I. STATEMENT OF WORK

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1.1 GENERAL: The work to be performed under this contract and in accordance with this Statement of Work shall consist of furnishing all necessary parts, labor, tools, transportation, supplies, supervision, equipment, materials, and incidentals necessary for providing all work shown on the drawings (Technical Exhibits), statement of work, and all applicable codes, regulations, standards and criteria in effect at the date of solicitation. The work outlined below shall consist of, but not be limited to the following:

1.2 PROJECT DESCRIPTION: The project includes demolition, site preparation, new asphalt pavement, new curb and gutter, new concrete pavement, new foundation and new pre-engineered overhead protection structure as shown on the drawings and described here-in.

1.2.1 Agency Relationship: Tom Green County (TGC) has sole contract authority. 17th Civil Engineer Squadron (17 CES) Goodfellow AFB will serve in the role of providing contract coordination/monitoring but will not have any direct contract authority to approve or disapprove construction work. All contract correspondence shall be directly submitted to TGC.

1.3 LOCATION: Goodfellow Air Force Base is located in Tom Green County, on the southeast side of San Angelo, TX. and is bounded to the north by Highway #388 (Paint Rock Rd.), to the west by Fort McKavitt Rd and Bell Street/Christoval Road, to the south by Highway #1223 (San Antonio Hwy.) and to the east by the eastern city limits. Work location is located just north of building 3321 (Fire Station).

1.4 WORK AND MECHANICS: The work for this project shall be executed in the best and most workmanlike manner, by qualified and efficient mechanics/tradesmen, skilled in their respective trades. Only certified journeymen in each respective trade, or apprentices under the direct supervision of certified journeymen, shall be permitted to install and/or supervise installation for this project. Individual trade work for this project shall be performed and quality maintained by the applicable trade, only. All trades shall coordinate their work with that of other trades. The Contractor shall coordinate and perform all operations in a manner that will result in a professional and expeditiously completed project. The work shall be in strict accordance with prevailing industry standards and manufacturer's instructions. Work and materials shall comply with this Statement of Work and the editions in effect at the time of this solicitation for all applicable criteria, regulations, guidelines and codes, all of which are made a part thereof.

1.5 PERFORMANCE PERIOD: The Contractor shall have one hundred and twenty (120) calendar days to perform all work associated with this project.

1.6 WORK SCHEDULE: Workdays shall be from 0730 to 1630, Monday thru Friday; no weekend work allowed unless approved by the Contracting Representative. If weekend work is required Contractor shall submit request in writing to Contracting Representative a minimum of 72 hours in advance. The Contractor shall provide written notification to the Contracting Representative fourteen (14) calendar days lead time for work schedule.

1.7 WORK AREA ACCESS: Government escorts are not needed in this area.

1.8 CONCRETE TRUCKS: Cleaning out of concrete trucks on Goodfellow AFB is prohibited. Concrete truck chutes, only, may be rinsed at the construction site. Wastewater and concrete from this rinse shall be collected in a high-density polyethylene (HDPE) plastic-lined box or pit provided by the Contractor at the site. At the end of pouring operations, the Contractor shall excavate all the waste and liner and properly dispose of same. The Contractor shall dispose of all concrete debris to an authorized off base site and shall remove any and all concrete debris and residue at the end of the project at no additional cost to the contract. The pit shall be completely backfilled and the site restored to original conditions.

1.9 REFERENCES: All publications listed herein shall be the most current editions in effect at the time of solicitation and form a part of this Statement of Work. The publications are referred to in the text by basic designation only and include the following:

GAFB INSTRUCTION

GAFBI 32-2001 Goodfellow AFB Base Fire Protection Program

GAFBI 31-102 Installation Security Instruction

NATIONAL FIRE CODE

NATIONAL ELECTRIC CODE

UNIFORM BUILDING CODE (UBC)

US ARMY CORPS OF ENGINEERS HEALTH AND SAFETY MANUAL

OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)

OSHA STD 29 CFR 1910 and 1926

OSHA STD 29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements)

1.10 SUBMITTALS: The Contractor shall provide submittals in the form of manufacturer's data, certificates of compliance and samples for all items provided and installed per the attached AF Form 66. The Contractor will not be permitted to perform any work on site without approved submittals. The submittals listed on the attached AF Form 66 shall be required and shall be submitted for Approval (A) or For Information Only (FIO). Use AF Form 3000 to process submittals. Submit four copies of submittals to Contracting Representative. Execute Final DD Form 1354 and submit to Contracting Representative at final inspection.

1.11 MANUFACTURER'S CATALOG DATA: Data composed of catalog cuts, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the contract documents.

SAMPLES: The Contractor shall submit actual samples of the roof and wall panels of the overhead structure, gutter and downspout sample, and paint color samples for approval. The Contractor shall submit a sample in each color of the product.

1.12 MANUFACTURERS WARRANTY: The Contractor shall identify all items being installed that are covered by a manufacturers guarantee or warranty and provide validated copies of such. The identification shall list the name of the company and the expiration date of the guarantee or warranty. The entire project shall have a one year warranty from the General Contractor starting at the time of Government possession.

1.13 PRODUCT DATA: LED light fixture data sheet.

1.14 AS BUILT DRAWINGS: At the time of the final inspection, the Contractor shall furnish 2 redline sets of mark up as built drawings to the Contracting Representative.

1.15 DELIVERY AND STORAGE: All equipment and materials delivered and placed in storage shall be stored with protection from the weather, humidity and temperature variation, dirt and dust, and any other contaminants. Store all materials in a secure, clean and dry location.

1.16 SAFETY: All Contractor operations shall be conducted and performed in accordance with Department of Labor, OSHA requirements found in 29 CFR 1910 (1910.146 and 1910.147) and 29 CFR 1926, and Air Force Occupational Safety & Health (AFOSH) standards including AFI 91-203, Air Force Consolidated Occupational Safety Instruction. The Contractor shall also ensure that all work is performed in accordance with project identified national standards, military manuals, instructions, pamphlets, standards, and handbooks, and with the edition in effect on the date of this solicitation of the Corps of Engineers (COE) Safety Manual 385-1-1. All job sites are subject to inspections by the Department of Labor. In the event of conflicts between the OSHA standards and these requirements, the most stringent shall apply.

1.16.1 Resolution of Department of Labor citations for violations of Occupational Safety and Health Standards is a Contractor responsibility and shall provide for no basis of a claim against the Government.

1.17 TEMPORARY FENCE: Prior to the start of any work for this project, the Contractor shall provide temporary orange warning fencing around the site perimeter.

1.18 DEMOLITION: The Contractor shall demolish and dispose of the concrete, curbs and gutter, poles and O.H. cable shown on the drawings to be removed. Contractor shall disassemble the existing overhead structures (two) and fence that is shown on the drawings to be removed, return to the government by moving all the existing O.H.

structures and fence to the CE storage yard located on the east side of building 3520 with-in the CE yard. Contractor shall also remove the electrical outlets mounted at the fence. Properly terminate. Note: this circuit can be used to connect the new LED light located in the new facility. The contractor shall recycle or divert construction wastes from landfill disposal to the maximum extent practicable. Contractor shall track recycling and waste disposal and submit the report on the provided Construction Waste Management Form for Government records at the end of the project, and prior to final acceptance of the work. The Contractor shall take all necessary precautions to prevent damage to property to remain in place. Any damage to the aforementioned shall be repaired or replaced by the Contractor at no additional cost.

1.19 WELDING, CUTTING, AND BRAZING: Fire Protection shall complete inspection of all welding, cutting and brazing operations prior to any operation. The Contractor shall provide the appropriate operable fire extinguisher. Contractor shall comply be with OSHA STD29 CFR 1910.252 Welding, Cutting and Brazing (General Requirements) and AFOSH 91-5 Welding, Cutting and Brazing. Air Force Form 592 USAF Welding, Cutting and Brazing permit will be issued prior to any operation and shall be kept on site till completion of operation or permit expires. Contact Fire Protection at (325) 654-3532/33/34 for issuance of permit.

1.20 OPERATIONS SECURITY (OPSEC) REQUIREMENTS N/A

1.21 UTILITY CONSERVATION

The Contractor will be required to participate in government energy conservation programs. For the purpose of this contract, utilities such as water, electricity, etc., will be furnished by the government at no cost to the Contractor. Long distance and Defense Switched Network (DSN) telephone services will not be provided.

1.22 WORK SCHEDULE:

Working hours for the Contractor will normally be between the hours of 7:30 A.M. and 4:30 P.M. excluding Saturdays, Sundays, and Federal holidays. Refer to Section H of the solicitation/contract document for further information on working days. If the Contractor desires to work during periods other than above, a request must be made to the Contracting Representative in writing four (4) calendar days in advance of his/her intention. If the required base personnel are reasonably available, the Contracting Representative may authorize the Contractor to perform work during periods other than normal duty hours/days.

1.23 NORMAL WORK HOURS

The Contractor shall schedule all work to commence between the hours of 7:30 AM and 4:30 PM, Monday through Friday, except on the Federal holidays and days designated as "Family Days" by Air Education and Training Command (AETC) as listed below. Permission to work outside these normal business hours may be granted by the Contracting Representative. Requests to work outside the normal work hours must be submitted in writing to the Contracting Representative at least 3 working days in advance of the date requested.

		Family Days
New Year's Day	01 Jan	31 Dec 2018
Martin Luther King's	3rd Monday in January	
President's Day	3rd Monday in February	
Memorial Day	Last Monday in May	25 May 2018
Independence Day	4 Jul	31 Aug 2018
Labor Day	1st Monday in	
Columbus Day	2nd Monday in October	
Veterans Day	11 Nov	
Thanksgiving Day	4th Thursday in	23 Nov 2018
Christmas Day	25 Dec	24 Dec 2018

Federal Holiday

While AETC Family Days have not been identified past calendar year 2018 it is anticipated that the same number of AETC Family days will be declared each year. Any Holiday falling on a Saturday will be observed the preceding Friday. Any Holiday

Any Holiday falling on a Saturday will be observed the preceding Friday. Any Holiday falling on a Sunday will be observed the following Monday.

The base could be closed because of security problems, adverse weather, or other events. Unless otherwise notified by the Government, the Contractor should monitor local television stations, radio stations, or Goodfellow's Facebook page for notification of a possible base closure or late opening. The Contractor may not receive any other form of notification of a base closure from the Government, unless contacted by the Contracting Representative. The Contractor is responsible for notifying his/her employees. Contractor(s) do not report when the base is closed due to security problems and/or adverse weather.

1.24 TOBACCO USE IN AETC FACILITIES

Contractors are advised that the Commander has placed restrictions on the smoking of tobacco products in AETC facilities. AFI 40-102, Tobacco Use in the Air Force, outlines the procedures used by the commander to control smoking in our facilities. Contractor employees and visitors are subject to the same restrictions as government personnel. Smoking is permitted only in designated smoking areas. Additional information, to include locations of designated smoking areas, will be provided to the Contractor at the pre-performance conference.

1.25 BASE ACCESS SECURITY REQUIREMENTS: The Contractor shall comply at all times with base law enforcement and security requirements to include base pass requirements.

1.25.1 Contractor Installation Access Pass. Before arrival, a Government identification card-holding person from the sponsoring agency, Base Contracting administrator or applicable local project manager will submit a request for base access using the 17 Training Wing's Base Access List (BAL) memorandum as a form of registration for each credential applicant. The base sponsor/sponsoring

agency/Contracting Representative and the contracted management team should establish an accountability process to account for each applicant, to oversee the BAL process, and to retrieve installation passes when access is no longer required. Base sponsors/sponsoring agencies or contract representative will ensure the BAL is accurate, it is signed and forwarded to the 17 SFS Pass & Registration section for completion of the vetting and fitness determination processes. The BAL should be delivered to Pass & Registration, located at the Visitor Control Center (VCC). When delivery is not possible, the BAL may be forwarded to Pass & Registration via a ".mil" email account located on Goodfellow AFB. The BAL will include pertinent visitor information, reason for entry, frequency of entry, destination, times each day requiring entry, and duration of request.

Contractor Initial (and periodic) Installation Access Screening. The Contractor shall provide Pass and Registration with two forms of identification, one of which will be a state issued photo identification. Prior to being allowed access, a minimum of a background/National Crime Information Center (NCIC) check will be completed on all Contractors, requesting unescorted access for official business. This screening process will validate the Contractor's suitability to visit Goodfellow and certify that the Contractor does not pose an increased threat to the base populace. The Contractor will then be issued a temporary Defense Biometric Identification System (DBIDS) pass or AF Form 75A through the expiration date on the BAL request. Possession of an authorized access pass does not automatically authorize or guarantee access to the installation. The individual must still have a valid purpose to be on the installation and properly sponsored, as applicable.

1.25.2 Access Denial. If it is determined a Contractor requesting access has been convicted of a felony or pled guilty to a felony charge within the past 10 years, or is considered not fit to obtain authorized access based on the information obtained during the identity vetting, or criminal history indicates the individual may present a threat to the good order, discipline and morale of the installation, Security Forces personnel will deny entry. The Contractor will be informed of the access denial, will be issued an Access Denial Letter, and will be informed on how they may appeal this order.

Access Denial Appeal Process. When denied access, contract visitors will be informed to report back their manager. If the contract worker and management are considering an appeal, it will be submitted by letter to the 17 SFS Commander, within 30 days of access denial. The contract manager should first contact the contract administrator or on-base sponsor for additional guidance and clarification. The appeal may be delivered to the installation Visitor Control Section or mailed to Security Forces, addressed to 17 SFS/CC, 361 Apache Trail, Goodfellow AFB, 76908. The Contractor's appeal should discuss all facts and reasons to support rescinding access denial. The 17 TRW/CC will approve/disapprove all appeals for entry.

1.25.3 For installation access on non-duty hours or down days:

Identify which workers need access on weekends, federal holidays/family days, and down days.

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Ensure only workers that are already vetted are on the Extended-Hours request (no new personnel). New personnel require a new BAL and formal vetting.

Complete the "After Hours" BAL for workers requiring down day access to the installation.

Identify the vehicle requirements. If operations cannot support the search procedures for large vehicles/special purpose equipment, the request may be declined unless arrangements are made to deliver the vehicle/equipment prior, during normal duty hours.

During the above-mentioned days, the sponsoring ID cardholder is required to be present during hours of the work request.

1.25.4 All BALs are accomplished each time employees or personnel change, not to exceed 180 days. Oversight for BAL updates and establishment of procedures to ensure Physical Access Control System (PACS) credentials and locally created access credentials from individuals who no longer require installation access is the responsibility of the contract administrator.

When an employee (regardless of position) is no longer employed by the Contractor or Sub-Contractor all DBIDS passes are to be returned to the Contract Administrator or to the Visitor Control Center. If a local issued access credential/pass is not returned, the contract representative may withhold funds or the Installation Commander may consider permanent debarment to the installation. Immediate access denial may be initiated by Pass & Registration updating the DBIDS database until disposition of the DBIDS pass is resolved.

PART 2.0 – PRODUCTS:

2.1 REFERENCES TO MATERIALS, MANUFACTURERS AND PRODUCTS: Materials shall be the standard product of manufacturer's regularly engaged in the manufacture of such products. The products furnished shall meet the quality and specifications indicated herein.

2.2 SITE VISITS: The Contractor may visit the premises to become thoroughly familiar with details of the work and working conditions, verify dimensions in the field, and shall advise the Contracting Representative of any discrepancies before starting the work.

2.3 DRAWINGS INCLUDED IN THIS SOW: are drawings C-1 dated Jan 2020, D-1 dated Jan 2020, S-1 dated Jan 2020, S-2 dated Jan 2020, S-3 dated Jan 2020, S-4 dated 2020 and S-5 dated 2020.

2.4 CONCRETE FOUNDATION: Strength test shall be provided by Contractor by an approved agency on specimens that are representative of the work test and which have

been water soaked for at least 24 hours prior to testing. When the maximum-size aggregate is larger than 3/8 inch, specimens shall consist of not less than three inch diameter cores or 3 inch cubes. When the maximum size aggregate is 3/8 inch or smaller, specimens shall consist of not less than 2 inch diameter cores or 2 inch cubes. Concrete shall have a three to five inch slump, compression of at least 3000 PSI and tested at seven and thirty day period after pour per batch.

2.4.1 REINFORCING BAR: The Contractor shall provide rebar (grade 40 min) within the slab and beam as shown on the drawings. No welded wire mesh will be used in the foundation.

2.4.2 WIRE TIES: The Contractor shall provide 6 inch steel rebar tie at reinforcing bar cross members and at overlapping ends of reinforcing bar.

2.4.3 REBAR SUPPORT CHAIRS: The Contractor shall provide plastic rebar chairs to support rebar above ground within the concrete pad as shown on the drawings. The Contractor shall provide steel rebar chairs within the perimeter and cross section concrete beams under the pad as shown on the drawings.

2.4.4 ANCHOR BOLTS: The Contractor shall provide anchor bolts sized in accordance with pre-engineered metal building manufacturer directions. Anchor bolts shall be hot dipped galvanized with washer and nut, The Hillman Group or equal.

2.4.4.1 ANCHOR BOLT SHOP DRAWING: The Contractor shall provide anchor bolt shop drawing specifying the locations of anchor bolts as per the preengineered metal building requirements, coordinated with all foundation work.

2.4.5 CONTROL JOINT SEALANT: The Contractor shall provide control joint sealant at foundation where 1" deep saw cut control joints are shown.

2.4.6 CONCRETE: The Contractor shall provide concrete in accordance with drawings. Concrete shall be tested by a certified testing agency for slump (compression) per each batch of concrete delivered to the site. Concrete shall provide at least 3000 PSI compressive strength. The Contractor shall provide a submittal for concrete mix design for building.

2.4.7 SUB BASE MATERIAL FOR FOUNDATION:

2.4.7.1 AGGREGATE: The Contractor shall provide an aggregate base crushed limestone, compacted to 95% in six-inch max layers, below concrete slab. A compaction test must be submitted by the Contractor prior to placing concrete slab.

2.4.7.2 SAND: The Contractor shall provide 2" construction sand cover over aggregate.

2.4.7.3 VAPOR BARRIER: The Contractor shall provide a 6 mil. vapor barrier beneath the concrete slab. The Contractor shall provide a poly vinyl sheet directly beneath the foundation with a minimum 2 inch layer of sand directly beneath the vapor barrier. The vapor barrier shall be continuous under the slab and foundation.

2.5 PRE-ENGINEERED METAL BUILDING: The Contractor shall provide preengineered metal building. Mueller Metal Building or approved equal, with erection drawings and Anchor Bolt drawings. The building details shall be as shown on the drawings. The building to be rated for Dead Load of 2.5 psf, Live Load 20 psf, and Wind Load of 90 mph. The building is to be rated in Exposure C, Importance Wind: 1.0, Site Class: D, Importance Seismic 1.0, Seismic Coefficient: 0.1, Importance Snow of 1.0. Other loads include Extension Dead Load: 2.5 psf, Extension Live Load (SW) 20.0 psf, Extension Live Load (EW) 20.0 psf. All load, building materials and design shall be in accordance with the most current Uniform Building Code (UBC). Contractor shall provide drawings showing all pre-engineered structural elements sealed by a structural engineer licensed in the state of Texas.

2.5.1 RIGID FRAME: The Contractor shall provide complete rigid frame as required by the sealed structural drawings including all connections and bracing components.

2.5.2 PURLINS AND GIRTS: The Contractor shall provide steel roof purlins and wall girts spaced in accordance with steel building manufacturers seal drawings. 2.5.3 FASTENERS: The Contractor shall provide Self Drilling screw fasteners for sheet metal siding, and/or 1" self-drilling screw with washer, painted brown color or equal.

2.5.4 METAL ROOF AND WALL PANELS: Provide 26 gauge metal R-Panel roof panel and 26 gauge metal U-Panel wall panels, both equal to Mueller Inc. The Contractor shall provide Metal Roof System with a 5-year Warranty for Non-Structural Metal Roofing/Wall System, 20-year Manufacturer's Material (finish and rust) and Weather tightness Warranty. Zinc-coated steel conforming to ASTM A 653/A 653M; aluminum-zinc alloy coated steel conforming to ASTM A 792/A 792M, AZ 55 coating; or aluminum-coated steel conforming to ASTM A 463/A 463M, Type 2, coating designation T2 65. UL 580, Class 90 tested roof system. Metal roof R-Panel color shall be equal to Mansard Brown by Mueller Inc. and metal wall U-Panel color shall be equal to Tan by Mueller, Inc. Color sample shall be provided by the Contractor via submittal.

2.5.5 GUTTER AND DOWNSPOUT: Provide new metal gutters and downspouts Mueller "Mansard Brown" or equal. Color sample shall be provided by the Contractor via submittal.

2.5.6 SEALING TAPE: The Contractor shall provide butyl sealing tape for metal roof and metal panel walls.

PART 2.6 BITUMINOUS PAVING FOR ROADS, STREETS AND OPEN STORAGE AREAS

2.6.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. All publications shall be the latest revision in effect on the date of solicitation except where a date is given.

<u>Military Standard:</u> MIL-STD-620A Test Methods for Bituminous Paving Materials

American Society for Testing and Materials (ASTM), Publications

C117 Materials Finer than 75-mm (No. 200) Sieve in Mineral Aggregates by Washing

C127 Specific Gravity and Absorption of Coarse Aggregate

C128 Specific Gravity and Absorption of Fine Aggregate C136 Sieve Analysis of Fine and Coarse Aggregates

D140 Sampling Bituminous Materials

D1856 Recovery of Asphalt from Solution by Abson Method

D2172 Quantitative Extraction of Bitumen from Bituminous Paving Mixtures

D2216 Laboratory Determination of Moisture Content of Soil, Rock, and Soil Aggregate Mixtures

D3515 Hot Mixed, Hot Laid Bituminous Paving Mixtures Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Texas Department of Transportation (TXDOT), June 2004.

2.6.2 MATERIALS:

2.6.2.1 Surface Course Tonnage: Bituminous mixture (Hot Mix Asphaltic Concrete) shall be weighed after mixing, and no deductions will be made for weight of bituminous material incorporated therein. No payment will be made for defective areas until corrected.

2.6.2.2 Correction Factor for Aggregates Used: Quantities of paving mixtures called for are based on aggregates having a specific gravity of 2.70 as determined in accordance with Apparent Specific Gravity paragraphs in ASTM C127 and ASTM C128. Correction in tonnage of intermediate- and wearing-course mixtures shall be made to compensate for the difference in the tonnage of mixtures used in the project, when specific gravities of aggregates used in mixtures are more than

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2.75 or less than 2.65. Tonnage paid for shall be the number of tons used, proportionately corrected for specific gravities, using 2.70 as the base correctional factor.

2.6.3 SUBMITTALS: Copy of the waybill and delivery tickets shall be submitted to Contracting Representative.

2.6.4 WEATHER LIMITATIONS: Bituminous courses shall be constructed only when base course is dry and when weather is not rainy. Unless otherwise directed, asphalt courses shall not be constructed when temperature of the surface of base course is below 50 degrees Fahrenheit or when the air temperature is below 50 degrees F and falling.

2.6.5 PROTECTION OF PAVEMENT: After final rolling of the pavement, no vehicular traffic of any kind shall be permitted until the pavement has cooled and hardened or for at least 6 hours.

2.6.6 GRADE AND SURFACE-SMOOTHNESS REQUIREMENTS: Finished surface of bituminous courses, when tested as specified below and shall conform to gradeline and elevations shown and to surface-smoothness requirements specified.

2.6.6.1 Plan Grade: The grade of the completed surface shall not deviate more than 0.05 of a foot from the plan grade.

2.6.6.2 Surface Smoothness: When a 12-foot straightedge is laid on the surface parallel with the centerline of the paved area or transverse from crown to pavement edge the surface shall vary not more than 1/4 inch from the straightedge.

2.6.7 GRADE CONTROL: Lines and grades shall be established and maintained by means of line and grade stakes placed at site of work. Finished pavement elevations shall be established and controlled at the site of work by the Contractor in accordance with drawings.

2.6.8 SAMPLING AND TESTING:

2.6.8.1 Aggregates: Samples of aggregates shall be furnished by the Contractor for approval of aggregate sources and stockpiles prior to the start of production and at times during production of the bituminous mixtures. Times and points of sampling shall be designated by the Contract Representative. Samples shall be the basis of approval of specific sources or stockpiles of aggregates for aggregate requirements. Unless otherwise directed, ASTM D75 shall be used in sampling coarse and fine aggregate, and ASTM C183 shall be used in sampling mineral filler. All tests necessary to determine compliance with requirements specified herein shall be made by the Contractor.

2.6.8.2 Sources: Sources of aggregates shall be selected well in advance of the time the materials are required in the work. If a previously developed source is

selected, evidence shall be submitted 10 days before starting production, indicating that the central-plant hot-mix bituminous pavements constructed with the aggregates have had a satisfactory service record of at least five years under similar climatic and traffic conditions. When new sources are developed, the Contractor shall indicate sources and submit samples and his plan for operation 10 days before starting production. The Contracting representative shall make such tests and other investigations as necessary to determine whether aggregates meeting requirements specified herein can be produced from proposed sources. If a sample of material from a new source fails to meet specification requirements, the material represented by the sample shall be replaced, and the cost of testing the replaced sample shall be at the expense of the Contractor. Approval of the source of aggregate does not relieve the Contractor of responsibility for delivery at the job site of aggregates that meet the requirements specified herein.

2.6.8.3 Bituminous Materials: Samples of bituminous materials shall be obtained by the Contractor; sampling shall be in accordance with ASTM D140. Tests necessary to determine conformance with requirements specified herein shall be performed by the Contractor. Sources where bituminous materials are obtained shall be selected in advance of the time when materials shall be required in the work, and samples of the asphalt cement specified shall be submitted for approval not less than 10 days before production of asphalt mixture. In addition to initial qualification testing of bituminous materials, samples shall be taken before and during construction when shipments of bituminous materials are received or when necessary to assure some condition of handling or storage has not been detrimental to the bituminous material. The samples shall be taken by the Contractor and tested by certified testing laboratory.

2.6.8.4 Bituminous Mixtures: Sampling and testing of bituminous mixtures shall be accomplished by the Contractor.

2.6.9 DELIVERY, STORAGE, AND HANDLING OF MATERIALS:

2.6.9.1 Mineral Aggregates: Mineral aggregates shall be delivered to the site of the bituminous mixing plant and stockpiled in such manner as to preclude fracturing of aggregate particles, segregation, contamination, or intermingling of different materials in the stockpiles or cold-feed hoppers. Mineral filler shall be delivered, stored, and introduced into the mixing plant in a manner to preclude exposure to moisture or other detrimental conditions.

2.6.9.2 Bituminous Paving Mixture: Bituminous paving mixture shall be stored in accordance with the requirements of ASTM D3515; however in no case shall the mixture be stored for more than four hours. It shall not be heated by application of direct flame to walls of storage tanks or transfer lines. Storage tanks, transfer lines, and weigh buckets shall be thoroughly cleaned before a different type or grade of bitumen is introduced into the system. The asphalt cement shall be heated

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sufficiently to allow satisfactory pumping of the material; however, the storage temperature shall be maintained below 300 degrees Fahrenheit.

2.6.9.3 Transportation: Transportation of bituminous mixture from mixing plant to site shall be in trucks having tight, clean, smooth beds coated with the least quantity of concentrated solution of hydrated line and water to prevent adhesion of mixture to truck bodies. Each load of mixture shall be covered with canvas, or other suitable material, of ample size to protect mixture from weather and prevent loss of heat. Deliveries shall be scheduled so that spreading and rolling of all mixture prepared for one day run can be completed during daylight unless adequate artificial lighting is provided. Mixture shall be delivered in such manner that temperature at time of dumping into spreader shall be not less than specified. Loads that have crusts of cold, unworkable materials or have become wet by rain shall be rejected. Hauling over freshly placed material shall be permitted.

2.6.10 ACCESS TO PLANT AND EQUIPMENT: The Contracting representative shall have access at all times to all parts of the paving plant for checking adequacy of the equipment in use; inspecting operation of the plant; verifying weights, proportions, and character of materials; and checking temperatures maintained in preparation of the mixtures.

2.6.10.1 WAYBILLS AND DELIVERY TICKETS: Waybills and delivery tickets shall be submitted to the Contracting Representative during the progress of the work. The Contractor shall submit to the Contracting Representative certified waybills and certified delivery tickets for all aggregates and bituminous materials actually used in the construction covered by the contract before submission of final invoice. The Contractor shall not remove bituminous material from the tank cars or storage tanks until the initial outage and temperature measurements have been taken nor shall the car or tank be released until the final outage has been taken by the Contracting representative.

2.6.11 HOT MIX SURFACE COURSE: Bituminous hot-mix surface course shall conform to the requirements of the TXDOT Standard Specification, Item 340, "Hot-Mix Asphaltic Concrete Pavement," except as specified hereinafter.

2.6.11.1 Asphalt Material: Asphalt material for the surface course shall be asphalt cement AC-20 conforming to TXDOT Standard Specifications for "Asphalts, Oils, and Emulsions", Item 300.

2.6.11.2 Aggregates: Paving mixture shall be Type "D".

2.6.11.3 Modifications: TXDOT Standard Specifications shall be modified as follows:

2.6.11.4 No. 10 Screen: Material retained on the No. 10 screen shall not exceed 65 percent.

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2.6.11.5 Requirements: Density and stability requirements shall not apply.

2.6.11.6 The measurement and payment paragraphs shall not apply.

2.6.12 PROPORTIONING OF MIXTURE: Job-Mix Formula (JMF): No bituminous mixture shall be manufactured until the grading and asphalt content of the proposed mix has been furnished by the Contractor for the Contracting Representatives approval. The formula shall indicate the percentage of each sieve fraction of aggregate, percentage of asphalt, the temperature of the completed mixture when discharged from the mixer. The job-mix formula shall be allowed the tolerances specified in the TXDOT Standard Specifications, Item 340, "Hot Mix Asphaltic Concrete Pavement." The bitumen content and aggregate gradation may be adjusted within the limits of the gradation tables specified therein to improve the paving mixtures, as directed, without adjustments in the contract price. The percentage of each sieve fraction in the job-mix formula shall be restricted to values such that the application of the specified tolerances shall not cause the limits of the gradation tables to be exceeded.

2.6.13 TEST PROPERTIES: The finished mixture shall meet requirements below described when tested in accordance with MIL-STD-620.

2.6.13.1 Stability, Flow and Voids: For Non-absorptive Aggregate: When the water absorption value of the entire blend of aggregate does not exceed 2.5 percent as determined by ASTM C 127 and C 128, aggregate is designated as non-absorptive. The apparent specific gravity shall be used in computing the voids mix and voids filled with bitumen; the mixture shall meet the requirements of Table 1 below:

TABLE 1. NON-ABSORPTIVE AGGREGATE MIXTURE

	Tire pressure below 100 psi.
Test property	Surface course
Stability, minimum	500 (Lbs), 3336 (N)

Flow, maximum, 1/100-inch units 20

Air Voids, percent Voids filled	3-5
with bitumen, percent	75-85

The theoretical specific gravity computed from the bulk-impregnated specific gravity method contained in MIL-STD-620, Method 105, or ASTM D2041 shall be used in computing percentages of voids total mix and voids filled with bitumen; the mixture shall meet requirements in TABLE 1 & 2.

2.6.13.2 For Absorptive Aggregate: When the water absorption value of the entire blend of aggregate exceeds 2.5 percent as determined in ASTM C 127 and C 128, the aggregate is designated as absorptive. Bulk-impregnated specific gravity shall be used in computing the percentage of air voids and voids filled with bitumen. The mixture shall be

tested at the same frequency as density testing. The values for all specimens will be averaged to obtain overall values which will be compared to, and shall meet the requirements in Table 1 below.

TABLE 1. ABSORPTIVE AGGREGATE MIXTURE

Test Property	Tire pressure below 100 psi Surface course
Stability, minimum	500 (Lbs), 3336 (N)
Flow, maximum, 1/100-inch units	20
Air Voids, percent Voids filled with bitumen, percent	2-4 80-90

2.6.13.3 Reduction in Stability by Immersion: If the index of retained stability of specimens of composite mixture is less than 75, aggregates shall be rejected or the bitumen shall be treated with an approved anti-stripping agent. Quantity or type of anti-stripping agent to add to the bitumen shall be sufficient, as approved by the Contracting representative, to produce an index of retained stability of not less than 75. Payment will not be made to the Contractor for addition of anti-stripping agent that may be required.

2.6.14 DENSITY: Maximum density values will be established as a function of optimum asphalt percent. Use of this value is described in Paragraphs 2.6.26 and 2.6.26.1 of this section.

2.6.15 SAMPLING & TESTING: Sampling and testing of bituminous mixture shall be accomplished by the Contractor. No payment will be made to the Contractor for mixtures rejected or for pavements or portions of pavements removed.

2.6.16 BASE COURSE CONDITIONING: The surface of the base course shall be inspected for adequate compaction and surface tolerances. Unsatisfactory areas shall be corrected as directed by the Contracting Representative.

2.6.17 PREPARATION OF BITUMINOUS MIXTURES: Rates of feed of aggregates shall be regulated so that the moisture content and temperature of aggregates shall be within specified tolerances. Aggregates, mineral filler, and bitumen shall be conveyed into the mixer in proportionate quantities required to meet the JMF. Mixing time shall be as required to obtain a uniform coating of the aggregate with the bituminous material. Temperature of bitumen at time of mixing shall not exceed 300 degrees Fahrenheit. Temperature of aggregate and mineral filler in the mixer shall not exceed 325 degrees Fahrenheit when bitumen is added. Overheated and carbonized mixtures or mixtures that foam shall not be used.

2.6.18 WATER CONTENT OF AGGREGATES: Drying operations shall reduce the water content of mixture to less than 0.75 percent. The water content test shall be conducted in

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accordance with ASTM D2216; the weight of the sample shall be at least 500 grams. If the water content is determined on hot bin samples, the water content shall be a weighted average based on composition of blend.

2.6.19 SURFACE PREPARATION OF UNDERLYING COURSE: Prior to placing of the surface course, the underlying course shall be cleaned of all foreign or objectionable matter with power brooms and hand brooms and if necessary with graders. If vegetation is present it shall have herbicide and/or soil sterilant applied as directed and approved by the Contracting Representative. After adequate time has lapsed for the root systems to die, the vegetation shall be stripped from the underlying surface with graders and brooms.

2.6.20 PRIME COATING: Surfaces of previously constructed base course shall be sprayed with a coat of bituminous material - Bituminous Prime Coat.

2.6.21 TACK COATING: Contact surfaces of previously constructed pavement, curbs, manholes, and other structures shall be sprayed with a thin coat of bituminous material Bituminous Tack Coat.

2.6.22 PLACING: Bituminous courses shall be constructed only when the base course or existing pavement has no free water on the surface. Bituminous mixtures shall not be placed without ample time to complete spreading and rolling during daylight hours, unless approved satisfactory artificial lighting is provided.

2.6.22.1 Offsetting Joints: The wearing course shall be placed so that longitudinal joints of the surface course shall be offset from joints in any other course by at least one foot. Transverse joints in the surface course shall be offset by at least two feet from transverse joints in any other course.

2.6.22.2 General Requirements for Use of Mechanical Spreader: Range of temperatures of the mixture, when dumped into the mechanical spreader shall be determined by the Contracting Representative. Mixtures having temperature less than 225 degrees Fahrenheit when dumped into a mechanical spreader shall not be used. The mechanical spreader shall be adjusted and speed regulated so that surface of the course being laid shall be smooth and continuous without tears and pulls, and of such depth that, when compacted, the surface shall conform with cross section indicated. Unless otherwise directed, placing shall begin along the centerline of areas paved on a crowned section or on the high side of areas with a one-way slope, and shall be in the direction of the major traffic flow. Mixture shall be placed in consecutive adjacent strips having a minimum width of 10 feet, except when edge lanes require strips less than 10 feet to complete the area. Each strip laid before a succeeding strip shall be of such length that sufficient heat shall be retained to make the strip readily compactable so that a joint can be obtained that shall conform to Paragraph 3.10, Joints. Length of a strip that is to be followed by another strip will be determined by the Contracting Representative, and may be decreased or increased as required by air temperatures, wind, and other climatic conditions existing at time of placement. Longitudinal joints and edges shall be constructed to true line markings. The Contractor shall establish lines parallel to the centerline of area to be paved

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and shall place string-lines coinciding with established lines for spreading machine to follow. Number and location of lines shall be as directed. Each lot of material placed shall conform to requirements specified in paragraph 3.10 - "Acceptability of Work." Placing of mixture shall be as nearly continuous as possible, speed of placing shall be adjusted, as directed, to permit proper rolling. When segregation occurs in the mixture during placing, the spreading operation shall be suspended until the cause is determined and corrected.

2.6.22.3 Placing Strips Succeeding Initial Strips: In placing each succeeding strip after the initial strip has been spread and compacted as specified below, the screed of the mechanical spreader shall overlap previously placed strip 3 to 4 inches and shall be sufficiently high so that compaction by rolling produce a smooth, dense joint. Mixture placed on edge of previously placed strip by mechanical spreader shall be pushed back to edge of strip by use of a lute. When the quantity of mixture on previously placed strip plus uncompacted material in strip being placed exceeds that required to produce smooth, dense joint, excess mixture shall be removed and wasted.

2.6.22.4 Shoveling, Raking, and Tamping After Machine Spreading: A sufficient number of experienced shovelers and rakers shall follow the spreading machine, adding hot mixture and raking mixtures as required to produce a course that, when completed, shall conform to all requirements specified herein. Broadcasting or fanning of mixture over areas being compacted shall not be permitted. When segregation occurs in mixture during placing, the spreading operation shall be suspended until cause is determined and corrected. Irregularities in alignment of the course left by mechanical spreader shall be corrected by trimming directly behind machine. Immediately after trimming, edges of the course shall be thoroughly compacted by tamping laterally with the lute. Distortion of course during tamping shall not be permitted.

2.6.22.5 Hand Spreading in Lieu of Machine Spreading: In areas where use of machine spreading is impractical, mixture shall be spread by hand. The mixture shall be dumped on approved dump boards or on adjacent approved area outside the area to be paved and shall be distributed into place from the dump boards or from the approved area by means of hot shovels. The mixture shall be spread with hot rakes in a uniformly loose layer of a thickness that when compacted will conform to the required grade and thickness. During hand spreading, each shovel-full of mixture shall be carefully placed by turning the shovel over in a manner that shall prevent segregation. In no case shall the mixture be placed by throwing or broadcasting from a shovel. The loads shall not be dumped any faster than can be properly handled by the shovelers and rakers. Rakers not equipped with stilt sandals shall not be permitted to stand in the hot mixture while raking the course. Spreading shall be done in a manner as to prevent segregation.

2.6.23 COMPACTION OF MIXTURE: Compaction of mixture shall be accomplished by the steel-wheel rollers the tandem rollers, the light pneumatic-tired rollers and the heavy self-propelled pneumatic-tired rollers (if required), specified above. Rolling shall begin as soon after placing as mixture shall bear roller without undue displacement. Delays in rolling freshly spread mixture will not be permitted.

2.6.23.1 Initial Rolling: Initial rolling of the first strip shall be accomplished with the steelwheeled roller specified herein. The edge of the strip opposite to the edge on which additional strips are to be placed shall be rolled with the rear wheel of the steel-wheeled roller. The second pass of the roller shall have the rear wheel within 6 inches of the opposite edge. The steel-wheeled roller shall then continue rolling longitudinally, working across the strip to the initially rolled edge, overlapping on successive trips by at least half the width of the rear wheel of the roller. The initially uncompacted edge of the first strip and the free edge of each successive strip shall thoroughly compacted with the metal lute specified herein immediately following the completion of the rolling. In the initial rolling of the second and successive strips, the 6 inch unrolled portion of the previously placed strip and portion of recently placed strip shall be rolled with the rear wheel of the steel-wheel roller. The second pass of the roller shall be made with the rear wheel of the roller within 6 inches of the outside edge. Rolling shall continue longitudinally working back to the previously rolled joint overlapping on successive passes by at least half the width of the rear wheel of the steel-wheel roller. Alternate passes of the roller shall be of slightly different lengths. After initial rolling with the steel-wheel roller, preliminary tests for crown, grade and smoothness shall be made by the Contractor under the supervision of the Contracting Representative. Before the rolling is continued, deficiencies shall be corrected by adding or removing material so the finished course will conform to requirements for grade and smoothness specified herein. Further preliminary smoothness checks shall be made by the contractor as directed.

2.6.23.2 Final Rolling: After preliminary smoothness test, rolling shall be continued until mat density of each course of at least 97 percent and not more than 100 percent of density of laboratory compacted specimens of same mixture. The final rolling shall proceed as follows: Following the initial rolling with the steel-wheel roller, additional rolling of the area shall be done longitudinally and diagonally as directed, using a steel-wheeled roller as specified herein. The rolling shall continue until the minimum density requirements are obtained. The surface course only shall be rolled with a light pneumatic-tired roller while the course is still warm. The light pneumatic-tired roller shall follow the tandem roller immediately and rolling shall be continued until all areas of the surface have been subjected to at least three coverages. A heavy pneumatic-tired roller, may be used in lieu of the light pneumatic-tired roller when approved by the Contracting Representative.

Shallow ruts and ridges that may develop from pneumatic-tired rolling shall be smoothed out with the steel-wheeled roller specified herein. The steel-wheeled roller performing the final rolling shall follow immediately behind the pneumatic tired roller. The rolling shall be done longitudinally and diagonally, as directed.

2.6.23.3 Testing of Mixture: At the start of the plant operation, a quantity of mixture shall be prepared that is sufficient to construct a test section at least 50 feet long, two spreader widths wide and of a thickness to be used in the project. Mixture shall be placed, spread, and rolled with equipment to be used in the project and in accordance with the requirements specified above. This test section shall be tested and evaluated as a lot and shall conform to all specified requirements. If test results are satisfactory, the test section shall remain in place as part of the completed pavement. If tests indicate that the

pavement does not conform to specification requirements, necessary adjustments to plant operations and rolling procedures shall be made immediately, and test section shall be evaluated as specified in paragraph "Acceptability of Work." Additional test sections, as directed, shall be constructed and sampled for conformance to specification requirements. In no case shall the Contractor start full production of a surface course mixture without approval.

2.6.23.4 Correcting Deficient Areas: Mixtures that become contaminated or are defective shall be removed to the full thickness of the course. Edges of the area to be removed shall be cut so that sides are perpendicular and parallel to direction of traffic and edges are vertical. Edges shall be sprayed with bituminous materials Bituminous Tack Coat. Fresh paving mixture shall be placed in the excavated areas in sufficient quantity so that finished surface will conform to grade and smoothness requirements. Paving mixture shall be compacted to density specified herein. Skin patching of an area that has been rolled shall not be permitted.

2.6.24 JOINTS: Joints between old and new pavements, between successive work days, or joints that have become cold (less than 175 degrees F) shall be made to insure continuous bond between old and new sections of course. All joints shall have the same texture, density, and smoothness as other sections of the course. Contact surfaces of previously constructed pavements coated with dust, sand, or other objectionable material shall be cleaned by brushing or shall be cut back with an approved power saw, as directed. The surface against which new material is placed shall be sprayed with a thin, uniform coat of bituminous material Bituminous Tack Coat. Material shall be applied far enough in advance of placement of a fresh mixture to insure adequate curing. Care shall be taken to prevent damage or contamination of the sprayed surface.

2.6.24.1 Transverse Joints: The roller shall pass over the unprotected end of a strip of freshly placed material only when placing is discontinued or delivery of the mixture is interrupted to the extent that the material in place may become cold. In all cases, prior to continuing placement, the edge of the previously placed course shall be cut back to expose an even vertical surface the full thickness of the course. In continuing placement of a strip, the mechanical spreader shall be positioned on transverse joint so that sufficient hot mixture shall be spread to obtain a joint after rolling that conforms to the required density and smoothness specified herein. When required, the fresh mixture shall be raked against joints, thoroughly tamped with hot tampers, smoothed with hot irons, and then rolled. In all cases the transverse joints in adjacent lanes shall be offset a minimum of 2 feet.

2.6.24.2 Longitudinal Joints: Edges of previously placed strip shall be prepared such that the pavement in the immediately adjacent to the joint between this strip and the succeeding strip meets the requirements for grade, smoothness, and density specified in paragraph "Acceptability of Work."

2.6.25 ACCEPTABILITY OF WORK: A Lot shall be that quantity of construction that shall be evaluated for compliance with specification requirements. A Lot shall be equal to the

extent of HMAC in place. For testing purposes, each Lot will be divided into 250 ton Sublots. In the event that less than 250 tons is being placed, this quantity will be considered one Sublot. Following division into Sublots, if the remainder of HMAC in the Lot exceeds 100 tons, it shall be considered an additional Sublot. If the remainder is less than 100 tons, it shall be considered as part of the last Sublot. An independent testing laboratory shall conduct all initial acceptance tests. Additional tests required to determine acceptability of nonconforming material shall be performed by the Contractor. During the pre-construction phase, the frequency of testing may be altered with Contract Representative approval when considered necessary.

2.6.25.1 Lot Evaluation: In order to evaluate the Lot, aggregate gradation, asphalt content, and density tests will be performed on each Sublot. All density determinations shall follow Tex-207-F Part III (Nuclear Method), or approved equal test method. For density determination, one random test shall occur on the joint of each Sublot. These tests shall occur with the machine centered over the joint. After the mat has dried to a constant weight, the Contractor shall perform random density tests on the mat. These results will be averaged and considered as the two overall field density values for the entire Lot. Samples for determining asphalt content and aggregate gradation shall be taken from loaded trucks within each Sublot. A minimum of one sample per Sublot must be collected to provide an average asphalt content for the entire lot. Asphalt content shall be determined in accordance with ASTM D2172, Method A or B. Aggregate gradation shall be determined for the mix by testing the recovered aggregate in accordance with ASTM C136 and ASTM C117. If any Sublot gradations fail to meet the specified limits, the entire Lot shall fail the requirements.

2.6.25.2 Lot Failure: When a Lot of material fails to meet the specification requirements, that Lot shall be removed and replaced by the Contractor.

2.6.25.3 Optional Sampling and Testing: The Government reserves the right to sample and test any area which appears to deviate from the specification requirements. Testing in these areas shall be in addition to the Lot testing, and the requirements for these areas shall be the same as those for a Lot.

2.6.26 Density: The average mat and joint densities shall be expressed as a percentage of the laboratory density with air voids. The laboratory density for each Sublot shall be determined in accordance with MIL-STD-620, Method 100 from a minimum of three specimens per sublot. The maximum specific gravity/dry density shall be the average of all specimens.

2.6.26.1 Field Density: The field densities shall be determined in accordance with Paragraph 2.6.25.1 and compared with the maximum density to determine the percent compaction.

2.6.26.2 Lot Density: All density results on a Lot will be completed and reported within 24 hours after construction of that Lot. When the Contracting Representative considers it necessary to take additional samples for density measurements, samples will be taken

from each Sublot. The percent payment will be determined for each additional group of samples and averaged with the percent payment for the original group to determine the final percent payment. The Contractor shall fill all sample holes with hot mix and compact.

2.6.27 Grade: Grade-conformance tests shall be conducted by the Contractor. The finished surface of the pavement shall be tested for the conformance with plan-grade requirements. Within 5 working days after completion of placement of a particular Lot, the Contractor shall inform the Contracting Representative in writing of results of grade-conformance tests. The finished grade of each pavement area shall be determined by running lines of levels at intervals of 25 feet or less longitudinally and transversely to determine the elevation of the completed pavement in areas where the grade exceeds the plan-grade tolerances given in paragraph "Grade and Surface Smoothness Requirements" by more than 50 percent, the Contractor shall remove the deficient area and replace with fresh paving mixture. Sufficient material shall be removed to allow at least 1-1/2 inch of asphalt concrete to be placed. Skin patching for correcting low areas or planing for correcting high areas shall not be permitted.

2.6.28 Surface Smoothness: After completion of final rolling of the surface course, the compacted surface shall be tested by the Contractor with a 12-foot straightedge. Measurements shall be made perpendicular to and across all mats at distances along the mat not to exceed 25 feet. Location and deviation from straightedge of all measurements shall be recorded. Any joint or mat area surface deviation which exceeds the tolerance given in paragraph "Grade and Surface Smoothness Requirements" by more than 50 percent shall be corrected to meet the specification requirements. The Contractor shall remove the deficient area and replace with fresh paving mixture. Sufficient material shall be removed to allow at least 1 inch of asphalt concrete to be placed. Skin patching for correcting low areas or planing for correcting high areas shall not be permitted.

2.7 ESTABLISHMENT OF TURF: After completion of the topsoiling operation, all bare topsoil within the limits of construction shall receive hydromulch. The Contractor shall furnish all labor, tools, materials and equipment necessary to provide turf as described in the Task Order (TO) and specified herein. Turf work shall be accomplished only when satisfactory results can be expected. When conditions such as drought, excessive moisture, high winds, or other factors prevail to such an extent that satisfactory results are not likely to be obtained, the Contracting Representative at his/her discretion, may stop any phase of the work. The work shall be resumed only when, in the opinion of the Contracting Representative, the desired results are likely to be obtained. Establishment of turf shall be accomplished on all unpaved graded and disturbed areas that are the result of the Contractor's operations. The work shall include the application of seed, fertilizer, mulch, water, and all other operations necessary to provide the growth specified herein.

2.7.1 REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only, and shall be the latest edition in effect on the date of solicitation.

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FS O-F-241 Fertilizers, Mixed, Commercial

2.7.2 SUBMITTALS: Topsoil submittals with a "A" designation require approval; submittals having an "FIO" designation are for information only.

2.7.3 Topsoil Construction Equipment List, FIO: The Contractor shall furnish a list and description of the equipment that is proposed for handling and placing of topsoil.

2.7.4 Topsoil Certificate of Compliance, FIO: The Contractor shall furnish a certificate of compliance and analysis certifying that the topsoil proposed for use at the project site conforms to the specified requirements.

2.7.5 Topsoil Inspection: Offsite topsoil source - Not less than 5 days prior to the commencement of topsoiling operations, the Contracting Representative shall be notified of the offsite sources from which topsoil is to be furnished. The material will be inspected to determine whether the selected topsoil meets the requirements. The topsoil shall be approved prior to use.

2.7.6 Hydromulch: Chemical analysis composition percent.

2.7.7 Fertilizer: Label for the fertilizer to be used for approval.

2.7.8 TOPSOIL: All topsoil necessary to complete the work shall be obtained from topsoil stockpiles from grading and excavating operations and from approved topsoil sources off of Government controlled property. Topsoil shall be free from tree roots, stones, shale, parent and other materials that hinder grading, planting, plant growth and maintenance operations, and free from noxious and other objectionable weed seeds and toxic substances.

2.7.9 TURF MATERIALS: Materials used in the hydromulching operation shall be of the best quality available. The hydromulch shall contain no weed seed and shall consist of the following:

Summer Grasses - applied from May 1 to October 31 Conwed - 2000 wood cellulose fiber Hulled Bermuda grass seed 8-8-8 Fertilizer

The mixture shall be applied at the following rates:

50 lb. Conwed per 1000 square feet1 lb. Bermuda Grass seed per 1000 square feet7 gal. liquid Fertilizer per 5000 square feet, or70 lb. granular Fertilizer per 5000 square feet

2.7.10 Any deviation from the above rates and application seasons shall be approved by the Contracting Representative.

2.7.11 Hydroseed shall be furnished and placed free of noxious weeds and undesirable plants, stones, roots of trees, and other materials that hinder development and maintenance.

2.7.12 Water shall be free from oil, acid, alkali, salt, and other substances harmful to growth of grass, and shall be from a source approved prior to use.

2.7.13 TOPSOIL: Graded areas shall be topsoiled where indicated on plans and where it is determined by the Contracting Representative that at least 4 inches of suitable soil for the growth of grass is not present. Equipment necessary for handling and placing all materials required shall be on hand, in good condition and shall be approved before the work is started. Grades on the areas to be topsoiled are indicated in the (TO) and shall be maintained in a true and even condition.

2.7.14 Placing Topsoil: Topsoil shall be uniformly distributed and evenly spread to an average thickness of 4 inches, with a minimum thickness of 3 inches. Topsoil shall be spread so that planting can proceed with little additional soil preparation or tillage. Surface irregularities resulting from topsoiling or other operations shall be leveled to prevent depressions. The grades shall be adjusted to assure that the planted grade shall be 1-inch below the adjoining grade of any surfaced area. Topsoil shall not be placed when the subgrade is frozen, excessively wet or compacted, extremely dry, or in a condition detrimental to the proposed planting or grading.

2.7.15 Cleanup: Prior to topsoiling, vegetation that may interfere with operations shall be mowed, grubbed, and raked. The collected material shall be removed from the site. The surface shall be cleaned of stumps, and stones larger than 1 inch in diameter, and roots, cable, wire and other materials that might hinder the work or subsequent maintenance shall also be removed.

2.7.16 Repair: Where any portion of the surfaces becomes gullied or otherwise damaged, theaffected area shall be repaired to establish the condition and grade prior to topsoiling, and then shall be re-topsoiled as specified in Placing Topsoil.

2.7.17 Hydromulch: After topsoil has been placed, hydromulching shall be performed in accordance with standard practices, as approved by the Contracting Representative. All areas to receive hydromulching shall be cultivated to a depth of at least one inch (1"). The cross section previously established shall be maintained throughout the process of cultivation and any necessary reshaping shall be done prior to hydromulching. The Contractor is put on notice that they may be required to provide clean water/transportation to the site if it is not readily available by the Government.

2.7.18 Fertilizer: Fertilizer shall be applied not more than 24 hours in advance of tilling operations. Fertilizer shall be distributed with a fertilizer distributor (Ezee Flow) or approved equal. Fertilizer shall be uniformly distributed.

2.7.19 Refertilizing: The planted areas shall be refertilized five weeks after commencement of maintenance operations. Fertilizer shall be applied when the vegetation is dry. The refertilized areas shall be watered as specified for turf maintenance work within 24 hours following refertilizing operations.

2.7.20 TURF MAINTENANCE: It shall be the responsibility of the Contractor to maintain the planted areas during the planting period and for an additional period of not less than 45 calendar days. Maintenance work shall be accomplished until an acceptable stand of grass is present. A stand of grass is defined as 2" tall minimum green grass with no bare spots. Maintenance shall consist of watering, replanting, mowing, maintaining existing grades, and repair of erosion damage. Areas on which an acceptable stand of grass is not present at the end of the 45 days period shall be hydroseeded again, and maintained by the Contractor until an acceptable stand of grass is present at no additional cost.

2.7.21 Watering: The Contractor shall be responsible for applying water at sufficient quantity and frequency to establish an acceptable stand of grass within the maintenance period.

2.7.22 Replanting: Areas on which a stand of growing grass is not present in a reasonable length of time, it shall be hydroseeded again in accordance with the appropriate planting season and shall continue to be hydroseeded and maintained throughout the maintenance period until an acceptable stand is obtained. A stand shall be defined as live grass plants from hydromulching occurring over 95% of the area, with no more than 10 square feet left uncovered in any one place.

2.7.23 Mowing: Vegetation shall be kept under control by mowing. Any time that the weed or grass growth reaches a height of 3 inches, the areas shall be mowed. Mowing shall be done with approved mowing machines in such manner that shall leave a vegetation height of between 2 and 2½ inches.

2.7.24 Maintenance of Grades and Repair of Erosion Damage: It shall be the responsibility of the Contractor to maintain the established grades of the lawn areas after the commencement of planting operations and during the specified maintenance period. Any damage to the finished surface from Contractor's operations shall be promptly repaired. In the event erosion occurs from either watering operations or from rainfall, such damage shall be prompted repaired. Ruts, ridges, tracks, and other surface irregularities shall be corrected and the areas replanted, where required, prior to acceptance.

PART 3.0 – EXECUTION:

3.1 GENERAL: All work shall be performed as shown on the drawings, described in the SOW, and in accordance with the manufacturer's diagrams and instructions, unless

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otherwise specified. The Contractor shall field verify all dimensions and site conditions. Price increase adjustments to the original contract price will not be issued because the Contractor was not aware of existing conditions. The Contractor shall provide all labor, materials, tools and equipment required to perform all dismantling, repairs and installation as listed in this statement of work.

3.2 INSTALLATION: All work shall be done with the work area unoccupied. The Contractor shall coordinate with the Contract Inspector prior to start of work.

PART 4.0 – UTILITY OUTAGES AND SPECIAL CONDITIONS:

4.1 BASE CIVIL ENGINEERINGWORK CLEARANCE REQUEST: The Contractor shall obtain and process AF Form 103 for approval prior to commencement of work for this project. The Contractor shall have this approved form on the job site at all times.

4.1.1 Due to the requirement for multiple agencies to coordinate on these requests, expect 7 - 10 days for paperwork processing. Contractor requests should be submitted at the earliest possible date to preclude delays.

4.2 UTILITY OUTAGES: When a utility outage is necessary to perform the contract work in a occupied facility, regardless of whether the work area is occupied, the outage shall be performed by the Contractor during non-duty hours at no additional cost, unless otherwise approved by the Contracting Representative. The Contractor shall notify the Contract Inspector of outage requirements to include buildings affected; length of outage; and reasons for outage. The Contractor must allow affected occupants a minimum of 7 days prior to outage. The Contractor is also required to provide the Contracting Representative a written notification of the requested outage.

4.3 BASE FIRE REGULATIONS: The Contractor shall comply with Base Fire Regulations as set forth in the latest edition of GAFB Instruction 32-2001, titled "Base Fire Protection Program". The Contractor shall use no explosives or fire in performing the work. All work shall be in strict compliance with all National Fire Codes.

4.4 CONFINED SPACE: In Accordance With Air Force Occupational Safety & Health Standard. 91-25, Ch. 7, the organization shall ensure the following information is included in the SOW (or equivalent contracting tool) when a Contractor enters a confined space:

a. Notify the Contractor if the space is classified permit or non-permit required.

b. Brief Contractor on the contents of the space.

c. Brief Contractor on the known hazards of the space.

d. Brief the Contractor on what precautions and procedures have been implemented by the organization to protect AF workers.

e. Coordinate operations and procedures and agree on permit system to be used if both AF and Contractor personnel will enter the space at the same time.

The fire department will coordinate (document) on the contract if they are supplying a rescue team.

The Contractor will follow all requirements outline in OSHA Std. 1910.146.

4.5 LOCKOUT/TAGOUT, HAZARDOUS ENERGY CONTROL:

LOCKOUT/TAGOUT: In addition to the requirements in OSHA Std. 1910.147, if a Contractor needs to lock or tag something out, the Contractor will ensure that affected employees are notified before and after the locks and tags are used.

PART 5.0 - ENVIRONMENTAL REQUIREMENTS:

5.1 COMPLIANCE WITH LAWS: Construction activities are NOT exempt from air emission, storm water, hazardous waste, and other environmental compliance rules and regulations. The Contractor shall comply and ensure that all Sub-Contractors comply with all applicable federal, state, and local laws, regulations, ordinances and standards related to environmental matters.

5.2 PROTECTION OF HISTORICAL AND ARCHAEOLOGICAL RESOURCES: All known Historical, Archaeological, and Cultural Resources within the Contractors work area will be designated on the contract Technical Exhibits. The Contractor shall take precautions during the contract to preserve all resources, as they existed at the time of contract award and comply with the Archaeological and Historic Preservation Act (AHPA) and the Archaeological Resources Protection Act (ARPA). The Contractor shall provide all protective devices such as off-limit markings, fencing, barricades or other devices as needed and shall be responsible for preservation of the sites during this contract.

All items having any potential historical or archaeological interest outside of designated areas, which are discovered in the course of any construction activities, shall be carefully preserved. The Contractor shall protect the find in-place by leaving the archaeological find undisturbed and by using flags to mark a 50-foot radius area around the find. The find shall be immediately reported to the Contracting Representative so that the proper authorities may be notified. All work shall be stopped in the immediate area of the discovery until directed by the Contracting Representative to resume work. Any work required to preserve or protect these finds shall be accomplished before work resumes.

5.3 HAZARDOUS AND SPECIAL WASTES GENERATED BY THE CONTRACTOR:

The Contractor shall identify, characterize, containerize, store and dispose of hazardous wastes in strict accordance with federal guidelines found in the Code of Federal Regulations, Title 40 (40 CFR) parts 260-270, state regulation 30 TAC 335, all local guidelines, and as specified. A Uniform Hazardous Waste Manifest (if applicable) shall be used by the Contractor to document all parties and locations involved in the

transportation, storage and disposal of all hazardous and special wastes. This form shall be provided to the Contract Representative by the Contractor and signed by the Base Environmental Coordinator (CEIE) before the waste is transported from the limits of government property. A copy of the manifest shall be signed by the receiver of the waste and submitted to the Contracting Representative not later than forty-five days after disposal has taken place. Hazardous waste treatment, storage and disposal facility shall be located within in the state of Texas, permitted by the U.S. EPA, and approved by CEIE.

5.4 CONTRACTOR ENCOUNTERED HAZARDOUS WASTE: The Contractor shall notify the Contracting Representative and CEIE upon encountering any material not identified in this Statement of Work thought to be hazardous that could jeopardize the safety of workers or personnel in the area. The Government will be responsible for characterization, transportation, storage and disposal of the waste if necessary.

5.5 ASBESTOS: To the best of the Government's knowledge, no asbestos-containing material (ACM) will be encountered during this project. Should the Contractor encounter previously unidentified or suspected ACM, which must be disturbed to comply with the contract documents, the Contractor shall cease that work which would disturb the suspect material and shall immediately notify the Contracting Representative. The Government will take appropriate measures to ascertain the material's composition and determine any remedial actions necessary.

5.5.1 Asbestos Containing Building Materials: Under no circumstances, under the provisions of this contract, shall the Contractor be allowed to provide asbestos containing building materials, or products containing encapsulated asbestos or mineral fibers as defined in the 40 CFR 61, National Emission Standards for Hazardous Air Pollutants of 1990, to GAFB.

The Contractor shall provide a signed statement, accompanied by Safety Data Sheets (SDS) for project materials, from a licensed asbestos inspector or the project architect or engineer, proclaiming that no asbestos-containing building materials were used in the construction.

5.6 HAZARDOUS MATERIALS: The Contractor shall provide to the Contracting Representative an AF Form 3000, Material and Approval Submittal, listing all materials to be utilized during the contract. If any of the material is classified as hazardous in accordance with AFI 32-7086, the Contractor will submit an AF Form 3952, (Chemical/Hazardous Material Request Authorization) for each material item with all supporting information as required for approval. The Contractor must obtain authorization from the Contractor must supply an up-to-date SDS for each requested AF Form 3952 item listed as a hazardous material, as defined to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the SDSs. The Contractor shall submit for Approval (via AF Form 3000) to the Contracting Representative on a monthly basis, or at

the end of the contract, as determined by the Contracting Representative, a report (2 copies) of usage of HAZMAT materials within that period on GAFB Contractors Hazardous Materials Usage Report. No hazardous materials, lubricants, oils, liquids or related materials shall be deposited in the refuse containers on base.

5.7 NUISANCE AND POLLUTING ACTIVITY PROHIBITED: Polluting, dumping, or discharging of any harmful, nuisance, or regulated materials (such as but not limited to concrete truck washout, vehicle maintenance fluids, residue from saw cutting operations, solid waste and hazardous substances) into building drains, site drains, streams, waterways, holding ponds or to the ground surface shall not be permitted and the Contractor shall be held responsible for any and all damages which may result. Further, the Contractor shall conduct work activities in such a fashion as to avoid creating any legal nuisance, including but not limited to, suppression of noise and dust, control of erosion, and implementation of other measures as necessary to minimize impacts of work activities.

5.8 RELEASE OF FLUIDS TO THE SANITARY SEWER SYSTEM: Goodfellow AFB's sanitary sewer system discharges into the Publicly Owned Treatment Works (POTW) operated by the City of San Angelo, Texas. This POTW has established testing requirements for certain constituents as well as discharge limits of those same constituents. Accordingly, any Contractor performing work at Goodfellow AFB and contemplating a release of non-hazardous water into the sanitary sewer system shall meet the pretreatment standards and comply with the testing/release requirements established by the City of San Angelo. Contractor is also responsible for all testing, monitoring, measuring, documenting, etc. to verify this compliance. Contractor shall not discharge wastewater to base's sanitary sewer without prior approval of the Contract Representative.

5.9 PESTICIDES (INSECTICIDES, FUNGICIDES, HERBICIDES, ETC.): Paragraph not used, not in project.

5.10 AIR EMISSIONS: Media blasting Paragraph not used, not in project.

5.11 DRINKING WATER: For all drinking water disruptions, the Contractor shall adhere to 30 TAC 290 Subchapter D paragraph 290.46(g and j). Submit an analysis report and a "Drinking Water Customer Service Inspection checklist" via an AF Form 3000 for Approval. Contact Bioenvironmental Engineering at (325) 654-3126 prior to restoring drinking water service.

5.12 PROTECTION OF WATER RESOURCES: All work under this contract shall be performed in such a manner that objectionable or nuisance conditions will not be created in lakes, reservoirs, streams or storm water conveyances through or adjacent to the project areas. The Contractor shall comply with the terms and conditions of Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit, TXR150000 (GCP). At least 30 days prior to the start of construction, the Contractor shall

seek coverage under the GCP for storm water and non-storm water discharges associated with his construction activities.

5.12.1 For all soil disturbance of more than 1 acre. This paragraph not used. Project is less than 1 acre.

5.12.2 Regardless of the amount of soil disturbed, all non-storm water discharges from Contractor's site shall conform with TPDES General Permit TXR040000 for Small Municipal Separate Storm Sewer Systems (MS4).

5.12.3 If a Notice of Intent (NOI) is required for permit coverage, the Contractor shall submit the NOI to the state and provide copies to the Government via Form 3000 FIO. Contractor shall make required MS4 notifications to the City of San Angelo and the base. Copies of all notifications will be provided to the Contracting Representative via Form 3000 FIO. Contractor shall be responsible for fees associated with obtaining coverage under the GCP.

5.12.4 The Contractor shall also file a Notice of Termination (NOT) TCEQ Form 20023 promptly after site stabilization in accordance with the general permit is achieved. These forms may be found at the TCEQ website (http://www.tceq.state.tx.us). The prime Contractor's principal shall sign to certify the NOI/NOC/NOT or Construction Site Notice. A copy of the NOT shall be provided to the Contracting Representative and Base Environmental Coordinator, FIO.

5.12.5 Post-Construction Cleanup or Obliteration: The Contractor shall obliterate all evidence of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess materials, or any other vestiges of construction. It is anticipated that excavation, filling, and plowing of roadways shall be required to restore the area to near natural conditions, which will permit the growth of vegetation thereon. The disturbed areas shall be graded and filled as required by 2.7 Establishment of Turf.

5.1.2.6 At the end of the project, and prior to final acceptance, the Contractor shall submit a solid waste diversion report by completing the Construction Waste Management form identifying the materials and weights either recycled or diverted from solid waste disposal to other re-use as well as weights of waste disposed in a landfill.

5.13 GREEN PROCUREMENT: Green Purchasing is a mandatory component of the Air Force pollution prevention program. The Under Secretary of Defense issued a policy memorandum "Establishment of the DoD Green Purchasing Program (GPP)" which states: "The DoD goal is to achieve 100% compliance with mandatory Federal GPP programs is all acquisition transactions." This document contains guidelines for implementing the RCRA, EO, DOD, and Air Force requirements.

5.14 ENVIRONMENTAL MANAGEMENT SYSTEM: Contractor's on site supervisory personnel shall complete EMS Awareness Training. The Base Civil Engineer Environmental Coordinator should be contacted at (325) 654-5946 for information to

complete the awareness training within 60 days of contract award or a new contract employee supervisor begins work. The training will be accomplished utilizing The Environmental Awareness Course Hub (TEACH) at https://usaf.learningbuilder.com. The Contractor is responsible for providing EMS Awareness Training records, for each employee, to the Contracting Representative.

PART 6.0 - SITE MAINTENANCE AND CLEANUP:

6.1 SITE MAINTENANCE: The Contractor shall protect adjacent property, buildings and their contents from dust, dirt or other materials. Work areas shall be maintained in a neat, clean, safe condition and shall, at a minimum, be cleaned at the end of each shift. All streets and roadways in/or adjacent to the site shall remain free of project generated trash and debris at all times.

6.2 CLEANUP: The Contractor shall collect any and all trash, debris, refuse, garbage, etc., that is generate and place it in appropriate containers with lids or approved covers on a periodic basis or as directed by the Contracting representative. The aforementioned materials shall be hauled from the site by appropriate means on a daily basis, unless otherwise approved by the Contracting representative. Disposal shall be outside the limits of Government property. Disposal shall be by sanitary landfill or other approved methods and shall conform to all local, state, and federal guidelines, criteria, and regulations. Upon completion of the work, the Contractor shall leave the work site and storage area(s) in a clean, neat and workmanlike condition satisfactory to the Contracting Representative. It is anticipated that excavation, filling, and plowing of roadways shall be required to restore the area to near natural conditions that will permit the growth of vegetation thereon. Final grades to be as shown on drawings.

PART 7.0 - ENERGY CONSERVATION:

7.1 UTILITIES CONSERVATION: The Contractor shall instruct employees in utilities conservation practices. The Contractor shall be responsible for operating under conditions that preclude the waste of utilities, which shall include: Lights shall be used only in areas where and when work is actually being performed. The Contractor shall not adjust mechanical equipment controls for heating, ventilation and air conditioning systems. Water faucets or valves shall be turned off after the required usage has been accomplished. The Contractor shall use good judgment in the conservation of Government utilities. Prevailing energy conservation practices shall be adhered to and enforced by the Contractor.

PART 8.0 – RESPONSIBILITY:

8.1 The above 1 through 7 summaries do not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, and materials required by this Statement of Work.

PART 9.0 – STORAGE AND PARKING:

9.1 CONTRACTOR STORAGE: The Contracting representative shall designate Contractor storage and parking area. All project storage areas shall be kept free of debris, leaks, stains, or splashes and kept in a neat, clean, and safe condition. Any contamination of the storage area by a hazardous substance shall be immediately remediated by the Contractor, in accordance with PART 5.0 above at no additional expense to the contract. All hazardous materials shall be secured when not in use.

PART 10.0 - COMPLETION OF WORK:

10.1 COMPLETION: The Contractor shall insure that work for this project is performed in accordance with the criteria herein at the completion of work for this project. Provide Asbuilts, all warranties, and Final DD 1354 at the time of final inspection.

-END OF STATEMENT OF WORK-

II. TECHNICAL EXHIBITS – OVERHEAD PROTECTION AT FIRESTATION

TE-A. DOD Contractor Environmental Guide

TE-B. Drawings

TE-C. AF Form 66

TE-A. DOD Contractor Environmental Guide



DEPARTMENT OF THE AIR FORCE 17TH TRAINING WING (AETC) GOODFELLOW AIR FORCE BASE TEXAS

FROM: Installations Hazardous Materials Pharmacy (IHMP) 17th CES/CEIE

TO: To Whom It May Concern

SUBJECT: Reporting Requirements of Hazardous Materials Used by Contractors

All organizations using the services of a contractor are responsible for ensuring that any type of chemicals (hazardous materials) brought onto this installation and used by any contractor for any type of projects (such as construction projects, remodeling projects, cleaning projects or any other type of projects that require the use of chemicals) must be tracked by the installation of all chemicals used.

In order to comply with all Environmental Laws and Regulations, as set forth by Federal Law, the Department of Defense and the U.S. Air Force, this applies to all Federal installations. We are required to track all chemicals (hazardous materials) that are purchased, transported and used by any Contractor on any project on this installation. Our main goal is 100% accountability. This would include any and all short term or long term contractors.

To track these chemicals, as required, all Contractors must submit copies of Material Safety Data Sheets (MSDS's), wither they may be classed as hazardous or non-hazardous chemicals, as determined by the contractor, and must be submitted for review to the installations Environmental, Safety and Occupational Health (ESOH) team for review, along with any of the required forms and worksheets with as much information as possible. This must be done at least 15 days or more prior to any work being started on this installation.

It is also required that a Contractor Materials Usage Report be accomplished during the contract period(s) and submitted on a set schedule set forth be the government.

The listing below is just some of the general categories of chemicals that require review of their materials prior to use and the required reports from the contractor to the government representative. It is not possible to include all items in this list that may require reporting, so please call if there is a question about any item or material:

- a. Compressed gas (All types)
- b. Adhesives (All types)
- c. Sealants (All types)
- d. Paints (All types)
- e. Lubricants (All types)
- f. Oils (All types)
- g. Fuels (All types)
- h. Welding materials (All types)
- i. Cleaning solvents (All types)
- j. Chemicals used in testing or as additives (All types)
- k. Any fluids (except water) added to machinery / government owned or leased equipment
- 1. Pesticides / insecticides (All types)

1 Jun 13

Installations Hazardous Materials Management Program (IHMP) 17th CES/CEIE Bldg. 3511, Room 134 DSN No# 477-3299 Phone No# 325-654-3299 Fax No# 325-654-3460

Reporting of Hazardous Materials Civilian Contractors

- 1. All Contractors shall submit all required Material Safety Data Sheets (MSDS) for any possible hazardous and/or nonhazardous chemicals that can and/or will be brought, transported and/or used on this installation.
- All MSDSs, along with AF Form 3000 and any other required documents, along with the attached worksheets must be turned into their project Quality Assurance Evaluator (QAE), Base Contracting and/or the Project Representatives requiring the work to be accomplished by a contractor on this installation.
- 3. This will include any Contractor doing any type of work on the installation that will be paid by a Government Purchase Card (GPC) small service contract purchase.
- 4. All copies of the MSDS's will be forward to the Installations Hazardous Material Management Office (HAZMO), Building 3511, Room 134 for processing and review.
 - a. Phone 325-654-3299 for Point of Contact (POC) at the HAZMO.
- 5. Upon review of the MSDS's, the HAZMO shall identify the materials deem as "Hazardous Materials" that require tracking by the installation. Items that have been deem as "Non-Hazardous" will not need to be track by the installation.
- 6. The HAZMO will communicate to the requestor, the MSDS's of the hazardous materials that will require the Installations Contractor HAZMAT Worksheet Request to be filled out by the Contractor.
- 7. The HAZMO can, if requested, assist the Contractor in completing the Worksheet.
- 8. The HAZMO will load the information from the Contractor Worksheet into the installations data tracking system for further review by Wing Safety and Bioenvironmental, as required.
- 9. After a complete review by the Environmental, Safety, Occupational and Heath (ESOH) team, the HAZMO will provide a copy of the completed records to the requestor, for the Contractor.
- 10. The Contractor will retain these records for the duration of the contract.
- 11. The Contractor will submit a Contractor Material Usage Data Sheet to the QAE once a month for contracts <u>over 60</u> <u>days</u>.
- 12. For contracts <u>less than 60 days</u>, a Material Usage Data Sheet will be submitted by the Contractor to the QAE, GPC card holder or requestor at the completion of the contract, <u>But</u> before any payment is processed.
- 13. The QAE, GPC card holder and/or requestor, will provide a copy of the Usage Data Sheet to HAZMO for processing.
- 14. The HAZMO is ready to assist the QAE, GPC card holder and/or requestor and the Contractor in anyway to simplify and expedite this reporting and tracking procedure.
- 15. Please feel free to contact the Hazardous Material Management Office (HAZMO) with any questions or for assistance. Phone No# 654-3299.

CONTRACTOR HAZMAT WORKSHEET REQUEST Fill In <u>All</u> Information

1. CONTRACT	OR INFOM	IATION									
Contractors Name:											
Contract Numb Project Number	er										
Bldg /Room Nu	ımber:		Physica	al Loc	ation (Of Process	5:				
Estimated Start Date:					E: C	Estimated Completion Date:					
EESOH-MIS Shop	o Code	GDF				(Leave	shop co	de blank if	f not knov	wn)	
2. MATERIAL	INFORMA iber (NSN), Lo	TION ocal Stock	Number	r (LSN), Or Pa	art Number	r/Trade	e Name	(Leave	e blank i	f not known)
Material Noun (Be Specific)											
Size (Quantity)				0	CIRCI	LE ONE	Flui	d Oz	Troy	o Oz	
Container Type	Box B	ottle	Can	D	rum	Bag	Grai	n	Pint		Pound
	Cartridge		Other_			_	Qua	rt	Kg		Gallon
Unit of Issue		Unit	s Per Co	ontaine	er		Othe	er			
3. LOCATION	INFORMA	TION									
	Will T	he Proce	ss Be Pe	erform	ed On:	(Check A	All Tha	t Apply))		
Existing Facility Equipment Ne			w Struc	ture		Aircrat	ft	Οι	itdoors		
Location Of Stored	d Materials										
4. ADDITIONA	AL INFORM	IATION	(Circle A	Answe	r That A	Applies)					
Is A Hazardo	us Waste Ger	nerated?	Yes	No	Add	tional Re	marks	:			
Is A Site Diag	gram Availab	le?	Yes	No	_						
Is The SPCC	Plan Posted?		Yes	No							
5. CERTIFIER BLOCK											
This Request Cannot Be Processed without a Government Representative's Signature											
CONTRACTOR Title:			Pho	ne:			Date				
Printed Name Signature											
GOV'T REP Title:			Pho	Phone: Date							
Printed Name											

Signature

NOTE: Manufacturer's Material Safety Data Sheet (MSDS) Required With Every Worksheet

CONTRACTOR INSTRUCTION GUIDE

This information is required in order to help the base Hazardous Material Office (HAZMO) track all hazardous materials on the installation as required, in order, to comply with all Environmental Laws and Regulations. A worksheet must be filled out for <u>each product</u> containing or identified as being or possible being a hazardous material. All blocks must be filled in.

1. <u>Contractor Name</u>: Fill in the name of the contracting company performing the work.

Contract Number: Fill in contract number or project number

<u>Building / Room Number</u>: Fill in the building and/or room number where the work will be accomplished at

<u>Location of Process</u>: Identify the physical location of where the product will be used. Example: Intersection Street names, Area name, Street Name, etc.....

Estimated Start Date: Fill in the date the project is projected to start.

Estimated Completion Date: Fill in the date the project is projected to end.

<u>Shop Information</u>: An installation shop code has already been assigned for Contractors to track the hazardous materials used by them on the installation.

2. <u>Material Information</u>: Information about the hazardous material that is going to be used.

<u>National Stock Number, Local Stock Number, or Part Number</u>: Fill in the identifying number of the product to be used. If not known, one will be assigned later.

<u>Material Noun</u>: Fill in the general term used to define the product. Example: Adhesive, Ni-cad Battery, etc.

Size: Fill in the quantity, circle the unit of measure, and circle the container type.

Unit of Issue: Fill in how the product is received. Example: box, case, pallet, each, etc.

<u>Units per Container</u>: Identify how much comes in each unit of issue. Example: Twelve cans per box. Twelve being units per container and box being the unit of issue.

3. <u>Location Information</u>: Information about what the product will be used on, where it will be used, and where it will be stored when not in use.

Check all boxes that apply pertaining to where and on what the process of using the hazardous material will occur.

<u>Location of Stored Materials</u>: Identify the physical location of where the material will be stored when not in use.

4. <u>Additional Information</u>: Information for the purpose of completing reports.

Hazardous Waste Generated: Does the process create any hazardous waste?

<u>Site Diagram Available</u>: Is a site diagram available for additional information on the site where the product will be used and stored?

<u>Goodfellow AFB SPCC Red Plan</u>: This is part of the base Spill Prevention, Control, and Countermeasures Plan. The Red Plan lists base procedures for reporting spills.

5. <u>Certifier Block</u>: The certifier is the Government Representative for the project. This block must be completed and signed by both parties.

Note: A Manufacturers Material Safety Data Sheet (MSDS), for use by the Hazardous Materials Office, is required to be turned in each time a worksheet is completed.

Each month a Contractor Hazardous Material Usage Data Sheet must be completed by the contractor and turned into the Government Representative for any project *over sixty days*.

Projects *less than sixty days* are required to turn in a usage data sheet after completion of project.

The Government Representative will be responsible for turning over this information to the HAZMO.

Contractors Environmental Reporting Entry

The following information is required for tracking of all hazardous materials on the installation. For contracts **exceeding** six months, this form is required to be filed out **Monthly** and returned to the Government Representative, who will return it to the HAZMO office for processing. This information is required in order to comply with all Environmental Laws and Regulations. For purchase orders and/or contracts **less** than six months, this form is required at the start and at the completion of the work.

1. From:	2. TO: 17 CES/CEA 460 E. Kearney Blvd., Bl Goodfellow AFB, TX 769	3. Month/Quarter/Year Ending (mm/yyyy)		
4. PRODUCT NSN / NAME	5. AMT RECEIVED	6. U/I (<i>Lb</i> , Oz, Ea, Gl, Pt, Qt)	7. AMT USED	8. BALANCE
Sherwin-Williams ProMar 400 - B42W102 (SAMPLE)	20	GL	15	5
Texaco Hydraulic oil, SPS2878656 <u>(SAMPLE)</u>	10	GL	5	5

Print Name: Contractor: Date:				
Signature:				
Drint Name: Covernment Den:				
Signature				

Form Instructions:

- 1. Organization and address of Contractor providing the report
- 2. Organization and address of Hazardous Material Management Office receiving report
- 3. Ending month and year for data being reported
- 4. Name and NSN (If known) of product being reported, for example Additive, latex gloss paint, walnut wood stain, etc,
- 5. Total quantity received in the reporting month or quarter or during the contract period
- 6. Unit of issue for the product reported, for example GL for Gallons, BX for Box, etc.....
- 7. Total quantity issued or used in the reporting month or quarter or during the contract period
- 8. Balance of product left within your inventory.
- 9. Contractors name providing the report
- 9a. Date of report submittal
- 9b. Signature of person providing report
- 10. Government Rep.'s name providing the report
- 10a. Date of report submittal
- 10b. Signature of person providing report



OVERHEAD PROTECTION AT FIRESTATION



2. ALL WORK IS NEW UNLESS OTHERWISE INDICATED TO BE "EXISTING" OR "REUSED" OR "RELOCATED."

- ALL WORK IS NEW UNELSS OTHERWISE INDICATED TO BE EXISTING OR REDUCED OR RELOCATED. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
 THE CONTRACTOR SHALL INITIATE AND PROCESS FOR APPROVAL AF FORM #103 "WORK CLEARANCE REQUEST" FOR THE CONTRACTING REPRESENTATIVE PRIOR TO PERFORMANCE OF ON-SITE WORK.
 LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY EXACT
- LOCATIONS PRIOR TO EXCAVATION OR TRENCHING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE SERVICE LINES AS REQUIRED FOR CONSTRUCTION FOR THIS PROJECT.
- 5. THE CONTRACTOR SHALL HAND DIG WITHIN (2) FEET EITHER SIDE OF UTILITY CROSSING UNTIL THE UTILITY IS PHYSICALLY EXPOSED, PRIOR TO PERFORMING MECHANICAL TRENCHING OR EXCAVATING. PROVIDE NEW TOPSOIL AND HYDROMULCHING IN ALL AREAS WHERE DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES.
- . PROSPECTIVE OFFERERS ARE HIGHLY ENCOURAGED TO ATTEND THE SCHEDULED PRE-PROPOSAL SITE VISIT TO THOROUGHLY FAMILIARIZE THEMSELVES WITH ANY AND ALL EXISTING SITE AND PROJECT LOCATION CONDITIONS WHICH MAY AFFECT THE WORK UNDER THIS CONTRACT. THE GOVERNMENT SHALL NOT BE RESPONSIBLE FOR CONTRACTOR ERRORS OR OMISSIONS WHICH COULD BE MADE KNOWN BY ATTENDING A SCHEDULED SITE VISIT.
- 7. THE CONTRACTOR SHALL COORDINATE ALL COMMUNICATIONS WORK WITH THE ENGINEERING SECTION MANAGER AT FRONTIER COMMUNICATIONS AT 1-800-921-8102; WITH THE INSTALLATION OFFICE, SUDDEN-LINK CABLE AT 1-877-794-2724 AND THE GOODFELLOW AFB COMMUNICATIONS SQUADRON AT 325-654-3010.

PROJECT NUMBER: JCGU-10-1093 SERVICE REQ. # 1829083 WORK TASK # 6563146 **OPPORTUNITY # 1086727**

SPECIFICATIONS ARE TO BE USED IN CONJUNCTION WITH DRAWINGS FOR PURPOSES OF BIDDING, SCHEDULING, AND CONSTRUCTION. 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK RELATED TO DEMOLITION, BRACING, SHORING, FORMWORK, ETC. REQUIRED TO SAFELY PERFORM THE WORK.

DATE	SIGNATURE	
	RECOMMENDED (BCE)	
	SUBMITTED (PROGRAMS CHIEF)	
	FIRE CHIEF	
	SAFETY	
	ASSET MANAGEMENT	
	BIO-ENVIRONMENTAL OFFICER	
	SECURITY FORCES	
	COMMUNICATIONS	
	CHIEF OF OPERATIONS	
	PROGRAM DEVELOPMENT	
	PROGRAM MANAGEMENT	
	PROJECT MANAGER	
	USING AGENCY	
	USING AGENCY	

- D-1 DEMOLITION SITE PLAN
- GRADING / PAVEMENT PLAN S-1
- S-2 FOUNDATION PLAN FOUNDATION DETAILS
- S-3 ELEVATIONS S-4
- THRU SECTION S-5





V	В



12"|1' 5' GRAPHIC SCALE

- EXIST DUMSTER TO REMAIN







DATE:
JAN 2020

С	DATE:
	JAN 2020

FF=100'-0" ASSUMED

