SPECIAL PROJECT RM10-9004

REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

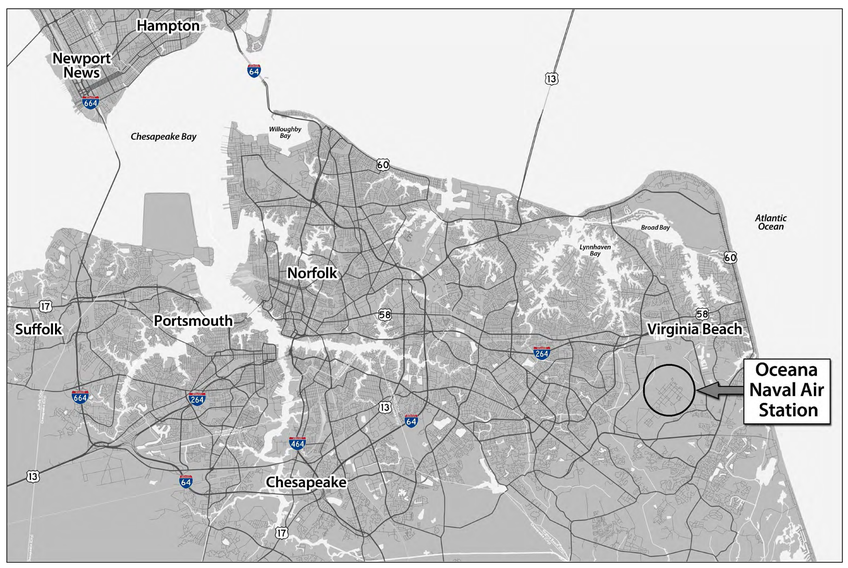
NAVAL AIR STATION OCEANA ◦ VIRGINIA BEACH, VIRGINIA

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

N62470-12-D-2010 ◦ W.O. WE02

FINAL PLAN SET

MARCH 24, 2015



VICINITY MAP

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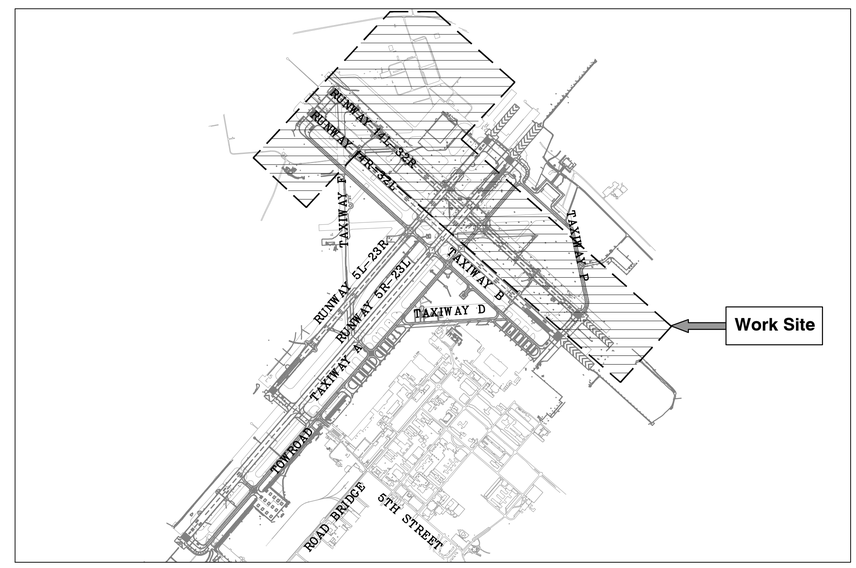

LOCATION MAP

N

JMT | Gannett Fleming
A Joint Venture

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
J.M. McDowell 24 MAR 2015
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
TITLE SHEET

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690012
SHEET 1 OF 315
G-001

DRAWFORM REVISION: 10 MARCH 2009

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29	C-104	12690040	EXISTING CONDITIONS AND EROSION CONTROL PLAN STA: 49+24 TO 63+14
30	C-105	12690041	EXISTING CONDITIONS AND EROSION CONTROL PLAN STA: 63+14 TO 77+04
31	C-106	12690042	EXISTING CONDITIONS AND EROSION CONTROL PLAN STA: 77+04 TO 90+95
32	C-107	12690043	EXISTING CONDITIONS AND EROSION CONTROL PLAN STA: 90+95 TO 104+85
33	C-108	12690044	EXISTING CONDITIONS AND EROSION CONTROL PLAN STA: 703+02 TO 711+38
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43	CD108	12690054	DEMOLITION PLAN STA: 56+19 TO 63+14
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57	CP102	12690068	CONSTRUCTION PLAN STA: 14+48 TO 21+44
58	CP103	12690069	CONSTRUCTION PLAN STA: 21+44 TO 28+39
59	CP104	12690070	CONSTRUCTION PLAN STA: 28+39 TO 35+34
60	CP105	12690071	CONSTRUCTION PLAN STA: 35+34 TO 42+29
61	CP106	12690072	CONSTRUCTION PLAN STA: 42+29 TO 49+24
62	CP107	12690073	CONSTRUCTION PLAN STA: 49+24 TO 56+19
63	CP108	12690074	CONSTRUCTION PLAN STA: 56+19 TO 63+14
64	CP109	12690075	CONSTRUCTION PLAN STA: 63+14 TO 70+09
65	CP110	12690076	CONSTRUCTION PLAN STA: 70+09 TO 77+04
66	CP111	12690077	CONSTRUCTION PLAN STA: 77+04 TO 83+99
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79	CG104	12690090	GRADING AND DRAINAGE PLAN STA: 28+39 TO 35+34
80	CG105	12690091	GRADING AND DRAINAGE PLAN STA: 35+34 TO 42+29
81	CG106	12690092	GRADING AND DRAINAGE PLAN STA: 42+29 TO 49+24
82	CG107	12690093	GRADING AND DRAINAGE PLAN STA: 49+24 TO 56+19
83	CG108	12690094	GRADING AND DRAINAGE PLAN STA: 56+19 TO 63+14
84	CG109	12690095	GRADING AND DRAINAGE PLAN STA: 63+14 TO 70+09
85	CG110	12690096	GRADING AND DRAINAGE PLAN STA: 70+09 TO 77+04
86	CG111	12690097	GRADING AND DRAINAGE PLAN STA: 77+04 TO 83+99
87	CG112	12690098	GRADING AND DRAINAGE PLAN STA: 83+99 TO 90+94
88	CG113	12690099	GRADING AND DRAINAGE PLAN STA: 90+94 TO 97+89
89	CG114	12690100	GRADING AND DRAINAGE PLAN STA: 97+89 TO 104+84
90	CG115	12690101	GRADING AND DRAINAGE PLAN STA: 199+67 TO 203+77
91	CG116	12690102	GRADING AND DRAINAGE PLAN STA: 506+86 TO 509+29
92	CG117	12690103	GRADING AND DRAINAGE PLAN STA: 500+00 TO 502+76
93	CG118	12690104	GRADING AND DRAINAGE PLAN STA: 701+85 TO 707+72
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95	CG120	12690106	GRADING AND DRAINAGE PLAN - INFIELD GRADING 1
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100	CG125	12690111	GRADING AND DRAINAGE PLAN - INFIELD GRADING 6
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108	C-207	12690119	CENTERLINE PROFILES - RW 32R HOLD AREA & TW P
109	C-208	12690120	DRAINAGE PROFILES
110	C-301	12690121	RUNWAY 14L-32R CROSS SECTIONS STA: 9+50 - 15+00
111	C-302	12690122	RUNWAY 14L-32R CROSS SECTIONS STA: 15+50 - 19+50
112	C-303	12690123	RUNWAY 14L-32R CROSS SECTIONS STA: 20+00 - 24+00
113	C-304	12690124	RUNWAY 14L-32R CROSS SECTIONS STA: 24+50 - 28+50
114	C-305	12690125	RUNWAY 14L-32R CROSS SECTIONS STA: 29+00 - 33+00
115	C-306	12690126	RUNWAY 14L-32R CROSS SECTIONS STA: 33+50 - 39+00
116	C-307	12690127	RUNWAY 14L-32R CROSS SECTIONS STA: 39+50 - 45+00
117	C-308	12690128	RUNWAY 14L-32R CROSS SECTIONS STA: 45+50 - 49+50
118	C-309	12690129	RUNWAY 14L-32R CROSS SECTIONS STA: 50+00 - 54+00
119	C-310	12690130	RUNWAY 14L-32R CROSS SECTIONS STA: 54+50 - 58+50
120	C-311	12690131	RUNWAY 14L-32R CROSS SECTIONS STA: 59+00 - 63+00
121	C-312	12690132	RUNWAY 14L-32R CROSS SECTIONS STA: 63+50 - 67+50
122	C-313	12690133	RUNWAY 14L-32R CROSS SECTIONS STA: 68+00 - 73+50
123	C-314	12690134	RUNWAY 14L-32R CROSS SECTIONS STA: 74+00 - 79+50
124	C-315	12690135	RUNWAY 14L-32R CROSS SECTIONS STA: 80+00 - 85+50
125	C-316	12690136	RUNWAY 14L-32R CROSS SECTIONS STA: 86+00 - 91+50
126	C-317	12690137	RUNWAY 14L-32R CROSS SECTIONS STA: 92+00 - 96+00
127	C-318	12690138	RUNWAY 14L-32R CROSS SECTIONS STA: 96+50 - 100+50
128	C-319	12690139	RW 14L HOLD AREA CROSS SECTIONS STA: 201+00 - 204+50
129	C-320	12690140	RW 14L HOLD AREA CROSS SECTION STA: 205+00
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132	C-323	12690143	TAXIWAY A CROSS SECTIONS STA: 501+00 - 506+50
133	C-324	12690144	TAXIWAY A CROSS SECTIONS STA: 507+00 - 509+00
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135	C-326	12690146	TAXIWAY P CROSS SECTIONS STA: 700+50 - 704+50
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137	C-402	12690148	AIRFIELD MARKING AND STRIPING PLAN STA: 21+45 - 35+24
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139	C-404	12690150	AIRFIELD MARKING AND STRIPING PLAN STA: 49+23 - 63+14
140	C-405	12690151	AIRFIELD MARKING AND STRIPING PLAN STA: 63+14 - 77+04
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175	A-401	12690186	VAULT E-145 - FLOOR & ROOF PLAN
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SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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ACTIVITY

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DES MJT DRW DFD CHK ELO

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DEPARTMENT OF THE NAVY
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SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DRAWING INDEX – SHEET 1

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690013
SHEET 2 OF 315

G-002

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-C-002.dwg LAYOUT NAME: G-002 PLOTTED: Monday, March 23, 2015 - 5:22pm USER: jgeorge

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193	ED104	12690204	PARTIAL SITE PLAN - DEMOLITION
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195	ED106	12690206	PARTIAL SITE PLAN - DEMOLITION
196	ED107	12690207	PARTIAL SITE PLAN - DEMOLITION
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224	EA505	12690235	ELECTRICAL DETAILS
225	EA506	12690236	ELECTRICAL DETAILS
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243	EA704	12690254	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
244	EA705	12690255	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
245	EA706	12690256	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
246	EA707	12690257	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
247	EA708	12690258	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
248	EA709	12690259	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
249	EA710	12690260	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
250	EA711	12690261	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
251	EA712	12690262	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
252	EA713	12690263	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
253	EA714	12690264	HANDHOLE & MANHOLE DIAGRAMS - AIRFIELD LTG.
254	EA715	12690265	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
255	EA716	12690266	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
256	EA717	12690267	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
257	EA718	12690268	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
258	EA719	12690269	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
259	EA720	12690270	HANDHOLE & MANHOLE DIAGRAMS - ELECTRIC
260	EA721	12690271	HANDHOLE & MANHOLE DIAGRAMS - COMM.
261	EA722	12690272	HANDHOLE & MANHOLE DIAGRAMS - COMM.
262	EA723	12690273	HANDHOLE & MANHOLE DIAGRAMS - COMM.
263	EA724	12690274	HANDHOLE & MANHOLE DIAGRAMS - COMM.
264	EA725	12690275	HANDHOLE & MANHOLE DIAGRAMS - COMM.
265	EA726	12690276	HANDHOLE & MANHOLE DIAGRAMS - COMM.
266	EA727	12690277	HANDHOLE & MANHOLE DIAGRAMS - COMM.
267	EA728	12690278	HANDHOLE & MANHOLE DIAGRAMS - COMM.
268	EA729	12690279	HANDHOLE & MANHOLE DIAGRAMS - COMM.
269	EA730	12690280	HANDHOLE & MANHOLE DIAGRAMS - COMM.
270	EA731	12690281	HANDHOLE & MANHOLE DIAGRAMS - COMM.
271	EA801	12690282	DUCTBANK ALIGNMENTS
272	EA802	12690283	DUCTBANK PROFILES
273	EA803	12690284	DUCTBANK PROFILES
274	EA804	12690285	DUCTBANK PROFILES
275	EA805	12690286	DUCTBANK PROFILES
276	EA806	12690287	DUCTBANK PROFILES
277	EA807	12690288	DUCTBANK PROFILES
278	EA808	12690289	DUCTBANK PROFILES
279	EA809	12690290	DUCTBANK PROFILES
280	EA810	12690291	DUCTBANK PROFILES
281	EA811	12690292	DUCTBANK PROFILES
282	EA812	12690293	DUCTBANK PROFILES
283	ES101	12690294	PARTIAL SITE PLAN - SIGNAGE
284	ES102	12690295	PARTIAL SITE PLAN - SIGNAGE
285	ES103	12690296	PARTIAL SITE PLAN - SIGNAGE
286	ES104	12690297	PARTIAL SITE PLAN - SIGNAGE
287	ES105	12690298	PARTIAL SITE PLAN - SIGNAGE
288	ES106	12690299	PARTIAL SITE PLAN - SIGNAGE
289	ES108	12690300	PARTIAL SITE PLAN - SIGNAGE
290	ES110	12690301	PARTIAL SITE PLAN - SIGNAGE
291	ES501	12690302	ELECTRICAL SIGN DETAILS
292	ES601	12690303	AIRFIELD SIGN SCHEDULES
293	E-401	12690304	VAULT E-145 - LIGHTING PLAN
294	E-402	12690305	VAULT E-145 - POWER PLAN
295	E-403	12690306	VAULT E-145 - SITE PLAN POWER AND GROUNDING
296	E-404	12690307	VAULT E-3036 - SITE PLAN POWER
297	E-405	12690308	VAULT E-3015 - SITE PLAN POWER AND GROUNDING
298	E-406	12690309	VAULT E-3015 - POWER AND LIGHTING PLAN
299	E-501	12690310	ELECTRICAL DETAILS
300	E-502	12690311	ELECTRICAL DETAILS
301	E-503	12690312	ELECTRICAL DETAILS
302	E-504	12690313	ELECTRICAL VAULTS PORTABLE LIFTS
303	E-601	12690314	VAULT E-145 - ONE LINE DIAGRAM
304	E-602	12690315	VAULT E-3015 - ONE LINE DIAGRAM
305	E-603	12690316	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
306	E-604	12690317	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
307	E-605	12690318	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
308	E-606	12690319	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
309	E-607	12690320	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
310	E-608	12690321	VAULT E-145 - PANEL SCHEDULES
311	E-609	12690322	VAULT E-3015 - SCHEDULES
312	E-610	12690323	AIRFIELD LIGHTING VAULTS - LIGHT FIXTURE SCH.
313	E-901	12690324	PHOTO SHEET
314	E-902	12690325	PHOTO SHEET
315	E-903	12690326	PHOTO SHEET

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BVL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DRAWING INDEX – SHEET 2

SCALE: NONE

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

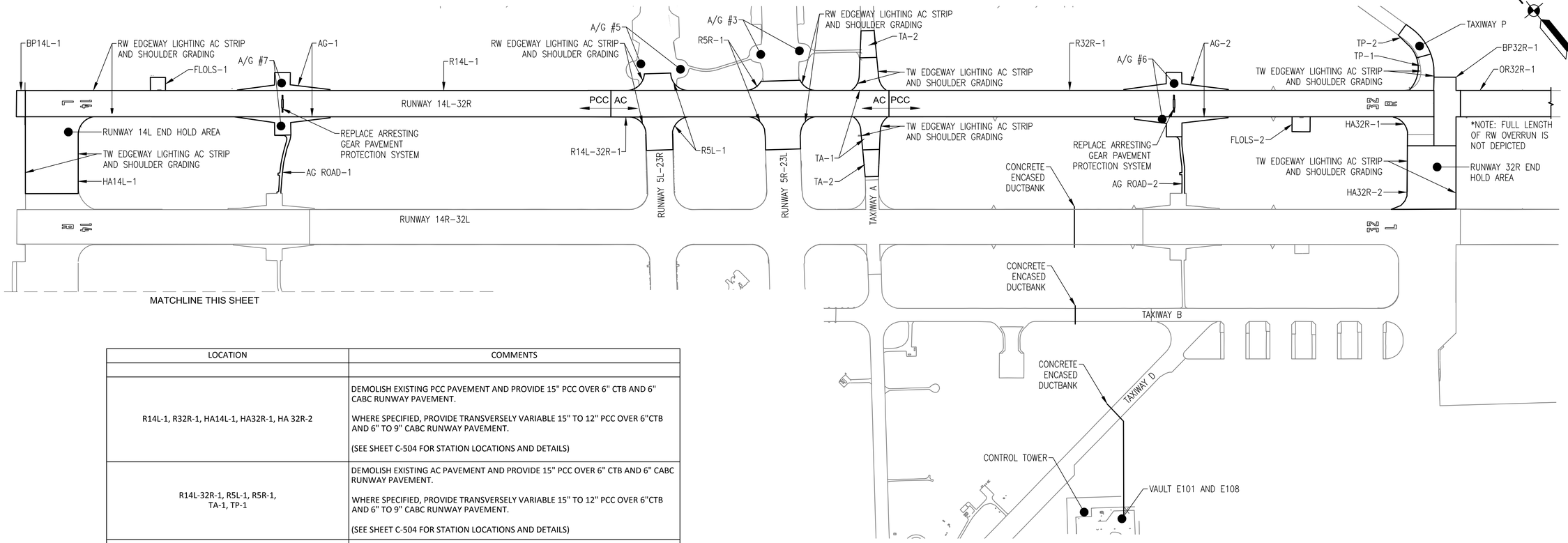
NAVFAC DRAWING NO.
12690014

SHEET 3 OF 315

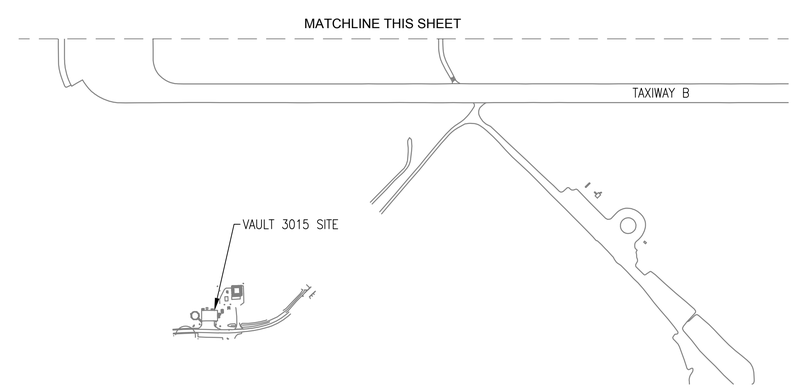
G-003

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-G-003.dwg LAYOUT NAME: G-002 PLOTTED: Monday, March 23, 2015 - 5:22pm USER: jpeorge



LOCATION	COMMENTS
R14L-1, R32R-1, HA14L-1, HA32R-1, HA 32R-2	DEMOLISH EXISTING PCC PAVEMENT AND PROVIDE 15" PCC OVER 6" CTB AND 6" CABC RUNWAY PAVEMENT. WHERE SPECIFIED, PROVIDE TRANSVERSELY VARIABLE 15" TO 12" PCC OVER 6"CTB AND 6" TO 9" CABC RUNWAY PAVEMENT. (SEE SHEET C-504 FOR STATION LOCATIONS AND DETAILS)
R14L-32R-1, R5L-1, R5R-1, TA-1, TP-1	DEMOLISH EXISTING AC PAVEMENT AND PROVIDE 15" PCC OVER 6" CTB AND 6" CABC RUNWAY PAVEMENT. WHERE SPECIFIED, PROVIDE TRANSVERSELY VARIABLE 15" TO 12" PCC OVER 6"CTB AND 6" TO 9" CABC RUNWAY PAVEMENT. (SEE SHEET C-504 FOR STATION LOCATIONS AND DETAILS)
RW EDGEWAY LIGHTING AC STRIP AND SHOULDER GRADING	PROVIDE 4 FT WIDE PAVED RUNWAY SHOULDERS, 3" AC, 12" RCC AND REGRADE REMAINING SHOULDER BACK 20 FT (MIN) FROM RUNWAY EDGE
TW EDGEWAY LIGHTING AC STRIP AND SHOULDER GRADING	PROVIDE 4 FT WIDE PAVED TAXIWAY SHOULDERS, 3" AC, 12" RCC AND REGRADE REMAINING SHOULDER BACK 20 FT (MIN) FROM TAXIWAY EDGE
TA-2, TP-2	CONSTRUCT 2" AC TAXIWAY PAVEMENT OVERLAY. MILL PAVEMENT AND PROVIDE LEVELING AND SURFACE TO MEET FINAL GRADES. PROVIDE FULL DEPTH AC PAVEMENT WIDENING
INFIELD GRADING (NOT SHOWN)	GRADE INFIELD AREA TO ACCOMMODATE PAVED AND UNPAVED SHOULDER MODIFICATIONS
OR32R-1	CONSTRUCT VARIABLE AC PAVEMENT OVERLAY. MILL PAVEMENT AND PROVIDE LEVELING AND SURFACE TO MEET FINISHED GRADES
BP14L-1, BP32R-1	DEMOLISH EXISTING PCC PAVEMENT AND PROVIDE 9" PCC OVER 6" CTB, 6" CABC
HA32R-2	PROVIDE PCC PAVEMENT REPAIRS
IDLE PAVEMENT REMOVAL (NOT SHOWN)	REMOVE IDLE PAVEMENTS AND BACKFILL AS NECESSARY TO MEET FINAL GRADES
PAVEMENT MARKINGS	PREPARE SURFACE AND STRIPE ALL PAVEMENT MARKINGS AS SHOWN ON PLANS
A/G-1, A/G-2	CONSTRUCT 2" AC PAVEMENT OVERLAY OF A/G PAVEMENT AREA. MILL PAVEMENT AND PROVIDE LEVELING AND SURFACE TO MEET FINAL GRADES. PROVIDE 2 FT AC PAVEMENT WIDENING OF A/G TAPE SWEEP AREA
REPLACE ARRESTING GEAR PAVEMENT PROTECTION SYSTEM	REMOVE EXISTING PAVEMENTS AND PROVIDE PCC PAVEMENT FOR STEEL PLATE PROTECTION SYSTEM (ARRESTING GEAR No. 6 AND No. 7)
AG ROAD-1, AG ROAD-2, FLOLS-1, FLOLS-2	SEAL CRACKS AND APPLY FOG SEAL TO EXISTING AC PAVEMENT
SKEET RANGE ROAD (NOT SHOWN)	MILL AND OVERLAY ROAD AFTER USE AS HAUL ROUTE
OCEANA BLVD ACCESS ROAD (NOT SHOWN)	MILL AND OVERLAY ROAD AFTER USE AS HAUL ROUTE



WORK SCHEMATIC PLAN

1" = 300'

GRAPHIC SCALE

1"=300' 0 300' 600' 1200'

SYM	DESCRIPTION	DATE	APPR

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PM/DM

BRANCH MANAGER

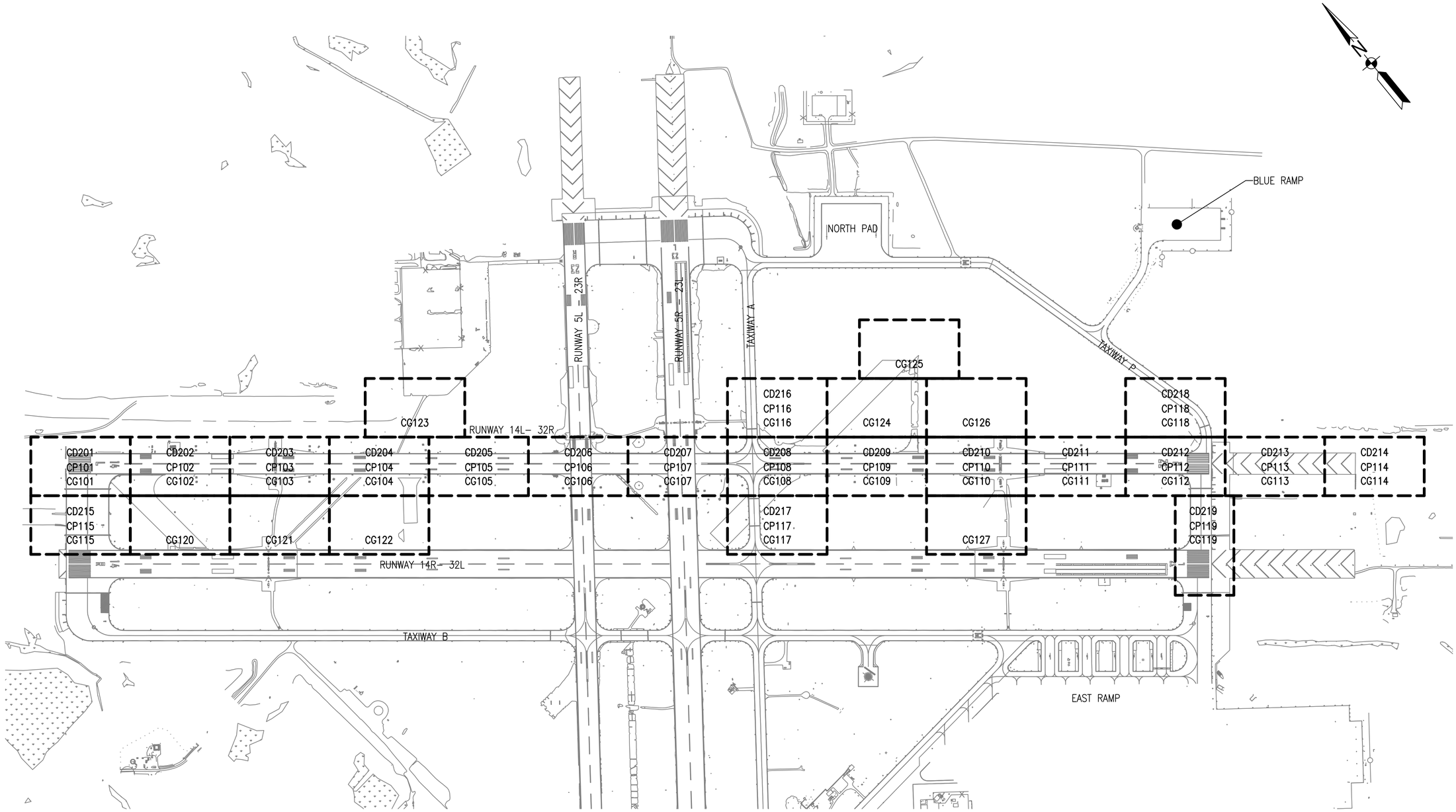
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
WORK SCHEMATIC

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690015
SHEET 4 OF 315
G-004

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-G-004.dwg LAYOUT NAME: G-004 PLOTTED: Monday, March 23, 2015 - 5:23pm USER: jgeorge



SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

DES	MJT	DRW	DFD	CHK	ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HIR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

CIVIL SITE KEY MAP

SCALE: 1" = 350'
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690016
SHEET 5 OF 315

G-005

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-G-005.dwg LAYOUT NAME: G-005 PLOTTED: Monday, March 23, 2015 - 5:24pm USER: jgeorge

LEGEND

PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 5
PHASE 6

ACCESS AND HAUL ROUTE

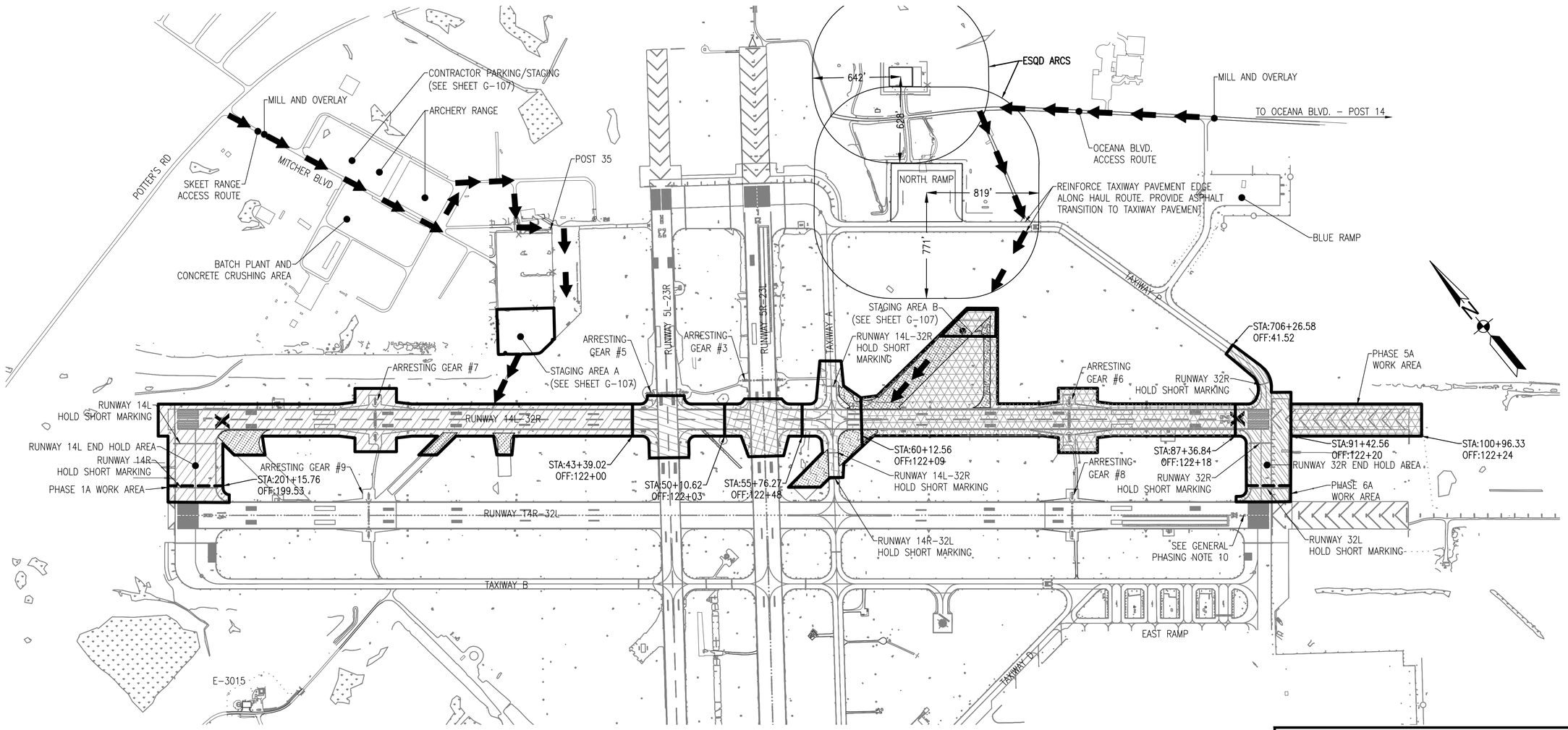
GENERAL PHASING NOTES

1. WORK WITHIN THE RUNWAY 14R HOLD BARS SHALL BE DONE AS A NIGHT-TIME SUBPHASE WHILE RUNWAY 14R-32L IS CLOSED.
2. STAGING AREA A SHALL BE USED FOR PHASES 1 AND 2; STAGING AREA B SHALL BE USED FOR PHASES 3 THRU 6.
3. PHASES 1 AND 1A MUST BE SEQUENCED TO MAINTAIN RUNWAY 14R OR 14L OPEN.
4. PHASES 1 AND 2 CAN BE CONSTRUCTED CONCURRENTLY.
5. PHASE 2 CAN BEGIN IN ADVANCE OF THE PHASE 1 FINISH, SUBJECT TO NTP FOR PHASE 2.
6. PHASES 3 AND 5 CAN BE CONSTRUCTED CONCURRENTLY.
7. PHASE 6 AND 6A MUST BE SEQUENCED TO MAINTAIN RUNWAY 14R OR 14L OPEN.
8. PHASE 5A MUST BEGIN EARLY IN THE PHASING TO ALLOW ON-SITE USE OF MILLED MATERIAL.
9. PHASE 2 MUST BE COMPLETED AND ACCEPTED BY THE CONTRACTING OFFICER BEFORE PHASE 3 STARTS.
10. FOR PHASES 1A AND 6A, THE RUNWAY CLOSURE MARKERS WILL BE AT THE RUNWAY 14R AND 32L DESIGNATION MARKINGS.
11. RM10-9004 PHASING SHALL BE SCHEDULED TO ACCOUNT FOR RM12-0469 PHASING. RUNWAY 14L-32R CLOSURES AND PHASES SHALL HAVE PRIORITY OVER RM12-0469 PHASE 1 WORK AREAS.
12. IF NTP IS ISSUED IN FALL 2015, CONTRACTOR MAY ELECT TO PERFORM PHASE 5 AS FIRST WORK AREA, DEPENDENT ON WEATHER FAVORABLE FOR PAVING OPERATIONS; COORDINATE WITH CONTRACTING OFFICER. PHASE 4 SHALL BE PERFORMED CONCURRENTLY WITH PHASE 5.
13. SEE SHEET G-109 FOR SAFETY ITEM DETAILS.
14. SEE SHEET G-110 FOR STAGING AREA LAYOUTS.
15. PHASING SEQUENCE MAY BE REVISED, AS DIRECTED BY CONTRACTING OFFICER, BASED ON TIME-OF-YEAR THAT NTP IS ISSUED. RUNWAY-RUNWAY INTERSECTIONS SHALL BE BUILT DURING FAVORABLE WEATHER CONDITIONS.

RUNWAY/TAXIWAY CLOSURE SCHEDULE

	RUNWAYS				TAXIWAYS				COMMENTS
PHASE	14L	14R	5L	5R	14L HA	A	32R HA	P	
1	C	O	O	O	C	O	O	O	20-WEEK DURATION
1A	O	C	O	O	O	O	O	O	WORK AT 14R HOLD BAR
2	C	O	C	O	O	O	O	O	10-WEEK DURATION
3	C	O	O	C	O	O	O	O	11 WEEK DURATION
4	C	O	O	O	O	C	O	O	8-WEEK DURATION
5	C	O	O	O	O	O	O	O	14-WEEK DURATION
5A	C	O	O	O	O	O	O	O	WORK AT 32R OVERRUN
6	C	O	O	O	O	O	C	C	8-WEEK DURATION
6A	O	C	O	O	O	O	C	O	WORK AT 32L HOLD BAR

C = CLOSED O = OPEN



GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

APPR	DATE	DESCRIPTION	SYM

NAVFAC

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CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OVERALL PROJECT PHASING

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690017
SHEET 6 OF 315
G-101

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-101.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 5:25pm USER: jgeorge

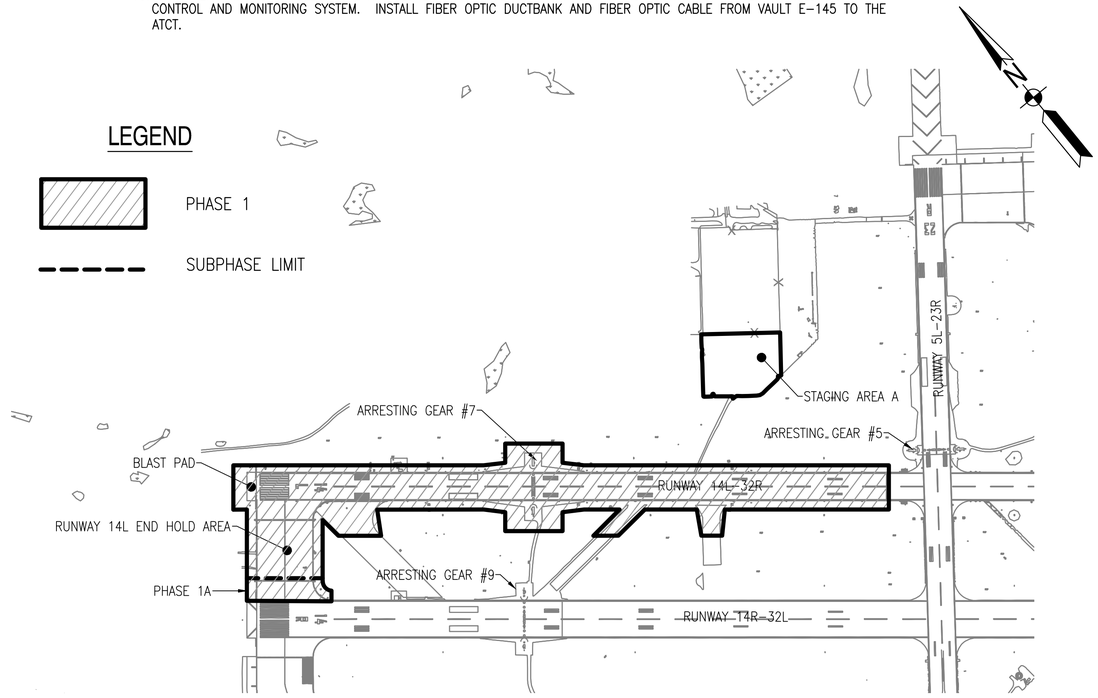
PHASE 1 (RUNWAY 14L–32R CLOSED)

1. MOBILIZE TO PROJECT SITE. ESTABLISH STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO SKEET RANGE ACCESS ROUTE. REINFORCE HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED. ESTABLISH SURVEY CONTROL AND BASELINES.
2. INSTALL EROSION CONTROL MEASURES. ESTABLISH TEMPORARY CONSTRUCTION PROVISIONS FOR EXTENDED RUNWAY 14L–32R CLOSURE (TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
3. REMOVE R14L–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM STA 10+00 TO THE PCC–AC TRANSVERSE JOINT (APPROX. STA 43+25), AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
4. REMOVE HA14L–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM RW 14L–32R EDGE TO IDENTIFIED PAVEMENT JOINT, AND AT FULL HOLD APRON WIDTH. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX. STA 200+90). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE BP14L–1 CONCRETE PAVEMENT TO FULL DEPTH FROM APPROX. STA 09+50 TO STA 10+00.
6. REMOVE R14L–32R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM THE PCC–AC TRANSVERSE JOINT (APPROX. STA 43+25) TO APPROX STA 43+39, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
7. MILL ARRESTING GEAR #7 ASPHALT PAVEMENTS TO 2" DEPTH. SEAL CRACKS. PROVIDE A/G PAVEMENT WIDENING AS IDENTIFIED. CONSTRUCT 2" DEPTH ASPHALT OVERLAY AT ARRESTING GEAR MILLED AREAS AND AT ASPHALT WIDENING. COORDINATE A/G PAVING WITH R14L–1 CONCRETE PLACEMENT AT RUNWAY EDGES.
8. REMOVE IDENTIFIED IDLE PAVEMENT AREAS ADJACENT TO RUNWAY 14L–32R.
9. IDENTIFY AND LOCATE EXISTING TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE. RECONSTRUCT SUBDRAINS AS DETAILED.
10. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
11. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
12. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY AND TAXIWAY EDGE LIGHTS. REMOVE RUNWAY THRESHOLD LIGHTS, WAVEOFF LIGHTS, POWER FOR OLS AND RUNWAY AND TAXIWAY GUIDANCE SIGNS AND ASSOCIATED FOUNDATIONS. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES AND DUCTBANKS ASSOCIATED WITH THE AIRFIELD LIGHTING SYSTEM AND COMPONENTS. DISPOSE OF ALL ELECTRICAL EQUIPMENT PER FEDERAL, STATE AND LOCAL CODES EXCEPT FOR TAXIWAY EDGE LIGHTS AND ISOLATION TRANSFORMERS. THE TAXIWAY EDGE LIGHTS SHALL BE RE–INSTALLED AND THE TAXIWAY ISOLATION TRANSFORMERS SHALL BE TURNED OVER TO ELECTRICAL MAINTENANCE.
13. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L END, STA 10+00 TO STA 43+50. CONSTRUCT CONCRETE PAVEMENT FOR HOLD AREA. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
14. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, THRESHOLD LIGHTS, ELEVATED AND IN–PAVEMENT RUNWAY GUARD LIGHTS, WAVE–OFF LIGHTS, POWER FOR OLS, BATTERY CHARGER FOR ARRESTING GEAR #7, AND TAXIWAY AND RUNWAY SIGNS AND FOUNDATIONS. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. RE–INSTALL SALVAGED TAXIWAY EDGE LIGHTS ON NEW BASE–CANS. INSTALL HANDHOLES, MANHOLES AND DUCTBANKS WITHIN THE PHASING LIMITS.
15. BEGIN RENOVATIONS OF ELECTRICAL AIRFIELD LIGHITNG VAULT E–145 AND THE INSTALLATION OF A NEW AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM. INSTALL FIBER OPTIC DUCTBANK AND FIBER OPTIC CABLE FROM VAULT E–145 TO THE ATCT.

LEGEND

PHASE 1

SUBPHASE LIMIT



GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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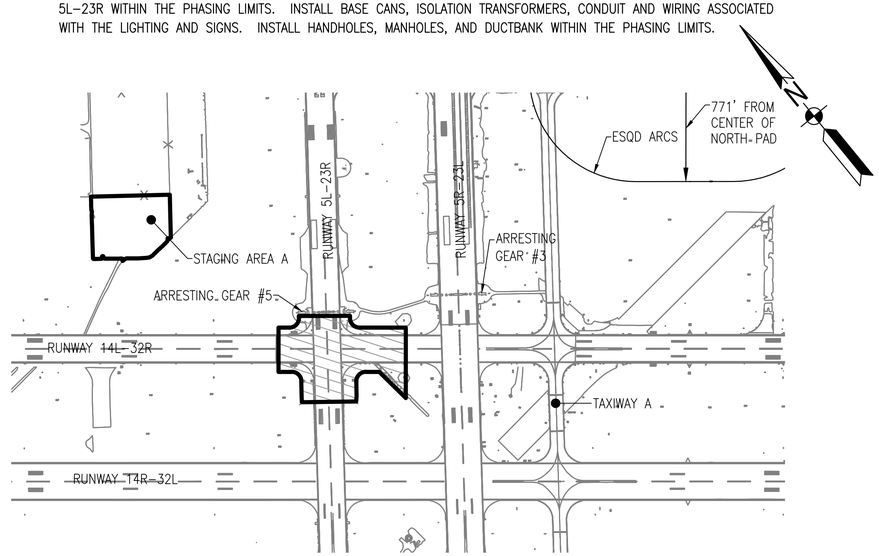
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PROJECT PHASING – PHASE 1

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690018
SHEET 7 OF 315
G-102
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 0077\GENERAL-CIVIL\10-0683-007-G-102.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 5:26pm USER: jgeorge

PHASE 2 (RUNWAY 14L–32R CLOSED, RUNWAY 5L–23R CLOSED)

1. MOBILIZE TO PHASE 2 WORK AREA. USE STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO SKEET RANGE ACCESS ROUTE (KNOWN AS STAGING AREA A AND SET UP IN PHASE 1). MAINTAIN HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED. MAINTAIN SURVEY CONTROL AND BASELINES.
2. INSTALL EROSION CONTROL MEASURES FOR PHASE 2. MAINTAIN EROSION CONTROL MEASURES FOR PHASE 2. MAINTAIN TEMPORARY CONSTRUCTION PROVISIONS OF PHASE 1 FOR EXTENDED RUNWAY 14L–32R CLOSURE. INSTALL TEMPORARY CONSTRUCTION MEASURES FOR PHASE 2 (RUNWAY 14L – RUNWAY 5L INTERSECTION CLOSED, TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
3. REMOVE R14L–32R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX. STA 43+39 TO APPROX. STA 50+11, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
4. REMOVE R5L–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX. RW 5L STA 300+35 TO THE SOUTH RUNWAY 14L–32R EDGE, AND AT 150' WIDE. REMOVE R5L–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM THE NORTH RUNWAY 14L–32R EDGE TO THE EXISTING CONCRETE PAVEMENT LIMIT (APPROX RW 5L STA 304+70), AND AT 150' WIDE. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX RW 5L STA 300+35 AND STA 304+70). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE IDENTIFIED IDLE PAVEMENT AREAS ADJACENT TO RUNWAY 14L–32R.
6. ESTABLISH GEOMETRY TO CONSTRUCT THE RUNWAY PAVING LIMITS AT THE FOUR CORNERS OF THE RUNWAY 14L – RUNWAY 5L INTERSECTION. PROVIDE PAVEMENT WIDENING AS SURVEYED.
7. IDENTIFY AND LOCATE TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE.
8. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
9. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
10. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY EDGE LIGHTS AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. ALSO REMOVE ALL RUNWAY EDGE LIGHTS AND RUNWAY GUIDANCE SIGNS ON RUNWAY 5L–23R WITHIN THE PHASING LIMITS. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING, ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES, AND DUCTBANKS ASSOCIATED WITH AIRFIELD LIGHTING EQUIPMENT WITHIN THE PHASING LIMITS. MAINTAIN CANS, CABLE, AND CONDUIT FOR LIGHTING CIRCUITS THAT CROSS THE PHASING LIMITS, BUT STAY IN SERVICE WHILE RM10–9004 WORK IS UNDERWAY.
11. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L STA 43+39 TO STA 50+11. CONSTRUCT CONCRETE PAVEMENT R5L–1. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
12. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. ALSO INSTALL ALL RUNWAY EDGE LIGHTS AND GUIDANCE SIGNS ON RUNWAY 5L–23R WITHIN THE PHASING LIMITS. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. INSTALL HANDHOLES, MANHOLES, AND DUCTBANK WITHIN THE PHASING LIMITS.



LEGEND

PHASE 2

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BVL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PROJECT PHASING – PHASE 2

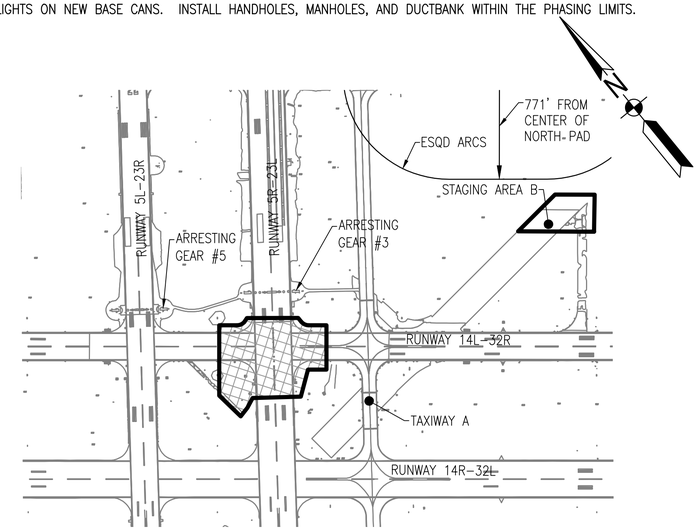
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690019
SHEET 8 OF 315
G-103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-103.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 5:27pm USER: jpeorge

PHASE 3 (RUNWAY 14L–32R CLOSED, RUNWAY 5R–23L CLOSED)

1. MOBILIZE TO STAGING AREA B. ESTABLISH STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO ACCESS AND HAUL ROUTE FROM OCEANA BLVD. REINFORCE HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED.
2. MOBILIZE TO PHASE 3 WORK AREA. ESTABLISH SURVEY CONTROL AND BASELINES.
3. INSTALL EROSION CONTROL MEASURES FOR PHASE 3. MAINTAIN EROSION CONTROL MEASURES FOR PHASES 1 AND 2.
4. MAINTAIN TEMPORARY CONSTRUCTION PROVISIONS OF PHASE 1 FOR EXTENDED RUNWAY 14L–32R CLOSURE. INSTALL TEMPORARY CONSTRUCTION MEASURES FOR PHASE 3 (RUNWAY 14L – RUNWAY 5R INTERSECTION CLOSED, TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
5. PROTECT ARRESTING GEAR #3 EQUIPMENT AND ASPHALT PAVEMENT. PROTECT CONCRETE PAVEMENT TO REMAIN, UPSTATION FROM RUNWAY 5R–23L TRANSVERSE AC–PCC PAVING JOINT.
6. REMOVE R14L–32R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX. STA 50+10 TO APPROX. STA 55+75, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
7. REMOVE R5R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX. RW 5R STA 400+39 TO THE SOUTH RUNWAY 14L–32R EDGE, AND AT 150' WIDE. REMOVE R5R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM THE NORTH RUNWAY 14L–32R EDGE TO THE EXISTING CONCRETE PAVEMENT LIMIT (APPROX. RW 5R STA 404+45), TO APRROX. STA 404+29, AND AT 150' WIDE). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE R5R–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM APPROX. RW 5R STA 404+29 TO TO APPROX. STA 404+44, AND AT 150' WIDE. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
6. REMOVE IDENTIFIED IDLE PAVEMENT AREAS ADJACENT TO RUNWAY 14L–32R.
7. ESTABLISH GEOMETRY TO CONSTRUCT THE RUNWAY PAVING LIMITS AT THE FOUR CORNERS OF THE RUNWAY 14L – RUNWAY 5R INTERSECTION. PROVIDE PAVEMENT WIDENING AS SURVEYED.
8. IDENTIFY AND LOCATE TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE.
9. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
10. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
11. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY EDGE LIGHTS AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. ALSO REMOVE ALL RUNWAY EDGE LIGHTS. CENTERLINE LIGHTS AND RUNWAY GUIDANCE SIGNS ON RUNWAY 5R–23L WITHIN THE PHASING LIMITS. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING, ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES, AND DUCTBANKS ASSOCIATED WITH AIRFIELD LIGHTING EQUIPMENT WITHIN THE PHASING LIMITS. DISPOSE OF ALL ELECTRICAL EQUIPMENT EXCEPT FOR 5R–23L RUNWAY CENTERLINE LIGHTS. AFTER REMOVAL MAINTAIN CENTERLINE LIGHTS FOR REINSTALLATION. MAINTAIN CANS, CABLE, AND CONDUIT FOR LIGHTING CIRCUITS THAT CROSS THE PHASING LIMITS, BUT STAY IN SERVICE WHILE RM10–9004 WORK IS UNDERWAY.
12. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L–32R–1 STA 50+10 TO STA 55+75. CONSTRUCT CONCRETE PAVEMENT R5R–1. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
13. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. ALSO INSTALL ALL RUNWAY EDGE LIGHTS AND GUIDANCE SIGNS ON RUNWAY 5R–23L WITHIN THE PHASING LIMITS. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. REINSTALL MAINTAINED 5R–23L CENTERLINE LIGHTS ON NEW BASE CANS. INSTALL HANDHOLES, MANHOLES, AND DUCTBANK WITHIN THE PHASING LIMITS.



LEGEND

PHASE 3

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BVL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PROJECT PHASING – PHASE 3

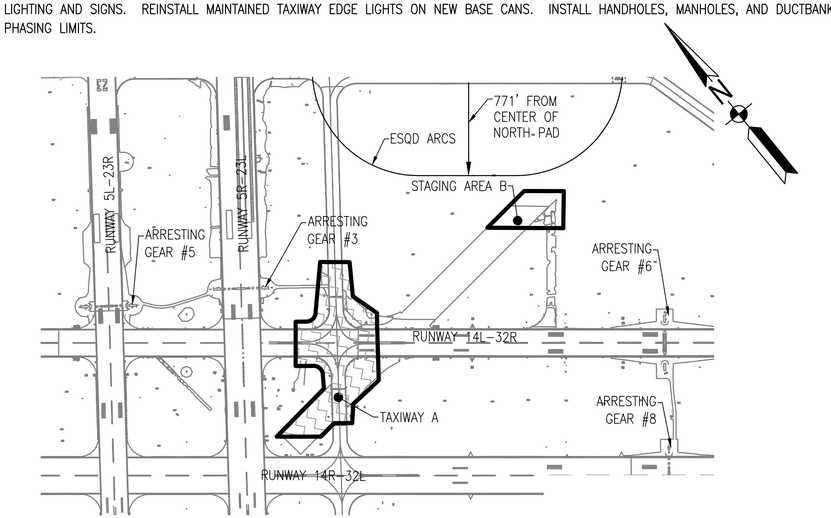
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690020
SHEET 9 OF 315
G-104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-104.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 5:28pm USER: jpeorge

PHASE 4 (RUNWAY 14L–32R CLOSED, TAXIWAY A CLOSED)

1. MOBILIZE TO PHASE 4 WORK AREA. USE STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO ACCESS AND HAUL ROUTE FROM OCEANA BLVD (KNOWN AS STAGING AREA B AND SET UP IN PHASE 3). MAINTAIN HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED. MAINTAIN SURVEY CONTROL AND BASELINES.
2. INSTALL EROSION CONTROL MEASURES FOR PHASE 4. MAINTAIN EROSION CONTROL MEASURES FOR PHASES 1, 2, AND 3.
3. MAINTAIN TEMPORARY CONSTRUCTION PROVISIONS OF PHASE 1 FOR EXTENDED RUNWAY 14L–32R CLOSURE. INSTALL TEMPORARY CONSTRUCTION MEASURES FOR PHASE 4 (RUNWAY 14L – TAXIWAY A INTERSECTION CLOSED, TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
4. REMOVE R14L–32R–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX. STA 55+75 TO APPROX. STA 59+07, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE R14L–32R–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM APPROX. STA 59+07 TO APPROX. STA 60+09, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
6. REMOVE TA–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM APPROX STA 502+39 TO THE SOUTH RUNWAY 14L EDGE, AND AT 150' WIDE. REMOVE TA–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM NORTH RUNWAY 14L EDGE TO APPROX. STA 507+61, AND AT 150' WIDE. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX STA 502+39 AND STA 507+61). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
7. REMOVE TA–2 ASPHALT PAVEMENT TO 2" DEPTH FROM APPROX. STA 502+39 TO APPROX. STA 500+85 TO THE SOUTH OF RUNWAY 14L EDGE, AT FULL TAXIWAY WIDTH. REMOVE TA–2 ASPHALT PAVEMENT TO 2" DEPTH FROM APPROX. STA 507+61 TO APPROX. STA 509+15 TO THE NORTH OF RUNWAY 14L–32R EDGE, AT FULL TAXIWAY WIDTH. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX STA 500+85 AND STA 509+15).
8. REMOVE IDENTIFIED IDLE PAVEMENT AREAS ADJACENT TO RUNWAY 14L.–32R.
9. ESTABLISH GEOMETRY TO CONSTRUCT THE TAXIWAY A PAVING LIMITS AT THE FOUR CORNERS OF THE RUNWAY 14L – TAXIWAY A INTERSECTION. PROVIDE PAVEMENT WIDENING AS SURVEYED.
10. IDENTIFY AND LOCATE TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE.
11. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
12. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
13. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY AND TAXIWAY EDGE LIGHTS AND RUNWAY AND TAXIWAY GUIDANCE SIGNS WITH FOUNDATION. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING, ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES, AND DUCTBANKS ASSOCIATED WITH AIRFIELD LIGHTING EQUIPMENT WITHIN THE PHASING LIMITS. DISPOSE OF ALL ELECTRICAL EQUIPMENT EXCEPT FOR TAXIWAY EDGE LIGHTS. AFTER REMOVAL MAINTAIN TAXIWAY LIGHTS FOR REINSTALLATION. MAINTAIN CANS, CABLE, AND CONDUIT FOR LIGHTING CIRCUITS THAT CROSS HE PHASING LIMITS, BUT STAY IN SERVICE WHILE RM 10–9004 WORK IS UNDERWAY.
14. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L–32R. CONSTRUCT CONCRETE PAVEMENT FOR TAXIWAY A. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
15. CONSTRUCT 3" ASPHALT PAVEMENT OVERLAY, TA–2 FROM APPROX. STA 502+39 TO APPROX. STA 500+85 TO THE SOUTH OF RUNWAY 14L EDGE. CONSTRUCT 3" ASPHALT PAVEMENT OVERLAY, TA–2 FROM APPROX. STA 507+61 TO APPROX. STA 509+15 TO THE NORTH OF RUNWAY 14L–32R EDGE.
16. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, ELEVATED AND IN–PAVEMENT RUNWAY GUARD LIGHTS, AND RUNWAY AND TAXIWAY GUIDANCE SIGNS WITH FOUNDATION. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. REINSTALL MAINTAINED TAXIWAY EDGE LIGHTS ON NEW BASE CANS. INSTALL HANDHOLES, MANHOLES, AND DUCTBANK WITHIN THE PHASING LIMITS.



LEGEND

PHASE 4

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

PROJECT PHASING – PHASE 4

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690021
SHEET 10 OF 315

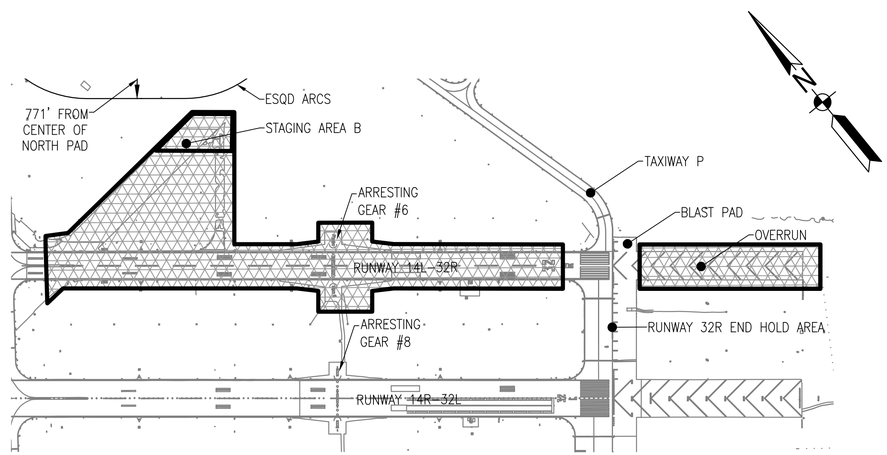
G-105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHFA\99_ Misc\Aviation\Oceana\Task 007\GENERAL–CIVIL\10–0683–007–G–105.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 5:28pm USER: jgeorge

PHASE 5 (RUNWAY 14L–32R CLOSED)

1. MOBILIZE TO PHASE 5 WORK AREA. USE STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO ACCESS AND HAUL ROUTE FROM OCEANA BLVD (KNOWN AS STAGING AREA B AND SET UP IN PHASE 3). MAINTAIN HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED. MAINTAIN SURVEY CONTROL AND BASELINES.
2. INSTALL EROSION CONTROL MEASURES FOR PHASE 5. MAINTAIN EROSION CONTROL MEASURES FOR PHASES 1, 2, 3, AND 4.
3. MAINTAIN TEMPORARY CONSTRUCTION PROVISIONS OF PHASE 1 FOR EXTENDED RUNWAY 14L–32R CLOSURE. INSTALL TEMPORARY CONSTRUCTION MEASURES FOR PHASE 5 (RUNWAY 14L–32R CLOSED, TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
4. REMOVE R32R–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM APPROX. STA 59+07 TO APPROX. STA 87+37, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE IDENTIFIED IDLE PAVEMENT AREAS ADJACENT TO RUNWAY 14L–32R.
6. MILL OR32R–1 ASPHALT PAVEMENT TO 3" DEPTH FROM APPROX STA 91+50 TO THE EAST END OF THE RUNWAY 14L–32R END OVERRUN, AND AT 150' WIDE.
7. MILL ARRESTING GEAR #6 ASPHALT PAVEMENTS TO 2" DEPTH. SEAL CRACKS. PROVIDE A/G PAVEMENT WIDENING AS IDENTIFIED. CONSTRUCT 2" DEPTH ASPHALT OVERLAY AT ARRESTING GEAR MILLED AREAS AND AT ASPHALT WIDENING. COORDINATE A/G PAVING WITH R14L–32R CONCRETE PLACEMENT AT RUNWAY EDGES.
8. IDENTIFY AND LOCATE TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE.
9. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
10. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
11. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY EDGE LIGHTS, WAVE–OFF LIGHTS, POWER FOR OLS, AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING, ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES, AND DUCTBANKS ASSOCIATED WITH AIRFIELD LIGHTING EQUIPMENT WITHIN THE PHASING LIMITS. MAINTAIN IN–PAVEMENT APPROACH LIGHTING AND ASSOCIATED BASE CANS, CONDUIT, AND WIRING ON RUNWAY 14L OVERRUN DURING CIVIL WORK. DISPOSE OF ALL ELECTRICAL EQUIPMENT.
12. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L–32R AT R32R–1. CONSTRUCT AC OVERLAY FOR RUNWAY 14L OVERRUN. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
13. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, WAVE–OFF LIGHTS, POWER FOR OLS, BATTERY CHARGER FOR ARRESTING GEAR #6, AND RUNWAY GUIDANCE SIGNS WITH FOUNDATION. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT, AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. INSTALL HANDHOLES, MANHOLES, AND DUCTBANK WITHIN THE PHASING LIMITS. MAINTAIN IN–PAVEMENT APPROACH LIGHTING AND ASSOCIATED BASE CANS, CONDUIT, AND WIRING ON RUNWAY 14L OVERRUN DURING CIVIL WORK.



LEGEND

PHASE 5

SUBPHASE LIMIT

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E

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A/E INFO

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ACTIVITY

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DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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NORFOLK, VIRGINIA
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VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PROJECT PHASING – PHASE 5

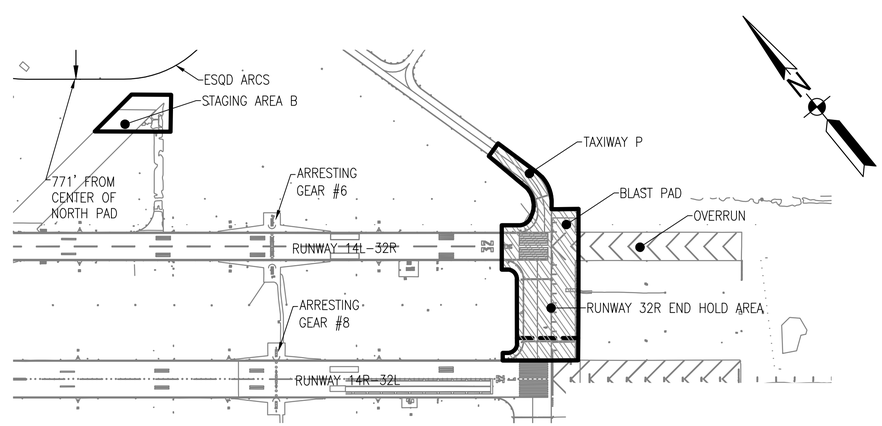
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690022
SHEET 11 OF 315
G-106

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL–CIVIL\10–0683–007–G–106.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 5:29pm USER: jgeorge

PHASE 6 (RUNWAY 14L–32R, TAXIWAY P CLOSED)

1. MOBILIZE TO PHASE 6 WORK AREA. USE STAGING, MATERIAL STORAGE, AND STOCKPILE AREAS, SPECIFIC TO ACCESS AND HAUL ROUTE FROM OCEANA BLVD (KNOWN AS STAGING AREA B AND SET UP IN PHASE 3). MAINTAIN HAUL ROUTES AND PROTECT UTILITIES, AS NEEDED. MAINTAIN SURVEY CONTROL AND BASELINES.
2. INSTALL EROSION CONTROL MEASURES FOR PHASE 6. MAINTAIN EROSION CONTROL MEASURES FOR PHASES 1, 2, 3, 4, AND 5.
3. MAINTAIN TEMPORARY CONSTRUCTION PROVISIONS OF PHASE 1 FOR EXTENDED RUNWAY 14L–32R CLOSURE. INSTALL TEMPORARY CONSTRUCTION MEASURES FOR PHASE 6 (RUNWAY 14L CLOSED, TEMPORARY CIRCUITING, TEMPORARY STRIPING, SIGN MODIFICATIONS, BARRIERS, ETC).
4. REMOVE R32R–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM APPROX. STA 87+37 TO APPROX. STA 90+00, AND AT 150' WIDE. EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
5. REMOVE HA32R–1 AND BP32R–1 CONCRETE PAVEMENT TO FULL–DEPTH FROM RW 14L–32R EDGE TO IDENTIFIED PAVEMENT JOINT, AND AT FULL HOLD APRON WIDTH. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX. STA 604+10). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
6. REMOVE TP–1 ASPHALT PAVEMENT TO FULL–DEPTH FROM NORTH RUNWAY EDGE AT RUNWAY 32R END TO APPROX. STA 702+74, AND AT VARYING WIDTH. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX. STA 702+74). EXCAVATE TO NEW SUBGRADE, AND PROOFROLL SUBGRADE. UNDERCUT SUBGRADE AS SPECIFIED, AND AS DIRECTED BY THE CONTRACTING OFFICER. BACKFILL TO SUBGRADE AND COMPACT.
7. REMOVE TP–2 ASPHALT PAVEMENT AT 2" DEPTH FROM APPROX. STA 702+74 TO APPROX. STA 704+71, AND AT VARYING WIDTH. SAWCUT EXISTING PAVEMENT WHERE IT TIES INTO NEW PAVEMENT (APPROX. STA 704+71).
8. REPAIR HA32R–2 CONCRETE PAVEMENT AT HOLD APRON STA 604+10 TO APPROX. STA 600+50. RESEAL PCC JOINTS. ROUT AND SEAL CRACKS IN PCC PAVEMENTS. COMPLETE PARTIAL AND FULL DEPTH SLAB REPAIRS.
9. REPAIR CONCRETE PAVEMENT AT HA32R–2, AT RUNWAY 14L CENTERLINE STA. 91+25 TO STA 91+50. RESEAL PCC JOINTS. ROUT AND SEAL CRACKS IN PCC PAVEMENTS.
10. IDENTIFY AND LOCATE TRANSITE PIPE UNDERDRAINS. REMOVE TRANSITE SUBDRAIN PIPING AND CLEANOUTS AS IDENTIFIED. LEGALLY DISPOSE OF TRANSITE PIPE.
11. REMOVE DRAINAGE PIPE AND STRUCTURES AS IDENTIFIED. CONSTRUCT DRAINAGE SYSTEM MODIFICATIONS AND IMPROVEMENTS.
12. PERFORM ELECTRICAL DEMOLITION (SEE ELECTRICAL PHASING). INSTALL ELECTRICAL CONDUITS, HANDHOLES, DUCTBANKS, MANHOLES, AND FOUNDATIONS.
13. PERFORM ELECTRICAL DEMOLITION WITHIN THE PHASING LIMITS. REMOVE ALL RUNWAY AND TAXIWAY EDGE LIGHTS, THRESHOLD LIGHTS, AND RUNWAY AND TAXIWAY GUIDANCE SIGNS WITH FOUNDATION. REMOVE BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING, ASSOCIATED WITH THE LIGHTING AND SIGNS. REMOVE ALL HANDHOLES, MANHOLES, AND DUCTBANKS ASSOCIATED WITH AIRFIELD LIGHTING EQUIPMENT WITHIN THE PHASING LIMITS. DISPOSE OF ALL ELECTRICAL EQUIPMENT EXCEPT FOR TAXIWAY EDGE LIGHTS. AFTER REMOVAL MAINTAIN TAXIWAY LIGHTS FOR REINSTALLATION.
14. CONSTRUCT CONCRETE PAVEMENT FOR RUNWAY 14L–32R AT R32R–1. CONSTRUCT CONCRETE PAVEMENT FOR HA32R–1 AND BP32R–1 AT THE RUNWAY 32R END. CONSTRUCT CONCRETE PAVEMENT FOR TP–1 AT THE RUNWAY 32 END. CONSTRUCT AC WIDENING AND OVERLAY FOR TAXIWAY P. CONSTRUCT ASPHALT RUNWAY AND TAXIWAY SHOULDERS.
15. PERFORM ELECTRICAL CONSTRUCTION WORK WITHIN THE PHASING LIMITS. INSTALL RUNWAY EDGE LIGHTS, ELEVATED AND IN–PAVEMENT RUNWAY GUARD LIGHTS, AND RUNWAY AND TAXIWAY GUIDANCE SIGNS WITH FOUNDATION. INSTALL BASE CANS, ISOLATION TRANSFORMERS, CONDUIT AND WIRING ASSOCIATED WITH THE LIGHTING AND SIGNS. REINSTALL MAINTAINED TAXIWAY EDGE LIGHTS ON NEW BASE CANS. INSTALL HANDHOLES, MANHOLES, AND DUCTBANK WITHIN THE PHASING LIMITS.
16. COMPLETE RENOVATIONS TO ELECTRICAL VAULT E–145 AND COMPLETE INSTALLATION OF AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM. CONNECT ALL RUNWAY 14L–32R LIGHTING CIRCUITS TO NEW AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM. TEST ALCMS. MAINTAIN EXISTING SPAWAR ALCMS FOR THE REMAINDER OF THE AIRFIELD LIGHTING.



LEGEND

PHASE 6

SUBPHASE LIMIT

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BVL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PROJECT PHASING – PHASE 6

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690023
SHEET 12 OF 315
G-107

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL–CIVIL\10–0683–007–G–107.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 5:29pm USER: jgeorge

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN FEET (FT) AND INCHES (IN).

2. SUBMIT A SCHEDULE OF WORK TO THE CONTRACTING OFFICER FIFTEEN (15) DAYS PRIOR TO THE START OF CONSTRUCTION. IDENTIFY THE AREAS OF WORK AND ASSOCIATED DURATIONS REQUIRED FOR COMPLETION. THE SCHEDULE SHALL PRESENT TIME BY WEEKLY INCREMENTS.

3. CONFIRM NASO AIR SHOW AND DETACHMENT SCHEDULE AND ASSOCIATED WORK AND SCHEDULE RESTRICTIONS PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SCHEDULE WITH AIRFIELD OPERATIONS THROUGHOUT THE DURATION OF THE PROJECT. ALL WORK WILL STOP DURING NASO AIR SHOW WEEK.

4. CONSTRUCTION PHASING SPECIFIES THE REQUIRED DAYTIME AND NIGHTTIME WORK SHIFTS IN ACCORDANCE WITH THE FORESEEN OPERATIONAL NEEDS OF THE AIRFIELD. NASO RETAINS THE RIGHT TO MODIFY THE DESIGNATED WORK SHIFTS TO ACCOMMODATE THE ACTUAL OPERATIONAL NEEDS OF THE AIRFIELD AT THE TIME OF CONSTRUCTION. COORDINATE PHASING REQUIREMENTS A MINIMUM OF ONE (1) WEEK PRIOR TO BEGINNING WORK IN A NEW PHASE.

5. THOROUGHLY CLEAN ALL PAVEMENT SURFACES PRIOR TO LEAVING THE WORK SITE AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL HAVE A POWER SWEEPER AND VACUUM TRUCK ON SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL HAVE STANDBY EQUIPMENT ON SITE AT ALL TIMES FOR BOTH THE SWEEP AND VACUUM TRUCK. THE SWEEP/VACOOM OPERATION SHALL BE CONTINUOUS.

6. MONITOR THE NAS OCEANA CONTROL TOWER FREQUENCY CONTINUOUSLY WHEN WORKING ON AIRPORT PROPERTY. FURNISH FOUR (4) RADIOS FOR USE ON AIRFIELD DURING CONSTRUCTION. WITH ADDITIONAL BATTERIES. ADDITIONAL RADIOS SHALL BE ASSIGNED BY AIRFIELD OPERATIONS. AT THE COMPLETION OF CONSTRUCTION, TURN OVER RADIOS TO AIRFIELD OPERATIONS.

7. FURNISH FIVE (5) NEW TRAILER-MOUNTED LIGHTED RUNWAY CLOSURE MARKERS FOR USE ON THE PROJECT. LIGHTED RUNWAY CLOSURE MARKINGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT. CONTRACTOR SHALL MAINTAIN CLOSURE MARKERS ON A DAILY BASIS.

8. PLACE ALL RUNWAY CLOSURE MARKINGS, TAXIWAY CLOSURE MARKINGS, BARRIERS, AND OTHER TEMPORARY CONSTRUCTION SAFETY DEVICES PRIOR TO THE START OF WORK FOR EACH PHASE. MAINTAIN ALL TEMPORARY CONSTRUCTION SAFETY DEVICES, INCLUDED BUT NOT LIMITED TO LIGHTENED RUNWAY CLOSURE MARKERS, LOW PROFILE CONSTRUCTION BARRIERS WITH BEACON'S, CONSTRUCTION SIGNS, AND CLOSED RUNWAY MARKINGS, FOR THE ENTIRE DURATION OF CONSTRUCTION OR AS DIRECTED BY THE CONTRACTING OFFICER.

9. CONTRACTOR MUST PROVIDE BARRICADE PLAN A MINIMUM OF 15 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITY. BARRICADE PLAN MUST IDENTIFY BARRICADES LOCATION AND NUMBER OF BARRICADES REQUIRED PER PHASE. LOCATION SHOULD BE SHOWN WITH A DIMENSION PERPENDICULAR TO ALL ADJACENT RUNWAY AND TAXIWAY PAVEMENT EDGES.

10. NO CELL PHONES OR BASE PORTABLE RADIOS MAY BE USED WITHIN 100' OF SUSPECTED ORDNANCE OPERATIONS.

11. PROTECT ALL EXISTING FEATURES (INCLUDING, BUT NOT LIMITED TO AIRFIELD LIGHTS, AIRFIELD SIGNS, PAVEMENT, BUILDINGS, FENCES, UTILITIES, ETC.) TO REMAIN WITHIN THE WORK AREA AND THOSE ADJACENT TO THE WORK AREA, STAGING AREA, AND HAUL ROUTE. REPAIR AND/OR REPLACE ALL DAMAGED FEATURES AT THE EXPENSE OF THE CONTRACTOR. REPAIRS SHALL BE PERFORMED CONTINUOUSLY ON A 24-HOUR BASIS.

12. NOTAMS ARE REQUIRED FOR ALL WORK WITHIN THE PRIMARY SURFACE OR PART 77 TRANSITIONAL SURFACE OF AN ACTIVE RUNWAY. PROVIDE AIRPORT OPERATIONS OR THE CONTRACTING OFFICER ONE (1) WEEKS NOTICE BEFORE THE INITIAL START OF CONSTRUCTION WITHIN THESE AREAS. ONCE CONSTRUCTION IS UNDERWAY, PROVIDE 48-HOUR NOTICE FOR CONSTRUCTION IN AREAS OUTSIDE THE LIMITS OF THE CURRENT NOTAM.

13. ALL WORK SHALL COMPLY WITH GUIDELINES IN UFC 3-260-01, PARAGRAPH B14-6.7 SPECIAL SAFETY REQUIREMENTS DURING CONSTRUCTION FOR SETBACK DISTANCES OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ESTABLISH, IN ADVANCE, A SPECIFIC DEMARCATION OR HOLD LINE LOCATION FOR PERSONNEL AND EQUIPMENT DURING THE TIMES OF WORK INTERRUPTION TO ENSURE THE SAFETY OF THE CONTRACTOR AND AIRCRAFT OPERATIONS.

14. ALL EMPLOYEES REQUIRING ACCESS TO THE AIRFIELD MUST RECEIVE BASE ACCESS AND FLIGHTLINE ACCESS THROUGH THE COMPLETION OF NASO ACCESS APPLICATIONS. EMPLOYEES REQUIRED TO CONDUCT HAULING OPERATIONS ON THE AIRFIELD MUST COMPLETE FLIGHT DRIVING TRAINING. THE CONTRACTOR MUST SUCCESSFULLY COMPLETE AIRFIELD DRIVING TRAINING.

15. ALL NEW PAVEMENT AND GRADING WORK SHALL MATCH EXISTING ELEVATIONS AT THE LIMIT OF WORK OR LIMIT OF DISTURBANCE.

16. REINFORCE ALL ODD-SHAPED SLABS OR SLABS WITH UTILITY PENETRATIONS WHETHER INDICATED OR NOT.

17. ACCESS AIRFIELD AT SPECIFIED GATES AND ALONG SPECIFIED HAUL ROUTES AS INDICATED ON PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER.

18. CONSTRUCTION VEHICLES AND EQUIPMENT MUST YIELD TO ALL AIRFIELD OPERATIONS REGARDLESS OF THE CONSTRUCTION ACTIVITY.

19. CROSSING OF AN ACTIVE RUNWAY WITHOUT PRIOR AUTHORIZATION FROM THE TOWER IS STRICTLY PROHIBITED.

20. CONCRETE REPAIR ACTIVITIES IDENTIFIED IN THESE PLANS REPRESENTS THE REQUIRED REPAIRS AS OF NOVEMBER 25, 2014. ADDITIONAL REPAIRS MAY BE REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER AT THE TIME OF CONSTRUCTION.

21. MATCH CONCRETE JOINTS AT THE INTERFACE BETWEEN NEW AND EXISTING PAVEMENTS, UNLESS OTHERWISE NOTED.

22. ALL DEMOLISHED CONCRETE AND ASPHALT PAVEMENT IS THE PROPERTY OF THE CONTRACTOR. STOCKPILE DEMOLISHED PAVEMENT MATERIAL IN AREAS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER. CRUSH CONCRETE MATERIAL IN THE DESIGNATED LOCATION AND PLACE AS SHOULDER PAVEMENT BASE MATERIAL, GRAVEL ROADWAY, FILL MATERIAL, OR AS DIRECTED BY THE CONTRACTING OFFICER. RCC MAY NOT BE USED AS CRUSHED AGGREGATE BASE COURSE IN RUNWAY, TAXIWAY, OR HOLD AREA PAVEMENT SECTIONS.

23. ALL SUITABLE TOPSOIL AND FILL EXCAVATED FROM THE WORK AREA IS THE PROPERTY OF THE CONTRACTOR. STOCKPILE MATERIAL IN THE AREAS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER. PLACE MATERIAL AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

24. ALL UNSUITABLE MATERIAL EXCAVATED FROM THE WORK AREA IS THE PROPERTY OF THE CONTRACTOR. DISPOSE OF UNSUITABLE MATERIAL IN ACCORDANCE WITH REGULATIONS OF THE LOCAL PERMITTING AGENCY.

25. DISPOSE OF ALL STOCKPILED SUITABLE AND UNSUITABLE MATERIAL REMAINING AT THE END OF THE CONTRACT AND NO LONGER OF USE FOR NASO IN ACCORDANCE WITH THE REGULATIONS OF THE LOCAL PERMITTING AGENCY.

26. PROVIDE SHEETING AND SHORING FOR ALL TRENCHES AND EXCAVATIONS AS NECESSARY IN ACCORDANCE WITH OSHA REGULATIONS.

27. CONTRACTOR SHALL PROVIDE MEANS TO PROTECT AND MAINTAIN EXCAVATED AREAS. DEWATERING SHALL BE PROVIDED; SEE SPECIFICATION 31 23 00.00 20 FOR REQUIREMENTS TO MAINTAIN EXCAVATED AREAS AT ALL TIMES, AT NO ADDITIONAL COST TO THE GOVERNMENT. SEE SHEETS C-531 TO C-533 FOR EROSION CONTROL NOTES AND DEVICES.

28. PCC SLAB SIZE FOR NEW WORK IS 12.5' x 15', UNLESS OTHERWISE NOTED.

29. CONTRACTOR IS REQUIRED TO PROTECT EXPOSED SUBGRADE MATERIAL AT ALL TIMES PROVIDE SECTION IN QUALITY CONTROL PLAN FOR SUBGRADE PROTECTION. SEE SPECIFICATIONS AND PERMITS FOR MINIMUM REQUIREMENTS.

30. PRIOR TO COMMENCEMENT OF WORK AT EXISTING ARRESTING GEARS, THE CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION TOPOGRAPHIC SURVEY TO ESTABLISH THE EXISTING RUNWAY PAVEMENT ELEVATIONS WITHIN AND TO 100 FT BEYOND THE WORK LIMITS. THE SURVEY RESULTS SHALL BE GIVEN TO THE CONTRACTING OFFICER AT LEAST 14 DAYS PRIOR TO ANY DEMOLITION. THE AREA SHALL BE STATIONED ON A 10 FT INTERVAL. SURVEY SHOTS ARE TO BE TAKEN EVERY 10 FT ALONG THE CENTERLINE OF THE RUNWAY. FULL CROSS SECTION SHOTS ARE TO BE TAKEN EVERY 25 FT PERPENDICULAR TO THE CENTERLINE. THE SECTIONS SHOULD CONSIST OF SHOTS TAKEN AT THE CENTERLINE AND EVERY 25 FT UNTIL SURVEY LIMITS ARE REACHED. AN AUTOCAD FILE SHALL BE PROVIDED BY THE CONTRACTING OFFICER TO INPUT THE ELEVATIONS. THE RESULTS OF THE PRE-CONSTRUCTION SURVEY SHALL BE REVIEWED BY THE CONTRACTING OFFICER TO VERIFY CONDITIONS AND ADJUST FINISH GRADES, AS REQUIRED.

31. UPON COMPLETION OF CONSTRUCTION WITHIN THE ARRESTING GEAR WORK AREA, CONTRACTOR SHALL PERFORM A POST-CONSTRUCTION TOPOGRAPHIC SURVEY USING THE SAME LOCATIONS AND INTERVALS AS THE PRE-CONSTRUCTION SURVEY TO VERIFY FINISH GRADES MATCH PRE-CONSTRUCTION GRADES, UNLESS DIRECTED OTHERWISE BY THE CONTRACTING OFFICER. THE ELEVATIONS OF POINTS SURVEYED SHALL BE SHOWN TO 0.01 FT AND NOTED ON A LOCATION PLAN SHOWING ALL SURVEY POINTS. THE CONTRACTOR SHALL INCORPORATE THE SURVEY IN AS-BUILT DRAWINGS.

32. PROVIDE DOWELED CONTRACTION JOINTS ON THE LAST THREE TRANSVERSE CONTRACTION JOINTS FROM A FREE EDGE AND FOR THREE JOINTS ON EITHER SIDE OF AN ISOLATION JOINT.

33. PROVIDE DOWELED CONTRACTION JOINTS ON LONGITUDINAL CONTRACTION JOINTS WITHIN 20 FEET OR LESS OF THE PAVEMENT EDGE.

34. PRIOR TO WORK AT THE ARRESTING GEAR AND FLOLS PADS, NASO AIR OPERATIONS WILL REMOVE THE ARRESTING GEAR PENDANT AND FLOLS EQUIPMENT. NASO AIR OPERATIONS WILL REPLACE THE ARRESTING GEAR PENDANT AND FLOLS EQUIPMENT UPON COMPLETION OF CONSTRUCTION.

35. NON-POTABLE WELL:

GOVERNMENT PROVIDED POTABLE WATER WILL NOT BE AVAILABLE FOR THE CONTRACTOR'S ACTIVITIES REQUIRING OR ALLOWING USE OF NON-POTABLE WATER. CONTRACTOR SHALL CONSTRUCT A NON-POTABLE WELL OF SUFFICIENT CAPACITY FOR ALL CONSTRUCTION ACTIVITIES FOR USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING REQUIRED TO INSURE THE NON-POTABLE WATER IS OF ADEQUATE PURITY FOR HIS ACTIVITIES REQUIRING NON-POTABLE WATER. THE LOCATION OF THE WELL SHALL BE IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF HEALTH (VDH) REQUIREMENTS AND SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER. IF THE CONTACTOR ANTICIPATES MONTHLY USAGES OVER 300,000 GALLONS, HE WILL NEED TO OBTAIN A GROUND WATER WITHDRAWAL PERMIT FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING, COMPLIANCE, TESTING, MONITORING, REPORTING, POWER, OPERATION, MAINTENANCE AND ALL OTHER REQUIREMENTS DURING THE USE OF THE WELL. FOLLOWING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL ABANDON THE WELL IN COMPLIANCE WITH THE APPROVED PERMIT AND/OR DEQ REQUIREMENTS. THE GOVERNMENT WILL PROVIDE WATER FOR DRINKING AND OTHER USES REQUIRING POTABLE WATER SUBJECT TO THE RATES AND REQUIREMENTS DESCRIBED IN THE SPECIFICATIONS.

UTILITY DESIGNATION NOTES

1. JMT CONDUCTED AN UNDERGROUND UTILITY DESIGNATION SURVEY FOR THIS PROJECT AND INCORPORATED THE FINDINGS INTO THESE PLANS. THE ACCURACY OF THE UTILITIES DEPICTED AS A RESULT OF THE UNDERGROUND UTILITY DESIGNATION SURVEY IS NOT GUARANTEED. THE EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS INCLUDE UTILITY INFORMATION COLLECTED IN THE FIELD IN COMBINATION WITH AVAILABLE AS-BUILT DRAWINGS AND GIS DATA PROVIDED BY NAVFAC MIDLANT. THE UNDERGROUND UTILITY DESIGNATION SURVEY WAS COMPLETED BETWEEN SEPTEMBER AND DECECMBER 2014 AND REPRESENTS THE EXISTING CONDITIONS AT THE TIME OF THE SURVEY.

2. THE FIELD INVESTIGATION PROCEDURE USED TO MAP THE EXISTING UNDERGROUND UTILITIES SPECIFICALLY INVOLVED, OPENING THE ABOVE GROUND ELECTRIC AND COMMUNICATION STRUCTURES WHERE POSSIBLE TO APPLY AND OBTAIN ELECTRONIC INFORMATON ON SPECIFIC FACILITIES. CONDUCTORS WHICH APPEARED TO BE CUT WITHIN THESE STRUCTURES WERE NOT DESIGNATED AND MAPPED, AND AN ELECTRONIC SWEEP FOR UNKNOWN CONDUCTORS WITHIN THE PROJECT AREA WAS NOT PERFORMED. WHEN A NON-TRACEABLE FACILITY WAS KNOWN TO EXIST WITHIN A SPECIFIC AREA, JMT UTILIZED GROUND PENETRATING RADAR (GPR) IN AN ATTEMPT TO MAP THE FACILITY.

3. JMT OBTAINED THE ELECTRONIC INFORMATION USING ASCE ACCEPTED, SURFACE GEOPHYSICAL ELECTOMAGNETIC METHODS CONSISTING OF PIPE AND CABLE LOCATORS. OTHER SURFACE GEOPHYICAL METHODS WERE NOT UTILIZED.

4. THE MANHOLE AND HANDHOLE SKETCHES SHOWN ON THE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT GUARANTEE A THOROUGH DEPICTION OF THE UNDERGROUND UTILITIES.

5. THE EXISTING SUBSURFACE UTILITIES SHOWN ON THE PLANS DOES NOT NECESSARILY REPRESENT A COMPLETE DEPICTION OF ALL EXISTING UTILITIES, AND JMT DOES NOT GUARANTEED THAT ALL UNDERGROUND UTILTIES HAVE BEEN ACCOUNTED FOR. THE UTILITY LINES SHOWN ARE PROVIDED FOR THE CONTRACTORS REFERENCE ONLY. PRIOR TO ALL PAVEMENT DEMOLITION AND EARTHWORK OPERATIONS, CONTACT MISS UTILITY AND A PRIVATE UTILITY DESIGNATION SERVICE TO PROVIDE A FIELD INVESTIGATION OF THE EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING SUBSURFACE UTILITIES THROUGHOUT CONSTRUCTION.

6. IMMEDIATELY NOTIFY AIRPORT OPERATIONS AND THE CONTRACTING OFFICER OF ANY DAMAGE TO SUBSURFACE UTILITIES DURING CONSTRUCTION. EXPEDITIOUSLY REPAIR DAMAGED UTILITIES AT THE CONTRACTOR'S EXPENSE. DAMAGE TO UTILITIES AND SUBSEQUENT REPAIR WILL NOT WARRANT A TIME EXTENSION TO THE CONTRACT.

SURVEY NOTES:

1. THE MERIDIAN SOURCE FOR THIS TOPOGRAPHIC SURVEY IS BASED ON PUBLISHED NAS OCEANA SURVEY CONTROL, AS PROVIDED, AND IS REFERENCED TO THE VIRGINIA SOUTH ZONE STATE PLANE COORDINATE SYSTEM (ZONE 4502) NAD 1983/1993, REFERENCES CONTROL STATIONS OCN2 AND OCN10.

2. ELEVATIONS SHOWN HEREON ARE BASED ON NAS OCEANA SURVEY CONTROL, AS PROVIDED, AND IS REFERENCED TO NAVD 1988, US SURVEY FOOT. REFERENCE CONTROL STATIONS OCN2 AND OCN10. ALL ELEVATIONS SHOWN HEREON ARE IN US FEET.

3. THE SURVEY WAS PREPARED TO SHOW THE EXISTING FEATURES AT THE TIME THE SURVEY WAS CONDUCTED. THIS SURVEY DOES NOT GUARANTEE AS TO THE ACCURACY OF PROPOSED OR FUTURE ITEMS WHICH ARE SHOWN ON THE DRAWING OR ANY FEATURES OBSERVED DURING CONSTRUCTION THAT WERE CONSTRUCTED AFTER THE SPECIFIED DATES OF SURVEY FOR THIS PROJECT.

4. TOPOGRAPHIC SURVEY WITHIN 75 FEET OF THE EXISTING EDGE OF RUNWAY AND TAXIWAY PAVEMENT (RELATED TO THIS PROJECT) AND VAULT 3015 AREA WAS PREPARED IN MAY 2014 (RUNWAY AND TAXIWAY), AND IN NOVEMBER 2014 (VAULT 3015) BY:

   JOHNSON, MIRMIRAN & THOMPSON
   272 BENDIX ROAD, SUITE 260
   VIRGINIA BEACH, VA 23452
   757-387-7048

5. ALL TOPOGRAPHIC SURVEY WITHIN THE AIRFIELD SECURITY FENCE AND OUTSIDE THE LIMITS OF THE SURVEY PROVIDED BY JMT WAS PREPARED BY:

   AXIS GEOSPATIAL LLC
   101 BAY ST
   EASTON, MD 21601
   410-822-1441

   SURVEY PROVIDED BY AXIS GEOSPATIAL WAS CONDUCTED VIA AERIAL LiDAR SCANNING. THE AERIAL SURVEY WAS FLOWN ON APRIL 2, 2014.

6. AERIAL MAPPING DATA SHOWN HEREON WAS ACQUIRED IN APRIL 2014, USING A TRIMBLE HARRIER 68I AIRBORNE LIDAR AND DIGITAL IMAGERY SYSTEM. ACQUISITION OF DATA WAS PLANNED AND EXECUTED TO SUPPORT 1"=20 HORIZONTAL MAPPING SCALE TO SUPPORT A 1/2' CONTOUR INTERVAL AND MEETS OR EXCEEDS ASPRS CLASS I STANDARDS. TOPOGRAPHIC AND PLANIMETRIC FEATURES SHOWN WERE DEVELOPED USING DIGITAL SOFTCOPY STEREO COMPILATION METHODS, AND TIN DATA GENERATED USING COMBINATION OF POINT CLOUD AND PHOTOGRAMMETRICALLY COLLECTED BREAKLINE DATA. PROJECT HORIZONTAL AND VERTICAL DATUMS ARE BASED ON GROUND CONTROL DATA FROM A FIELD RUN SURVEY PROVIDED BY JMT.

7. SEE SHEET G-109 FOR BASELINE AND CONTROL INFORMATION. SEE EXISTING CONDITIONS SHEETS FOR TEMPORARY SURVEY CONTROL POINTS.

PAVEMENT THICKNESS DESIGN CRITERIA:

1. AIRFIELD CLASS
   CLASS B
2. AIRCRAFT FLEET MIX
   SEE TABLE BELOW
3. PASS LEVELS
   SEE TABLE BELOW
4. MISSION OPERATIONAL WEIGHTS
   SEE TABLE BELOW
5. TRAFFIC AREAS (EXCLUDES AREAS NOT USED IN DESIGN)
   A, C, AND SHOULDER

Aircraft	Weight (lb)		Total Passes (20 Years)	
	Traffic Area A, B	Traffic Area C, D	Traffic Area A, B, C	Traffic Area D
Navy Design Traffic Group I				
C-17A GLOBEMASTER III	585,000	438,750	15,000	150
F-15E EAGLE	81,000	60,750	300,000	3,000
KC-10A REFUELER	590,000	442,500	10,000	100
P-3C	135,000	101,250	150,000	1,500
Airport Prediction				
C-40A Clipper	171,500	128,625	16,000	160
P-8A Poseidon	188,200	141,150	2,000	20

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MARK J TIGER
REGISTERED PROFESSIONAL ENGINEER
041439-E
VIRGINIA

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

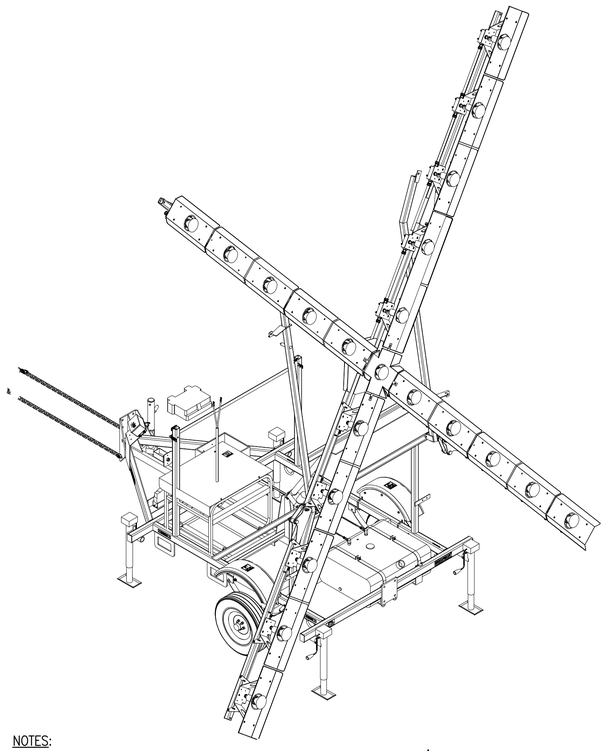
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
GENERAL AND SURVEY NOTES

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690024
SHEET 13 OF 315

G-108

DRAWFORM REVISION: 10 MARCH 2009

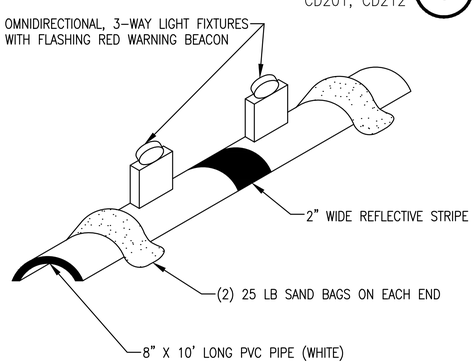
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-108.dwg LAYOUT NAME: G-105 PLOTTED: Monday, March 23, 2015 - 5:29pm USER: jgeorge



NOTES:
1. LIGHTED RUNWAY CLOSURE MARKER SHALL BE PLACED WITHIN 250' OF BOTH RUNWAY ENDS AND SHALL BE COORDINATED WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.
2. CONTRACTOR SHALL PROVIDE AN ADDITIONAL NON-LIGHTED CLOSURE MARKER TO BE LOCATED AT THE RUNWAY DESIGNATION MARKINGS. REFER TO DETAIL 4 ON THIS SHEET FOR FURTHER GUIDANCE.
3. CONTRACTOR SHALL PROVIDE TWO (2) NEW TRAILER-MOUNTED LIGHTED RUNWAY CLOSURE MARKERS FOR USE ON THE PROJECT. LIGHTED RUNWAY CLOSURE MARKINGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT.

LIGHTED RUNWAY CLOSURE MARKER (1)

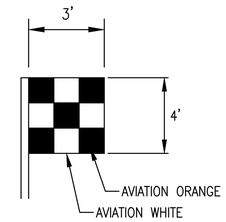
NTS CD201, CD212



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

LOW PROFILE CONSTRUCTION BARRIERS (3)

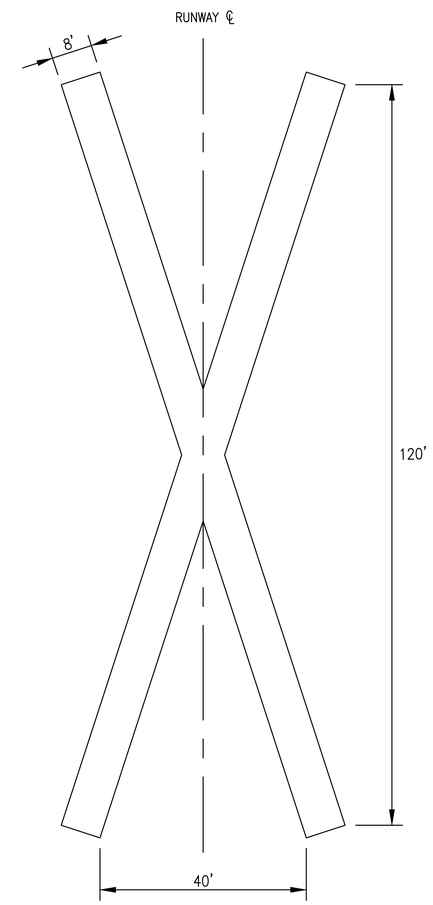
NTS



NOTES:
1. CONTRACTOR SHALL PROVIDE VEHICLE/EQUIPMENT FLAGS FOR USE ON THE PROJECT. VEHICLE/EQUIPMENT FLAGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT.

VEHICLE/EQUIPMENT FLAG (2)

NTS



NOTES:
1. THE COLOR OF THE CLOSED RUNWAY MARKING SHALL BE NONREFLECTIVE YELLOW.
2. FOR USE ON RUNWAY DESIGNATION MARKINGS TO REMAIN, PROVIDE YELLOW FABRIC AND SANDBAG STYLE CLOSED RUNWAY MARKING.
3. PLACE OVER RUNWAY DESIGNATION MARKERS. COORDINATE PLACEMENT WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.
4. CONTRACTOR SHALL PROVIDE CLOSED RUNWAY MARKINGS FOR USE ON THE PROJECT. CLOSED RUNWAY MARKINGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT.

CLOSED RUNWAY MARKING DETAIL (4)

NTS CD201, CD212

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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ENGINEER
041439-E
STATE

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJC

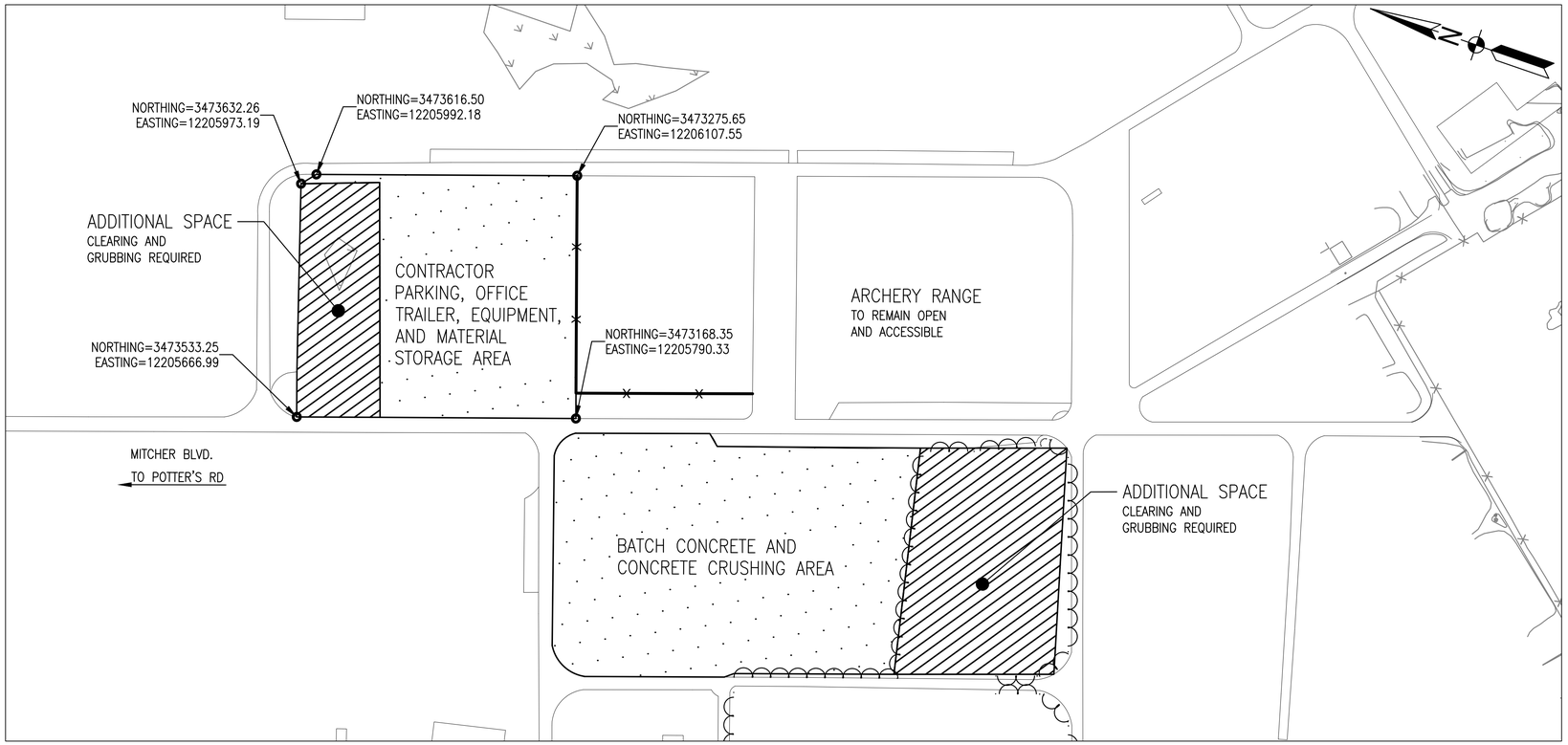
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION SAFETY DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690025
SHEET 14 OF 315
G-109

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\pg_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-109.dwg LAYOUT NAME: G-106 PLOTTED: Monday, March 23, 2015 - 5:30pm USER: jpeorge

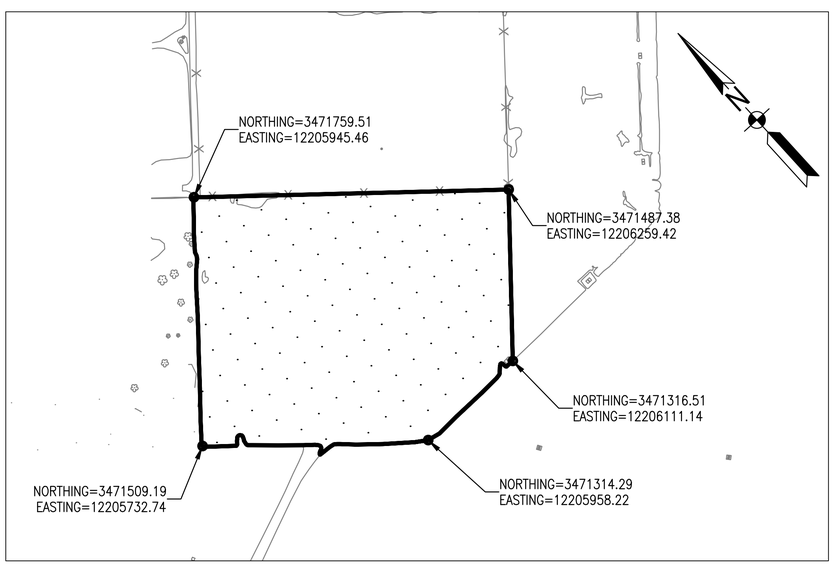


SKEET RANGE STAGING AND PLANT AREA

1"=100' 0 100' 200' 400'

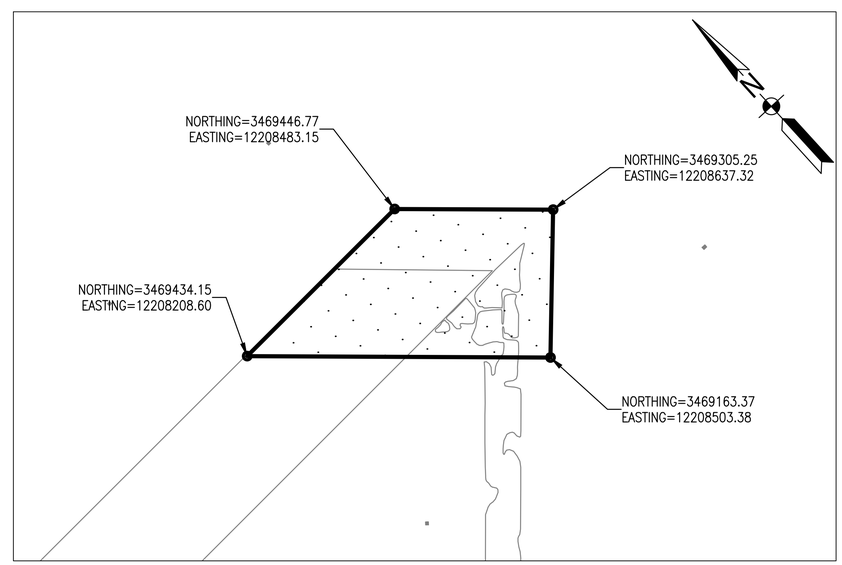
STAGING NOTES:

1. UTILIZE STAGING AREAS, PLANT LOCATIONS, AND HAUL ROUTES AS SHOWN ON PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER.
2. NASO SECURITY GUARDS ARE RESPONSIBLE FOR MAINTAINING SECURITY AT THE ACCESS POINT OF THE AIRFIELD. PRIMARY ACCESS POINTS ARE POST 14 R 35.
3. PROVIDE THE NECESSARY SIGNAGE ALONG HAUL ROUTES TO SAFELY AND EFFICIENTLY DIRECT CONSTRUCTION VEHICLES TO AND FROM THE WORK AREAS. COORDINATE SIGN TYPES AND LOCATIONS WITH THE CONTRACTING OFFICER.
4. ADHERE TO THE SPECIFIED BOUNDARIES FOR STAGING AREAS AND PLANT LOCATIONS UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER.
5. EQUIPMENT STORAGE AND STOCKPILES ARE SUBJECT TO THE HEIGHT RESTRICTIONS IDENTIFIED ON THE MAXIMUM EQUIPMENT HEIGHT PLAN.
6. AREAS IDENTIFIED FOR CLEARING AND GRUBBING ARE AVAILABLE TO THE CONTRACTOR AS NEEDED. CLEAR AND GRUB THESE AREAS TO THE EXTENT REQUIRED, OR AT THE DIRECTION OF THE CONTRACTING OFFICER, AT THE CONTRACTORS EXPENSE.
7. UTILIZE STEEL PLATES OVER UTILITY CROSSINGS WITH ALL HAUL ROUTES SUFFICIENT ENOUGH TO DISSIPATE VEHICLE LOADING WITHOUT DAMAGING THE UTILITY. REPAIR ALL DAMAGED UTILITIES DUE TO HAULING OPERATIONS AT THE CONTRACTOR'S EXPENSE.
8. FINAL CONDITIONS OF ALL STAGING AND PLANT AREAS SHALL BE LEFT AS INDICATED ON THE PLANS. SKEET RANGE STAGING AND PLANT AREAS SHALL BE CONVERTED TO A RCC PARKING LOT. STAGING AREA A AND STAGING AREA B SHALL BE CONVERTED TO A PERVIOUS TURF INFIELD AREA.
9. EMPLOY ADEQUATE DUST AND DEBRIS CONTROL MEASURES THROUGHOUT THE WORK AREA AND HAUL ROUTES. MEASURES INCLUDE, BUT ARE NOT LIMITED TO, WATER FOR DUST CONTROL, POWER SWEEPERS, VACUUM TRUCKS, STONE CONSTRUCTION ENTRANCES, AND TRUCK BED COVERS.
10. STOCKPILES AND BATCH PLANT ARE SUBJECT TO PART 77 HEIGHT REQUIREMENTS.



STAGING AREA A

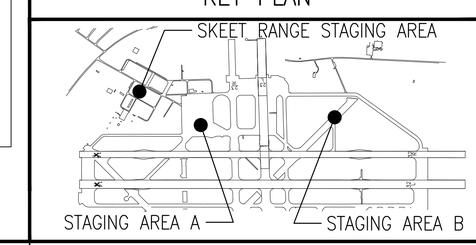
1"=100' 0 100' 200' 400'



STAGING AREA B

1"=100' 0 100' 200' 400'

KEY PLAN



SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

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ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

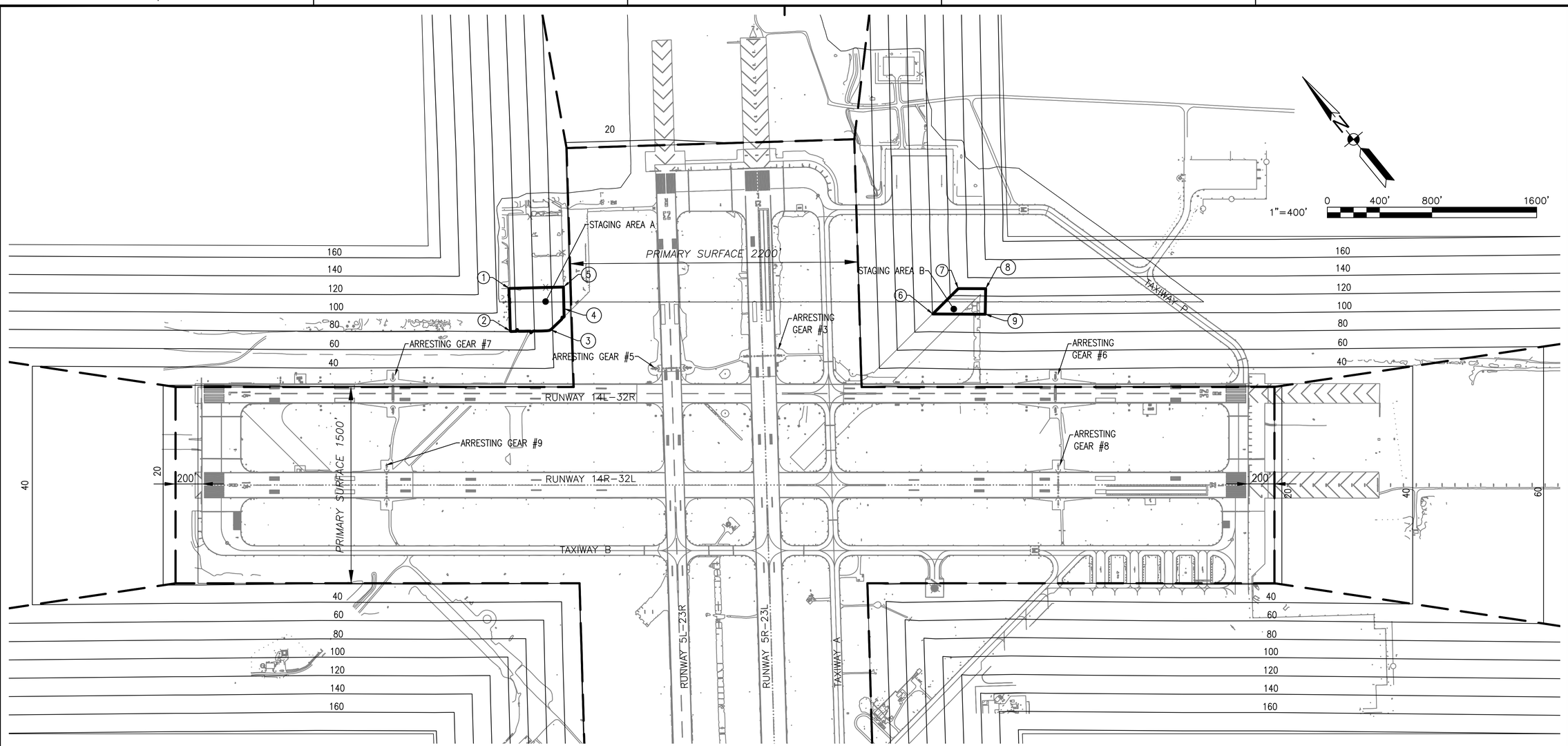
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONTRACTOR STAGING AND PLANT AREAS

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690026
SHEET 15 OF 315
G-110

DRAWFORM REVISION: 10 MARCH 2009

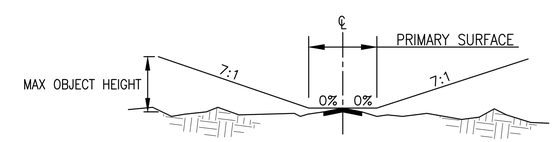
FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-110.dwg LAYOUT NAME: G-110 PLOTTED: Monday, March 23, 2015 - 5:32pm USER: jgeorge



MAXIMUM EQUIPMENT HEIGHT NOTES:

1. ANY BOOMS AND CONSTRUCTION EQUIPMENT SHALL BE LOWERED TO THE RESPECTIVE EQUIPMENT MINIMUM HEIGHT WHEN NOT IN USE OR AT THE END OF EACH DAY. NOT IN USE IS DEFINED AS NO OPERATOR BEING AVAILABLE TO MOVE A PARTICULAR PIECE OF EQUIPMENT FOR 15 MINUTES OR MORE.
2. THE MAXIMUM ELEVATIONS FOR CONSTRUCTION EQUIPMENT ARE INDICATED FOR THE CONTRACTOR AND REFERS TO ALL CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL NOT EXCEED THE HEIGHTS INDICATED IN THE PROJECT AREA AND SHALL AT NO TIME PENETRATE THE PART 77 PRIMARY SURFACES FOR RUNWAY 14R-32L, RUNWAY 5L-23R, AND RUNWAY 5R-23L WITHOUT ISSUANCE OF AN APPROVED NOTAM FOR THE SPECIFIC CONSTRUCTION ACTIVITY.
3. ANY EQUIPMENT OR OBJECTS PENETRATING THE PART 77 IMAGINARY SURFACES SHALL BE COORDINATED IN ADVANCE WITH THE CONTRACTING OFFICER. OBSTRUCTIONS PENETRATING THE PART 77 SURFACES SHALL BE MARKED AND/OR LIGHTED IN ACCORDANCE WITH FAA GUIDELINES.
4. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 2 DAYS PRIOR TO USING ANY EQUIPMENT OVER 20 FEET IN HEIGHT FOR COORDINATION WITH NAS OCEANA AIRFIELD OPERATIONS AND AIR TRAFFIC CONTROL TOWER.
5. CONTRACTOR SHALL INCLUDE WITHIN CONTRACT DOCUMENTS THE MAXIMUM EQUIPMENT HEIGHT EXPECTED TO BE USED DURING CONSTRUCTION. FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, SHALL BE SUBMITTED WHEN MAXIMUM EQUIPMENT HEIGHT IS EXPECTED TO PENETRATE THE PART 77 PRIMARY SURFACES. THIS FORM SHALL BE SUBMITTED TO THE FAA 30 DAYS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR SHALL USE THE ASSIGNED STAGING AREAS FOR STOCKPILING MATERIAL AND EQUIPMENT STORAGE.
7. ALL ELEVATIONS SHOWN ON PLAN ARE MEAN SEA LEVEL (MSL).
8. TYPICAL SECTION OF PART 77 IMAGINARY SURFACES IS SHOWN AS DETAIL 1 ON THIS SHEET.
9. ONLY PART 77 CONTOURS ARE SHOWN FOR CLARITY.
10. PART 77 ELEVATIONS SHOWN CONSIDER RUNWAY 14L-32R TO BE CLOSED.

POINT NO.	NORTHING	EASTING	EXISTING ELEVATION	PROPOSED MAXIMUM ALLOWABLE PART 77 ELEVATION	ALLOWABLE EQUIPMENT HEIGHT
1	3471759.86	12205944.67	19	86	67
2	3471510.25	12205732.89	19	80	61
3	3471312.59	12205966.72	18	42	24
4	3471363.48	12206151.66	18	27	9
5	3471487.50	12206259.28	18	26	8
6	3469434.15	12208208.60	19	100	81
7	3469446.87	12208483.14	19	127	108
8	3469305.25	12208637.32	19	128	109
9	3469163.37	12208503.38	19	100	81



NOTES:

1. THE ELEVATION OF ANY POINT ON THE PRIMARY SURFACE IS THE SAME AS THE ELEVATION OF THE NEAREST POINT ON THE RUNWAY CENTERLINE.
2. PRIMARY SURFACE WIDTH IS SHOWN ON PLAN VIEW.

PART 77 IMAGINARY SURFACES
NTS
SECTION 1

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
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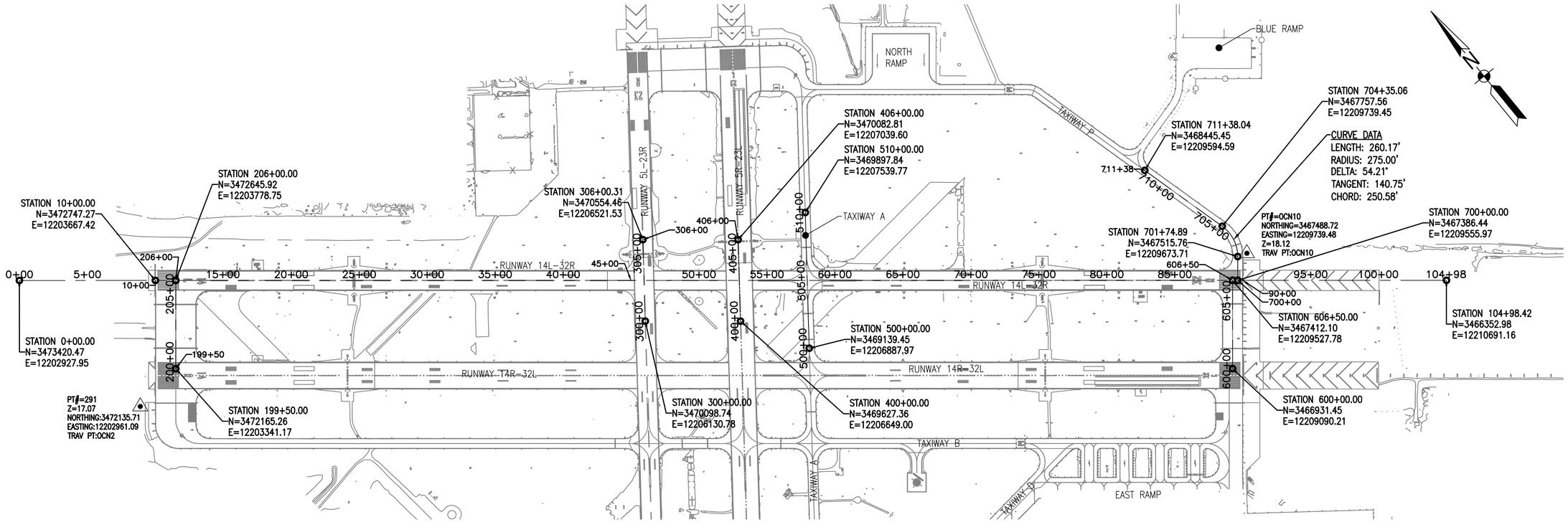
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
MAXIMUM EQUIPMENT HEIGHT PLAN

SCALE: 1" = 400'
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690027
SHEET 16 OF 315
G-111

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-6683-007-G-111.dwg LAYOUT NAME: G-111 PLOTTED: Monday, March 23, 2015 - 5:33pm USER: jgeorge



PERMANENT AND TEMPORARY BENCHMARK DATA

CONTROL POINT	DRAWING NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
201A	CD107	3,466,721.679	12,210,456.358	17.63	IRON PIN SET
201C	CD107	3,467,061.921	12,210,082.536	17.60	IRON PIN SET
202B	CD107	3,466,893.270	12,210,267.951	17.45	IRON PIN SET
204D	CD107	3,467,230.326	12,209,898.138	17.57	IRON PIN SET
OCN10	CD106	3,467,488.724	12,209,739.475	18.12	DISK IN CONCRETE
205E	CD106	3,467,395.828	12,209,716.288	18.25	IRON PIN SET
206F	CD106	3,467,561.286	12,209,535.540	18.19	IRON PIN SET
207G	CD106	3,467,732.232	12,209,346.745	18.11	IRON PIN SET
208H	CD106	3,467,904.478	12,209,157.317	18.17	IRON PIN SET
209I	CD106	3,468,076.088	12,208,969.094	17.98	IRON PIN SET
210J	CD106	3,468,247.764	12,208,780.134	17.89	IRON PIN SET
211K	CD105	3,468,399.355	12,208,613.729	17.99	IRON PIN SET
212L	CD105	3,468,571.887	12,208,424.578	18.10	IRON PIN SET
213M	CD105	3,468,743.184	12,208,236.421	18.26	IRON PIN SET
214N	CD105	3,468,916.514	12,208,045.921	17.82	IRON PIN SET
215O	CD105	3,469,088.398	12,207,856.790	17.70	IRON PIN SET
216P	CD105	3,469,250.041	12,207,679.260	18.56	IRON PIN SET
217Q	CD104	3,469,420.190	12,207,492.227	17.49	DRILL HOLE SET
218R	CD104	3,469,559.893	12,207,339.367	18.04	IRON PIN SET
219S	CD104	3,469,690.496	12,207,195.897	17.67	IRON PIN SET
220T	CD104	3,469,821.369	12,207,052.058	17.90	IRON PIN SET
221U	CD104	3,470,065.721	12,206,782.599	17.91	IRON PIN SET
222V	CD103	3,470,299.966	12,206,525.886	17.43	IRON PIN SET
223W	CD103	3,470,532.786	12,206,270.444	17.78	IRON PIN SET
224X	CD103	3,470,699.991	12,206,086.561	17.25	IRON PIN SET
225Y	CD103	3,470,871.928	12,205,897.782	17.13	IRON PIN SET
226Z	CD103	3,471,043.706	12,205,709.300	17.27	IRON PIN SET
227AA	CD102	3,471,216.219	12,205,519.825	18.26	IRON PIN SET
228BB	CD102	3,471,387.208	12,205,331.922	17.84	IRON PIN SET
229CC	CD102	3,471,559.185	12,205,143.054	16.94	IRON PIN SET
230DD	CD102	3,471,732.724	12,204,956.249	16.77	IRON PIN SET
231EE	CD102	3,471,902.781	12,204,765.476	16.83	IRON PIN SET
232FF	CD101	3,472,074.060	12,204,577.415	16.77	IRON PIN SET
233GG	CD101	3,472,246.456	12,204,387.950	16.56	IRON PIN SET
234HH	CD101	3,472,418.238	12,204,199.272	16.51	IRON PIN SET
235II	CD101	3,472,601.360	12,204,022.727	16.33	IRON PIN SET
236JJ	CD101	3,472,761.379	12,203,822.923	17.34	IRON PIN SET
237KK	CD101	3,472,898.035	12,203,672.920	16.65	IRON PIN SET
239MM	CD101	3,472,505.641	12,203,410.232	17.12	MAG NAIL SET
240TT	CD101	3,472,306.366	12,203,630.647	16.90	DRILL HOLE SET
241NN	CD104	3,469,351.722	12,207,225.433	18.53	IRON PIN SET
242OO	CD104	3,469,514.420	12,207,046.698	17.31	IRON PIN SET
243PP	CD104	3,469,642.340	12,206,906.495	17.75	IRON PIN SET
244QQ	CD104	3,469,893.860	12,206,630.316	17.79	IRON PIN SET
245RR	CD103	3,470,125.355	12,206,375.813	17.67	IRON PIN SET
246SS	CD103	3,470,361.713	12,206,115.285	17.48	IRON PIN SET
247UU	CD106	3,467,306.478	12,209,331.283	17.86	DRILL HOLE SET

NOTES:

1. TEMPORARY BENCHMARKS ASSOCIATED WITH SURVEY COMPLETED BY JMT IN MAY 2014 CAN BE FOUND ON SHEETS CD101 TO CD110.
2. NORTHING AND EASTING DATA PROVIDED THROUGH THE JMT SURVEY CONDUCTED IN MAY 2014.

GRAPHIC SCALE

1"=400' 0 400' 800' 1600'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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MARK J TIGER
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A/E INFO

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DES MJT DRW DFD CHK ELO

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BRANCH MANAGER BVL

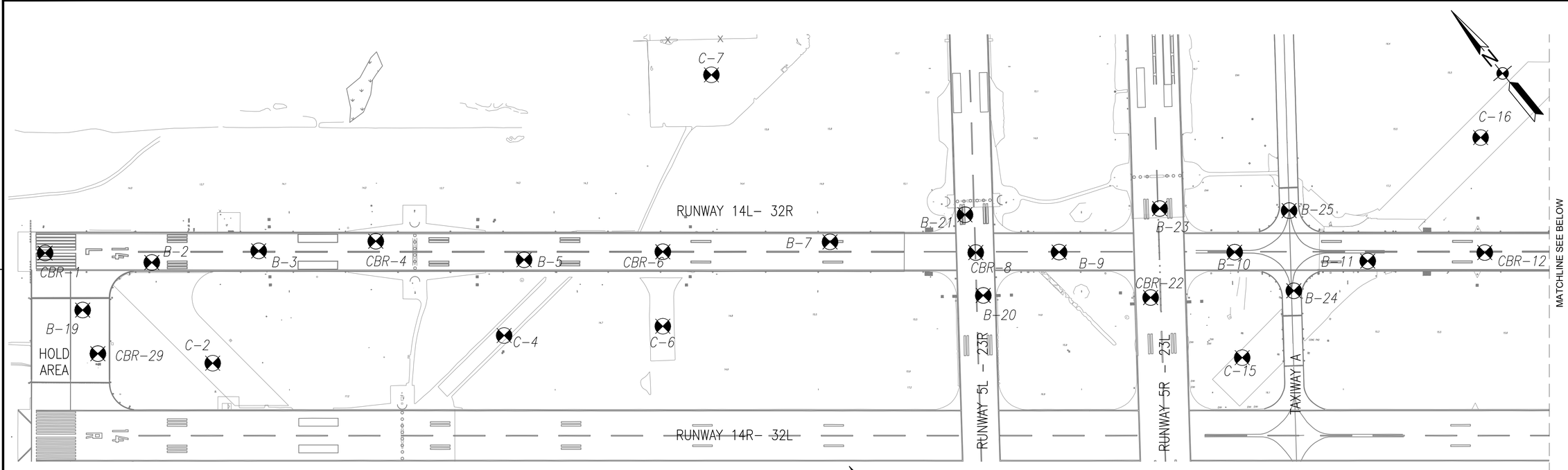
CHIEF ENG/ARCH

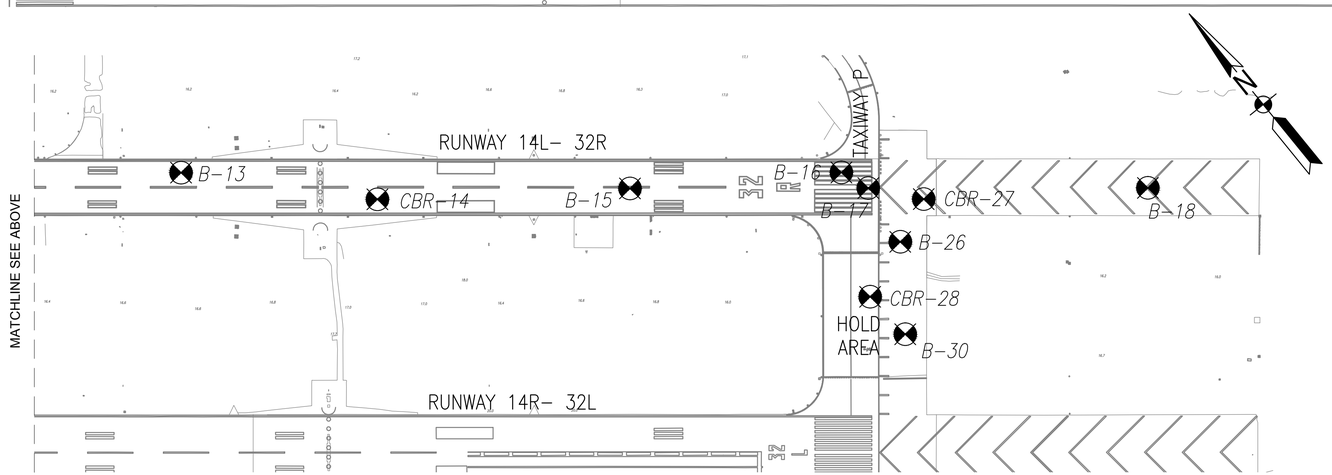
DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HORIZONTAL AND VERTICAL CONTROLS, AND NOTES

SCALE: 1" = 400'
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690028
SHEET 17 OF 315
G-112

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-G-112.dwg LAYOUT NAME: G-112 PLOTTED: Monday, March 23, 2015 - 5:35pm USER: jgeorge





BORING LOCATION PLAN

1" = 200'

BORING LOCATIONS		
DESCRIPTION	NORTHING	EASTING
CBR-1	3472707.30	12203703.85
B-2	3472406.96	12203980.06
B-3	3472165.71	12204310.84
CBR-4	3471892.71	12204665.23
B-5	3471460.27	12205035.17
CBR-6	3471127.05	12205446.46
B-7	3470726.25	12205942.47
CBR-8	3470322.49	12206325.53
B-9	3470110.14	12206561.26
B-10	3469659.74	12207055.35
B-11	3469293.63	12207407.36
CBR-12	3469017.55	12207758.65
B-13	3468630.72	12208246.23
CBR-14	3468229.81	12208582.11
B-15	3467802.17	12209094.38
B-16	3467457.65	12209535.35
B-17	3467379.39	12209560.18
B-18	3466882.85	12210106.02
B-19	3472450.29	12203663.39
B-20	3470182.57	12206236.48
B-21	3470456.76	12206391.96
CBR-22	3469747.61	12206702.51
B-23	3469974.80	12206956.00
B-24	3469399.48	12207123.18
B-25	3469637.21	12207315.39
B-26	3467217.66	12209527.02
CBR-27	3467259.31	12209648.74
CBR-28	3467163.97	12209370.63
CBR-29	3472288.64	12203594.42
B-30	3467028.46	12209372.57

CORING LOCATIONS		
DESCRIPTION	NORTHING	EASTING
C-2	3471967.50	12203893.40
C-4	3471298.13	12204784.98
C-6	3470917.46	12205255.50
C-7	3471500.38	12206036.62
C-15	3469343.57	12206806.37
C-16	3469351.76	12208041.78

GEOTECHNICAL INVESTIGATION NOTES:

1. BORINGS AND CORINGS REPRESENT THE CONDITIONS WITHIN THE BORING/CORING HOLE AT THE TIME OF DRILLING.

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.

SITE PREPARATION NOTES:

1. DEVELOP AND IMPLEMENT A FIELD TESTING PROGRAM THAT INCLUDES SUBGRADE LOAD TESTING (PROOFROLLING) AND COMPACTION TESTING AT A MINIMUM. SUBMIT FIELD TESTING PROGRAM TO THE CONTRACTING OFFICER A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION.

2. UNDERCUT POOR SUBGRADE SOILS IDENTIFIED BY THE FIELD TESTING PROGRAM OR AS DIRECTED BY THE CONTRACTING OFFICER WITHIN THE LIMITS OF PAVEMENT CONSTRUCTION. CONDUCT PROOFROLLING UNDER THE SUPERVISION OF THE CONTRACTING OFFICER'S GEOTECHNICAL REPRESENTATIVE. WHEN DIRECTED BY THE CONTRACTING OFFICER, UNDERCUT A MINIMUM DEPTH OF ONE (1) FOOT.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
CONSULTING FIRM REGISTERED PROFESSIONAL ENGINEER MARK J TIGER ENGINEER 041439-E STATE OF VIRGINIA

JOHNSON, MIRMIRAN THOMPSON
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WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
BORING LOCATION PLAN AND NOTES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690029
SHEET 18 OF 315
B-001

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-001.dwg LAYOUT NAME: B-001 PLOTTED: Monday, March 23, 2015 - 12:42pm USER: jgeorge

BORING ID: B-2

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.7	8" Concrete					
	1.0	3.5" Asphalt		1		6	0-0-0-2 (0)
	1.6	7.5" Concrete					
		Brown, moist, Sandy Lean CLAY (CL) with trace to some Sand, very soft to stiff 0-2 ft below grades: PP=2.5 tsf, Torvane=0.35 tsf 2-4 ft. below grades: PP=1.0 tsf; Torvane=0.35 tsf		2		12	5-5-4-5 (9)
	4.0						
	5	Gray, moist, Lean CLAY (CL), medium stiff 4-6 ft. below grades: PP=1.0 tsf; Torvane=0.3 tsf		3		24	3-3-2-2 (5)
				4		24	2-3-4-3 (7)
	7.5						
		Gray, wet, Poorly graded fine to medium SAND (SP-SM) with Silt, loose to medium dense		5		24	6-7-11-11 (18)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-3

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.7	8" Concrete					
	1.1	4.75" Asphalt		1		5	0-0-0-1 (0)
	1.6	6" Concrete					
		Gray-mottled brown, moist, Lean CLAY (CL), very soft to stiff 0-2 ft. below grades: PP=0.75 tsf; Torvane=0.2 tsf					
		2-4 ft below grades: PP=1.25 tsf; Torvane=0.35 tsf		2		18	1-2-2-3 (4)
	5	4-6 ft below grades: PP=1.0 tsf; Torvane=0.4 tsf		3		20	2-2-3-3 (5)
				4		24	4-5-6-5 (11)
	7.5						
	8.0	Gray, moist, Clayey fine SAND (SC), medium dense					
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	6-7-11-13 (18)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-5

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.6	7" Concrete					
	1.0	5" Asphalt		1		24	0-0-0-4 (0)
	1.6	7" Concrete					
	2.0	Brown, moist, Clayey fine to medium SAND (SC), very loose-FILL					
		Gray, moist, Lean CLAY (CL) with trace fine Sand, stiff 2-4 ft below grades: PP=3.0 tsf; Torvane=0.45 tsf		2		20	3-4-7-8 (11)
	4.0						
	5	Gray-mottled brown, moist, Lean CLAY (CL) with trace fine Sand, medium stiff 4-6 ft below grades: PP=1.5 tsf; Torvane= 0.4 tsf		3		24	3-4-4-3 (8)
		6-8 ft below grades: PP=1.0 tsf; Torvane=0.15 tsf		4		24	3-4-4-7 (8)
	7.8						
		Gray, moist to wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	7-11-15-16 (26)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-7

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.6	7" Concrete					
	0.7	1.5" Asphalt		1		12	0-0-0-3 (0)
	1.3	7.5" Concrete					
	2.0	Brown, moist, Clayey fine to medium SAND (SC), very loose-FILL					
		Gray-mottled bown, moist, Lean CLAY (CL), very soft to medium stiff 2-4 ft below grades: PP=0.25 tsf; Torvane=0.15 tsf		2		24	2-1-1-1 (2)
	5	4-6 ft below grades: PP=1.25 tsf; Torvane=0.5 tsf		3		24	1-2-3-3 (5)
	6.0						
		Gray, moist, Silty fine to medium SAND (SM) with trace Clay, loose		4		24	2-3-6-6 (9)
	8.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	7-8-12-12 (20)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-9

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	4" Asphalt					
	0.9	7" Concrete		1		5	0-0-0-2 (0)
	1.3	4.5" Asphalt					
	1.8	5.5" Concrete					
	2.0	Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, very loose-FILL					
		Gray-mottled, moist, Lean CLAY (CL) with trace to some fine Sand, soft to medium stiff 2-4 ft below grades: PP=0.5 tsf; Torvane=0.1 tsf		2		18	2-2-3-3 (5)
	5	4-6 ft below grades: PP=1.5 tsf; Torvane=0.55 tsf		3		24	2-2-2-2 (4)
		6-8 ft below grades: PP=1.0 tsf; Torvane=0.3 tsf		4		24	2-3-3-6 (6)
	8.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	6-6-12-15 (18)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-10

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.5	5.75" Asphalt					
	1.0	6.75" Concrete		1		2	0-0-0-1 (0)
	1.2	1.5" Asphalt					
	1.7	6.5" Concrete					
	2.0	Brown, moist, Silty fine to medium SAND (SM), very loose-FILL					
		Dark brown, moist, Lean CLAY (CL), medium stiff to stiff 2-4 ft below grades: PP=1.5 tsf; Torvane=0.1 tsf		2		18	6-3-3-4 (6)
	5	4-6 ft below grades: PP=1.25 tsf; Torvane=0.5 tsf		3		18	4-2-4-3 (6)
				4		24	3-4-7-7 (11)
	7.8						
		Gray, moist to wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	6-7-10-12 (17)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

BORING DETAILS – SHEET 1

SCALE: NONE

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12690030

SHEET 19 OF 315

B-002

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-002.dwg LAYOUT NAME: B-002 PLOTTED: Monday, March 23, 2015 - 11:40am USER: jgeorge

BORING ID: B-11

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.6	7" Concrete					
	1.0	4.5" Asphalt		1		0	0-0-0-2 (0)
	1.5	6.5" Concrete					
	2.0	NO RECOVERY					
		Gray-mottled brown, moist, Lean CLAY (CL) with trace to little fine Sand, soft to stiff 2-4 ft below grades: PP=0.75 tsf; Torvane=0.45 tsf		2		18	1-1-2-2 (3)
5		4-6 ft below grades: PP=1.75 tsf; Torvane=0.5 tsf		3		24	3-4-5-6 (9)
	6.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		4		24	7-9-11-14 (20)
				5		24	6-7-6-6 (13)
10	10.0	Boring terminated at 10 feet below existing grade.					

BORING ID: B-13

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	1.0	12.5" Concrete		1		12	0-0-5-5 (5)
		Brown, moist, Silty fine to medium SAND (SM) with Clay lenses, loose to medium dense-FILL		2		12	5-6-5-4 (11)
	3.5	Gray-mottled brown, moist, Lean CLAY (CL) with some fine Sand, stiff 3.5-4 ft below grades: PP=2.25 tsf; Torvane=0.75 tsf					
5		4-6 ft below grades: PP=1.5 tsf; Torvane=0.45 tsf		3		24	3-6-5-4 (11)
	6.0						
		Tan, wet, Poorly graded fine SAND (SP) with trace fine gravel, medium dense		4		24	9-14-14-16 (28)
				5		24	6-9-11-15 (19)
10	10.0	Boring terminated at 10 feet below existing grade.					

BORING ID: B-15

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	1.0	12" Concrete		1		12	0-0-0-0 (0)
		Brown, moist, Silty fine to medium SAND (SM) with trace Clay, very loose to loose-FILL		2		20	4-3-3-2 (6)
	3.0						
5		Gray-mottled brown, moist, Lean CLAY (CL), medium stiff to stiff 3-4 ft below grades: PP=1.5 tsf; Torvane=0.65 tsf		3		24	4-5-7-9 (12)
	6.0						
		Tan to gray, wet, Poorly graded fine to medium SAND (SP), medium dense		4		24	5-11-11-13 (22)
				5		24	7-9-5-11 (14)
10	10.0	Boring terminated at 10 feet below existing grade.					

BORING ID: B-16

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	1.1	13.5" Concrete		1		4	0-0-0-0 (0)
	1.4	3" Aggregate Base Material					
		Brown, moist, Poorly graded fine to medium SAND (SP-SM) with Silt with trace fine gravel, very loose to medium dense-FILL		2		20	9-8-7-8 (15)
	3.5	Gray-mottled brown, moist, Lean CLAY (CL) with trace fine Sand, stiff 3.5-4 ft below grades: PP=3.75 tsf; Torvane=0.75 tsf					
5		4-6 ft below grades: PP=1.75 tsf; Torvane=0.5 tsf		3		24	9-8-7-8 (15)
	6.0						
		Tan, wet, Poorly graded fine SAND (SP), medium dense to dense		4		24	11-18-20-19 (38)
				5		24	13-14-16-14 (30)
10	10.0	Boring terminated at 10 feet below existing grade.					

BORING ID: B-17

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	1.0	12" Concrete		1		12	0-0-10-7 (10)
	1.3	3" Aggregate Base Material					
		Brown, moist, Poorly graded fine to medium SAND (SP-SM) with Silt and trace fine gravel, loose to medium dense-FILL		2		18	8-6-6-4 (12)
	3.5	Gray-mottled brown, moist, Lean CLAY (CL), medium stiff to stiff 3.5-4 ft below grades: PP=0.75 tsf; Torvane=0.35 tsf					
5		4-6 ft below grades: PP=0.75 tsf; Torvane=0.5 tsf		3		20	4-4-3-4 (7)
	6.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense to dense		4		24	7-8-10-13 (18)
				5		24	11-12-19-17 (31)
10	10.0	Boring terminated at 10 feet below existing grade.					

BORING ID: B-18

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.1	1.5" Asphalt					
	0.6	6" Aggregate Base Material					
		Tan, moist, Poorly graded fine to medium SAND (SP) with trace fine gravel, loose-FILL		1		12	0-3-3-4 (6)
	3.5	Brown, moist, Lean CLAY (CL), medium stiff to stiff 3.5-4 ft below grades: PP=1.25 tsf; Torvane=0.7 tsf		2		24	2-4-4-5 (8)
5		4-6 ft below grades: PP=1.25 tsf; Torvane=0.35 tsf		3		24	4-5-5-6 (10)
	6.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense to dense		4		24	13-14-17-16 (31)
				5		24	9-9-8-8 (17)
10	10.0	Boring terminated at 10 feet below existing grade.					

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HQ IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
BORING DETAILS – SHEET 2

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690031
SHEET 20 OF 315
B-003

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-003.dwg LAYOUT NAME: B-003 PLOTTED: Monday, March 23, 2015 - 11:41am USER: jgeorge

BORING ID: B-19

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.9	10.5" Concrete		1		12	0-0-4-8 (4)
	3.5	Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, very loose to loose-FILL		2		20	2-3-3-4 (6)
	5	Gray, wet, Clayey fine SAND (SC), loose		3		20	2-2-4-4 (6)
	8.0			4		24	2-3-7-13 (10)
	10.0	Gray, wet, Poorly graded fine SAND (SP), medium dense		5		24	7-10-15-16 (25)
	10	Boring terminated at 10 feet below existing grade.					

BORING ID: B-20

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	3.25" Asphalt					
	0.8	6.5" Concrete					
	1.2	4.5" Asphalt		1		3	0-0-0-4 (0)
	1.8	7" Concrete					
	4.0	Brown to gray, moist, Silty-Clayey fine to medium SAND (SC-SM) with trace fibrous organics, loose-FILL		2		6	4-2-4-2 (6)
	5	Brown, moist, Lean CLAY (CL), medium stiff 4-6 ft below grades: PP=1.0 tsf; Torvane=0.45 tsf		3		24	2-2-3-3 (5)
	8.0	NO RECOVERY		4		0	3-3-4-6 (7)
	10.0	Brown to gray, wet, Silty fine to medium SAND (SM) with trace Clay, loose		5		24	3-4-6-7 (10)
	10	Boring terminated at 10 feet below existing grade.					

BORING ID: B-21

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	3" Asphalt					
	0.8	6.5" Concrete					
	1.2	5" Asphalt		1		6	0-0-0-5 (0)
	1.7	6" Concrete					
	2.0	Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, very loose-FILL					
	4.0	Brown, moist, Lean CLAY (CL), soft 2-4 ft below grades: PP=0.5 tsf; Torvane=0.1 tsf		2		18	5-2-2-2 (4)
	5	Gray-mottled brown, moist, Lean CLAY (CL), soft to medium stiff 4-6 ft below grades: PP=1.0 tsf; Torvane=0.45 tsf		3		24	1-1-2-3 (3)
	7.0			4		24	2-3-4-6 (7)
	8.0	Gray, moist, Silty fine SAND (SM) with trace Clay, loose					
	10.0	Brown to gray, wet, Poorly graded fine to medium SAND (SP-SM) with Silt, medium dense		5		24	5-6-8-8 (14)
	10	Boring terminated at 10 feet below existing grade.					

BORING ID: B-23

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	1.2	14.5" Concrete		1		6	0-0-0-7 (0)
	2.1	10.5" Aggregate Base Material					
	4.0	Brown, moist, Silty fine to medium SAND (SM) with trace Clay, medium dense-FILL		2		20	4-5-8-7 (13)
	5	Gray-motled brown, moist to wet, Fat CLAY (CH), soft to very stiff 4-6 ft below grades: PP=1.25 tsf; Torvane=0.7 tsf		3		24	3-2-2-3 (4)
	7.0			4		24	7-7-9-9 (16)
	10.0	Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	5-7-10-12 (17)
	10	Boring terminated at 10 feet below existing grade.					

BORING ID: B-24

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.5	5.5" Asphalt					
	1.3	10.5" Concrete		1		2	0-0-12-8 (12)
	3.5	Brown, moist, Clayey fine to medium SAND (SC), medium dense-FILL		2		15	5-6-5-5 (11)
	5	Brown, moist, Lean CLAY (CL), medium stiff to stiff 3.5-4 ft below grades: PP=1.5 tsf; Torvane=0.4 tsf		3		0	3-3-4-4 (7)
	6.0						
	8.0	Gray to brown, wet, Clayey fine SAND (SC), loose		4		18	3-3-4-7 (7)
	10.0	Gray, wet, Poorly graded fine SAND (SP), medium dense		5		24	7-8-8-10 (16)
	10	Boring terminated at 10 feet below existing grade.					

BORING ID: B-25

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.5	5.5" Asphalt					
	1.3	10.5" Concrete		1		6	0-0-0-7 (0)
	3.5	Brown, moist, Clayey fine to medium SAND (SC), very loose to medium dense-FILL		2		20	9-9-6-6 (15)
	5	Gray-mottled brown, moist, Lean CLAY (CL) with some Sand, stiff 3.5-4 ft below grades: PP=1.25 tsf; Torvane=0.45 tsf 4-6 ft below grades: PP=1.5 tsf; Torvane=0.55 tsf		3		20	4-4-5-4 (9)
	6.0						
	10.0	Gray, wet, Poorly graded fine SAND (SP), medium dense		4		24	7-8-11-14 (19)
				5		24	9-9-11-11 (20)
	10	Boring terminated at 10 feet below existing grade.					

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

REGISTERED PROFESSIONAL ENGINEER MARK J. TIGER 041439-E

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VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
BORING DETAILS – SHEET 3

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690032
SHEET 21 OF 315
B-004

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-004.dwg LAYOUT NAME: B-004 PLOTTED: Monday, March 23, 2015 - 11:41am USER: jgeorge

BORING ID: B-26

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.5	6.25" Concrete					
	1.1	7" Aggregate Base Material		1		12	0-9-8-8 (17)
		Brown, moist to wet, Poorly graded fine to medium SAND (SP) with trace Clay lenses, loose to medium dense-FILL		2		6	9-7-3-2 (10)
	4.0						
5		Tan, wet, Poorly graded fine SAND (SP), loose to medium dense		3		18	3-3-6-11 (9)
				4		24	9-11-10-9 (21)
	8.0						
		Tan, wet, Poorly graded fine to medium SAND (SP) with trace fine gravel, medium dense		5		24	7-8-8-10 (16)
10	10.0						
		Boring terminated at 10 feet below existing grade.					

BORING ID: B-30

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	% -#200
	0.5	6" Concrete						
	1.0	6" Aggregate Base Material		1		12	0-5-5-5 (11)	
		Brown, moist, Poorly graded fine to medium SAND (SP) with trace Clay lenses, loose to medium dense-FILL		2		24	2-2-3-3 (5)	
	3.0							
5		Brown, moist, Fat CLAY (CH) with trace fine Sand, medium stiff to stiff 3-4 ft below grades: PP=2.0 tsf; Torvane=0.7 tsf		3		24	3-6-9-1 (15)	92
	5.7							
		Tan to gray, moist to wet, Poorly graded fine to medium SAND (SP), loose to medium dense		4		24	10-13-12-13 (25)	
				5		24	4-3-2-1 (5)	
10	10.0							
		Boring terminated at 10 feet below existing grade.						

BORING ID: CBR-1

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.7	8" Concrete					
	0.8	1.5" Asphalt		1		12	0-0-0-2 (0)
	1.5	8" Concrete					
		Brown, moist, Sandy Lean CLAY (CL), very soft 1.5-2 ft below grades: PP=0.5 tsf; Torvane=0.1 tsf		2		12	1-1-1-1 (2)
	4.0						
5		Gray, moist, Lean CLAY (CL), soft 4-6 ft below grades: PP=0.75 tsf; Torvane=0.1 tsf		3		20	1-1-3-4 (4)
	6.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), loose to medium dense		4		22	2-3-6-8 (9)
				5		24	5-7-9-12 (16)
10	10.0						
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-4

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.6	7" Concrete					
	0.8	2" Asphalt		1		5	0-0-1-2 (1)
	1.3	6" Concrete					
	2.0	Brown, moist, Clayey fine SAND (SC) with trace fine gravel, very loose-FILL					
		Brown, moist, Sandy Lean CLAY (CL), soft 2-4 ft below grades: PP=1.25 tsf; Torvane=0.25 tsf		2		18	1-2-2-3 (4)
	4.0						
5		Gray-mottled brown, moist, Lean CLAY (CL), medium stiff 4-6 ft below grades: PP=1.75 tsf; Torvane=0.5 tsf		3		24	2-3-3-4 (6)
				4		24	3-3-3-6 (6)
	7.6						
	8.0	Gray, moist, Silty fine SAND (SM) with trace Clay, loose					
		Gray, wet, Poorly graded fine SAND (SP), medium dense		5		24	4-11-15-17 (26)
10	10.0						
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-6

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		17.5" Concrete		1		6	0-0-0-3 (0)
	1.5						
		Dark brown to mottled brown, moist, Lean CLAY (CL) with little Sand, very soft to medium stiff 1.5-2 ft below grades: PP=1.75 tsf; Torvane=0.5 tsf					
		2-4 ft below grades: PP=0.75 tsf; Torvane=0.15 tsf		2		20	3-2-3-5 (5)
5		4-6 ft below grades: PP=0.75 tsf; Torvane=0.35 tsf		3		24	2-3-2-2 (5)
				4		24	2-2-4-5 (6)
	7.5						
	8.0	Gray, moist, Silty fine SAND (SM) with trace Clay, loose					
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	3-6-9-11 (15)
10	10.0						
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-8

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	3" Asphalt					
	0.8	7" Concrete					
	1.2	4" Asphalt		1		2	0-0-0-3 (0)
	1.7	6" Concrete					
	2.0	Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, very loose-FILL					
		Dark brown, moist, Silty Lean CLAY (CL-ML) with little Sand, soft 2-4 ft below grades: PP=0.25 tsf; Torvane=0.1 tsf		2		24	1-2-2-3 (4)
	4.0						
5		Gray-mottled brown, moist, Lean CLAY (CL), medium stiff to stiff 4-6 ft below grades: PP=1.0 tsf; Torvane=0.3 tsf		3		24	2-2-3-3 (5)
				4		24	4-4-5-5 (9)
	7.5						
	8.0	Gray, moist, Clayey fine SAND (SC), loose					
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		20	4-6-8-10 (14)
10	10.0						
		Boring terminated at 10 feet below existing grade.					

APPR | DATE | DESCRIPTION | SYM

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

BORING DETAILS – SHEET 4

SCALE: NONE

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12690033

SHEET 22 OF 315

B-005

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-005.dwg LAYOUT NAME: B-005 PLOTTED: Monday, March 23, 2015 - 11:41am USER: jgeorge

BORING ID: CBR-12

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.6	7" Concrete					
	1.0	4.5" Asphalt		1		0	0-0-1-1 (1)
	1.5	6" Concrete					
	2.0	NO RECOVERY					
		Gray, moist to wet, Lean CLAY (CL) with trace to some fine Sand, soft to stiff 2-4 ft below grades: PP=1.0 tsf; Torvane=0.45 tsf		2		24	1-1-3-3 (4)
	5			3		24	3-5-7-8 (12)
	5.5						
	6.0	Gray, wet, Poorly graded fine to medium SAND (SP-SM) with Silt, medium dense					
				4		24	3-4-7-11 (11)
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense					
				5		24	7-8-7-5 (15)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-14

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		12.75" Concrete		1		12	0-0-7-7 (7)
	1.1						
		Brown, moist, Silty-Clayey fine to medium SAND (SC-SM), loose to medium dense-FILL		2		20	7-9-4-4 (13)
	3.5						
		Gray-mottled brown, moist, Lean CLAY (CL) with trace fine Sand, stiff to very stiff 3.5-4 ft below grades: PP=1.25 tsf; Torvane=0.6 tsf		3		24	7-9-12-12 (21)
	5						
	5.5						
		Tan to gray, moist to wet, Poorly graded fine to medium SAND (SP), medium dense		4		24	5-12-13-14 (25)
				5		24	11-11-14-15 (25)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-22

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		18.5" Asphalt		1		7	0-0-0-0 (0)
	1.5						
		Brown, moist, Clayey fine to medium SAND (SC) with trace fine gravel, very loose to medium dense		2		18	7-8-12-7 (20)
	4.0						
	5	Brown, moist, Lean CLAY (CL), stiff 4-6 ft below grades: PP=1.25 tsf; Torvane=0.4 tsf		3		24	3-5-4-5 (9)
				4		24	4-5-5-6 (10)
	7.8						
	8.0	Gray, moist, Clayey fine to medium SAND (SC), loose					
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	6-9-12-12 (21)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-27

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.5	6" Concrete					
	0.8	4" Aggregate Base Material		1		12	0-8-8-7 (16)
		Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, medium dense-FILL		2		15	9-9-6-5 (15)
	4.0						
	5	Gray-mottled brown, wet, Lean CLAY (CL), medium stiff 4-6 ft below grades: PP=1.25 tsf; Torvane=0.55 tsf		3		24	4-4-3-3 (7)
	6.0						
		Brown, wet, Poorly graded fine to medium SAND (SP), medium dense		4		24	9-11-13-11 (24)
	8.0						
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense		5		24	11-12-13-16 (25)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-28

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		15" Concrete		1		3	0-0-0-5 (0)
	1.3						
	1.5	3" Aggregate Base Material					
	2.0	Gray, moist, Poorly graded fine to medium SAND (SP-SM) with Silt with trace fine to medium gravel, very loose-FILL					
		Tan-brown, moist, Lean CLAY (CL), medium stiff 2-4 ft below grades: PP=2.75 tsf; Torvane=0.75 tsf		2		18	6-4-3-4 (7)
	5	4-6 ft below grades: PP=1.25 tsf; Torvane=0.4 tsf		3		24	6-5-4-4 (9)
	6.0						
				4		24	4-5-7-10 (12)
		Gray, wet, Poorly graded fine to medium SAND (SP), medium dense					
				5		24	7-7-4-4 (11)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

BORING ID: CBR-29

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.9	10.5" Concrete					
	1.3	Brown, moist, Silty fine to medium SAND (SM) with trace fine gravel, loose-FILL		1		12	0-0-5-8 (5)
		Brown, moist, Silty Lean CLAY (CL-ML) with some Sand, medium stiff to stiff 2-4 ft below grades: PP=1.5 tsf; Torvane=0.5 tsf		2		18	5-7-7-8 (14)
	5			3		24	5-7-8-11 (15)
	5.9						
	6.5	Gray, moist, Clayey fine to medium SAND (SC), medium dense					
		Gray to brown, wet, Poorly graded fine to medium SAND (SP), medium dense		4		24	4-7-11-13 (18)
	8.0						
		Tan, wet, Poorly graded fine to medium SAND (SP-SM) with Silt with trace Clay, medium dense		5		24	9-11-17-12 (28)
	10	10.0					
		Boring terminated at 10 feet below existing grade.					

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VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
BORING DETAILS – SHEET 5

DES MJT DRW DFD CHK ELO
BRANCH MANAGER BJL

SCALE: NONE
EPROJECT NO.: 1312624
NAVFAC DRAWING NO. 12690034
SHEET 23 OF 315
B-006

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-006.dwg LAYOUT NAME: B-006 PLOTTED: Monday, March 23, 2015 - 11:41am USER: jgeorge

CORING ID: C-2

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	8" Topsoil	
0.7		
	7" Concrete	
0.6		
	Tan, moist, poorly graded fine SAND (SP-SM) with silt	

CORING ID: C-4

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	13.5" Asphalt	
1.1		
	Gray, moist, clayey fine SAND (SC)	

CORING ID: C-6

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	7.5" Asphalt	
0.6		
	Gray, moist, clayey fine SAND (SC)	

CORING ID: C-7

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	5.5" Concrete	
0.5		
	Gray, moist, lean CLAY(CL)	

CORING ID: C-15

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	5" Topsoil	
0.4		
	6.5" Concrete	
0.5		
	Tan and gray, moist Poorly graded fine SAND (SP) with trace of clay	

CORING ID: C-16

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	6" Topsoil	
0.5		
	8" Concrete	
0.7		
	2" Tan, moist, poorly graded fine SAND (SP) followed by gray, moist, lean CLAY (CL)	

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
BORING DETAILS – SHEET 6

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690035
SHEET 24 OF 315
B-007

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-B-007.dwg LAYOUT NAME: B-007 PLOTTED: Monday, March 23, 2015 - 11:41am USER: jgeorge

LEGEND (CIVIL)

EXISTING	PROPOSED
PCC PAVEMENT DEMOLITION	AC PAVEMENT
AC PAVEMENT DEMOLITION	AC OVERLAY
AC MILL	CRACK REPAIR AND FOG SEAL
IDLE PAVEMENT REMOVAL	PCC PAVEMENT JOINT LAYOUT
	18.0 — MAJOR PROPOSED CONTOUR
EXISTING CONCRETE	18.2 — MINOR PROPOSED CONTOUR
UNK. VAULT	LOD
UNK. CAP	10+00 — RUNWAY/TAXIWAY BASELINE
CIRCULAR DI	SF — SILT FENCE
RECTANGULAR DI	IP — INLET PROTECTION
CONFLICT MANHOLE (UTILITY AND DRAINAGE)	DW — DEWATERING AREA
STORM CLEANOUT	R R — REINFORCED SLABS
UNK. MANHOLE	LKJ — LONGITUDINAL CONSTRUCTION JOINT
15" C.M.P. — EXISTING CMP STORM WATER PIPE	TCJ — TRANSVERSE CONTRACTION JOINT
15" CONC. — EXISTING CONCRETE STORM WATER PIPE	LCJ — LONGITUDINAL CONTRACTION JOINT
C — EXISTING COMMUNICATION CONDUIT	TE/EJ — THICKENED EDGE/EXPANSION JOINT
SFM — EXISTING SANITARY FORCE MAIN	DCJ — DOWELED CONTRACTION JOINT
18.0 — MAJOR EXISTING CONTOUR	DOWELED SLABS
18.2 — MINOR EXISTING CONTOUR	19.35 — SPOT ELEVATION (FT) (SHOWN ON SLAB CORNER)
SIGN	DRAINAGE STRUCTURE
DITCH CENTERLINE	MODIFIED DRAINAGE STRUCTURE
TEMPORARY BENCHMARK	NEW DRAINAGE PIPE
PERMANENT BENCHMARK	DEMOLISH EXISTING DRAINAGE PIPE
6" ASBESTOS-CEMENT SUBDRAIN PIPE	DEMOLISH EXISTING DRAINAGE STRUCTURE

STA:10+00.00
OFF:-75.00
NEGATIVE OFFSET

STATION AND OFFSET CALLOUT. NEGATIVE OFFSET REPRESENTS POINTS TO THE LEFT OF THE REFERENCED BASELINE WHEN READING STATIONS IN THE INCREASING DIRECTION.

STA:10+00.00
OFF:75.00
POSITIVE OFFSET

STATION AND OFFSET CALLOUT. POSITIVE OFFSET REPRESENTS POINTS TO THE RIGHT OF THE REFERENCED BASELINE WHEN READING STATIONS IN THE INCREASING DIRECTION.

NOTES:
1. SEE E-001 AND E-002 FOR ELECTRICAL LEGEND
2. SEE E-005 FOR ELECTRICAL ABBREVIATIONS

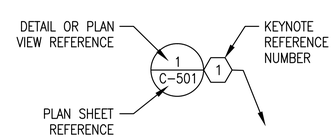
ABBREVIATIONS (CIVIL)

AC	ASPHALTIC CONCRETE
ACP	ASBESTOS CEMENT PIPE
APPROX.	APPROXIMATE
℄	BASELINE
A/G	ARRESTING GEAR
BC	BEGINNING OF CURVE
BIT	BITUMINOUS
BLDG	BUILDING
BTM	BOTTOM
C	CHORD
CABC	CRUSHED AGGREGATE BASE COURSE
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	STORM OR SANITARY CLEANOUT
CONC	CONCRETE
CRC	CONTINUOUSLY REINFORCED CONCRETE
CTB	CEMENT TREATED BASE COURSE
CY	CUBIC YARD
D	DELTA
DI	DROP INLET
DIA	DIAMETER
E	EASTING
EG	EXISTING GRADE
EL	ELEVATION
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
ESQD	EXPLOSIVE SAFETY QUANTITY – DISTANCE
EC	END OF CURVE
EXIST	EXISTING
FD	FULL DEPTH
FG	FINISHED GRADE
FLOLS	FRESNEL LENS OPTICAL LANDING SYSTEM
FT	FEET
H	THICKNESS
HA	HOLD APRON
INV	INVERT
IFLOLS	IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM
JT	JOINT
L	LENGTH
LF	LINEAR FOOT
L/P	LIGHT POLE
LCJ	LONGITUDINAL CONTRACTION JOINT
LKJ	LONGITUDINAL CONSTRUCTION JOINT
LOD	LIMIT OF DISTURBANCE
LT	LEFT
(MAX)	MAXIMUM
MG	MATCH EXISTING GRADE
MH	MANHOLE
(MIN)	MINIMUM
MW	MONITORING WELL.
N	NORTHING
NASO	NAVAL AIR STATION OCEANA
N/A	NOT APPLICABLE
NOTAM	NOTICE TO AIRMEN
OC	ON CENTER
OFF	OFFSET
OR	OVERRUN
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PAV'T	PAVEMENT
PC	POINT OF CURVE
PD	PARTIAL DEPTH
PCC	PORTLAND CEMENT CONCRETE
P/P	POWER/UTILITY POLE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
RCC	RECYCLED CRUSHED CONCRETE
RCP	REINFORCED CONCRETE PIPE
R&C	IRON ROD CAP
RT	RIGHT
RW	RUNWAY
SCH	SCHEDULE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT/SILT FENCE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
SW	STORMWATER
SY	SQUARE YARD
TBM	TEMPORARY BENCHMARK
TCJ	TRANSVERSE CONTRACTION JOINT
TE	THICKENED EDGE
TE/EJ	THICKENED EDGE EXPANSION JOINT
TG	TOP OF GRATE
TR	TOP OF RIM
TKJ	TRANSVERSE CONSTRUCTION JOINT
TW	TAXIWAY
(TYP)	TYPICAL
UGE	UNDERGROUND ELECTRICAL
UNK	UNKNOWN
WWF	WELDED WIRE FABRIC
Δ	TOTAL CENTRAL ANGLE
0.00	EXISTING SPOT ELEVATION (HARD SURFACE)
0.0	EXISTING SPOT ELEVATION (GROUND SURFACE)

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. BASED ON PROOFROLL, EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

SAMPLE DEMOLITION KEYNOTE CALLOUT

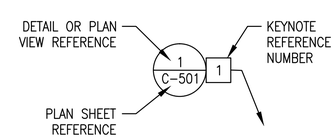


NOTES:
1. SEE ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION TASKS
2. SEE E-005 FOR ELECTRICAL DEMOLITION KEYNOTES

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

SAMPLE CONSTRUCTION KEYNOTE CALLOUT



NOTES:
1. EXCAVATION AND SUBGRADE PREPARATION IS NOTED WITH DEMOLITION NOTES.
2. SEE ELECTRICAL PLANS FOR ADDITIONAL CONSTRUCTION TASKS
3. SEE E-005 FOR ELECTRICAL CONSTRUCTION KEYNOTES

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED
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ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CIVIL CONSTRUCTION KEY NOTES, LEGEND, AND ABBREVIATIONS

SCALE: NONE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690036
SHEET 25 OF 315
C-001

DRAWFORM REVISION: 10 MARCH 2009

VEHICLE SERVICE ROAD
48" C.M.P.
IP 14.0 D2-7 RIM=14.0(A)
IP 13.7 D2-6 RIM=13.7(A)
IP 14.1 D2-5 RIM=14.1(A)
SINKHOLE (STRUCTURE?)
PT#=235II Z=16.33 TRAV PT:PIN(S)
PT#=234HH Z=16.51 TRAV PT:PIN(S)
PT#=237KK Z=16.65 TRAV PT:PIN(S)
PT#=236JJ Z=17.34 TRAV PT:PIN(S)
UNK. CAP
DITCH ℄
ELEC. TRANS ON CONC
ASPHALT PAVEMENT
PT#=233GG Z=16.56 TRAV PT:PIN(S)
"1/7" LIGHT SIGN
PT#=232FF Z=16.77 TRAV PT:PIN(S)
CONC PAD
CONDUIT
CONDUIT OUT OF GROUND
(2) EHHS
(3)EHHS
FLOLS
WAVE-OFF LIGHT W/ EHH
RUNWAY SIDESTRIPE MARKING (TYP)
PCC PAVEMENT
RUNWAY THRESHOLD MARKINGS
RUNWAY 14L-32R
8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00
206+00 205+00 204+00 203+00 202+00 201+00 200+00 199+50
RUNWAY CENTERLINE MARKER
RUNWAY DESIGNATION MARKINGS
TOUCHDOWN ZONE MARKING (TYP)
FIXED DISTANCE MARKING (TYP)
BLAST PAD
AC SHOULDER
RUNWAY EDGE LIGHT (TYP)
"<-B" LIGHT SIGN
RUNWAY 14L HOLD SHORT MARKING
TAXIWAY CENTERLINE MARKING
EHH MMH
6" A.C.P.
IP D2-1 RIM=14.80(S)
15" CONC.
"7/1" LIGHT SIGN
MATCHLINE SHEET C-102
IDLE PAVEMENT (COVERED IN VEGETATION)
HOLD AREA
TAXIWAY SIDESTRIPE MARKING
TAXIWAY EDGE LIGHT (TYP)
PT#=239MM Z=17.12 TRAV PT:MAG(S)
PCC PAVEMENT
DITCH ℄
IDLE PAVEMENT
PT#=240TT Z=16.90 TRAV PT:DH(S)
YELLOW PAINTED BOX "ARM/DEARM HDG 140"
ARM/DEARM MARKING
2" METAL CAP "TESTED 28 FEB 11 30.6 OHMS
2" METAL CAP "TESTED 28 FEB 11 33.5 OHMS
YELLOW PAINT "DO NOT STAND"
RUNWAY 14R HOLD SHORT MARKING
IP D3-29 RIM=14.40 ±(S)
UNK. MH FILLED W/DIRT 1'± BELOW RIM
WINDCONE
UNK. MH
12" CONC.
IP RIM=16.61
(6)BLUE LIGHTS BLUE/RED LIGHT
RW (FLUSH)
RUNWAY 14R-32L

KEY MAP

GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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BRANCH MANAGER BJL
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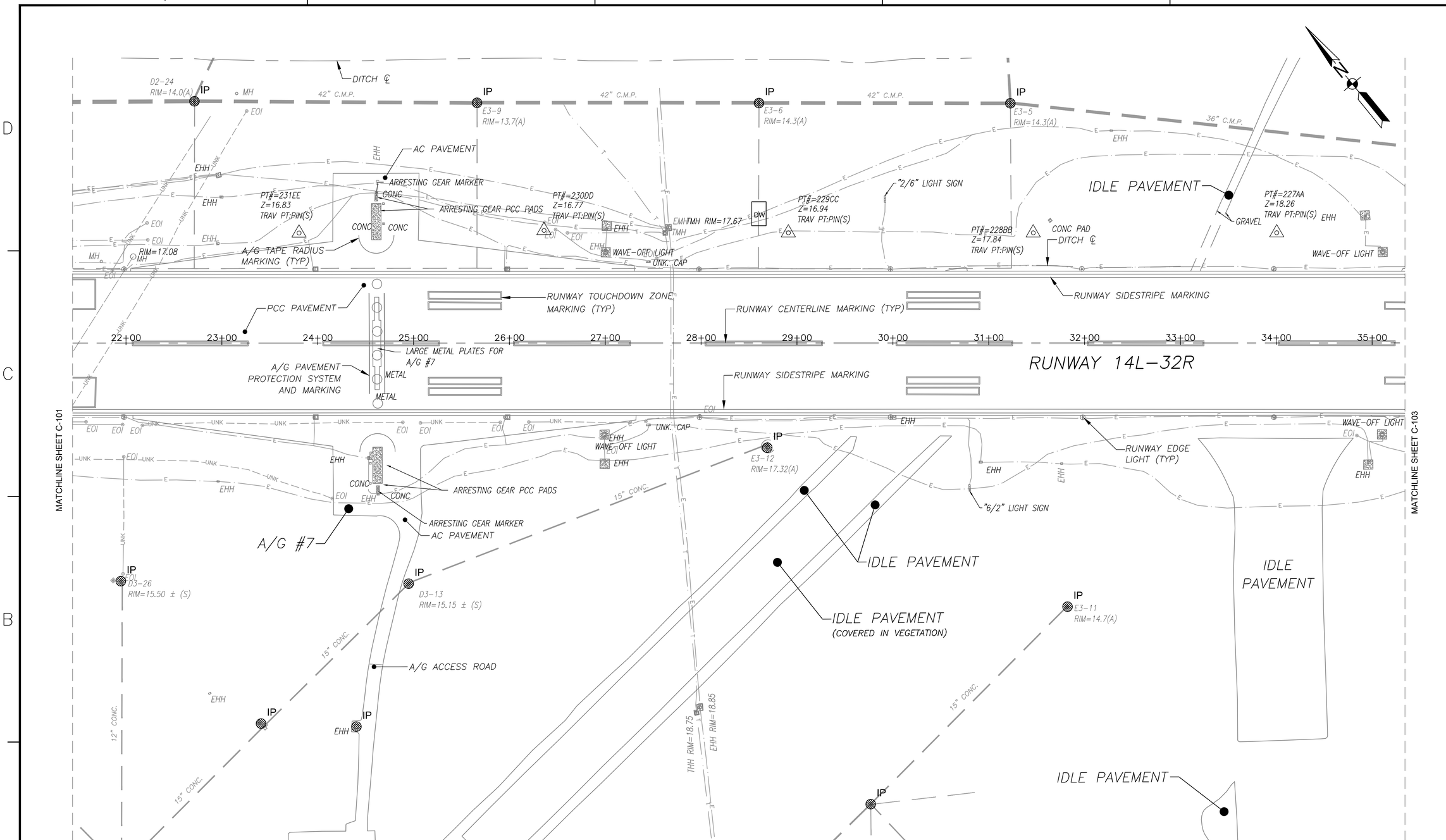
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 7+55 TO 21+45

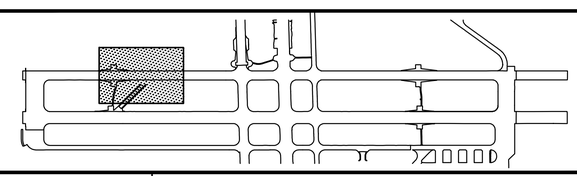
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690037
SHEET 26 OF 315
C-101

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-101.dwg LAYOUT NAME: C-101 PLOTTED: Monday, March 23, 2015 - 2:06pm USER: kwatson



KEY MAP



GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

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ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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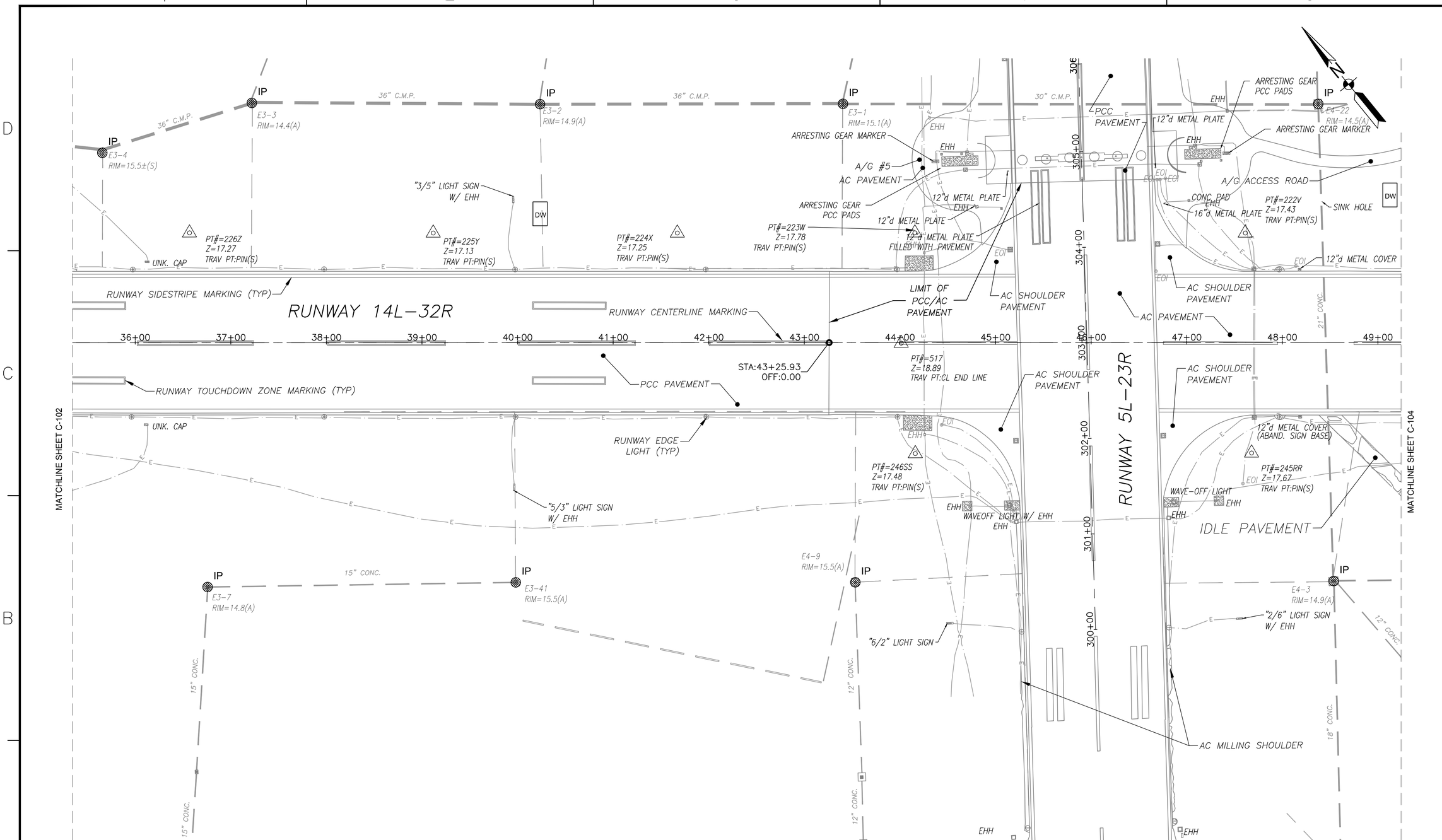
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 21+45 TO 35+24

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690038
SHEET 27 OF 315

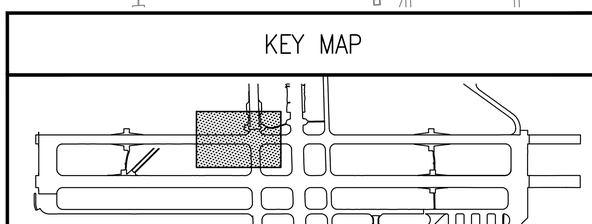
C-102

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-102.dwg LAYOUT NAME: C-102 PLOTTED: Monday, March 23, 2015 - 2:08pm USER: kwatson



KEY MAP



GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 35+24 TO 49+24

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690039
SHEET 28 OF 315

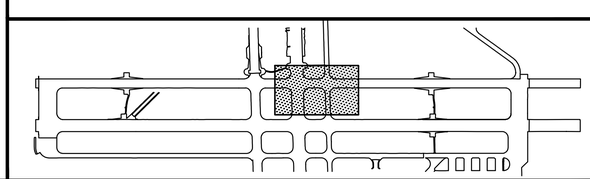
C-103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-103.dwg LAYOUT NAME: C-103 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: kwatson

A/G #3
E4-21
RIM=15.6±(S)
18" CONC.
E4-31
RIM=17.85(A)
A/G ACCESS ROAD
"4/4" LIGHT SIGN
ABAND. SIGN BASE
16"d METAL PLATE
PT#=221U
Z=17.91
TRAV PT:PIN(S)
AC SHOULDER PAVEMENT
AC PAVEMENT
PCC PAVEMENT
LIMIT OF PCC/AC PAVEMENT
RUNWAY SIDESTRIPE MARKING
E4-32
RIM=17.90(A)
16"d METAL PLATE
PT#=220T
Z=17.90
TRAV PT:PIN(S)
END OF PAINT
E4-18
RIM=15.25(A)
15" CONC.
E4-33
RIM=16.59(A)
RUNWAY 14L HOLD SHORT MARKING
TAXIWAY SIDESTRIPE MARKING
PT#=219S
Z=17.67
TRAV PT:PIN(S)
TAXIWAY LEAD-IN LINE MARKING (TYP)
RUNWAY CENTERLINE MARKING (TYP)
E4-3
RIM=15.81(A)
F4-30
RIM=16.3±(S)
"5/3" LIGHT SIGN
PT#=103A
Z=17.76
TRAV PT:PIN R
PT#=218R
Z=18.04
TRAV PT:PIN(S)
PT#=103B
Z=17.80
TRAV PT:PIN R
IDLE PAVEMENT
PT#=217Q
Z=17.49
TRAV PT:DH(S)
CONC
CAP RIM=18.68
Z4-4
RIM=17.3(A)
F4-12
RIM=17.5±(S)
IDLE PAVEMENT (COVERED IN VEGETATION)
RUNWAY 14L-32R
STA:59+06.43
OFF:0.00
PCC PAVEMENT
48" CONC.
CONC PAD
MATCHLINE SHEET C-103
MATCHLINE SHEET C-105
RUNWAY EDGE LIGHT (TYP)
PT#=244QQ
Z=17.79
TRAV PT:PIN(S)
"4/4" LIGHT SIGN
IDLE PAVEMENT
WAVE-OFF LIGHT
E4-1
RIM=17.39(A)
"10/2" LIGHT SIGN W/ EHH
WIRES CUT TO SIGN
E4-2
RIM=15.9(A)
RUNWAY 5R-23L
"5R-23L" LIGHT SIGN
PT#=243PP
Z=17.75
TRAV PT:PIN(S)
PT#=24200
Z=17.31
TRAV PT:PIN(S)
E4-23
RIM=16.05(A)
E4-25
RIM=16.07(A)
E4-38
RIM=15.56(A)
12" CONC.
8" C.M.P.
E4-26
RIM=16.95± (S)
"2/10" LIGHT SIGN W/ EHH
WIRES CUT TO SIGN
RUNWAY TOUCHDOWN ZONE MARKING (TYP)
EHH AT WAVE-OFF LIGHT (TYP.)
IDLE PAVEMENT
IDLE PAVEMENT (COVERED IN VEGETATION)
TAXIWAY A
RUNWAY 14L HOLD SHORT MARKING
TAXIWAY CENTERLINE MARKING
TAXIWAY EDGE LIGHT (TYP)
TAXIWAY SIDESTRIPE MARKING
RUNWAY 14R HOLD SHORT MARKING
PT#=241NN
Z=18.53
TRAV PT:PIN(S)
"<-P<-A->B->" LIGHT SIGN
"5/3" LIGHT SIGN W/ EHH
IDLE PAVEMENT
ABAND. SIGN BASE
E4-28
RIM=15.3(A)
36" CONC.
"5/3" LIGHT SIGN
50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00
405+00 404+00 403+00 402+00 401+00 400+00
508+00 507+00 506+00 505+00 504+00 503+00 502+00 501+00 500+00

KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

APPR	DATE	SYM	DESCRIPTION

NAVFAC

MARK J TIGER
REGISTERED PROFESSIONAL ENGINEER
041439-E

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A/E INFO

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ACTIVITY
SATISFACTORY TO DATE
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PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 49+24 TO 63+14

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690040
SHEET 29 OF 315
C-104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-104.dwg LAYOUT NAME: C-104 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: kwatson

IDLE PAVEMENT
(COVERED IN VEGETATION)
15" RCP
15" CONC.
18" CONC.
IP F4-3 RIM=16.2(A)
IP F5-14 RIM=16.2(A)
IP F5-15 RIM=16.8±(S)
IP F5-16 RIM=16.4(A)
PT#=216P Z=18.56 TRAV PT:PIN(S)
F4-1 RIM=17.0(A)
MH RIM=18.57
PT#=2150 Z=17.70 TRAV PT:PIN(S)
WAVE-OFF LIGHT W/EHH
PT#=214N Z=17.82 TRAV PT:PIN(S)
"6/2" LIGHT SIGN W/ EHH
ABAND. LT BASE (TYP.)
(2) EHH'S
PT#=213M Z=18.26 TRAV PT:PIN(S)
PT#=212L Z=18.10 TRAV PT:PIN(S)
A/G TAPE RADIUS MARKING (TYP)
ARRESTING GEAR MARKER
ARRESTING GEAR #6 PCC PADS
PT#=211K Z=17.99 TRAV PT:PIN(S)
AC PAVEMENT
ASPHALT SURFACE
RUNWAY SIDESTRIPE MARKING TYP.
RUNWAY 14L-32R
64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+
RUNWAY TOUCHDOWN ZONE MARKING TYP.
PCC PAVEMENT
RUNWAY CENTERLINE MARKING TYP.
A/G PAVEMENT PROTECTION SYSTEM AND MARKINGS
MATCHLINE SHEET C-104
MATCHLINE SHEET C-106
ABAND. SIGN/LIGHT BASE
UNK. CAP W/ WIRES
RUNWAY EDGE LIGHT (TYP)
"6/2" LIGHT SIGN W/ EHH
A/G #6
ARRESTING GEAR MARKER
A/G ACCESS ROAD
IP E5-9 RIM=15.5(A)
IP E5-1 RIM=15.8(A)
IP E5-4 RIM=16.4(A)
IP E5-2 RIM=16.6(A)
IP E5-3 RIM=16.6(A)
IP E5-5 RIM=16.8(A)
IP E5-6 RIM=17.0(A)
36" CONC. 30" CONC. 30" CONC. 27" CONC. 24" CONC. 24" CONC. 24" CONC.

KEY MAP

GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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NAVAL FACILITIES ENGINEERING COMMAND
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SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 63+14 TO 77+04

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690041
SHEET 30 OF 315
C-105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-105.dwg LAYOUT NAME: C-105 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: kwatson

MATCHLINE SHEET C-108

MATCHLINE SHEET C-105

MATCHLINE SHEET C-107

F5-18 RIM=16.2(A)
F5-19 RIM=16.6(A)
F5-20 RIM=16.8(A)
F5-21 RIM=16.3(A)
F5-22 RIM=17.0(A)
F5-23 RIM=17.4±(S)

15" CONC.
12" CONC.
6" CONC.

ASPHALT PAVEMENT
RUNWAY 14L HOLD SHORT MARKING TYP.
PT#=0CN10 Z=18.12 TRAV PT:0CN10
"<-P" LIGHT SIGN
TAXIWAY SIDESTRIPE MARKING
PT#=206F Z=18.19 TRAV PT:PIN(S)
TAXIWAY P
PT#=205E Z=18.25 TRAV PT:PIN(S)
BLAST PAD

"7/1" LIGHT SIGN W/ EHH
ABAND. SIGN/LIGHT BASE
DW
AC PAVEMENT
PT#=210J Z=17.89 TRAV PT:PIN(S)
PT#=209I Z=17.98 TRAV PT:PIN(S)
WAVE-OFF LIGHT CONC PAD
CUT CONDUIT @ PAD
PT#=208H Z=18.17 TRAV PT:PIN(S)
PT#=207G Z=18.11 TRAV PT:PIN(S)

FIXED DISTANCE MARKING TYP.
RUNWAY 14L-32R
RUNWAY CENTERLINE MARKING TYP.
RUNWAY THRESHOLD MARKING TYP.
78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91
700+00 701+00 702+00 606+50 606+00 605+00 604+00 603+00 602+00 601+00 600+00
PCC PAVEMENT
TOUCHDOWN ZONE MARKING TYP.
RUNWAY DESIGNATION MARKING
OVERRUN MARKING

RUNWAY EDGE LIGHT (TYP)
CONC PAD WAVE-OFF LIGHT
CONC PAD
RUNWAY SIDESTRIPE MARKING
"<-P B->" LIGHT SIGN
AC PAVEMENT
"7/1" LIGHT SIGN W/ EHH
ELEC. FIXTURES
FLOLS
ELEC. OUTLETS FOR PORTABLE WAVE OFF LIGHT TRAILER
ELEC. TRANS ON CONC

RUNWAY 32R HOLD SHORT MARKING
PT#=247UU Z=17.86 TRAV PT:DH(S)
PCC PAVEMENT
TAXIWAY SIDESTRIPE MARKING
TAXIWAY SHOULDER MARKING
TAXIWAY EDGE LIGHT (TYP)
HOLD AREA
ARM/DEARM MARKING
RUNWAY 32L HOLD SHORT MARKING

24" CONC. 21" CONC. 15" CONC.
E5-7 RIM=17.0(A)
E5-8 RIM=16.50(A)
E5-9 RIM=16.6(A)
E5-10 RIM=16.8(A)
E6-1 RIM=16.0(A)
WIND SOCK W/ (4) LIGHTS
"7/1" LIGHT SIGN
RUNWAY 14R-32L

KEY MAP

GRAPHIC SCALE
1"=50'
0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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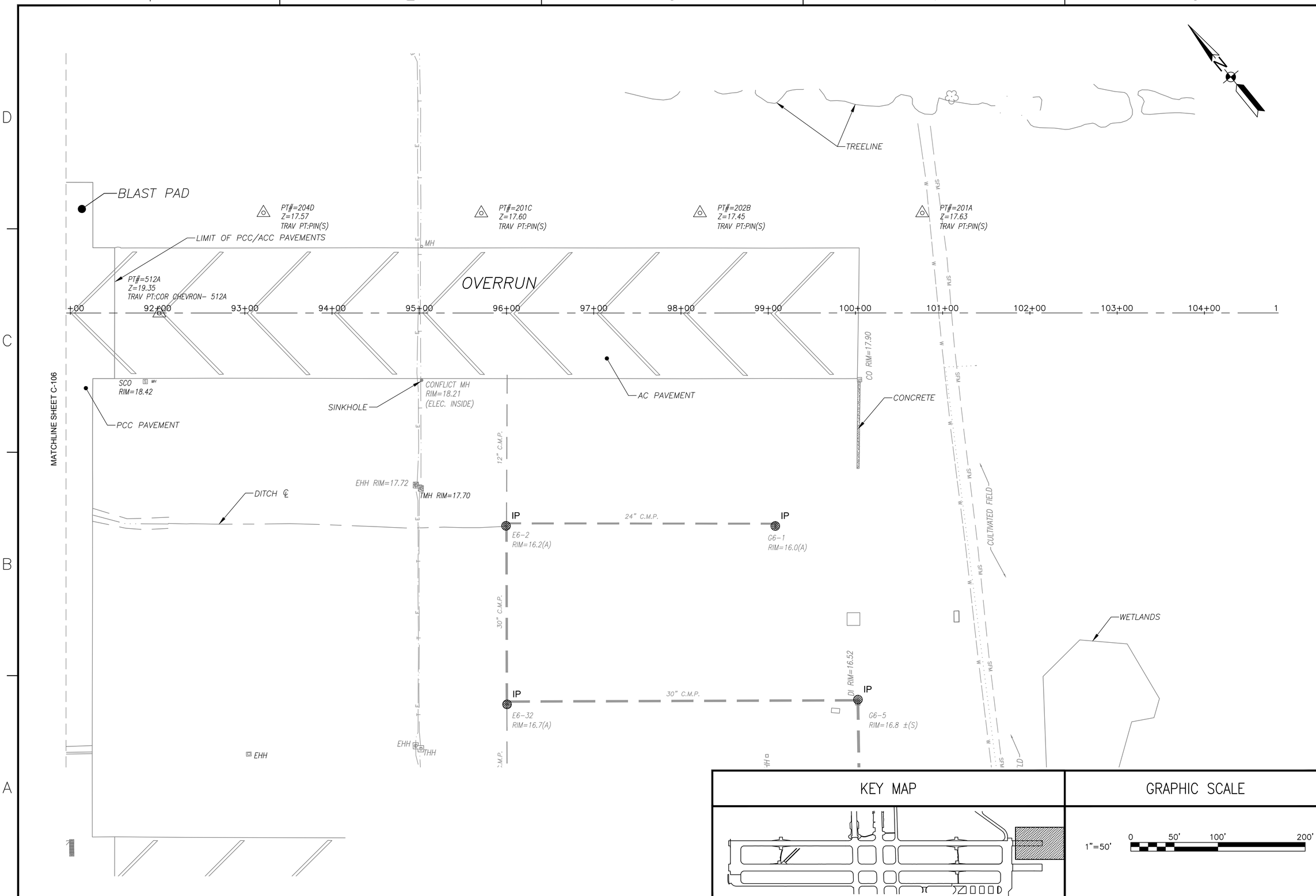
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA: 77+04 TO 90+95

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690042
SHEET 31 OF 315
C-106

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-106.dwg LAYOUT NAME: C-106 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: kwatson



KEY MAP

GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E CIVIL

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
272 Bendix Road, Suite 260
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER BJL

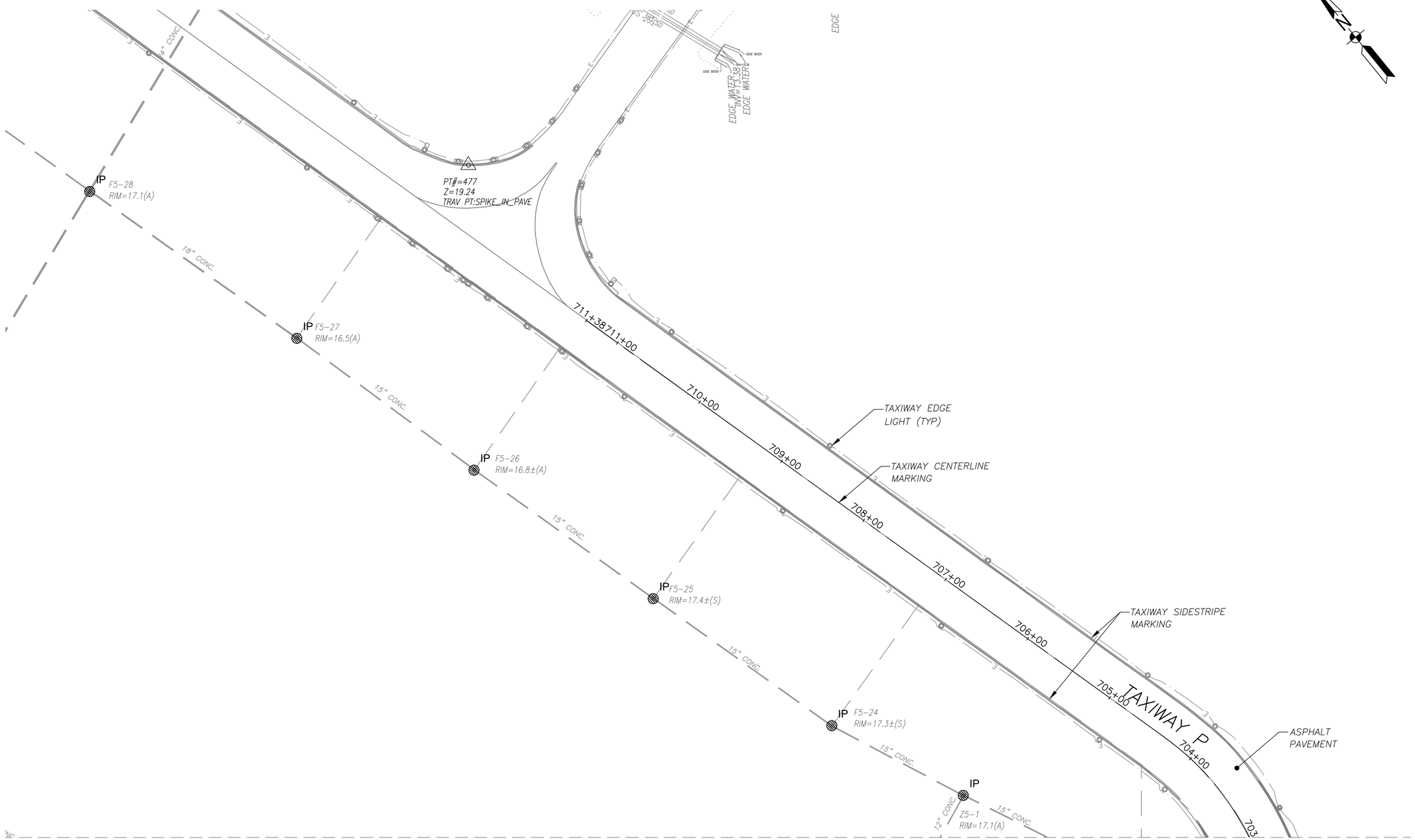
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA. 90+95 TO 104+85

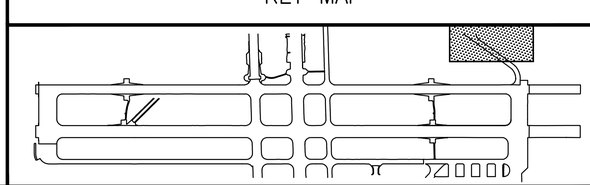
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690043
SHEET 32 OF 315
C-107

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-107.dwg LAYOUT NAME: C-107 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: kwatson



KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
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WEB: WWW.JMT.COM
A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

EXISTING CONDITIONS AND EROSION CONTROL PLAN
STA. 703+02 TO 711+38

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690044
SHEET 33 OF 315

C-108

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-108.dwg LAYOUT NAME: C-108 PLOTTED: Monday, March 23, 2015 - 2:15pm USER: kwatson

LEGEND

- CONTRACTOR LAYDOWN AND STORAGE AREA
- ADDITIONAL CONTRACTOR LAYDOWN AND STORAGE AREA
- IDLE PAVEMENT TO BE REMOVED
- CONSTRUCTION ENTRANCE

POTTER'S ROAD

CONTRACTOR PARKING, OFFICE TRAILER, EQUIPMENT, AND MATERIAL STORAGE AREA

ARCHERY RANGE TO REMAIN OPEN AND ACCESSIBLE

ARCHERY RANGE

PT#=531
Z=16.60
TRAV PT:SPIKE

IF ADDITIONAL LAYDOWN AND STORAGE AREA IS NEEDED REMOVE SILT FENCE IN THIS LOCATION AND PLACE AROUND SURROUNDING AREA NEEDED AS SHOWN ON THIS SHEET.

PT#=528
Z=16.83
TRAV PT:MAG

PT#=529
Z=17.12
TRAV PT:MAG

PT#=532
Z=16.75
TRAV PT:MAG

BATCH CONCRETE AND CONCRETE CRUSHING AREA

ADDITIONAL LAYDOWN AND MATERIAL STORAGE AREA

PT#=527
Z=17.04
TRAV PT:MAG

PLACE SILT FENCE IN ADDITIONAL STORAGE AREA IS REQUIRED

PT#=530
Z=16.22
TRAV PT:MAG

SKEET RANGE

NOTES:
1) CONTRACTOR SHALL ONLY USE THE "ADDITIONAL LAYDOWN AND STORAGE AREA" WITH APPROVAL FROM THE CONTRACTING OFFICER. IF THE ADDITIONAL AREA IS TO BE USED, THE CONTRACTOR WILL BE REQUIRED TO SUBMIT TO THE CONTRACTING OFFICER AN EROSION AND SEDIMENT CONTROL PLAN FOR THE AREA.
2) CONTRACTOR SHALL STABILIZE IDLE PAVEMENT AREAS WITHIN 7 DAYS OF REMOVAL OF PAVEMENT. SEE SHEET C-533 FOR SEEDING AND STABILIZATION REQUIREMENTS.
3) AS PART OF THE E&S PHASE 1 ACTIVITIES, THE CONTRACTOR SHALL REMOVE EXISTING SEDIMENT DEPOSITS FROM STRUCTURES ALONG THE MAIN OUTFALL PIPE STARTING AT STRUCTURE DI #29.

GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MARK J TIGER
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041439-E

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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
LAYDOWN AREA EXISTING CONDITIONS – PHASE 1

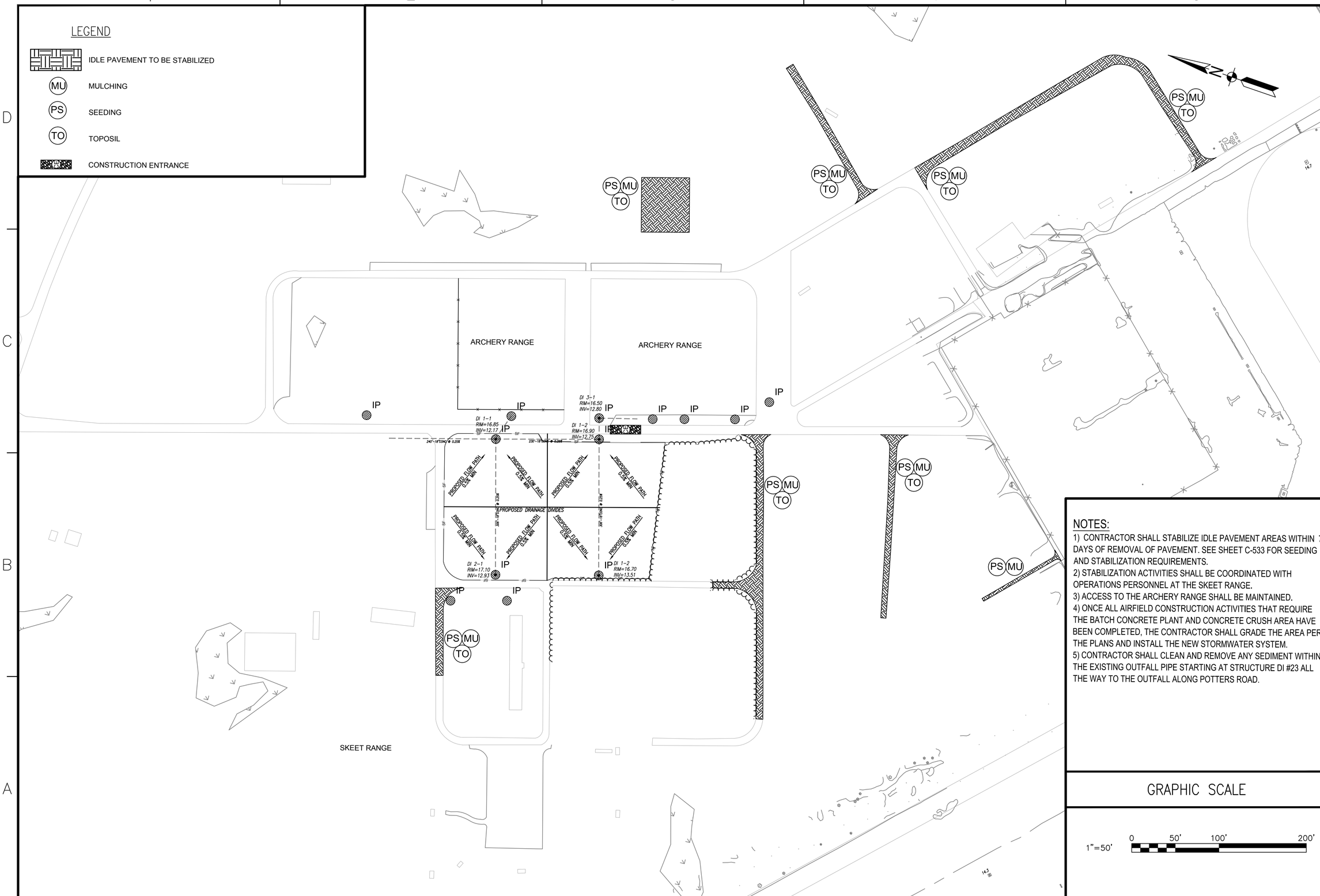
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690045
SHEET 34 OF 315
C-109

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-C0109.dwg LAYOUT NAME: C-109 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: kwatson

LEGEND

- IDLE PAVEMENT TO BE STABILIZED
- MU — MULCHING
- PS — SEEDING
- TO — TOPOSIL
- CONSTRUCTION ENTRANCE



NOTES:

1) CONTRACTOR SHALL STABILIZE IDLE PAVEMENT AREAS WITHIN 7 DAYS OF REMOVAL OF PAVEMENT. SEE SHEET C-533 FOR SEEDING AND STABILIZATION REQUIREMENTS.
2) STABILIZATION ACTIVITIES SHALL BE COORDINATED WITH OPERATIONS PERSONNEL AT THE SKEET RANGE.
3) ACCESS TO THE ARCHERY RANGE SHALL BE MAINTAINED.
4) ONCE ALL AIRFIELD CONSTRUCTION ACTIVITIES THAT REQUIRE THE BATCH CONCRETE PLANT AND CONCRETE CRUSH AREA HAVE BEEN COMPLETED, THE CONTRACTOR SHALL GRADE THE AREA PER THE PLANS AND INSTALL THE NEW STORMWATER SYSTEM.
5) CONTRACTOR SHALL CLEAN AND REMOVE ANY SEDIMENT WITHIN THE EXISTING OUTFALL PIPE STARTING AT STRUCTURE DI #23 ALL THE WAY TO THE OUTFALL ALONG POTTERS ROAD.

GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
LAYDOWN AREA EXISTING CONDITIONS – PHASE 2

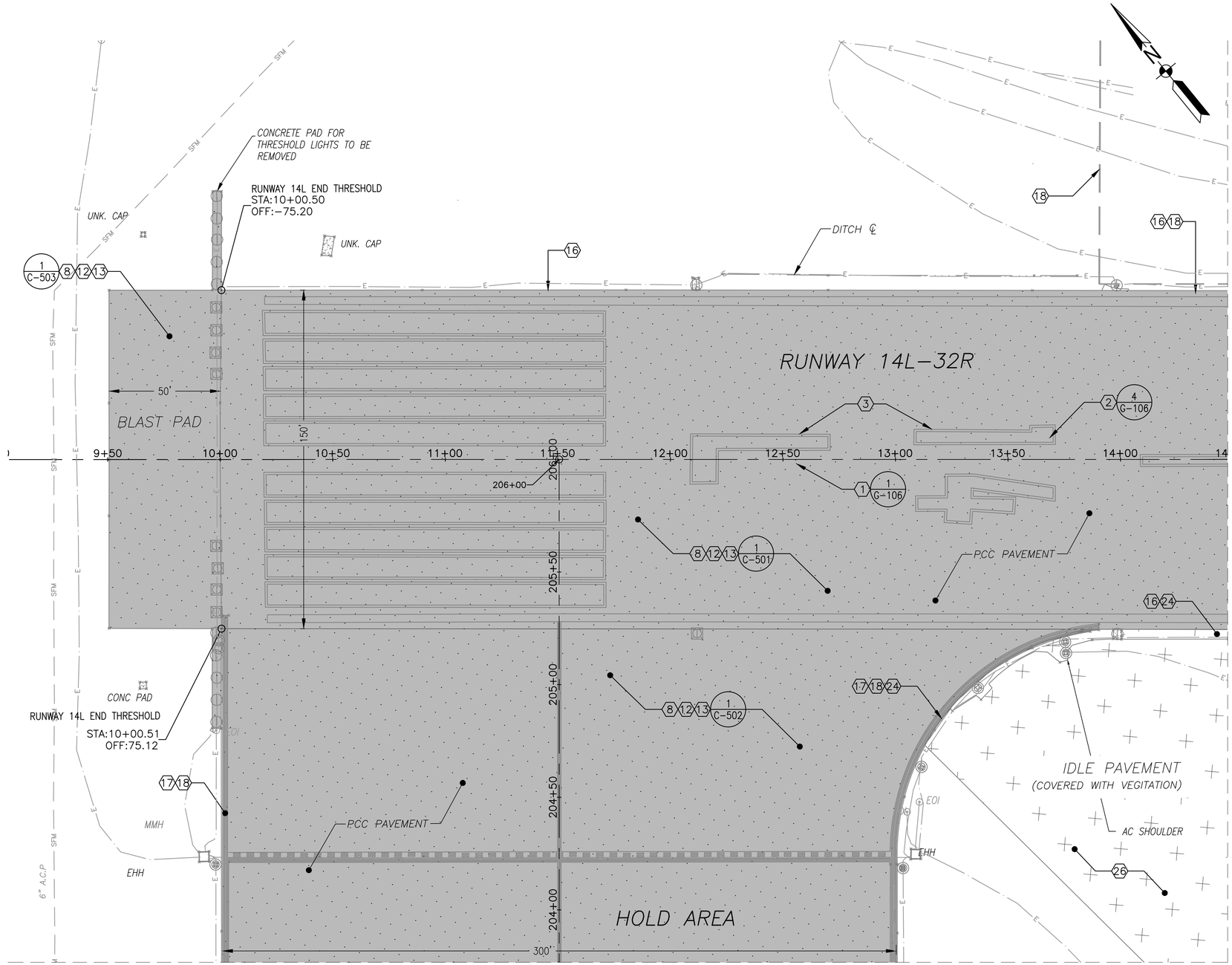
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690046
SHEET 35 OF 315
C-110

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD110.dwg LAYOUT NAME: C-110 PLOTTED: Monday, March 23, 2015 - 2:17pm USER: kwatson

DEMOLITION KEYNOTES

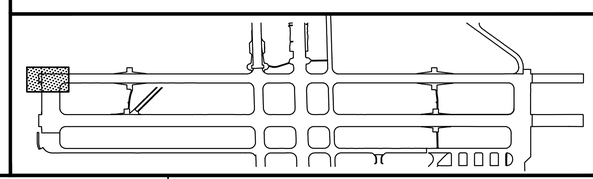
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD



DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 9+06 TO 14+48

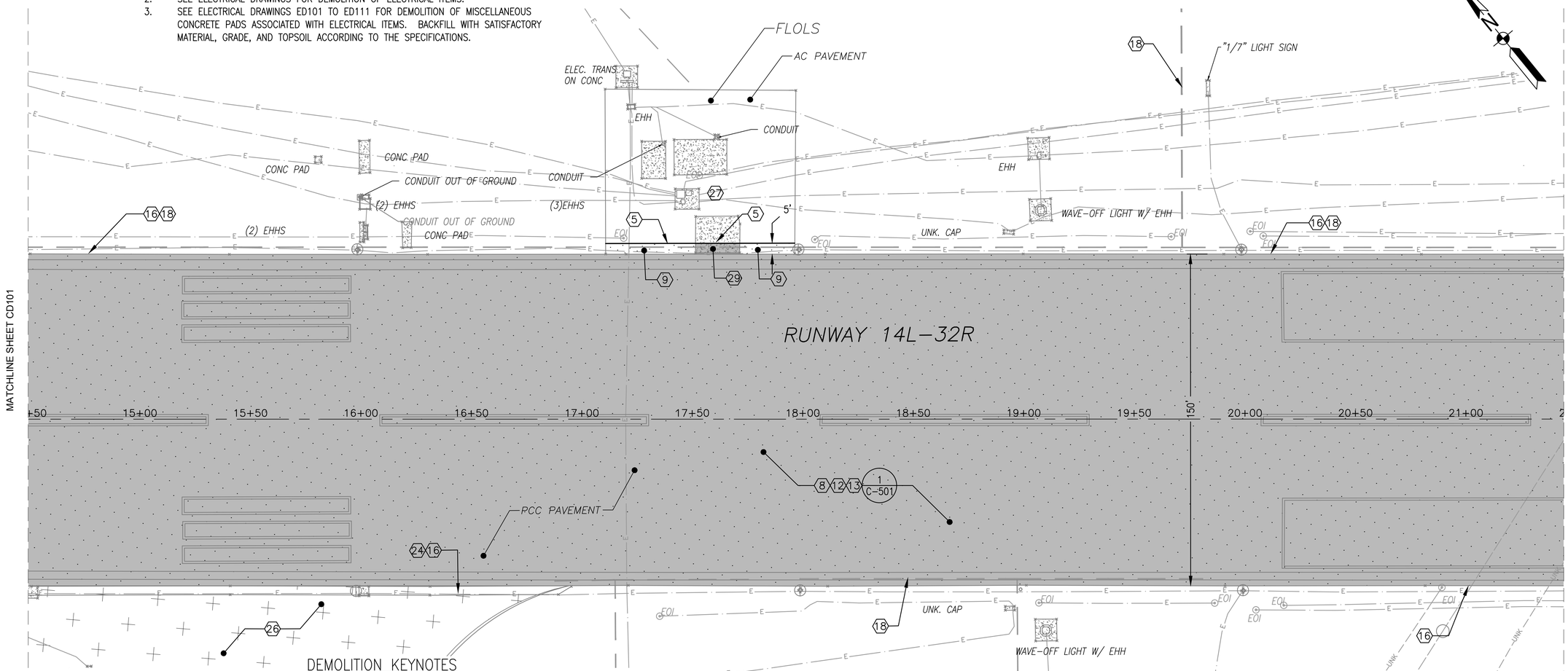
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690047
SHEET 36 OF 315
CD101

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-201.dwg LAYOUT NAME: CD101 PLOTTED: Monday, March 23, 2015 - 2:51pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
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19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
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21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
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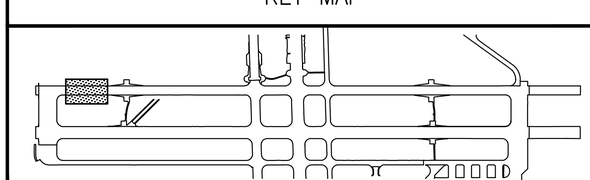
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MARK J TIGER
REGISTERED PROFESSIONAL ENGINEER
041439-E

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Gannett Fleming
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DEMOLITION PLAN STA: 14+48 TO 21+44

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690048
SHEET 37 OF 315

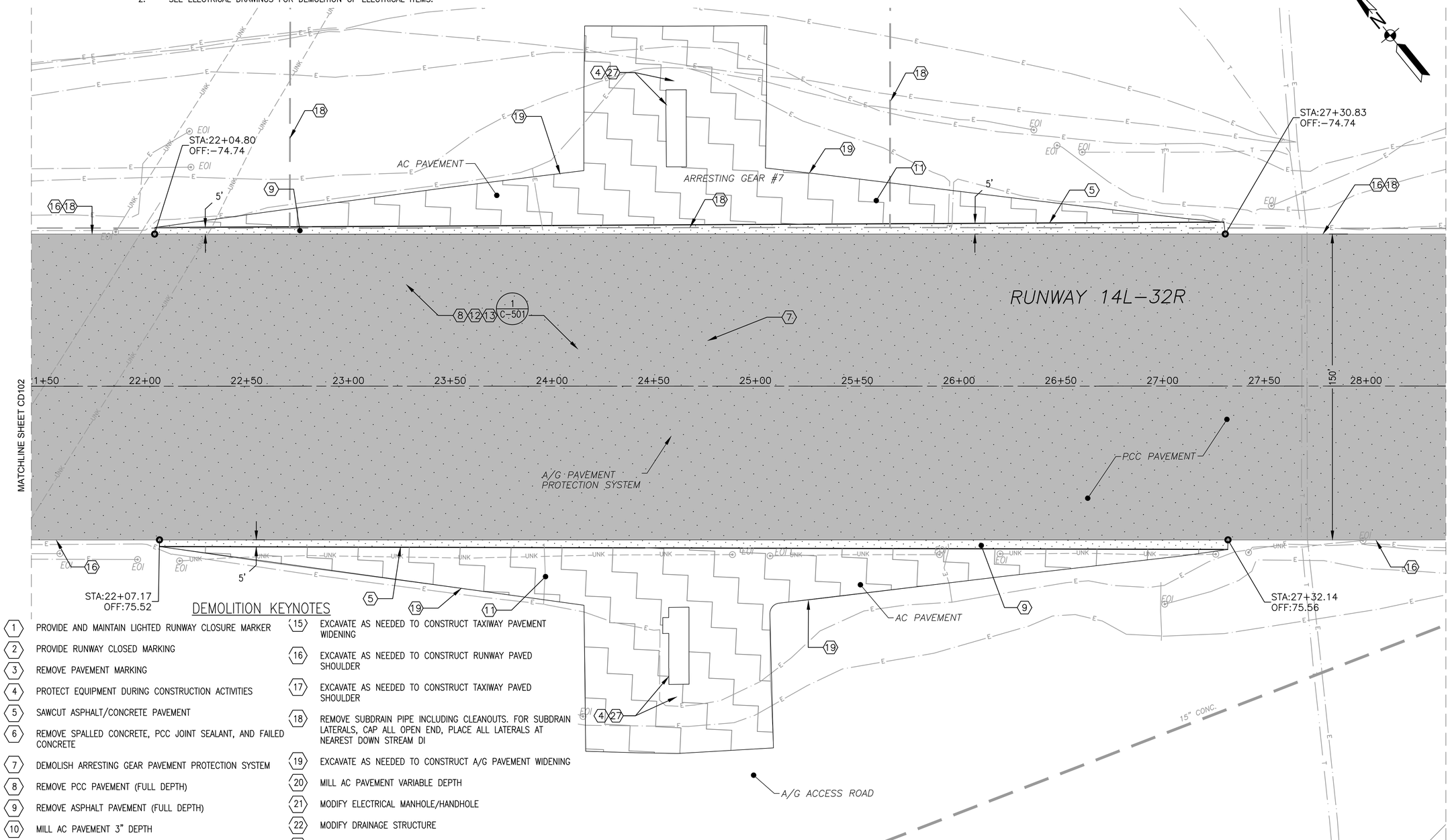
CD102

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-202.dwg LAYOUT NAME: CD102 PLOTTED: Monday, March 23, 2015 - 2:54pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
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8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
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27. PROTECT CONCRETE TO REMAIN
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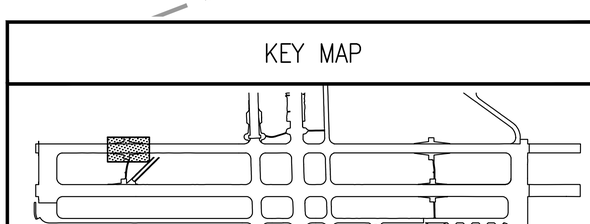
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
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STATE

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 21+44 TO 28+39

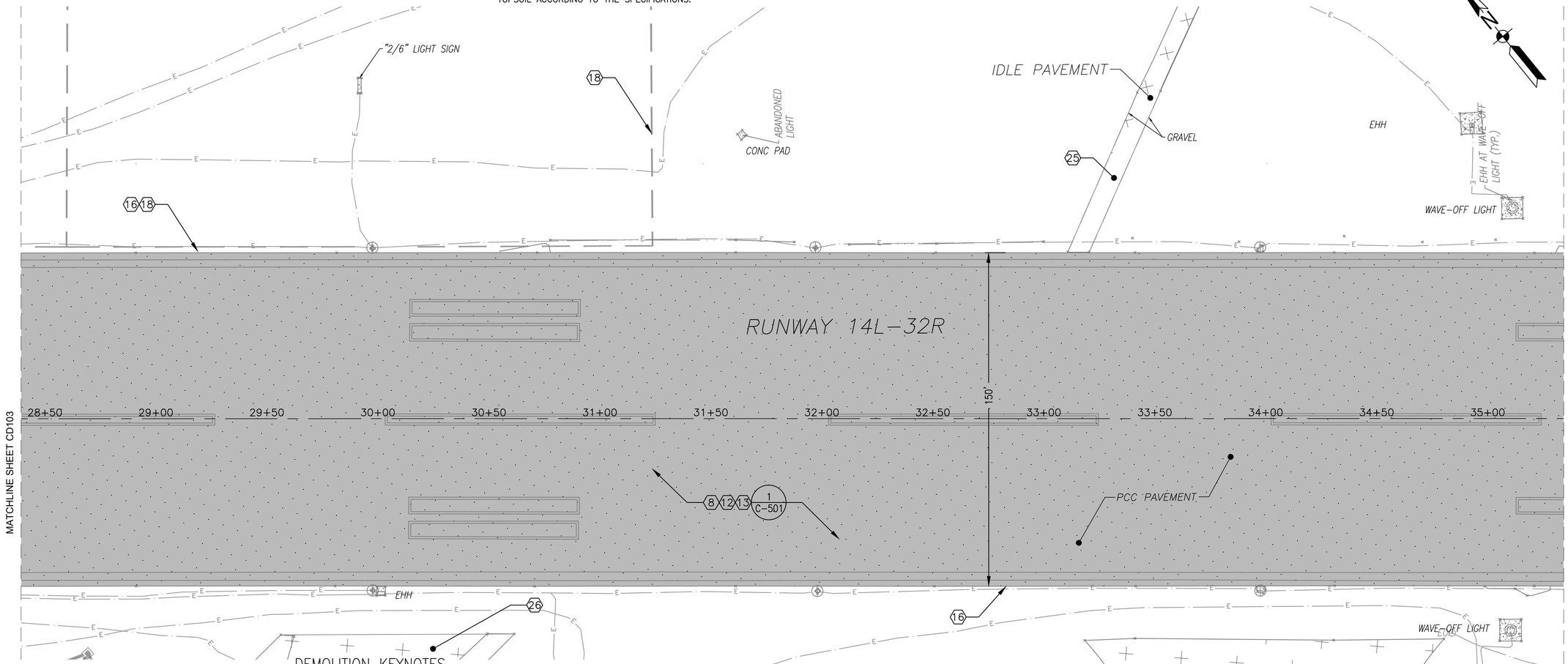
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690049
SHEET 38 OF 315
CD103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\pg_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-203.dwg LAYOUT NAME: CD103 PLOTTED: Monday, March 23, 2015 - 3:02pm USER: kwatson

DEMOLITION NOTES:

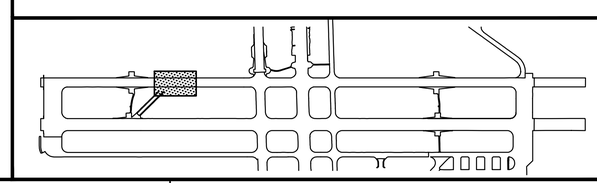
1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

1"=25'

0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DEMOLITION PLAN STA: 28+39 TO 35+34

SCALE: AS NOTED

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12690050

SHEET 39 OF 315

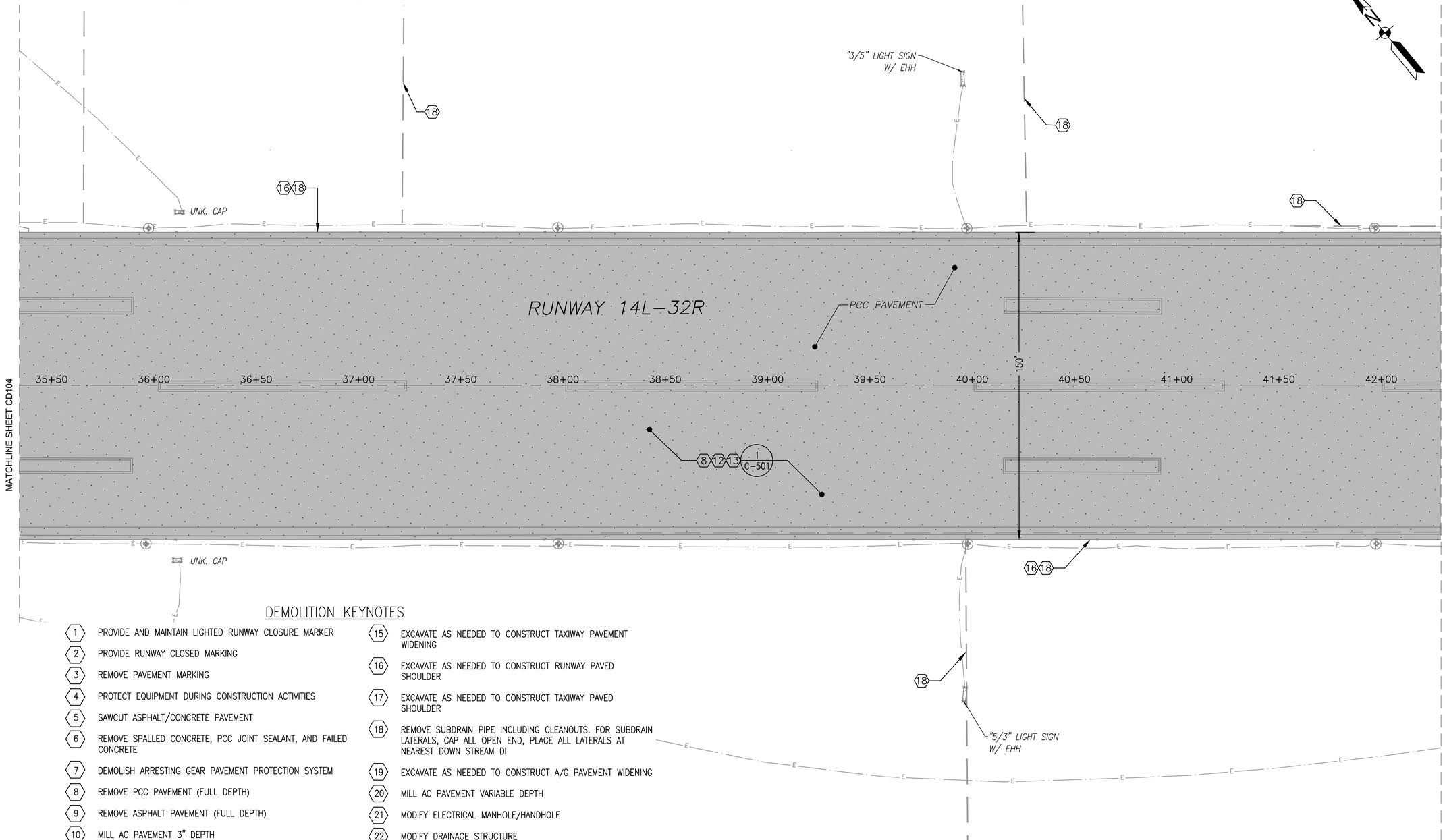
CD104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-204.dwg LAYOUT NAME: CD104 PLOTTED: Monday, March 23, 2015 - 3:06pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
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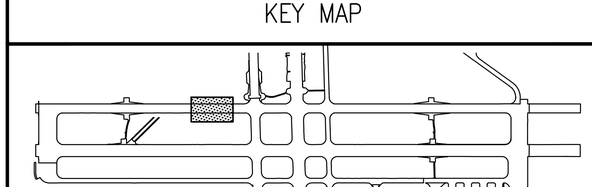
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 35+34 TO 42+29

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690051
SHEET 40 OF 315
CD105
DRAWFORM REVISION: 10 MARCH 2009

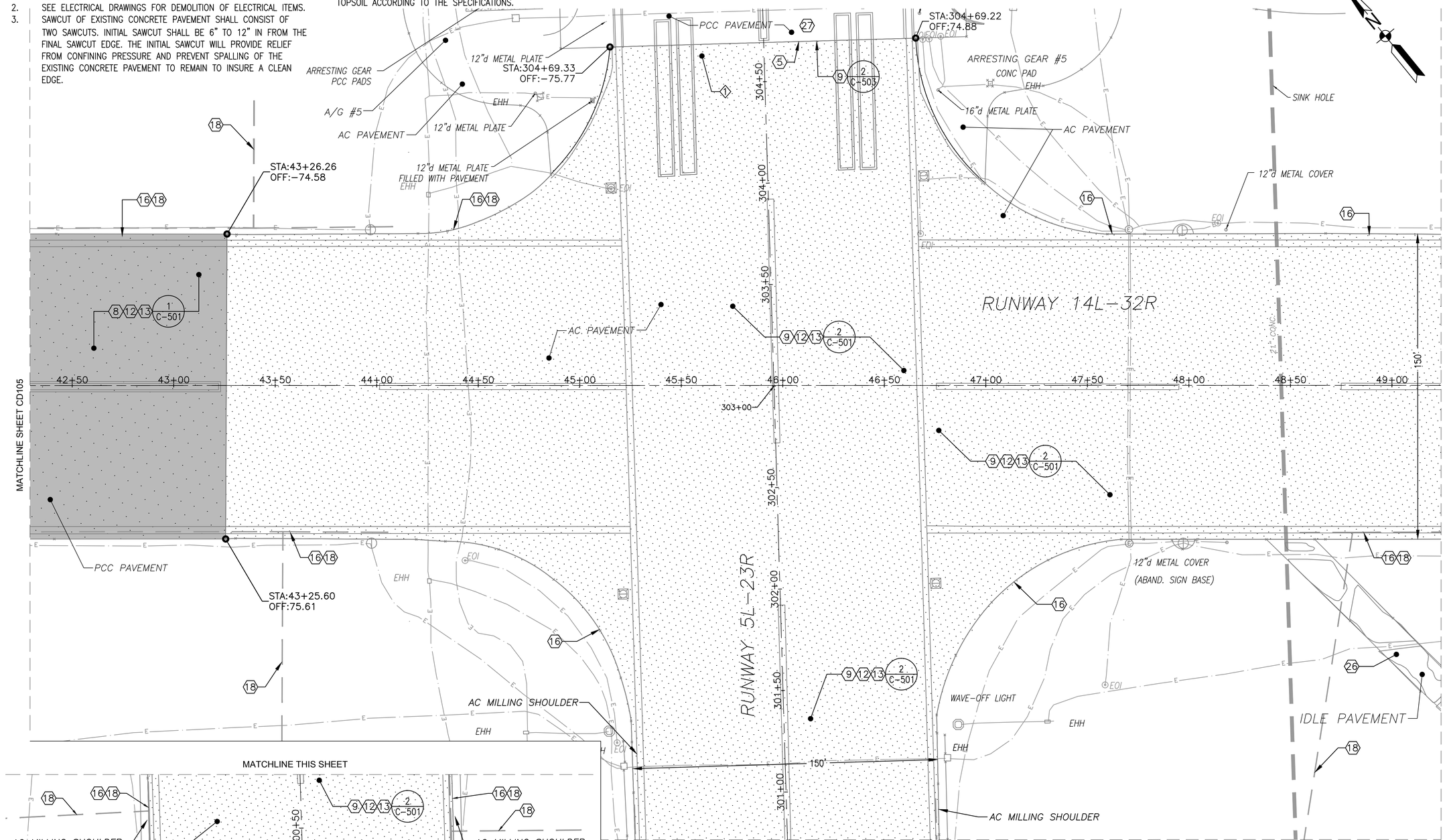
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-205.dwg LAYOUT NAME: CD105 PLOTTED: Monday, March 23, 2015 - 3:09pm USER: kwatson

DEMOLITION NOTES:

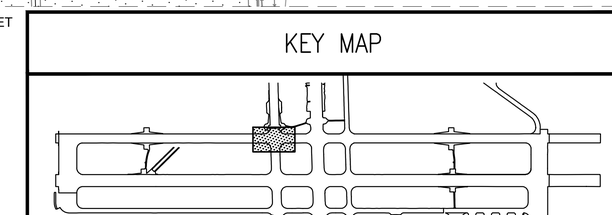
1. DEMOLITION KEYNOTES NOT SHOWN. SEE C-001 FOR DEMOLITION KEYNOTES.
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SAWCUT OF EXISTING CONCRETE PAVEMENT SHALL CONSIST OF TWO SAWCUTS. INITIAL SAWCUT SHALL BE 6" TO 12" IN FROM THE FINAL SAWCUT EDGE. THE INITIAL SAWCUT WILL PROVIDE RELIEF FROM CONFINING PRESSURE AND PREVENT SPALLING OF THE EXISTING CONCRETE PAVEMENT TO REMAIN TO INSURE A CLEAN EDGE.
4. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.

KEYNOTE:

1. DEMOLISH EXISTING SLEEPER SLABS, SEE DETAIL "2/C-503" FOR EXISTING CONDITIONS



KEY MAP



GRAPHIC SCALE

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

APPR	DATE	DESCRIPTION	SYM

NAVFAC

Mark J. Tiger

REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E

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WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DEMOLITION PLAN STA: 42+29 TO 49+24

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12690052

SHEET 41 OF 315

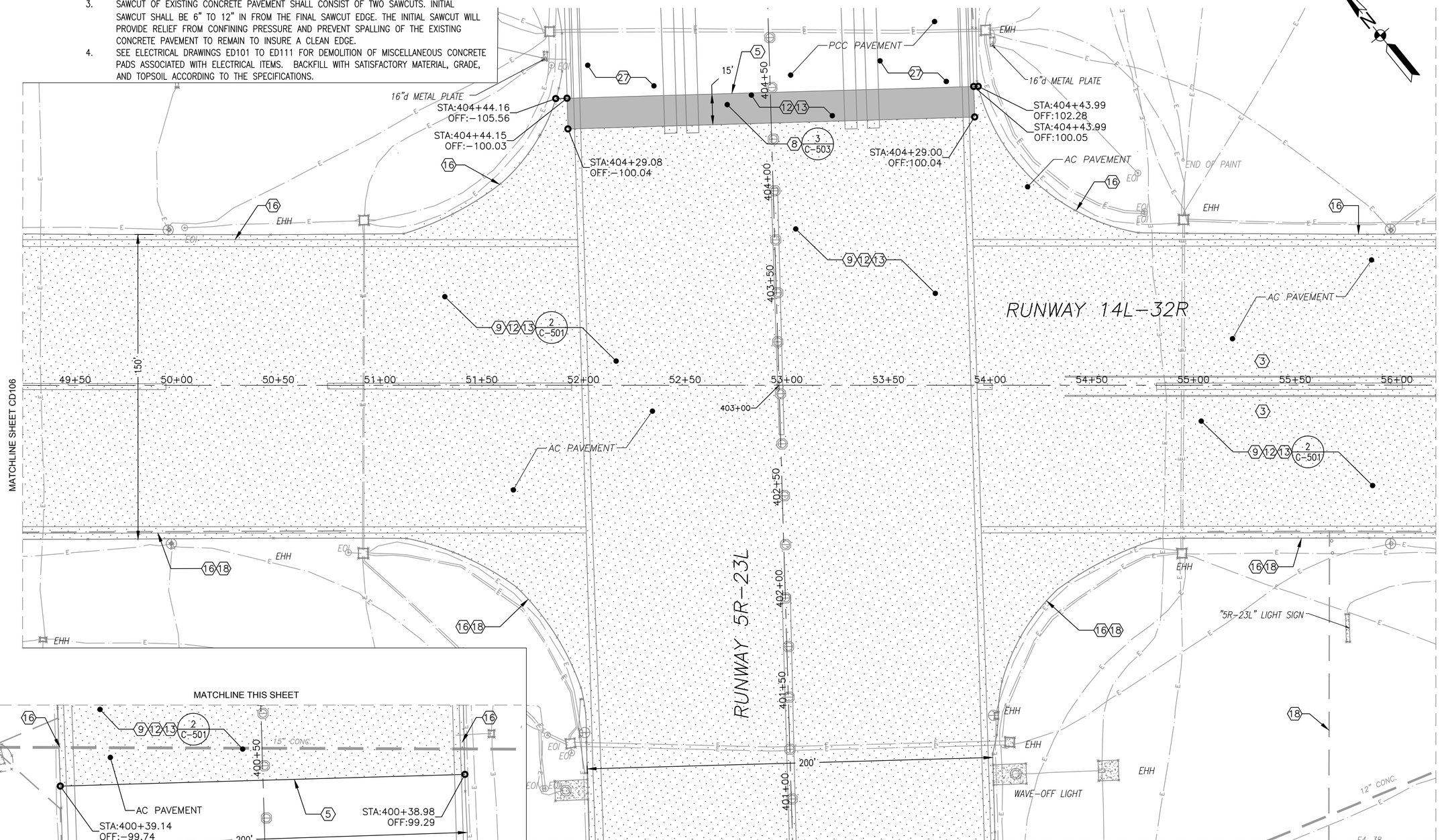
CD106

DRAWFORM REVISION: 10 MARCH 2009

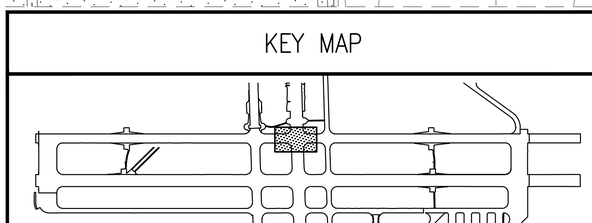
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-206.dwg LAYOUT NAME: CD106 PLOTTED: Monday, March 23, 2015 - 3:12pm USER: kwatson

DEMOLITION NOTES:

1. DEMOLITION KEYNOTES NOT SHOWN. SEE C-001 FOR DEMOLITION KEYNOTES.
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SAWCUT OF EXISTING CONCRETE PAVEMENT SHALL CONSIST OF TWO SAWCUTS. INITIAL SAWCUT SHALL BE 6" TO 12" IN FROM THE FINAL SAWCUT EDGE. THE INITIAL SAWCUT WILL PROVIDE RELIEF FROM CONFINING PRESSURE AND PREVENT SPALLING OF THE EXISTING CONCRETE PAVEMENT TO REMAIN TO INSURE A CLEAN EDGE.
4. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MARK J TIGER

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
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WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DEMOLITION PLAN STA: 49+24 TO 56+19

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690053
SHEET 42 OF 315

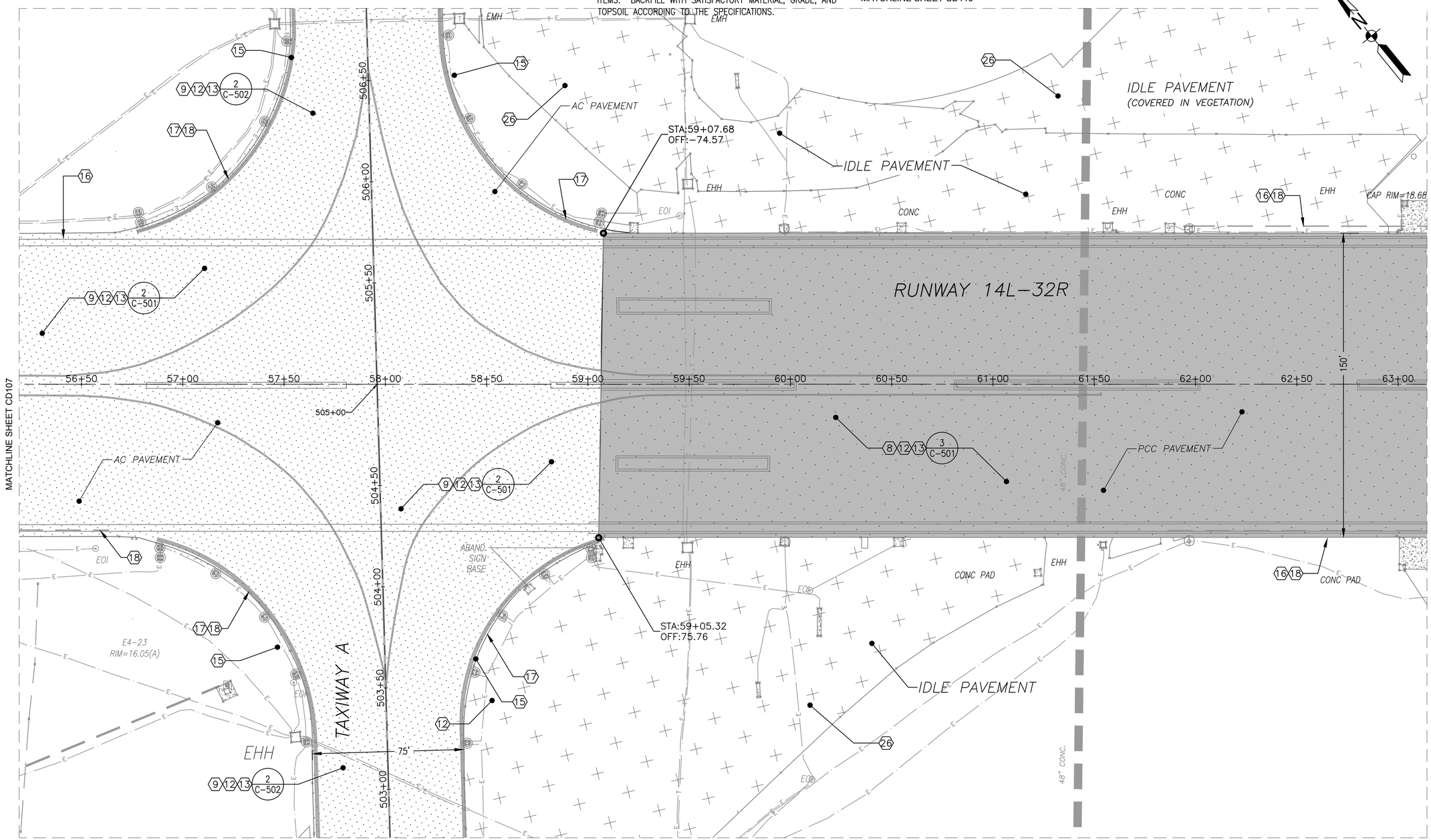
CD107

DRAWFORM REVISION: 10 MARCH 2009

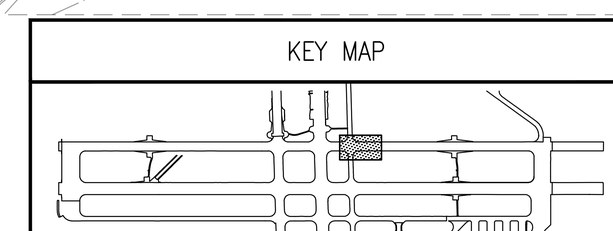
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-207.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:15pm USER: kwatson

DEMOLITION NOTES:

1. DEMOLITION KEYNOTES NOT SHOWN. SEE C-001 FOR DEMOLITION KEYNOTES.
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE OF VIRGINIA

JOHNSON, MIRMIRAN THOMPSON
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/OM

BRANCH MANAGER B/C

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DEMOLITION PLAN STA: 56+19 TO 63+14

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690054
SHEET 43 OF 315

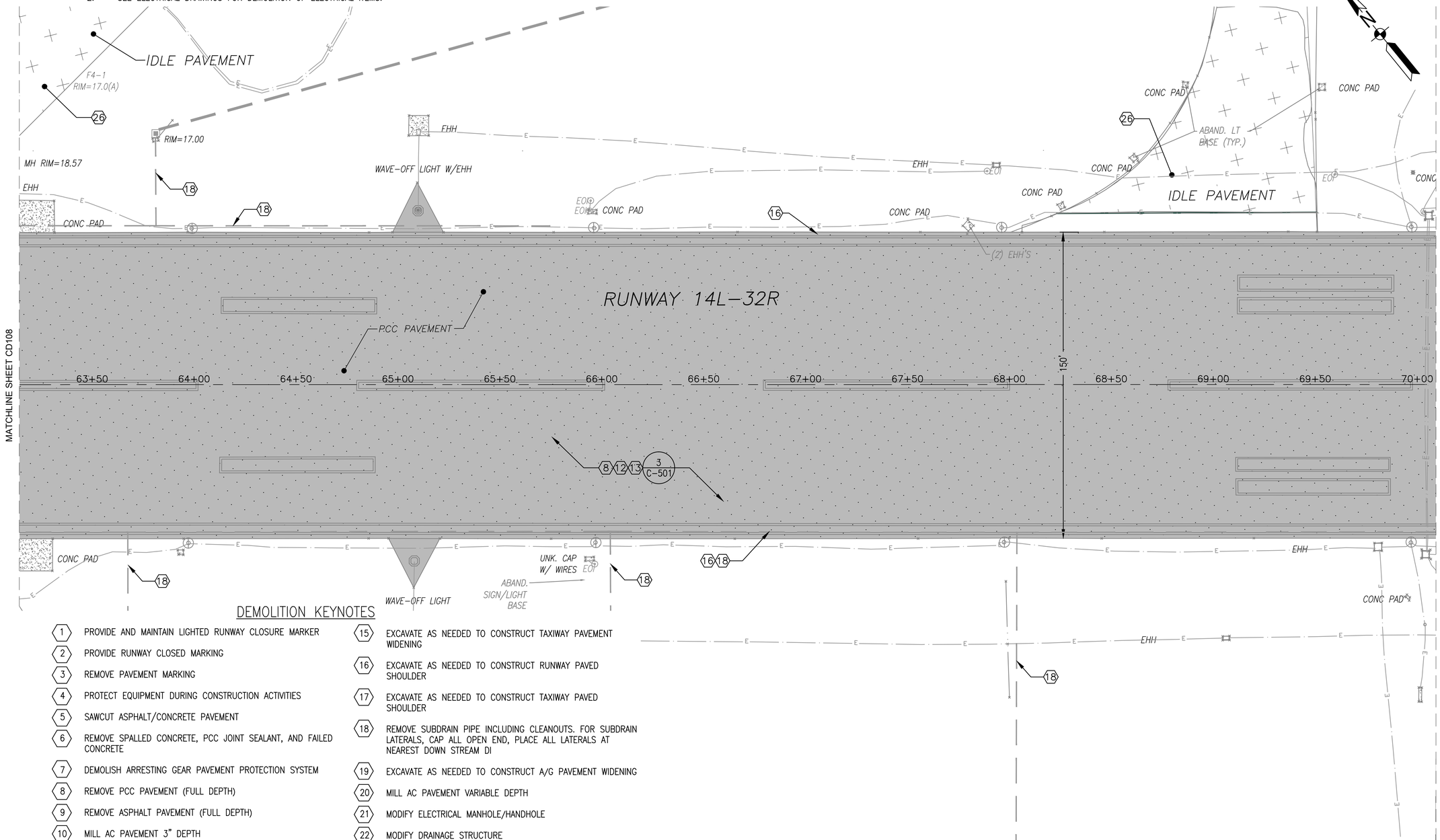
CD108

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-C0-208.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:17pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
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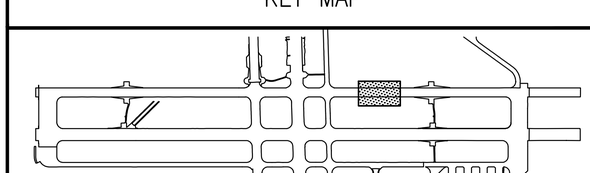
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

1"=25'

0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

JOHNSON, MIRMIRAN THOMPSON
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Telephone: (757)499-1895
WEB: WWW.JMT.COM
A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/OM

BRANCH MANAGER B/C

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 63+14 TO 70+09

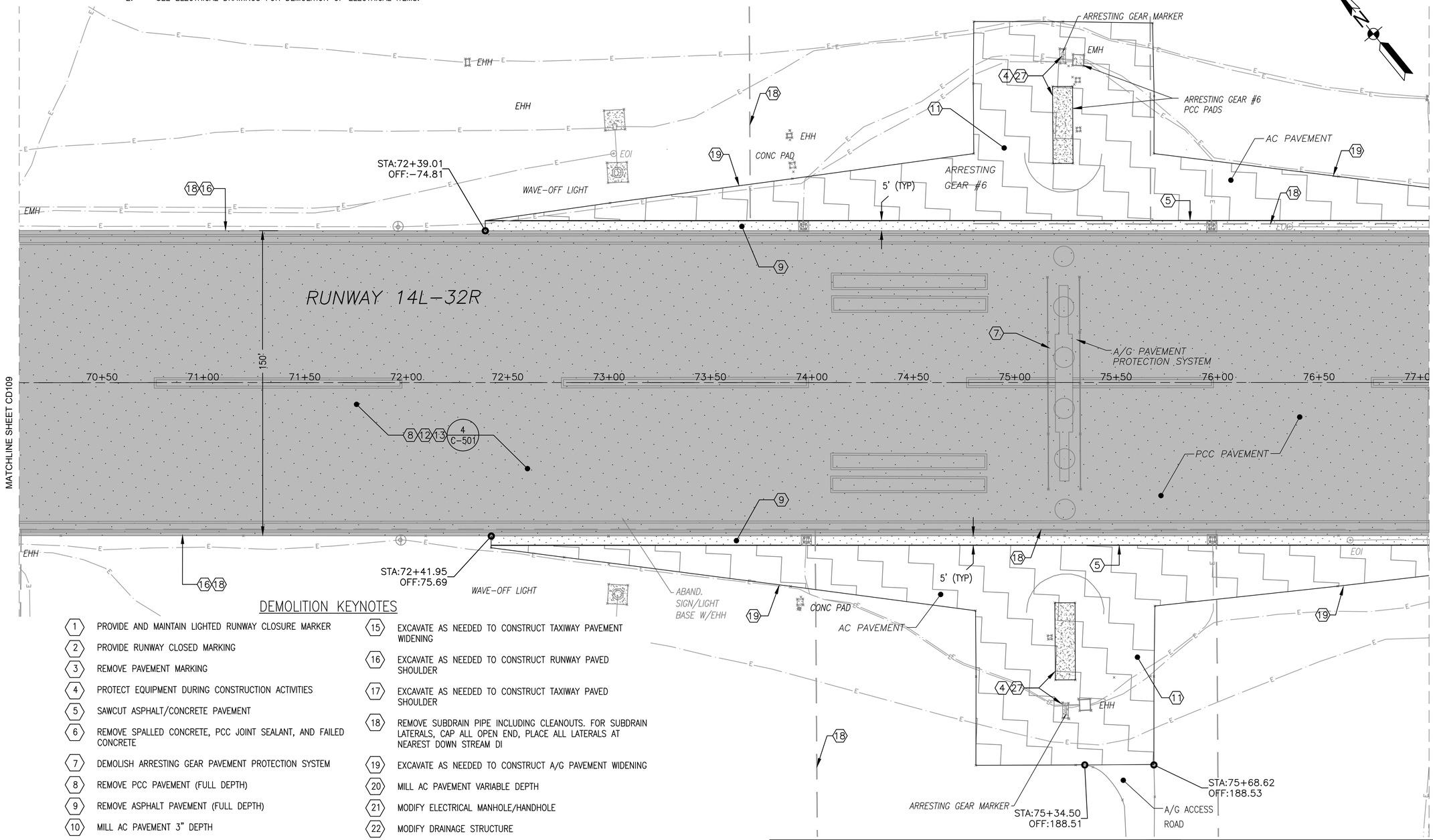
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690055
SHEET 44 OF 315
CD109

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\Pr_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-209.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:21pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
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8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
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11. MILL AC PAVEMENT 2" DEPTH
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18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
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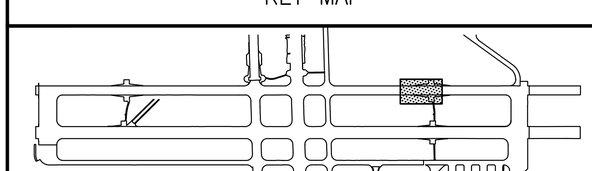
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
272 Bendix Road, Suite 260
Virginia Beach, Virginia, 23452
Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/OM

BRANCH MANAGER B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 70+09 TO 77+04

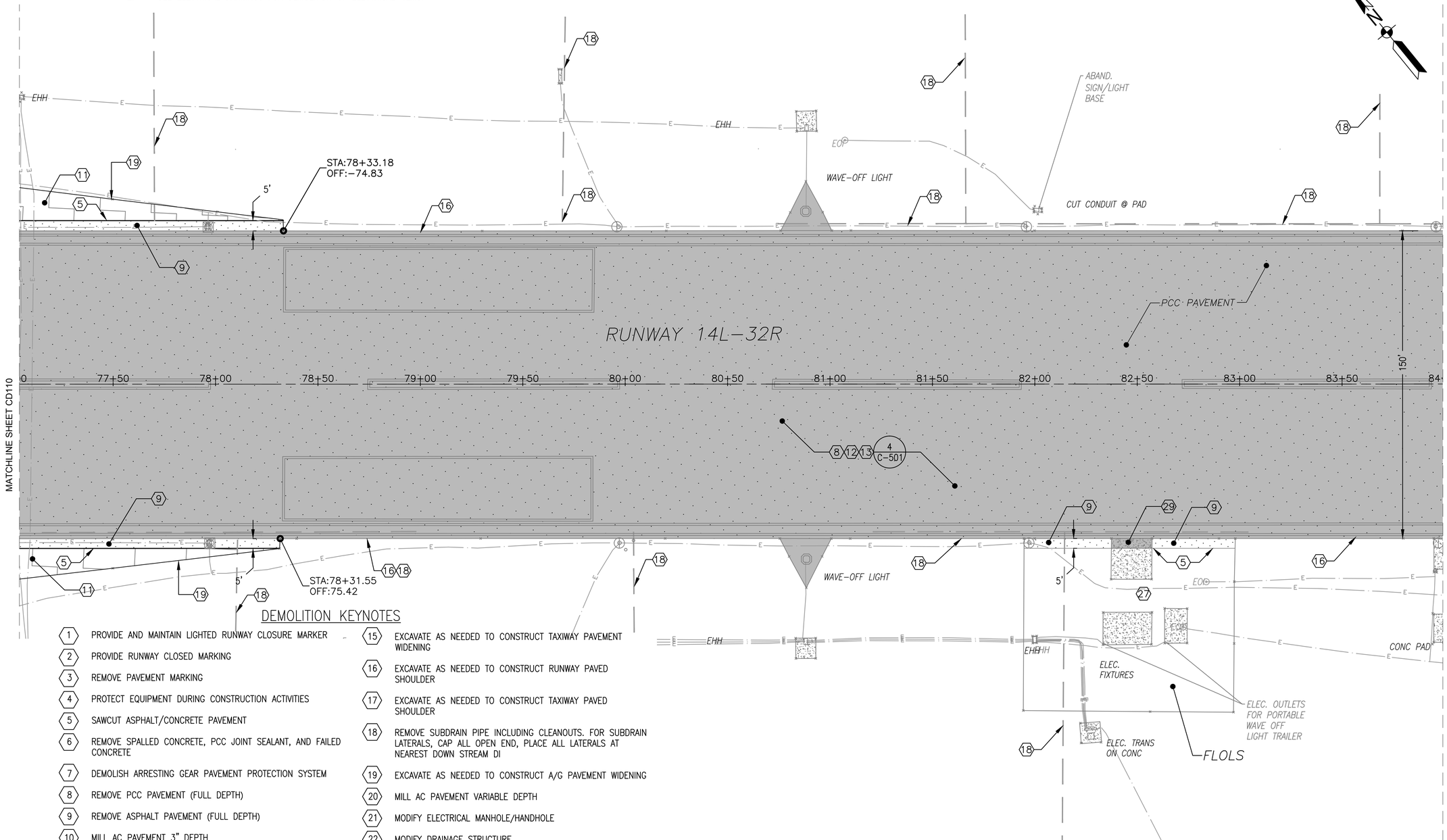
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690056
SHEET 45 OF 315
CD110

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-210.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:24pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
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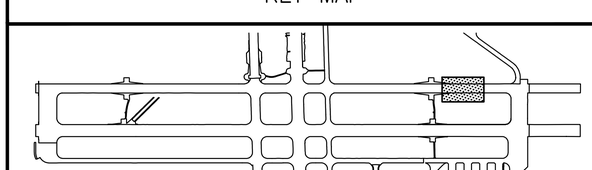
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
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Virginia Beach, Virginia, 23452
Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 77+04 TO 83+99

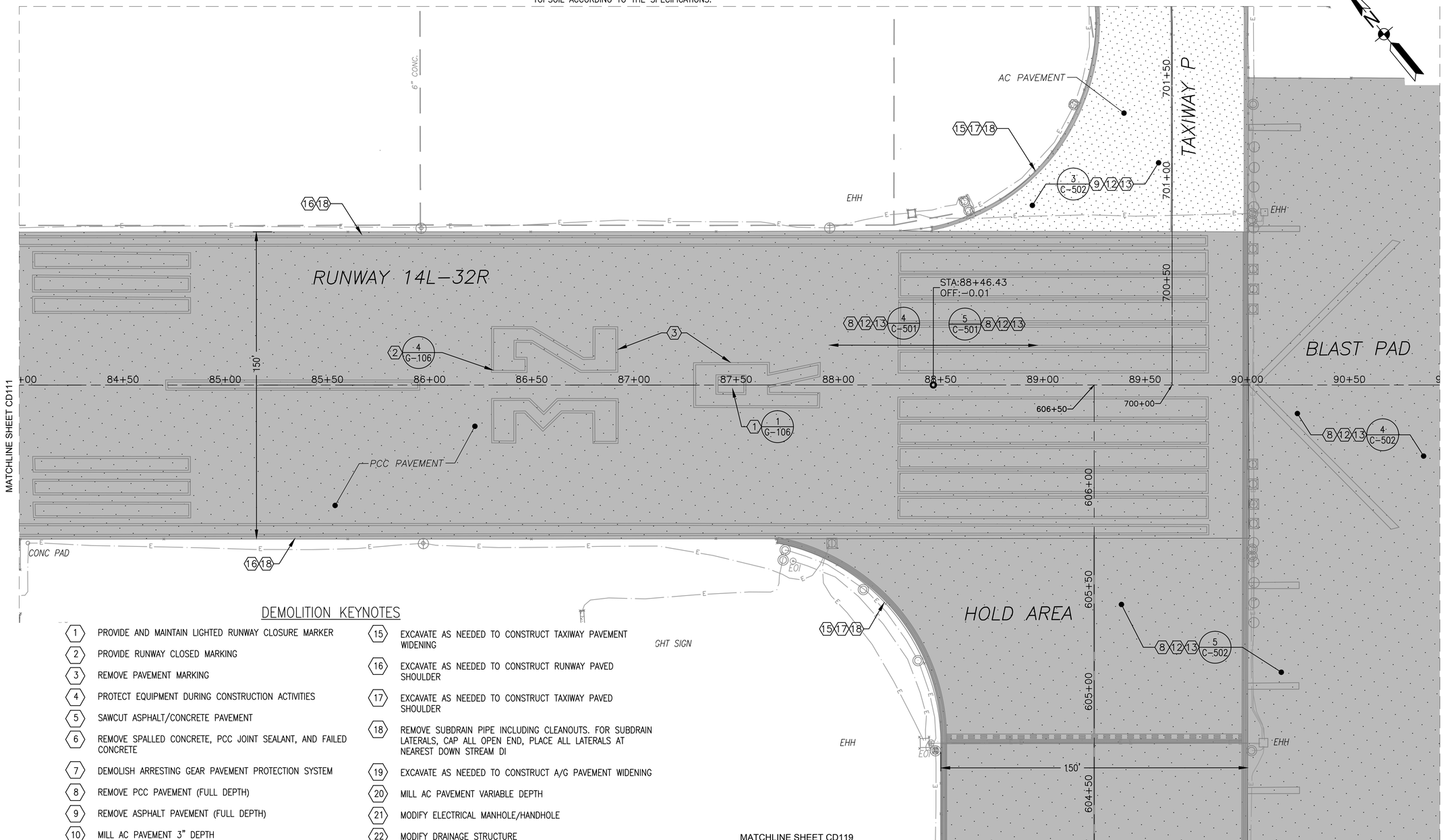
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690057
SHEET 46 OF 315
CD111

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-211.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:28pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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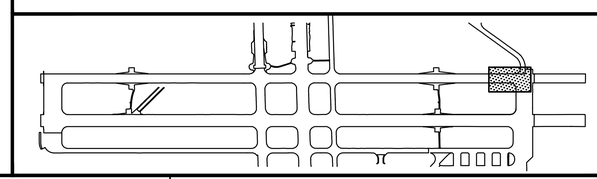
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
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WEB: WWW.JMT.COM
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 83+99 TO 90+94

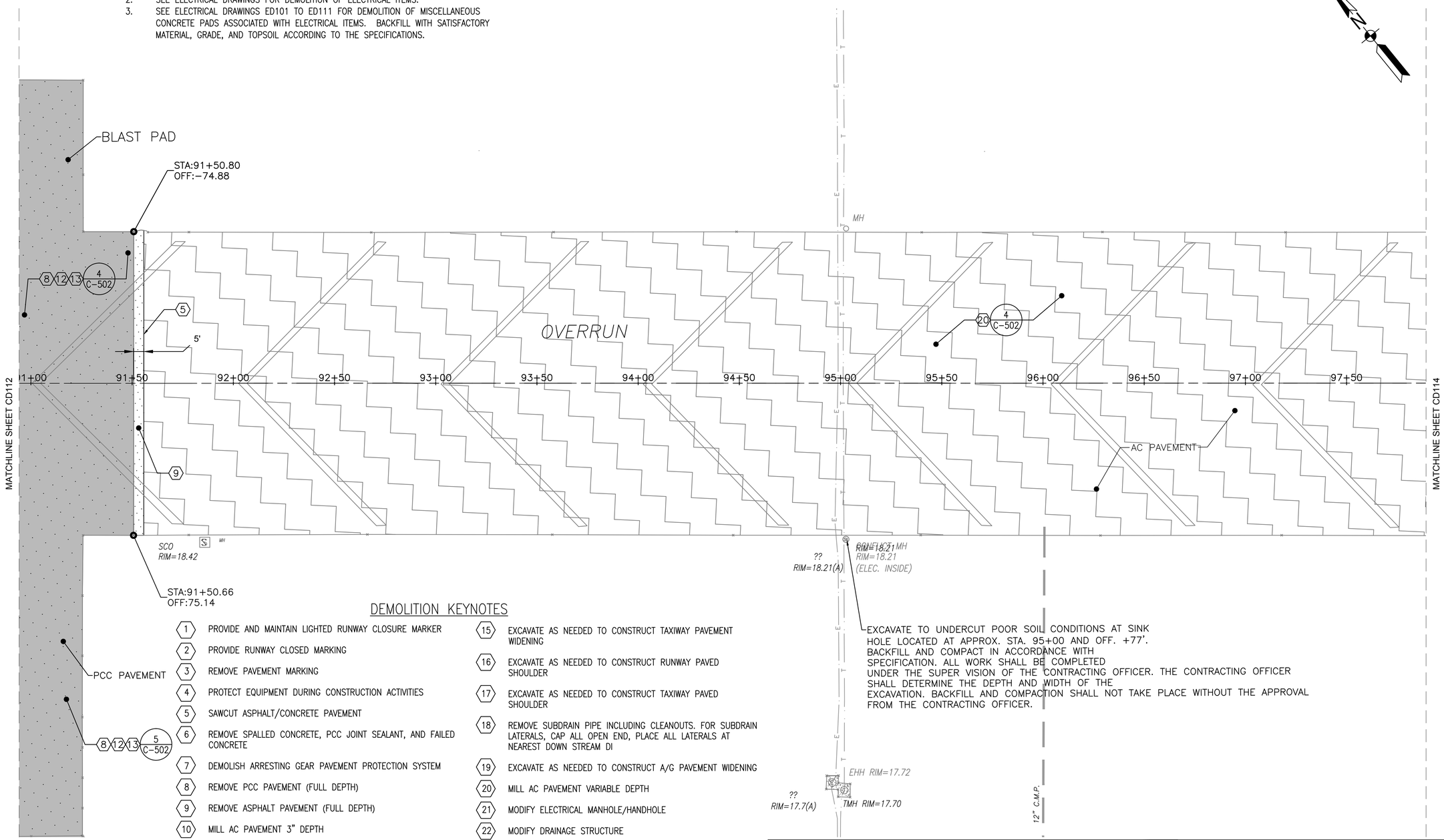
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690058
SHEET 47 OF 315
CD112

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-212.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:32pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
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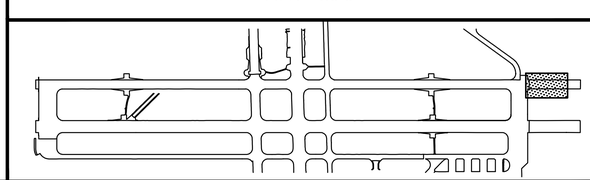
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E

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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 90+94 TO 97+89

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690059
SHEET 48 OF 315

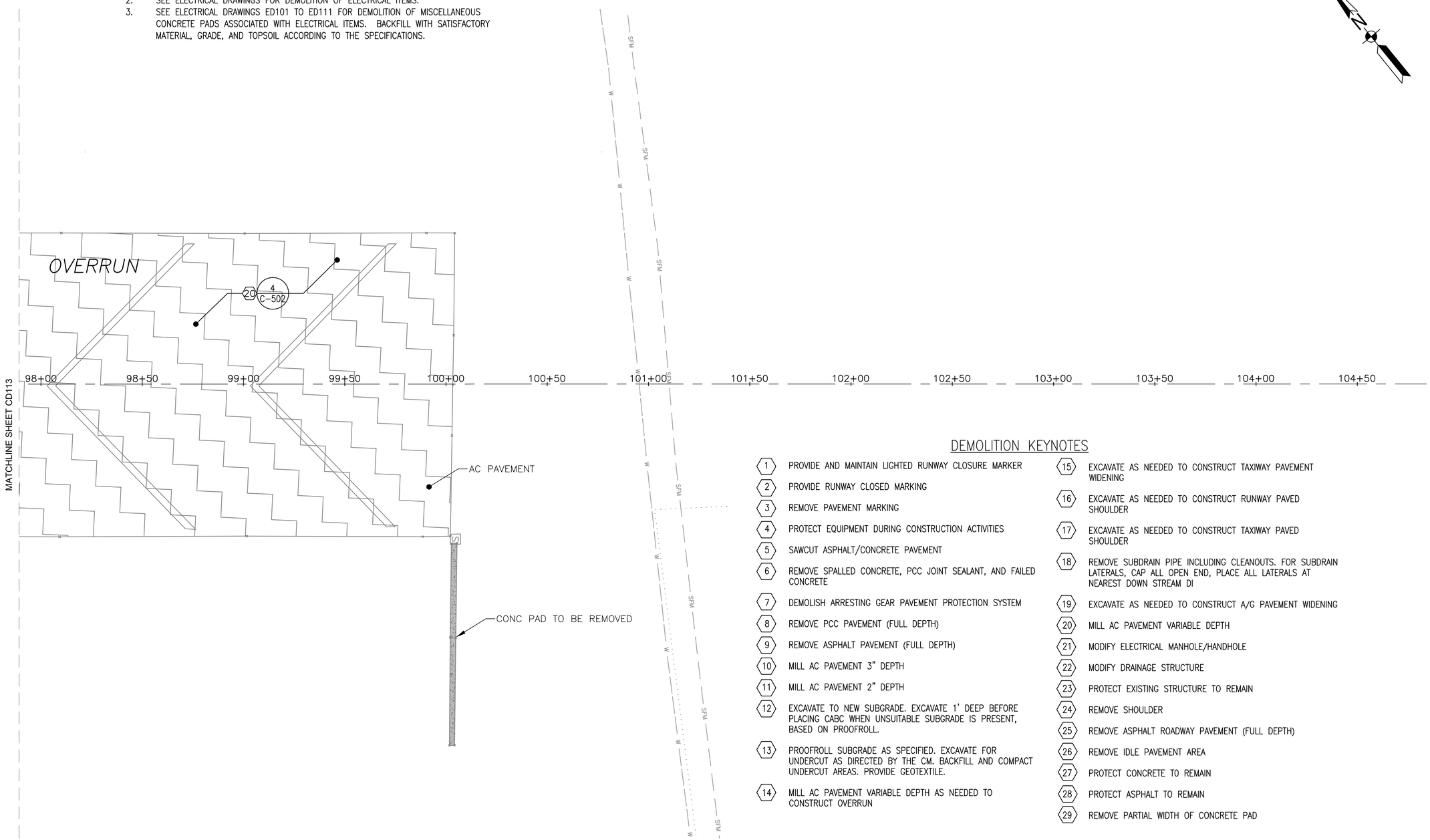
CD113

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHFA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-213.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:35pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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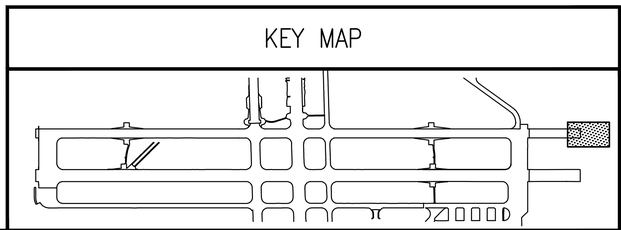
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

1"=25'

0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BVL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 97+89 TO 104+84

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690060
SHEET 49 OF 315

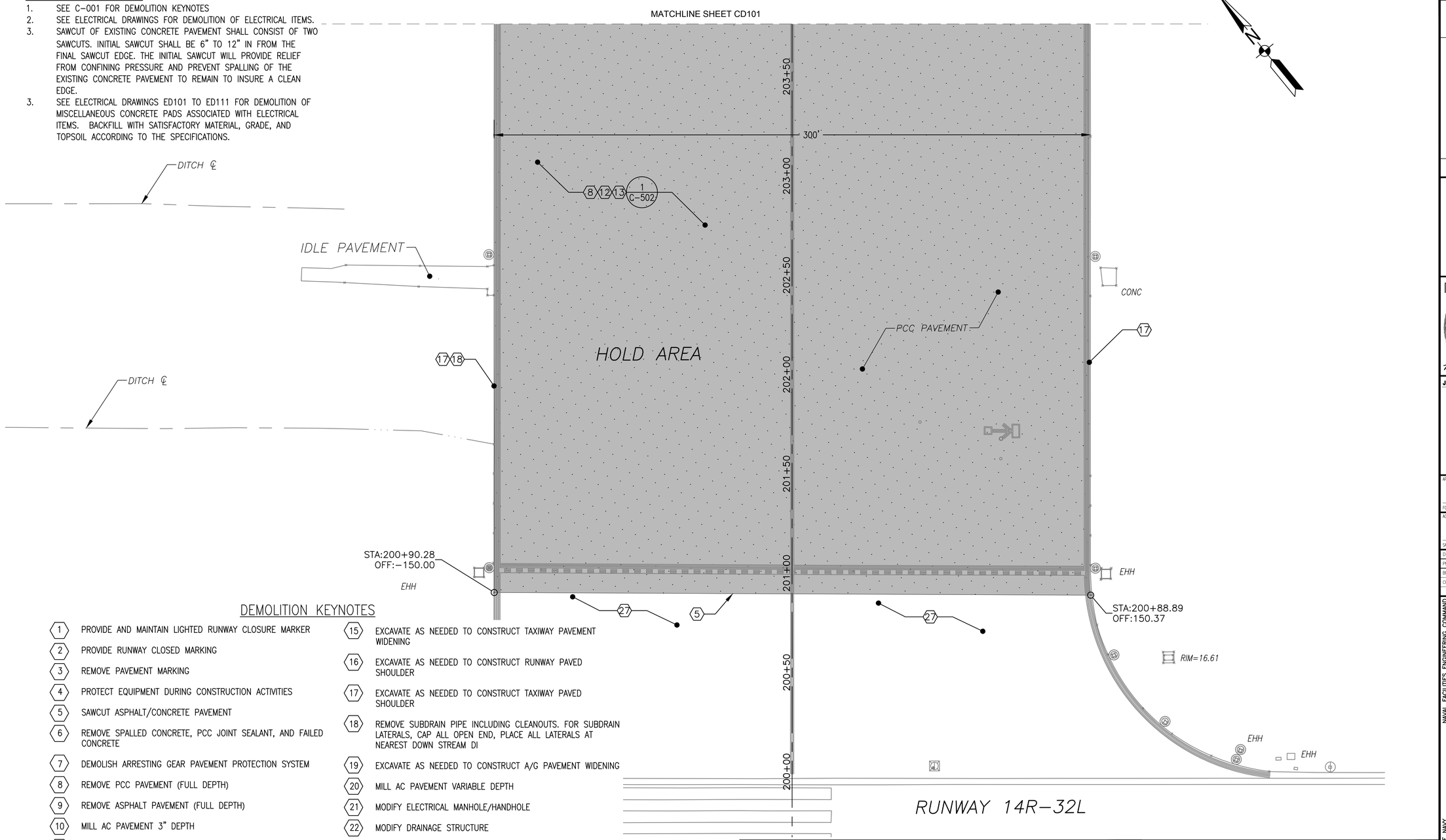
CD114

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-214.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 3:39pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SAWCUT OF EXISTING CONCRETE PAVEMENT SHALL CONSIST OF TWO SAWCUTS. INITIAL SAWCUT SHALL BE 6" TO 12" IN FROM THE FINAL SAWCUT EDGE. THE INITIAL SAWCUT WILL PROVIDE RELIEF FROM CONFINING PRESSURE AND PREVENT SPALLING OF THE EXISTING CONCRETE PAVEMENT TO REMAIN TO INSURE A CLEAN EDGE.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
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8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
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12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
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19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
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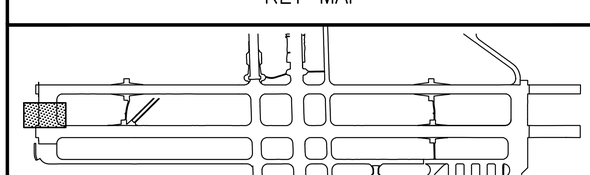
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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STATE

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WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 200+00 TO 203+77

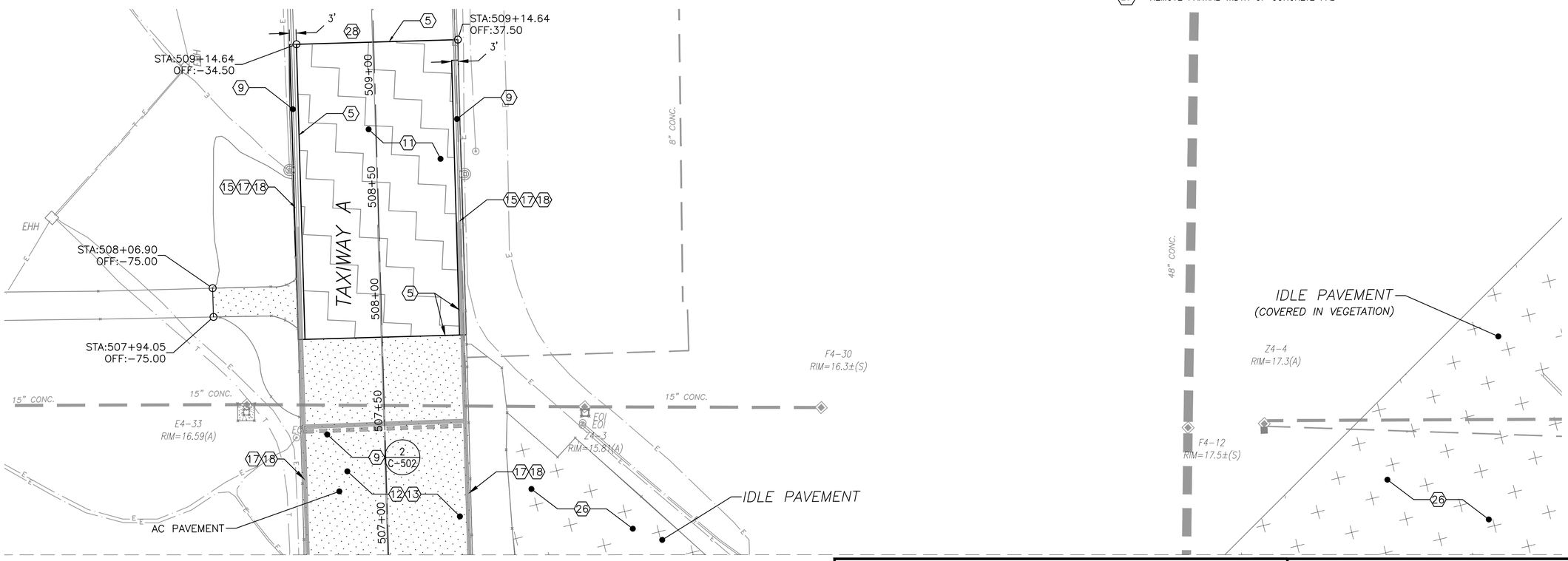
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690061
SHEET 50 OF 315
CD115

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-215.dwg LAYOUT NAME: CD115 PLOTTED: Monday, March 23, 2015 - 3:42pm USER: kwatson

DEMOLITION KEYNOTES

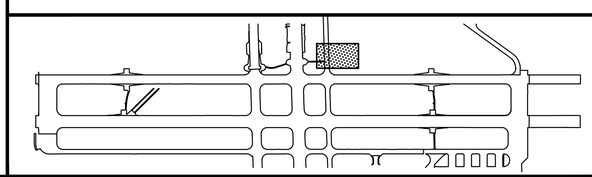
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
17. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
18. REMOVE SUBDRAIN PIPE INCLUDING CLEANOUTS. FOR SUBDRAIN LATERALS, CAP ALL OPEN END, PLACE ALL LATERALS AT NEAREST DOWN STREAM DI
19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
23. PROTECT EXISTING STRUCTURE TO REMAIN
24. REMOVE SHOULDER
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD



DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
CIVIL ENGINEER
041439-E
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Gannett Fleming
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 506+86 TO 509+29

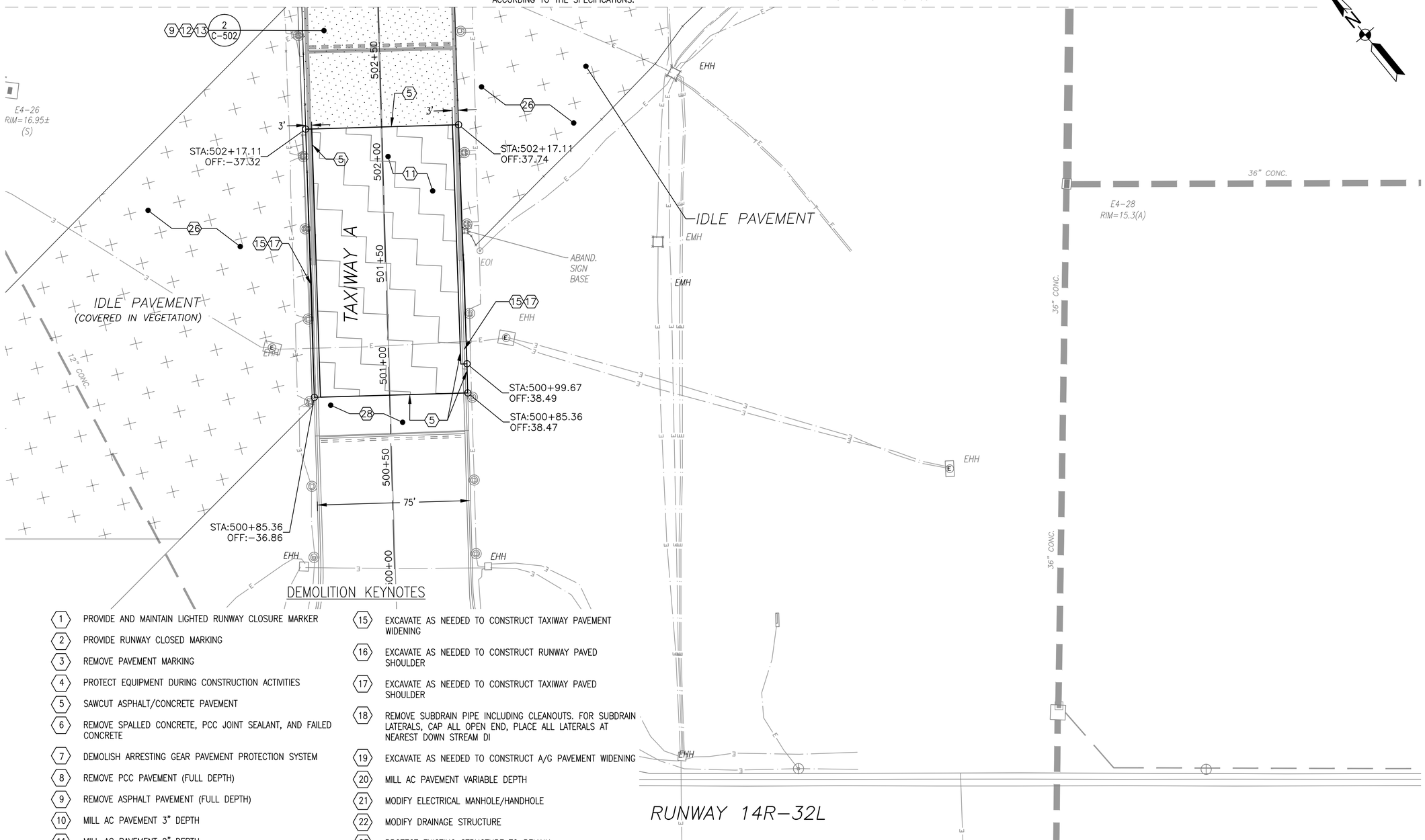
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690062
SHEET 51 OF 315
CD116

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-C0-216.dwg LAYOUT NAME: CD116 PLOTTED: Monday, March 23, 2015 - 3:46pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
16. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
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19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
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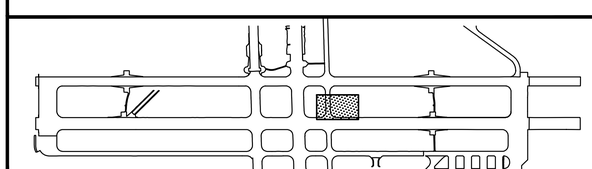
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

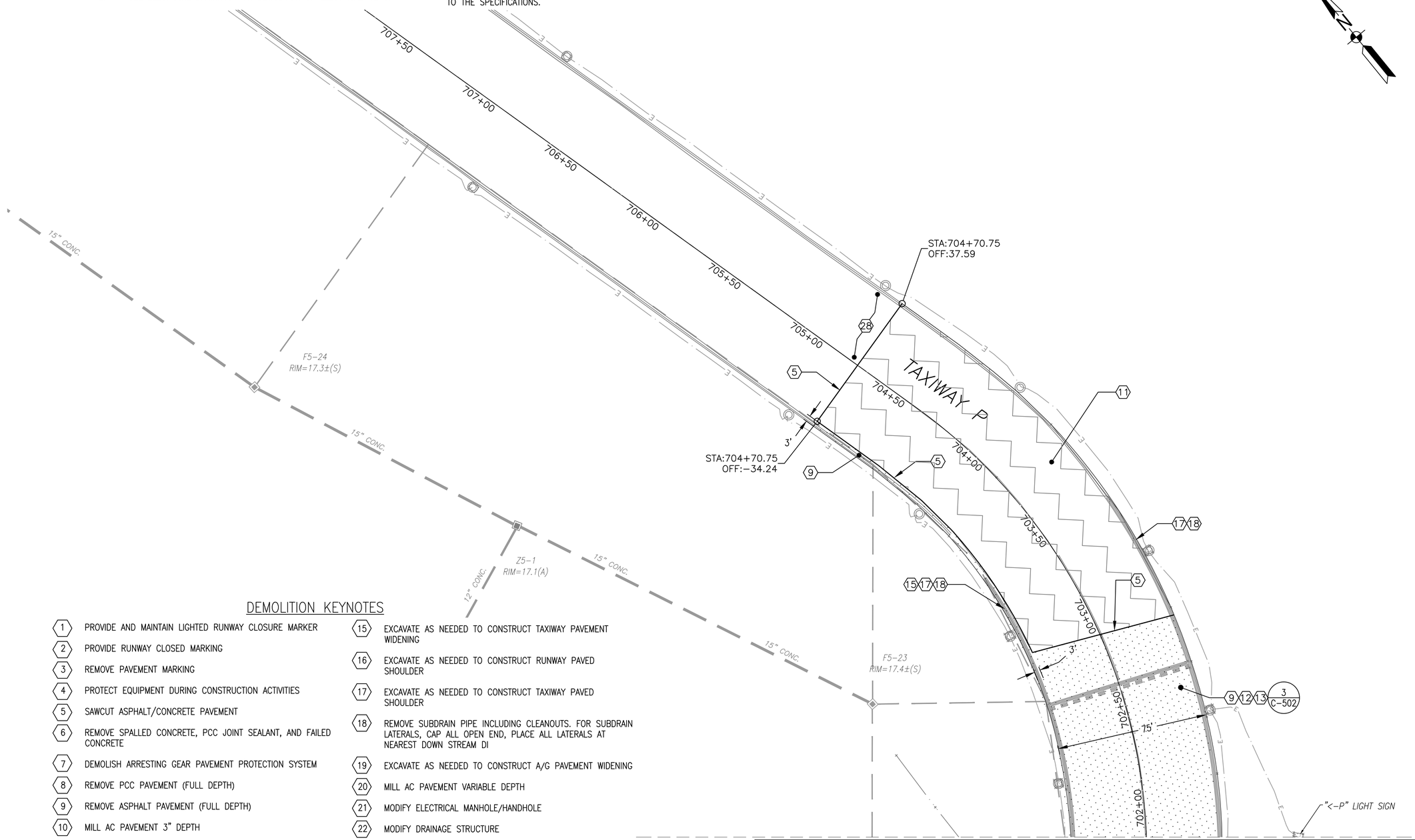
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 500+00 TO 502+76

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690063
SHEET 52 OF 315
CD117
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-217.dwg LAYOUT NAME: CD117 PLOTTED: Monday, March 23, 2015 - 3:50pm USER: kwatson

DEMOLITION NOTES:

1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.



MATCHLINE SHEET CD112

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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19. EXCAVATE AS NEEDED TO CONSTRUCT A/G PAVEMENT WIDENING
20. MILL AC PAVEMENT VARIABLE DEPTH
21. MODIFY ELECTRICAL MANHOLE/HANDHOLE
22. MODIFY DRAINAGE STRUCTURE
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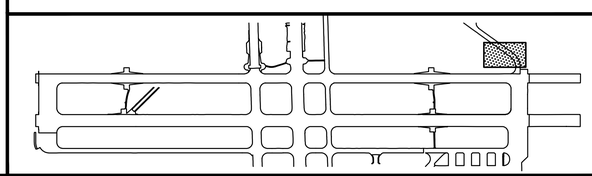
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

APPROVED
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ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA: 701+85 TO 707+72

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690064
SHEET 53 OF 315
CD118

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-218.dwg LAYOUT NAME: CD118 PLOTTED: Monday, March 23, 2015 - 3:53pm USER: kwatson

DEMOLITION NOTES:

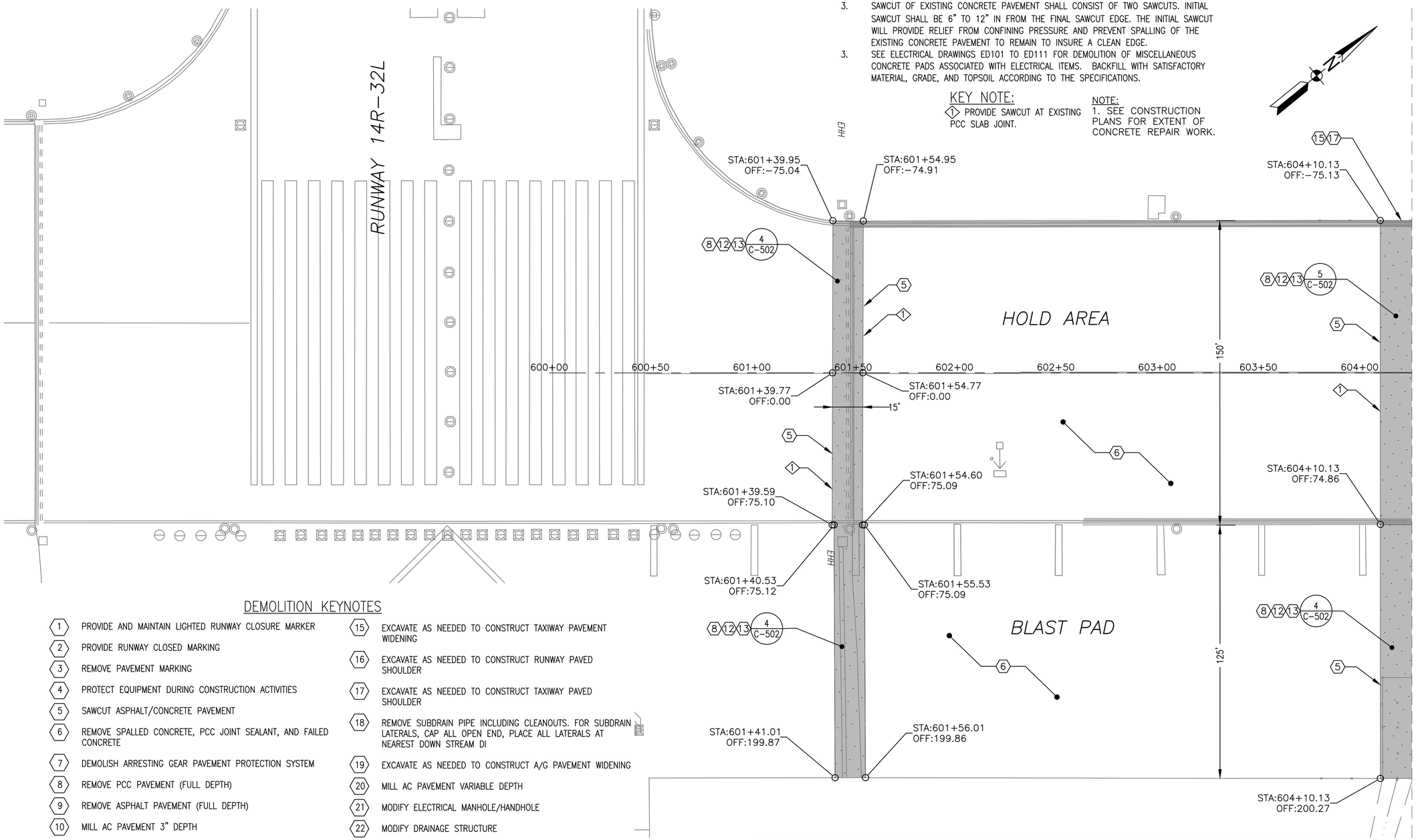
1. SEE C-001 FOR DEMOLITION KEYNOTES
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL ITEMS.
3. SAWCUT OF EXISTING CONCRETE PAVEMENT SHALL CONSIST OF TWO SAWCUTS. INITIAL SAWCUT SHALL BE 6" TO 12" IN FROM THE FINAL SAWCUT EDGE. THE INITIAL SAWCUT WILL PROVIDE RELIEF FROM CONFINING PRESSURE AND PREVENT SPALLING OF THE EXISTING CONCRETE PAVEMENT TO REMAIN TO INSURE A CLEAN EDGE.
3. SEE ELECTRICAL DRAWINGS ED101 TO ED111 FOR DEMOLITION OF MISCELLANEOUS CONCRETE PADS ASSOCIATED WITH ELECTRICAL ITEMS. BACKFILL WITH SATISFACTORY MATERIAL, GRADE, AND TOPSOIL ACCORDING TO THE SPECIFICATIONS.

KEY NOTE:

1 PROVIDE SAWCUT AT EXISTING PCC SLAB JOINT.

NOTE:

1. SEE CONSTRUCTION PLANS FOR EXTENT OF CONCRETE REPAIR WORK.



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT ASPHALT/CONCRETE PAVEMENT
6. REMOVE SPALLED CONCRETE, PCC JOINT SEALANT, AND FAILED CONCRETE
7. DEMOLISH ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
8. REMOVE PCC PAVEMENT (FULL DEPTH)
9. REMOVE ASPHALT PAVEMENT (FULL DEPTH)
10. MILL AC PAVEMENT 3" DEPTH
11. MILL AC PAVEMENT 2" DEPTH
12. EXCAVATE TO NEW SUBGRADE. EXCAVATE 1' DEEP BEFORE PLACING CABC WHEN UNSUITABLE SUBGRADE IS PRESENT, BASED ON PROOFROLL.
13. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
14. MILL AC PAVEMENT VARIABLE DEPTH AS NEEDED TO CONSTRUCT OVERRUN
15. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVEMENT WIDENING
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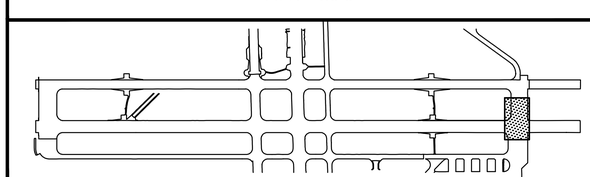
25. REMOVE ASPHALT ROADWAY PAVEMENT (FULL DEPTH)
26. REMOVE IDLE PAVEMENT AREA
27. PROTECT CONCRETE TO REMAIN
28. PROTECT ASPHALT TO REMAIN
29. REMOVE PARTIAL WIDTH OF CONCRETE PAD

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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WEB: WWW.JMT.COM
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

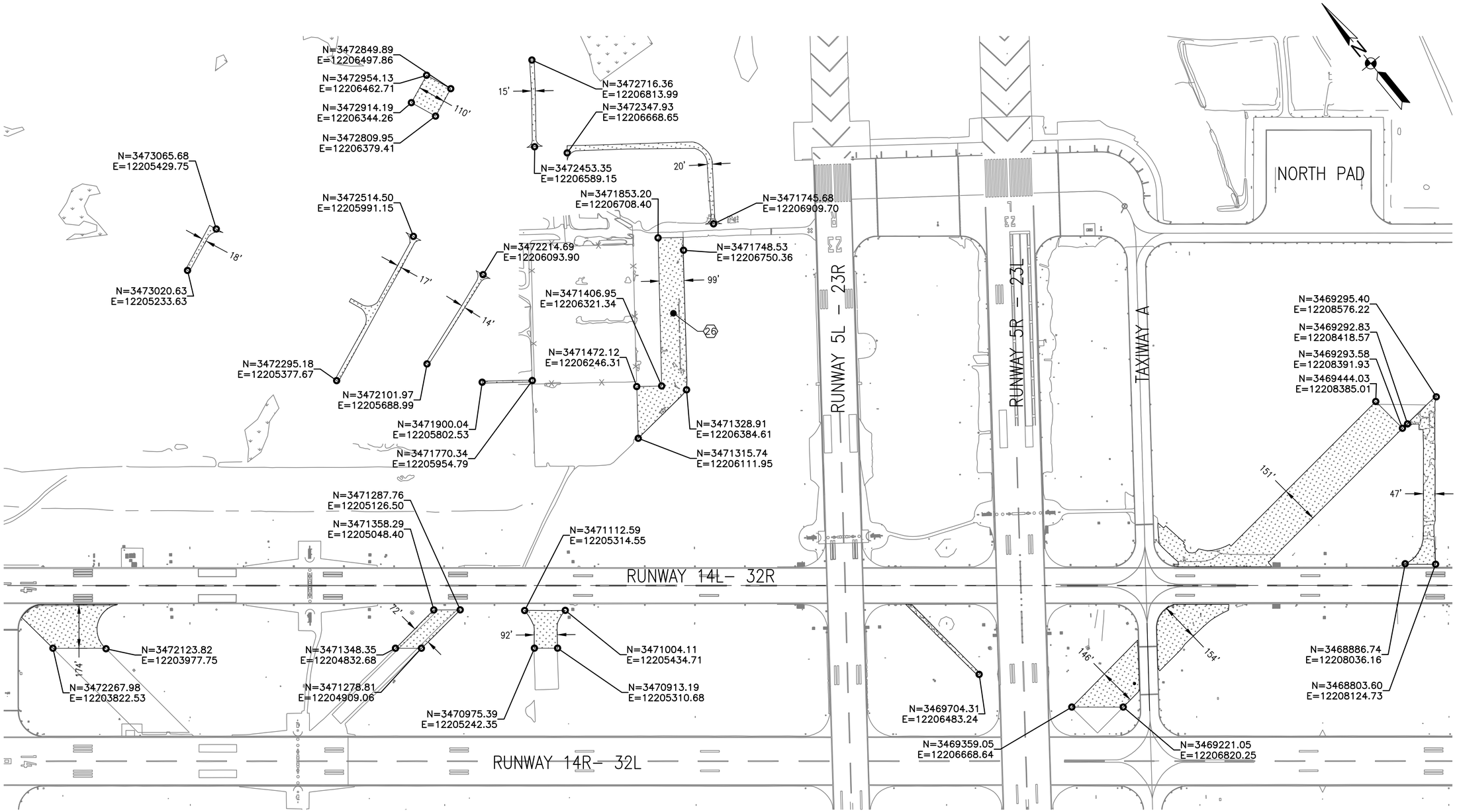
DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DEMOLITION PLAN STA 600+00 TO 604+25

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690065
SHEET 54 OF 315

CD119

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CD-219.dwg LAYOUT NAME: CD119 PLOTTED: Monday, March 23, 2015 - 3:57pm USER: kwatson



GRAPHIC SCALE

1"=200' 0 200' 400' 800'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
041439-E

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A/E INFO

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ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
IDLE PAVEMENT REMOVAL PLAN

SCALE: 1" = 200'
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690066
SHEET 55 OF 315
CD121

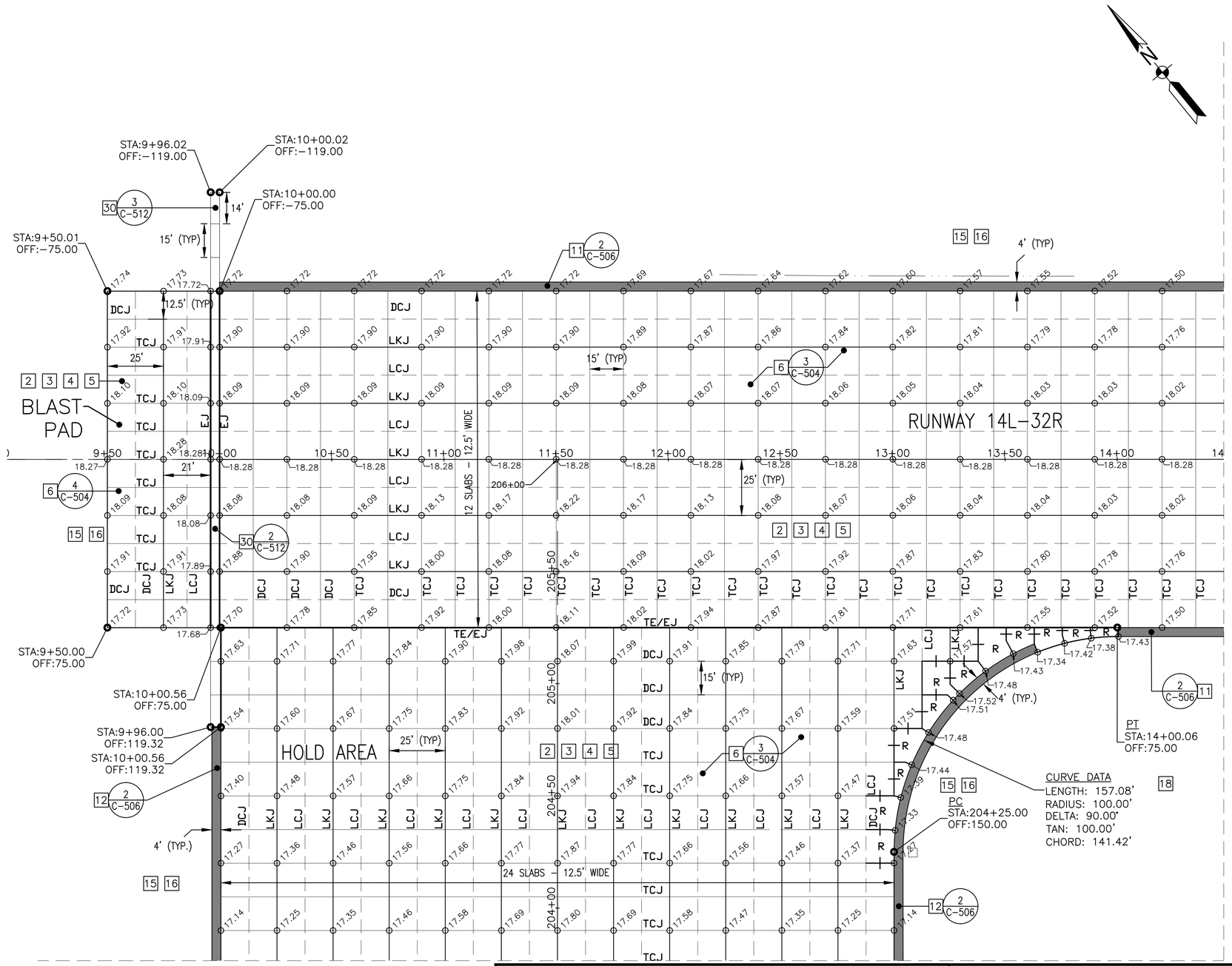
DRAWFORM REVISION: 10 MARCH 2009

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

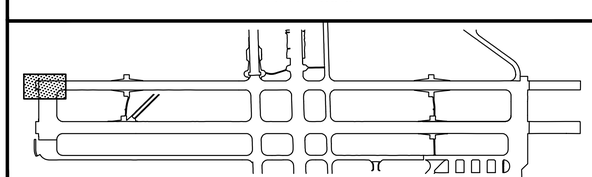
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR



CONSTRUCTION NOTES
1. SEE SHEET C−507 FOR PAVEMENT JOINT DETAILS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER MARK J TIGER 041439-E CIVIL

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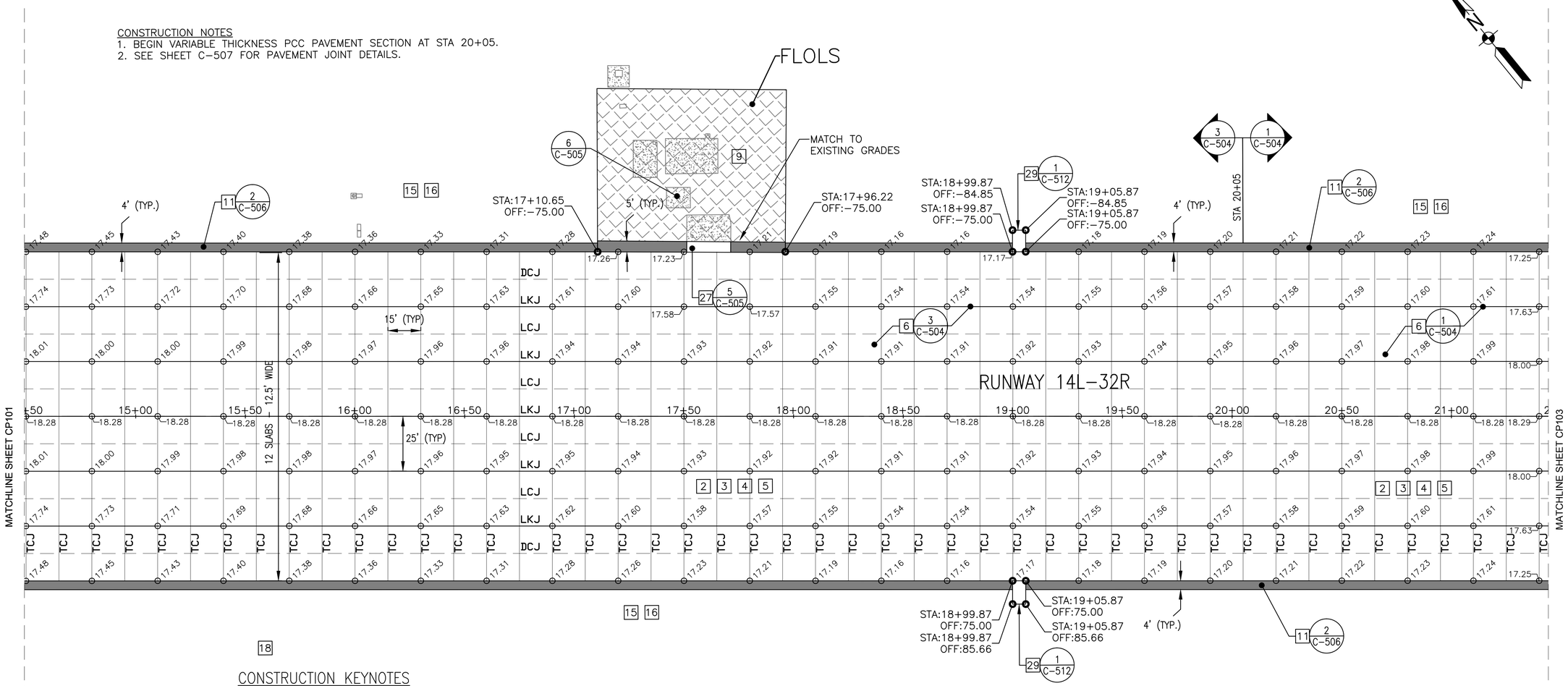
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 9+19 TO 14+48

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690067
SHEET 56 OF 315
CP101
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-101.dwg LAYOUT NAME: CP101 PLOTTED: Monday, March 23, 2015 - 3:00pm USER: mcosenza

CONSTRUCTION NOTES
1. BEGIN VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 20+05.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.



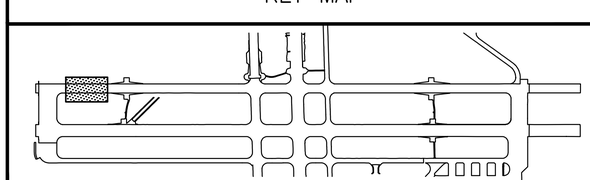
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS (R R)
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

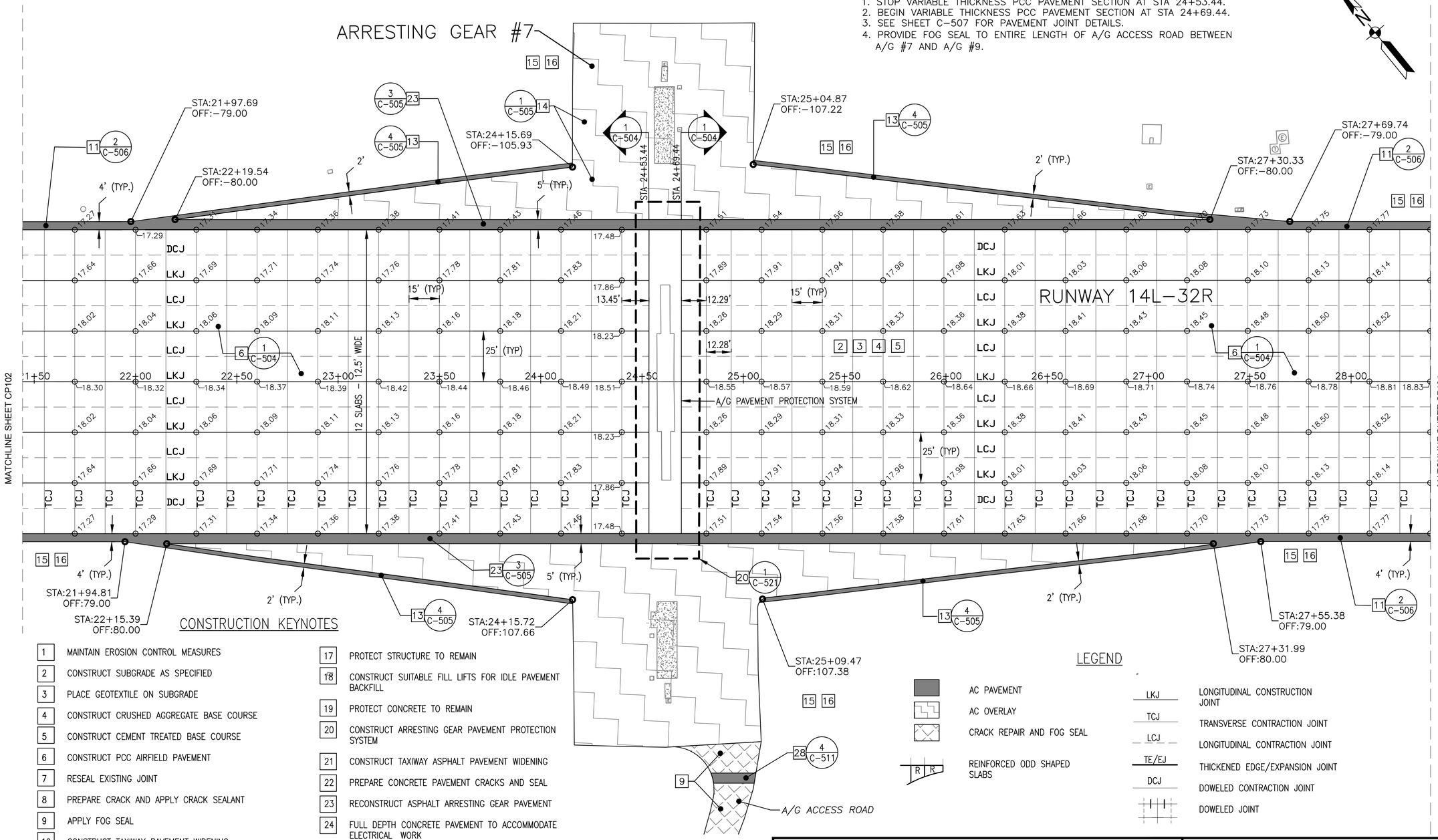
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 14+48 TO 21+44

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690068
SHEET 57 OF 315
CP102

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-102.dwg LAYOUT NAME: CP102 PLOTTED: Monday, March 23, 2015 - 3:07pm USER: mcosenza

CONSTRUCTION NOTES
1. STOP VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 24+53.44.
2. BEGIN VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 24+69.44.
3. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.
4. PROVIDE FOG SEAL TO ENTIRE LENGTH OF A/G ACCESS ROAD BETWEEN A/G #7 AND A/G #9.



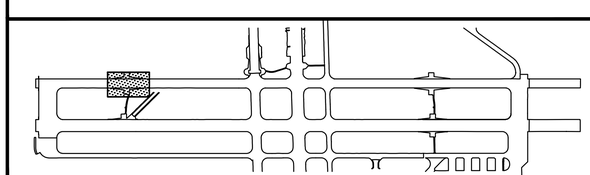
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS (R R)
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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A/E INFO

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BRANCH MANAGER B/L
CHIEF ENG/ARCH

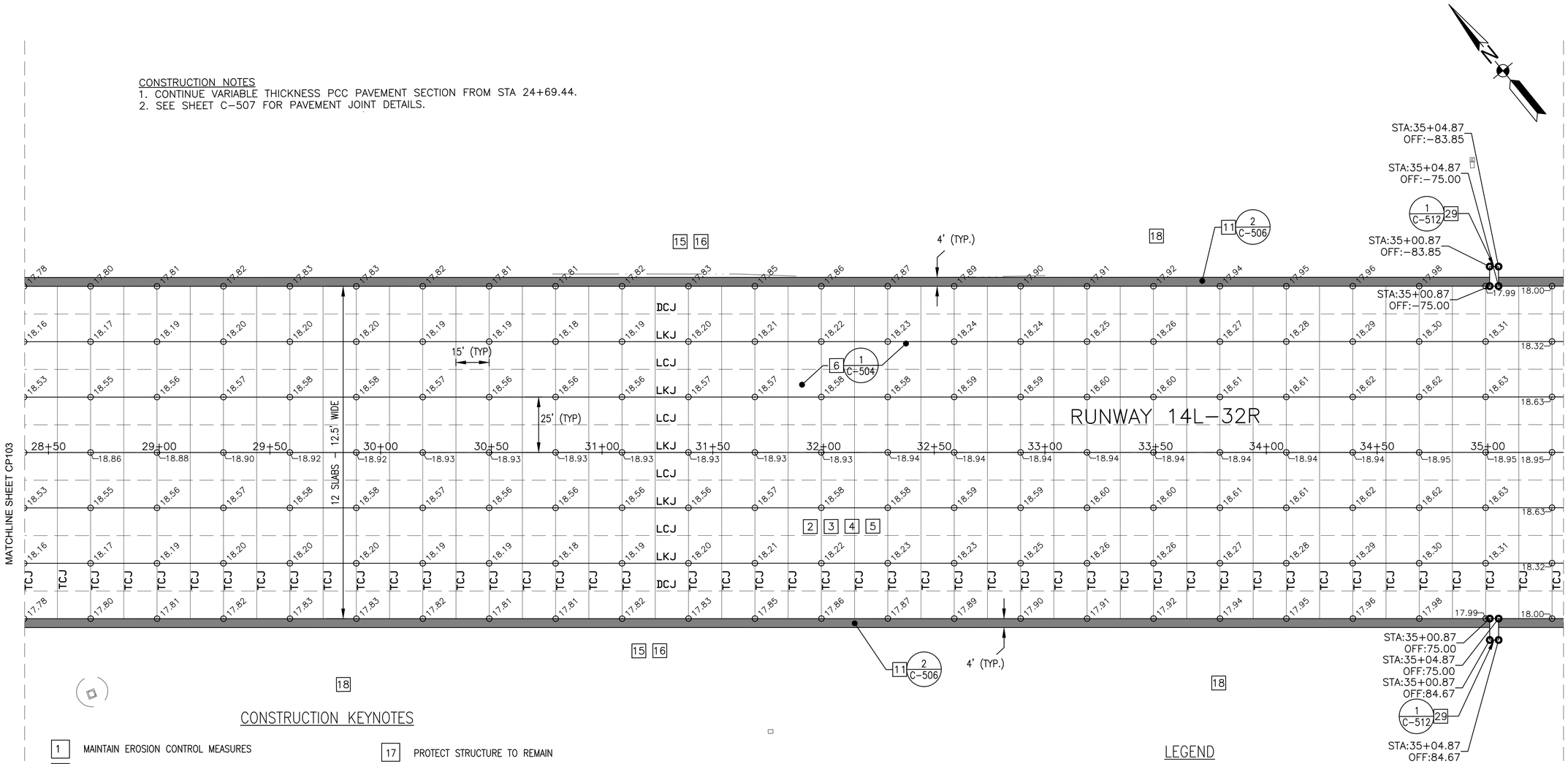
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 21+44 TO 28+39

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690069
SHEET 58 OF 315
CP103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-103.dwg LAYOUT NAME: CP103 PLOTTED: Monday, March 23, 2015 - 3:21pm USER: mcosenza

CONSTRUCTION NOTES
1. CONTINUE VARIABLE THICKNESS PCC PAVEMENT SECTION FROM STA 24+69.44.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.



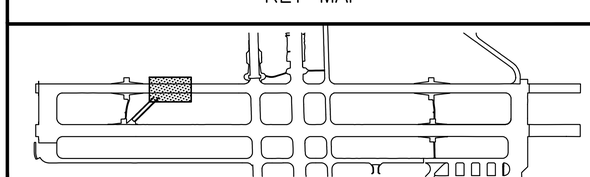
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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A/E INFO

APPROVED
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SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

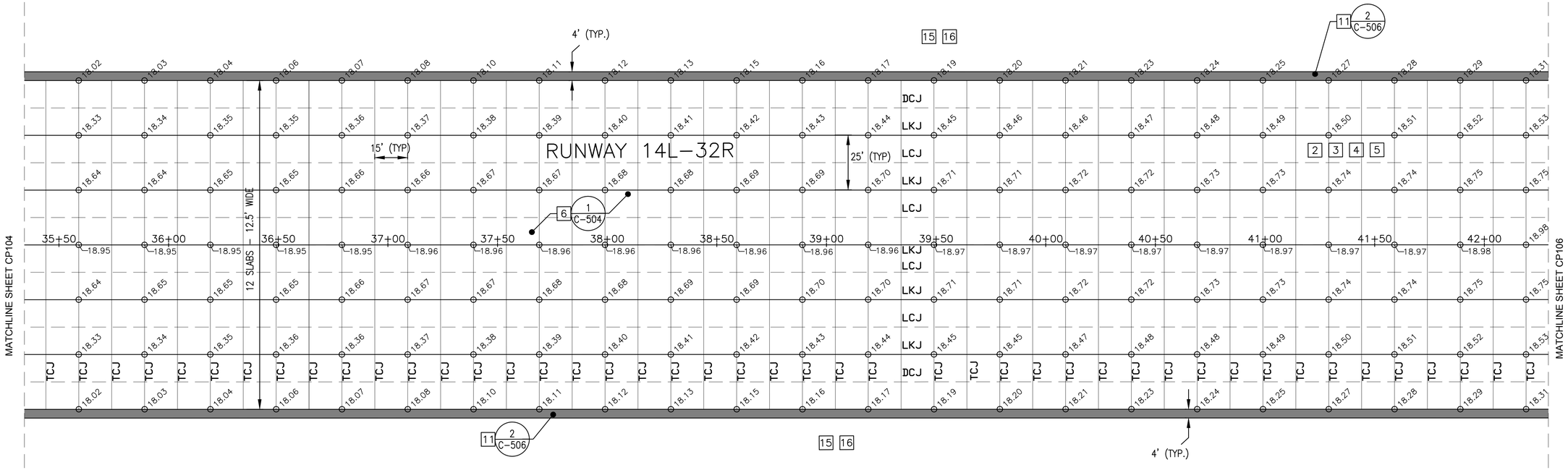
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 28+39 TO 35+34

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690070
SHEET 59 OF 315
CP104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-104.dwg LAYOUT NAME: CP104 PLOTTED: Monday, March 23, 2015 - 3:27pm USER: mcosenza

CONSTRUCTION NOTES
1. CONTINUE VARIABLE THICKNESS PCC PAVEMENT SECTION WHICH FROM STA 24+69.44.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.



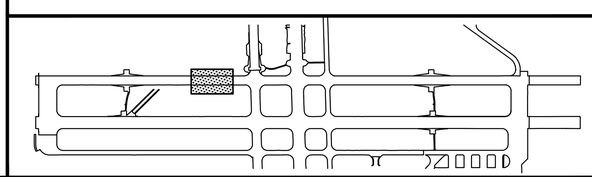
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

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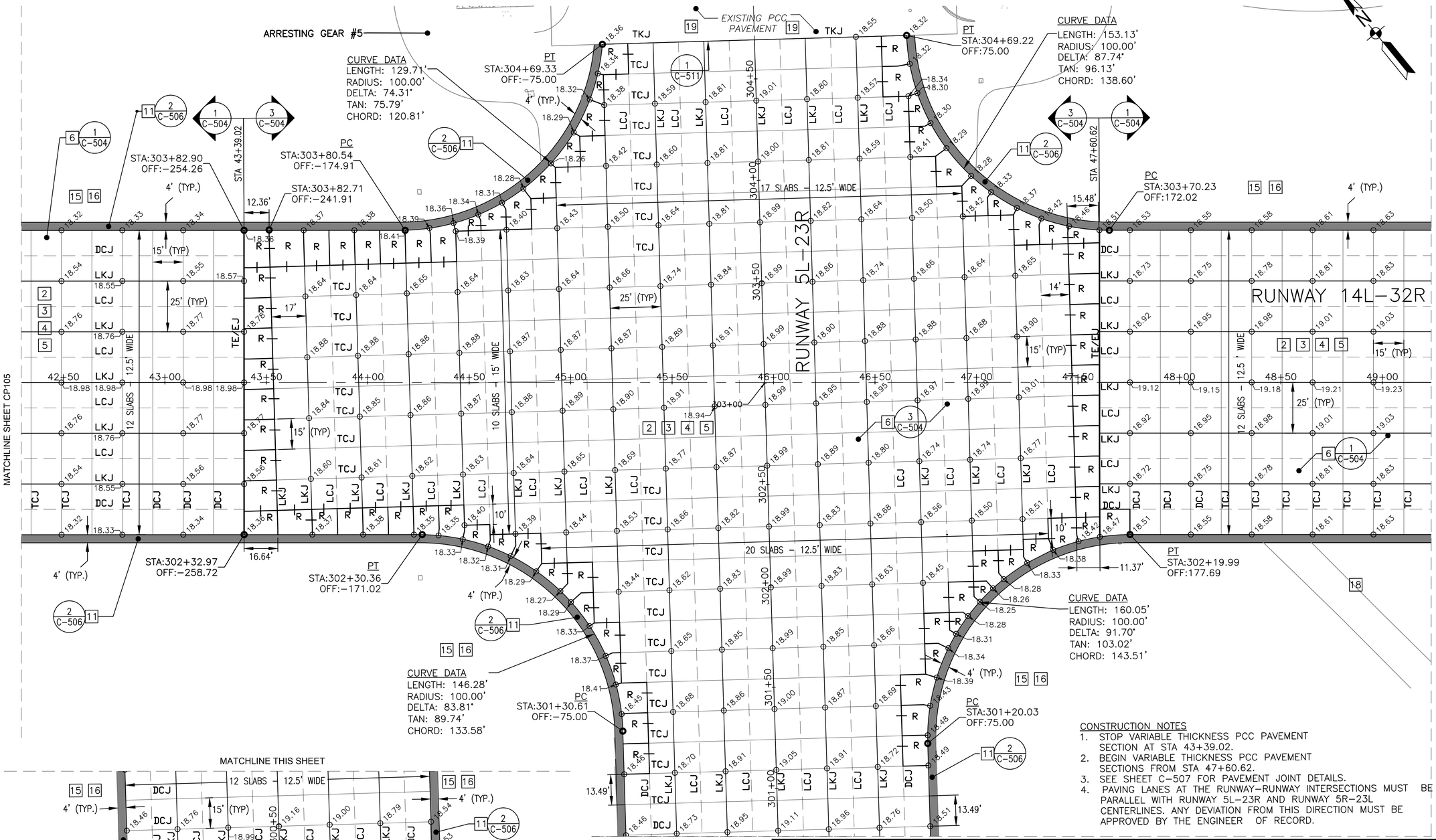
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 35+34 TO 42+29

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690071
SHEET 60 OF 315
CP105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CWA\10-0863-007-CP-105.dwg LAYOUT NAME: CP105 PLOTTED: Monday, March 23, 2015 - 3:31pm USER: mcosenza



CONSTRUCTION NOTES

1. STOP VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 43+39.02.
2. BEGIN VARIABLE THICKNESS PCC PAVEMENT SECTIONS FROM STA 47+60.62.
3. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.
4. PAVING LANES AT THE RUNWAY-RUNWAY INTERSECTIONS MUST BE PARALLEL WITH RUNWAY 5L-23R AND RUNWAY 5R-23L CENTERLINES. ANY DEVIATION FROM THIS DIRECTION MUST BE APPROVED BY THE ENGINEER OF RECORD.

KEY MAP

GRAPHIC SCALE

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

NAVFAC

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DEPARTMENT OF THE NAVY
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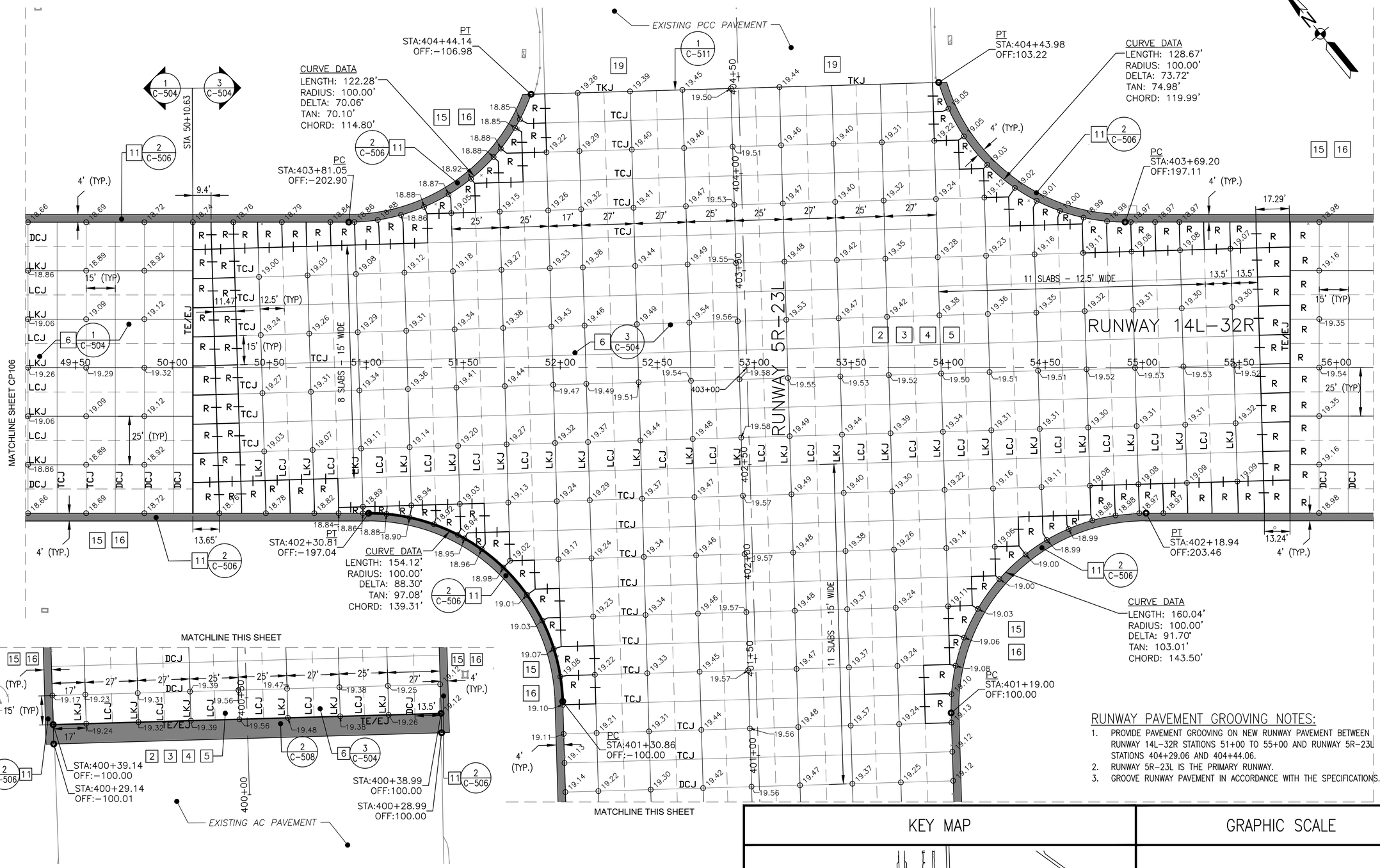
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 42+29 TO 49+24

SCALE: AS NOTED
EPROJECT NO.: 1312624
NAVFAC DRAWING NO. 12690072
SHEET 61 OF 315
CP106

DES MJT DRW DFD CHK ELO
BRANCH MANAGER BJC

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99- Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-106.dwg LAYOUT NAME: CP106 PLOTTED: Monday, March 23, 2015 - 3:33pm USER: mcoserva



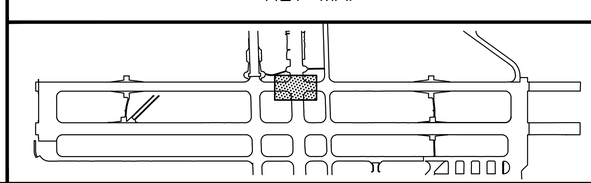
RUNWAY PAVEMENT GROOVING NOTES:

1. PROVIDE PAVEMENT GROOVING ON NEW RUNWAY PAVEMENT BETWEEN RUNWAY 14L-32R STATIONS 51+00 TO 55+00 AND RUNWAY 5R-23L STATIONS 404+29.06 AND 404+44.06.
2. RUNWAY 5R-23L IS THE PRIMARY RUNWAY.
3. GROOVE RUNWAY PAVEMENT IN ACCORDANCE WITH THE SPECIFICATIONS.

CONSTRUCTION NOTES

1. STOP VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 50+10.63.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.
3. PAVING LANES AT THE RUNWAY-RUNWAY INTERSECTIONS MUST BE PARALLEL WITH RUNWAY 5L-23R AND RUNWAY 5R-23L CENTERLINES. ANY DEVIATION FROM THIS DIRECTION MUST BE APPROVED BY THE ENGINEER OF RECORD.

KEY MAP



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

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HR IPT

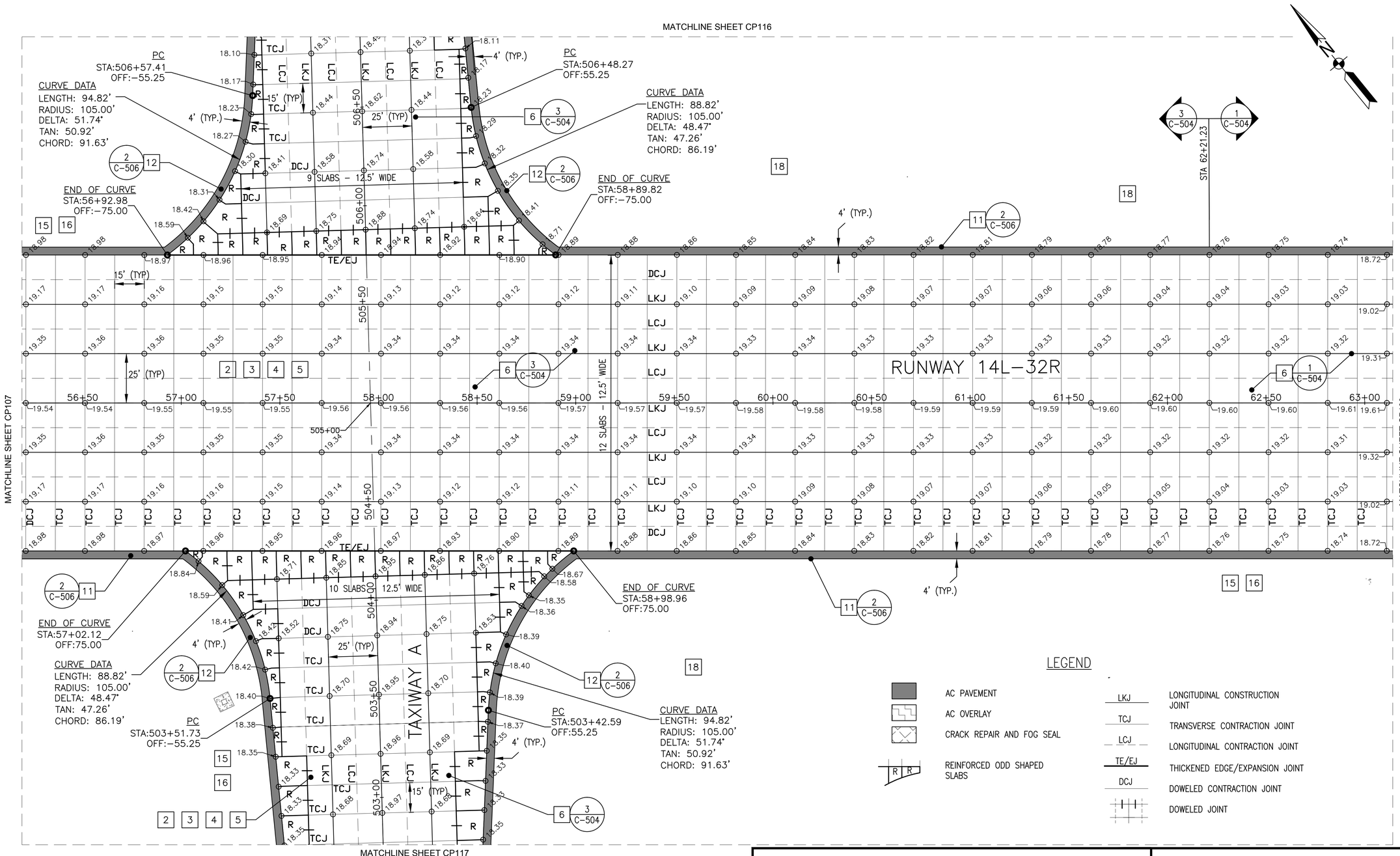
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

CONSTRUCTION PLAN STA: 49+24 TO 56+19

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690073
SHEET 62 OF 315

CP107

DRAWFORM REVISION: 10 MARCH 2009



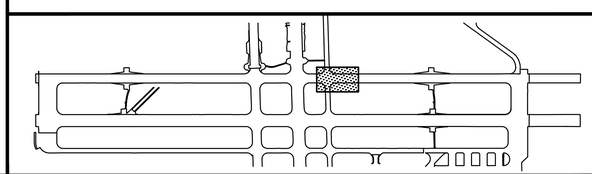
MATCHLINE SHEET CP117

CONSTRUCTION NOTES
1. BEGIN VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 62+21.23.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

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Virginia Beach, Virginia, 23452
Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

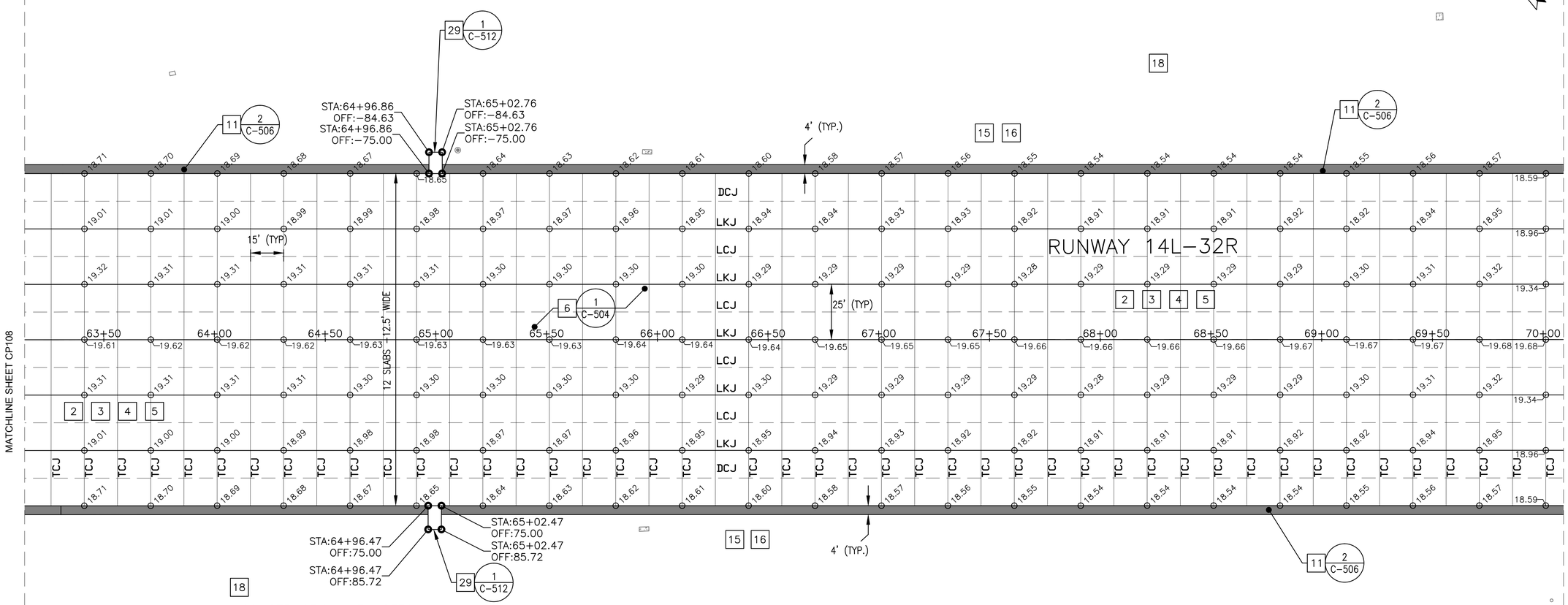
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 56+19 TO 63+14

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690074
SHEET 63 OF 315
CP108

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-9863-007-CP-108.dwg LAYOUT NAME: CP108 PLOTTED: Monday, March 23, 2015 - 3:41pm USER: mcosenza

CONSTRUCTION NOTES
1. CONTINUE VARIABLE THICKNESS PCC PAVEMENT SECTION FROM STA 62+21.23.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.



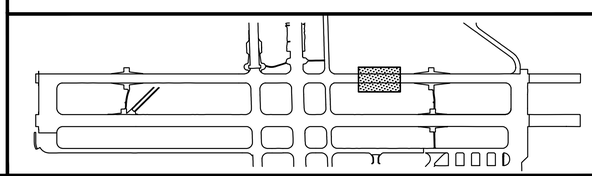
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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Gannett Fleming
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 63+14 TO 70+09

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690075
SHEET 64 OF 315
CP109

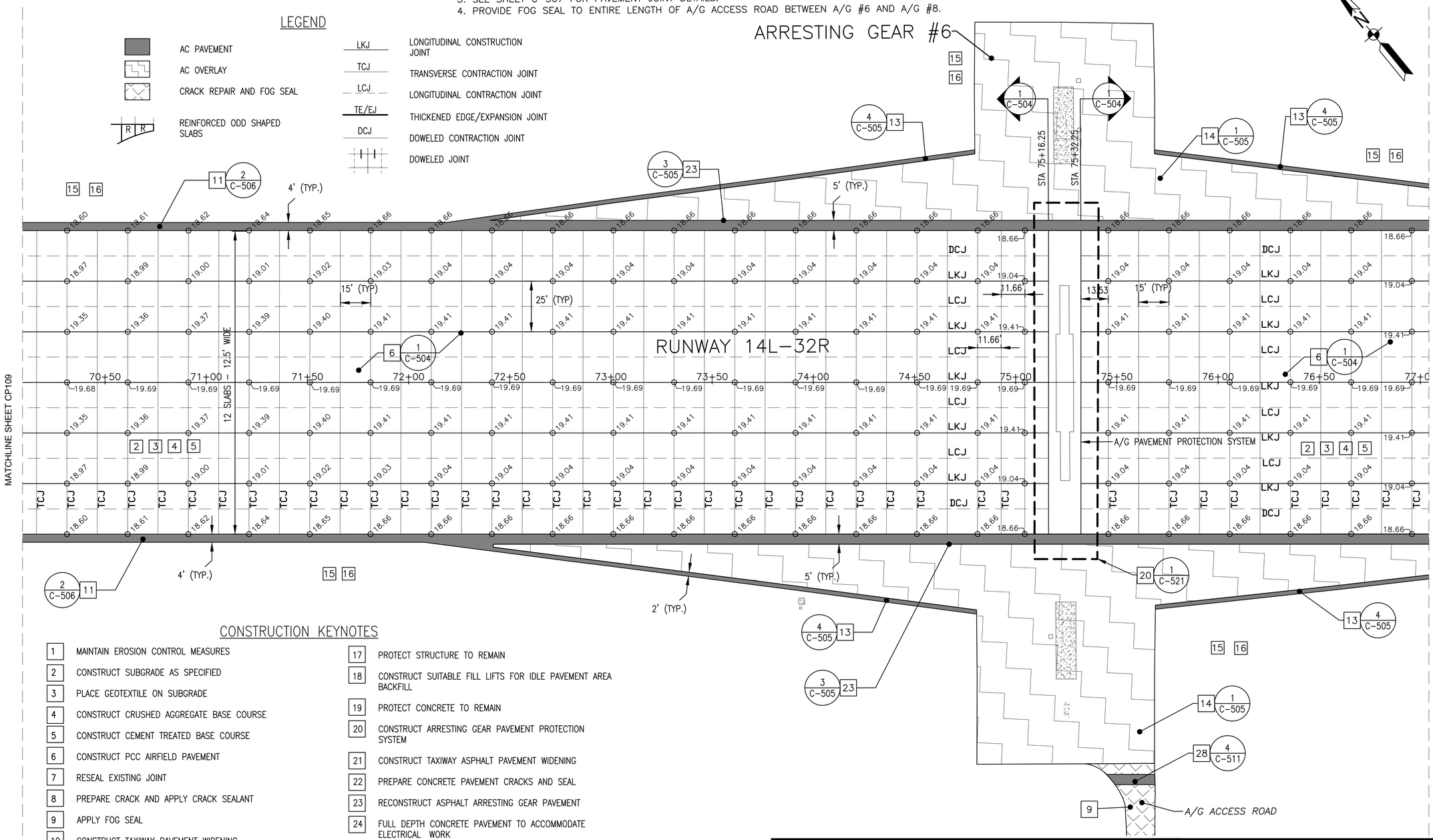
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-109.dwg LAYOUT NAME: CP109 PLOTTED: Monday, March 23, 2015 - 3:47pm USER: mcosenza

CONSTRUCTION NOTES
1. STOP VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 75+16.25.
2. BEGIN VARIABLE THICKNESS PCC PAVEMENT SECTION FROM STA 75+32.25.
3. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.
4. PROVIDE FOG SEAL TO ENTIRE LENGTH OF A/G ACCESS ROAD BETWEEN A/G #6 AND A/G #8.

LEGEND

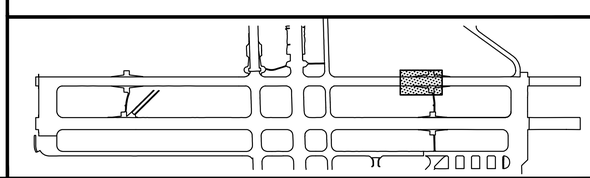
AC PAVEMENT	
AC OVERLAY	
CRACK REPAIR AND FOG SEAL	
R R	REINFORCED ODD SHAPED SLABS
LKJ	LONGITUDINAL CONSTRUCTION JOINT
TCJ	TRANSVERSE CONTRACTION JOINT
LCJ	LONGITUDINAL CONTRACTION JOINT
TE/EJ	THICKENED EDGE/EXPANSION JOINT
DCJ	DOWELED CONTRACTION JOINT
	DOWELED JOINT



CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 70+09 TO 77+04

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690076
SHEET 65 OF 315
CP110

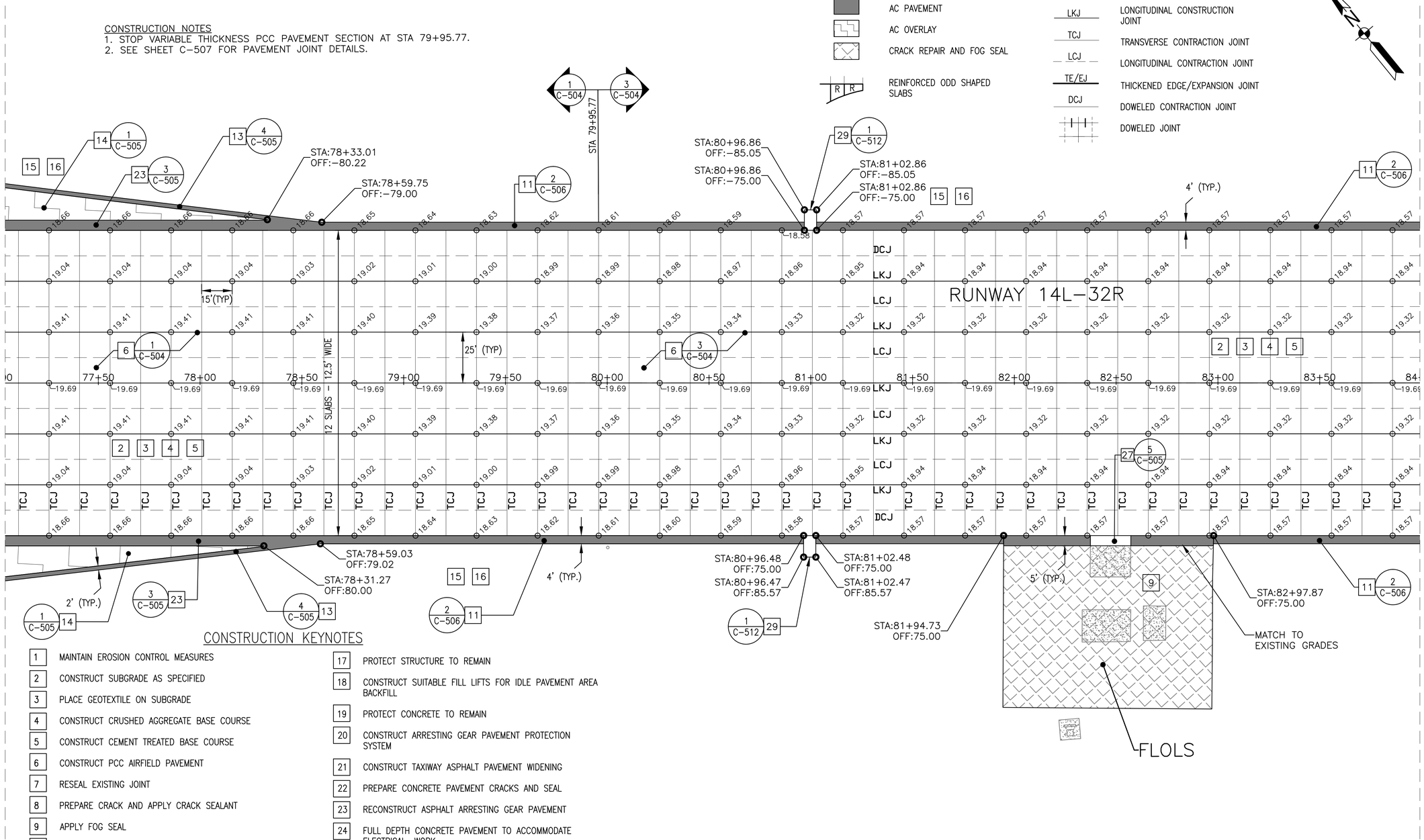
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-110.dwg LAYOUT NAME: CP110 PLOTTED: Monday, March 23, 2015 - 3:53pm USER: mcosenza

CONSTRUCTION NOTES
1. STOP VARIABLE THICKNESS PCC PAVEMENT SECTION AT STA 79+95.77.
2. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT



CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
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25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
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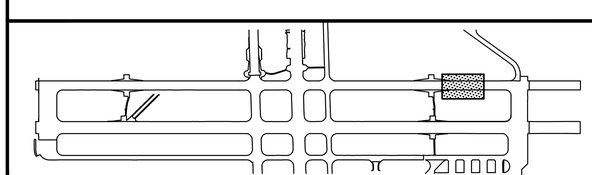
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
041439-E

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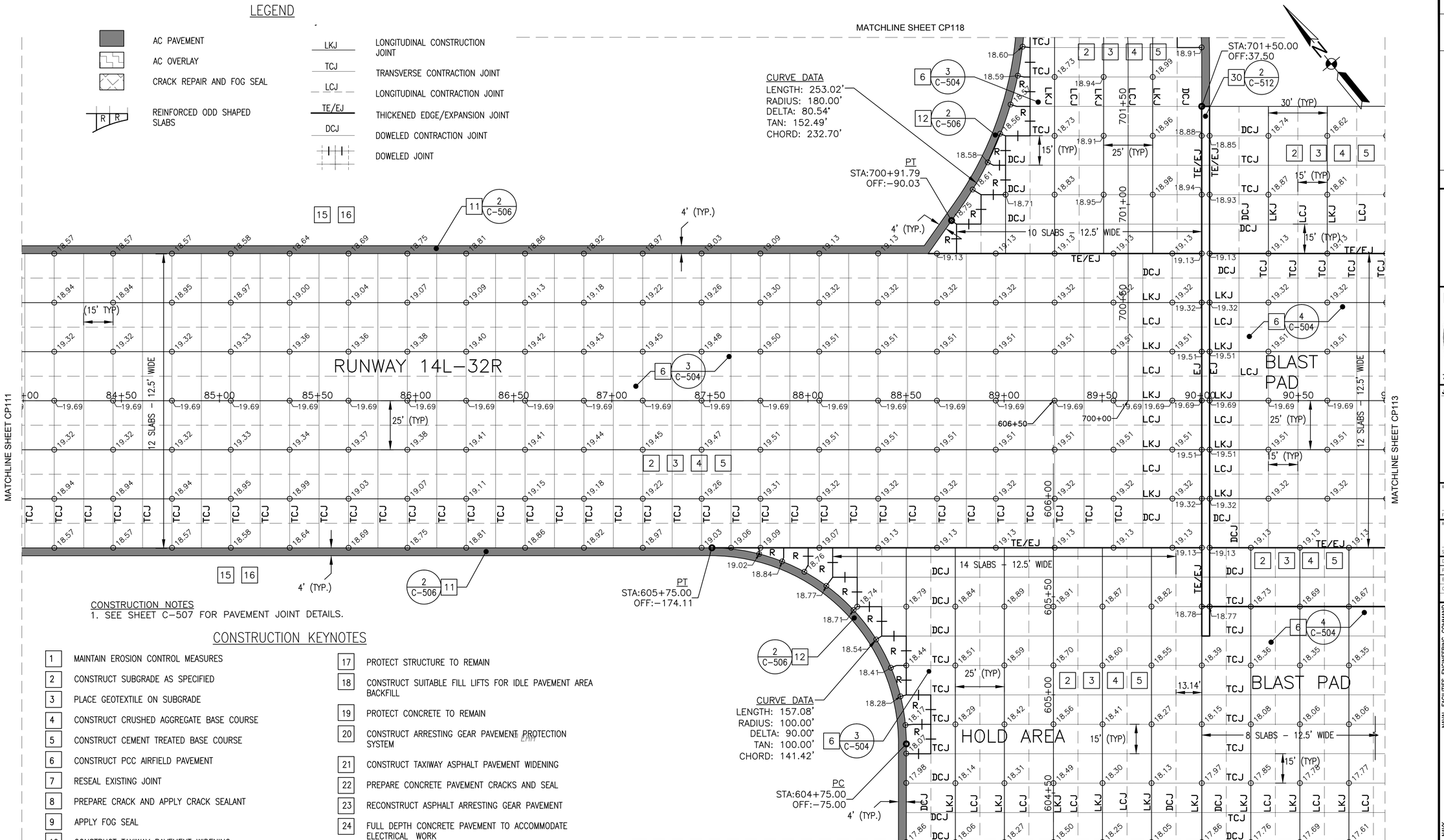
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 77+04 TO 83+99

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690077
SHEET 66 OF 315
CP111
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-111.dwg LAYOUT NAME: CP111 PLOTTED: Monday, March 23, 2015 - 4:00pm USER: mcosenza

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT



CONSTRUCTION NOTES
1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
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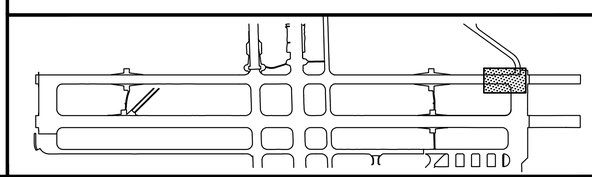
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE OF VIRGINIA

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SATISFACTORY TO DATE

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CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

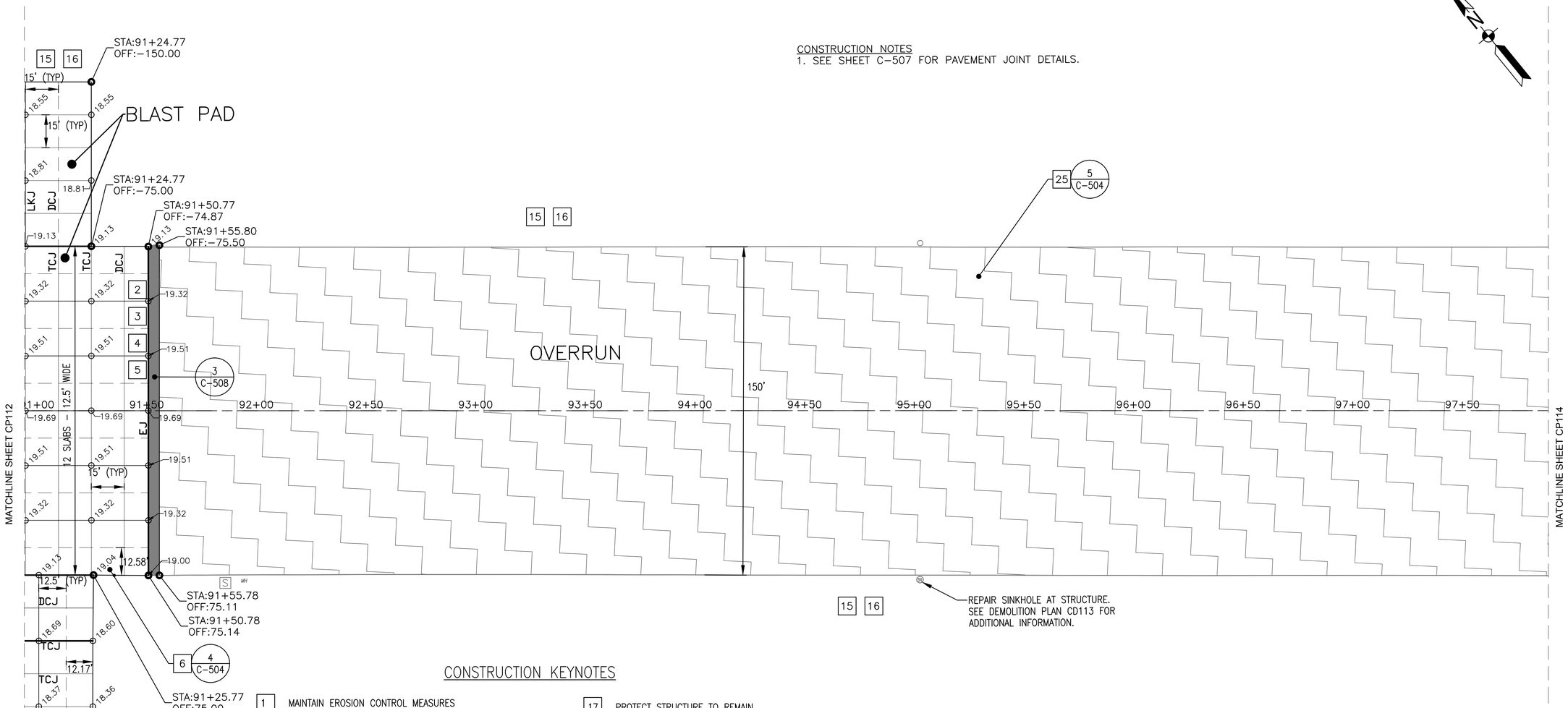
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

CONSTRUCTION PLAN STA: 83+99 TO 90+94

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690078
SHEET 67 OF 315
CP112

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-112.dwg LAYOUT NAME: CP112 PLOTTED: Monday, March 23, 2015 - 4:06pm USER: mcosenza



CONSTRUCTION NOTES

1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
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10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
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13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
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15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
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LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
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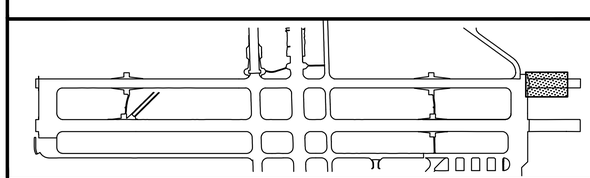
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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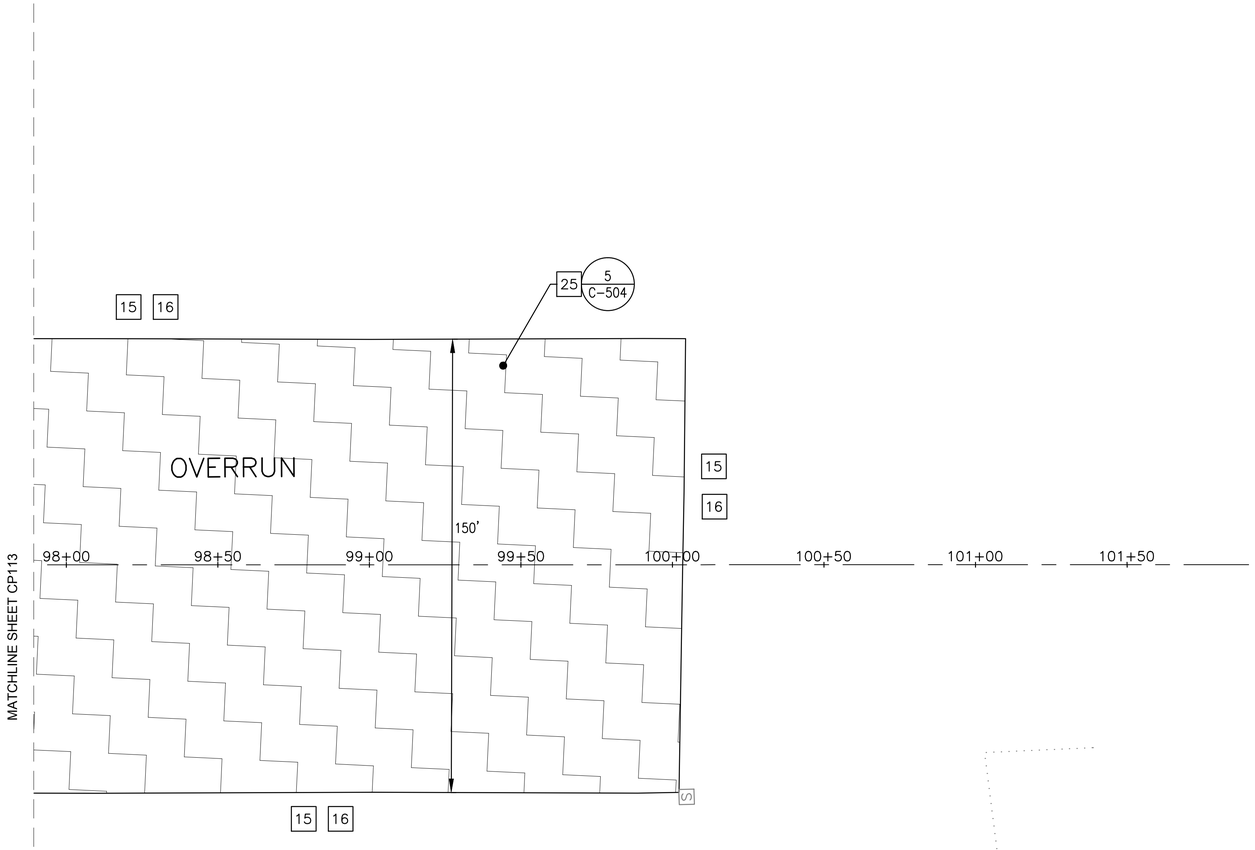
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 90+94 TO 97+89

SCALE: AS NOTED
EPROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690079
SHEET 68 OF 315

CP113

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-113.dwg LAYOUT NAME: CP113 PLOTTED: Monday, March 23, 2015 - 4:12pm USER: mcosenza



CONSTRUCTION LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
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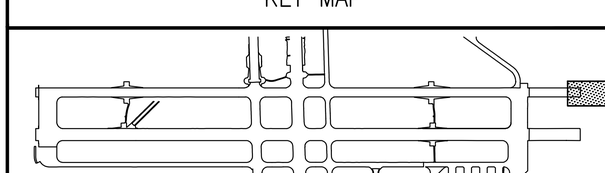
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 97+89 TO 101+18

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690080
SHEET 69 OF 315
CP114

DRAWFORM REVISION: 10 MARCH 2009

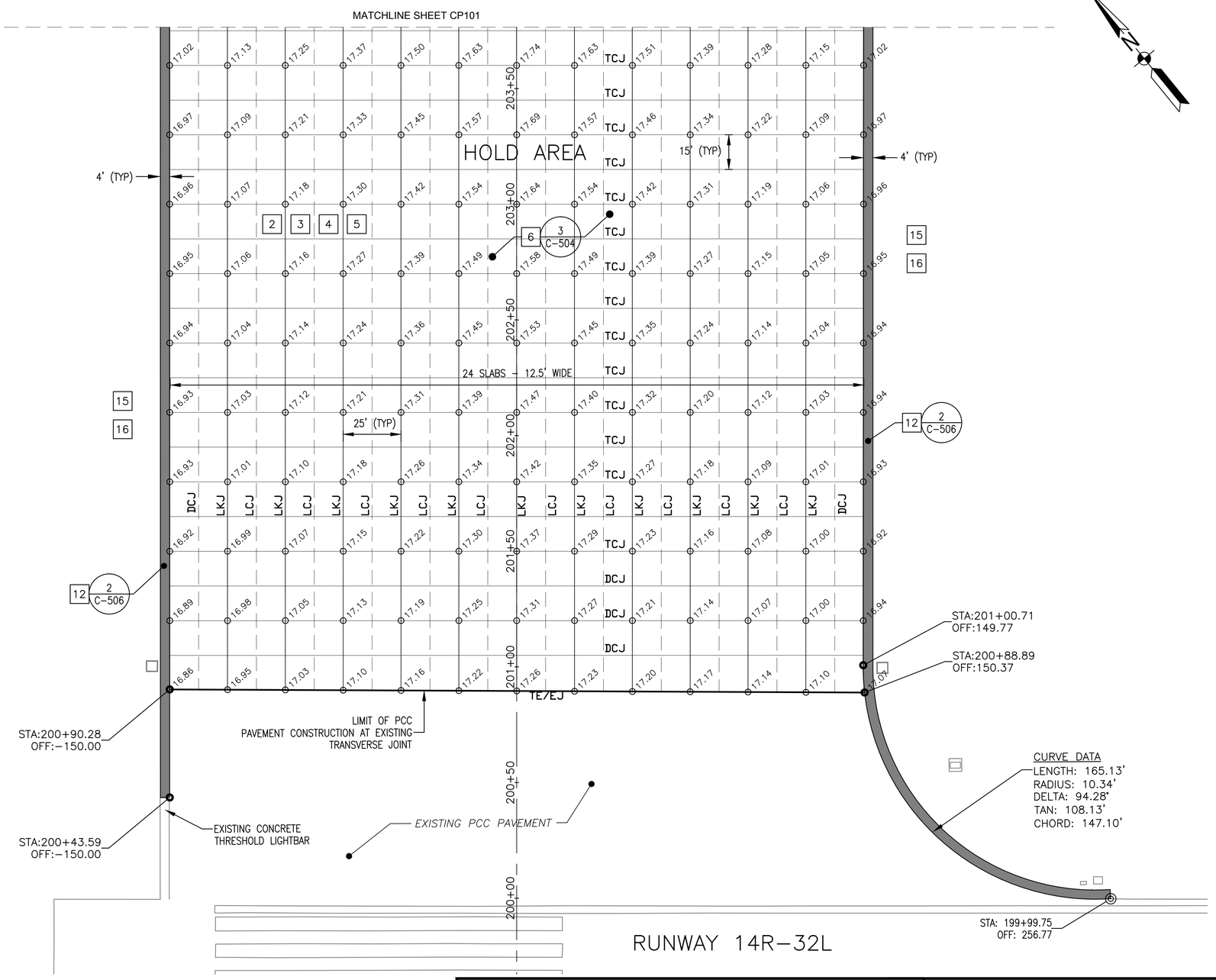
FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-114.dwg LAYOUT NAME: CP114 PLOTTED: Monday, March 23, 2015 - 4:18pm USER: mcosenza

LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

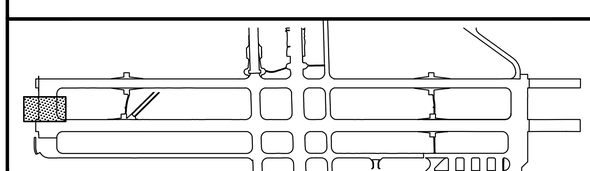
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFA
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR



CONSTRUCTION NOTES
1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
STATE

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WEB: WWW.JMT.COM

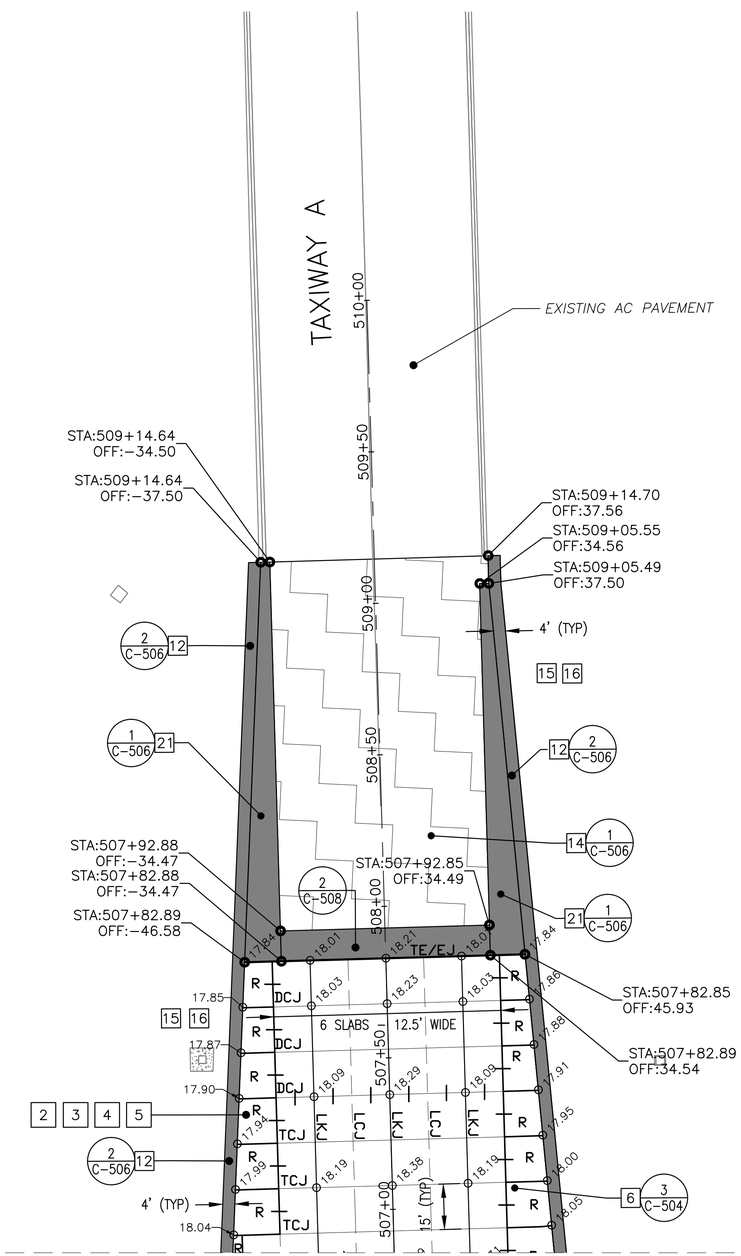
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 200+00 TO 203+77

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690081
SHEET 70 OF 315
CP115
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-115.dwg LAYOUT NAME: CP115 PLOTTED: Monday, March 23, 2015 - 4:21pm USER: mcosenza



MATCHLINE SHEET CP108

LEGEND

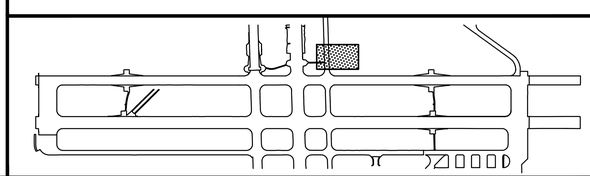
- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

CONSTRUCTION NOTES
1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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A/E INFO

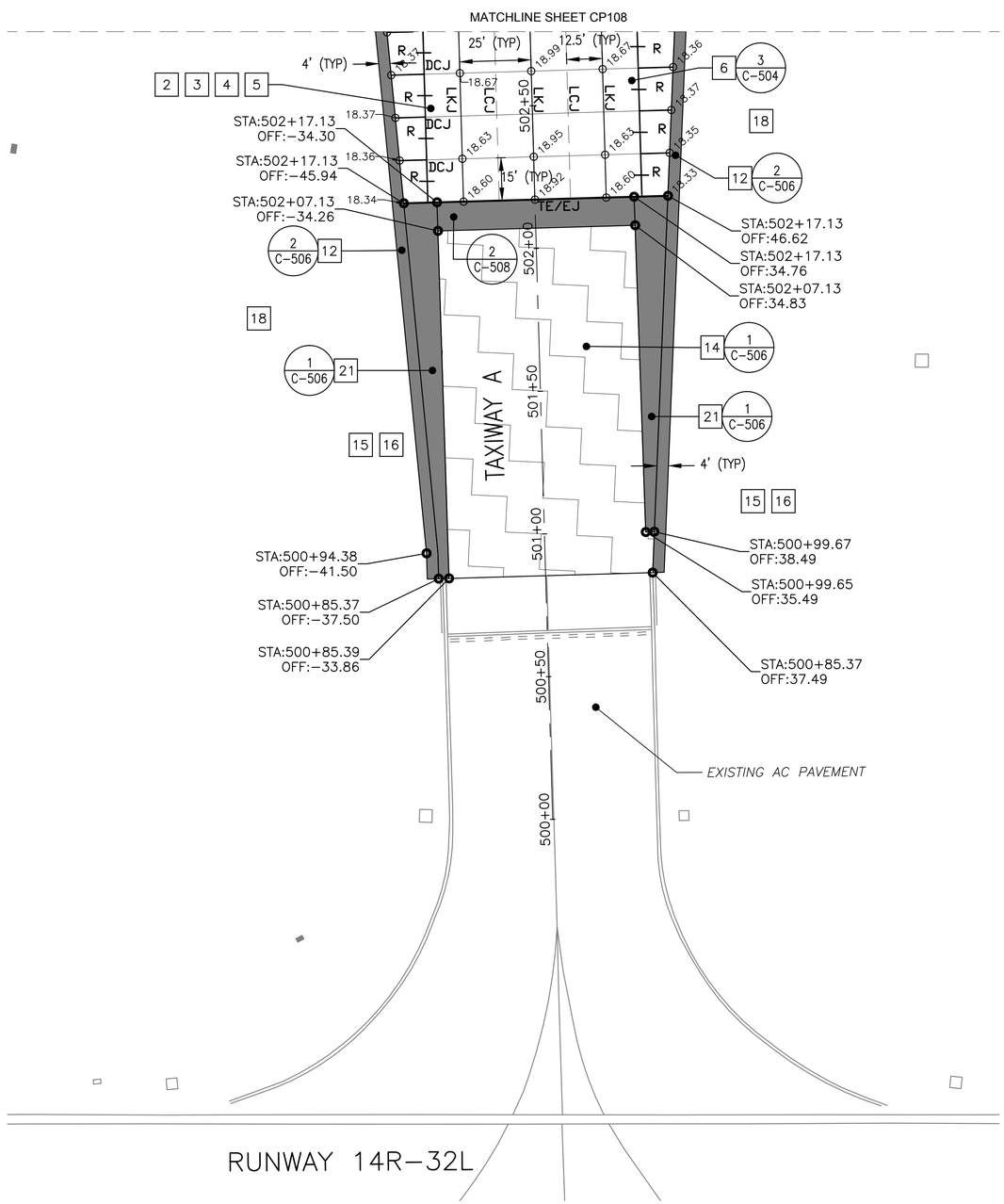
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES: MJT DRW: DFD CHK: ELO
PM/OM
BRANCH MANAGER B/C
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 506+86 TO 509+29

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690082
SHEET 71 OF 315
CP116

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-116.dwg LAYOUT NAME: CP116 PLOTTED: Monday, March 23, 2015 - 4:24pm USER: mcosenza



LEGEND

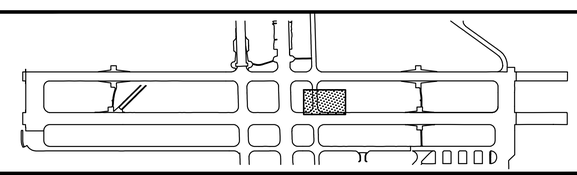
- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
23. RECONSTRUCT ASPHALT ARRESTING GEAR PAVEMENT
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY

CONSTRUCTION NOTES
1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

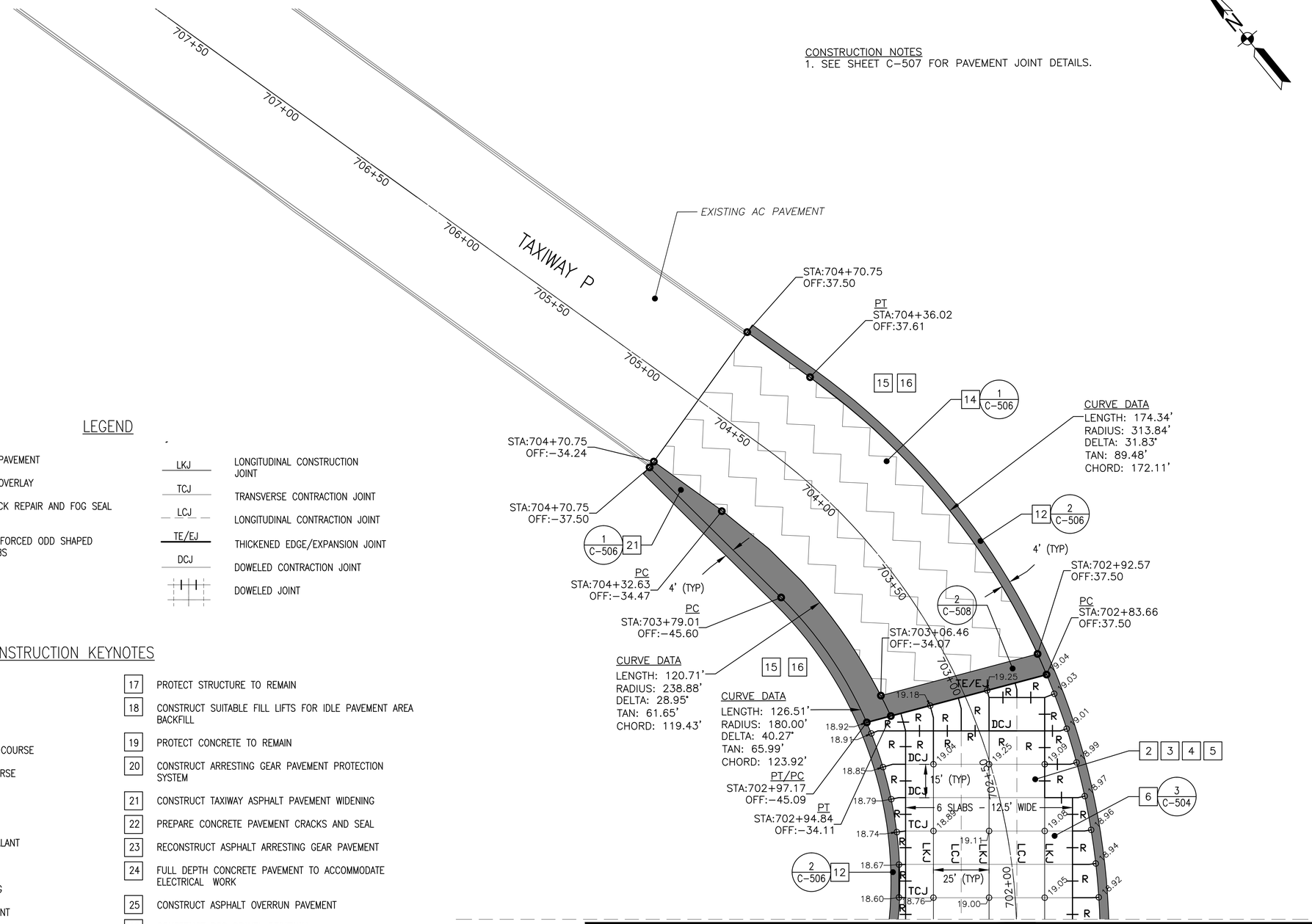
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 500+00 TO 502+76

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690083
SHEET 72 OF 315
CP117

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99- Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-117.dwg LAYOUT NAME: CP117 PLOTTED: Monday, March 23, 2015 - 4:30pm USER: mcoserza

CONSTRUCTION NOTES
1. SEE SHEET C-507 FOR PAVEMENT JOINT DETAILS.



LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- R R — REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
18. CONSTRUCT SUITABLE FILL LIFTS FOR IDLE PAVEMENT AREA BACKFILL
19. PROTECT CONCRETE TO REMAIN
20. CONSTRUCT ARRESTING GEAR PAVEMENT PROTECTION SYSTEM
21. CONSTRUCT TAXIWAY ASPHALT PAVEMENT WIDENING
22. PREPARE CONCRETE PAVEMENT CRACKS AND SEAL
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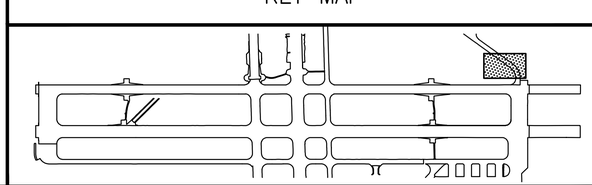
24. FULL DEPTH CONCRETE PAVEMENT TO ACCOMMODATE ELECTRICAL WORK
25. CONSTRUCT ASPHALT OVERRUN PAVEMENT
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

MATCHLINE SHEET CP112

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

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FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 701+85 TO 707+72

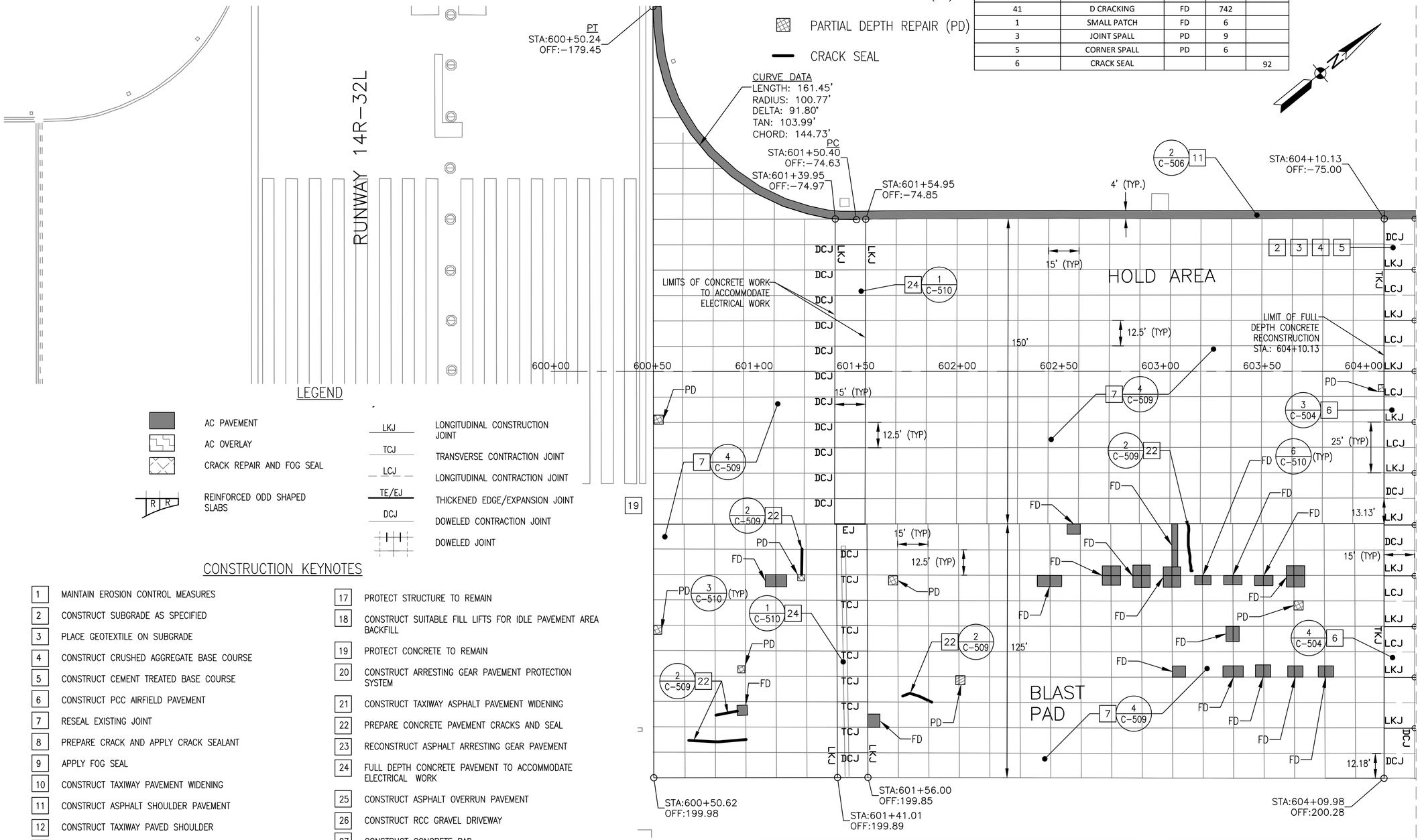
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690084
SHEET 73 OF 315
CP118
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP-118.dwg LAYOUT NAME: CP118 PLOTTED: Monday, March 23, 2015 - 4:35pm USER: mcosenza

LEGEND

- FULL DEPTH REPAIR (FD)
- PARTIAL DEPTH REPAIR (PD)
- CRACK SEAL

PCC REPAIR AREA BREAKDOWN				
NUMBER OF REPAIRS	REPAIR TYPE	DEPTH	AREA (SF)	LENGTH (FT)
41	D CRACKING	FD	742	
1	SMALL PATCH	FD	6	
3	JOINT SPALL	PD	9	
5	CORNER SPALL	PD	6	
6	CRACK SEAL			92



LEGEND

- AC PAVEMENT
- AC OVERLAY
- CRACK REPAIR AND FOG SEAL
- REINFORCED ODD SHAPED SLABS
- LKJ — LONGITUDINAL CONSTRUCTION JOINT
- TCJ — TRANSVERSE CONTRACTION JOINT
- LCJ — LONGITUDINAL CONTRACTION JOINT
- TE/EJ — THICKENED EDGE/EXPANSION JOINT
- DCJ — DOWELED CONTRACTION JOINT
- DOWELED JOINT

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT CEMENT TREATED BASE COURSE
6. CONSTRUCT PCC AIRFIELD PAVEMENT
7. RESEAL EXISTING JOINT
8. PREPARE CRACK AND APPLY CRACK SEALANT
9. APPLY FOG SEAL
10. CONSTRUCT TAXIWAY PAVEMENT WIDENING
11. CONSTRUCT ASPHALT SHOULDER PAVEMENT
12. CONSTRUCT TAXIWAY PAVED SHOULDER
13. CONSTRUCT ASPHALT PAVEMENT FOR A/G WIDENING
14. CONSTRUCT ASPHALT PAVEMENT OVERLAY AT MILLED SURFACES
15. REGRADE SHOULDERS AND INFIELDS
16. PROVIDE 4" TOPSOIL AND SEED DISTURBED AREAS DURING CONSTRUCTION
17. PROTECT STRUCTURE TO REMAIN
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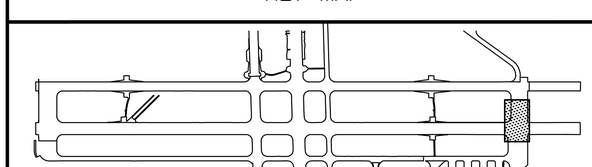
26. CONSTRUCT RCC GRAVEL DRIVEWAY
27. CONSTRUCT CONCRETE PAD
28. CONSTRUCT AC UTILITY TRENCH
29. CONSTRUCT CONCRETE MAINTENANCE PAD
30. CONSTRUCT NEW PCC THRESHOLD LIGHT BAR

CONSTRUCTION NOTES

1. SEE SHEET C–507 FOR PAVEMENT JOINT DETAILS.
2. SEE SHEETS C–509 AND C–510 FOR PCC PAVEMENT REPAIR DETAILS.
3. ALL PAVEMENT JOINTS ON THE HOLD AREA AND THE BLAST PAD TO BE RESEALED BETWEEN STA 600+50.42 TO STA 604+10 AS PER DETAIL 4 ON SHEET C–509.

KEY MAP



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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STATE OF VIRGINIA

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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

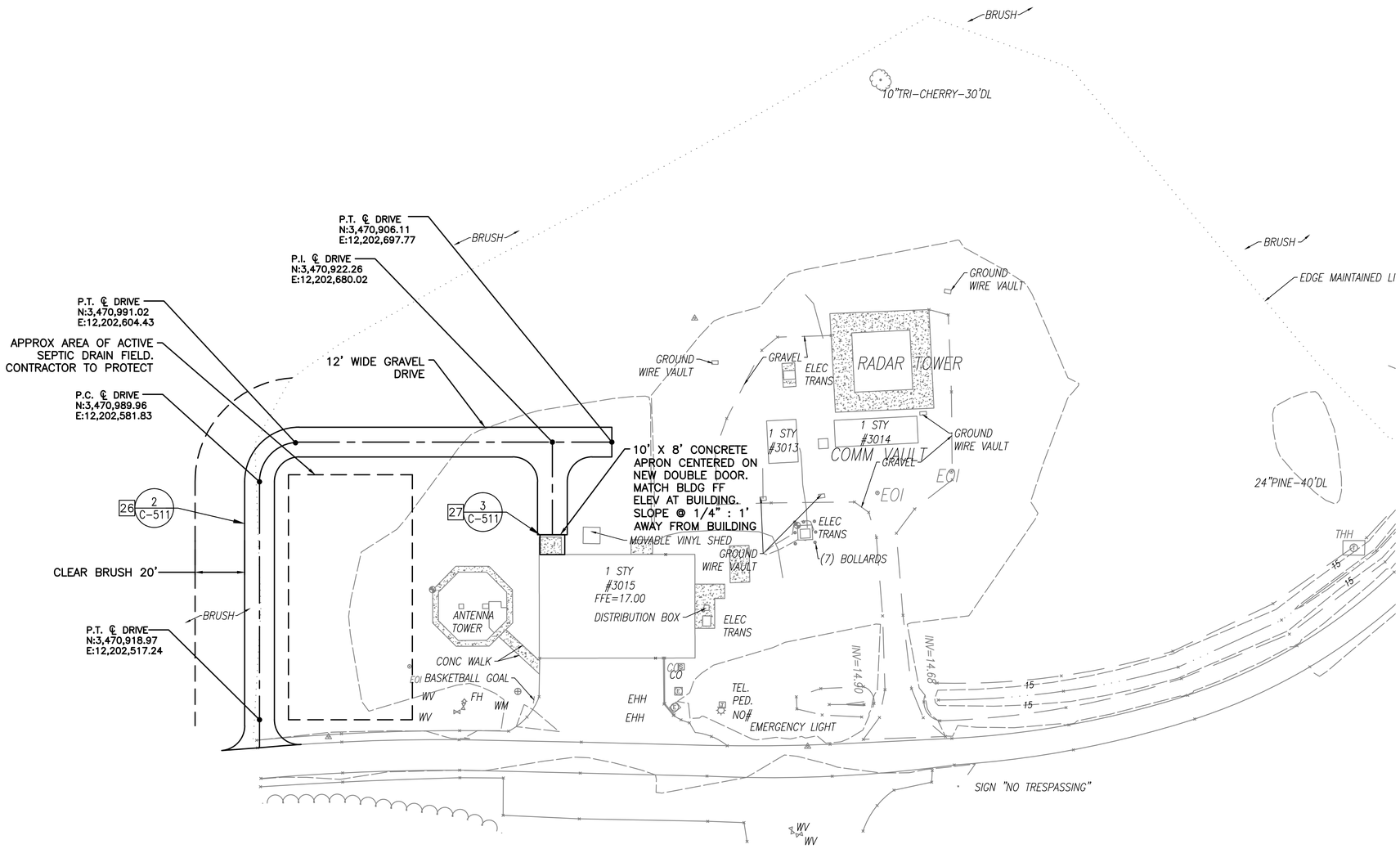
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
CONSTRUCTION PLAN STA: 600+00 TO 604+25

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690085
SHEET 74 OF 315

CP119

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIFA\99_ Misc\Aviation\Oceana\Task 007\GENERAL–CIVIL\10–0863–007–CP–119.dwg LAYOUT NAME: CP119 PLOTTED: Monday, March 23, 2015 – 4:41pm USER: mcosenza



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
041439-E

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PRELIMINARY NOT FOR CONSTRUCTION

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE DD/MM/YY

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

VAULT 3015 – SITE PLAN

SCALE: AS NOTED

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12690086

SHEET 75 OF 315

CP120

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: O:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0863-007-CP120.dwg LAYOUT NAME: CP120 PLOTTED: Monday, March 23, 2015 - 4:45pm USER: mcosenza