

78 CEG



# SAME



Marshall S. Wall Jr., P.E. Chief of Engineering Robins AFB, Georgia 20 Mar 2019



#### **Overview**



- WBRxR Authority
- > FY20 UMMC Top 3
- > FY21 MILCON Top 5
- Funding
  - Historical AFCEC CTO Funding
  - Historical CEG Construction Program
- Contract Execution Methods
- > FY19 Construction Program
- Questions





# WBRxR Authority





# Whole Building Repair by Replacement

Using Funds Available for O&M



"It's Always the Hour" at Team Eglin!

Mark A. Schlueter Deputy Base Civil Engineer Eglin AFB, Florida 25 Sep 18



#### **Purpose**



- Propose amendment that authorizes building a new replacement facility in lieu of repairing/converting an old facility using the same funds authority when it is a better value to the Department
- Age and condition of Air Force facilities
  - 35% > 50 yrs (typical design life)
  - 44% > 40 yrs
  - 56% > 30 yrs
  - 30% bldgs are degraded condition (Yellow)
  - 24% bldgs are failed/failing condition (Red)
- How can the Air Force recapitalize, restore and modernize our installation's infrastructure?

Given the outdated construction and repair rule set, DoD Services cannot effectively recapitalize their real property before it degrades to the point of mission failure



#### WBRxR Authority



- Facility Sustainment, Restoration & Modernization (FSRM)
  - Unlimited \$ to sustain, repair, convert existing
- In lieu of repairing an existing facility, replace it by building new
  - Enable an effective Consolidate & Demo program
  - Use same amount or less funds
  - Reduce aggregated gross square footage by 10-20%
  - Optimize space use
  - Reduce energy consumption, increase energy resilience
  - Reduce life-cycle cost using adaptive design

Enables installations worldwide to recapitalize using available O&M funds



#### **B542**



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#### Layout of renovated B542



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**B542 Layout:** The conversion project would demo old food prep portion (~3 KSF) and remodel the remaining 21,500 SF. The conversion would only provide admin space for 141 personnel.



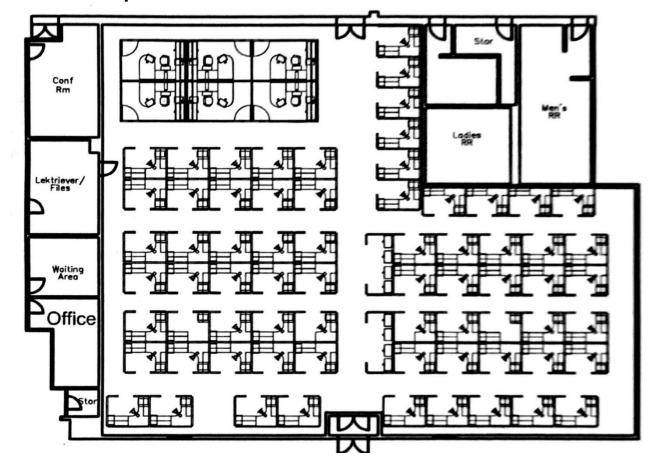


#### **New Building Layout**



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**Demo B542 and build new**: A new 20,000 SF two-story facility could accommodate 152 personnel and would reduce the footprint.





### **New Two Story Footprint**



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### **Cost Comparison**



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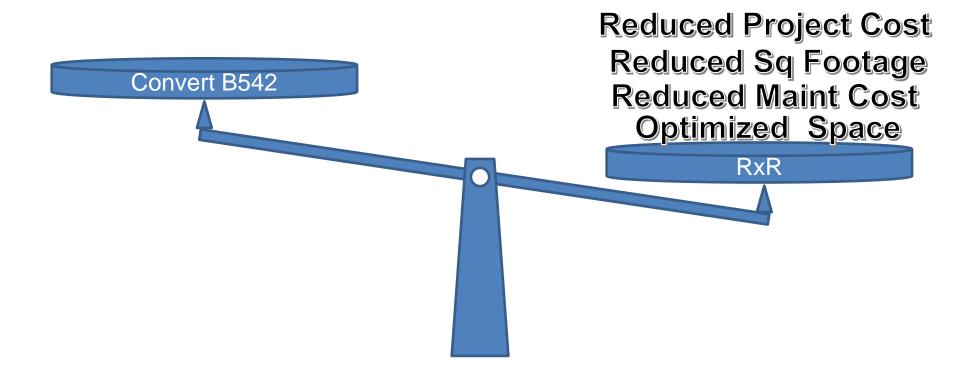
|               | D. dla | l N D. | -D          |            |
|---------------|--------|--------|-------------|------------|
| Build New RxR |        |        |             |            |
| B20542, Admin |        |        | 20,000      | SF         |
|               |        |        |             |            |
| Туре          | % SF   | \$/SF  | Area (SF)   | Cost (\$K) |
| Admin         | 100%   | \$ 289 | 20,000      | \$5,777K   |
| Demo          |        |        |             | \$505K     |
| B542          | 100%   | \$15   | 25,462      | \$382K     |
| Pool          | 100%   | \$10   | 9,500       | \$95K      |
| Bathhouse     | 100%   | \$15   | 1,200       | \$18K      |
| Pump house    | 100%   | \$15   | 700         | \$11K      |
|               |        |        | sub-total = | \$6,283K   |
|               |        |        |             |            |
| Contingence   |        |        | 5%          | \$314K     |
|               |        |        |             | \$6,597K   |

| Convert B542       |      |       |             |            |
|--------------------|------|-------|-------------|------------|
| B542 Club to Admin |      |       | 25,462      | SF         |
| Туре               | % SF | \$/SF | Area (SF)   | Cost (\$K) |
| Admin              | 84%  | 299   | 21,500      | \$6,419K   |
| Demo               |      |       |             | \$223K     |
| B542               | 16%  | \$25  | 3,962       | \$99K      |
| Pool               | 100% | \$10  | 9,500       | \$95K      |
| Bathhouse          | 100% | \$15  | 1,200       | \$18K      |
| Pump house         | 100% | \$15  | 700         | \$11K      |
|                    |      |       | sub-total = | \$6,641K   |
| Contingence        |      |       | 15%         | \$996K     |
|                    |      |       |             | \$7,638K   |



#### **Pros and Cons**

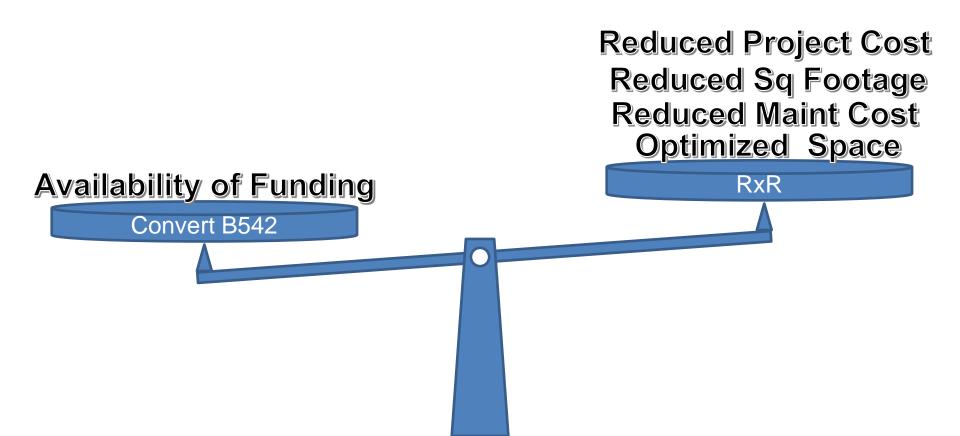






#### **Pros and Cons**









# UMMC & MILCON



#### **UMMC FY20**



- 1. Satellite Fire Station
- 2. Physical Fitness Center
- 3. Refuel Vehicle Maintenance Facility



#### **MILCON FY21**



- 1. Control Tower And Base Operations Facility
- 2. Consolidated PMEL/Gyro Facility
- 3. Construct Combat Communications Facility
- 4. Depot Quality Control Laboratory
- 5. Add C-17 Maintenance Hangar 81, 82, 83





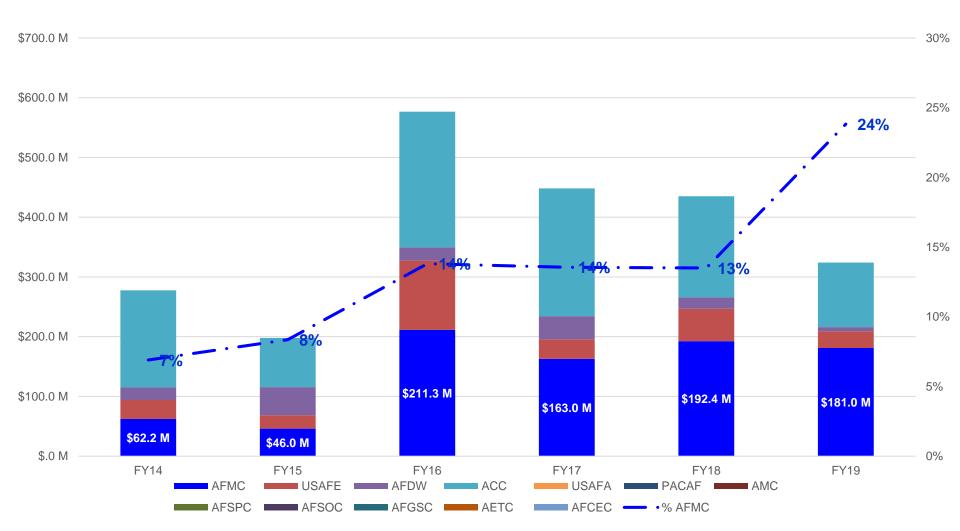
# Funding



# AFCEC CTO Funding By MAJCOM



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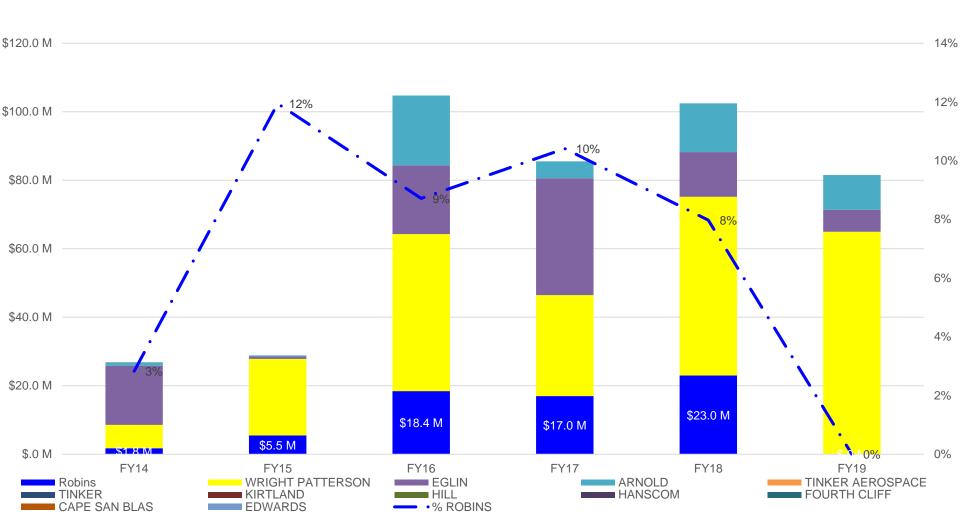




# AFCEC CTO Funding By AFMC Base



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#### **Construction Program**







Operations and Maintenance (O&M)
Consolidated Sustainment Activity Group (CSAG)





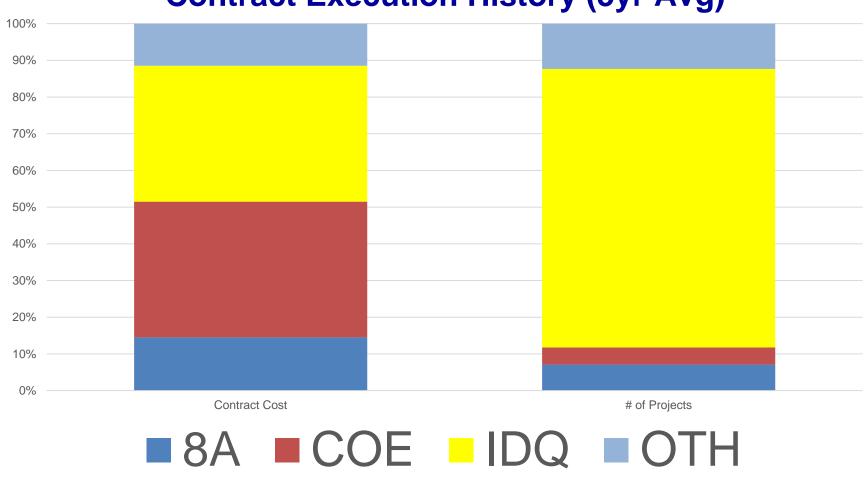
# **Execution Method**



#### How we get the work done!



#### **Contract Execution History (5yr Avg)**





### **IDIQ Contracts**



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| Title              | Contract<br>Years | Contract<br>Expire | Contract<br>Limit | Current<br>Obligations | % Remaining   |
|--------------------|-------------------|--------------------|-------------------|------------------------|---------------|
| Flooring           | 5                 | 27-Dec-20          | \$4.5M            | \$1.1M                 | 76%           |
| AE                 | 5                 | 15-May-21          | \$9.5M            | \$5.8M                 | 39%           |
| Paint              | 5                 | 14-Aug-21          | \$4.2M            | \$2.3M                 | 45%           |
| Paving             | 5                 | 23-Aug-21          | \$40M             | \$13.0M                | 68%           |
| SABER              | 5                 | 19-Apr-22          | \$30M             | \$25.7M                | 14%           |
| Roofing            | 5                 | 21-Aug-22          | \$95M             | \$22.1M                | 77%           |
| CEMACC             | 5                 | 5-Sep-22           | \$70M             | \$40.3M                | 42%           |
| Mech/Elec<br>(New) | 5                 |                    | \$95M             |                        | EAD: Apr 2019 |
| CEMACC<br>(New)    | 5                 |                    | \$95M             |                        | RFP: May 19   |





# FY19 Project Program



# FY19 Construction Program



- Operations and Maintenance (O&M):
  - <u>+</u>50 Projects; <\$20M
- Consolidated Sustainment Activity Group (CSAG)
  - +80 projects ; >\$50M





#### PA of Less \$500K

RPR/RPL BACK WASH PUMPS,WST TRMT BLDG,B370

PCR FOR FIVE ENTRY CONTROL POINTS, RAFB

RPR/RPL BREAKERS, CELL #11,SHP ACFT GEN PURP,B181

RPR/RPL ATS,BE MAINT SHOP, B1555

CNS/INSTALL GENERATOR, PROD ACFT,B2336

RPR/RPL ATS,BLDG WTR S,B214

RPR/RPL LIGHTNING PROTECTION SYS, TWR, CONTR, B/37

RPR/INSTALL SOUND PROOF ROOM, LEGAL OFFICE, B707

RPR/RPL WOOD POLES, BASEWIDE, FACILITY 08135

MODIFY/RELOCATE RETAINING WALL, SHP, REFL VEH, B190

MAINTENANCE RUBBER REMOVAL, RUNWAY





#### PA of Less \$500K

RPR/RPL WELL #12, WTR WELL

RPR/RENOVATE FAMCAMP OFFICE AND COVERED PATIO, MISC REC, B1305

RPR/RPL COMMAND POST ENTRANCE, USAF COMMAND POST, B906

RPR/RPL FAM CAMP ROAD NEAR LUNA LODGE, ROAD

RE-INSULATE CONDENSATE TANK, HTG FCLTY BLDG, B177

DSN - RPR/RENOV INTERIOR, AFOSI OFFICE, B/947

RPR/RPL ROOF, BASE PERSONNEL OFC, B/767

RPR/RPL ROOF, BSE ENGR ADMIN, B/286

RPR/RPL ROOF, WTR SUP N/POT BLDG, B/358

RPR/RPL ROOF, VEH MAINT SHOP, B/304

RPR/RPL ROOF, HSG SUP STOR F, B/766

RPR/RPL ROOF, HQ GROUP, B/936





#### PA of Less \$500K

RPR/RPL ROOF, MUSEUM BUILDING, B/1503

RPR/RPL ROOF, VEH SVC RACK, B4046

INSPECT ALL CE REAL PROPERTY ROOFS IN FY 19

RPR/RPL TRAFFIC SIGNAL MONITORING SYSTEM

RPR/UPGRD RECEPTION AREA, VISIT CTL CENTER, B219

CNST/INST OPEN STORAGE AREA, COMM FACLTY, B228

RPR/RPL FLOORING, VEH OPS ADMIN, B306

RPR/RPL VENTILATION SYSTEM, MAINT DOCK, FL SYS, B2030

RPR/RPL VENTILATION SYSTEM, MAINT DOCK, FL SYS, B2030

RPR/RECONFIG FACILITY, ACFT COR CON, B2036

RPR/PRL AIRCRAFT HANGAR DOOR, MAINT DOCK, FL SYS, B2030

RPR/RPL EXTERIOR PARTICLE BOARD, SQ OPS, B/2077





#### PA of Less \$500K

INST/CNST LOUVERS, WHSE SUP EQUIP DEP, B350

RPR/RPL CARPET, LOG FCLTY DEP OPS, WS,BAY F,B300

REMOVE/RPL CARPET W/VINYL COVE BASE, APPROX 5,500 SQFT, Bay E, LOG FCLTY DEP OPS, B300

RPR/RENOVATE ROOMS #604,#605,MAT PROCESS DEP,B376

RPR/RPL PT FITNESS PAD NEAR TRACK

RPR/RPL DOG PARK FENCE, FENCE BOUNDARY

RPR/RPL DAMAGE PAVILION(HM2018),MISC O/REC FCLTY,B788

RPR/RPL ROOF, VOQ, B/551





#### PA of \$500k to \$1.5M

RPR/RPL BOILER CONTROLS, HTG FCLTY BLDG, B644

RPR/RPL HVAC,RAPCON CEN,B2

RPR/RPL ROOF, WHSE SUP & EQUIP BSE, B/282

RPR/RPL ROOF, HAZARD STOR DEP, B/359

RPR/RPL LIEBERT UNIT, BASE PERSONNEL OFC, B/376

RPR/UPGRD HVAC SYS, BOWL CEN, B/908

RPR/RPL BOILERS, ACFT COR CON, B/2036

RPR/RPL AHU'S & EXHAUST FANS, ACFT COR CON, B2036

RPR/RPL SOUNDPROOF MATERIAL, CONFERENCE CENTER, B560





| PA of \$1.5M to \$5M                              |
|---|
| MILL/OVERLAY ROADS BASEWIDE                       |
| RPR/RPL CONDENSATE RETURN LINE, HQ MAJOR CMD,B210 |
| RPR/RPL MAIN STEAM LINE, STEAM HT MAINS, 8225     |
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| PA of more than \$5M |  |  |
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#### PA of Less \$500K

DSN - RPR/INST HVAC SYSTEM, B651

INST/CNST TEMPORARY SNACK BAR, HG, MAINT DEP, B125

RPR/RPL 2 HVAC UNITS, NORTH SIDE OF B125, HG, MAINT DEPB125

RPR/RPL STAIRWELLS, NORTH SIDE B125

RPR/RENV DOCK #4 SOUTHEAST B125

DSN - CRANE SUPPORT STRUCTUAL ASSESSMENT, B125

DSN - RPR/RENV CHEMICAL STORAGE AREA, SHP A/M ORGL, B149

DSN:RPR/UPGRD HEAT FRM STEAM TO GAS, HG MAINT, B/110

DSN Construct/Install Grounding Points, HG MAINT, B/110

DSN RPR/RPL FIRE SUPPRESSION & ALARM SYS, HG MAINT, B/110

DSN: RPR/RENOVATE F-15 WING SHOP OFFICES, SHP ACFT GEN PURP, B140

DSN CNST/INST C-130 PROP SHOP, SHP ACFT GEN PURP,B140





#### PA of Less \$500K

DSN INST/CNST 970 SQFT MEZZANINE, SHP ACFT GEN PURP,B140

CNST/INST UTILITIES FOR TEMP FACILITIES, HG, MAINT DEP, B91

RPR/RPL HVAC SYSTEM, SHP AVIONICS, B653

RPR/RENOVATE RESTROOMS, INTEGR SPT FCLTY, B229E

MNT/CLN HVAC COMPONENTS/DUCTWORK, INTGER SPT FCLTY, B/229

DSN: RPR/RPL SWITCH GEAR, INTEGR SPT FCLTY, B/229

RPR/RPL RAMPS NEAR B229

RPR/REMOVE CHILL WATER SYS, INTEGR SPT FCLTY, B/229

RPR/RPL ROOF, SHP ACFT GEN PURP, B/430

RPR/RPL ROOF, SHP ACFT GEN PURP, B/103

CNST/INST UTILITIES FOR SHOWER TRAILER NEAR B137

MNT/PNT INTERIOR OF PAINT SHP, ACFT COR CON, B/180





#### PA of Less \$500K

RPR/RPL ROOF, A/C CEN PLT, B/633

RPR/RPL EXTERIOR, B640

RPR/RPL ELECTRICAL CONDUIT, SHP ACFT GEN PURP, B169

RPR/RPL EPOXY COATING,C17 DOCK 1,2,3,HG, MAINT DEP, B81

MNT/PNT RAMP AREA AT DOOR TO HANGER, HG, MAINT DEP, B/83

RENOVATE 1ST FLOOR RESTROOMS, TECH LAB, B323

RPR/RPL LIGHTNING PROTECTION SYSTEM, SHP, RADOM O&T/D, B2251

RPR/RPL LIGHTNING PROTECTION, SHP, RADOM O&T/D, B/676

RPR/RPL LIGHTNING PROTECTION, SHP, RADOM O&T/D, B/675

DSN:RPR/UPGRADE LADDERS,A/C CEN PLT,B628

DSN - RPR/UPGRADE LADDERS,SHP AVIONICS,B640

DSN: RPR/UPGRADE LADDERS, VEH SVC RACK, B158





#### PA of Less \$500K

DSN: RPR/UPGRADE LADDERS,A/C CEN PLT,B633

DSN:RPR/UPGRADE LADDERS,RPR/UPGRADE LADDERS, MWR SUPP/NAF, B672

DSN: RPR/UPGRADE LADDERS, SHP AVIONICS, B645

DSN: RPR/UPGRADE MULTI BUILDING LADDERS, WHSE SUP EQUIP DEP

DSN: RPR/UPGRADE LADDERS,TRAFFIC CHK HSE,B671

DSN: RPR/UPGRADE LADDERS, SHP, RADOM O&T/D, B675

RPR/PAINT 7 STAIRWELLS, INTEGR SPT FCLTY, B229S

RPR/RPL FIRE DOORS, SHP A/M ORGL, B/20036

RPR/RPL DOORS, HG, MAINT DEP, B91

RPR/RPL FIRE DOORS, ACFT COR CON, B/50

INST/CNST ROLL UP DOOR B/301 BAY D DOOR #32W

INST/CNST ROLL UP DOOR B/301 BAY D DOOR #32W





#### PA of Less \$500K

INST/CNST FIRE SUPPRESSION SYSTEM, SHP ACFT GEN PURP, B321

RPR/RPL ROOF, BSE SUP ADMIN, B/291

RPR/RPL ROOF, LAB, Q/C DEP, B/154

RPR/RPL ROOF, ACFT COR CON, B/42

RPR/RPL SIDING, RES FORCES G/TNG SPT, B607

INSPECT ALL CSAG REAL PROPERTY ROOFS IN FY 19

DSN - LIGHTNING PROTECTION (LPS), CSAG PH 1 STUDY

RPR/RPL CEILING, TECH TNG LAB/SHP, B/41

RPR/RPL HVAC SYS, HQ GROUP, B/43

CONSTRUCT/INSTALL UTILITIES FOR RMP TEST RANGE

RPR/PAINT ABATE FLOOR In EARS Rm 1136, SHP AVIONICS, B645

RPR/RENOVATE RESTROOMS 1005,1006 & 1041, B158





#### PA of Less \$500K

RENOVATE/RECONFIGURE OFFICE AREA, B158

RPR/RPL 24 LIGHT FIXTURES, SHP ACFT GEN PURP, B20149

RPR/RENOV RESTROOMS, SHP ACFT GEN PURP, B/670

RPR/RENOVATE MEN'S RESTROOM, ACFT COR CON, B137

RPR/RESURFACE ROAD NEAR B54

INSTALL REDUNDANT COMPRESSOR SYS, B353

RPR/RENOV INTERIOR OF FCLTY, SHP ACFT GEN PURP, B/680

DSN-INST/CNST HVAC DESIGN, SHP ACFT GEN PURP, B146

CONSTRUCT OPEN SHELTER, SHP ACFT GEN PURP,20128

CNST/EXPAND AWNING, SHP ACFT GEN PURP, B321

INST/CNST AWNING, WHSE SUP EQUIP DEP, B20028

INSTALL SPRINKLER HEADS, MAINT DEP, B91





| PA of \$500k to \$1.5M                                    |
|---|
| RPR/INST HVAC SYSTEM, B651                                |
| RPR/RPL HIGH BAY LIGHTING,HG, MAINT DEP,B125              |
| RPR/RPL AHU S-7,SHP AVIONICS,B640                         |
| DSN - RPR/RENV AIRCRAFT CORROSION CONTROL FACILITY, B/59  |
| RPR/RENOV RESTROOMS, B/229 SOUTH, INTEGR SPT FCLTY, B/229 |
| RPR/RPL ROOF, WHSE SUP & EQUIP BSE, B/104                 |
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#### PA of \$1.5M to \$5M

RPR/RENV DOCK #3 SOUTHWEST, B125

RPR/RPL FIRE ALARM SYS, AUTO DR DTECTN SYS, B/229

RPR/RPL FIRE ALARM/MASS NOTIFICATION SYSTEM, AVIONICS, B640

RPR/RPL ROOF AND FLOOR, MAINT DOCK, L/A, B49

RPR/RPL SURGE PROTECTION, PRIM DISTR LINE UG, FCLTY/08130

**RENOVATE BUILDING 901** 

RPR/AUTOMATE IWTP #1 & IWTP#2





| PA of >\$5M   |
|---|
| INST/CNST BREAK ROOM, ADMIN AREA, B125                  |
| MNT/CLEAN/PNT STRUCT BEAMS/CLG, SHP ACFT GEN PURP, B140 |
| RPR/RENV AIRCRAFT CORROSION CONTROL FACILITY, B/59      |
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#### **Discussion/Questions**



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