LEGEND:

	EXISTING (E.)	IMPROVEMENTS
TOP OF CURB OR CONCRETE (TC) ELEVATION ELEVATION OF GUTTER, PAVEMENT OR GROUND	TC 25.16 24.79	TC 26.78 26.28
SPOT ELEVATION	+24.98	25.48
TOP OF WALL (TW) ELEVATION	+TW24.40	
BITUMINOUS PAVEMENT	37	
BOLLARD	06	
BUILDING (BLDG.)		
BUSH		
CENTERLINE DITCH/SWALE		
CONCRETE SIDEWALK	03	
CONCRETE PAVEMENT	30	
CONCRETE PAVEMENT (AIRFIELD PAVEMENT)	30	
CONCRETE JOINT	01	
PAINT LINE	## (VARIES)	
AIRCRAFT TIE-DOWN (MOORING EYE)		
CONTOUR	24	
CURB		
CURB AND GUTTER		
FENCE	x x	x x
GATE		
GRAVEL	GRAVEL	
JERSEY BARRIERS		JB JB
LOW PROFILE BARRIERS		LPB
LIMITS OF CONSTRUCTION (LOC)		LOD LOD
FOD FENCE (FOD)		FOD FOD
PALM TREE		
SIGN		
SURVEY CONTROL POINT	PT #	
TEMPORARY BENCHMARK (T.B.M.)	T.B.M.	
TOE OF SLOPE (T.O.S.)	T.O.S.	T.O.S.
TOP OF BANK (T.O.B.)	T.O.B.	T.O.B.
TREE		
FIRE WATER (W) MAIN	24" E. FIRE W.	F 24" F
FIRE SUPPRESSION SYSTEM (FSS)		FSS 30" FSS

	EXISTING (E.)	IMPROVEMENTS
GAS MAIN		1" G
OVERHEAD (OH.) LINE(S)	E. OH. LINE	
SANITARY (SAN.) FORCE MAIN (F.M.)		SS 4" SS
SANITARY (SAN.) SEWER	8" E. SAN.	8" SAN
STORM (S.) SEWER	12" E.S.	24" SD
UNDERGROUND (UG.) COMMUNICATION (COMM.)	E. UG. COMM.	
UNDERGROUND (UG.) ELECTRIC (ELEC.)	E. UG. ELEC.	
UNDERGROUND (UG.) FIBER OPTIC (F.O.)	E. UG. F.O.	
UNDERGROUND (UG.) GEOTHERMAL (GT.)	E. UG. GT.	
UNDERGROUND (UG.) STEAM (STM.)	E. UG. STM.	
UNDERGROUND (UG.) UTILITY (UTIL.)	E. UG. UTIL.	
WATER (W.) MAIN	8" E. W.	W 8" W
AIRFIELD CATCH BASIN (C.B.)		
AIRFIELD MANHOLE (MH.)		
AIRFIELD TAXIWAY LIGHT		
CATCH BASIN (C.B.)	##	
CLEAN OUT (C.O.)	V	
CONDUIT (COND.)	A	
CURB INLET (C.I.)		
FIRE HYDRANT (F.H.)		
LIGHT POLE IN CONCRETE		
MANHOLE (MH.); COMMUNICATION (COMM.)	##	
MANHOLE (MH.); ELECTRIC (ELEC.)	##	
MANHOLE (MH.); SANITARY (SAN.)	##	
MANHOLE (MH.); STORM (S.)	##	
MANHOLE (MH.); STEAM (STM.)	##	
POST INDICATOR VALVE (P.I.V.)		
TELEPHONE (TEL.) PEDESTAL (PED.)	C	
REDUCER		
STEAM (STM.) TRENCH; CONCRETE	G	
UTILITY CONNECTION		
WATER VALVE (W.V.)	D	
ABANDONED	ABAND.	

	EXISTING (E.)	IMPROVEMENTS
ANTITERRORISM/ FORCE PROTECTION		ATFP
COVER	CVR.	
DUCTILE IRON		DI
INACCESSIBLE	I/A	
INVERT	INV.	
MATCH EXISTING		M.E.
MATCH FUTURE GRADE		M.F.
METAL	MTL.	
OIL WATER SEPARATOR	O.W.S.	
OPERATIONAL SUPPORT FACILITY		OSF
PORTLAND CEMENT CONCRETE	PCC	
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONROL	SCDHEC	
STRUCTURE	STRC.	
STORMWATER POLLUTION PREVENTION PLAN	SWPPP	
TOP OF PIPE	T.O.P.	
TOP OF STAIRS	TS	
TYPICAL	TYP.	
UNLESS NOTED OTHERWISE	U.N.O.	
WITH	W/	

SURVEY NOTES:

1. TOPOGRAPHIC SURVEY PREPARED BY BAMFORTH ENGINEERS + SURVEYORS, BASED ON FIELD WORK PERFORMED FROM JULY 2020 TO NOVEMBER 2020.
2. THE EXISTENCE, SIZE AND/OR LOCATION OF UTILITIES ARE NOT GUARANTEED BY THIS SURVEY. UTILITIES SHOWN ARE BASED ON ABOVE GROUND STRUCTURES, AVAILABLE UTILITY PLANS, GIS DATA PROVIDED BY MCAS BEAUFORT – IGI&S DEPT., AND GEOPHYSICAL METHODS. THE CONTRACTOR MUST FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST FIELD VERIFY THE SIZE OF UTILITIES AT CONNECTION POINTS PRIOR TO CONSTRUCTION.
3. GEOPHYSICAL METHODS (LEVEL B PER ASCE 30-02 STANDARDS.) AS PERFORMED BY GEOVIEW, INC., DATED OCTOBER 2020.
4. ELEVATIONS ARE IN FEET AND REFER TO NORTH AMERICAN VERTICAL DATUM (NAVD) 1988 AND ARE BASED ON BEAUFORT MARINE BASE CONTROL, VERT 7-176.
5. TEMPORARY BENCHMARK # 1 (T.B.M.) IS A RAILROAD SPIKE IN UTILITY POLE ALONG DRAYTON ST., ELEVATION = 25.04
   TEMPORARY BENCHMARK # 2 (T.B.M.) IS A "□" CUT ON CONCRETE SHELTER PAD. ELEVATION = 29.10.
6. COORDINATES SHOWN REFER TO SOUTH CAROLINA STATE PLANE COORDINATES (NAD 83), INTERNATIONAL FOOT.
7. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, ANNA LEE BAMFORTH, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/ OR ORIGINAL DATA WAS OBTAINED BETWEEN JULY 2020 – NOVEMBER 2020; AND THAT THIS MAP, MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

SURVEY CONTROL POINTS

CONTROL PT. #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	231126.07	2084117.35	28.45	NAIL SPIKE
3	231311.39	2084394.94	27.89	NAIL SPIKE
4	231382.21	2084519.59	28.26	NAIL SPIKE IN CONCRETE
5	231248.99	2084634.23	26.88	NAIL SPIKE

BY	DESCRIPTION	DATE	APPR
	AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA ANNA LEE BAMFORTH No. 23067 01/13/23 ANNA LEE BAMFORTH SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES CAB DRW CAD CHK ALB	
PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

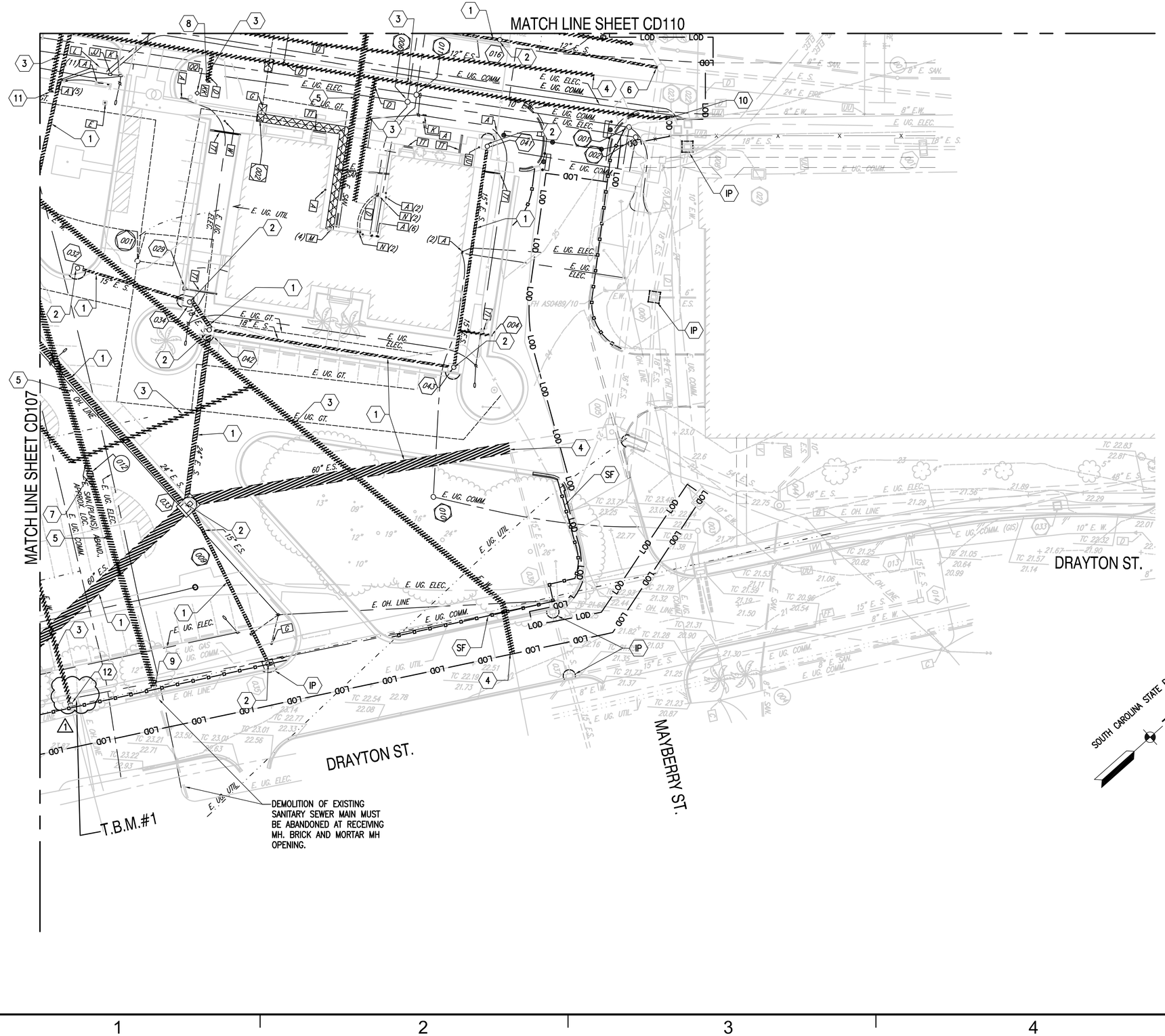
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CODE NORFOLK, VA
MCAS BEAUFORT BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LEGEND AND GENERAL NOTES

SCALE: NONE
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859186
SHEET 14 OF 1412

C-001

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-C-001.dwg LAYOUT NAME: C-001 PLOTTED: Tuesday, January 20, 2026 - 4:04pm USER: mtw



DEMOLITION KEY NOTES (THIS SHEET ONLY)

1. REMOVE STORM PIPE AND BACKFILL.
2. REMOVE STORM STRUCTURE AND BACKFILL.
3. REMOVE POTABLE WATER LINE AND BACKFILL.
4. CUT PIPE FOR FUTURE CONNECTION. (COORDINATE WITH PHASING ON C-007)
5. REMOVE SANITARY LINE AND BACKFILL.
6. PLUG PIPE OPENING IN STRUCTURE.
7. REMOVE SANITARY MANHOLE AND BACKFILL.
8. REMOVE FIRE HYDRANT AS0022
9. CUT AND CAP SANITARY LINE.
10. CUT WATER LINE AND PROVIDE 20 FOOT KICKER JOINT WITH CAP AND RESTRAINED JOINTS
11. REMOVE HIGH PRESSURE FIRE HYDRANT
12. CUT WATER LINE AND PROVIDE
~~6" VALVE W/ BOX~~
6" X 6" TEE
6" VALVE W/ BOX
TEMPORARY 6" FIRE HYDRANT
20 FOOT KICKER JOINT WITH CAP AND RESTRAINED JOINTS
CONFIRM EXISTING PIPE SIZE PRIOR TO ORDERING AND INSTALLING NEW TEE, VALVE, AND BOX

E & S CONTROL MEASURE KEY NOTES

IP – INLET PROTECTION (REFER TO SHEETS C-503, C-504)

SF – SILT FENCE (REFER TO SHEET C-506/B1)

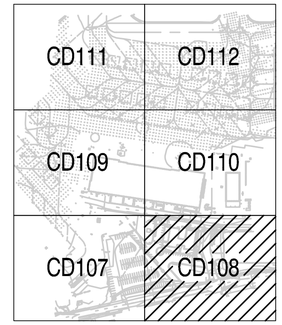
SHEET NOTES

1. REFER TO SHEET CD100 FOR DEMOLITION GENERAL NOTES AND DEMOLITION LEGEND. REFER TO SHEETS CD101 – CD106 FOR CIVIL SITE DEMOLITION.
2. PROTECT EXISTING UNDERGROUND UTILITIES THAT WILL REMAIN.
3. REFER TO ARCHITECTURAL, ELECTRICAL, COMMUNICATIONS, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL UTILITY DEMOLITION.

PHASING NOTES

1. DEMOLITION OF FIRE LINE AND THE ELECTRICAL DUCT BANK RELATED TO RESTRICTED AREA FENCING WILL BE PHASED, REFER TO SHEET C-007.

SOUTH CAROLINA STATE PLANE



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

#	BY	DESCRIPTION	DATE	APPR
3	AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
2		MOD P00005	10/2025	
1			05/2023	

NAVFAC

Annalee Bamforth
SOUTH CAROLINA
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via e-mail.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

MCAS BEAUFORT

BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

CIVIL UTILITY DEMOLITION AND EROSION CONTROL PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859222
SHEET	50 OF 1412

CD108

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\#BLDG-P475-1363603-CD108.dwg LAYOUT NAME: CD108 PLOTTED: Tuesday, January 20, 2026 - 4:04pm USER: mtw

DEMOLITION KEY NOTES (THIS SHEET ONLY)

1. REMOVE STORM PIPE AND BACKFILL.
2. REMOVE STORM STRUCTURE AND BACKFILL.
3. REMOVE POTABLE WATER LINE AND BACKFILL.
4. CUT PIPE FOR FUTURE CONNECTION.
5. ABANDONED UNDERGROUND STORAGE TANK. REFER TO ENVIRONMENTAL SHEET CE103.
6. PLUG PIPE OPENING IN STRUCTURE.
7. REMOVE HIGH PRESSURE FIRE WATER LINE AND BACKFILL. (COORDINATE WITH PHASING ON C-007)
8. REMOVE SANITARY SEWER LINE AND ASSOCIATED APPURTENANCES AND BACKFILL.
9. REMOVE SANITARY MANHOLE AND BACKFILL.
10. REMOVE FIRE HYDRANT AS0020 AND BOLLARDS.
11. REMOVE HIGH PRESSURE FIRE HYDRANT AND BOLLARDS.
12. CUT AND PLUG PIPE W/ RESTRAINED JOINTS.
13. REMOVE POST INDICATOR VALVE AND BOLLARDS.
14. REMOVE FIRE HYDRANT AS0018 AND BOLLARDS.
15. REMOVE FIRE HYDRANT AS0017 AND BOLLARDS.
16. REMOVE FIRE HYDRANT AS0019 AND BOLLARDS.
17. REMOVE TRENCH DRAIN
18. CUT WATER LINE AND PROVIDE 12" VALVE W/ BOX
    12" X 6" TEE
    6" VALVE W/ BOX
    TEMPORARY 6" FIRE HYDRANT
    20 FOOT KICKER JOINT WITH CAP AND RESTRAINED JOINTS
    CONFIRM EXISTING PIPE SIZE PRIOR TO ORDERING AND INSTALLING NEW TEE, VALVE, AND BOX

E & S CONTROL MEASURE KEY NOTES

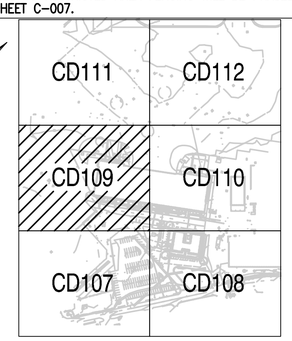
IP – INLET PROTECTION (REFER TO SHEET C-503, C-504)

SHEET NOTES

1. REFER TO SHEET CD100 FOR DEMOLITION GENERAL NOTES AND DEMOLITION LEGEND. REFER TO SHEETS CD101 – CD106 FOR CIVIL SITE DEMOLITION.
2. PROTECT EXISTING UNDERGROUND UTILITIES THAT WILL REMAIN.
3. REFER TO ARCHITECTURAL, ELECTRICAL, COMMUNICATIONS, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL UTILITY DEMOLITION.

PHASING NOTES

1. DEMOLITION OF FIRE LINE AND THE ELECTRICAL DUCT BANK RELATED TO RESTRICTED AREA FENCING WILL BE PHASED, REFER TO SHEET C-007.



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

#	DESCRIPTION	DATE	APPR
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
CIVIL UTILITY DEMOLITION AND EROSION CONTROL PLAN

SCALE: GRAPHIC
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859223
SHEET 51 OF 1412

CD109

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CD109.dwg LAYOUT NAME: CD109 PLOTTED: Tuesday, January 20, 2026 - 4:05pm USER: mtw

DEMOLITION KEY NOTES (THIS SHEET ONLY)

1. REMOVE STORM PIPE AND BACKFILL.
2. REMOVE STORM STRUCTURE AND BACKFILL.
3. REMOVE POTABLE WATER LINE AND BACKFILL.
4. CUT WATER LINE AND PROVIDE
   10" VALVE W/ BOX
   10" X 6" TEE
   6" VALVE W/ BOX
   TEMPORARY 6" FIRE HYDRANT
   20 FOOT KICKER JOINT WITH CAP AND RESTRAINED JOINTS
5. REMOVE POST INDICATOR VALVE AND BOLLARDS.
6. REMOVE HIGH PRESSURE WATER FIRE HYDRANT AND BACKFILL.
7. REMOVE OIL/WATER SEPARATOR AND BACKFILL. (REFER TO AD100)
8. REMOVE SANITARY SEWER LINE AND BACKFILL.
9. REMOVE SANITARY MANHOLE AND BACKFILL.
10. REMOVE HIGH PRESSURE FIRE WATER LINE AND BACKFILL. (COORDINATE WITH PHASING ON C-007)
11. REMOVE INDUSTRIAL WASTE MANHOLE AND BACKFILL.
12. REMOVE POTABLE WATER FIRE HYDRANT, BOLLARDS AND BACKFILL.
13. REMOVE OBSERVATION WELL
14. REMOVE FIRE HYDRANT AS0486/10, 6" PIPE AND VALVE. PROVIDE 6" MJ CAP W/ RESTRAINED JOINTS

E & S CONTROL MEASURE KEY NOTES

IP – INLET PROTECTION (REFER TO SHEETS C-503, C-504)

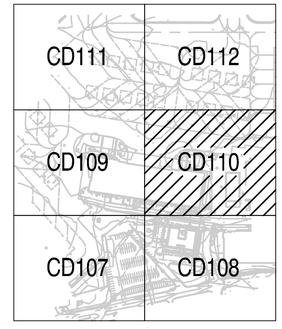
SHEET NOTES

1. REFER TO SHEET CD100 FOR DEMOLITION GENERAL NOTES AND DEMOLITION LEGEND. REFER TO SHEETS CD101 – CD106 FOR CIVIL SITE DEMOLITION.
2. PROTECT EXISTING UNDERGROUND UTILITIES THAT WILL REMAIN.
3. REFER TO ARCHITECTURAL, ELECTRICAL, COMMUNICATIONS, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL UTILITY DEMOLITION.

PHASING NOTES

1. DEMOLITION OF FIRE LINE AND THE ELECTRICAL DUCT BANK RELATED TO RESTRICTED AREA FENCING WILL BE PHASED, REFER TO SHEET C-007.

SOUTH CAROLINA STATE PLANE



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

BY	AMENDMENT	DATE	APPR
	MOD P00006 AND MOD P00007	01/16/2026	
	MOD P00005	10/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW CAD	CHK ALB
PM/DM	KTB/RLH		
BRANCH MANAGER	DLB		
CHIEF ENG/ARCH	EJA		
FIRE PROTECTION	DSN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC NORFOLK VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
CIVIL UTILITY DEMOLITION AND EROSION CONTROL PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859224
SHEET	52 OF 1412

CD110

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\MBLDG-P475-1363603-CD110.dwg LAYOUT NAME: CD110 PLOTTED: Tuesday, January 20, 2026 - 4:05pm USER: mtw

SITE LAYOUT CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
PT1	230979.24	2084119.11
PT2	231256.36	2084365.79
PT3	231288.21	2084486.52
PT4	231218.83	2084564.45
PT5	230955.44	2084505.21
PT6	231134.70	2084664.79
PT7	231293.27	2084731.86
PT8	231312.68	2084715.67
PT9	231309.89	2084713.19
PT10	231279.05	2084642.89
PT11	231398.49	2084508.72
PT12	231354.38	2084558.28
PT13	231321.96	2084594.69
PT14	231308.61	2084609.69
PT15	231297.53	2084622.14
PT16	231250.54	2084652.32
PT17	230979.02	2084418.65
PT18	230952.13	2084394.72
PT19	230872.46	2084323.79
PT20	230931.03	2084409.40
PT21	230966.88	2084441.32
PT22	231214.63	2084661.86
PT23	231214.23	2084699.55
PT24	231207.40	2084705.37
PT25	231150.79	2084764.52
PT26	231120.71	2084823.49
PT27	231163.41	2084625.63
PT28	231160.75	2084628.62
PT29	231258.05	2084709.88
PT30	231255.39	2084712.87
PT31	231067.63	2084856.84
PT32	230892.58	2084757.36
PT33	230651.76	2084625.94
PT34	230723.01	2084643.08
PT35	230734.96	2084653.72
PT36	230825.42	2084528.03
PT37	230837.38	2084538.67
PT38	230859.40	2084489.87
PT39	230871.35	2084500.51
PT40	231112.41	2084816.38

SITE LAYOUT CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
PT41	231090.97	2084857.53
PT42	231078.72	2084850.56
PT43	231073.04	2084847.33
PT44	231067.17	2084815.28
PT45	231151.90	2084749.79
PT46	231147.77	2084746.96
PT47	231190.80	2084704.92
PT48	231187.06	2084701.59
PT49	231209.36	2084691.97
PT50	231212.68	2084688.24
PT51	230718.17	2084650.50
PT52	230715.79	2084654.90
PT53	230663.88	2084621.15
PT54	230661.50	2084625.55
PT55	230698.50	2084623.36
PT56	230742.53	2084544.61
PT57	230856.28	2084517.43
PT58	230795.97	2084600.22
PT59	230816.21	2084618.24
PT60	230741.84	2084661.03
PT61	230926.77	2084761.03
PT62	230950.80	2084734.03
PT63	230840.08	2084635.47
PT64	230845.54	2084484.38
PT65	230912.59	2084409.05
PT66	230723.26	2084527.95
PT67	230802.32	2084532.93
PT68	230714.08	2084632.06
PT69	230900.36	2084064.85
PT70	230813.57	2084203.41
PT71	230813.80	2084233.41
PT72	230948.28	2084383.25
PT73	230955.63	2084381.76
PT74	230797.45	2084625.64
PT74	230991.23	2084421.49
PT75	230770.41	2084656.01
PT75	230956.64	2084366.64
PT76	230828.11	2084648.92
PT76	231006.50	2084404.33
PT77	230925.38	2084735.51

SITE LAYOUT CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
PT77	230951.64	2084114.28
PT77	230860.39	2084177.98
PT78	230919.40	2084742.23
PT78	230847.75	2084192.17
PT79	230803.39	2084152.68
PT80	230803.55	2084174.47
PT81	231145.52	2084724.07
PT82	231164.80	2084702.41
PT83	231158.71	2084716.39
PT84	230853.05	2084355.38
PT85	230830.77	2084380.40
PT86	230895.20	2084380.97
PT87	230835.92	2084447.56

1

SYM	DESCRIPTION	DATE	APPR
1	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

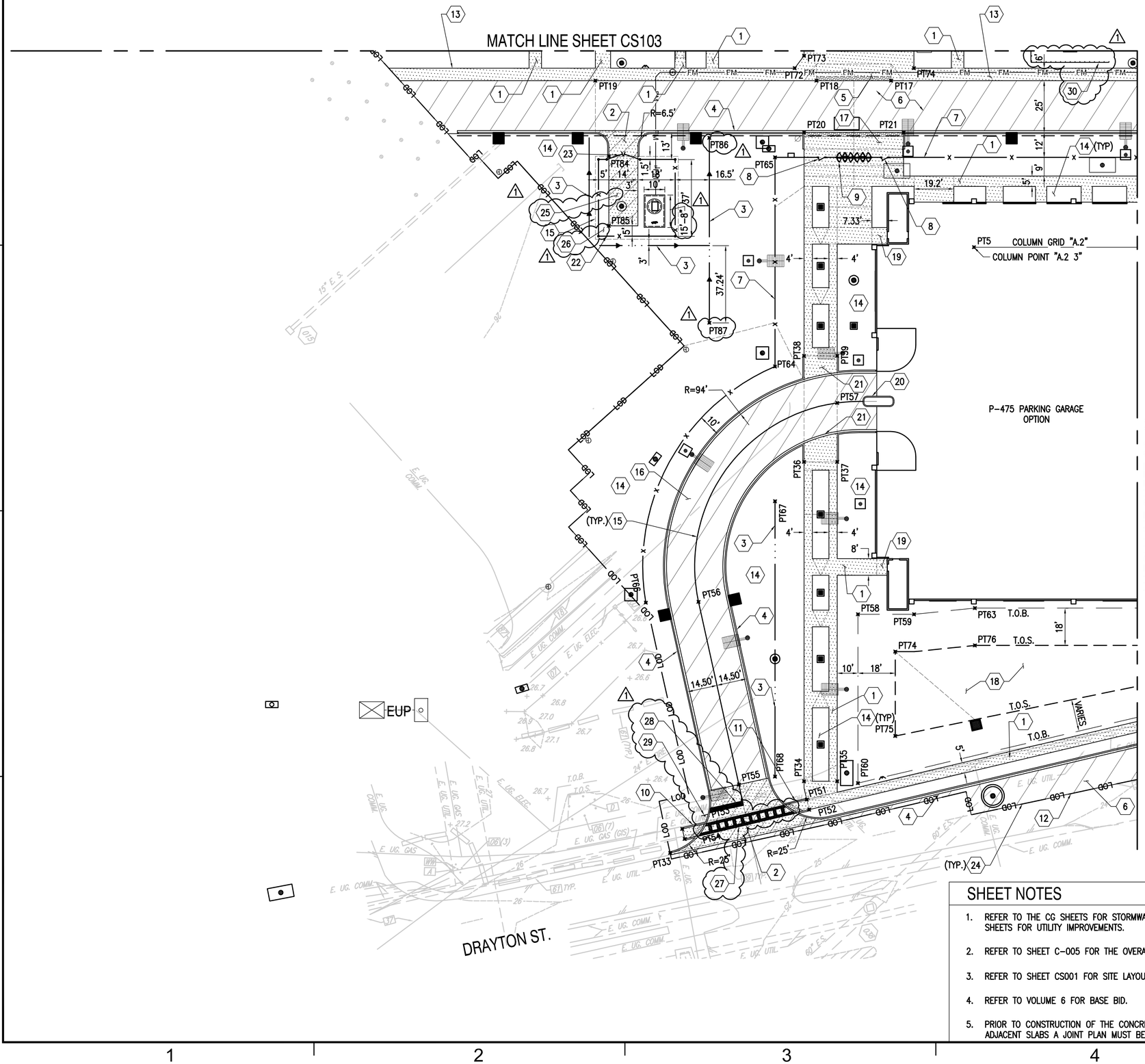
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
SITE LAYOUT CONTROL POINTS

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859235
SHEET	63 OF 1412

CS001

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\WBLDG-P475-1363603-CS001.dwg LAYOUT NAME: CS001 PLOTTED: Tuesday, January 20, 2026 - 4:05pm USER: mtw



SITE IMPROVEMENT NOTES (THIS SHEET ONLY)

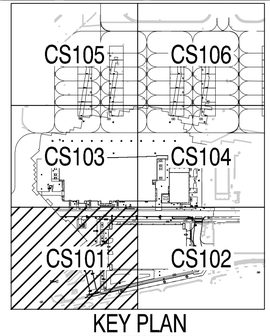
1. CONCRETE SIDEWALK (REFER TO DETAIL CS504/B4)
2. CONCRETE ENTRANCE (REFER TO DETAIL CS503/C4)
3. SWALE (REFER TO DETAIL CG505/A5)
4. CONCRETE CURB AND GUTTER (REFER TO DETAIL CS504/C1)
5. CONCRETE RAMP (TYPE 1) (REFER TO DETAIL CS505/C1)
6. BITUMINOUS PAVEMENT (REFER TO DETAIL CS501/A4)
7. RESTRICTED AREA SECURITY FENCE (REFER TO DETAIL CS506/C1)
8. SINGLE LEAF GATE (REFER TO DETAIL CS510/A1 & SHEET CS509)
9. DOUBLE TANDEM TURNSTILES (REFER TO DETAIL CS509/A2 & SHEET CS508)
10. CONCRETE RAMP (TYPE 2) (REFER TO DETAIL CS505/A1)
11. CONCRETE RAMP (TYPE 3) (REFER TO DETAIL CS505/C4)
12. BITUMINOUS PAVEMENT INTERFACE (REFER TO DETAIL CS501/B1)
13. TURNDOWN EDGE SIDEWALK (REFER TO DETAIL CS504/A3)
14. LANDSCAPE AREA (REFER TO LANDSCAPE PLANS)
15. GRADE BREAK
16. PARKING GARAGE ACCESS DRIVE PAVEMENT (REFER TO DETAIL CS501/C5)
17. CONCRETE RAMP (TYPE 4) (REFER TO DETAIL CS505/A4)
18. DRY DETENTION AREA (REFER TO CG SERIES SHEETS)
19. CONCRETE STOOP (REFER TO DETAIL CS504/A1)
20. CONCRETE MEDIAN (REFER TO DETAILS CS504/A4 AND PAE401/A3) (VOLUME 4)
21. CONCRETE RAMP (TYPE 5) (REFER TO DETAIL CS505/B1)
22. CHAIN LINK FENCE (REFER TO DETAILS CS510/C1 & CU508/A1)
23. DOUBLE LEAF GATE (REFER TO DETAILS CS510/B3 & CU508/A1)
24. WHITE PAINT LINE MARKING. MATCH EXISTING PAVEMENT MARKING LAYOUT. ASSUME 4" THICKNESS (REFER TO DETAIL CP501/D3)

(1)

25. CONCRETE PAVEMENT (REFER TO DETAIL CS501/C1). PROVIDE TRANSVERSE CONTROL JOINTS AT 11' +/– ON CENTER. PROVIDE REINFORCED SLABS FOR SLABS CONTAINING AND ADJACENT TO SANITARY STRUCTURE. REFER TO PCC PAVEMENT NOTES SHEET CS502.
26. 2" MIN. #57 STONE OVER 4" MIN. CRUSHER RUN OVER FILTER FABRIC WITHIN FENCED AREA.
27. PEDESTRIAN CROSSWALK (REFER TO VOLUME 6 DETAIL CS512X/B5)
28. STOP BAR (REFER TO VOLUME 6 DETAIL CS512X/A4)
29. STOP SIGN (REFER TO DETAIL CS512X/D4 & D5)
30. SCREEN WALL (REFER TO ARCHITECTURAL DRAWING AS402)

SHEET NOTES

1. REFER TO THE CG SHEETS FOR STORMWATER IMPROVEMENTS AND CU SHEETS FOR UTILITY IMPROVEMENTS.
2. REFER TO SHEET C–005 FOR THE OVERALL SITE PLAN.
3. REFER TO SHEET CS001 FOR SITE LAYOUT CONTROL POINTS (PT#).
4. REFER TO VOLUME 6 FOR BASE BID.
5. PRIOR TO CONSTRUCTION OF THE CONCRETE SIDEWALKS AND ADJACENT SLABS A JOINT PLAN MUST BE SUBMITTED FOR APPROVAL.



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

BY	AMENDMENT	DATE	APPR
		01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE: 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC — NORFOLK, VA

DC CORE — MCAS BEAUFORT — BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

LAYOUT PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859238
SHEET	66 OF 1412

CS101

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\MBLDG-P475--1363603--CS101.dwg LAYOUT NAME: CS101 PLOTTED: Tuesday, January 20, 2026 – 4:05pm USER: mfw

SHEET NOTES

1. REFER TO THE CG SHEETS FOR STORMWATER IMPROVEMENTS CU SHEETS FOR UTILITY IMPROVEMENTS.
2. REFER TO SHEET C-005 FOR THE OVERALL SITE PLAN.
3. REFER TO SHEET CS001 FOR SITE LAYOUT CONTROL POINTS (PT#).
4. REFER TO VOLUME 6 FOR BASE BID.
5. PRIOR TO CONSTRUCTION OF THE CONCRETE SIDEWALKS AND ADJACENT SLABS A JOINT PLAN MUST BE SUBMITTED FOR APPROVAL.

SITE IMPROVEMENT NOTES (THIS SHEET ONLY)

1. CONCRETE PAVEMENT (8-INCH THICK) (REFER TO DETAIL CS501/C1)
2. CONCRETE SIDEWALK (REFER TO DETAIL CS504/B4)
3. CONCRETE ENTRANCE (REFER TO DETAIL CS503/A4)
4. BITUMINOUS PAVEMENT INTERFACE (REFER TO DETAIL CS501/B1)
5. CONCRETE CURB AND GUTTER (REFER TO DETAIL CS504/C1)
6. BITUMINOUS PAVEMENT (REFER TO DETAIL CS501/A4)
7. RESTRICTED AREA SECURITY FENCE (REFER TO DETAIL CS506/C1)
8. CANTILEVER SLIDING GATE (REFER TO DETAIL CS510/C4)
9. CONCRETE RAMP (TYPE 1) (REFER TO DETAIL CS505/C1)
10. CONCRETE RAMP (TYPE 2) (REFER TO DETAIL CS505/A1)
11. CONCRETE RAMP (TYPE 3) (REFER TO DETAIL CS505/C4)
12. CONCRETE RAMP (TYPE 4) (REFER TO DETAIL CS505/A4)
13. TURNDOWN EDGE SIDEWALK (REFER TO DETAIL CS504/A3)
14. LANDSCAPE AREA (REFER TO LANDSCAPE PLANS)
15. GRADE BREAK
16. HANDRAIL (REFER TO LANDSCAPE PLANS)
17. CONCRETE HANDICAP RAMP (REFER TO LANDSCAPE PLANS AND DETAIL CS507/A2)
18. CONCRETE STEP OR STEPS (REFER TO LANDSCAPE PLANS AND DETAIL CS507/A2)
19. CONCRETE CURBED GATE CHANNEL (REFER TO SHEET CS510/B4 FOR SECTION)
20. DRY DETENTION AREA (REFER TO CG SERIES SHEETS)
21. CONCRETE ISLAND (REFER TO VOLUME 1, DETAIL CS504/A4 AND VOLUME 4, DETAIL PAE401/A3)
22. KEY PAD/ CARD READER (REFER TO DETAIL CS510/A5)
23. TRAFFIC DETECTOR LOOP (REFER TO DETAIL CS503/A1)
24. CONCRETE RAMP (TYPE 5) (REFER TO DETAIL CS505/B3)
25. BOLLARD (REFER TO VOLUME 3, DETAIL OAE561/C3)
26. GATE OPERATOR (REFER TO CS510/C4)
27. WHITE PAINT LINE MARKING. MATCH EXISTING PAVEMENT MARKING LAYOUT. ASSUME 4" THICKNESS (REFER TO DETAIL CP501/D3) 1
28. PEDESTRIAN CROSSWALK (REFER TO VOLUME 6 DETAIL CS512X/B5)
29. STOP BAR (REFER TO VOLUME 6 DETAIL CS512X/A4)
30. STOP SIGN (REFER TO DETAIL CS512X/D4 & D5)

MATCH LINE SHEET CS104

MATCH LINE SHEET CS101

PROPOSED P-464 CONSTRUCTION

P-475 PARKING GARAGE OPTION

P-464 PARKING GARAGE

SEE ENLARGED PLAN THIS SHEET

COLUMN POINT "A.2 8"

DRAYTON ST.

MAYBERRY ST.

T.B.M.#1

B4 CS510

A3 CS510

R=30'
R=25'
R=20.08'
R=30.25'
R=91.11'
R=25'
R=25'

8.33'
5.58'
32.50'
7.79'
36.78'
63°

T.O.B.
T.O.S.
VARIES

(TYP)

ENLARGED PLAN
1" = 10'

SOUTH CAROLINA STATE PLANE

KEY PLAN
CS105 CS106 CS103 CS104 CS101 CS102

GRAPHIC SCALE
1" = 25' 0 25' 50' 75' 100'
1" = 10' 0 10' 20' 30' 40'

BY	DESCRIPTION	DATE	APPR
	AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED — Approved by: J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
FOR COMMANDER NAVFAC — SATISFACTORY TO — DATE: 12/15/2022

DES	CAB
DRW	CAD
CHK	ALB
PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

ACTIVITY

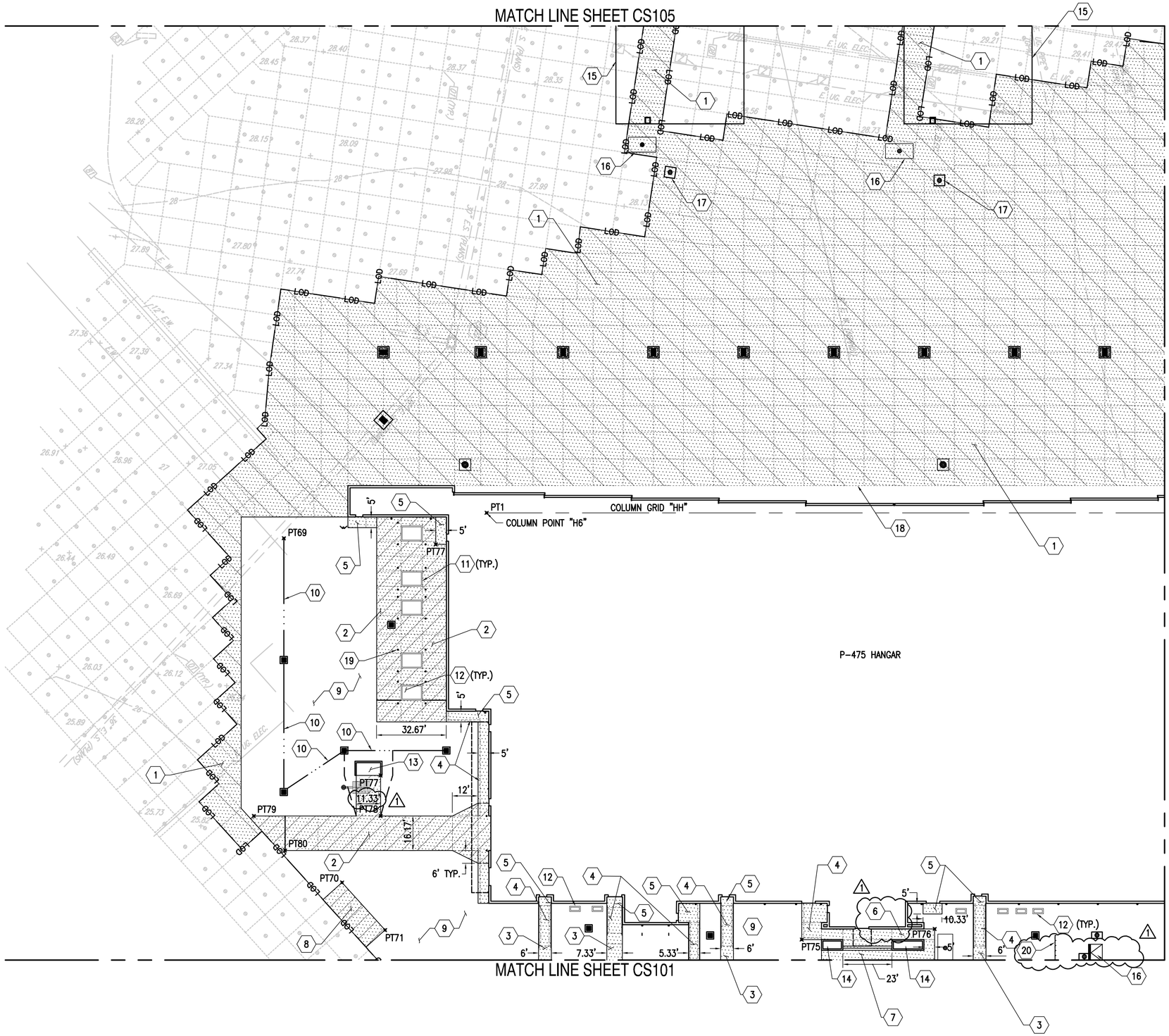
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CORE
MCAS BEAUFORT
NAVFAC VA — BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LAYOUT PLAN

SCALE: GRAPHIC
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859239
SHEET 67 OF 1412

CS102

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CS102.dwg LAYOUT NAME: CS102 PLOTTED: Tuesday, January 20, 2026 - 4:05pm USER: mtw



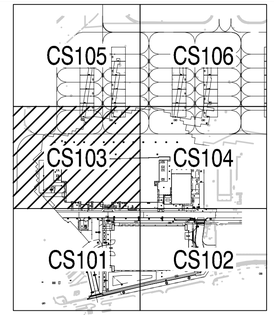
SITE IMPROVEMENT NOTES (THIS SHEET ONLY)

1. CONCRETE AIRFIELD PAVEMENT (REFER TO DETAIL CS501/C3 AND SHEET CS002)
2. CONCRETE PAVEMENT (8-INCH THICK) (REFER TO DETAIL CS501/C1)
3. CONCRETE SIDEWALK (REFER TO DETAIL CS504/B4)
4. TURNED DOWN EDGE CONCRETE SIDEWALK (REFER TO DETAIL CS504/B1)
5. CONCRETE STOOP (REFER TO DETAIL CS504/A1)
6. CONCRETE HANDICAP RAMP (REFER TO ARCHITECTURAL PLANS)
7. CONCRETE STEP OR STEPS (REFER TO ARCHITECTURAL PLANS)
8. READY SERVICE LOCKER (RSL) CONCRETE PAD (REFER TO DETAIL CS504/B3)
9. LANDSCAPE AREA (REFER TO LANDSCAPE PLANS)
10. SWALE (REFER TO DETAIL CG505/A5)
11. CONCRETE HOUSEKEEPING PAD (REFER TO MECHANICAL PLANS)
12. MECHANICAL EQUIPMENT (REFER TO MECHANICAL PLANS)
13. OXYGEN TANK STORAGE AREA (REFER TO ARCHITECTURAL PLANS)
14. RAISED PLANTER (REFER TO DETAILS LP501/C4 AND SB505/D1)
15. SUN SHADE BOUNDARY
16. ELECTRICAL EQUIPMENT (REFER TO ELECTRICAL PLANS)
17. TELECOMMUNICATION EQUIPMENT (REFER TO TELECOMMUNICATION PLANS)
18. REFER TO ARCHITECTURAL PLANS FOR DOOR RAILS.
19. BOLLARD (REFER TO VOLUME 3 DETAIL OAE561/C3)
20. SCREEN WALL (REFER TO ARCHITECTURAL DRAWING AS402) (1)

SHEET NOTES

1. REFER TO CS401 THROUGH CS403 FOR ENLARGED JOINT PLANS.
2. REFER TO THE CG SHEETS FOR STORMWATER IMPROVEMENTS AND CU SHEETS FOR UTILITY IMPROVEMENTS.
3. REFER TO SHEET C-005 FOR THE OVERALL SITE PLAN.
4. REFER TO SHEETS CP401 THROUGH CP404 FOR PAVEMENT MARKINGS.
5. REFER TO SHEET CS001 FOR SITE LAYOUT CONTROL POINTS (PT#).
6. PRIOR TO CONSTRUCTION OF THE CONCRETE SIDEWALKS AND ADJACENT SLABS A JOINT PLAN MUST BE SUBMITTED FOR APPROVAL.

SOUTH CAROLINA STATE PLANE



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

BY	DESCRIPTION	DATE	APPR
AMENDMENT		01/16/2026	
MOD P00006 AND MOD P00007		10/2025	
MOD P00005		05/2023	

NAVFAC

SOUTH CAROLINA
Annalee Bamforth
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

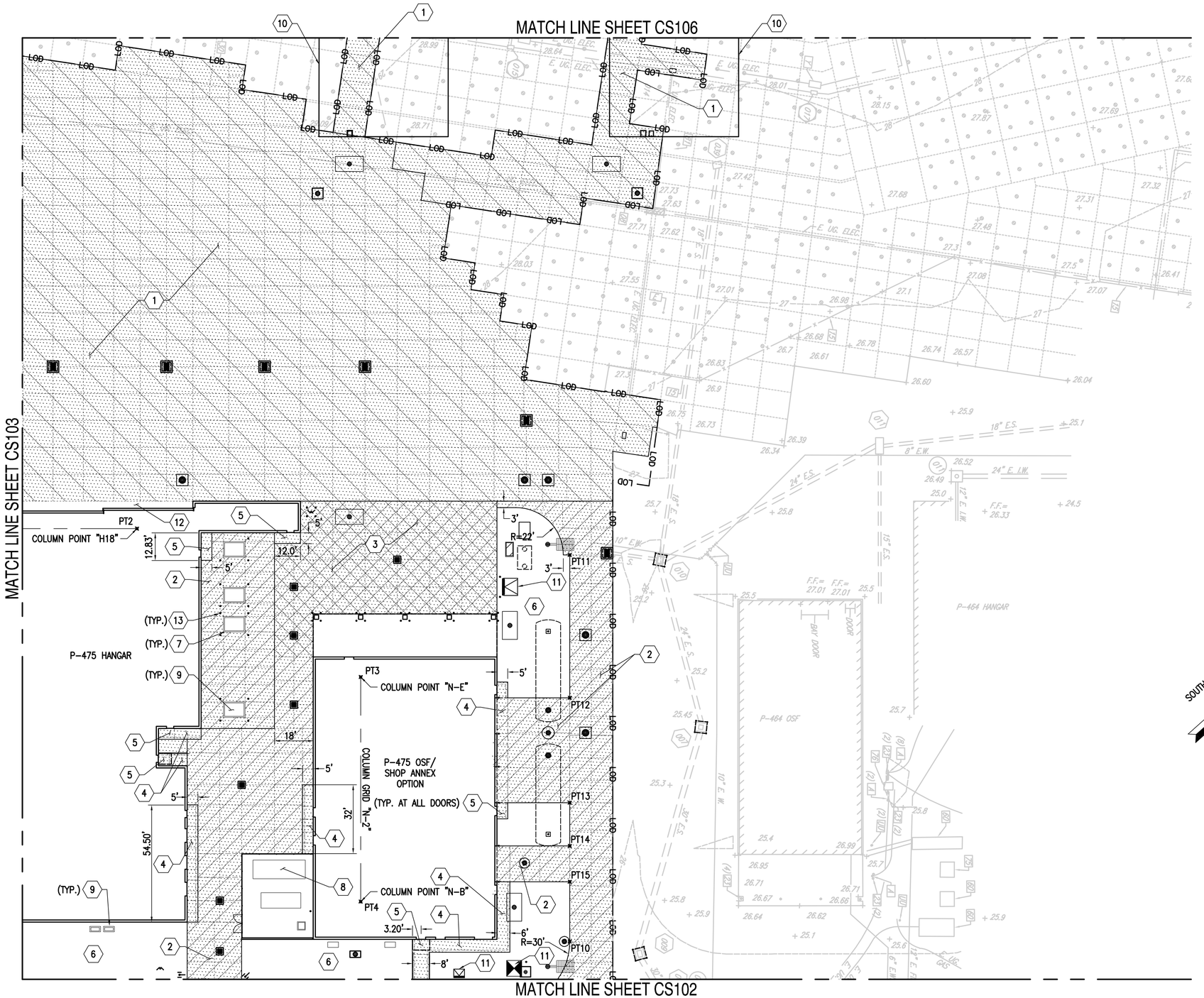
LAYOUT PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859240
SHEET	68 OF 1412

CS103

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\MBLDG-P475-1363603-CS103.dwg LAYOUT NAME: CS103 PLOTTED: Tuesday, January 20, 2026 - 4:06pm USER: mtw



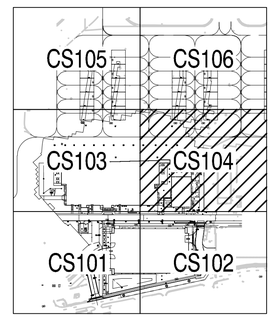
SITE IMPROVEMENT NOTES (THIS SHEET ONLY)

1. CONCRETE AIRFIELD PAVEMENT (REFER TO DETAIL CS501/C3 AND SHEET CS002)
2. CONCRETE PAVEMENT (8-INCH THICK) (REFER TO DETAIL CS501/C1)
3. HEAVY DUTY CONCRETE PAVEMENT (9-INCH THICK) (REFER TO DETAIL CS501/D2)
4. TURNED DOWN EDGE CONCRETE SIDEWALK (REFER TO DETAIL CS504/B1)
5. CONCRETE STOOP (REFER TO DETAIL CS504/A1)
6. LANDSCAPE AREA (REFER TO LANDSCAPE PLANS)
7. HOUSEKEEPING PAD (REFER TO MECHANICAL PLANS)
8. MECHANICAL YARD (REFER TO MECHANICAL PLANS)
9. MECHANICAL EQUIPMENT (REFER TO MECHANICAL PLANS)
10. SUN SHADE BOUNDARY
11. TRANSFORMER PAD (REFER TO ELECTRICAL PLANS)
12. REFER TO ARCHITECTURAL PLANS FOR DOOR RAILS
13. BOLLARD (REFER TO VOLUME 3, DETAIL OAE561/C3)

SHEET NOTES

1. REFER TO CS401 THROUGH CS403 FOR ENLARGED JOINT PLANS.
2. REFER TO THE CG SHEETS FOR STORMWATER IMPROVEMENTS AND CU SHEETS FOR UTILITY IMPROVEMENTS.
3. REFER TO SHEET C-005 FOR THE OVERALL SITE PLAN.
4. REFER TO SHEETS CP401 THROUGH CP404 FOR PAVEMENT MARKINGS.
5. REFER TO SHEET CS001 FOR SITE LAYOUT CONTROL POINTS (PT#).
6. REFER TO VOLUME 6 FOR BASE BID.

SOUTH CAROLINA STATE PLANE



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

#	BY	DESCRIPTION	DATE	APPR
3	AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
2		MOD P00005	10/2025	
1			05/2023	

NAVFAC

SOUTH CAROLINA
Annalee Bamforth
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

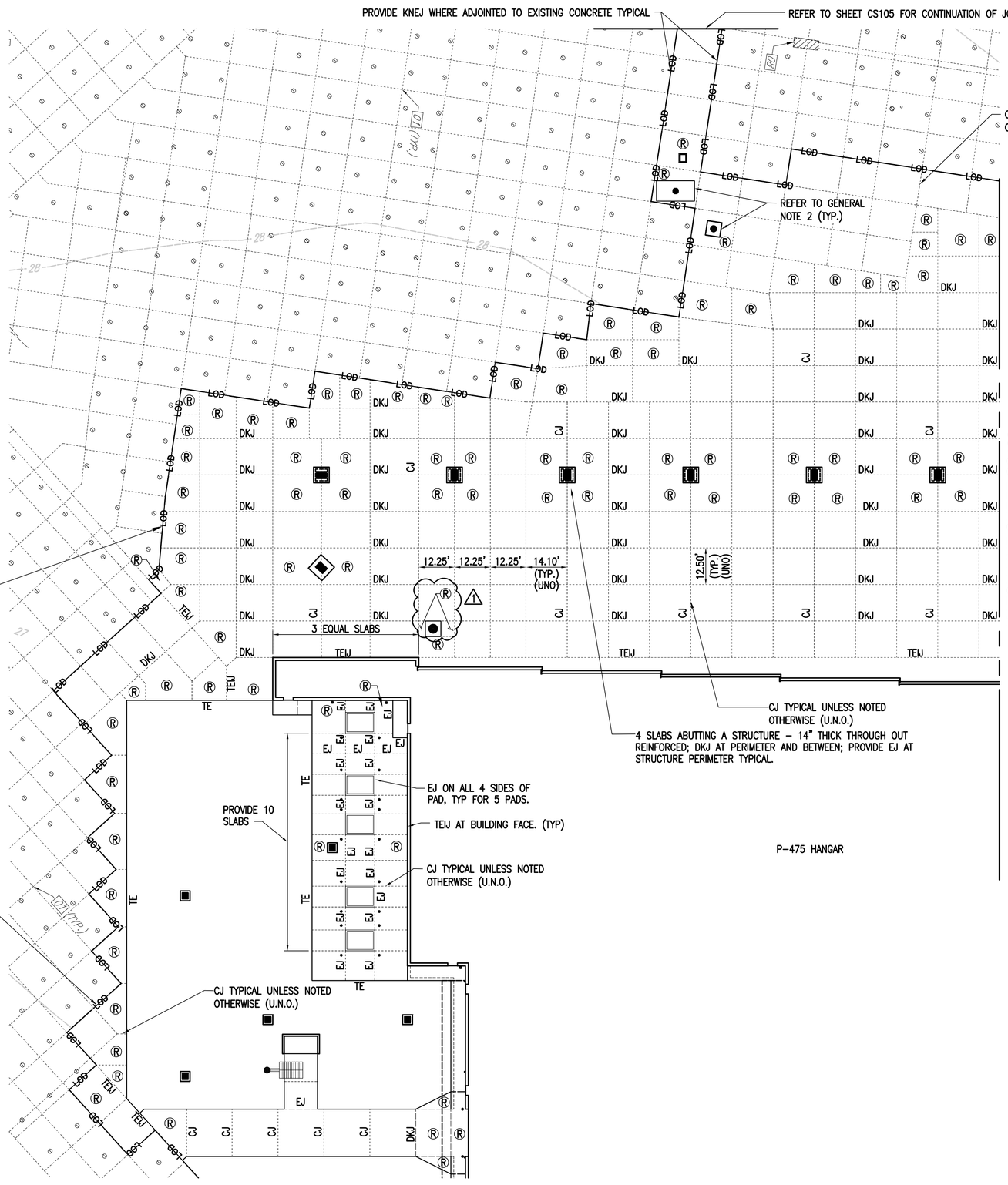
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LAYOUT PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859241
SHEET	69 OF 1412

CS104

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CS104.dwg LAYOUT NAME: CS104 PLOTTED: Tuesday, January 20, 2026 - 4:06pm USER: mtw



GENERAL NOTES: (THIS SHEET ONLY)

1. REFER TO PCC PAVEMENT NOTES SHEET CS502.
2. FOR APRON SLAB(S) OVER A MANHOLE, ISOLATE THE APRON SLAB(S) FROM THE MANHOLE COVER SLAB AND THE MANHOLE COLLAR BY –
   A. THE MANHOLE COVER SLAB MUST BE 24" MINIMUM BELOW FINISHED GRADE. COORDINATE WITH MANHOLE DETAILS ON ELECTRICAL SHEETS.
   B. APPLY ASPHALT EMULSION TO THE MANHOLE COLLAR AS A BOND BREAKER FOR THE APRON SLAB.

JOINT LEGEND (THIS SHEET ONLY)

TE = THICKENED EDGE PANEL (REFER TO SHEET CS502/D3)

TEIJ = THICKENED EDGE ISOLATION JOINT (REFER TO SHEET CS502/C3)

DKJ = DOWELED CONSTRUCTION JOINT (REFER TO SHEET CS502/B3)

CJ = CONTRACTION JOINT (REFER TO SHEET CS502/D1)

Ⓡ = REINFORCED CONCRETE PAVEMENT (REFER TO PCC NOTES SHEET CS502)

KNEJ = CONSTRUCTION JOINT BETWEEN NEW AND EXISTING PCC PAVEMENT (REFER TO SHEET CS502/B1)

SOUTH CAROLINA STATE PLANE

N

GRAPHIC SCALE

1" = 20'

0 20' 40' 60' 80'

APPR	DATE	DESCRIPTION	STM
	01/16/2026	BY AMENDMENT	
	10/2025	MOD P00006 AND MOD P00007	
	05/2023	MOD P00005	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

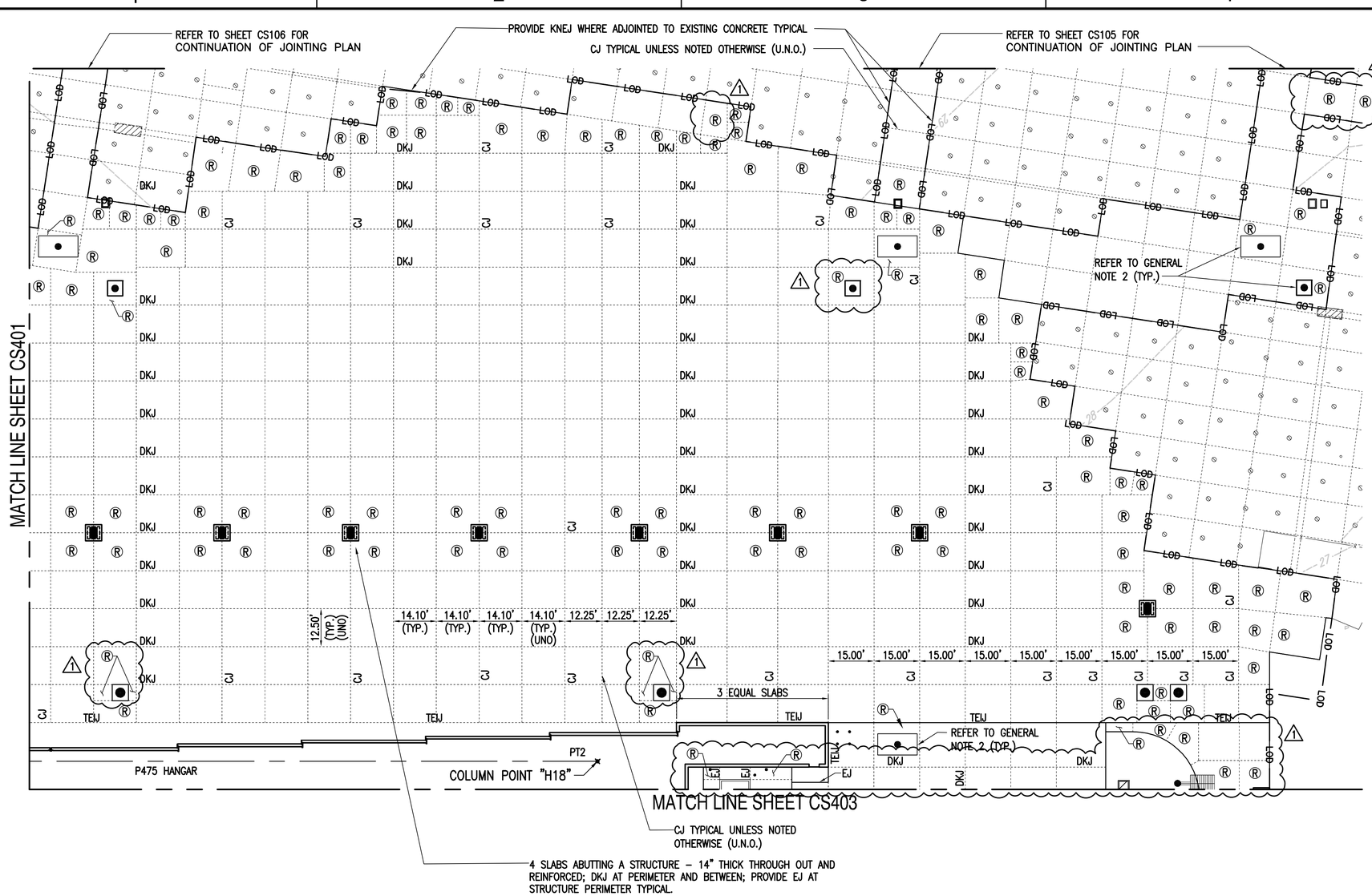
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
ENLARGED JOINTING PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859244
SHEET	72 OF 1412

CS401

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\200211\Amendment 01-16-26\BLDG-P475-1363603-CS401.dwg LAYOUT NAME: CS401 PLOTTED: Tuesday, January 20, 2026 - 4:06pm USER: mlw



GENERAL NOTES: (THIS SHEET ONLY)

1. REFER TO PCC PAVEMENT NOTES SHEET CS502.
2. FOR APRON SLAB(S) OVER A MANHOLE, ISOLATE THE APRON SLAB(S) FROM THE MANHOLE COVER SLAB AND THE MANHOLE COLLAR BY –
   A. THE MANHOLE COVER SLAB MUST BE 24" MINIMUM BELOW FINISHED GRADE. COORDINATE WITH MANHOLE DETAILS ON ELECTRICAL SHEETS.
   B. APPLY ASPHALT EMULSION TO THE MANHOLE COLLAR AS A BOND BREAKER FOR THE APRON SLAB.

JOINT LEGEND (THIS SHEET ONLY)

TE = THICKENED EDGE PANEL (REFER TO SHEET CS502/D3)

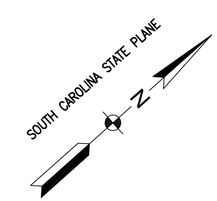
TEIJ = THICKENED EDGE ISOLATION JOINT (REFER TO SHEET CS502/C3)

DKJ = DOWELED CONSTRUCTION JOINT (REFER TO SHEET CS502/B3)

CJ = CONTRACTION JOINT (REFER TO SHEET CS502/D1)

Ⓡ = REINFORCED CONCRETE PAVEMENT (REFER TO PCC NOTES SHEET CS502)

KNEJ = CONSTRUCTION JOINT BETWEEN NEW AND EXISTING PCC PAVEMENT (REFER TO SHEET CS502/B1)



GRAPHIC SCALE

1" = 20' 0 20' 40' 60' 80'

SYM	DESCRIPTION	DATE	APPR
1	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 23067 01/13/23 ANNA LEE BAMFORTH

SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

DC CORE
MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

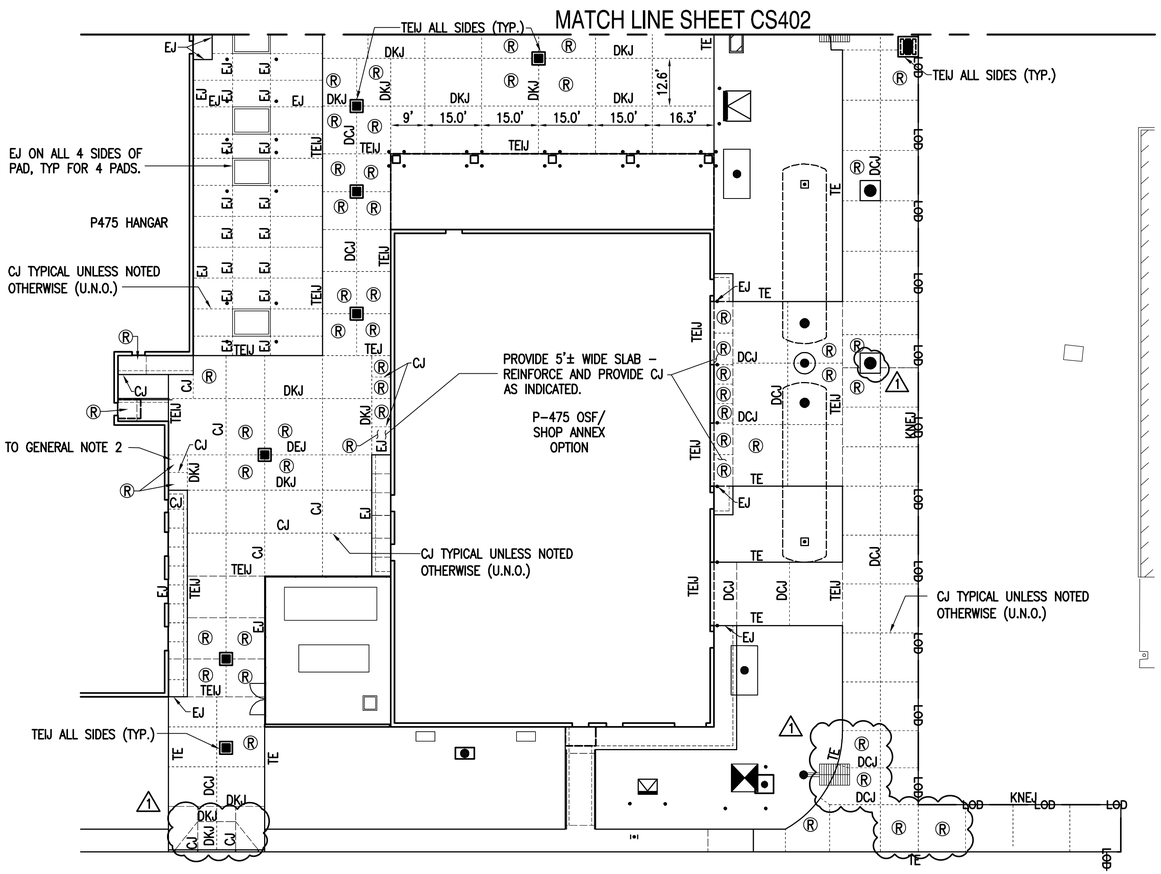
ENLARGED JOINTING PLAN

SCALE: GRAPHIC
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859245
SHEET 73 OF 1412

CS402

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BBLDG-P475-1363603-CS402.dwg LAYOUT NAME: CS402 PLOTTED: Tuesday, January 20, 2026 - 5:18pm USER: mtw



GENERAL NOTES: (THIS SHEET ONLY)

1. REFER TO PCC PAVEMENT NOTES SHEET CS502.

JOINT LEGEND (THIS SHEET ONLY)

TE = THICKENED EDGE PANEL (REFER TO SHEET CS502/D3)

TEIJ = THICKENED EDGE ISOLATION JOINT (REFER TO SHEET CS502/C3)

DKJ = DOWELED CONSTRUCTION JOINT (REFER TO SHEET CS502/B3)

CJ = CONTRACTION JOINT (REFER TO SHEET CS502/D1)

DCJ = DOWELED CONTRACTION JOINT (REFER TO SHEET CS502/C1)

Ⓡ = REINFORCED CONCRETE PAVEMENT (REFER TO PCC NOTES SHEET CS502)

KNEJ = CONSTRUCTION JOINT BETWEEN NEW AND EXISTING PCC PAVEMENT (REFER TO SHEET CS502/B1)

SOUTH CAROLINA STATE PLANE

N

REFER TO VOLUME 6 FOR BASE BID

GRAPHIC SCALE

1" = 20'

0 20' 40' 60' 80'

BY	DESCRIPTION	DATE	APPR
AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
	MOD P00005	10/2025	
		05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

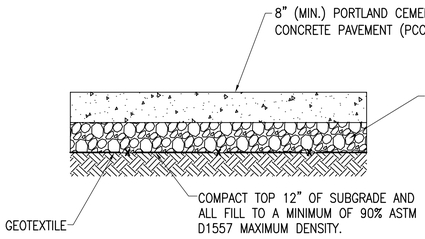
ENLARGED JOINTING PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859246
SHEET	74 OF 1412

CS403

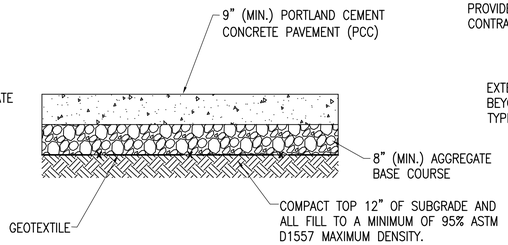
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CS403.dwg LAYOUT NAME: CS403 PLOTTED: Tuesday, January 20, 2026 - 5:20pm USER: mlw

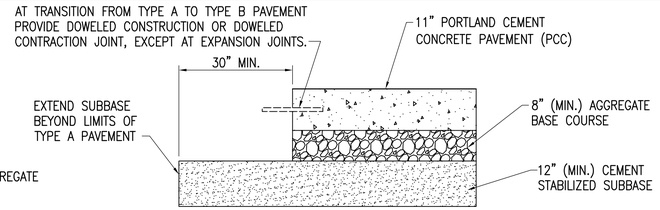


NOTE: APPLIES TO ALL NON-AIRFIELD PCC, UNLESS NOTED OTHERWISE (U.N.O.)

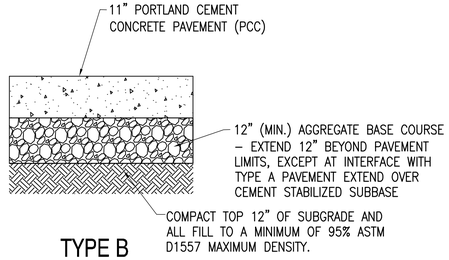
C1 CONCRETE PAVEMENT (PCC) DETAIL
N.T.S.



D2 HEAVY DUTY CONCRETE PAVEMENT (PCC) OSF RAMP FROM HANGAR APRON SECTION
N.T.S.



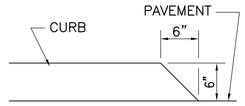
TYPE A



TYPE B

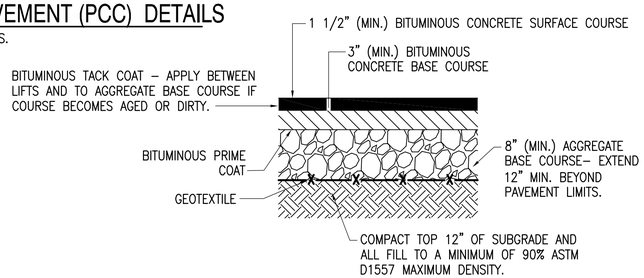
NOTES:

1. PROVIDE PCC TYPE AS INDICATED ON SHEET CS002.
2. PLACE MOORING EYE IN THE CENTER OF EACH NEW SLAB LOCATED WITHIN A SUNSHADE. IN ADDITION PROVIDE FOUR (4) RETROFIT MOORING EYES WITHIN EACH SUNSHADE, WITH EXACT LOCATION DETERMINED BY AIR OPERATIONS VIA THE CONTRACTING OFFICER. REFER TO RETROFIT MOORING EYE DETAIL ON CS503.

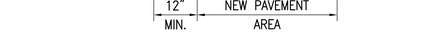


C2 CURB WIPEDOWN
N.T.S.

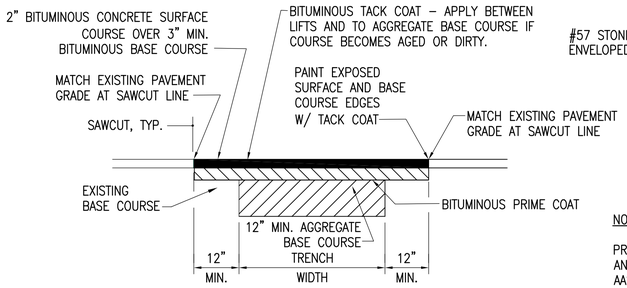
C3 AIRFIELD CONCRETE PAVEMENT (PCC) DETAILS
N.T.S.



C5 PARKING GARAGE ACCESS DRIVE PAVEMENT DETAIL
N.T.S.

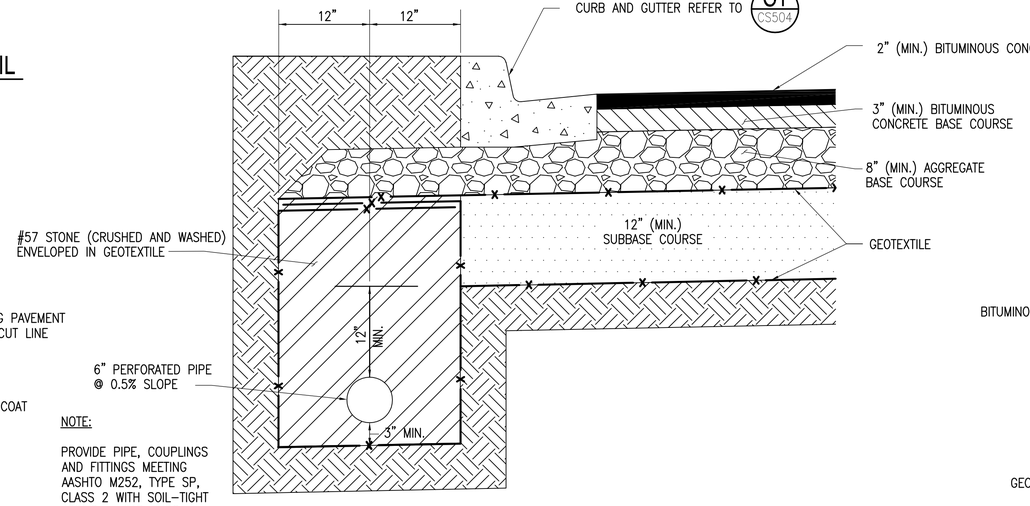


B1 BITUMINOUS PAVEMENT INTERFACE DETAIL
N.T.S.



NOTE:
PROVIDE MINIMUM THICKNESS SHOWN OR MATCH EXISTING, WHICHEVER IS GREATER.

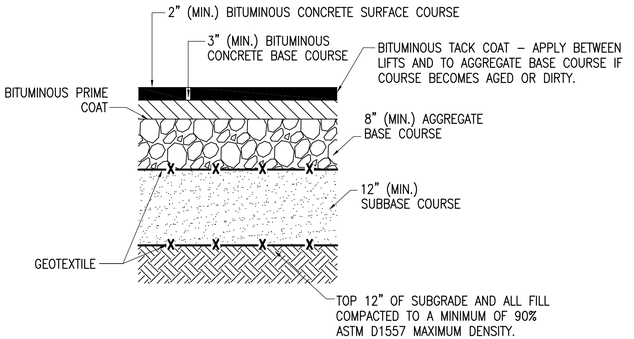
A1 BITUMINOUS PAVEMENT PATCH DETAIL
N.T.S.



NOTE:

PROVIDE PIPE, COUPLINGS AND FITTINGS MEETING AASHTO M252, TYPE SP, CLASS 2 WITH SOIL-TIGHT JOINTS. CAP ENDS TERMINATING IN STONE.

A3 SUBDRAINAGE SYSTEM FOR BITUMINOUS PAVEMENT
N.T.S.



A4 BITUMINOUS PAVEMENT DETAIL
N.T.S.

BY	DESCRIPTION	DATE	APPR
AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
	MOD P00005	10/2025	
		05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
DETAILS

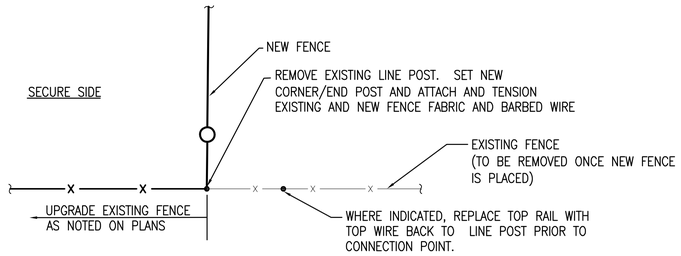
SCALE:	NONE
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859247
SHEET	75 OF 1412

CS501

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:_jobs_20021\Amendment 01-16-26\#BLDG-P475-1363603-CS501.dwg LAYOUT NAME: CS501 PLOTTED: Tuesday, January 20, 2026 - 4:07pm USER: mfw

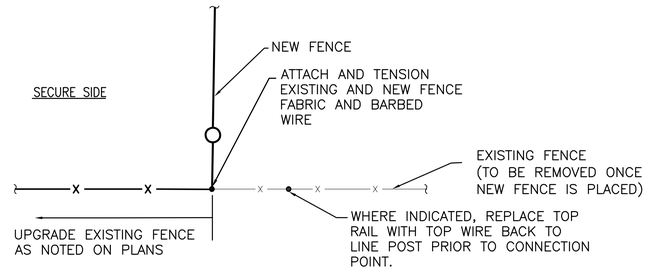
POST AND MOUNTING SHALL BE AS SHOWN IN DETAIL (C1 / C504)



FENCE CONNECTION AT EXISTING LINE POST (C2)

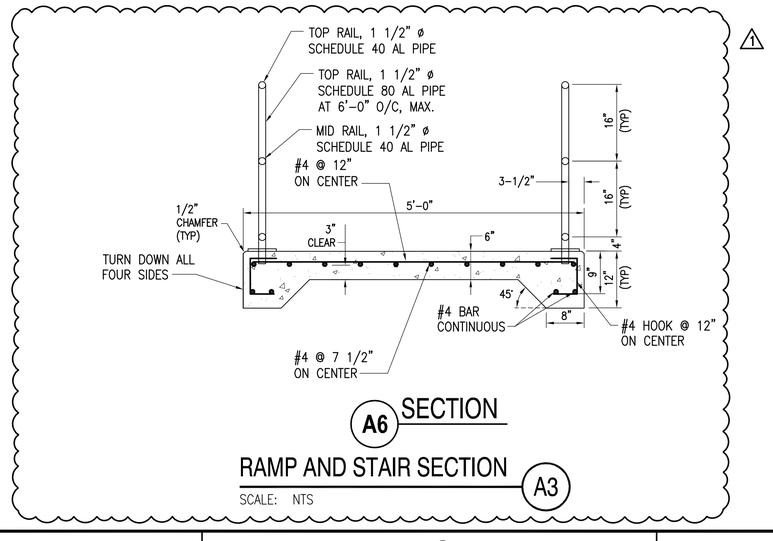
SCALE: NTS

POST AND MOUNTING SHALL BE AS SHOWN IN DETAIL (C1 / C504)



FENCE CONNECTION AT EXISTING CORNER POST (B2)

SCALE: NTS

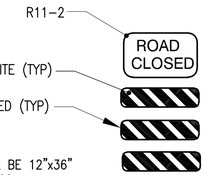


1

SECTION (A6)

RAMP AND STAIR SECTION (A3)

SCALE: NTS

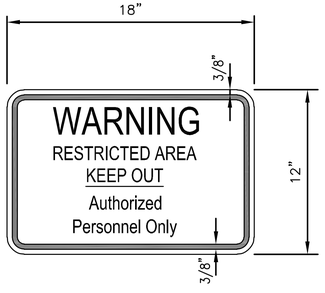


NOTES:

1. REFLECTIVE OBJECT MARKER SIGNS SHALL BE 12"x36" WITH REFLECTIVE RED AND WHITE MARKINGS.
2. ROAD CLOSED SIGN AND REFLECTIVE MARKERS SHALL BE PLACED ON BOTH SIDES OF GATE.

ROAD CLOSED SIGN DETAIL (C5)

SCALE: NTS



LETTERS AND BORDER: BLACK
BACKGROUND: WHITE
BORDER WIDTH: 3/8"
BORDER RADIUS: 1 1/2"

NOTES:
1. ALL WORDS EXCEPT "WARNING" TO BE IN BLACK AND 1 1/2" HEIGHT. THE WORD "WARNING" MUST BE IN RED AND 2 1/2" HEIGHT.
2. INSTALL SIGNS AT INTERVALS NOT TO EXCEED 100 FEET ON ALL NEW FENCE AND ALL NEW UPGRADED FENCE.
3. INSTALL SIGNS 48" ABOVE GRADE.
4. ANCHOR WITH A MINIMUM OF ONE WIRE TIE AT EACH CORNER.
5. FENCE SIGNS MUST BE ALUMINUM, 80 MIL THICKNESS. NO REFLECTIVITY REQUIRED.
6. SIGN MUST BE PLACED ON OUTSIDE OF FENCE FOR VISIBILITY.
7. REFER TO SHEET CV802/A1 FOR PHOTO OF EXISTING SIGN WHICH EXEMPLIFIES REQUIRED SIGN.

FENCE SIGN DETAIL (A5)

SCALE: NTS

	BY	DESCRIPTION	DATE	APPR
1	AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
		MOD P00005	10/2025	
			05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
DETAILS – RESTRICTED AREA FENCING

SCALE:	NONE
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859253
SHEET	81 OF 1412

CS507

DRAWFORM REVISION(): 25 AUGUST 2020

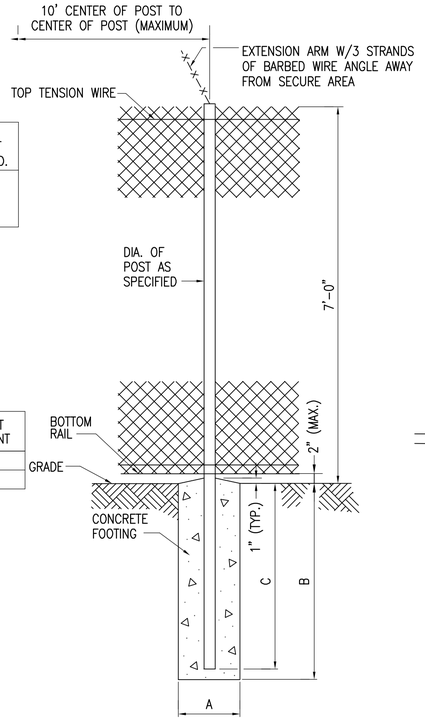
FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CS507.dwg LAYOUT NAME: CS507 PLOTTED: Tuesday, January 20, 2026 - 4:07pm USER: mtw

CHAIN LINK GATE POST

GATE LEAF WIDTH	GATE POST (O.D.)	FABRIC HEIGHT	"A" DIA.	"B" DEPTH	"C" POST EMBED.
3' TO 6'	2.785"	6' TO 9'	14"	42"	40"

CHAIN LINK LINE AND TERMINAL POSTS

FABRIC HEIGHT	TYPE POST	"A" DIA.	"B" DEPTH	"C" POST EMBEDMENT
7'-0"	LINE	12"	38"	36"
	TERMINAL	12"	38"	36"

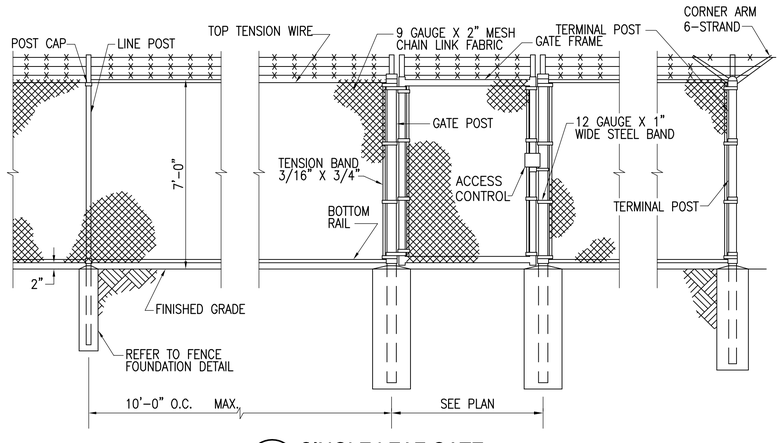


NOTE:
TERMINAL POSTS INCLUDE END, CORNER AND PULL POSTS.

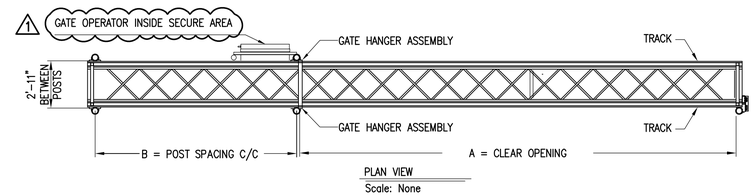
C1 CHAIN LINK FENCE & GATE FOUNDATION
N.T.S.

GENERAL FENCING NOTES

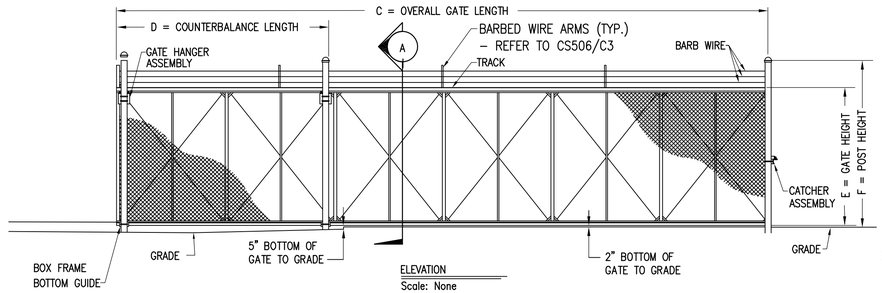
1. FOOTING DESIGNS BASED ON SOIL BEARING CAPACITY OF 1000 PSF.
2. EXCAVATIONS FOR ALL FOOTINGS MAY BE DONE BY AUGERING, TAKING CARE TO AVOID EXISTING UTILITIES.
3. ALL CONCRETE WORK MUST BE IN ACCORDANCE WITH ACI 318. CONCRETE MUST HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. THE MINIMUM CONCRETE COVER MUST BE 3 INCHES, UNLESS OTHERWISE NOTED.
4. GROUND FENCES ON EACH SIDE OF ALL GATES.
5. REFER TO SITE PLANS ON CIVIL SHEETS FOR GRADES.



A1 SINGLE LEAF GATE
N.T.S.

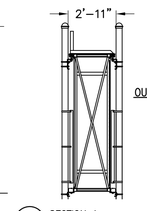


PLAN VIEW
Scale: None

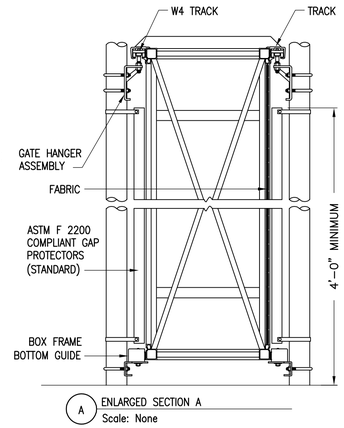


ELEVATION
Scale: None

CRITICAL DIMENSION CHART			
MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	50'-0"
B	COUNTERBALANCE POST SPACING C/C	(A/2)-11"	24'-1"
C	OVERALL GATE LENGTH	A x 1.5	75'-0"
D	COUNTERBALANCE LENGTH	A x 0.5	25"-0"
E	NOMINAL GATE HEIGHT	E	7'-0"
F	POST HEIGHT (W BARB ARMS)	E + 1'-6"	8"-6"



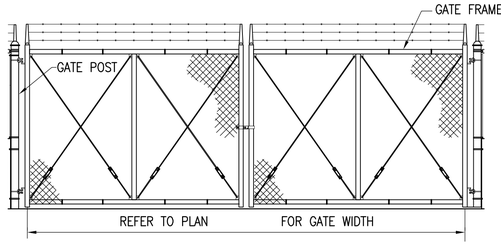
A SECTION A
Scale: None



A ENLARGED SECTION A
Scale: None

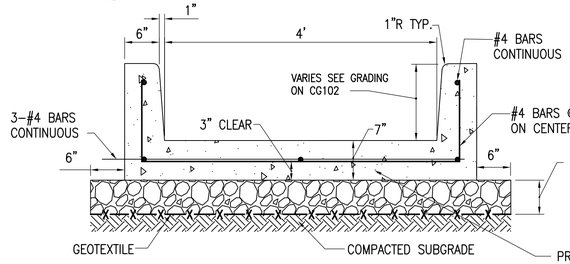
NOTES:

1. PROVIDE FITTINGS FOR POSTS.
2. PROVIDE BARBED WIRE ARMS (10 FEET MAXIMUM ON CENTER)
3. GATE OPERATOR MUST BE LOCATED ON THE SECURE SIDE OF THE GATE.
4. REFER TO DETAIL A3, THIS SHEET, FOR ADDITIONAL INFORMATION

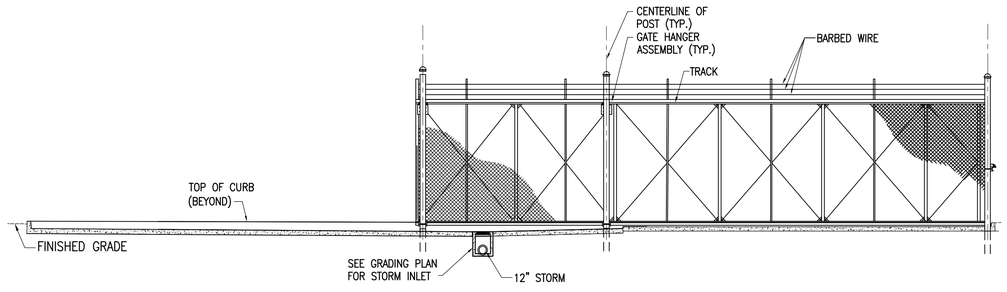


B3 DOUBLE LEAF GATE
N.T.S.

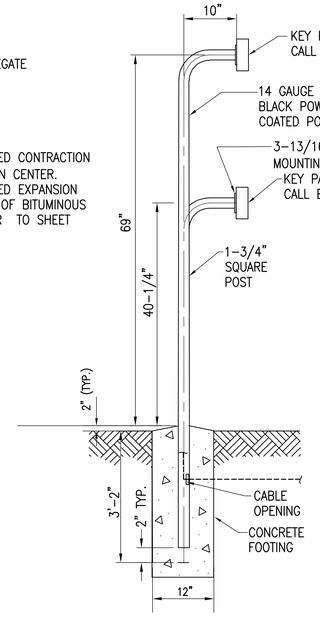
BOX FRAME CANTILEVER SLIDE GATE FOR RESTRICTED AREA
C4
N.T.S.



B4 CS102 CONCRETE CURBED GATE CHANNEL SECTION
N.T.S.



A3 CS102 BOX FRAME CANTILEVER SLIDE GATE SECTION
N.T.S.



A5 KEY PAD/CARD READER PEDESTAL
N.T.S.

BY	AMENDMENT	DATE	APPR
MOD P00006 AND MOD P00007		01/16/2026	
		10/2025	
MOD P00005		05/2023	

SYM DESCRIPTION

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO	DATE
12/15/2022	

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC-CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
DETAILS - FENCING AND GATES

SCALE:	NONE
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859256
SHEET	84 OF 1412

CS510

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\200211\Amendment 01-16-26\BLDG-P475-1363603-CS510.dwg LAYOUT NAME: CS510 PLOTTED: Tuesday, January 20, 2026 - 4:07pm USER: mlw

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
1	C.B. RIM = 26.00 INV. 15" (NE) = 21.35 INV. 15" (SE) = 21.35	N: 230862.48 E: 2084107.40
2	C.B. RIM = 25.50 INV. 15" (NW) = 21.19 INV. 15" (N) = 21.19 INV. 15" (E) = 21.19	N: 230821.35 E: 2084153.61
3	SCDOT TYPE 16 RIM = 25.84 INV. 15" (NW) = 20.89 INV. 15" (SW) = 20.89	N: 230849.49 E: 2084336.82
4	SCDOT TYPE 16 (NOTE 2) RIM = 25.66 INV. 15" (W) = 20.79 INV. 15" (NE) = 20.79	N: 230820.98 E: 2084311.44
5	SCDOT TYPE 16 RIM = 25.50 INV. 15" (NW) = 19.02 INV. 18" (NE) = 18.77	N: 230892.06 E: 2084374.71
6	SCDOT TYPE 16 (NOTE 10) RIM = 25.50 INV. 18" (SW) = 18.46 ⚠1 INV. 15" (NW) = 19.05 INV. 24" (NE) = 17.96	N: 231005.85 E: 2084476.01
7	C.B. RIM = 27.11 INV. 15" (SW) = 20.86	N: 231337.11 E: 2084457.05
8	C.B. RIM = 27.20 INV. 15" (NE) = 20.71 INV. 6" (NE) = 21.79 INV. 6" (W) = 23.85 INV. 15" (SE) = 20.71	N: 231292.90 E: 2084434.50
9	C.B. RIM = 27.18 INV. 15" (NW) = 20.64 INV. 15" (SE) = 20.64	N: 231277.88 E: 2084451.36
10	C.B. RIM = 27.16 INV. 15" (NW) = 20.55 INV. 6" (W) = 23.14 INV. 15" (S) = 20.55	N: 231256.47 E: 2084475.42
11	C.B. RIM = 26.98 INV. 15" (N) = 20.41 INV. 6" (W) = 23.66 INV. 15" (SE) = 20.41	N: 231213.58 E: 2084487.13
12	C.B. RIM = 27.16 INV. 15" (NW) = 20.25 INV. 18" (SE) = 20.00	N: 231170.16 E: 2084520.56
13	C.B. RIM = 26.93 INV. 18" (NW) = 19.93 INV. 6" (SW) = 21.20 INV. 18" (SE) = 19.93	N: 231154.54 E: 2084538.12
14	SCDOT TYPE 16 (NOTE 11) RIM = 25.50 INV. 18" (NW) = 19.77 ⚠1 INV. 24" (SW) = 17.66 INV. 30" (NE) = 17.46	N: 231119.65 E: 2084577.31
15	24" CATCH BASIN (NOTE 12) RIM = 24.78 INV. 12" (NW) = 21.75 ⚠1	N: 231206.65 E: 2084666.81
16	SCDOT TYPE 16 RIM = 25.64 INV. 30" (SW) = 16.96 INV. 6" (NW) = 21.53 INV. 12" (SE) = 21.55 INV. 30" (NE) = 16.96	N: 231212.64 E: 2084660.08

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
17	S. MH. RIM = 25.55 INV. 30" (SW) = 16.93 INV. 30" (SE) = 16.93	N: 231215.47 E: 2084667.87
18	S. MH (GRATE TOP) RIM = 25.18 INV. 30" (NW) = 16.46 INV. 30" (SE) = 16.46	N: 231136.34 E: 2084756.76
19	SCDOT TYPE 16 (NOTE 13) RIM = ~~23.72~~ INV. 15" (W) = 17.63 ⚠1	N: 231121.89 E: 2084821.10
20	S. MH. (108" DIA.) (NOTE 3) RIM = 24.87 INV. 30" (NW) = 16.29 INV. 15" (E) = 17.54 INV. 60" (SE) = 13.79	N: 231113.86 E: 2084789.95
21	S. MH. (108" DIA.) RIM = 22.25 INV. 60" (NW) = 13.54 INV. 60" (SW) = 13.54	N: 231036.70 E: 2084848.82
22	SCDOT TYPE 16 (NOTE 14) RIM = 22.93 INV. 15" (SE) = 17.08 ⚠1	N: 230954.94 E: 2084792.84
23	S. MH. (108" DIA.) RIM = 22.80 INV. 15" (NW) = 17.05 INV. 60" (NE) = 13.30 INV. 60" (SW) = 13.30	N: 230950.40 E: 2084801.07
24	HYDRODYNAMIC MANUFACTURED TREATMENT DEVICE (NOTE 5) RIM = 25.20 INV. 18" (SE) = 20.20	N: 230963.86 E: 2084755.03
25	C.B. RIM = ~~23.00~~ ⚠1 INV. 18" (NW) = 20.15 INV. 18" (SW) = 20.15	N: 230953.55 E: 2084766.61
26	F.E.S. INV. 18" (NE) = 20.00	N: 230922.39 E: 2084738.87
27	C.B. RIM = 26.02 INV. 15" (SE) = 20.31	N: 230913.12 E: 2084441.55
28	C.B. RIM = 25.72 INV. 15" (NW) = 20.22 INV. 15" (SE) = 20.22	N: 230894.24 E: 2084462.75
29	S. MH. (NOTE 6) RIM = 26.32 INV. 18" (SE) = 20.03	N: 230901.58 E: 2084478.58
30	C.B. (NOTE 16) ⚠1 RIM = ~~26.34~~ INV. 18" (NW) = 19.95 INV. 18" (SW) = 19.95	N: 230886.95 E: 2084495.02
31	C.B. RIM = 25.72 INV. 15" (NW) = 20.14 INV. 18" (NE) = 19.89 INV. 24" (SE) = 19.39	N: 230875.00 E: 2084484.38
32	C.B. (NOTE 17) ⚠1 RIM = ~~26.02~~ INV. 24" (NW) = 19.21 INV. 24" (SE) = 19.21	N: 230814.54 E: 2084552.29

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
33	C.B. RIM = 25.72 INV. 24" (NW) = 19.13 INV. 24" (SE) = 19.13	N: 230789.45 E: 2084580.48
34	SCDOT TYPE 16 RIM = 25.27 INV. 15" (NE) = 20.04	N: 230728.57 E: 2084539.87
35	SCDOT TYPE 16 RIM = 25.27 INV. 15" (SW) = 19.97 INV. 15" (E) = 19.97	N: 230753.89 E: 2084554.02
36	S. MH. (GRATE TOP) RIM = 24.90 INV. 15" (W) = 19.88 INV. 15" (NE) = 19.88	N: 230751.78 E: 2084589.70
37	C.B. RIM = 25.15 INV. 15" (NW) = 19.92	N: 230740.78 E: 2084635.15
38	C.B. RIM = 25.72 INV. 15" (SE) = 19.82 INV. 24" (NW) = 19.07 INV. 15" (SW) = 19.82 INV. 24" (NE) = 19.07	N: 230768.22 E: 2084604.33
39	F.E.S. INV. 24" (SW) = 19.00	N: 230795.11 E: 2084628.27
40	OUTLET STRUCTURE RIM = 22.80 INV. 24" (SE) = 16.94	N: 230803.14 E: 2084677.84
41	S. MH. (108" DIA.) (NOTE 7) RIM = 24.30 INV. 60" (NE) = 12.83 INV. 24" (NW) = 16.83	N: 230786.34 E: 2084708.91
42	AIRFIELD CATCH BASIN RIM = 27.59 INV. 15" (NE) = 21.99	N: 231277.28 E: 2084283.67
43	AIRFIELD CATCH BASIN RIM = 27.61 INV. 15" (SW) = 21.86 INV. 15" (NE) = 21.86	N: 231316.66 E: 2084318.72
44	AIRFIELD CATCH BASIN RIM = 27.44 INV. 15" (SW) = 21.74 INV. 15" (NE) = 21.74	N: 231350.71 E: 2084349.03
45	AIRFIELD CATCH BASIN RIM = 27.36 INV. 15" (SW) = 21.51 INV. 15" (NE) = 21.51	N: 231385.56 E: 2084380.06
46	AIRFIELD CATCH BASIN RIM = 27.20 INV. 15" (SW) = 20.76 INV. 15" (E) = 20.76	N: 231424.96 E: 2084448.60
47	AIRFIELD CATCH BASIN (NOTE 8) RIM = 26.14 INV. 15" (W) = 20.06	N: 231412.00 E: 2084519.61
48	AIRFIELD CATCH BASIN RIM = 27.56 INV. 15" (SW) = 22.81	N: 231245.68 E: 2084255.54

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
49	AIRFIELD CATCH BASIN RIM = 27.53 INV. 15" (NE) = 22.70 INV. 15" (SW) = 22.70	N: 231214.08 E: 2084227.41
50	AIRFIELD CATCH BASIN RIM = 27.51 INV. 15" (NE) = 22.58 INV. 18" (SW) = 22.33	N: 231182.48 E: 2084199.28
51	AIRFIELD CATCH BASIN RIM = 27.48 INV. 18" (NE) = 22.20 INV. 24" (SW) = 21.70	N: 231150.87 E: 2084171.14
52	AIRFIELD CATCH BASIN RIM = 27.45 INV. 24" (NE) = 21.62 INV. 24" (SW) = 21.62	N: 231119.27 E: 2084143.01
53	AIRFIELD CATCH BASIN RIM = 27.42 INV. 24" (NE) = 21.53 INV. 30" (SW) = 21.03	N: 231087.67 E: 2084114.88
54	AIRFIELD CATCH BASIN RIM = 27.39 INV. 30" (NE) = 20.95 INV. 30" (SW) = 20.95	N: 231056.07 E: 2084086.75
55	AIRFIELD CATCH BASIN RIM = 27.36 INV. 30" (NE) = 20.87 INV. 30" (SW) = 20.87	N: 231027.23 E: 2084061.08
56	AIRFIELD CATCH BASIN RIM = 27.29 INV. 15" (SE) = 21.99	N: 230993.18 E: 2084030.77
57	AIRFIELD S. MH. (NOTE 9) RIM = 27.77 INV. 15" (NW) = 21.91	N: 230972.07 E: 2084054.47
EX22	E. C.B. (NOTE 4) RIM = 27.53 INV. 30" (NE) = 20.80	N: 231020.07 E: 2084048.63
RD1	PIPE CONNECTION INV. 6" (SE) = 22.88	N: 230954.12 E: 2084108.10
RD2	S. CO. INV. 6" (NW) = 22.42 INV. 6" (SW) = 22.42	N: 230924.93 E: 2084140.90
RD3	PIPE CONNECTION INV. 6" (SE) = 22.69	N: 230940.30 E: 2084095.80
RD4	C.B. RIM = 27.43 INV. 6" (NE) = 22.23 INV. 6" (NW) = 22.23 INV. 15" (SW) = 21.48	N: 230911.11 E: 2084128.60
RD5	PIPE CONNECTION INV. 6" (S) = 22.91	N: 230909.97 E: 2084188.51
RD6	PIPE CONNECTION INV. 3" (SW) = 23.32	N: 230910.89 E: 2084189.88

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
RD7	3" X 6" WYE INV. 6" (N) = 22.88 INV. 3" (NE) = 23.00 INV. 6" (S) = 22.88	N: 230909.35 E: 2084188.51
RD8	PIPE CONNECTION INV. 3" (SW) = 23.25	N: 230858.43 E: 2084249.27
RD9	3" X 6" C.O. INV. 3" (NE) = 23.09 INV. 6" (NW) = 22.84	N: 230847.12 E: 2084239.20
RD10	PIPE CONNECTION INV. 3" (SW) = 23.64	N: 230871.07 E: 2084235.08
RD11	3" X 6" WYE INV. 6" (SE) = 22.64 INV. 3" (NE) = 22.77 INV. 6" (NW) = 22.64	N: 230859.76 E: 2084225.01
RD12	PIPE CONNECTION INV. 3" (SW) = 23.19	N: 230890.63 E: 2084213.10
RD13	3" X 6" WYE INV. 6" (SE) = 22.34 INV. 3" (NE) = 22.47 INV. 6" (NW) = 22.34	N: 230879.32 E: 2084203.04
RD14	C.B. RIM = 26.85 INV. 6" (SE) = 22.15 INV. 6" (N) = 22.15 INV. 15" (SW) = 21.40	N: 230891.15 E: 2084189.75
RD15	C.B. RIM = 26.40 INV. 15" (NE) = 21.28 INV. 15" (S) = 21.28	N: 230855.42 E: 2084157.94
RD16	C.B. (NOTE 1) RIM = 27.37 INV. 15" (SE) = 21.04	N: 230885.62 E: 2084296.29
RD17	S. CO. INV. 6" (NE) = 24.10	N: 230902.11 E: 2084315.42
RD18	6" WYE INV. 6" (SW) = 23.58 INV. 6" (NE) = 23.58	N: 230911.44 E: 2084323.73
RD19	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 230927.56 E: 2084324.69
RD20	6" WYE INV. 6" (SW) = 23.05 INV. 6" (NW) = 23.05 INV. 6" (NE) = 23.05	N: 230920.91 E: 2084332.16
RD21	PIPE CONNECTION INV. 6" (S) = 24.31	N: 230967.89 E: 2084360.59
RD22	PIPE CONNECTION INV. 6" (SE) = 24.17	N: 230962.66 E: 2084355.93

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
RD23	6" WYE INV. 6" (NW) = 24.10 INV. 6" (N) = 24.10 INV. 6" (S) = 24.10	N: 230958.00 E: 2084361.17
RD24	S. CO. INV. 6" (N) = 24.02 INV. 6" (SW) = 24.02	N: 230953.78 E: 2084361.41
RD25	PIPE CONNECTION INV. 6" (SE) = 23.66	N: 230951.72 E: 2084346.19
RD26	6" WYE INV. 6" (NE) = 23.55 INV. 6" (NW) = 23.55 INV. 6" (SW) = 23.55	N: 230945.07 E: 2084353.66
RD27	C.B. (NOTE 15) ⚠1 RIM = ~~27.15~~ INV. 6" (SW) = 22.77 INV. 6" (NE) = 22.53 INV. 15" (SE) = 19.15	N: 230925.94 E: 2084336.64
RD28	PIPE CONNECTION INV. 6" (SE) = 25.26	N: 231006.55 E: 2084395.00
RD29	S. CO. INV. 6" (NW) = 25.24 INV. 6" (NE) = 25.24	N: 231005.55 E: 2084396.12
RD30	PIPE CONNECTION INV. 6" (SE) = 25.00	N: 231015.23 E: 2084402.73
RD31	6" WYE INV. 6" (SW) = 24.99 INV. 6" (NW) = 24.99 INV. 6" (NE) = 24.99	N: 231014.23 E: 2084403.85
RD32	S. CO. INV. 6" (SW) = 24.29 INV. 6" (E) = 24.29	N: 231037.79 E: 2084424.82
RD33	PIPE CONNECTION INV. 6" (SE) = 24.26	N: 231040.62 E: 2084425.33
RD34	6" WYE INV. 6" (W) = 24.22 INV. 6" (NW) = 24.22 INV. 6" (E) = 24.22	N: 231037.99 E: 2084428.29
RD35	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231095.90 E: 2084474.54
RD36	S. CO. INV. 6" (NW) = 23.88 INV. 6" (SW) = 23.88	N: 231088.92 E: 2084482.39
RD37	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231082.08 E: 2084462.24
RD38	6" WYE INV. 6" (NE) = 23.11 INV. 6" (NW) = 23.11 INV. 6" (SW) = 23.11	N: 231075.10 E: 2084470.09

NOTES:

1. REFER TO SHEET CG002 FOR NOTES.

BY	DESCRIPTION	DATE	APPR
AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026 10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
STORM SCHEDULE

SCALE:	NONE
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859268
SHEET	96 OF 1412

CG001

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\J2022\1\Amendment 01 - 16-26\BLDG--P475--1363603--CG001.dwg LAYOUT NAME: CG001 PLOTTED: Tuesday, January 20, 2026 - 4:08pm USER: mlw

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
RD39	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231068.26 E: 2084449.94
RD40	6" WYE INV. 6" (NE) = 22.34 INV. 6" (NW) = 22.34 INV. 6" (SW) = 22.34	N: 231061.28 E: 2084457.78
RD41	S. CO. INV. 6" (S) = 24.10	N: 231054.45 E: 2084437.64
RD42	C.B. RIM = 27.22 INV. 6" (NE) = 21.18 INV. 6" (N) = 23.82 INV. 6" (W) = 24.02 INV. 15" (SE) = 19.32	N: 231039.74 E: 2084437.94
RD43	PIPE CONNECTION INV. 6" (NW) = 23.80	N: 231357.23 E: 2084501.92
RD44	S. CO. INV. 6" (SE) = 23.72 INV. 6" (SW) = 23.72	N: 231362.27 E: 2084496.26
RD45	PIPE CONNECTION INV. 6" (NW) = 23.80	N: 231326.46 E: 2084474.53
RD46	6" WYE INV. 6" (NE) = 22.86 INV. 6" (SE) = 22.86 INV. 6" (SW) = 22.86	N: 231331.50 E: 2084468.87
RD47	PIPE CONNECTION INV. 6" (NW) = 23.80	N: 231295.70 E: 2084447.14
RD48	6" WYE INV. 6" (NE) = 22.01 INV. 6" (SE) = 22.01 INV. 6" (SW) = 22.01	N: 231300.74 E: 2084441.48
RD49	S. CO. INV. 6" (E) = 24.10	N: 231292.23 E: 2084409.08
RD50	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231278.41 E: 2084396.78
RD51	S. CO. INV. 6" (NW) = 23.56 INV. 6" (E) = 23.56	N: 231244.02 E: 2084435.42
RD52	S. CO. W/ 3" X 6" WYE INV. 6" (NE) = 24.21	N: 231199.68 E: 2084450.45
RD53	PIPE CONNECTION INV. 6" (E) = 24.19	N: 231203.32 E: 2084449.67
RD54	WYE INV. 6" (SW) = 24.14 INV. 6" (W) = 24.14 INV. 6" (NE) = 24.14	N: 231203.56 E: 2084453.90

STORM STRUCTURE DATA

STRUCTURE NO.	STRUCTURE DETAILS	LOCATION
RD55	S. CO. INV. 6" (SW) = 24.01 INV. 6" (E) = 24.01	N: 231210.84 E: 2084460.38
RD56	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231109.72 E: 2084486.84
RD57	S. CO. INV. 6" (NW) = 23.92 INV. 6" (NE) = 23.92	N: 231104.07 E: 2084493.19
RD58	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231123.54 E: 2084499.14
RD59	6" WYE INV. 6" (SW) = 23.15 INV. 6" (NW) = 23.15 INV. 6" (NE) = 23.15	N: 231117.89 E: 2084505.49
RD60	PIPE CONNECTION INV. 6" (SE) = 24.10	N: 231137.37 E: 2084511.46
RD61	6" WYE INV. 6" (SW) = 22.38 INV. 6" (NW) = 22.38 INV. 6" (NE) = 22.38	N: 231131.72 E: 2084517.81
RD62	PIPE CONNECTION INV. 6" (SE) = 23.86	N: 231199.77 E: 2084577.63
RD63	S. CO. INV. 6" (NW) = 23.69 INV. 6" (NE) = 23.69	N: 231188.77 E: 2084589.97
RD64	PIPE CONNECTION INV. 6" (SE) = 23.89	N: 231217.40 E: 2084593.33
RD65	6" WYE INV. 6" (SW) = 23.20 INV. 6" (NW) = 23.20 INV. 6" (NE) = 23.20	N: 231206.41 E: 2084605.68
RD66	PIPE CONNECTION INV. 6" (E) = 23.14	N: 231242.84 E: 2084610.06
RD68	S. CO. INV. 6" (W) = 22.56 INV. 6" (SE) = 22.56	N: 231243.72 E: 2084625.17
RD69	6" WYE INV. 6" (SW) = 22.35 INV. 6" (NW) = 22.35 INV. 6" (SE) = 22.35	N: 231236.91 E: 2084632.82

STORM STRUCTURE DATA NOTES:

1. CONNECT 10" PIPE, INV. = 22.30
2. CONNECT TO EXISTING 15" PIPE, INV. = 20.79
3. CONNECT TO EXISTING 60" PIPE, INV. = 13.79±
4. CONNECT TO EXISTING STRUCTURE
   INV. 24" (NE) = 21.89
   INV. 6" (E) = 21.98
   INV. 36" (SE) = 20.30; UNDETERMINED
   INV. (SW) = 20.88; UNDETERMINED
   INV. 30" (NW) = 20.26; UNDETERMINED
5. CONNECT 12" PIPE, INV. = 23.10
6. CONNECT 16" PIPE, INV. = 23.10
7. CONNECT TO EXISTING 60" PIPE, INV. = 12.83
8. CONNECT TO EXISTING 15" PIPE, INV. = 20.05
9. CONNECT TO EXISTING 36" PIPE, INV. 20.16±
10. SUBDRAINAGE CONNECTION, INV. 4" (SE) = 23.50
11. SUBDRAINAGE CONNECTION, INV. 4" (SE) = 23.50
12. SUBDRAINAGE CONNECTION, INV. 4" (SE) = 23.75
13. SUBDRAINAGE CONNECTION, INV. 4" (W) = 22.25
14. SUBDRAINAGE CONNECTION, INV. 4" (NE) = 20.93
15. SUBDRAINAGE CONNECTION, INV. 4" (W) = 25.15
16. SUBDRAINAGE CONNECTION, INV. 4" (SW) = 24.40
17. SUBDRAINAGE CONNECTION, INV. 4" (SW) = 24.50

STORM STRUCTURE DETAIL NOTES:

CATCH BASIN (C.B.) – REFER TO DETAIL CG505/A1

SCDOT TYPE 16 – REFER TO DETAILS ON SHEETS CG501 – CG504

STORM (S.) MANHOLE (MH.) – REFER TO SHEETS CG508 – CG511

HYDRODYNAMIC MANUFACTURED TREATMENT DEVICE – REFER TO CG507/A1

OUTLET STRUCTURE – REFER TO CG507/A4

AIRFIELD CATCH BASIN – REFER TO DETAIL CG506/A1

FLARED END SECTION (F.E.S.) – REFER TO DETAIL CG505/A3

STORM (S.) CLEANOUT (CO.) – REFER TO DETAIL CG505/B5

REFER TO SHEET CG513 FOR ROOF DRAIN (RD) PIPE CONNECTIONS

REFER TO SHEET LP401 FOR SUBDRAINAGE CONNECTIONS.

STORM PIPE DATA

PIPE CONNECTION	PIPE DETAILS	
1 – 2	62' – 15" S. @ 0.25%	CLASS III
2 – 4	158' – 15" S. @ 0.25%	
3 – 4	38' – 15" S. @ 0.25%	
5 – 6	152' – 18" S. @ 0.20%	CLASS III
6 – 14	152' – 24" S. @ 0.20%	CLASS III
7 – 8	50' – 15" S. @ 0.30%	CLASS III
8 – 9	23' – 15" S. @ 0.30%	
9 – 10	32' – 15" S. @ 0.30%	
10 – 11	44' – 15" S. @ 0.30%	
11 – 12	55' – 15" S. @ 0.30%	
12 – 13	24' – 18" S. @ 0.30%	
13 – 14	54' – 18" S. @ 0.30%	
14 – 16	124' – 30" S. @ 0.40%	
15 – 16	6' – 12" S. @ 3.19%	CLASS III
16 – 17	7' – 30" S. @ 0.40%	
17 – 18	119' – 30" S. @ 0.40%	CLASS III
18 – 20	40' – 30" S. @ 0.40%	
19 – 20	30' – 15" S. @ 0.30%	
20 – 21	97' – 60" S. @ 0.25%	
21 – 23	99' – 60" S. @ 0.25%	
22 – 23	9' – 15" S. @ 0.30%	
23 – 41	188' – 60" S. @ 0.25%	CLASS III
24 – 25	15' – 18" S. @ 0.35%	CLASS III
25 – 26	42' – 18" S. @ 0.35%	CLASS III
27 – 28	28' – 15" S. @ 0.30%	CLASS III
28 – 31	29' – 15" S. @ 0.30%	CLASS III
29 – 30	22' – 18" S. @ 0.35%	CLASS III
30 – 31	16' – 18" S. @ 0.35%	
31 – 32	91' – 24" S. @ 0.20%	CLASS III
32 – 33	38' – 24" S. @ 0.20%	CLASS III
33 – 38	32' – 24" S. @ 0.20%	
34 – 35	29' – 15" S. @ 0.25%	CLASS III
35 – 36	35' – 15" S. @ 0.25%	CLASS III
36 – 38	22' – 15" S. @ 0.25%	CLASS III
37 – 38	41' – 15" S. @ 0.25%	CLASS III
38 – 39	36' – 24" S. @ 0.20%	CLASS III
40 – 41	35' – 24" S. @ 0.30%	CLASS III
42 – 43	53' – 15" S. @ 0.25%	
43 – 44	46' – 15" S. @ 0.25%	
44 – 45	47' – 15" S. @ 0.50%	
45 – 46	76' – 15" S. @ 1.00%	
46 – 47	69' – 15" S. @ 1.00%	
48 – 49	42' – 15" S. @ 0.25%	
49 – 50	42' – 15" S. @ 0.30%	
50 – 51	42' – 18" S. @ 0.30%	

STORM PIPE DATA

PIPE CONNECTION	PIPE DETAILS	
51 – 52	42' – 24" S. @ 0.20%	
52 – 53	42' – 24" S. @ 0.20%	
53 – 54	42' – 30" S. @ 0.20%	
54 – 55	39' – 30" S. @ 0.20%	
55 – EX22	14' – 30" S. @ 0.50%	
56 – 57	31' – 15" S. @ 0.25%	
RD1 – RD2	44' – 6" S. @ 1.04%	
RD2 – RD4	18' – 6" S. @ 1.04%	
RD3 – RD4	44' – 6" S. @ 1.04%	
RD4 – 1	53' – 15" S. @ 0.25%	CLASS III
RD5 – RD7	1' – 6" S. @ 4.17%	
RD6 – RD7	2' – 3" S. @ 15.29%	
RD7 – RD14	18' – 6" S. @ 4.17%	
RD8 – RD9	15' – 3" S. @ 1.04%	
RD9 – RD11	19' – 6" S. @ 1.04%	
RD10 – RD11	15' – 3" S. @ 5.75%	
RD11 – RD13	29' – 6" S. @ 1.04%	
RD12 – RD13	15' – 3" S. @ 4.76%	
RD13 – RD14	18' – 6" S. @ 1.04%	
RD14 – RD15	48' – 15" S. @ 0.25%	CLASS III
RD15 – 2	35' – 15" S. @ 0.25%	CLASS III
RD16 – 3	54' – 15" S. @ 0.28%	
RD17 – RD18	12' – 6" S. @ 4.17%	
RD18 – RD20	13' – 6" S. @ 4.17%	
RD19 – RD20	10' – 6" S. @ 10.50%	
RD20 – RD27	7' – 6" S. @ 4.17%	
RD21 – RD23	10' – 6" S. @ 2.08%	
RD22 – RD23	7' – 6" S. @ 1.04%	
RD23 – RD24	4' – 6" S. @ 2.00%	
RD24 – RD26	12' – 6" S. @ 4.00%	
RD25 – RD26	10' – 6" S. @ 1.04%	
RD26 – RD27	26' – 6" S. @ 4.00%	
RD27 – 5	54' – 15" S. @ 0.25%	
RD28 – RD29	2' – 6" S. @ 1.04%	
RD29 – RD31	12' – 6" S. @ 2.20%	
RD30 – RD31	2' – 6" S. @ 1.04%	
RD31 – RD32	32' – 6" S. @ 2.20%	
RD32 – RD34	3' – 6" S. @ 2.20%	
RD33 – RD34	4' – 6" S. @ 1.04%	
RD34 – RD42	9' – 6" S. @ 2.20%	
RD35 – RD36	11' – 6" S. @ 2.08%	
RD36 – RD38	19' – 6" S. @ 4.17%	
RD37 – RD38	11' – 6" S. @ 9.42%	
RD38 – RD40	18' – 6" S. @ 4.17%	
RD39 – RD40	11' – 6" S. @ 16.76%	

STORM PIPE DATA

PIPE CONNECTION	PIPE DETAILS
RD40 – RD42	28' – 6" S. @ 4.17%
RD41 – RD42	13' – 6" S. @ 2.08%
RD42 – 6	54' – 15" S. @ 0.50%
RD43 – RD44	8' – 6" S. @ 1.04%
RD44 – RD46	41' – 6" S. @ 2.08%
RD45 – RD46	8' – 6" S. @ 12.35%
RD46 – RD48	41' – 6" S. @ 2.08%
RD47 – RD48	8' – 6" S. @ 23.66%
RD48 – 8	10' – 6" S. @ 2.08%
RD49 – 8	24' – 6" S. @ 1.04%
RD50 – RD51	52' – 6" S. @ 1.04%
RD51 – 10	41' – 6" S. @ 1.04%
RD52 – RD54	5' – 6" S. @ 1.35%
RD53 – RD54	4' – 6" S. @ 1.04%
RD54 – RD55	10' – 6" S. @ 1.35%
RD55 – 11	26' – 6" S. @ 1.35%
RD56 – RD57	8' – 6" S. @ 2.08%
RD57 – RD59	19' – 6" S. @ 4.17%
RD58 – RD59	8' – 6" S. @ 11.15%
RD59 – RD61	19' – 6" S. @ 4.17%
RD60 – RD61	8' – 6" S. @ 20.25%
RD61 – 13	31' – 6" S. @ 3.85%
RD62 – RD63	17' – 6" S. @ 1.04%
RD63 – RD65	24' – 6" S. @ 2.08%
RD64 – RD65	17' – 6" S. @ 4.20%
RD65 – RD69	41' – 6" S. @ 2.08%
RD66 – RD68	15' – 6" S. @ 3.78%
RD68 – RD69	10' – 6" S. @ 2.08%
RD69 – 16	39' – 6" S. @ 2.08%

STORM PIPE DATA NOTES:

ALL STORM PIPE 15" AND LARGER TO BE RCP CLASS V UNLESS NOTED OTHERWISE.

ALL STORM PIPE 12" AND SMALLER TO BE PVC, SDR 35.

REFER TO DETAIL CG506/A4 FOR PIPE TRENCH BEDDING DETAIL.

BY	DESCRIPTION	DATE	APPR
AMENDMENT		01/16/2026	
MOD P00006 AND MOD P00007		10/2025	
MOD P00005		05/2023	

NAVFAC

SOUTH CAROLINA – Annalee Bamforth – No. 23067 – 01/13/23 – ANNALEE BAMFORTH – SEAL

BAMFORTH ENGINEERS + SURVEYORS – A/E INFO

APPROVED – FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO | DATE: 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC:CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
STORM SCHEDULE

SCALE:	NONE
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859269
SHEET	97 OF 1412

CG002

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CG002.dwg LAYOUT NAME: CG002 PLOTTED: Tuesday, January 20, 2026 - 4:08pm USER: mlw

MATCH LINE SHEET CG103

MATCH LINE SHEET CG102

DRAYTON ST.

PARKING GARAGE
F.F. = 26.60
OPTION

E & S CONTROL MEASURE KEY NOTES

IP – INLET PROTECTION (REFER TO SHEETS C-503, C-504)

SF – SILT FENCE (REFER TO DETAIL C-506/B1)

OP – OUTLET PROTECTION (REFER TO DETAIL C-505/A1)

SHEET NOTES:

1. REFER TO SHEETS CG105 TO CG108 FOR STORMWATER DRAINAGE PLANS AND KEY NOTES.
2. REFER TO C-501 FOR GENERAL EROSION CONTROL NOTES.
3. REFER TO SHEET C-012 AND C-013 FOR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES AND LEGEND.

REFER TO VOLUME 6 FOR BASE BID

SOUTH CAROLINA STATE PLANE

KEY PLAN

CG103 CG104 CG101 CG102

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

#	DESCRIPTION	DATE	APPR
3	BY AMENDMENT	01/16/2026	
2	MOD P00006 AND MOD P00007	10/2025	
1	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA
Annalee Bamforth
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES CAB	DRW CAD CHK ALB
PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

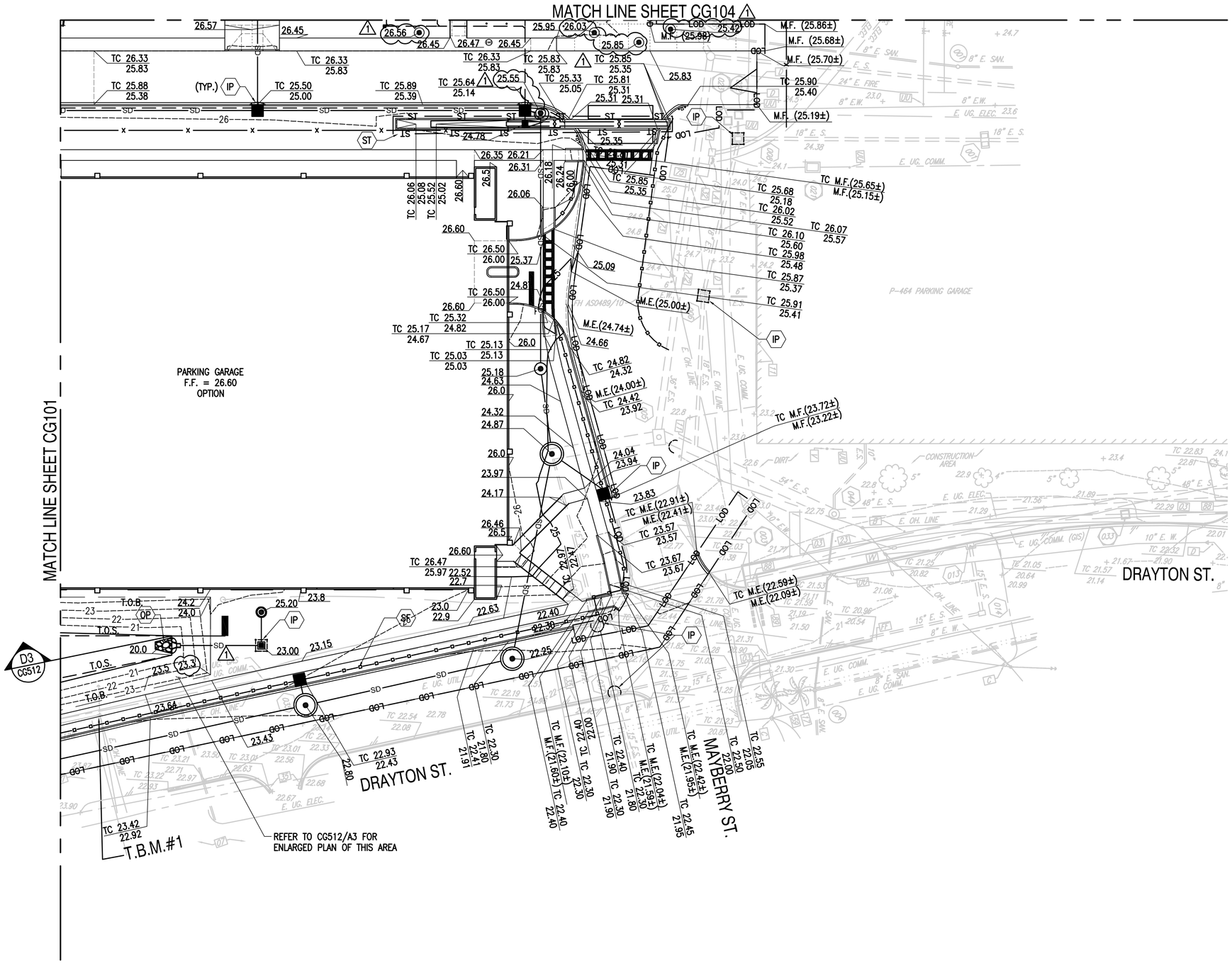
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
GRADING AND EROSION CONTROL PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859270
SHEET	98 OF 1412

CG101

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CG101.dwg LAYOUT NAME: CG101 PLOTTED: Tuesday, January 20, 2026 - 4:08pm USER: mtw



E & S CONTROL MEASURE KEY NOTES

IP – INLET PROTECTION (REFER TO SHEETS C-503, C-504)

SF – SILT FENCE (REFER TO DETAIL C-506/B1)

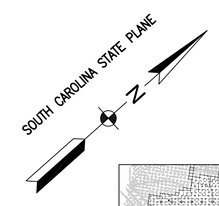
OP – OUTLET PROTECTION (REFER TO DETAIL C-505/A1)

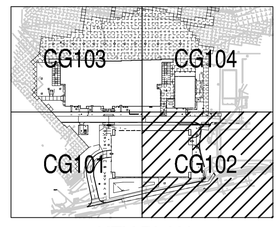
ST – SEDIMENT TUBE (REFER TO DETAIL C-502/A4)

SHEET NOTES:

1. REFER TO SHEETS CG105 TO CG108 FOR STORMWATER DRAINAGE PLANS AND KEY NOTES.
2. REFER TO C-501 FOR GENERAL EROSION CONTROL NOTES.
3. REFER TO SHEET C-012 AND C-013 FOR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES AND LEGEND.

REFER TO VOLUME 6 FOR BASE BID





KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

SYM	DESCRIPTION	DATE	APPR
1	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 23067 01/13/23 ANNA LEE BAMFORTH

SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES CAB	DRW CAD CHK ALB
PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CORE NORFOLK, VA

MCAS BEAUFORT BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

GRADING AND EROSION CONTROL PLAN

SCALE: GRAPHIC

EPROJECT NO.: 1363603

CONSTR. CONTR. NO.

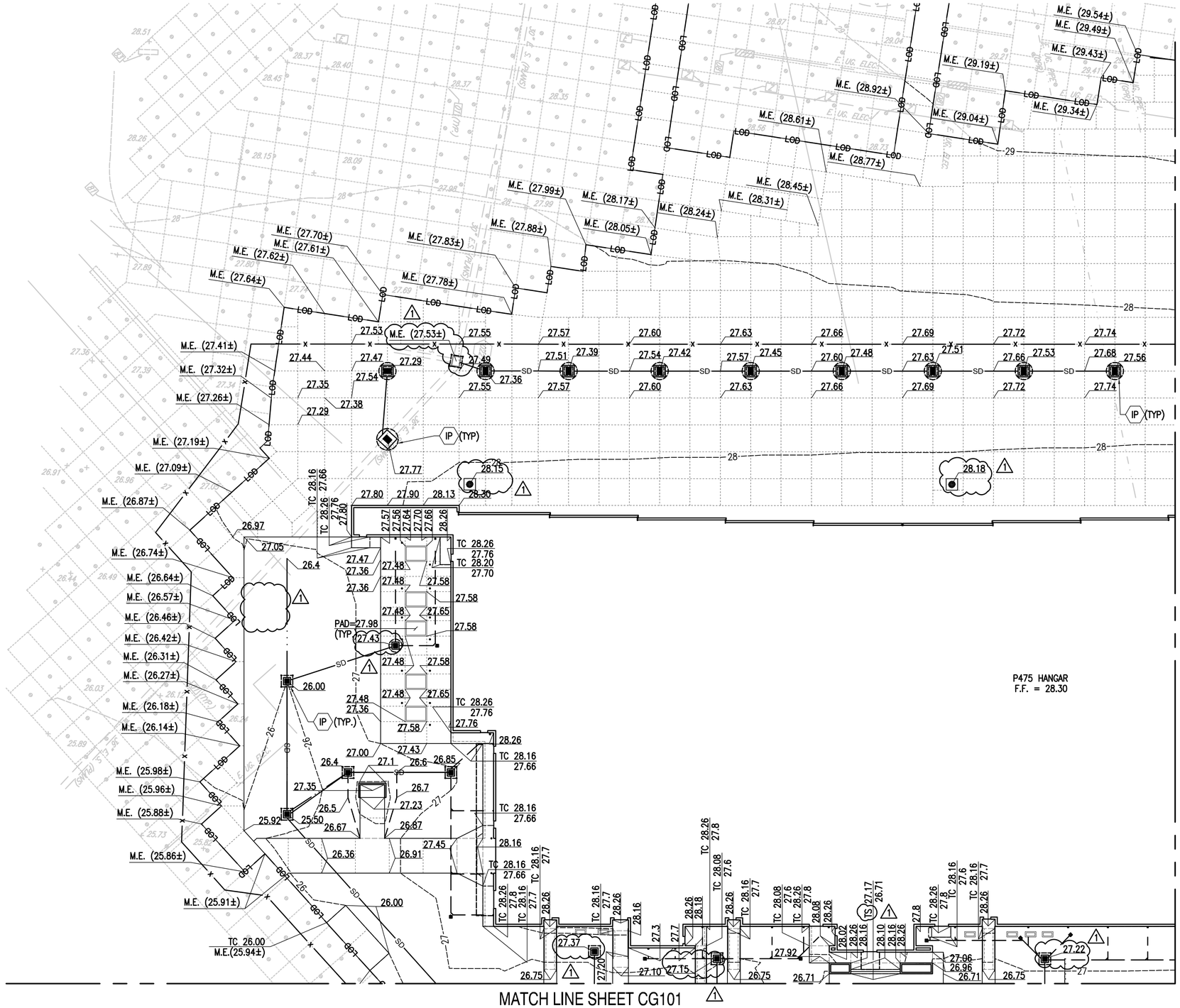
NAVFAC DRAWING NO. 12859271

SHEET 99 OF 1412

CG102

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BBLDG-P475-1363603-CG102.dwg LAYOUT NAME: CG102 PLOTTED: Tuesday, January 20, 2026 - 4:09pm USER: mlw



E & S CONTROL MEASURE KEY NOTES

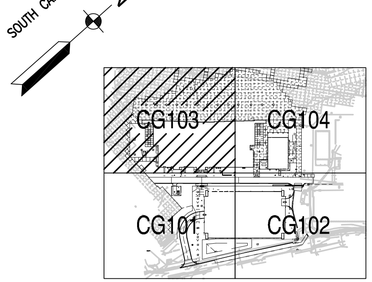
IP – INLET PROTECTION (REFER TO SHEETS C-503, C-504)

SF – SILT FENCE (REFER TO DETAIL C-506/B1)

SHEET NOTES:

1. REFER TO SHEETS CG105 TO CG108 FOR STORMWATER DRAINAGE PLANS AND KEY NOTES.
2. REFER TO C-501 FOR GENERAL EROSION CONTROL NOTES AND EROSION CONTROL AND GRADING FOR OFFSITE UTILITY TRENCHES NOTES.
3. REFER TO TELECOMMUNICATION AND ELECTRICAL SITE PLAN SHEETS FOR OFFSITE UTILITY LOCATION.
4. REFER TO SHEET C-012 AND C-013 FOR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES AND LEGEND.

SOUTH CAROLINA STATE PLANE



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

BY	AMENDMENT	DATE	APPR
		01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA Annalee Bamforth No. 23067 01/13/23 ANNALEE BAMFORTH SEAL

BAMFORTH ENGINEERS + SURVEYORS A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

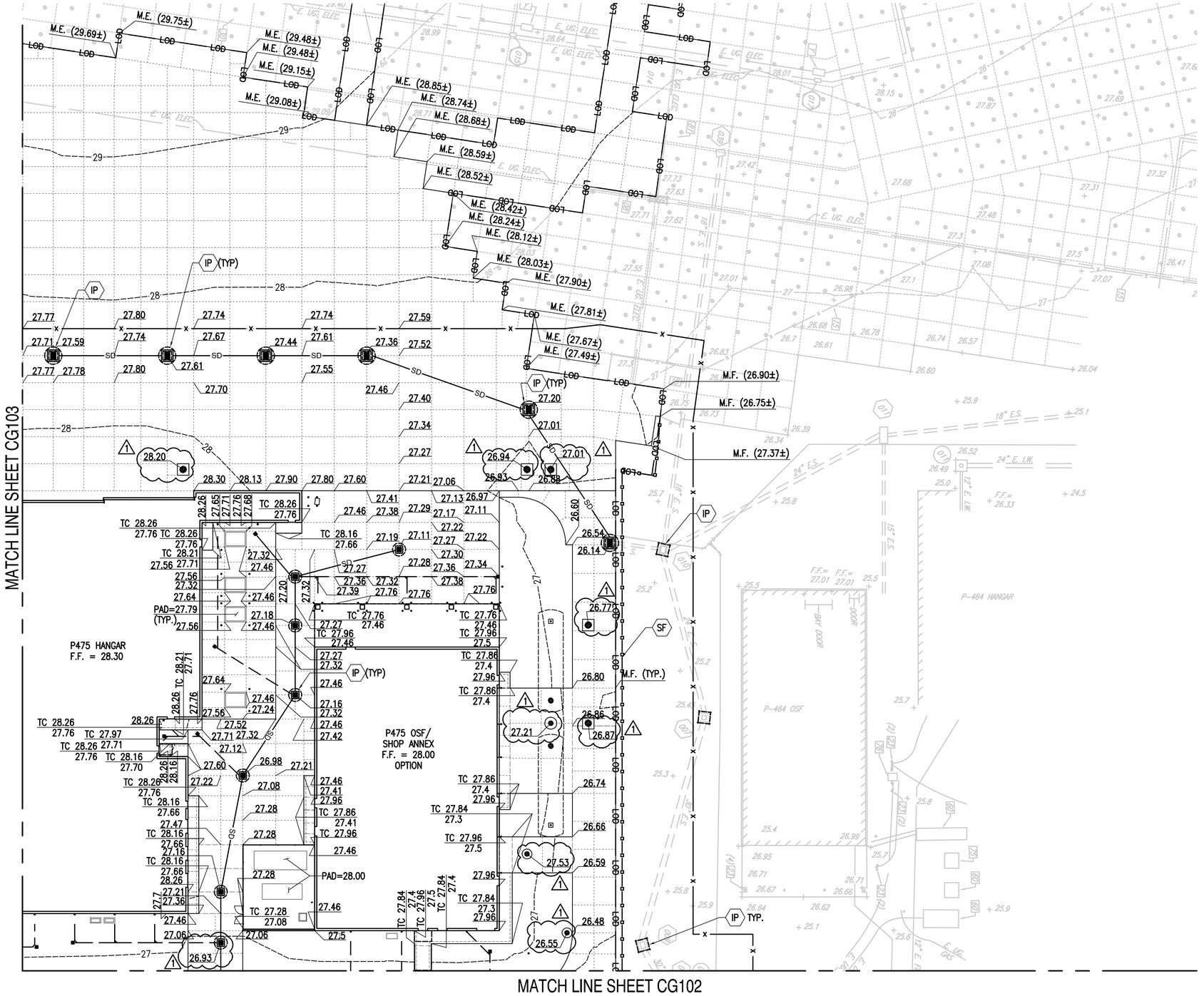
GRADING AND EROSION CONTROL PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859272
SHEET	100 OF 1412

CG103

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CG103.dwg LAYOUT NAME: CG103 PLOTTED: Tuesday, January 20, 2026 - 4:09pm USER: mtw



E & S CONTROL MEASURE KEY NOTES

IP – INLET PROTECTION (REFER TO SHEETS C-503 AND C-504)

SF – SILT FENCE (REFER TO DETAIL C-506/B1)

SHEET NOTES:

1. REFER TO SHEETS CG105 TO CG108 FOR STORMWATER DRAINAGE PLANS AND KEY NOTES.
2. REFER TO C-501 FOR GENERAL EROSION CONTROL NOTES AND EROSION CONTROL AND GRADING FOR OFFSITE UTILITY TRENCHES NOTES.
3. REFER TO TELECOMMUNICATION AND ELECTRICAL SITE PLAN SHEETS FOR OFFSITE UTILITY LOCATION.
4. REFER TO SHEET C-012 AND C-013 FOR SPECIFIC EROSION AND SEDIMENT CONTROL MEASURES AND LEGEND.

REFER TO VOLUME 6 FOR BASE BID

SOUTH CAROLINA STATE PLANE

N

KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

SYM	DESCRIPTION	DATE	APPR
4	BY AMENDMENT	01/16/2026	
3	MOD P00006 AND MOD P00007	10/2025	
2	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA ENGINEER Annalee Bamforth No. 23067 01/13/23 ANNALEE BAMFORTH SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

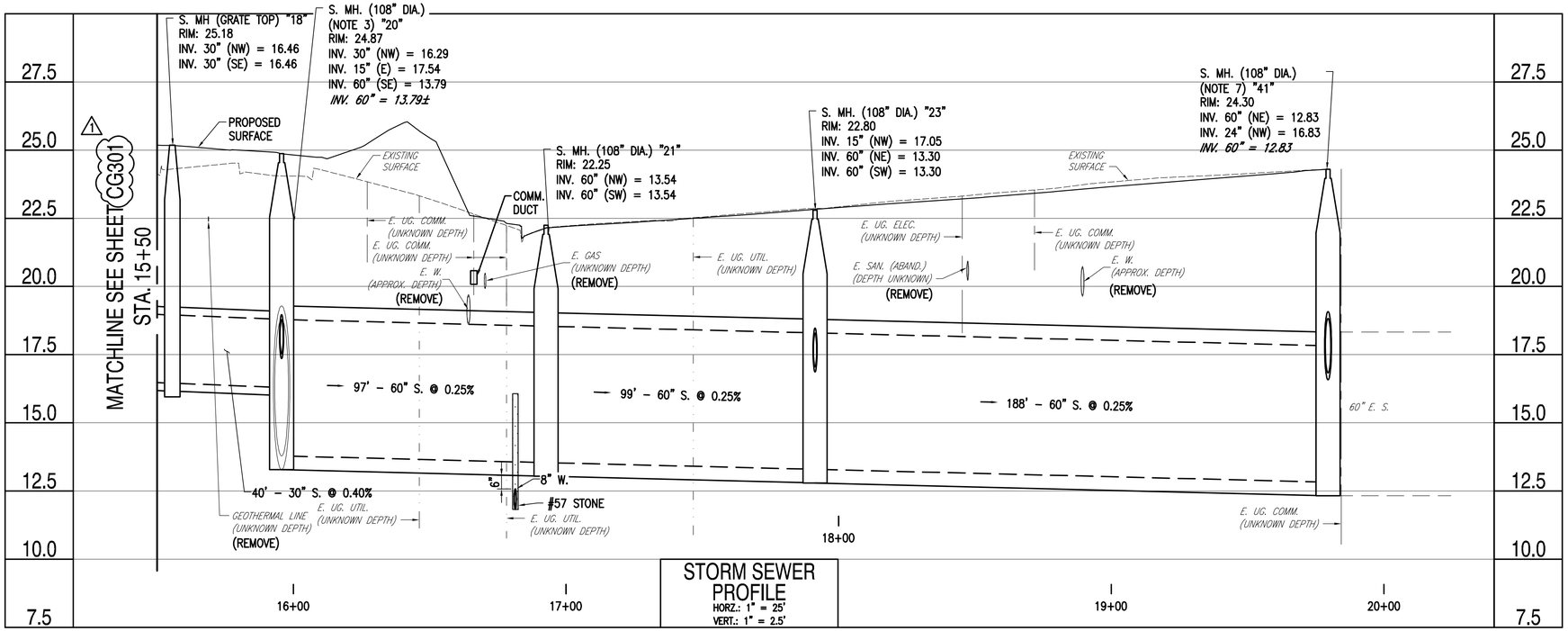
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
GRADING AND EROSION CONTROL PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859273
SHEET	101 OF 1412

CG104

DRAWFORM REVISION: 25 AUGUST 2020

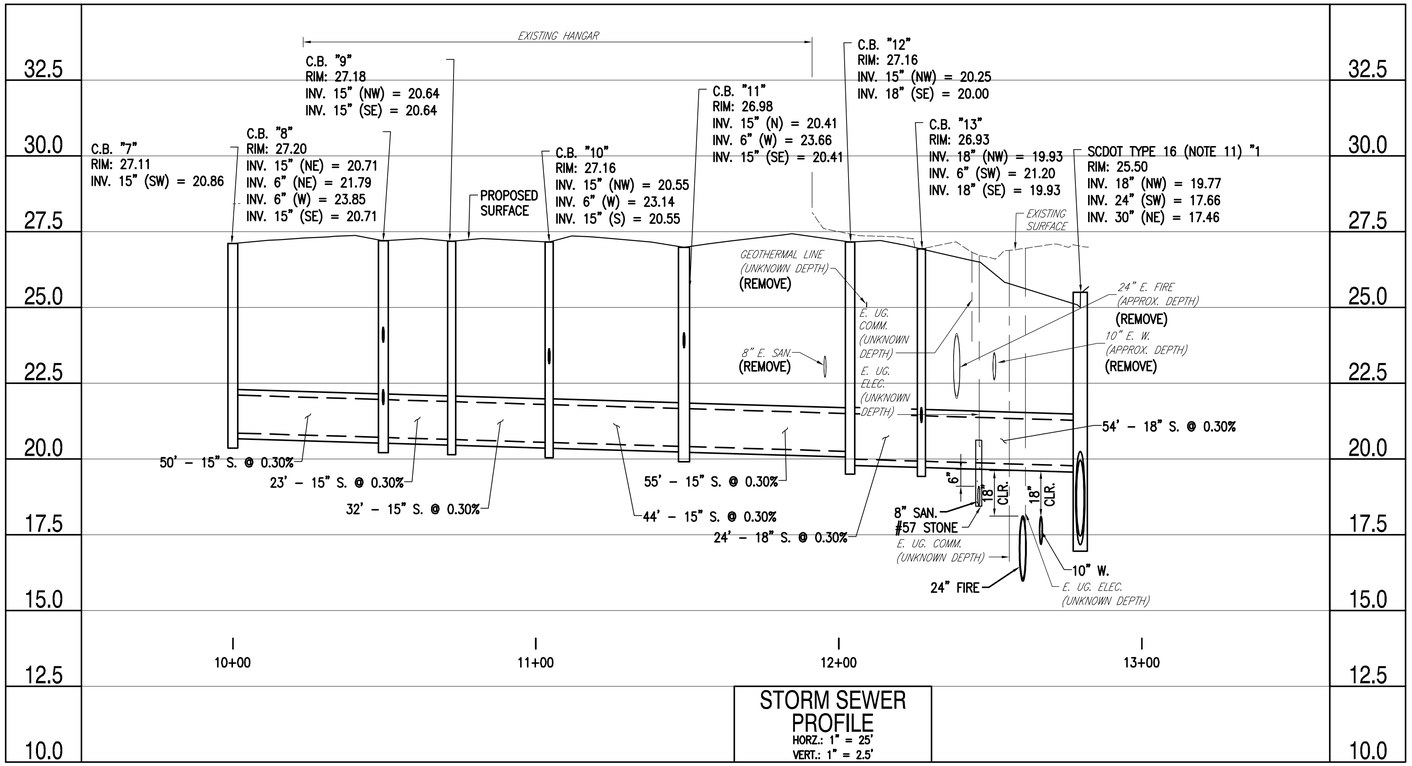
FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG--P475--1363603--CG104.dwg LAYOUT NAME: CG104 PLOTTED: Tuesday, January 20, 2026 - 4:09pm USER: mtw



STORM SEWER PROFILE

HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG105, CG106



STORM SEWER PROFILE

HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG106, CG108

NOTES:

1. REFER TO SHEET CG002 FOR STORM STRUCTURE DATA NOTES.

GRAPHIC SCALE

HORZIONTAL 1" = 25' 0 25 50' 75' 100'

VERTICAL 1" = 2.5' 0 2.5' 5.0' 7.5' 10.0'

NO.	BY	AMENDMENT	DATE	APPR
3		MOD P00006 AND MOD P00007	01/16/2026	
2		MOD P00005	10/2025	
1			05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

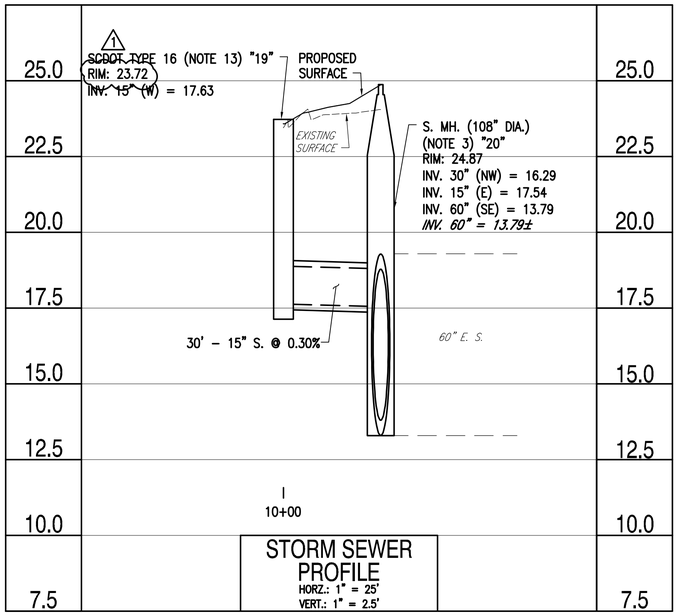
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
STORM SEWER PROFILES

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859279
SHEET	107 OF 1412

CG302

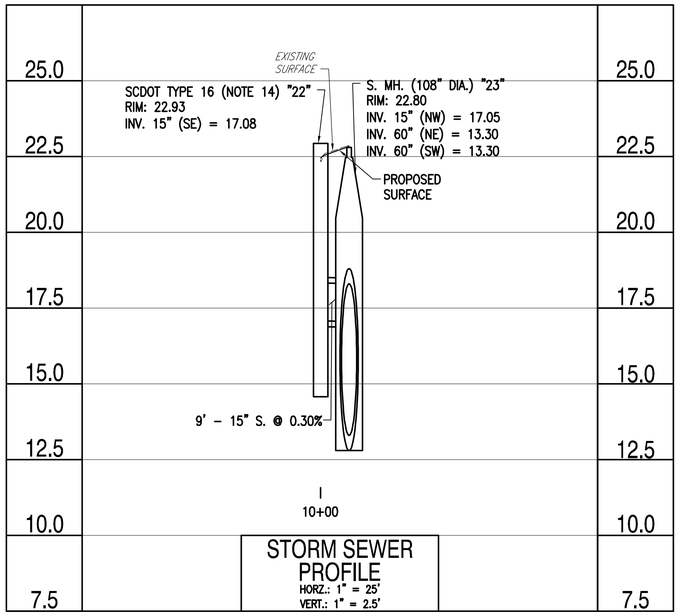
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CG302.dwg LAYOUT NAME: CG302 PLOTTED: Tuesday, January 20, 2026 - 4:10pm USER: mtw



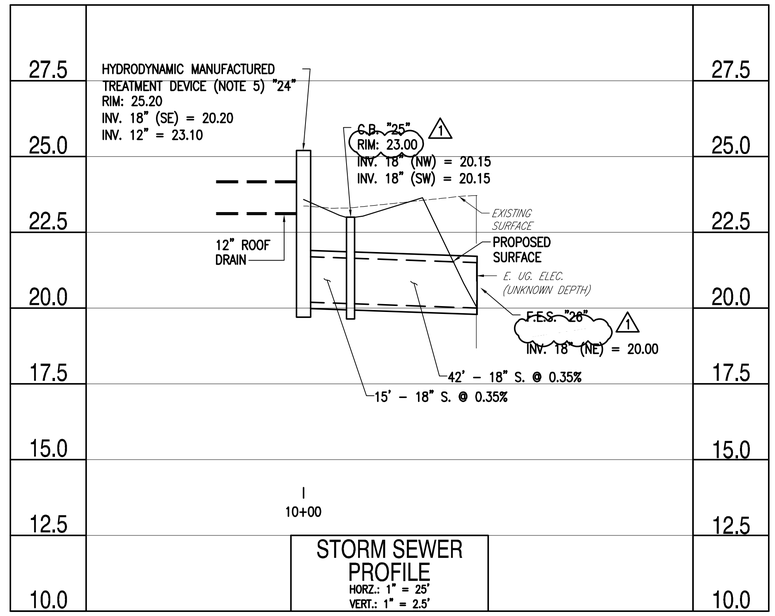
STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG106



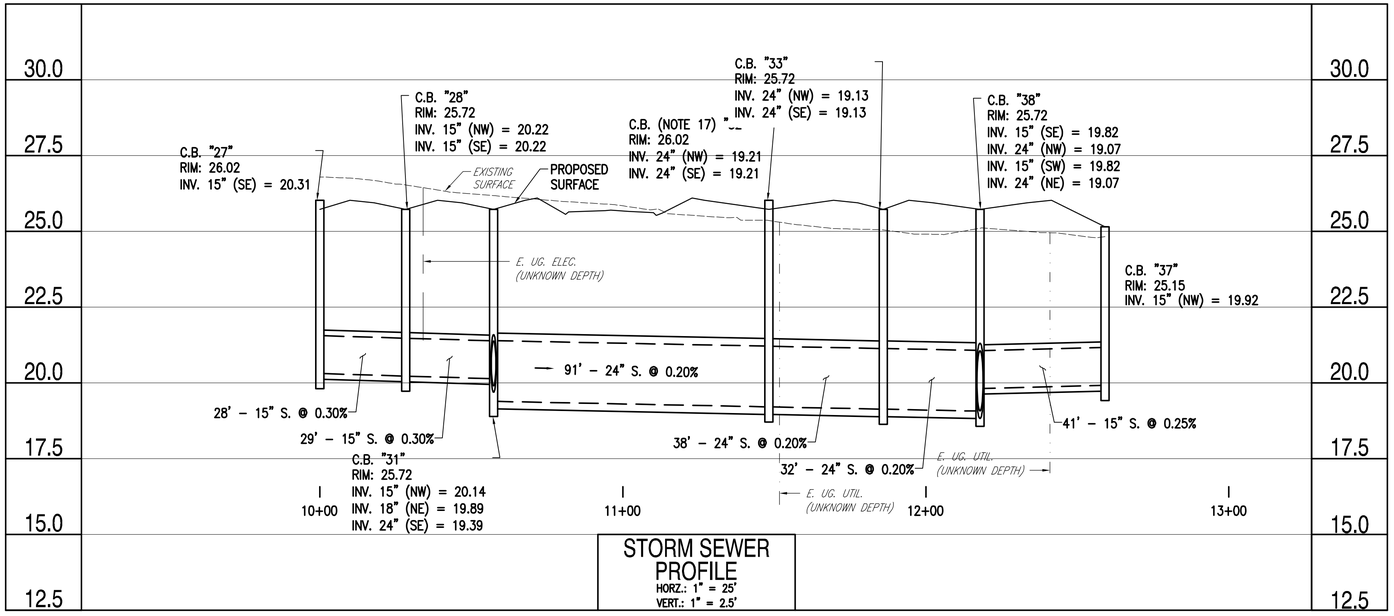
STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG106



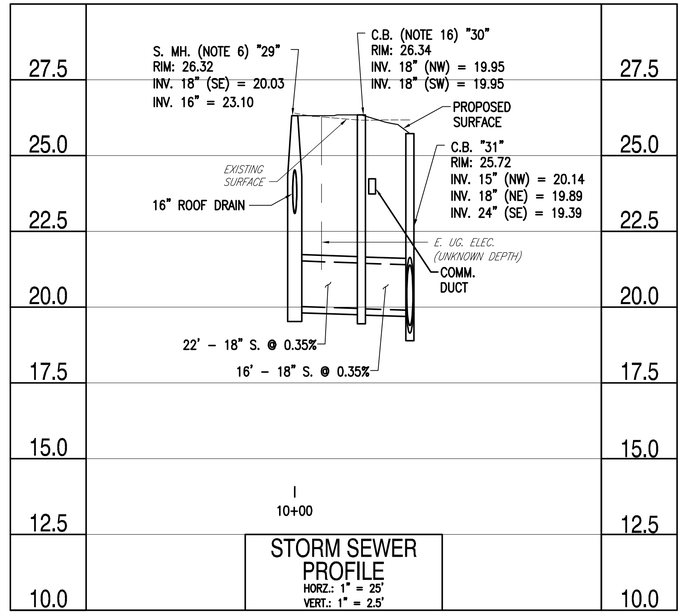
STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG106



STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG105



STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG105

NOTES:

1. REFER TO SHEET CG002 FOR STORM STRUCTURE DATA NOTES.

GRAPHIC SCALE

HORZIONTAL 1" = 25' — 0 25 50' 75' 100'

VERTICAL 1" = 2.5' — 0 2.5' 5.0' 7.5' 10.0'

BY	DATE	DESCRIPTION	STM	APPR
	01/16/2026	AMENDMENT		
	10/2025	MOD P00006 AND MOD P00007		
	05/2023	MOD P00005		

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

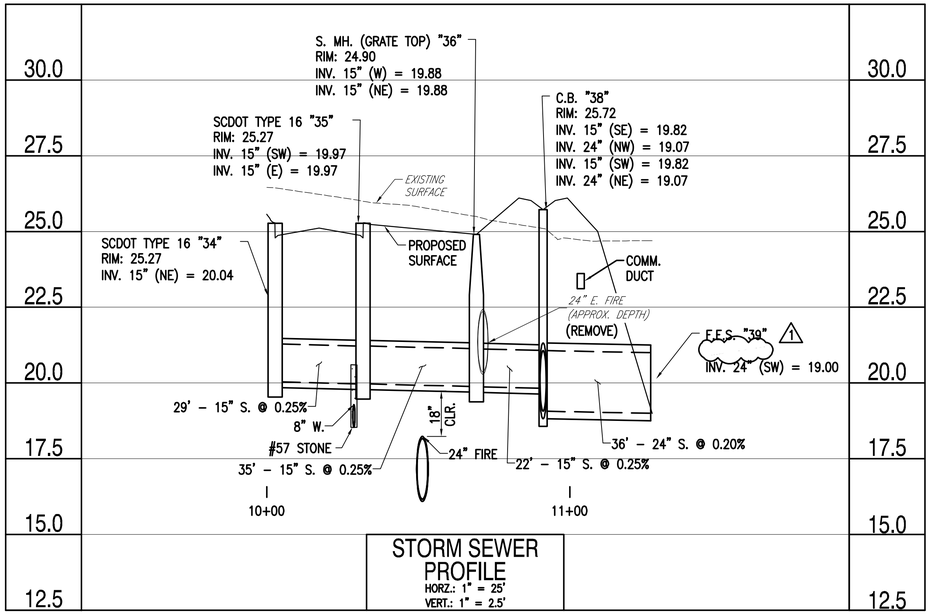
STORM SEWER PROFILES

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859280
SHEET	108 OF 1412

CG303

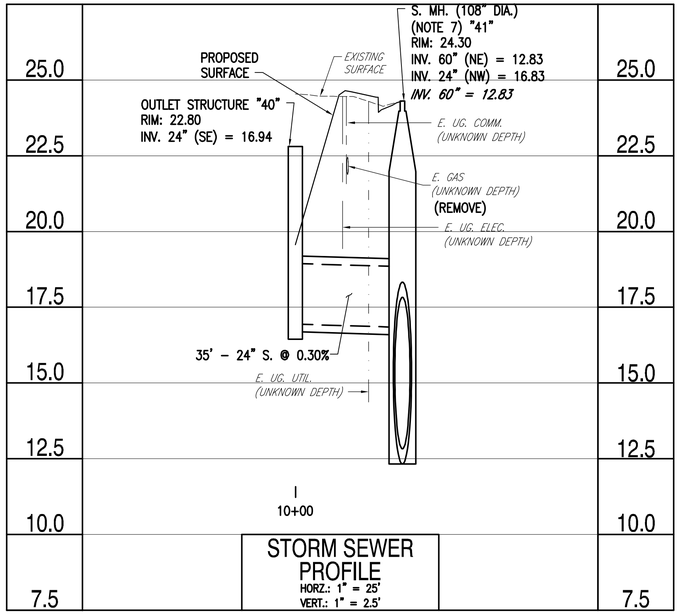
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CG303.dwg LAYOUT NAME: CG303 PLOTTED: Tuesday, January 20, 2026 - 4:10pm USER: mlw



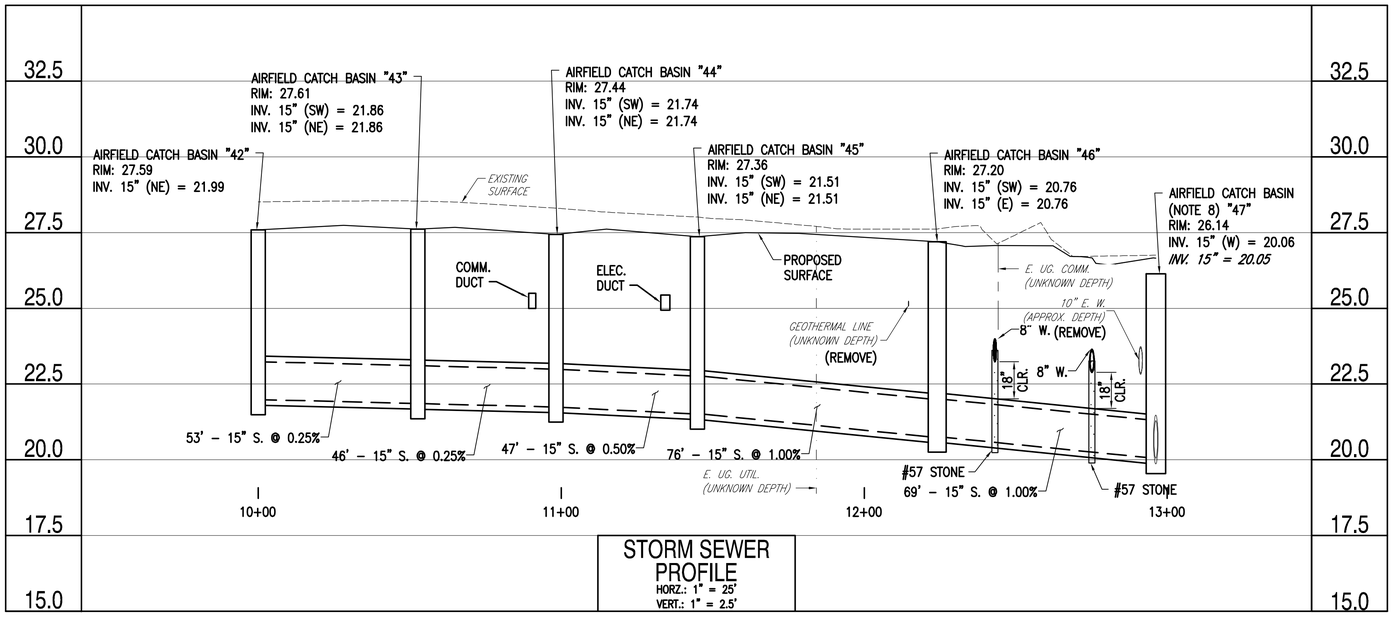
STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG105



STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG105



STORM SEWER PROFILE
HORZ.: 1" = 25'
VERT.: 1" = 2.5'

CG106

NOTES:

1. REFER TO SHEET CG002 FOR STORM STRUCTURE DATA NOTES.

GRAPHIC SCALE

HORZIONTAL 1" = 25' 0 25 50' 75' 100'

VERTICAL 1" = 2.5' 0 2.5' 5.0' 7.5' 10.0'

NO.	BY	DESCRIPTION	DATE	APPR
3	AMENDMENT	MOD P00006 AND MOD P00007	01/16/2026	
2		MOD P00005	10/2023	
1			05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

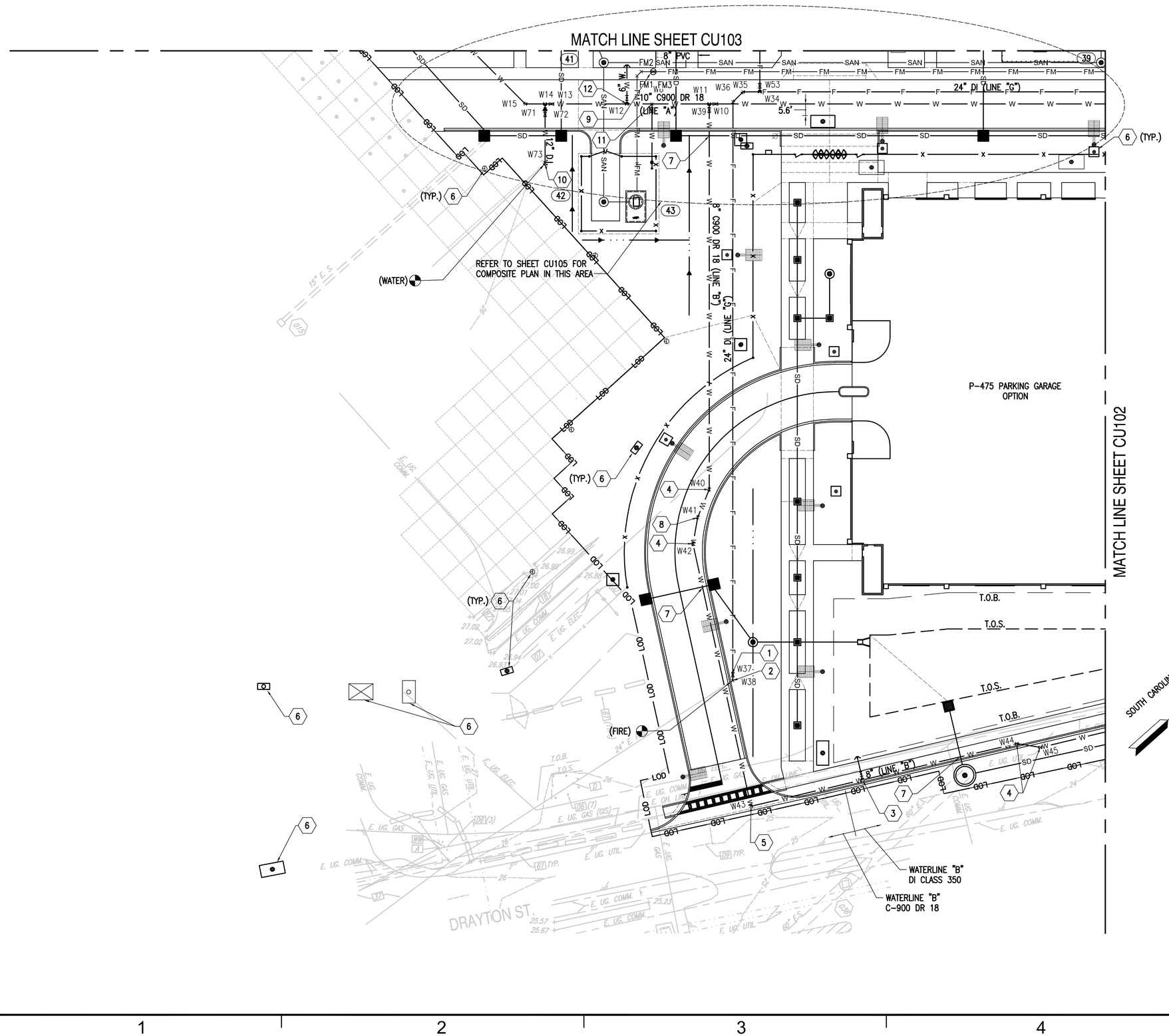
STORM SEWER PROFILES

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859281
SHEET	109 OF 1412

CG304

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CG304.dwg LAYOUT NAME: CG304 PLOTTED: Tuesday, January 20, 2026 - 4:11pm USER: mlw



NEW WORK KEY NOTES (THIS SHEET ONLY)

✱1. 24" VALVE W/ BOX (REFER TO DETAIL CU501/A1)

✱2. 24" – 45° BEND W/ RESTRAINED JOINTS

3. 8" X 6" TEE W/ RESTRAINED JOINTS
   6" GATE VALVE W/ BOX (REFER TO DETAIL CU502/C1)
   11'± L.F. 6" DI W.
   FIRE HYDRANT ASSEMBLY (REFER TO DETAIL CU506/C3)

4. 8" – 22 1/2° BEND W/ RESTRAINED JOINTS.

5. 8" – 90° BEND W/ RESTRAINED JOINTS AND MARKER.

6. REFER TO ELECTRICAL SITE PLANS.

7. 18 LF OF 8" DIP CL350 CENTERED ON STORM CROSSING

8. 8" – 11 1/4° BEND W/ RESTRAINED JOINTS.

9. AIR VENT

10. REMOVE TEMPORARY 6–INCH HYDRANT, VALVE, TEE AND 20 FOOT KICKER JOINT AND CAP WITH RESTRAINED JOINTS.

1 11. 10" X 1" TAPPING SADDLE

12. 10" X 8" TEE W/ RESTRAINED JOINTS
    8" GATE VALVE W/ BOX
    19'± L.F. 8" PVC C900 DR18

(REFER TO SHEET CU105 FOR NEW WORK NOTES NOT SHOWN)

SHEET NOTES

1. REFER TO SHEET CU001 FOR RESTRAINED JOINTS AND SANITARY SCHEDULES.
2. NOTES SHOWN WITH * ARE NOT OWNED OR MAINTAINED BY BJWSA.
3. REFER TO SHEET CU105 FOR WATER & SANITARY FORCE MAIN CONTROL POINTS.
4. PROVIDE MINIMUM CLEARANCE REQUIRED BY BJWSA;
   10' HORIZONTAL WATER AND GRAVITY SEWER
   3' HORIZONTAL WATER AND FORCE MAIN / STORM
   5' HORIZONTAL WATER AND ELECTRICAL / GAS
5. PROVIDE DUCTILE IRON 18 FT. PIPE SECTION FOR WATER LINE, CENTERED ON CROSSING WITH OTHER UTILITY LINES.

REFER TO VOLUME 6 FOR BASE BID

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

APPR	DATE	DESCRIPTION	SYM
	01/16/2026	BY AMENDMENT	
	10/2025	MOD P00006 AND MOD P00007	
	05/2023	MOD P00005	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS — A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB

PM/DM	KTB/RLH
BRANCH MANAGER	DLB
CHIEF ENG/ARCH	EJA
FIRE PROTECTION	DSN

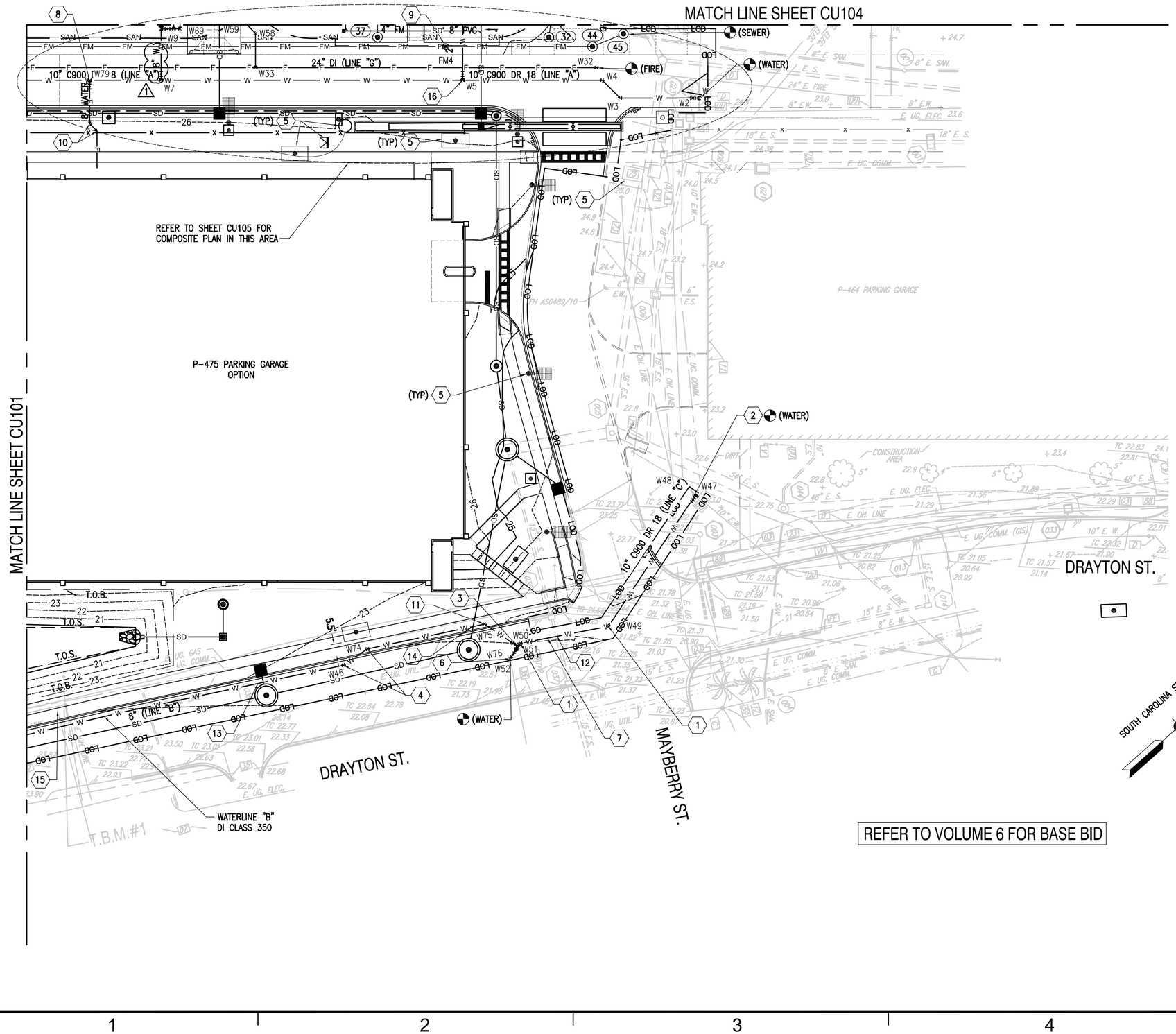
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
UTILITY PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859301
SHEET	129 OF 1412

CU101

DRAWFORM REVISION(): 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\@BLDG-P475-1363603-CU101.dwg LAYOUT NAME: CU101 PLOTTED: Tuesday, January 20, 2026 - 4:11pm USER: mlw



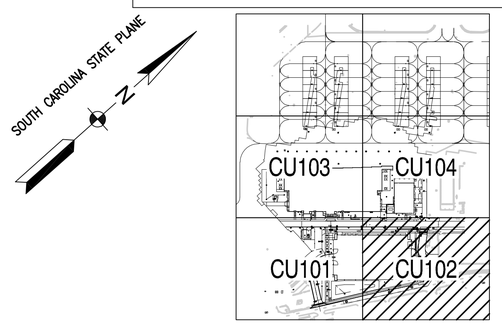
NEW WORK KEY NOTES (THIS SHEET ONLY)

1. 10" – 45° BEND W/ RESTRAINED JOINTS AND MARKER
2. 10" X 10" TEE W/ RESTRAINED JOINTS
   10" VALVE W/ BOX AND MARKER (REFER TO DETAIL CU502/C1)
3. 10" X 8" TEE W/ RESTRAINED JOINTS
   8" VALVE W/ BOX AND MARKER (REFER TO DETAIL CU502/C1)
4. 8" – 22 1/2° BEND W/ RESTRAINED JOINTS
5. REFER TO ELECTRICAL SITE PLANS.
6. 10" X 8" REDUCER
   8" VALVE W/ BOX AND MARKER (REFER TO DETAIL CU501/A1)
   8" – 45° BEND W/ RESTRAINED JOINTS
7. PROVIDE 18' OF 10" DI W. CENTERED ON STORM PIPE CROSSING.
8. 10" X 8" TEE W/ RESTRAINED JOINTS
   8" VALVE W/ BOX (REFER TO DETAIL CU502/C1)
9. AIR VENT
10. 8" – 45° BEND W/ RESTRAINED JOINTS AND MARKER
11. 8" – 45° BEND W/ RESTRAINED JOINTS AND MARKER
12. 18 LF OF 10" DIP CL350 CENTERED ON STORM CROSSING
13. 36 LF OF 8" DIP CL350 CENTERED ON STORM CROSSING
14. 18 LF OF 8" DIP CL350 CENTERED ON STORM CROSSING
    (REFER TO SHEET CU105 FOR NEW WORK NOTES NOT SHOWN)
15. REMOVE TEMPORARY 6-INCH HYDRANT, VALVE, TEE AND 20 FOOT KICKER JOINT AND CAP WITH RESTRAINED JOINTS.
16. 10" X 2" TAPPING SADDLE

SHEET NOTES

1. REFER TO SHEET CU001 FOR RESTRAINED JOINTS AND SANITARY SCHEDULES.
2. REFER TO SHEET CU105 FOR WATER & SANITARY FORCE MAIN CONTROL POINTS.
3. PROVIDE DUCTILE IRON (DI) WATER (W) LINE AS SPECIFIED WHERE INDICATED. PROVIDE PVC C900 DR 18 WATER LINE AS SPECIFIED WHERE INDICATED.
4. PROVIDE MINIMUM CLEARANCE REQUIRED BY BJWSA;
   10' HORIZONTAL WATER AND GRAVITY SEWER
   3' HORIZONTAL WATER AND FORCE MAIN / STORM
   5' HORIZONTAL WATER AND ELECTRICAL / GAS
5. PROVIDE DUCTILE IRON 18 FT. PIPE SECTION FOR WATER LINE, CENTERED ON CROSSING WITH OTHER UTILITY LINES.

REFER TO VOLUME 6 FOR BASE BID



KEY PLAN

GRAPHIC SCALE

1" = 25' 0 25' 50' 75' 100'

BY	AMENDMENT	DATE
		01/16/2026
	MOD P00006 AND MOD P00007	10/2025
	MOD P00005	05/2023

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — Reg. No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED — FOR COMMANDER NAVFAC — ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email. — SATISFACTORY TO — DATE: 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

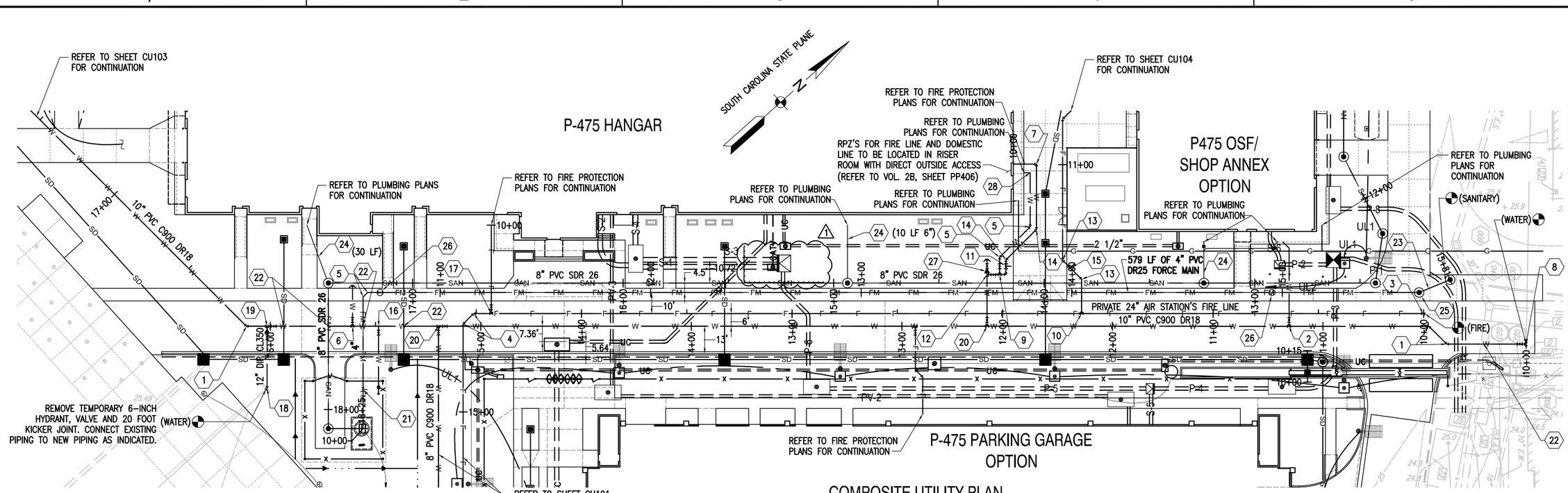
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CODE — NORFOLK, VA
MCAS BEAUFORT — BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
UTILITY PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859302
SHEET	130 OF 1412

CU102

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CU102.dwg LAYOUT NAME: CU102 PLOTTED: Tuesday, January 20, 2026 - 4:11pm USER: mfw



COMPOSITE UTILITY PLAN

NEW WORK KEY NOTES (THIS SHEET ONLY)

1. 10" – 45° BEND W/ RESTRAINED JOINTS AND MARKER
2. 10" X 2" TAPPING SADDLE 2" VALVE W/ BOX 2" W. ⚠1
3. ✱ 24" – 11 1/4° BEND W/ RESTRAINED JOINTS
4. ✱ 24" – 45° BEND W/ RESTRAINED JOINTS
5. 4" – 45° BEND W/ RESTRAINED JOINTS AND MARKER
6. 10" X 6" TEE W/ RESTRAINED JOINTS 6" VALVE W/ BOX 19'± L.F. PVC C900 DR18
7. 6" – 90° BEND W/ RESTRAINED JOINTS AND MARKER
8. 10" X 10" TEE W/ RESTRAINED JOINTS 10" VALVE W/ BOX
9. 6" X 4" TEE W/ RESTRAINED JOINTS 4" VALVE W/ BOX
10. 24" X 8" TEE W/ RESTRAINED JOINTS
11. 6" – 90° BEND W/ RESTRAINED JOINTS 6" VALVE W/ LOCKING LID BOX 6" POST INDICATOR VALVE. PROVIDE SIGNAGE TO INDICATE WHICH BUILDING IT SERVES.
12. 8" X 6" TEE W/ RESTRAINED JOINTS 6" VALVE W/ BOX
13. ✱ 8" – 45° BEND W/ RESTRAINED JOINTS
14. 6" – 45° BEND W/ RESTRAINED JOINTS
15. 8" POST INDICATOR VALVE PROVIDE SIGNAGE TO INDICATE WHICH BUILDING IT SERVES.
16. 10" X 1" TAPPING SADDLE 1" VALVE W/ BOX 32 LF OF 1" HPDE SDR11 WATER METER YARD HYDRANT ⚠1
17. ✱ 24" X 16" TEE W/ RESTRAINED JOINTS 16" VALVE W/ BOX 16" W.
18. 12" – 45° BEND W/ RESTRAINED JOINTS AND MARKER. CONNECT TO EXISTING 12" W.
19. 10" X 10" TEE W/ RESTRAINED JOINTS 10" GATE VALVE W/ BOX 10" X 12" REDUCER W/ RESTRAINED JOINTS AND MARKER 12" GATE VALVE W/ BOX
20. 10" X 8" TEE W/ RESTRAINED JOINTS 8" VALVE W/ BOX
21. 4" PLUG VALVE. REFER TO BJWSA DETAILS S-13A AND S-13B.
22. 18 L.F. OF 10" DIP CL350 CENTERED ON CROSSING
23. 16 L.F. OF 8" PVC SDR26 @ MAX SLOPE OF 0.70% SLOPE
24. 6" PVC SDR26 AT MIIN. 1.00% SLOPE 4" DUAL SWEEP CO. AT BUILDING (TYP.)
25. CONTROL MANHOLE (REFER TO DETAIL CU503/C3)
26. AIR VENT
27. 8" X 6" REDUCER 6" VALVE W/ BOX 7'± L.F. 6" DI CL 350 W/ FIRE HYDRANT ASSEMBLY
28. 4" – 90° BEND W/ RESTRAINED JOINTS

WATER CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
W1	231293.23	2084725.78
W2	231290.99	2084723.78
W3	231265.06	2084700.70
W4	231264.36	2084688.72
W5	231214.76	2084644.57
W6	230891.74	2084357.03
W7	231107.61	2084549.18
W8	231123.90	2084530.88
W9	231128.38	2084534.87
W10	230915.23	2084377.93
W11	230912.99	2084375.94
W12	230882.48	2084348.78
W13	230854.50	2084323.90
W14	230852.18	2084321.81
W15	230844.86	2084315.29
W16	230836.24	2084166.96
W17	230843.92	2084167.20
W18	230854.05	2084149.96
W19	230918.63	2084074.41
W20	230940.11	2084050.28
W21	230944.40	2084045.46
W22	230947.39	2084045.28
W23	230974.86	2084069.73
W24	230976.50	2084071.20
W25	231339.44	2084394.28
W26	231429.22	2084474.19
W27	231429.74	2084483.18

WATER CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
W28	231413.36	2084501.58
W29	231411.70	2084503.45
W30	231410.03	2084505.31
W31	231410.40	2084511.64
W32	231266.33	2084682.44
W33	231145.13	2084574.55
W34	230935.71	2084388.13
W35	230929.47	2084382.58
W36	230922.41	2084382.99
W37	230733.62	2084595.06
W38	230731.63	2084597.30
W39	230910.99	2084378.18
W40	230785.90	2084518.71
W41	230772.40	2084525.24
W42	230761.91	2084533.52
W43	230696.90	2084649.80
W44	230816.02	2084714.21
W45	230823.49	2084723.42
W46	230987.42	2084814.78
W47	231166.47	2084866.14
W48	231163.93	2084866.51
W49	231093.87	2084884.74
W50	231057.19	2084862.95
W51	231055.25	2084863.45
W52	231048.57	2084865.15
W53	230937.71	2084385.89
W54	230963.62	2084356.79

WATER CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
W55	230923.23	2084035.26
W56	230925.47	2084037.25
W57	230927.71	2084039.25
W58	231156.00	2084562.35
W59	231155.56	2084554.81
W60	231155.26	2084549.64
W61	231199.83	2084499.57
W62	231227.00	2084497.99
W63	231252.34	2084469.53
W64	231259.40	2084469.12
W65	231133.28	2084533.88
W66	231135.27	2084531.64
W67	231155.74	2084530.45
W68	231176.33	2084507.32
W69	231130.62	2084536.87
W70	231171.40	2084508.36
W71	230850.60	2084323.58
W72	230848.78	2084325.63
W73	230832.56	2084343.85
W74	231000.98	2084816.48
W75	231050.47	2084844.68
W76	231054.51	2084860.54
W77	230910.21	2084083.86
W78	230896.37	2084071.54
W79	231082.18	2084526.55
W79	231133.86	2084528.72
W80	231154.33	2084527.53

SANITARY FORCE MAIN CONTROL POINTS

DESCRIPTION	NORTHING	EASTING
FM1	230895.44	2084341.74
FM2	230898.44	2084341.57
FM3	230902.92	2084345.55
FM4	231219.39	2084627.27

SHEET NOTES

1. REFER TO SHEET CU001 FOR RESTRAINED JOINTS AND SANITARY SCHEDULES.
2. NOTES SHOWN WITH ✱ ARE NOT OWNED OR MAINTAINED BY BJWSA.
3. REFER TO SHEET CU001 FOR SANITARY SEWER DATA NOTES AS (#).
4. PROVIDE DUCTILE IRON (DI) WATER (W) LINE AS SPECIFIED WHERE INDICATED. PROVIDE PVC C900 DR 18 WATER LINE AS SPECIFIED WHERE INDICATED.
5. PROVIDE PVC SDR 26 FOAM BYPASS AS SPECIFIED WHERE INDICATED.
6. REFER TO SHEETS CU101 THROUGH CU104 FOR UTILITY PIPE SIZES AND STRUCTURE DESIGNATIONS.
7. ALL VALVES ARE GATE VALVES UNLESS NOTED OTHERWISE.
8. PROVIDE MINIMUM CLEARANCE REQUIRED BY BJWSA;
   - 10' HORIZONTAL WATER AND GRAVITY SEWER
   - 3' HORIZONTAL WATER AND FORCE MAIN / STORM
   - 5' HORIZONTAL WATER AND ELECTRICAL / GAS
9. PROVIDE DUCTILE IRON 18 FT. PIPE SECTION FOR WATER LINE, CENTERED ON CROSSING WITH OTHER UTILITY LINES.
10. REFER TO MS101 FOR GAS LINE INFORMATION.

GRAPHIC SCALE

1" = 25' (0, 25', 50', 75', 100')

REFER TO VOLUME 6 FOR BASE BID

BY	AMENDMENT	DATE	APPR
	MOD P00006 AND MOD P00007	01/16/2026	
	MOD P00005	10/2025	
		05/2023	

NAVFAC

SOUTH CAROLINA Annalee Bamforth No. 23067 01/13/23 ANNALEE BAMFORTH SEAL

BAMFORTH ENGINEERS + SURVEYORS A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Ricketts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

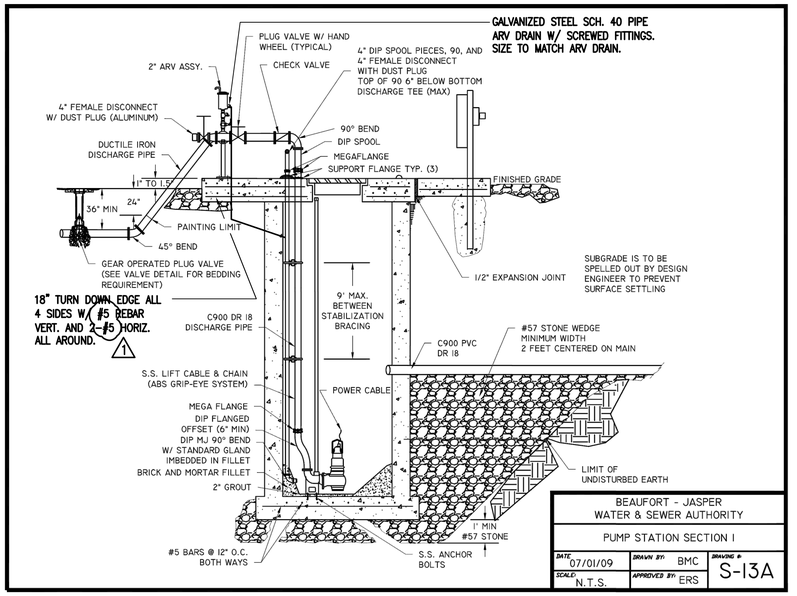
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CORE NORFOLK, VA
MCAS BEAUFORT BEAUFORT, SC
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
COMPOSITE UTILITY PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859305
SHEET	133 OF 1412

CU105

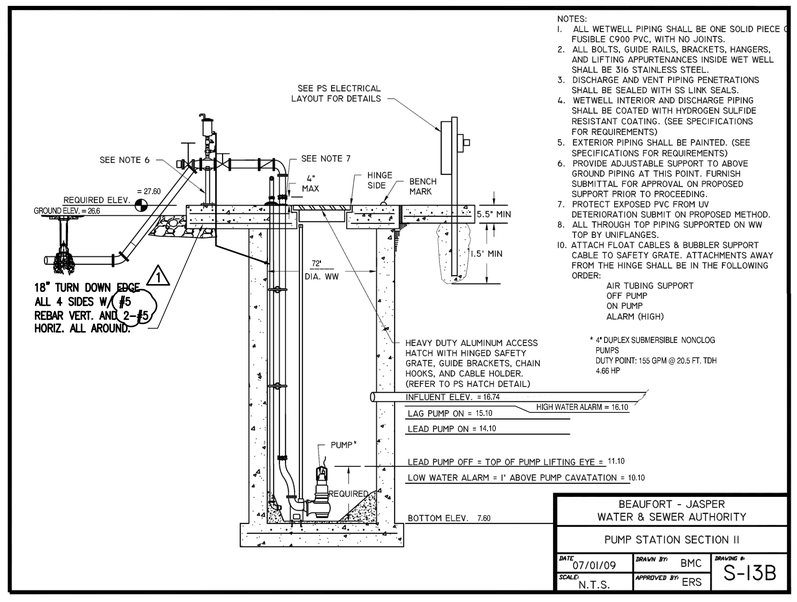
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CU105.dwg LAYOUT NAME: CU105 PLOTTED: Tuesday, January 20, 2026 - 4:12pm USER: mtw



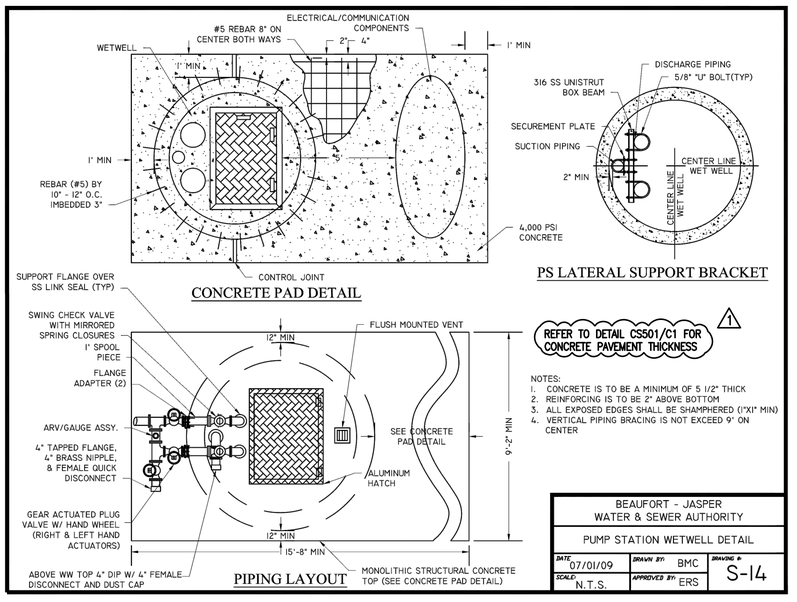
C3 **PUMP STATION SECTION I**

BEAUFORT JASPER WATER & SEWER AUTHORITY DETAIL S-13A
N.T.S.



A1 **PUMP STATION SECTION II**

BEAUFORT JASPER WATER & SEWER AUTHORITY DETAIL S-13B
N.T.S.



A3 **PUMP STATION WETWELL DETAIL**

BEAUFORT JASPER WATER & SEWER AUTHORITY DETAIL S-14
N.T.S.

NO.	BY	AMENDMENT	DESCRIPTION	DATE	APPR
3		MOD P00006 AND MOD P00007		01/16/2026	
2		MOD P00005		10/2025	
1				05/2023	

NAVFAC

SOUTH CAROLINA — Annalee Bamforth — No. 23067 — 01/13/23 — ANNALEE BAMFORTH — SEAL

BAMFORTH ENGINEERS + SURVEYORS

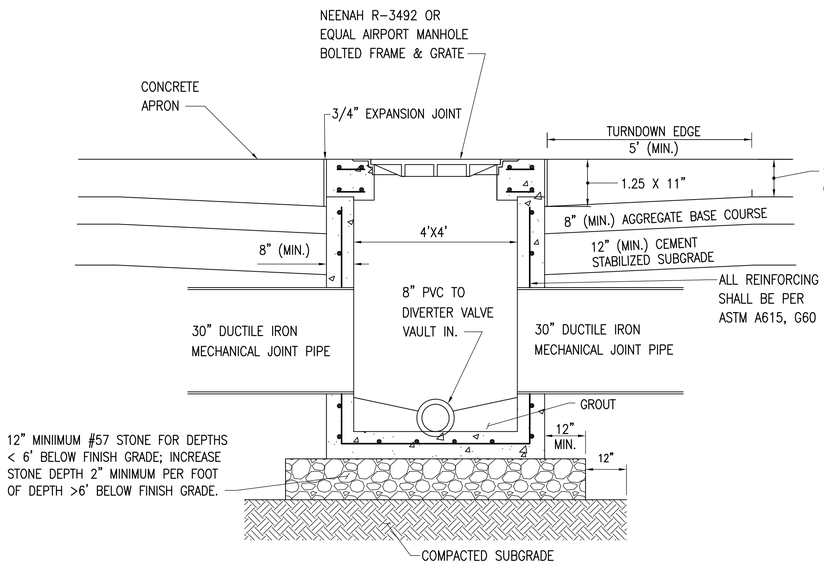
A/E INFO

APPROVED
James E. Jenkins, R.A.
FOR COMMANDER NAVFAC
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022
DES CAB | DRW CAD | CHK ALB
PM/DM KTB/RLH
BRANCH MANAGER DLB
CHIEF ENG/ARCH EJA
FIRE PROTECTION DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
BJWSA DETAILS

SCALE:
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859315
SHEET 143 OF 1412
CU504
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CU504.dwg LAYOUT NAME: CU504 PLOTTED: Tuesday, January 20, 2026 - 4:12pm USER: mtw

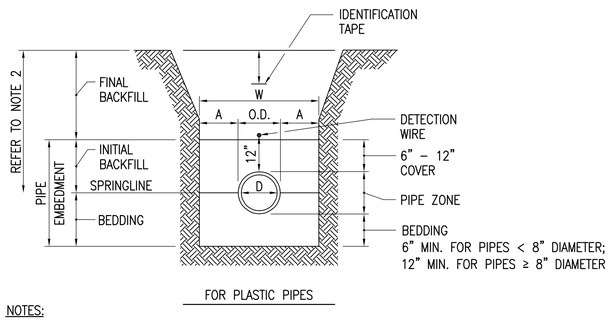


NOTES:

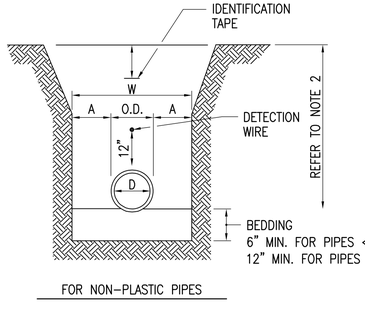
1. DIVERTER BOX AND TOP SLAB (INCLUDING FRAME AND COVER) MUST HAVE THE STRUCTURAL CAPACITY TO SUPPORT A 100,000 LB SINGLE WHEEL LOAD WITH A TIRE PRESSURE OF 250 PSI.
2. CONCRETE SHALL BE 4000 PSI (MIN.) PER ASTM C913.
3. PRECAST STRUCTURES SHALL BE CAST IN ACCORDANCE WITH ASTM 913.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRECAST STRUCTURES, INCLUDING, BUT NOT LIMITED TO , STRUCTURAL CERTIFICATION FOR DESIGN LOADING AND ALL CASTING SPECIFICATIONS.

B1 DIVERTER BOX (AIRFIELD)

N.T.S.



FOR PLASTIC PIPES



FOR NON-PLASTIC PIPES

PIPE DIA. "D"	MAXIMUM "A"
6" TO 15"	8"
16" TO 21"	10"
24" TO 30"	12"

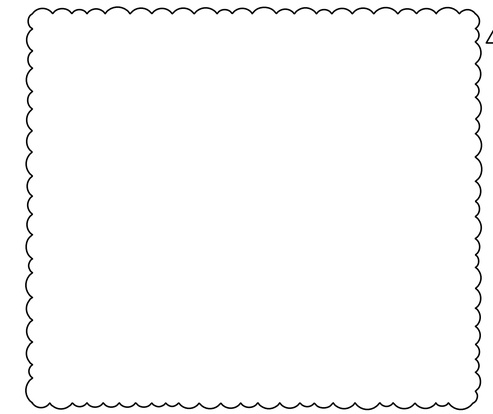
MAXIMUM TRENCH WIDTH "W" TAKEN AT TOP OF PIPE

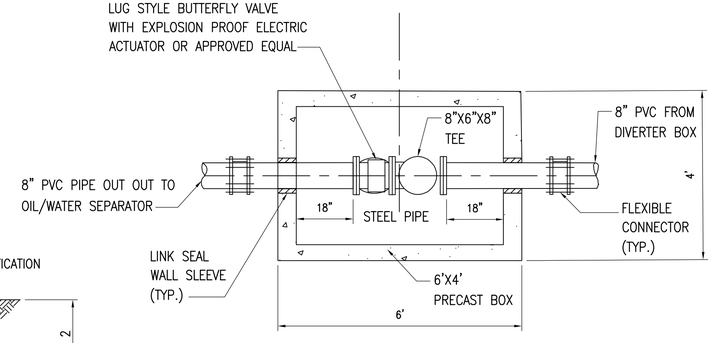
NOTES:

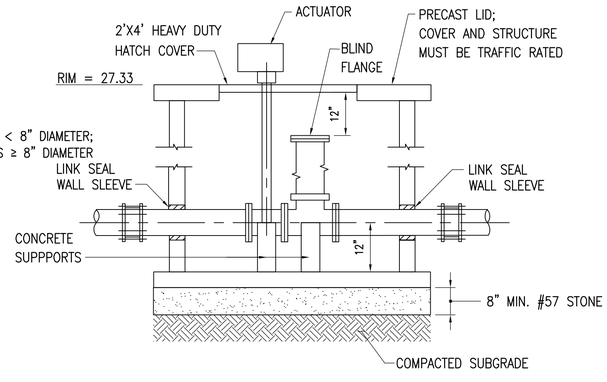
1. PROVIDE BEDDING MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS.
2. COMMON FILL, EXCEPT STRUCTURAL FILL TO BOTTOM OF PAVEMENT SECTION OR STRUCTURES, SPREAD FOOTINGS AND CONCRETE SLABS.
3. PLACE TAPE 12" BELOW FINISHED GRADE IN UNPAVED AREAS & 6" BELOW TOP OF SUBGRADE IN PAVED AREAS.
4. PLASTIC PIPES INCLUDE PVC AND HDPE PIPES.

A1 FIRE WATER MAIN AND FIRE SUPPRESSION BYPASS PIPE TRENCH DETAILS(INSTALLATION OWNED UTILITIES)

N.T.S.

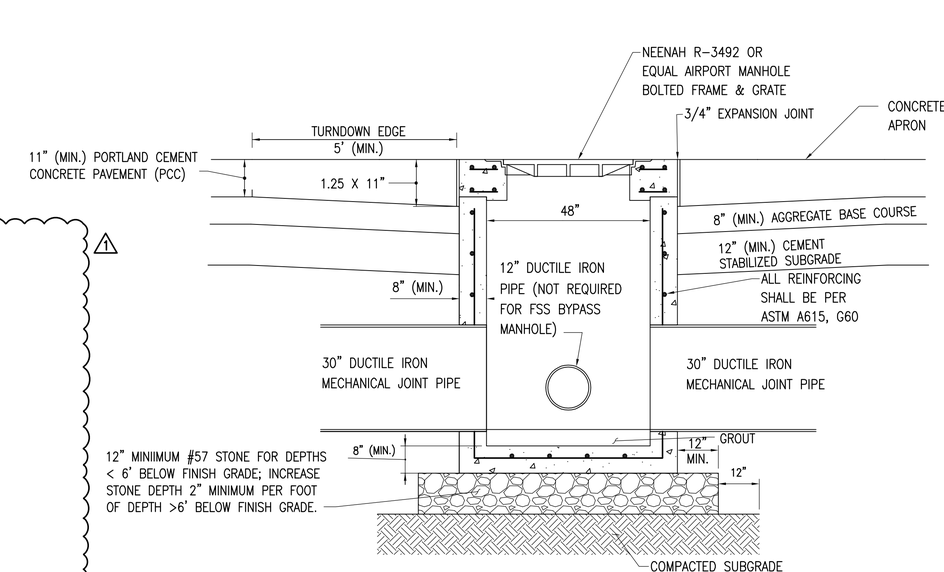






A3 DIVERTER VALVE VAULT

N.T.S.

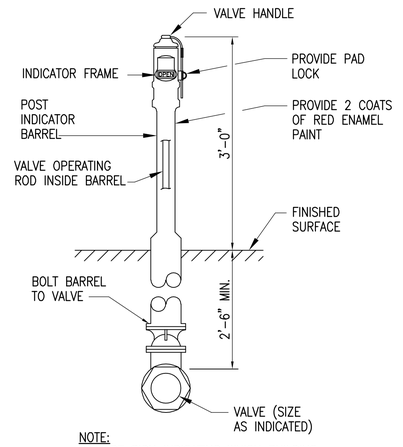


NOTES:

1. MANHOLE AND TOP SLAB (INCLUDING FRAME AND COVER) MUST HAVE THE STRUCTURAL CAPACITY TO SUPPORT A 100,000 LB SINGLE WHEEL LOAD WITH A TIRE PRESSURE OF 250 PSI.
2. CONCRETE SHALL BE 4000 PSI (MIN.) PER ASTM C913.
3. PRECAST STRUCTURES SHALL BE CAST IN ACCORDANCE WITH ASTM 913.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PRECAST STRUCTURES, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL CERTIFICATION FOR DESIGN LOADING AND ALL CASTING SPECIFICATIONS.

B4 AIRFIELD SANITARY MANHOLE/ FSS BYPASS MANHOLE

N.T.S.



NOTE:
INCLUDE SIGN INDICATING WHICH BUILDING THE VALVE SERVES. COMPLY WITH REQUIREMENTS OF NFPA 24,6.7.1.

A5 POST INDICATOR VALVE DETAIL

N.T.S.

BY	DESCRIPTION	DATE	APPR
	AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

SOUTH CAROLINA
Annalee Bamforth
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
Jason D. Greenlee, P.E.
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW CAD	
CHK	ALB		
PM/DM		KTB/RLH	
BRANCH MANAGER		DLB	
CHIEF ENG/ARCH		EJA	
FIRE PROTECTION		DSN	

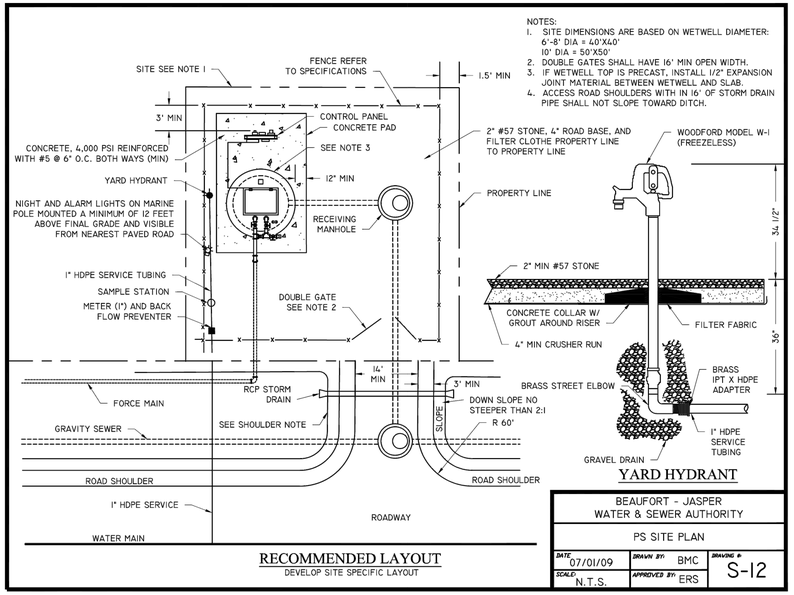
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
DETAILS

SCALE:
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12859318
SHEET 146 OF 1412

CU507

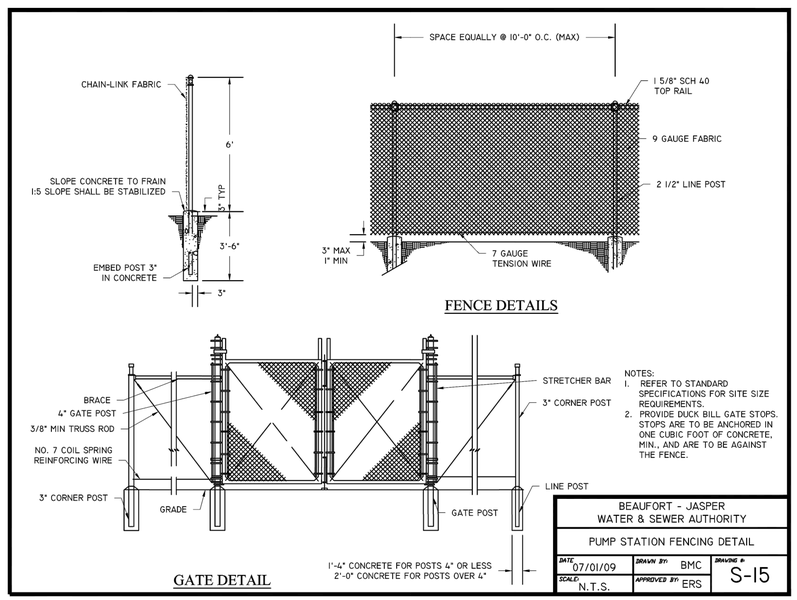
DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20221\Amendment 01-16-26\BLDG-P475-1363603-CU507.dwg LAYOUT NAME: CU507 PLOTTED: Tuesday, January 20, 2026 - 4:12pm USER: mlw



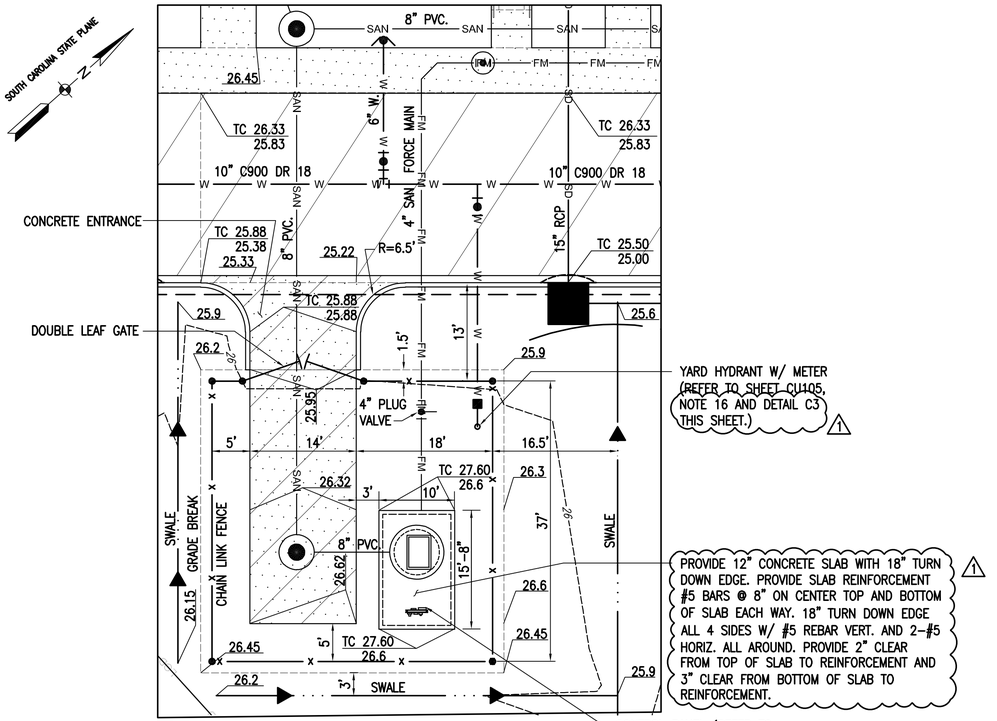
C3 **PS SITE PLAN**

BEAUFORT JASPER WATER & SEWER AUTHORITY DETAIL S-12
N.T.S.



A1 **PUMP STATION FENCING DETAIL**

BEAUFORT JASPER WATER & SEWER AUTHORITY DETAIL S-15
N.T.S.



A3 **PUMP STATION SITE SPECIFIC LAYOUT**

REFER TO SHEETS CS101, CG101 AND CU101 FOR ADDITIONAL INFORMATION.
N.T.S.

APPR	DATE	DESCRIPTION	SYM
	01/16/2026	BY AMENDMENT	
	10/2025	MOD P00006 AND MOD P00007	
	05/2023	MOD P00005	

NAVFAC

SOUTH CAROLINA
Annalee Bamforth
No. 23067
01/13/23
ANNALEE BAMFORTH
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	CAB	DRW	CAD	CHK	ALB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

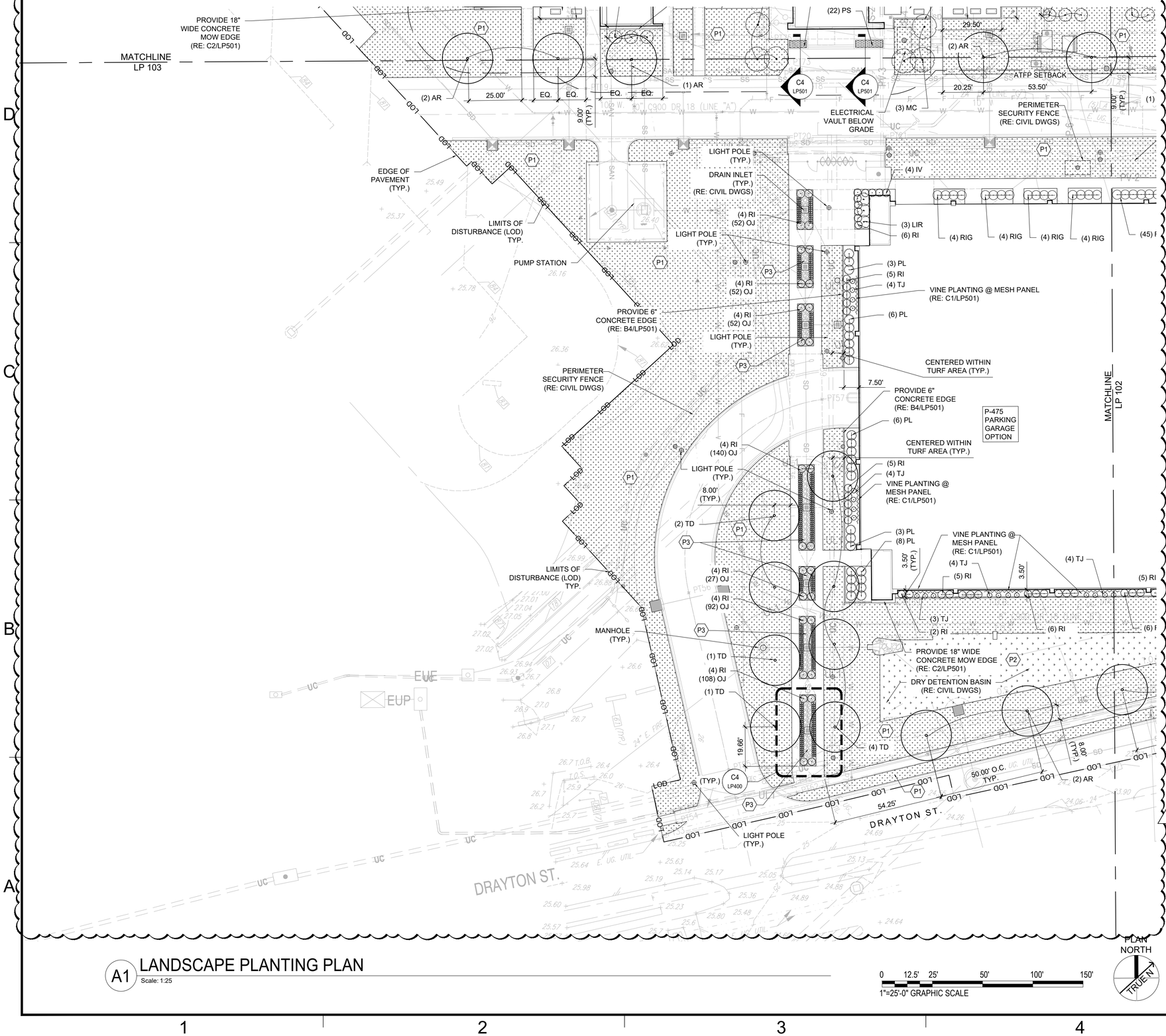
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
BJWSA DETAILS

SCALE:
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859319
SHEET 147 OF 1412

CU508

DRAWFORM REVISION: 25 AUGUST 2020

FILE NAME: K:\Jobs\20021\Amendment 01-16-26\BLDG-P475-1363603-CU508.dwg LAYOUT NAME: CU508 PLOTTED: Tuesday, January 20, 2026 - 4:12pm USER: mlw



GENERAL LANDSCAPE PLANTING NOTES:

1. THIS PLAN PROVIDES LAYOUT, QUANTITY & SIZES OF PLANT MATERIAL TO BE PROVIDED BY THE LANDSCAPE CONTRACTOR. REFER TO THE FOLLOWING SPECIFICATIONS FOR SCOPE OF WORK, RESPONSIBILITIES, PRODUCTS & EXECUTION OF WORK.
   - 1.1. **SECTION 320533 - LANDSCAPE ESTABLISHMENT**
   - 1.2. **SECTION 329223 - SODDING**
   - 1.3. **SECTION 329300 - EXTERIOR PLANTS**
2. REFER TO FULL PLANTING SCHEDULE ON SHEET LP600 FOR PLANT SPECIES, SIZES AND NOTES.
3. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING THE RESPECTIVE UTILITY COMPANIES AND/ OR THE LOCAL "ONE-CALL"/"CALL-BEFORE-YOU-DIG" SYSTEM AND BY EXCAVATING TEST PITS IF NECESSARY.
4. LOCATIONS OF ALL PLANT MATERIALS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO PLANTING.
5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE AND GRASS DISTURBED AREAS BACK TO ORIGINAL FINISHED GRADE ELEVATIONS, INCLUDING, EQUIPMENT MATERIAL STORAGE AREA AND STAGING AREAS ADJACENT TO SITE.

LEGEND

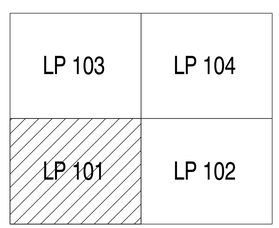
REFER TO SHEET LP600 FOR FULL PLANTING SCHEDULE.

SYM.	KEY	*BOTANICAL NAME*	COMMON NAME
	SHADE/STREET TREES		
	AR	*Acer rubrum 'dromondii'*	Swamp Red Maple
	TD	*Taxodium Distichum 'Mickelson'*	Shawnee Brave Bald Cyress
	ORNAMENTAL TREE		
	LIA	*Lagerstroemia indica 'Alba'*	White Crape Myrtle
	LIR	*Lagerstroemia indica 'Apapaho'*	Apapaho Crape Myrtle (Red)
	MC	*Myrica cerifera*	Wax Myrtle (Tree Form)
	EVERGREEN SHRUB		
	IV	Ilex vomitoria nana	Dwarf Yaupon Holly
	IC	*Ilex crenata 'Stokes'*	Stokes Japanese Holly
	PL	*Prunus laurocerаus*	Dwarf English Laurel
	RI	*Raphiolepis indica 'alba'*	White Indian Hawthorn
	DECIDUOUS SHRUB		
	VP	*Viburnum plicatum 'Summer Snowflake'*	Summer Snowflake Doublefile Viburnum
	RIG	*Rhododendron Indica "George Tabor"*	George Tabor Azalea
	PERENNIAL/GROUNDCOVER/VINE		
	PS	*Phlox subulata*	Creeping Phlox
	LM	*Liriope muscari "Majestic"*	Majestic Liriope
	OJ	*Ophiopogon jaburan*	Mondo Grass
	TJ	*Trachelospermum jasminoides*	Star Jasmine

P1 — TURFGRASS SOD (TYPE 1)
- (RE: 329223 - SODDING)
- 4" TOPSOIL WITH 2" COMPOST TOP LAYER (RE: 329300-EXTERIOR PLANTS)

P2 — TURFGRASS SOD (TYPE 2)
- (RE: 329223 - SODDING)
- 4" TOPSOIL WITH 2" COMPOST TOP LAYER (RE: 329300-EXTERIOR PLANTS)

P3 — INERT MULCH MATERIAL "DECORATIVE ROCK"
- (RE: 329300-EXTERIOR PLANTS)



KEY PLAN

A1 LANDSCAPE PLANTING PLAN
Scale: 1:25

0 12.5' 25' 50' 100' 150'
1"=25'-0" GRAPHIC SCALE

PLAN NORTH
TRUE N

	BY	AMENDMENT	DATE	APPR
1		MOD P00006 AND MOD P00007	01/16/2026	
		MOD P00005	10/2025	
			05/2023	

SYM DESCRIPTION

NAVFAC

STATE OF MISSOURI — BOB G. BUSHYHEAD — NUMBER LA-2002003007 — PROFESSIONAL LANDSCAPE ARCHITECT — 01/13/2023 — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
Digitally signed by R. Scott Roberts
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

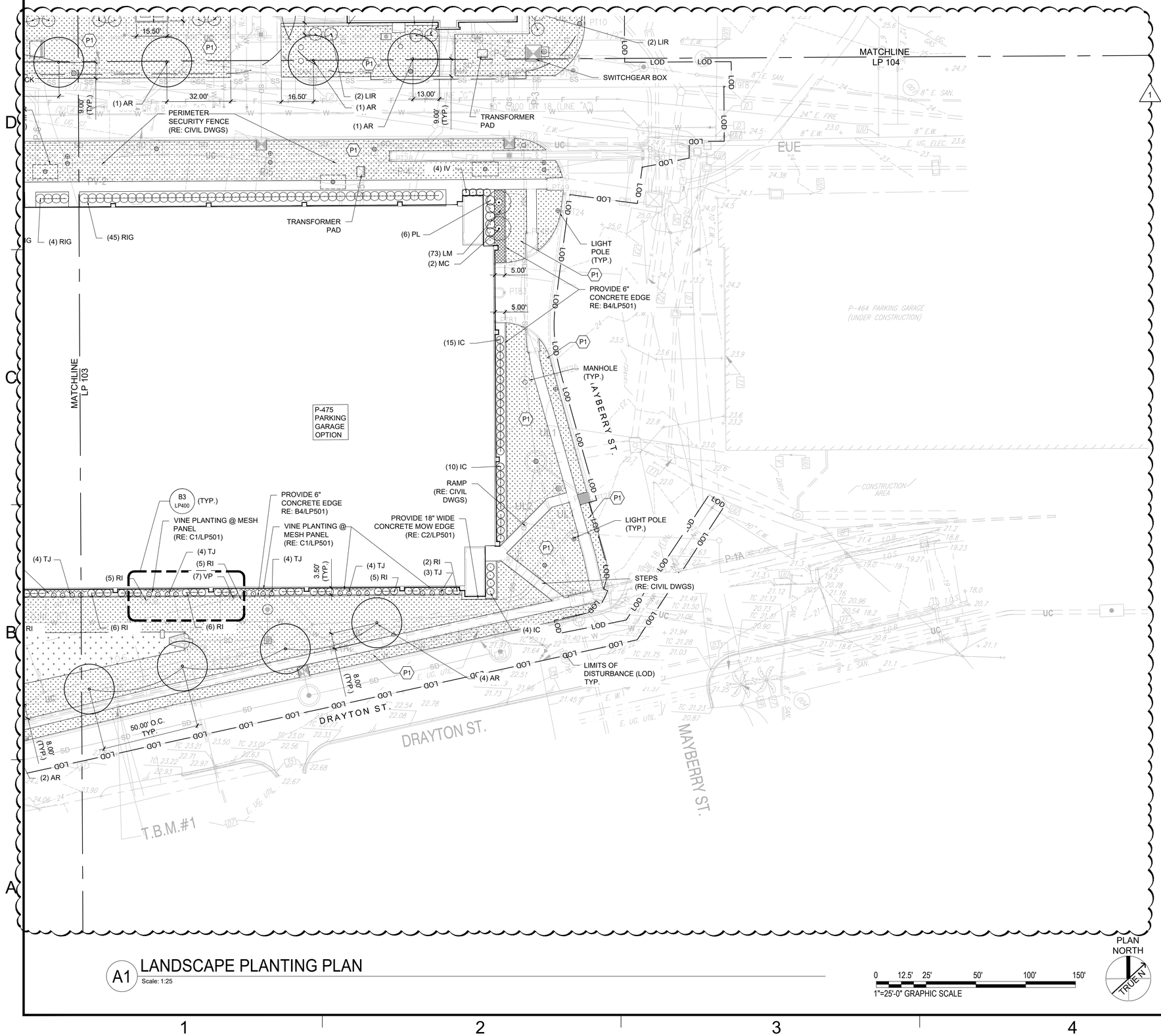
DES	BDR	DRW RWB	CHK BGB
PM/DM	KTB/RLH		
BRANCH MANAGER	DLB		
CHIEF ENG/ARCH	EJA		
FIRE PROTECTION	DSN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LANDSCAPE PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	1285933.0
SHEET	158 OF 1412

LP101

DRAWFORM REVISION: 25 AUGUST 2020



A1 LANDSCAPE PLANTING PLAN

Scale: 1:25

0 12.5' 25' 50' 100' 150'

1"=25'-0" GRAPHIC SCALE

PLAN NORTH

TRUE N

GENERAL LANDSCAPE PLANTING NOTES:

1. THIS PLAN PROVIDES LAYOUT, QUANTITY & SIZES OF PLANT MATERIAL TO BE PROVIDED BY THE LANDSCAPE CONTRACTOR. REFER TO THE FOLLOWING SPECIFICATIONS FOR SCOPE OF WORK, RESPONSIBILITIES, PRODUCTS & EXECUTION OF WORK:
   - 1.1. **SECTION 320533 - LANDSCAPE ESTABLISHMENT**
   - 1.2. **SECTION 329223 - SODDING**
   - 1.3. **SECTION 329300 - EXTERIOR PLANTS**
2. REFER TO FULL PLANTING SCHEDULE ON SHEET LP600 FOR PLANT SPECIES, SIZES AND NOTES.
3. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING THE RESPECTIVE UTILITY COMPANIES AND/ OR THE LOCAL "ONE-CALL"/"CALL-BEFORE-YOU-DIG" SYSTEM AND BY EXCAVATING TEST PITS IF NECESSARY.
4. LOCATIONS OF ALL PLANT MATERIALS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO PLANTING.
5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE AND GRASS DISTURBED AREAS BACK TO ORIGINAL FINISHED GRADE ELEVATIONS, INCLUDING, EQUIPMENT MATERIAL STORAGE AREA AND STAGING AREAS ADJACENT TO SITE.

LEGEND

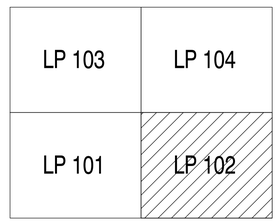
REFER TO SHEET LP600 FOR FULL PLANTING SCHEDULE.

SYM.	KEY	*BOTANICAL NAME*	COMMON NAME
	SHADE/STREET TREES		
	AR	*Acer rubrum 'dromondii'*	Swamp Red Maple
	TD	*Taxodium Distichum 'Mickelson'*	Shawnee Brave Bald Cyress
	ORNAMENTAL TREE		
	LIA	*Lagerstroemia indica 'Alba'*	White Crape Myrtle
	LIR	*Lagerstroemia indica 'Apapaho'*	Apapaho Crape Myrtle (Red)
	MC	*Myrica cerifera*	Wax Myrtle (Tree Form)
	EVERGREEN SHRUB		
	IV	Ilex vomitoria nana	Dwarf Yaupon Holly
	IC	*Ilex crenata 'Stokes'*	Stokes Japanese Holly
	PL	*Prunus lauroceraus*	Dwarf English Laurel
	RI	*Raphiolepis indica 'alba'*	White Indian Hawthorn
	DECIDUOUS SHRUB		
	VP	*Viburnum plicatum 'Summer Snowflake'*	Summer Snowflake Doublefile Viburnum
	RIG	*Rhododendron Indica "George Tabor"*	George Tabor Azalea
	PERENNIAL/GROUNDCOVER/VINE		
	PS	*Phlox subulata*	Creeping Phlox
	LM	*Liriope muscari "Majestic"*	Majestic Liriope
	OJ	*Ophiopogon jaburan*	Mondo Grass
	TJ	*Trachelospermum jasminoides*	Star Jasmine

P1 — TURFGRASS SOD (TYPE 1)
- (RE: 329223 - SODDING)
- 4" TOPSOIL WITH 2" COMPOST TOP LAYER (RE: 329300-EXTERIOR PLANTS)

P2 — TURFGRASS SOD (TYPE 2)
- (RE: 329223 - SODDING)
- 4" TOPSOIL WITH 2" COMPOST TOP LAYER (RE: 329300-EXTERIOR PLANTS)

P3 — INERT MULCH MATERIAL "DECORATIVE ROCK"
- (RE: 329300-EXTERIOR PLANTS)



KEY PLAN

SYM	DESCRIPTION	DATE	APPR
	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

STATE OF MISSOURI — BOB G. BUSHYHEAD — NUMBER LA-2002003007 — LANDSCAPE ARCHITECT — 01/13/2023 — SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED — FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO — DATE 12/15/2022

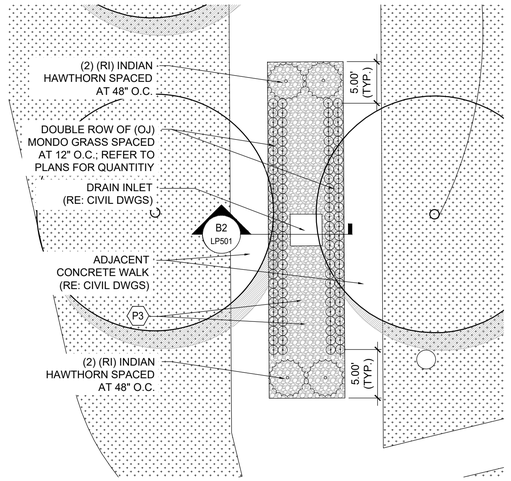
DES	BDR	DRW	RWB	CHK	BGB
PM/DM	KTB/RLH				
BRANCH MANAGER	DLB				
CHIEF ENG/ARCH	EJA				
FIRE PROTECTION	DSN				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LANDSCAPE PLAN

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859331
SHEET	159 OF 1412

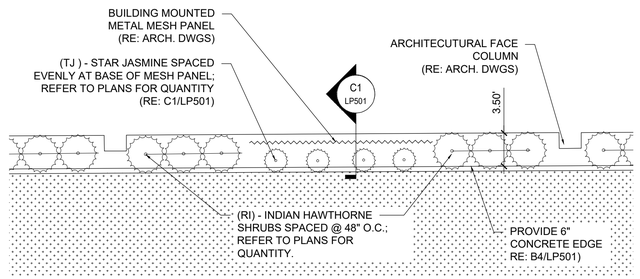
LP102

DRAWFORM REVISION: 25 AUGUST 2020



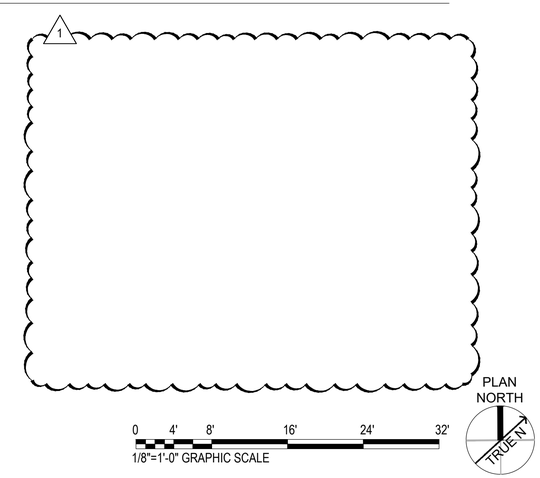
C4 DRAINAGE AREA ENLARGEMENT - TYPICAL

Scale: 1/8" = 1'-0"



B3 SOUTH PARKING GARAGE FACE ENLARGEMENT - TYPICAL

Scale: 1/8" = 1'-0"



SYM	DESCRIPTION	DATE	APPR
1	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

STATE OF MISSOURI
BOB G. BUSHYHEAD
NUMBER
LA-2002003007
01/13/2023
LANDSCAPE ARCHITECT
SEAL

BAMFORTH
ENGINEERS + SURVEYORS

A/E INFO

APPROVED
FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

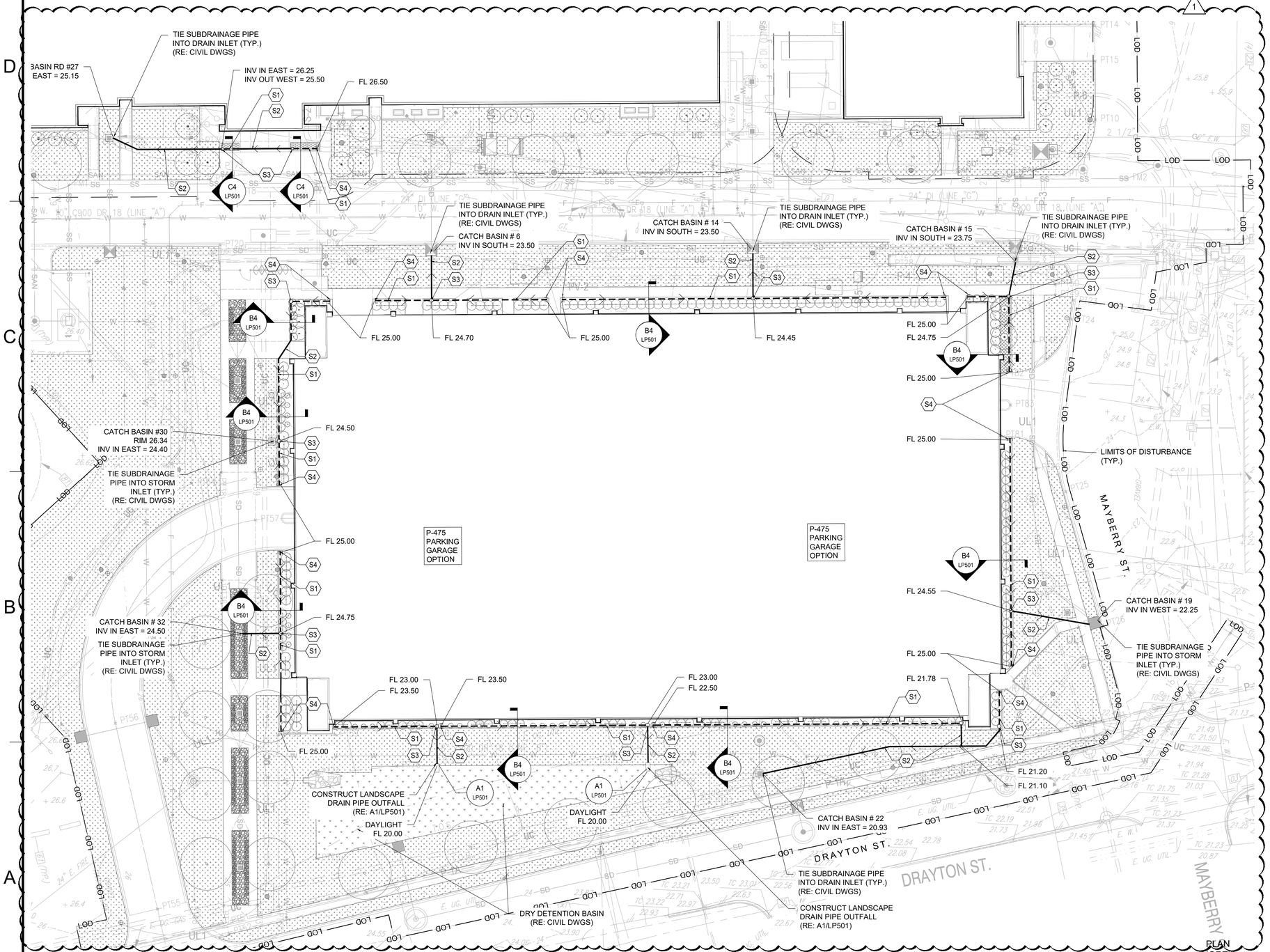
DES BDR	DRW RWB	CHK BGB	
PM/DM			KTB/RLH
BRANCH MANAGER			DLB
CHIEF ENG/ARCH			EJA
FIRE PROTECTION			DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LANDSCAPE PLAN ENLARGEMENT

SCALE: GRAPHIC
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859334
SHEET 162 OF 1412

LP400

DRAWFORM REVISION: 25 AUGUST 2020



A1 LANDSCAPE SUBDRAINAGE ENLARGEMENT PLAN

Scale: 1:25

0 12.5' 25' 50' 100' 150'

1"=25'-0" GRAPHIC SCALE

GENERAL LANDSCAPE SUBDRAINAGE NOTES

1. THIS PLAN PROVIDES LAYOUT OF LANDSCAPE SUBDRAINAGE TO BE PROVIDED BY THE LANDSCAPE CONTRACTOR. REFER TO THE FOLLOWING SPECIFICATIONS FOR SCOPE OF WORK, RESPONSIBILITIES, PRODUCTS & EXECUTION OF WORK:
   1.1. **SECTION 329300 - EXTERIOR PLANTS**
2. CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING THE RESPECTIVE UTILITY COMPANIES AND/ OR THE LOCAL "ONE-CALL"/"CALL-BEFORE-YOU-DIG" SYSTEM AND BY EXCAVATING TEST PITS IF NECESSARY.
3. ALL DRAIN PIPE SHALL HAVE A MINIMUM 0.5% SLOPE

S1	PROVIDE 4" PERFORATED DRAIN PIPE; • (RE: B4/LP501)
S2	PROVIDE 4" SOLID DRAIN PIPE; • (RE: B1/LP501)
S3	PROVIDE 4" CLEANOUT PIPE; • (RE: A2/LP501)
S4	PROVIDE 4" DRAIN CAP; • (RE: A4/LP501)
INV IN/OUT	INVERT ELEVATION (BOTTOM OF PIPE)
FL	FLOW ELEVATION (BOTTOM OF PIPE)
—<—	(DIRECTION OF FLOW)

SYM	DESCRIPTION	DATE	APPR
1	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

STATE OF MISSOURI BOB G. BUSHYHEAD NUMBER LA-2002003007 01/13/2023 LANDSCAPE ARCHITECT

SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED

FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY

Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO	DATE 12/15/2022		
DES BDR	DRW RWB	CHK BGB	
PM/DM	KTB/RLH		
BRANCH MANAGER	DLB		
CHIEF ENG/ARCH	EJA		
FIRE PROTECTION	DSN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA
DC CORE

MCAS BEAUFORT
BEAUFORT, SC

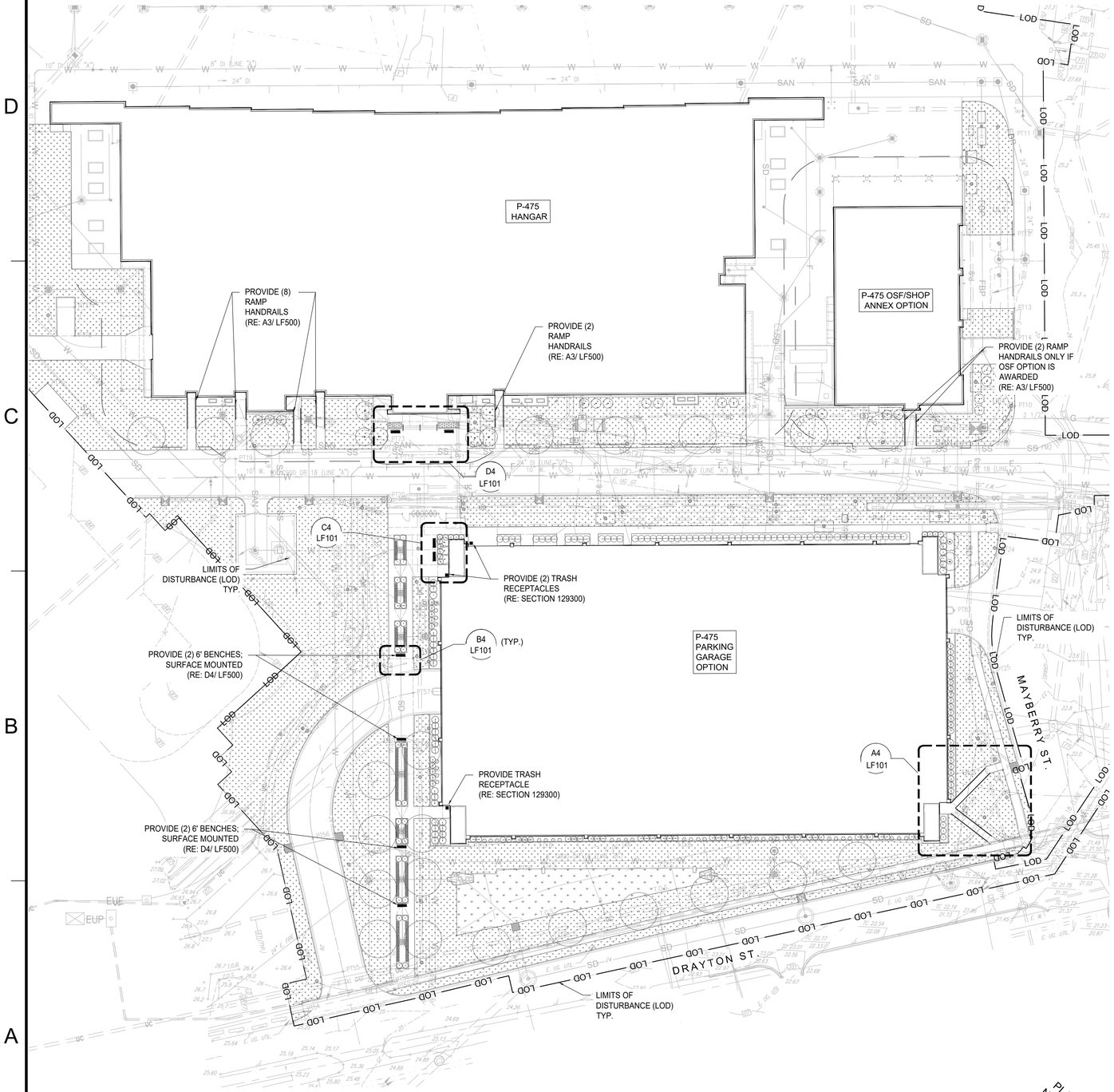
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

LANDSCAPE SUBDRAINAGE ENLARGEMENT

SCALE:	GRAPHIC
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859335
SHEET 163 OF 1412	

LP401

DRAWFORM REVISION: 25 AUGUST 2020



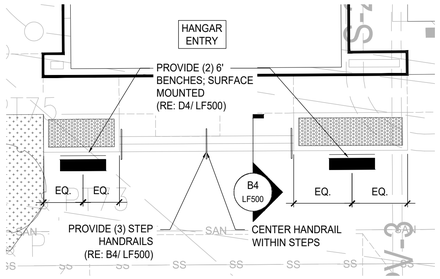
A1 LANDSCAPE FURNISHING PLAN

Scale: 1:40

0 20' 40' 80' 120' 160'

1"=40'-0" GRAPHIC SCALE

PLAN NORTH / TRUE N

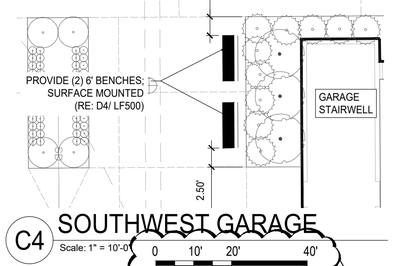


D4 HANGER ENTRANCE PLAN

Scale: 1" = 10'-0"

0 10' 20' 40'

1"=10'-0" GRAPHIC SCALE

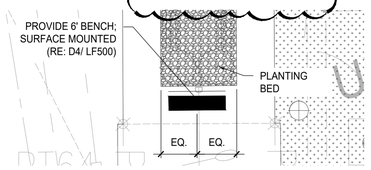


C4 SOUTHWEST GARAGE

Scale: 1" = 10'-0"

0 10' 20' 40'

1"=10'-0" GRAPHIC SCALE

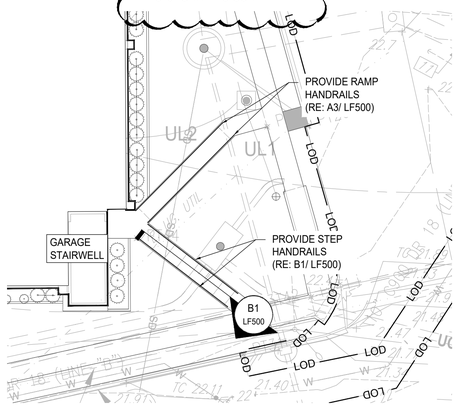


B4 BENCH LAYOUT B-TYPICAL

Scale: 1/8" = 1'-0"

0 8' 16' 32'

1"=8'-0" GRAPHIC SCALE



A4 NORTHEAST GARAGE ENTRANCE PLAN

Scale: 1"= 20'-0"

0 20' 40' 80'

1"=20'-0" GRAPHIC SCALE

SITE FURNISHING SCHEDULE

SYM	ITEM/DESCRIPTION
▬	BENCH (REFER TO DETAIL D4/LF500 OR NOTED ENLARGEMENT FOR LOCATING IN LANDSCAPE)
■	TRASH RECEPTACLE (RE: SECTION 129300)
⫽	HANDRAILS (STEP OR RAMP) (RE: DETAILS SHEET LF500)

GENERAL SITE FURNISHING NOTES

1. THIS PLAN PROVIDES LAYOUT & QUANTITY OF ALL SITE FURNISHINGS TO BE PROVIDED BY THE LANDSCAPE CONTRACTOR. REFER TO **SECTION 12 93 00 - SITE FURNISHINGS** FOR COMPLETE SCOPE OF WORK, RESPONSIBILITIES, PRODUCTS AND EXECUTION OF WORK.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BY CONTACTING ALL OF THE RESPECTIVE UTILITY COMPANIES AND/ OR THE LOCAL "ONE-CALL"/"CALL-BEFORE-YOU-DIG" SYSTEM AND BY EXCAVATING TEST PITS IF NECESSARY.
3. LANDSCAPE ARCHITECT & OWNERS REP TO SELECT FINAL LOCATIONS OF ALL SITE FURNISHINGS. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT AND OWNERS REP PRIOR TO FINAL PLACEMENT OF ALL FURNISHINGS.

SYM	DESCRIPTION	DATE	APPR
	BY AMENDMENT	01/16/2026	
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

STATE OF MISSOURI
BOB G. BUSHYHEAD
NUMBER LA-2002003007
LANDSCAPE ARCHITECT
01/13/2023
SEAL

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED
(acting) R.A.
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	BDR	DRW RWB	CHK BGB
PM/DM			KTB/RLH
BRANCH MANAGER			DLB
CHIEF ENG/ARCH			EJA
FIRE PROTECTION			DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

MCAS BEAUFORT
BEAUFORT, SC

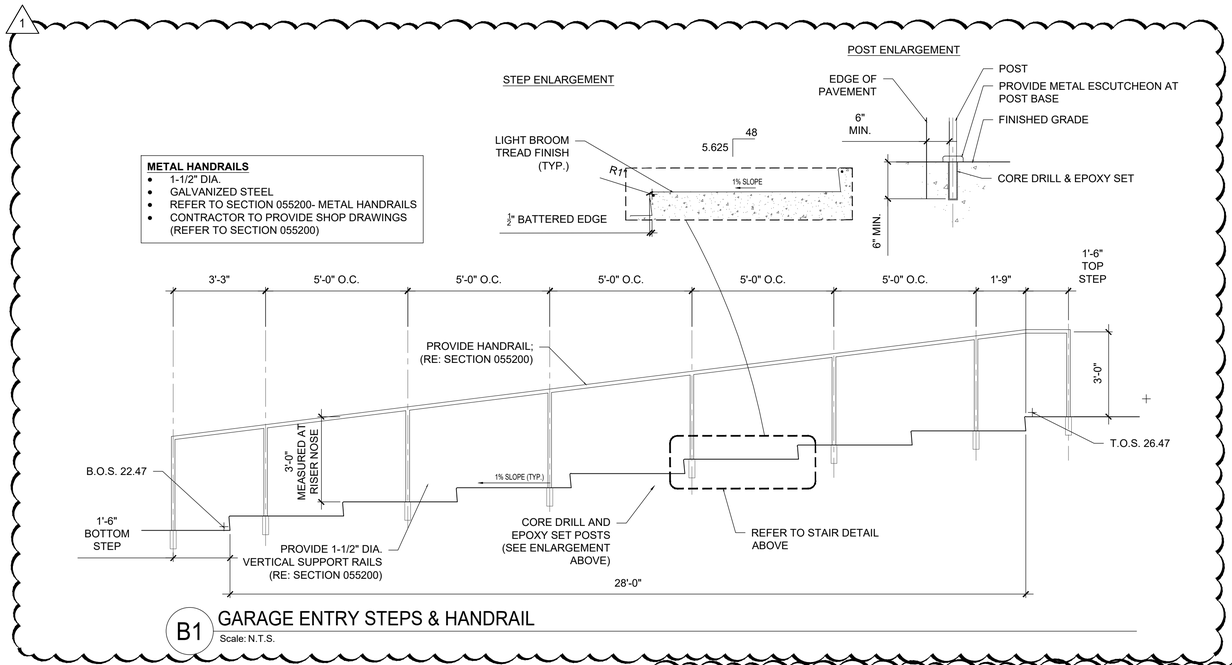
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

LANDSCAPE FURNISHING PLAN

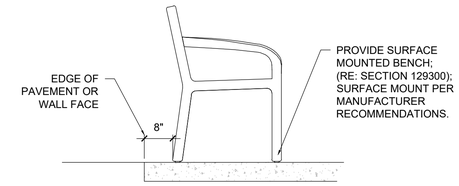
SCALE: VARIES
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 1285939
SHEET 167 OF 1412

LF101

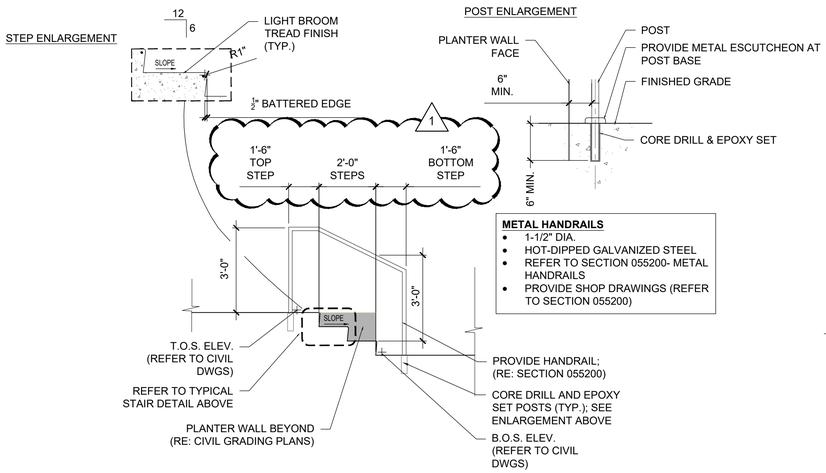
DRAWFORM REVISION: 25 AUGUST 2020



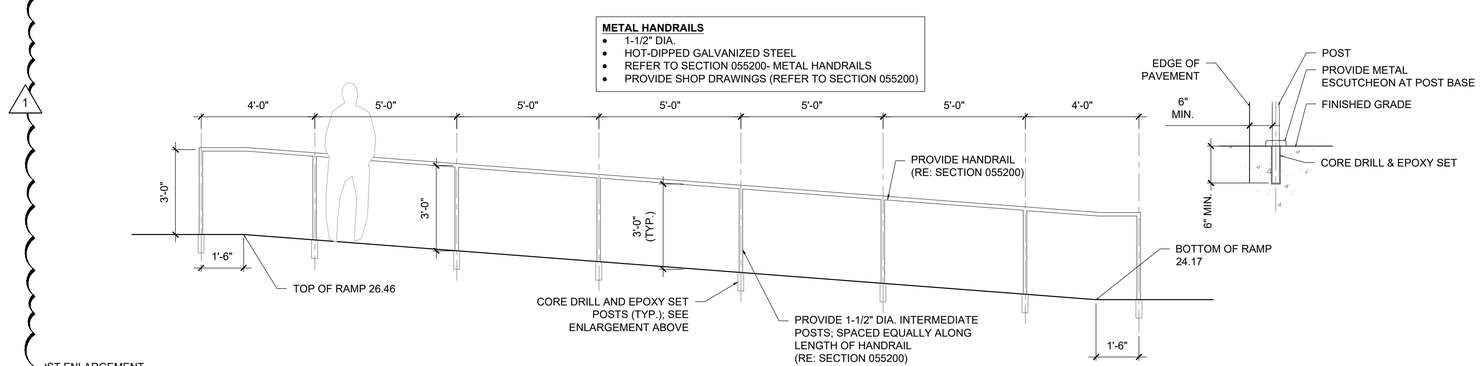
B1 GARAGE ENTRY STEPS & HANDRAIL
Scale: N.T.S.



D4 BENCH INSTALLATION - TYPICAL
Scale: N.T.S.



B4 HANGAR ENTRANCE STEPS & HANDRAIL
Scale: N.T.S.



ST ENLARGEMENT

A3 RAMP HANDRAIL - TYPICAL
Scale: N.T.S.

BY	AMENDMENT	DATE
	MOD P00006 AND MOD P00007	01/16/2026
	MOD P00005	10/2025
		05/2023

SYM DESCRIPTION APPR DATE

NAVFAC

STATE OF MISSOURI
BOB G. BUSHYHEAD
NUMBER LA-2002003007
01/13/2023
LANDSCAPE ARCHITECT
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	BDR	DRW	RWB	CHK	BGB
PM/DM					KTB/RLH
BRANCH MANAGER					DLB
CHIEF ENG/ARCH					EJA
FIRE PROTECTION					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND NORFOLK, VA.
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
LANDSCAPE FURNISHING DETAILS

SCALE:
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 1285934O
SHEET 168 OF 1412

LF500

DRAWFORM REVISION: 25 AUGUST 2020

KEY NOTES (00)

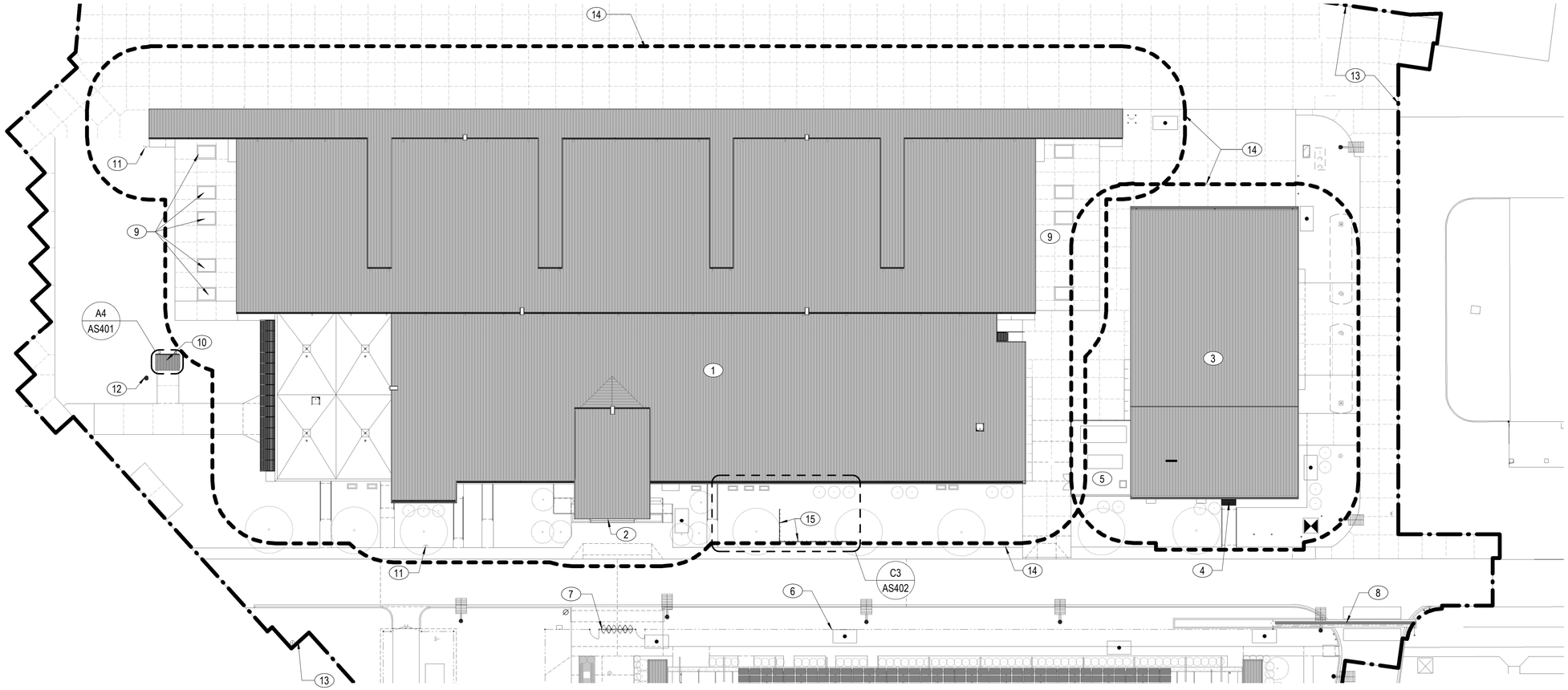
1 P475 MAINTENANCE HANGAR. REFER TO VOLUME 2A-2B FOR BUILDING INFORMATION.
2 P475 MAINTENANCE HANGAR - MAIN ENTRANCE.
3 OPERATIONS SUPPORT FACILITY (OSF) / SHOP ANNEX. REFER TO VOLUME 3 FOR BUILDING INFORMATION. PROVIDE ONLY IF OSF OPTION IS AWARDED.
4 OPERATIONS SUPPORT FACILITY (OSF) / SHOP ANNEX - MAIN ENTRANCE.
5 MECHANICAL YARD. REFER TO VOLUME 3, SHEET OAS401. PROVIDE, AS SHOWN, ONLY IF OSF OPTION IS AWARDED.
6 RESTRICTED AREA SECURITY FENCE. REFER TO SHEETS CS101-CS104 FOR ADDITIONAL INFORMATION.
7 DOUBLE TANDEM TURNSTILES. REFER TO SHEETS CS101 AND CS508-CS509 FOR ADDITIONAL INFORMATION.
8 RESTRICTED AREA SECURITY FENCE AND SLIDING GATE. REFER TO SHEETS CS102 AND CS510 FOR ADDITIONAL INFORMATION.
9 MECHANICAL EQUIPMENT ONCONCRETE PAD. REFER TO VOLUME 2B, SHEETS MH101A AND MH101C FOR ADDITIONAL INFORMATION.
10 OXYGEN TANK STORAGE. REFER TO SHEET AS401 FOR ADDITIONAL INFORMATION.
11 FIRE HYDRANT, TYP. REFER TO SHEETS CS103-CS104 FOR ADDITIONAL INFORMATION.
12 LIGHT POLE, TYP. REFER TO SHEET ES101 FOR ADDITIONAL INFORMATION.
13 LINE OF WORK DISTURBANCE, TYP.
14 33 FOOT SETBACK.
15 EQUIPMENT SCREEN. REFER TO SHEET AS402 FOR ADDITIONAL INFORMATION.

3
16 ARCHITECTURAL HANDRAIL, REFER TO SHEET LF500 FOR DETAIL.
17 1'-0" MINIMUM HANDRAIL EXTENTION AT TOP AND BOTTOM OF RAMP.
18 REFER TO CIVIL FOR STEP AND RAMP GRADES.
19 REFER TO SHEET LF500 FOR STEP AND HANDRAIL DETAILS.

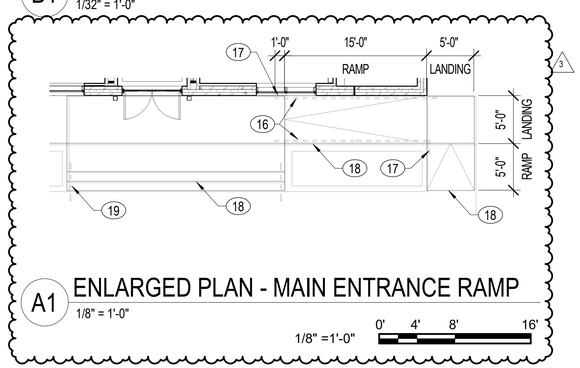
NOTES:

SHEET NOTES:

A REFER TO SHEET AS001 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS.
B ARCHITECTURAL ELEVATIONS FOR GROUND FLOOR TOP OF SLAB IS DEFINED AS 0'-0". REFER TO CIVIL PLANS CG101-CG104 FOR SLAB ELEVATIONS RELATIVE TO NORTH AMERICAN VERTICAL DATUM (NAVD) SYSTEM.
C REFER TO VOLUME 2A, SHEET AG101 FOR EXTERIOR SIGNAGE LOCATIONS AND AG504 FOR EXTERIOR SIGNAGE ELEVATIONS AND MOUNTING HEIGHTS.
D REFER TO SHEETS CS103-CS104 FOR SITE LAYOUT, CG103-CG104 FOR GRADING PLANS, AND CU103-CU104 FOR UTILITY PLANS.
E REFER TO SHEETS LP103-LP104 FOR LANDSCAPE PLANS AND LF101 FOR LANDSCAPE FURNISHING PLAN.

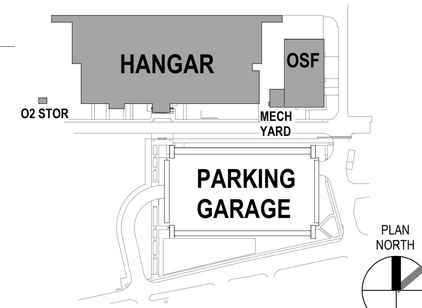


B1 ARCHITECTURAL SITE PLAN - HANGAR & OSF / SHOP ANNEX
1/32" = 1'-0"



A1 ENLARGED PLAN - MAIN ENTRANCE RAMP
1/8" = 1'-0"
1/8" =1'-0" 0' 4' 8' 16'

AS100, VOLUME 3 - OAS401



KEYPLAN

0 10' 40' 80' 120'
1/32" = 1'-0" GRAPHIC SCALE

***BASE BID / BID OPTION NOTE:**
IF REFERENCED OPTIONS ARE NOT SELECTED, REFER TO VOLUME 6 DRAWINGS FOR BASE BID ONLY INFORMATION.

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

APPR	DATE	DESCRIPTION
1	05/2023	MOD P00005
2	10/2025	MOD P00006 AND P00007
3	1/16/2026	BY AMENDMENT

NAVFAC

STATE OF FLORIDA
BILLY KEITH HOLLOWAY
AR93022
01/16/2026
REGISTERED ARCHITECT
SEAL

BAMFORTH
ENGINEERING ARCHITECTURE
AE INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts,
Asset Management Branch Head &
Supervisory Facility Planner, PWD
Beaufort, SC via email.

SATISFACTORY TO DATE	12/15/2022
DES EAD / DRW MEC / CHK BKH	
PMDM	KTB / RLH
BRANCH MANAGER	CGM
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

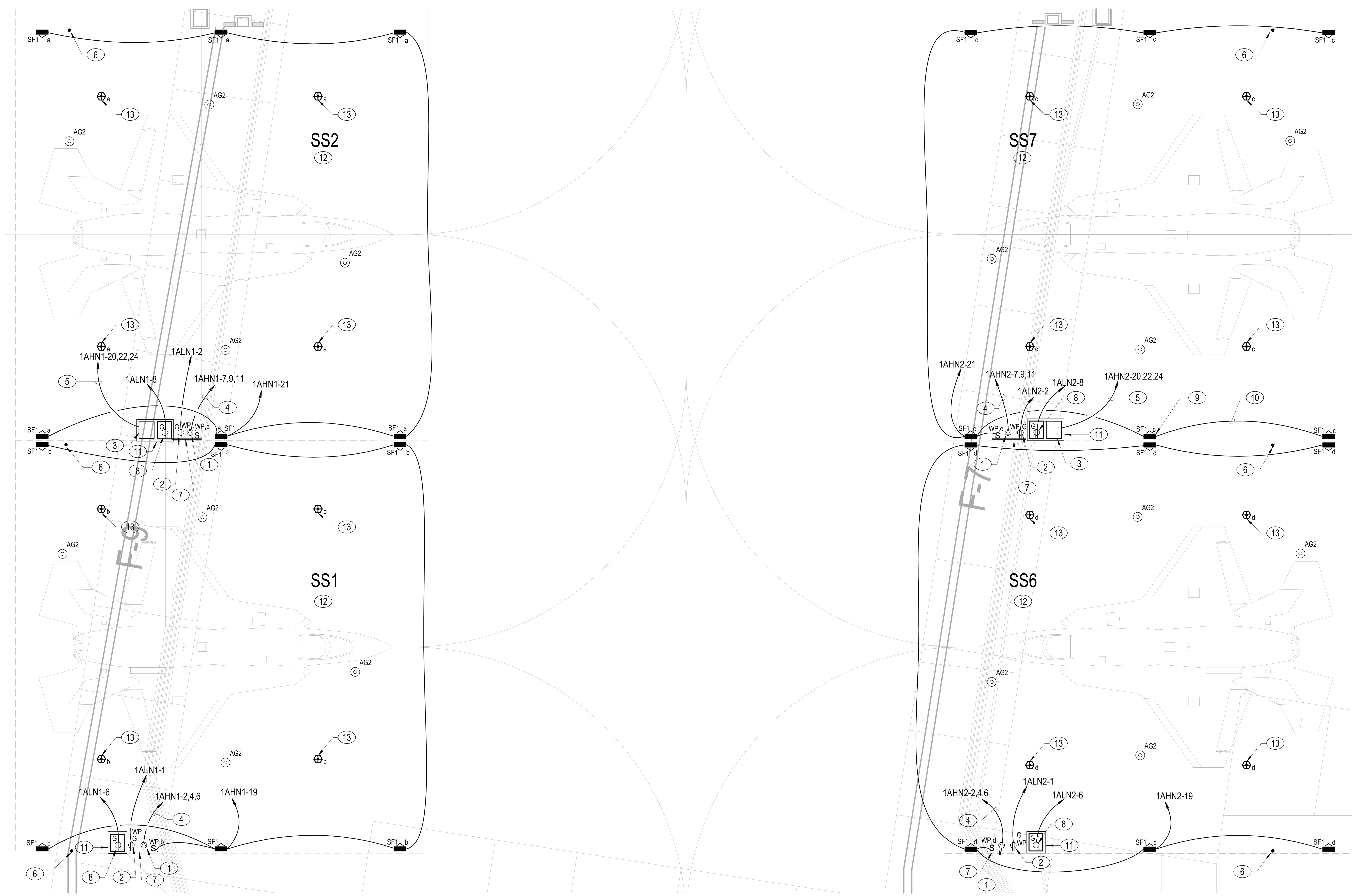
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CODE:
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
ARCHITECTURAL SITE PLAN - HANGAR AND OSF/SHOP ANNEX

SCALE:	As indicated
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859348
SHEET	176 OF 1412

AS100A

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://2024/1 NAVFAC 502 P35 Maintenance Hangar/2024 P-35 Maint Hangar_Site.rvt
1/14/2026 3:20:06 PM



NOTES:

SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

1. HEAVY DUTY, CLASS L, 480V, 3 PHASE, 3 WIRE, 100A, WEATHERPROOF RECEPTACLE FOR AIRCRAFT SERVICE EQUIPMENT. MOUNT AT 48"AFF TO BOTTOM. AMPHENOL #MS90555C44150S IN IP56 ENCLOSURE. ORIENT RECEPTACLE AT A 45 DEGREE DOWNWARD SLOPE.
2. 20A, 125V DUPLEX RECEPTACLE WITH WEATHERPROOF, CAST ALUMINUM IN-USE COVER.
3. 270VDC, 72KW, CONVERTER IN IP56 ENCLOSURE. CONVERTER SHALL BE EQUIPPED WITH A SINGLE OUTPUT CABLE.
4. 2"C - 3#3 + 1#6 GND.
5. 1 1/2"C - 3#1/0 + 1#6 GND.
6. ¾" X 10' LONG COPPER CLAD STEEL DRIVEN GROUND ROD FOR SHADE STRUCTURE LIGHTNING PROTECTION SYSTEM DOWN CONDUCTOR. GROUND ROD WILL EXTEND 4" ABOVE THE FINISHED CONCRETE SURFACE FOR CONDUCTOR CONNECTION. LIGHTNING PROTECTION SYSTEM IS PROVIDED WITH SHADE STRUCTURE. LOCATE THE GROUND ROD IMMEDIATELY ADJACENT TO ONE OF THE SHADE STRUCTURE COLUMNS, COORDINATE THE INSTALLATION WITH THE GOVERNMENT.
7. EQUIPMENT MOUNTING RACK. SEE A4/ES505 FOR TYPICAL DETAIL.
8. TELECOMMUNICATIONS NEMA 4X ENCLOSURE. PROVIDE 20A, 125V DUPLEX RECEPTACLE IN THE ENCLOSURE. COORDINATE EXACT MOUNTING LOCATION WITH ENCLOSURE INSTALLER.
9. MOUNT FIXTURE TO THE STRUCTURAL STEEL MEMBERS OF THE SHADE STRUCTURE AT 10'-0" ABOVE THE APRON SURFACE, AIM FIXTURE TO PROVIDE MAXIMUM ILLUMINATION AT AIRCRAFT PARKING LOCATION. TYPICAL.
10. ROUTE THE LIGHTING FIXTURE CONDUITS ON THE SHADE STRUCTURE. FASTEN TO THE STRUCTURAL STEEL ELEMENTS OF THE SHADE STRUCTURE.
11. 6" HIGH REINFORCED CONCRETE PAD WITH 1/2" HIGH BEVEL ON ALL EDGES. EXTEND PAD 4" BEYOND EQUIPMENT ON ALL SIDES, COORDINATE THE PAD DIMENSIONS WITH THE TELECOMMUNICATIONS ENCLOSURE AND DC CONVERTER. PROVIDE DOWELS TO ANCHOR THE PAD TO THE CONCRETE APRON. ALL EQUIPMENT SHALL BE RIGIDLY MOUNTED TO THE CONCRETE PAD WITH EXPANSION TYPE ANCHORS.
12. SHADE STRUCTURE LIGHT FIXTURES WILL BE CONTROLLED VIA LOCAL ON/OFF SWITCH AND LOCAL OCCUPANCY SENSORS.
13. CEILING-SURFACE MOUNTED, 277V, PASSIVE INFRARED, OCCUPANCY SENSOR FOR USE IN OUTDOOR WET LOCATION AND SUITABLE FOR CORROSIVE ENVIRONMENTS. SENSOR SHALL BE PROGRAMMED AS AUTO ON/ AUTO OFF TIME DELAY WITH A 30 MINUTE VACANCY TIMEOUT.

A1 ELECTRICAL SITE PLAN - SHADE STRUCTURES - SS1, SS2, SS6, SS7

1/8" = 1'-0"

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

PLAN NORTH

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

SYM	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

NICHOLAS G. ZUBRICKY LICENSE No 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS + SURVEYORS

A/E INFO

APPROVED James E. Donahue, R.A.
FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

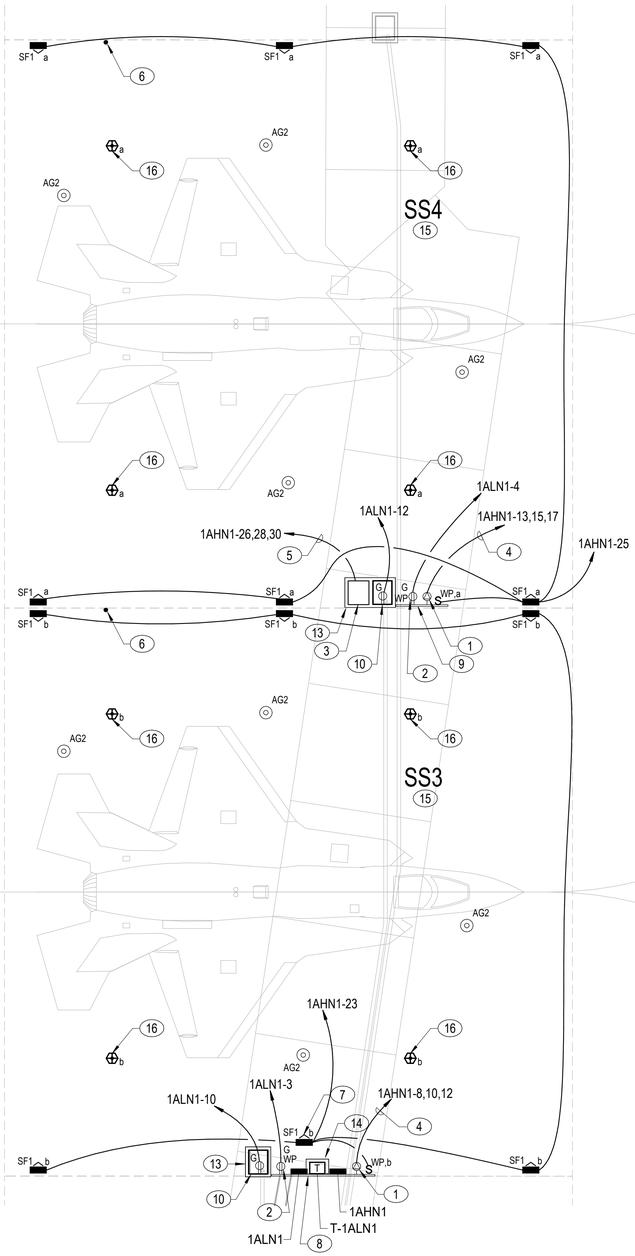
SATISFACTORY TO DATE	12/15/2022
DES RLW / DRW RLW / CHK KLM	
PM/DM	KTB / RLH
BRANCH MANAGER	JAS
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

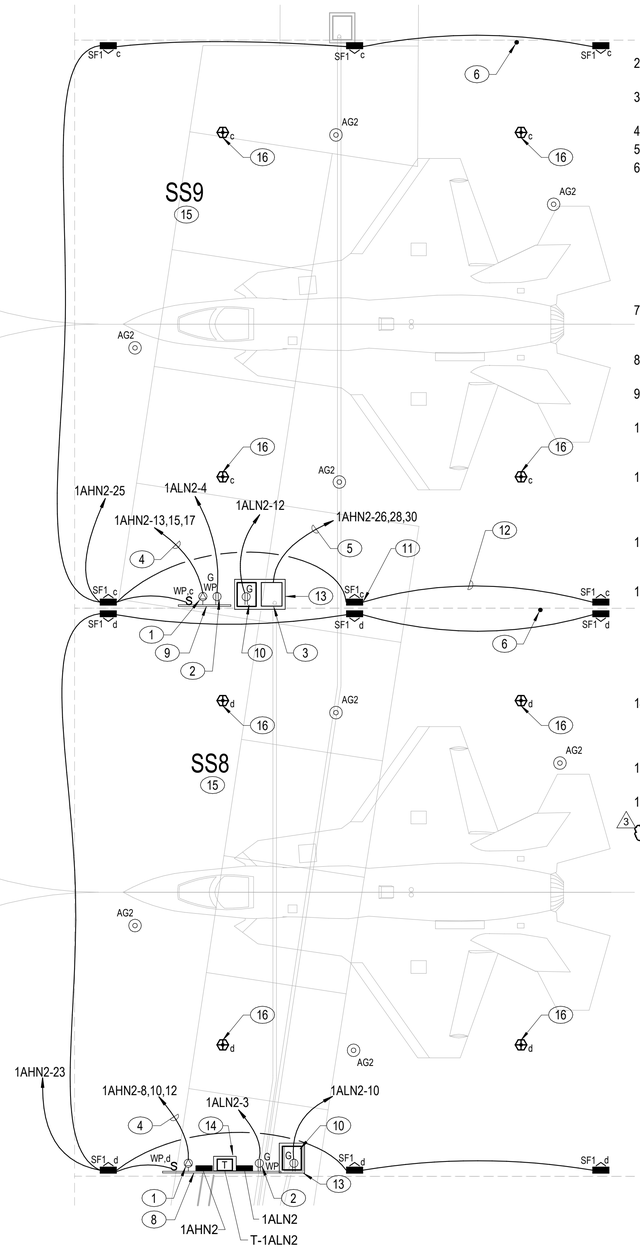
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859369
SHEET	197 OF 1412

ES401

DRAWFORM REVISION: 25 AUGUST 2020





NOTES:

△3 SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

1. HEAVY DUTY, CLASS L, 480V, 3 PHASE, 3 WIRE, 100A, WEATHERPROOF RECEPTACLE FOR AIRCRAFT SERVICE EQUIPMENT. MOUNT AT 48"AFF TO BOTTOM. AMPHENOL #MS90555C44150S IN IP56 ENCLOSURE. ORIENT RECEPTACLE AT A 45 DEGREE DOWNWARD SLOPE.
2. 20A, 125V DUPLEX RECEPTACLE WITH WEATHERPROOF, CAST ALUMINUM IN-USE COVER.
3. 270VDC, 72KW CONVERTER IN IP56 ENCLOSURE. CONVERTER WILL BE EQUIPPED WITH A SINGLE OUTPUT CABLE.
4. 2"C - 3#3 + 1#6 GND.
5. 1 1/2"C - 3#1/0 + 1#6 GND.
6. ¾" X 10' LONG COPPER CLAD STEEL DRIVEN GROUND ROD FOR SHADE STRUCTURE LIGHTNING PROTECTION SYSTEM DOWN CONDUCTOR. GROUND ROD WILL EXTEND 4" ABOVE THE FINISHED CONCRETE SURFACE FOR CONDUCTOR CONNECTION. LIGHTNING PROTECTION SYSTEM IS PROVIDED WITH SHADE STRUCTURE. LOCATE THE GROUND ROD IMMEDIATELY ADJACENT TO ONE OF THE SHADE STRUCTURE COLUMNS, COORDINATE THE INSTALLATION WITH THE GOVERNMENT.
7. MOUNT FIXTURE TO STRUCTURE ABOVE IN LINE WITH OTHER LIGHT FIXTURES. CURRENT LOCATION IS FOR VISUAL CLARITY ONLY.
8. EQUIPMENT MOUNTING RACK. SEE B4/ES505 FOR TYPICAL DETAIL.
9. EQUIPMENT MOUNTING RACK. SEE A4/ES505 FOR TYPICAL DETAIL.
10. TELECOMMUNICATIONS NEMA 4X ENCLOSURE. PROVIDE 20A, 125V DUPLEX RECEPTACLE IN THE ENCLOSURE. COORDINATE EXACT MOUNTING LOCATION WITH ENCLOSURE INSTALLER. △3
11. MOUNT FIXTURE TO THE STRUCTURAL STEEL MEMBERS OF THE SHADE STRUCTURE AT 10'-0" ABOVE THE APRON SURFACE, AIM FIXTURE TO PROVIDE MAXIMUM ILLUMINATION AT AIRCRAFT PARKING LOCATION. TYPICAL.
12. ROUTE THE LIGHTING FIXTURE CONDUITS ON THE SHADE STRUCTURE. FASTEN TO THE STRUCTURAL STEEL ELEMENTS OF THE SHADE STRUCTURE.
13. 6" HIGH REINFORCED CONCRETE PAD WITH 1/2" HIGH BEVEL ON ALL EDGES. EXTEND PAD 4" BEYOND EQUIPMENT ON ALL SIDES, COORDINATE THE PAD DIMENSIONS WITH THE TELECOMMUNICATIONS ENCLOSURE AND DC CONVERTER. PROVIDE DOWELS TO ANCHOR THE PAD TO THE CONCRETE APRON. ALL EQUIPMENT SHALL BE RIGIDLY MOUNTED TO THE CONCRETE PAD WITH EXPANSION TYPE ANCHORS.
14. 4" HIGH CONCRETE HOUSEKEEPING PAD. EXTEND 4" BEYOND EQUIPMENT ON ALL EXPOSED EDGES AND PROVIDE 1/2" BEVEL. APPLY TWO COATS OF SAFETY YELLOW PAINT ON ALL EXPOSED SURFACES.
15. SHADE STRUCTURE LIGHT FIXTURES WILL BE CONTROLLED VIA LOCAL ON/OFF SWITCH AND LOCAL OCCUPANCY SENSORS.
16. CEILING-SURFACE MOUNTED, 277V, PASSIVE INFRARED, OCCUPANCY SENSOR FOR USE IN OUTDOOR WET LOCATION AND SUITABLE FOR CORROSIVE ENVIRONMENTS. SENSOR WILL BE PROGRAMMED AS AUTO ON/ AUTO OFF TIME DELAY WITH A 30 MINUTE VACANCY TIMEOUT. △3

PLAN NORTH

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

A1 ELECTRICAL SITE PLAN - SHADE STRUCTURE - SS3, SS4, SS8, SS9

1/8" = 1'-0"

NO.	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

DOUGLAS G. ZUBRICKI LICENSE NO. 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS & SURVEYORS

AE INFO

APPROVED
Kevin J. Shirley, P.E.

FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE	12/15/2022
DES RLW / DRW RLW / CHK KLM	
PMDM	KTB / RLH
BRANCH MANAGER	JAS
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NORFOLK, VA

MCAS BEAUFORT
BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859370
SHEET	198 OF 1412

ES402

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://20242 VMFA 101 F35 Maintenance Hangar/20242 F35 maint Hangar_Site Bid Option EL.RVT2024.rvt
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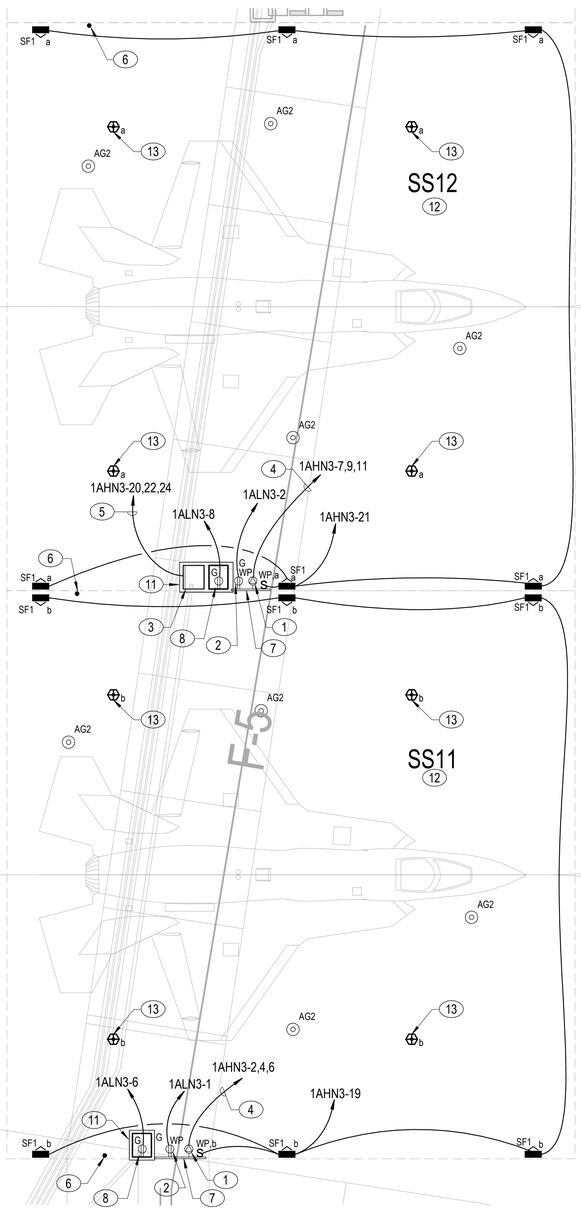

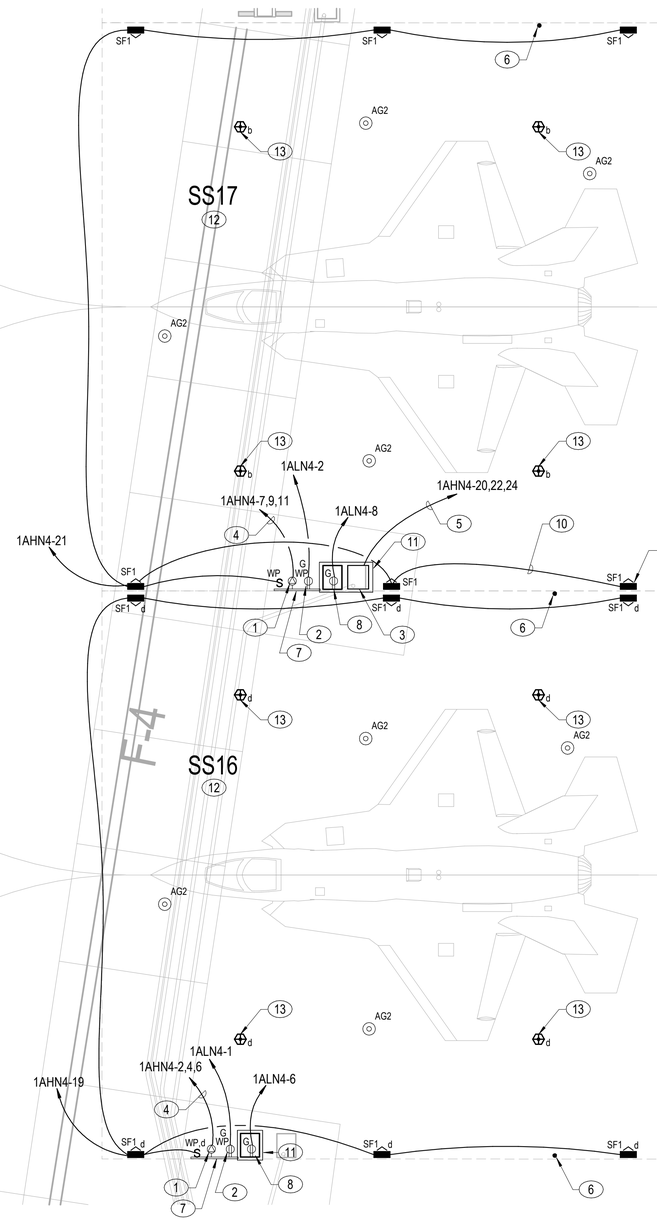

NOTES:

3

SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

1 HEAVY DUTY, CLASS L, 480V, 3 PHASE, 3 WIRE, 100A, WEATHERPROOF RECEPTACLE FOR AIRCRAFT SERVICE EQUIPMENT. MOUNT AT 48"AFF TO BOTTOM. AMPHENOL #MS90555C44150S IN NEMA 4X STAINLESS STEEL ENCLOSURE. ORIENT RECEPTACLE AT A 45 DEGREE DOWNWARD SLOPE.

2 20A, 125V DUPLEX RECEPTACLE WITH WEATHERPROOF, CAST ALUMINUM IN-USE COVER.

3 270VDC, 72KW CONVERTER IN IP55 ENCLOSURE. CONVERTER SHALL BE EQUIPPED WITH A SINGLE OUTPUT CABLE.

4 2"C - 3#3 + 1#6 GND.

5 1 1/2"C -3#1/0 + 1#6 GND.

6 ¾" X 10' LONG COPPER CLAD STEEL DRIVEN GROUND ROD FOR SHADE STRUCTURE LIGHTNING PROTECTION SYSTEM DOWN CONDUCTOR. GROUND ROD WILL EXTEND 4" ABOVE THE FINISHED CONCRETE SURFACE FOR CONDUCTOR CONNECTION. LIGHTNING PROTECTION SYSTEM IS PROVIDED WITH SHADE STRUCTURE. LOCATE THE GROUND ROD IMMEDIATELY ADJACENT TO ONE OF THE SHADE STRUCTURE COLUMNS, COORDINATE THE INSTALLATION WITH THE GOVERNMENT.

7 EQUIPMENT MOUNTING RACK. SEE A4/ES505 FOR TYPICAL DETAIL.

8 TELECOMMUNICATIONS NEMA 4X ENCLOSURE. PROVIDE 20A, 125V DUPLEX RECEPTACLE IN THE ENCLOSURE. COORDINATE EXACT MOUNTING LOCATION WITH ENCLOSURE INSTALLER. 3

9 MOUNT FIXTURE TO THE STRUCTURAL STEEL MEMBERS OF THE SHADE STRUCTURE AT 10'-0" ABOVE THE APRON SURFACE, AIM FIXTURE TO PROVIDE MAXIMUM ILLUMINATION AT AIRCRAFT PARKING LOCATION. TYPICAL.

10 ROUTE THE LIGHTING FIXTURE CONDUITS ON THE SHADE STRUCTURE. FASTEN TO THE STRUCTURAL STEEL ELEMENTS OF THE SHADE STRUCTURE.

11 6" HIGH REINFORCED CONCRETE PAD WITH 1/2" HIGH BEVEL ON ALL EDGES. EXTEND PAD 4" BEYOND EQUIPMENT ON ALL SIDES, COORDINATE THE PAD DIMENSIONS WITH THE TELECOMMUNICATIONS ENCLOSURE AND DC CONVERTER. PROVIDE DOWELS TO ANCHOR THE PAD TO THE CONCRETE APRON. ALL EQUIPMENT WILL BE RIGIDLY MOUNTED TO THE CONCRETE PAD WITH EXPANSION TYPE ANCHORS.

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13 CEILING-SURFACE MOUNTED, 277V, PASSIVE INFRARED, OCCUPANCY SENSOR FOR USE IN OUTDOOR WET LOCATION AND SUITABLE FOR CORROSIVE ENVIRONMENTS. SENSOR WILL BE PROGRAMMED AS AUTO ON/ AUTO OFF TIME DELAY WITH A 30 MINUTE VACANCY TIMEOUT.

PLAN NORTH

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

NOTE:
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IT IS A REDUCED SIZE DRAWING

A1 ELECTRICAL SITE PLAN - TYPICAL SHADE STRUCTURES - SS11, SS12, SS16, SS17
1/8" = 1'-0"

			APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	
STM	DESCRIPTION	DATE	

NAVFAC

DOUGLAS G. ZUBRICKI
LICENSE
No. 64239
STATE OF FLORIDA
PROFESSIONAL ENGINEER
01/16/2026
SEAL

BAMFORTH ENGINEERS CONTRACTORS
AE INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts;
Asset Management Branch Head &
Supervisory Facility Planner, PWD
Beaufort, SC via email

SATISFACTORY TO DATE			12/15/2022
DES	RLW	DRW RLW	CHK KLM
PM/DM			KTB / RLH
BRANCH MANAGER			JAS
CHIEF ENG/ARCH			EJA
FP ENGINEER			DSN

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NORFOLK, VA
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND – MID-ATLANTIC
DEPARTMENT OF THE NAVY
DC CORE
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859371
SHEET	199 OF 1412

ES403

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://20042 VMFAT 500 F35 Maintenance Hangar/20042 F35 main Hangar_Site Bid Option EL.RVT2024.rvt
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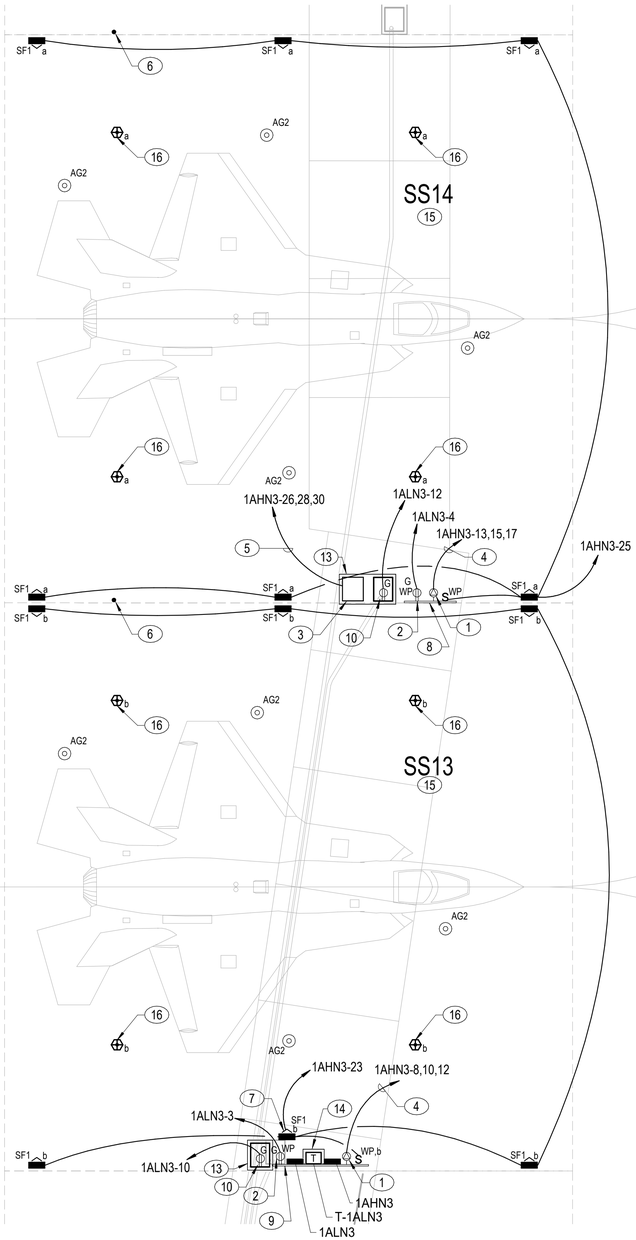

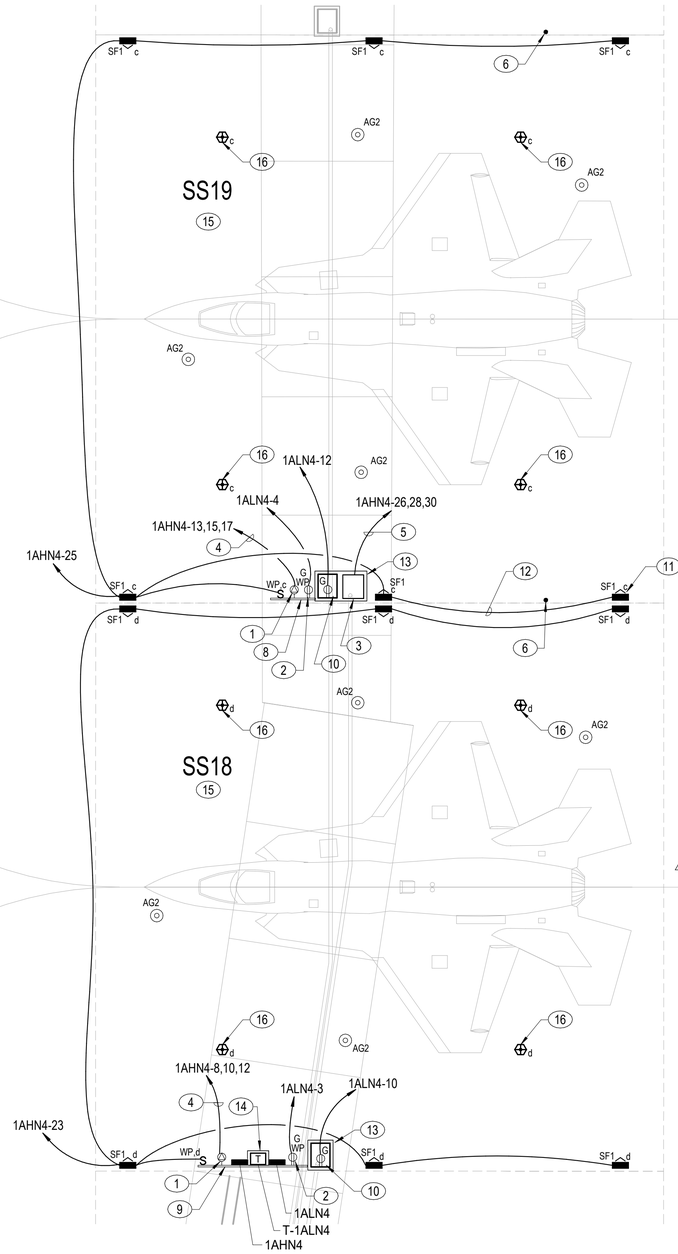

NOTES:

3

SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

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PLAN NORTH

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

NOTE:
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IT IS A REDUCED SIZE DRAWING

A1 ELECTRICAL SITE PLAN - SHADE STRUCTURES - SS13, SS14, SS18, SS19

1/8" = 1'-0"

NO.	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

DOUGLAS G. ZUBRICKI LICENSE NO. 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER
01/16/2026
SEAL

BAMFORTH ENGINEERS CONTRACTORS
AE INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE	12/15/2022
DES RLW / DRW RLW / CHK KLM	
PM/DM	KTB / RLH
BRANCH MANAGER	JAS
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND – MID-ATLANTIC
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND – MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859372
SHEET	200 OF 1412

ES404

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://20045 JMFAT 500 F35 Maintenance Hangar/20045 F35 maint Hangar_Site Bid Option EL-R17203.rvt
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NOTES:

3 SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

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6 TELECOMMUNICATIONS NEMA 4X 3 ENCLOSURE. PROVIDE 20A, 125V DUPLEX RECEPTACLE IN THE ENCLOSURE. COORDINATE EXACT MOUNTING LOCATION WITH ENCLOSURE INSTALLER.

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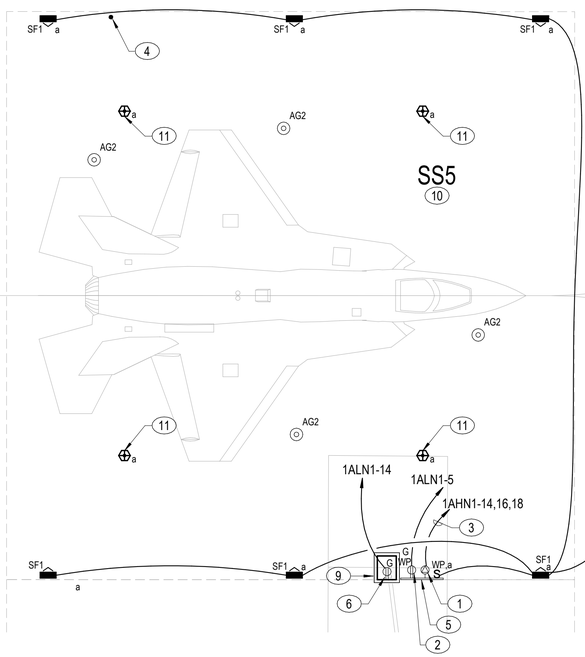

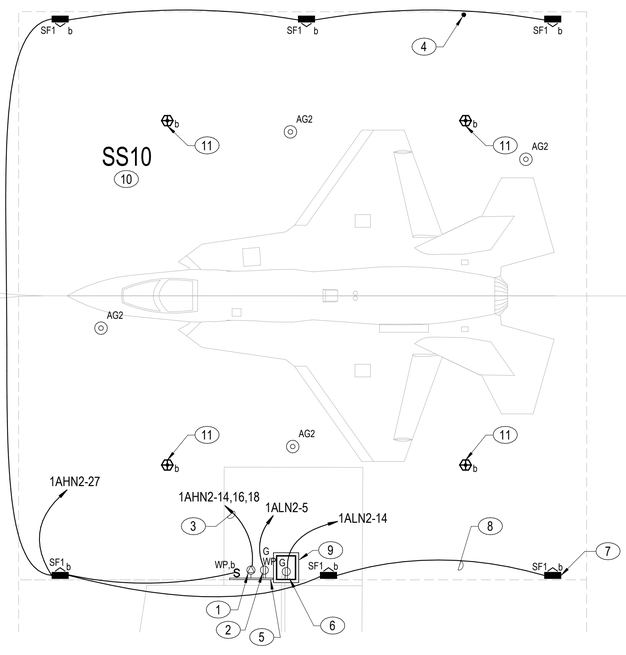

A1 ELECTRICAL SITE PLAN - TYPICAL SHADE STRUCTURES - SS5, SS10

1/8" = 1'-0"

PLAN NORTH N

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

NICHOLAS G. ZUBRICK LICENSE NO. 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS ARCHITECTS

AE INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
Approved by J. Scott Roberts,
Asset Management Branch Head &
Supervisory Facility Planner, PWD
Beaufort, SC via email.

SATISFACTORY TO DATE	12/15/2022
DES RLW / DRW RLW / CHK KLM	
PM/DM	KTB / RLH
BRANCH MANAGER	JAS
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND – MID-ATLANTIC
NORFOLK, VA

BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859373
SHEET	201 OF 1412

ES405

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://20045_MFA1 500 F35 Maintenance Hangar/20045 F35 maint Hangar_Site Bld Options EL-R17.2024.rvt
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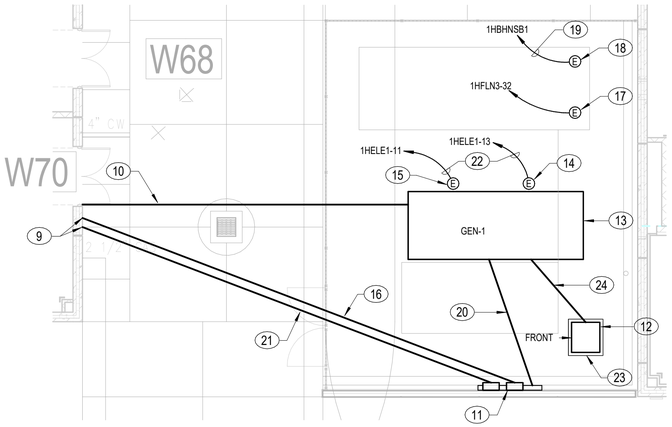
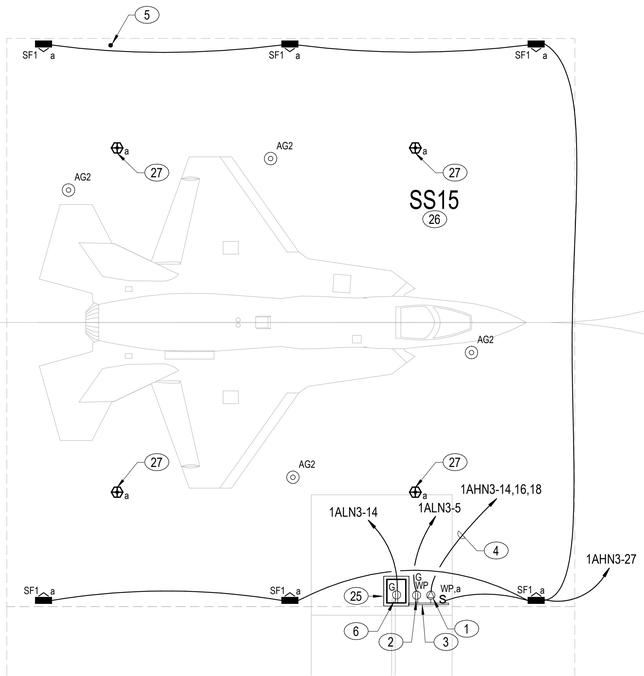
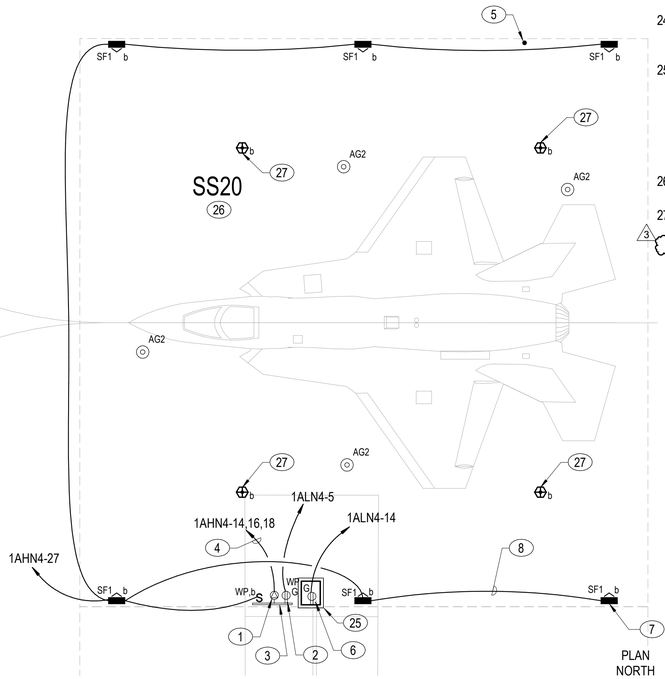


C1 ENLARGED GENERATOR EQUIPMENT YARD

1/8" = 1'-0"





A1 ELECTRICAL SITE PLAN - TYPICAL SHADE STRUCTURES - SS15, SS20

1/8" = 1'-0"

PLAN NORTH

N

0 5' 10' 20' 30'

1/8" = 1'-0" GRAPHIC SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
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NOTES:

3 SHEET NOTES

A. ALL EXPOSED CONDUITS WITHIN SHADE STRUCTURES SHALL BE HOT DIPPED RIGID GALVANIZED STEEL AND ALL FITTINGS, SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.

KEY NOTES (00)

1. HEAVY DUTY, CLASS L, 480V, 3 PHASE, 3 WIRE, 100A, WEATHERPROOF RECEPTACLE FOR AIRCRAFT SERVICE EQUIPMENT. MOUNT AT 48"AFF TO BOTTOM. AMPHENOL #MS90555C44150S IN IP56 ENCLOSURE. ORIENT RECEPTACLE AT A 45 DEGREE DOWNWARD SLOPE.
2. 20A, 125V DUPLEX RECEPTACLE WITH WEATHERPROOF, CAST ALUMINUM IN-USE COVER.
3. EQUIPMENT MOUNTING RACK. SEE A4/ES505 FOR TYPICAL DETAIL.
4. 2"C - 3#3 + 1#6 GND.
5. ¾" X 10' LONG COPPER CLAD STEEL DRIVEN GROUND ROD FOR SHADE STRUCTURE LIGHTNING PROTECTION SYSTEM DOWN CONDUCTOR. GROUND ROD WILL EXTEND 4" ABOVE THE FINISHED CONCRETE SURFACE FOR CONDUCTOR CONNECTION. LIGHTNING PROTECTION SYSTEM IS PROVIDED WITH SHADE STRUCTURE. LOCATE THE GROUND ROD IMMEDIATELY ADJACENT TO ONE OF THE SHADE STRUCTURE COLUMNS, COORDINATE THE INSTALLATION WITH THE GOVERNMENT.
6. TELECOMMUNICATIONS (NEMA 4X) ENCLOSURE. PROVIDE 20A, 125V DUPLEX RECEPTACLE IN THE ENCLOSURE. COORDINATE EXACT MOUNTING LOCATION WITH ENCLOSURE INSTALLER.
7. MOUNT FIXTURE TO THE STRUCTURAL STEEL MEMBERS OF THE SHADE STRUCTURE AT 10'-0" ABOVE THE APRON SURFACE, AIM FIXTURE TO PROVIDE MAXIMUM ILLUMINATION AT AIRCRAFT PARKING LOCATION. TYPICAL.
8. ROUTE THE LIGHTING FIXTURE CONDUITS ON THE SHADE STRUCTURE. FASTEN TO THE STRUCTURAL STEEL ELEMENTS OF THE SHADE STRUCTURE.
9. EXTEND TO BOTTOM OF ATS-E1 AND ATS-O1. SEE A1/EP401 IN VOLUME 2B FOR LOCATION. SEE SHEET EP602 IN VOLUME 2B FOR SINGLE LINE DIAGRAM.
10. 2" SCHEDULE 80 PVC CONDUIT FOR GENERATOR REMOTE ALARM PANEL WIRING, BURY AT 24" BELOW FINISHED GRADE. SEE SHEET EP602 IN VOLUME 2B FOR ADDITIONAL INFORMATION.
11. ATS- E1 AND ATS-O1 (NEMA 4X) 3 ENCLOSED CIRCUIT BREAKERS MOUNTED ABOVE WEATHERPROOF TAP GUTTER AT 72" ABOVE EQUIPMENT YARD CONCRETE SLAB TO TOP.. SEE SHEET EP602 IN VOLUME 2 FOR ADDITIONAL INFORMATION AND CONNECTION REQUIREMENTS.
12. LOAD BANK QUICK CONNECT (NEMA 4X) 3 CABINET. SEE SHEET EP602 IN VOLUME 2 FOR ADDITIONAL INFORMATION AND CONNECTION REQUIREMENTS.
13. SEE B1/ES501 FOR GENERATOR PAD DETAIL.
14. CONNECTION TO GENERATOR BLOCK HEATER. FED FROM THE HANGAR BUILDING.
15. CONNECTION TO GENERATOR BATTERY CHARGER. FED FROM THE HANGAR BUILDING.
16. UNDERGROUND FEEDER BETWEEN CIRCUIT BREAKER CB-ATS-O1 AND ATS-O1. BURY AT 24" BELOW FINISHED GRADE. PROVIDE 3" OF CONCRETE ALL AROUND CONDUIT. SEE SHEET EP602 IN VOLUME 2 FOR CONDUIT AND WIRE SIZE.
17. CONNECTION TO CHILLER CH/1 CONTROL PANEL. FED FROM THE HANGAR BUILDING.
18. CONNECTION TO CHILLER CH/1. FED FROM THE HANGAR BUILDING.
19. SEE SHEET EP601 IN VOLUME 2B FOR CONDUIT AND WIRE SIZE.
20. UNDERGROUND FEEDER BETWEEN GENERATOR AND TAP GUTTER. BURY AT 24" BELOW FINISHED GRADE. SEE SHEET EP602 IN VOLUME 2B FOR CONDUIT AND WIRE SIZE.
21. UNDERGROUND FEEDER BETWEEN CIRCUIT BREAKER CB-ATS-E1 AND ATS-E1. BURY AT 24" BELOW FINISHED GRADE. PROVIDE 3" OF CONCRETE ALL AROUND CONDUIT. SEE SHEET EP602 IN VOLUME 2B FOR CONDUIT AND WIRE SIZE.
22. 1"C - (2)#10 + (1)#10 GND. WIRE SIZE WAS INCREASED DUE TO VOLTAGE DROP.
23. 4" HIGH CONCRETE HOUSEKEEPING PAD. EXTEND 4" BEYOND EQUIPMENT ON ALL EXPOSED EDGES AND PROVIDE 1/2" BEVEL. APPLY TWO COATS OF SAFETY YELLOW PAINT ON ALL EXPOSED SURFACES.
24. UNDERGROUND FEEDER BETWEEN GENERATOR AND LOAD BANK QUICK CONNECT. BURY AT 24" BELOW FINISHED GRADE. SEE SHEET EP602 IN VOLUME 2B FOR CONDUIT AND WIRE SIZE.
25. 6" HIGH REINFORCED CONCRETE PAD WITH 1/2" HIGH BEVEL ON ALL EDGES. EXTEND PAD 4" BEYOND EQUIPMENT ON ALL SIDES, COORDINATE THE PAD DIMENSIONS WITH THE TELECOMMUNICATIONS ENCLOSURE AND DC CONVERTER. PROVIDE DOWELS TO ANCHOR THE PAD TO THE CONCRETE APRON. ALL EQUIPMENT WILL BE RIGIDLY MOUNTED TO THE CONCRETE PAD WITH EXPANSION TYPE ANCHORS.
26. SHADE STRUCTURE LIGHT FIXTURES WILL BE CONTROLLED VIA LOCAL ON/OFF SWITCH AND LOCAL OCCUPANCY SENSORS.
27. CEILING-SURFACE MOUNTED, 277V, PASSIVE INFRARED, OCCUPANCY SENSOR FOR USE IN OUTDOOR WET LOCATION AND SUITABLE FOR CORROSIVE ENVIRONMENTS. SENSOR WILL BE PROGRAMMED AS AUTO ON/ AUTO OFF TIME DELAY WITH A 30 MINUTE VACANCY TIMEOUT.

NO	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

NICHOLAS G. ZUBRICKI LICENSE NO. 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS CONTRACTORS

AE INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE 12/15/2022

DES	RLW	DRW	RLW	CHK	KLM
PM/DM					KTB / RLH
BRANCH MANAGER					JAS
CHIEF ENG/ARCH					EJA
FP ENGINEER					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA

BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

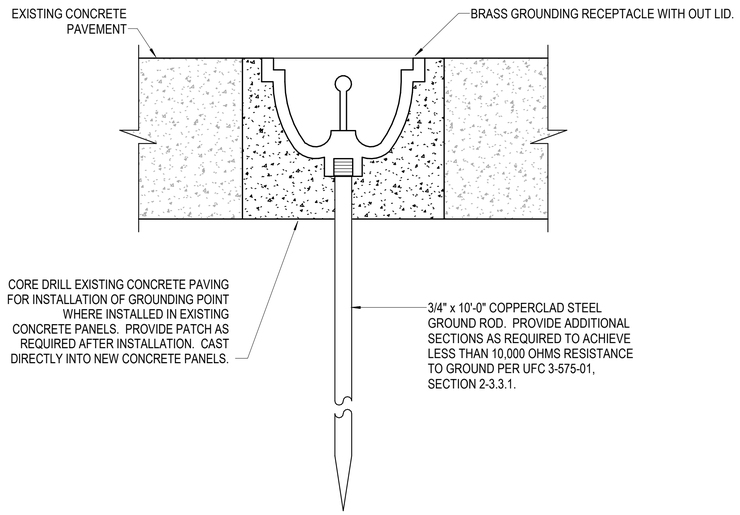
ENLARGED SITE PLANS

SCALE:	1/8" = 1'-0"
EPROJECT NO.:	1363603
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12859374
SHEET	202 OF 1412

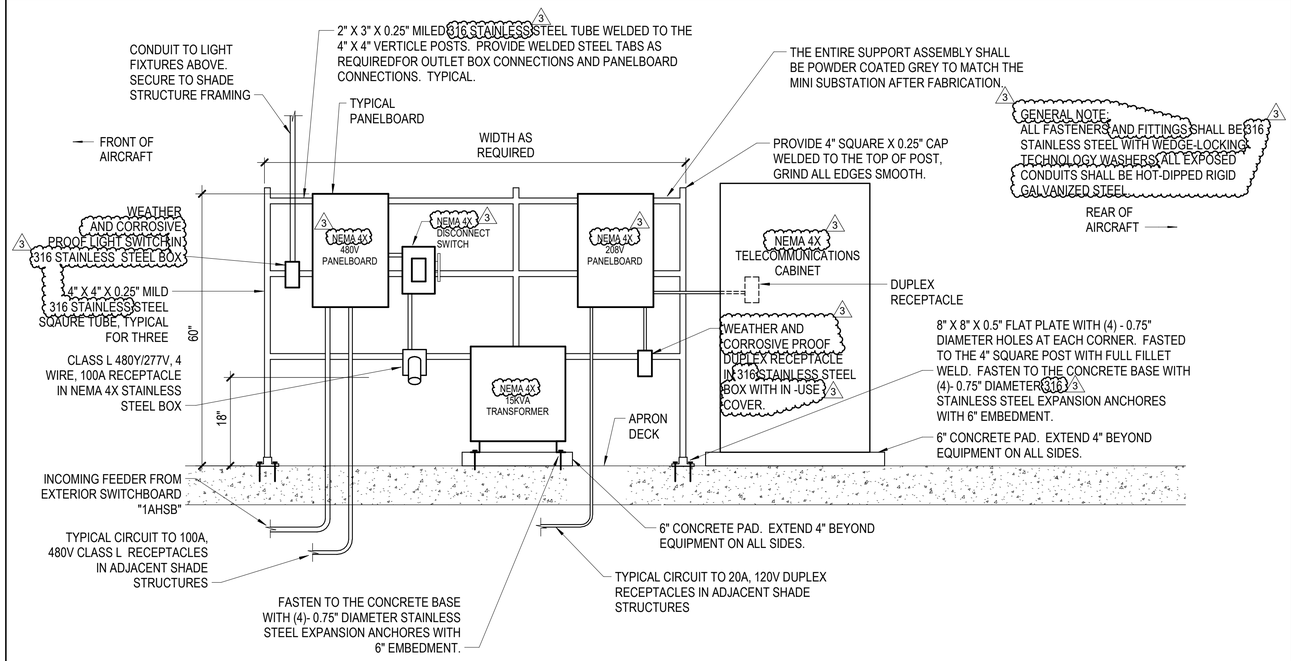
ES406

DRAWFORM REVISION: 25 AUGUST 2020

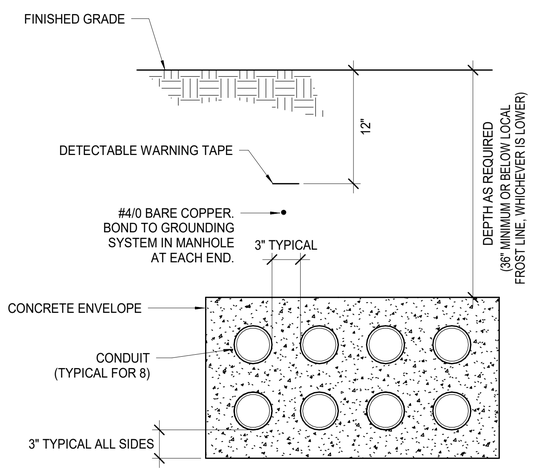
Autodesk Docs://2024] NAFAT 100 F39 Maintenance Hangar/2024] F39 maint Hangar_Site Bld Option EL.RVT2024-r4
1/14/2026 4:06:31 PM



B2 AIRCRAFT GROUND POINT - SUNSHADE
NOT TO SCALE

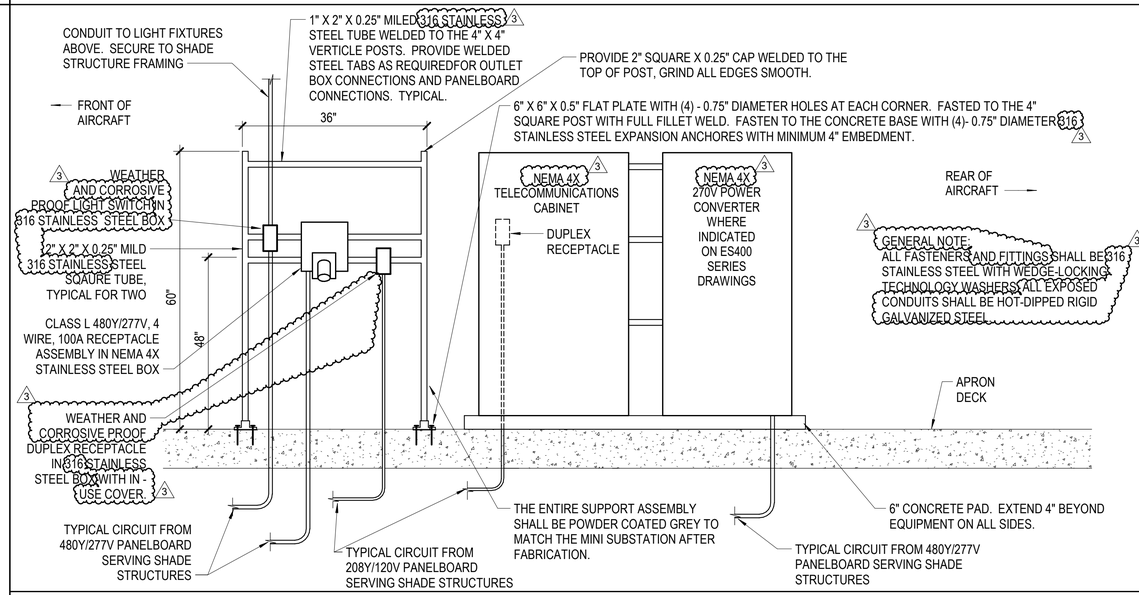


B4 APRON EQUIPMENT MOUNTING RACK DETAIL WITH PANELBOARDS
NOT TO SCALE



NOTE:
1. WHERE ELECTRICAL AND LOW VOLTAGE DUCT BANKS CROSS, THE ELECTRICAL DUCT BANK WILL BE ROUTED BELOW THE LOW VOLTAGE DUCT BANK.
2. #4/0 BARE COPPER CONDUCTOR WILL BOND TO THE GROUND RING BUS IN EACH MANHOLE THE DUCTBANK ENTERS. BOND TO THE LIGHTNING PROTECTION SYSTEM WHERE THE DUCTBANK ENTERS THE BUILDING.
3. PROVIDE NYLON PULL STRING FOR ANY SPARE DUCTS NOT IN USE.

A2 8-WAY DUCT BANK DETAIL
NOT TO SCALE



A4 APRON EQUIPMENT MOUNTING RACK DETAIL NO PANELBOARDS
NOT TO SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

NO	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

DOUGLAS G. ZUBRICKI LICENSE NO. 64259 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS CONTRACTORS

AE INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES	RLW	DRW	RLW	CHK	KLM
PM/DM					KTB / RLH
BRANCH MANAGER					JAS
CHIEF ENG/ARCH					EJA
FP ENGINEER					DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
SITE DETAILS

SCALE: As indicated
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.: 12859379
SHEET 207 OF 1412

ES505

DRAWFORM REVISION: 25 AUGUST 2020

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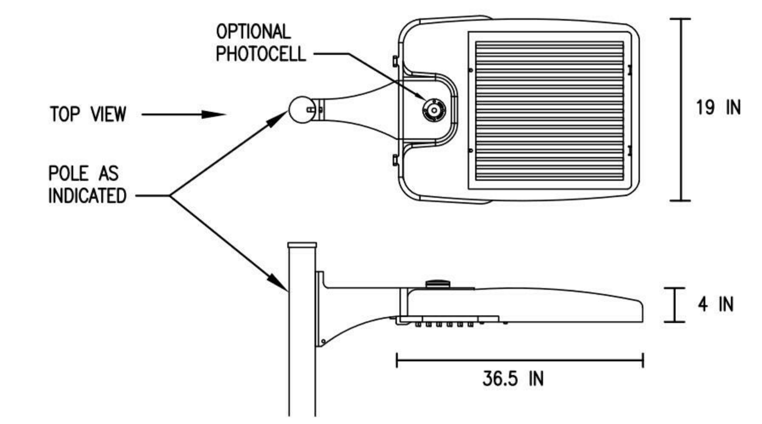


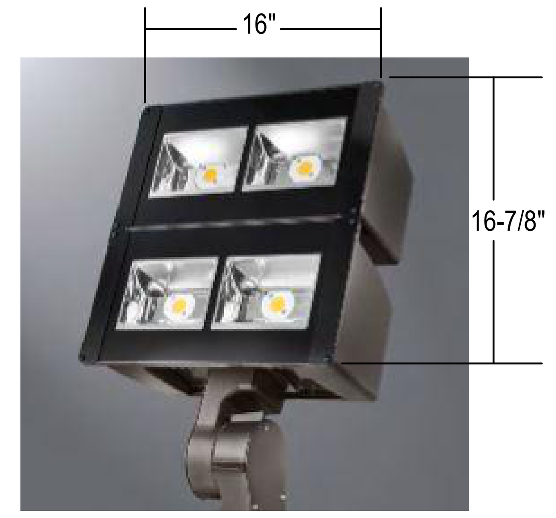
LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-CAST AND EXTRUDED ALUMINUM WITH INTEGRAL, SELF-CLEANING HEAT SINK FINS, RIBS, OR EQUIVALENT PASSIVE COOLING MECHANISM. HEATSINK SHALL BE INCORPORATED DIRECTLY INTO HOUSING TO ENSURE MAXIMUM HEAT TRANSFER AND DISSIPATION. 3 ALL FASTENERS SHALL BE ALLUMINIUM OR STAINLESS STEEL.
2. FINISH - MULTI-STAGE PRE-TREATMENT, FINISHED WITH BAKED-ON POLYESTER POWDER COAT. FINISH SHALL PASS 2500 HOUR SALT SPRAY TEST PER ASTM B117. FINISH SHALL BE DARK BRONZE.
3. POWER SUPPLY/LED DRIVER - PROVIDE IN SEPARATE COMPARTMENT ACCESSIBLE WITHOUT THE USE OF HAND TOOLS. CLASS 1 DRIVER SHALL OPERATE AT 120/277V, 50/60 HZ. POWER FACTOR GREATER THAN 0.9 AND THD LESS THAN 20% AT FULL LOAD. MINIMUM EFFICACY SHALL BE 60 LM/W.
4. LED OPTICAL ASSEMBLY - NUMBER OF LED ARRAYS SHALL VARY TO ACCOMMODATE DESIRED LUMINAIRE OUTPUT. PROVIDE WITH EQUIVALENT NEMA DISTRIBUTION AS LISTED ON LIGHTING FIXTURE SCHEDULE. BUG UPLIGHT RATING OF U0, WITH BACKLIGHT AND GLARE RATINGS AS DETERMINED BY LIGHTING ZONE INSTALLED.
5. SURGE PROTECTION — 6 kV MINIMUM, COMPLIANT WITH ANSI C62.41.2.
6. SEE C1/EL502 FOR POLE DETAIL.
7. CERTIFICATION - UL AND/OR ETL LISTED, MINIMUM IP65 RATED PER ANSI/IEC 60529, AND RoHS COMPLIANT.
8. OTHER - THE ABOVE SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS AND IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER'S PREFERENCE. ALL DIMENSIONS ARE NOMINAL AND VARY PER MANUFACTURER.

LED AREA LUMINAIRE

REVISED:	MARCH 2013	LIGHTING PLATE:	XL-03

C1 FIXTURE TYPE SL3, SL4, SL5
NOT TO SCALE

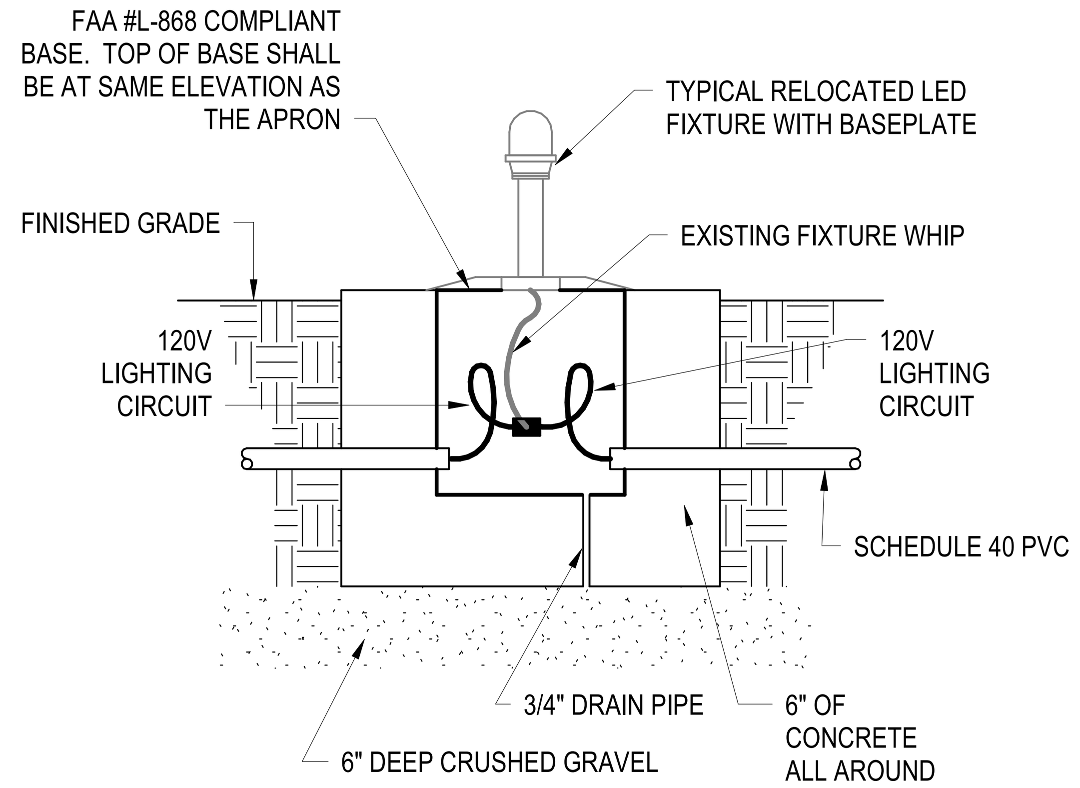


LUMINAIRE REQUIREMENTS:

1. HOUSING - HEAVY DUTY DIE-CAST ALUMINUM WITH INTEGRAL, HEAT SINK FINS, RIBS, OR EQUIVALENT PASSIVE COOLING MECHANISM. HEATSINK SHALL BE INCORPORATED DIRECTLY INTO HOUSING TO ENSURE MAXIMUM HEAT TRANSFER AND DISSIPATION. 3 ALL FASTENERS SHALL BE ALLUMINIUM OR STAINLESS STEEL.
2. FINISH - MULTI-STAGE PRE-TREATMENT, FINISHED WITH BAKED-ON POLYESTER POWDER COAT. FINISH SHALL PASS 2500 HOUR SALT SPRAY TEST PER ASTM B117. FINISH SHALL BE DARK BRONZE.
3. POWER SUPPLY/LED DRIVER - CLASS 1 DRIVER SHALL OPERATE AT 120/277V, 50/60 HZ. POWER FACTOR GREATER THAN 0.9 AND THD LESS THAN 20% AT FULL LOAD. MINIMUM EFFICACY SHALL BE 100 LM/W.
4. LED OPTICAL ASSEMBLY - NUMBER OF LED ARRAYS SHALL VARY TO ACCOMMODATE DESIRED LUMINAIRE OUTPUT. PROVIDE WITH WIDE FLOOD DISTRIBUTION.
5. SURGE PROTECTION — 6 kV MINIMUM, COMPLIANT WITH ANSI C62.41.2.
6. CERTIFICATION - UL AND/OR ETL LISTED, MINIMUM IP65 RATED PER ANSI/IEC 60529, AND RoHS COMPLIANT.
7. OTHER - THE ABOVE SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS AND IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER'S PREFERENCE. ALL DIMENSIONS ARE NOMINAL AND VARY PER MANUFACTURER.

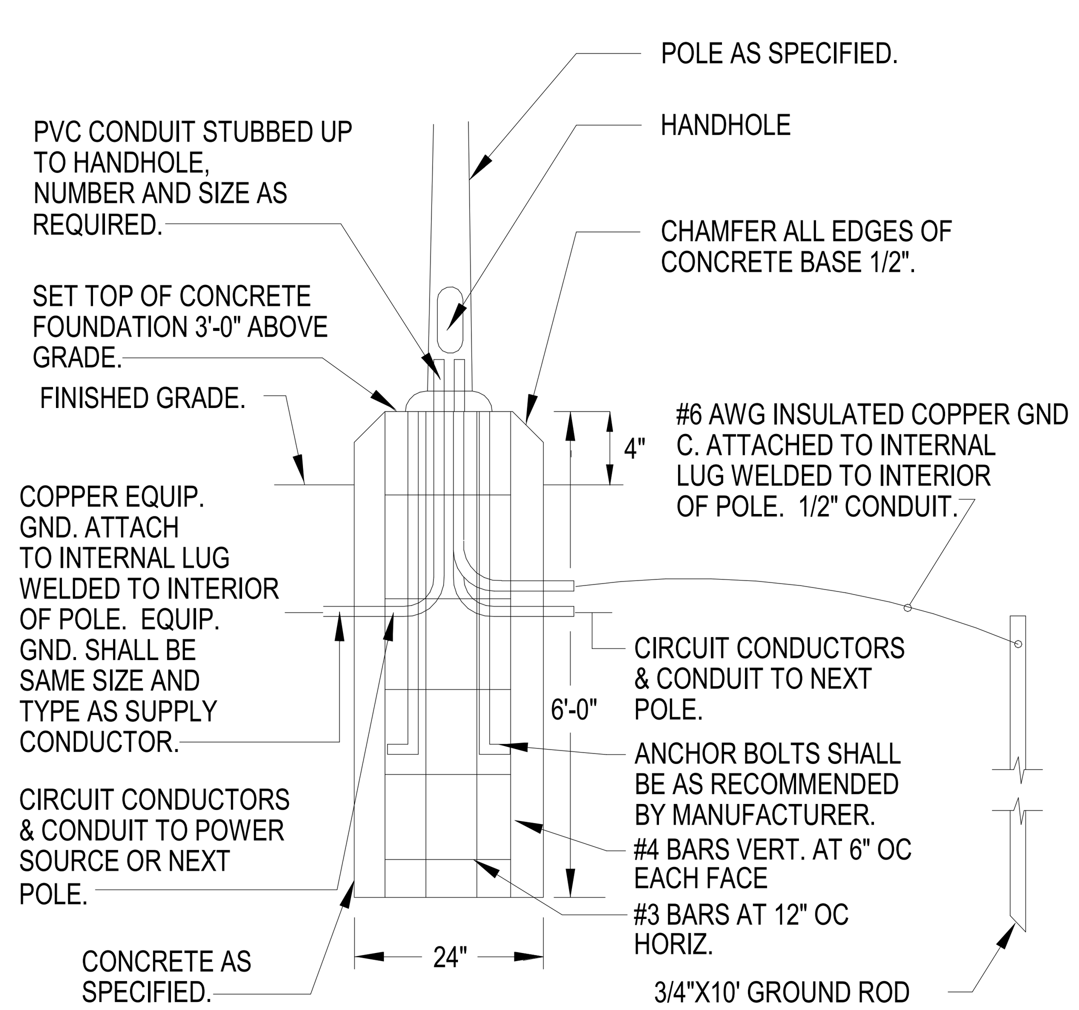
LED FLOOD LUMINAIRE

C2 FIXTURE TYPE SF1
NOT TO SCALE



3 NOTE:
ALL FASTENERS SHALL BE ALLUMINIUM OR STAINLESS STEEL.

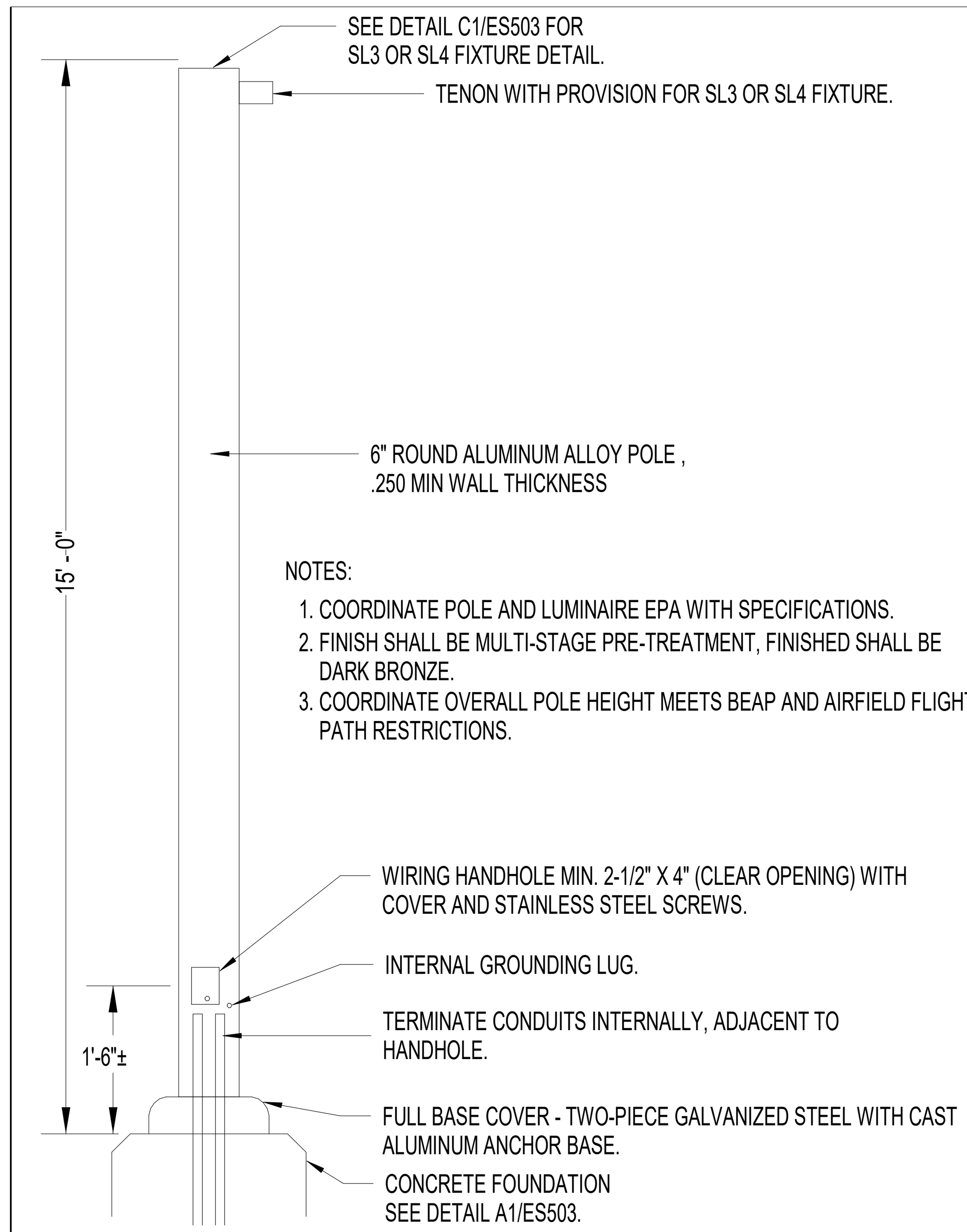
C3 APRON EDGE LIGHT MOUNTING DETAIL
NOT TO SCALE



BOLT-DOWN POLE FOUNDATIONS

REVISED:	MARCH 2013	LIGHTING PLATE:	XL-29

A1 POLE BASE DETAIL SL3, SL4
NOT TO SCALE



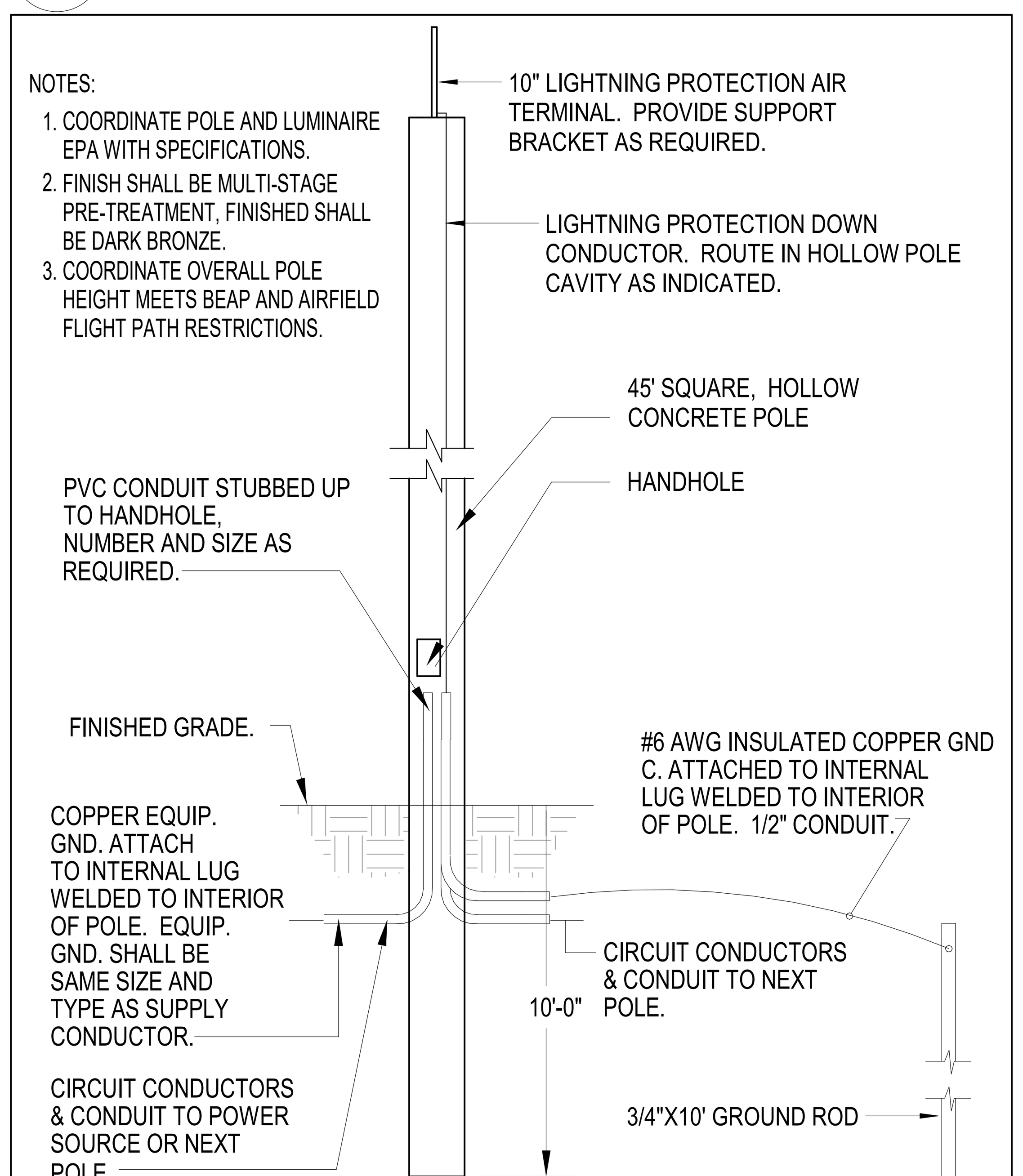
NOTES:
1. COORDINATE POLE AND LUMINAIRE EPA WITH SPECIFICATIONS.
2. FINISH SHALL BE MULTI-STAGE PRE-TREATMENT, FINISHED SHALL BE DARK BRONZE.
3. COORDINATE OVERALL POLE HEIGHT MEETS BEAP AND AIRFIELD FLIGHT PATH RESTRICTIONS.

ALUMINUM POLE - ANCHOR-BASE, TENON MOUNT

REVISED:	MARCH 2013	LIGHTING PLATE:	XL-27

A2 POLE DETAIL SL3, SL4
NOT TO SCALE

NOTES:
1. COORDINATE POLE AND LUMINAIRE EPA WITH SPECIFICATIONS.
2. FINISH SHALL BE MULTI-STAGE PRE-TREATMENT, FINISHED SHALL BE DARK BRONZE.
3. COORDINATE OVERALL POLE HEIGHT MEETS BEAP AND AIRFIELD FLIGHT PATH RESTRICTIONS.



DIRECT BURY POLE

REVISED:	LIGHTING PLATE:

A3 POLE BASE DETAIL SL5
NOT TO SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22" IT IS A REDUCED SIZE DRAWING

SYM	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

NICHOLAS G. ZUBRICKI LICENSE No. 64299 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026
SEAL

BAMFORTH ENGINEERS + SURVEYORS
A/E INFO

APPROVED
James E. Donahue, R.A.
FOR COMMANDER NAVFAC 1/26/2026
ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022
DES RLW DRW RLW CHK KLM
PM/DM KTB / RLH
BRANCH MANAGER JAS
CHIEF ENG/ARCH EJA
FP ENGINEER DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
DC CORE
MCAS BEAUFORT BEAUFORT, SC

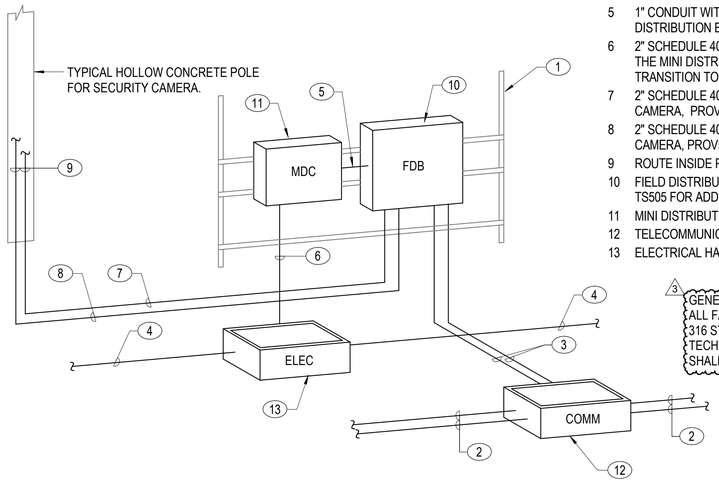
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

LIGHTING FIXTURE DETAILS

SCALE: NTS
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859380
SHEET 208 OF 1412

ES506

DRAWFORM REVISION: 25 AUGUST 2020

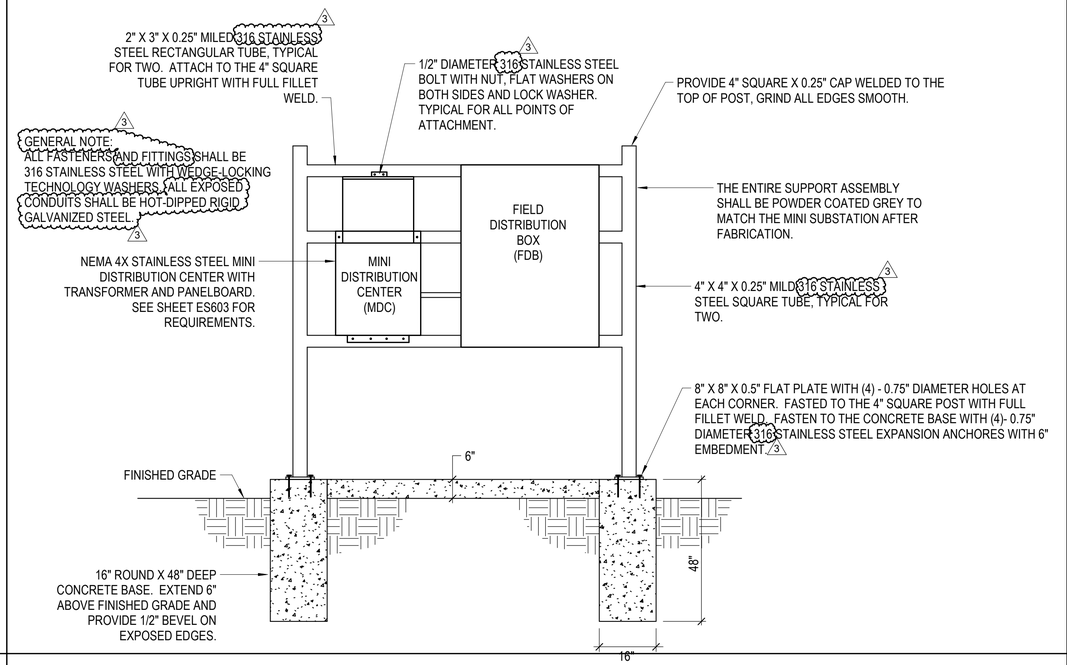


KEY NOTES: (C1/ES507) (00)

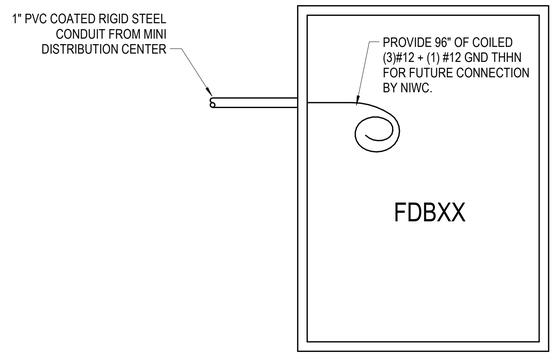
1 SUPPORT RACK AS REQUIRED. SEE C3/ES507 FOR RACK DETAIL.
2 4" SCHEDULE 40 PVC CONDUIT, PROVIDED BY DIVISION 27.
3 1" CONDUIT FOR LOW VOLTAGE CABLES, PROVIDED BY DIVISION 27.
4 2" SCHEDULE 40 PVC CONDUIT WITH (2)#4 + (1)#4 GND. TO FEED THE MINI DISTRIBUTION CENTER TRANSFORMER PRIMARY.
5 1" CONDUIT WITH (3) #12 + (1)#12 GND TO SERVE THE FIELD DISTRIBUTION BOX "FDB".
6 2" SCHEDULE 40 PVC CONDUIT WITH (2)#4 + (1)#4 GND TO FEED THE MINI DISTRIBUTION CENTER TRANSFORMER PRIMARY. TRANSITION TO RIGID STEEL WHERE ROUTED ABOVE GRADE.
7 2" SCHEDULE 40 PVC DATA CONDUIT TO SERVE POLE MOUNTED CAMERA, PROVIDED BY DIVISION 27.
8 2" SCHEDULE 40 PVC POWER CONDUIT TO SERVE POLE MOUNTED CAMERA, PROVIDED BY DIVISION 27.
9 ROUTE INSIDE POLE CAVITY.
10 FIELD DISTRIBUTION BOX PROVIDED BY DIVISION 27. SEE SHEET TS505 FOR ADDITIONAL INFORMATION.
11 MINI DISTRIBUTION CENTER.
12 TELECOMMUNICATIONS HANDHOLE, PROVIDED BY DIVISION 27.
13 ELECTRICAL HANDHOLE HH-2. SEE SHEET ES100C FOR LOCATION.

3 GENERAL NOTE:
ALL FASTENERS AND FITTINGS SHALL BE 316 STAINLESS STEEL WITH WEDGE-LOCKING TECHNOLOGY WASHERS. ALL EXPOSED CONDUITS SHALL BE HOT-DIPPED RIGID GALVANIZED STEEL.

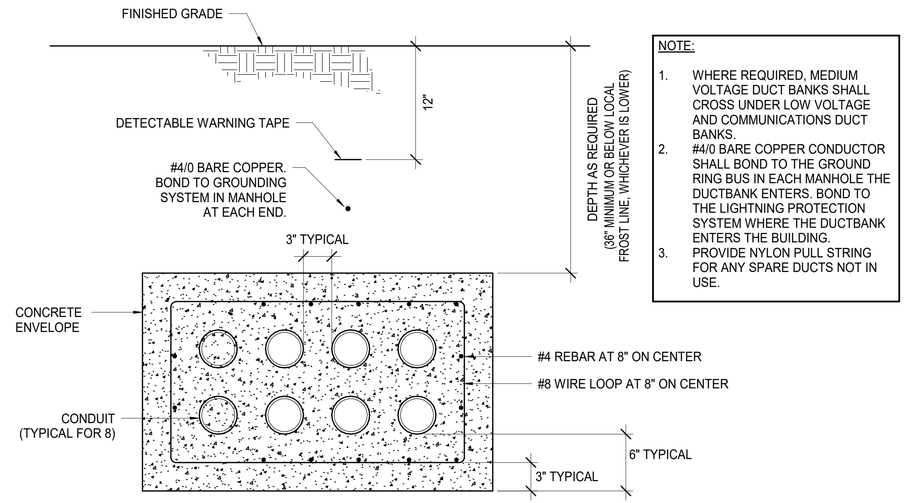
C1 RESTRICTED AREA SECURITY FENCE CONNECTION DETAIL
NOT TO SCALE



C3 RESTRICTED AREA SECURITY FENCE EQUIPMENT RACK DETAIL
NOT TO SCALE



A1 FIELD DISTRIBUTION BOX CONNECTION DETAIL
NOT TO SCALE



NOTE:
1. WHERE REQUIRED, MEDIUM VOLTAGE DUCT BANKS SHALL CROSS UNDER LOW VOLTAGE AND COMMUNICATIONS DUCT BANKS.
2. #4/0 BARE COPPER CONDUCTOR SHALL BOND TO THE GROUND RING BUS IN EACH MANHOLE THE DUCTBANK ENTERS. BOND TO THE LIGHTNING PROTECTION SYSTEM WHERE THE DUCTBANK ENTERS THE BUILDING.
3. PROVIDE NYLON PULL STRING FOR ANY SPARE DUCTS NOT IN USE.

A3 8-WAY CONCRETE REINFORCED POWER DUCT BANK DETAIL
NOT TO SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

NO	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

NAVFAC

DOUGLAS G. ZUBRICKI LICENSE NO. 64239 STATE OF FLORIDA PROFESSIONAL ENGINEER 01/16/2026

BAMFORTH ENGINEERS CONSTRUCTORS

APPROVED
FOR COMMANDER NAVFAC L Echevarria
ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO DATE 12/15/2022

DES	RLW	DRW	RLW
CHK	KLM	PM/DM	KTB / RLH
BRANCH MANAGER	JAS	CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
DC CORE
MCAS BEAUFORT

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA

BEAUFORT, SC

P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

SITE DETAILS

SCALE: NTS
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859381
SHEET 209 OF 1412

ES507

DRAWFORM REVISION: 25 AUGUST 2020

Autodesk Docs://2024] NAFAT 1302 F35A Maintenance Hangar/2024] F35 maint Hangar_Site Bld Option EL R/F23024.rvt
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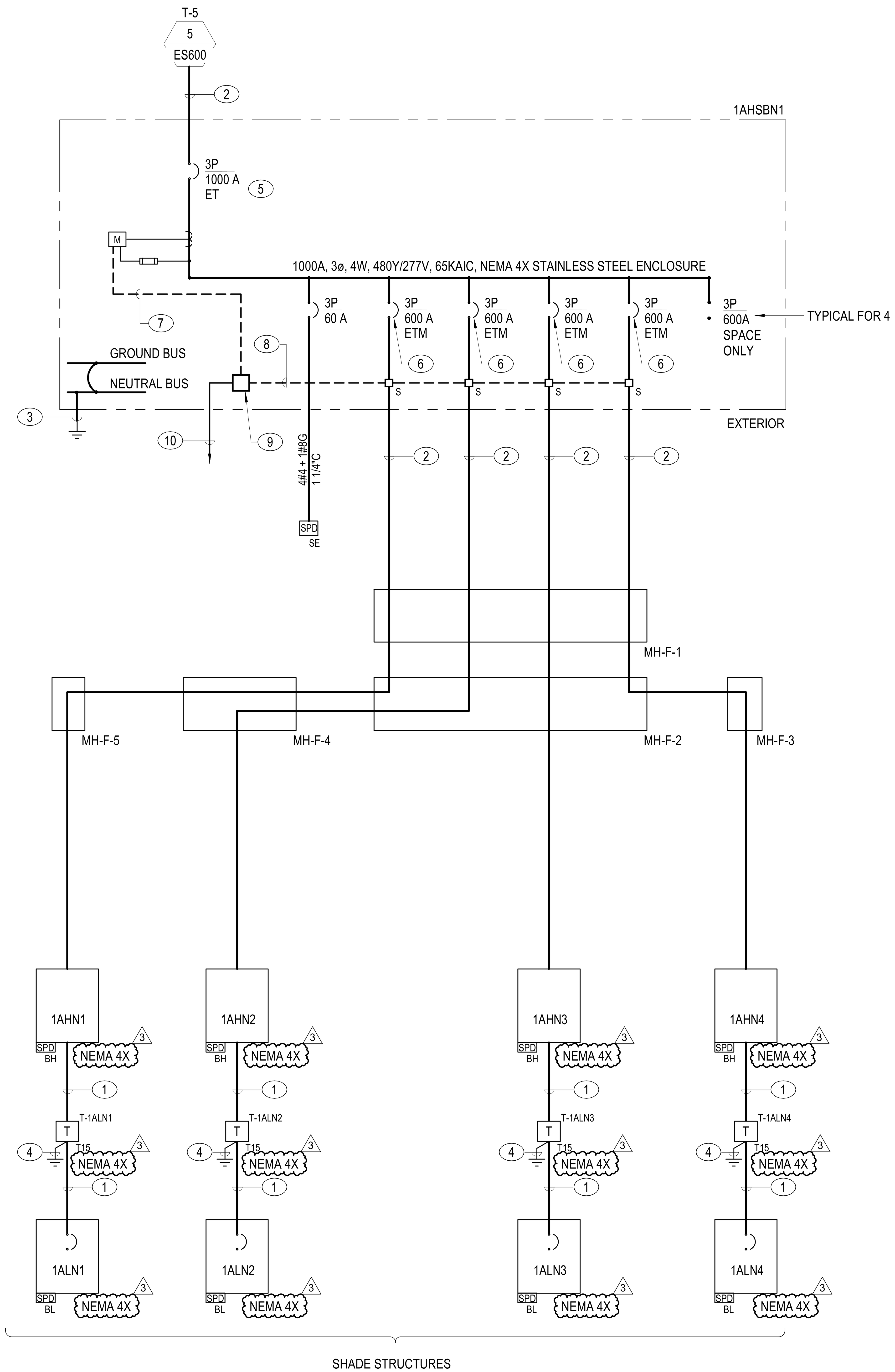
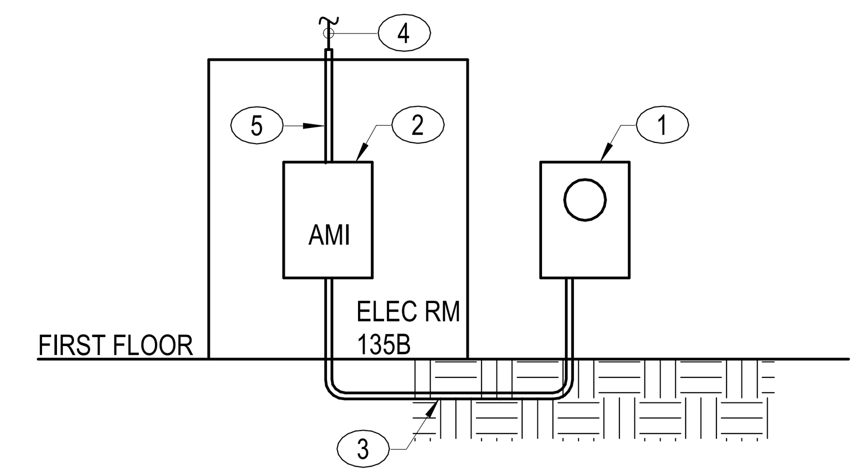


A1 APRON POWER SINGLE LINE DIAGRAM
12" = 1'-0"



KEY NOTES: (A1/EP504)

1. ADVANCED ELECTRIC METER MOUNTED TO SIDE OF SERVICE TRANSFORMER.
2. ADVANCED METERING INFRASTRUCTURE EQUIPMENT CABINET. SEE A1/EP401 IN VOLUME 2B FOR LOCATION AND MOUNTING HEIGHT.
3. 1" CONDUIT WITH NETWORKING WIRING AS REQUIRED. COORDINATE WITH PUBLIC WORKS AMI SYSTEM REPRESENTATIVE FOR WIRING REQUIREMENTS.
4. 6-STRAND SINGLE MODE FIBER OPTIC CABLE TO FIBER OPTIC PATCH PANEL IN COMMUNICATIONS ROOM 111. REFER TO VOLUME 2B FOR LOCATION.
5. 1/2" CONDUIT. STUB CONDUIT TO NEAREST CABLE TRAY; SEE A3/ES603 IN VOLUME 2B FOR DETAIL.

C3 METERING CONNECTION DIAGRAM - APRON
NOT TO SCALE

NOTES:

KEY NOTES (00)

1. SEE DRY TYPE TRANSFORMER SCHEDULE ON THIS SHEET FOR CONDUIT AND WIRE SIZE.
2. SEE SHEET ES100 AND ES100A FOR DUCT BANK AND FEEDER CONFIGURATION.
3. SEE SHEET ES602 FOR GROUNDING REQUIREMENTS.
4. REFER TO DRY TYPE TRANSFORMER SCHEDULE ON THIS SHEET FOR GROUNDING ELECTRODE CONDUCTOR.
5. PROVIDE MAIN CIRCUIT BREAKER WITH GROUND FAULT PROTECTION AND ARC ENERGY-REDUCING MAINTENANCE SWITCHING WITH LOCAL STATUS INDICATOR IN ACCORDANCE WITH NEC ARTICLE 240.67.
6. PROVIDE CIRCUIT BREAKER TERMINALS AS REQUIRED TO ACCOMMODATE THE CONDUCTORS AS INDICATED.
7. ASHRAE 90.1 ELECTRICAL ENERGY MODBUS COMMUNICATIONS WIRING FOR TRANSMISSION OF ELECTRICAL DATA FROM THE MULTI-FUNCTION DIGITAL METER TO THE POWER MONITORING SYSTEM SERVER.
8. ASHRAE 90.1 ELECTRICAL ENERGY MONITORING MODBUS COMMUNICATIONS WIRING FOR TRANSMISSION OF ELECTRICAL METERING DATA FROM THE INDIVIDUAL CIRCUIT BREAKERS TO THE POWER MONITORING SYSTEM SERVER.
9. ETHERNET GATEWAY LOCATED WITHIN ELECTRICAL PANELBOARD OR SWITCHGEAR. THE GATEWAY SHALL BE UL LISTED FOR USE WITHIN THE ELECTRICAL PANELBOARD OR SWITCHGEAR AND SUPPLIED WITH THE PANELBOARD OR SWITCHGEAR.
10. NETWORK CONNECTION TO THE POWER MONITORING SYSTEM SERVER. SEE SHEET A3/ES601 FOR CONNECTION DIAGRAM.

SURGE PROTECTIVE DEVICE SCHEDULE

DESIGNATION	REPETITIVE SURGE CAPACITY	VOLTAGE RATING AND CONFIGURATION	PROTECTION MODULES	CATEGORY TYPE	SHORT CIRCUIT RATING
BH	100,000A	480Y/277V, 3Φ, 5W	L-L, L-N, L-G, N-G	BRANCH	100,000A
BL	100,000A	208Y/120V, 3Φ, 5W	L-L, L-N, L-G, N-G	BRANCH	100,000A
DH	200,000A	480Y/277V, 3Φ, 5W	L-L, L-N, L-G, N-G	DISTRIBUTION	100,000A
DL	200,000A	208Y/120V, 3Φ, 5W	L-L, L-N, L-G, N-G	DISTRIBUTION	100,000A
SE	200,000A	480Y/277V, 3Φ, 5W	L-L, L-N, L-G, N-G	SERVICE ENTRANCE	100,000A

SURGE PROTECTIVE DEVICE SCHEDULE NOTES:

A. NIPPLE MOUNT BRANCH SURGE PROTECTIVE DEVICES TO BOTTOM OF PANELBOARD. DEVICE SHALL BE PROVIDED WITH #10 AWG FACTORY LEADS.
B. MOUNT SERVICE ENTRANCE SURGE PROTECTIVE DEVICES TO SIDE OF SWITCHBOARD OR SWITCHGEAR.

3Φ DRY TYPE STEP DOWN TRANSFORMER SCHEDULE

DESIGNATION	KVA	PRIMARY VOLTAGE	PRIMARY FEEDER	SECONDARY VOLTAGE	SECONDARY FEEDER	GROUNDING ELECTRODE CONDUCTOR SIZE
T15	15	480V	3/4"C - 3#10 + 1#10 GND	208Y/120V	1"C - 4#6 + 1#8 GND	1/2"C - #8
T30	30	480V	1"C - 3#6 + 1#10 GND	208Y/120V	2"C - 4#1 + 1#6 GND	1/2"C - #6
T45	45	480V	1"C - 3#3 + 1#8 GND	208Y/120V	2"C - 4#1/0 + 1#6 GND	1/2"C - #6
T75	75	480V	1 1/2"C - 3#1/0 + 1#6 GND	208Y/120V	3"C - 4#250 + 1#2 GND	3/4"C - #2
T112.5	112.5	480V	2"C - 3#4/0 + 1#4 GND	208Y/120V	TWO 2 1/2"C WITH 4#3/0 + 1#1/0 GND IN EA.	1"C - #1/0
T150	150	480V	2 1/2"C - 3#350 + 1#3 GND	208Y/120V	TWO 3"C WITH 4#250 + 1#1/0 GND IN EA.	1"C - #1/0
T225	225	480V	TWO 2"C WITH 3#250 + 1#3 GND IN EA.	208Y/120V	THREE 3" WITH 4#300 KCMIL + 1#2/0 GND IN EA.	1"C - #2/0

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22" IT IS A REDUCED SIZE DRAWING

SYM	DESCRIPTION	DATE	APPR
1	MOD P00005	05/2023	
2	MOD P00006 AND P00007	10/2025	
3	BY AMENDMENT	1/16/2026	

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BAMFORTH ENGINEERS + SURVEYORS

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email
SATISFACTORY TO DATE 12/15/2022
DES RLW DRW RLW CHK KLM
PM/DM KTB / RLH
BRANCH MANAGER JAS
CHIEF ENG/ARCH EJA
FP ENGINEER DSN

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NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
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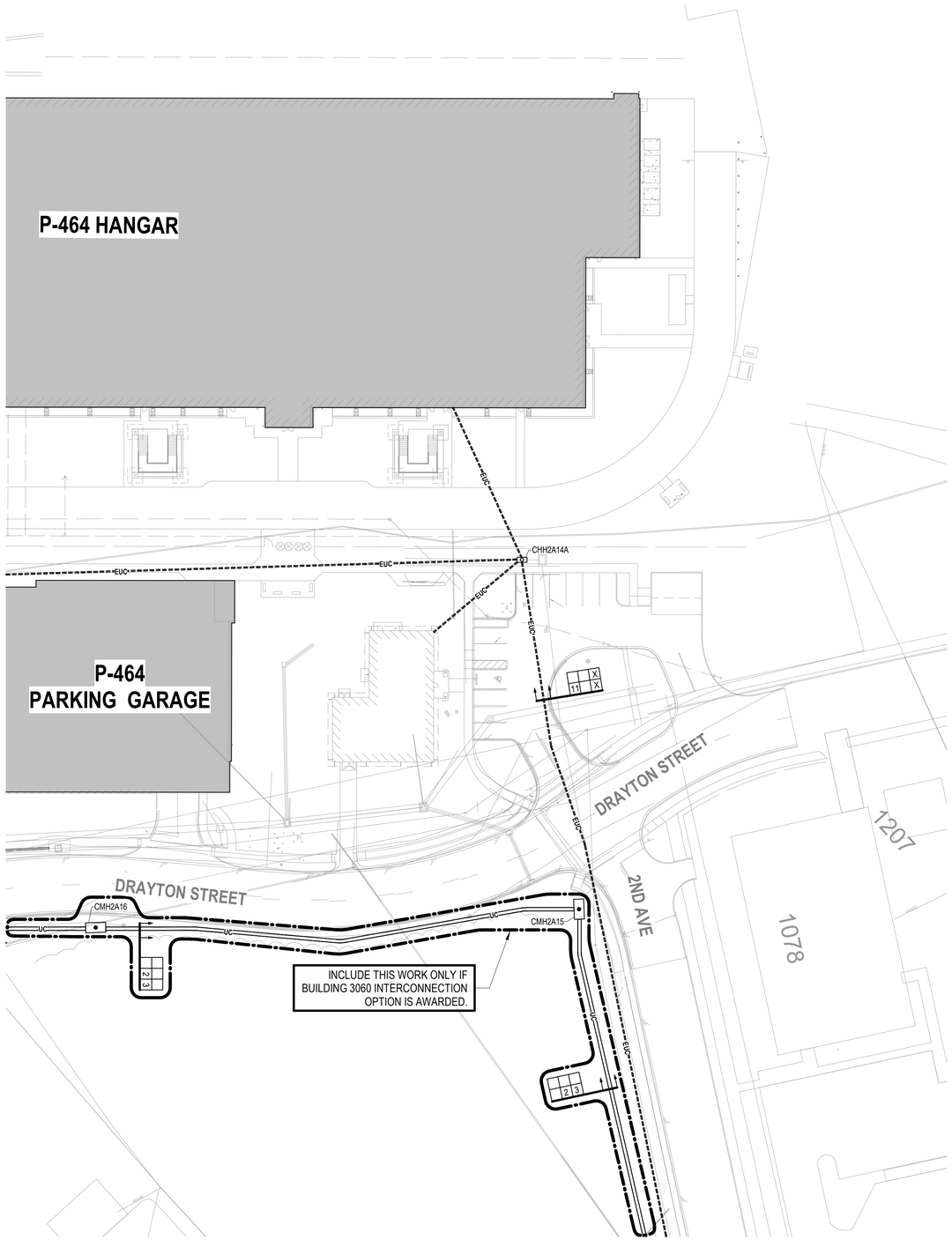
MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)
SINGLE LINE DIAGRAM - NORMAL POWER - APRON

SCALE: As indicated
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859384
SHEET 212 OF 1412
ES601

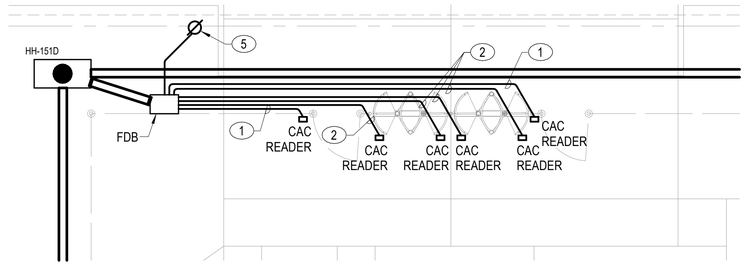


A1 TELECOMMUNICATIONS SITE PLAN - SECTOR 7
1" = 40'-0"

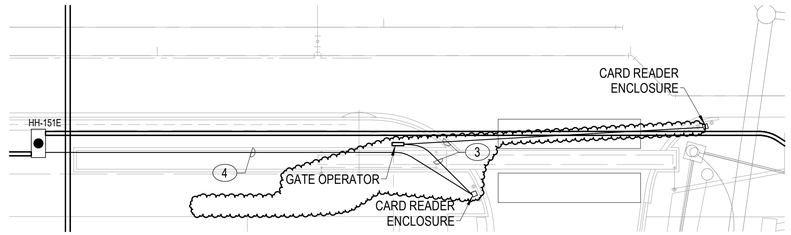
NOTES:

KEY NOTES (00)

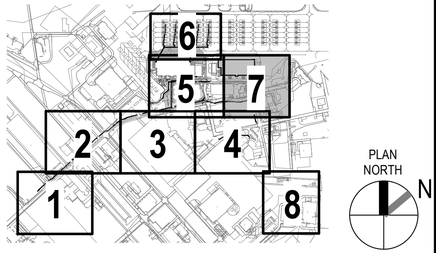
1. 1" CONDUIT FROM FDB TO CAC READER. SEE A3/TS506 AND C1/TS506 FOR ADDITIONAL REQUIREMENTS.
2. 1" CONDUIT FROM FDB TO CAC READER AT TURNSTILE. SEE A1/TS506 AND C1/TS506 FOR ADDITIONAL REQUIREMENTS.
3. 1" CONDUIT FROM CARD READER ENCLOSURE TO GATE OPERATOR. CONTROL WIRES BY GATE VENDOR. SEE A3/TS506 FOR ADDITIONAL REQUIREMENTS.
4. 1" CONDUIT FROM CARD READER ENCLOSURE TO HH-151E FOR ACCESS CONTROL CABLES TO FDB. SEE A3/TS506 FOR ADDITIONAL REQUIREMENTS.
5. SECURITY CAMERA POLE PROVIDED BY NIWC. PROVIDE 1" PVC COATED RIGID STEEL CONDUIT TO FDB AS INDICATED ON DETAIL C1/TS506. PROVIDE CONCRETE FOUNDATION AND GROUNDING AS INDICATED ON DETAIL C1/TS506.



C4 TELECOMMUNICATIONS SITE PLAN - PEDESTRIAN GATE
1/8" = 1'-0"



B4 TELECOMMUNICATIONS SITE PLAN - VEHICLE GATE
1/16" = 1'-0"



0 5' 10' 20' 30'
1/8" = 1'-0" GRAPHIC SCALE

0 10' 20' 40' 60'
1/16" = 1'-0" GRAPHIC SCALE

0 20' 40' 80' 120' 160'
1" = 40' GRAPHIC SCALE

NOTE:
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SYM	DESCRIPTION	DATE	APPR
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2	MOD P00006 AND MOD P00007	10/2025	
3	BY AMENDMENT	01/16/2026	

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AE INFO

APPROVED
FOR COMMANDER NAVFAC 1/26/2026

ACTIVITY
Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.

SATISFACTORY TO DATE	12/15/2022
DES DRS / DRW MES / CHK KLM	
PM/DM	KTB / RLH
BRANCH MANAGER	JAS
CHIEF ENG/ARCH	EJA
FP ENGINEER	DSN

DEPARTMENT OF THE NAVY
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NORFOLK, VA

MCAS BEAUFORT
BEAUFORT, SC
P-475 AIRCRAFT MAINTENANCE HANGAR - VOLUME 1 (BASE BID WITH OPTIONS)

HANGAR - TELECOMMUNICATIONS SITE PLAN SECTOR 7

SCALE: As indicated
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12859404
SHEET 232 OF 1412

TS107

DRAWFORM REVISION: 25 AUGUST 2020