall be in a good and first-class and usable condition as of the date of completion and maintained in such condition at all times. All materials used in Tenant's Work, Tenant's construction of the Premises and installations made as a part of Tenant's Work shall be of new, commercial grade and first-class quality. After Tenant's initial construction of the Premises, any and all remodeling and alterations shall be performed in accordance with all of the Tenant's Construction Requirements.

All contracts and subcontracts for the performance of Tenant's, Airline and FBOs Work shall require:

- 1) that all contractors and subcontractors provide labor that can work in harmony with other labor employed or to be employed at the Airport in accordance with this Agreement, properly bonded and access grants as dictated by the Base Concession Manager and/or the City;
- 2) Insurance coverage and suretyship as defined by lease agreement to the City for the protection of The City for the protection of the City, its laborers, supplies, contractors, and subcontractors designated management representatives and the general public;
- 3) that all contractors and subcontractors comply strictly with all of the applicable provisions of the Lease Agreement and related Exhibits, Design Handbook, BPA process, all applicable permits, and/or a otherwise required by code;
- 4) in the case of Fixed Improvements, performance and payment bonds from Tenant or its contractor, in form and substance reasonably satisfactory to the City, each of which shall name the City as an additional obligee and aggregation in the penal sum equal to all of Tenant's construction contracts valid through duration of project;

Tenant shall be solely responsible for the investment required for the planning, design, development, construction, fabrication and installation of all Fixed Improvements and other leasehold improvements and Operating Equipment necessary to complete the Premises as required to provide the retail concession services within the Terminal.

4.4. HVAC, Electrical, Plumbing, IT and Fire Protection

- 1) **Inspections and Compliance:** Contractor is responsible for scheduling inspections by the City of San Antonio Development Services and other inspectors as necessary, and for compliance with their requirements. Provide notification of inspection date and time to Properties and Concessions Manager. A copy of all inspection reports and the Certificate of Occupancy must be submitted to Properties and Concessions Office

upon completion of the work. In the event Contractor is notified of any violations of codes by the jurisdictional authorities or by Aviation, Contractor shall correct such violations within seven (7) calendar days from such date of notification. Construction shall comply in all respect with currently applicable federal, state, county and/or local statutes, ordinances, regulations, laws and codes and ordinances. The City of San Antonio is currently under the 2015 *International Codes, 2014 NEC and including the 2015 International Energy Conservation Code*. The list of adopted codes and local amendments for these codes can be found at: New Chapter 10 - Building Related Codes. In addition, coordination and compliance with the following is required:

- City of San Antonio Fire Marshall
 - City of San Antonio Department of Health
 - American with Disabilities Act and Texas Accessibility Standards
- 2) **Licensed Professional Engineer:** A professional engineer licensed in the state of Texas shall prepare all calculations, drawings and specifications in accordance with all applicable codes and recognized engineering practices. The engineer shall be required to be available if any questions or modification to the system is required.
- 3) **Project Review:** The Aviation Department will review the drawings 30%, 60% and 100% for general compliance with the Mechanical Design criteria of the Airport facilities. It is the Contractor's responsibility to submit documents to the City of San Antonio Development Services (www.sanantonio.gov) for review and is issuance of a Building Permit. It is the Contractor's responsibility to ensure that the Contractor's system will perform satisfactorily and is in compliance with all applicable code and regulations. The average permit review time is 2-3 weeks. Development Services does offer an expedited review with associated fee.
- 4) **Submission Requirements:** The Tenant shall submit complete plans and specifications for Mechanical work consisting of the following at a minimum:
- a. HVAC (if applicable), plumbing (if applicable), and fire protection floor plans (if applicable).
 - b. Plumbing riser diagram indicating pipe sizes and connection points. Heating and cooling load calculations.
 - c. HVAC Testing and balancing report submitted upon completion of installation
 - d. Supply air, chilled water (if any) requirements. As-built drawings upon project completion.
 - e. IT and Electrical Plans
 - f. Material Sheets
 - g. Elevations
- 5) **Mechanical and IT Room Access:** Facilities Maintenance will provide access to the mechanical rooms that provide service to the Concession space. Access requests should be submitted to Properties and Concessions Manager for coordination 48 hours in advance.

- 6) **General Requirements:** The Tenant shall furnish and install all mechanical work required for and within the Tenant premises, which is not furnished as part of the Base Building work.
- a. Mechanical system modifications requiring shutdown of other portions of the mechanical systems shall be done upon approval of Aviation Construction and Development and Facilities Maintenance. Notification must be provided to Concessions Division and the City /Airport 48 hours prior to the shutdown requirement.
 - b. Obtain permission from the City through the Properties and Concessions Division and Construction and Development prior to core drilling through floors or roof structure. Any roof penetrations will be performed by a contractor selected by the Aviation Department and billed to Tenant.
 - c. Coring for roof or floor penetrations will require 72-hour notice.
 - d. Cutting and patching to be performed as required, to return all remaining original finishes to their original condition.
 - e. Floor and wall penetrations must be sealed and dampered to maintain occupancy separations where required. All penetrations must be filled with approved Fire Caulking with a Fire Rating of not less than that of the roof, wall and/or floor which was penetrated.
 - f. Welding or torch cutting under the direct supervision and by approval of the Concessions Division and/or Aviation Department personnel. Comply with the Airport's Fire Marshal's regulations and notify them prior to welding or torch cutting.
 - g. As-built drawings are to be maintained by the Tenant mechanical contractor and submitted to the City. Record exact pipe, duct, and equipment routing and location, and sizes of equipment.
- 7) **Identification and Labeling:** Required for all equipment, pipes and ducts within the Tenant space:
- a. Laminated plastic nameplates, black-white-black with engraved characters 1" high for all equipment. Pipe marker, ANSI size, 3/4 letters, pre-printed, mounted on pipe or duct penetrating walls and at 25' intervals.
 - b. Identify pipe fluid or duct air type.
- 8) **HVAC System Criteria**
- a. It is the Tenant's responsibility to add additional VAV boxes, Rooftop or Split Units if required to meet their heating and cooling needs, to be approved by HVAC Department.
 - b. Return air and smoke purge are accomplished through the plenum, and it is the Tenant's responsibility to ensure adequate airflow into and through the plenum.
 - c. All insulation must have a flame spread/smoke developed rating not higher than 25/50.
 - d. All ducts are to be supported from bridging not to exceed ten foot intervals.
 - e. An air balance report must be submitted to the City prior to the final inspection. All changes to existing system must be approved by Airport Facilities HVAC Department. All changes to existing system must be approved by Airport Facilities HVAC

Department.

- f. All changes to existing system must be approved by Airport Facilities HVAC Department.
- g. Flexible duct lengths must not exceed six (6) feet nor be used for change of direction.

Existing HVAC System Description

SAT uses a two-pipe chilled water system to provide cooling or heating water to most air handlers or VAV boxes In Terminal A. Some areas have electric heat. All CONRAC and Terminal B have electric heat.

9) Electrical System Criteria

All electric designs must comply with the City of San Antonio current codes. COSA is currently under the 2015 International Codes, 2014 NEC and including the 2015 International Energy Conservation Code. The List of adopted codes and local amendments for these codes can be found at: New Chapter 10 - Building Related Codes.

The City of San Antonio also requires the following:

1. Coordination of all electrical work with the City Airport Electrical Department prior to commencing any work.
2. All conduits must be a minimum 3/4" EMT with compression fittings. In wet areas, all conduits are to be rigid. All wire to be TI4HN or TWIHN rated at 105 degrees at 600 volts.
3. No MC or other armored interlock is allowed. "Greenfield" or "Seal Tight" whips are to be a maximum of six (6) feet.
4. All ceiling mounted transformers must be supported from the building structure independent of all other systems and a continuous ceiling must separate the transformer from the plenum.
5. All junction and pull boxes must be labeled with appropriate panel name and circuit numbers.

Food Court Food/Beverage Tenants will also be required to install sub metering for electric. All floor penetrations and floor boxes must be UL rated for a 2-hour fire separation. The Tenant will also be required to label the switch in the MER with the space number and Tenant name as well as label the Tenant's Panel with MER and Switch gear name. Tenant is to receive approval from Properties and Concessions Division and the Airport Electrical Department prior to start of work for all tie-ins and shutdowns.

10) Plumbing Criteria

All Plumbing Designs must comply with the City of San Antonio current codes. COSA is currently under the 2015 International Codes, 2014 NEC and including the 2015 International Energy Conservation Code. The List of adopted codes and local amendments for these codes can be found at: New Chapter 10 - Building Related Codes.

The City of San Antonio also has established the following criteria:

1. PVC piping will not be used above the ground within buildings.
2. Clamps for no-hub piping will be those manufactured by Clamp-all Corp, Huskey SD series 4000 or approved equal.
3. All hubless pipes will be anchored at each side of the hub and at five foot intervals.
4. All trapezes will be supported from bridging or structural beams not from the roof decks.
5. All abandoned pipes will be removed to the source or point of discharge. All openings will be plugged.
6. All valves and pipes will be labeled to identify use; all flows will also be indicated.
7. All cold piping will be insulated using 1" thick Owens Corning Fiberglass "25A5J/SSL".
8. All pipe hangers longer than 12" will be seismic designed.
9. All piping will be hydrostatically tested as per Code.
10. All floor sinks and drains will have flashing to prevent water penetration.
11. Every lease space is required to have a main water supply cut off valve inside lease space.
12. All shut downs and tie-ins must be coordinated through the Properties and Concessions Manager Office and Airport Maintenance. All tie-ins must be approved prior to start of work.

11) Fire Protection Criteria

In general, all Fire Protection Systems must comply with all building, mechanical, electrical and fire protection, and lighting protection to new roof equipment by warranty holder contractor. (National Fire Protection Association (NFPA) Standards).

The design must be submitted to Properties and Concessions Office and Facilities Maintenance during the initial submission for approval prior to the start of construction. All sprinkler shut downs (if required) are to be performed by City's authorized agent, coordinated with the Aviation Departments Fire Protection Team and billed to Tenant. A minimum of 3 days written notice must be given. The Tenant is also responsible to notify the Properties and Concessions office to arrange for a Fire Watch condition. It is the Contractor's responsibility to pay all costs incurred for the shutdown. Prior to the Final Inspection, a hydrostatic (controlled inspection) test must be performed and results submitted in writing to the COSA. All Fire Sprinkler installations, additions and/or repairs shall be conducted by a state licensed and/or nationally certified technician/contractor IAW NFPA and IFC Standards.

The Tenant must have all required fire extinguishers installed per IAW, NFPA and IFC Standards prior to the final inspection.

12) Fire Alarm System (If Applicable for Food Service Only)

It is the Tenant's responsibility to purchase all fire alarm devices required per code and install them in the space. All newly installed Fire alarm Equipment shall be compatible with the system it is to be added to and to be of the same make and model as the other system components. It will be the monitor's responsibility to contact the

Communications Center at the Airport in the event of fire or trouble alarm. It will be the Tenant's responsibility to pre-test the system and provide proof prior to the Final Inspection. Tenant need to provide three (3) days prior notice to Aviation Fire Protection Team for Fire Alarm system pre-testing and acceptance testing. Pre-testing and testing, of the Fire alarm system, which involves the activation of the Terminal's horns, strobes and voice evacuation appliances shall be conducted between the hours of 10:00 p.m. – 3:30 a.m. All Fire Alarm installations, additions and/or repairs shall be conducted by a state licensed and/or nationally certified technician/contractor IAW NFPA and IFC Standards.

A tie-in to the base building system is provided. The warranty service provider is:

Terminal B:
Simplex Grinnell San Antonio

Terminal A:
Johnson Control

The Tenant must also have all required fire extinguishers installed IAW NFPA and IFC Standards prior to the final inspection.

13) Telephone/Communication Service

All telephone, communication and data line services are the Contractor's responsibility. The Contractor must select a sub-contractor, which will be acceptable to Aviation Department to run the required cable from the main switchboards to the space. It is suggested that the Contractor schedules this service when they open the account for telephone service with AT&T, long distance provider and/or Internet service provider (ISP). All communication wires must be run in EMT conduit and labeled as such. All EMT conduits provided to accommodate telephone and data line service will be responsibility of the Contractor. Contact IT Manager for approval of all wiring in terminals.

Please contact Aviation IT Manager and Concession Manager, to coordinate any cable installations.

4.5. Construction Requirements

All contracts and subcontracts for any portion of Tenant's Work shall require:

1. All contractors and subcontractors provide labor that can work in harmony with other elements of labor employed or to be employed at the Airport.
2. Insurance coverage and suretyship reasonably satisfactory to City and Concessions Division and Construction and Development for the protection of City, suppliers, contractors, subcontractors and the general public.
3. All contractors and subcontractors comply strictly with all of the applicable provisions of the Lease Agreement, this Specification Manual, Tenant's Agreement with the City and the CPA.

4. For all Fixed Improvements and other leasehold improvements to the Premises; Provide performance bonds and payment bonds from the Tenant or its general contractor, in form and substance satisfactory to City and Properties and Concessions Division and Construction and Development, each of which shall name City as an additional insured and which shall be in the penal sum equal to the amount of Tenant's total construction contracts and subcontracts. Further, Tenant shall comply and shall cause all of its contractors and subcontractors to comply with the City of San Antonio's nondiscrimination and affirmative action provisions.
5. During the construction periods at the Terminals, the City, Tenant and their agents, servants, employee and contractors shall be permitted entry and access to the Terminals and to the Premises for the purpose of performing and completing all work necessary to make the Premises and other improvements ready for use, occupancy and rental. During the construction periods, City, Tenant and their respective agents, consultants and employees, contractors and subcontractors shall observe all applicable rules and regulations and applicable directives imposed by the City of San Antonio and the Aviation Department as to the conduct of their work. Tenant and its agents shall be responsible for securing, keeping and maintaining all of their equipment, materials, supplies, tools, work trailers, smoke, fumes/odors, dust and the like within the Tenant's Premises, or with in a defined staging area for the exclusive purpose of supporting the Tenant's Premises construction, subject to City approval. Tenant shall also be responsible for insuring that all construction debris is removed from the construction site daily, and that the site is neat and clean at all times. Tenant shall comply in all respects with procedures for project closeout and acceptance of the space as detailed in this Specification Manual and the CPA.

4.6. Contractors and Subcontractors Insurance

All policies of insurance and bonds required in the Agreement shall be issued for the protection of the City, Tenant in accordance with their respective insurable interest. The terms of the policies and bonds and the insurer or surety shall be subject to the reasonable approval of the City.

Tenant shall provide, maintain and identify the City as an additional insured, with respect to the insurance protection required under the provisions outlined in the Agreement.

Each of Tenant's insurance policies required under the Lease Agreement shall name The City of San Antonio as additionally insured.

4.7. Pre-Construction Meetings and General Procedures

Prior to the commencement of construction, a Pre-Construction meeting must be held. This "Pre-con" takes place after:

Signed and executed Construction Agreement with the City of San Antonio is delivered to all parties and a Building Permit is issued by the City of San Antonio Building Inspection Department.

Properties and Concessions Manager will arrange the Pre-Con when items meet the requirement. The Project Superintendent and General Contractor must attend the Pre-

Construction meeting with the Aviation Department. The following documents must be submitted at the Pre Construction meeting:

1. General Contractor's Insurance Certificate
2. List of all Sub Contractors with emergency phone numbers including the GC's
3. Material Safety Data sheets for products to be used. The City reserves the right to refuse the use of any Substance believed may be hazardous when used in the Airport.
4. Overall Project Timeline Summary with preliminary delivery schedules and unloading requirements
5. Signed Lease or Letter of Acceptance for space
6. \$5,000 Security Deposit per location payable to "City of San Antonio", if applicable.
7. A Building Permit issued the City of San Antonio
8. Performance and Payment Bonds delivered to City of San Antonio (COSA) in the total amount of construction contract costs for "Fixed Improvement" naming the City as additional obligee.
9. Any other documents required by the City of San Antonio
10. Asbestos Report
11. Two (2) sets of sealed and signed drawings
12. Architect's Letter of introduction, if applicable.
13. Copies of Electrical and Plumbing Licenses

Contractor shall not be permitted to commence any work until all requirements of this Specification Manual, the CPA and the Construction Agreement have been completed.

1. Two sets of stamped and signed drawings
2. Architect's Letter or Introduction, if applicable.
3. Copies of Electrical and Plumbing Licenses
4. List of all Sub Contractors with emergency phone numbers including the GC's and the Architect's
5. Schedule

General Procedures: The following documents will be submitted to the On-Site Tenant Coordinator ten business days prior to the start of construction:

1. Approved Insurance Certificate (must be approved by COSA)
2. 24 Hr. Emergency Contact List (includes Corporate mailing address and fax number)
3. List of construction workers with security clearance badges
4. All Material Safety Data Sheets for products which will be used
5. Overall Project Summary (preferably accompanied by Microsoft Project Schedule on disk)
6. Signed Letter of Acceptance for space
7. \$5,000 Security Deposit per location payable to the City of San Antonio (COSA), if applicable.
8. Performance and Payment Bonds delivered to City of San Antonio (COSA) in the total amount of construction contract costs for "Fixed Improvements" naming the

City as additional obligees

9. Any other documents required by the City of San Antonio

4.8. Aviation Properties and Concessions Division

Tenant Coordination activities will be the responsibility of Properties and Concessions Division. Please contact William Idar at (210) 207-3565 phone, or by email at William.idar@sanantonio.gov with any questions concerning coordination, pre-construction meetings, notices to the City, construction inspections or any other questions you may have.

4.9. Progress Meetings

Representatives of City and Tenant shall attend on-site progress meeting with such periods of frequency during the performance of Tenant's Work as may be mutually agreed upon but not less frequently than weekly. City Project Manager will be responsible for scheduling and conducting the progress meetings.

The Contractor will provide at the end of each week the following documents:

1. Three week look ahead schedule
2. All deliveries for following week
3. Storage and escort needs
4. Minimum 24 hour notification of all power, water, mechanical Shut Downs
5. All welding and burning requirements
6. List of Badged construction workers (if there are additions/deletions)
7. Material Safety Data Sheets (additional/revised)
8. 24 Hr. Emergency Contact List (if there are revisions)

4.10. Interruptions to Existing Facilities

At NO time are construction activities to interfere with the normal operations of the Terminal. All deliveries and debris removal must take place between 7:00 p.m. and 5:00 a.m. in the event that there are passengers within the Terminal during these hours due to uncontrolled events (i.e. inclement weather); prudence and common sense must take place. All items and debris are to be kept within the space; nothing is to be left in the Concourse area. All welding, burning, chopping, jack hammering is to take place between 7 p.m. and 5 a.m. There is to be no welding/burning within the confines of the concourse; all work must take place behind the barricade. In the event that construction activities interrupt airport operations, SAAS reserves the right to have the contractor responsible removed from the project. It is imperative that there is no impact to passenger flow.

Barricades must have self-closing hinges and be kept closed at all times and locked during non-working hours. Properties and Concessions Office and Construction and Development must have a key or combination to the barricade and all items stored within the space must be inventoried and declared to Airport Security prior to bringing them into either Terminal. All tools or equipment remaining in the concession space after working hours must be stored in a locking job or gang box. It will be the Tenant Contractor's responsibility to maintain the barricades both functionally and aesthetically. The Tenant Contractor will be responsible to legally dispose of the barricade upon completion of the concession build out.

Tenant Contractor's must maintain awareness and control of Construction activity to avoid false activations of fire alarm systems, evacuations of Terminal Buildings and unnecessary

activation of Emergency Responders.

SAAS will require a construction deposit of \$5,000.00 per unit from Tenant's general contractor prior to construction, if applicable. City will not release the deposit until satisfactory completion of all construction and all requirements of this Specification Manual and the Lease Agreement. The City Building Inspection Department and the Aviation Department must specify that all of Tenant's Work has been completed and acceptable by City, prior to release of the construction deposit. City Personnel shall have access to lease space at all phases of construction.

4.11. Keys and Locks

The Aviation Department has provided standard equipment throughout the facility. All locks must be part of the Sargent Signature Series product line as follows:

Entrance/office; cylindrical level lock (63-10G05-LB Key LL 26D with IC core LB Key Way) 7900 Mortise Lock; 63-8205 LNB US26D 480 Series Inside Thumb Turn Lever (63-10-480-26D; LB Key Way, control #236511)

It is the Tenant Contractor's responsibility to give to the Concession's Division a key or combination to the barricade in the event that SAAS requires access to the space. Contact Mike Castillo - Aviation Department, Access Control - at (210) 207-3537 for assistance.

4.12. Hazardous Material

The Contractor must submit to Concession Manager and Aviation Construction and Development all Material Safety Data Sheets for all materials used in the construction process. Properties and Concession Management Office and Aviation Construction and Development reserve the right to reject any such materials, which may pose a hazard or potential hazard to the Terminals and its patrons. Under no circumstances will any construction debris be placed into any Terminal refuse containers or dumpsters. The Contractor is responsible for the legal disposal of all debris generated during the build out process.

Currently, as a result of the City's abatement efforts all undeveloped Lease spaces are believed to be asbestos free. An Asbestos Report for each tenant space under construction will be provided to Properties and Concession Management Office and Aviation Construction & Development and must be submitted to the City Building Inspection Department as part of the Building Permit submittal process. In the event that the Contractor is remodeling a space vacated by a previous concession or remodeling a current concession space, an updated asbestos survey is required and will be the sole responsibility and cost of the Contractor.

In the event Contractor encounters any pre-existing Hazardous Materials during the performance of Contractor's Work for the initial construction of the Premises, Contractor shall immediately notify City verbally and in writing and provide all details related thereto. In no event shall Contractor perform any work that will in any way disturb any such Hazardous Materials so encountered until City has determined whether it is necessary to rededicate or remove the same. City shall have the right to perform the safe removal, encapsulation, enclosure or other disposition of asbestos, polychlorinated biphenyls or other hazardous or toxic materials (collectively, "Hazardous Materials") that exist within the Premises as of the

date Contractor was delivered possession of the Premises. City shall rededicate or remove (or reimburse reasonable costs incurred by Contractor) any such preexisting Hazardous Materials that City determines, in its discretion, is necessary for Contractor to perform Work.

4.13. Dust Control

Dust is a major element in construction that needs to be controlled at all times. The contractor shall use all means necessary to keep dust to a minimum by:

- a. The Tenant Contractor will use and maintain dust cover over barricade.
- b. Tenant Contractor will insure that there are no holes in the dust cover and that it is securely fastened to the barricade and bulkhead. In the event that there should be rips or tears in the dust cover, Tenant Contractor will replace the dust cover immediately with the exact type of material.
- c. Tenant Contractor will utilize construction methods and equipment that minimizes dust.
- d. Tenant Contractor will provide dust masks and respirators (if necessary) as per OSHA 29 CFR 1910.134 and 29 CFR 1926.103
- e. In the event that excessive dust cannot be avoided, Tenant Contractor will maintain a mist over the area. Tenant Contractor will insure that the wheels of all carts and dollies are clean of dust and dirt so not to track through the Airport common areas. All dollies and cart are to have properly operating rubber wheels. No metal or studded wheels will be permitted.
- f. Filter return air to HVAC system.

4.14. Noise Control

During the hours of 5:00 a.m. till 10:00 p.m. a ban on excessive noise will be established. Excessive noise is considered to be jack hammers, chipping guns, excessive hammering, electric chop saws, floor grinders/scrapers, and powder actuated tools; these items may only be used between 10:00 p.m. and 5:00 a.m. This time frame may change due to location of the Concession and the operating flight in the general area. Tools that may be permitted for day usage are hand tools, electric drills, circular saws and reciprocating saws. In the event of a complaint by the City or an Airline, the On-Site Tenant Coordinator will immediately stop the activity that is the cause of the complaint.

The Tenant Contractor will be responsible to issue all workers proper hearing protection as per OSHA 29 CFR 1926.52 and 29 CFR 1926.101

4.15. Welding Notification in the Concession Space

No welding or burning can take place without notification to Concession Manager and approval by Concession Manager. A Welding Request must be submitted to Properties and Concessions Management Office at least 5 days in advance of the work.

Properties and Concessions Office will pursue approval and notify process required. The notice is both site and occurrence specific; each additional requirement for welding or burning will require an additional notice. If a fire watch is required by Aviation Fire Department, fee will be paid by Tenant. In order to be able to field weld, the following criteria must be met and maintained for the duration of all welding procedures:

1. Submit a Welding Application at least five days in advance.
2. Provide all fire watches required and all fire extinguishers and fire blankets

3. Use and maintain all required personal protective equipment.
4. Maintain a fire watch(s) during welding operation and post welding for duration of at least one (1) hour.
5. Properly secure all gas bottles. Extra gas bottles are not to be stored inside the Terminal.
6. All gas bottle storage, handling, transporting and usage must comply with OSHA 29 CFR 1926.350 S.
7. No welding in public view (storefronts included) may take place from 5 a.m. till 11 p.m.
8. All welding procedure are to be in compliance with all COSA and Airport guidelines and OSHA 29 CFR 1926.102(b), .350-.354, 406(c)
9. All arc welding machines are to be approved by Aviation Fire Department/Safety for use prior to welding.
10. Welding or torch cutting under the direct supervision and by approval of Concession Manager.
11. A welding permit must be completed. See Properties and Concessions Manager for copy.
12. Comply with the Airport's Fire Marshal's regulations and provide notification of welding activity to Properties and Concession Manager and Aviation Fire Protection Team forty-eight (48) hours prior to start for safety assessment of the activity and area.

4.16. Barricades

All areas of construction must have a barricade erected prior to the start of construction.

The following criteria must be followed:

1. Height of barricade will extend to the existing ceiling height.
2. Barricade must be painted Brilliant Blue (PPG1161.7) with black base molding applied to the concourse side.
3. Barricade must have dust cover consisting ripstop visqueen.
4. Barricade door to be located towards the side not in the center.
5. Barricade not to project out more than 3 feet past the bulkhead.
6. Barricade side return panels are to be 45 degree angles to aid passenger flow.
7. Barricade cannot be bolted, screwed, glued, or shot into any finished floor. Floor protection required.
8. Barricade must be secured to prevent tipping over or shifting during construction.
9. Barricade is subject to City approval; with TSA approval contingent upon public activity.
10. All barricade removal to take place at night when the construction status has been approved by Properties and Concession Manager and Aviation Planning and Development.

Barricades may have signage or graphics approved by the City installed on them. These graphics will be mounted in such a way as not to permanently adhere to the barricade wall. The Tenant Contractor is responsible for any damage to the graphics as a result of careless construction practices.

All barricades must have self-closing hinges and be kept closed at all times and locked during non-working hours. All tools or equipment remaining in the concession space after working hours must be stored in a locking job or gang box. It will be the Contractor's responsibility to

maintain the barricades both functionally and aesthetically. The Contractor will be responsible to legally dispose of the barricade upon completion of the concession build out.

Properties and Concession Division, Construction and Development and Security will approve all barricades construction and maintenance.

4.17. Parking

All designated parking for contractor's vehicles, contractor employee's vehicles and delivery trucks will be provided at the Pre-Construction meeting.

4.18. Trash and Debris Removal

The space is to be kept clean at all times, trash accumulation is to be kept to a minimum. A tarp covered dumpster will be allowed on the airside at a location provided by Airport Operations and Airport Security, and the Contractor is responsible for the removal of all trash from the airport property at their expense. Contractor must insure that all debris fit properly into debris bin; no debris may be permitted to lean over the profile of the container. It is imperative that no sharp edges, screws, wire etc. project out in such a way as to injure others or damage common areas. All debris must be stored in the construction area; no debris may be placed anywhere else unless permission is given.

Contractor will be responsible for any debris, dirt, grease, dust left in the common areas. Contractor will immediately clean any debris from the common areas and subject to special cleaning fee, if deemed appropriate by the City representative.

4.19. Floor and Roof Penetrations

Approval for any core drilling must be obtained prior to commencing work. Submit the request with the appropriate background of need to Properties and Concessions Management Office and Aviation Construction and Development.

Floor and wall penetrations must be sealed and dampened to maintain occupancy separations where required.

All floor penetration must maintain the two (2) hour fire rating of the slab and require Ground Penetrating Radar (GPR) confirmation prior to commencing work. A qualified GPR contractor hired at contractor's expense shall perform all GPRs. Likewise all fireproofing within the Tenant's Space must be restored to its original thickness, properly sealed and filled as applicable per building code(s).

Roofing

Currently, roof penetrations are not allowed except for kitchen uses. There are three (3) Roof penetrations within a provided curb to accommodate the concessions within the food court area. Cutting and patching must be performed by only City's authorized roofing contractor to ensure warranty:

- Terminal A - American Roofing
- Terminal B - Fifth Wall Roofing

The Contractor is to contact Properties and Concessions Management Office for

additional information.

4.20. Close-Out Requirements

Properties and Concession Management, Aviation Planning and Development and the Contractor will walk the space a minimum of 2 weeks prior to opening, to determine last remaining items to address. This punch list will be monitored until completed. Punch items to be completed in 30 days.

All such construction shall be completed free and clear of all liens, encumbrances and security instruments. If any mechanic's, material means' or other lien is filed against the Premises, the Terminal, the Airport, the City or any interest in this Lease Agreement as a result of any work or act of Tenant and/or Contractor, Tenant shall fully and completely discharge the lien and have it released from record by payment or posting a bond within 20 days after the filing and subject to consequences as defined in the Lease Agreement.

Prior to opening: Contractor shall also deliver to Properties and Concession Manager a copy of the Certificate of Occupancy with respect to the premises.

Within 60 days after opening for business in the Premises, Contractor shall:

1. From the contractor(s) a written warranty of all materials and workmanship for a period of one (1) year effective from the date of beneficial occupancy of the Premises. Contractor(s) shall be required by Contractor in its construction contract to repair and/or replace all defective materials, equipment and workmanship at no cost to the City, or the Tenant occupying the Premises;
2. All required manufacturers' guarantees, maintenance manuals and other pertinent documents; preventative maintenance program details and schedule;
3. One (1) set of "as-built" drawings (and preferably specifications) and Computer Aided Drafting and Design (CADD) drawings, on CD duly certified by a Texas registered architect or registered engineer, no later than 60 days after opening for business in the Premises;
4. Executed copies of all mechanics lien waivers and/or releases or other lien waivers and/or releases on account of contractors work, notarized and unconditional, in such form as COSA shall have reasonable approved along with an architect's certification that the Premises have been constructed in accordance with the approved Final Drawings and are fully complete in accordance with all of Such requirements specified or reference herein;
5. Statements of the total construction costs incurred by Contractor which is certified by a responsible officer of Contractor as correct together with copies of all supporting documentation required by the City under the Agreement with the City including copies of paid invoices;
6. Certified construction cost reports;

7. All SAT security badges;

4.21. Construction Deposit, if applicable.

A construction deposit of \$5,000.00 will be required from Tenant's general contractor for each space being constructed and shall not be released by COSA until after satisfactory completion of:

1. All requirements of this Specifications Manual;
2. Approval by the COSA's on-site construction supervision personnel or their designee, specifying that all of Contractor's work has been completed and accepted by COSA; and
3. Receipt by COSA of all construction related close-out project documentation required by the Agreement and the CPA process or otherwise required by COSA;

The deposit shall be in the form of a cashier's check made payable to the "City of San Antonio" and due on the day of the pre-construction meeting.

City of San Antonio (COSA) will retain the security deposit until all items are completed and submitted as required by the lease in the "closing documents".

4.22. General Construction Documents and Miscellaneous Items**a. Close Out Documents**

The Tenant Contractor must provide the following information to the On-Site Tenant Coordinator within ten business days from the opening of the location. Return of the security deposit will be conditioned upon receipt of the following:

1. As-Builts of the Lease Space - CADD CD
2. Certified Construction Cost Reports
3. Certificate of Occupancy (within 30 Days)
4. Lien Waivers
5. Completed Aviation Punch list
6. All SAT Security Badge Returned
7. Texas Department of Licensing and Regulation (TDLR) inspection

b. General Health & Safety

The Tenant Contractor will at all times conform and comply with all local, state and Federal agencies including but not limited to: OSHA, Federal Aviation Administration, City of San Antonio, and Texas Department of Labor. At no time will any construction related activity jeopardize the safety of any employee, passenger, patron, etc. of SAT. In the event that multiple agencies claim jurisdiction, the most stringent regulations will take precedent.

c. On-Site Health & Safety Station

The Tenant Contractor will establish and maintain an On-Site Health & Safety Station. This station will be mounted on a plywood backing affixed to the barricade framing. This Station will consist of the following:

1. First Aid Kit

2. Eye Wash Station
3. ABC Fire Extinguisher with a current inspection.
4. Emergency Phone Number List
5. Contractor Health & Safety Plan (includes MSDS)
6. Terminal Floor plan showing nearest fire exits.

d. Personal Protective Equipment

Tenant Contractor to provide all personal protective equipment in accordance with OSHA 29 CFR 1926.95, 96, 100, 101, 102, 103, 104, 105

e. Welding

In order to be able to field weld, the following criteria must be met and maintained for the duration of all welding procedures:

7. Submit to the Concessions Division "Welding Request Notice" at least three days in advance.
8. Submit to Concessions Division all Welding Certificates and Licenses.
9. Submit Fire Sprinkler Shut Down Notice (if applicable) to Concessions Division at least five days in advance.
10. Provide all fire watches required and all fire extinguishers and fire blankets. 5. Use and maintain all required personal protective equipment
11. Maintain a firewatch for the duration of the welding
12. Properly secure all gas bottles. Extra gas bottles are not to be stored inside the Terminal. All gas bottle storage, handling, transporting and usage must comply with OSHA 29 CFR 1926.350
13. S. No welding in public view (storefronts included) may take place from 5:00 a.m. till 11:00 p.m.
14. All welding procedures are to be in compliance with all City and Airport guidelines and OSHA 29 CFR 1926.102(b), .350-.354, .406(c)
15. All arc welding machines are to be approved for use prior to welding.
16. Notify Airport Communications, Airport Operation and Airport Fire Rescue Captain prior to starting work.

f. Fire Sprinkler Shut Downs (if Applicable)

Due to the large number of agencies that need to be notified of a sprinkler shut down; submit to the Concession Manager a Fire Sprinkler Shut down Notification at least three (3) business days in advance. Contractor is responsible for all fire watches and emergency equipment (fire extinguishers, fire blankets, etc). The Contractor will be charged for any cost associated with a Fire Sprinkler Shut Down as determined by City of San Antonio (COSA).

If the existing Fire Sprinkler System is modified Airport Fire and Safety Division must be notified prior to commencing any work, a hydrostatic test may be required prior to energizing the system. The Tenant Contractor will be informed of the hydrostatic test as required.

g. Mechanical/Electrical Shutdowns

In the event that the Contractor requires a Mechanical/Electrical Shutdown, submit a Mechanical Shutdown request two (2) weeks in advance. If the Contractor needs to access any Operations level Mechanical Room, all workers must have security badges and escort by the Airport Police or an Aviation Department representative.

h. Drug Free Work Place

Airport is a drug free work place. Alcohol is also prohibited while working.

i. Smoking

There is no smoking anywhere inside the Terminals or on the AOA. Designated smoking areas outside the concourse are labeled as such. Anyone violating this rule will be removed from the premises and replaced.

j. Escorts

When an escort is required, the escort is responsible for any and all violations that are caused by those with the escort. Those assigned to an escort must remain with the escort at all times. All escorts will be arranged through the On Site Tenant Coordinator.

k. Gas Powered Equipment

No gas, diesel or propane powered equipment will be permitted,

l. Lasers

All lasers are to be operated in a safe manner by trained tradesmen. At no time will a laser be used in the common areas or in such a manner as the laser emits out to the common area. All signage and personal protective equipment will be required as OSHA 29 CFR 1926.102(b)(2)

m. Powder Actuated Tools

All powder or explosive charge activated tools are to be operated by persons that are properly and currently trained and qualified to operate that particular tool. All tools are to be used and handled as per OSHA 29 CFR 1926.302(e)

Pre-Construction Meeting Agenda

Project: _____

Name of Contractor: _____

Project Manager: _____

On-site Superintendent: _____

Date: _____

1. Introduction
2. Pre-Construction Requirements
 - a. Insurance certificate
 - b. Security Deposit from GC, if applicable. (\$5,000 cashier's check payable to City of San Antonio.)
 - c. Performance & Payment Bond (for total amount of construction contract costs for: fixed improvements: naming the City as additional insured
 - d. Building Permit and all trade permits
 - e. Emergency Contact List/Medical Locations
 - f. List of Sub Contractors
 - g. Contractors Project Schedule:
 - h. Material Safety Data Sheets (MSDS) for products used
 - i. Electrical, Plumbing & HVAC Licenses
3. Security, Badging and Safety Procedures
 - a. Badging and Safety Access Requirements
 - b. Storage of Tools & Equipment
 - c. Construction Barricade, Keys & locks
 - d. Delivery Procedures
 - e. Contractor/Sub-contractor Parking
 - f. Dumpster location
 - g. Use of PPE, Ladder Safety, Notify Facility Maintenance of Lock out tag out
4. Interruptions to Existing Facilities
 - a. Debris Removal
 - b. Welding (permit required)
 - c. Dust, Noise, Odor control
 - d. Hours of Operation
5. Progress Reports Coordination of Shutdowns & Misc. items
 - a. Progress Reports
 - b. Coordination of Shutdown & Misc. items
 - c. Written Progress Reports
6. Punch List
 - a. Scheduling - Minimum 2 Week before turnover
 - b. Space to be free and clear of construction activity and equipment allowing for full access. Must be in opening day condition
7. Close-out Documents
 - a. Lien wavers, proof of payment
 - b. Cost Certification Sheet
 - c. Deposit return
8. Drug Free Workplace - No Smoking Ordinance
9. Questions?

SECTION 5 – STRUCTURED CABLING INFRASTRUCTURE GUIDELINES**PART 1 - DOCUMENT PURPOSE**

- 1.1 The City of San Antonio Structured Cabling Infrastructure Standard is a guideline for structured cabling infrastructure and the associated spaces to be applied by the design team for new or renovated facilities. Information herein is applicable to the Technology Consultant, Architect, MEP, and contractors, and shall be taken into account for each project by all team members.
 - A. The standards set forth parameters for the technical system in addition to the site and building requirements to facilitate a properly-installed standards-compliant structured cable system, organized as follows ;
 1. Telecommunications Spaces; Architectural, HVAC, Power, Entrance Pathways and Conduits
 2. System Requirements; Cable Management in Telecommunications Spaces, Cable Support in Pathways, Backbone Cabling, Horizontal Cabling, Grounding, Labeling, Testing, and As-Built Documentation.
 3. Telecommunications Diagrams
- 1.2 The standard addresses infrastructure for typical buildings and is not intended for the design of data centers or specialty facilities, of which should be considered on a case-by-case basis.
- 1.3 Designers shall not deviate from this standard without explicit written approval from the City of San Antonio Information Technology Services Department.
- 1.4 Any deviations shall immediately be brought to the attention of the owner's representative in writing for resolution.
- 1.5 Where specific product brands are mentioned, an equivalent will be considered following an official submission of product literature and written acceptance by the City of San Antonio Information Technology Services Department.
- 1.6 Where means, methods, and best practices are mentioned, contractor shall follow the manufacturers' and owner's requirements, industry standards, or code, whichever is most stringent.
- 1.7 Basic contractor qualifications are set forth, but may be made more stringent as applicable to each project based upon size and scope.

- 1.8 A Division 27 specification and T-Series drawings for the Structured Cabling System shall be commissioned and issued by the Architect during the design phases for each facility or project.

PART 2 - DOCUMENT HISTORY

- 2.1 This document supersedes all previous standards which have been fully reevaluated and described herein by the City of San Antonio Information Technology Services Department.
- 2.2 The contents of the standards were derived by the assembly and input from the City of San Antonio Information Technology Services Department.

PART 3 - INDUSTRY STANDARDS

- 3.1. The following industry standards shall be adhered to unless specifically directed otherwise by the City of San Antonio Information technology Services Department. The list is not all-inclusive and does not alleviate compliance with the latest applicable standards, codes, and best practices:
 - A. TIA-568-C.O Generic Telecommunications Cabling for Customer Premises
 - B. TIA-568-C.1 Commercial Building Telecommunication Cabling Standards - Part 1 General Requirements (2008)
 - C. TIA-568-C .2 Balanced Twisted-Pair Telecommunications Cabling and Components Standard (2009)
 - D. TIA-568-C.3 Optical Fiber Cabling Components Standard (2009)
 - E. TIA-569-B Commercial Building Standard for Telecommunications Pathways and Spaces - (October 2004)
 - F. TIA-598-C Optical Fiber Cable Color Coding - (January 2005)
 - G. TIA/EIA-606-B Administration Standard for Commercial Telecommunications Infrastructure - (May 2012)
 - H. ANSI J-STD-607-B Commercial Building Grounding and Bonding Requirements for Telecommunications - (October 2011)
 - I. TIA-758-A Customer-Owned Outside Plant Telecommunications Infrastructure Standard - (August 2004)
 - J. TIA-526-7 Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable

Plant – OFSTP-7 - (February 2002)

K. TIA-526-14-A Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant – OFSTP-14 - (August 1998)

L. AIA

M. Local Building Code

N. NEC

O. ISO

P. ANSI

Q. FCC

R. UL

S. OSHA

T. NFPA

U. NEMA

PART 4 - CONTRACTOR QUALIFICATIONS

- 4.1 Contractor and staff shall be a current authorized Panduit Certified Installers and certified by Panduit to provide and furnish a 20-year performance warranty for structured cabling and connectivity components.
- 4.2 Contractor and staff shall possess relevant past-experience and references for a minimum of (5) projects of similar size and scope to that of the City of San Antonio.
- 4.3 Contractor's Project Manager shall be a RCDD in good standing and shall provide Certificate.
- 4.4 Contractor shall have a local office within a 75-mile radius of the project site
- 4.5 Sub-contractors to the primary structured cabling contractor shall meet the same requirements for the primary structured cabling contractor as identified above.

PART 5 - WARRANTY ON PARTS AND LABOR.

- 5.1 The contractor shall furnish a 20-year performance warranty from Panduit for the

structured cabling and connectivity components.

- 5.2 All labor and workmanship shall carry a minimum warranty period of (1) year from the date of final system acceptance.
- 5.3 Defects in material or workmanship appearing within this period of time, shall be promptly repaired without cost to the City of San Antonio.

PART 6 - NOMENCLATURE

- 6.1 Main Distribution Frame (MDF) – An environmentally controlled centralized architectural space for housing telecommunications equipment that usually serves as the demarcation point for service providers, and houses the backbone terminations for cross-connection and distribution to Intermediate Distribution Frames.
- 6.2 Intermediate Distribution Frames (IDF) - An environmentally controlled architectural space for housing telecommunications equipment and backbone terminations for cross-connection and distribution to the MDF and end-user workstations.

PART 7 - CITY INFRASTRUCTURE STANDARDS

7.1 Telecommunications Spaces

A. Main Distribution Frame (MDF)

1. Description

- a. The MDF is a telecommunications space that serves a building or multi-building facility or campus. There is only (1) on each campus.
- b. The MDF houses the entrance conduits, terminations, and cross connections for all incoming inter-building backbone cabling from the IDFs in other buildings on the campus and the intra-building backbone cabling from the IDFs in the building in which it resides, and cross-connects to user workstations .
- c. Wall and floor space shall be reserved for service provider demarcation equipment and incoming infrastructure terminations.
- d. Campus distribution network equipment, servers, and other centralized telecommunications related equipment will reside in the MDF.
- e. The MDF may share space with other systems such as security panels, paging systems, and CATV cabling. Space allocation for other systems

shall be coordinated with the applicable disciplines after approval from the City of San Antonio Information Technology Service Department. All coordination shall be completed prior to installation.

- f. Fire alarm panels and building control panels shall not be located inside the MDF. Space allocation for these systems needs to occur outside of the MDF.
- g. The MDF shall not be used for storage, serve as a mechanical or electrical distribution space, nor shall it have within its space main electrical feeds, electrical switch gear, transformers, and water or sprinkler main lines.
- h. The layout of cabinets, equipment racks, wall fields, and cable management shall be as indicated on the attached diagrams.

2. Architectural Requirements

- a. The MDF shall be a minimum of 150 square feet with minimum clear lineal walls of at least 10 feet by 15 feet. The size of the MDF shall be coordinated with and approved by the City of San Antonio Information Technology Services Department during the design.
- b. All walls inside the MDF shall go to deck. When walls are drywall they shall be double layered drywall on both sides to help reduce the risk of unauthorized entry.
- c. The MDF Room shall be centrally located.
- d. The floor finish shall be sealed bare concrete or VCT.
- e. The MDF shall not contain windows.
- f. The MDF shall not be located adjacent to or below restrooms or other water-based facilities, or sources of EMI and mechanical vibration.
- g. All walls shall be covered with 4-feet x 8-feet x $\frac{1}{2}$ -inch AC Grade Void Free Fire Retardant Plywood, aligned vertically starting at 12 inches above the finished floor. The plywood shall be installed with the "A" grade side exposed and the "C" grade side against the building or structure. The plywood shall be painted with two coats of fire retardant paint and one stamp from each sheet shall be masked during the painting and uncovered after the paint has dried so the fire rated plywood stamps are visible for inspection.

- h. The minimum ceiling height shall be 9-feet above finished floor with the following preferences of finishes.
 - 1) No ceiling is the preferred finish
 - 2) Hard ceiling is acceptable if leaving open to structure is not possible.
 - 3) The last alternative is a lift-out ceiling. If a lift-out ceiling tile is required this shall be coordinated and approved by the City of San Antonio Information Technology Services Department during the design process. If this option is approved it is recommended the ceiling height inside the MDF room be higher than the ceiling height in the corridor outside the MDF so the cables entering into the MDF do not have to pass through the lift-out ceiling inside the MDF room.
 - i. Entry to the space shall be through a minimum 36-inch by 80-inch clear door opening that swings outward. Door shall be solid core or steel and shall not have any windows. The door shall securely lock and access shall only be by City of San Antonio Information Technology Services Department-approved personnel. The door shall open to an interior hallway or space; it is not recommended the door open to the exterior of the building.
 - j. The MDF door shall be equipped with a minimum of a City of San Antonio Information Technology Services Department approved cipher lock. When an access control security system is available, the entrance to the MDF shall be equipped with a card reader and electrified door hardware.
 - k. Fire suppression for the MDF shall be determined by the specific code requirements for the fire protection scheme of the overall building. If a fire suppression system is designed, it shall be designed to avoid running distribution over the MDF equipment cabinets, racks and equipment.
3. HVAC Requirements
- a. The MDF shall be serviced by a dedicated unit that is part of the building's main system and be equipped with a Split DX system through the wall above the door which cools only when the building HVAC is inadequate or not running. The unit shall maintain a constant 24/7 cooled environment between 68° and 77° F with relative humidity of 40% - 55%.
 - b. Changes in temperature and humidity shall be kept to around 1 percent.
 - c. The minimum HVAC load shall be designed to displace 12KW of power, or

3.5 Tons, and shall be coordinated with the City of San Antonio Information Technology Services Department during the design and designed to load if the known load is greater at the time of design.

- d. It is recommended the MDF maintain the stated temperature and humidity in the event of building power outages or primary HVAC system failure.
 - e. Air delivery shall be aligned in the front of the equipment rows and returns at the rear of the equipment rows when possible.
 - f. HVAC sensors and controls shall be located in the MDF at 5-ft AFF.
 - g. A hard-wired wall mounted thermostat shall be located inside the MDF Room.
 - h. HVAC systems shall be alarmed for power loss, high and low temperature, high and low humidity, smoke detection, compression failures and water flooding.
 - i. A simplex data drop shall be installed within 12 inches of the unit so it can be incorporated into the Building Automation System (BAS).
 - j. Must include a humidity control system.
4. Lighting Requirements
- a. Florescent light fixtures shall be at least 24 inches above the top of the highest cabinet, rack or cable runway (approximately 84 inches), 36 inches is recommended.
 - b. Lighting shall be a minimum of 50 foot candles at 2 feet above the floor in the entire space.
 - c. The MDF shall be equipped with emergency lighting to keep the space lit during power outages.
5. Power Requirements
- a. All electrical service outlets shall be labeled with the associated panel and circuit information.
 - b. Power shall be in two categories: dedicated and convenience.
 - c. Dedicated

- 1) The MDF shall be equipped with a minimum of (2) dedicated 208 VAC 20 amp electrical circuits terminated in separate J- boxes and (1) dedicated 120 VAC 20 Amp circuit mounted above each equipment cabinet or rack.
 - a) The (2) 208 VAC J-boxes shall be mounted to a uni-strut above the equipment cabinets or racks and shall be provided with a 7-foot "SO Type" cord with a female NEMA L6-20R receptacle on the end.
 - b) The (1) 120 VAC J-box shall be mounted to a uni-strut above the equipment cabinets or racks and shall be provided with a 7-foot "SO Type" cord with a female NEMA 5-20R receptacle on the end.
 - c) The originating electrical panel shall be properly sized for the loads calculated and shall be located in the nearest Electrical Room.
 - 2) Additional power circuits to be allocated to security, paging CATV, and service provider equipment shall be considered and coordinated at the time of building design.
 - 3) Power distribution to the cabinets shall be achieved by installing rack mounted PDUs.
 - d. Convenience
 - 1) The MDF shall be equipped with 120 volt 20 Amp duplex NEMA 5-20R receptacles, with maximum (3) receptacles on each circuit. The originating electrical panel shall be equipped with a 20 Amp breaker per circuit.
 - 2) A duplex receptacle shall be spaced at least 1 foot from an adjacent wall and every 6 feet thereafter. A minimum of (1) duplex receptacle shall be placed in each wall and be flush mounted to the finished wall surface at 18 inches above finished floor.
6. Equipment Cabinets / Racks and Cable Management Requirements
- a. The MDF shall be equipped with a minimum (2) equipment cabinets or equipment racks. Coordination with and approval by City of San Antonio Information Technology Services Department during the design is required to determine with equipment cabinets or equipment racks shall be utilized.

- b. The MDF shall be equipped with cable runway encircling the room at 84-86 inches above the finished floor, and crossing the room above the equipment cabinets or racks (1) time.
 - 1) Cable runway shall not be secured to the top of the equipment cabinets.
 - 2) A vertical section of cable runway shall be attached to the wall board to manage backbone and service provider cables as they transition from the entrance conduits to the overhead cable runway.

B. Intermediate Distribution Frame (IDF)

1. Description

- a. An IDF is a telecommunications space that resides in each building that requires more than a single telecommunications space from which to terminate horizontal workstation cables. There may be multiple IDFs in each building as required to maintain horizontal cable distances of 295 feet for the permanent link.
- b. An IDF houses the terminations and cross connections for the intra or inter-building cabling from the MDF and the horizontal user workstation cabling in the area of the building that it serves.
- c. Building workstation access network equipment will reside in the IDF.
- d. The IDF may share space with other systems such as security panels and paging systems. Space allocation for other systems shall be coordinated with the applicable disciplines.
- e. Fire alarm panels and building control panels shall not be located inside the IDF. Space allocation for these systems needs to occur outside of the IDF.
- f. The IDF shall not be used for storage, serve as a mechanical or electrical distribution space, nor shall it have within its space main electrical feeds, electrical switch gear, transformers, water or main sprinkler lines.
- g. The layout of cabinets, equipment racks, wall fields, and cable management shall be as indicated on the attached diagrams.

2. Architectural Requirements

- a. The IDF shall be a minimum of 100 square feet with minimum clear lineal

wall lengths of at least 10 feet by 10 feet.

- b. All walls shall go to deck. When walls are drywall they shall be double layered drywall on both sides to help reduce the risk of unauthorized entry.
- c. The floor finish shall be sealed bare concrete or VCT.
- d. The IDF shall not contain windows.
- e. IDFs shall be arranged in a stacked formation in multi-story buildings, and not be located next to or below restrooms or other water-based facilities, or sources of EMI and mechanical vibration.
- f. All walls shall be covered with 4-feet x 8-feet x 1/2-inch AC Grade Void Free Fire Retardant Plywood, aligned vertically starting at 12 inches above the finished floor. The plywood shall be installed with the "A" grade side exposed and the "C" grade side against the building or structure. The plywood shall be painted with two coats of fire retardant paint and one stamp from each sheet shall be masked during the painting and uncovered after the paint has dried so the fire rated plywood stamps are visible for inspection.
- g. The minimum ceiling height shall be 9 feet above finished floor with the following preferences of finishes.
 - 1) No ceiling is the preferred finish
 - 2) Hard ceiling is acceptable if leaving open to structure is not possible.
 - 3) The last alternative is a lift-out ceiling. If a lift-out ceiling tile is required this shall be coordinated and approved by the City of San Antonio Information Technology Services Department during the design process. If this option is approved it is recommended the ceiling height inside the MDF room be higher than the ceiling height in the corridor outside the MDF so the cables entering into the MDF do not have to pass through the lift-out ceiling inside the MDF room.
- h. Entry to the space shall be through a minimum 36-inch by 80-inch clear door opening that swings outward. Door shall be solid core or steel and shall not have any windows. The door shall securely lock and access shall only be by City of San Antonio Information Technology Services Department-approved personnel. The door shall open to an interior hallway or space; it is not recommended the door open to the exterior of the building.

- i. The IDF door shall be equipped with a minimum of a City of San Antonio Information Technology Services Department approved cipher lock. When an access control security system is available, the entrance to the IDF shall be equipped with a card reader and electrified door hardware.
- j. Fire suppression for the IDF shall be determined by the specific code requirements for the fire protection scheme of the overall building. If a fire suppression system is designed, it shall be designed to avoid running distribution over the IDF equipment cabinets, racks and equipment.

3. HVAC Requirements

- a. The IOF shall be serviced by a dedicated unit that is part of the building's main system and be equipped with Split DX system through the wall above the door which cools only when the building HVAC is inadequate or not running. The unit shall maintain a constant 24/7 cooled environment between 68° and 77° F with relative humidity of 40% - 55%.
- b. Changes in temperature and humidity shall be kept to around 1 percent.
- c. The minimum HVAC load shall be designed to displace 4KW of power, or 1 Ton, and shall be coordinate with the City of San Antonio Information technology Services Department and designed to load if the load is greater and known at the time of design.
- d. It is recommended that the IDF maintain the stated temperature and humidity in the event of building power outages or primary HVAC system failure.
- e. Air delivery shall be aligned in the front of the equipment rows and returns at the rear of the equipment rows.
- f. HVAC sensors and controls shall be located in the IDF at 5-ft AFF.
- g. A hard-wired wall mounted thermostat shall be located inside the IDF Room.
- h. HVAC systems shall be alarmed for power loss, high and low temperature, high and low humidity, smoke detection, compression failures and water flooding.
- i. A simplex data drop shall be installed within 12 inches of the unit so it can be incorporated into the Building Automation System (BAS).

4. Lighting Requirements

- a. Florescent light fixtures shall be at least 24 inches above the top of the highest cabinet, rack or cable runway, 36 inches is recommended.
- b. Lighting shall be a minimum of 50 foot candles at 2 feet above the floor in the entire space.
- c. The IDF shall be equipped with emergency lighting to keep the space lit during power outages.

5. Power Requirements

- a. All electrical service outlets shall be labeled with the associated panel and circuit information.
- b. Power for the IDF shall be in two categories: dedicated and convenience.

c. Dedicated

- 1) The IDF shall be equipped with a minimum of (2) dedicated 208 VAC 20 amp electrical circuits terminated in separate J-boxes and (1) dedicated 120 VAC 20 Amp circuit mounted above each equipment cabinet or rack.
 - a) The (2) 208 VAC J-boxes shall be mounted to a uni-strut above the equipment cabinets or racks and shall be provided with a 7-foot "SO Type" cord with a female NEMA L6-20 R receptacle on the end.
 - b) The (1) 120 VAC J-box shall be mounted to a uni-strut above the equipment cabinets or racks and shall be provided with a 7-foot "SO Type" cord with a female NEMA 5-20 R receptacle on the end.
 - c) The originating electrical panel shall be properly sized for the loads calculated and shall be located in the nearest Electrical Room.
- 2) Additional power circuits to be allocated to security, paging, and service provider equipment shall be considered and coordinated at the time of building design.

- 3) Power distribution to the cabinets shall be achieved by installing rack mounted PDUs.

d. Convenience

- 1) The IDF shall be equipped with 20 Amp duplex NEMA 5-20R receptacles, with maximum (3) receptacles on each circuit. The originating electrical panel shall be equipped with a 20 Amp breaker per circuit.
- 2) A duplex receptacle shall be spaced at least 1 foot from an adjacent wall and every 6 feet thereafter. A minimum of (1) duplex receptacle shall be placed in each wall and be flush mounted to the finished wall surface at 18 inches above finished

6. Equipment Cabinets / Racks and Cable Management Requirements

- a. The IDF shall be equipped with a minimum (2) equipment cabinets or equipment racks. Coordination with and approval by City of San Antonio Information Technology Services Department during the design is required to determine with equipment cabinets or equipment racks shall be utilized.
- b. The IDF shall be equipped with cable runway encircling the room at 84-86 inches above the finished floor, and crossing the room above the equipment cabinets or racks (1) time.
 - 1) Cable runway shall not attach to the top of the equipment cabinets.
 - 2) A vertical section of cable runway shall be attached to the wall board to manage backbone and service provider cables as they transition from the entrance conduits to the overhead cable runway.

7.2 Entrance Pathways and Conduits

A. Design Principles

1. Pathways and conduits are described herein with regard to capacity, function, and basic design principles and shall be designed by the MEP in accordance with NEC and EIA/TIA-758, Customer-Owned Outside Plant Telecommunications Cabling.
2. Telecommunications Conduit Systems shall:
 - a. Be Schedule 80 when placed under ground.

- b. Contain a minimum of (3) 3-inch 3-Cell Maxcell fabric innerduct inside each conduit. Coordination with and approval by the City of San Antonio Information Services Technology Department is required to determine the exact quantity and size of the Maxcell innerducts inside each conduit.
- c. Pull tape shall be provided integral with each cell of the Maxcell fabric innerduct.
- d. A metallic tracer wire shall be provided for purpose of locating duct route in case of route disturbance. In a bank of conduits, tracer wire shall be provided in a least one of the conduits.
- e. Contain no more than the equivalent of (2) 90 degree bends between pull boxes.
- f. Maintain a minimum bend radius of 10 times the diameter of the conduit.
- g. Not exceed 40 percent fill ratio.
- h. Be placed at a minimum depth of 36-inches from the top of the conduit to the finished grade with 3-inches of compacted sand above and below the buried conduit and an orange metallic tracer warning tape stenciled "TELECOMMUNICATIONS" 12 inches below grade throughout the entire pathway.
- i. Be interrupted by an adequately sized manhole or pull box at least every 600 feet for sections containing up to (1) 90 degree of bend, and at least every 350 feet for sections with the equivalent of (2) 90 degree bends.
 - 1. Manholes and pull boxes shall be of adequate depth for conduits to enter from the side of the pull box and not be required to sweep up into the bottom of box.
 - 2. Manholes shall have a minimum size of 12 feet long 6 feet wide and 7 feet high.
 - 3. Pull boxes shall be a minimum 30 inches wide, 48 inches long and 30 inches tall.
 - 4. All accessories such as racking, grounding and bonding, ladders and ancillary equipment shall be provided
 - 5. All covers shall be stenciled with "**COSA COMMUNICATIONS**".
 - 6. Manholes and pull boxes shall be designed to ensure proper construction

types and load ratings (i.e., traffic bearing) are observed and utilized based on the location of the pull boxes.

- j. Stub up into the MDF and/or IDF at 4-inches above the finished floor, no more than 2 inches from the finished wall and installed parallel to the finished wall.
- k. Contain a marked pulling tape with 1800 lbs tension strength, be fitted with bushings, and sealed appropriately at both ends.

B. City of San Antonio – Right of Way Conduits

1. Minimum of (3) 4-inch conduits shall route between hand-holes located in the City of San Antonio rights of Way.
2. All covers of any manholes or hand holes that are related to City of San Antonio infrastructure shall be stenciled with "**COSA COMMUNICATIONS**". This applies to any infrastructure placed to serve City of San Antonio properties.
3. Manholes and pull boxes shall be utilized as required for an ANSI, TIA and BICSI compliant conduit distribution system. The conduit, pull boxes/manholes sizing and construction shall be coordinated with the City of San Antonio Information Technology Service Department and the applicable service provider on a project by project basis.

C. Facility Service Provider Conduits

1. Minimum of (4) 4-inch conduits shall route underground from the MDF to the edge of the property Right of Way and terminate as required by the service provider(s). Additional conduits shall be added as required.
2. Manholes and pull boxes shall be utilized as required for an ANSI, TIA and BICSI compliant conduit distribution system. The conduit, pull boxes/manholes sizing and construction shall be coordinated with the City of San Antonio Information Technology Service Department and the applicable service provider on a project by project basis.
3. Where the service provider termination location is unidentified at the time of design, the conduits shall route from the MDF to an adequately- sized pull box or manhole at least 30 feet from the building edge.

D. Campus Serving Conduits

1. Minimum of (2) 4-inch conduits shall route underground from the MDF to the IDF on the first floor of each additional building on the campus. Additional conduits

shall be added as required if fill capacity exceeds 40 percent.

2. Manholes and pull boxes shall be utilized as required for an ANSI, TIA and BICSI compliant conduit distribution system. The conduit, pull boxes/manholes sizing and construction shall be coordinated with the City of San Antonio Information Technology Service Department and the applicable service provider on a project by project basis.
3. Where only the first building of a campus is being designed, (2) 4-inch conduits for each additional future building shall route from the MDF to an adequately-sized manhole or pull box at least 30 feet from the building edge.

E. Building Entrance for Large Campus

1. For large campuses, the MEP and Structural Engineer shall consider a conduit entrance vault as part of the MDF sub floor.

7.3 Cable Management In Telecommunications Spaces

A. Equipment Cabinets / Equipment Racks

1. Coordination with and approval by City of San Antonio Information Technology Services Department during the design is required to determine with equipment cabinets or equipment racks shall be utilized.
2. Cabinets and racks shall be black aluminum Standard Equipment Cabinets and Racks with EIA 19-inch rails, 84-inch (45 RMU) overall height and rack mount unit markings engraved on the rails.
3. All cabinets and racks shall be equipped with horizontal and vertical cable management as indicated in Exhibit 1.
4. Racks shall be bolted to the concrete floor and to the overhead cable runway utilizing manufacturer-recommended hardware and methods.

B. Overhead Cable Management

1. Overhead Cable Management shall be a Universal Cable Runway made of 3/8" x 1-1/2" x .065" wall rectangular steel tubing with cross members welded at 12-inch intervals.
 - a. MDFs shall be provided with a minimum of 18-inch wide Universal Cable Runway.

- b. IDFs shall be provided with a minimum of 12-inch wide Universal Cable Runway.
- c. Universal Cable Runway shall encircle the MDF or IDF room at 84-86 inches above the finished floor, and crossing the room above the equipment cabinets or racks (1) time.
- d. The appropriate Radius Drop shall be installed over the racks or cabinets to provide the proper support for the cabling leaving the Runway and entering the rack/cabinet.
- e. Universal Cable Runway shall be installed utilizing appropriate hardware to support, join, or attach sections to structures, and shall be supported at a minimum of 5 foot intervals.
- f. A vertical section of cable runway shall be attached to the wall board to manage backbone and service provider cables as they transition from the entrance conduits to the overhead cable runway.
- g. Universal Cable Runway shall not attach to the full sized equipment cabinets.

7.4 Cable Support in Pathways

A. Main Cable Pathway

1. Main cable pathway shall be wire-basket cable tray with the cables exiting the cable tray supported utilizing j-hooks installed a minimum of every 4-5 feet on center. J-hooks shall be installed utilizing appropriate hardware to support, join and attach j-hooks to structures.
2. Cable tray and J-hook sizing and quantity shall be scaled to the application not to exceed 40 percent fill ratio.
3. A separate j-hook shall be provided for each media type:
 - a. Backbone Fiber
 - b. Backbone Copper
 - c. Horizontal Data
 - d. Horizontal Wireless
 - e. Horizontal Audio Visual

f. Horizontal Security

B. Sleeves and Penetrations

1. Sleeves and penetrations are described herein with regard to capacity, function, and basic design principles and shall be designed in accordance with NEC and EIA/TIA-569-B, Commercial Building Standard for Telecommunications Pathways and Spaces.
2. All sleeves shall be equipped with nylon bushings.
3. All sleeves and penetrations shall be properly fire-stopped to meet local code and to return the wall, floor or structure, back to its original rating.
4. Scale the quantity of sleeves to maintain a 40 percent fill ratio in each sleeve.
5. Above MDF and IDFs install minimum of (4) 4-inch EMT sleeves through the partition wall between the MDF and/or IDF overhead space and the main cabling pathway.
6. Between directly aligned vertically stacked MDF and IDFs install minimum of (3) 4" EMT sleeves through the floor of the upper IDF.
7. Between skewed MDF and IDFs on adjacent floors, install minimum of (3) 4" EMT sleeves through the floor of the upper IDF into the accessible ceiling space below and utilize main cabling pathway to route cabling into the IDF or MDF on the lower floor.

C. Workstation Rough-ins and local power (Typ.)

1. At each flush wall-mounted workstation location, install a 4 11/16 inch by 4 11/16 inch by 2-1/8 inch double-gang back box with double-gang mud ring at 18 inches above the finished floor and at appropriate height for wall mounted phones and above-counter and millwork locations.
 - a. Install a minimum of (1) 1-inch conduit from the double-gang box to above accessible ceiling in the room where double-gang box is located. If ceiling is not accessible, install conduit to nearest accessible ceiling.
 - b. Conduit shall not exceed the 40 percent fill ratio.
 - c. Terminate the conduit above accessible ceiling and install nylon bushing and pull string.

- 1) Conduit shall be installed in accordance with EIA/IA-569-B, contain no more than the equivalent of (2) 90 degree bends and/or 98.4 feet between pull boxes, and maintain a bend radius of 6 times the diameter of the conduit.
2. At locations where the workstation outlets cannot be installed flush in the wall, a Panduit Surface Mounted Raceway that is appropriately sized and designed to meet the specific requirements shall be provided.
 - a. When power is provided in the surface mounted raceway a dual- channel surface mounted raceway shall be provided to separate the power from the structured cabling.
 - b. The use of surface mounted raceway shall only be considered when no option is available to install the workstation outlets flush in the wall and shall be approved by the City of San Antonio Information Technology Service Department during the design or prior to installation.
3. At floor-mounted workstation locations, install a floor box or poke-thru specifically designed for the application and environment adequately sized to accommodate the quantity of installed horizontal data cables.
 - a. Install a minimum of a (1) 1-inch conduit for every (6) cables from the floor box to above accessible ceiling.
 - b. Conduit shall not exceed the 40 percent fill ratio.
4. For modular furniture workstations, a rough-in pathway shall be considered and designed according to the furniture type, quantity of cables, and location as required for each furniture system.
 - a. The use of power poles shall be considered only on a case-by-case basis.
5. For ceiling-mounted outlets above accessible ceiling such as Wireless Access Points or IP Cameras, no rough-in is required. The data cable will terminate into a surface-mount box secured to the structure above the accessible ceiling.
6. The electrical engineer shall design at a minimum (1) quad NEMA 5- 15R receptacle within 12" of each workstation outlet location.

7.5 Backbone Cabling

A. Service Provider Demarcation point

1. The service provider demarcation shall be located inside the MDF when feasible.
 - a. For all new construction, the service provider demarcation shall be located inside the MDF. The service provider demarcation location and requirements shall be coordinated with City of San Antonio Information Technology Services Department.
 - b. For renovation projects where the service provider demarcation is not currently located inside the MDF but is required to be relocated because of the renovation, the service provider demarcation shall be relocated to the MDF. The service provider demarcation location and requirements shall be coordinated with City of San Antonio Information Technology Services Department.
 - c. For renovation projects where the service provider demarcation is not currently located inside the MDF and is not required to be relocated because of the renovation, the service provider demarcation shall be extended to the MDF via copper and/or fiber as required. The service provider demarcation location and requirements shall be coordinated with City of San Antonio Information Technology Services Department.

B. Inter-building Backbone Cabling (Campus)

1. Permanent Structures
 - a. Copper
 - 1) Inter-building Backbone Copper Cabling shall be Category 3 25- pair 24 AWG flooded UTP home run from the MDF to primary IDF in each of the buildings on the campus. Provide a 10-foot service loop at both ends of each cable stored on the wall above or below the cable runway. Provide a 20-foot service loop in each manhole or pull box. Cables shall be secured with Hook- and-loop tie-wraps in the MDF or IDF.
 - 2) Inter-building Backbone Copper Cabling shall terminate on UL- listed Category 3 25-pair 110 IDC in/out lightning protection panels equipped with UL-listed Category 3 5-pin solid state quick-acting protector modules. The secondary side of the panel shall be connected to a Category 3 24-Port RJ-45 rack mounted patch panel.

b. Fiber

- 1) Inter-building Backbone Fiber Optic Cabling shall be armored indoor/outdoor 48-Strand single mode home run from the MDF to the primary IDF in each of the buildings on the campus and dressed with fan-out kits as required. Provide a 10-foot service loop at both ends of each cable stored on the wall above or below the cable runway. Provide a 20-foot service loop in each manhole or pull box. Cables shall be secured with Hook-and-loop tie-wraps in the MDF or IDF.
- 2) All fiber optic terminations shall be fusion spliced to factory provided "pig-tail" LC terminated cables.

C. Intra-building Backbone Cabling

1. Copper

- a. Intra-building Backbone Copper Cabling shall be Category 3 25-pair plenum rated 24 AWG UTP home run from the MDF to each of the IDFs in the building. Provide a 10-foot service loop at both ends of each cable stored on the wall above or below the cable runway. Cables shall be secured with Hook-and-loop tie-wraps in the MDF or IDF.
- b. Intra-building Backbone Copper Cabling shall terminate on a Category 3 24-Port RJ-45 rack mounted patch panel.

2. Fiber

- a. Intra-building Backbone Fiber Optic Cabling shall be armored plenum rated 24-Strand single mode from the MDF to each of the IDFs in the building. Provide a 10-foot service loop at both ends of each cable stored on the wall above or below the cable runway. Cables shall be secured with Hook-and-loop tie-wraps in the MDF or IDF and in the cable runway.
- b. All fiber optic terminations shall be fusion spliced to factory provided "pig-tail" LC terminated cables.

7.6 Horizontal Cabling

A. Workstation Cable

1. Horizontal Data Cabling shall be Category 6 UTP, minimum factory sweep tested to 350 MHz, plenum rated, installed from the patch panel in the MDF or IDF to the workstation location not to exceed 295 feet for the permanent link. Provide a 10'

service loop in the MDF or IDF, and 1-foot of slack at the conduit stub-up above the outlet. Cable bundles shall be secured with Hook-and-loop tie-wraps.

2. At the workstation, each Category 6 cable shall be terminated in a Category 6 modular jack insert and snapped into a single or double-gang, faceplate. Jack colors are designated in Exhibit 1. Faceplates shall be equipped with designation windows for labeling and blank inserts in unused ports.
3. Wall phone workstations shall be equipped with a studded wall phone faceplate capable of accepting a modular jack insert.
4. All faceplate colors shall be coordinated with the Architect or owner at the time of installation.
5. In the MDF or IDF, each Category 6 cable shall be terminated on the back of Category 6 rack mounted patch panels which are mounted in the equipment cabinets.
6. Category 6 cable shall be terminated with the T568B sequence.

B. Workstation Configurations

1. Office Workstation

- a. Install (2) yellow Category 6 cables for data into a 6-port double-gang flush faceplate. The yellow cables shall be terminated with ivory category 6 modular jacks and placed in the first and second position in the faceplate.
 - 1) Furnish a minimum of (1) 2-port workstation on each of (2) walls in each office of approximately 100 sq. ft. Offices that are smaller or larger shall be designed with consideration given to the size of the office and number of personnel planned for the office.
 - 2) Modular furniture clusters shall be designed to accommodate the user requirements at the time of construction.

2. Ceiling-Mounted Projector Outlet

- a. Install (1) Purple (or Violet) Category 6 cable with 20-foot slack loop at each ceiling mounted projector location, terminated with a purple category 6 modular jack placed in a surface mounted box and secured to the building structure when mounted above the accessible ceiling.
 - 1) When a Ceiling Mounted Projector outlet is installed above the accessible

ceiling, a purple adhesive dot shall be attached to the ceiling grid directly below the outlet location for future identification of the outlet location.

- 2) When an accessible ceiling is not available, the designer shall coordinate with the audio/visual consultant to termination requirements.
- 3) The designer shall coordinate with the audio/visual consultant to determine quantities and locations of projectors.

3. Audio Visual Control System (Control Panel)

a. Install (1) Purple (or Violet) Category 6 cable at each control panel location, terminated with a purple category 6 modular jack placed in a surface mounted box and secured to the building structure when mounted above the accessible ceiling .

- 1) When an Audio Visual Control System Panel outlet is installed above the accessible ceiling, a purple adhesive dot shall be attached to the ceiling grid directly below the outlet location for future identification of the outlet location.
- 2) When an accessible ceiling is not available, the designer shall coordinate with the audio/visual consultant to termination requirements.
- 3) The designer shall coordinate with the audio/visual consultant to determine quantities and locations of projectors.

4. Wireless Access Point Outlet

a. Install (1) white Category 6 cable with 20-foot slack loop at each wireless access point location, terminated with a white Category 6 modular jack placed in a surface mounted box and secured to the building structure when mounted above the accessible ceiling.

- 1) When a Wireless Access Point outlet is installed above the accessible ceiling, a white adhesive dot shall be attached to the ceiling grid directly below the outlet location for future identification of the outlet location.
- 2) When an accessible ceiling is not available, the outlet for the wireless access point shall be terminated in a 2-port single gang flush mounted faceplate located 6-inches below ceiling not to exceed 12-feet above finished floor.

- 3) The designer shall coordinate with the City of San Antonio Information Technology Services Department to determine quantities and locations of wireless access points.

5. IP Camera Outlet

- a. Install (1) red Category 6 cable with 20-foot slack loop at each IP camera location, terminated on red category 6 modular jack placed in a surface mounted box and secured to the building structure when mounted above the ceiling.
 - 1) When an IP Camera workstation is installed above the accessible ceiling, a red adhesive dot shall be attached to the ceiling grid directly below the outlet location for future identification of the outlet location.
 - 2) When an accessible ceiling is not available, the outlet for the IP camera shall be terminated in a 2-port single gang flush mounted faceplate located 6-inches below the ceiling not to exceed 12-feet above finished floor.
 - 3) The designer shall coordinate with the City of San Antonio Information technology Services Department to determine quantities and locations of IP Cameras.

C. Patch Cables

1. MDF

a. Fiber Patch Cables – Duplex

- 1) In the MDF furnish to the City of San Antonio Information technology Services Department at the time of substantial completion (1) fiber optic patch cable plus 25 percent spare for each terminated strand.
- 2) Coordinate with City of San Antonio Information technology Services Department for patch cable types, connectors, lengths and colors.

b. Copper Patch Cables

- 1) In the MDF, furnish to the City of San Antonio Information Technology Services Department at the time of final substantial completion (1) 28 AWG Category 6 modular non-booted patch cable plus 25 percent spare for each terminated cable.
- 2) Coordinate with City of San Antonio Information Technology Services

Department for lengths of patch cables.

- a) Category 6 patch cables for each end user workstation outlet terminated shall be black.
- b) Category 6 patch cable for each audio/visual outlet terminated shall be purple.
- c) Category 6 patch cable for each wireless access outlet terminated shall be white.
- d) Category 6 patch cable for each IP camera outlet terminated shall be red.

2. IDF

a. Fiber Patch Cables – Duplex

1. In each IDF furnish to the City of San Antonio Information Technology Services Department owner at the time of substantial completion (1) fiber optic patch cable plus 25 percent for each terminated strand.
2. Coordinate with City of San Antonio Information technology Services Department for patch cable types, connectors, lengths and colors.

b. Copper Patch Cables

- 1) In each IDF, furnish to the owner at the time of substantial completion (1) 28 AWG Category 6 modular non-booted patch cable plus 25 percent for each terminated cable.
- 2) Coordinate with City of San Antonio Information Technology Services Department for lengths of patch cables.
 - a) Category 6 patch cables for each end user workstation outlet terminated shall be black.
 - b) Category 6 patch cables for the active equipment side of each end user workstation outlet terminated shall be yellow.
 - c) Category 6 patch cable for each audio/visual outlet terminated shall be purple.
 - d) Category 6 patch cable for each wireless access outlet terminated shall

be white.

- e) Category 6 patch cable for each IP camera outlet terminated shall be red.

7.7 Grounding

A. Grounding shall be designed and installed in accordance with ANSI-J-STD- 607-8.

1. Install (1) Telecommunications Main Grounding Busbar (TMGB) in the MDF and (1) Telecommunications Grounding Busbar (TGB) in each IDF.
 - a. The TMGB and TGB shall be labeled.
2. Install a Telecommunications Bonding Backbone (TBS), #3/0 AWG stranded green insulated copper conductor in a star topology between the TMGB and each TGB in each building. When IDFs are stacked a single TBB can be daisy-chained between TGBs back to the TMGB.
3. Install an Equipment Bonding Conductor (EBC), #6 AWG green insulated conductor from the TMGB or TGB as applicable to each cable runway system, equipment rack, cabinet, lightning protector, or multi- pair cable with a metallic element.
 - a. Install a #3/0 AWG stranded green insulated copper conductor from the TMGB to the main building electrical service ground in each building.
 - b. In a metal frame (structural steel) building, where the steel framework is readily accessible within or external to the room; each TGB and TMGB shall be bonded to the vertical steel metal frame using a minimum #6 AWG conductor. The connection to building steel does not eliminate the requirement for the TBB or BC to the service ground.
4. Install a Grounding Equalizer Conductor, #3/0 AWG stranded green insulated copper conductor to interconnect multiple TBBs on the top floor and every 3rd floor when required by ANSI J-STD-607-B.
5. When exceeding 13 feet the conductors shall be sized at 2 kcmil per linear foot of conductor length up to a maximum of 3/0 AWG.

7.8 Labeling

1. Coordination with and approval by the City of San Antonio Information Technology Services Department is required on the specific site labeling schema.

2. All labels shall be typed (not handwritten)
3. Verify room numbers and confirm the final room numbering scheme prior to generating labels.
4. Horizontal Cables shall be labeled within 12 inches from the termination point inside the MDF/IDF.
5. Horizontal Cables shall be labeled within 6 inches from the termination point at the workstation end.
6. Backbone Fiber and Copper Cables shall be labeled within 12 inches of the visible end of the jacket.
7. Fiber Innerduct shall be labeled within 12 inches of the point of entry of the fiber optic enclosure.
8. Cables shall be labeled identically at both ends.
9. MDFs and IDFs Room shall be labeled (signage) with the permanent room designations that match the final building signage for cable labeling.
10. Equipment cabinets or racks in each MDF or IDF shall be labeled in sequential numeric order. Labels shall be centered on the top front of the equipment rack.
11. Fiber optic backbone cable labels shall contain the cable origin room number, the cable destination room number, fiber strand numbers, and type (i.e. MDFA150-IDFC126-48SM001-048).
12. Fiber optic enclosures shall be labeled alpha-numeric starting with the 1st fiber optic enclosure in the top of the 1st equipment rack. A label for each terminated strand shall be securely placed inside each fiber optic enclosure.
13. Fiber optic couplers panels in fiber enclosures shall be labeled at each end by strand denoting MDF and/or IDF the cable comes from, and strand number to and from respectively (i.e. 1 DFC126-48SM001-048).
14. Copper backbone cables labels shall contain the cable origin room number, the cable destination room number, and cable pairs (i.e. MDFA 150-IDFC126/001-025).
15. Horizontal cables shall be labeled identically at each end with the destination end and origin room number, patch panel number, and port number. (i.e. 1 DFC126-C115-B5).

16. Patch panels in each closet shall be uniquely alphabetically labeled sequentially starting with the first Patch Panel in the top of the first equipment rack (i.e. A, B, C, D, E, etc.). Each MDF or IDF starts with A and shall not repeat a letter.
17. 110-type blocks shall contain the origin room number, destination room number, and pair numbers, under each pair termination. (i.e. MDFA150- IDFC126-PR 1-50). 110-type block labels shall be printed on product- specific label strips and placed into label holders.
18. Workstation Faceplates shall be labeled denoting origin MDF/IDF Room Number, patch panel, and port number (i.e. IDFC126-85).

7.9 Testing

- A. All test results shall be submitted to the owner along with all other final documentation. Test results shall be submitted in both PDF format and the Native Tester format along with the software needed to read the Native Tester Format.
- B. Terminated fiber optic strands shall be tested bi-directionally end to end be and certified in accordance with applicable industry standards and manufacturer certifications requirements with an OTDR field and Light Meter tester that is within their calibration period.
- C. Terminated backbone copper cable links shall be tested in accordance with applicable industry standards and manufacturer certification requirements for attenuation, continuity, and pin-mapping with approved field tester(s) that are within their calibration period.
- D. Terminated Category 6 UTP cable links shall be tested in accordance with applicable industry standards and manufacturer certification requirements for Category 6 compliance with approved field tester(s) that are within their calibration period.

7.10 As-Built Documentation

- A. Produce drawings depicting the condition of the Structured Cabling System as installed produced in AutoCAD 2010 or higher and provided in hardcopy, electronically in .DWG and .PDF format. Include the exact dimensions and locations of MDF and IDF layouts, wall elevations, equipment cabinet elevations, cable runways, cable tray, sleeves, backbone and horizontal cable pathways, workstation locations, and numbering and labeling scheme.

- B. A half-size hard copy of the as-built drawings for the applicable region served by the MDF and/or IDFs shall be provided in MDF and each IDF for reference.
- C. Produce cable records for the Structured Cabling System as installed to include a list of all horizontal and backbone cables produced in an Excel format and provided in hardcopy and electronic format indicating cable number, unique cable label, cable type, origin and destination, length, termination method, and pass/fail result.
- D. Produce (3) hard copies of all test results for each cable, to include technician's name and date stamp, a list of tested cables, and the individual results for each cable tested. Test results shall be furnished on CD ROM to include native file format and .PDF format.

PART 8 - SUMMARY OF STANDARDS

8.0 Summary

- A. All aspects of this City of San Antonio Structured Cabling Infrastructure Standards shall be applied to the design process for new, leased and renovated facilities.
- B. A Division 27 specification and T-Series drawings for the Structured cabling System shall be commissioned and issued by the Architect during the design phases for each facility or project. Drawings and specifications shall be sealed with a current RCDD stamp.

PART 9 - EXHIBITS

EXHIBIT 1 - ACCEPTABLE MANUFACTURERS / PRODUCTS

- A. The following list of manufacturers / products are provided for reference only and is not all inclusive. All manufacturers / products shall be verified by the designer for each project and confirmed with The City of San Antonio Information Technology Services Department prior to issuing any construction documents.
- B. Where specific manufacturers / products are mentioned, an equivalent will be considered following an official submission of product literature and written acceptance by the City of San Antonio Information Technology Services Department.
- C. Fiber Optic Backbone Cable
 - 1. Indoor
 - a. 9/125µm Single-Mode Plenum Rated Armored
 - 1) Panduit

- 2) Chromatic
- 3) Commscope
- 4) Corning
- 5) Systimax

2. Outdoor Underground

a. 9/125 μ m Indoor/Outdoor Single-Mode Armored

- 1) Panduit
- 2) Chromatic
- 3) Commscope
- 4) Corning
- 5) Systimax

3. Outdoor Aerial

a. 9/125 μ m Indoor/Outdoor Single-Mode Armored

- 1) Panduit
- 2) Chromatic
- 3) Commscope
- 4) Corning
- 5) Systimax

4. Fiber Optic Fabric Innerduct

a. Indoor Plenum Rated

- 1) MaxCell

b. Outdoor

- 1) MaxCell

D. Copper Backbone Cable

1. Indoor

- a. Category 3 24 AWG Unshielded Twisted Pair (UTP) Plenum (White Sheath)

- 1) General
- 2) Mohawk
- 3) Superior
- 4) Systimax

2. Outdoor Underground

- a. Category 3 24 AWG Unshielded Twisted Pair (UTP) Flooded (PE-89)

- 1) General
- 2) Mohawk
- 3) Superior
- 4) Systimax

3. Outdoor Aerial

- a. 24 AWG Unshielded Twisted Pair (UTP) Self-Supported

- 1) General
- 2) Mohawk
- 3) Superior
- 4) Systimax

E. Horizontal Cable

1. Category 6 UTP Plenum (Minimum 350 MHz)

- a. Network Access (Yellow Sheath)
 - 1) General
 - 2) Panduit
- b. Wireless Access Points (White Sheath)
 - 1) General
 - 2) Panduit
- c. AV Access (Purple Sheath)
 - 1) General
 - 2) Panduit
- d. IP Security (Red Sheath)
 - 1) General
 - 2) Panduit

F. Fiber Optic Cable Termination

- 1. Fiber Enclosure
 - a. Panduit Opticom Rack Mount Fiber Enclosure – Part No. FRMEXX
- 2. 9µm Single-Mode Fiber Coupler Panel
 - a. 9µm Panduit Opticom LC Fiber Adapter Panel - Part No. FAP6WBUDLCZ
- 3. Fiber Blank Panel
 - a. Panduit Opticom Blank Fiber Adapter Panel – Part No. FAPB
- 4. 9µm Single-Mode LC Pigtails
 - a. Panduit Opti-Core OS1/OS2 Single-Mode Fiber Optic Pigtails (LC to Pigtail) – Part No. F9B10-NM1Y

5. Loose Tube Fiber Fan-Out Kit

- a. Panduit

G. Copper Cable Termination

1. Building Entrance Terminals

- a. Primary Copper Protectors

- 1) Circa 50-Pair 110 Style Lightning Protection Block
- 2) Solid State Digital Series Surge Protection Modules

2. Backbone Cable Termination Panels

- a. Rack Mounted Voice Patch Panels

- 1) Panduit Voice Patch Panel – Part No. VP24382TV25Y

3. Category 6 Horizontal Rack Mounted Patch Panels

- a. Category 6 48-Port Patch Panels – Panduit Mini-Com Flush Mount Modular Patch Panels - Part No. CPP48FMWBLY

4. Category 6 Modular Jacks

- a. Network Access

- 1) Equipment Room/Telecommunications Room End (Black)

- a) Panduit Mini-com TX6 Plus UTP Jack Modules Part No. CJ688TGBL

- 2) Field End (Ivory)

- a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGEI

- b. Wireless Access Points

- 1) Equipment Room/Telecommunications Room End (White)

- a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGWH

- 2) Field End (White)
 - a. Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGWH
- c. AV Access (Violet)
 - 1) Equipment Room/Telecommunications Room End (Violet)
 - a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGVL
 - 2) Field End (Violet)
 - a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGVL
- d. IP Security
 - 1) Equipment Room Telecommunications Room End (Red)
 - a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGRD
 - 2) Field End (Red)
 - a) Panduit Mini-Com TX6 Plus UTP Jack Modules Part No. CJ688TGRD
- 5. Telecommunications Faceplates with Designation Window
 - a. 2-Port Single Gang Flush (Stainless Steel)
 - 1) Panduit Mini-Com Stainless Steel Faceplates with Labels Part No. CFPL2SY
 - b. 4-Port Single Gang Flush (Stainless Steel)
 - 1) Panduit Mini-Com Stainless Steel Faceplates with Labels Part No. CFPL4SY
 - c. 4-Port Double Gang Flush (Stainless Steel)
 - 1) Panduit Mini-Com Stainless Steel Faceplates with Labels Part No. CFPL6S-2GY
- 6. Wall Phone Faceplate (Stainless Steel)
 - a. Panduit Phone Wall Plate Module Part No. KWP6PY
- 7. 2-Port Surface Mount Box (White)

- a. Panduit Mini-Com Surface Mount Box Part No. CBXJ2HW-A

8. Blank Insert (White)

- a. Panduit Mini-Com Blank Module – Part No. CMBWH-X

H. Equipment Racks, Cabinets, Wire Management, and Accessories

1. Two-Post Rack - 19" x 84" Open Frame (Black)

- a. Panduit Part No. CMR19x84NU

2. Four-Post Open Frame Rack - 23 .3" x 84" x 30 .2" (Black)

- a. Panduit Part No. CMR4P84

3. Equipment Cabinet (Black)

- a. Chatsworth F-Series TeraFrame Gen 3 Cabinet Part No. FF2J-113B- C22A
- b. Chatsworth CUBE-iT Wall-Mounted Cabinet 48" H X 24" W X 30" D Black Part No. 11996-748
- c. Chatsworth Thin-Line II Wall-Mounted Cabinet 36" H X 26" W X 12" D 6U Part No. 13050-723

4. Vertical Wire Managers (Black)

- a. Patch Runner Double Sided Vertical Cable Management System Panduit - Part No. PRV6
- b. Patch Runner Vertical Cable Management Door Panduit - Part No. PRD6
- c. Chatsworth F-Series TeraFrame Gen 3 Finger Cable Manager—Part No. 39112-C14

5. Horizontal Wire Managers (Black)

- a. Net Manager Double Sided High Capacity Horizontal Cable Mangers Panduit - Part No. NCMH2

I. Cable Runway (Ladder Type)

1. 12" Universal Cable Runway
 - a. Chatsworth - Part No. 10250-712
2. 12" Cable Runway Radius Drop, Cross Member
 - a. Chatsworth - Part No. 12100-712
3. 12" Cable Runway Radius Drop, Stringer
 - a. Chatsworth - Part No. 12101-712
4. 18" Universal Cable Runway
 - a. Chatsworth - Part No. 10250-718
5. 18" Cable Runway Radius Drop, Cross Member
 - a. Chatsworth - Part No. 12100-718
6. 18" Cable Runway Radius Drop, Stringer
 - a. Chatsworth - Part No. 12101-718
7. Cable Runway Butt-Splice Kit
 - a. Chatsworth - Part No. 11301-701
8. Cable Runway Junction-Splice Kit
 - a. Chatsworth - Part No. 11302-701
9. Cable Runway Butt-Swivel Splice Kit
 - a. Chatsworth - Part No. 10487-701
10. Rack-to-Runway Mounting Kit
 - a. Chatsworth - Part No. 10595-712

11. Cable Runway Elevation Kit for Racks
 - a. Chatsworth - Part No. 10506-706
12. Cable Runway Elevation Kit for Cabinets
 - a. Chatsworth - Part No. 10506-716
13. 12" Triangular Support Bracket, Aluminum
 - a. Chatsworth - Part No. 11312-712
14. 12" Wall Angle Support Kit, Cable Runway
 - a. Chatsworth - Part No. 11421-712
15. 18" Triangular Support Bracket, Aluminum
 - a. Chatsworth - Part No. 11312-718
16. 18" Wall Angle Support Kit, Cable Runway
 - a. Chatsworth - Part No. 11421-718
17. 90 Degree Runway-Splice Kit
 - a. Chatsworth - Part No. 11314-701
18. 45 Degree Runway-Splice Kit
 - a. Chatsworth - Part No. 11313-712
19. Foot Kit, Cable Runway
 - a. Chatsworth - Part No. 11309-001
20. Vertical Wall Brackets (pair)
 - a. Chatsworth - Part No. 10608-701
21. Threaded Ceiling Kit, Cable Runway
 - a. Chatsworth - Part No. 11310-001

22. Threaded Rod Cover

- a. Chatsworth - Part No. 11085-001

23. Protective End Caps for Cable Runway

- a. Chatsworth - Part No. 10642-001

24. End Closing Kit, Cable Runway

- a. Chatsworth - Part No. 11700-712

J. Pathway Cable Support

- 1. Panduit J-Mod Cable Support System
- 2. Erica – CADDY CAT LINKS J-Hook Series
- 3. Panduit Plenum Rated Hook & Loop (Black)

K. Grounding and Bonding

- 1. Grounding Bus Bar, 20
 - a. Chatsworth - Part No. 40153-020
- 2. Grounding Bus Bar, 12"
 - a. Chatsworth - Part No. 13622-012
- 3. Cable Runway Ground Strap Kit
 - a. Chatsworth - Part No. 40164-001
- 4. One Mounting Hole Ground Terminal Block
 - a. Chatsworth - Part No. 08009-001
- 5. Horizontal Rack Ground Bar for Wall Mount Cabinet
 - a. Chatsworth - Part No. 10610-019
- 6. #6 AWG Solid Green Insulation Ground Wire

- a. Superior Essex - Part No. 12-018-04
- 7. #3/0 Stranded Green Insulation Ground Wire
- 8. Cable Sheath Bonding Clamp

L. Labeling

- 1. Permanent Labels for Fiber Optic Cables
 - a. Brady
 - b. Panduit Self Laminating Labels
- 2. Permanent Labels for Innerduct
 - a. Panduit Dome-Top Ty Marker
- 3. Permanent Labels for Copper Cables
 - a. Panduit Self-Laminating Labels
- 4. Permanent Labels for Backbone Fiber Optic Cables
 - a. Panduit Dome-Top Ty Marker
- 5. Permanent Labels for Patch Panels
 - a. Panduit Component Label
- 6. Permanent Labels for Faceplates
 - a. Panduit Component Label

M. Fire Stop

- 1. STI Spec Seal Part No.
- 2. 3M Products Part No.

N. Plywood

- 1. 8' H x 4' W x 5/8" Sheets of BC grade fire-rated plywood

O. Fire Retardant Paint (White)

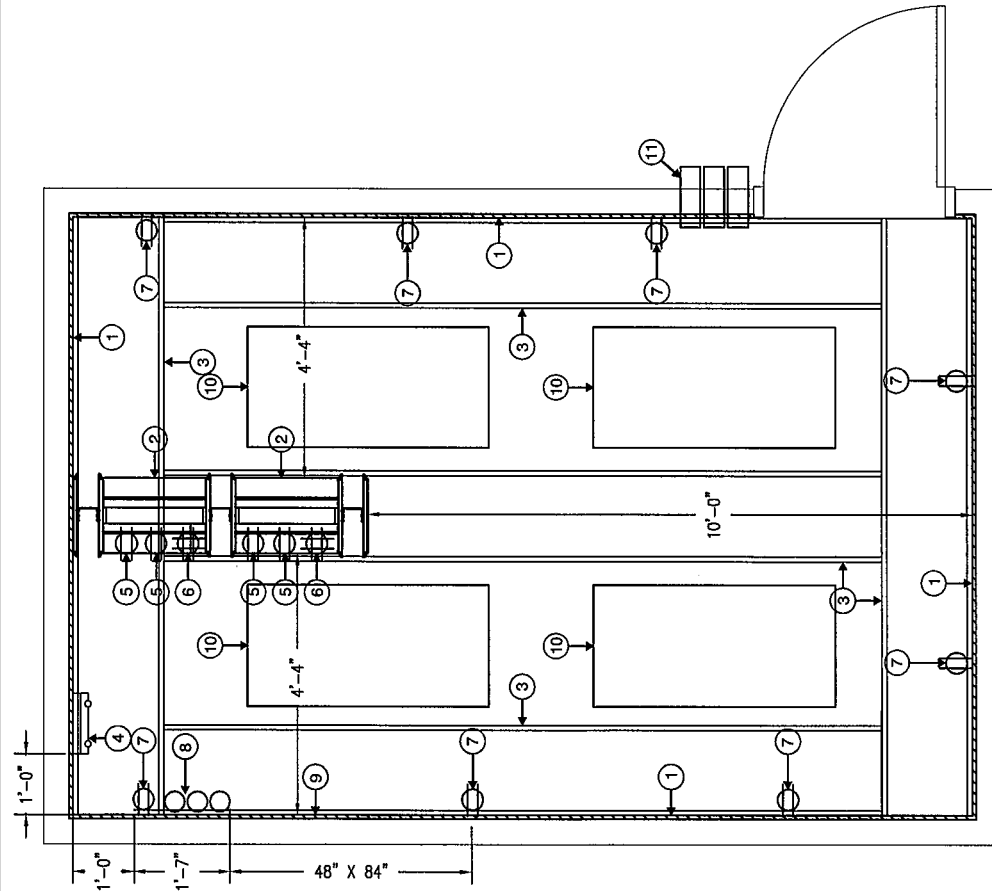
P. Fiber Patch Cables

1. Panduit
2. Corning

Q. Copper Patch Cables

1. Panduit

EXHIBIT 2 – TYPICAL DETAILS



1 Typical MDF Room Layout With Racks

SCALE: 1/2"=1'-0"

TYPICAL MDF ROOM LAYOUT WITH RACKS KEYS NOTES

- 1 4 - FEET X 8 - FEET X 3/4 - INCH AC GRADE VOID FREE FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 12 - INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. THE PLYWOOD SHALL BE INSTALLED WITH THE "A" GRADE SIDE EXPOSED AND THE "C" GRADE SIDE AGAINST THE BUILDING WALL OR STRUCTURE. THE PLYWOOD SHALL BE PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT AND ONE STAMP FROM EACH SHEET SHALL BE MASKED DURING THE PAINTING AND UNCOVERED AFTER THE PAINT HAS DRIED SO THE FIRE RATED PLYWOOD STAMPS ARE VISIBLE FOR INSPECTION. (BY DIV. 27)
- 2 19 - INCH X 84 - INCH EQUIPMENT RACK WITH VERTICAL CABLE MANAGERS. (BY DIV. 27)
- 3 18 - INCH LADDER RACK MOUNTED AT 84 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- 4 GROUND BUS BAR MOUNTED AT 78 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- 5 DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 6 DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 7 20 AMP CIRCUIT WITH QUAD RECEPTACLE NEMA 5-20R FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18 - INCHES ABOVE FINISHED FLOOR. OUTLETS SHALL BE SPACED NO FARTHER APART THAN 6 - FEET. MAXIMUM OF (6) PER CIRCUIT. (BY DIV. 26)
- 8 (3) 4 - INCH CONDUITS TERMINATED 4 - INCHES ABOVE FINISHED FLOOR AND NO FARTHER THAN 2 INCHES FROM THE WALL FOR SERVICE PROVIDER. CONTRACTOR SHALL PROVIDE PULL STRING AND NYLON BUSHINGS AND CAPS ON END OF CONDUIT. (BY DIV. 26)
- 9 48 - INCHES WIDE X 84 - INCHES HIGH RESERVED FOR SERVICE PROVIDER TERMINATION. (BY DIV. 27)
- 10 TYPICAL LIGHTING ORIENTATION, ENSURE THERE IS 50 FOOT CANDLES AT 2 - FEET ABOVE FINISHED FLOOR. (BY DIV. 26)
- 11 (3) 4 - INCH EMT CONDUIT SLEEVES ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS ON EACH END AND SECURED TO WALL. CONDUIT SLEEVES SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO RETURN THE WALL BACK TO THE ORIGINAL RATING. IF WALL IS NOT RATED CONDUIT SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO REDUCE NOISE TRAVELING THROUGH THE PENETRATION. CONDUIT SLEEVES SHALL BE USED FOR LOW VOLTAGE DATA VOICE VIDEO AND SECURITY ONLY. (BY DIV. 26)

PROJECT NAME:

CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

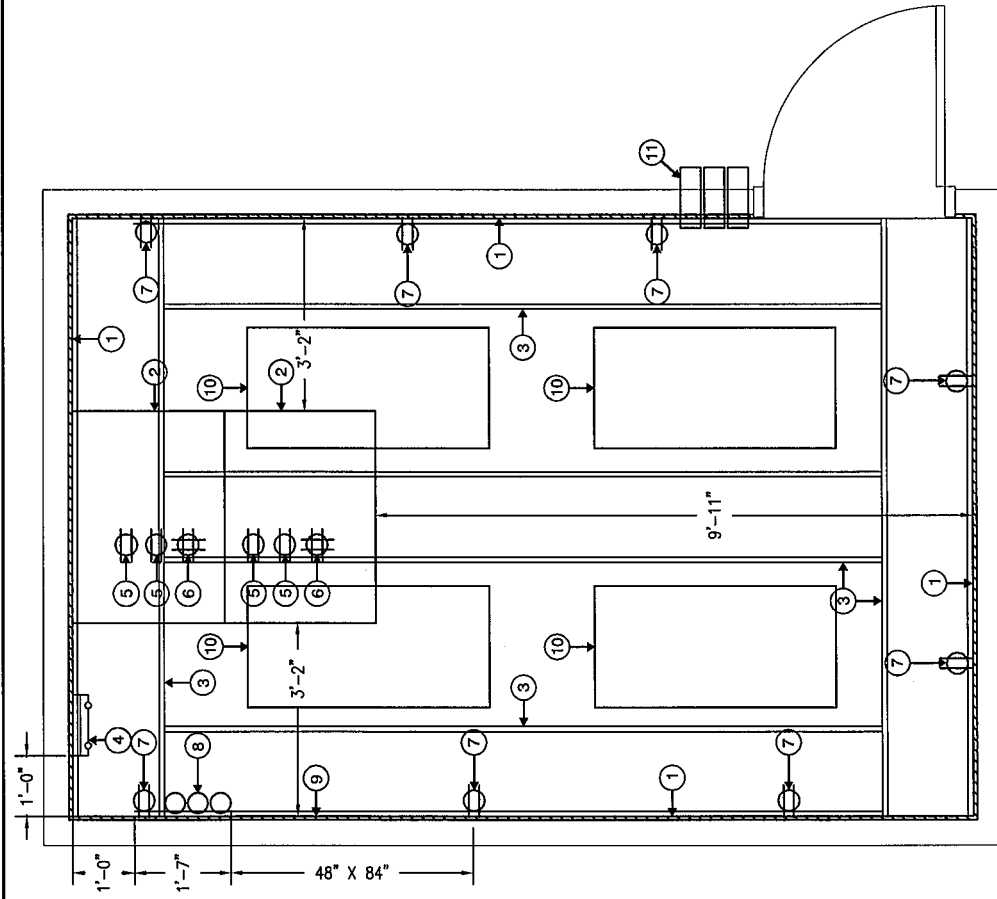
DATE:

03-04-14

SHEET:

1

SCALE: As Shown

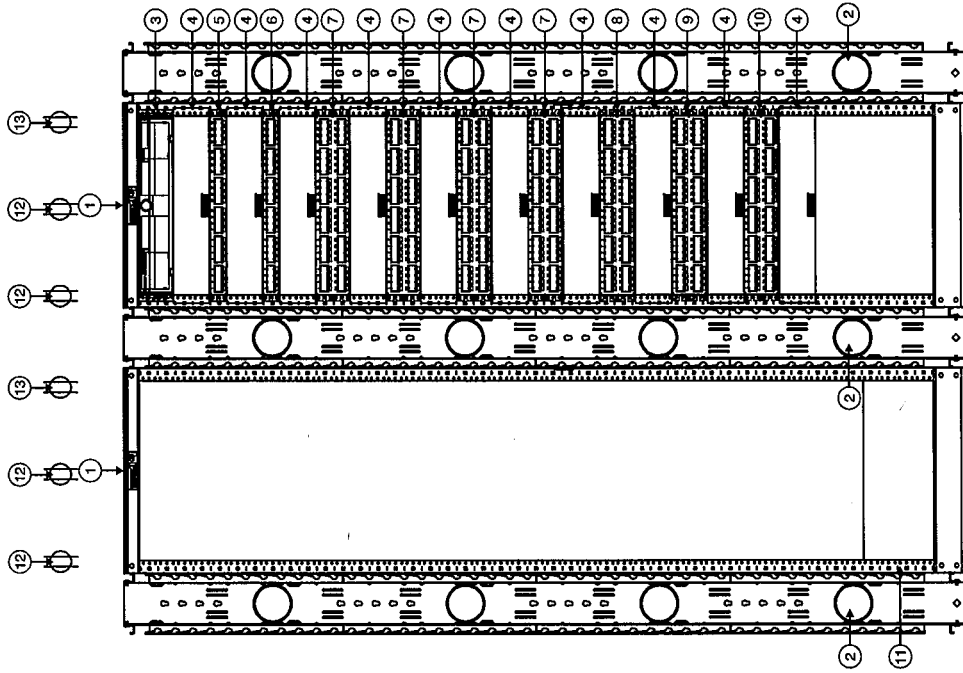


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xx
Typical MDF Room Layout With Cabinets
SCALE: 1/2"=1'-0"

TYPICAL MDF ROOM LAYOUT WITH CABINETS, KEYED NOTES

- ① 4 - FEET X 8 - FEET X 3/4 - INCH AC GRADE VOID FREE FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 12 - INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. THE PLYWOOD SHALL BE INSTALLED WITH THE "A" GRADE SIDE EXPOSED AND THE "C" GRADE SIDE AGAINST THE BUILDING WALL OR STRUCTURE. THE PLYWOOD SHALL BE PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT AND ONE STAMP FROM EACH SHEET SHALL BE MASKED DURING THE PAINTING AND UNCOVERED AFTER THE PAINT HAS DRIED SO THE FIRE RATED PLYWOOD STAMPS ARE VISIBLE FOR INSPECTION. (BY DIV. 27)
- ② 27.6 - INCH X 84.6 - INCH TERAFRAME CABINET WITH VERTICAL CABLE MANAGERS. (BY DIV. 27)
- ③ 12 - INCH LADDER RACK MOUNTED AT 84 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- ④ GROUND BUS BAR MOUNTED AT 78 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- ⑤ DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- ⑥ DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- ⑦ 20 AMP CIRCUIT WITH QUAD RECEPTACLE NEMA 5-20R FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18 - INCHES ABOVE FINISHED FLOOR. OUTLETS SHALL BE SPACED NO FARTHER APART THAN 6 - FEET. MAXIMUM OF (6) PER CIRCUIT. (BY DIV. 26)
- ⑧ (3) 4 - INCH CONDUITS TERMINATED 4 - INCHES ABOVE FINISHED FLOOR AND NO FARTHER THAN 2 INCHES FROM THE WALL FOR SERVICE PROVIDER. CONTRACTOR SHALL PROVIDE PULL STRING AND NYLON BUSHINGS AND CAPS ON END OF CONDUIT. (BY DIV. 26)
- ⑨ 48 - INCHES WIDE X 84 - INCHES HIGH RESERVED FOR SERVICE PROVIDER TERMINATION. (BY DIV. 27)
- ⑩ TYPICAL LIGHTING ORIENTATION, ENSURE THERE IS 50 FOOT CANDLES AT 2 - FEET ABOVE FINISHED FLOOR. (BY DIV. 26)
- ⑪ (3) 4 - INCH EMT CONDUIT SLEEVES ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS ON EACH END AND SECURED TO WALL. CONDUIT SLEEVES SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO RETURN THE WALL BACK TO THE ORIGINAL RATING. IF WALL IS NOT RATED CONDUIT SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO REDUCE NOISE TRAVELING THROUGH THE PENETRATION. CONDUIT SLEEVES SHALL BE USED FOR LOW VOLTAGE DATA VOICE VIDEO AND SECURITY ONLY. (BY DIV. 26)





TYPICAL MDF ROOM CABINET ELEVATION KEYED NOTES

- 1 27.6 - INCH X 84.6 - INCH TERRAFRAME CABINET. (BY DIV. 27)
- 2 TERRAFRAME DOUBLE - SIDED VERTICAL FINGER CABLE MANAGER. (BY DIV. 27)
- 3 RACK MOUNTED 48 - PORT FIBER OPTIC ENCLOSURE FOR SINGLE MODE FIBER OPTIC CABLE. (BY DIV. 27)
- 4 DOUBLE-SIDED HORIZONTAL CABLE MANAGER. (BY DIV. 27)
- 5 RACK MOUNTED 24 - PORT VOICE PATCH PANEL FOR INCOMING TELCO SERVICE. (BY DIV. 27)
- 6 RACK MOUNTED 24 - PORT VOICE PATCH PANEL. (BY DIV. 27)
- 7 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR DATA. (BY DIV. 27)
- 8 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR WIRELESS ACCESS POINTS. (BY DIV. 27)
- 9 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR AUDIO VISUAL SYSTEMS. (BY DIV. 27)
- 10 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR IP SECURITY. (BY DIV. 27)
- 11 (4) RACK MOUNTED UNITS OF SPACE FOR OWNER PROVIDED / OWNER INSTALLED UPS. (BY DIV. 27)
- 12 DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA L6 - 2DR RECEPTACLE ON THE END. (BY DIV. 26)
- 13 DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA 5 - 2DR RECEPTACLE ON THE END. (BY DIV. 26)

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XX
Typical MDF Cabinet Elevation

SCALE: 1"=1'-0"

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CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE: 03-04-14

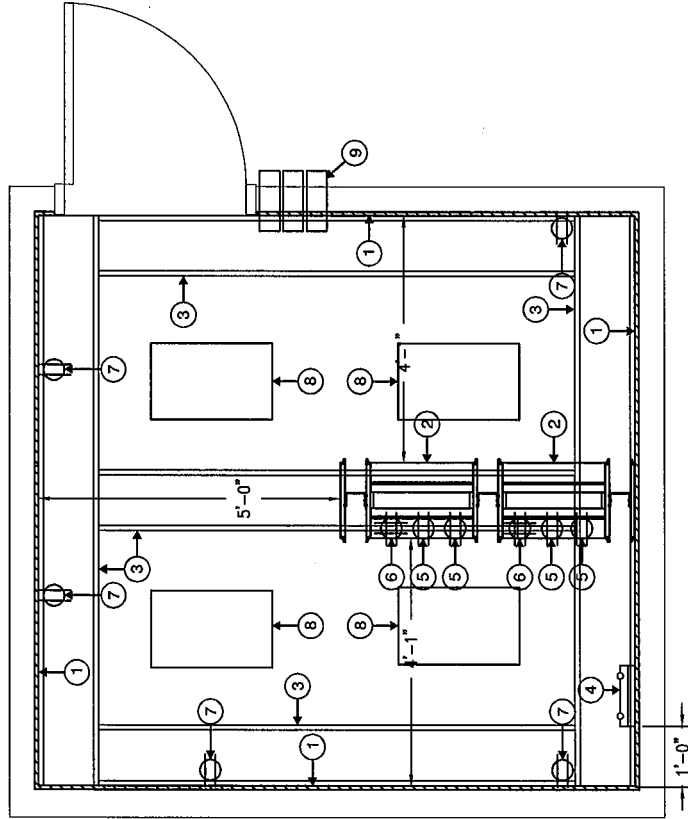
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SCALE: As Shown



TYPICAL IDF ROOM LAYOUT WITH RACKS KEYPED NOTES

- 1 4 - FEET X 8 - FEET X 3/4 - INCH AC GRADE VOID FREE FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 12 - INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. THE PLYWOOD SHALL BE INSTALLED WITH THE "A" GRADE SIDE EXPOSED AND THE "C" GRADE SIDE AGAINST THE BUILDING WALL OR STRUCTURE. THE PLYWOOD SHALL BE PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT AND ONE STAMP FROM EACH SHEET SHALL BE MASKED DURING THE PAINTING AND UNCOVERED AFTER THE PAINT HAS DRIED SO THE FIRE RATED PLYWOOD STAMPS ARE VISIBLE FOR INSPECTION. (BY DIV. 27)
- 2 19 - INCH X 84 - INCH EQUIPMENT RACK WITH VERTICAL CABLE MANAGERS. (BY DIV. 27)
- 3 12 - INCH LADDER RACK MOUNTED AT 84 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- 4 GROUND BUS BAR MOUNTED AT 78 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- 5 DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT 50 TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 6 DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT 50 TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 7 20 AMP CIRCUIT WITH QUAD RECEPTACLE NEMA 5-20R FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18 - INCHES ABOVE FINISHED FLOOR. OUTLETS SHALL BE SPACED NO FARTHER APART THAN 6 - FEET. MAXIMUM OF (6) PER CIRCUIT. (BY DIV. 26)
- 8 TYPICAL LIGHTING ORIENTATION, ENSURE THERE IS 50 FOOT CANDLES AT 2 - FEET ABOVE FINISHED FLOOR. (BY DIV. 26)
- 9 (3) 4 - INCH EMT CONDUIT SLEEVES ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS ON EACH END AND SECURED TO WALL. CONDUIT SLEEVES SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO RETURN THE WALL BACK TO THE ORIGINAL RATING. IF WALL IS NOT RATED CONDUIT SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO REDUCE NOISE TRAVELING THROUGH THE PENETRATION. CONDUIT SLEEVES SHALL BE USED FOR LOW VOLTAGE DATA VOICE VIDEO AND SECURITY ONLY. (BY DIV. 26)



1 Typical IDF Room Layout With Racks

SCALE: 1/2"=1'-0"

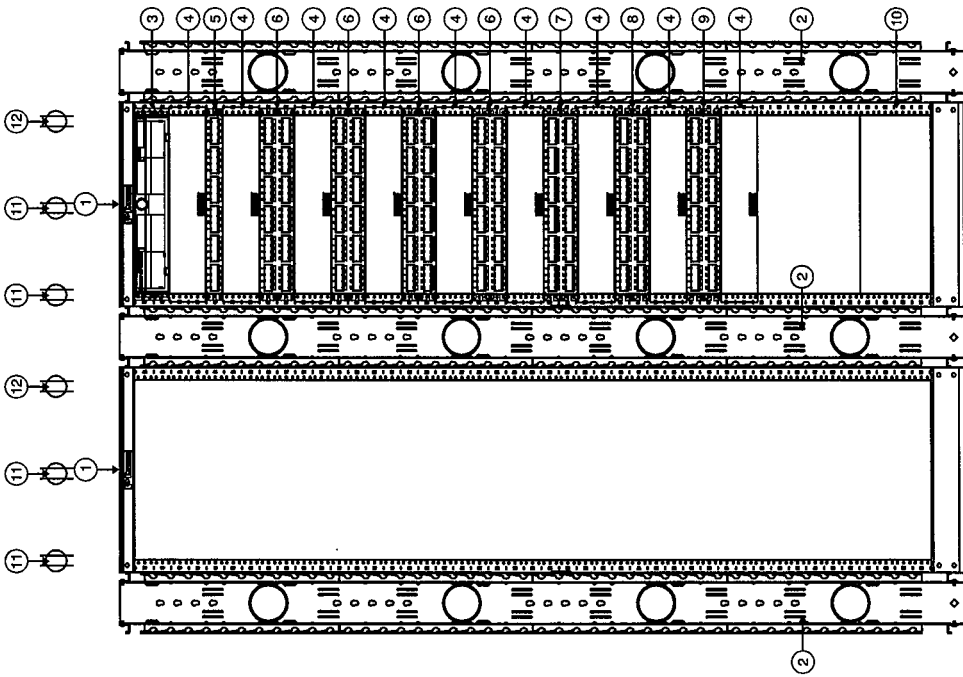
PROJECT NAME:

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DATE:
03-04-14

SHEET:
5

SCALE: As Shown



1
xx Typical IDF Rack Elevation

SCALE: 1"=1'-0"

TYPICAL IDF ROOM RACK ELEVATION KEYED NOTES

- 1 19 - INCH X 84 - INCH EQUIPMENT RACK. (BY DIV. 27)
- 2 DOUBLE - SIDED VERTICAL CABLE MANAGER. (BY DIV. 27)
- 3 RACK MOUNTED 48 - PORT FIBER OPTIC ENCLOSURE FOR SINGLE MODE FIBER OPTIC CABLE. (BY DIV. 27)
- 4 DOUBLE-SIDED HORIZONTAL CABLE MANAGER. (BY DIV. 27)
- 5 RACK MOUNTED 24 - PORT VOICE PATCH PANEL. (BY DIV. 27)
- 6 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR DATA. (BY DIV. 27)
- 7 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR WIRELESS ACCESS POINTS. (BY DIV. 27)
- 8 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR AUDIO VISUAL SYSTEMS. (BY DIV. 27)
- 9 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR IP SECURITY. (BY DIV. 27)
- 10 (4) RACK MOUNTED UNITS OF SPACE FOR OWNER PROVIDED / OWNER INSTALLED UPS. (BY DIV. 27)
- 11 DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 12 DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)

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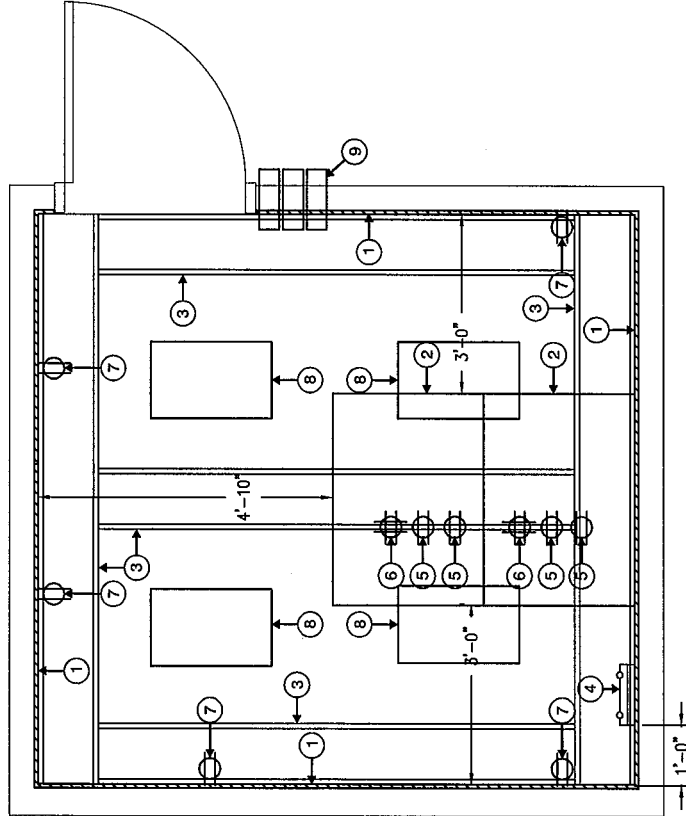
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SCALE: As Shown



TYPICAL IDF ROOM LAYOUT WITH CABINETS KEVED NOTES

- ① 4 - FEET X 8 - FEET X 3/4 - INCH AC GRADE VOID FREE FIRE RATED PLYWOOD INSTALLED VERTICALLY STARTING AT 12 - INCHES ABOVE FINISHED FLOOR ON ALL PERIMETER WALLS. THE PLYWOOD SHALL BE INSTALLED WITH THE 'A' GRADE SIDE EXPOSED AND THE 'C' GRADE SIDE AGAINST THE BUILDING WALL OR STRUCTURE. THE PLYWOOD SHALL BE PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT AND ONE STAMP FROM EACH SHEET SHALL BE MASKED DURING THE PAINTING AND UNCOVERED AFTER THE PAINT HAS DRIED SO THE FIRE RATED PLYWOOD STAMPS ARE VISIBLE FOR INSPECTION. (BY DIV. 27)
- ② 27.6 - INCH X 84.6 - INCH TERRAFRAME CABINET WITH VERTICAL CABLE MANAGERS. (BY DIV. 27)
- ③ 12 - INCH LADDER RACK MOUNTED AT 84 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- ④ GROUND BUS BAR MOUNTED AT 78 - INCHES ABOVE FINISHED FLOOR. (BY DIV. 27)
- ⑤ DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- ⑥ DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT SO TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- ⑦ 20 AMP CIRCUIT WITH QUAD RECEPTACLE NEMA 5-20R FLUSH MOUNTED TO THE FINISHED WALL SURFACE AT 18 - INCHES ABOVE FINISHED FLOOR. OUTLETS SHALL BE SPACED NO FARTHER APART THAN 6 - FEET. MAXIMUM OF (6) PER CIRCUIT. (BY DIV. 26)
- ⑧ TYPICAL LIGHTING ORIENTATION, ENSURE THERE IS 50 FOOT CANDLES AT 2 - FEET ABOVE FINISHED FLOOR. (BY DIV. 26)
- ⑨ (3) 4 - INCH EMT CONDUIT SLEEVES ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS ON EACH END AND SECURED TO WALL. CONDUIT SLEEVES SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO RETURN THE WALL BACK TO THE ORIGINAL RATING. IF WALL IS NOT RATED CONDUIT SHALL BE SEALED ON THE EXTERIOR AND INTERIOR TO REDUCE NOISE TRAVELING THROUGH THE PENETRATION. CONDUIT SLEEVES SHALL BE USED FOR LOW VOLTAGE DATA VOICE VIDEO AND SECURITY ONLY. (BY DIV. 26)



① Typical IDF Room Layout With Cabinets

SCALE: 1/2"=1'-0"

PROJECT NAME

CITY OF SAN ANTONIO
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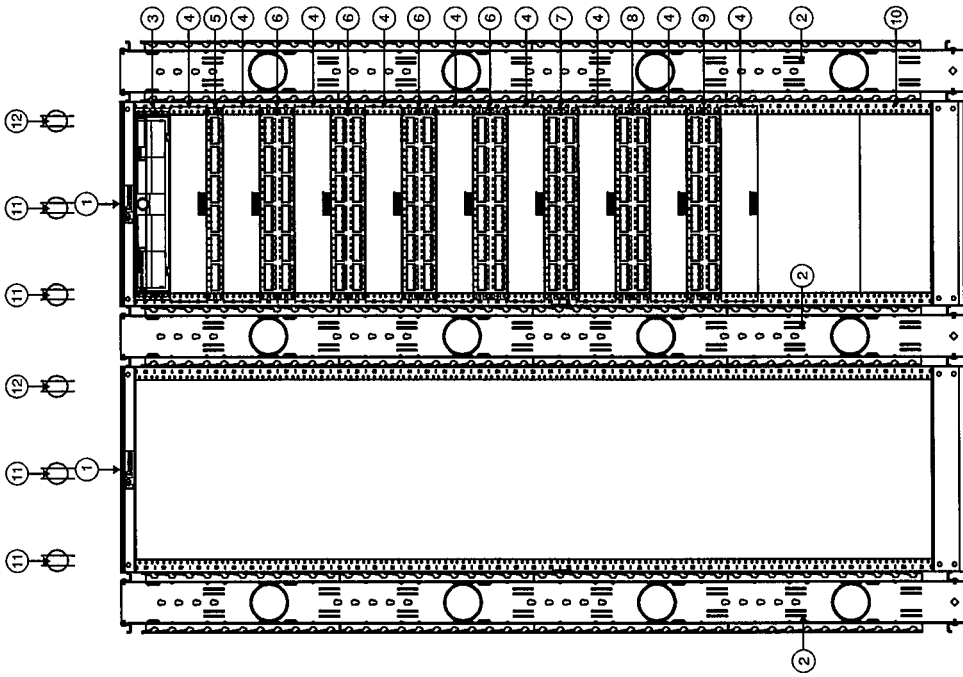
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SHEET:

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SCALE: As Shown





1
20" Typical IDF Cabinet Elevation

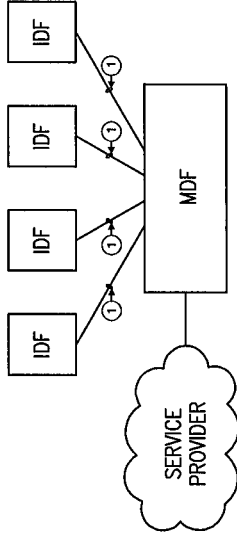
SCALE: 1" = 1'-0"

TYPICAL IDF ROOM CABINET ELEVATION KEYED NOTES

- 1 27.6 - INCH X 84.6 - INCH TERRAFRAME CABINET. (BY DIV. 27)
- 2 TERRAFRAME DOUBLE - SIDED VERTICAL FINGER CABLE MANAGER. (BY DIV. 27)
- 3 RACK MOUNTED 48 - PORT FIBER OPTIC ENCLOSURE FOR SINGLE MODE FIBER OPTIC CABLE. (BY DIV. 27)
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- 7 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR WIRELESS ACCESS POINTS. (BY DIV. 27)
- 8 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR AUDIO VISUAL SYSTEMS. (BY DIV. 27)
- 9 RACK MOUNTED 48 - PORT CATEGORY 6 PATCH PANEL FOR IP SECURITY. (BY DIV. 27)
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- 11 DEDICATED 208 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT 50 TYPE CORD WITH FEMALE NEMA L6 - 20R RECEPTACLE ON THE END. (BY DIV. 26)
- 12 DEDICATED 120 VAC 20 AMP CIRCUIT IN J-BOX MOUNTED TO UNISTRUT ABOVE THE LADDER RACK AND PROVIDED WITH A 7 - FT 50 TYPE CORD WITH FEMALE NEMA 5 - 20R RECEPTACLE ON THE END. (BY DIV. 26)

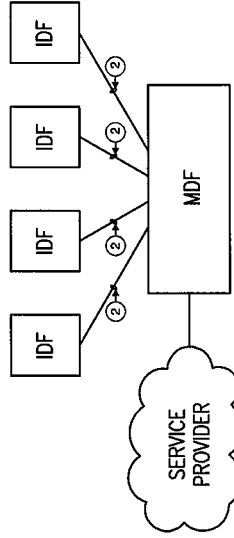


- ① CATEGORY 3 25-PAIR PLENUM
- ② ARMORED SINGLE MODE 24-STRAND PLENUM



② Single Stand-Alone Building Copper Topology Diagram

SCALE: N.T.S.



① Single Stand-Alone Building Fiber Topology Diagram

SCALE: N.T.S.

PROJECT NAME:

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STRUCTURED CABLING INFRASTRUCTURE STANDARDS

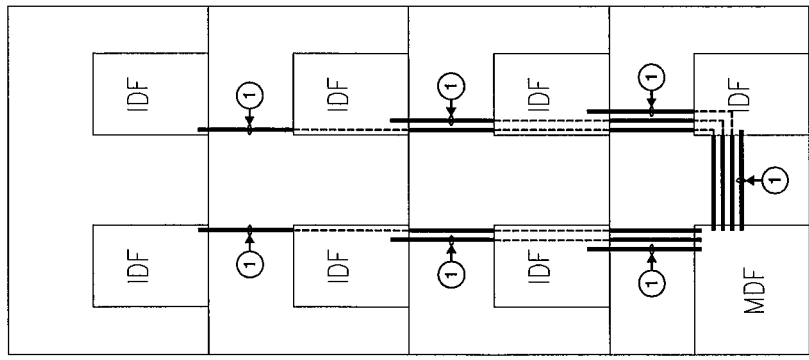
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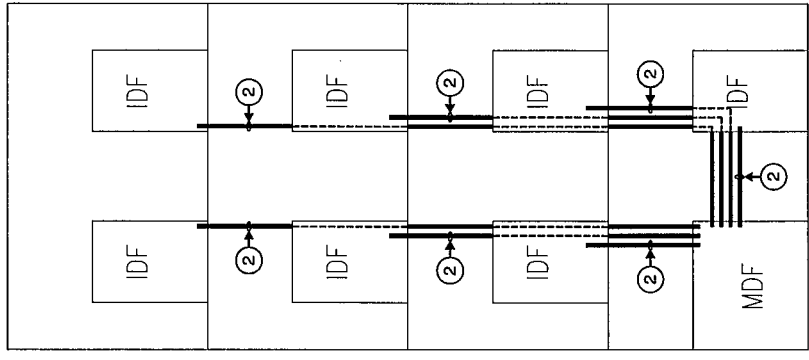
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- ① CATEGORY 3 25-PAIR PLENUM
- ② ARMORED SINGLE MODE 24-STRAND PLENUM

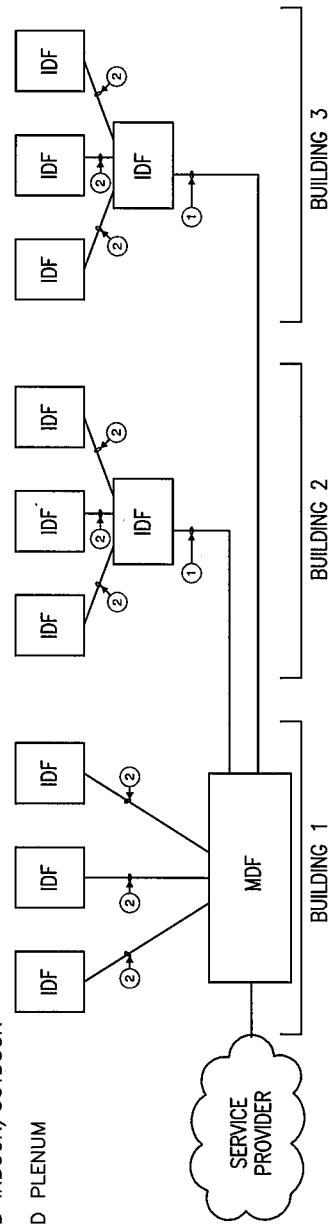


① Single Stand-Alone Building Copper Riser Diagram
SCALE: N.T.S.



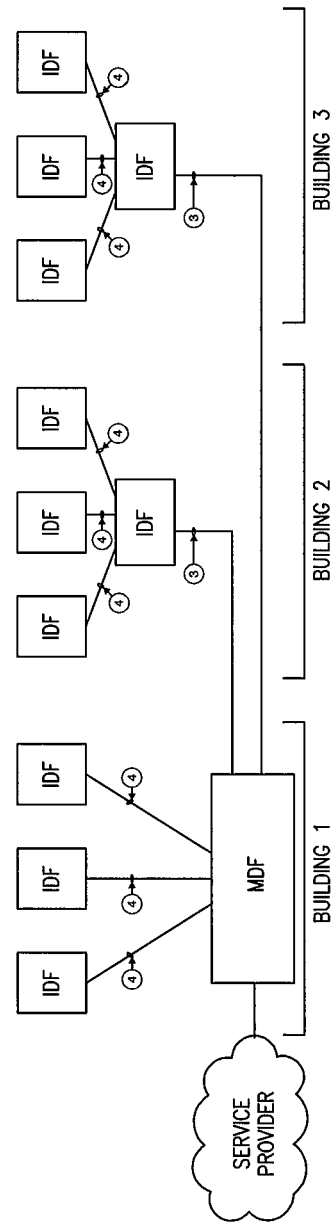
② Single Stand-Alone Building Fiber Riser Diagram
SCALE: N.T.S.

- ① CATEGORY 3 25-PAIR OSP
- ② CATEGORY 3 25-PAIR PLENUM
- ③ ARMORED SINGLE MODE 48-STRAND INDOOR/OUTDOOR
- ④ ARMORED SINGLE MODE 24-STRAND PLENUM



Campus Copper Topology Diagram

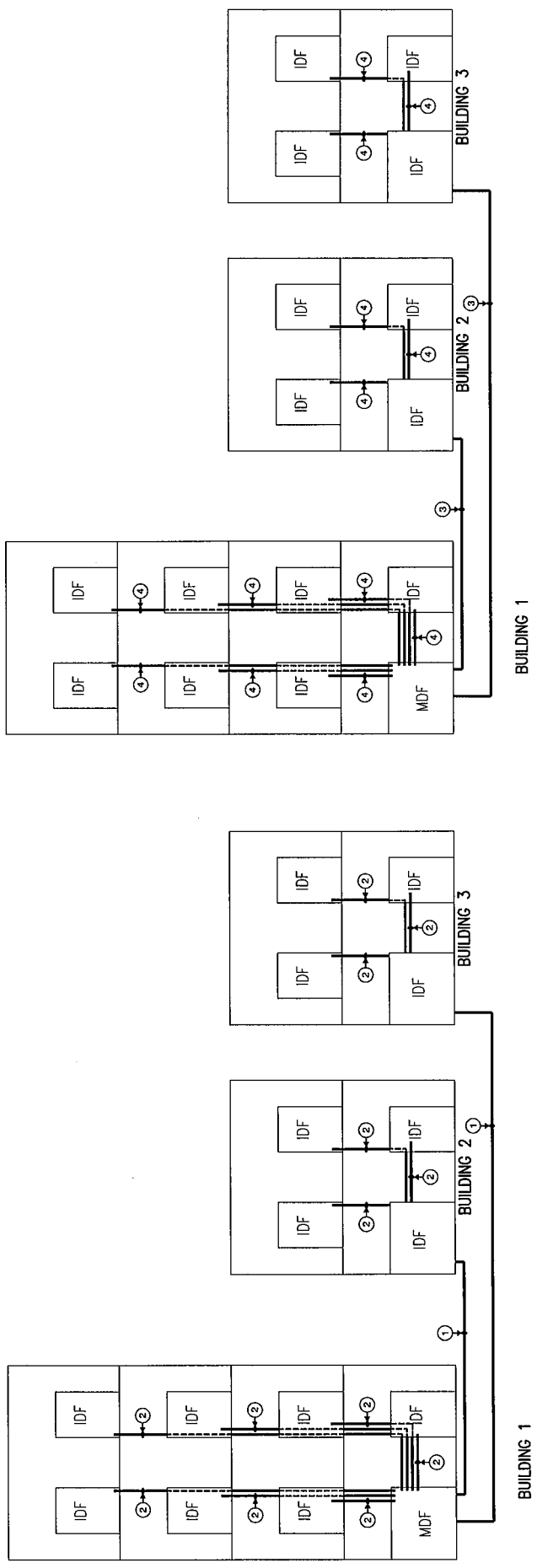
① xx SCALE: N.T.S.



Campus Fiber Topology Diagram

② xx SCALE: N.T.S.

- ① CATEGORY 3 25-PAIR OSP
- ② CATEGORY 3 25-PAIR PLENUM
- ③ ARMORED SINGLE MODE 48-STRAND INDOOR/OUTDOOR
- ④ ARMORED SINGLE MODE 24-STRAND PLENUM

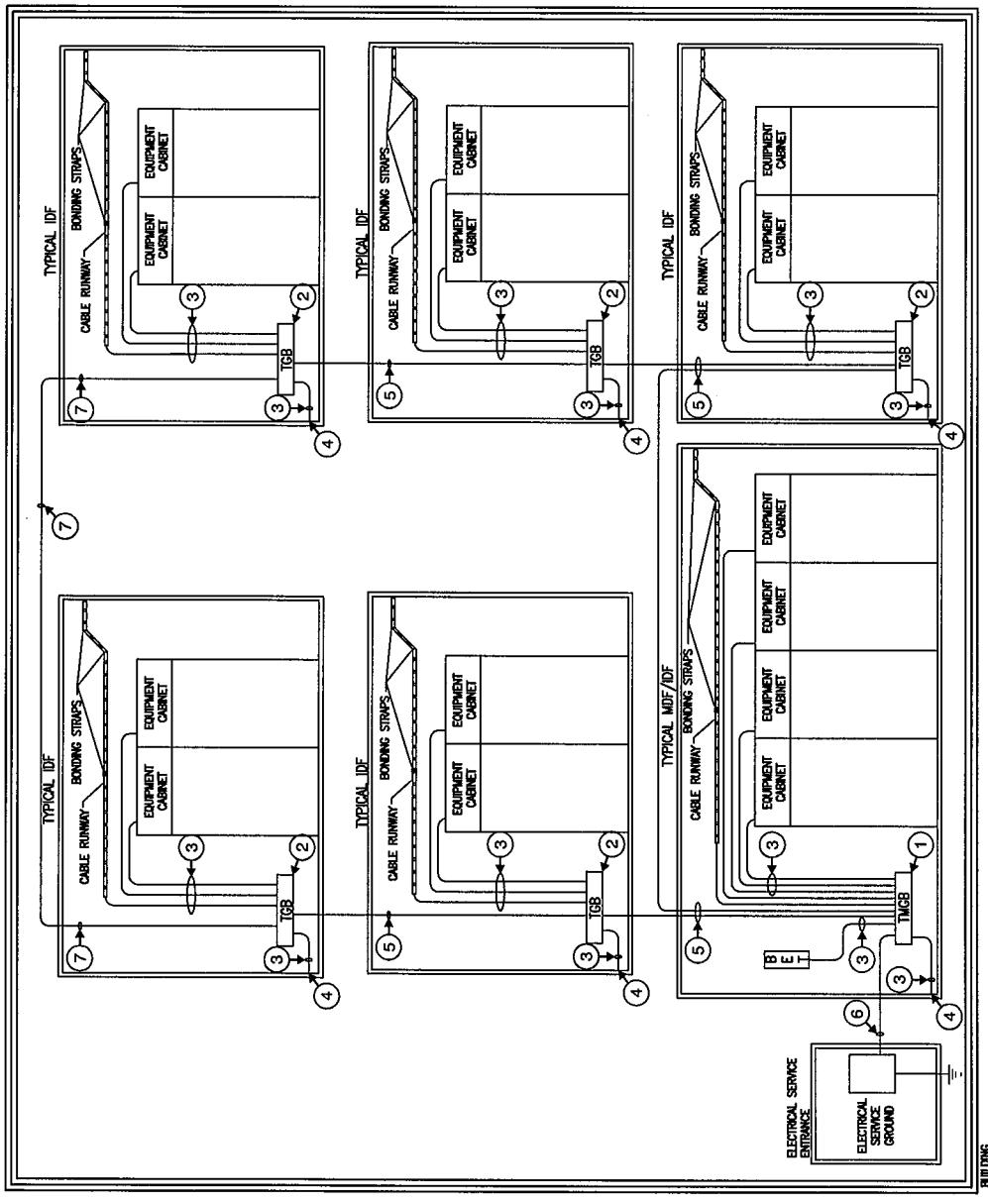


① xx
Campus Copper Riser Diagram
 SCALE: N.T.S.

② xx
Campus Fiber Riser Diagram
 SCALE: N.T.S.

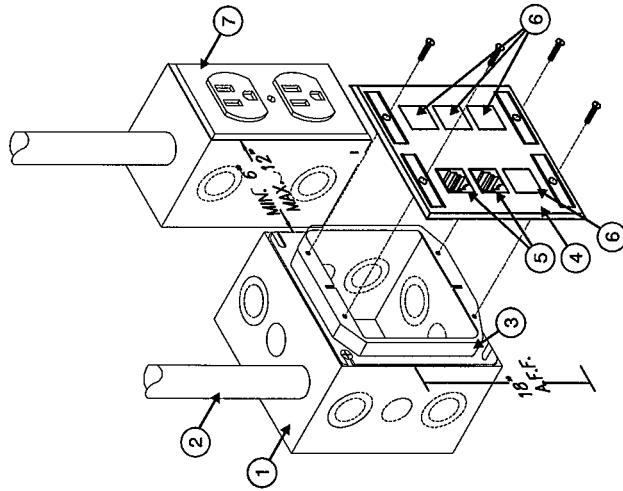
- 1 TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (TMGB)
- 2 TELECOMMUNICATIONS GROUNDING BUS BAR (TGB)
- 3 TELECOMMUNICATIONS BONDING CONDUCTOR (TBC)
- 4 CONNECT TO GROUNDED BUILDING STEEL WHEN EXPOSED IN ROOM.
- 5 TELECOMMUNICATIONS BONDING BACKBONE (TBB)
- 6 TELECOMMUNICATIONS BONDING CONDUCTOR (TBC) BY ELECTRICAL CONTRACTOR
- 7 GROUNDING EQUALIZER CONDUCTOR (GEC)

TBB/GE linear length m (ft)	TBB/GE size (AWG)
less than 4 (13)	6
4 - 6 (14 - 20)	4
6 - 8 (21 - 26)	3
8 - 10 (27 - 33)	2
10 - 13 (34 - 41)	1
13 - 16 (42 - 52)	1/0
16 - 20 (53 - 66)	2/0
20 - 26 (67 - 84)	3/0
26 - 32 (85 - 105)	4/0
32 - 38 (106 - 125)	250 kcmil
38 - 46 (126 - 150)	300 kcmil
46 - 53 (151 - 175)	350 kcmil
53 - 76 (176 - 250)	500 kcmil
76 - 91 (251 - 300)	600 kcmil
Greater than 91 (301)	750 kcmil



1
XX
Typical Grounding Diagram
SCALE: N.T.S.





- ① 4 11/16" x 4 11/16" x 2 1/8" RECESSED DOUBLE GANG BOX (BY DIV 26)
- ② 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26)
- ③ DOUBLE GANG PLASTER RING (BY DIV 26)
- ④ DOUBLE GANG WALL PLATE WITH DESIGNATION IN WINDOW (BY DIV 27)
- ⑤ DATA INSERT (BY DIV 27)
- ⑥ BLANK INSERT (BY DIV 27)
- ⑦ ELECTRICAL RECEPTACLE, GANG BOX AND CONDUIT SHOWN FOR REFERENCE ONLY (REFER TO DIV 26)

TYPICAL OFFICE WORKSTATION CONFIGURATION

SCALE: N.T.S.

1
XX

PROJECT NAME:

CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

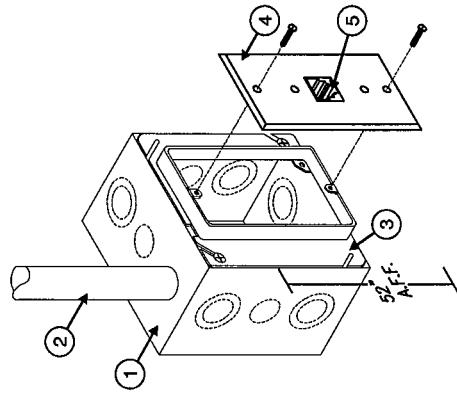
DATE:
03-04-14

SHEET:
14

SCALE: As Shown



- ① 4 11/16" x 4 11/16" x 2 1/8" RECESSED DOUBLE GANG BOX (BY DIV 26)
- ② 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26)
- ③ SINGLE GANG PLASTER RING (BY DIV 26)
- ④ SINGLE GANG WALL PLATE (BY DIV 27)
- ⑤ DATA INSERT (BY DIV 27)



TYPICAL WALL PHONE CONFIGURATION

SCALE: N.T.S.

1
XX

PROJECT NAME:

CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

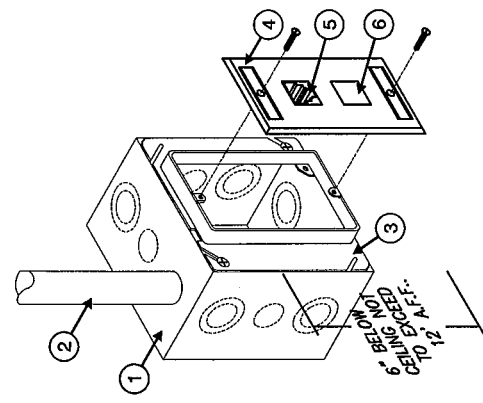
DATE:
03-04-14

SHEET:
15

SCALE: As Shown

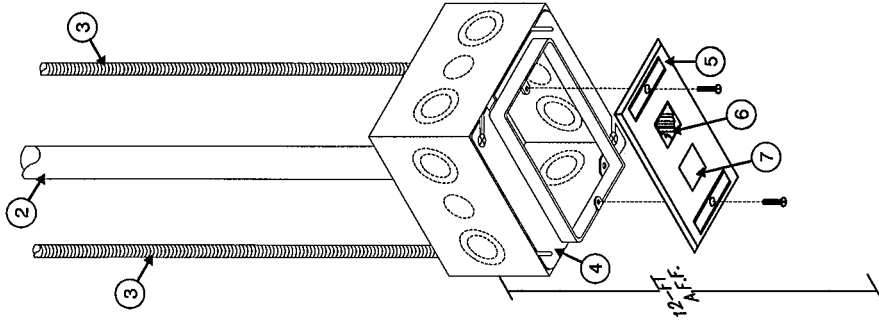


- ① 4 1 1/16" x 4 1 1/16" x 2 1/8" RECESSED DOUBLE GANG BOX (BY DIV 26)
- ② 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING (BY DIV 26)
- ③ SINGLE GANG PLASTER RING (BY DIV 26)
- ④ SINGLE GANG WALL PLATE (BY DIV 27)
- ⑤ DATA INSERT (BY DIV 27)
- ⑥ BLANK INSERT (BY DIV 27)



① TYPICAL WALL MOUNTED IP CAMERA/WIRELESS ACCESS POINT CONFIGURATION

SCALE: N.T.S.



- 1 4 1 1/16" x 4 1 1/16" x 2 1/8" RECESSED DOUBLE GANG BOX (BY DIV 26)
- 2 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT AT BUILDING STRUCTURE (BY DIV 26)
- 3 ALL THREAD TO BUILDING STRUCTURE.
- 4 SINGLE GANG PLASTER RING (BY DIV 26)
- 5 SINGLE GANG WALL PLATE (BY DIV 27)
- 6 DATA INSERT (BY DIV 27)
- 7 BLANK INSERT (BY DIV 27)

TYPICAL STRUCTURE MOUNTED IP CAMERA/WIRELESS ACCESS POINT CONFIGURATION

SCALE: N.T.S.

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PROJECT NAME:

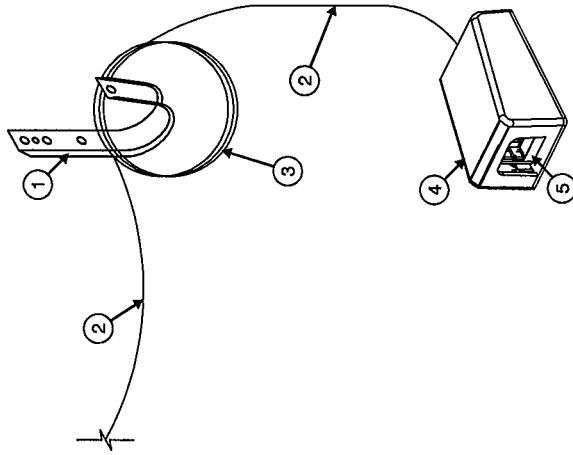
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE: 03-04-14

SHEET: 17

SCALE: AS SHOWN





- ① J-HOOK ABOVE ACCESSIBLE CEILING (BY DIV 27)
- ② DATA CABLE ABOVE ACCESSIBLE CEILING (BY DIV 27)
- ③ 20-FOOT SERVICE LOOP ABOVE ACCESSIBLE CEILING NEATLY COILED AND SECURED TO J-HOOK (BY DIV 27)
- ④ SURFACE MOUNT BOX ABOVE ACCESSIBLE CEILING AND SECURED TO BUILDING STRUCTURE. (BY DIV 27)
- ⑤ DATA INSERT (BY DIV 27)

TYPICAL ABOVE ACCESSIBLE CEILING DATA OUTLET

SCALE: N.T.S.

1
XX

PROJECT NAME:

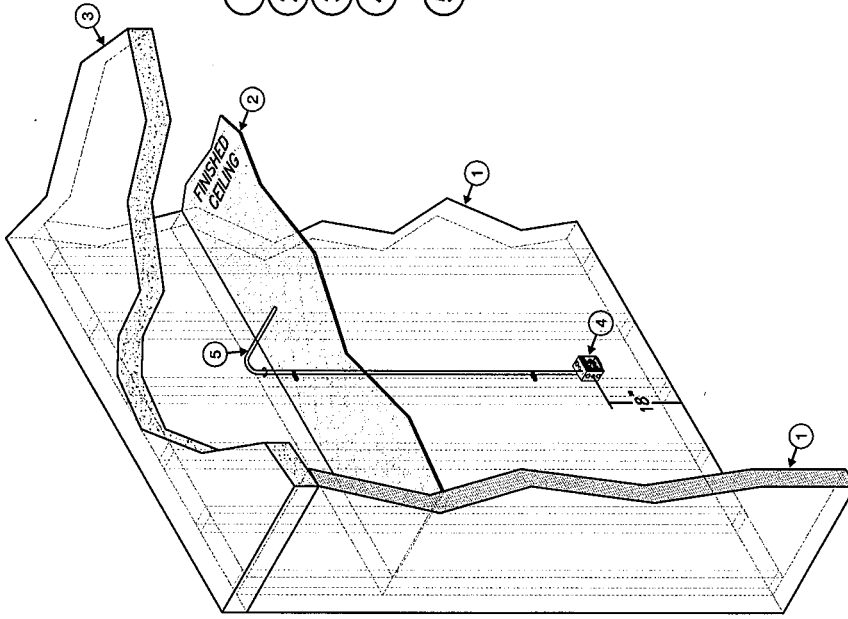
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE
03-04-14

SHEET:
18

SCALE: As Shown





KEYED NOTES:

- ① SCHEDULED WALL.
- ② SCHEDULED CEILING.
- ③ SCHEDULED DECK ABOVE.
- ④ 4 11/16" x 4 11/16" x 2 1/8" RECESSED DOUBLE GANG BOX WITH DOUBLE GANG PLASTER RING (BY DIV 26)
- ⑤ 1-INCH EMT CONDUIT FROM DOUBLE GANG BOX WITH 200 LBS PULL STRING AND NYLON BUSHING STUBBED OUT ABOVE ACCESSIBLE CEILING IN THE SAME ROOM WHERE THE DEVICE IS LOCATED. IF THE ROOM WHERE THE DEVICE IS LOCATED DOES NOT HAVE AN ACCESSIBLE CEILING, THE CONDUIT SHALL ROUTE TO THE NEAREST ACCESSIBLE CEILING OFF OF A MAIN CORRIDOR. CONDUIT PATHWAY SHALL TAKE THE SHORTEST ROUTE TO THE APPLICABLE MDF/IDF ROOM TO MINIMIZE THE CABLE LENGTH. (BY DIV 26)

TYPICAL TECHNOLOGY CONDUIT ROUGH-IN

SCALE: N.T.S.

1/XX

PROJECT NAME:

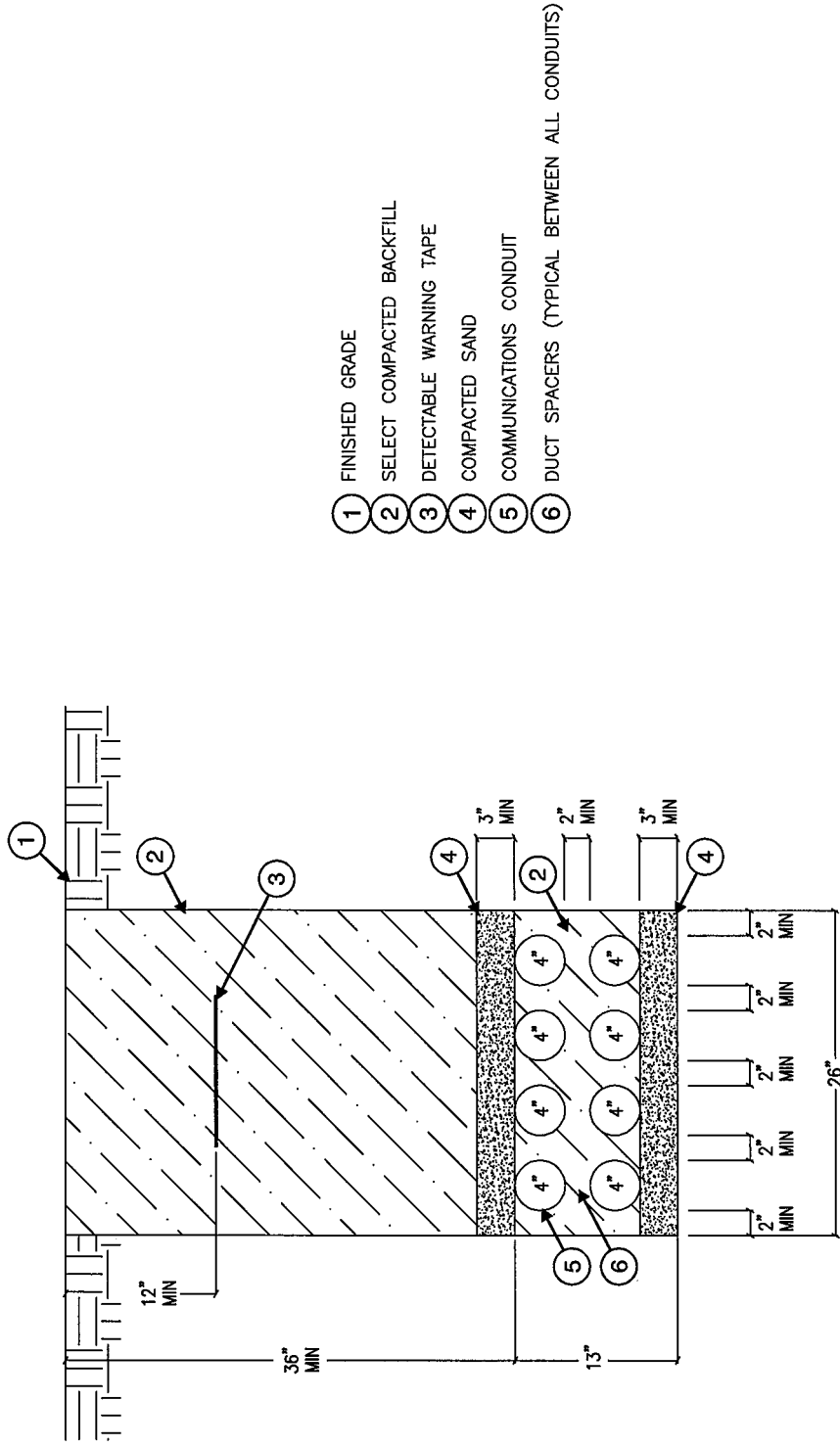
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE: 03-04-14

SHEET: 19

SCALE: As Shown



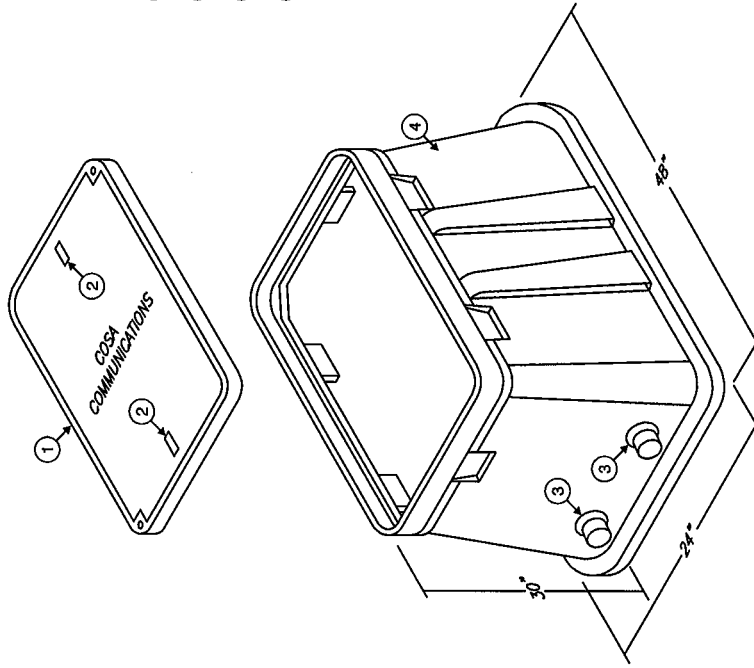


- ① FINISHED GRADE
- ② SELECT COMPACTED BACKFILL
- ③ DETECTABLE WARNING TAPE
- ④ COMPACTED SAND
- ⑤ COMMUNICATIONS CONDUIT
- ⑥ DUCT SPACERS (TYPICAL BETWEEN ALL CONDUITS)

TYPICAL COMMUNICATIONS DUCT BANK DETAIL - (8) 4-INCH CONDUITS

SCALE: N.T.S.

1
XX



KEYED NOTES:

- ① 40-INCH X 18-INCH H20 COVER.
- ② LIFTING EYE.
- ③ 4-INCH TERMINATOR.
- ④ 48-INCH LONG X 24-INCH WIDE X 30-INCH DEEP H20 RATED HANDHOLE.

TYPICAL TECHNOLOGY HANDHOLES (HH)

SCALE: N.T.S.

1
XX

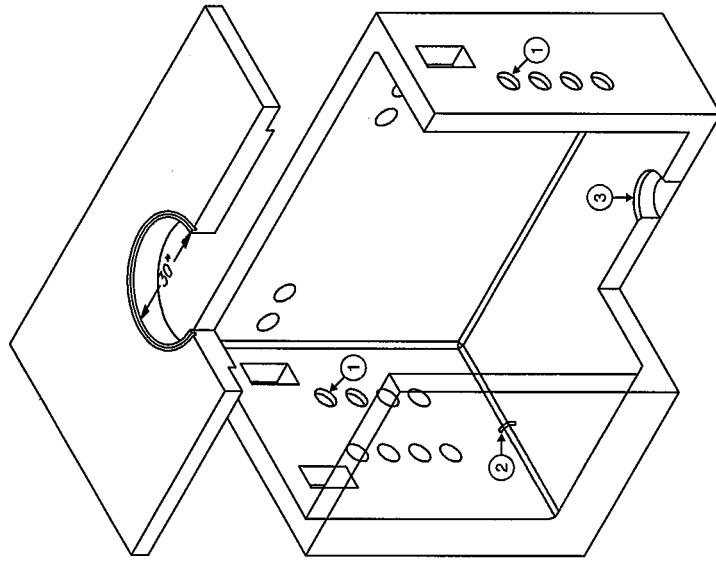
PROJECT NAME:

CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE:
03-04-14

SHEET:
21
SCALE: As Shown





KEYED NOTES:

- ① PRE CAST 4-INCH TERMINATORS.
- ② PULLING EYES (ONE AT EACH END).
- ③ 13-INCH SUMP WITH GRATE.

TYPICAL TECHNOLOGY MAINTENANCE HOLES (MH)

SCALE: N.T.S.

1
20

PROJECT NAME:

CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE:

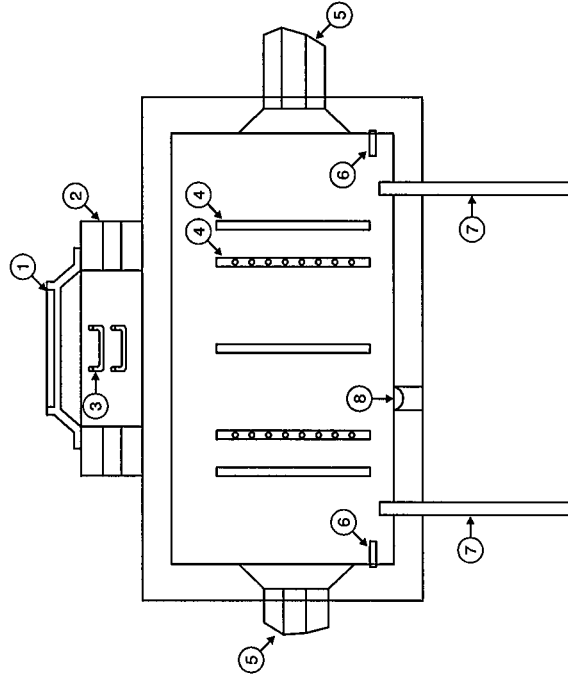
03-04-14

SHEET:

22

SCALE: As Shown





KEYED NOTES:

- 1 H-20 RATED COVER.
- 2 PRE CAST COLLAR.
- 3 STEPS (AS REQUIRED).
- 4 CABLE RACKS.
- 5 4-INCH DUCTS.
- 6 PULLING EYES.
- 7 3/4-INCH X 10-FT. GROUND ROD.
- 8 13-INCH SUMP WITH GRATE.

TYPICAL TECHNOLOGY MAINTENANCE HOLES (MH)

SCALE: N.T.S.



PROJECT NAME:

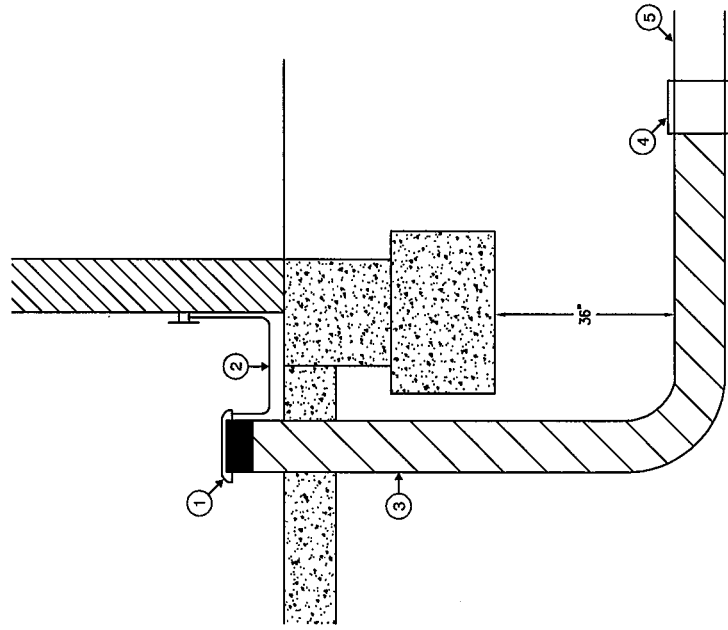
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE:
03-04-14

SHEET:
23

SCALE: As Shown





KEYED NOTES:

- ① GROUNDING BUSHING.
- ② #6 GROUND WIRE TO TMGB/TGB.
- ③ 4-INCH RIGID STEEL CONDUIT WRAPPED WITH PASCO PROTECTIVE TAPE SYSTEM.
- ④ PVC FEMALE ADAPTER.
- ⑤ SCHEDULE 40 PVC.

TYPICAL TECHNOLOGY DUCT ENTRY INTO BUILDING

SCALE: N.T.S.

1
XX

PROJECT NAME:

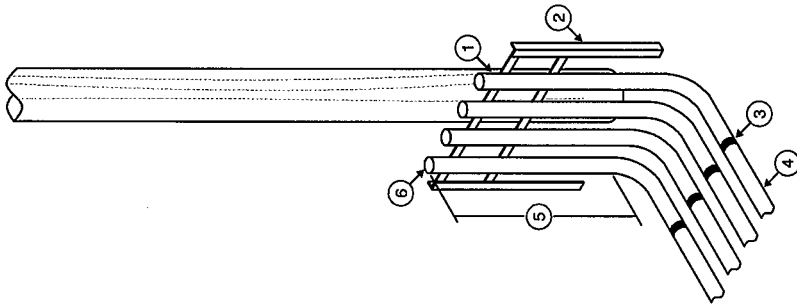
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE:
03-04-14

SHEET:
24

SCALE: As Shown





KEYED NOTES:

- ① 4-INCH RIGID STEEL CONDUIT WRAPPED WITH PASCO PROTECTIVE TAPE SYSTEM.
- ② UNISTRUT RACKING CONSTRUCTED IN FIELD.
- ③ PVC FEMALE ADAPTER.
- ④ 4-INCH SCHEDULE 40 PVC CONDUIT.
- ⑤ 4-INCH RIGID STEEL CONDUIT SHALL BE EXTENDED 36 INCHES ABOVE GRADE.
- ⑥ CONDUITS SHALL BE CAPPED AND SEALED TO PREVENT MOISTURE AND DEBRIS FROM ENTERING CONDUITS.

TYPICAL POLE RISER

SCALE: N.T.S.

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XX

PROJECT NAME:

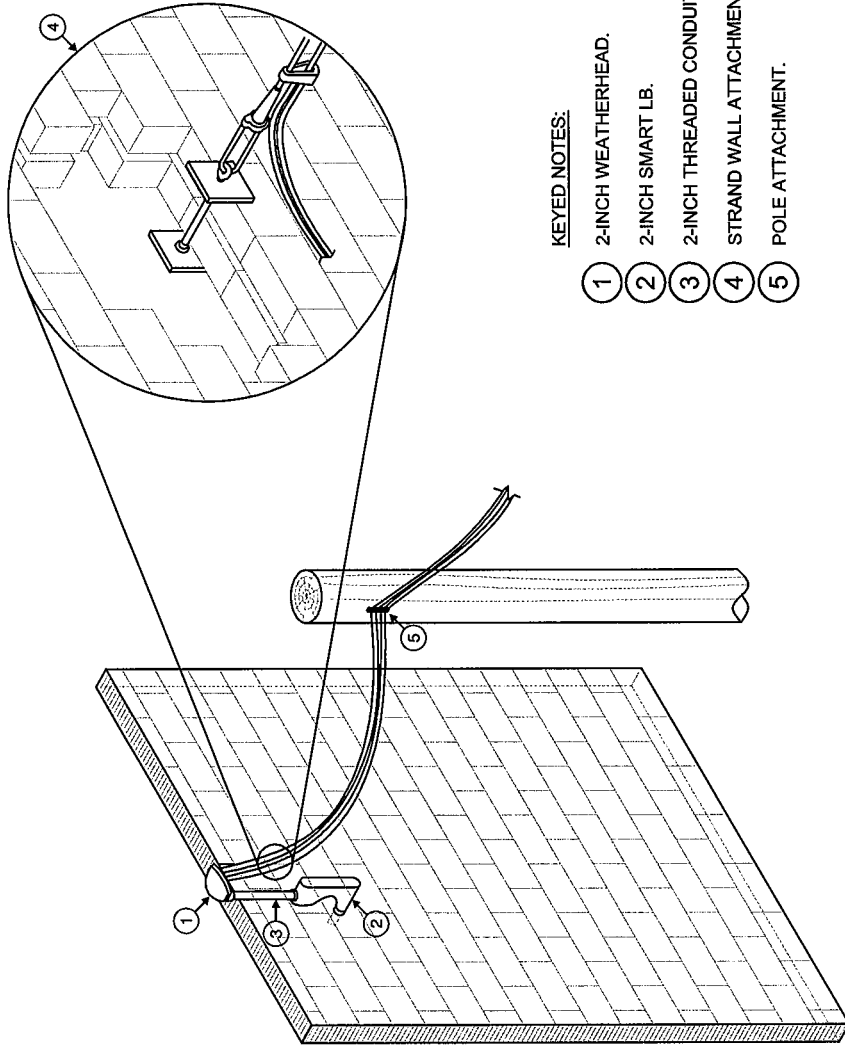
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE:
03-04-14

SHEET:
25

SCALE: As Shown





KEYED NOTES:

- ① 2-INCH WEATHERHEAD.
- ② 2-INCH SMART LB.
- ③ 2-INCH THREADED CONDUIT.
- ④ STRAND WALL ATTACHMENT.
- ⑤ POLE ATTACHMENT.

TYPICAL AERIAL BUILDING ENTRANCE

SCALE: N.T.S.

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XX

PROJECT NAME:

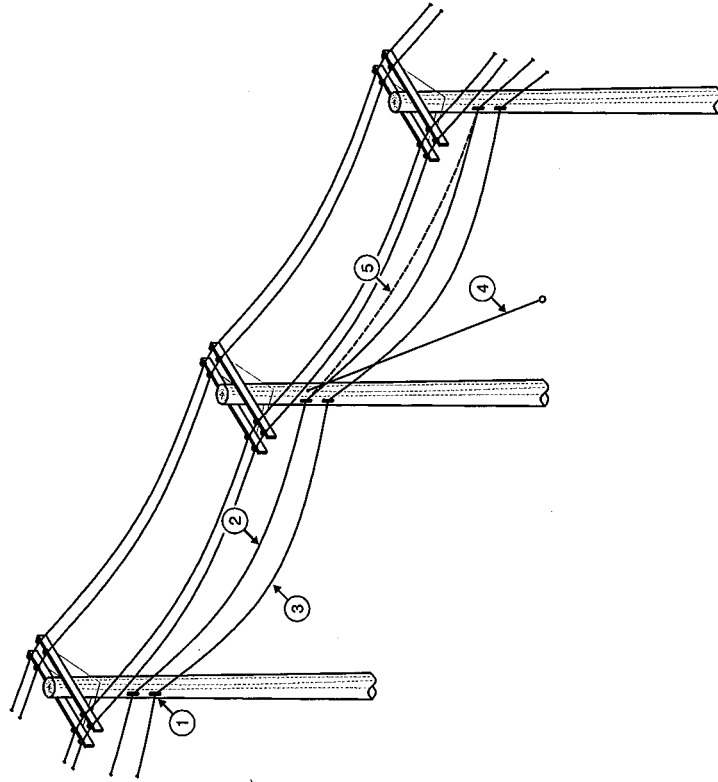
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE: 03-04-14

SHEET: 26

SCALE: AS SHOWN





KEYED NOTES:

- ① TYPICAL POLE ATTACHMENT.
- ② FIBER LASHED TO MESSENGER.
- ③ COPPER LASHED TO MESSENGER.
- ④ DOWN-GUY AS REQUIRED BY POLE OWNER.
- ⑤ CABLE SAG CALCULATED ON SPAN LENGTH AND CABLE TYPE.

TYPICAL AERIAL SPAN

SCALE: N.T.S.

1
XX

PROJECT NAME:

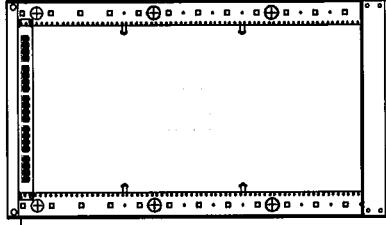
CITY OF SAN ANTONIO
STRUCTURED CABLING INFRASTRUCTURE STANDARDS

DATE: 03-04-14

SHEET: 27

SCALE: AS SHOWN





blue/white pair
orange/white pair
green/white pair
brown/white pair
slate/white pair
blue/red pair
orange/red pair
green/red pair
brown/red pair
slate/red pair
blue/black pair
orange/black pair
green/black pair

66M1-50
Terminal
block

25-pair cable

green/yellow - brown/yellow
slate/yellow - blue/violet pair
brown/violet - slate/violet pair

brown/black - slate/black
blue/yellow - orange/yellow pair
orange/violet - green violet pair

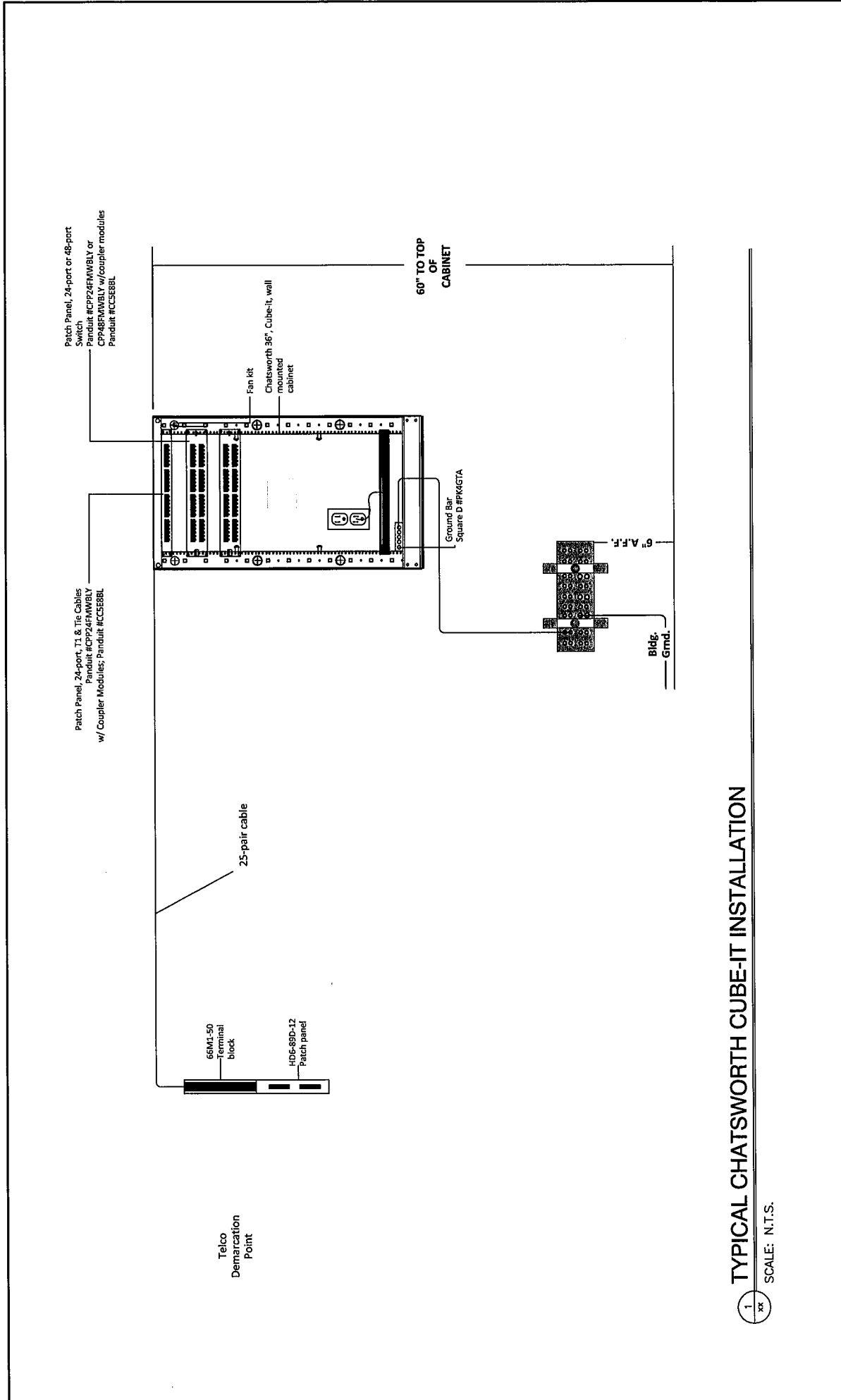
HD6-89D-12
Patch panel

TYPICAL TELCO DEMARICATION CABLE TERMINATION DETAIL

SCALE: N.T.S.

1 XX





TYPICAL CHATSWORTH CUBE-IT INSTALLATION

SCALE: N.T.S.



SECTION 6 – CONCESSION SIGNAGE CRITERIA**6.1. Scope**

This signage and graphic design standard incorporates the latest revisions of Operating Instructions to provide Tenants with the criteria and standards for signage.

6.2. Applicability

All Tenants who desire to erect signage of any description on property leased from SAAS will be bound by this signage and graphic design standard.

6.3. Procedure

All requests for all signage will be submitted to Properties and Concession's Manager as a Tenant improvement Project. Sketches and graphic designs must accompany each request.

The precise typeface must be accurately represented, to scale, on elevation drawings of the surface on which the proposed signage to be installed. Exterior elevations must show the entire face of the lease space/building. Signage must remain within predetermined boundaries. All power requirements and installation details must be included. Shop drawings must be submitted illustrating: sign height placement, signage height, thickness, mounting applications, colors, and overall width.

Request for promotional signs and displays will be submitted to the Properties and Concession's Manager using the Signage Concept Proposal Information Sheet. This form must be submitted at least 30 days prior to the requested date for the display.

6.4. General Rules

Except for locations where company name or logo may be displayed, all text Airport Standards

- All Tenant (including sub-tenant) signs must be of an informative nature. "For Sale," "For Lease," or "For Rent" signs are not permitted.
- Signs are not permitted on roof top or to be attached to structural room members
- All signs shall be surface mounted or recessed to a flush condition. Mounting conditions and heights within the Terminal may vary. Appearance of sign mounting locations conditions cannot be altered. Signs painted on any surface of a building are not permitted.
- Flashing, blinking, neon signs are not permitted.
- Altering of portals is not permitted.
- Portable signs are not permitted.
- Signs on doors and windows are not authorized except as permitted by this policy

- Exposed mounting devices, crossovers, conduit or raceways are not permitted
- All signs must meet safety standards. All illuminated signs must bear the Underwriters Laboratories, Inc. label and meet all local code requirements
- Signs of a promotional nature are not permitted except as permitted by this policy
- Handwritten signs are not permitted.
- Signs not covered in this policy are not permitted.

6.5. Promotional Signs

Promotional signs are defined as any sign, banner, flag, or display of any size, configuration, color or method of attachment or installation within the Tenant's leasehold, which is intended to promote a specific product or service for a limited period of time .

Promotional signs requiring electrical power must be submitted to Concession's Manager and Construction and Development division for review and approval 30 days prior to installation. Substitution or replacement in kind of existing previously approved signs requiring electrical power must be approved by the Concession's Manager and Construction and Development division to installation.

All promotional signs intended for display for 30 calendar days or less must be approved by the Concession's Manager prior to installation. The approval will be for a specified length of time. The promotional sign must be removed at the end of the period of approved display, all installation device and fasteners removed, and the surface(s) on which installation occurred restored to their condition prior to the installation. At the discretion of the Concessions Division, up to two (2) extensions may be granted up to a maximum display period of ninety (90) calendar day.

Promotional signage must be maintained in good condition for the duration of display. Any such signage which is not maintained in good condition by the Tenant will be removed by SAAS without prior notice to the Tenant.

Promotional signs must not be at variance with provisions of SAAS advertising Agreements or of any other provisions of this Specification Manual.

6.6. Miscellaneous Signs

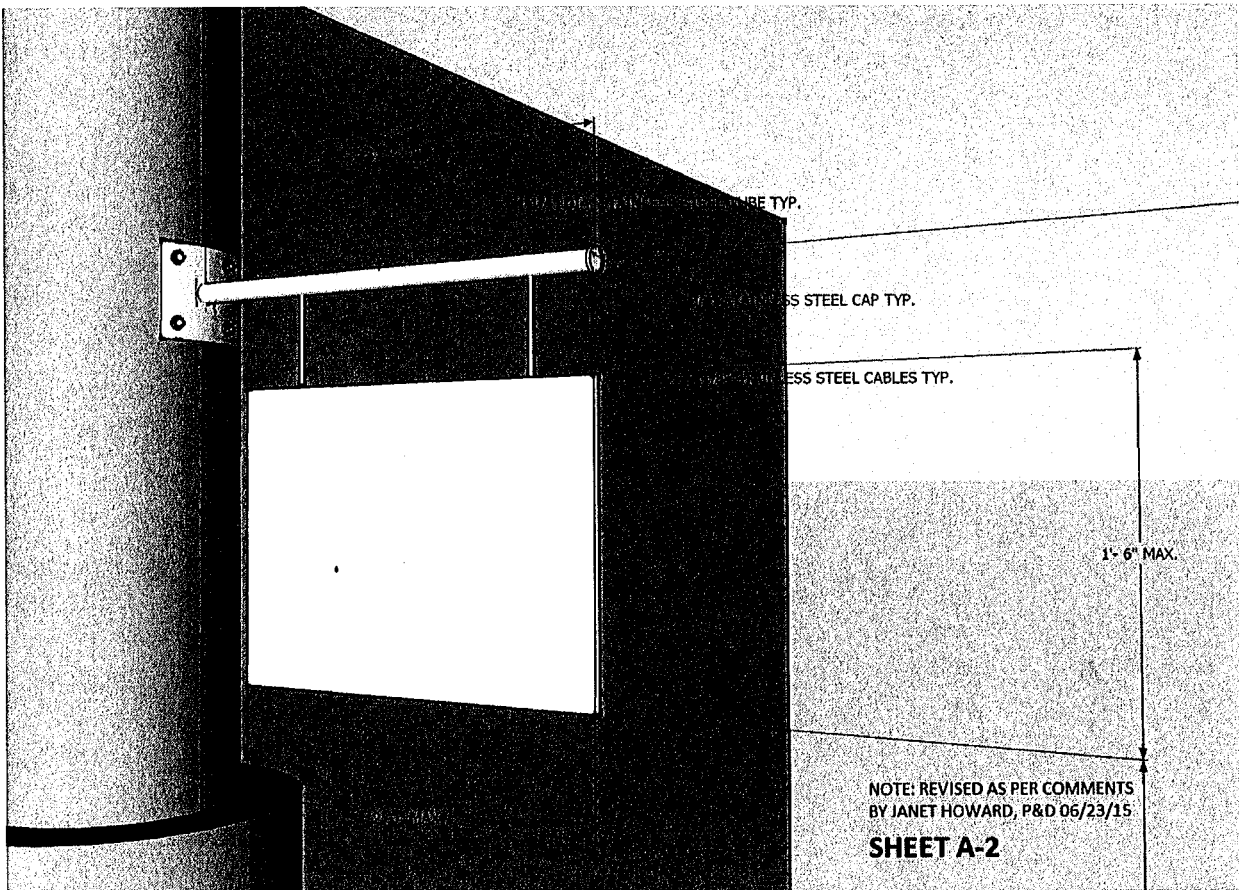
Signage on personnel doors within the Terminals must be approved by the SAAS. Personnel door may be marked as to the function (i.e., "Lost and Found"). These signs shall be installed per ADA requirement Size, color and font to be provided at a later date.

Use of Pedestal signs must be approved by Concession's division. If approved, pedestal signs must remain within the leasing boundaries. Handwritten signs are prohibited.

6.7. Blade Signs

All Tenants located in a location with a blade sign pole on the store front must design and fabricate a blade sign according to the following dimensions:

- 18" maximum height
- 24" maximum wide
- 2" maximum thickness
- 1/8" stainless steel cable to hang the sign
- Maximum 10 lbs.
- 7'-4" walking clearance under sign





GENERAL INFORMATION

SIGNAGE CONCEPT PROPOSAL INFORMATION SHEET

Date: _____

Tenant: _____

Tenant Representative: _____

Address: _____

Phone Number: _____

Fax Number: _____

Email: _____

SIGNAGE AND GRAPHICS

Promotional Materials and Temporary Displays: (attaching drawings and examples is encouraged)

Location: _____

Dates of Display: _____

Description of Display: _____

Description of Promotional Material Content (Color, Size, Etc.) _____

Permanent Signage: (attach drawings and specifications showing materials and locations) Reason and Justification for Signage:

SECTION 7 – CLEANING AND PREVENTATIVE MAINTENANCE REQUIREMENTS

All items must be cleaned, maintained, serviced and must be in top operational condition while at the airport. At a minimum, Tenant shall perform the following maintenance, if applicable:

Daily:

- Sweep and mop floors;
- Clean counters, tables and chairs (does not apply to food court seating);

Weekly:

- Empty and sanitize all ice bins;
- Clean all refrigerated fan guards;
- Clean fryer coils;
- Clean coffee machines form mineral build-up;
- Check all air vents and remove dust build-up;

Monthly:

- Empty cooking oil tallow bins into vat;
- Perform pest control throughout lease space;
- Perform "Liquid Wastewater Treatment" for all drain lines (sinks, mop sinks, floor drains, etc.);
- Clean exhaust goods and remove and power wash all exhaust filters;

Quarterly:

- Service grease traps and intercepts up to the City tie-ins.

Semi-Annually:

- Clean interior of exhaust hood and vents from hood to roof;
- Perform hydro jet and auguring of sewer lines up to the City tie-ins;
- Inspect fire suppression equipment above all grills and stove;
- Inspect annual fire suppression system;

Annually:

- Inspect all fire extinguishers;
- Backflow Prevention Device must be inspected per San Antonio Water Systems requirements;

All items pertaining to sanitation and safety not identified must be cleaned and maintained at all times. All equipment must be serviced by the appropriately certified personnel.

SECTION 8 – WILDLIFE CONCERNS

- a) Any landscape changes must be reviewed and approved by Airport Wildlife Biologist
- b) All trash cans and dumpsters must be covered and emptied regularly
- c) NO feeding of birds/Animals on airport property
- d) NO ponding water

If you have any questions or concerns, please contact the Airport Wildlife Biologist at (210) 207-1663 or marcus.machemehl@sanantonio.gov.

**EXHIBIT 4
MAINTENANCE CHECKLIST**

Quarterly Building Maintenance Checklist

Plumbing	Inspection Date	Observations/Comments/Actions Taken
Drains		
Visible Pipes		
Toilets		
Water Heater		
Faucets		
Electrical/Mechanical		
Lighting		
Fire Protection		
Breakers and Electrical Panels		
HVAC System		
Generators		
Riser Systems		
Building Exterior		
Roof		
Drains/Gutters		
Foundation		
Doors		
Windows		
Walls		
Parking Surfaces		
Sidewalks		
Interior		
Flooring		
Walls		
Ceiling		
Windows		
OTHER		

Please submit this report to: aviationpropertiesconcessions@sanantonio.gov
Any cosmetic or structural work must be approved by Aviation properties office.
Leasehold must be maintained clean and free of any trash/debris.
All equipment, materials or vehicles stored within your leasehold must be for aviation purposes.
All building signage or Banners on exterior of building or on property must be approved by Aviation Properties Office
All exterior lighting must be approved by Aviation per FAA requirements