



SPACE LAUNCH DELTA 45



SPACEPORTS OF THE FUTURE ***INFRASTRUCTURE***

***Andy Duce
Program Manager
Spaceport Development***

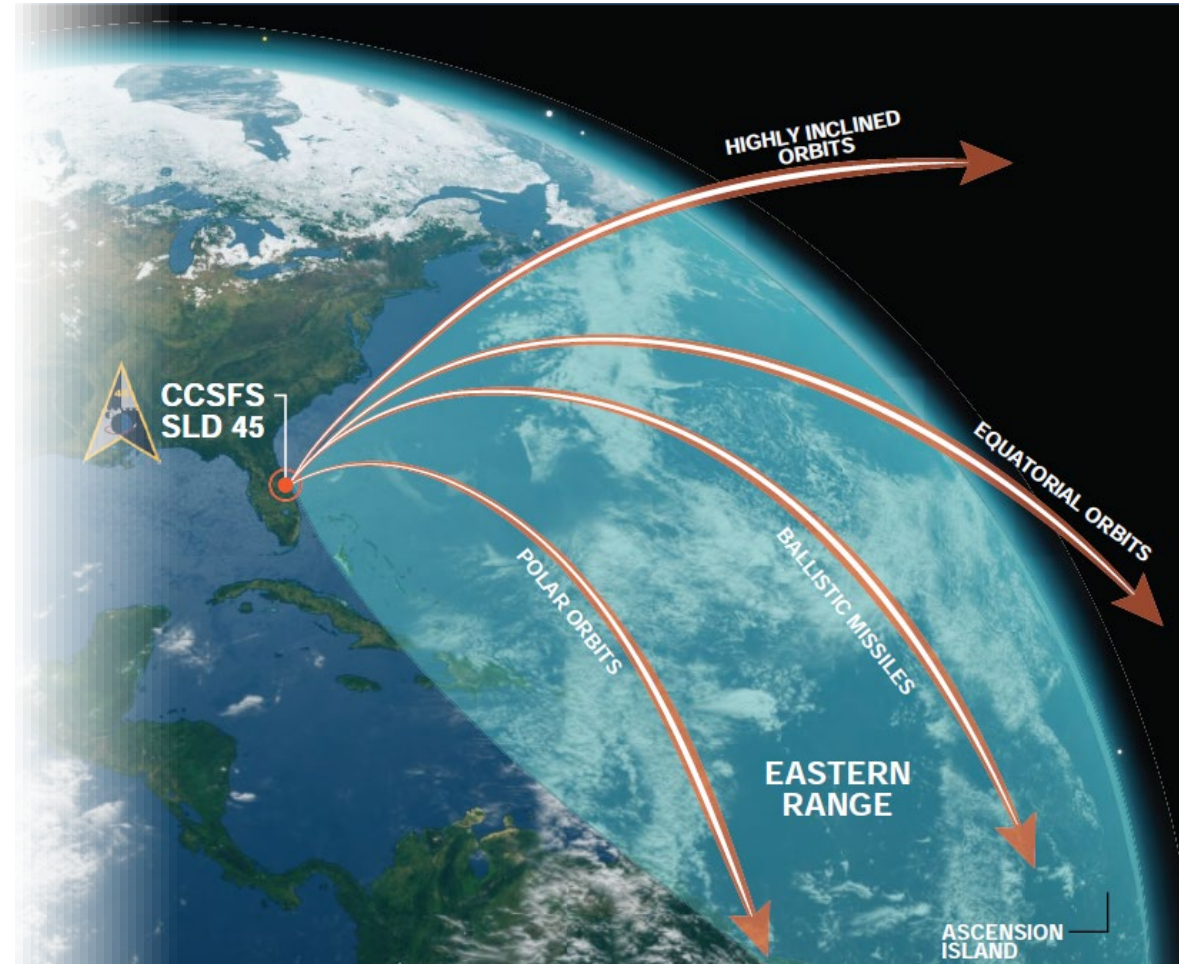
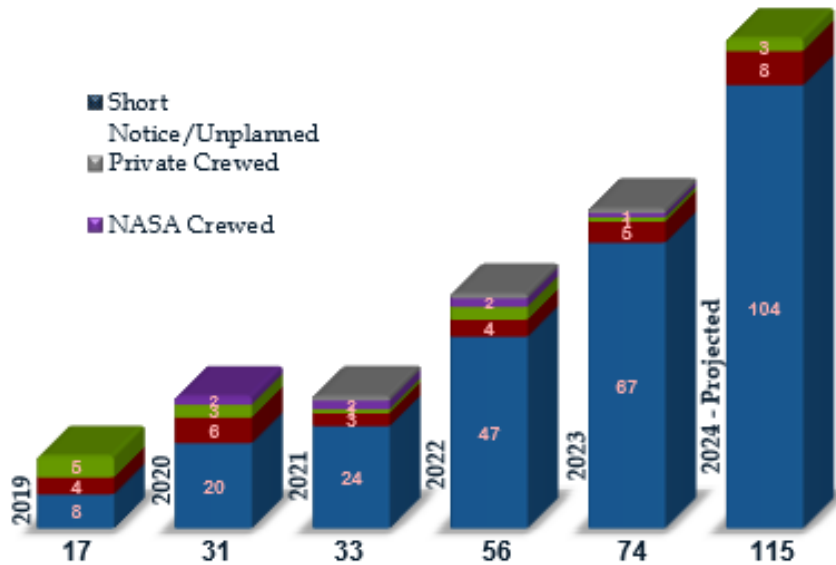
SET THE PACE FOR SPACE



SPACE LAUNCH DELTA 45



Why is this Important?



SET THE PACE FOR SPACE



SPACE LAUNCH DELTA 45



Project Scope & Deliverables



- The U.S. Space Force's Range of the Future 2028 Strategic Intent identified the requirement to increase launch posture over the next 10 years. Infrastructure must be improved to meet this new requirement.
- **Primary Goals:**
 - Range must be able to support launching EVERY day.
 - Range must be able to support multiple launches per day.
 - Range must eliminate all critical day restrictions.
 - Establish infrastructure redundancy and resiliency.
 - Reduce personnel impacts associated with launch and landing activities.
 - Quick execution projects by completing environmental planning upfront.
- **Study Deliverables:**
 - District Plans: Cape Canaveral Space Force Station & Patrick Space Force Base
 - Infrastructure Roadmap (IR)
 - Environmental Assessments (EA): Cape Canaveral Space Force Station & Patrick Space Force Base

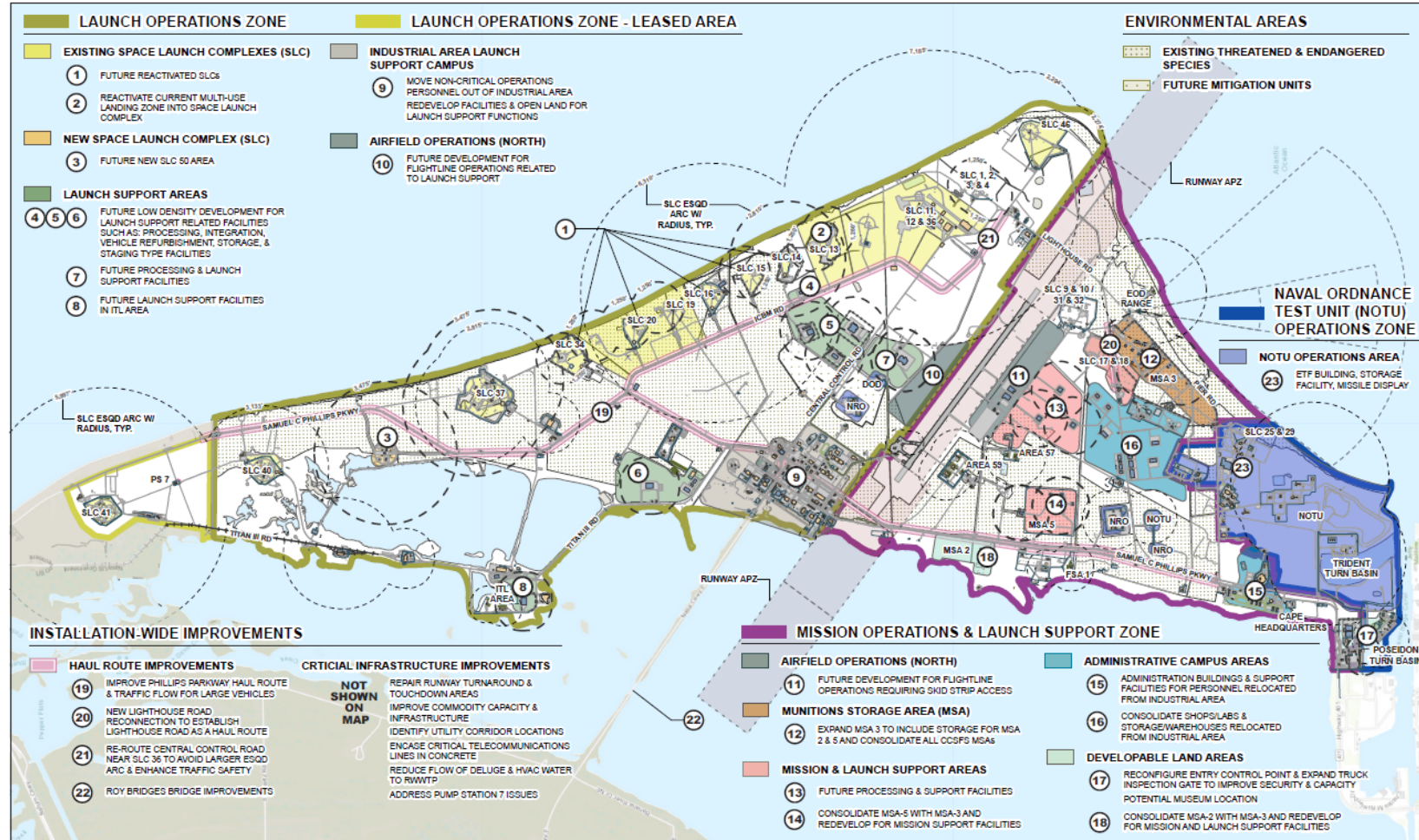
SET THE PACE FOR SPACE



CCSFS District Plan



SPACE
LAUNCH
DELTA 45



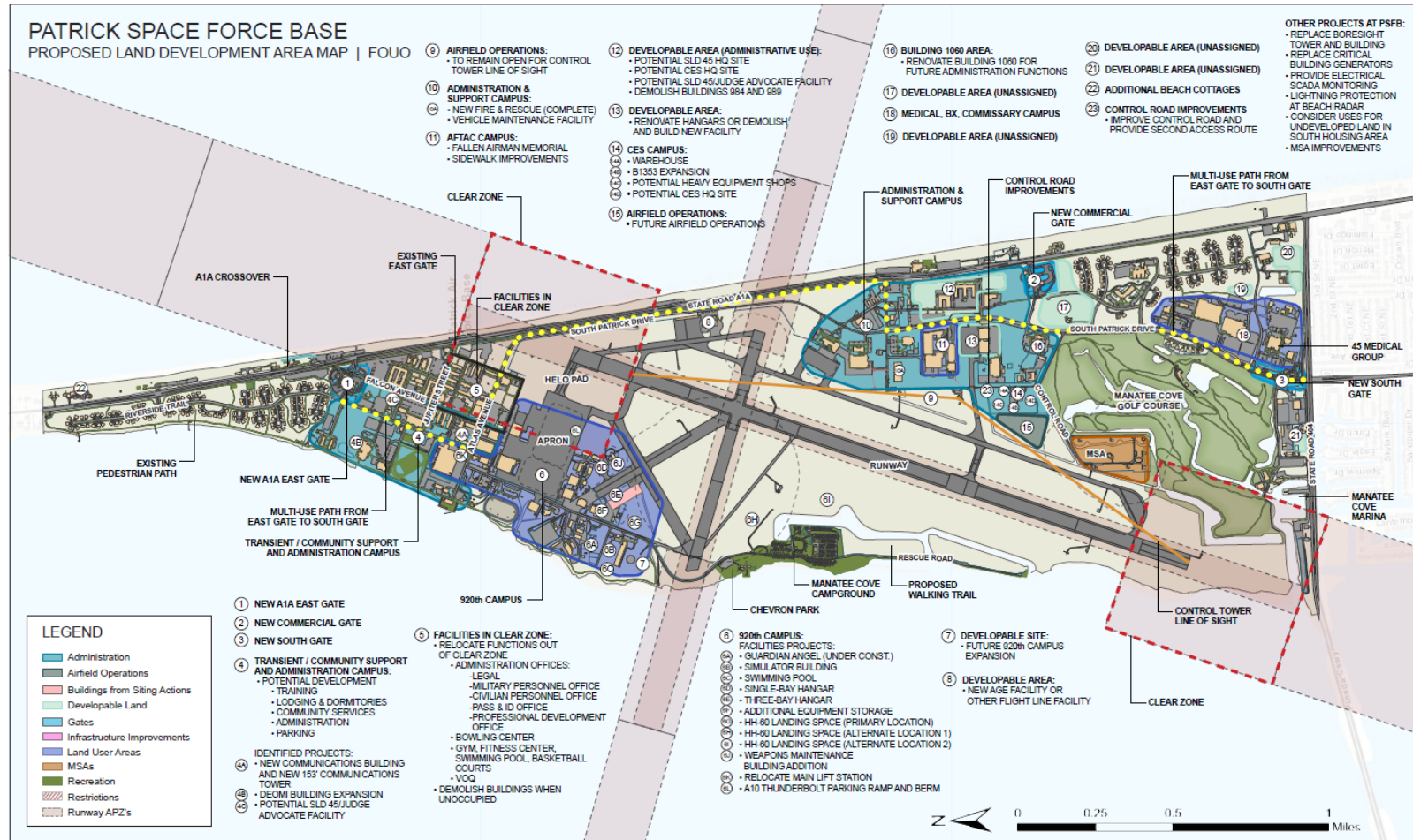
SET THE PACE FOR SPACE



SPACE LAUNCH DELTA 45



PSFB District Plan



RANGE OF THE FUTURE INFRASTRUCTURE ROADMAP
CAPE CANAVERAL SPACE FORCE STATION | PATRICK SPACE FORCE BASE

SET THE PACE FOR SPACE



SLD 45 INFRASTRUCTURE ROADMAP PROJECT SUMMARY



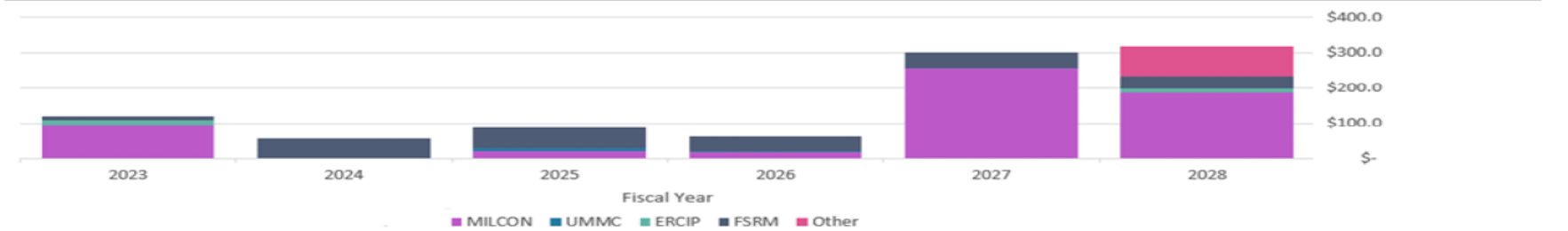
SPACE LAUNCH DELTA 45



| FY 2023 9 Projects: \$118,542,964 | FY 2024 14 Projects: \$57,656,989 | FY 2025 15 Projects: \$84,682,000 | FY 2026 15 Projects: \$63,300,572 | FY 2027 18 Projects: \$299,146,904 | FY 2028 12 Projects: \$306,973,000 | FY 2029 - 2032 4 Projects: \$589,982,059 |
|---|---|--|---|---|--|--|
| Military Construction (MILCON) SMDT 22-3034 Consolidated Communications Center | | Military Construction (MILCON) DBEH 22-3748 Install Wastewater Force Main, ICBM Road DBEH 22-3748 Install Water Main, ICBM Road | Military Construction (MILCON) DBEH 22-7788 Construct Philips Parkway ROW ROAD | Military Construction (MILCON) DBEH 22-3038 Construct Consolidated Launch Support Facility DBEH 22-7775 Construct Consolidated Shop/Laboratory Facility DBEH 22-7788 Construct Consolidated Storage & Warehouse Facility | Military Construction (MILCON) DBEH 22-7778 Consolidate Munitions Storage DBEH 22-7780 Construct Water Storage DBEH 22-7773 Construct Consolidated Base Support Complex DBEH 22-7784 Widen ICBM Road, Glenn Sub to Delta Sub SMDT 22-1128 Relocate Lift Station, 8860 | Military Construction (MILCON) SMDT 22-1128 Construct BLD 46 Headquarters DBEH 22-7771 Construct Redundant Operations Center Other* DBEH 22-7778 Construct Processing Facility DBEH 22-7781 Construct Secure Area Perimeter |
| ERCIP DBEH 18-1571 Construct Redundant Water Distribution to North Launch Arise DBEH 07-1698 Repair Electrical "C" Line from OH to UG, B21903 | | UMMC DBEH 22-7788 Install Redundant Power Distribution at SWA and S-C-A | UMMC DBEH 22-7788 Expand Trunk Inspection Gate | ERCIP DBEH 22-7788 Install Redundant Power Distribution, Trident Wharf | ERCIP DBEH 22-7781 Install Redundant Power, ICBM Road | |
| Facility Sustainment/Restoration/Modernization (FSRM) NSOC 18-1571 Construct Final Denial Barrier, North Gate SMDT 16-1266 Repair Generator, 81487 SMDT 18-1124 Repair Generator, 8429 DBEH 02-1025 Repair Electrical Line "B" Supporting Launch Complexes SMDT 18-1116 Construct Boreight Tower & Equipment Building, 91659 SMDT 18-1268 Repair Missile Guidance Station, 82901 | Facility Sustainment/Restoration/Modernization (FSRM) DBEH 18-1528 Relocate Weather Operations, 85867 DBEH 22-7788A Repair Communications Duct Banks, Phase 1 NSOC 18-1511 Modify Delay Pump Station & Onshore Piping, 829169 NSOC 21-1581 Repair & Certify Weather Tower Fall Protection NSOC 18-1543 Repair Weather Towers Multiple SMDT 21-1011 Repair Lightning Protection, 8989 SMDT 22-1015 Repair Generator, 8982 SMDT 08-1127 Repair Lift Station Holding Tank, 8982 DBEH 18-1688 Repair Lift Stations, Various DBEH 12-1890 Repair Lift Stations, Multi DBEH 18-1517 Repair Cable & Splices in Feeder from North Substation DBEH 16-1528 Repair Water Lines, MACA Area DBEH 17-1586 Repair OCBFS Runway, 85939 DBEH 12-1786 Upgrade SCADA Control System at WWP | Facility Sustainment/Restoration/Modernization (FSRM) DBEH 22-7788C Repair Communications Duct Banks, Phase 2 DBEH 22-7788D Repair Communications Duct Banks, Phase 2 DBEH 22-7787 Repair Philips Parkway, 82021 SMDT 14-1244 Repair Generator, 8860 DBEH 02-1880 Increase Equalization Basin Capacity RWMP, 864791 DBEH 16-1578 Repair Fire Debottling System, 84480 DBEH 22-7742 Add/Alter Cooling Towers, Multi DBEH 22-7789 Extend Lighthouse Road NSOC 22-1820 Repair 18.14 Radar Access Road DBEH 22-7788 Repair Titan III Road DBEH 22-7782 Replace Generators at South Generator Plant, 881790 SMDT 08-1028 Convert Space for Airfield Lighting Tower, 8182 | Facility Sustainment/Restoration/Modernization (FSRM) DBEH 22-7788E Repair Communications Duct Banks, Phase 4 DBEH 22-7788F Repair Communications Duct Banks, Phase 4 DBEH 17-1881 Renovate Hangar N, B01728 DBEH 18-1528 Repair Water Main, OCBFS South Boundary, 820701 SMDT 12-1082 Repair Emergency Power SFS HQ, B1918 DBEH 16-1578 Repair Lift Pump Station 3, 84480 DBEH 18-1688 Replace Lift Stations, Multi DBEH 18-1527 Update Power Distribution SCADA, Multi DBEH 22-7748 Repair Electrical, Multi DBEH 17-1880 Convert Power Distribution Line "A" Line, from OH to UG, B21903 DBEH 22-7748 Expand Power Distribution SCADA, Multi DBEH 16-1568 Repair Digital Fire Alarm Panels, Multi DBEH 18-1586 Repair Optical Maintenance/Storage, 81968 | Facility Sustainment/Restoration/Modernization (FSRM) DBEH 22-7788G Repair Communications Duct Banks, Phase 8 DBEH 22-7788H Repair Communications Duct Banks, Phase 7 DBEH 22-7788I Repair Communications Duct Banks, Phase 4 DBEH 22-7788 Convert Power Distribution Line, S-Line OH to UG, B21903 DBEH 22-7746 Repair Transformers, Multi DBEH 12-1738 Repair Roads and Parking DBEH 22-7781 Repair Delta Mariner Wharf, 88640 DBEH 16-1638 Repair Water Main, NOTU Area, 859171 DBEH 16-1638 Repair Water Main, NOTU Area, 859171 DBEH 22-7772 Construct Relief Bridges, Titan III Road SMDT 16-1000 Repair Water Distribution System, P8F9 SMDT 14-1028 Install Wastewater SCADA, Multi SMDT 14-1001 Repair Emergency Power, 8435 SMDT 22-1191 Renovate Administrative Space, 8428 | Facility Sustainment/Restoration/Modernization (FSRM) DBEH 22-7788 Replace Power Distribution Switches, Multi DBEH 22-7741 Convert Unpaired Overruns OCBFS, 88888 SMDT 22-1122 Demolish Supply and Equipment Warehouse, 8884 DBEH 22-1582 Renovations to Hangar AF Other* Support NAC Repair/Upgrade to Ray Bridges Bridge SMDT 22-1122 Renovate 820m RW Headquarters | |
| UNDER CONST: \$106,291,539 REMAINING: \$12,251,425 | UNDER CONST: \$4,168,749 REMAINING: \$53,488,240 | PROJECTED: \$84,682,000 | PROJECTED: \$63,300,572 | PROJECTED: \$299,146,904 | REMAINING: \$306,973,000 | REMAINING: \$589,982,059 |

- IR Project Key**
- Project Development
 - In Design
 - Ready to Solicit
 - In Solicitation
 - Under Construction
 - Complete

| | | | | | | |
|------------------------------------|-----------------------|--------------------|---------------------|---------------------|-----------------------|---|
| PROJECT COSTS BY FUNDING MECHANISM | MILCON: \$989,836,000 | UMMC: \$10,192,000 | ERCIP: \$24,151,425 | FSRM: \$246,094,004 | Other*: \$250,011,059 | *NOTE: Other is for tracking purposes only, not a part of this program. |
|------------------------------------|-----------------------|--------------------|---------------------|---------------------|-----------------------|---|



SET THE PACE FOR SPACE



SPACE
LAUNCH
DELTA 45



FSRM Design and Construction



| Project # | % Complete | Project Name | Amount |
|--------------|------------|--|--------------|
| DBEH 22-7768 | 0% | Charrette - Construct Philips Parkway Haul Route | |
| DBEH 19-1508 | 56% | Design – Relocate Weather Station to SLC - 17 | |
| DBEH 22-7740 | 32% | Design - Install Water Main, ICBM Rd | |
| DBEH 22-7743 | 32% | Design - Install Wastewater Main, ICBM Rd | |
| DBEH 22-7760 | 35% | Design - Install Redundant Power Distro, CCSFS (USACE) | |
| DBEH 22-7763 | 40% | Design - Install Emergency Generator at MOC (USACE) | |
| DBEH 17-1568 | 1% | Rpr CCSFS Runway, B50305 | \$50,000,000 |
| KSCC 19-1511 | 6% | Modify Deluge Pump Suction and Discharge, Pump Station 7 | \$500,000 |
| SXHT 22-1015 | 10% | Repair Generator, B962 | \$375,000 |
| JJAE 18-1504 | 1% | Repair Missile Guidance Station, B28001 | \$4,000,000 |
| KSCC 19-1534 | 70% | Construct Final Denial Barrier, North Gate | \$600,000 |
| SXHT 14-1045 | 1% | Repair Generator, B1497 | \$375,000 |
| SXHT 16-1104 | 1% | Repair Generator, B423 | \$300,000 |
| DBEH 02-1675 | 11% | Repair 'B-Line' Supporting Launch Complexes | \$4,250,000 |
| KSCC 19-1534 | 70% | Construct Final Denial Barrier, North Gate | \$600,000 |
| DBEH 19-1517 | 81% | Repair Cable & Splices in Feeder from North Substation | \$1,500,000 |
| SXHT 16-1115 | 95% | Construct Boresight Tower & Equipment Building, B1653 | \$1,100,000 |
| DBEH 12-1765 | 100% | Upgrade SCADA Controls at RWWTWP | \$500,000 |
| DBEH 20-1563 | 100% | Repair Lift Stations, Various | \$1,300,000 |
| KSCC 18-1543 | 100% | Repair Weather Towers, Multi | \$500,000 |

SET THE PACE FOR SPACE



SPACE
LAUNCH
DELTA 45



ERCIP, MILCON and UMMC (FY23-27)



| Project # | Construction FY | Project Name | Status |
|--------------|-----------------|--|----------------------------------|
| SXHT 02-3004 | 2023 | Consolidated Communication Center, Patrick SFB | Construction Advertise |
| DBEH 07-1588 | 2023 | Repair Electrical Z Line, OH to UG | Ready to Advertise |
| DBEH 22-7740 | 2025 | (Design) Install Water Main, ICBM Rd | 35% Design Submittal – 7 Mar 24 |
| DBEH 22-7743 | 2025 | (Design) Install Wastewater Force Main, ICBM Rd | 35% Design Submittal – 7 Mar 24 |
| DBEH 22-7760 | 2025 | (Design) Install Redundant Power Distro at CCSFS | 35% Design Submittal – 25 Feb 24 |
| DBEH 22-7763 | 2025 | (Design) Install Emergency Generator at MOC | 100% Design Submittal – 8 Jun 24 |
| DBEH 22-7768 | 2026 | (Charrette) Construct Phillips Prkwy (South) Haul Route | Charrette – 15-18 Apr 24 |
| DBEH 03-3000 | 2027 | Construct Consolidated Launch Support Facility, Phase I | Charrette – June 24 |
| DBEH 03-3001 | 2027 | Construct Consolidated Launch Support Facility, Phase II | Charrette – June 24 |
| DBEH 22-7755 | 2027 | Construct Consolidated Shop/Laboratory, PH1 | Charrette – June 24 |
| DBEH 22-7756 | 2027 | Construct Consolidated Storage/Warehouse Facility, PH1 | Charrette – June 24 |
| DBEH 22-7786 | 2027 | Construct Consolidated Storage/Warehouse Facility, PH2 | Charrette – June 24 |
| DBEH 22-7784 | 2027 | Construct Consolidated Shop/Laboratory, PH2 | Charrette – June 24 |

SET THE PACE FOR SPACE



SPACE LAUNCH DELTA 45



Coming Soon to a Range Near You



| Project # | Stage | Project Name |
|--------------|-------------------------------------|--|
| DBEH 22-7767 | Preparing Design Solicitation | (Charrette) Repair Phillips Pkwy, B20201 |
| DBEH 10-1565 | Design Solicitation Underway | Repair Optics Maintenance / Storage, B01606 (Hangar G) |
| DBEH 22-7759 | Design Solicitation Underway | (Design) CCSFS Comm Duct Bank Survey and Design |
| KSCC 15-1587 | Preparing Construction Solicitation | Repair & Certify Weather Tower Fall Protection |
| SXHT 08-1127 | Preparing Construction Solicitation | Repair Lift Station 650 Holding Tank |
| DBEH 12-1690 | Preparing Construction Solicitation | Replace Lift Stations, Multiple Across CCSFS |
| SXHT 02-3004 | Construction Solicitation Underway | Consolidated Comm Center |
| SXHT 21-1011 | Construction Solicitation Underway | Repair Lightning Protection, B969 |
| DBEH 15-1539 | Construction Solicitation Underway | Repair Water Lines, MACA Area |
| SXHT 00-1028 | Construction Solicitation Underway | Convert Space for Airfield Lighting Vault |

SET THE PACE FOR SPACE



SPACE
LAUNCH
DELTA 45



ERCIP, MILCON and UMMC (FY26+)



| Construction FY | Project Name |
|-----------------|---|
| 2026 | Expand Truck Inspection Area (UMMC) |
| 2027 | Construct Consolidated Storage/Warehouse Facility, PH3 |
| 2027 | Install Redundant Power Distro, Trident Wharf (ERCIP) |
| 2028 | Install Redundant Power Distro, ICBM Rd (ERCIP) |
| 2028 | Consolidate Munitions Storage |
| 2028 | Construct Water Storage Tanks |
| 2028 | Construct Consolidated Base Support Complex |
| 2028 | Relocate Lift Station, B650 (PSFB) |
| 2028 | Construct Consolidated Storage/Warehouse Facility, PH4 |
| 2028 | Construct Water Main to ITL Area |
| 2028 | Covert Power Distribution Line R-Line, OH to UG (ERCIP) |
| 2028 | Widen ICBM Rd |
| 2029+ | Construct Consolidated Shop/Laboratory, PH3 |
| 2029+ | Construct Consolidated Launch Support Facility, Phase III |
| 2029+ | Construct Consolidated Launch Support Facility, Phase IV |
| 2029+ | Construct Wastewater Treatment Facility |
| 2029+ | Construct Redundant Operations Center |
| 2029+ | Consolidated HQ Facility (PSFB) |

SET THE PACE FOR SPACE

A night-time photograph of a spaceport facility, likely the Kennedy Space Center, with various buildings and launch pads illuminated. A prominent, bright, glowing arc of light curves across the dark sky. The foreground shows a grassy field with some lights. The overall scene is futuristic and high-tech.

**SPACEPORTS
OF THE FUTURE** 
INFRASTRUCTURE 