

Mezzanine Inspection Report

REVISION 1

Date: 12/12/2014	Station Name: C13 King Street South	Mezzanine #: 048	Completed By: Chris Loose
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Summary

Video scoping and pull string installation was successfully completed in the communication ducts for the upper and lower faregate arrays. Video scoping was completed in the power ducts for the upper and lower faregate arrays. Video scoping and pull string installation was not completed in the power run between the kiosk and the AFC panel. The duct was at capacity between the kiosk and handhole 1 and from handhole 1 to handhole 2. The duct was scoped from handhole 2 to approximately 30' beyond the door leading to the backrooms before hitting a 90 degree bend in the floor that drops down to the lower level where the AFC panel is. Pull string was not installed as rodding could not be completed past the 90 degree bend.

Scanning was completed at this station. A proposed in-floor duct route with a transition to conduit is included in this report. The proposed duct will run almost parallel to the existing duct, running on the opposite side of the column on the mezzanine floor. The proposed duct will run into the backrooms through doorway and then will transition to a proposed conduit via a proposed handhole. The conduit will run vertically up the wall and along the corridor. The proposed conduit will then drop vertically down and will be core drilled into the floor until it reaches the AFC panel in the room below.

Photos and drawings are for reference purposes only; see new schematic drawing/proposed pathway on last page.

Task	Yes/No	Notes
Communications Duct – Upper Faregate Array (5 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA King St. South Upper Comm 6inch Duct Video.avi and WMATA King St. South Upper Comm 3inch Duct Video.avi files.
Were pull strings installed at all faregates in the array?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	Minor dust and debris
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	3" duct, less than 15 wires
Communications Duct - Lower Faregate Array (5 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA King St. South Lower Comm 6inch Duct Video.avi and WMATA King St. South Lower Comm 3inch Duct Video.avi files.
Were pull strings installed at all faregates in the array?	Yes	
Were there any obstructions or blockages? Provide details of type and specific location.	No	Minor dust and debris
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	3" duct, less than 15 wires
Power Duct - Upper Faregate Array (5 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA King St. 6inch Upper Power Faregates Video.avi file.
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6" duct, less than 15 wires
Power Duct - Lower Faregate Array (5 Gates)		
Was video scoping completed for the entire duct run?	Yes	Refer to WMATA King St. 6inch Lower Power Faregates Video.avi file.
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct at capacity? Provide additional details about the dimensions of ducts and number of wires.	No	6" duct, less than 15 wires


Scoping of Power Duct - Kiosk to AFC Panel		
Task	Yes/No	Notes
Kiosk to Handhole 1 (80' run)		
Was video scoping completed for the entire duct / conduit run?	No	Scoping could not be completed past the 45 degree bend in duct run. Refer to WMATA King St. 6inch Power Kiosk to 45 degree Bend Video.avi file.
Was pull string installed?	No	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	Yes	6 inch duct with more than 60% capacity - video file shows that there are large clusters of wires causing obstruction at bends.
Handhole 1 to Handhole 2 (20' run)		
Was video scoping completed for the entire duct / conduit run?	No	Scoping could not be completed past the 45 degree bends between handholes. Refer to WMATA King St. 6inch Power HH1 to HH2 Video.avi file.
Was pull string installed?	No	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	Yes	6 inch duct at more than 60% capacity - video file shows that there are large clusters of wires causing obstruction at bends.
Handhole 2 to AFC Panel (50' run)		
Was video scoping completed for the entire duct / conduit run?	No	Could not complete scoping past 90 degree bend in floor to the lower level.
Was pull string installed?	No	
Were there any obstructions or blockages? Provide details of type and specific location.	No	
Is the duct / conduit at capacity? Provide additional details about the dimensions of duct / conduit and number of wires.	Yes	6 inch duct with more than 50% capacity.
Observations / Issues / Next Steps		
<p>Total existing power duct run is approximately 150'</p> <p>Total proposed power run is approximately 100' of duct and 65' of conduit for a total of 165'</p> <p>Video scoping was attempted in communication duct for mini-faregate on mezzanine floor, however there was an obstruction in duct at 5' from the Kiosk. Refer to Photo #7-8 and as-built drawing for location</p>		
Sign Off		
	GFP Representative	WMATA PRGM
Name:	Zach Fitzwater	
Signature:		
Date:	01/30/2015	

Photo #1 – C13 King Street South: Kiosk with existing and proposed duct runs



Photo #2 – C13 King Street South: Existing and proposed duct runs towards backrooms



Photo #3 – C13 King Street South: Existing and Proposed Duct runs at door to backroom

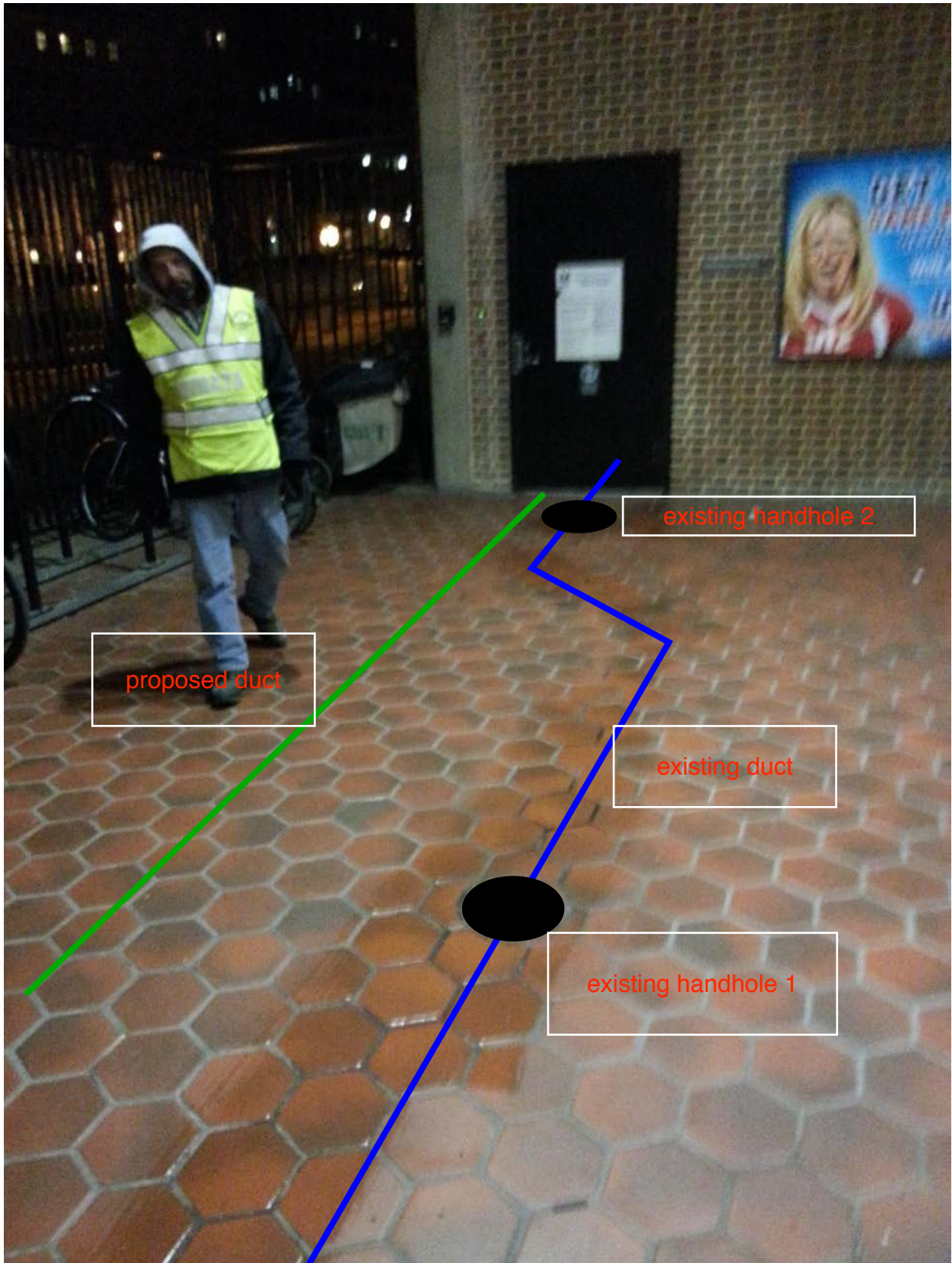


Photo #4 – C13 King Street South: Existing duct and proposed duct /conduit transition in back rooms towards AFC panel

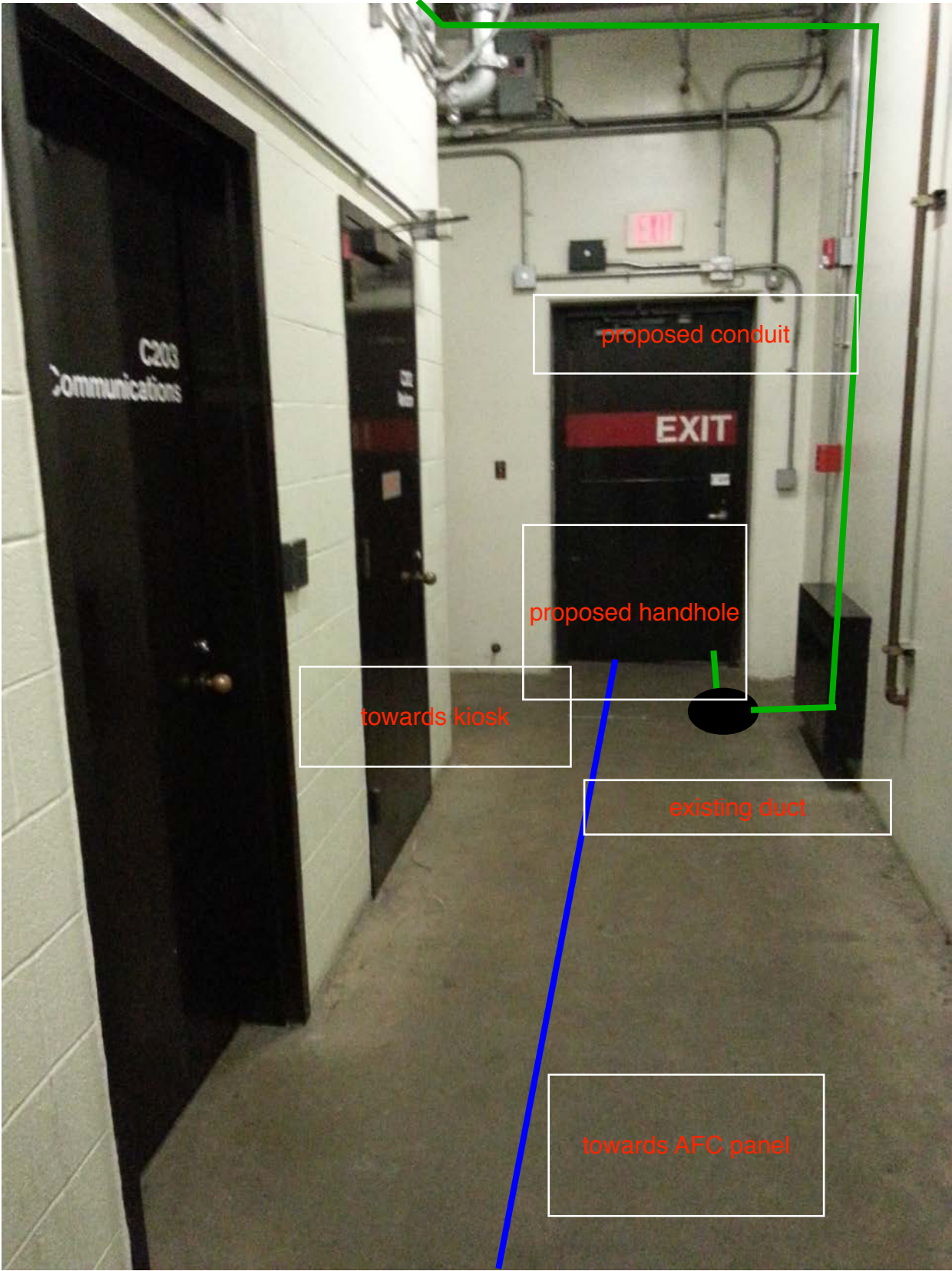


Photo #5 – C13 King Street South: Existing duct and proposed conduit drop in floor to lower level towards AFC panel

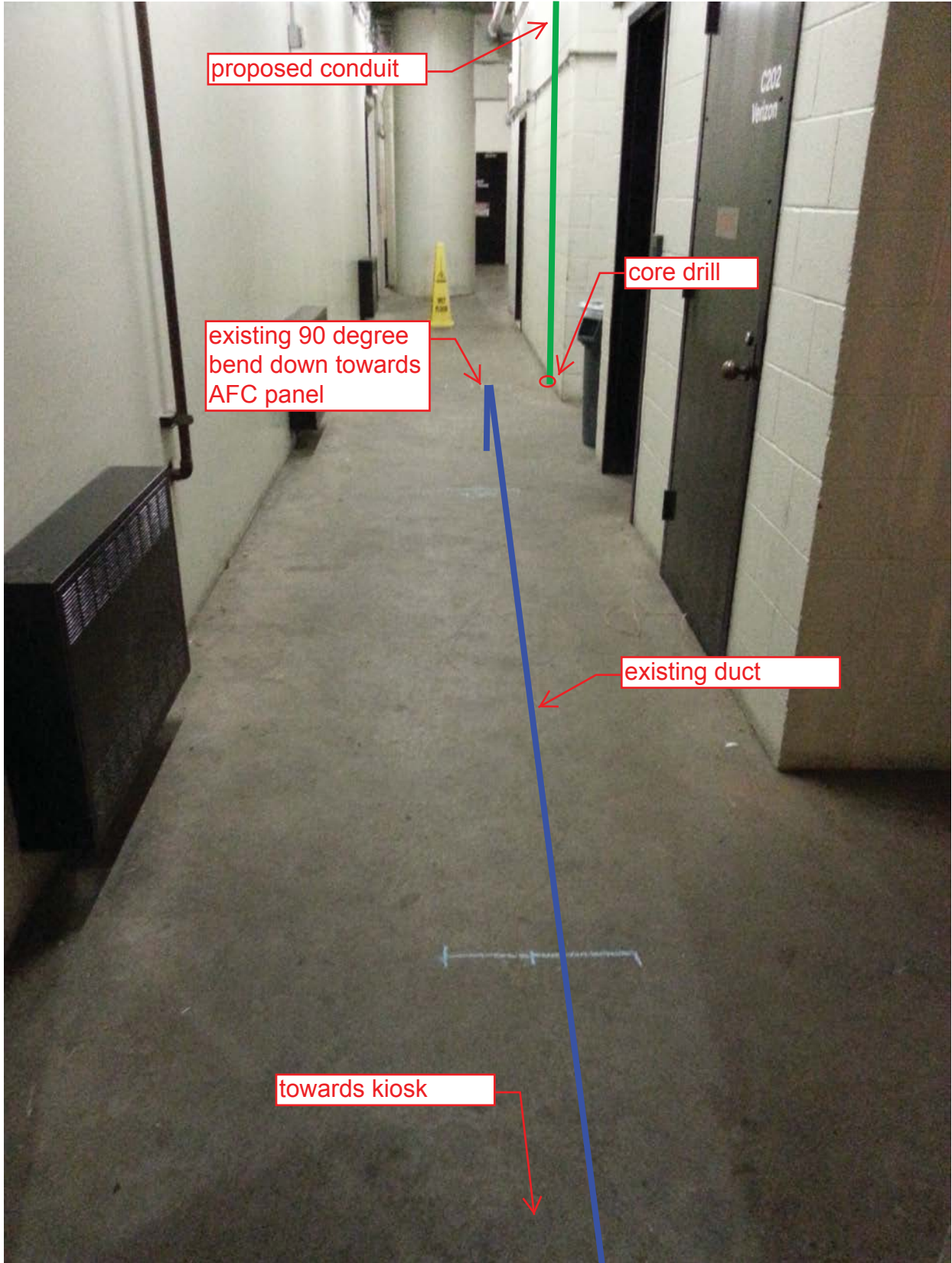


Photo #6 – C13 King Street South: Existing duct and proposed conduit towards AFC panel on lower level

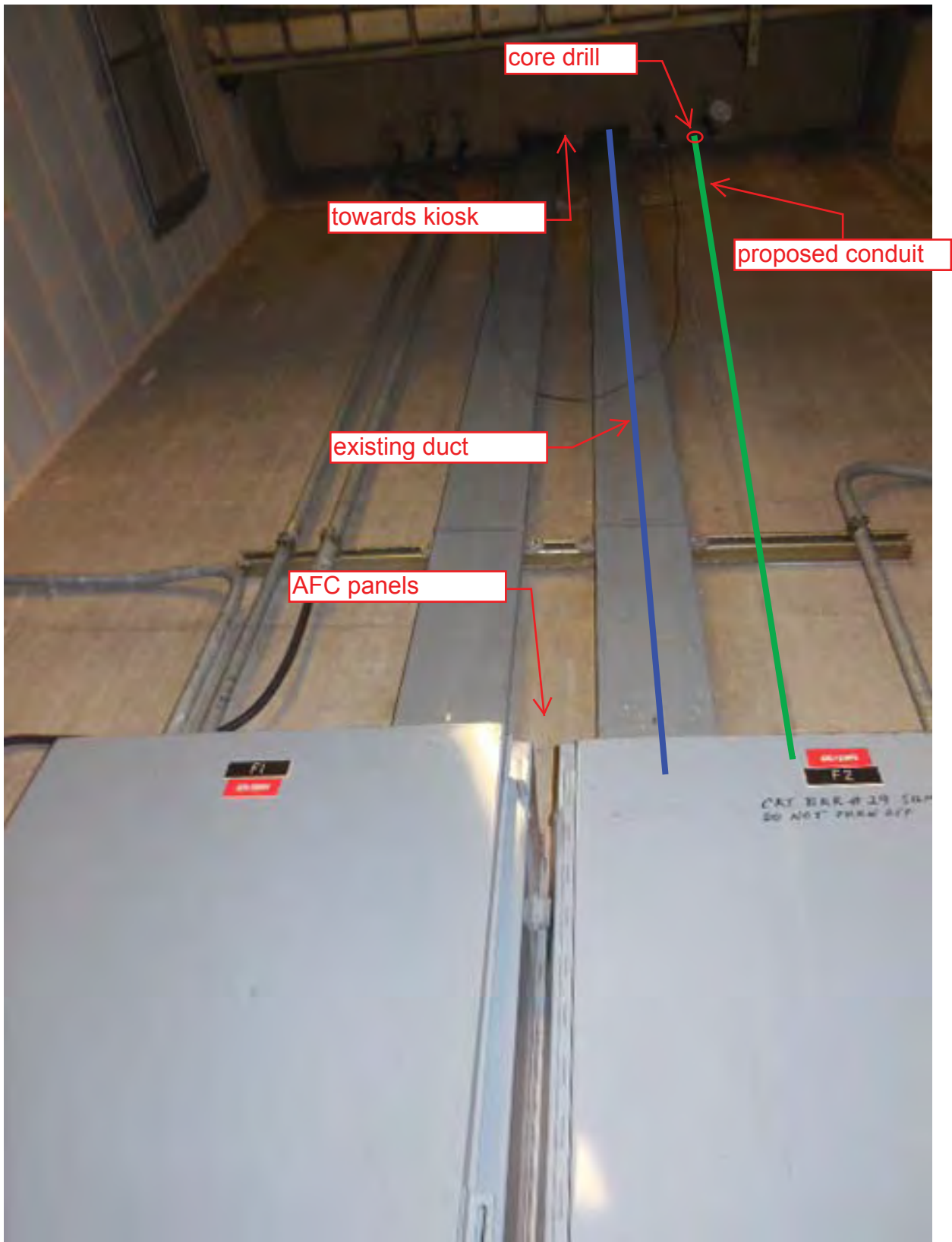


Photo #7 – Mini-faregates on mezzanine floor

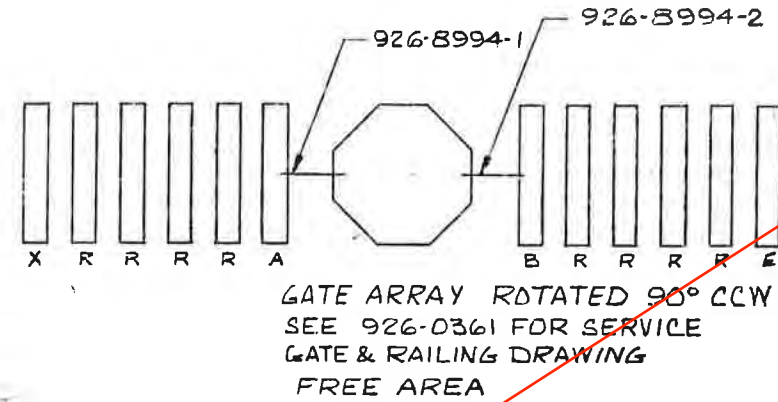
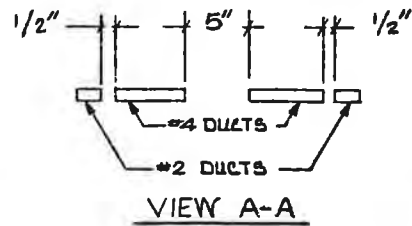


Photo #8 – Mini-faregates on mezzanine floor (close-up)



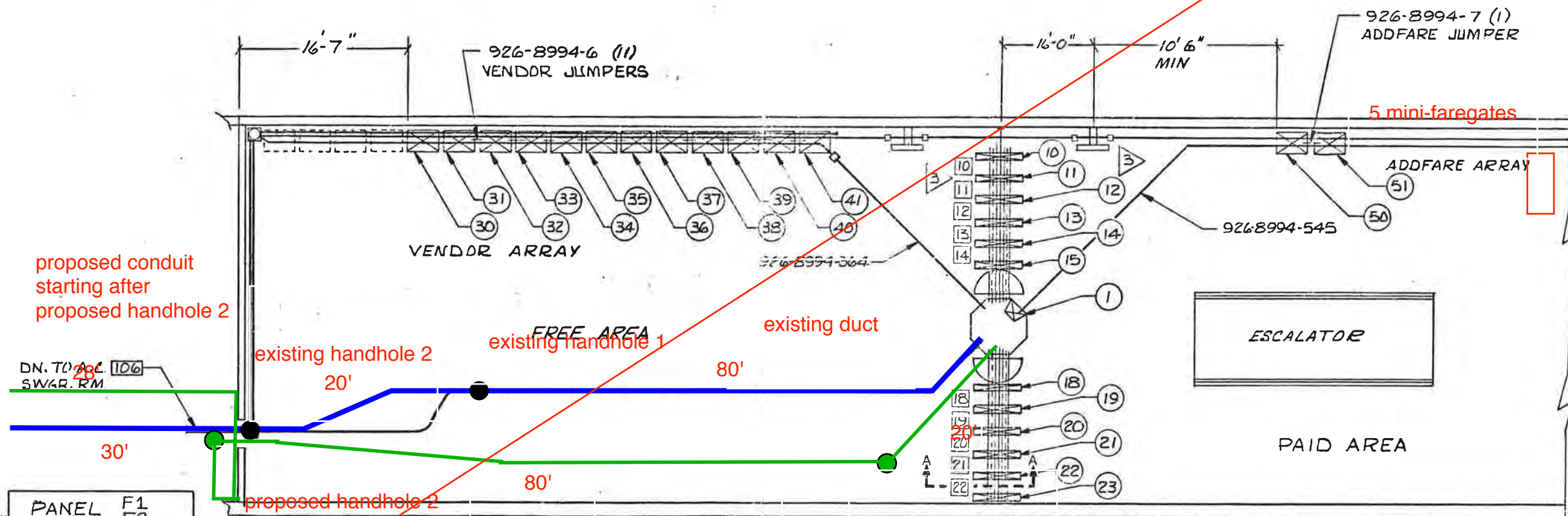
NOTES:

1. THE MINIMUM OPERATIONAL MACHINE INVENTORY IS REFERENCED ON THIS DRAWING BY THE "X" DRAWN THROUGH THE MACHINE.
 2. FOR REFERENCE DRAWINGS USED SEE SUPPORT DOCUMENTATION PACKAGE FOR THIS MEZZANINE.
- 3 (X) INDICATES POSITION NO. [X] INDICATES AISLE NO.



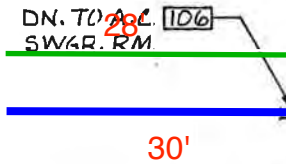
- 926-8998-1 (9)
- 926-8996-1 (9)
- 926-8997-1 (9)
- 926-8993-1 (10)

new schematic drawing/proposed pathway on last page



proposed and existing runs 90 degree into floor to AFC panel on lower level

proposed conduit starting after proposed handhole 2



POSITION NO.	MACHINE TYPE	SERIAL NO.	CIRCUIT BREAKER FRAME NO.	WIRE SIZE (AWG)
1	DADS	8012	KIDSK	20
10	EXIT GATE	GR-1267	3	20
11	REV GATE	GR-7269	5	20
12	REV GATE	GR-7307	7	20
13	REV GATE	GR-7306	9	20
14	REV GATE	GA-5049	11	20
15	A GATE	GB-6048	2	20
18	B GATE	GR-7268	4	20
19	REV GATE	GR-7271	6	20
20	REV GATE	GR-7270	8	20
21	REV GATE	GR-7272	10	20
22	REV GATE	FV-1047	1	20
30	VENDOR	FV-1331	3	20
31	VENDOR	FV-1317	5	20
32	VENDOR	FV-1330	7	20
33	VENDOR	FV-1324	9	20
34	VENDOR	FV-1332	11	20
35	VENDOR	FV-1310	13	20
36	VENDOR	FV-1333	15	20
37	VENDOR	FV-1325	17	20
38	VENDOR	FV-1318	19	20
39	VENDOR	FV-1291	21	20
40	VENDOR	FV-1326	23	20
50	ADDFARE	AM-2124	28	20
51	ADDFARE	AM-2119	30	20
52	ENTRY	GN-3075	12	20

17' including vertical runs on outside and inside wall to ceiling and horizontal run across doorway

-1 INSTALLATION PLAN

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
BREAK SHARP EDGES .010 MAX
DIMENSIONS ARE IN INCHES
TOLERANCES ON ANGLES ± 0.5 DEG.
HOLE SIZES: .015 THRU .125: +.004 - .001
.126 THRU .250: +.005 - .001
.251 THRU .500: +.006 - .001
.501 THRU .750: +.008 - .001
.751 THRU 1.000: +.010 - .001

CONTRACT NUMBER: **D B1**
DRAWING NUMBER: **926-0418**
SHEET 1 OF 1

TITLE: **INSTALLATION PLAN**
KING STREET STATION

CODE IDENT NO.: **94987**

DRAWN: J. ETHERIDGE
CHECK: J. W. WELLS
DESIGN: J. WELLS
ENGR: R. D. RICE

DATE: 2/22/82
BY: J. ETHERIDGE

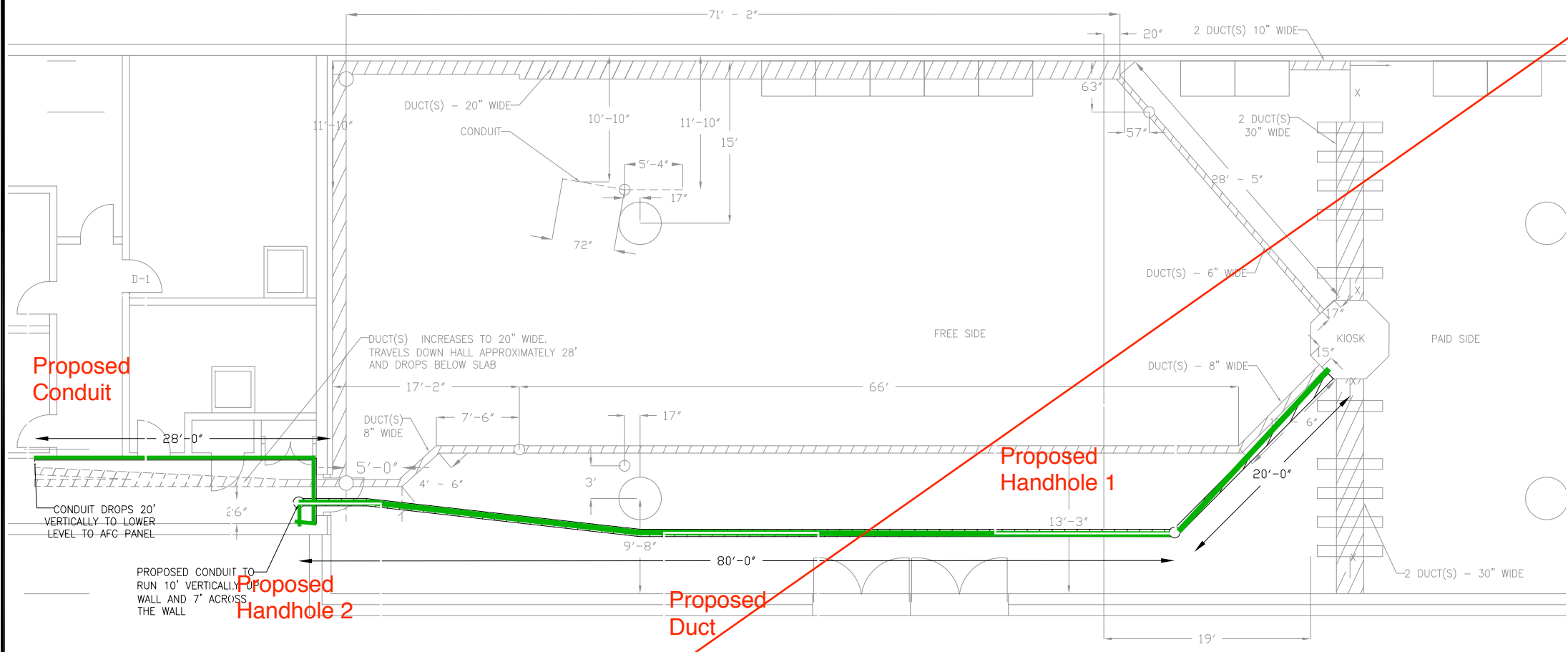
REDRAWN 7-27-82
BY J. ETHERIDGE

See new schematic drawing/proposed pathway on last page

PLAN NOTES:

1. DIMENSIONS ARE IN FEET AND INCHES.
2. DIMENSIONS ARE FOR REFERENCE ONLY.
3. EXISTING IN-FLOOR DUCTS/CONDUITS WERE IDENTIFIED USING A PORTABLE GPR SCANNING DEVICE.
4. THE SCANNING COVERAGE IS LIMITED TO THE MEZZANINE FLOOR ONLY.
5. GPR SCANNING HAS THE FOLLOWING LIMITATIONS: (i) 12 INCHES VISIBLE SCANNING DEPTH; (ii) VISIBILITY BEYOND CONGESTED OR NEAR SURFACE REINFORCEMENT LAYERS; (iii) DETECTION OF PVC AND OTHER NON-METALLIC OBJECTS (iv) DETERMINATION OF SIZE AND EXTENTS OF SUBSURFACE ANOMALIES SUCH AS SLAB VOIDS OR REBAR SIZES; AND (v) VISIBILITY WHEN VARIABLE MOISTURE CONDITIONS EXIST IN THE SUBSTRATE.

LEGEND:



KING STREET (SOUTH) STATION
SCALE: NOT TO SCALE

CONTRACT NO.
XXXXXX

DESIGNED	C. LOOSE	11-14	REFERENCE DRAWINGS		REVISIONS		
			NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DRAWN	C. LOOSE	11-14					
CHECKED	M. BUTLER	11-14					
APPROVED							

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

GFP A Gannett Fleming/Parsons JOINT VENTURE

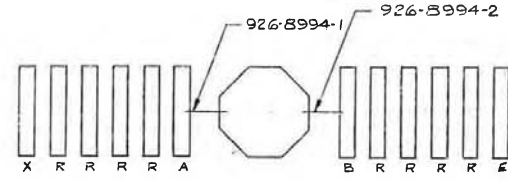
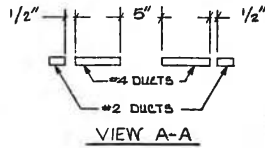
APPROVED _____ SUBMITTED _____
PROJECT MANAGER

15-NEPP-01
IN - FLOOR DUCT INSPECTIONS
C13 King Street (South)
PROPOSED ELECTRICAL DUCT AND CONDUIT PATH

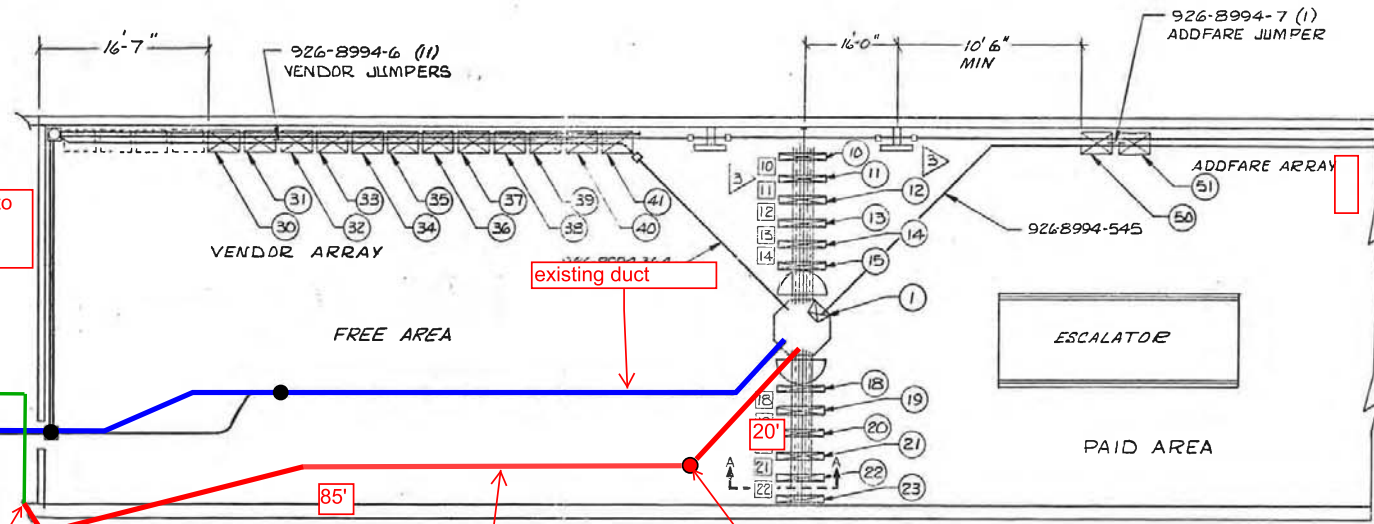
SCALE: NOT TO SCALE
DRAWING NO.: C13-E-100
XXX

NOTES:

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- 926-8998-1 (9)
- 926-8996-1 (9)
- 926-8997-1 (9)
- 926-8993-1 (10)



proposed conduit to AFC panel

existing duct

DN. TO A.C. SW&R. RM.

30"

85"

proposed handhole 2

proposed duct

proposed handhole 1

POSITION NO.	MACHINE TYPE	SERIAL	CIRCUIT BREAKER	WIRE SIZE (AWG)
1	DADS			10
10	EXIT GATE			10
11	REV GATE			10
12	REV GATE			10
13	REV GATE			10
14	REV GATE			10
15	A GATE			10
18	B GATE			10
19	REV GATE			10
20	REV GATE			10
21	REV GATE			10
22	REV GATE			10
30	VENDOR	FV - 1331	3	20
31	VENDOR	FV - 1317	2	20
32	VENDOR	FV - 1330	4	20
33	VENDOR	FV - 1324	6	20
35	VENDOR	FV - 1332	7	20
36	VENDOR	FV - 1310	9	20
37	VENDOR	FV - 1333	11	20
38	VENDOR	FV - 1325	8	16
39	VENDOR	FV - 1318	10	20
40	VENDOR	FV - 1291	12	20
41	VENDOR	FV - 1326	30	16
50	ADDFARE	AM - 2124	12	20
51	ADDFARE	AM - 2119	12	20
23	ENTRY	GN - 3075		10

Transition duct to conduit and 90 degree conduit to vertical runs on outside wall up to approximately 15' then core drill through wall.

- 1 - INSTALLATION PLAN

REDRAWN 7-27-82 BY J. ETHERIDGE

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

CONTRACT NUMBER: **D 81**

DRAWING NUMBER: **926-0418**

SHEET 1 OF 1

TITLE: **INSTALLATION PLAN**

LOCATION: **KING STREET STATION**

CODE IDENT. NO. **94987**

DATE: **926-0418**

DESIGNED BY: **J. F. WELLS**

ENGINEER: **J. D. KIRCH**

DATE: **7/27/82**

BY: **J. ETHERIDGE**