

FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2

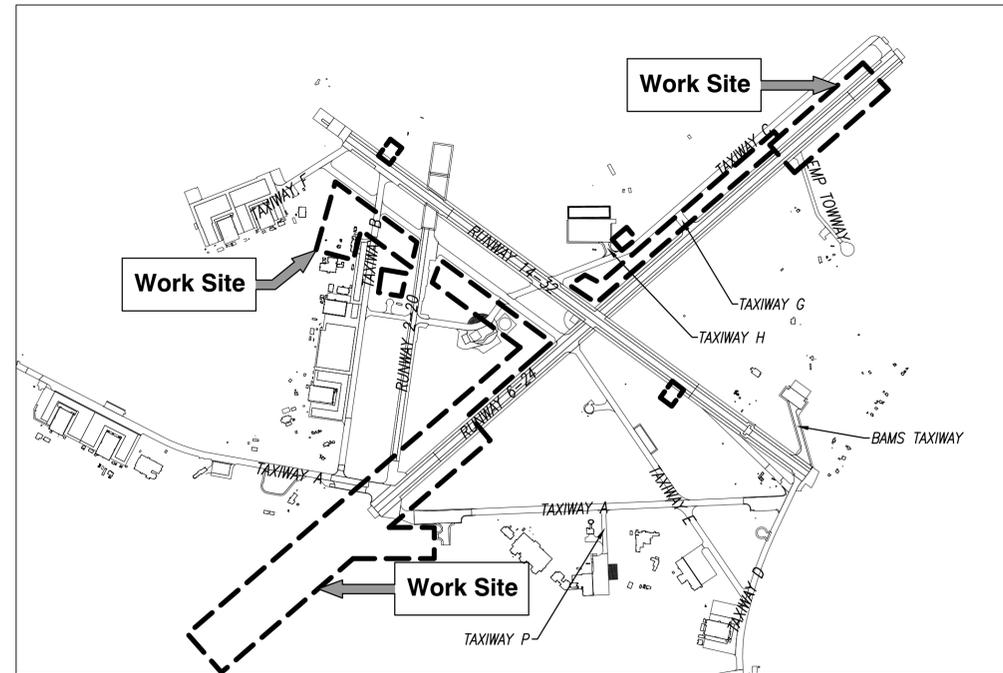
NAVAL AIR STATION PATUXENT RIVER ◦ PATUXENT RIVER, MARYLAND

NAVFAC WASHINGTON
N62470-12-D-2010 ◦ T.O. 0004

FINAL PLAN SET
SEPTEMBER 30, 2016



VICINITY MAP
NTS



LOCATION MAP



NOTE:
MDE NO 17-SF-0057

SYN	DESCRIPTION	DATE	APPR



JOHNSON, MIRMIRAN & THOMPSON
Gannett Fleming
A Joint Venture
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APPROVED
PER COMMANDER NAVFAC
ACTIVITY
JAMES FLETCHER PER CHECKLIST
SATISFACTORY TO DATE 9/27/2016
DES DFD DRW BAC CHK MJT
PM/DM RH
BRANCH MANAGER
CHIEF ENGR/ARCH E. GALLAHER, PE

DEPARTMENT OF THE NAVY
NAVFAC WASHINGTON
WASHINGTON, D.C.
NAVAL AIR STATION PATUXENT RIVER
PATUXENT RIVER, MARYLAND
FY16 SPECIAL PROJECT RM12-2137
REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2
TITLE SHEET

SCALE: AS NOTED
PROJECT NO.: 1382137
CONSTR. CONTR. NO.: N40080-17-R-0002
NAVFAC DRAWING NO.: 13079859
SHEET 1 OF 191
G-001



FILE NAME: C:\PHVA\100863_000_FY16_Repair_Runways\CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-000-C-001.dwg LAYOUT NAME: C-001 TITLE SHEET PLOTTED: Monday, September 26, 2016 2:34pm USER: BCzanzinino

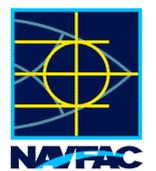
DRAWING INDEX			
SHEET NO.	NAVFAC DWG. NO.	SHEET TITLE	
GENERAL			
1	G-001	13079859	TITLE SHEET
2	G-002	13079860	DRAWING INDEX
3	G-101	13079861	OVERALL PROJECT PHASING
4	G-102	13079862	PHASE 2A AND PHASE 2A-1 PHASING PLAN
5	G-103	13079863	PHASE 2B PHASING PLAN
6	G-104	13079864	PHASE 2C PHASING PLAN
7	G-105	13079865	PHASE 2D PHASING PLAN
8	G-106	13079866	PHASE 2E PHASING PLAN
9	G-107	13079867	PHASE 2F PHASING PLAN
10	G-108	13079868	PHASE 2G PHASING PLAN
11	G-109	13079869	PHASE 2H PHASING PLAN
12	G-110	13079870	GENERAL NOTES
13	G-111	13079871	GENERAL NOTES
14	G-112	13079872	HORIZONTAL AND VERTICAL CONTROLS AND NOTES
15	G-501	13079873	CONSTRUCTION SAFETY DETAILS
GEOTECHNICAL			
16	B-001	13079874	GEOTECHNICAL INVESTIGATION LOCATION PLAN
17	BB101	13079875	BORING AND CORING DETAILS - SHEET 1
18	BB102	13079876	BORING AND CORING DETAILS - SHEET 2
19	BB103	13079877	BORING AND CORING DETAILS - SHEET 3
CIVIL			
20	C-101	13079878	EROSION AND SEDIMENT CONTROL PLAN
21	C-102	13079879	EROSION AND SEDIMENT CONTROL PLAN
22	C-103	13079880	EROSION AND SEDIMENT CONTROL PLAN
23	C-104	13079881	EROSION AND SEDIMENT CONTROL PLAN
24	C-105	13079882	EROSION AND SEDIMENT CONTROL PLAN
25	C-106	13079883	EROSION AND SEDIMENT CONTROL PLAN
26	C-107	13079884	EROSION AND SEDIMENT CONTROL PLAN
27	C-108	13079885	EROSION AND SEDIMENT CONTROL PLAN
28	C-109	13079886	EROSION AND SEDIMENT CONTROL PLAN
29	C-110	13079887	EROSION AND SEDIMENT CONTROL PLAN
30	C-111	13079888	EROSION AND SEDIMENT CONTROL PLAN
31	C-112	13079889	EROSION AND SEDIMENT CONTROL PLAN
32	C-113	13079890	EROSION AND SEDIMENT CONTROL PLAN
33	C-114	13079891	EROSION AND SEDIMENT CONTROL PLAN
34	C-115	13079892	EROSION AND SEDIMENT CONTROL PLAN
35	C-116	13079893	EROSION AND SEDIMENT CONTROL PLAN
36	C-117	13079894	EROSION AND SEDIMENT CONTROL PLAN
37	C-118	13079895	EROSION AND SEDIMENT CONTROL PLAN
38	C-119	13079896	EROSION AND SEDIMENT CONTROL PLAN
39	C-120	13079897	EROSION AND SEDIMENT CONTROL PLAN
40	C-121	13079898	EROSION AND SEDIMENT CONTROL PLAN
41	C-122	13079899	EROSION AND SEDIMENT CONTROL PLAN
42	C-123	13079900	EROSION AND SEDIMENT CONTROL PLAN
43	C-124	13079901	EROSION AND SEDIMENT CONTROL PLAN
44	C-125	13079902	EROSION AND SEDIMENT CONTROL PLAN
45	C-126	13079903	EROSION AND SEDIMENT CONTROL PLAN
46	C-127	13079904	EROSION AND SEDIMENT CONTROL PLAN
47	C-128	13079905	EROSION AND SEDIMENT CONTROL PLAN
48	C-129	13079906	EROSION AND SEDIMENT CONTROL PLAN
49	C-130	13079907	EROSION AND SEDIMENT CONTROL PLAN
50	C-131	13079908	EROSION AND SEDIMENT CONTROL PLAN
51	C-401	13079909	SITE DEMOLITION PLAN - BUILDING 1710
52	C-402	13079910	SITE DEMOLITION PLAN - BUILDING 155 AND 1932
53	C-403	13079911	SITE LAYOUT PLAN - MAIN LIGHTING VAULT
54	C-404	13079912	SITE LAYOUT PLAN - ALS VAULT
55	C-405	13079913	SITE GRADING PLAN - MAIN LIGHTING VAULT
56	C-406	13079914	SITE GRADING PLAN - ALS VAULT
57	C-501	13079915	DUCTBANK CROSSING DETAILS
58	C-502	13079916	CHAIN LINK FENCE DETAILS
59	C-551	13079917	EROSION AND SEDIMENT CONTROL NOTES
60	C-552	13079918	EROSION AND SEDIMENT CONTROL NOTES
61	C-553	13079919	EROSION AND SEDIMENT CONTROL STABILIZATION NOTES
62	C-554	13079920	EROSION AND SEDIMENT CONTROL STABILIZATION NOTES
63	C-555	13079921	EROSION AND SEDIMENT CONTROL DETAILS
64	C-556	13079922	EROSION AND SEDIMENT CONTROL DETAILS

65	C-557	13079923	EROSION AND SEDIMENT CONTROL DETAILS
66	C-558	13079924	EROSION AND SEDIMENT CONTROL DETAILS
67	C-559	13079925	EROSION AND SEDIMENT CONTROL DETAILS
68	C-560	13079926	EROSION AND SEDIMENT CONTROL DETAILS
69	C-561	13079927	EROSION AND SEDIMENT CONTROL DETAILS
70	C-562	13079928	EROSION AND SEDIMENT CONTROL DETAILS
STRUCTURAL			
71	S-001	13079929	VAULT 155, 1710 - GENERAL NOTES
72	S-002	13079930	VAULT 155, 1710 - GENERAL DETAILS
73	S-401	13079931	VAULT 155 - FLOOR & ROOF PLANS
74	S-402	13079932	VAULT 1710 - FLOOR & ROOF PLANS
75	S-501	13079933	VAULT 155 - BUILDING SECTIONS
76	S-502	13079934	VAULT 1710 - BUILDING SECTIONS
77	S-503	13079935	VAULT 155 - WALL SECTIONS AND DETAILS
78	S-504	13079936	VAULT 1710 - WALL SECTIONS AND DETAILS
ARCHITECTURAL			
79	A-001	13079937	ARCHITECTURAL LEGEND, ABBREVIATIONS AND NOTES
80	AD401	13079938	VAULT 155 - DEMOLITION
81	AD402	13079939	VAULT 1932 - DEMOLITION
82	AD403	13079940	VAULT 1710 - DEMOLITION
83	A-401	13079941	VAULT 155 - FLOOR & ROOF PLANS
84	A-402	13079942	VAULT 1710 - FLOOR & ROOF PLANS
85	A-501	13079943	VAULT E-155 - ELEVATIONS & BUILDING SECTIONS
86	A-502	13079944	VAULT E-1710 - ELEVATIONS & BUILDING SECTIONS
87	A-503	13079945	VAULT E-155 - WALL SECTIONS AND DETAILS
88	A-504	13079946	VAULT E-1710 - WALL SECTIONS AND DETAILS
89	A-601	13079947	VAULT E-155 & E-1710 SCHEDULES AND DETAILS
90	A-602	13079948	VAULT E-155 & E-1710 SCHEDULES AND DETAILS
MECHANICAL			
91	M-001	13079949	MECHANICAL LEGEND, ABBREVIATIONS AND NOTES
92	M-401	13079950	VAULT 155 - MECHANICAL PLAN
93	M-402	13079951	VAULT 1710 - MECHANICAL PLAN
94	M-501	13079952	MECHANICAL DETAILS
95	M-601	13079953	MECHANICAL SCHEDULES
ELECTRICAL			
96	ED001	13079954	ELECTRICAL DEMOLITION AND SAFETY NOTES
97	ED100	13079955	OVERALL SITE PLAN - DEMOLITION
98	ED101	13079956	PARTIAL SITE PLAN - DEMOLITION
99	ED102	13079957	PARTIAL SITE PLAN - DEMOLITION
100	ED103	13079958	PARTIAL SITE PLAN - DEMOLITION
101	ED104	13079959	PARTIAL SITE PLAN - DEMOLITION
102	ED105	13079960	PARTIAL SITE PLAN - DEMOLITION
103	ED106	13079961	PARTIAL SITE PLAN - DEMOLITION
104	ED107	13079962	PARTIAL SITE PLAN - DEMOLITION
105	ED108	13079963	PARTIAL SITE PLAN - DEMOLITION
106	ED109	13079964	PARTIAL SITE PLAN - DEMOLITION
107	ED110	13079965	PARTIAL SITE PLAN - DEMOLITION
108	ED111	13079966	PARTIAL SITE PLAN - DEMOLITION
109	ED112	13079967	PARTIAL SITE PLAN - DEMOLITION
110	ED113	13079968	PARTIAL SITE PLAN - DEMOLITION
111	ED114	13079969	PARTIAL SITE PLAN - DEMOLITION
112	ED115	13079970	PARTIAL SITE PLAN - DEMOLITION
113	ED116	13079971	PARTIAL SITE PLAN - DEMOLITION
114	ED401	13079972	VAULT 155 ELECTRICAL DEMOLITION PLAN
115	ED402	13079973	VAULT 1932 ELECTRICAL DEMOLITION PLAN
116	ED403	13079974	VAULT 1710 ELECTRICAL DEMOLITION PLAN
117	ED404	13079975	RUNWAY 6 OLS ENLARGED DEMOLITION PLAN
118	ED405	13079976	RUNWAY 6 WAVE-OFF ENLARGED DEMOLITION PLAN
119	ED406	13079977	RUNWAY 6 WAVE-OFF ENLARGED DEMOLITION PLAN
120	ED407	13079978	RUNWAY 24 OLS ENLARGED DEMOLITION PLAN
121	ED408	13079979	RUNWAY 24 WAVE-OFF ENLARGED DEMOLITION PLAN
122	ED409	13079980	RUNWAY 24 WAVE-OFF ENLARGED DEMOLITION PLAN
123	ED410	13079981	RUNWAY 14 OLS ENLARGED DEMOLITION PLAN
124	ED411	13079982	RUNWAY 32 OLS ENLARGED DEMOLITION PLAN
125	ED601	13079983	VAULTS 155 AND 1932 ONE-LINE DIAGRAM DEMOLITION
126	ED602	13079984	VAULT 1710 ONE-LINE DIAGRAM DEMOLITION
127	ED901	13079985	ELECTRICAL PHOTOS
128	ED902	13079986	ELECTRICAL PHOTOS
129	EA001	13079987	ELECTRICAL GENERAL NOTES
130	EA002	13079988	ELECTRICAL ABBREVIATIONS AND LEGENDS

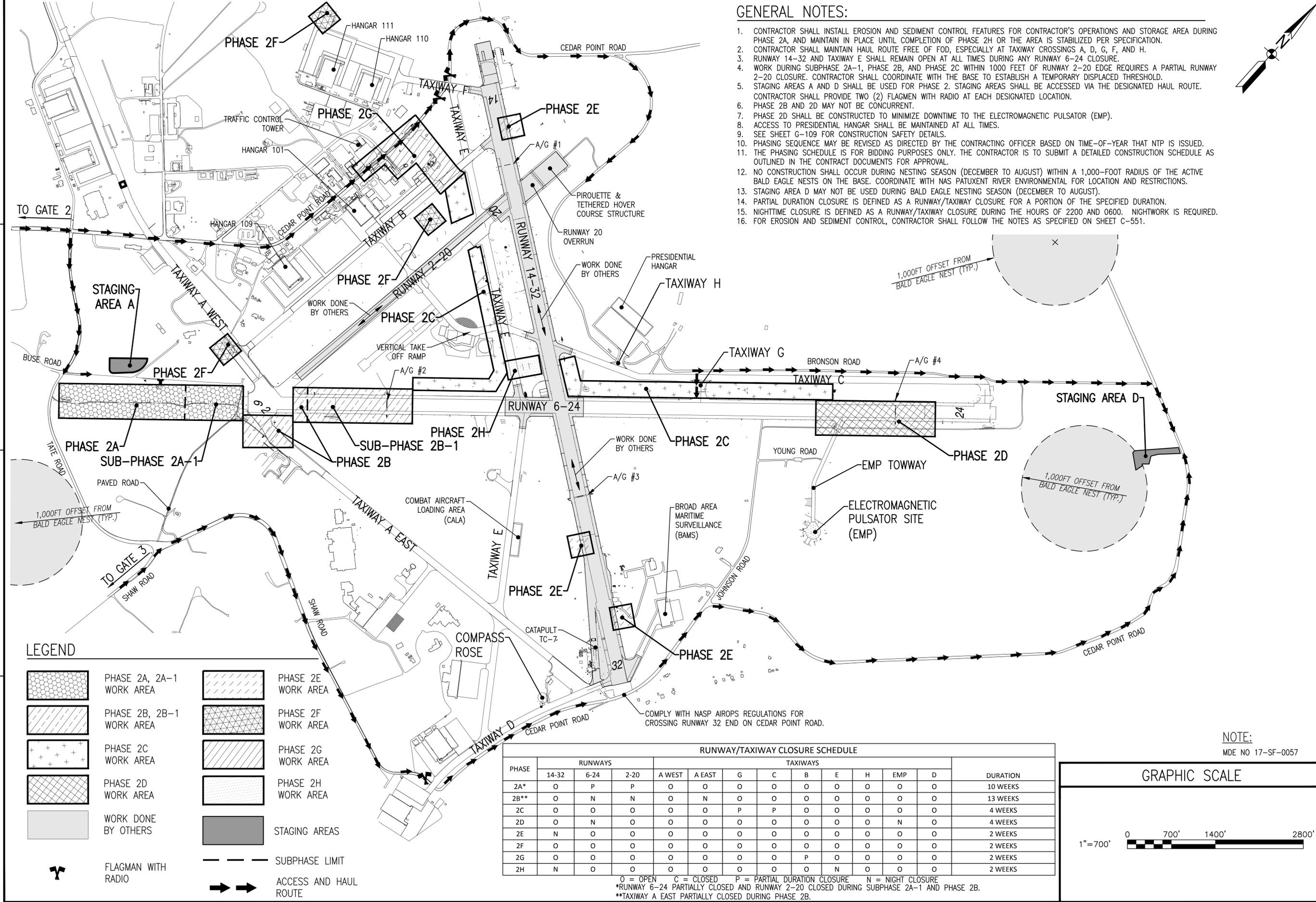
131	EA003	13079989	ELECTRICAL FACILITIES LEGENDS
132	EA100	13079990	OVERALL SITE PLAN - CONSTRUCTION
133	EA101	13079991	PARTIAL SITE PLAN - CONSTRUCTION
134	EA102	13079992	PARTIAL SITE PLAN - CONSTRUCTION
135	EA103	13079993	PARTIAL SITE PLAN - CONSTRUCTION
136	EA104	13079994	PARTIAL SITE PLAN - CONSTRUCTION
137	EA105	13079995	PARTIAL SITE PLAN - CONSTRUCTION
138	EA106	13079996	PARTIAL SITE PLAN - CONSTRUCTION
139	EA107	13079997	PARTIAL SITE PLAN - CONSTRUCTION
140	EA108	13079998	PARTIAL SITE PLAN - CONSTRUCTION
141	EA109	13079999	PARTIAL SITE PLAN - CONSTRUCTION
142	EA110	13080000	PARTIAL SITE PLAN - CONSTRUCTION
143	EA111	13080001	PARTIAL SITE PLAN - CONSTRUCTION
144	EA112	13080002	PARTIAL SITE PLAN - CONSTRUCTION
145	EA113	13080003	PARTIAL SITE PLAN - CONSTRUCTION
146	EA114	13080004	PARTIAL SITE PLAN - CONSTRUCTION
147	EA115	13080005	PARTIAL SITE PLAN - CONSTRUCTION
148	EA116	13080006	PARTIAL SITE PLAN - CONSTRUCTION
149	EA117	13080007	PARTIAL SITE PLAN - CONSTRUCTION
150	EA118	13080008	PARTIAL SITE PLAN - CONSTRUCTION
151	EA119	13080009	PARTIAL SITE PLAN - CONSTRUCTION
152	EA120	13080010	PARTIAL SITE PLAN - CONSTRUCTION
153	EA121	13080011	PARTIAL SITE PLAN - CONSTRUCTION
154	EA122	13080012	PARTIAL SITE PLAN - CONSTRUCTION
155	EA123	13080013	PARTIAL SITE PLAN - CONSTRUCTION
156	EA124	13080014	PARTIAL SITE PLAN - CONSTRUCTION
157	EA125	13080015	PARTIAL SITE PLAN - CONSTRUCTION
158	EA126	13080016	PARTIAL SITE PLAN - CONSTRUCTION
159	EA201	13080017	PARTIAL PROFILE - RUNWAY 6 APPROACH LIGHTING SYSTEM
160	EA202	13080018	PARTIAL PROFILE - RUNWAY 6 APPROACH LIGHTING SYSTEM
161	EA203	13080019	PARTIAL PROFILE - RUNWAY 6 APPROACH LIGHTING SYSTEM
162	EA401	13080020	RUNWAY 6 OLS ENLARGED PLAN
163	EA402	13080021	RUNWAY 24 OLS ENLARGED PLAN
164	EA403	13080022	RUNWAY 14 OLS ENLARGED PLAN
165	EA404	13080023	RUNWAY 32 OLS ENLARGED PLAN
166	EA501	13080024	ELECTRICAL DETAILS
167	EA502	13080025	ELECTRICAL DETAILS
168	EA503	13080026	ELECTRICAL DETAILS
169	EA504	13080027	ELECTRICAL DETAILS
170	EA505	13080028	ELECTRICAL DETAILS
171	EA506	13080029	ELECTRICAL DETAILS
172	EA507	13080030	ELECTRICAL DETAILS
173	EA508	13080031	ELECTRICAL DETAILS
174	EA509	13080032	ELECTRICAL DETAILS
175	EA601	13080033	ALS-1 WIRING DIAGRAM
176	EA602	13080034	AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM
177	E-401	13080035	VAULT 155 - ELECTRICAL SITE PLAN
178	E-402	13080036	VAULT 155 - POWER PLAN
179	E-403	13080037	VAULT 155 - LIGHTING PLAN
180	E-404	13080038	VAULT 1710 - ELECTRICAL SITE PLAN
181	E-405	13080039	VAULT 1710 - POWER PLAN
182	E-406	13080040	VAULT 1710 - LIGHTING PLAN
183	E-407	13080041	VAULT 1710 - FIRE ALARM PLAN
184	E-408	13080042	VAULT 155 - FIRE ALARM PLAN
185	E-501	13080043	ELECTRICAL DETAILS
186	E-502	13080044	ELECTRICAL DETAILS
187	E-503	13080045	ELECTRICAL DETAILS
188	E-601	13080046	VAULT 155 ONE-LINE DIAGRAM
189	E-602	13080047	VAULT 1710 ONE-LINE DIAGRAM
190	E-603	13080048	LIGHT FIXTURE SCHEDULE AND DETAILS
191	E-604	13080049	VAULT 155 AND 1710 PANEL SCHEDULES

NOTE:
MDE NO 17-SF-0057

FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Burnways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-G-002.dwg LAYOUT NAME: G-002 DRAWING INDEX PLOTTED: Monday, September 26, 2016 - 3:21 pm USER: mrosezn

APPR	DATE
SM	DESCRIPTION
	
	
JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Beach Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	
APPROVED	A/E: WFO
FOR COMMANDER NAVFAC:	
ACTIVITY:	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016	
DES	DFD DRW BAC CHK MJT
FM/DM	RH
BRANCH MANAGER	
CHIEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY NAVFAC WASHINGTON WASHINGTON, D.C. NAVAL AIR STATION PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 DRAWING INDEX	
SCALE: AS NOTED	
EPROJECT NO.: 1382137	
CONSTR. CONTR. NO. N40080-17-R-0002	
NAVFAC DRAWING NO. 13079860	
SHEET 2 OF 191	
G-002	
DRAWING REVISION: 10 MARCH 2009	

FILE NAME: G:\VHFA\10863_003_FY16_Repair_Runways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-0-10.dwg LAYOUT NAME: G-101 OVERALL PROJECT PHASING PLOTTED: Monday, September 26, 2016 - 4:02pm USER: mosenko



APPROVED: _____ DATE: _____

SM: _____ DESCRIPTION: _____

REGISTERED PROFESSIONAL ENGINEER
 MARK J TIGER
 ENGINEER 041439-E
 PENNSYLVANIA

JOHNSON, MIRMIRAN & THOMPSON
 Gannett Fleming
 A Joint Venture
 272 Benji Road, Suite 260
 Virginia Beach, Virginia, 23452
 Telephone: (757) 499-1895
 Web: www.jmt.com

FOR COMMANDER NAVFAC: _____

ACTIVITY: _____

JAMES FLETCHER PER CHECKLIST
 SATISFACTORY TO DATE 9/27/2016

DRAWN BY: DFD
 CHECKED BY: MJT
 IN CHARGE: RH
 BRANCH MANAGER: _____
 CHIEF ENGINEER/ARCHITECT: E. GALLAHER, PE

DEPARTMENT OF THE NAVY
 NAVFAC WASHINGTON
 NAVFACILITIES ENGINEERING COMMAND
 WASHINGTON, D.C.

NAVAL AIR STATION PATUXENT RIVER
 PATUXENT RIVER, MARYLAND
 FY16 SPECIAL PROJECT RM12-2137
 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2
 OVERALL PROJECT PHASING

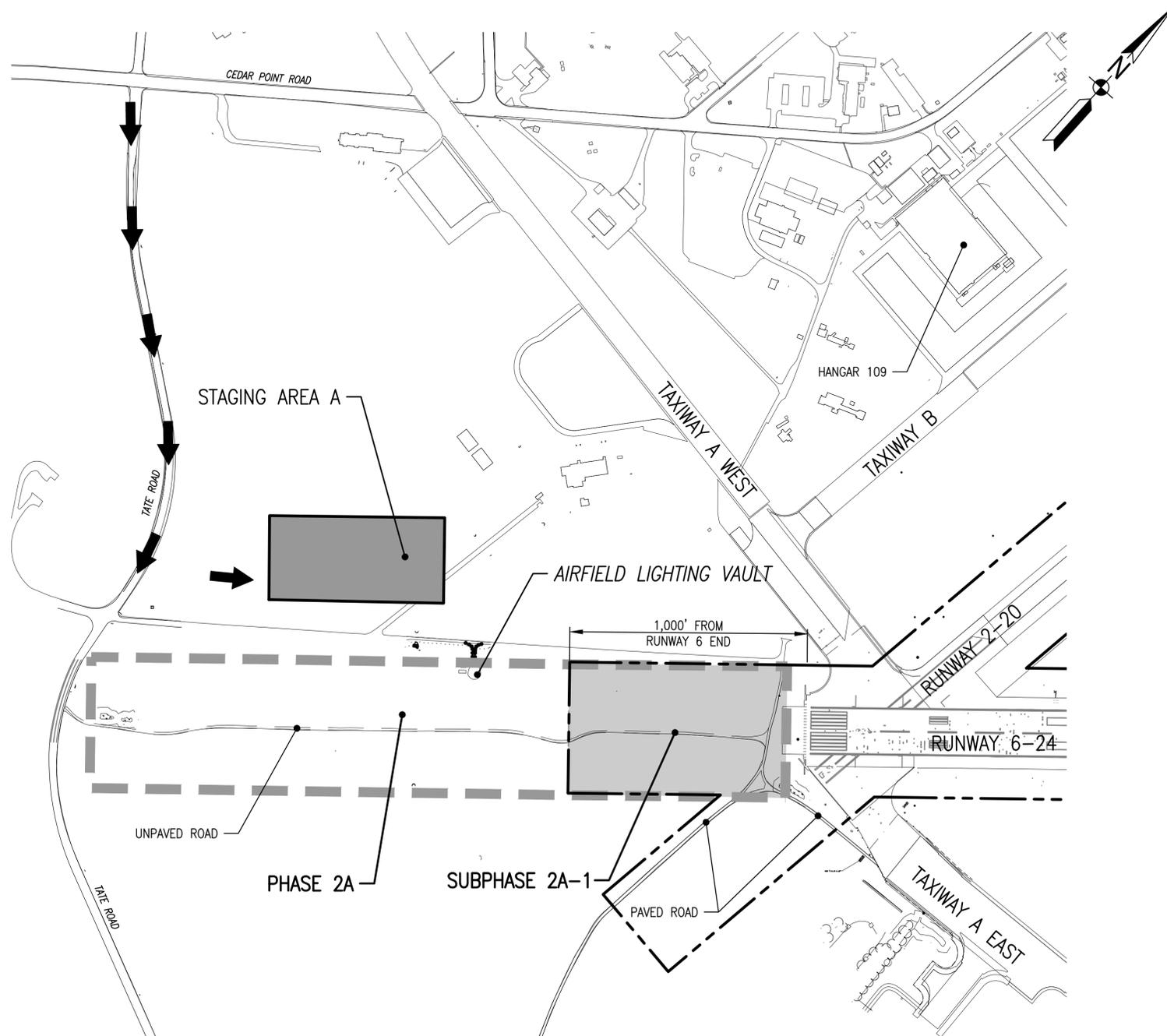
SCALE: AS NOTED
 EPROJECT NO.: 1382137
 CONSTR. CONTR. NO.: N40080-17-R-0002
 NAVFAC DRAWING NO.: 13079861
 SHEET 3 OF 191
 G-101
 DRAWN/REVISED: 10 MARCH 2009

GENERAL PHASING NOTES:

1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. PHASE 2A-1 REQUIRES CLOSURE OF RUNWAY 2-20 AND A DISPLACED THRESHOLD ON RUNWAY 6-24. COORDINATE DISPLACEMENT WITH AIROPS.

LEGEND

-  PHASE 2A
-  SUBPHASE 2A-1
-  STAGING AREA
-  ACCESS ROUTE
-  LOW PROFILE BARRICADES
-  FLAGMAN WITH RADIO
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)



RUNWAY 6 APPROACH LIGHTING SYSTEM PHASING PLAN (PHASE 2A AND SUBPHASE 2A-1)

1" = 300'

NOTE:
MDE NO 17-SF-0057

GRAPHIC SCALE



FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Berwyns\CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-0-102.dwg LAYOUT NAME: G-102 PHASE 2A AND 2A-1 PHASING PLAN PLOTTED: Monday, September 26, 2016 - 4:04pm USER: mrossano

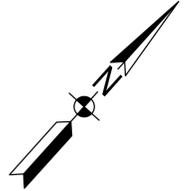
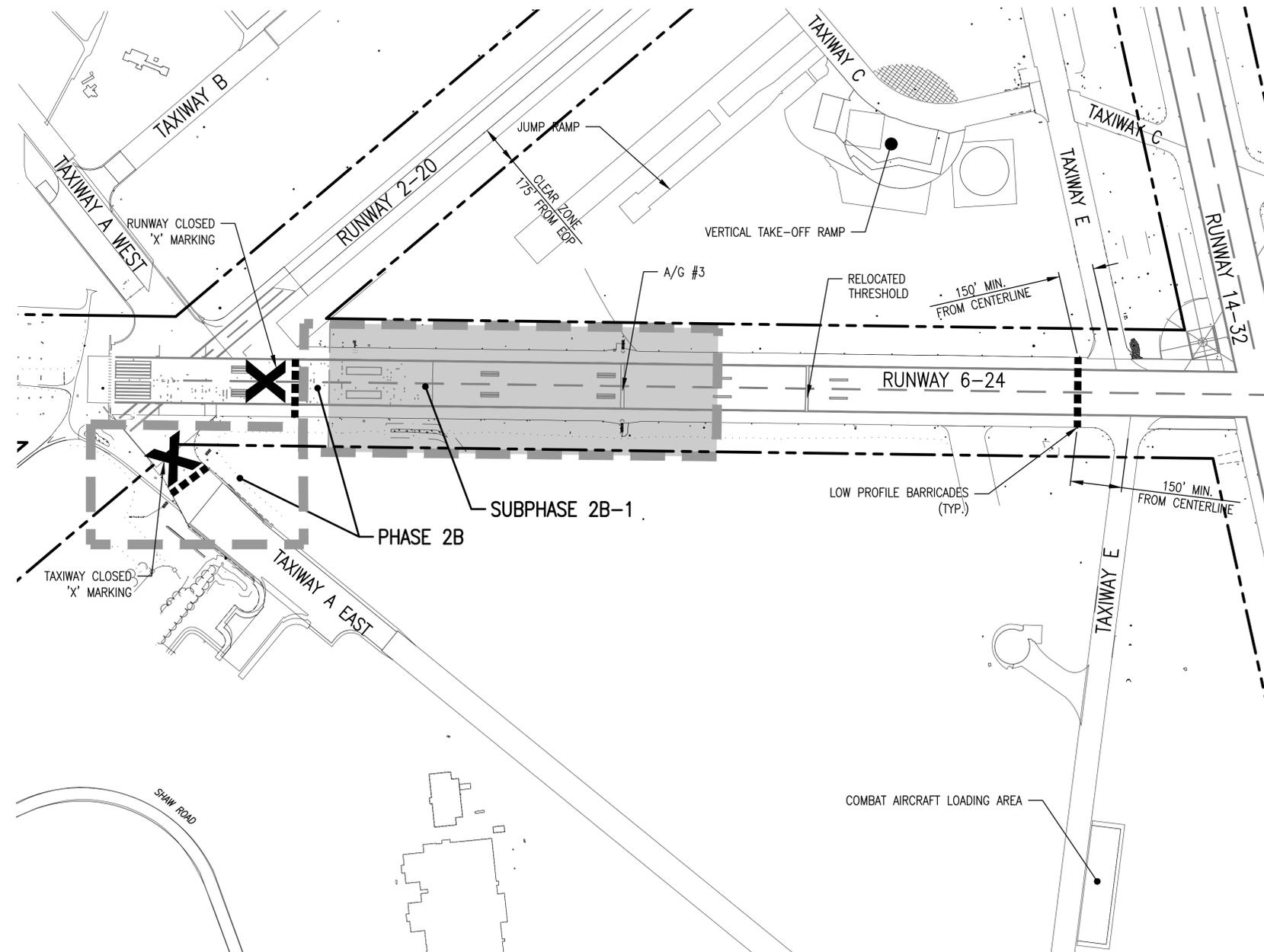
	
<p>JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i></p> <p>A Joint Venture 272 Beach Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com</p>	
<p>APPROVED</p> <p>FOR COMMANDER NAVAFAC:</p> <p>ACTIVITY</p> <p>JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016</p> <p>DES: DFD DRW: BAC CHK: MJT</p> <p>FM/DM: RH</p> <p>BRANCH MANAGER</p> <p>CHEF ENG/ARCH: E. GALLAHER, PE</p>	
<p>DEPARTMENT OF THE NAVY</p> <p>NAVFAC WASHINGTON</p> <p>NAVAL FACILITIES ENGINEERING COMMAND</p> <p>WASHINGTON, D.C.</p> <p>NAVAL AIR STATION PATUXENT RIVER</p> <p>FY16 SPECIAL PROJECT RM12-2137</p> <p>REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2</p> <p>PHASE 2A AND PHASE 2A-1 PHASING PLAN</p>	
<p>SCALE: AS NOTED</p> <p>PROJECT NO.: 1382137</p> <p>CONSTR. CONTR. NO. N40080-17-R-0002</p> <p>NAVFAC DRAWING NO. 13079862</p> <p>SHEET 4 OF 191</p> <p>G-102</p> <p><small>DRAWING REVISION: 10 MARCH 2009</small></p>	

GENERAL PHASING NOTES:

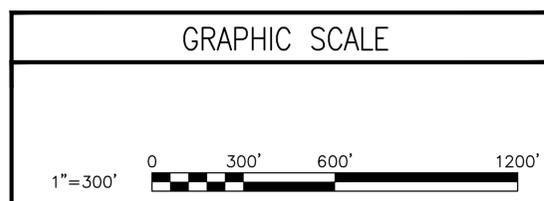
1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. ALL WORK AT RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
4. PHASE 2B REQUIRES CLOSURE OF RUNWAY 6-24. CLOSURES MUST TAKE PLACE AT NIGHT.
5. PLACE RUNWAY CLOSED 'X' MARKING AND LOW PROFILE BARRICADES JUST OUTSIDE RUNWAY 2-20 CLEAR ZONE. CLEAR ZONE IS 212.5' FROM RW 2-20 CENTERLINE.
6. PARTIAL DURATION CLOSURE OF TAXIWAY A EAST IS REQUIRED FOR PHASE 2B FOR DUCTBANK CROSSING WORK.

LEGEND

-  PHASE 2B
-  SUBPHASE 2B-1
-  STAGING AREA
-  ACCESS ROUTE
-  LOW PROFILE BARRICADES
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)

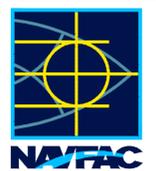


NOTE:
MDE NO 17-SF-0057



PHASE 2B AND SUBPHASE 2B-1 PLAN
1" = 300'

FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Berwyns\CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-0-103.dwg LAYOUT NAME: G-103 PHASE 2B PHASING PLAN PLOTTED: Monday, September 26, 2016 - 2:52pm USER: BCmazzolino

	APPR
	DATE
	SYN DESCRIPTION
	
	
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A/E: NFO	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016	
DES	DFD
DRW	BAC
CHK	MJT
FM/DM	RH
BRANCH MANAGER	
CHIEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY NAVFAC WASHINGTON NAVFAC WASHINGTON PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 PHASE 2B PHASING PLAN	NAVFAC WASHINGTON PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 PHASE 2B PHASING PLAN
SCALE: AS NOTED	
PROJECT NO.: 1382137	
CONSTR. CONTR. NO. N40080-17-R-0002	
NAVFAC DRAWING NO. 13079863	
SHEET 5 OF 191	
G-103	
DRAWING REVISION: 10 MARCH 2009	

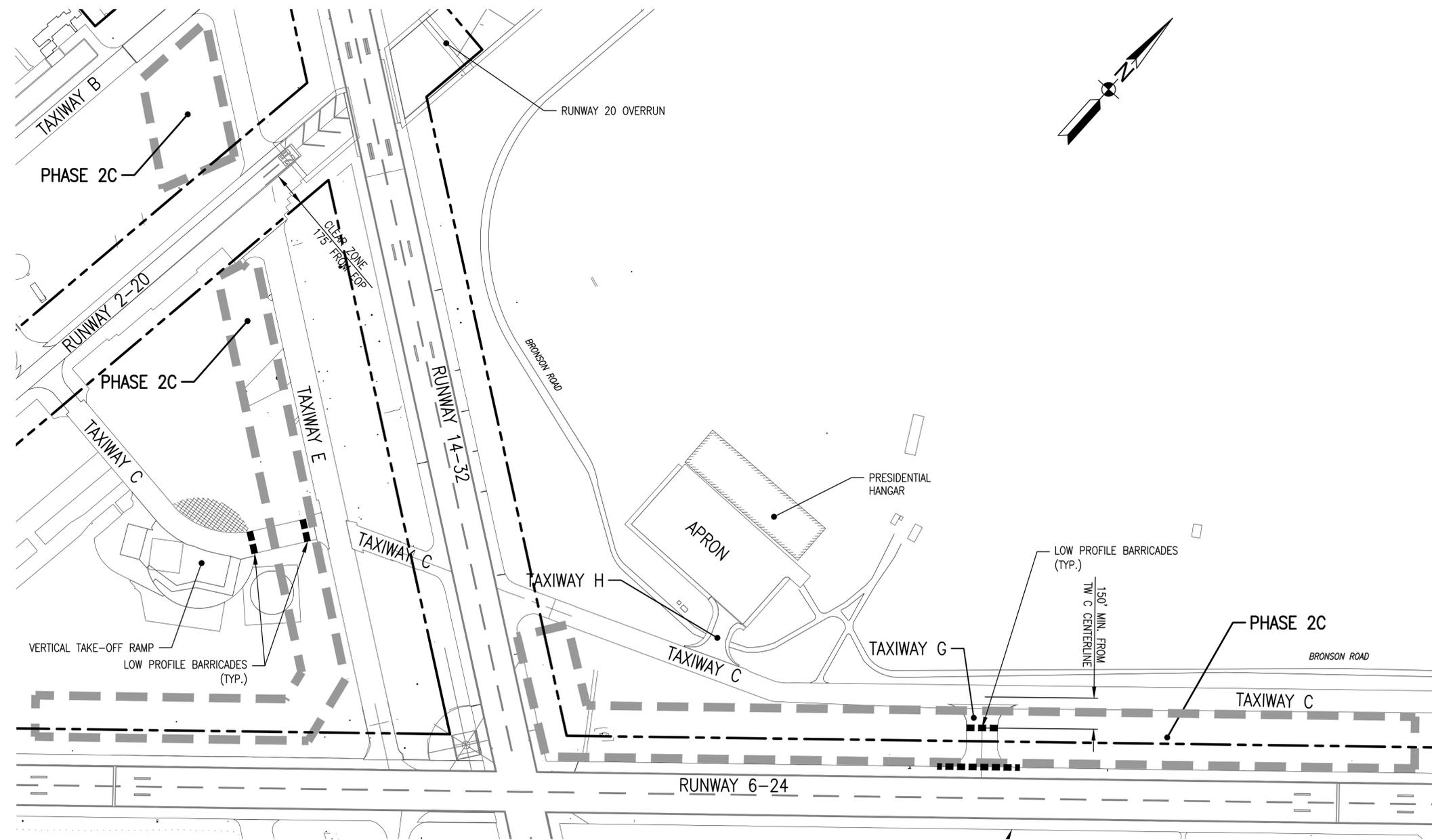
1 2 3 4 5

GENERAL PHASING NOTES:

1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. ALL WORK AT RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
4. PHASE 2C REQUIRES PARTIAL DURATION CLOSURE OF TAXIWAY G AND C.
5. TAXIWAY E TO REMAIN OPEN AT ALL TIMES.
6. ALL WORK MUST REMAIN OUTSIDE RUNWAY 6-24 AND RUNWAY 14-32 CLEAR ZONE (175' FROM RUNWAY EDGE OF PAVEMENT).
7. ALL WORK MUST REMAIN OUTSIDE TAXIWAY E CLEARANCE LINE (150' FROM TAXIWAY CENTERLINE) DURING DAY WORK.

LEGEND

-  PHASE 2C
-  STAGING AREA
-  ACCESS ROUTE
-  LOW PROFILE BARRICADES
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)



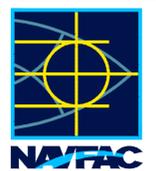
PHASE 2C PLAN
1" = 300'

NOTE:
MDE NO 17-SF-0057

GRAPHIC SCALE

1" = 300'

FILE NAME: G:\V\H\PA\100863_003_FY16_Repairs_Runways_CADD\Phase 2\GENERAL-Civil_Phase 2\10-0863-009-G-104.dwg LAYOUT NAME: G-104 PHASE 2C PHASING PLAN PLOTTED: Monday, September 26, 2016 - 2:53pm USER: BCmazzellio

  JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Bessie Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	APPROVED: _____ FOR COMMANDER NAVAFAC: ACTIVITY: JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016 DES: DFD DRW: BAC CHK: MJT PM/DM: RH BRANCH MANAGER: CHIEF ENG/ARCH: E. GALLAHER, PE
DEPARTMENT OF THE NAVY NAVAFAC WASHINGTON NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON, D.C. NAVAL AIR STATION PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 PHASE 2C PHASING PLAN	SCALE: AS NOTED EPROJECT NO.: 1382137 CONSTR. CONTR. NO.: N40080-17-R-0002 NAVAFAC DRAWING NO.: 13079864 SHEET 6 OF 191 G-104 <small>DRAWING REVISION: 10 MARCH 2009</small>

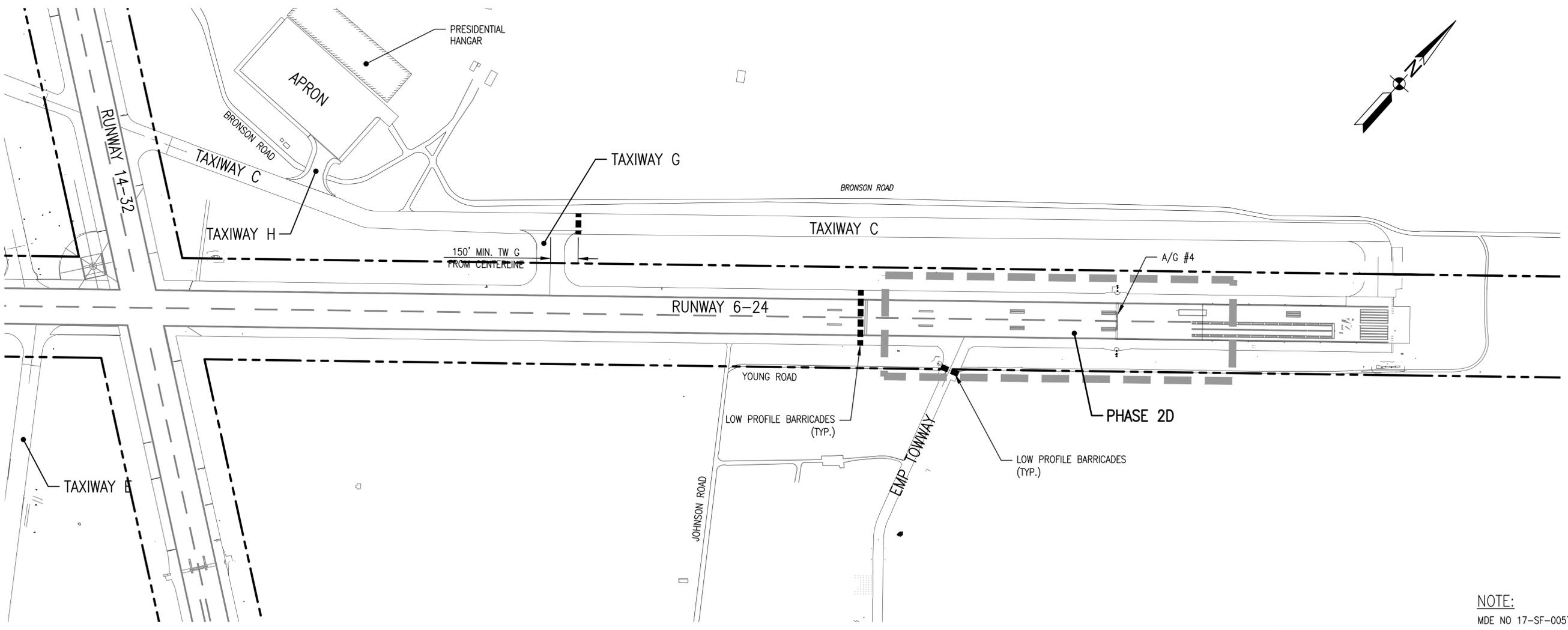
1 2 3 4 5

GENERAL PHASING NOTES:

1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. ALL WORK AT RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
4. PHASE 2D REQUIRES CLOSURE OF RUNWAY 6-24 AND PARTIAL DURATION CLOSURES OF EMP AREA.
5. AIRCRAFT ACCESS TO THE EMP TOWWAY MUST BE MAINTAINED AT ALL TIMES. CONTRACTOR MUST TEMPORARILY REMOVE BARRICADES IMMEDIATELY AT THE DIRECTION OF THE CONTRACTING OFFICER.
6. PLACE RUNWAY CLOSURE MARKERS ON BOTH ENDS OF RUNWAY 6-24.

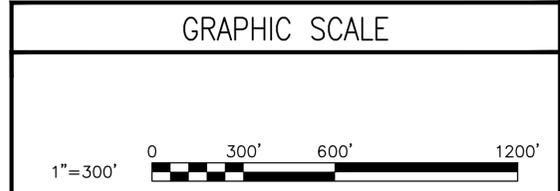
LEGEND

-  PHASE 2D
-  STAGING AREA
-  ACCESS ROUTE
-  LOW PROFILE BARRICADES
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)

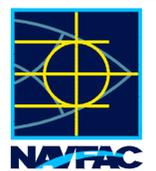


TAXIWAY 2D PLAN
1" = 300'

NOTE:
MDE NO 17-SF-0057



FILE NAME: G:\VHPA\100861_008_FY16_Repairs_Reruns\2\GENERAL-CIVIL_Phase 2\10-0861-009-0-105.dwg LAYOUT NAME: G-105 PHASE 2D PHASING PLAN PLOTTED: Monday, September 26, 2016 - 2:55pm USER: BCzencelino

	DATE
	APPR
	SYN DESCRIPTION
	
	
JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Benthin Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	
A/E: NFO	
APPROVED	
FOR COMMANDER NAVFAC:	
ACTIVITY	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016	
DES: DFD	DRW: BAC
CHK: MJT	
FM/DM: RH	
BRANCH MANAGER	
CHEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY NAVFAC WASHINGTON NAVFAC WASHINGTON PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 PHASE 2D PHASING PLAN	WASHINGTON, D.C. WASHINGTON, D.C.
SCALE: AS NOTED	PROJECT NO.: 1382137
CONSTR. CONTR. NO. N40080-17-R-0002	
NAVFAC DRAWING NO. 13079865	
SHEET 7 OF 191	
G-105	
DRAWING REVISION: 10 MARCH 2009	

1 2 3 4 5

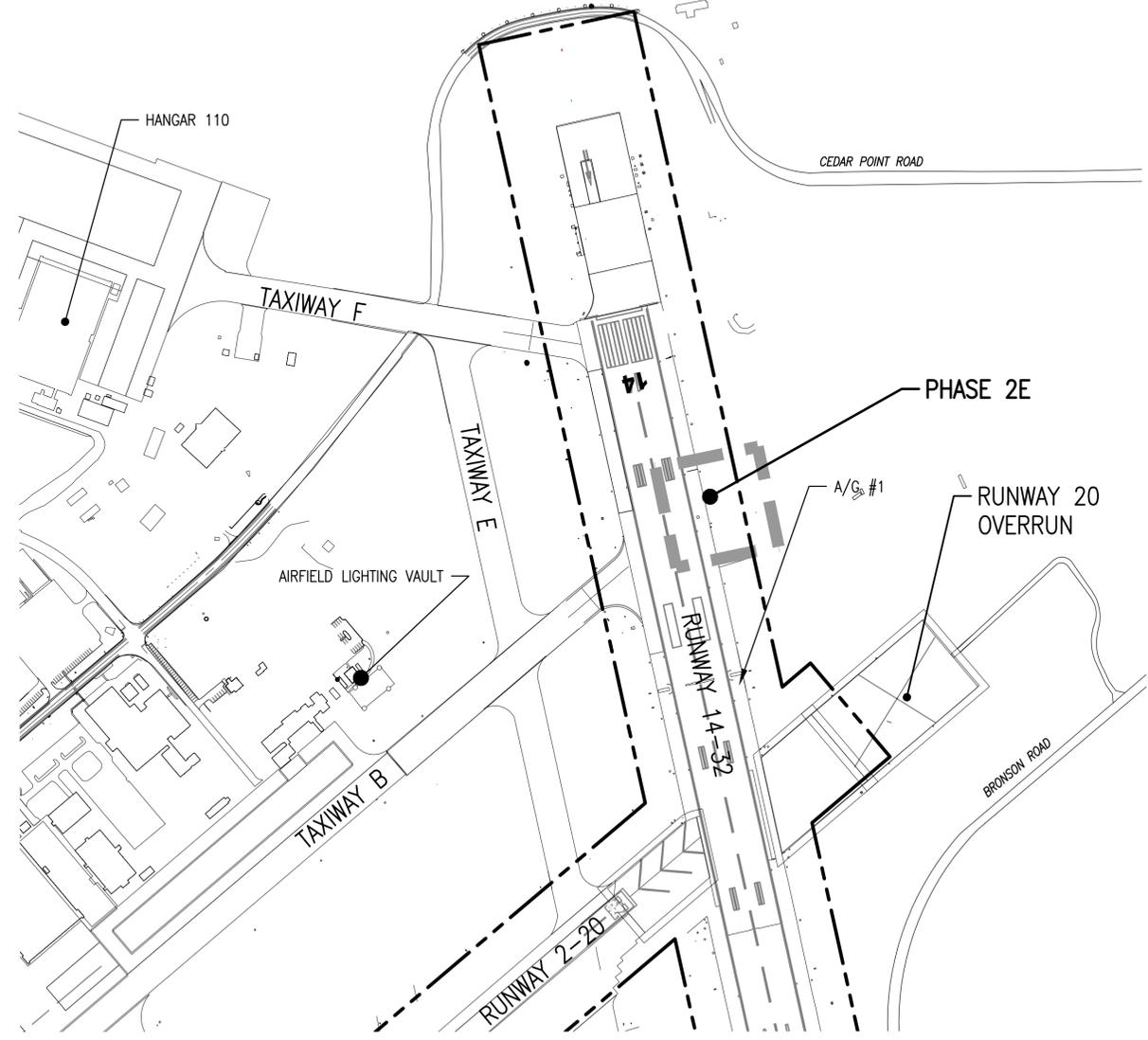
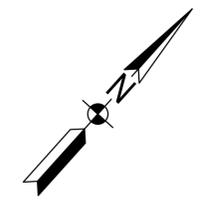
1 2 3 4 5

GENERAL PHASING NOTES:

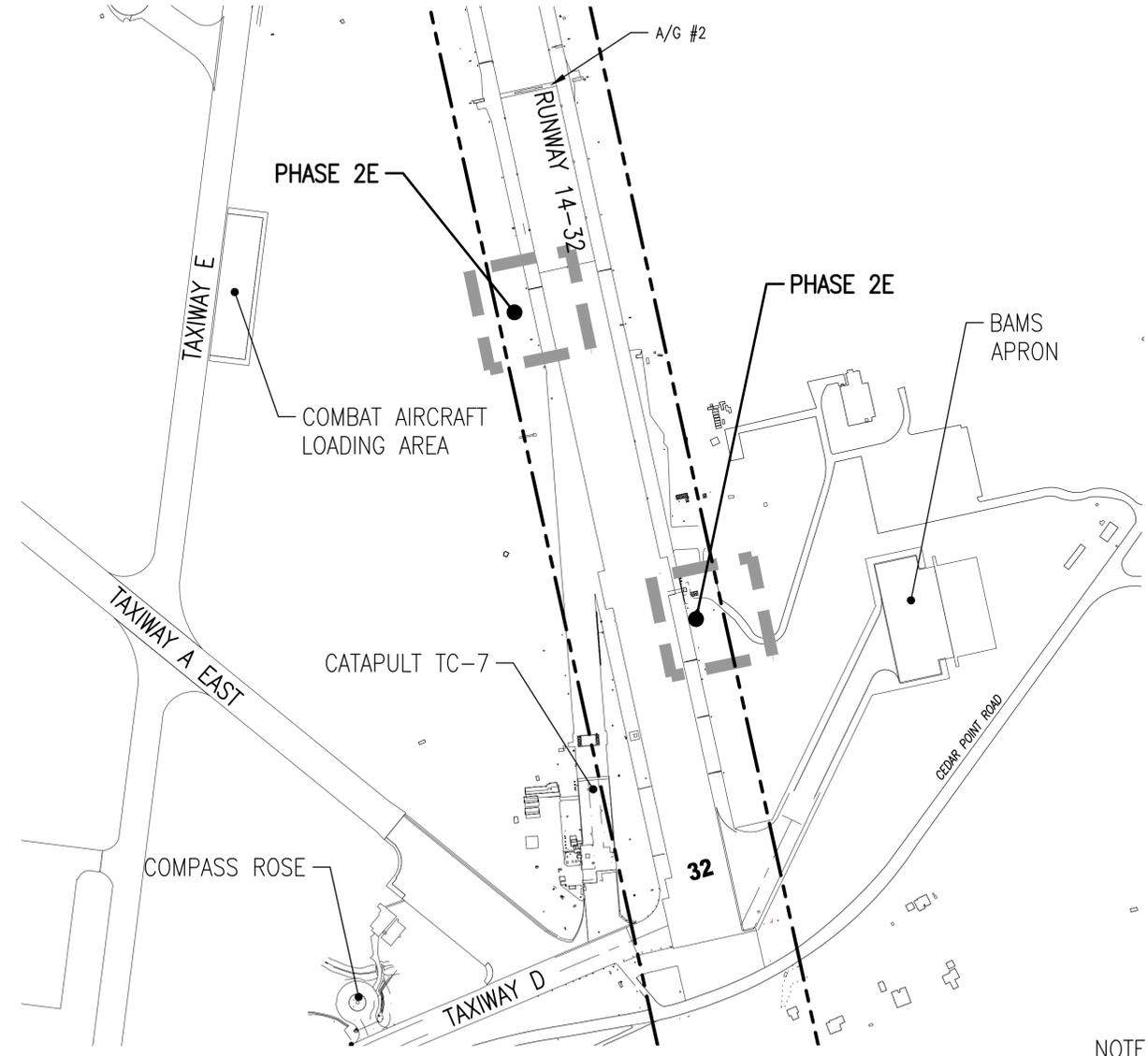
1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. ALL WORK AT RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
4. PHASE 2E REQUIRES PARTIAL SHUTDOWN OF RUNWAY 14-32. WORK SHALL BE PERFORMED AT NIGHT OR ON WEEKENDS.

LEGEND

-  PHASE 2E
-  STAGING AREA
-  ACCESS ROUTE
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)

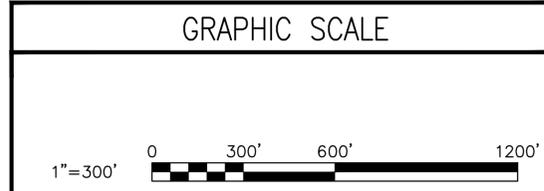


PHASE 2E PLAN - RUNWAY 14 END
1" = 300'



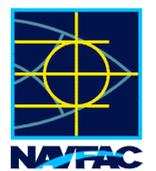
PHASE 2E PLAN - RUNWAY 32 END
1" = 300'

NOTE:
MDE NO 17-SF-0057



FILE NAME: G:\V\H\PA\100863_009_FY16_Repairs_Runways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-0-106.dwg LAYOUT NAME: G-106 PHASE 2E PHASING PLAN PLOTTED: Monday, September 26, 2016 - 2:57pm USER: BCzencin@no

SYMBOL	DESCRIPTION	DATE	APPROVED



JOHNSON, MIRMIRAN & THOMPSON
Gannett Fleming
A Joint Venture
272 Beach Road, Suite 260
Virginia Beach, Virginia 23452
Telephone: (757) 499-1895
Web: www.jmt.com

APPROVED: _____
FOR COMMANDER NAVFAC: _____
ACTIVITY: _____
JAMES FLETCHER PER CHECKLIST
SATISFACTORY TO DATE 9/27/2016
DES: DFD | DRW: BAC | CHK: MJT
FM/DM: RH
BRANCH MANAGER: _____
CHIEF ENG/ARCH: E. GALLAHER, PE

NAVFAC WASHINGTON
NAVAL FACILITIES ENGINEERING COMMAND
WASHINGTON, D.C.
NAVAL AIR STATION PATUXENT RIVER
PATUXENT RIVER, MARYLAND
FY16 SPECIAL PROJECT RM12-2137
REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2
PHASE 2E PHASING PLAN

SCALE: AS NOTED
PROJECT NO.: 1382137
CONSTR. CONTR. NO.: N40080-17-R-0002
NAVFAC DRAWING NO.: 13079866
SHEET 8 OF 191
G-106

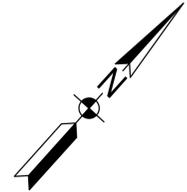
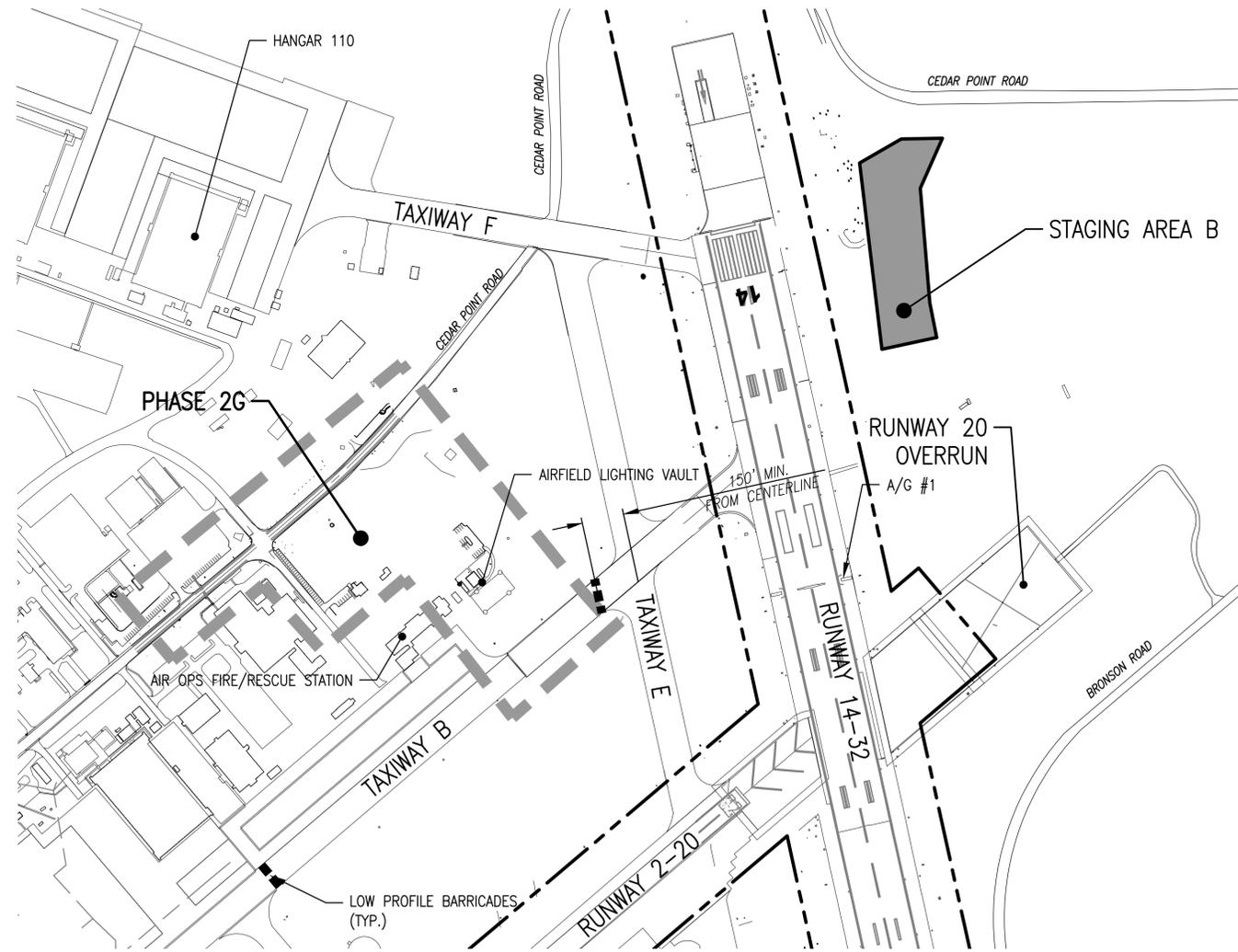
DRAWING REVISION: 10 MARCH 2009

GENERAL PHASING NOTES:

1. RUNWAY CLOSURES ARE REQUIRED FOR WORK WITHIN RUNWAY CLEAR ZONE.
2. THE DEMOLITION OF THE EXISTING ELECTRICAL DISTRIBUTION VAULTS SHALL NOT TAKE PLACE UNTIL THE NEW ELECTRICAL DISTRIBUTION VAULTS HAVE BEEN CONSTRUCTED AND ARE OPERATIONAL.
3. ALL WORK AT RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
4. PHASE 2G REQUIRES PARTIAL DURATION CLOSURE OF TAXIWAY B.

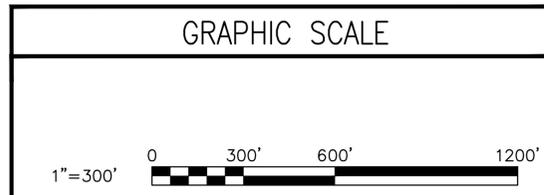
LEGEND

-  PHASE 2G
-  STAGING AREA
-  ACCESS ROUTE
-  LOW PROFILE BARRICADES
-  RUNWAY CLEAR ZONE (175' FROM EDGE OF RUNWAY)

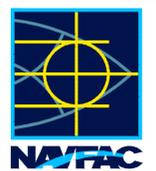


PHASE 2G PLAN
1" = 300'

NOTE:
MDE NO 17-SF-0057



FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Runways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-0-108.dwg LAYOUT NAME: G-107 PHASE 2G PHASING PLAN PLOTTED: Monday, September 26, 2016 3:00pm USER: BCzencelino

  JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Bendin Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	APPROVED FOR COMMANDER NAVAFAC ACTIVITY JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016 DES: DFD DRW: BAC CHK: MJT PM/DM: RH BRANCH MANAGER CHIEF ENG/ARCH: E. CALLAHER, PE
DEPARTMENT OF THE NAVY NAVAFAC WASHINGTON NAVY FACILITIES ENGINEERING COMMAND WASHINGTON, D.C. NAVAL AIR STATION PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 PHASE 2G PHASING PLAN	SCALE: AS NOTED EPROJECT NO.: 1382137 CONSTR. CONTR. NO.: N40080-17-R-0002 NAVAFAC DRAWING NO.: 13079868 SHEET 10 OF 191 G-108 <small>DRAWING REVISION: 10 MARCH 2009</small>

WORK AFFECTING AIRFIELD OPERATIONS:

1. THE CONTRACTOR SHALL COORDINATE THE CLOSURE OF THE RUNWAYS, TAXIWAYS OR APRON WITH THE AIRFIELD MANAGER.
2. THE CONTRACTOR SHALL PROVIDE, IN WRITING, NOTICE TO THE CONTRACTING OFFICER THEIR INTENT TO CLOSE ANY RUNWAY, TAXIWAY, OR APRON. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE CONTRACTOR MUST HAVE ALL EQUIPMENT AND MATERIALS FOR THIS WORK ON-SITE PRIOR TO SHUTDOWN. THE CONTRACTOR SHALL SUBMIT A WORK PLAN WITH THE NOTICE, DEPICTING LOCATION OF THE CLOSURE BARRICADES, LIGHTS, ETC. THIS PLAN MUST HAVE APPROVAL FROM THE CONTRACTING OFFICER AND AIRFIELD OPERATIONS BEFORE CLOSURE CAN TAKE PLACE. PLAN WILL ALSO INCLUDE SCHEDULE AND PROCEDURES SET TO REOPEN THE FACILITIES TO AIRCRAFT TRAFFIC. PAVEMENTS SHALL BE CLEANED AND OPERATIONALLY SAFE FOR AIRCRAFT.

FOREIGN OBJECT DAMAGE (FOD):

1. THE CONTRACTOR SHALL PROVIDE FOD CONTROL AND SAFETY BARRICADES AROUND THE PERIMETER OF ALL WORK AREAS ON THE AIRFIELD. FINAL LOCATION OF THE BARRICADES SHALL BE APPROVED BY THE CONTRACTING OFFICER AND BY THE AIRFIELD OPERATIONS. OPERATIONAL REQUIREMENTS MAY REQUIRE BARRICADES AT OTHER LOCATIONS. BARRICADES WILL NEED TO BE RELOCATED AS THE WORK PROGRESSES OR DUE TO OPERATIONAL CHANGES DETERMINED BY THE AIRFIELD MANAGER.
2. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE FACILITY INSTRUCTIONS FOR CONDUCTING AIRFIELD SYSTEMS OPERATIONS CHECKS AND VISUAL INSPECTION/FOD WALKDOWNS OF RUNWAY ENVIRONMENTS.
3. THE CONTRACTOR SHALL BRIEF ALL PERSONNEL WORKING ON SITE WITH PROPER FOD PREVENTION TECHNIQUES.
4. THE CONTRACTOR SHALL CHECK AND MAINTAIN BARRICADES DAILY.
5. THE CONTRACTOR SHALL POWER BROOM ALL AIRFIELD PAVEMENTS AFFECTED BY HIS OPERATIONS. THE CONTRACTING OFFICER MUST APPROVE THE CONDITION OF PAVEMENT PRIOR TO REOPENING PAVEMENT TO AIRCRAFT TRAFFIC.

ENVIRONMENTAL:

1. SHOULD HISTORIC SITES (WALLS, PLATFORMS, PAVEMENTS, MOUNDS) OR REMAINS (ARTIFACTS, BURIALS) BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE VICINITY OF THE FIND AND THE AREA SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR AND/OR CONTRACTING OFFICER SHALL IMMEDIATELY CONTACT THE NAVAL AIR STATION PATUXENT RIVER ENVIRONMENTAL DIRECTOR. THE CONTRACTING OFFICER WILL BE RESPONSIBLE FOR CONTACTING THE STATE HISTORIC PRESERVATION OFFICE, IF REQUIRED; WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE IF NECESSARY.
2. DURATION OF STOCKPILE SHALL NOT EXCEED THREE (3) MONTHS. IF THE STOCKPILING WORK INVOLVES CONTAMINATED SOIL AND/OR HAZARDOUS MATERIAL, THEN ALL STOCKPILING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS. CONTACT THE SOLID AND HAZARDOUS WASTE BRANCH OF THE STATE DEPARTMENT OF HEALTH FOR MORE INFORMATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE WATER QUALITY STANDARDS IPER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).
4. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE CONTRACTOR SHALL BE IN COMPLIANCE WITH ALL AIR POLLUTION CONTROL REGULATIONS AND GUIDANCE PER THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ).

SECURITY:

1. THE CONTRACTOR SHALL ENSURE COMPLIANCE WITH ALL SECURITY REGULATIONS AND ACCESS REQUIREMENTS FOR ALL CONTRACTOR PERSONNEL ENTERING THE PROJECT SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BADGING AND TRAINING REQUIRED FOR BASE AND AIRFIELD ACCESS.
2. CLOSE COORDINATION WITH BASE, AIRFIELD OPERATIONS, AND SECURITY OPERATIONS IS A REQUIREMENT OF THE CONTRACT.
3. CONTRACTOR VEHICLES SHALL ABIDE BY BASE TRAFFIC REGULATIONS INCLUDING SPEED LIMITS AND RESTRICTION ON CELL PHONE USAGE. COMMERCIAL VEHICLES AND HEAVY EQUIPMENT MUST TRAVEL ALONG PREDETERMINED HAUL ROUTES AND PASS THROUGH SECURITY ACCESS POINTS AS SHOWN ON THE DRAWINGS.
4. ACCESS TO AREAS IN CLOSE PROXIMITY TO THE AIRFIELD SHALL BE STRICTLY CONTROLLED AT ALL TIMES. TEMPORARY AIRFIELD ACCESS POINTS ARE SUBJECT TO ADJUSTMENT ACCORDING TO THE STAGES OF CONSTRUCTION AS SHOWN ON THE PHASING PLAN. ALL CONTRACTOR PERSONNEL SHALL REMAIN INFORMED OF ACTIVE AND CLOSED AIRFIELD ACCESS POINTS.
5. ALL AIRFIELD SECURITY RULES AND REGULATIONS SHALL APPLY EQUALLY TO THE CONTRACTOR AND ITS SUBCONTRACTORS EMPLOYED ON THE PROJECT.
6. ALL CONTRACTOR PERSONNEL SHALL BE BRIEFED ON FOD, APPROVED HAUL ROUTES, RESTRICTED AREAS, AND ANY SECURITY LINES.
7. CONTRACTOR VEHICLES PERMITTED TO TRAVEL WITHIN THE AIRFIELD MUST PROPERLY DISPLAY APPROVED I.D. PLACARDS.
8. VISITORS TO THE PROJECT SITE MUST BE ACCOMPANIED BY AN APPROVED ESCORT AT ALL TIMES.
9. ANY CONTRACTOR PERSONNEL FOUND TO BE IN VIOLATION OF SECURITY REGULATIONS AND ACCESS RESTRICTIONS ARE SUBJECT TO DETAINMENT AND SEARCH BY BASE SECURITY FORCES.

Vault Building:

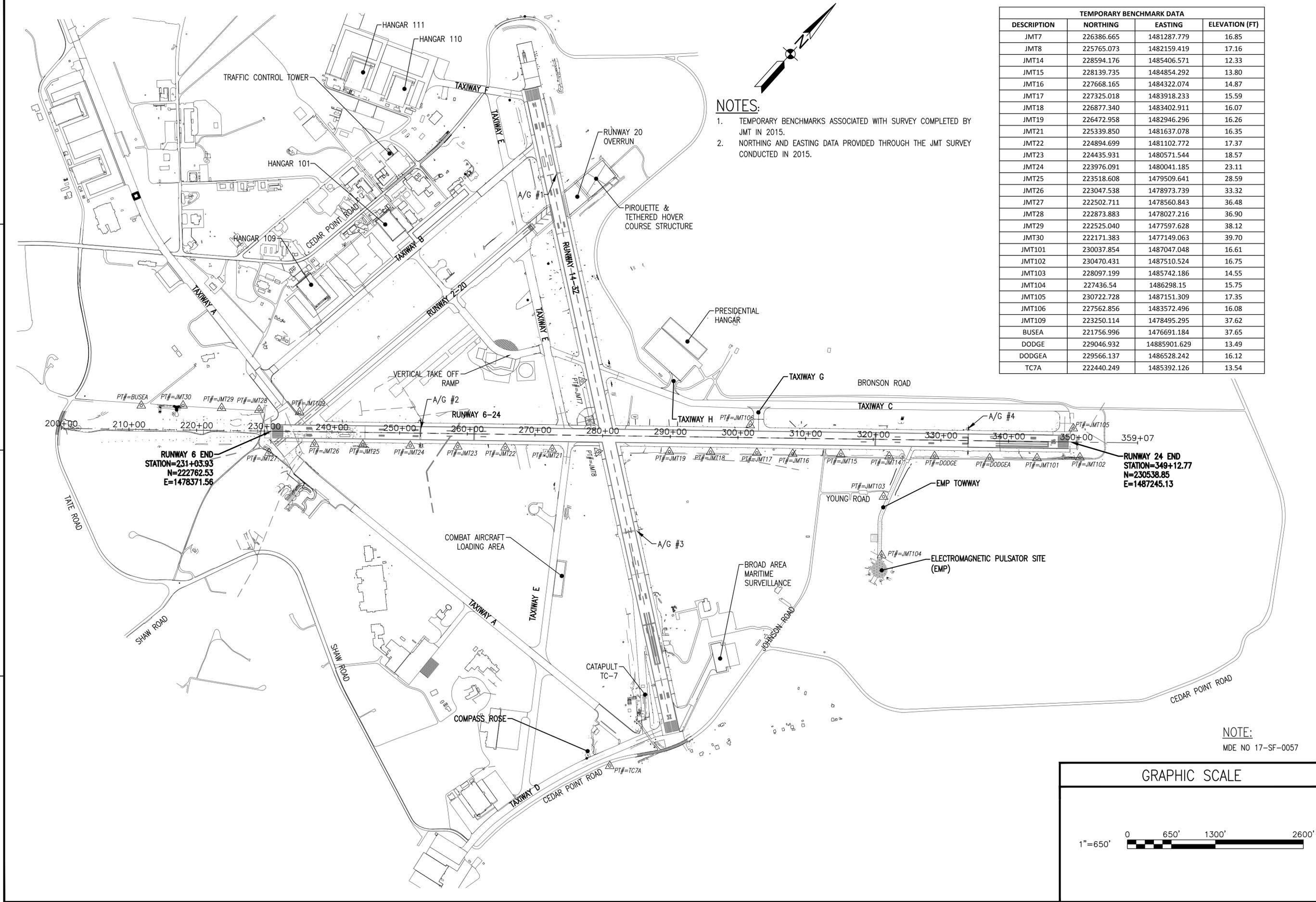
1. ELECTRICAL AND COMMUNICATION CONDUIT AND DUCT BANK ALIGNMENTS SHOWN ON THESE PLANS ARE SCHEMATIC. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL BURIED CONDUIT AND DUCT BANK RUNS IN AND OUT OF VAULT BUILDINGS.
2. DUCT BANKS REQUIRING CONCRETE ENCASEMENT SHALL EXTEND BENEATH VAULT BUILDING FOOTINGS. CONCRETE ENCASEMENT FOR DUCT BANKS IS NOT REQUIRED UNDER SLABS INSIDE VAULT BUILDINGS. WHERE CONCRETE ENCASED DUCT BANKS PASS BENEATH FOOTINGS, CONTRACTOR SHALL COORDINATE WITH FOOTING CONSTRUCTION. THE TOP OF CONCRETE ENCASEMENT FOR DUCT BANKS SHALL EXTEND UP TO THE BOTTOM OF CONCRETE FOOTINGS. CONCRETE FOOTINGS SHALL BE PLACED ON TOP OF CONCRETE ENCASEMENT FOLLOWING STRENGTH DEVELOPMENT. A 1/2-INCH THICK SAND BOND BREAKER SHALL BE PLACED BETWEEN THE TOP OF DUCT BANK CONCRETE ENCASEMENT AND THE BOTTOM OF THE VAULT BUILDING FOOTING.
3. CONCRETE FOOTINGS SHOWN ON THE PLANS SHALL BE ADJUSTED BY THE CONTRACTOR AS REQUIRED TO ACCOMMODATE CONCRETE ENCASED DUCT BANKS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING REQUIRED FOR COORDINATION OF CONCRETE ENCASED DUCT BANKS AND CONCRETE BUILDING FOOTINGS.
4. SHOP DRAWINGS SHALL BE SUBMITTED INCLUDING DETAILED LAYOUT OF CONCRETE ENCASED DUCT BANKS FOR ALL DUCT BANKS IN AND OUT OF ALL BUILDINGS. CONDUITS PASSING THROUGH STRUCTURAL FLOOR SLABS SHALL HAVE A MINIMUM 1 1/4-INCH CLEAR SPACING BETWEEN CONDUITS AND BETWEEN CONDUITS AND WALLS. CONTINUOUS REINFORCING MAY BE ADJUSTED WITHIN THE TOLERANCES OF THE SPECIFICATIONS. INTERIOR CONDUITS MAY BE RUN ALONG WALLS OR OVERHEAD SUBJECT TO THE LIMITATIONS OF OTHER BUILDING COMPONENTS AND VERTICAL HEIGHT RESTRICTIONS REQUIRED FOR EQUIPMENT ACCESS AND MAINTENANCE.

NOTE:
MDE NO 17-SF-0057

APPR	DATE
SYN	DESCRIPTION
	
	
JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Beach Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	
APPROVED	
FOR COMMANDER NAVFAC:	
ACTIVITY	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016	
DES	DFD DRW BAC CHK MJT
FM/DM	RH
BRANCH MANAGER	
CHIEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY EPT BLUE NAVFAC WASHINGTON	NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON, D.C. PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 GENERAL NOTES
SCALE: AS NOTED	
EPROJECT NO.: 1382137	
CONSTR. CONTR. NO. N40080-17-R-0002	
NAVFAC DRAWING NO. 13079871	
SHEET 13 OF 191	
G-111	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

FILE NAME: G:\VHPA\10863_003_FY16_Repair_Runways_CADD\Phase 2\GENERAL-Civil_Phase 2\10-0863-009-0-111.dwg LAYOUT NAME: G-111 GENERAL NOTES PLOTTED: Monday, September 26, 2016 - 2:37pm USER: Bconcentino

FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Berwyns\CADD\Phase 2\GENERAL-CIVIL\Phase 2\10-0863-009-0-112.dwg LAYOUT NAME: G-112 HORIZONTAL AND VERTICAL CONTROLS AND NOTES PLOTTED: Monday, September 26, 2016 - 4:33pm USER: BCharron



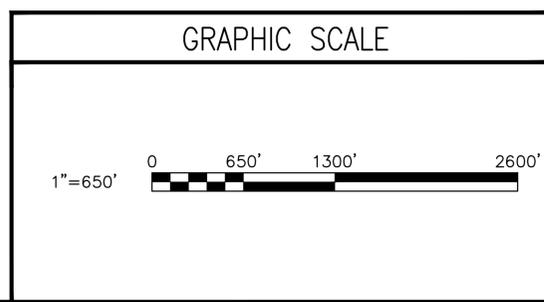
- NOTES:**
1. TEMPORARY BENCHMARKS ASSOCIATED WITH SURVEY COMPLETED BY JMT IN 2015.
 2. NORTHING AND EASTING DATA PROVIDED THROUGH THE JMT SURVEY CONDUCTED IN 2015.

TEMPORARY BENCHMARK DATA			
DESCRIPTION	NORTHING	EASTING	ELEVATION (FT)
JMT7	226386.665	1481287.779	16.85
JMT8	225765.073	1482159.419	17.16
JMT14	228594.176	1485406.571	12.33
JMT15	228139.735	1484854.292	13.80
JMT16	227668.165	1484322.074	14.87
JMT17	227325.018	1483918.233	15.59
JMT18	226877.340	1483402.911	16.07
JMT19	226472.958	1482946.296	16.26
JMT21	225339.850	1481637.078	16.35
JMT22	224894.699	1481102.772	17.37
JMT23	224435.931	1480571.544	18.57
JMT24	223976.091	1480041.185	23.11
JMT25	223518.608	1479509.641	28.59
JMT26	223047.538	1478973.739	33.32
JMT27	222502.711	1478560.843	36.48
JMT28	222873.883	1478027.216	36.90
JMT29	222525.040	1477597.628	38.12
JMT30	222171.383	1477149.063	39.70
JMT101	230037.854	1487047.048	16.61
JMT102	230470.431	1487510.524	16.75
JMT103	228097.199	1485742.186	14.55
JMT104	227436.54	1486298.15	15.75
JMT105	230722.728	1487151.309	17.35
JMT106	227562.856	1483572.496	16.08
JMT109	223250.114	1478495.295	37.62
BUSEA	221756.996	1476691.184	37.65
DODGE	229046.932	14885901.629	13.49
DODGEA	229566.137	1486528.242	16.12
TC7A	222440.249	1485392.126	13.54

RUNWAY 6 END
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 E=1478371.56

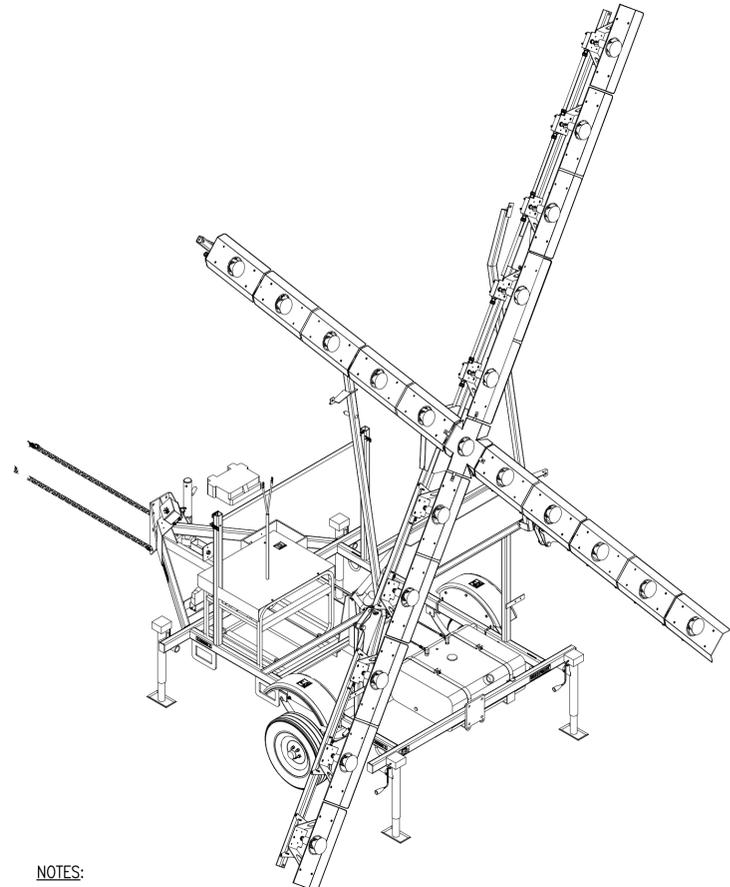
RUNWAY 24 END
 STATION=349+12.77
 N=230538.85
 E=1487245.13

NOTE:
 MDE NO 17-SF-0057



APPR	
DATE	
DESCRIPTION	
SYMBOL	
JOHNSON, MIRIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Beach Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com	
APPROVED	
FOR COMMANDER NAVAC	
ACTIVITY	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016 DES DFD DRW BAC CHK MJT PM/DM RH BRANCH MANAGER CHIEF ENG/ARCH E. GALLAHER, PE	
DEPARTMENT OF THE NAVY NAVAC WASHINGTON NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON, D.C. NAVAL AIR STATION PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 HORIZONTAL AND VERTICAL CONTROLS AND NOTES	
SCALE:	AS NOTED
PROJECT NO.:	1382137
CONSTR. CONTR. NO.:	N40080-17-R-0002
NAVAC DRAWING NO.:	13079872
SHEET	14 OF 191
G-112	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

FILE NAME: G:\VHPA\10863_003_FY16_Repair_Runnways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-G-501.dwg LAYOUT NAME: G-501 CONSTRUCTION SHEET DETAILS PLOTTED: Monday, September 26, 2016 - 2:40pm USER: BConzolino

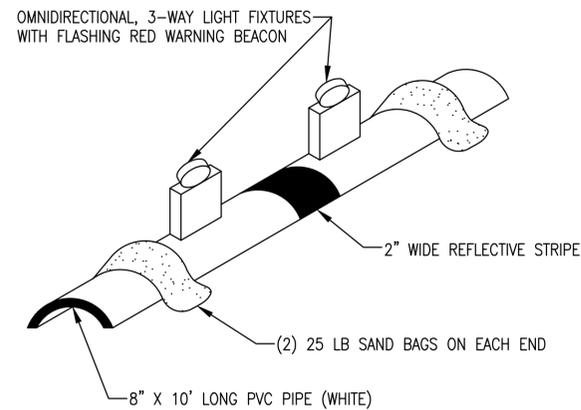


NOTES:

1. LIGHTED RUNWAY CLOSURE MARKER SHALL BE PLACED WITHIN 250 FEET OF BOTH RUNWAY ENDS AND SHALL BE COORDINATED WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.
2. CONTRACTOR SHALL PROVIDE ADDITIONAL NON-LIGHTED CLOSED RUNWAY MARKINGS TO BE LOCATED AT THE RUNWAY DESIGNATION MARKINGS. SEE DETAIL 4 ON THIS SHEET FOR FURTHER GUIDANCE.

LIGHTED RUNWAY CLOSURE MARKING (LIGHTED "X") ①

NTS G-101,G-103

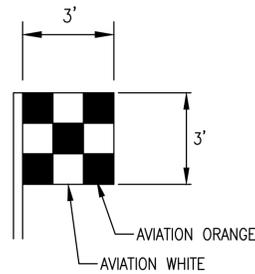


NOTES:

1. CONTRACTOR SHALL PROVIDE BARRICADES, BATTERIES, SAND BAGS, AND ITEMS REQUIRED FOR INSTALLATION AND MAINTENANCE. UPON COMPLETION OF PROJECT, BARRICADES WILL REMAIN PROPERTY OF THE GOVERNMENT AND DELIVERED TO A DESIGNATED STORAGE AREA DESIGNATED BY THE CONTRACTING OFFICER.
2. OPENING BETWEEN BARRICADE SECTIONS SHALL NOT EXCEED 4 FEET.

LOW PROFILE CONSTRUCTION BARRICADES ③

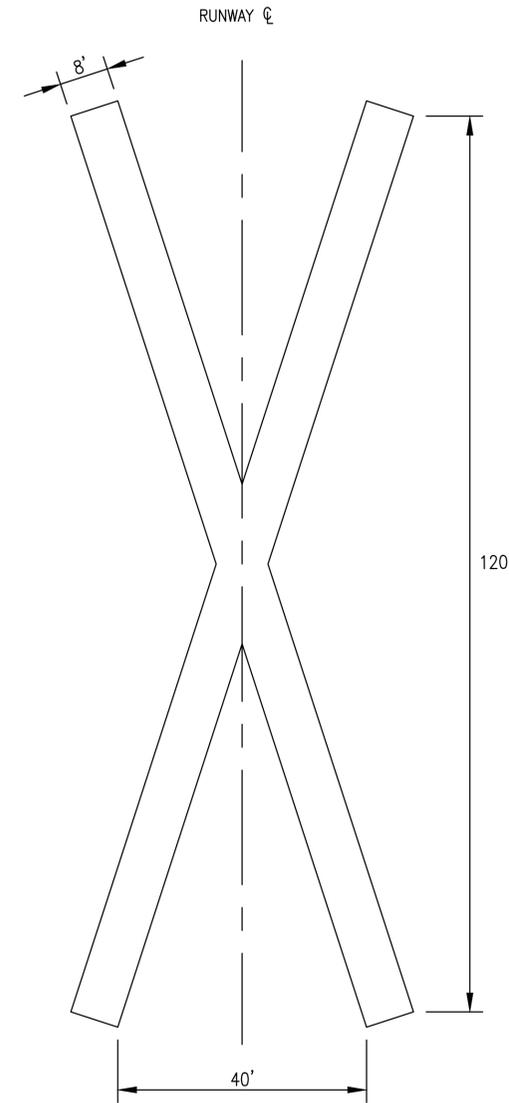
NTS G-103,G-104,G-105,G-108,G-109



VEHICLE/EQUIPMENT FLAG ②

NTS

NOTE:
MDE NO 17-SF-0057



NOTES:

1. THE COLOR OF THE CLOSED RUNWAY MARKING SHALL BE YELLOW.
2. THE CONTRACTOR MUST PROVIDE THE MATERIAL TYPE TO BE USED FOR THE YELLOW CLOSED RUNWAY MARKING TO THE CONTRACTING OFFICER FOR REVIEW.
3. THE CLOSED RUNWAY MARKING MUST BE PROPERLY CONFIGURED AND APPROPRIATELY SECURED TO PREVENT MOVEMENT.
4. PLACE CLOSED RUNWAY MARKING OVER RUNWAY DESIGNATION MARKINGS. COORDINATE PLACEMENT WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.

CLOSED RUNWAY MARKING DETAIL (RUNWAY CLOSED "X") ④

NTS G-101,G103

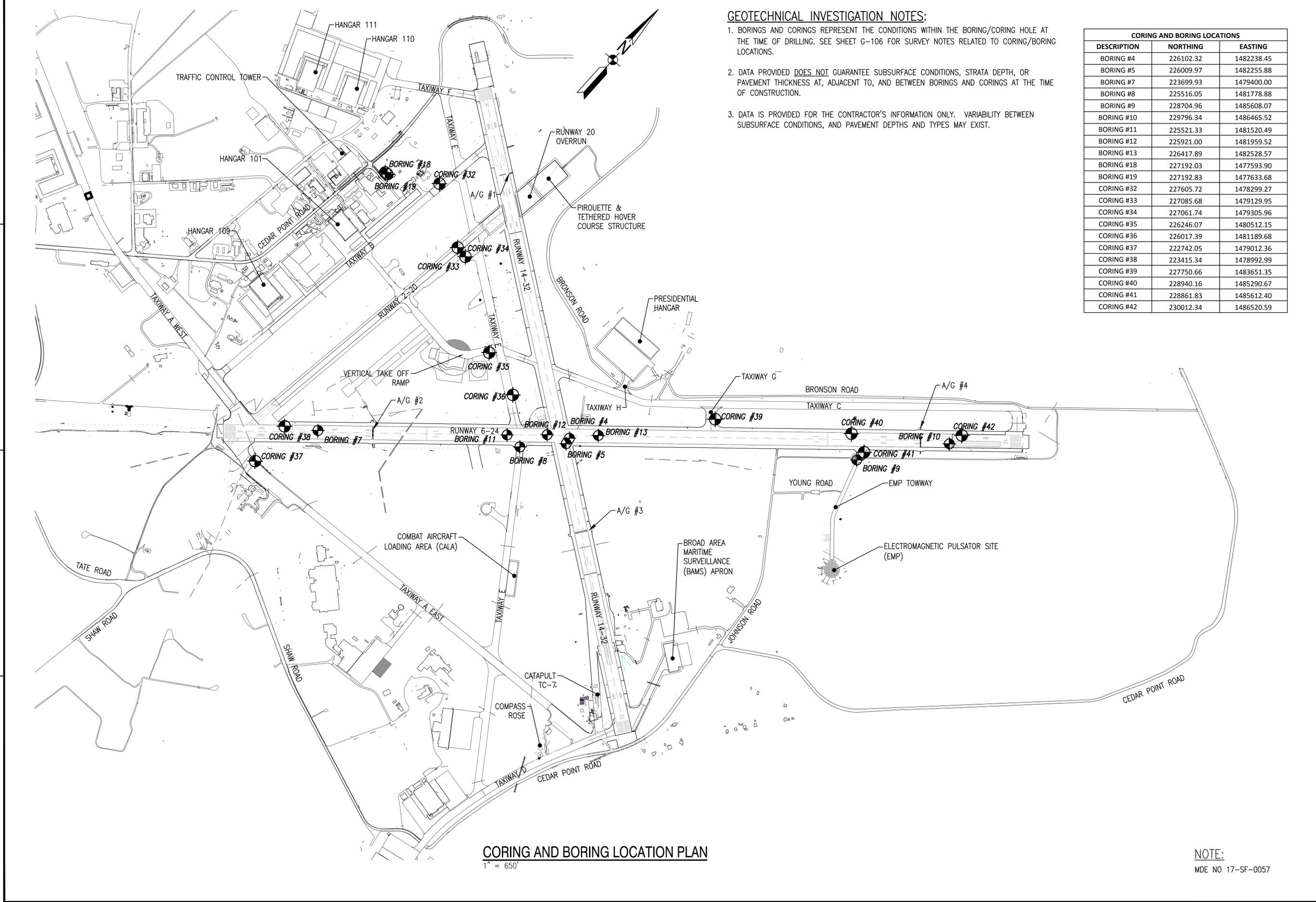
APPR	
DATE	
SYN	DESCRIPTION
<p>JOHNSON, MIRMIRAN & THOMPSON Gannett Fleming A Joint Venture 272 Bessie Road, Suite 260 Virginia Beach, Virginia 23452 Telephone: (757) 499-1895 Web: www.jmt.com</p>	
APPROVED	A/E: NFO
FOR COMMANDER NAVFAC:	
ACTIVITY:	
<p>JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016</p>	
DES	DFD DRW BAC CHK MJT
FM/DM	RH
BRANCH MANAGER	
CHIEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY	NAVFAC WASHINGTON
EPT BLUE	WASHINGTON, D.C.
NAVAL AIR STATION PATUXENT RIVER	PATUXENT RIVER, MARYLAND
<p>FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2</p>	
CONSTRUCTION SAFETY DETAILS	
SCALE:	AS NOTED
PROJECT NO.:	1382137
CONSTR. CONTR. NO.:	N40080-17-R-0002
NAVFAC DRAWING NO.:	13079873
SHEET	15 OF 191
G-501	
<small>DRAWING REVISION: 10 MARCH 2009</small>	

FILE NAME: G:\VHPA\10863_003_FY16_Repairs_Bermsys_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-R-001.dwg LAYOUT NAME: B-001 GEOTECHNICAL INVESTIGATION LOCATION PLAN PLOTTED: Monday, September 26, 2016 - 5:13pm USER: mosenro

GEOTECHNICAL INVESTIGATION NOTES:

1. BORINGS AND CORINGS REPRESENT THE CONDITIONS WITHIN THE BORING/CORING HOLE AT THE TIME OF DRILLING. SEE SHEET G-106 FOR SURVEY NOTES RELATED TO CORING/BORING LOCATIONS.
2. DATA PROVIDED DOES NOT GUARANTEE SUBSURFACE CONDITIONS, STRATA DEPTH, OR PAVEMENT THICKNESS AT, ADJACENT TO, AND BETWEEN BORINGS AND CORINGS AT THE TIME OF CONSTRUCTION.
3. DATA IS PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY. VARIABILITY BETWEEN SUBSURFACE CONDITIONS, AND PAVEMENT DEPTHS AND TYPES MAY EXIST.

CORING AND BORING LOCATIONS		
DESCRIPTION	NORTHING	EASTING
BORING #4	226102.32	1482238.45
BORING #5	226009.97	1482255.88
BORING #7	223699.93	1479400.00
BORING #8	225516.05	1481778.88
BORING #9	228704.96	1485608.07
BORING #10	229796.34	1486465.52
BORING #11	225521.33	1481520.49
BORING #12	225921.00	1481959.52
BORING #13	226417.89	1482528.57
BORING #18	227192.03	1477593.90
BORING #19	227192.83	1477633.68
CORING #32	227605.72	1478299.27
CORING #33	227085.68	1479129.95
CORING #34	227061.74	1479305.96
CORING #35	226246.07	1480512.15
CORING #36	226017.39	1481189.68
CORING #37	222742.05	1479012.36
CORING #38	223415.34	1478992.99
CORING #39	227750.66	1483651.35
CORING #40	228940.16	1485290.67
CORING #41	228861.83	1485612.40
CORING #42	230012.34	1486520.59



CORING AND BORING LOCATION PLAN
1" = 650'

NOTE:
MDE NO 17-SF-0057

APPROVED	DATE
FOR COMMANDER NAVFAC	ACTIVITY
JAMES FLETCHER PER CHECKLIST	SATISFACTORY TO DATE 9/27/2016
DES: DFD	DRW: BAC
CHK: MJT	FM/DM: RH
BRANCH MANAGER	CHEF ENG/ARCH: E. GALLAHER, PE
DEPARTMENT OF THE NAVY	NAVFAC WASHINGTON
NAVAL AIR STATION PATUXENT RIVER	PATUXENT RIVER, MARYLAND
FY16 SPECIAL PROJECT RM12-2137	REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2
GEOTECHNICAL INVESTIGATION LOCATION PLAN	
SCALE: AS NOTED	PROJECT NO.: 1382137
CONSTR. CONTR. NO. N40080-17-R-0002	NAVFAC DRAWING NO. 13079874
SHEET 16 OF 191	B-001

DRAWING REVISION: 10 MARCH 2009

FILE NAME: C:\PHFA\10863_009_FY16_Repair_Runways_CADD\Phase 2\GENERAL-CIVIL\Phase 2\10-0863-009-BB101.dwg LAYOUT NAME: BB101 BORING AND CORING DETAILS - SHEET 1 PLOTTED: Monday, September 26, 2016 - 2:41pm USER: mosesmca

CORING ID: C-32

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.7	8.75" ASPHALT (PAVING FABRIC 2.5" BELOW GRADE)	
0.6	7.5" CONCRETE	

CORING ID: C-33

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.9	11.25" ASPHALT (PAVING FABRIC 3.25" BELOW GRADE)	
0.9	10.5" CONCRETE	

CORING ID: C-34

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.2	2.75" ASPHALT	
0.9	11.25" CONCRETE (PAVING FABRIC AT TOP OF CONCRETE)	

CORING ID: C-35

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.4	3.75" ASPHALT	
0.5	6" CONCRETE	

CORING ID: C-36

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.4	3.75" ASPHALT (PAVING FABRIC 2" BELOW GRADE)	
0.8	10" CONCRETE	

CORING ID: C-37

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.2	14" CONCRETE	

CORING ID: C-38

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.1	13" CONCRETE	

CORING ID: C-39

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.6	7.75" ASPHALT	
0.8	10.25" CONCRETE	

CORING ID: C-40

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.6	7.75" ASPHALT	
0.8	10" CONCRETE (REINFORCED - REBAR AND WWF)	

CORING ID: C-41

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.5	5.5" ASPHALT	
0.4	5" CONCRETE	

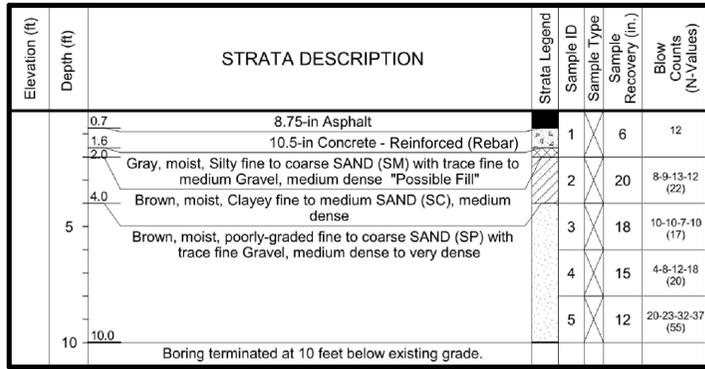
CORING ID: C-42

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.8	22" CONCRETE	

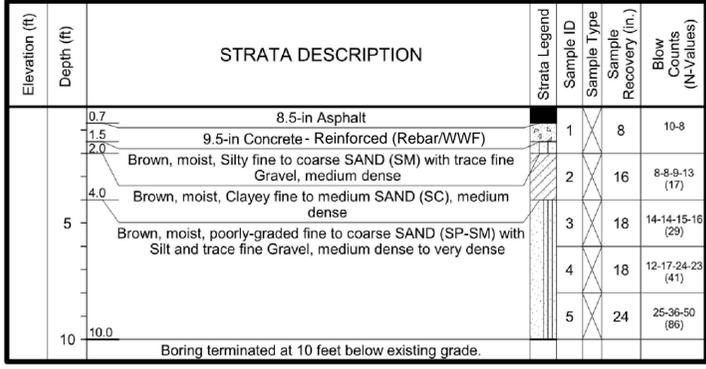
NOTE:
MDE NO 17-SF-0057

DATE	APPR
DESCRIPTION	DATE
SYN	DATE
SEAL JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Bendix Road, Suite 280 Virginia Beach, Virginia, 23452 Telephone: (757) 499-1895 Web: www.jmt.com	
APPROVED	A/E INFO
PER: COMMANDER NAVFAC ACTIVITY:	
JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE 9/27/2016 DES: DFD DRW: BAC CHK: MIT PM/DM: RH BRANCH MANAGER CHIEF ENG/ARCH: E. GALLAHER, PE	
DEPARTMENT OF THE NAVY NAVFAC WASHINGTON NAVFAC WASHINGTON PATUXENT RIVER, MARYLAND NAVAL AIR STATION PATUXENT RIVER FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 BORING AND CORING DETAILS - SHEET 1	
SCALE:	AS NOTED
PROJECT NO.:	1382137
CONSTR. CONTR. NO.:	N40080-17-R-0002
NAVFAC DRAWING NO.:	13079875
SHEET	17 OF 191
BB101	
<small>DRAWFORM REVISION: 10 MARCH 2009</small>	

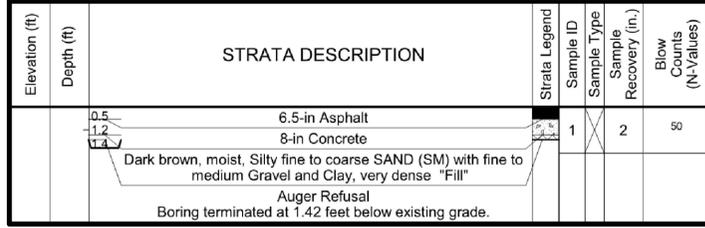
BORING ID: B-4



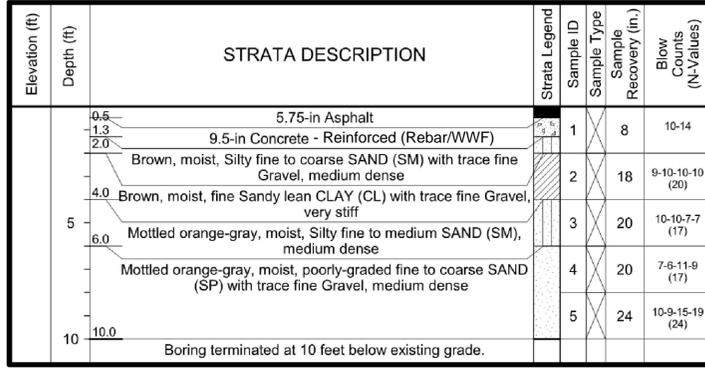
BORING ID: B-5



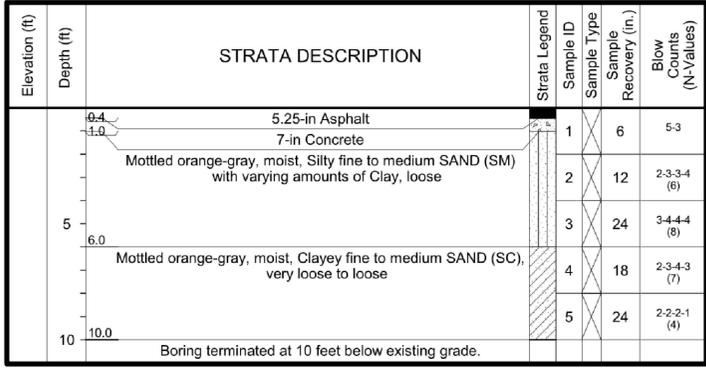
BORING ID: B-7



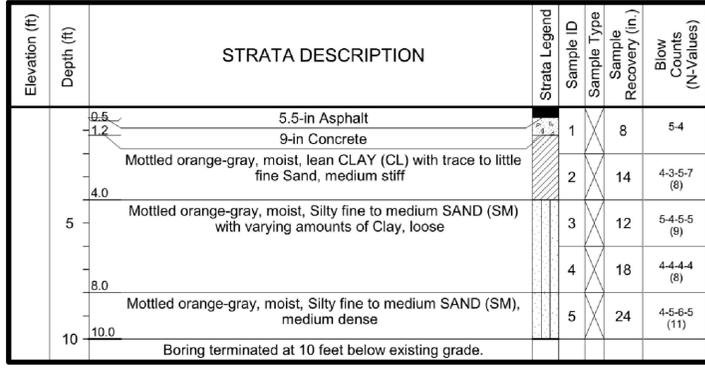
BORING ID: B-8



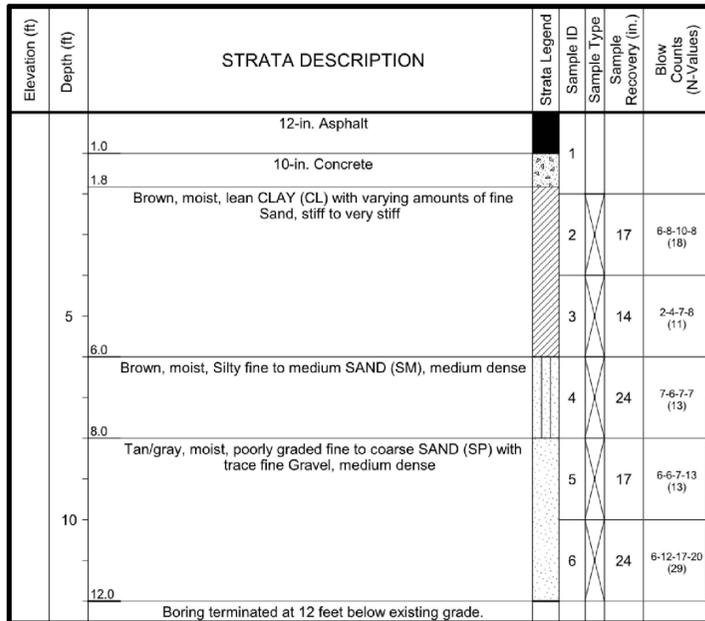
BORING ID: B-9



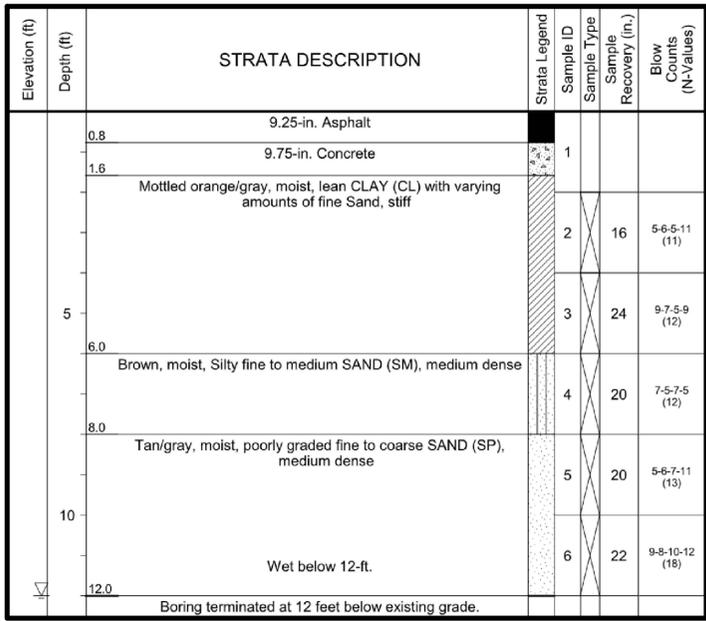
BORING ID: B-10



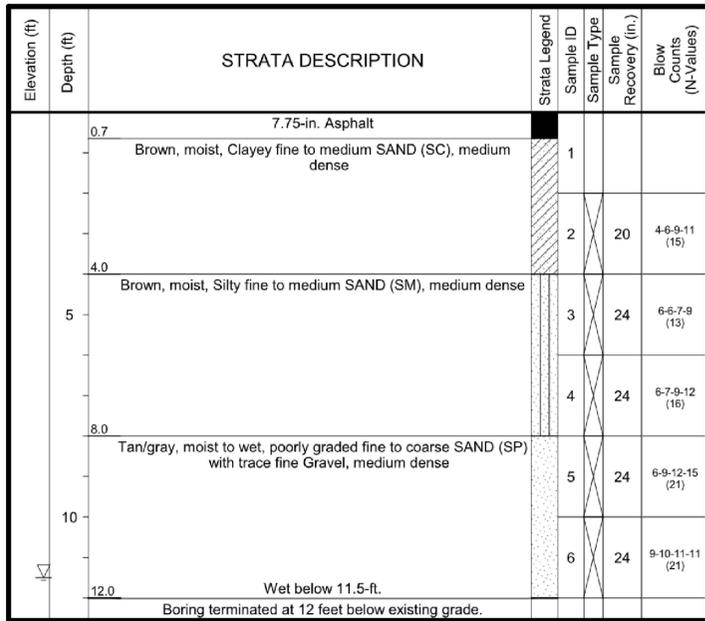
BORING ID: B-11



BORING ID: B-12



BORING ID: B-13



NOTE:
MDE NO 17-SF-0057

APPROVED: [Signature]

DATE: [Date]

DESCRIPTION: [Description]

SEALED: [Signature]

NAVAC

REGISTERED PROFESSIONAL ENGINEER
MARK J. TIGER
ENGINEER 041439-E
PENNSYLVANIA

JOHNSON, MIRIMIRAN & THOMPSON
Gannett Fleming
A Joint Venture
272 Bendix Road, Suite 200
Virginia Beach, Virginia, 23452
Telephone: (757) 499-1895
Web: www.jmt.com

APPROVED: [Signature]

PER: COMMANDER NAVAC

ACTIVITY: [Activity]

JAMES FLETCHER PER CHECKLIST
SATISFACTORY TO DATE: 9/27/2016

DES: DFD | DRAW: BAC | CHK: MIT

PM/DM: RH

BRANCH MANAGER: [Name]

CHIEF ENG/ARCH: E. GALLAHER, PE

DEPARTMENT OF THE NAVY
NAVAC WASHINGTON

NAVAC WASHINGTON
PATUXENT RIVER, MARYLAND
FY16 SPECIAL PROJECT RM12-2137
REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2
BORING AND CORING DETAILS - SHEET 2

SCALE: AS NOTED
PROJECT NO.: 1382137
CONSTR. CONTR. NO.: N40080-17-R-0002
NAVAC DRAWING NO.: 13079876
SHEET 18 OF 191
BB102

DRAWING REVISION: 10 MARCH 2009

FILE NAME: C:\PIPA\10863_009_FY16_Repair_Runways_CADD\Phase 2\GENERAL-CIVIL_Phase 2\10-0863-009-BB102.dwg LAYOUT NAME: BB102 BORING AND CORING DETAILS - SHEET 2 PLOTTED: Monday, September 26, 2016 - 2:43pm USER: mcsentz

BORING ID: B-18

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
15.0	15.0	Boring terminated at 15 feet below existing grade.					
	12.0	Orange/Tan, moist, poorly graded fine to coarse SAND (SP) with fine Gravel, loose to medium dense		1	24	2-3-6-9 (9)	
	10.0			2	16	5-4-6-8 (9)	
	8.0	Brown, moist, Silty fine to medium SAND (SM), loose		3	15	4-5-3-5 (9)	
	6.0			4	16	2-2-3-4 (9)	
	4.0			5	16	3-5-3-12 (14)	
	2.0			6	20	8-11-12-20 (23)	
	0.0	3-in. Topsoil Brown, moist, lean CLAY (CL) with varying amounts of fine Sand, stiff		7	5	8-13-15-19 (28)	

BORING ID: B-19

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
15.0	15.0	Boring terminated at 15 feet below existing grade.					
	12.0	Orange/Tan, moist, poorly graded fine to coarse SAND (SP) with fine Gravel, loose to dense		1	22	4-4-7-9 (13)	
	10.0			2	24	5-5-6-8 (11)	
	8.0	Brown, moist, Silty fine to medium SAND (SM), loose		3	22	7-5-5-3 (19)	
	6.0			4	20	2-3-3-5 (8)	
	4.0			5	24	2-4-6-7 (10)	
	2.0			6	2	11-21-21-23 (42)	
	0.0	2-in. Topsoil Brown, moist, Clayey fine to medium SAND (SC), medium dense		7	22	11-13-15-17 (28)	

FILE NAME: C:\PIPA\10863_009_FY16_Repair_Runways\CADD\Phase 2\GENERAL-CIVIL\Phase 2\10-0863-009-BB103.dwg LAYOUT NAME: BORING AND CORING DETAILS - SHEET 3 PLOTTED: Monday, September 26, 2016 - 2:42pm USER: mscosozz

NOTE:
MDE NO 17-SF-0057

  JOHNSON, MIRMIRAN & THOMPSON <i>Gannett Fleming</i> A Joint Venture 272 Bendix Road, Suite 200 Virginia Beach, Virginia, 23452 Telephone: (757) 499-1895 Web: www.jmt.com	APPROVED PER: COMMANDER NAVFAC ACTIVITY JAMES FLETCHER PER CHECKLIST SATISFACTORY TO DATE: 9/27/2016 DES: DFD DRW: BAC CHK: MJT PM/DM: RH BRANCH MANAGER CHIEF ENG/ARCH: E. GALLAHER, PE
DEPARTMENT OF THE NAVY NAVFAC WASHINGTON NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON, D.C. NAVAL AIR STATION PATUXENT RIVER PATUXENT RIVER, MARYLAND FY16 SPECIAL PROJECT RM12-2137 REPAIR RUNWAYS 14-32 & 6-24 - PHASE 2 BORING AND CORING DETAILS - SHEET 3	SCALE: AS NOTED PROJECT NO.: 1382137 CONSTR. CONTR. NO.: N40080-17-R-0002 NAVFAC DRAWING NO.: 13079877 SHEET 19 OF 191 BB103 <small>DRAWFORM REVISION: 10 MARCH 2009</small>