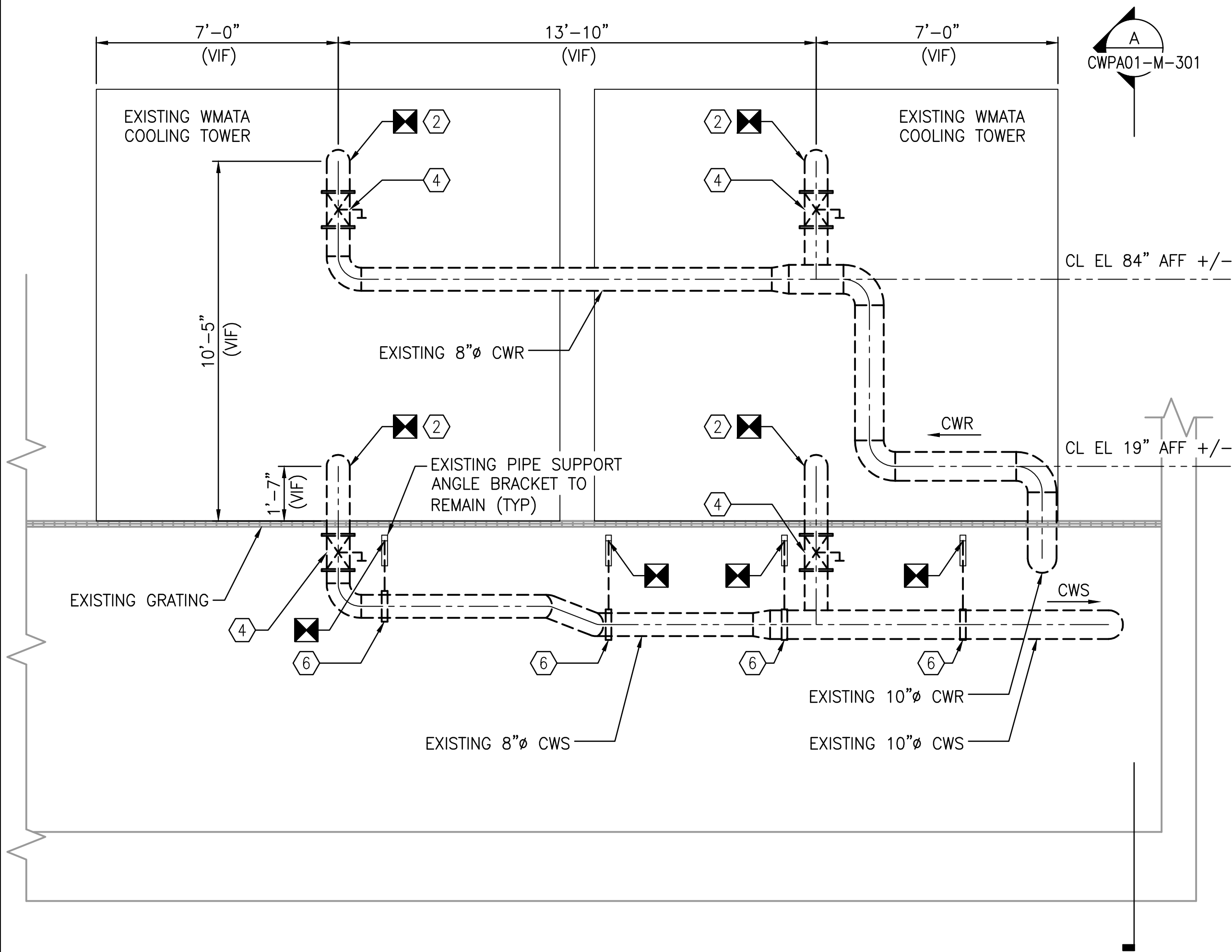
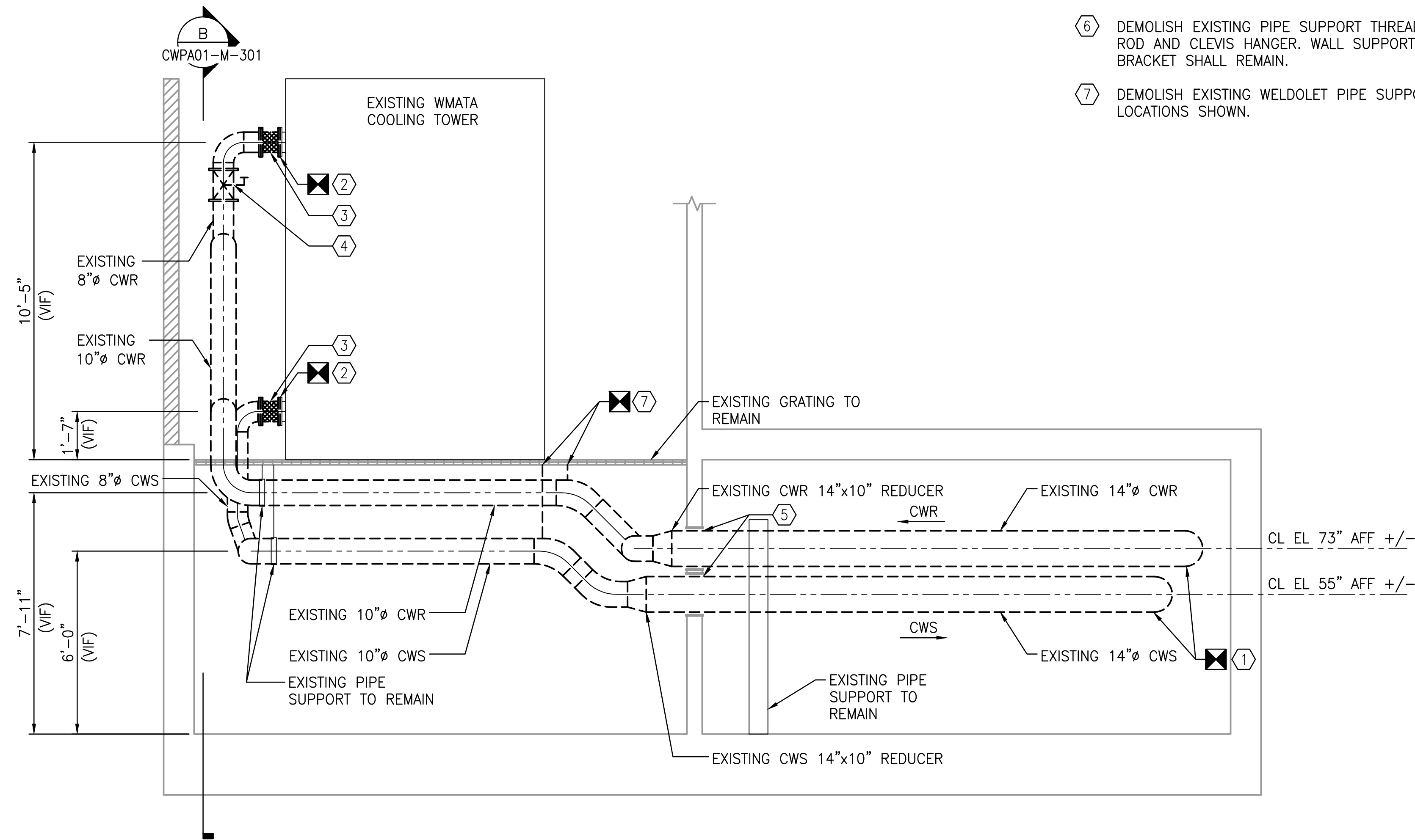


- KEY NOTES:
- 1 DEMOLISH EXISTING CWS AND CWR PIPING FROM PENETRATION TO ROOF LEVEL MECHANICAL ROOM WHERE PIPING EXITS VERTICAL PIPE CHASE.
 - 2 DEMOLISH PIPING UP TO FLANGE CONNECTION TO EXISTING WMATA COOLING TOWER.
 - 3 DEMOLISH EXISTING FLEXIBLE PIPE CONNECTION.
 - 4 DEMOLISH EXISTING BUTTERFLY VALVES.
 - 5 PROTECT IN PLACE EXISTING PENETRATION AND SLEEVE.
 - 6 DEMOLISH EXISTING PIPE SUPPORT THREADED ROD AND CLEVIS HANGER. WALL SUPPORT BRACKET SHALL REMAIN.
 - 7 DEMOLISH EXISTING WELDOLET PIPE SUPPORT AT LOCATIONS SHOWN.



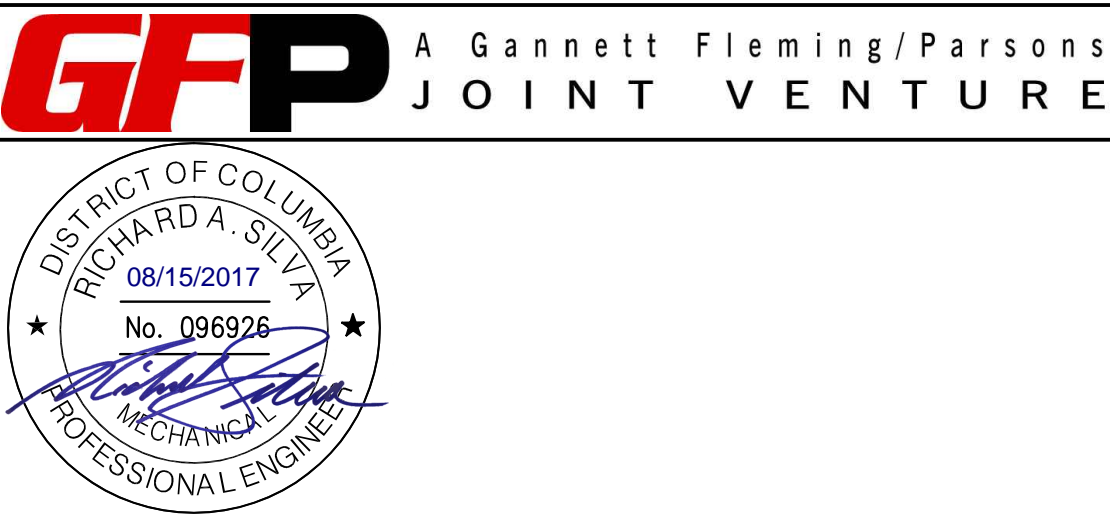
B SECTION
CWPA01-M-301

SCALE: 3/8" = 1'-0"




A SECTION
CWPA01-M-301

SCALE: 3/8" = 1'-0"



	REFERENCE DRAWINGS		REVISIONS		
	NUMBER	TITLE	DATE	NUM	DESCRIPTION
DESIGNED	D. ROMNESS	06/20/17	DATE	08/15/17	0
DRAWN	D. ROMNESS	06/20/17	DATE		
CHECKED	B. VISWANATHAN	08/08/17	DATE		



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

Mark H. Magnuson 08/15/2017
DATE

J. Clark 08/15/2017
DATE

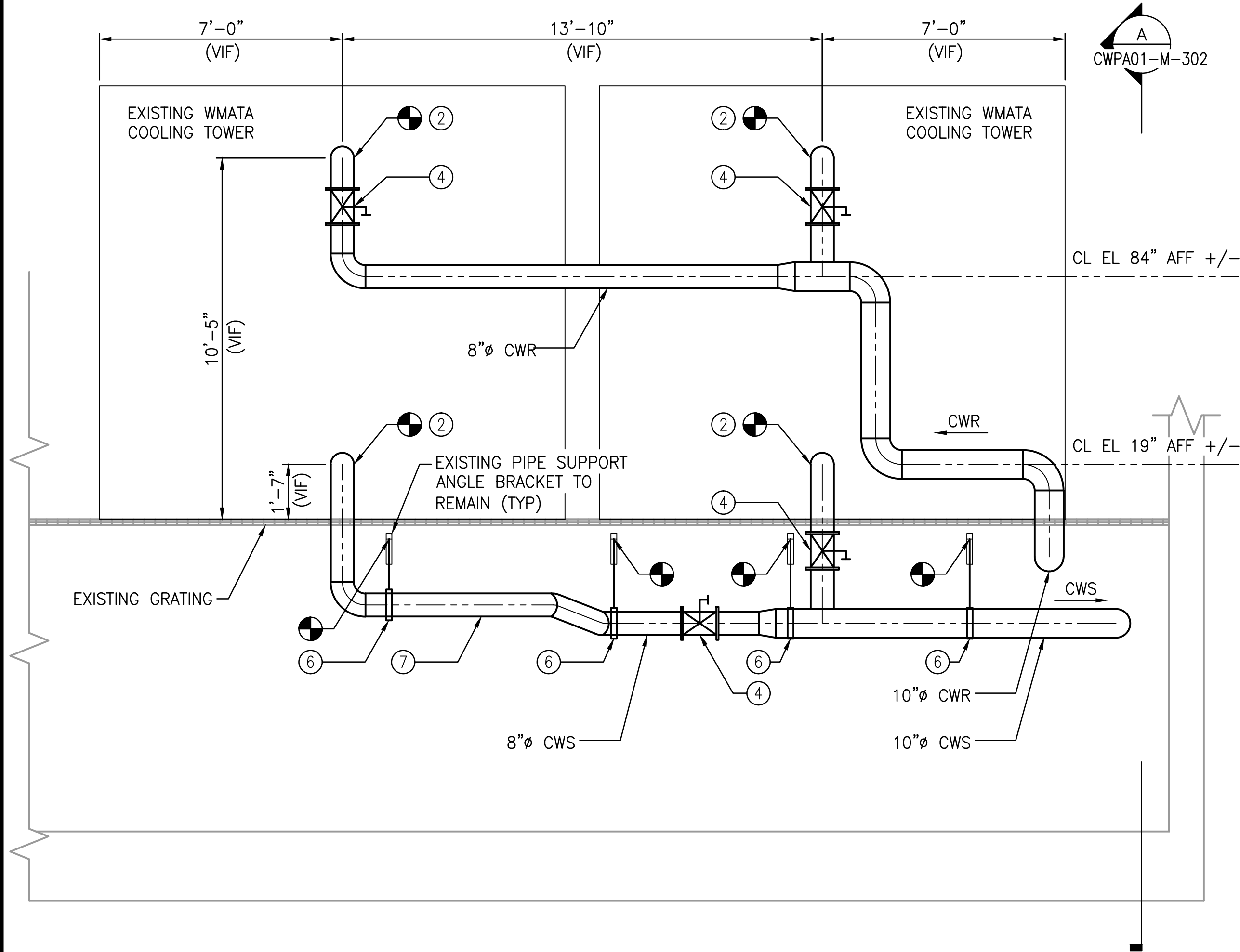
REPLACEMENT OF FARRAGUT NORTH & DUPONT CIRCLE CONDENSER PIPING MECHANICAL - 1101 CONNECTICUT AVENUE ROOF SECTIONS - DEMOLITION				
M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1298	FQ-18004	3/8" = 1'-0"	CWPA01-M-301	50 of 53

NOTE:

1. PER SPECIFICATION 15205, PIPING MATERIALS SHALL BE AS FOLLOWS:
1.1. EXPOSED PIPING: SCHEDULE 40 BLACK STEEL PIPING WITH EPOXY COATING.

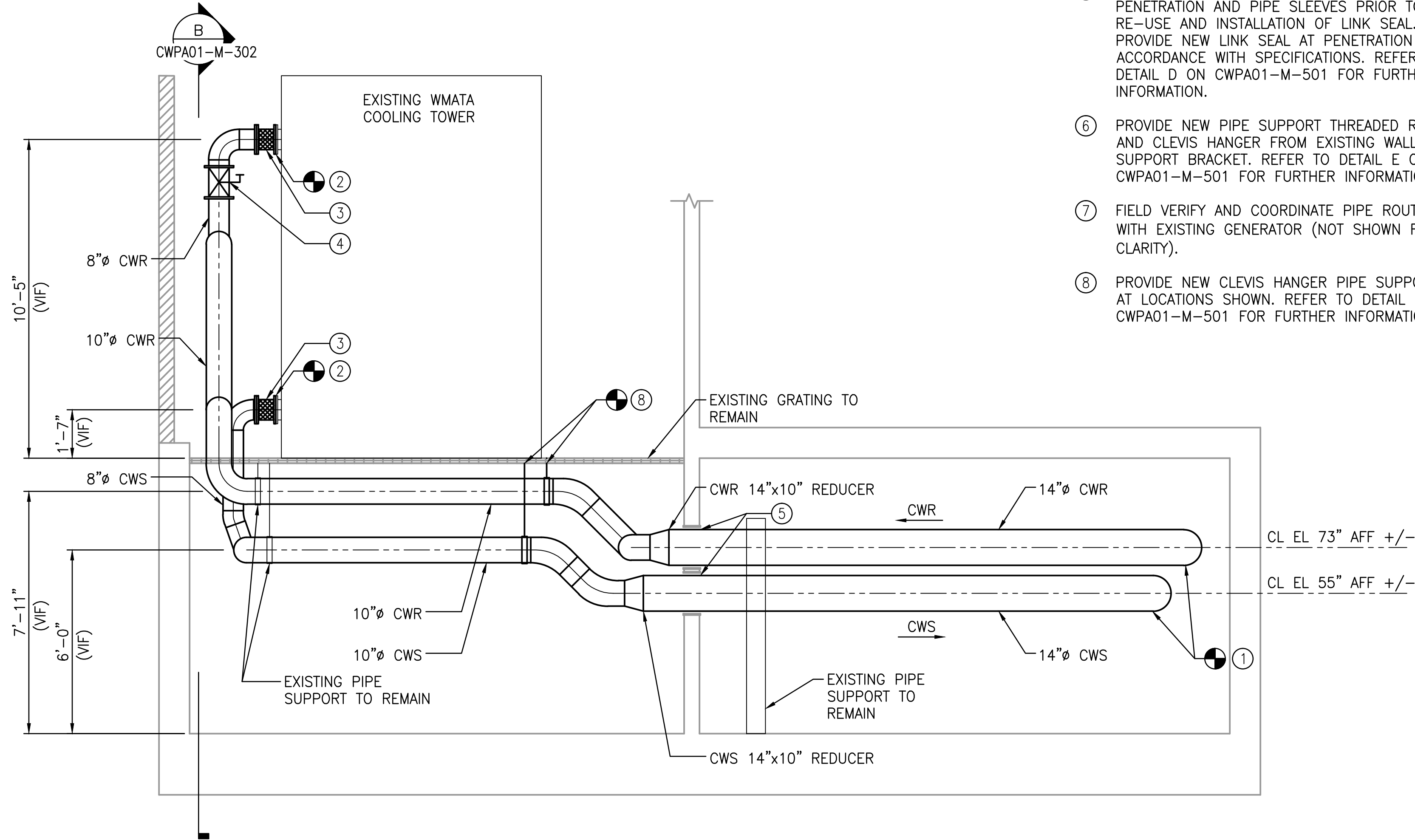
KEY NOTES:

- ① PROVIDE NEW CWS AND CWR PIPING FROM PENETRATION TO ROOF LEVEL MECHANICAL ROOM WHERE PIPING EXITS VERTICAL PIPE CHASE.
② PROVIDE NEW CWS AND CWR PIPING UP TO FLANGE CONNECTION TO EXISTING WMATA COOLING TOWER.
③ PROVIDE NEW FLEXIBLE PIPE CONNECTION.
④ PROVIDE NEW BUTTERFLY VALVES.
⑤ CLEAN, SAND, AND EPOXY COAT EXISTING PENETRATION AND PIPE SLEEVES PRIOR TO RE-USE AND INSTALLATION OF LINK SEAL. PROVIDE NEW LINK SEAL AT PENETRATION IN ACCORDANCE WITH SPECIFICATIONS. REFER TO DETAIL D ON CWPA01-M-501 FOR FURTHER INFORMATION.
⑥ PROVIDE NEW PIPE SUPPORT THREADED ROD AND CLEVIS HANGER FROM EXISTING WALL SUPPORT BRACKET. REFER TO DETAIL E ON CWPA01-M-501 FOR FURTHER INFORMATION.
⑦ FIELD VERIFY AND COORDINATE PIPE ROUTING WITH EXISTING GENERATOR (NOT SHOWN FOR CLARITY).
⑧ PROVIDE NEW CLEVIS HANGER PIPE SUPPORTS AT LOCATIONS SHOWN. REFER TO DETAIL F ON CWPA01-M-501 FOR FURTHER INFORMATION.



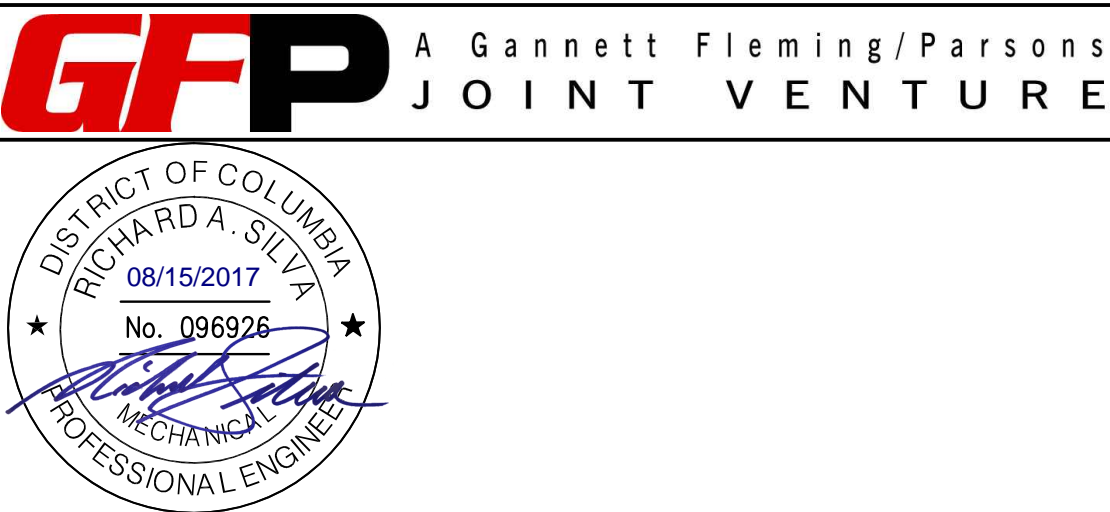
B SECTION
CWPA01-M-302

SCALE: 3/8" = 1'-0"



A SECTION
CWPA01-M-302

SCALE: 3/8" = 1'-0"



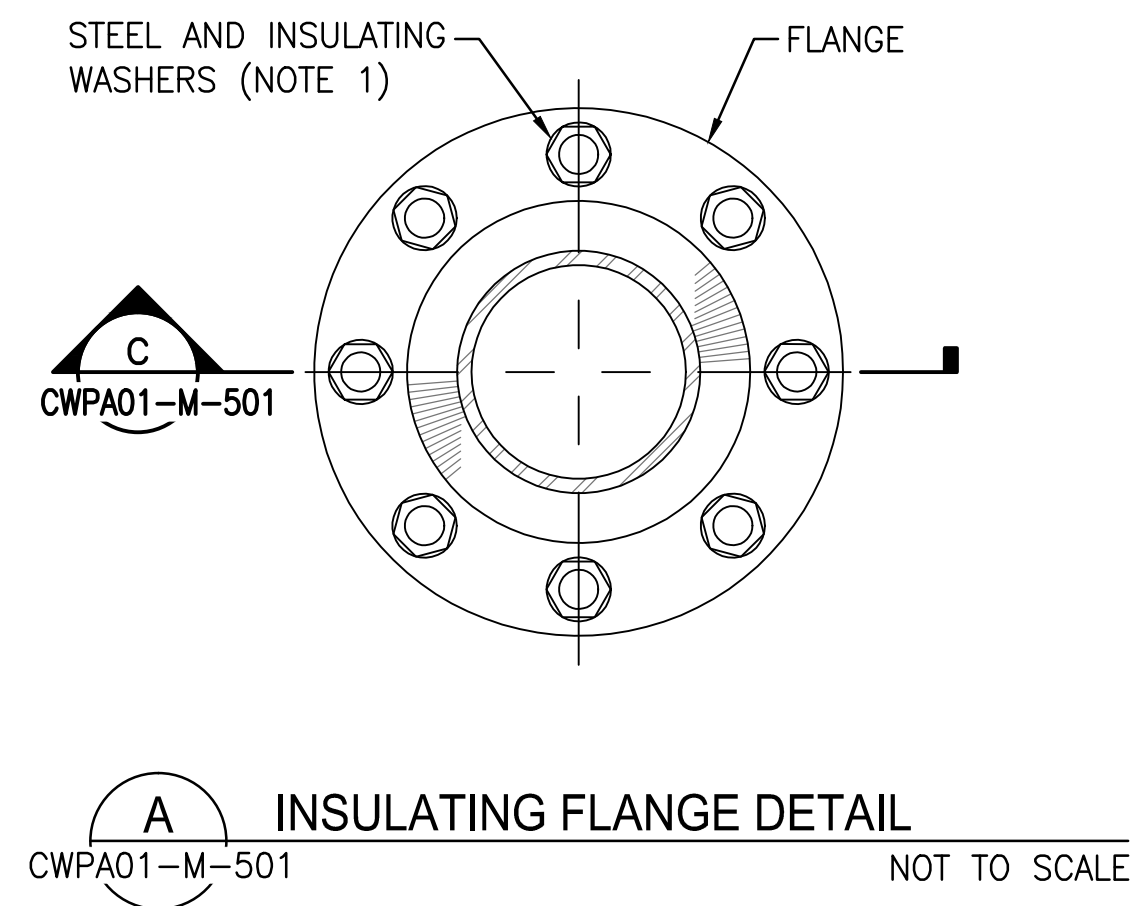
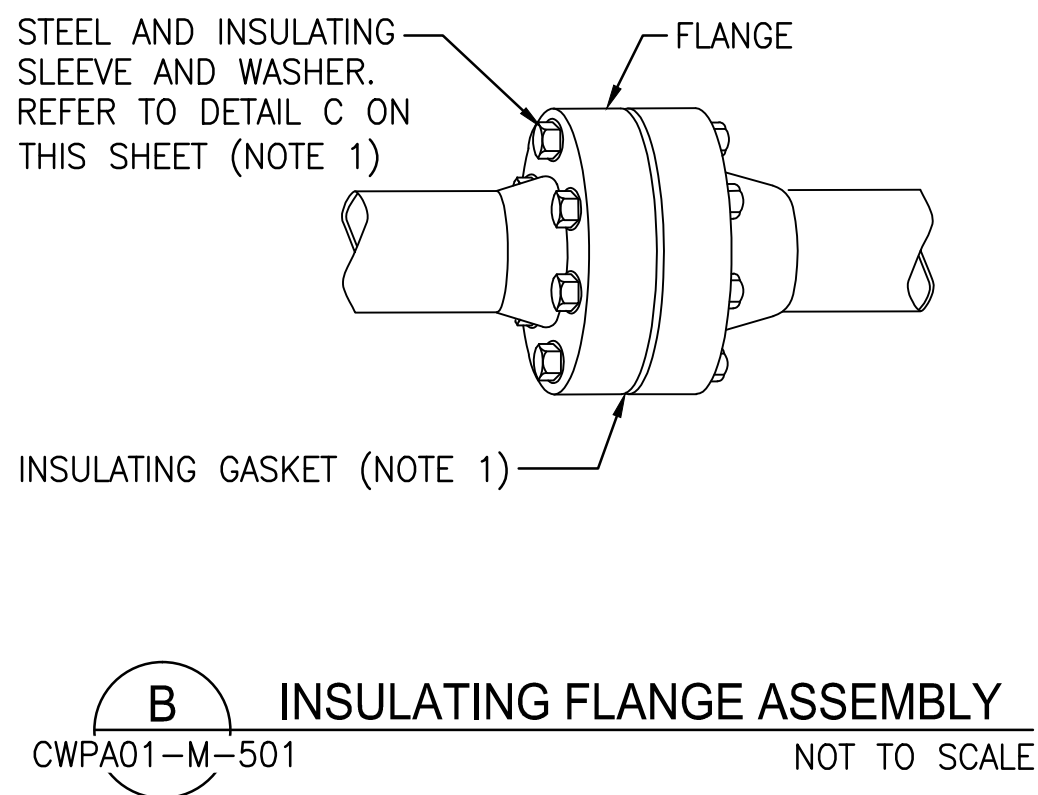
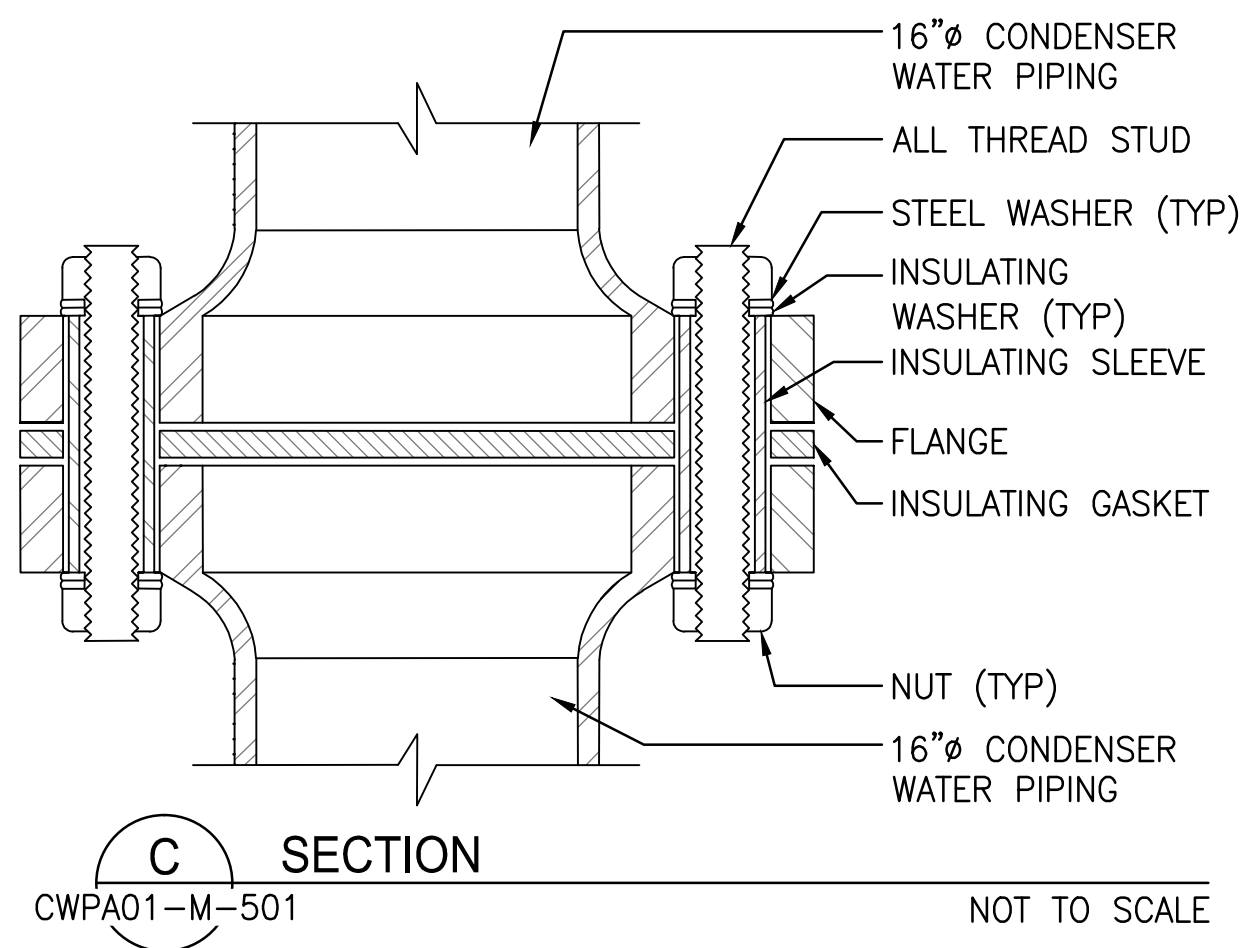
	REFERENCE DRAWINGS		REVISIONS		
	NUMBER	TITLE	DATE	NUM	DESCRIPTION
DESIGNED	D. ROMNESS	06/20/17	DATE	08/15/17	0
DRAWN	D. ROMNESS	06/20/17	DATE		
CHECKED	B. VISWANATHAN	08/08/17	DATE		

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

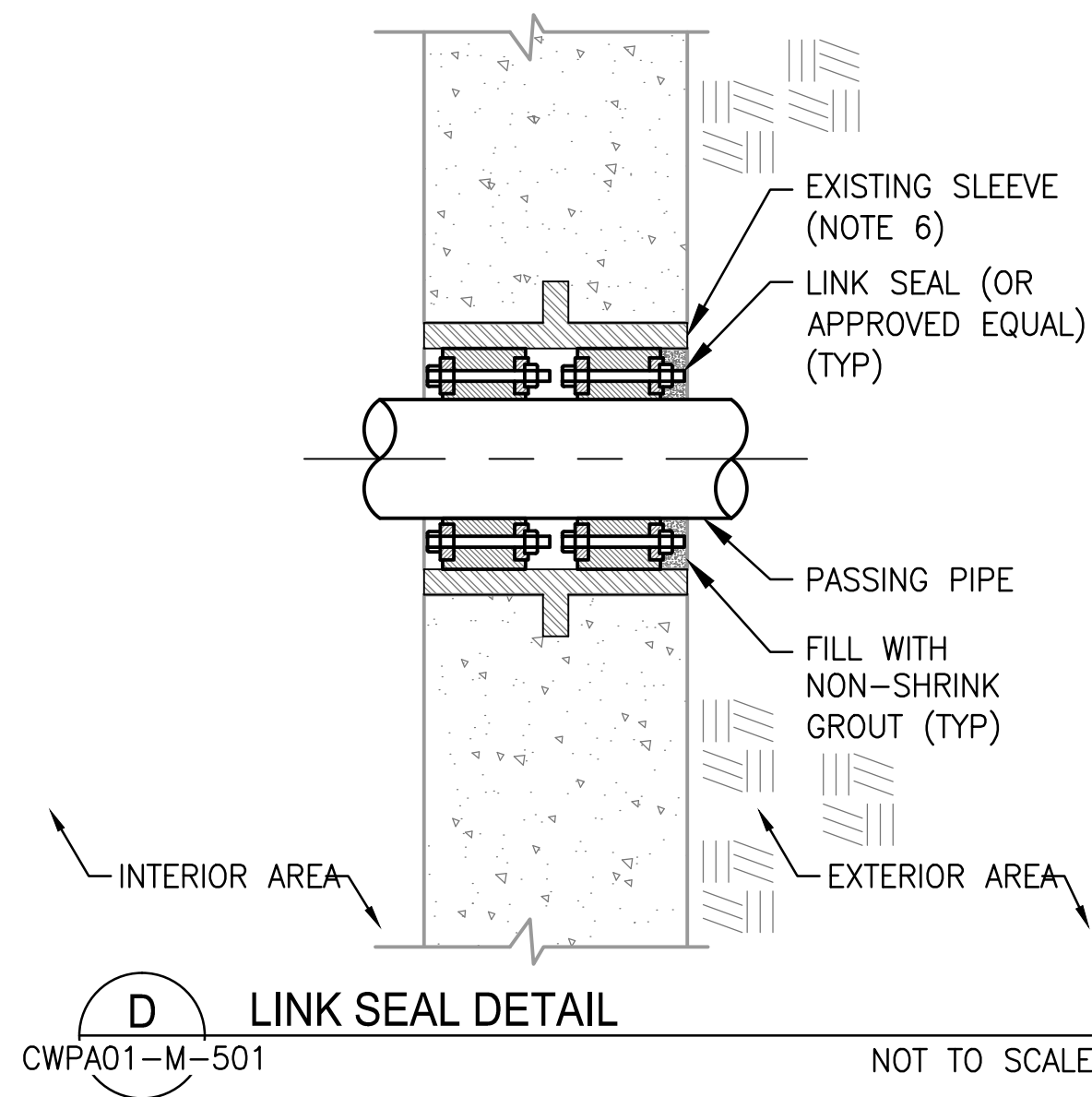
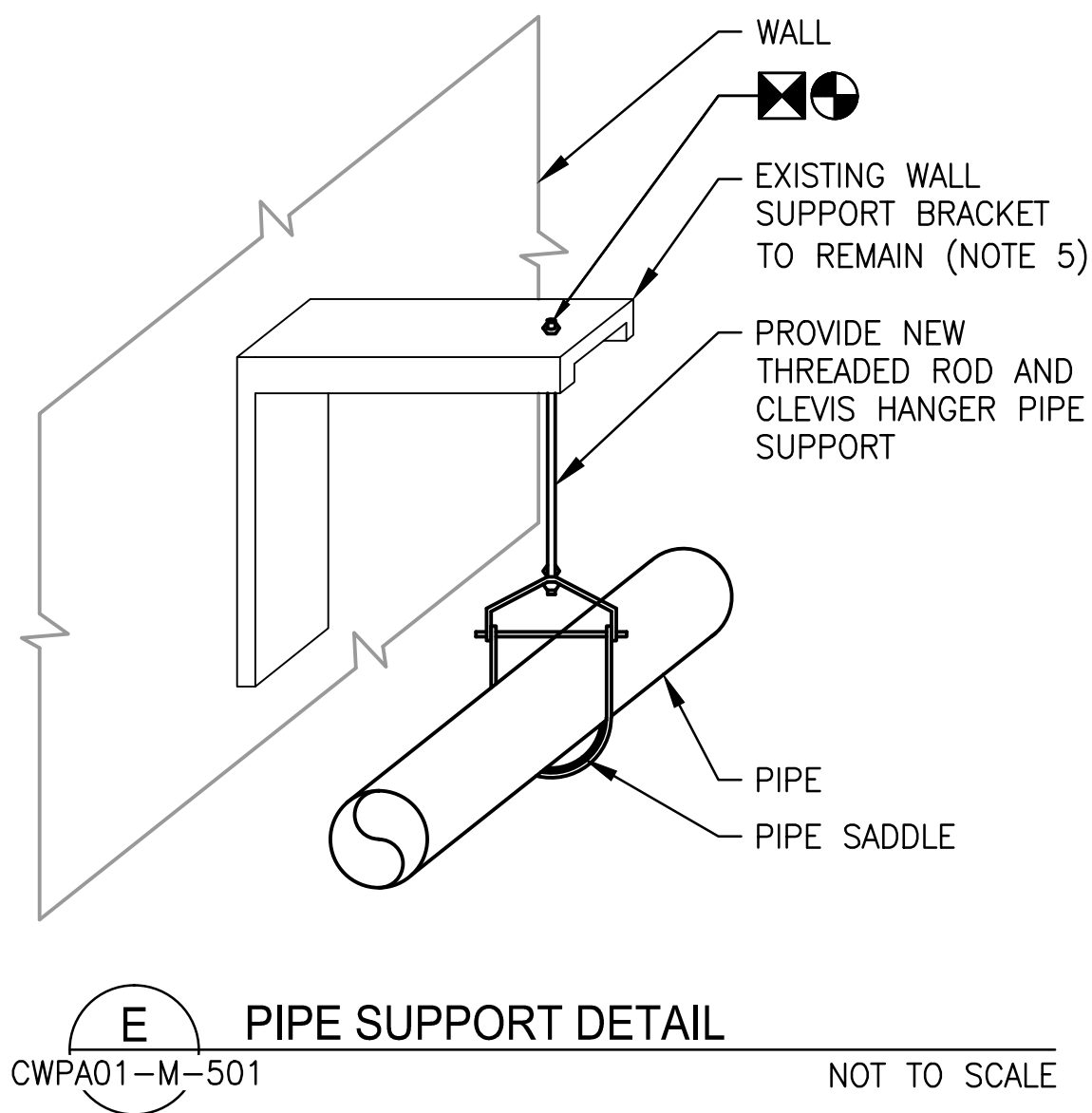
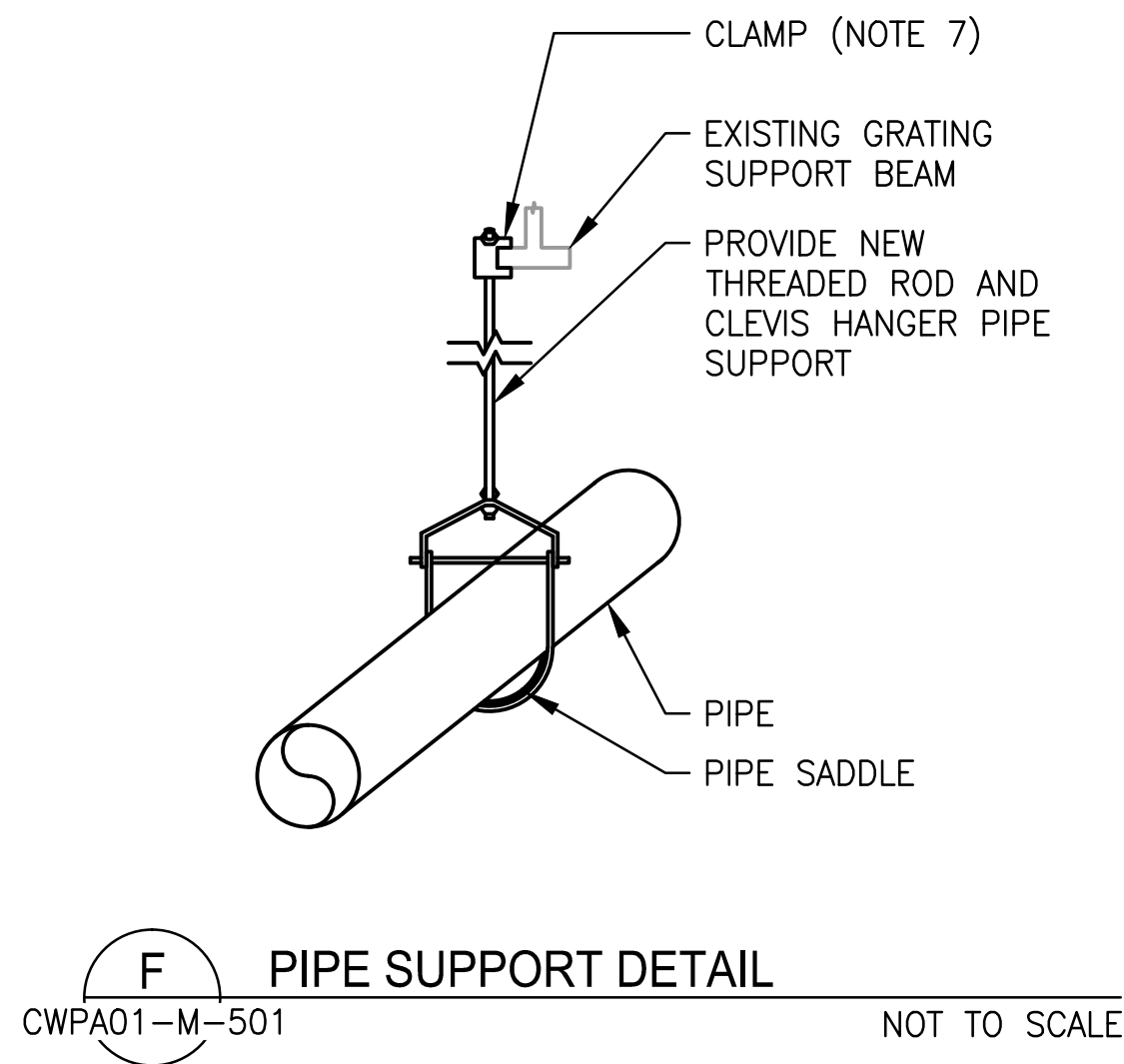
Mark H. Magnuson 08/15/2017
DATE

J. CL 08/15/2017
DATE

REPLACEMENT OF FARRAGUT NORTH & DUPONT CIRCLE CONDENSER PIPING MECHANICAL - 1101 CONNECTICUT AVENUE ROOF SECTIONS - NEW WORK				
M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1298	FQ-18004	3/8" = 1'-0"	CWPA01-M-302	51 of 53

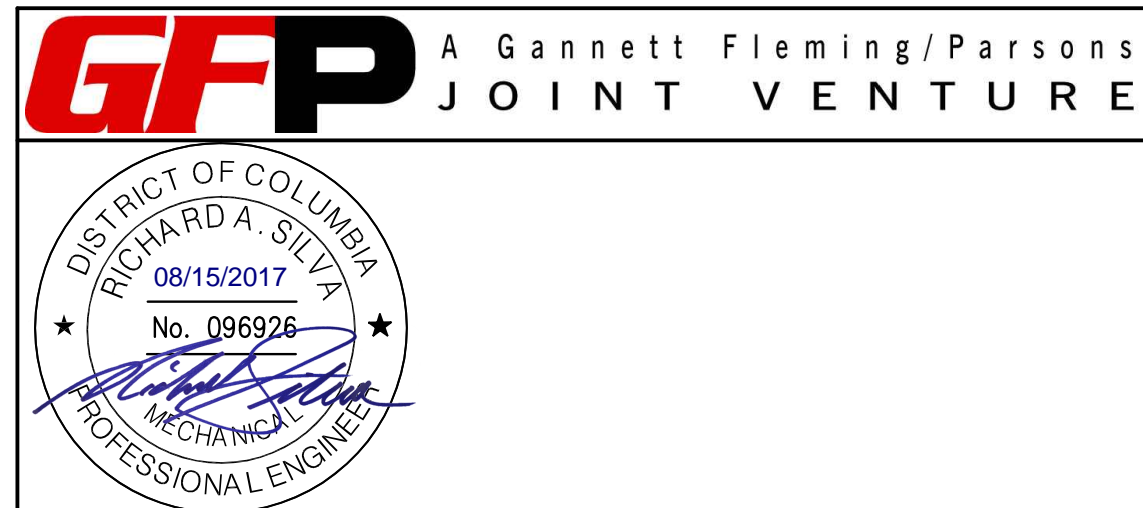




- NOTES:**
1. PROVIDE FITTINGS AND INSULATING COMPONENTS SUITABLE FOR PRESSURES, TEMPERATURES, AND MATERIALS WITHIN AND ADJACENT TO PIPE.
 2. INSULATING FITTINGS SHALL BE SIZED AS TO NOT RESTRICT FLOW CHARACTERISTICS.
 3. COAT ALL BURIED INSULATING FITTINGS AS DESCRIBED IN THE SPECIFICATIONS. ALL COATING MATERIALS MUST BE APPLIED IN STRICT ACCORDANCE WITH CONTRACT AND MANUFACTURER SPECIFICATIONS.
 4. RELOCATED OR REPLACED UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY OWNER'S SPECIFICATIONS AND SHALL INCLUDE THE FOLLOWING MINIMUM PROVISIONS:
4.1. ELECTRICAL CONTINUITY THROUGH THE INSTALLATION OF INSULATED COPPER WIRES ACROSS ALL MECHANICAL JOINTS FOR WHICH ELECTRICAL CONTINUITY CANNOT BE ENSURED.
 5. CLEAN AND PAINT EXISTING WALL SUPPORT BRACKET PRIOR TO REPLACING THREADED ROD AND CLEVIS HANGER.
 6. EXISTING PIPE SLEEVES THAT WILL BE REUSED SHALL BE CLEANED, SANDED, AND COATED WITH CORROSION RESISTANT FINISH IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO INSTALLATION OF NEW CONDENSER WATER PIPING.
 7. PROVIDE NEW CLEVIS HANGER SUPPORTED FROM GRATING SUPPORT BEAM ABOVE.

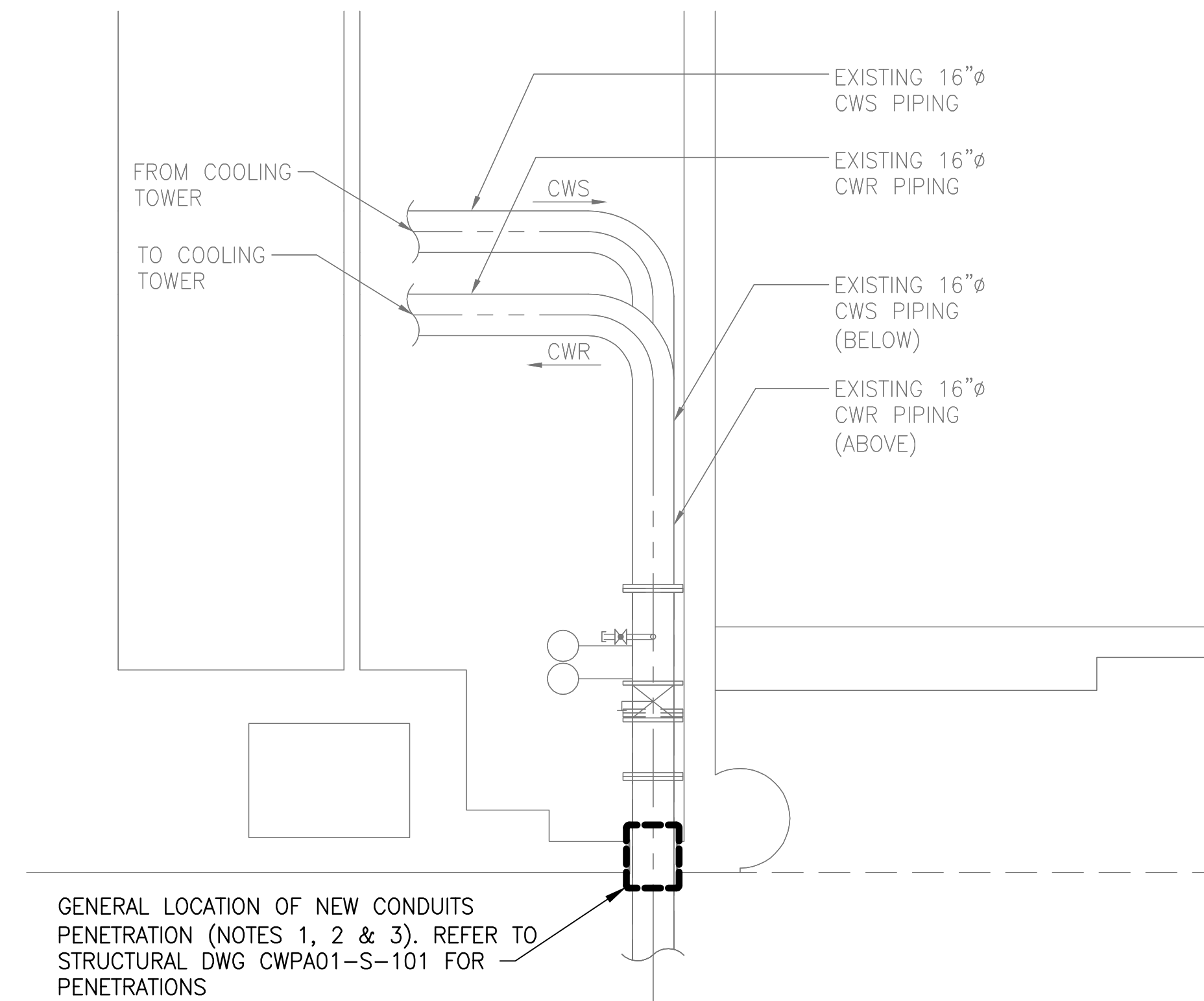


VALVE SCHEDULE

TYPE	SIZE (IN)	QUANTITY	SERVICE	BASIS OF DESIGN	
				MANUFACTURER	MODEL
BUTTERFLY VALVE	16	2	CONDENSER WATER	NIBCO	LCS-6822-5
BUTTERFLY VALVE	14	2	CONDENSER WATER	NIBCO	LCS-6822-5
BUTTERFLY VALVE	8	4	CONDENSER WATER	NIBCO	LD-2000-5
BALL VALVE	2	2	CONDENSER WATER	NIBCO	PC585-70
BALL VALVE	3/4	3/4	CONDENSER WATER AIR RELIEF	NIBCO	PC585-70
AIR RELEASE VALVE	2	2	CONDENSER WATER AIR RELIEF	BELL & GOSSETT	HOFFMAN SPECIALTY MODEL 78

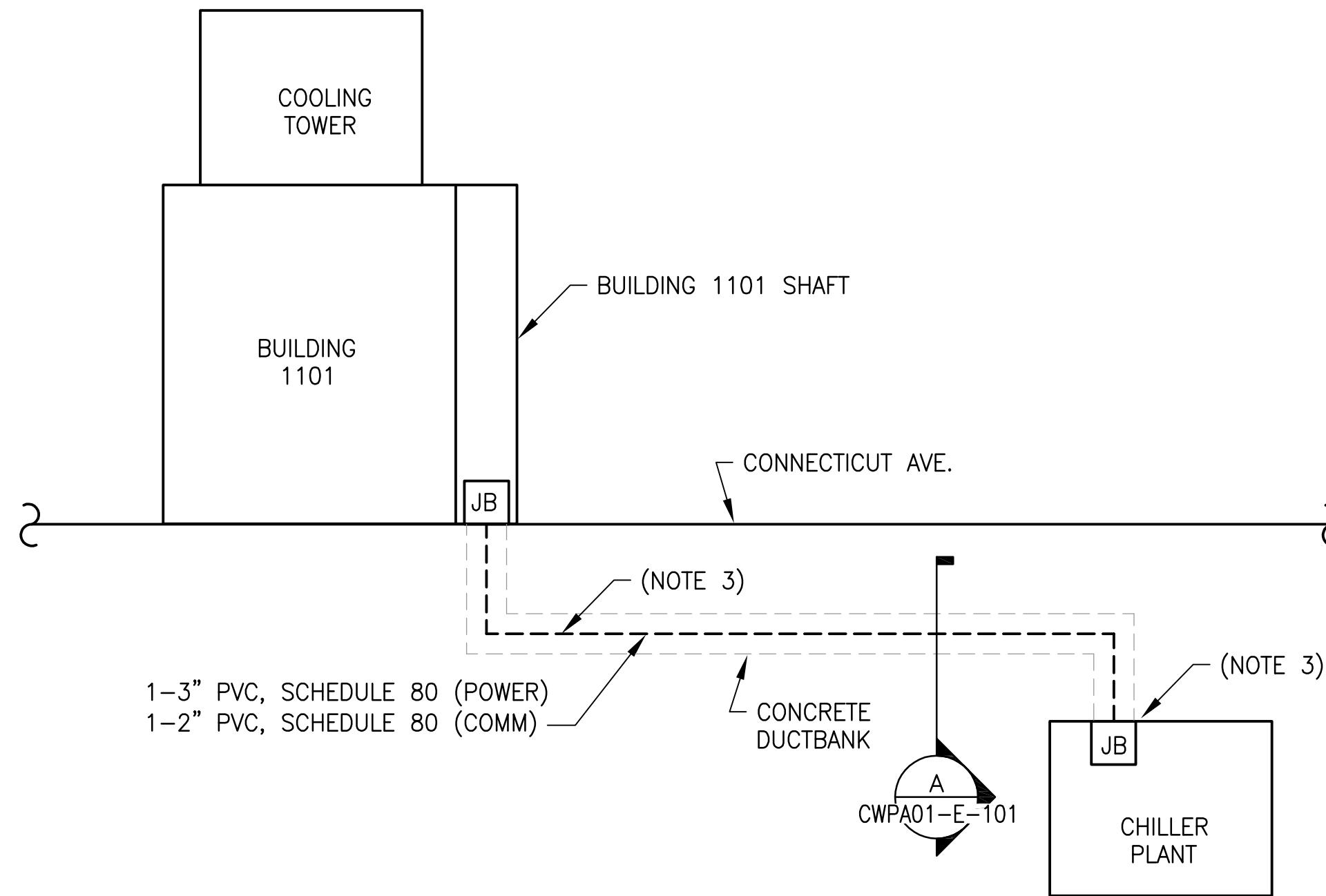


DESIGNED	D. ROMNESS	05/30/17 DATE	REFERENCE DRAWINGS		REVISIONS				WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY			REPLACEMENT OF FARRAGUT NORTH & DUPONT CIRCLE CONDENSER PIPING MECHANICAL DETAILS AND EQUIPMENT SCHEDULE						
			NUMBER	TITLE	DATE	NUM	DESCRIPTION											
				08/15/17	0	FINAL SUBMITTAL												
DRAWN	D. ROMNESS	05/30/17 DATE							DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM									
CHECKED	B. VISWANATHAN	08/08/17 DATE																
										08/15/2017		08/15/2017	M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.	
									DATE	DATE	DATE	DATE	M1298	FQ-18004	NOT TO SCALE	CWPA01-M-501	52 of 53	



1 FLOOR PLAN
CWP01-E-101

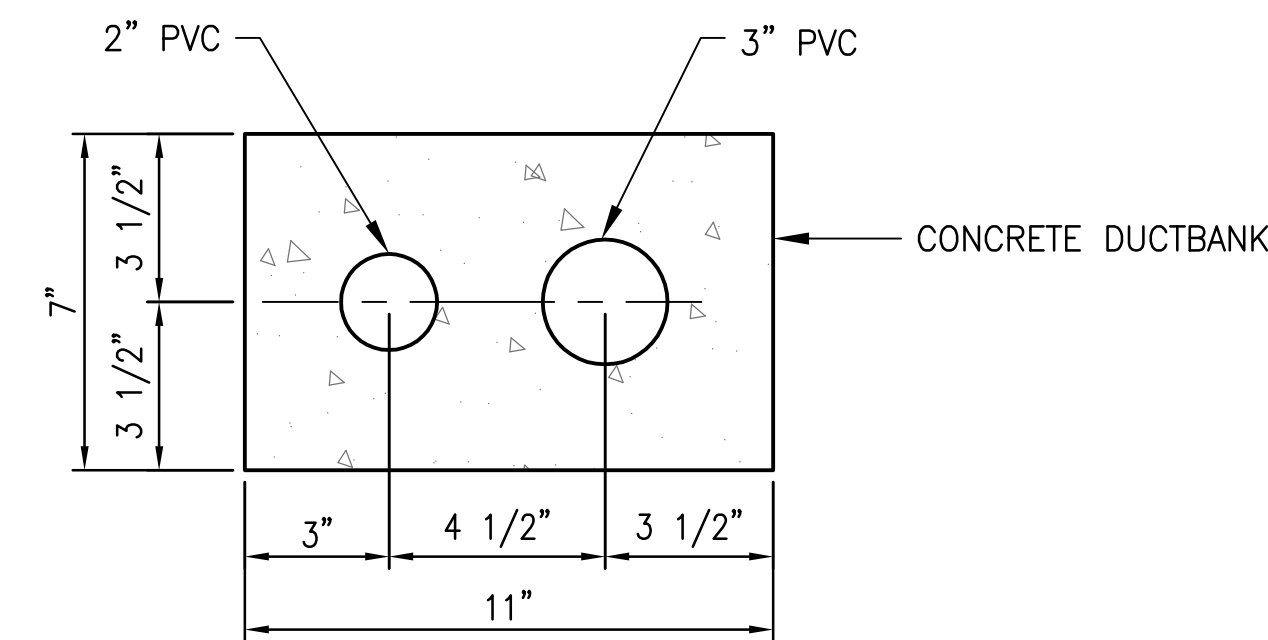
SCALE: 1/4"=1'-0"



2 DUCTBANK PLAN
CWP01-E-101

SCALE: NONE

(SEE DWG. CWP01-C-115, DETAIL C FOR DUCTBANK SECTION VIEW)



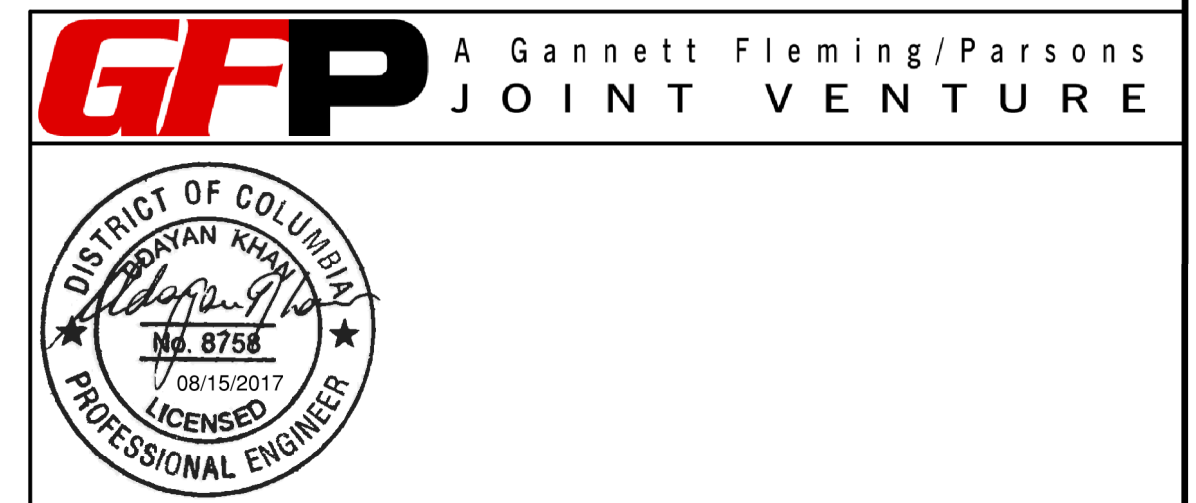
A SECTION
CWP01-E-101

SCALE: 3"=1'-0"

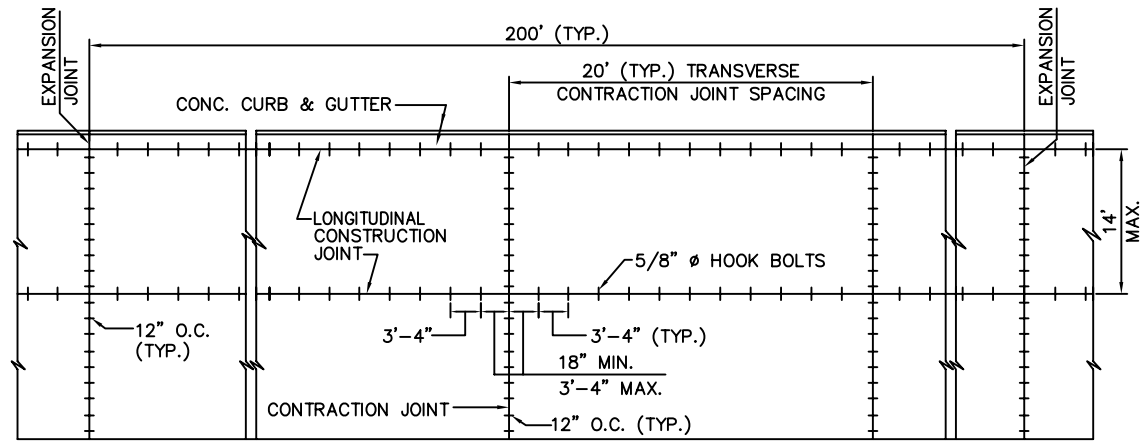
(TO BE INCORPORATED WITH CONDENSER PIPING TRENCH)

NOTES:

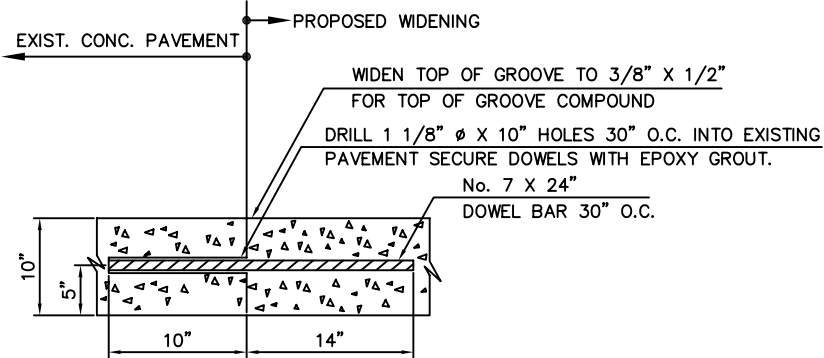
- CONTRACTOR SHALL COORDINATE WITH THE AR FOR CONDUIT REQUIREMENT.
- 1-2" & 1-3" SCHEDULE 80 PVC CONDUITS.
- THE CONTRACTOR SHALL FOLLOW THE EXISTING CONDUIT ROUTING FOR THE NEW CONDUITS. HOWEVER, CONDUIT RUN BETWEEN THE ROOM AND THE COOLING TOWER AREA SHALL BE IN CONCRETE DUCTBANK ALONG WITH THE CONDENSATE PIPING. REFER TO DWGS:
CWP01-M-104
CWP01-M-105
CWP01-M-106
CWP01-M-302
CWP01-C-115
CWP01-A-105
- AT BOTH ENDS, THE CONDUITS SHALL TERMINATE IN THE JUNCTION BOX FOR FUTURE EXTENSION. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD WITH CIVIL AND MECHANICAL DISCIPLINES.
- THE CONDUITS SHALL RUN IN CONCRETE-ENCASED DUCTBANK ALONGSIDE THE NEW PIPING. REQUIRED LENGTH SHALL BE ASSESSED FROM CIVIL AND UTILITIES DRAWINGS.
- POWER CONDUIT SIZE IS BASED ON 3#250 KCMIL + 1#1 AWG GND FOR 4-25HP FAN MOTORS COOLING TOWER. FAN MOTOR SIZES WERE OBTAINED FROM MECHANICAL DISCIPLINE. PROVIDE JUNCTION BOXES AT INTERVALS BASED ON NEC.
- CONDUITS SHALL HAVE PULL STRINGS INSTALLED AND LEFT IN THE CONDUIT TO PULL COMMUNICATION AND ELECTRICAL WIRES.



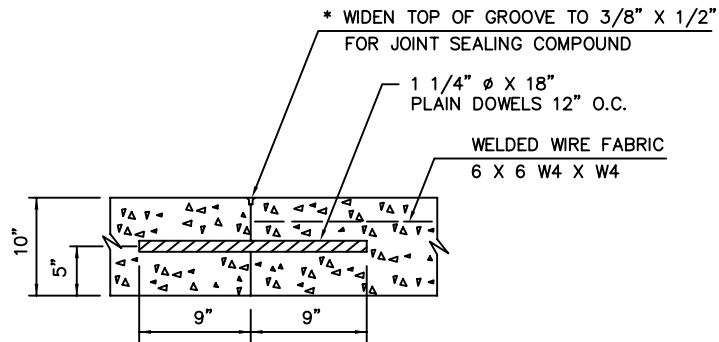
DESIGNED <u>B. IDILBI</u> DATE DRAWN <u>Y. MCAFEE</u> DATE CHECKED <u>D. KHAN</u> DATE	REFERENCE DRAWINGS		REVISIONS			<div><div><div>M</div><div>metro</div></div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES</div><div>OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM</div><div><div><div><div>Mark H. Magnuson</div><div>08/15/2017</div></div><div>DATE</div></div><div><div><div>J. Ch</div><div>08/15/2017</div></div><div>DATE</div></div></div></div>	REPLACEMENT OF FARRAGUT NORTH & DUPONT CIRCLE CONDENSER PIPING ELECTRICAL - 1101 CONNECTICUT AVENUE BASEMENT PLAN AND SECTION - NEW WORK				
	NUMBER	TITLE	DATE	NUM	DESCRIPTION						
			08/15/17	0	FINAL SUBMITTAL						
M NO.		CONTRACT NO.		SCALE	DRAWING NO.	SHEET NO.					
M1298		FQ-18004		AS NOTED	CWPA01-E-101	53 of 53					



TYPICAL JOINT PLAN FOR LOAD TRANSFER DEVICES
DETAIL-1

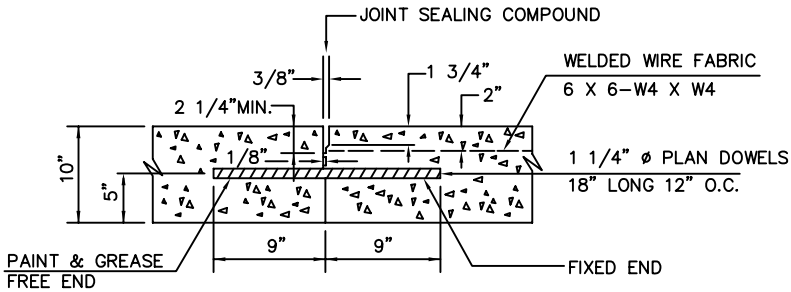


METHOD OF WIDENING CONC. PAVEMENT
DETAIL-4

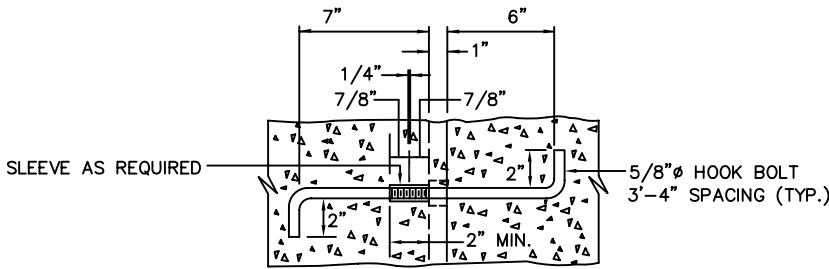


TRANSVERSE CONSTRUCTION (BUTT) JOINT
DETAIL-6

* IF JOINT COINCIDES WITH SPECIFIED JOINT, CONSTRUCT IN ACCORDANCE WITH DETAIL SHOWN.



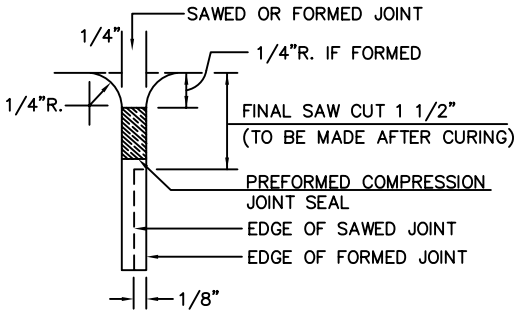
CONTRACTION JOINT
DETAIL-2



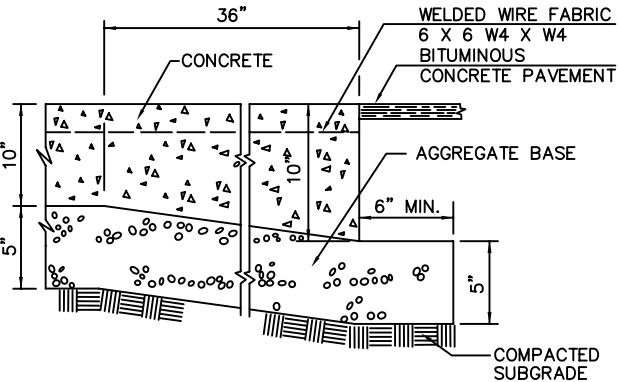
TIE ROD ASSEMBLY & LONGITUDINAL CONSTRUCTION JOINT
DETAIL-5

GENERAL NOTES

1. ALL LONGITUDINAL AND TRANSVERSE JOINTS SHALL HAVE LOAD TRANSFER DEVICES AS SHOWN.
2. PROVIDE BOND BREAKER COMPOUND AROUND FIXED STRUCTURES (MANHOLES, INLETS, ETC.) BEFORE PLACING THE CONCRETE PAVEMENT.



JOINT SEAL
DETAIL-7



CONC. PAVEMENT THICKENED EDGE
DETAIL-8

NOTE:

A BOND BREAKING MATERIAL IS TO BE PROVIDED BETWEEN THE JOINT FILLER AND JOINT SEALING COMPOUND.

DESIGNED A.A. RIZVI 4-81
DATE
DRAWN A.M. BUENO 4-81
DATE
CHECKED REIGN, PATRICK 4-81
DATE
APPROVED E.Y. LIU 4-81
DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS	
DATE	DESCRIPTION
06/2007	ENG A REVISED AND ISSUED BY THE AUTHORITY

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

OFFICE OF ENGINEERING SUPPORT SERVICES

SUBMITTED 10/2007
DATE

APPROVED 10/2007
DATE

SCALE
NOT TO SCALE

DRAWING NO.
ST-C-072

CIVIL STANDARD DRAWING
JOINT DETAILS FOR CONCRETE PAVEMENT

COMBINED SEWER TABLE

- ① Combined Sewer Manhole
Top = 52.50'
15" RCP Inv. In = 49.03' (From CDI #2)
21" RCP Inv. Out = 40.12' (To South)
- ③ Combined Sewer Manhole
Top = 51.84'
Unable To Open

- ④ Combined Sewer Manhole
Top = 51.99'
15" TC Inv. In = 42.05' (From MH #5)
15" TC Inv. Out = 41.51' (To MH #3)

- ⑤ Combined Sewer Manhole
Top = 52.06'
6" PVC Inv. In = 49.83' (From North West)
15" TC Inv. In = 42.06' (From MH #6)
15" TC Inv. Out = 42.07' (To MH #4)

- ⑥ Combined Sewer Manhole
Top = 53.62'
15" TC Inv. In = 42.91' (From MH #7)
15" TC Inv. Out = 42.44' (To MH #5)

- ⑦ Combined Sewer Manhole
Top = 54.30'
15" Unk Inv. In = 43.34' (From MH #8)
15" TC Inv. Out = 43.28' (To MH #6)

- ⑧ Combined Sewer Manhole
Top = 54.68'
12" TC Inv. In = 50.78' (From East)
15" TC Inv. In = 43.49' (From MH #9)
15" Unk Inv. Out = 43.34' (To MH #7)

- ⑨ Combined Sewer Manhole
Top = 54.83'
15" Unk Inv. In = 44.30' (From MH #10)
15" TC Inv. Out = 44.24' (To MH #8)

- ⑩ Combined Sewer Manhole
Top = 55.49'
12" TC Inv. In = 51.29' (From South West)
15" TC Inv. In = 45.14' (From MH #11)
15" Unk Inv. Out = 45.00' (To MH #9)

- ⑪ Combined Sewer Manhole
Top = 55.32'
12" Unk Inv. In = 45.67' (From East)
12" TC Inv. In = 51.68' (From CDI #19)
12" TC Inv. In = 45.46' (From North East)
12" TC Inv. In = 45.43' (From MH #17)
15" TC Inv. Out = 45.23' (To MH #10)

- ⑫ Combined Sewer Manhole
Top = 52.82'
Unable To Open

- ⑭ Combined Sewer Manhole
Top = 55.31'
21" RCP Inv. In = 47.19' (From North West)
30" RCP Inv. In = 44.68' (From MH #15)
30" RCP Inv. Out = 44.64' (To South)

- ⑮ Combined Sewer Manhole
Top = 55.97'
Unable To Open
(Plan) Inv. = 45.11 (DC Sewer Map) See note below.

- ⑯ Combined Sewer Manhole
Top = 55.66'
6" DIP Inv. In = 50.10' (From North East)
18" RCP Inv. In = 49.64' (From CDI #18)
15" TC Inv. In = 48.16' (From East)
15" TC Inv. In = 48.11' (From South East)
21" Unk Inv. Out = 47.99' (To MH #15)

Note: Invert elevations associated with gravity structures that were inaccessible and shown hereon as (Plan) Inv. may not be referenced to NAVD '88 Vertical Datum.

LINE LEGEND

---	COMM	Underground Communications
---	CWS	Underground Chilled Water
---	UGE	Underground Electric
---	FO	Underground Fiber Optic
---	GAS	Underground Gas
---	SAN	Sanitary Sewer Pipe
---	STM	Storm Sewer Pipe
---	TFC	Underground Traffic
---	WTR	Underground Water
---	54	Contour Line

- ⑰ Combined Sewer Manhole
Top = 55.94'
6" PVC Inv. In = 53.39' (From West)
12" TC Inv. In = 46.34' (From North West)
12" TC Inv. Out = 46.24' (To MH #16)

STORM SEWER TABLE

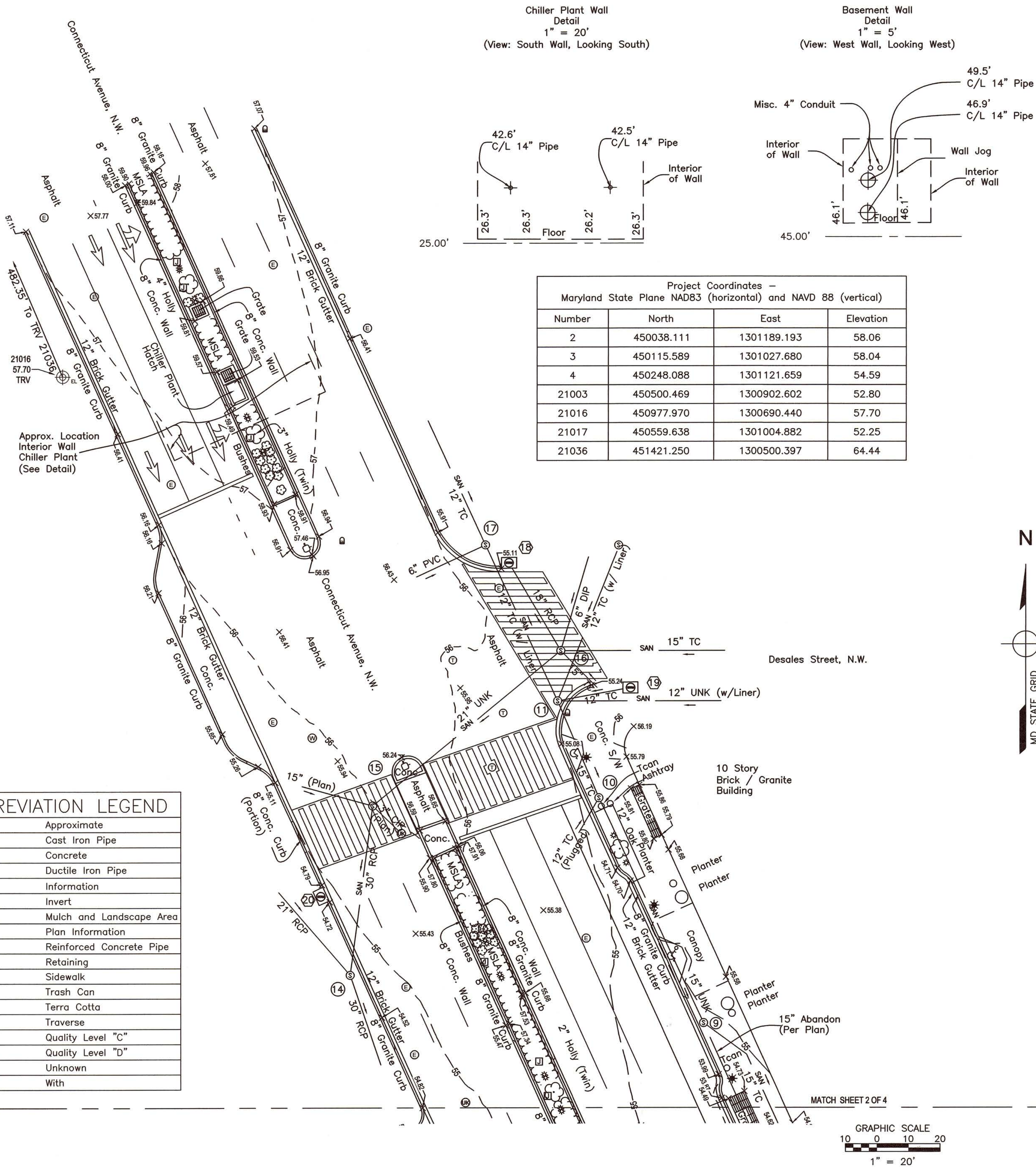
- ② Curb Drop Inlet
Top = 52.38'
15" RCP Inv. Out = No Access (to MH #1)
(Full of Debris)
Approx. Bottom Of Structure = 46.6'±
- ⑬ Curb Drop Inlet
Top = 53.00'
No Access
(Full of Debris)
Approx. Bottom Of Structure = 47.0'±
- ⑱ Curb Drop Inlet
Top = 55.89'
No Access
(Full of Debris)
Approx. Bottom Of Structure = 49.4'±
- ⑳ Curb Drop Inlet
Top = 55.65'
No Access
(Full of Debris)
Approx. Bottom Of Structure = 46.8'±

SYMBOL LEGEND

⊙	Electric Manhole
⊞	Electric Junction Box
★	Light Pole
☆	Ground Light
⊕	Gas Valve
♿	Handicap Ramp
•	Post
⊙	Sanitary Manhole
⊞	Shrub
⊞	Sign
⊞	Stand Pipe
⊞	Storm Manhole
⊞	Traffic Signal Pole
⊞	Telephone / Comm. Manhole
⊞	Tree
⊞	Unknown Manhole
⊞	Water Manhole
⊞	Water Valve

ABBREVIATION LEGEND

Approx.	Approximate
CIP	Cast Iron Pipe
Conc.	Concrete
DIP	Ductile Iron Pipe
info	Information
Inv.	Invert
MSLA	Mulch and Landscape Area
(Plan)	Plan Information
RCP	Reinforced Concrete Pipe
Ret	Retaining
S/W	Sidewalk
Tcan	Trash Can
TC	Terra Cotta
TRV	Traverse
QLC	Quality Level "C"
QLD	Quality Level "D"
UNK	Unknown
W/	With



GENERAL NOTES:

- 1) PROPERTY RESEARCH AND PROPERTY SURVEYS ARE NOT INCLUDED AS PART OF THIS SURVEY.
- 2) NO TITLE REPORT FURNISHED WHICH MAY REVEAL OR DISCOVER THE EXISTENCE OF EASEMENTS.
- 3) NO CEMETERY SITES WERE OBSERVED ON THE SUBJECT PROPERTY, HOWEVER THIS DOES NOT PRECLUDE THEIR EXISTENCE.
- 4) THIS PLAT IS THE RESULT OF A FIELD SURVEY CONDUCTED BY RICE ASSOCIATES DURING MARCH - APRIL 2017
- 5) HORIZONTAL DATUM IS MARYLAND STATE GRID NAD 83 ESTABLISHED BY GPS OBSERVATIONS.
- 6) VERTICAL DATUM IS NAVD88 ESTABLISHED BY GPS OBSERVATIONS.
- 7) THE CONTOUR INTERVAL IS ONE (1) FOOT.
- 8) THIS PLAT WAS FORWARDED ELECTRONICALLY IN READ ONLY FORMAT. ANY ATTEMPT AT ALTERATION INVALIDATES THE SEAL AND SIGNATURE. AN ORIGINAL HARD COPY REMAINS ON FILE AT RICE ASSOCIATES.

SHEETS 1 & 2 - TOPOGRAPHIC SURVEY
SHEETS 3 & 4 - NON GRAVITY SUBSURFACE
UTILITY INFORMATION

SURVEY PREPARED BY:
RICE ASSOCIATES
LAND SURVEYING MAPPING CONSULTANTS
10661 GASKINS WAY
MANASSAS, VIRGINIA 20109
(703) 968-3200 FAX (703) 968-2705
WWW.RICESURVEYS.COM



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

OFFICE OF THE CHIEF ENGINEER
CPDO - INFRASTRUCTURE RENEWAL PROJECT MANAGEMENT

TOPOGRAPHIC SURVEY

Connecticut Avenue, N.W.
NEAR ENTRANCE TO FARRAGUT NORTH METRO STATION
WASHINGTON, D.C.

DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS	
		NUMBER	TITLE	DATE	DESCRIPTION
DRAWN	4-15-2017			5-1-2017	1 Added Control Sketches, See Sheet 2 Of 4
				5-8-2017	1 Grate Hatching, Annotation (Alley), Revised Title Block
CHECKED	4-17-2017				



APPROVED
ASSISTANT CHIEF ENGINEER

DATE

APPROVED
DEPUTY CHIEF ENGINEER

DATE

CONTRACT NO.

SCALE

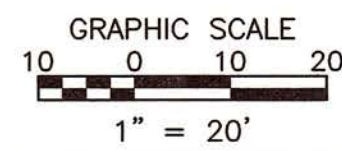
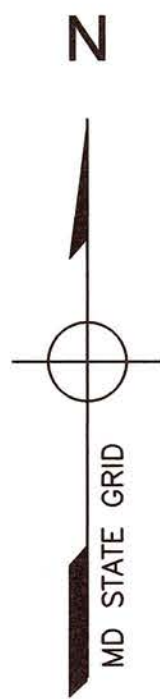
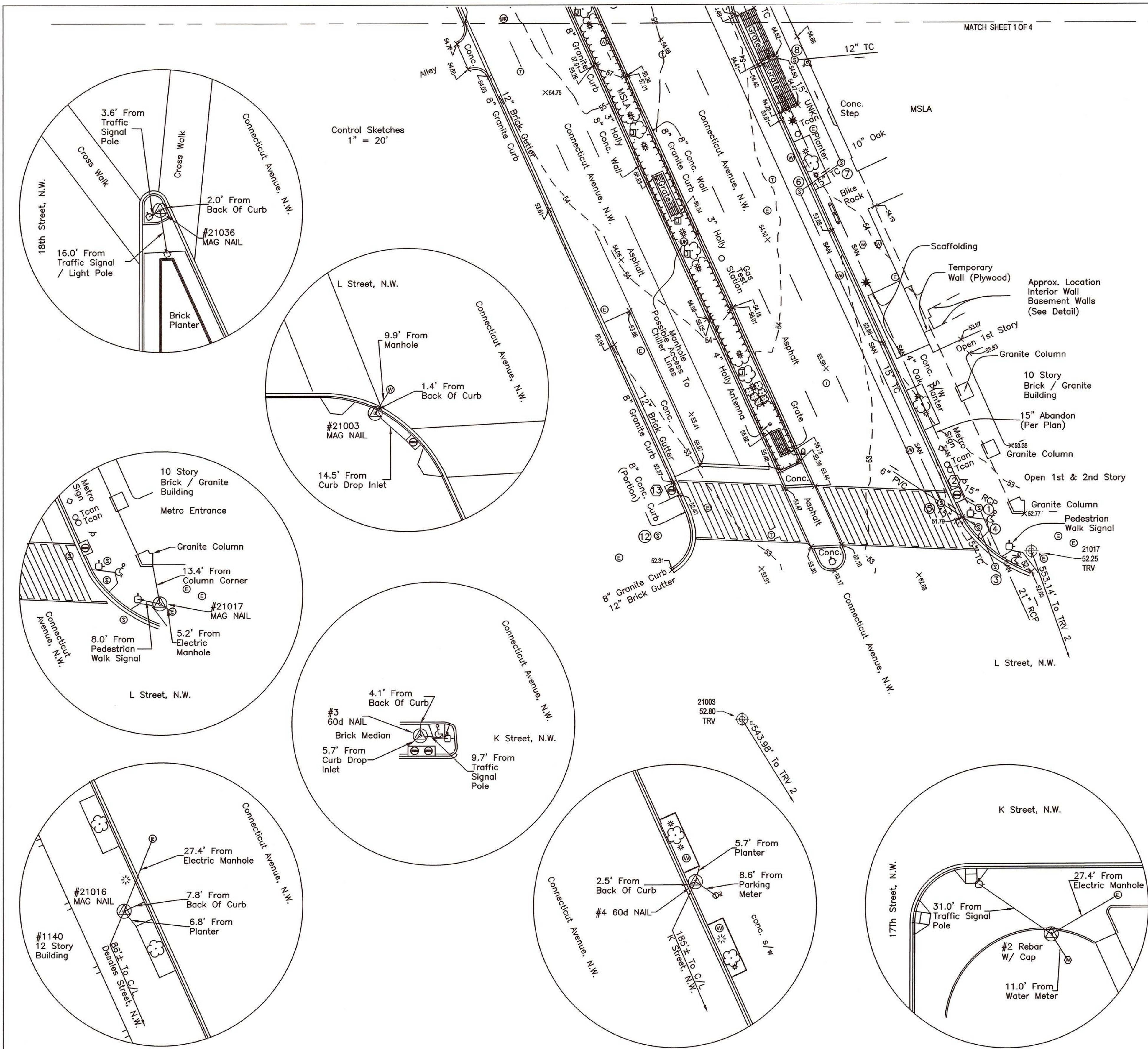
1" = 20'

DRAWING NO.

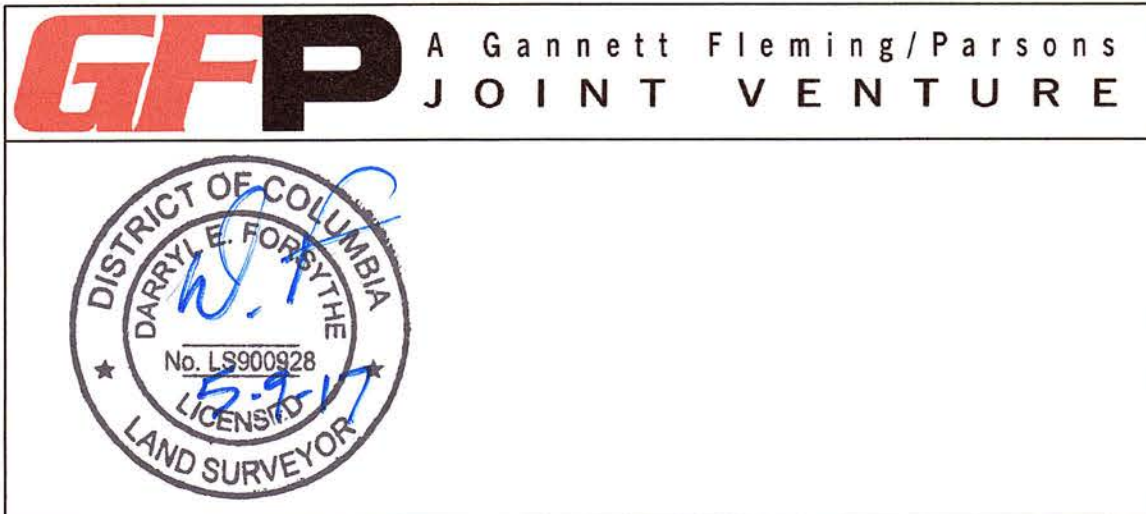
SURVEY - 1

SHEET NO.

1 of 4




SURVEY PREPARED BY:
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DESIGNED	DATE
DRAWN	4-15-2017
CHECKED	4-17-2017

REFERENCE DRAWINGS		REVISIONS	
NUMBER	TITLE	DATE	DESCRIPTION
		5-1-2017	Added Control Sketches, See Sheet 2 Of 4
		5-8-2017	Grate Hatching, Annotation (Alley), Revised Title Block

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**
OFFICE OF THE CHIEF ENGINEER
CPDO - INFRASTRUCTURE RENEWAL PROJECT MANAGEMENT

APPROVED _____ DATE _____
ASSISTANT CHIEF ENGINEER

APPROVED _____ DATE _____
DEPUTY CHIEF ENGINEER

TOPOGRAPHIC SURVEY Connecticut Avenue, N.W. NEAR ENTRANCE TO FARRAGUT NORTH METRO STATION WASHINGTON, D.C.		CONTRACT NO.	SCALE 1" = 20'	DRAWING NO. SURVEY - 2	SHEET NO. 2 of 4
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UTILITY CONTACTS:

AT&T TRANSMISSION
GARY WIGFIELD
4800 WINCHESTER BLVD.
FREDERICK, MD 21703
(301) 874-1180

COMCAST
AMY GOAD
11101 UNIVERSITY BLVD.
MANASSAS, VA 20110
(301) 625-3407

D.C. DEPARTMENT OF TRANSPORTATION
GENERAL CONTACT
55 M ST. SE
SUITE 400
WASHINGTON, D.C. 20003
(202) 673-6813

FIBERLIGHT/SUNBELT TELCOM
BRANDY HUGHES
45472 HOLIDAY DR.
SUITE 10
STERLING, VA 20166
(678) 824-6617

LEVEL 3 COMMUNICATIONS
PATRICK PROVOST
1025 EL DORADO BLVD.
BROOMFIELD, CO 80021
(720) 888-4686

ZAYO
BRADLEY LEATHERMAN
1805 29TH ST.
SUITE 20250
BOULDER, CO 80301
(866) 364-6033

PEPCO
BOB BROWN
3400 BENNING RD NE
WASHINGTON, D.C. 20017
(202) 388-2419

VERIZON
JAMES CUNNINGHAM
13101 COLUMBIA PIKE
SILVER SPRING, MD 20904
(301) 282-4506

DC WATER & SEWER
LEE THOMPSON
5000 OVERLOOK AVE. SW
WASHINGTON, D.C. 20032
(202) 787-7667

WASHINGTON GAS
DEBBIE BUNYEA
6802 INDUSTRIAL RD.
SPRINGFIELD, VA 22151
(703) 750-4403

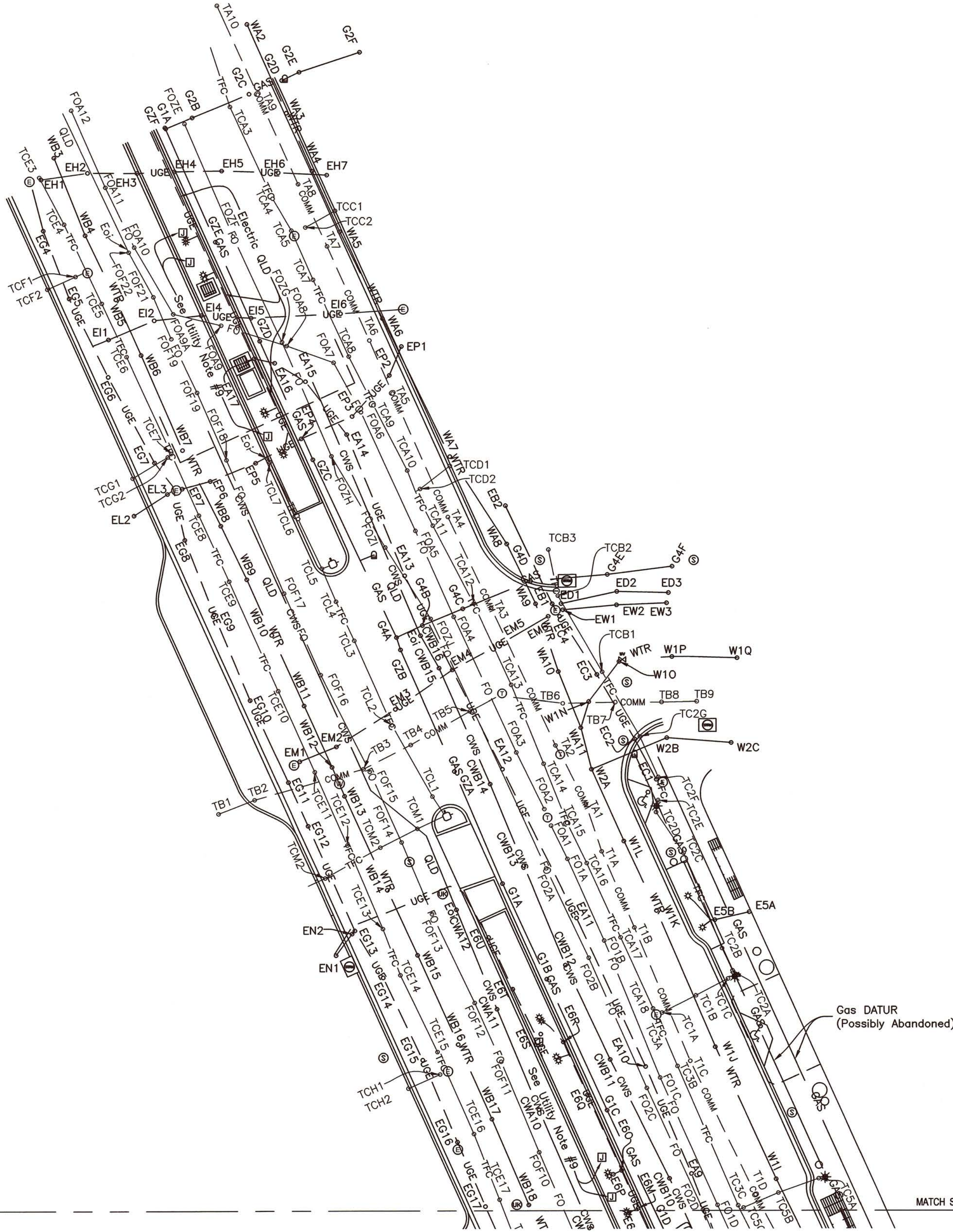
UTILITY DEPTH LEGEND:

CW___ Chilled Water Supply / Return
E___ Electric
FO___ Fiber Optic
G___ Gas
T___ Telephone
TC___ Traffic Control / Lighting
W___ Water

UTILITY DEPTH NOTES:

See separate document for approximate utility depths.

All depths are electronic depths provided by the designation equipment used and should not be used as a substitute for utility test holes.



LINE LEGEND	
---	COMM --- Underground Communications
---	CWS --- Underground Chilled Water
---	UGE --- Underground Electric
---	FO --- Underground Fiber Optic
---	GAS --- Underground Gas
---	SAN --- Sanitary Sewer Pipe
---	STM --- Storm Sewer Pipe
---	TFC --- Underground Traffic
---	WTR --- Underground Water
---	54 --- Contour Line

UTILITY NOTES:

PURPOSE: TO SURVEY SPECIFIC EXISTING UNDERGROUND UTILITIES AS MARKED (DESIGNATED) BY RICE ASSOCIATES, SUBSURFACE UTILITIES MAPPING PROFESSIONALS WITHIN CLIENT SPECIFIC CORRIDORS.

THE SUBSURFACE UTILITIES SHOWN ON THE MAP OF SURVEY WERE IDENTIFIED USING THE INDUSTRY STANDARD DETECTION METHODOLOGIES IN STRICT ACCORDANCE WITH THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.

QUALITY LEVELS AND DEFINITIONS PER C/ASCE STANDARD NO. 38-02:

QUALITY LEVEL "D" (DATUR) - DEPICTED ACCORDING TO UTILITY RECORD INFORMATION AND IN-FIELD VISUAL INSPECTION. NO ELECTRONIC DESIGNATING INFORMATION WAS OBTAINED.

QUALITY LEVEL "C" - EXISTING UTILITY STRUCTURES HAVE BEEN FIELD LOCATED AND SURVEYED TO ASSIST IN THE DEPICTION OF THE UTILITIES SHOWN ON THE RECORDS. NO ELECTRONIC DESIGNATING INFORMATION WAS OBTAINED.

QUALITY LEVEL "B" - INFORMATION WAS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF THE SUBSURFACE UTILITIES. QLB DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION.

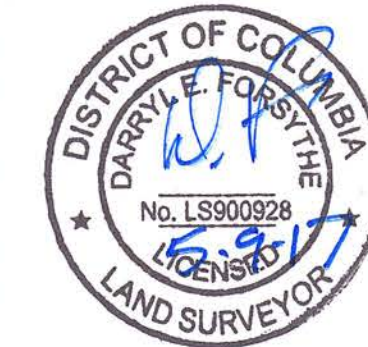
QUALITY LEVEL "A" - OBTAIN PRECISE HORIZONTAL AND VERTICAL POSITION OF THE UTILITY LINE BY EXCAVATING A TEST HOLE. THE TEST HOLE SHALL BE DONE USING VACUUM EXCAVATION OR COMPARABLE NON-DESTRUCTIVE EQUIPMENT IN A MANNER AS TO CAUSE NO DAMAGE TO UTILITY LINE.

- UTILITIES ARE DEPICTED ON THESE PLANS IN ACCORDANCE WITH THEIR ACHIEVED "QUALITY LEVELS" AS DEFINED IN THE AMERICAN SOCIETY OF CIVIL ENGINEERS'S DOCUMENT ASCE 38-02, "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
- UTILITIES WITH A "DATUR" LABEL (QUALITY LEVEL "D") ARE DEPICTED ON THE PLANS USING JUDGMENT IN INTERPRETING AVAILABLE THIRD-PARTY RECORDS OR OTHER INFORMATION.
- UTILITIES WITH NO LABEL ARE QUALITY LEVEL "B" AND ARE DEPICTED ON THE PLANS USING JUDGMENT IN SELECTING AND INTERPRETING APPROPRIATE GEOPHYSICAL DATA, SURVEYING TO APPROPRIATE PROJECT ACCURACIES THE PROJECTION OF THAT DATA ON THE GROUND SURFACE, AND THEN USING JUDGMENT TO CORRELATE THIRD-PARTY AVAILABLE RECORDS OR OTHER INFORMATION, IF ANY, AS PERTAINING TO THESE QLB DEPICTIONS.
- UTILITY SIZE AND TYPE FOR QUALITY LEVEL "B" DEPICTIONS ARE DETERMINED THROUGH AVAILABLE UTILITY OWNER INFORMATION. UTILITIES LABELED AS UNKNOWN HAVE NO CORRELATED RECORDS OR VISIBLE APPURTENANCES TO DETERMINE FUNCTION OR TYPE.
- AN ATTEMPT TO ACHIEVE QUALITY LEVEL "B" DATA WAS MADE FOR ALL UTILITIES WITHIN THE PROJECT LIMITS EXCEPT FOR GRAVITY SEWERS, STORM DRAINS AND SERVICE LINES LESS THAN 1.25' IN DIAMETER AS SHOWN BY UTILITY SERVICE RECORDS.
- UTILITY MAPPING WAS COMPLETED ON 3/29/2017. UTILITIES MAY HAVE BEEN CHANGED OR ADDED AFTER THIS DATE.
- RELiance UPON THIS DATA FOR RISK MANAGEMENT PURPOSES DURING BIDDING DOES NOT RELIEVE THE EXCAVATOR OR UTILITY OWNER FROM FOLLOWING ALL APPLICABLE UTILITY DAMAGE PREVENTION STATUTES, POLICIES, AND/OR PROCEDURES DURING EXCAVATION.
- IT IS IMPORTANT THAT THE CONTRACTOR INVESTIGATES AND UNDERSTANDS THE SCOPE OF WORK BETWEEN THE PROJECT OWNER AND THEIR ENGINEER REGARDING THE SCOPE AND LIMITS OF THE UTILITY INVESTIGATIONS LEADING TO THESE UTILITY DEPICTIONS.
- NO UTILITIES WERE FOUND ENTERING OR EXITING THIS ABOVE GROUND FACILITY DURING DESIGNATION EFFORTS. THIS FACILITY IS POSSIBLY ABANDONED.
- AS OF 4/14/2017, A DILIGENT EFFORT WAS MADE TO CONTACT AT&T, COMCAST, FIBERLIGHT, STARPOWER, MID-ATLANTIC, AND SPRINT COMMUNICATION COMPANIES. RECORD DRAWINGS HAVE NOT BEEN RECEIVED. HOWEVER, THESE COMPANIES ARE NOT BELIEVED TO HAVE FACILITIES WITHIN THE PROJECT LIMITS.
- AS OF 4/14/2017, A DILIGENT EFFORT WAS MADE TO CONTACT DC DOT AND PEPCO. RECORD DRAWINGS HAVE NOT BEEN RECEIVED. HOWEVER, ALL DUE EFFORT WAS MADE TO DESIGNATE ALL FACILITIES DURING FIELD INVESTIGATIONS.

THIS SHEET IS ASSOCIATED WITH NON - GRAVITY
SUBSURFACE UTILITY INFORMATION

SURVEY PREPARED BY:
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GFP A Gannett Fleming/Parsons
JOINT VENTURE

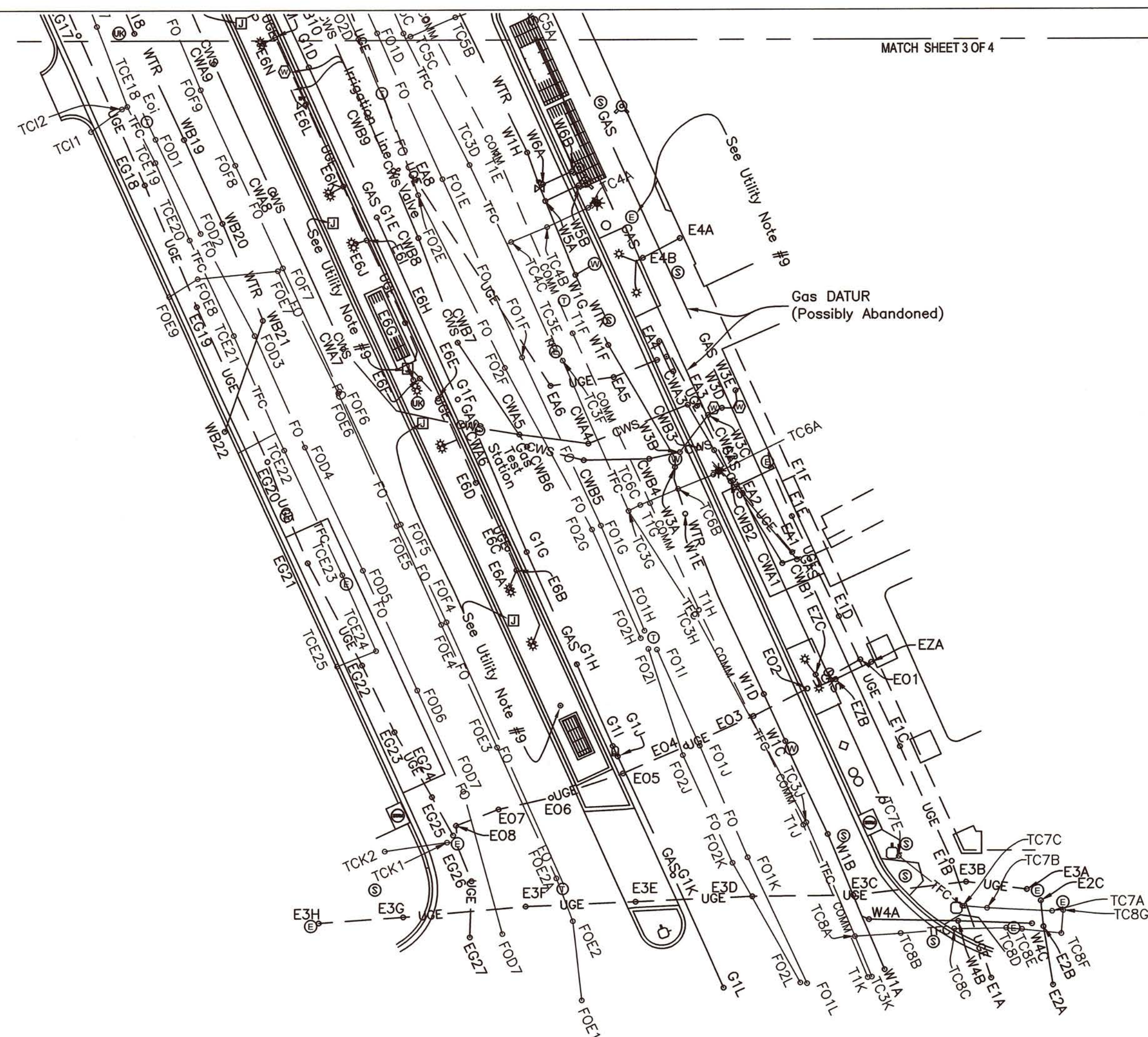


WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
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APPROVED _____ DATE _____
ASSISTANT CHIEF ENGINEER
APPROVED _____ DATE _____
DEPUTY CHIEF ENGINEER

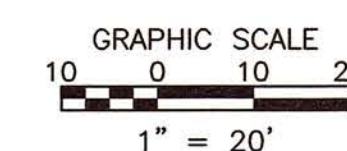
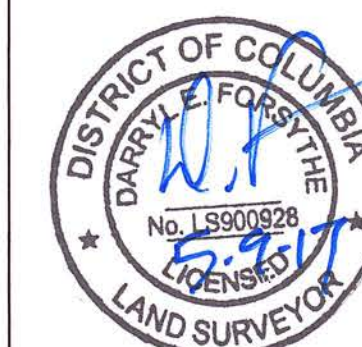
SUBSURFACE UTILITY SURVEY
Connecticut Avenue, N.W.
NEAR ENTRANCE TO FARRAGUT NORTH METRO STATION
WASHINGTON, D.C.

CONTRACT NO. _____ SCALE 1" = 20' DRAWING NO. SURVEY - 3 SHEET NO. 3 of 4



THIS SHEET IS ASSOCIATED WITH NON - GRAVITY
SUBSURFACE UTILITY INFORMATION

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			REFERENCE DRAWINGS				REVISIONS				<div><div><div><div></div><div>metro</div></div></div><div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>OFFICE OF THE CHIEF ENGINEER</div><div>CPDO - INFRASTRUCTURE RENEWAL PROJECT MANAGEMENT</div><div><div>APPROVED _____ DATE _____</div><div>ASSISTANT CHIEF ENGINEER _____</div><div>APPROVED _____ DATE _____</div><div>DEPUTY CHIEF ENGINEER _____</div></div></div></div>	SUBSURFACE UTILITY SURVEY Connecticut Avenue, N.W. NEAR ENTRANCE TO FARRAGUT NORTH METRO STATION WASHINGTON, D.C.			
DESIGNED		DATE	NUMBER	TITLE	DATE	NUM	DESCRIPTION	CONTRACT NO.	SCALE	DRAWING NO.		SHEET NO.			
					5-1-2017	1	Added Control Sketches, See Sheet 2 Of 4		1" = 20'			4 of 4			
DRAWN	kit	4-15-2017			5-8-2017	1	Grate Hatching, Annotation (Alley), Revised Title Block			SURVEY - 4					
CHECKED	def	4-17-2017													