Pre-Inspection Mezzanine Walkthrough Checklist

Date: 01/15/2015	**Station Name:** Courthouse - K01	**Mezzanine #:** 096	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: SWBD Essential Source Breaker Name/Number: "Transformer T4 (For Panel EF)" Electrical AFC Panel Name/Number: EF	Rm 305 Rm 305 Rm 205	Room 305 is AC SWBD battery room.
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level.

Emergency Power Verification

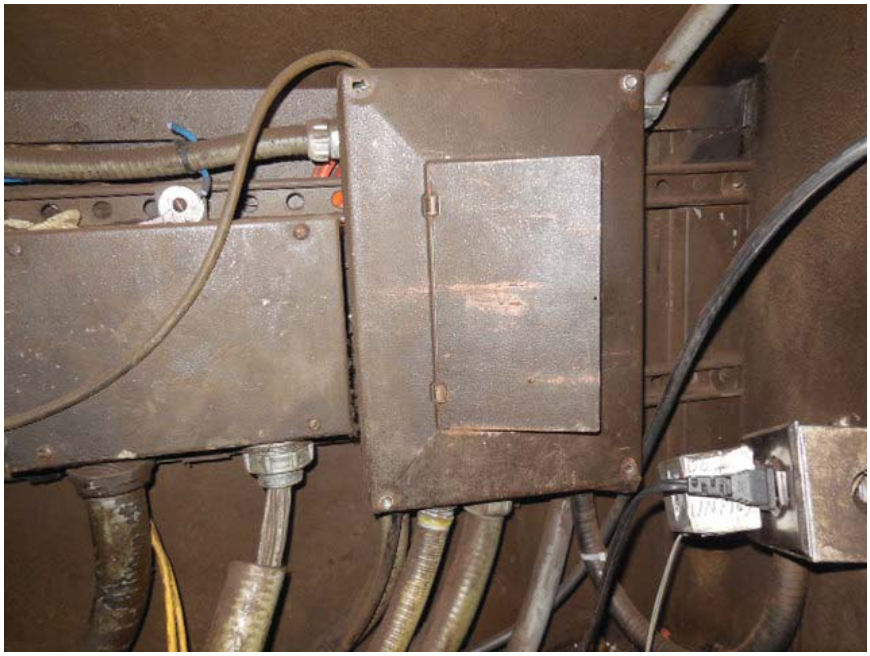
Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Source Breaker Name/Number: Panel Name/Number:		

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	1/15/2015	

Picture 1: K01 Court House – Manhole & handhole in mezzanine

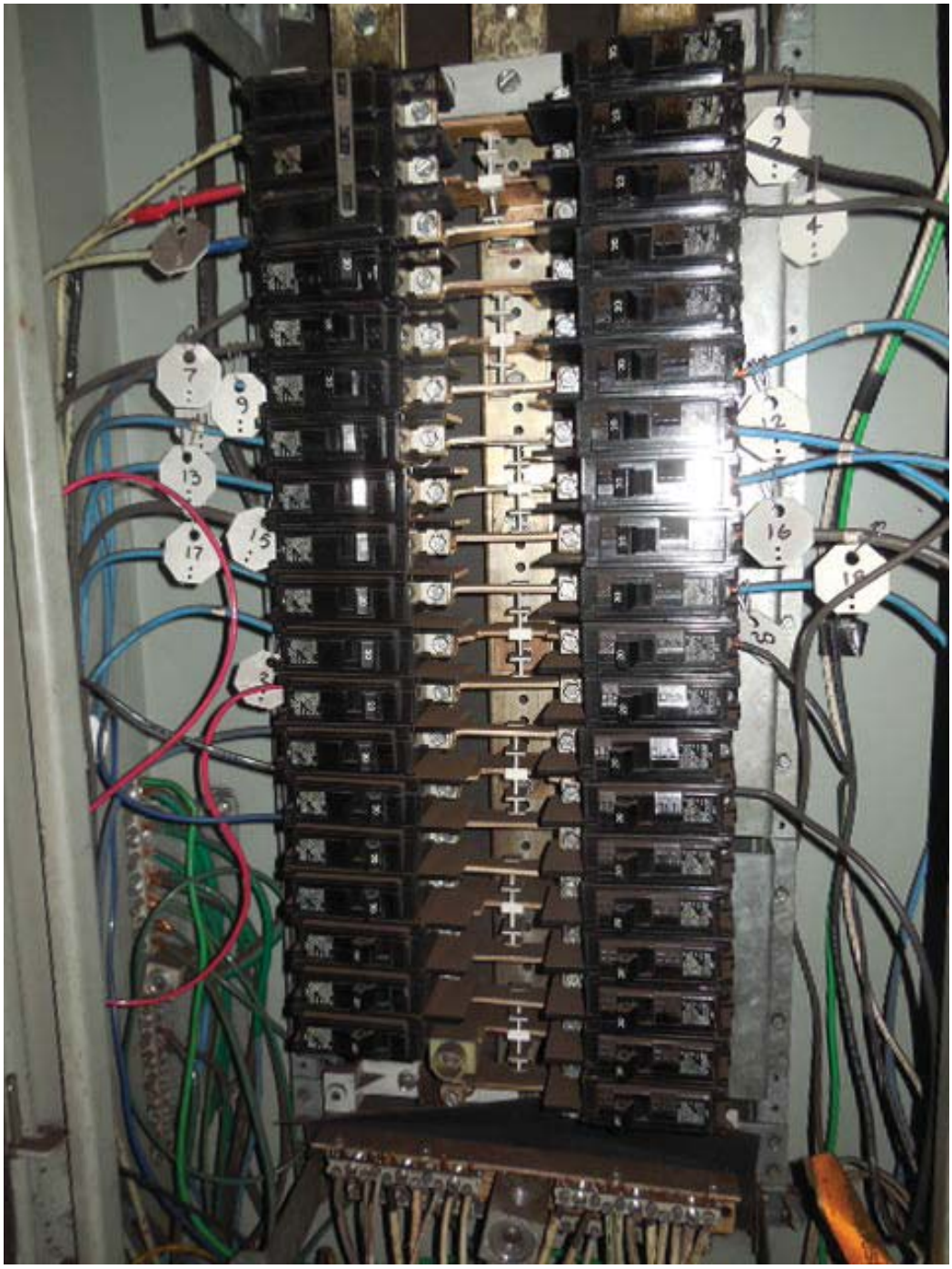
Pictures 2&3: K01 Court House – Emergency Panel KE in Kiosk



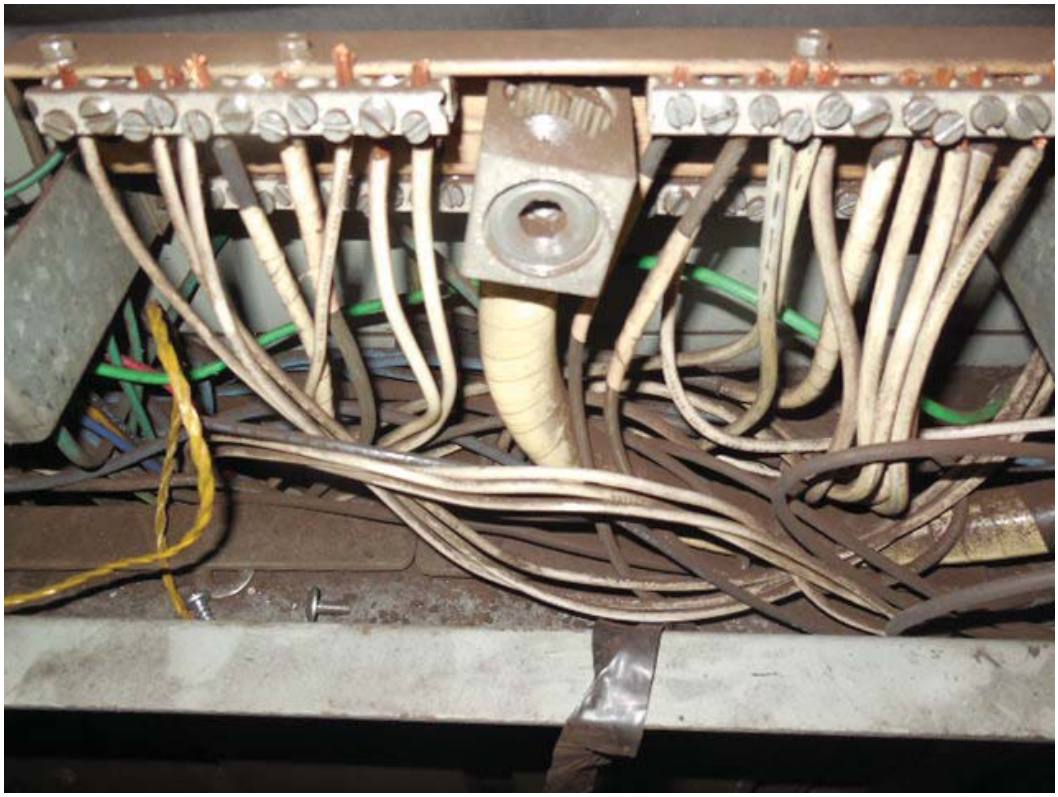
Picture 4: K01 Court House – Transformer T4 breaker (NP-7) for Panel EF in room 305

Picture 5: K01 Court House – AFC Panel EF in room 205

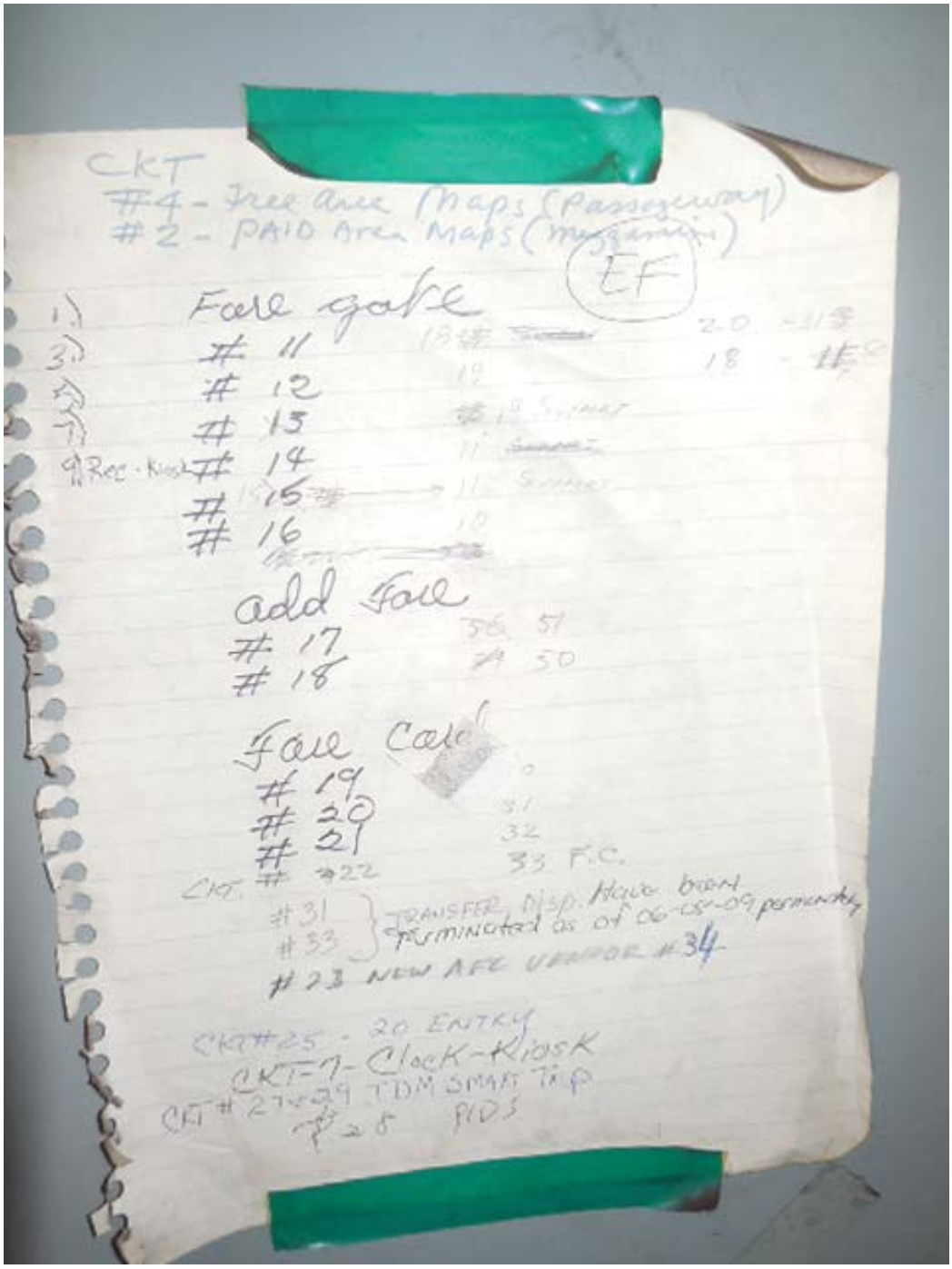
Picture 6: K01 Court House – AFC Panel EF in room 205

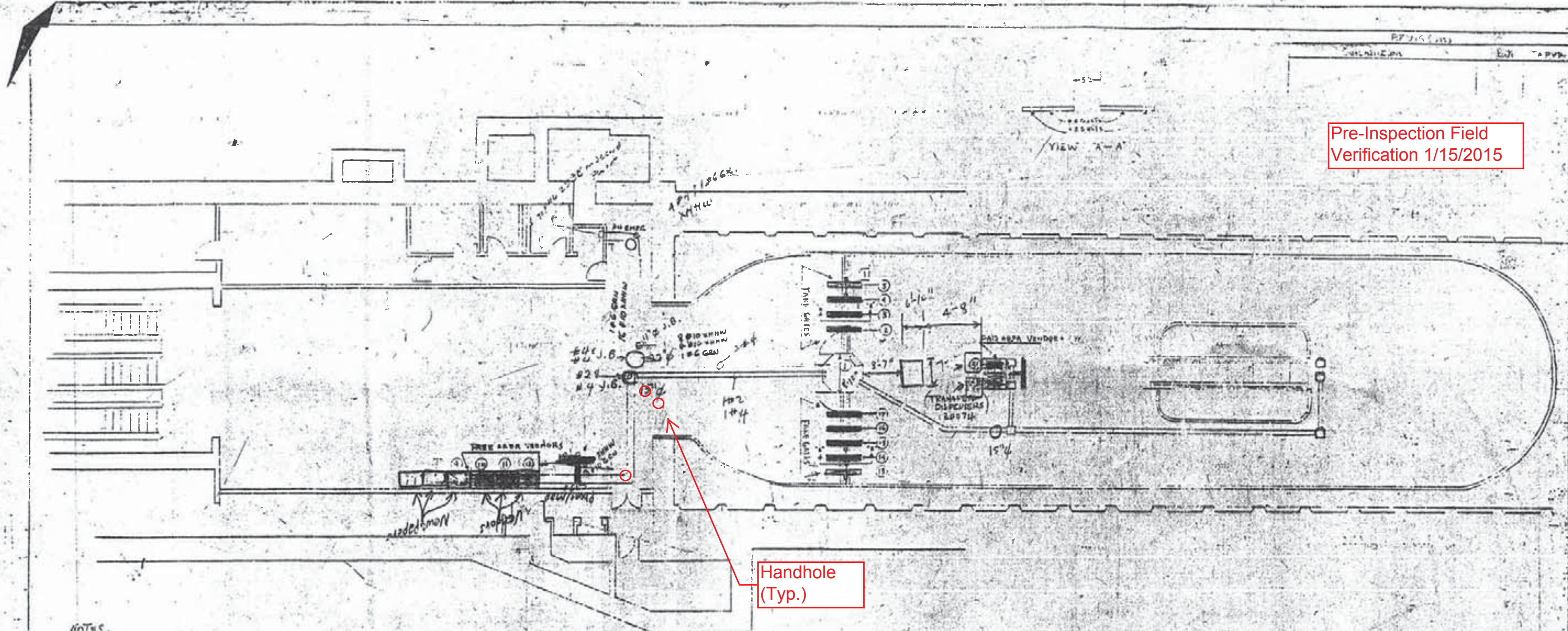


Picture 7: K01 Court House – AFC Panel EF in room 205



Picture 8: K01 Court House – AFC Panel EF in room 205, Panel schedule





NOTES:

1. All information Concerning ducts and Conduits is based on information supplied to Cubic Western Data by WMATA.

4. For as built conditions see Sheet 2, Service gates & Railings [illegible]

AS BUILT

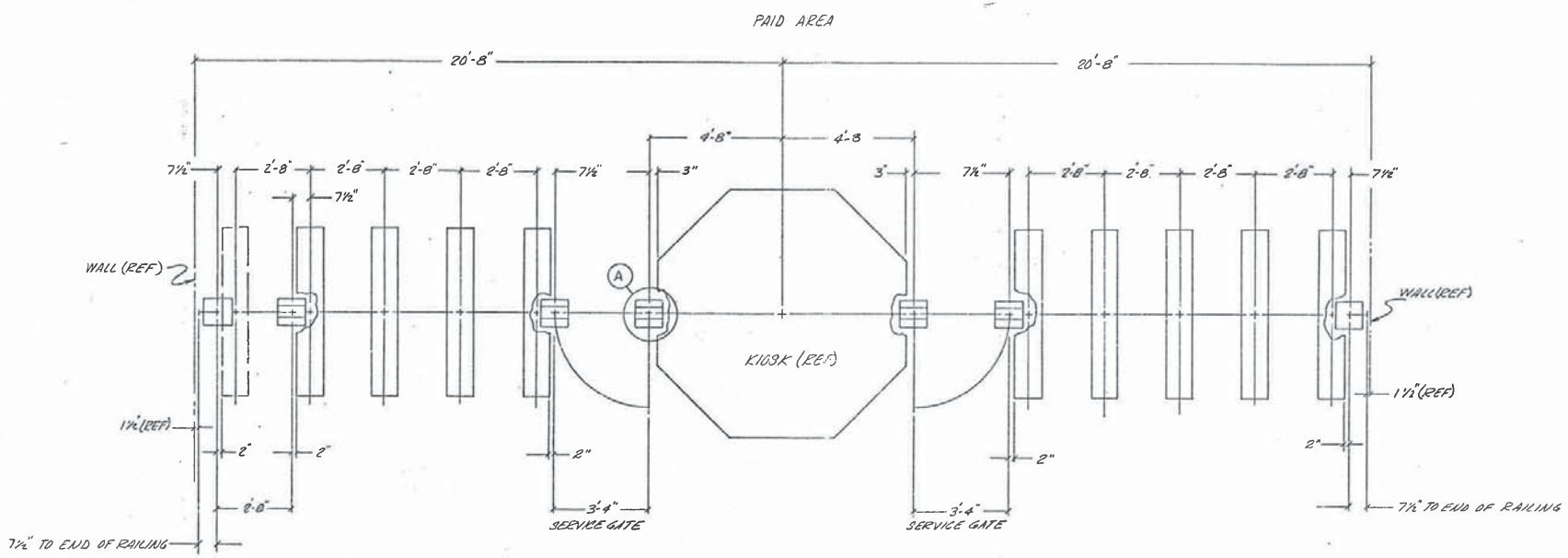
AS BUILT AS OF 8-1-79 22007A

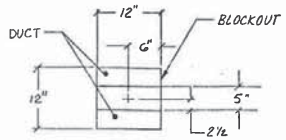
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

CONTRACT NUMBER	CUBIC WESTERN DATA
	COURT HOUSE STATION · A.F.C. MACHINES
DESIGN ACTIVITY APPROVAL	DRAWING NUMBER 926-0410
APPROVED	SCALE

#096

Pre-Inspection Field Verification 1/15/2015





DETAIL A
7 PLACES
SCALE 1"=1'-0"

REF 32-1544

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES TOLERANCES ON SHARP EDGES .010 MAX
DECIMALS: .XX ± .03 .XXX ± .010 ANGLES ± 0.5 DEG.
HOLES
.0135 THRU .125 ± .0004 -.001
.126 THRU .250 ± .005 -.001
.251 THRU .500 ± .006 -.001
.501 THRU .750 ± .008 -.001
.751 THRU 1.000 ± .010 -.001

CONTRACT NUMBER
SIZE D REV
DRAWING NUMBER 926-0365
SHEET 1 OF 1

TITLE TICKET HOUSE STATION SERVICE GATES & RAILING

CUBIC WESTERN DATA
A Subsidiary of Cubic Corporation
5650 KEARNY MESA ROAD • POST OFFICE BOX 80787 • SAN DIEGO, CA 92138

CODE IDENT. NO. 94987

SIZE D 926-0365 96

DRAWN
CHECK
DESIGN
ENGR.
DESIGN ACTIVITY APPROVAL

Pre-Inspection Field Verification 1/15/2015

EXISTING PANEL "EF"

AMPERES: 250	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 250A MCB	PHASE: 3	LOCATION: ELEC. EQUIPMENT RM. 205	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

		CKT BKRS		CKT.		CKT.	CKT BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST. LOAD CENTER "KES"	2.9	40	3	1	A - -	2	1	20	0.8	EXISTING VENDOR
	2.5	-	-	3	- B -	4	1	20	0.8	EXISTING VENDOR
	2.5	-	-	5	- - C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A - -	8	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	A - -	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	19	A - -	20	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	- - C	24	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	25	A - -	26	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	27	- B -	28	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	29	- - C	30	1	20	0.0	SPARE
1 **NEW KIOSK RECEPT. (IT & NEPP)**	**0.8**	20	1	31	A - -	32	1	20	0.0	SPARE
1&2 **SPARE (KIOSK)**	**0.0**	20	1	33	- B -	34	1	20	0.0	SPARE
SPARE	0.0	20	1	35	- - C	36	1	20	0.0	SPARE
SPARE	0.0	20	1	37	A - -	38	1	20	0.0	SPARE
SPARE	0.0	20	1	39	- B -	40	1	20	0.0	SPARE
SPACE	0.0	-	-	41	- - C	42	-	-	0.0	SPACE
SPACE	0.0	-	-	43	A - -	44	-	-	0.0	SPACE

NOTES: **1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB**
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	8.8 x 50%		4.4 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**26.3 KVA**	**TOTAL DEMAND KVA**	**22.7 KVA**
		TOTAL DEMAND AMPS	**62.9 AMPS**
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	9.3 KVA		
PHASE B:	8.9 KVA		
PHASE C:	8.1 KVA		

NOTES:
A. EXISTING PANEL "EF" IS FED FROM 277/480V, 3ø, 4W EXISTING SWBD. "ESSENTIAL" LOCATED IN BATTERY AC SWBD RM. 305, ~~CIRCUIT (K01-ESSENTIAL-07) #7~~ 150/3P VIA 75KVA TRANSFORMER T-4 (SEE ATTACHED DWG. MM-K-E06).

B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 2 6"x 2" FLOOR DUCTS (WIRING FILL >40%).
* 1-3/4" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-4" C. TO TRANSFORMER (WIRING FILL >40%).

EXISTING WIRING FED FROM RIGHT SIDE OF PANEL BY:
* 1-1/2" C. (WIRING FILL >40%).

Breaker "Transformer T4 (For Panel EF)"

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED	C. NGO	12-14 DATE
DRAWN	C. NGO	12-14 DATE
CHECKED	B. IDILBI	12-14 DATE
APPROVED	N/A	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

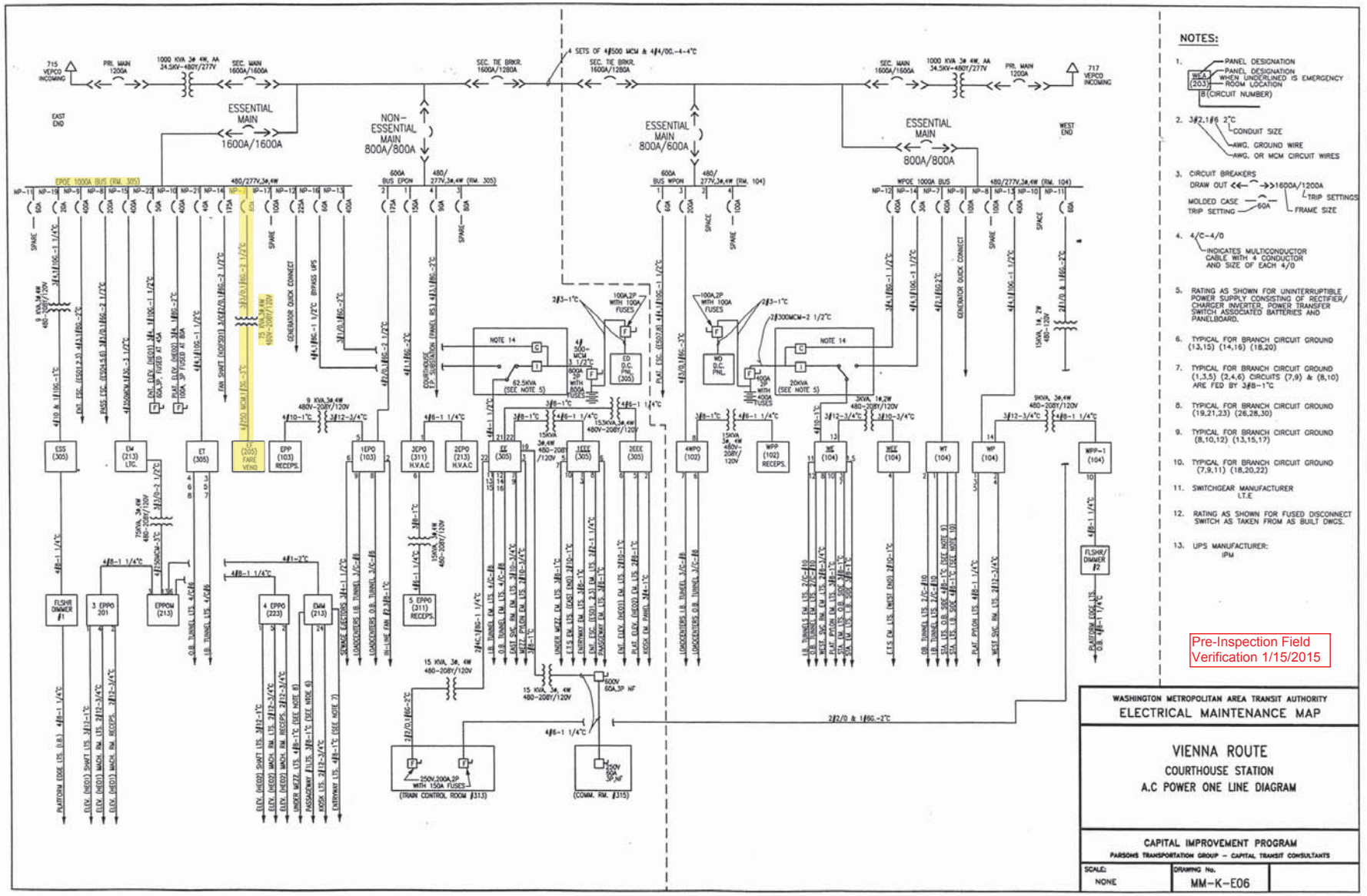
GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
COURT HOUSE
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO. K01-E-102



NOTES:

1. PANEL DESIGNATION; PANEL DESIGNATION WHEN UNDERLINED IS EMERGENCY; ROOM LOCATION; (CIRCUIT NUMBER)
2. 3#2.1#6 2"C — CONDUIT SIZE; AWG. GROUND WIRE; AWG. OR MCM CIRCUIT WIRES
3. CIRCUIT BREAKERS DRAW OUT; MOLDED CASE TRIP SETTING; 1600A/1200A TRIP SETTINGS; FRAME SIZE
4. 4/C-4/0 — INDICATES MULTICONDUCTOR CABLE WITH 4 CONDUCTOR AND SIZE OF EACH 4/0
5. RATING AS SHOWN FOR UNINTERRUPTIBLE POWER SUPPLY CONSISTING OF RECTIFIER/ CHARGER INVERTER, POWER TRANSFER SWITCH ASSOCIATED BATTERIES AND PANELBOARD.
6. TYPICAL FOR BRANCH CIRCUIT GROUND (13,15) (14,16) (18,20)
7. TYPICAL FOR BRANCH CIRCUIT GROUND (1,3,5) (2,4,6) CIRCUITS (7,9) & (8,10) ARE FED BY 3#8-1"C
8. TYPICAL FOR BRANCH CIRCUIT GROUND (19,21,23) (26,28,30)
9. TYPICAL FOR BRANCH CIRCUIT GROUND (8,10,12) (13,15,17)
10. TYPICAL FOR BRANCH CIRCUIT GROUND (7,9,11) (18,20,22)
11. SWITCHGEAR MANUFACTURER I.T.E
12. RATING AS SHOWN FOR FUSED DISCONNECT SWITCH AS TAKEN FROM AS BUILT DWGS.
13. UPS MANUFACTURER: IPM

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

ELECTRICAL MAINTENANCE MAP

VIENNA ROUTE

COURTHOUSE STATION

A.C POWER ONE LINE DIAGRAM

CAPITAL IMPROVEMENT PROGRAM

PARSONS TRANSPORTATION GROUP – CAPITAL TRANSIT CONSULTANTS

SCALE:	DRAWING No.	
NONE	MM-K-E06	

0:\ELECT\NewMaintMap\K-Route\MM-K-E06.dwg Tue Jun 06 11:38:00 2000 ROSS

Pre-Inspection Mezzanine Walkthrough Checklist

Date: 01/15/2015	**Station Name:** Clarendon- K02	**Mezzanine #:** 097	**Completed By:** Tino Sahoo

Check	Task	Equipment		Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number:	Panel M	Rm C203	
		Source Breaker Name/Number:	Breaker #6	Rm C203	
		Electrical AFC Panel Name/Number:	1MM	Rm C203	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number:			
		SMNT/POWR escorts:	HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes.	NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑	COMM / IT ☐ ELES ☐		
		RAIL ☐	CMNT ☐		
		Other Access/Support:			
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access?	YES (see notes)		All conduit/ducts on one level.
		Identified Conduit/Duct Transition to mezzanine level?	YES		

Emergency Power Verification

Check	Task	Equipment		Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:			
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number:	Kiosk Panel (unlabeled)	Kiosk	
		Source Breaker Name/Number:	Breaker #9	Kiosk	
		Panel Name/Number:	Emergency Power to Faregates		

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:		
Date:	1/15/2015	

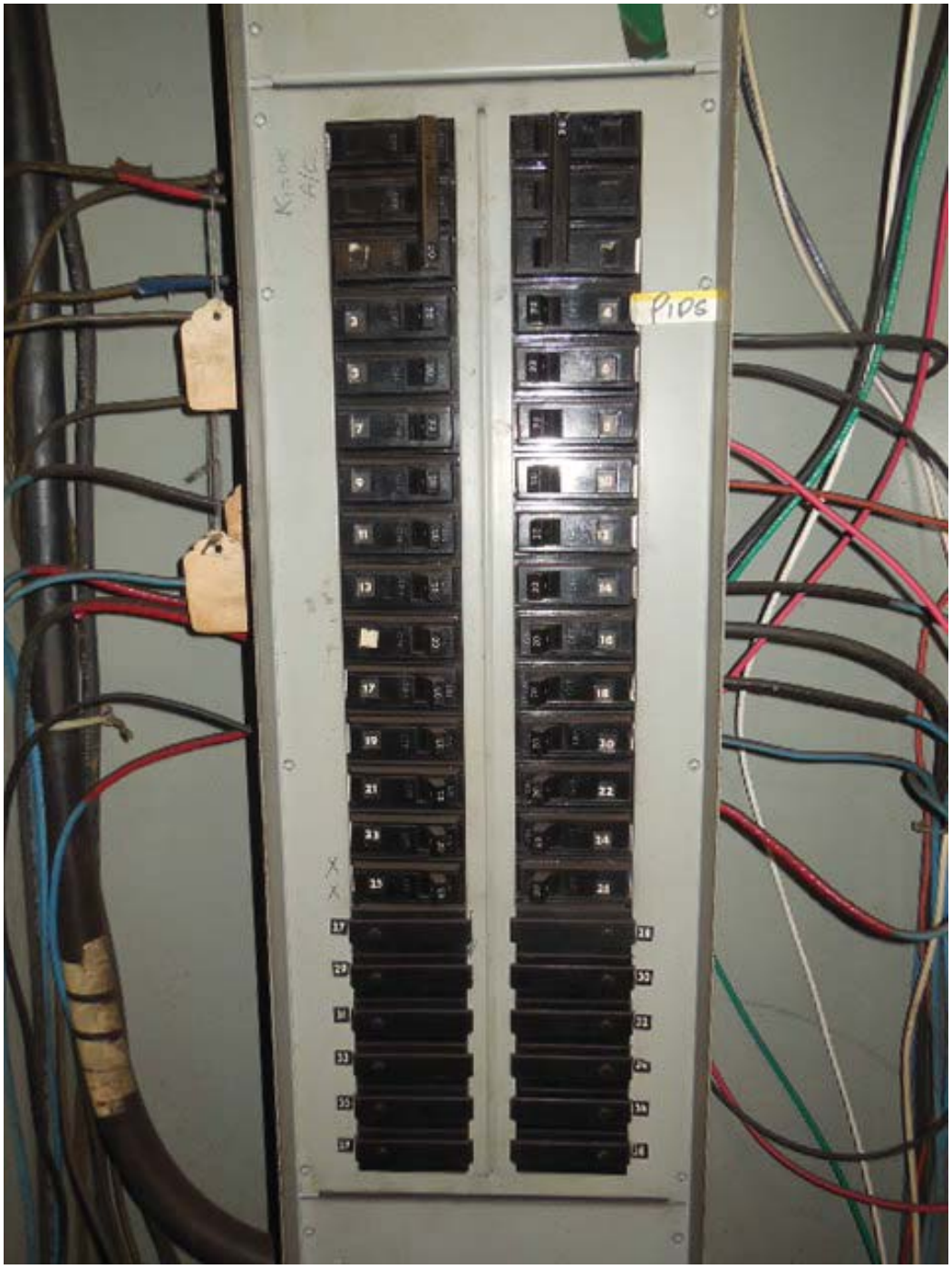
Pictures 1&2: K02 Clarendon – No handholes in mezzanine

Picture 3: K02 Clarendon – Manhole in maintenance area off of mezzanine

Picture 4: K02 Clarendon – Emergency Panel KE in Kiosk

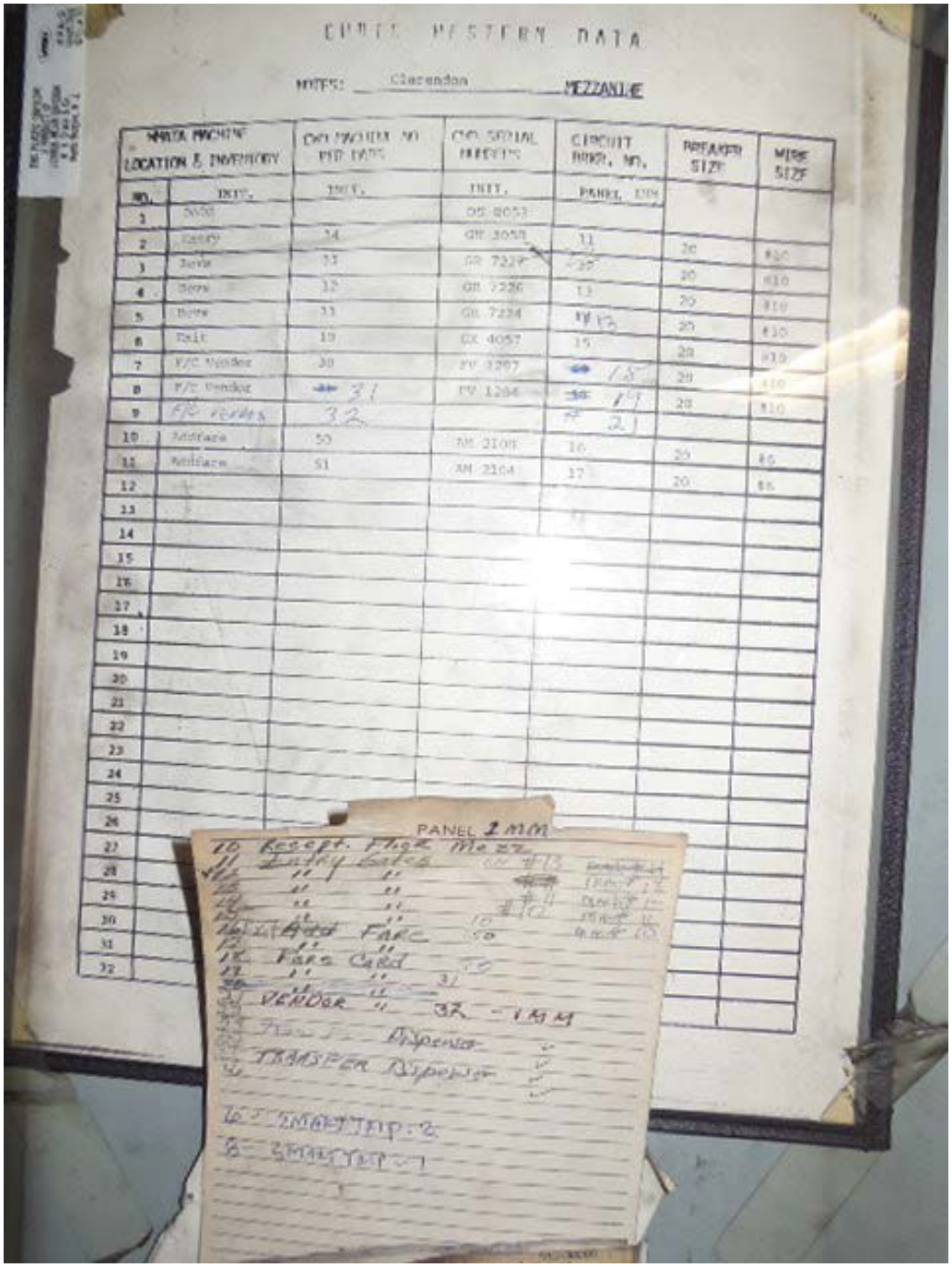
Picture 5: K02 Clarendon – AFC Panel IMM in room C203

Picture 6: K02 Clarendon – AFC Panel IMM in room C203



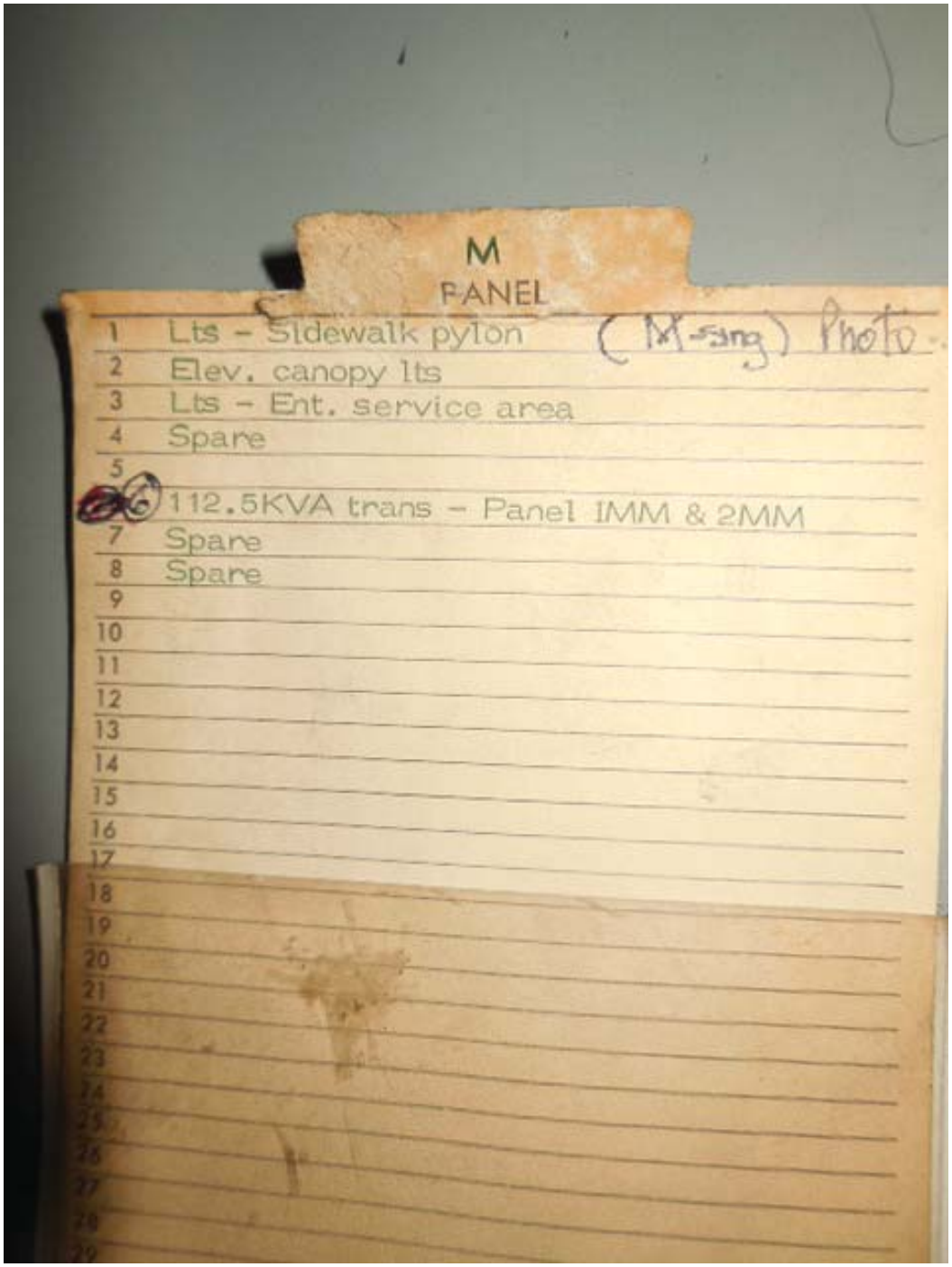
Picture 7: K02 Clarendon – AFC Panel IMM in room C203, Bottom ducts

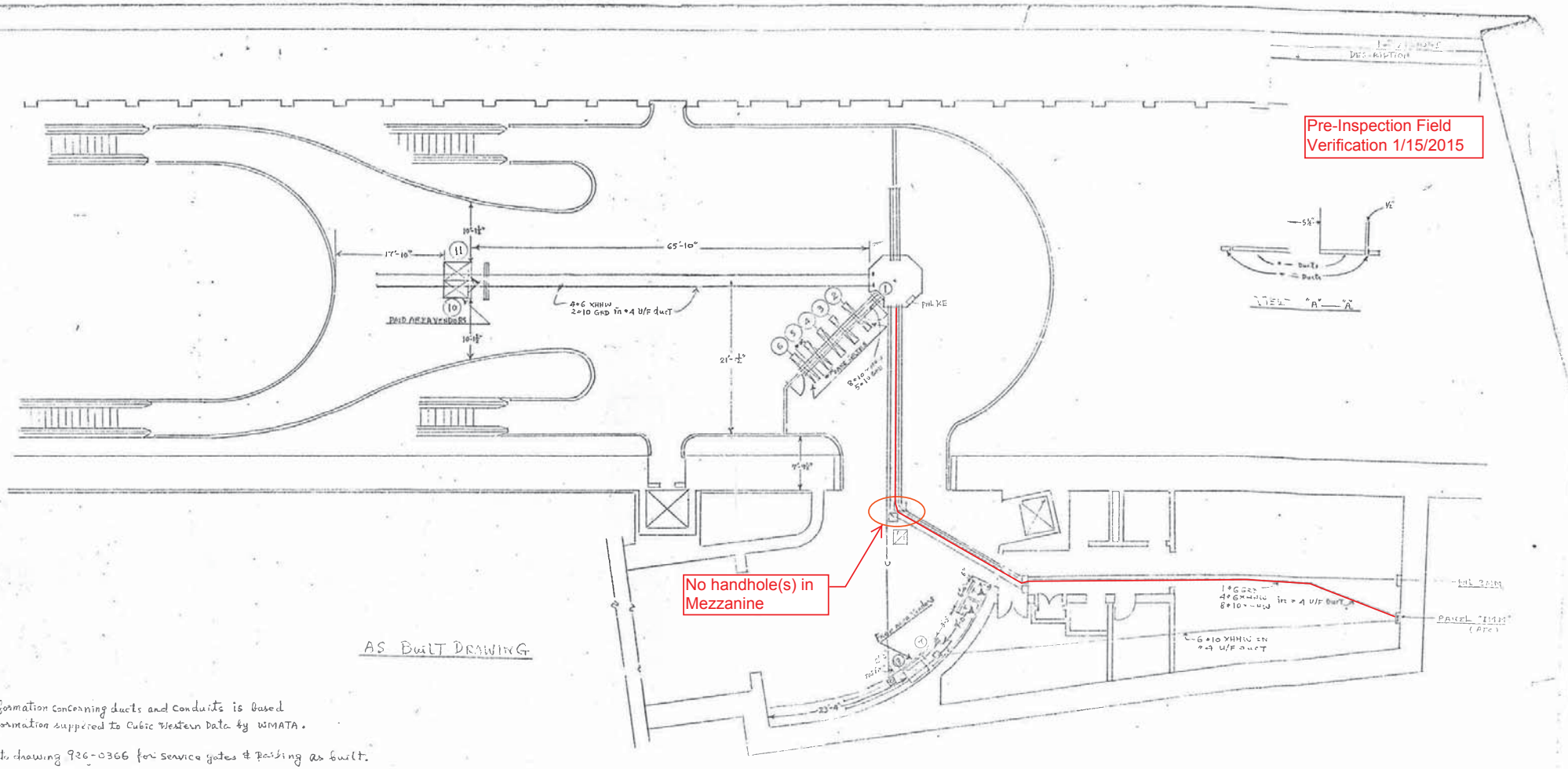
Picture 8: K02 Clarendon – AFC Panel IMM in room C203, Panel schedule



Picture 9: K02 Clarendon – AFC Panel M in room C203

Picture 10: K02 Clarendon – AFC Panel M in room C203, Panel schedule





NOTES:

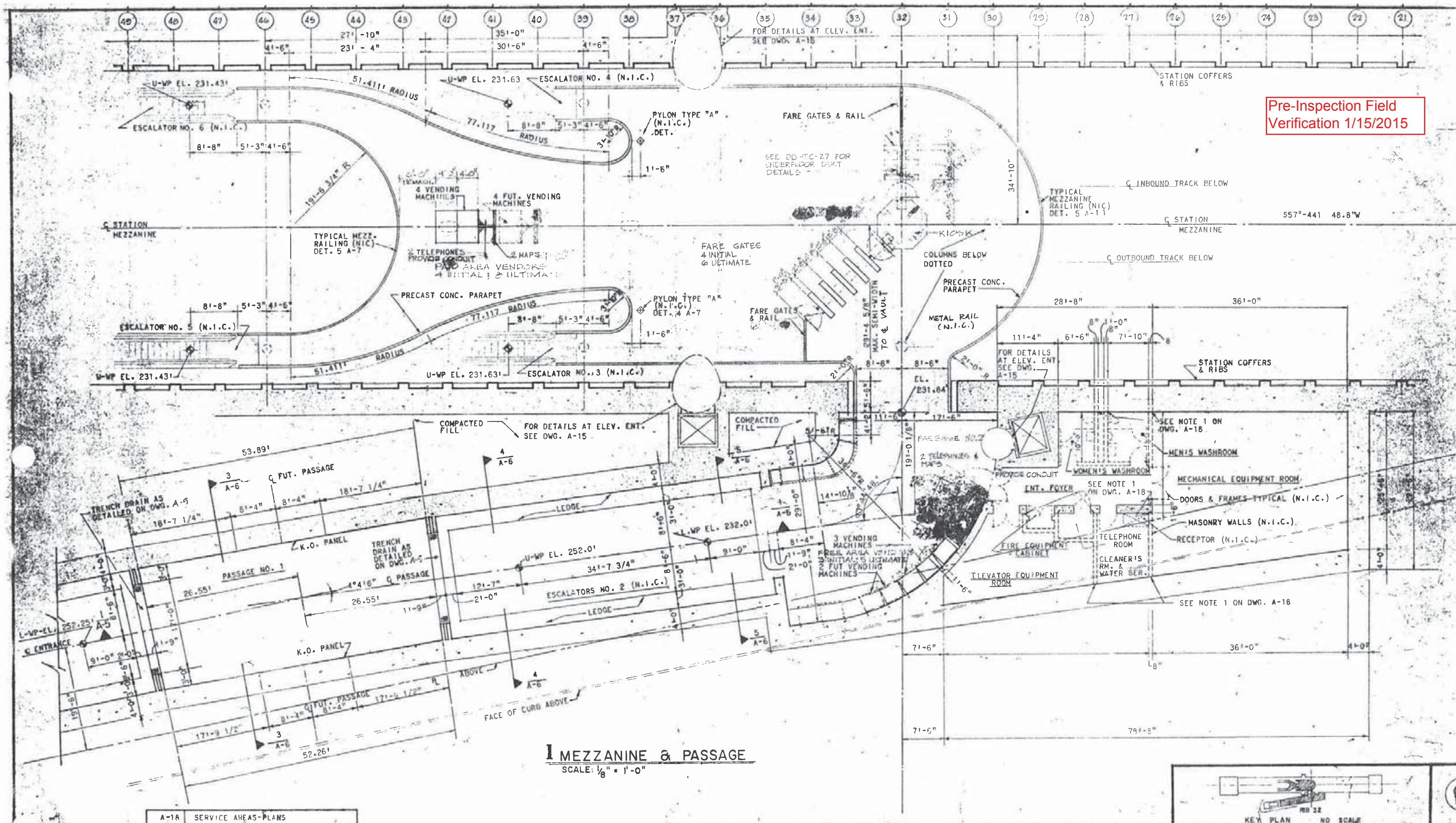
1. ALL information concerning ducts and conduits is based on information supplied to Cubic Western Data by WMATA.
2. Refer to drawing 926-0366 for service gates & parking as built.
3. Refer to sheet 2 for machine inventory and panel schedule.
4. Refer to sheet 926-0329 for interface requirements.

ITEM	WIRE SIZE	TYPE	RUN
FREE AREA VENDORS	#10	XHHW	96'
HOLE GATES	#10	"	162'
PAID AREA VENDORS	#6	"	225'
GROUNDS	#6	"	150'
[illegible]	#14	"	[illegible]
PADS	#10	"	—
[illegible]	#10	"	—

CP-22007A-135-2-1

CONTRACT NUMBER	CUBIC WESTERN DATA
DESIGN ACTIVITY APPROVAL	CLARENDON STATION A.F.C. EQUIPMENT (97)
APPROVED	SIZE — DRAWING NUMBER 926-0415 — REV
	SCALE: — SHEET OF

Pre-Inspection Field Verification 1/15/2015



A-18	SERVICE AREAS-PLANS

DESIGNED	HWA	6/24/74	DATE
DRAWN	JDT	6/24/74	DATE
CHECKED	JDT	6/24/74	DATE
APPROVED	[signature]	6/24/74	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
DD-TC-27	USE OF UNDERFLOOR DUCT UNDER FARE COLLECTION CONSOLES.

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WMATA

APPROVED [signature] 7-19-74 DIRECTOR OF ARCHITECTURE DATE

APPROVED [signature] 7/19/74 CHIEF OF DESIGN AND CONSTRUCTION DATE

DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT

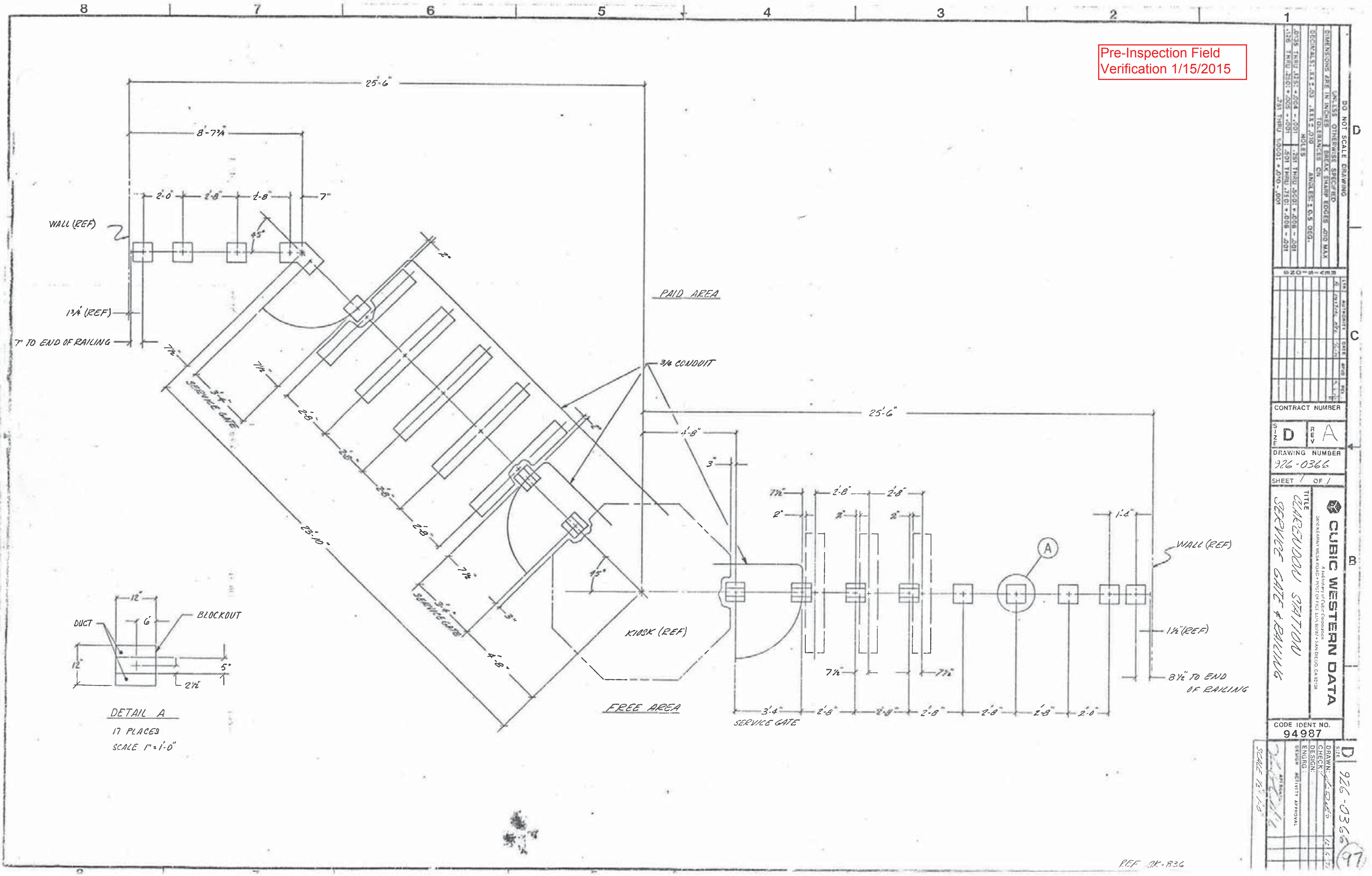
APPROVED [signature] 6/27/74

CLARENDON STATION
MEZZANINE & PASSAGE
FARE MACHINES, PHONES & MAPS

(97)

SCALE 1/8" = 1'-0"

DRAWING NO. SK-836



Pre-Inspection Field Verification 1/15/2015
25'-6"
8'-7¾"
2'-0"
2'-8"
2'-8"
7"
WALL (REF)
45°
2"
1¾ (REF)
7" TO END OF RAILING
7½
PAID AREA
3/4 CONDUIT
SERVICE GATE
3'-4"
2'-8"
2'-8"
2'-8"
2'-8"
23'-10"
7½
SERVICE GATE
3"
4'-8"
45°
KIOSK (REF)
FREE AREA
25'-6"
4'-8"
3"
2'-8"
2'-8"
2"
1'-4"
WALL (REF)
A
1½ (REF)
8½" TO END OF RAILING
3'-4"
SERVICE GATE
2'-8"
2'-8"
2'-8"
2'-8"
2'-8"
2'-0"
DUCT
BLOCKOUT
12"
6"
5"
2½
DETAIL A
17 PLACES
SCALE 1" = 1'-0"
REF SK-836
DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
CONTRACT NUMBER
SIZE D
REV A
DRAWING NUMBER
926-0366
SHEET 1 OF 1
TITLE
CLARENDON STATION
SERVICE GATE & RAILING
CUBIC WESTERN DATA
CODE IDENT NO.
94987
DRAWN
CHECK
DESIGN
ENGRG
SCALE

Pre-Inspection Field Verification 1/15/2015

EXISTING PANEL "1MM"

AMPERES: 225		VOLTS: 120/208			MOUNTING: SURFACE						
MAINS: 200A MCB		PHASE: 3			LOCATION: MECH. EQUIPMENT RM. C203						
RATING: 10K AIC		WIRE: 4			SECTION: 1 OF 1						
		CKT BKRS		CKT.		CKT.	CKT BKRS				
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION	
EXIST. LOAD CENTER "KES"	2.9	30	3	1	A - -	2	3	20	0.0	SPARE	
	2.5	-	-	3	- B -	4	-	-	0.0		
	2.5	-	-	5	- - C	6	-	-	0.0		
1 EXISTING VENDOR	0.8	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR	
1&2 EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR	
~~1~~ **NEW KIOSK RECEPT. (IT & NEPP)**	**0.8**	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR	
~~1&2~~ **SPARE (KIOSK)**	**0.0**	20	1	13	A - -	14	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.0	SPARE	
EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	19	A - -	20	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	23	- - C	24	1	20	0.8	EXISTING VENDOR	
EXISTING VENDOR	0.8	20	1	25	A - -	26	1	20	0.8	EXISTING VENDOR	
SPARE	0.0	20	1	27	- B -	28	1	20	0.0	SPARE	
SPARE	0.0	20	1	29	- - C	30	1	20	0.0	SPARE	
SPACE	0.0	-	-	31	A - -	32	-	-	0.0	SPACE	
SPACE	0.0	-	-	33	- B -	34	-	-	0.0	SPACE	
SPACE	0.0	-	-	35	- - C	36	-	-	0.0	SPACE	
SPACE	0.0	-	-	37	A - -	38	-	-	0.0	SPACE	
SPACE	0.0	-	-	39	- B -	40	-	-	0.0	SPACE	
SPACE	0.0	-	-	41	- - C	42	-	-	0.0	SPACE	

NOTES: **1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB**
2. CB TO BE RESERVED FOR FUTURE AFC
3. BREAKERS ARE IN SPACES 11 & 13 BUT CIRCUIT LABELS IN ACTUAL PANEL ARE 7 & 9

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	4.8 x 50%		2.4 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	6.0 x 100%		6.0 KVA
WATER HEATING	1.0 x 125%		1.3 KVA
TOTAL CONNECTED LOAD	**24.8 KVA**	**TOTAL DEMAND KVA**	**23.4 KVA**
		TOTAL DEMAND AMPS	**65.0 AMPS**
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	11.0 KVA		
PHASE B:	6.5 KVA		
PHASE C:	7.3 KVA		

NOTES: A. EXISTING PANEL "1MM" IS FED FROM 277/480V, 3ø, 4W EXISTING PANEL "M" LOCATED IN MECH. EQUIPMENT C203, CIRCUIT #6-150/3P VIA 112.5KVA TRANSFORMER (SEE ATTACHED DWG. MM-K-E07).

B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 2-6 1/2" x 2 1/2" FLOOR DUCTS (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-4" C. TO TRANSFORMER (WIRING FILL >40%).
* 2-1/1" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED C. NGO 12-14 DATE
DRAWN C. NGO 12-14 DATE
CHECKED B. IDILBI 12-14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS		
DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

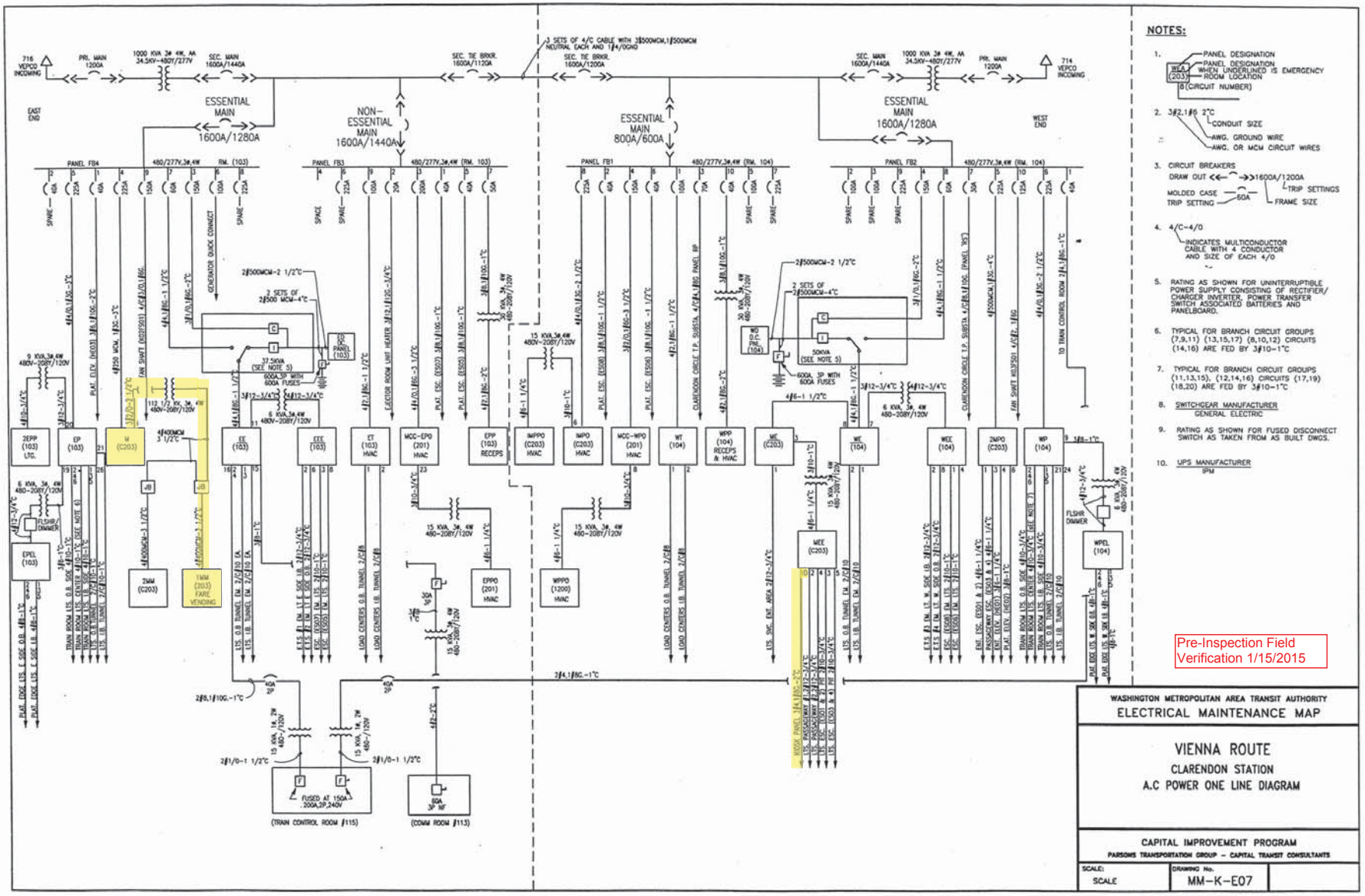
GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
CLARENDON
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO. K02-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

Date: 01/15/2015	**Station Name:** Virginia Square - K03	**Mezzanine #:** 098	**Completed By:** Tino Sahoo

Check	Task	Equipment		Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: Source Breaker Name/Number: Electrical AFC Panel Name/Number:	West Essential Power SWBD Breaker #10 WF	Rm 104 Rm 104 Rm C206	WM - Breaker "Panel WM" on West Essential Power SWBD; WF - Breaker "Panel WF" on West Essential Power SWBD; WPOB - Breaker "Panel WPOB" on West Essential Power SWBD;
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts:	HIGH Voltage		WPOM - Breaker "Panel WPOM" on West Non-essential Power SWBD; WEZ - Breaker #6 on Panel WE
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes.	YES (see notes)		Panels WML, WPOB, WM, WMM, WPOM, and WEZ all share common trough with Panel WF.
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:			
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? Identified Conduit/Duct Transition to mezzanine level?	YES (see notes) YES		All conduit/ducts on one level. Run is approx. 112' from Kiosk to AFC Panel via 3 handholes.

Emergency Power Verification

Check	Task	Equipment		Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:			
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Source Breaker Name/Number: Panel Name/Number:	Panel KE Breaker #5a Emergency Power Faregates	Kiosk Kiosk	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:		
Date:	1/15/2015	

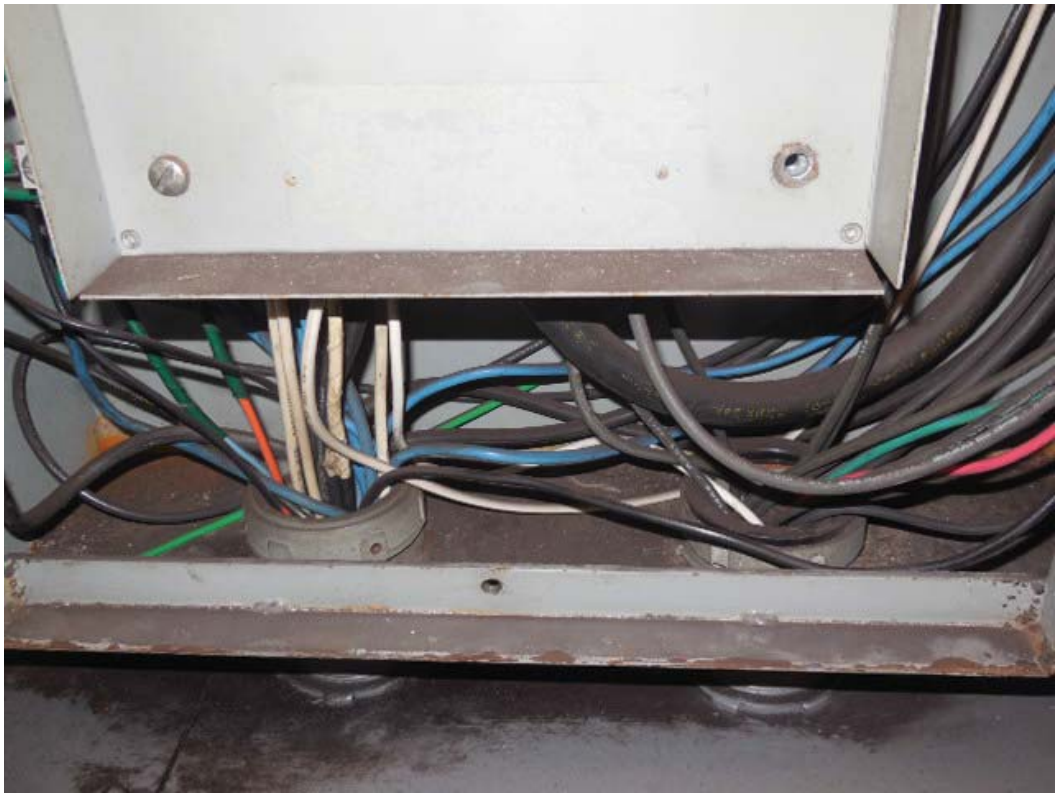
Pictures 1&2: K03 Virginia Square-GMU – Handholes & manholes in mezzanine

Pictures 3&4: K03 Virginia Square-GMU – Emergency Panel KE in Kiosk

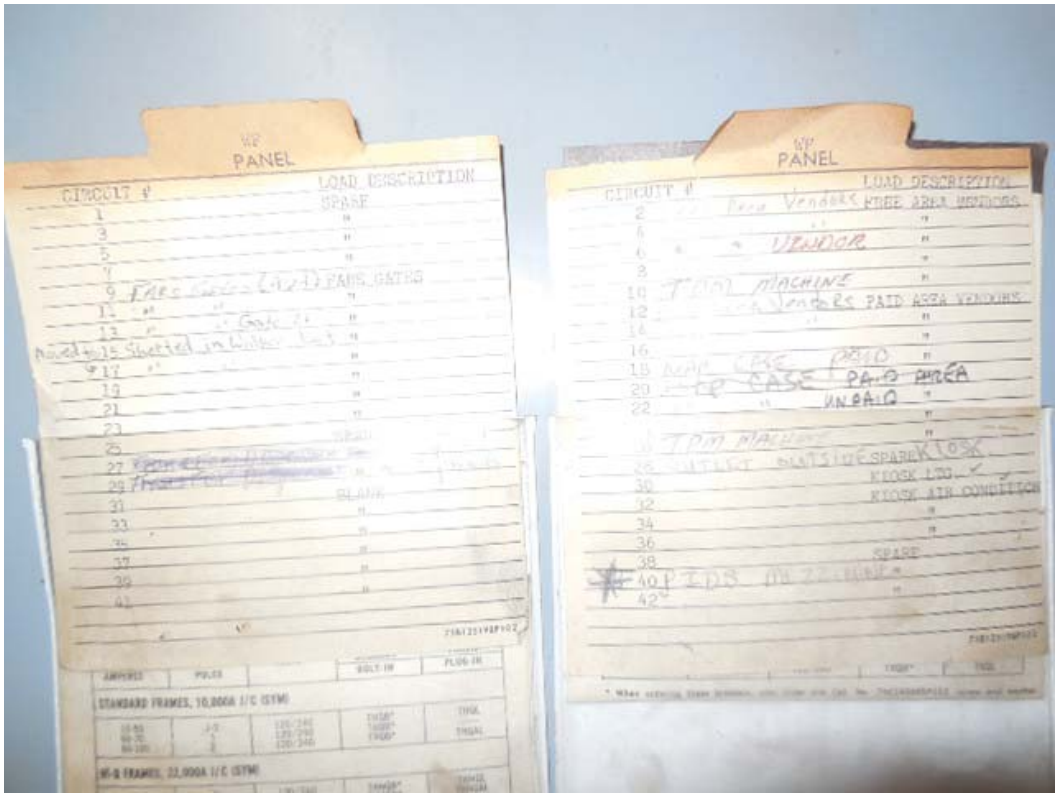
Picture 5: K03 Virginia Square-GMU – AFC Panel WF in room C206

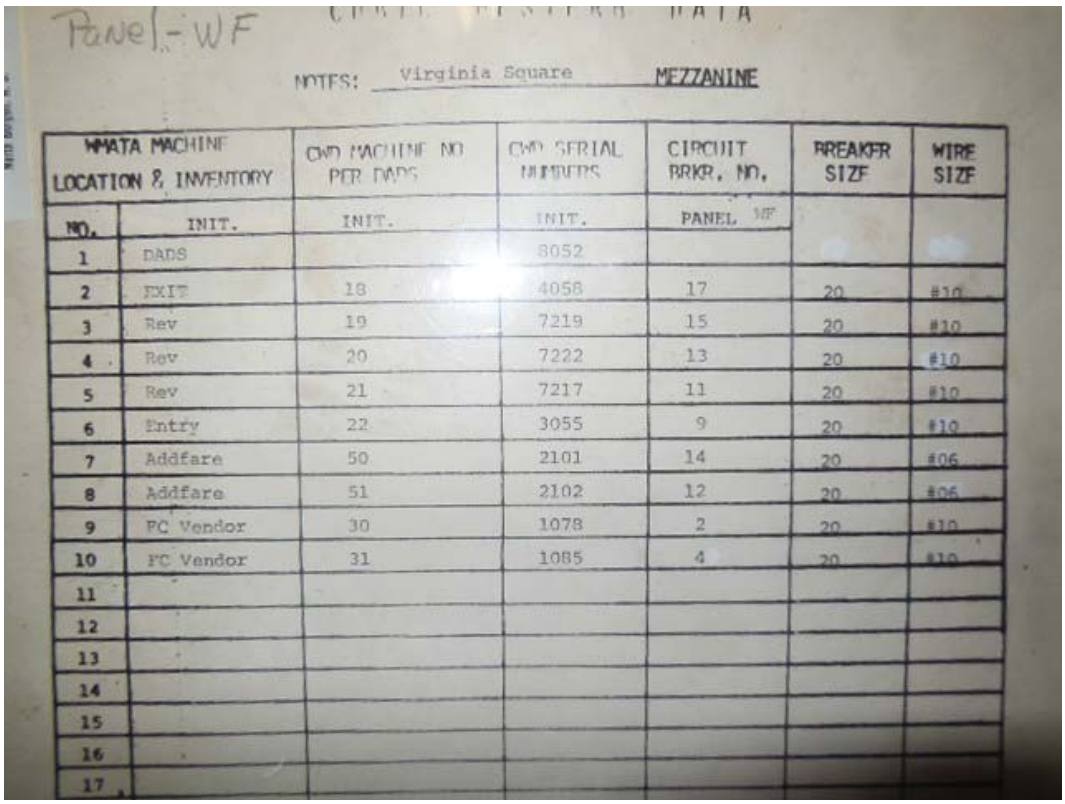
Picture 6: K03 Virginia Square-GMU – AFC Panel WF in room C206

Picture 7: K03 Virginia Square-GMU – AFC Panel WF in room C206, bottom conduits



Pictures 8&9: K03 Virginia Square-GMU – AFC Panel WF in room C206, panel schedules





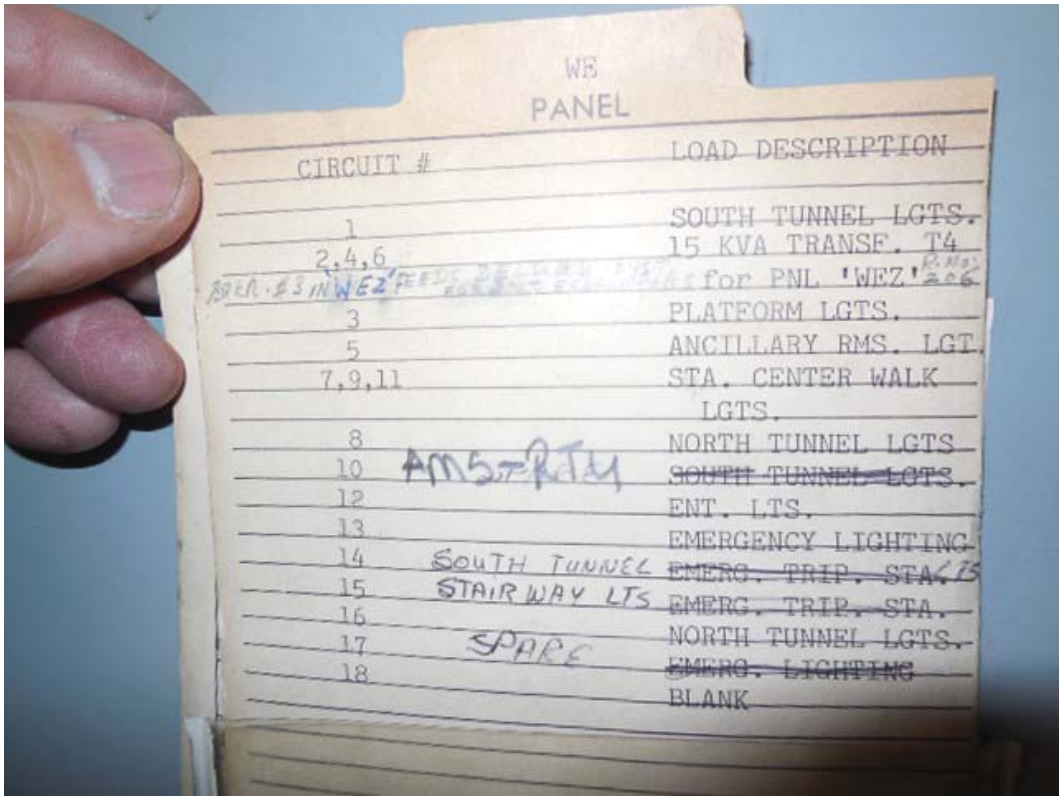
Panel - WF

NOTES: Virginia Square MEZZANINE

WMATA MACHINE LOCATION & INVENTORY		CMD MACHINE NO PER DADS	CMD SERIAL NUMBERS	CIRCUIT BRKR. NO.	BREAKER SIZE	WIRE SIZE
NO.	INIT.	INIT.	INIT.	PANEL WF		
1	DADS		8052			
2	EXIT	18	4058	17	20	#10
3	Rev	19	7219	15	20	#10
4	Rev	20	7222	13	20	#10
5	Rev	21	7217	11	20	#10
6	Entry	22	3055	9	20	#10
7	Addfare	50	2101	14	20	#06
8	Addfare	51	2102	12	20	#06
9	FC Vendor	30	1078	2	20	#10
10	FC Vendor	31	1085	4	20	#10
11						
12						
13						
14						
15						
16						
17						

Pictures 10&11: K03 Virginia Square-GMU – Panel WE, Main EMG. Panel & panel breakers in room 104

Picture 12: K03 Virginia Square-GMU – Panel WE, Main EMG. Panel in room 104, panel schedule



WE
PANEL

CIRCUIT #	LOAD DESCRIPTION
1	SOUTH TUNNEL LGTS.
2,4,6	15 KVA TRANSF. T4
	for PNL 'WEZ'
3	PLATFORM LGTS.
5	ANCILLARY RMS. LGT.
7,9,11	STA. CENTER WALK LGTS.
8	NORTH TUNNEL LGTS
10	SOUTH TUNNEL LGTS.
12	ENT. LTS.
13	EMERGENCY LIGHTING
14	EMERG. TRIP. STA.
15	EMERG. TRIP. STA.
16	NORTH TUNNEL LGTS.
17	EMERG. LIGHTING
18	BLANK

AM5-RTU

SOUTH TUNNEL STAIRWAY LTS

SPARE

Picture 13: K03 Virginia Square-GMU – West Essential Power SWBD in room 104

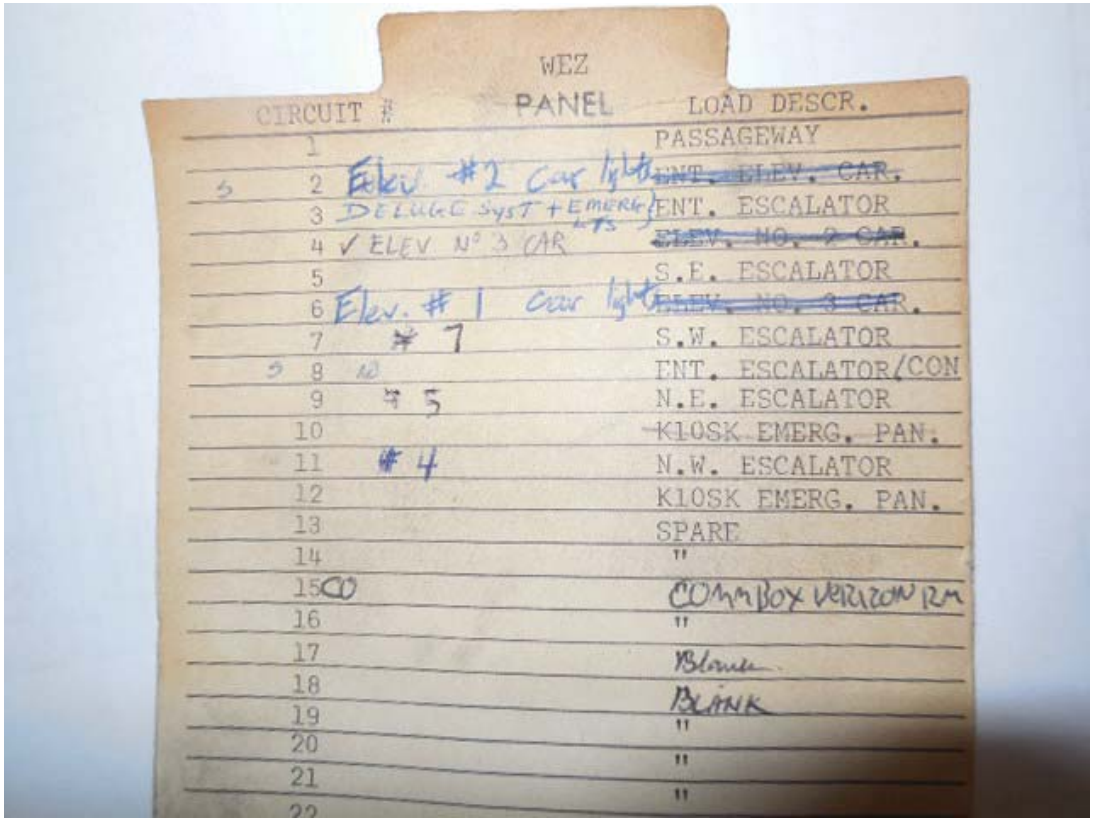
Picture 14: K03 Virginia Square-GMU – West Essential Power SWBD in room 104, Panel WF breaker

Picture 15: K03 Virginia Square-GMU – West Essential Power SWBD in room 104, Panel WM breaker

Picture 16: K03 Virginia Square-GMU – West Essential Power SWBD in room 104, Panel WPOB breaker

Picture 17: K03 Virginia Square-GMU – West Non-essential Power SWBD in room 104, Panel WPOM BRK

Pictures 18&19: K03 Virginia Square-GMU – Panel WEZ & panel schedule in room C206

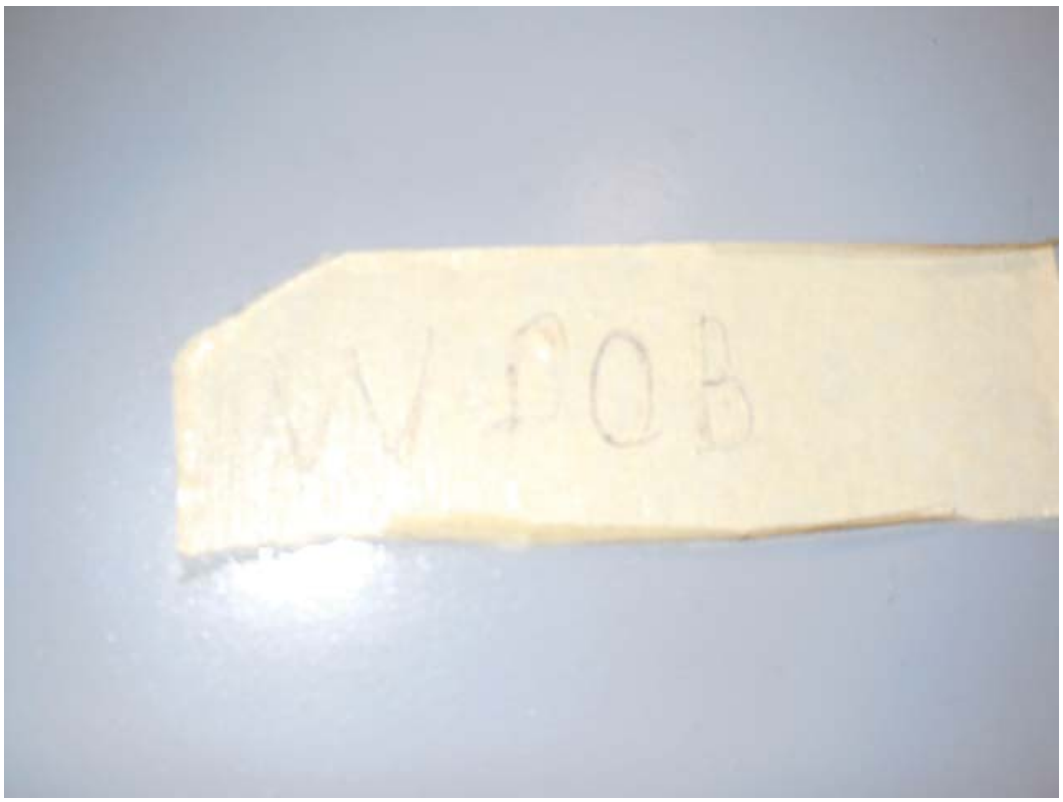


WEZ PANEL

CIRCUIT #	LOAD DESCR.
1	PASSAGEWAY
2 Elev #2 Car light	~~ENT. ELEV. CAR.~~
3 DELUGE SYST + EMERG LTS	ENT. ESCALATOR
4 ✓ ELEV N° 3 CAR	~~ELEV. NO. 2 CAR.~~
5	S.E. ESCALATOR
6 Elev. #1 Car light	~~ELEV. NO. 3 CAR.~~
7 #7	S.W. ESCALATOR
8 NO	ENT. ESCALATOR/CON
9 #5	N.E. ESCALATOR
10	KIOSK EMERG. PAN.
11 #4	N.W. ESCALATOR
12	KIOSK EMERG. PAN.
13	SPARE
14	"
15 CO	COMM BOX VERIZON RM
16	"
17	Blank
18	BLANK
19	"
20	"
21	"
22	

Pictures 20&21: K03 Virginia Square-GMU – Panels WM & WML in room C206

Pictures 22&23: K03 Virginia Square-GMU – Panels WMM & WPOB in room C206



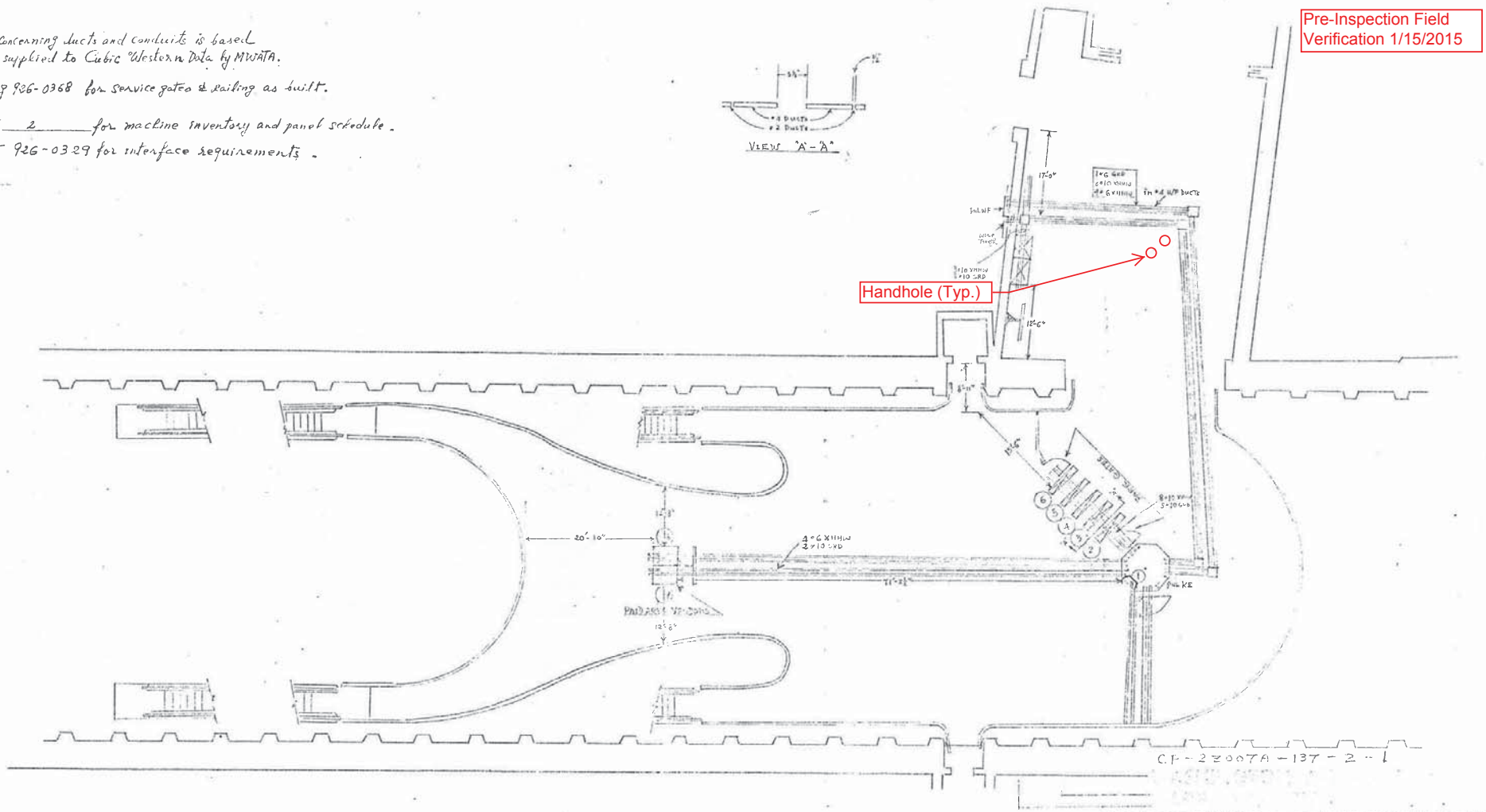
Picture 24: K03 Virginia Square-GMU – Panel WPOM in room C206

Pictures 25,26,27: K03 Virginia Square-GMU – Shared trough with AFC Panel WF in room C206

NOTES:

1. All information concerning ducts and conduits is based on information supplied to Cubic Western Data by MWATA.
2. Refer to drawing 926-0368 for service gates & railing as built.
3. Refer to sheet 2 for machine inventory and panel schedule.
4. Refer to sheet 926-0329 for interface requirements.

Pre-Inspection Field Verification 1/15/2015

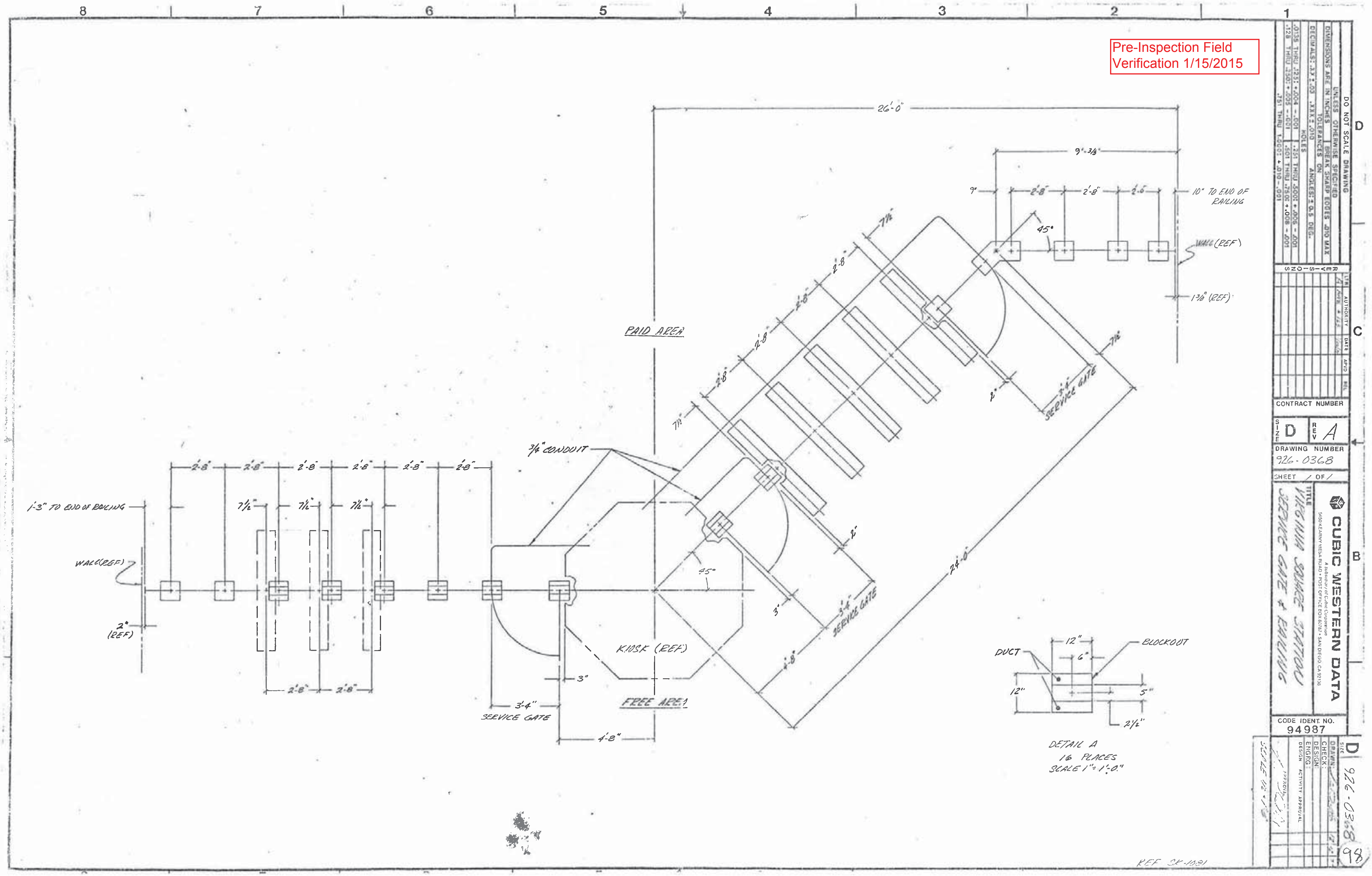


CP-22007A-137-2-1

AS BUILT DRAWING

ITEM	WIRE SIZE	TYPE	RUN	REMARKS
MISC AREA VENDORS	#10	XHHW	30'	
TART GATE	#10		14'	
PAID AREA VENDORS	#6		17'	
GROUND	#6		120	
[illegible]	#14		10' TO 25'	
DATA	#10			
BULLSEYE	#10			

CONTRACT NUMBER	CUBIC WESTERN DATA A subsidiary of Cubic Corporation 9650 KEARNY MESA ROAD • POST OFFICE BOX NO. 87 • SAN DIEGO, CA 92138	
DESIGN ACTIVITY APPROVAL APPROVED	SIZE	DRAWING NUMBER 926-0411 REV
	SCALE	SHEET OF


Pre-Inspection Field Verification 1/15/2015
26'-0"
9'-3½"
10" TO END OF RAILING
WALL (REF)
1⅜" (REF)
45°
PAID AREA
3/4" CONDUIT
SERVICE GATE
24'-0"
4'-8"
1'-3" TO END OF RAILING
WALL (REF)
2" (REF)
3'-4" SERVICE GATE
KIOSK (REF)
FREE AREA
DUCT
BLOCKOUT
DETAIL A
16 PLACES
SCALE 1" = 1'-0"
REF. SK-1031
DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
BREAK SHARP EDGES .010 MAX
TOLERANCES ON
DECIMALS: .XX ± .03 .XXX ± .010
ANGLES: ± 0.5 DEG.
HOLES
REVISIONS
CONTRACT NUMBER
SIZE D
REV A
DRAWING NUMBER
926-0368
SHEET 1 OF 1
CUBIC WESTERN DATA
TITLE
VIRGINIA SQUARE STATION
SERVICE GATE & RAILING
CODE IDENT. NO.
94987
DRAWN
CHECK
DESIGN
ENGRG
98

Pre-Inspection Field Verification 1/15/2015

EXISTING PANEL "WF" ✓

AMPERES: 225	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 225A MCB	PHASE: 3	LOCATION: ROOM C206 ✓	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

	LOAD DESCRIPTION	KVA	CKT BKRS AMP	CKT BKRS POLE	CKT NO.		CKT NO.	CKT BKRS POLE	CKT BKRS AMP	KVA	LOAD DESCRIPTION
	EXISTING VENDOR	0.8	20	1	1	A - -	2	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	5	- - C	6	1	20	0.0	SPARE
	SPARE	0.0	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.0	SPARE
	EXISTING VENDOR	0.8	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	13	A - -	14	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.0	SPARE
	EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR
✓ 1	NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	19	A - -	20	1	20	0.0	SPARE
✓ 1&2	SPARE (KIOSK)	0.0	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
	SPARE	0.0	20	1	23	- - C	24	1	20	0.8	EXISTING VENDOR
	EXISTING VENDOR	0.8	20	1	25	A - -	26	1	20	0.0	SPARE
	SPARE	0.0	20	1	27	- B -	28	1	20	0.0	SPARE
	SPARE	0.0	20	1	29	- - C	30	1	20	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	31	A - -	32	1	20	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	33	- B -	34	1	20	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	35	- - C	36	1	20	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	37	A - -	38	1	20	0.8	EXISTING VENDOR
	SPACE	0.0	-	-	39	- B -	40	1	20	0.0	SPARE
	SPACE	0.0	-	-	41	- - C	42	1	20	0.8	EXISTING VENDOR

NOTES: 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	7.6 x 50%		3.8 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	0.0 x 125%		0.0 KVA
AC	0.0 x 100%		0.0 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**17.6 KVA**	**TOTAL DEMAND KVA**	**13.8 KVA**
		TOTAL DEMAND AMPS	**38.3 AMPS**
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	6.4 KVA		
PHASE B:	4.8 KVA		
PHASE C:	6.4 KVA		

NOTES:
A. EXISTING PANEL "WF" IS FED FROM 277/480V, 3Φ, 4W EXISTING SWBD. "W1" LOCATED IN AC SWBD RM. 104, CIRCUIT (K03-W1-10) #10-125/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-K-E09).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 2 2" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 1 4" C. (WIRING FILL >40%).
- 2 3/4" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED C. NGO 11-14 DATE
DRAWN C. NGO 11-14 DATE
CHECKED B. IDLBI 11-14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

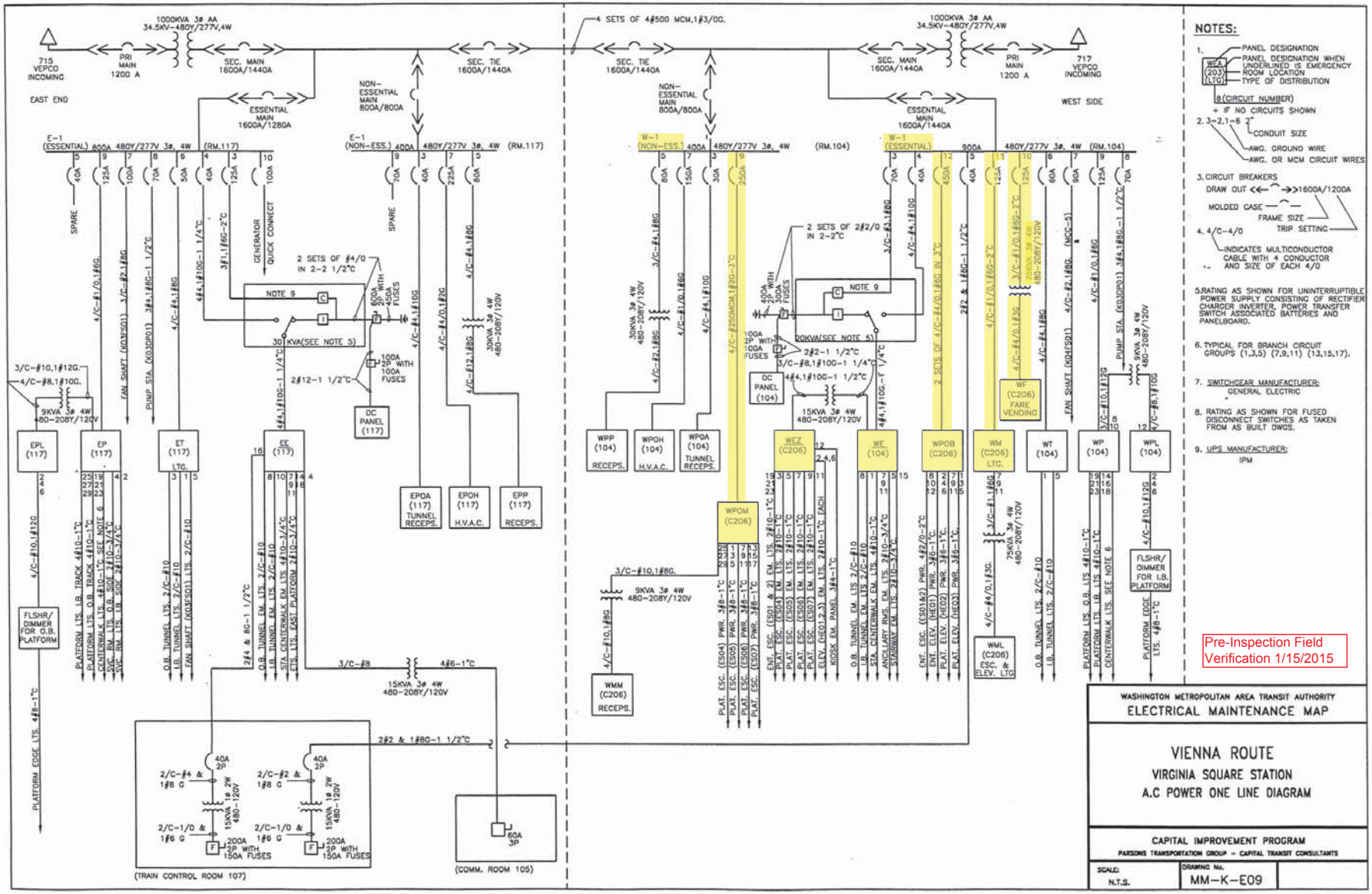
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS

VIRGINIA SQUARE
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO. K03-E-102



NOTES:

1. PANEL DESIGNATION
   WPA (203) LTG
   - PANEL DESIGNATION WHEN UNDERLINED IS EMERGENCY
   - ROOM LOCATION
   - TYPE OF DISTRIBUTION
   - #(CIRCUIT NUMBER)
   + IF NO CIRCUITS SHOWN
2. 3-2.1-#6 2"C
   - CONDUIT SIZE
   - AWG. GROUND WIRE
   - AWG. OR MCM CIRCUIT WIRES
3. CIRCUIT BREAKERS
   DRAW OUT 1600A/1200A
   MOLDED CASE
   FRAME SIZE
   TRIP SETTING
4. 4/C-4/0
   - INDICATES MULTICONDUCTOR CABLE WITH 4 CONDUCTOR AND SIZE OF EACH 4/0
5. RATING AS SHOWN FOR UNINTERRUPTIBLE POWER SUPPLY CONSISTING OF RECTIFIER CHARGER INVERTER, POWER TRANSFER SWITCH ASSOCIATED BATTERIES AND PANELBOARD.
6. TYPICAL FOR BRANCH CIRCUIT GROUPS (1,3,5) (7,9,11) (13,15,17).
7. SWITCHGEAR MANUFACTURER: GENERAL ELECTRIC
8. RATING AS SHOWN FOR FUSED DISCONNECT SWITCHES AS TAKEN FROM AS BUILT DWGS.
9. UPS MANUFACTURER: IPM

Pre-Inspection Field Verification 1/15/2015

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

ELECTRICAL MAINTENANCE MAP

VIENNA ROUTE
VIRGINIA SQUARE STATION
A.C POWER ONE LINE DIAGRAM

CAPITAL IMPROVEMENT PROGRAM

PARSONS TRANSPORTATION GROUP – CAPITAL TRANSIT CONSULTANTS

SCALE:	DRAWING No.
N.T.S.	MM-K-E09

Pre-Inspection Mezzanine Walkthrough Checklist

REVISION 1

Date: 01/08/2015	**Station Name:** East Falls Church - K05	**Mezzanine #:** 100	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: SWBD AC1 Secondary Essential Source Breaker Name/Number: "Panel F 225/3" (Breaker #7) Electrical AFC Panel Name/Number: F	Rm 116 Rm 116 Rm 115	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		One handhole visible in mezzanine.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level. Power run from Kiosk to AFC Panel is approx. 150'.

Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: 2-Section Panel E Source Breaker Name/Number: Breaker #10, 12 Panel Name/Number: Kiosk Panel KE	Rm 116 Rm 116 Kiosk	

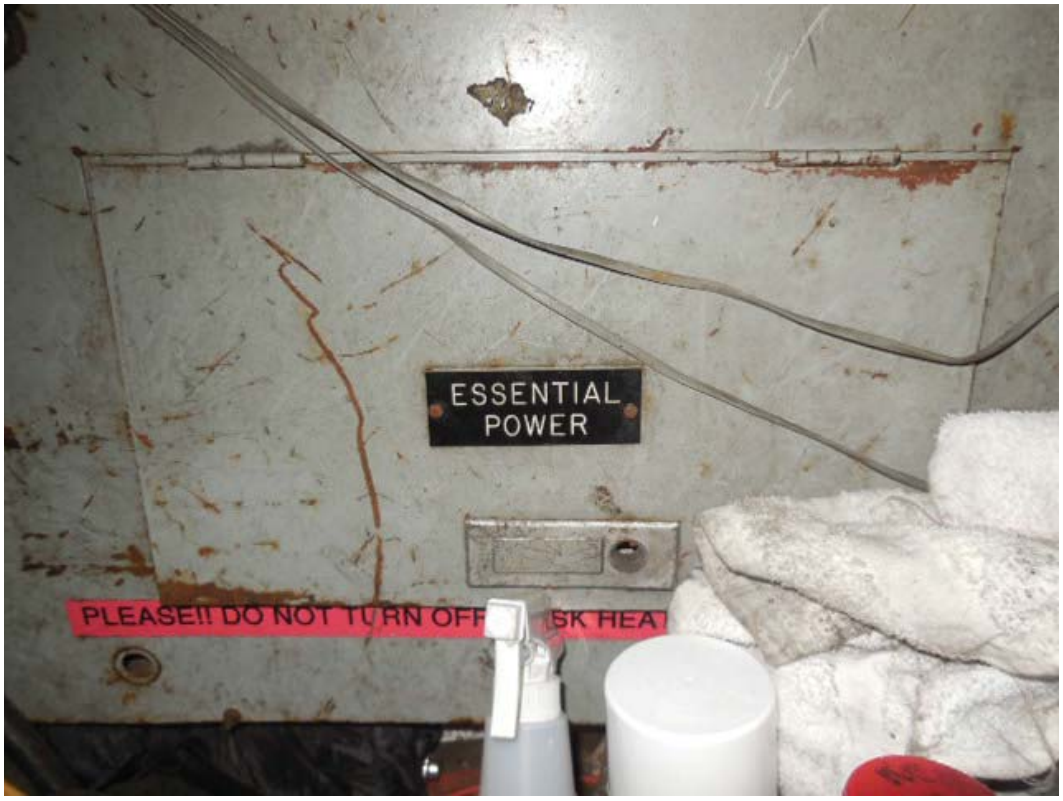
Notes and Discrepancies:

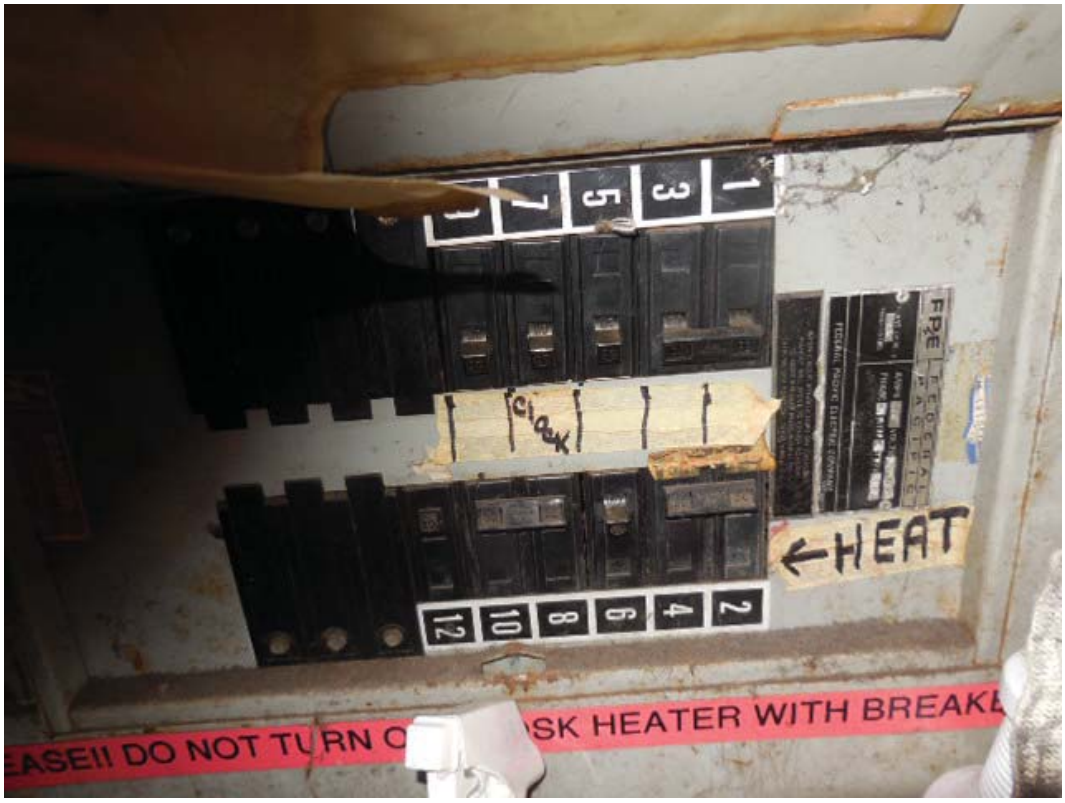
Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmeen Sahoo	
Date:	1/8/2015	

Pictures 1&2: K05 East Falls Church – Handholes in mezzanine

Picture 3: K05 East Falls Church – Manhole in mezzanine

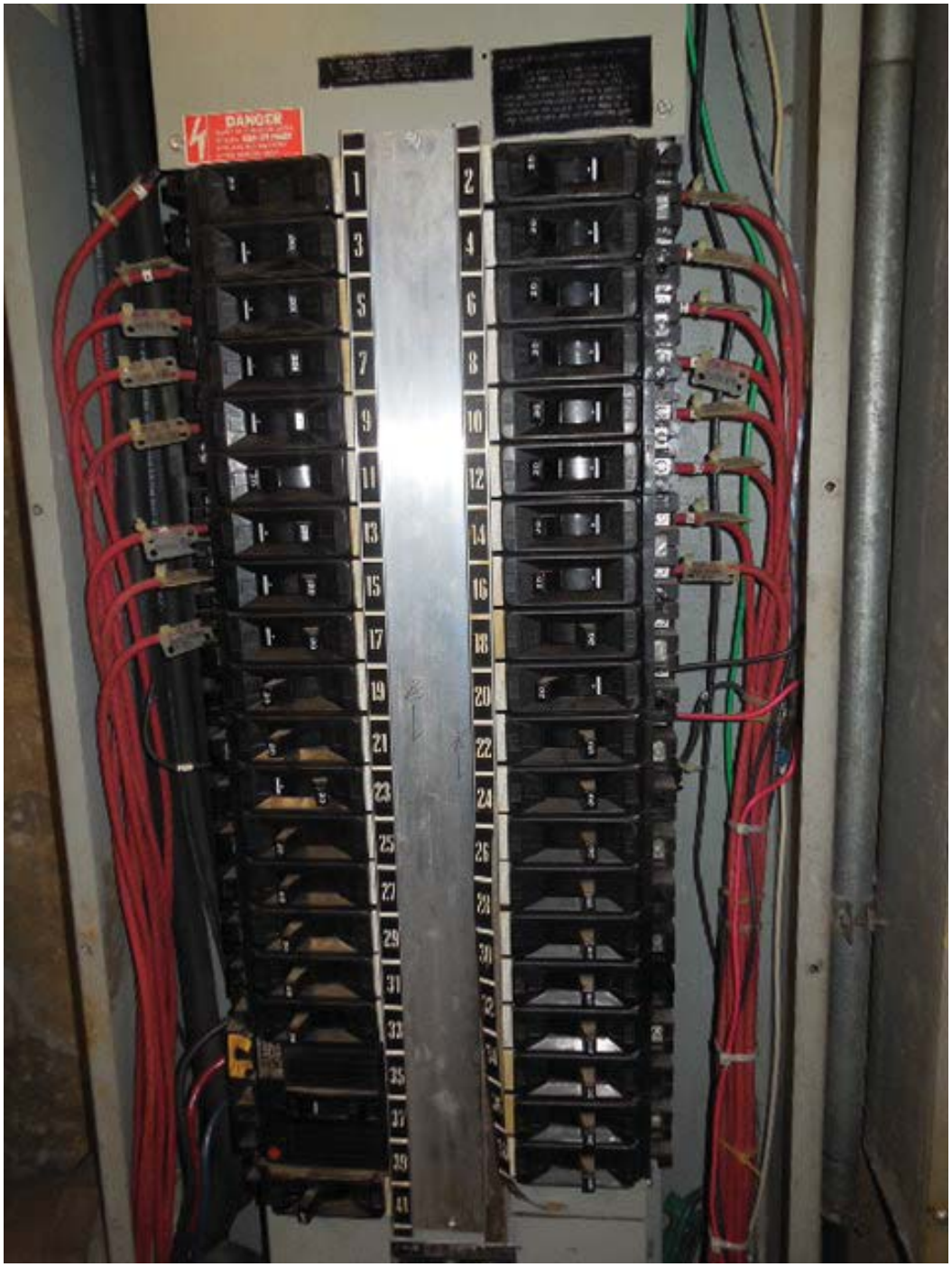
Pictures 4&5: K05 East Falls Church – Emergency Panel KE in Kiosk





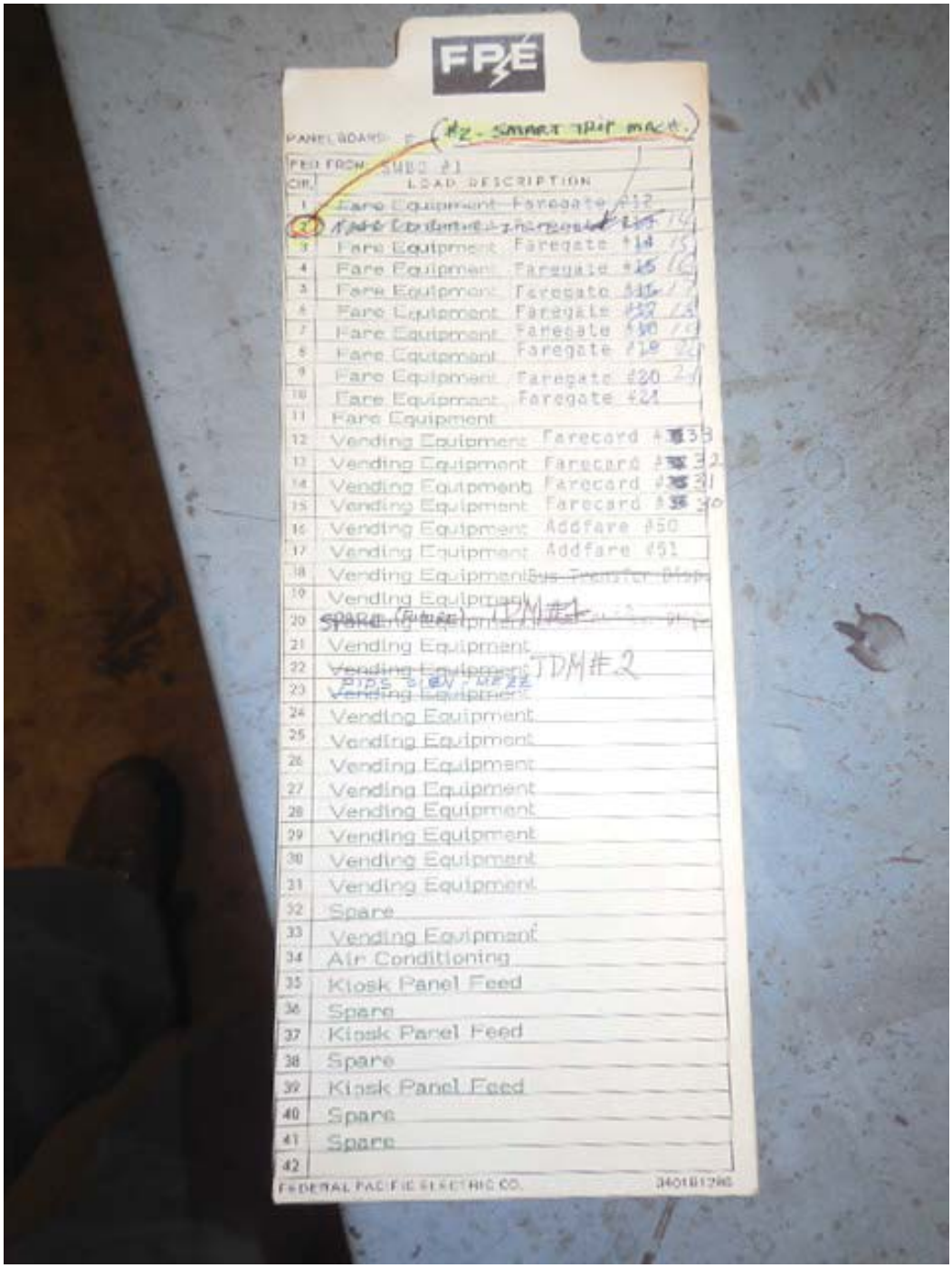
Picture 6: K05 East Falls Church – AFC Panel F in room 115

Picture 7: K05 East Falls Church – AFC Panel F in room 115



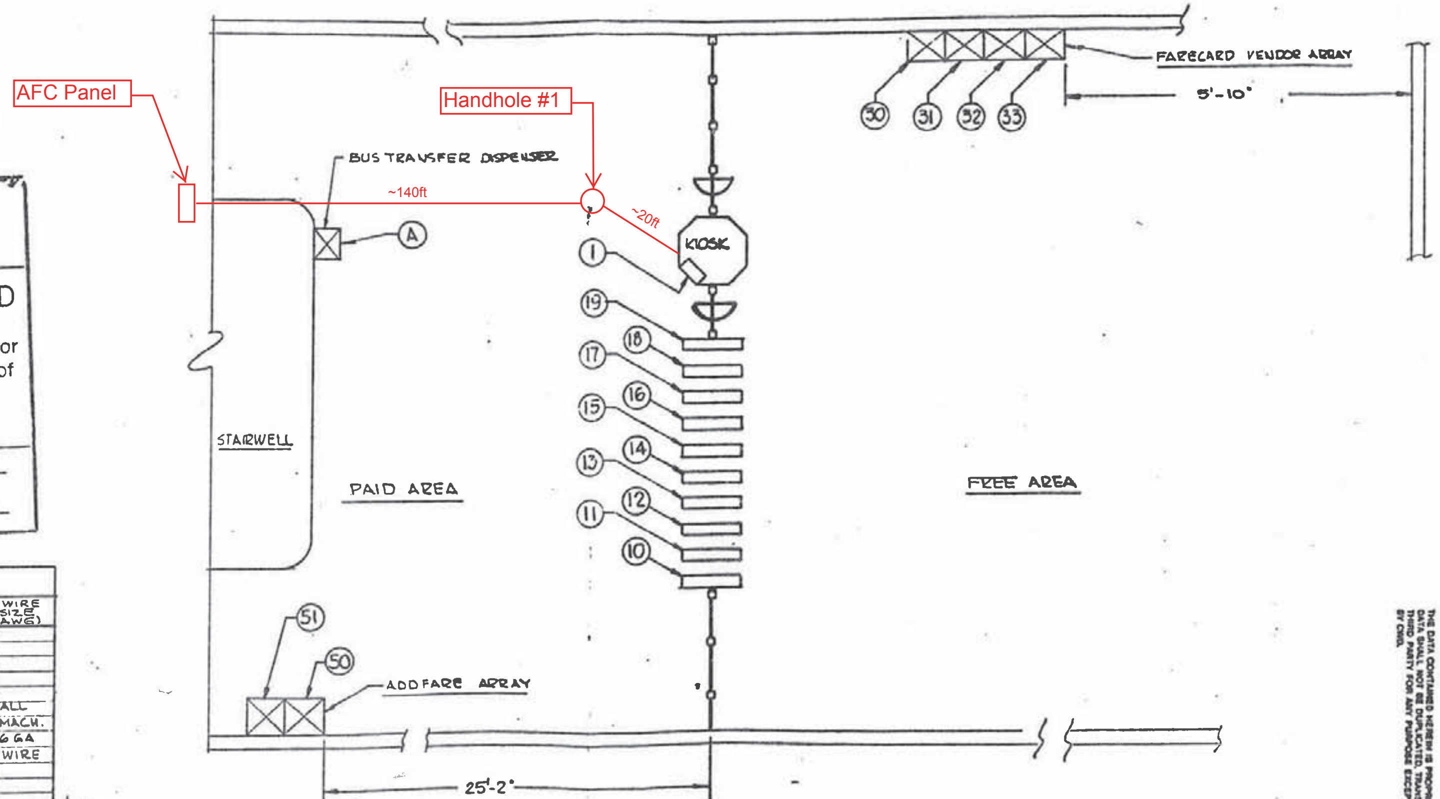
Picture 8: K05 East Falls Church – AFC Panel F in room 115, Bottom ducts

Picture 9: K05 East Falls Church – AFC Panel F in room 115, Panel schedule



Pictures 10&11: K05 East Falls Church – AC1 Secondary SWBD & breaker #7 for Panel F in room 116

Pre-Inspection Field Verification 1/8/2015



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED AS CORRECTED
(RESUBMITTAL NOT REQUIRED)
Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements.

BY: ________ For Contracting Officer

DATE: 1-11-89

			PANEL # F		
POSITION NUMBER	MACHINE TYPE	SERIAL NUMBER	CIRCUIT BREAKER NUMBER		WIRE SIZE (AWG)
A	XFER DISPENSER		1 FG 19/20	22.	
1	EDADS	DS 8013	2 FG 18 13	23	
10	EXIT GATE	GX 4502	3 FG 17 14		
11	REV. GATE	GR 7528	4 FG 16 15		
12	"	GR 7529	5 FG 16 16		
13	"	GR 7517	6 FG 14 17		ALL
14	"	GR 7502	7 FG 13 18		MACH.
15	"	GR 7522	8 FG 12 19		6 GA
16	"	GR 7506	9 FG 11 20		WIRE
17	"	GR 7531	10 FG 10 21		
18	"	GR 7510			
19	ENTRY GATE	GN 3501	12 FV 33		
30	FARECARD VENDOR	FV 1216	13 FV 32		
31	"	FV 1188	14 FV 31		
32	"	FV 1311	15 FV 30		
33	"	FV 1725	16 AM 50		
50	ADDFARE	AM 2705	17 AM 51		
51	ADDFARE	AM 2704	18 XFER		
			21	42	

1. ADD BIDIRECTIONAL GATES TO DRAWING
2. SERVICE GATE NO. 12 BREAKER NO. 1
3. " " " 13 " " 2
4. " " " 14 " " 3
5. " " " 15 " " 4
6. " " " 16 " " 5
7. " " " 17 " " 6
8. " " " 18 " " 7
9. " " " 19 " " 8
10. " " " 20 " " 9

MEZZANINE PLAN

INSTALLATION AS BUILT

CP-FECOTE 102-2-1

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES | BREAK SHARP EDGES .010 MAX
TOLERANCES ON
DECIMALS: .XX ±.03 .XXX ±.010 | ANGLES ±0.5 DEG.
HOLES
.0135 THRU .125: +.004 -.001 | .251 THRU .500: +.005 -.001
.126 THRU .250: +.005 -.001 | .501 THRU .750: +.008 -.001
.751 THRU 1.000: +.010 -.001

LTR | AUTHORITY | DATE | APPD | REL

CONTRACT NUMBER

SIZE D | REV A

DRAWING NUMBER 926-0461

SHEET 1 OF 1

CUBIC WESTERN DATA

TITLE EAST FALLS CHURCH STATION INSTALLATION PLAN

CODE IDENT NO. 57560

DRAWN: F. STERN

D 926-0461

Pre-Inspection Field Verification 1/8/2015

EXISTING PANEL "F"

AMPERES: 400	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 400A MCB	PHASE: 3	LOCATION: ELEC. EQUIPMENT ROOM 115	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

LOAD DESCRIPTION	KVA	CKT. BKRS. AMP	CKT. BKRS. POLE	CKT. NO.		CKT. NO.	CKT. BKRS. POLE	CKT. BKRS. AMP	KVA	LOAD DESCRIPTION
EXISTING VENDOR	0.8	20	1	1	A - -	2	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	3	- B -	4	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	5	- - C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	A - -	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	NEW KIOSK RECEPT. (IT & NEPP)
SPARE	0.0	20	1	19	A - -	20	1	20	0.0	SPARE (KIOSK)
SPARE	0.0	20	1	21	- B -	22	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	23	- - C	24	1	20	0.0	SPARE
SPARE	0.0	20	1	25	A - -	26	1	20	0.0	SPARE
SPARE	0.0	20	1	27	- B -	28	1	20	0.0	SPARE
SPARE	0.0	20	1	29	- - C	30	1	20	0.0	SPARE
SPARE	0.0	-	-	31	A - -	32	1	20	0.0	SPARE
SPARE	0.0	-	-	33	- B -	34	1	20	0.0	SPARE
EXISTING LOAD CENTER "KES"	2.9	40	3	35	- - C	36	1	20	0.0	SPARE
	2.5	-	-	37	A - -	38	1	20	0.0	SPARE
	2.5	-	-	39	- B -	40	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	41	- - C	42	-	-	0.0	SPACE

NOTES: 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P C.B.
2. C.B. TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	5.6 x 50%		2.8 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	23.1 KVA	TOTAL DEMAND KVA	21.1 KVA
		TOTAL DEMAND AMPS	58.5 AMPS
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	7.3 KVA		
PHASE B:	7.3 KVA		
PHASE C:	8.5 KVA		

NOTES:
A. EXISTING PANEL "F" IS FED FROM 277/480V, 3ø, 4W EXISTING SWBD. "SWBD #1" LOCATED IN AC SWBD 116, CIRCUIT (K05-SWBD1-07) #7-225/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-K-E14).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 2-6 1/2"x 1 1/2" FLOOR DUCTS (WIRING FILL >40%).
* 1-3/4" C. (WIRING FILL >40%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1-3/4" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED C. NGO 11-14 DATE
DRAWN C. NGO 11-14 DATE
CHECKED B. IDLBI 11-14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

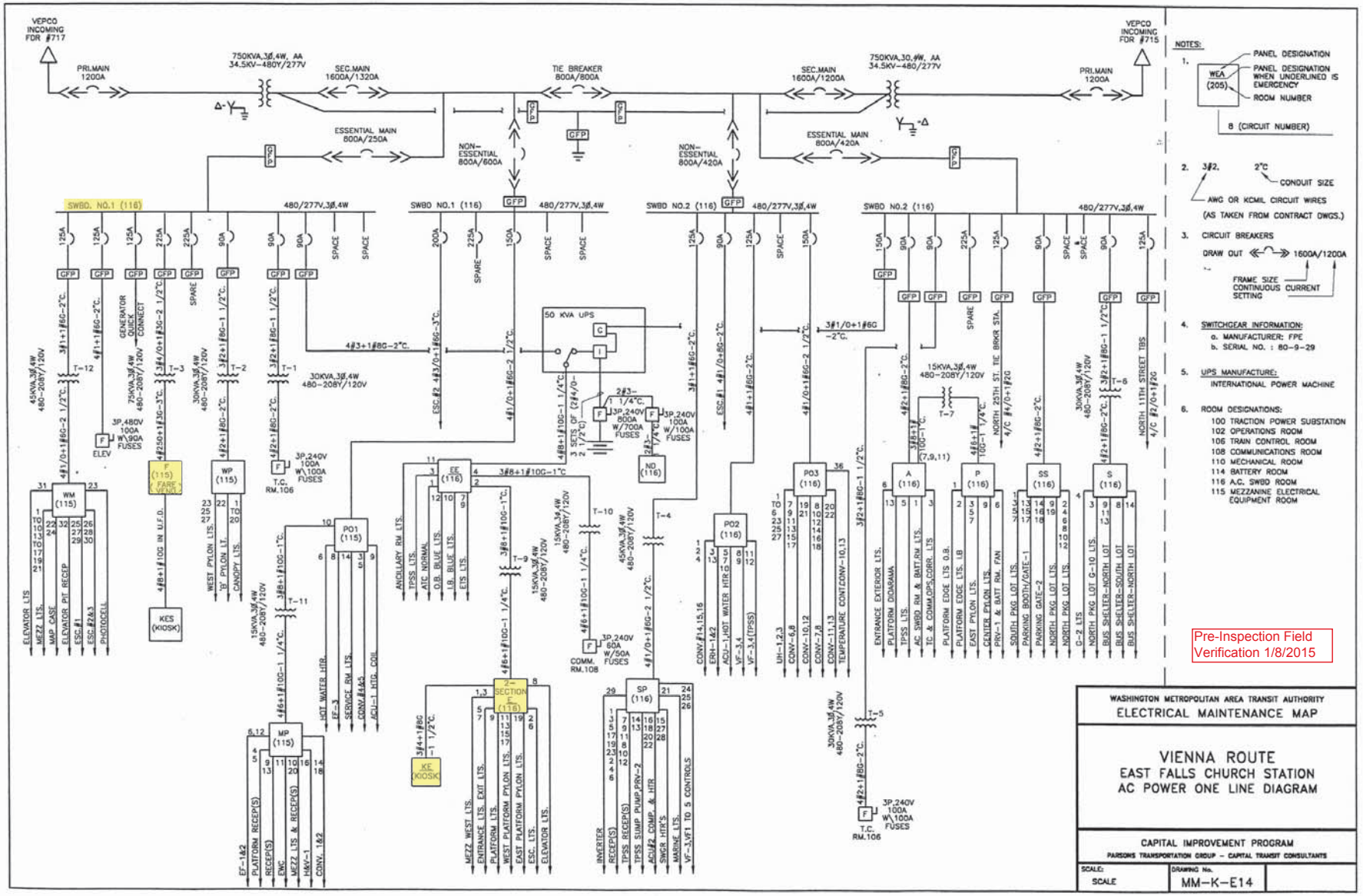
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS

EAST FALLS CHURCH
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO. K05-E-102



Pre-Inspection Mezzanine Walkthrough Checklist

Date: 11/20/2014	**Station Name:** West Falls Church - K06	**Mezzanine #:** 101	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: AC-1 Secondary Essential/ SWBD No.1 Source Breaker Name/Number: "Panel board FL-1" Electrical AFC Panel Name/Number: FL-1	Rm 106 Rm 106 Rm 212	S.O.: SWBD AC-1 Secondary Essential Breaker "Panel board FL-1" SWBD AC-2 Secondary Non-Essential Breaker "Panel board MH-1" Breaker "Panel board POH2"
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH and LOW Voltage		Panel Emergency Power EL1-L Breaker #16
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. YES (see notes)		Panels MML1, POH2, ML2, ML1, MH1, and FL1 share common trough.
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☐ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? NO Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level. No handholes; straight run of about 70ft.

Emergency Power Verification

Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: Emergency Power EL1-L Source Breaker Name/Number: Breaker #16 Panel Name/Number: KE (Kiosk Emergency Panel)	Rm 106 Rm 106 Kiosk	

Notes and Discrepancies:

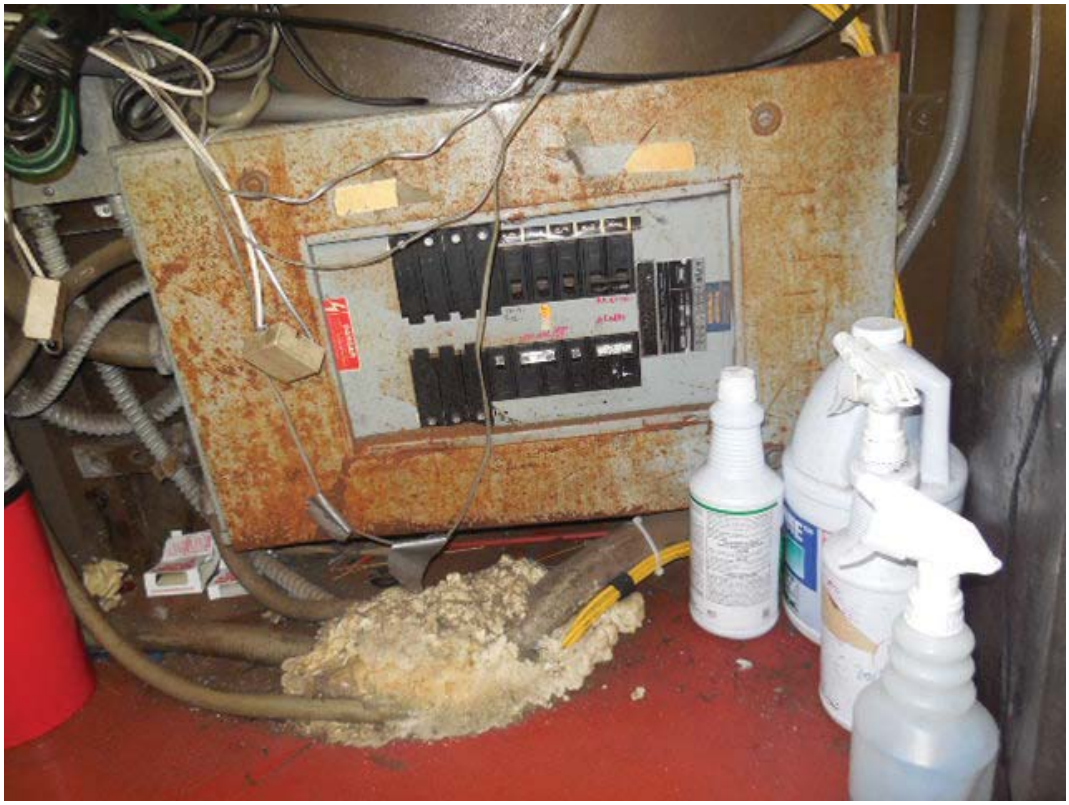
Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmeena Sahoo	
Date:	11/20/2014	

Picture 1: K06 West Falls Church – No handholes in Mezzanine

Picture 2: K06 West Falls Church – Unassociated access hatch in Mezzanine

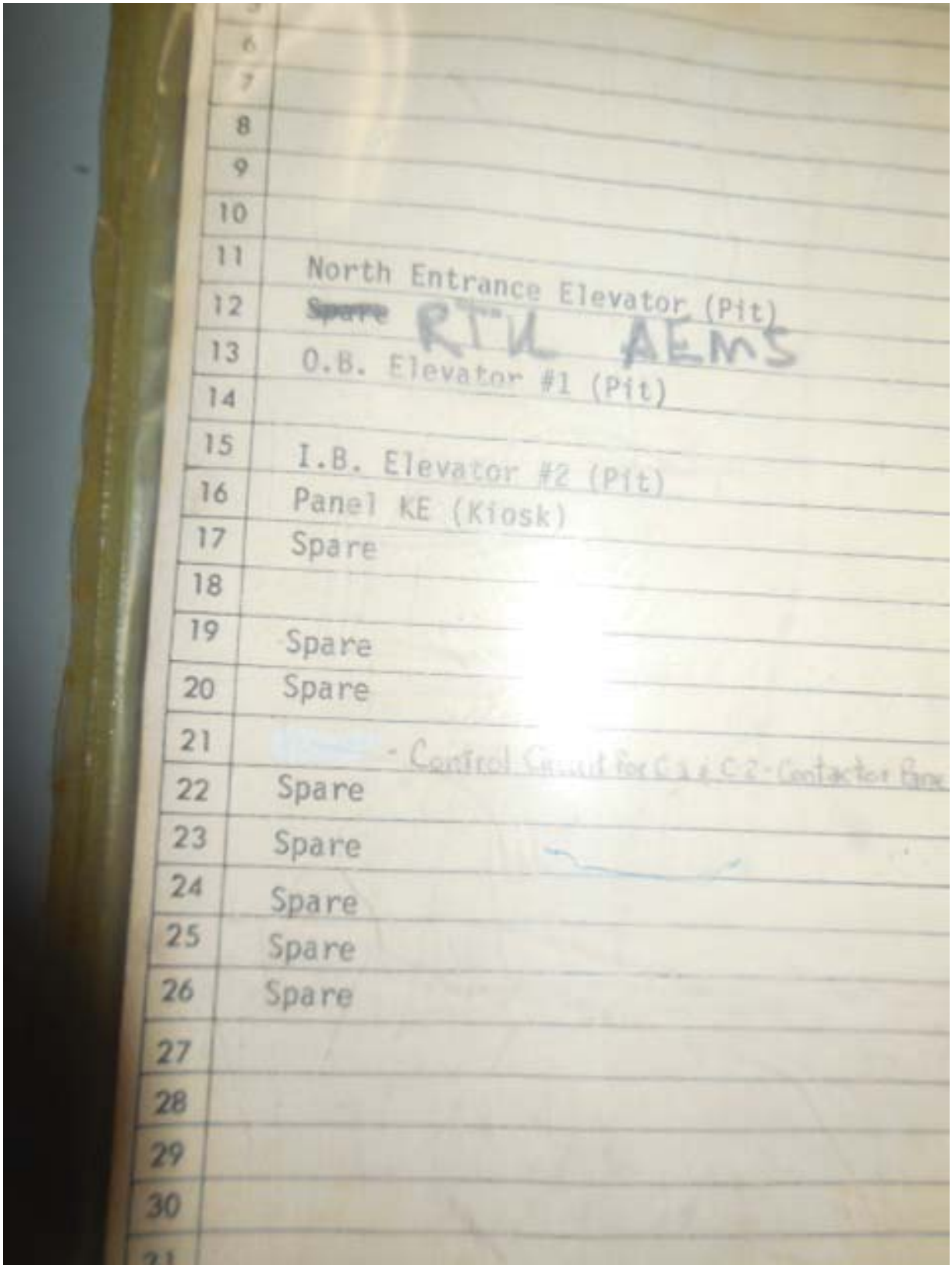
Picture 3: K06 West Falls Church – Room 210 in Mezzanine which leads to Room 212 electrical room

Pictures 4&5: K06 West Falls Church – Emergency panels in Kiosk



Pictures 6&7: K06 West Falls Church – Emergency power panel ELI-L & breaker 16 in Room 106

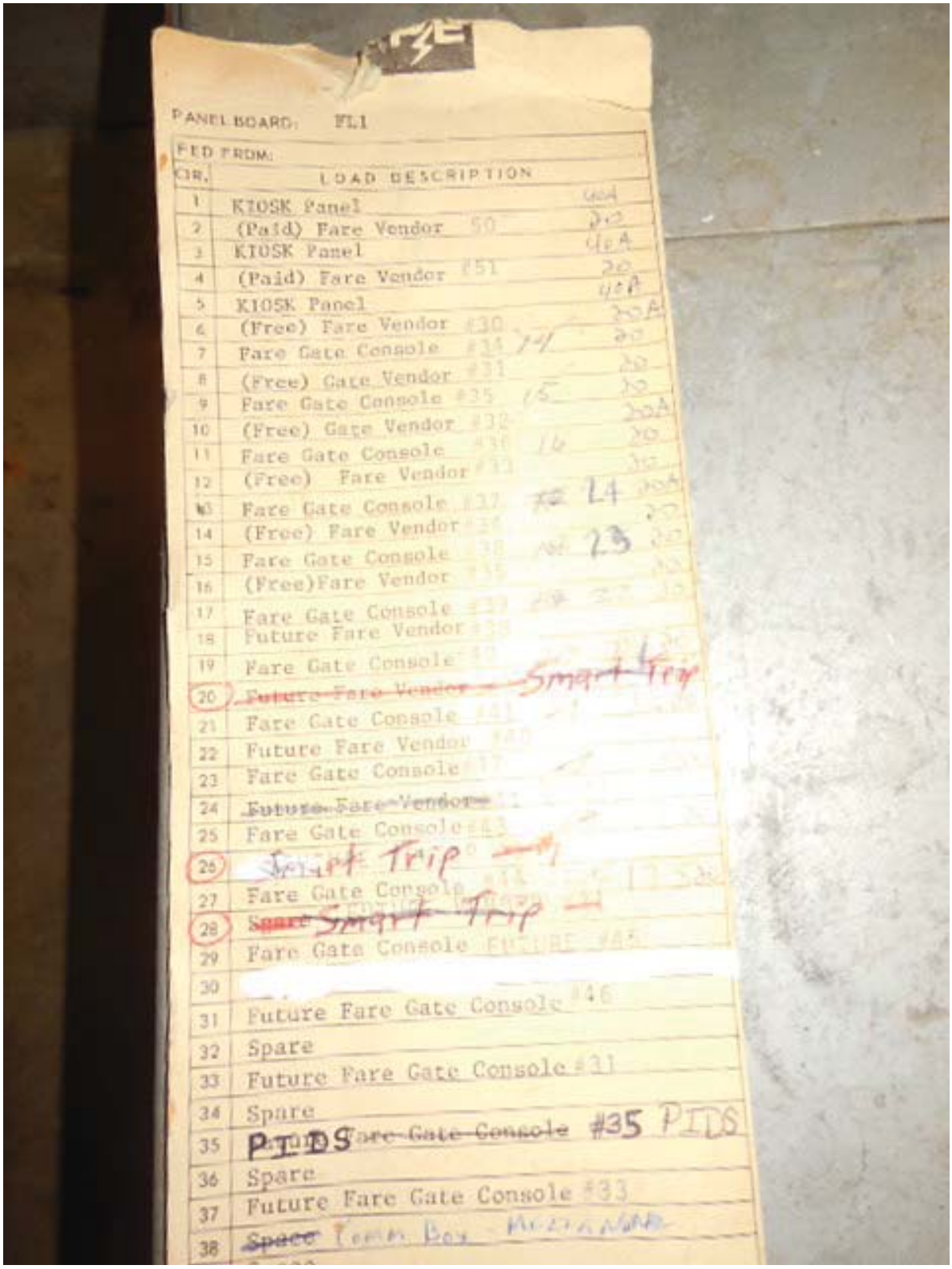
Picture 8: K06 West Falls Church – Emergency power panel ELI-L in Room 106 – Panel schedule



Pictures 9&10: K06 West Falls Church – AFC Panel FL-1 & bottom of panel in Room 212

Picture 11: K06 West Falls Church – AFC Panel FL-1 in Room 212

Picture 12: K06 West Falls Church – AFC Panel FL-1 in Room 212 – Panel schedule



PANEL BOARD: FL1

FED FROM:

CIR.	LOAD DESCRIPTION
1	KIOSK Panel
2	(Paid) Fare Vendor
3	KIOSK Panel
4	(Paid) Fare Vendor
5	KIOSK Panel
6	(Free) Fare Vendor
7	Fare Gate Console
8	(Free) Gate Vendor
9	Fare Gate Console
10	(Free) Gate Vendor
11	Fare Gate Console
12	(Free) Fare Vendor
13	Fare Gate Console
14	(Free) Fare Vendor
15	Fare Gate Console
16	(Free)Fare Vendor
17	Fare Gate Console
18	Future Fare Vendor
19	Fare Gate Console
20	~~Future Fare Vendor~~ Smart Trip
21	Fare Gate Console
22	Future Fare Vendor
23	Fare Gate Console
24	~~Future Fare Vendor~~
25	Fare Gate Console
26	Smart Trip
27	Fare Gate Console
28	~~Spare~~ Smart Trip
29	Fare Gate Console
30	
31	Future Fare Gate Console
32	Spare
33	Future Fare Gate Console
34	Spare
35	PIDS ~~Fare Gate Console~~ #35 PIDS
36	Spare
37	Future Fare Gate Console
38	~~Spare~~ Term. Box

Pictures 13&14: K06 West Falls Church – Common trough in Room 212

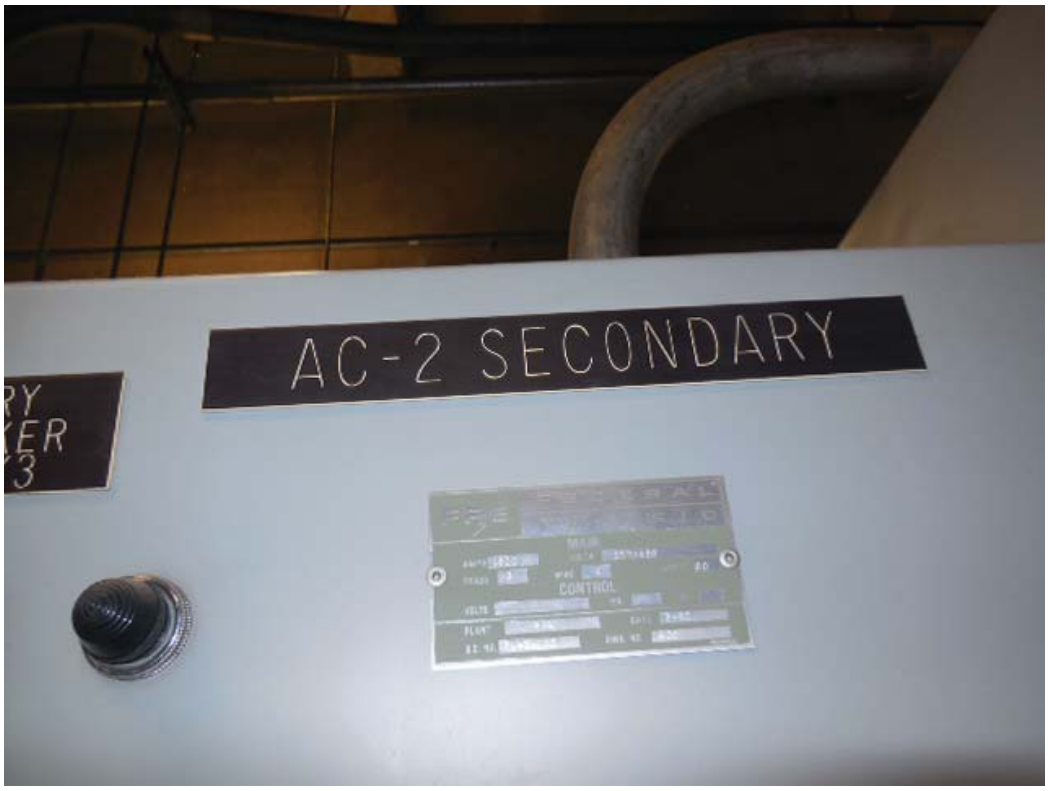
Picture 15: K06 West Falls Church – Control switch panel into common trough in Room 212

Pictures 16&17: K06 West Falls Church – Panels MHI & ML2 into common trough in Room 212

Pictures 18&19: K06 West Falls Church – Panels MLI & MMLI into common trough in Room 212

Picture 20: K06 West Falls Church – Panel POH2 into common trough in Room 212

Pictures 21&22: K06 West Falls Church – Switchboards AC-1 Secondary & AC-2 Secondary in Room 106

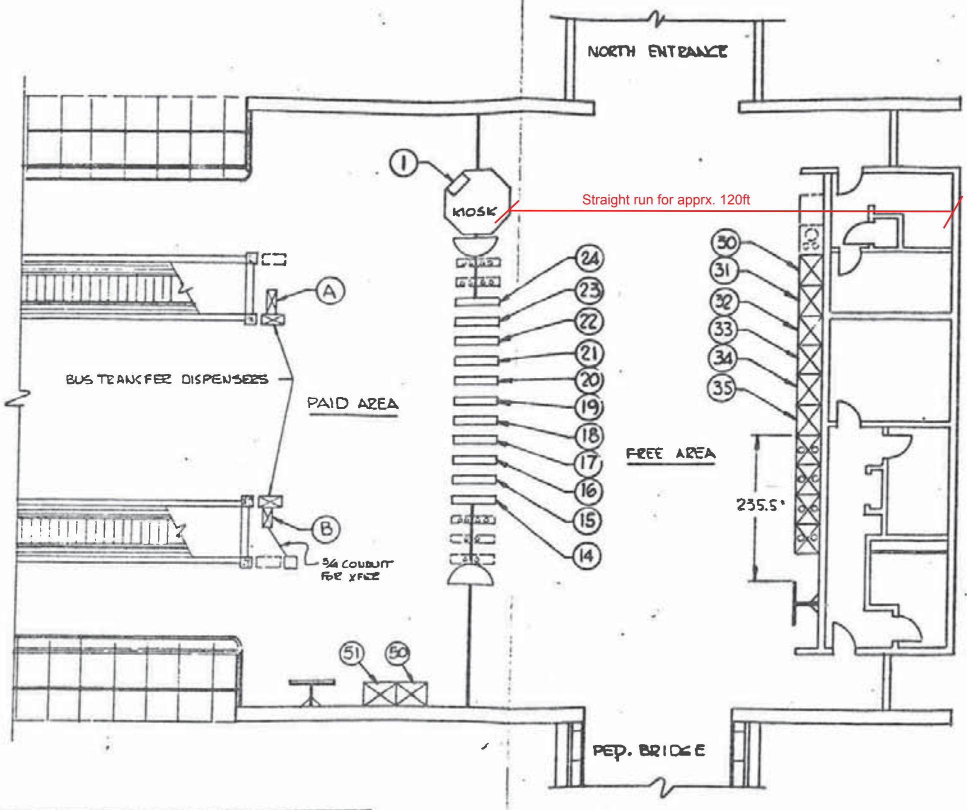


Picture 23: K06 West Falls Church – Essential switchboard in Room 106

Pictures 24&25: K06 West Falls Church – Panel board breakers FL-1 & MH-1 in Room 106

Picture 26: K06 West Falls Church – Panel board breaker POH2 in Room 106

Pre-Inspection Field Verification 11/20/2014



MEZZANINE PLAN

INSTALLATION AS BUILT

LOCATION NUMBER	MACHINE TYPE	SERIAL NUMBER	PANEL "FL1" CIRCUIT BREAKER NUMBER				WIRE SIZE AWG
A	XFER DISPENSER	SN 8640	1	KIOSK	22		
B	XFER DISPENSER	SN 8633	2	ADM 50	23	FG 22	
	EDADS	DS 8060	3	KIOSK	24		
4	EXIT GATE	GX4534	4	ADDFARE 51	25	FG 23	
5	REV. GATE	GR 7500	5	KIOSK	26		
6	REV. GATE	GR 7249	6	PV#50	27	FG 24	VHS 10GA
	REV. GATE	GR 7559	7	GATE 46	28		GATES 8GA
8	REV. GATE	GR 7521	8	PV 31	29	FUTURE	APM 8GA
	REV. GATE	GR 7527	9	GATE#15	30	XFER#1	
0	REV. GATE	GR 7568	10	PV 52	31	FUTURE	
1	REV. GATE	GR 7564	11	FG 16	32	"	
2	REV. GATE	GR 7532	12	PV 33	33	"	
3	REV. GATE	GR 7562	13	FG17	34		
	ENTRY GATE	GN 3537	14	PV 54	35	FUTURE	
0	FARECARD VEND	FV 1729	15	FG 18	36		
1	"	FV 1272	16	FV 55	37		
2	"	FV 1292	17	FG 19	38		
3	"	FV 1285	18		39		
4	"	FV 1282	19	FG 20	40		
5	"	FV 1719	20		41		
0	ADDFARE	AM 2710	21	FG 21	42		
1	ADDFARE	AM 2708					

M metro

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED AS CORRECTED

(RESUBMITTAL NOT REQUIRED)

Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements.

BY: ______________
For Contracting Officer

DATE:

CP2200TE-103-1-1

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. BREAK SHARP EDGES .010 MAX. TOLERANCES ON DECIMALS .XX ± .03 .XXX ± .010 ANGLES ± 0.5 DEG.

CONTRACT NUMBER

SIZE D REV A

DRAWING NUMBER 926-0455

SHEET 1 OF 1

CUBIC WESTERN DATA

TITLE WEST FALLS CHURCH STATION INSTALLATION PLAN

CODE IDENT NO. 57560

NOTICE OF PROPRIETARY RIGHTS IN DATA

THE DATA CONTAINED HEREIN IS PROPRIETARY TO CUBIC WESTERN DATA (CWD). THIS DATA SHALL NOT BE DUPLICATED, TRANSFERRED, MADE AVAILABLE, OR USED BY ANY THIRD PARTY FOR ANY PURPOSE EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY CWD.

926-0455

101

Pre-Inspection Field Verification 11/20/2014

EXISTING PANEL "FLI" ✓

AMPERES: 225			VOLTS: 120/208			MOUNTING: SURFACE					
MAINS: 225A MCB			PHASE: 3			LOCATION: ELEC. EQUIPMENT ROOM ~~210~~ 212					
RATING: 10K AIC			WIRE: 4			SECTION: 1 OF 1					
		CKT BKRS		CKT.		CKT.	CKT BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXIST. KIOSK LOAD CENTER (KES)	2.9	40	3	1	A - -	2	1	20	0.8	EXISTING VENDOR
	2.5	-	-	3	- B -	4	1	20	0.8	EXISTING VENDOR
	2.5	-	-	5	- - C	6	1	20	0.8	EXISTING VENDOR
✓ 1 NEW KIOSK RECEPT. (IT & NEPP)	0.8	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR
✓ 1&2 SPARE (KIOSK)	0.0	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.0	20	1	11	- - C	12	-	-	0.0	SPACE
EXISTING VENDOR	0.0	20	1	13	A - -	14	-	-	0.0	SPACE
EXISTING VENDOR	0.8	20	1	15	- B -	16	-	-	0.0	SPACE
EXISTING VENDOR	0.0	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.0	20	1	19	A - -	20	1	20	0.0	SPARE
EXISTING VENDOR	0.0	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	- - C	24	1	20	0.0	SPARE
EXISTING VENDOR	0.0	20	1	25	A - -	26	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.0	20	1	27	- B -	28	1	20	0.0	SPARE
SPARE	0.8	20	1	29	- - C	30	1	20	0.0	SPARE
SPARE	0.8	20	1	31	A - -	32	1	20	0.0	SPARE
SPARE	0.8	20	1	33	- B -	34	1	20	0.0	SPARE
SPARE	0.0	20	1	35	- - C	36	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	37	A - -	38	1	20	0.8	EXISTING VENDOR
SPACE	0.0	-	-	39	- B -	40	-	-	0.0	SPACE
SPACE	0.0	-	-	41	- - C	42	-	-	0.0	SPACE
SPACE	0.0	-	-	43	A - -	44	-	-	0.0	SPACE
SPACE	0.0	-	-	45	- B -	46	-	-	0.0	SPACE

NOTES: 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	3.2 x 50%		1.6 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**20.7 KVA**	**TOTAL DEMAND KVA**	**19.9 KVA**
		TOTAL DEMAND AMPS	**55.1 AMPS**
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	7.7 KVA		
PHASE B:	6.5 KVA		
PHASE C:	6.5 KVA		

NOTES:
A. EXISTING PANEL "FLI" IS FED FROM 277/480V, 3ø, 4W EXISTING SWBD. "SWBD #1" LOCATED IN AC SWBD 116, CIRCUIT (K06–SWBD1–01) #1–200/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM–K–E16).
B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
* 1–12"x12" WIRE TROUGH (WIRING FILL >40%).
EXISTING WIRING FED FROM TOP OF PANEL BY:
* 1–4" C. (WIRING FILL >40%).
* 1–3/4" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED C. NGO 11–14 DATE
DRAWN C. NGO 11–14 DATE
CHECKED B. IDLBI 11–14 DATE
APPROVED N/A DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

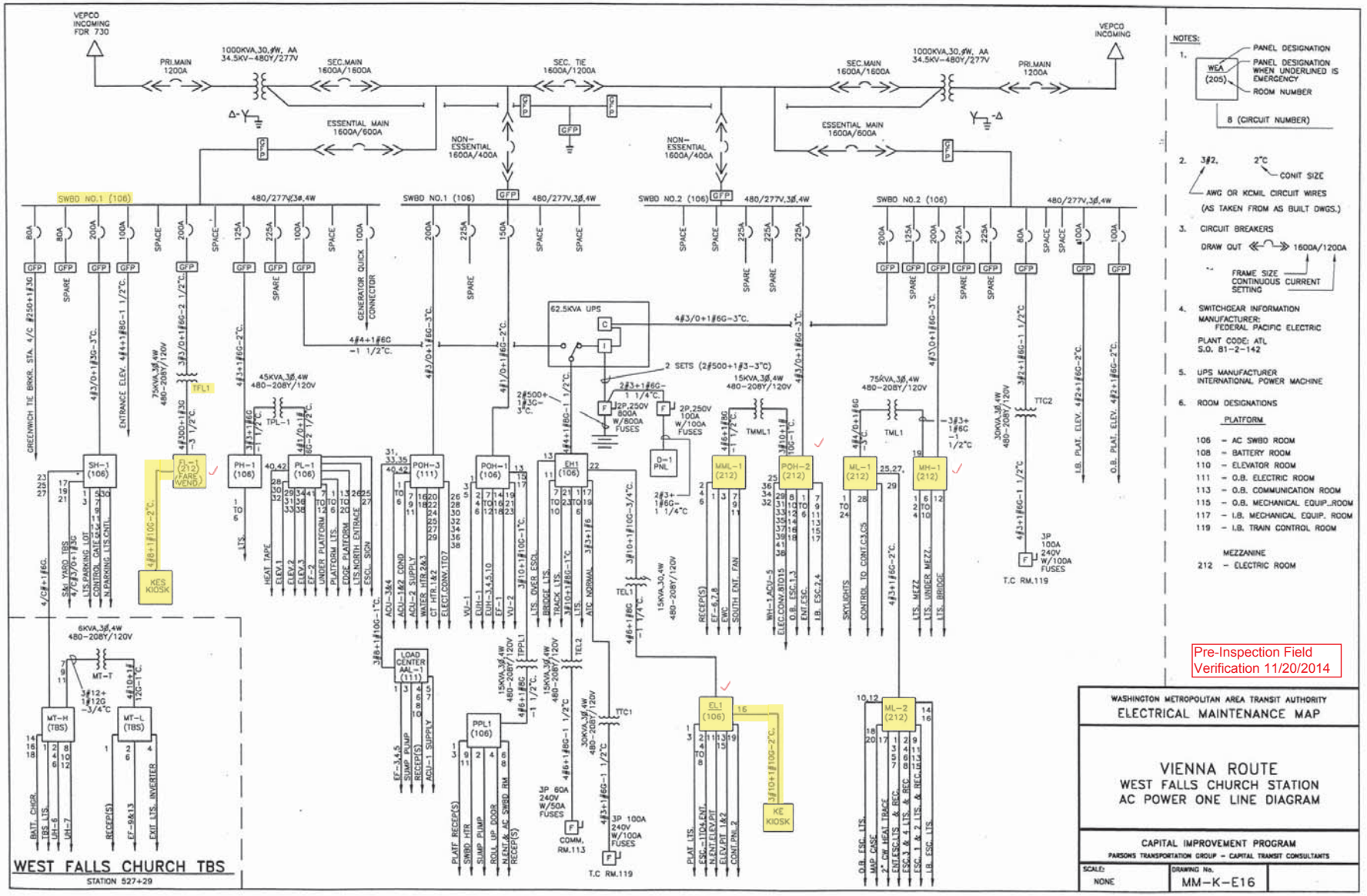
APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
WEST FALLS CHURCH
PANEL SCHEDULE

SCALE: NOT TO SCALE
DRAWING NO.: K06-E-102



NOTES:

1. WEA (205) — PANEL DESIGNATION; PANEL DESIGNATION WHEN UNDERLINED IS EMERGENCY; ROOM NUMBER; 8 (CIRCUIT NUMBER)
2. 3#2, 2"C — CONIT SIZE; AWG OR KCMIL CIRCUIT WIRES (AS TAKEN FROM AS BUILT DWGS.)
3. CIRCUIT BREAKERS — DRAW OUT; 1600A/1200A FRAME SIZE CONTINUOUS CURRENT SETTING
4. SWITCHGEAR INFORMATION
   MANUFACTURER: FEDERAL PACIFIC ELECTRIC
   PLANT CODE: ATL
   S.O. 81–2–142
5. UPS MANUFACTURER INTERNATIONAL POWER MACHINE
6. ROOM DESIGNATIONS

PLATFORM

106 – AC SWBD ROOM
108 – BATTERY ROOM
110 – ELEVATOR ROOM
111 – O.B. ELECTRIC ROOM
113 – O.B. COMMUNICATION ROOM
115 – O.B. MECHANICAL EQUIP..ROOM
117 – I.B. MECHANICAL EQUIP. ROOM
119 – I.B. TRAIN CONTROL ROOM

MEZZANINE

212 – ELECTRIC ROOM

Pre-Inspection Field Verification 11/20/2014

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

ELECTRICAL MAINTENANCE MAP

VIENNA ROUTE
WEST FALLS CHURCH STATION
AC POWER ONE LINE DIAGRAM

CAPITAL IMPROVEMENT PROGRAM

PARSONS TRANSPORTATION GROUP – CAPITAL TRANSIT CONSULTANTS

SCALE:	DRAWING No.
NONE	MM–K–E16

Pre-Inspection Mezzanine Walkthrough Checklist

Date: 11/20/2014	**Station Name:** Dunn Loring - K07	**Mezzanine #:** 102	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: Essential SWBD ES-2 Source Breaker Name/Number: "T-4" (Breaker #4) Electrical AFC Panel Name/Number: ESF-1	Rm 111 Rm 111 Rm 301	
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH and LOW Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		PLNT required for two handholes by faregates for scoping.
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduit/ducts on one level. Straight shot from AFC panel to Kiosk. Apprx. 35ft run.

Emergency Power Verification

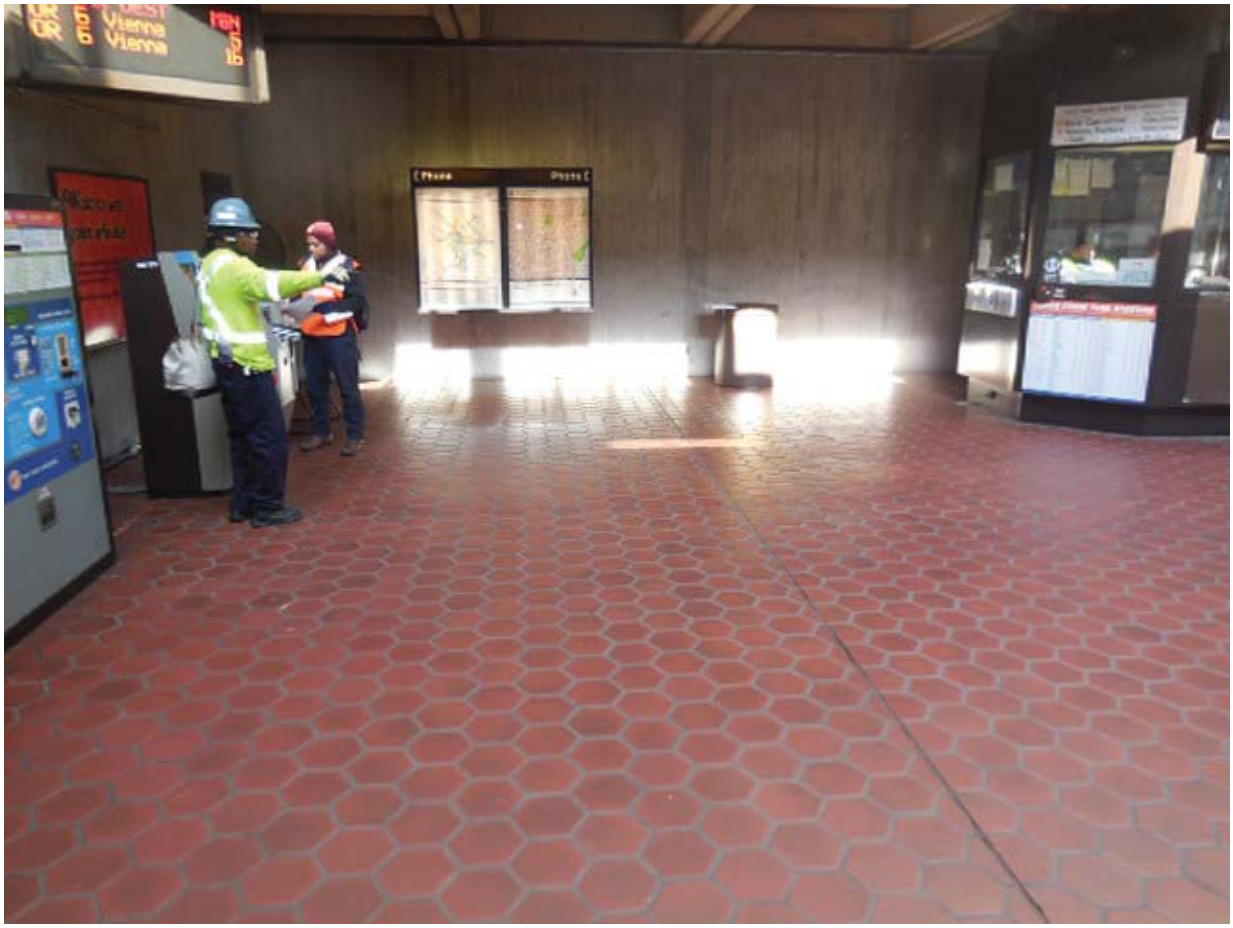
Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: EMM-2 Source Breaker Name/Number: Breaker #4 Panel Name/Number: KE (Kiosk Emergency Panel)	Rm 301 Rm 301 Kiosk	

Notes and Discrepancies:

Sign Off	**GFP Representative**	**WMATA PRGM**
Name:	Tino Sahoo	
Signature:	Tarmeen Sahoo	
Date:	11/20/2014	

Picture 1: K07 Dunn Loring – Handholes in Mezzanine

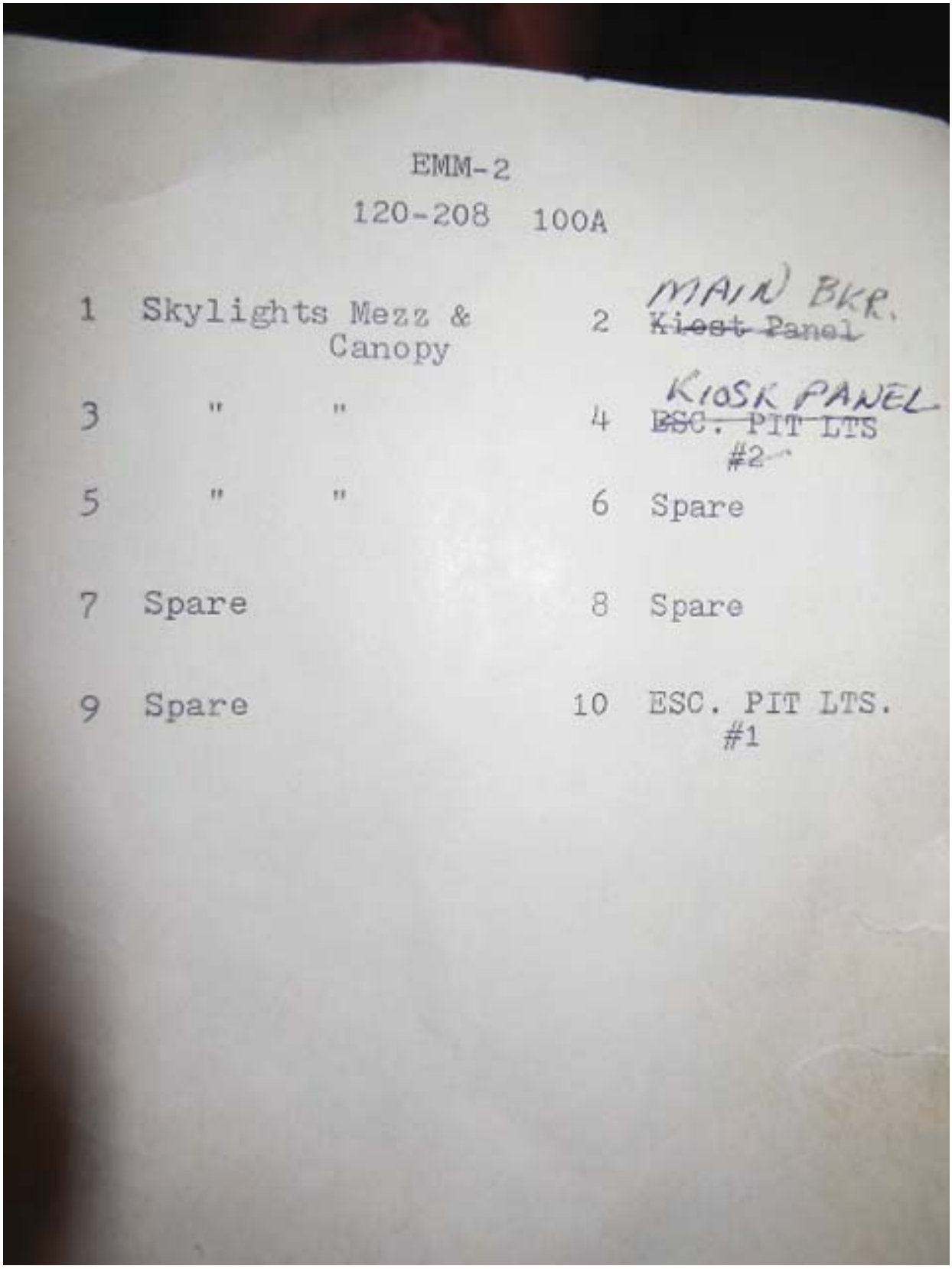
Picture 2: K07 Dunn Loring – Handholes in Mezzanine



Picture 3: K07 Dunn Loring – Emergency panel EMM-2 in Room 301

Pictures 4: K07 Dunn Loring – Emergency panel EMM-2 in Room 301 - Breaker 4

Pictures 5: K07 Dunn Loring – Emergency panel EMM-2 in Room 301 - Panel schedule



EMM-2

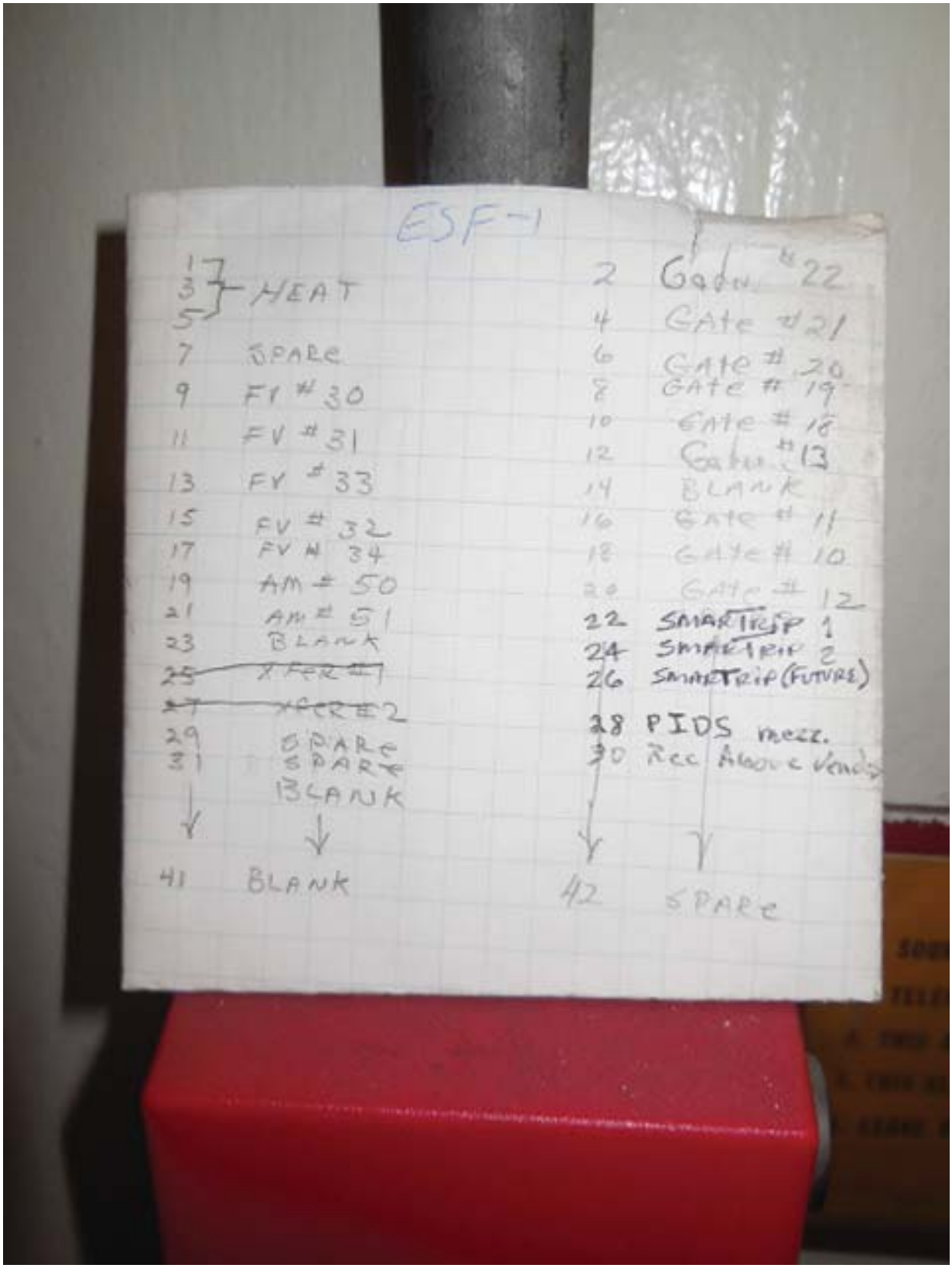
120-208 100A

1	Skylights Mezz & Canopy	2	MAIN BKR. ~~Kiost Panel~~
3	" "	4	KIOSK PANEL ~~ESC. PIT LTS~~ #2
5	" "	6	Spare
7	Spare	8	Spare
9	Spare	10	ESC. PIT LTS. #1

Picture 6: K07 Dunn Loring – AFC Panel ESF-1 in Room 301

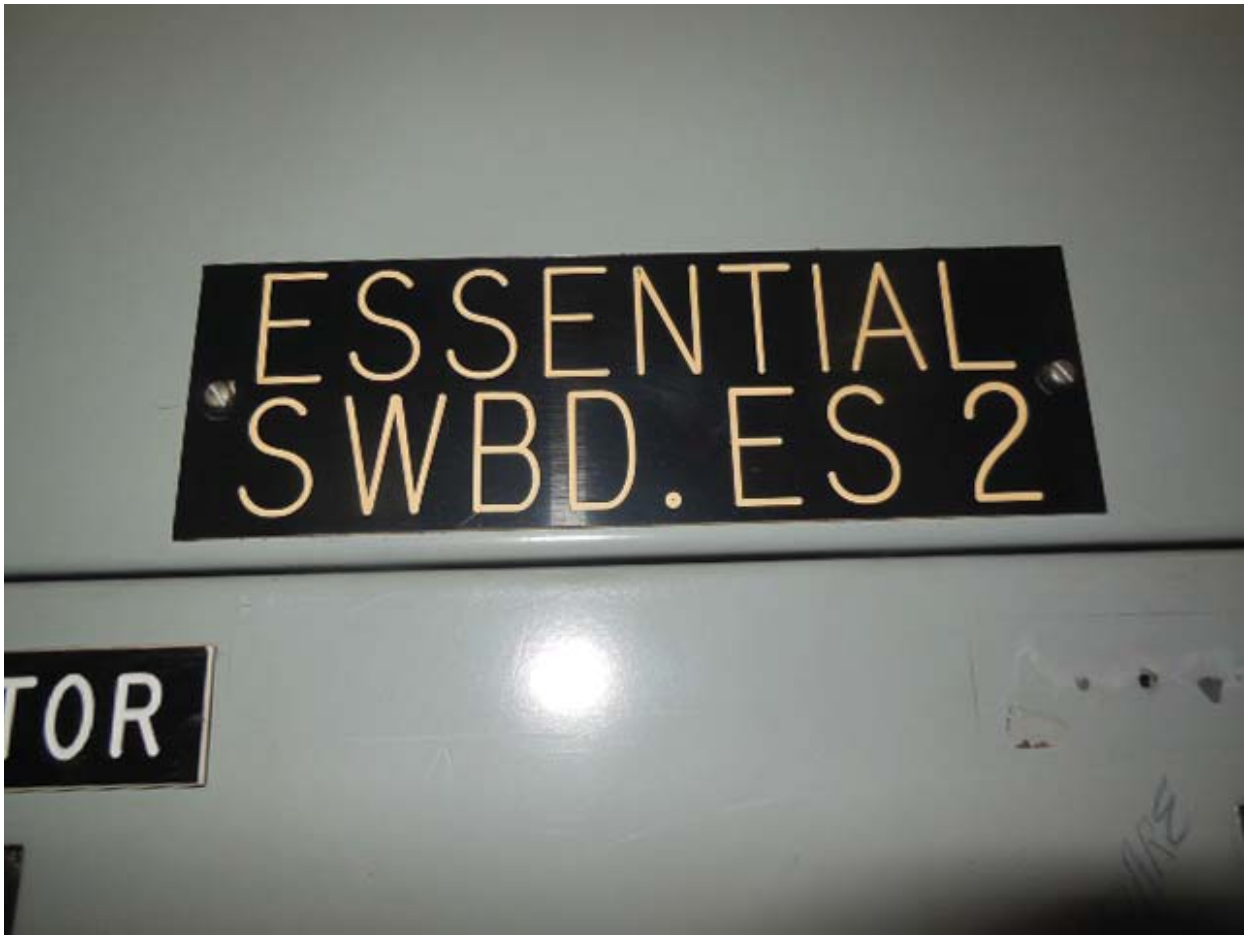
Picture 7: K07 Dunn Loring – AFC Panel ESF-1 in Room 301 – Bottom duct and conduits

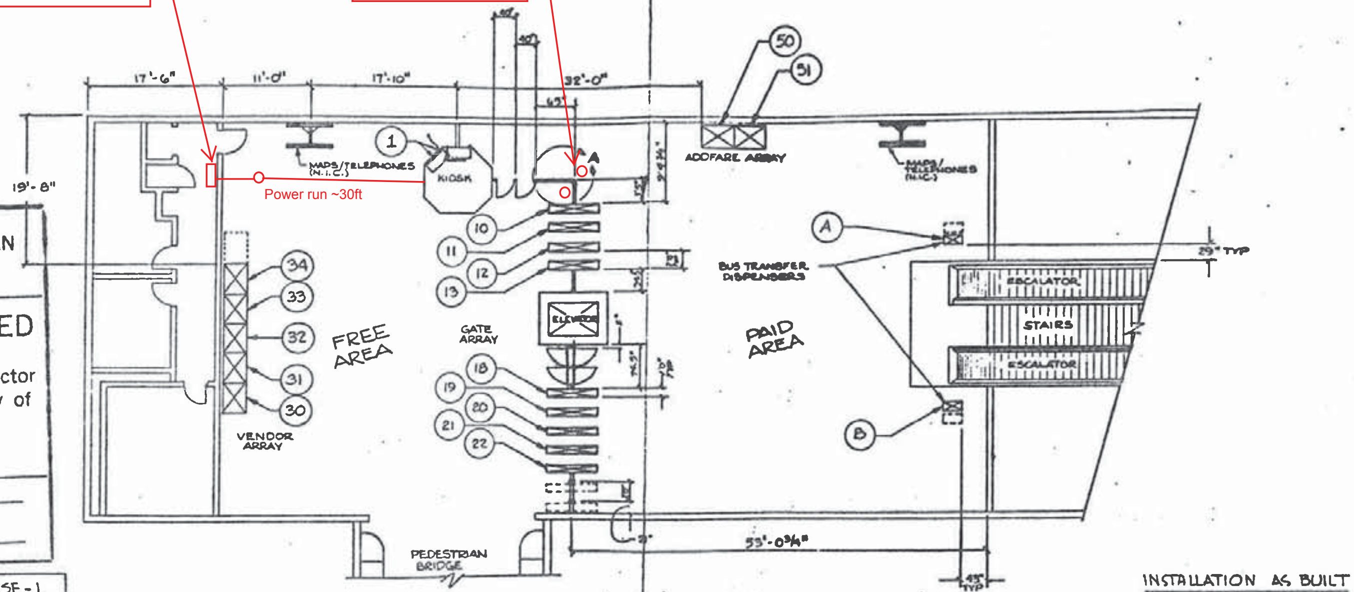
Picture 8: K07 Dunn Loring – AFC Panel ESF-1 in Room 301 – Panel schedule



Picture 9: K07 Dunn Loring – AFC source breaker ‘T-4’ in Room 111

Picture 10: K07 Dunn Loring – Essential SWBD ES-2 in Room 111





WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED AS CORRECTED
(RESUBMITTAL NOT REQUIRED)
Approval Does Not Relieve the Contractor of the Responsibility for the Accuracy of this Document or for Full Compliance with the Contract Requirements.

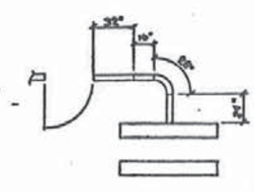
BY: ____ For Contracting Officer

DATE: ____

MEZZANINE PLAN

POSITION NUMBER	MACHINE TYPE	SERIAL NUMBER	PANEL* ESF-1 CIRCUIT BREAKER NUMBER				WIRE SIZE (AWG)
A	XFER DISPENSER	8634	1		22		
B	XFER DISPENSER	8631	2	FG 22	23		
1	EDADS	DS 8503	3		24		
10	EXIT GATE	GX 4505	4	FG 21	25	XFER* 1	
11	REV GATE	GR 7518	5		26		
12	REV GATE	GR 7519	6	FG 20	27	XFER* 2	
13	ENTRY GATE	GN 3502	7		28		
18	EXIT GATE	GX 4508	8	FG 19	29		VN 106A
19	REV GATE	GR 7511	9	FV 30	30		AF 86A
20	REV GATE	GR 7507	10	FG 18	31		FG'S 86A
21	REV GATE	GR 7516	11	FV 31	32		
22	ENTRY GATE	GN 3534	12		33		
30	FARECARD VEND	FV 1731	13	FV 33	34		
31	"	FV 1143	14		35		
32	"	FV 1179	15	FV 32	36		
33	"	FV 1175	16	FG 11	37		
34	"	FV 1345	17	FV 34	38		
50	ADDFARE	AM 2706	18	FG 10	39		
51	"	AM 2707	19	AM 50	40		
			20	FG 12	41		
			21	AM 51	42		

1. DELETE SERVICE GATES BY ELEVATOR
2. RE-LOCATE EDAD'S IN KIOSK
3. FARE GATE NO. 22 ON CIRCUIT BREAKER NO. 2



DETAIL A

CP-2E007E-104-#-1

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. BREAK SHARP EDGES .015 MAX

CUBIC WESTERN DATA

TITLE: DUNN LORING STATION INSTALLATION PLAN

CONTRACT NUMBER

SIZE D | REV A

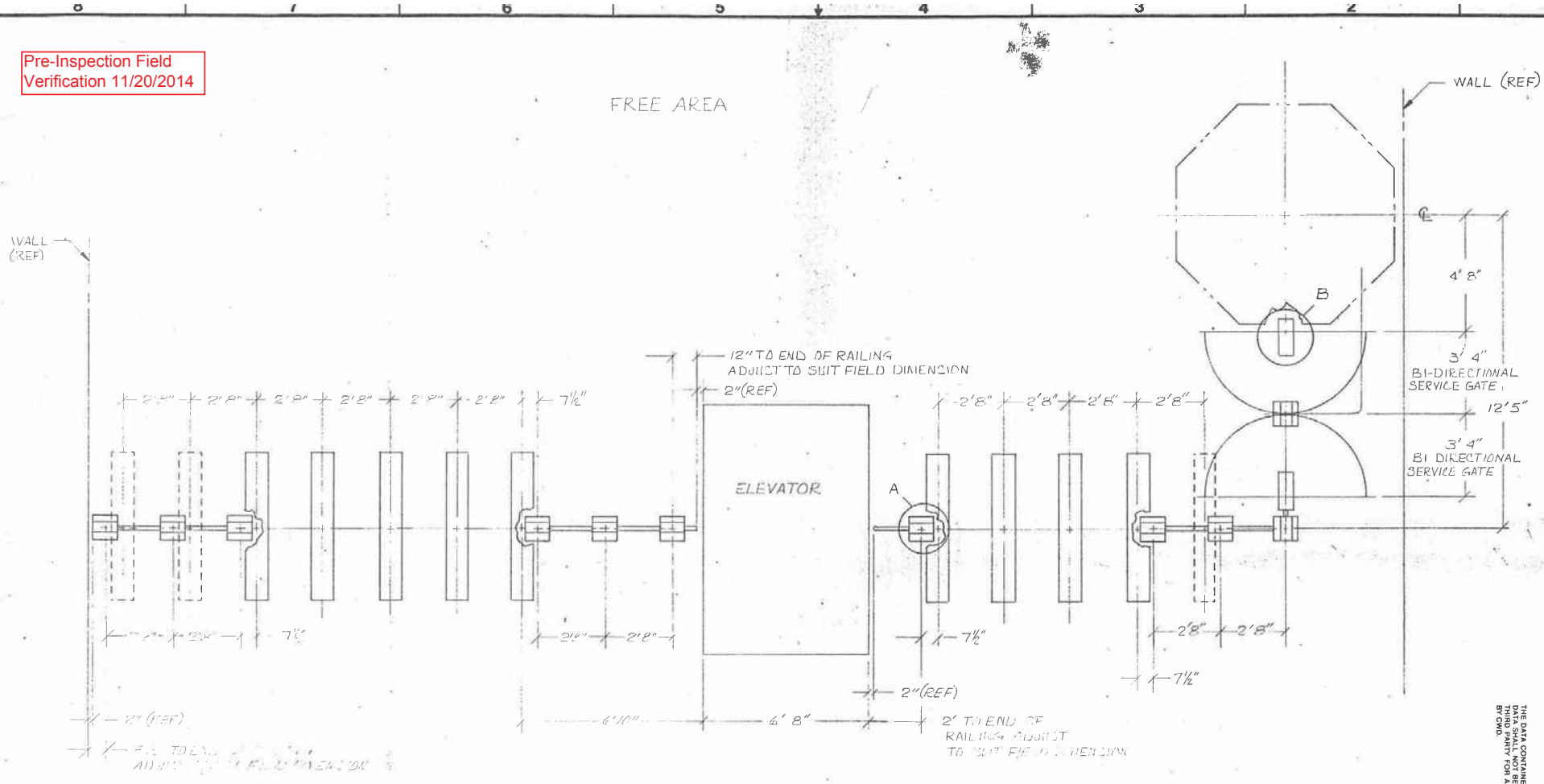
DRAWING NUMBER 926-0458

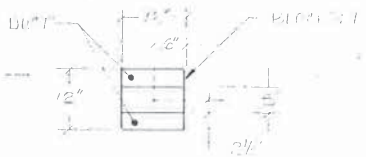
CODE IDENT NO. 57560

NOTICE OF PROPRIETARY RIGHTS IN DATA

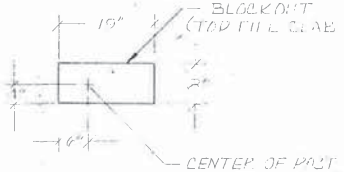
D 926-0458

Pre-Inspection Field Verification 11/20/2014





DETAIL A
2 PLACES
SCALE 1"=1'0"



DETAIL B
2 PLACE
SCALE 1"=1'0"

CUSTOMER COPY

JAN 10 1986

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
BREAK SHARP EDGES .010 MAX
DECIMALS: XX ± .03 XXX ± .010
TOLERANCES ON ANGLES: ± 0.5 DEG.
HOLES
.0135 THRU .125: +.004 -.001
.126 THRU .250: +.005 -.001
.251 THRU 1.000: +.010 -.001
.351 THRU .500: +.006 -.001
.501 THRU .750: +.008 -.001
SIZE D
SCALE NONE
CONTRACT NUMBER
REV #1
DRAWING NUMBER 3K926-0458
SHEET 1 OF 1

TITLE
DUNN LORING
SERVICE GATE AND RAILING

CUBIC WESTERN DATA
9650 KEARNY MESA ROAD • POST OFFICE BOX 80787 • SAN DIEGO, CA 92138

CODE IDENT NO. 57560

SIZE D
DRAWN: J. Lemmerz
ENGRG DESIGN:
DESIGN ACTIVITY APPROVAL
APPROVAL

3K926-0458

102

Pre-Inspection Field Verification 11/20/2014

EXISTING PANEL "ESF-1"

AMPERES: 175	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 175A MCB	PHASE: 3	LOCATION: FIRE EQUIPMENT CABINET ROOM 301	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

		CKT BKRS		CKT.		CKT.	CKT BKRS			
LOAD DESCRIPTION	KVA	AMP	POLE	NO.		NO.	POLE	AMP	KVA	LOAD DESCRIPTION
EXISTING LOAD CENTER "KES"	2.9	40	3	1	A - -	2	1	20	0.8	EXISTING VENDOR
	2.5	-	-	3	- B -	4	1	20	0.8	EXISTING VENDOR
	2.5	-	-	5	- - C	6	1	20	0.8	EXISTING VENDOR
SPARE	0.0	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	A - -	14	1	20	0.8	SPACE
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	19	A - -	20	1	20	0.0	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.0	EXISTING VENDOR
SPACE	0.0	-	-	23	- - C	24	1	20	0.0	EXISTING VENDOR
1 NEWKIOSK RECEPT. (IT &NEPP)	0.8	20	1	25	A - -	26	1	20	0.0	EXISTING VENDOR
1&2 SPARE (KIOSK)	0.0	20	1	27	- B -	28	1	20	0.0	EXISTING VENDOR
SPARE	0.0	20	1	29	- - C	30	1	20	0.0	EXISTING VENDOR
SPARE	0.0	20	1	31	A - -	32	1	20	0.0	SPARE
SPACE	0.0	-	-	33	- B -	34	1	20	0.0	SPARE
SPACE	0.0	-	-	35	- - C	36	-	-	0.0	SPACE
SPACE	0.0	-	-	37	A - -	38	-	-	0.0	SPACE
SPACE	0.0	-	-	39	- B -	40	-	-	0.0	SPACE
SPACE	0.0	-	-	41	- - C	42	-	-	0.0	SPACE

NOTES: 1. CONNECT NEWFEEDER TO EXISTING SPARE 20A, 1P C.B.
2. C.B. TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	4.0 x 50%		2.0 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	21.5 KVA	TOTAL DEMAND KVA	20.3 KVA
		TOTAL DEMAND AMPS	56.3 AMPS

CONNECTED LOAD PHASE SUMMARY	
PHASE A:	7.7 KVA
PHASE B:	7.3 KVA
PHASE C:	6.5 KVA

"Essential SWBD ES-2"

Breaker "T-4" (Breaker #4)

NOTES: A. EXISTING PANEL "ESF-1" IS FED FROM 277/480V, 3Ø, 4W EXISTING SWBD. ~~"ES-2"~~ LOCATED IN AC SWBD 111, ~~CIRCUIT (K07-ES2-03) #3~~ 125/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-K-E23).

B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 2-6 1/2"x 1 1/2" FLOOR DUCTS (WIRING FILL >40%).
- 2-3/4" C. (WIRING FILL >40%).
- 1-4" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 2-3/4" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED	C. NGO	11-14 DATE
DRAWN	C. NGO	11-14 DATE
CHECKED	B. IDLBI	11-14 DATE
APPROVED	N/A	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

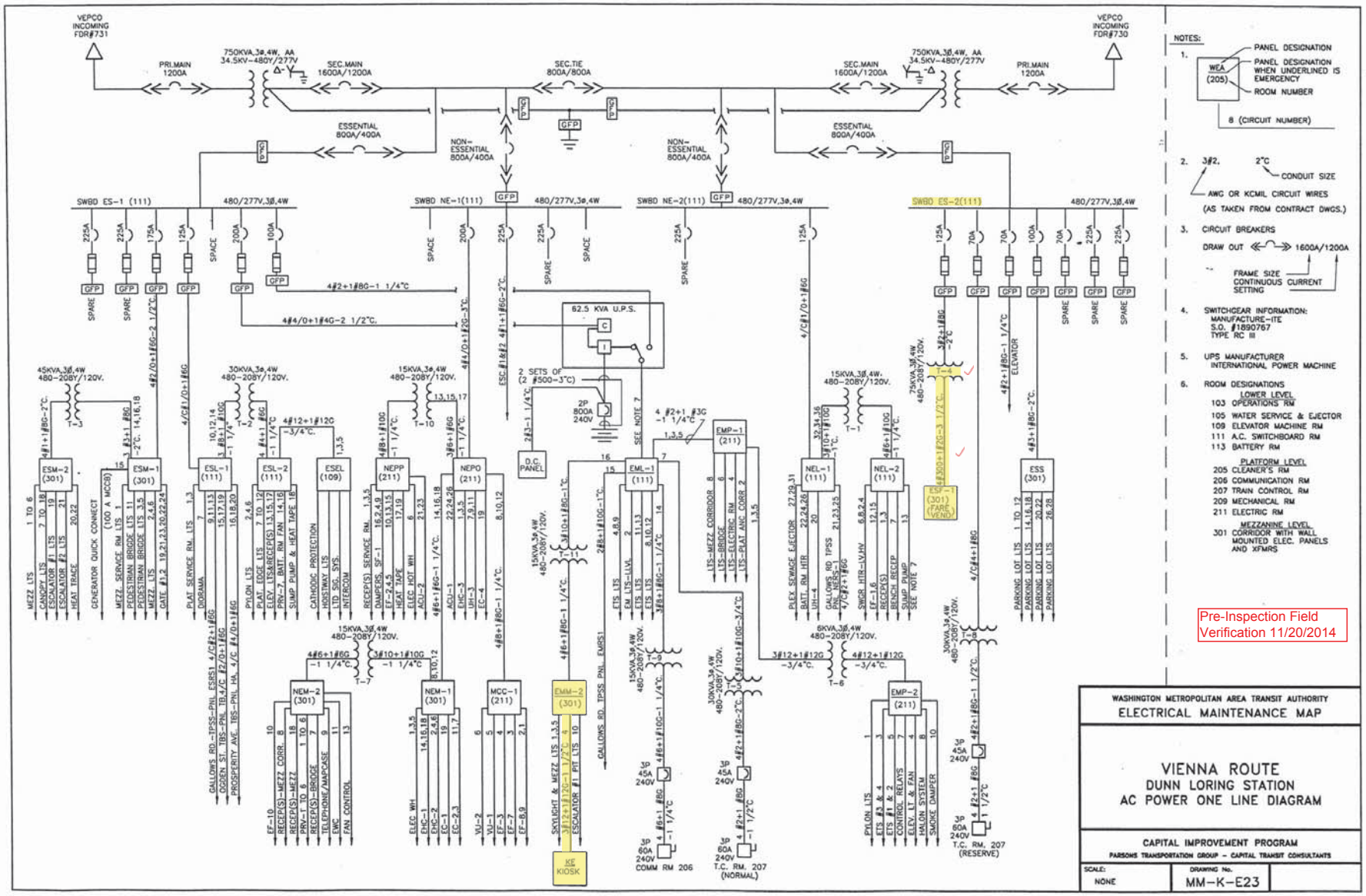
SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS

DUNN LORING
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO.: K07-E-102



NOTES:

1. WEA (205) — PANEL DESIGNATION; PANEL DESIGNATION WHEN UNDERLINED IS EMERGENCY; ROOM NUMBER; 8 (CIRCUIT NUMBER)
2. 3#2, 2"C — CONDUIT SIZE; AWG OR KCMIL CIRCUIT WIRES (AS TAKEN FROM CONTRACT DWGS.)
3. CIRCUIT BREAKERS — DRAW OUT; 1600A/1200A FRAME SIZE CONTINUOUS CURRENT SETTING
4. SWITCHGEAR INFORMATION: MANUFACTURE-ITE; S.O. #1890767; TYPE RC III
5. UPS MANUFACTURER INTERNATIONAL POWER MACHINE
6. ROOM DESIGNATIONS

LOWER LEVEL
103 OPERATIONS RM
105 WATER SERVICE & EJECTOR
109 ELEVATOR MACHINE RM
111 A.C. SWITCHBOARD RM
113 BATTERY RM

PLATFORM LEVEL
205 CLEANER'S RM
206 COMMUNICATION RM
207 TRAIN CONTROL RM
209 MECHANICAL RM
211 ELECTRIC RM

MEZZANINE LEVEL
301 CORRIDOR WITH WALL MOUNTED ELEC. PANELS AND XFMRS

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
ELECTRICAL MAINTENANCE MAP

VIENNA ROUTE
DUNN LORING STATION
AC POWER ONE LINE DIAGRAM

CAPITAL IMPROVEMENT PROGRAM
PARSONS TRANSPORTATION GROUP - CAPITAL TRANSIT CONSULTANTS

SCALE: NONE
DRAWING No. MM-K-E23

Pre-Inspection Mezzanine Walkthrough Checklist

Date: 11/20/2014	**Station Name:** Vienna - K08	**Mezzanine #:** 103	**Completed By:** Tino Sahoo

Check	Task	Equipment	Room ID	Notes
☑	Verify that electrical power design matches the field/record. Identify locations of the electrical equipment.	Electrical Source Panel Name/Number: ESS Main-2/ES-2 Source Breaker Name/Number: "TRANSF T-6 125A" Electrical AFC Panel Name/Number: ESLFMV	Rm 106 Rm 106 Rm 406	As-built shows SWBD labeled as ES-2, but in field it is labeled as ESS Main-2.
☑	Verify if disconnect switch is connected to the AFC electrical power panel. Low or High voltage SMNT/POWR escorts requirements?	Disconnect Name/Number: SMNT/POWR escorts: HIGH and LOW Voltage		
☑	Check if there is a shared raceway between AFC Panel and Kiosk and identify additional source panels to be de-energized.	Do AFC Panel loads feed into a shared raceway e.g. trench or trough? If Yes, specify source panels in notes. NO		
☑	Identify the assumed pathway of duct / conduit, the location of the handholes, manholes and boxes and accessibility or special escort requirement?	PLNT ☑ COMM / IT ☐ ELES ☐ RAIL ☐ CMNT ☐ Other Access/Support:		
☑	Identify handhole or manhole access requirement.	Required PLNT Mason for handhole/manhole access? YES (see notes) Identified Conduit/Duct Transition to mezzanine level? YES		All conduits/ducts on one level.

Emergency Power Verification

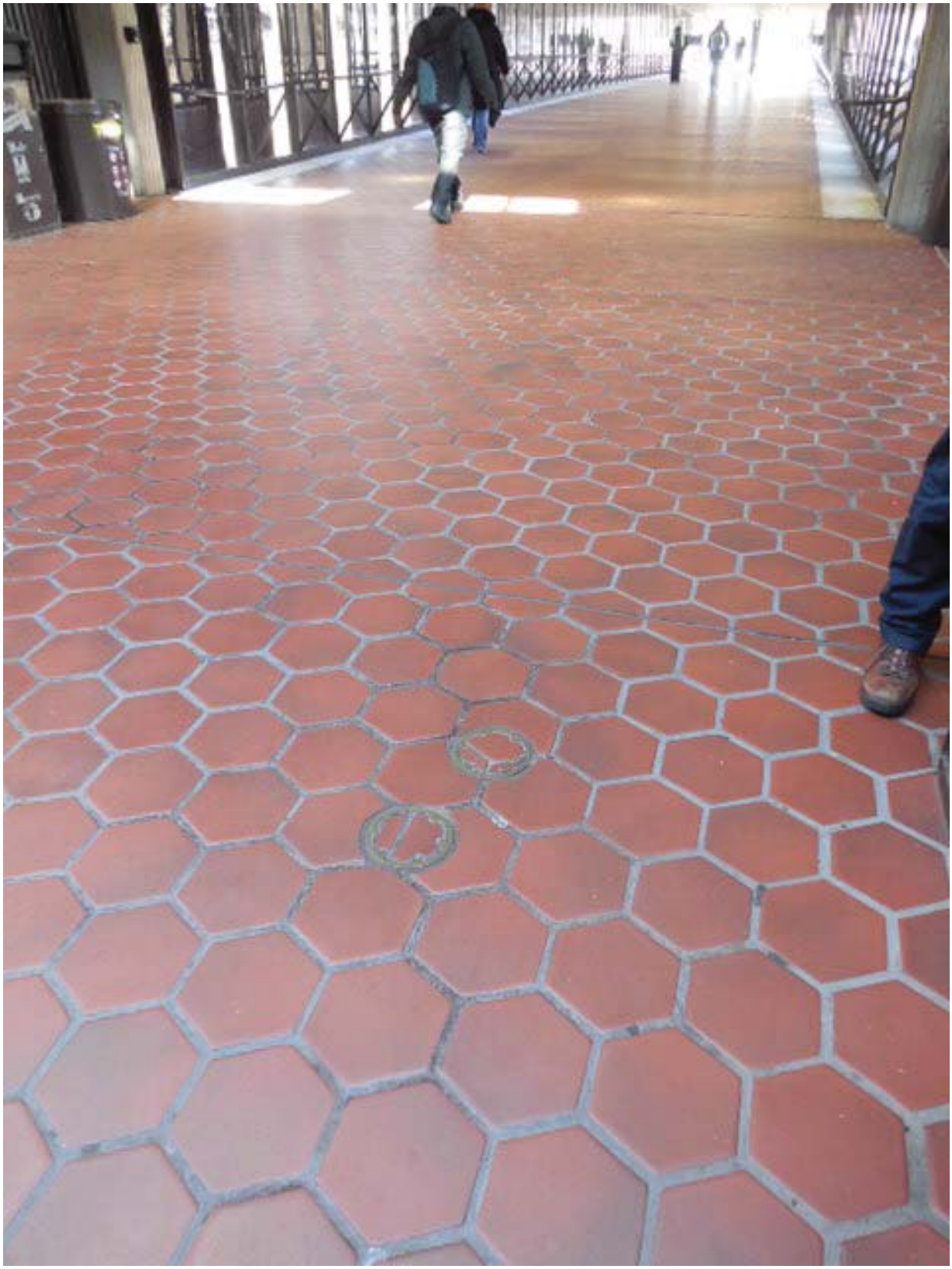
Check	Task	Equipment	Room ID	Notes
☑	Verify if AFC electrical panel is connected to an Automatic Transfer Switch (ATS).	ATS Name/Number:		
☑	Verification of Kiosk Emergency Panel(s) (KE, KES, KESS, etc)	Source Panel Name/Number: ELIV1 Source Breaker Name/Number: Breaker #6 Panel Name/Number: KE (Kiosk)	Rm 202 Rm 202 Kiosk	

Notes and Discrepancies:

Sign Off	GFP Representative	WMATA PRGM
Name:	Tino Sahoo	
Signature:	Tarmina Sahoo	
Date:	11/20/2014	

Picture 1: K08 Vienna – Handholes in Mezzanine

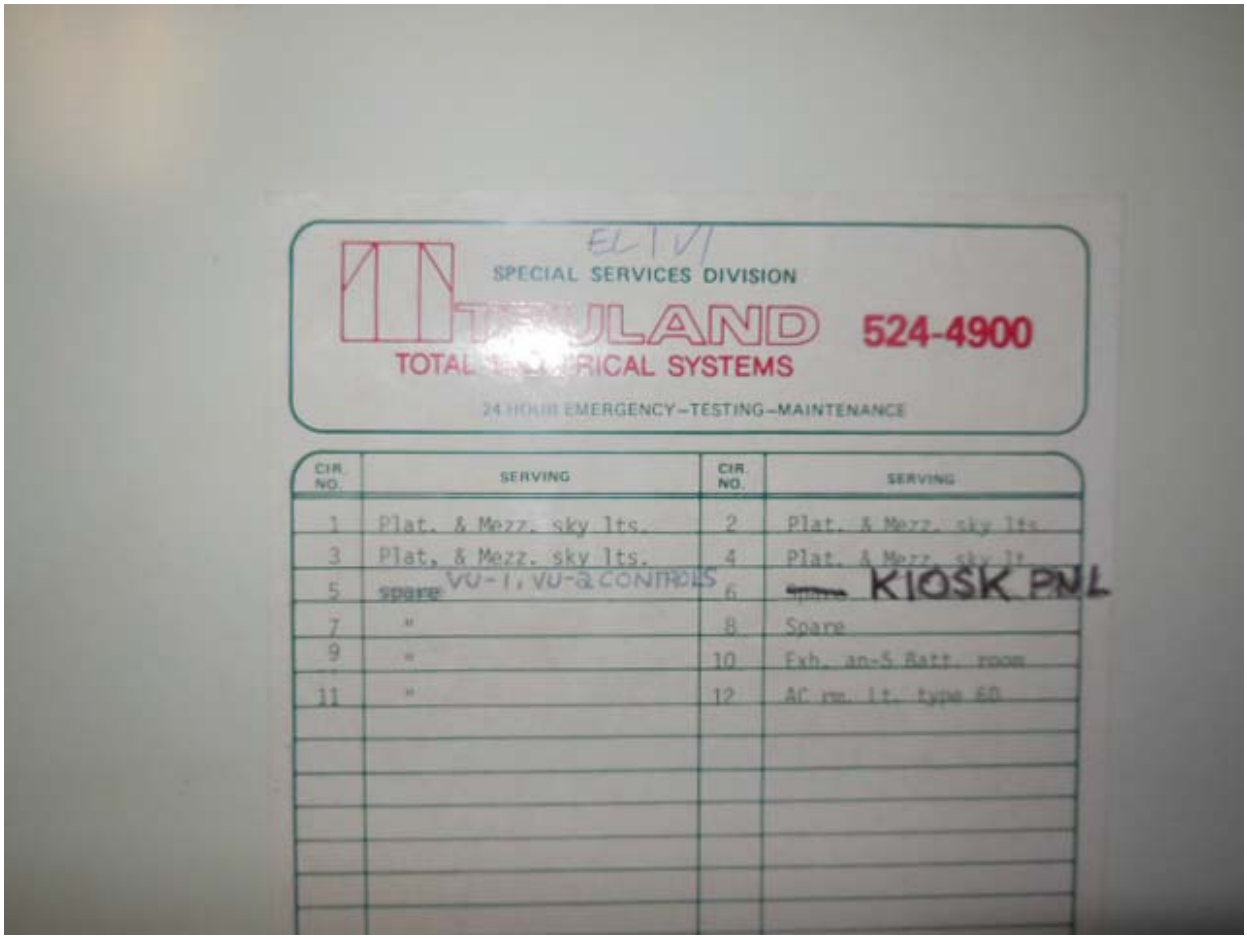
Picture 2: K08 Vienna – Handholes in Mezzanine



Picture 3: K08 Vienna – Emergency panel ELIVI in Room 202

Pictures 4: K08 Vienna – Emergency panel ELIVI in Room 202 - Breaker 6

Pictures 5: K08 Vienna – Emergency panel ELIVI in Room 202 - Panel schedule



ELIVI

SPECIAL SERVICES DIVISION

TEELAND 524-4900

TOTAL ELECTRICAL SYSTEMS

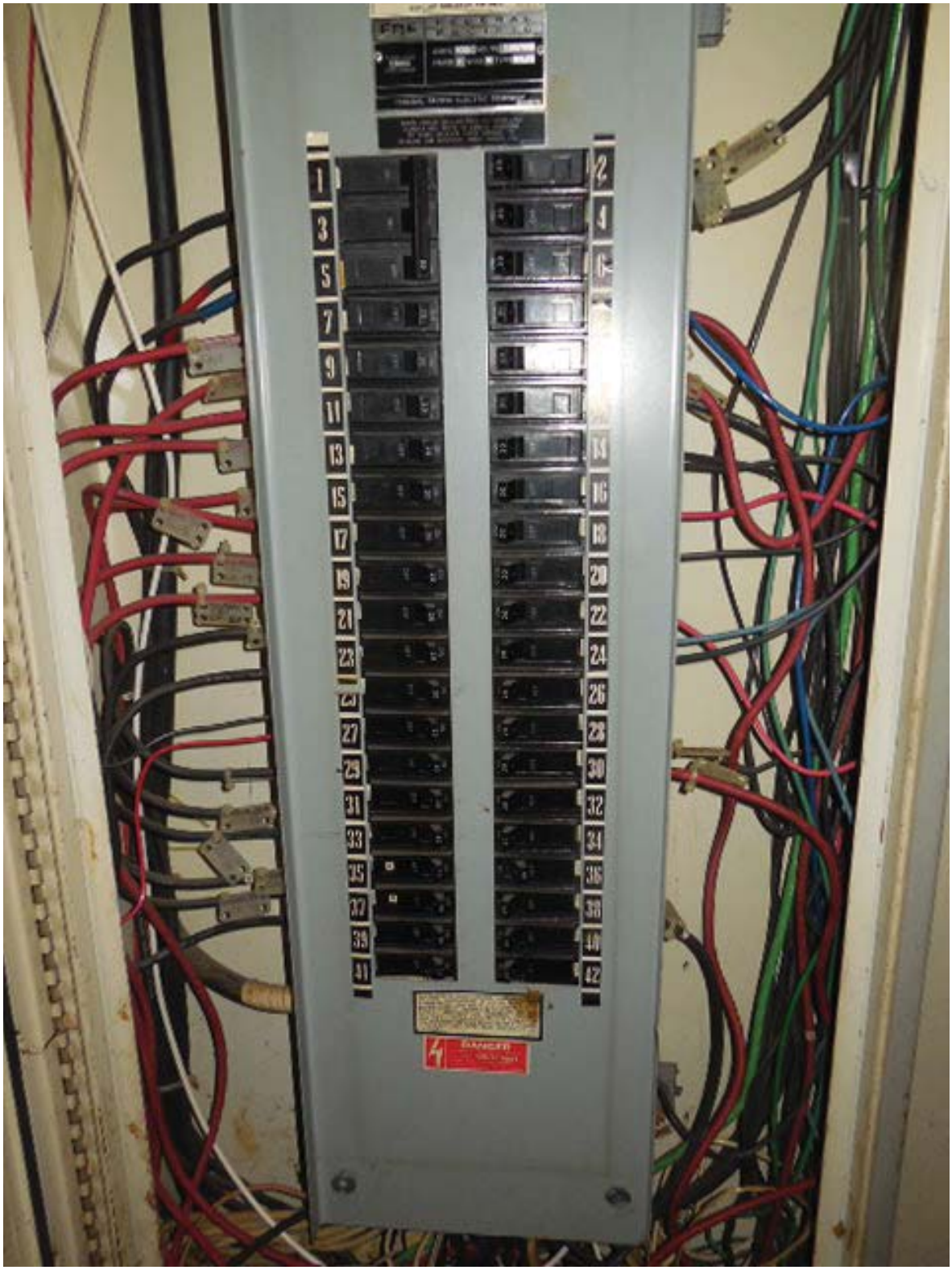
24 HOUR EMERGENCY–TESTING–MAINTENANCE

CIR. NO.	SERVING	CIR. NO.	SERVING
1	Plat. & Mezz. sky lts.	2	Plat. & Mezz. sky lts.
3	Plat. & Mezz. sky lts.	4	Plat. & Mezz. sky lt
5	~~spare~~ VU-1, VU-a CONTROLS	6	~~spare~~ KIOSK PNL
7	"	8	Spare
9	"	10	Exh. an-5 Batt. room
11	"	12	AC rm. lt. type 60

Picture 6: K08 Vienna – AFC Panel ESLFMV in Room 406

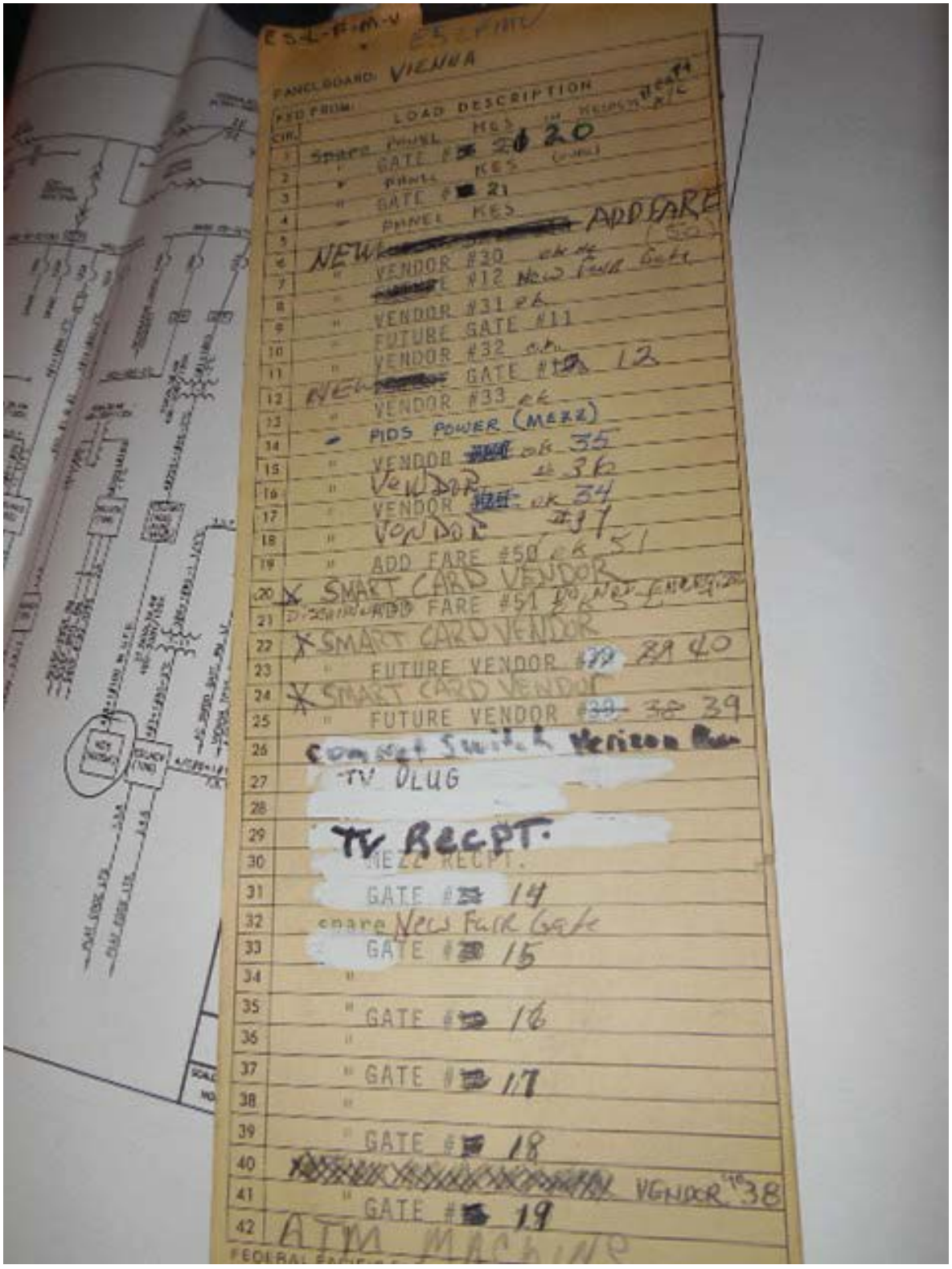
Picture 7: K08 Vienna – AFC Panel ESLFMV in Room 406

Picture 8: K08 Vienna – AFC Panel ESLFMV in Room 406



Picture 9: K08 Vienna – AFC Panel ESLFMV in Room 406 – Bottom duct and conduits

Picture 10: K08 Vienna – AFC Panel ESLFMV in Room 406 – Panel schedule

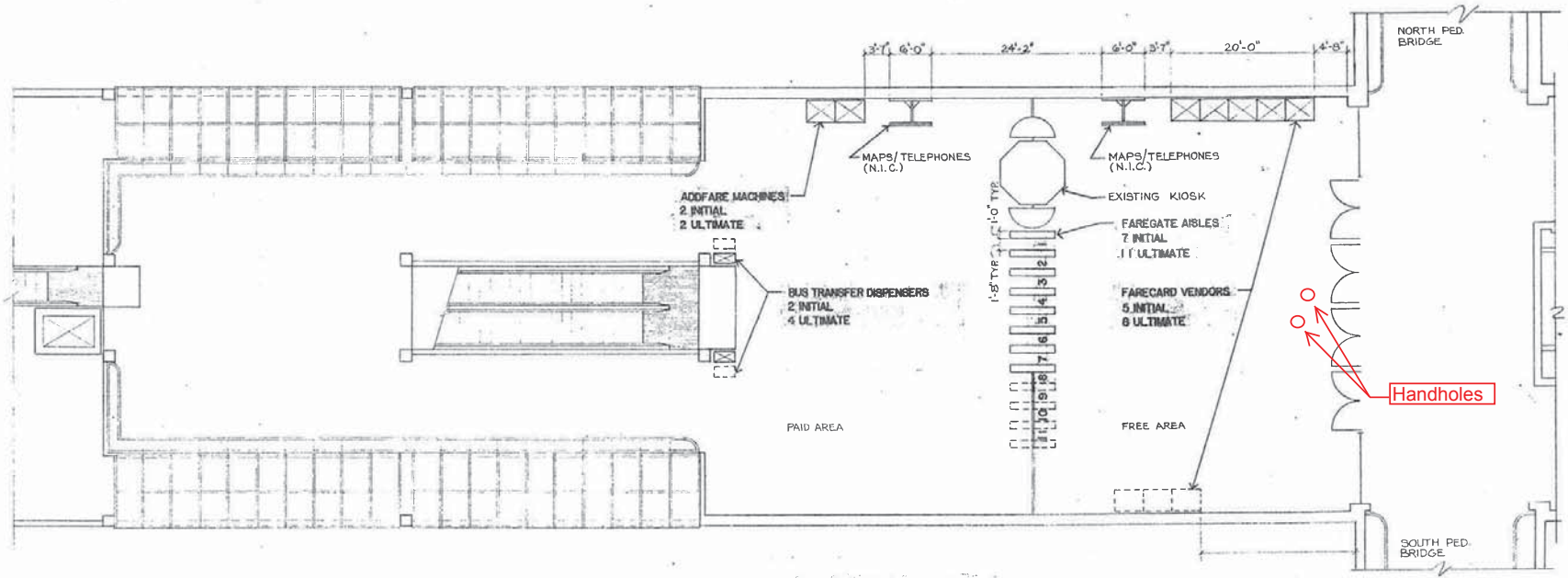


Picture 11 K08 Vienna – Essential SWBD in Room 106

Picture 12 K08 Vienna – ESS Main-2 400A in Room 106

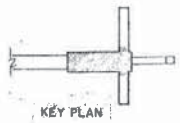
Picture 13 K08 Vienna – TRANSF T-6 125A in Room 106

Pre-Inspection Field Verification 11/20/2014



MEZZANINE PLAN

Room 406 on mezzanine



DESIGNED	HWA	11-10-82	DATE
DRAWN	GBO	11-10-82	DATE
CHECKED			DATE
APPROVED			

REFERENCE DRAWINGS		REVISIONS		
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
		7-11-24	KAK	1 EMERGENCY EXIT GATE ADDED

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WMATA
APPROVED _____ DIRECTOR OF ARCHITECTURE
APPROVED _____

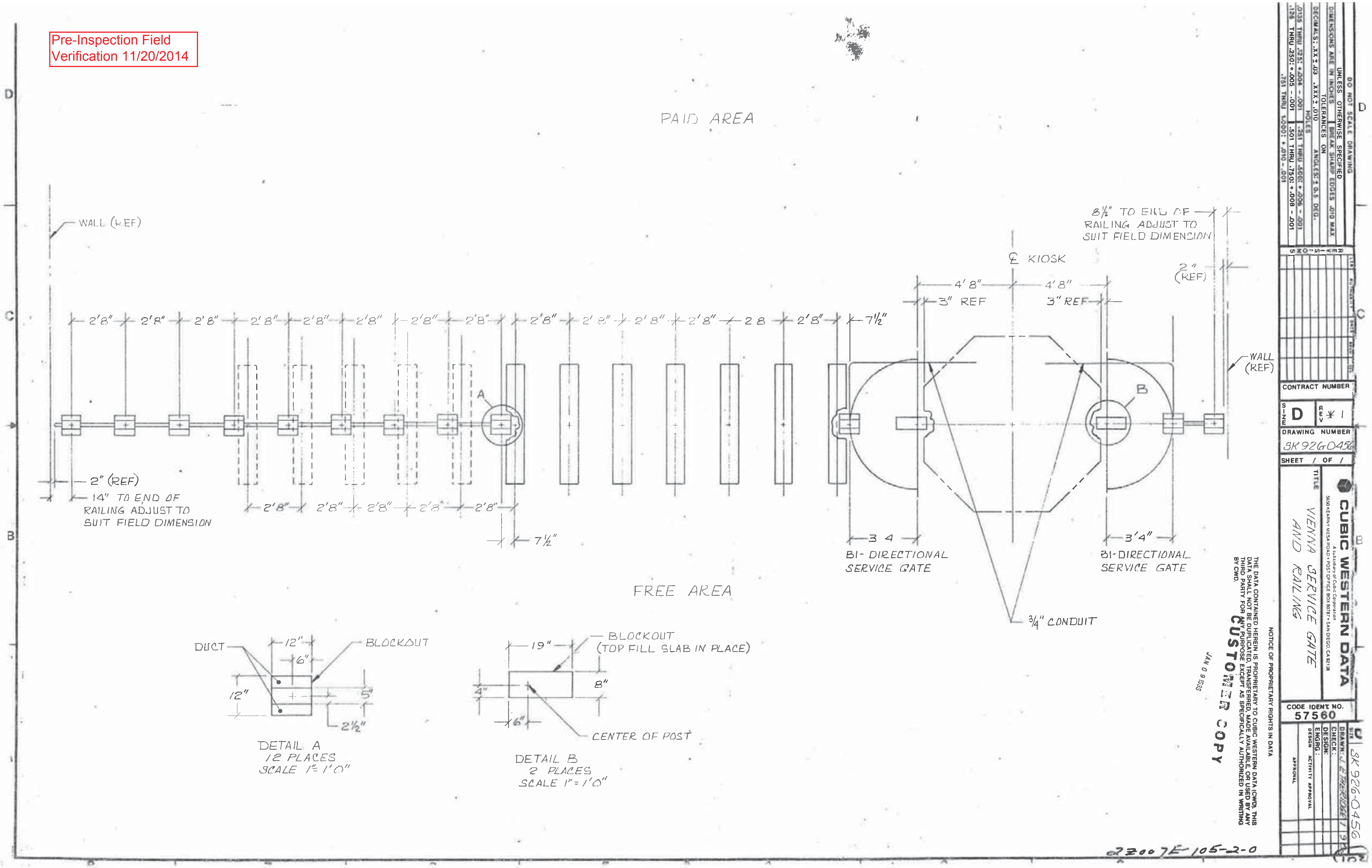
DE LEUW, GATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

VIENNA STATION
AFC EQUIPMENT LAYOUT

SCALE 1" = 0 2 4 6 8 10

DRAWING NO. 103

Pre-Inspection Field
Verification 11/20/2014



Pre-Inspection Field Verification 11/20/2014

EXISTING PANEL "ESLFMV" ✓

AMPERES: 400	VOLTS: 120/208	MOUNTING: SURFACE	
MAINS: 300A MCB	PHASE: 3	LOCATION: ROOM 406 ✓	
RATING: 10K AIC	WIRE: 4	SECTION: 1 OF 1	

LOAD DESCRIPTION	KVA	CKT BKRS AMP	CKT BKRS POLE	CKT. NO.		CKT. NO.	CKT BKRS POLE	CKT BKRS AMP	KVA	LOAD DESCRIPTION
EXIST. KIOSK LOAD CENTER (KES)	2.9	50	3	1	A - -	2	1	20	0.8	EXISTING VENDOR
	2.5	-	-	3	- B -	4	1	20	0.8	EXISTING VENDOR
	2.5	-	-	5	- - C	6	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	7	A - -	8	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	9	- B -	10	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	11	- - C	12	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	13	A - -	14	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	15	- B -	16	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	17	- - C	18	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	19	A - -	20	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	21	- B -	22	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	23	- - C	24	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	25	A - -	26	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	27	- B -	28	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	29	- - C	30	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	31	A - -	32	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	33	- B -	34	1	20	**8.0**	NEW KIOSK RECEPT. (IT & NEPP) 1 ✓
EXISTING VENDOR	0.8	20	1	35	- - C	36	1	20	**0.0**	SPARE (KIOSK) 1&2 ✓
EXISTING VENDOR	0.8	20	1	37	A - -	38	1	20	0.0	SPARE
EXISTING VENDOR	0.8	20	1	39	- B -	40	1	20	0.8	EXISTING VENDOR
EXISTING VENDOR	0.8	20	1	41	- - C	42	1	20	0.8	EXISTING VENDOR

NOTES: 1. CONNECT NEW FEEDER TO EXISTING SPARE 20A, 1P CB
2. CB TO BE RESERVED FOR FUTURE AFC

LOAD SUMMARY

LIGHTS	0.0 x 125%		0.0 KVA
RECEPTACLES, FIRST 10 KVA	10.0 x 100%		10.0 KVA
RECEPTACLES	26.4 x 50%		13.2 KVA
MISC. APPLIANCES	0.0 x 100%		0.0 KVA
LARGEST MOTOR	0.0 x 125%		0.0 KVA
MOTORS	0.0 x 100%		0.0 KVA
HEAT	3.0 x 125%		3.8 KVA
AC	4.5 x 100%		4.5 KVA
WATER HEATING	0.0 x 125%		0.0 KVA
TOTAL CONNECTED LOAD	**43.9 KVA**	**TOTAL DEMAND KVA**	**31.5 KVA**
		TOTAL DEMAND AMPS	**87.4 AMPS**
CONNECTED LOAD PHASE SUMMARY			
PHASE A:	12.5 KVA		
PHASE B:	19.3 KVA		
PHASE C:	12.1 KVA		

ESS Main-2

NOTES: A. EXISTING PANEL "ESLFMV" IS FED FROM 277/480V, 3ø, 4W EXISTING SWBD. "ES-2" LOCATED IN AC SWBD 106, ~~CIRCUIT (K08-ES2-08)~~ #6-125/3P VIA 75KVA TRANSFORMER (SEE ATTACHED DWG. MM-K-E26).

"TRANSF T-6 125A"

Breaker

B. EXISTING WIRING FED FROM BOTTOM OF PANEL BY:
- 2-6 1/2"x 1 1/2" FLOOR DUCTS (WIRING FILL >40%).
- 4-3/4" C. (WIRING FILL >40%).

EXISTING WIRING FED FROM TOP OF PANEL BY:
- 2-3/4" C. (WIRING FILL >40%).

CONTRACT NO. 14-FQ10060-CENI-24

DESIGNED	C. NGO	11-14 DATE
DRAWN	C. NGO	11-14 DATE
CHECKED	B. IDLBI	11-14 DATE
APPROVED	N/A	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED _____

GFP A Gannett Fleming/Parsons JOINT VENTURE

SUBMITTED _____ PROJECT MANAGER

NEW ELECTRONIC PAY PROGRAM (NEPP) IN METRORAIL STATIONS
VIENNA
PANEL SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO.: K08-E-102