

SECTION 02999

MISCELLANEOUS WORK

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. The existing 36-inch HDPE (IPS) DR-13.5 chilled water mains were installed by horizontal directional drill (HDD) in 2004. Based on existing as-builts and valve locations, mid-block of West Duval Street between North Pearl Street and North Julia Street appears to be where the chilled water mains are shallowest, at approximately 14-feet below the pavement. During subsurface utility excavation (SUE) attempts by the ENGINEER's surveyor, there were only able to reach a depth of 9-feet and 6-feet below grade for the existing return and supply chilled water mains, respectively, with the vacuum exploration. At one location in West Duval Street, the surveyor encountered a layer of concrete. Refer to Exhibit A for the surveyor's test hole and exploration hole reports. Refer to Exhibit B for JEA's as-builts of the existing 36-inch HDPE chilled water mains.

The work to be performed by the CONTRACTOR under this Section includes the subsurface field locating of the existing supply and return 36-inch HDPE chilled water mains, in the vicinity of the proposed new chilled water pipe connection points mid-block of West Duval Street between North Pearl Street and North Julia Street, as shown on the Drawings.

- B. This Section details the performance of subsurface investigative utility locates by the CONTRACTOR mid-block of West Duval Street between North Pearl Street and North Julia Street. All work associated with field verifying the location of the existing supply and return 36-inch HDPE chilled water mains will be incorporated into the pay item for existing chilled water mains field verification allowance. This pay item is solely for the CONTRACTOR to perform the necessary field investigations to locate both 36-inch HDPE chilled water mains, confirm that construction can proceed as shown on the Drawings, and install necessary temporary backfill and pavement at the site of investigation. This pay item is not to be used for any other work activities for the work.
- C. The CONTRACTOR shall furnish all labor, materials, equipment and incidentals to complete the work under this Section.
- D. Completion of this work is critical so the CONTRACTOR can prepare their final tie-in plan to the existing 36-inch chilled water piping and release materials of construction such as the wet taps.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 SCHEDULE OF WORK

- A. Prepare a work schedule. CONTRACTOR shall submit proposed schedule of work to JEA and the ENGINEER for review prior to beginning work. Only items detailed

SECTION 02999

MISCELLANEOUS WORK

within the schedule of work and agreed to by the OWNER shall be included in the pay item allowance.

- B. Prepare TTC/MOT plan. The CONTRACTOR shall prepare the required vehicle and/or pedestrian Maintenance of Traffic (MOT)/Temporary Traffic Control (TTC) Plan(s) to conduct the subsurface investigative utility locate work. The MOT/TTC plan(s) shall be approved by the City of Jacksonville (COJ), JEA, and JEA's HQ Building CONTRACTOR – Ryan Companies. The CONTRACTOR's schedule of work and TTC shall address temporary excavation backfill and compaction, temporary pavement restoration, and protection of open trench areas during non-work hours.
All plans must be approved prior to starting the work.
- C. Provide approved TTC/MOT, and work schedule to JEA's Project Outreach staff and any updates of changes to work schedule and traffic detours.
- D. The CONTRACTOR shall obtain the City of Jacksonville (COJ)'s ROW permit prior to starting the work.
- E. Install and maintain TTC.
- F. Install and maintain erosion and sediment control devices.
- G. If required, install and maintain a groundwater dewatering system.
- H. If required, install and maintain excavation protection system(s), as required by regulatory agencies.
- I. Obtain groundwater samples and industrial discharge permitting if needed for dewatering activities. A documented groundwater, contamination is known to be present within 500 feet of the project area.
- J. Saw cut and dispose of existing pavement, and/or curb and sidewalk.
- K. Perform exploratory excavation to field verify the location and elevation of the existing supply and return HDPE chilled water mains. The CONTRACTOR shall provide the field verified top of pipe elevations and contract document stationing locations of the existing 36-inch chilled water mains to the OWNER and ENGINEER prior to ordering materials to complete the tie-in.
- L. Unforeseen conditions, such as unmarked utilities or buried concrete slabs, will be addressed using the time and material rates.
- M. Backfill and compaction following field verification.
- N. Restore disturbed / damaged pavement and/or curb and sidewalk per COJ standards to allow temporary public use and access until such time as the CONTRACTOR returns to begin connection to the existing chilled water systems.

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MISCELLANEOUS WORK

- O. Clean up site and restore any disturbed vegetation.
- 3.02 FIELD VERIFICATION OF EXISTING SUPPLY AND RETURN 36-INCH CHILLED WATER MAINS LOCATION
- A. The CONTRACTOR shall begin field efforts to locate the existing chilled water mains within 20 business days from the receiving the JEA NTP. The CONTRACTOR shall provide written notice to JEA, COJ and the ENGINEER prior to beginning the process of the chilled water mains' field verification. The CONTRACTOR shall provide a summary with the anticipated level of effort required to perform the work and work schedule for review by JEA prior to beginning the work.
 - B. The actual duration of time to locate the chilled water mains may vary depending on the CONTRACTOR's plan of work. The CONTRACTOR shall bill towards the pay item for the 36-inch chilled water mains field verification allowance as set in the bid form on a time and materials basis. The OWNER makes no estimations of the time required or needed to locate the existing 36-inch chilled water mains. The CONTRACTOR shall anticipate the work to be performed during the hours of 7:00 PM to 5:00 AM weekdays and midnight Friday through 5:00 AM Monday on weekends. Unforeseen conditions, such as unmarked utilities or buried concrete slabs, shall be addressed using the time and material rates pay item for the 36-inch chilled water mains field verification allowance set in the bid form.
 - C. All mobilization, investigative demolition, protected and dewatered excavation, temporary lighting, TTC, site erosion and sediment control, restoration and repairs after the work is completed shall be performed by the CONTRACTOR in accordance with JEA's latest standards, COJ permit requirements, conditions and standards, and regulatory agency requirements.
 - D. The CONTRACTOR shall be responsible for any and all jobsite, motor vehicle traffic, pedestrian, and general public safety and protection during all work. The CONTRACTOR is advised that the proposed work is immediately adjacent to the State Attorney's Office and the US District Court Buildings. Access to the State Attorney's Office and the US District Court Buildings shall not be disrupted.
 - E. The CONTRACTOR shall prepare and submit Record Drawings per JEA 2020 Water and Wastewater Standards Manual Section 501 (including all applicable, required tables). The submittal shall include JEA's Record Drawing Submittal Transmittal and Check List and sent through JEA's Sages Gov website (www.sagesgov.com/jea-fl). The CONTRACTOR shall submit the record drawing for approval by JEA's Contract Administrator.

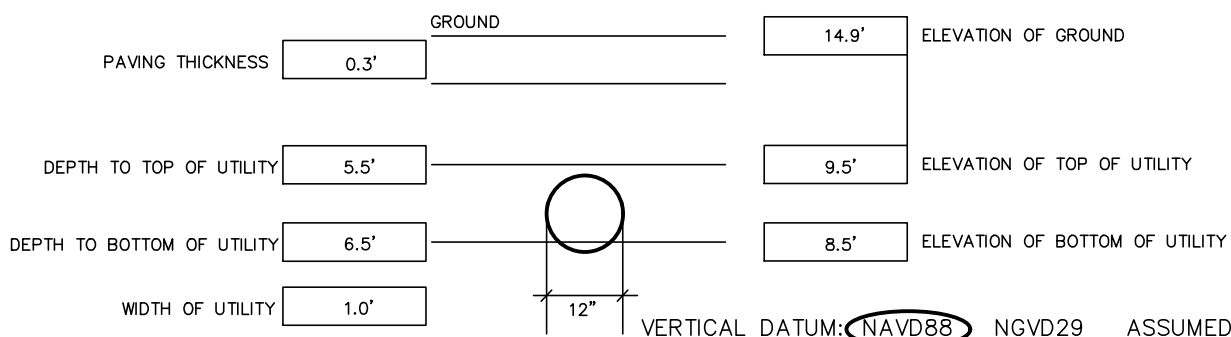
END OF SECTION 02999

Exhibit A

Vacuum Test Holes

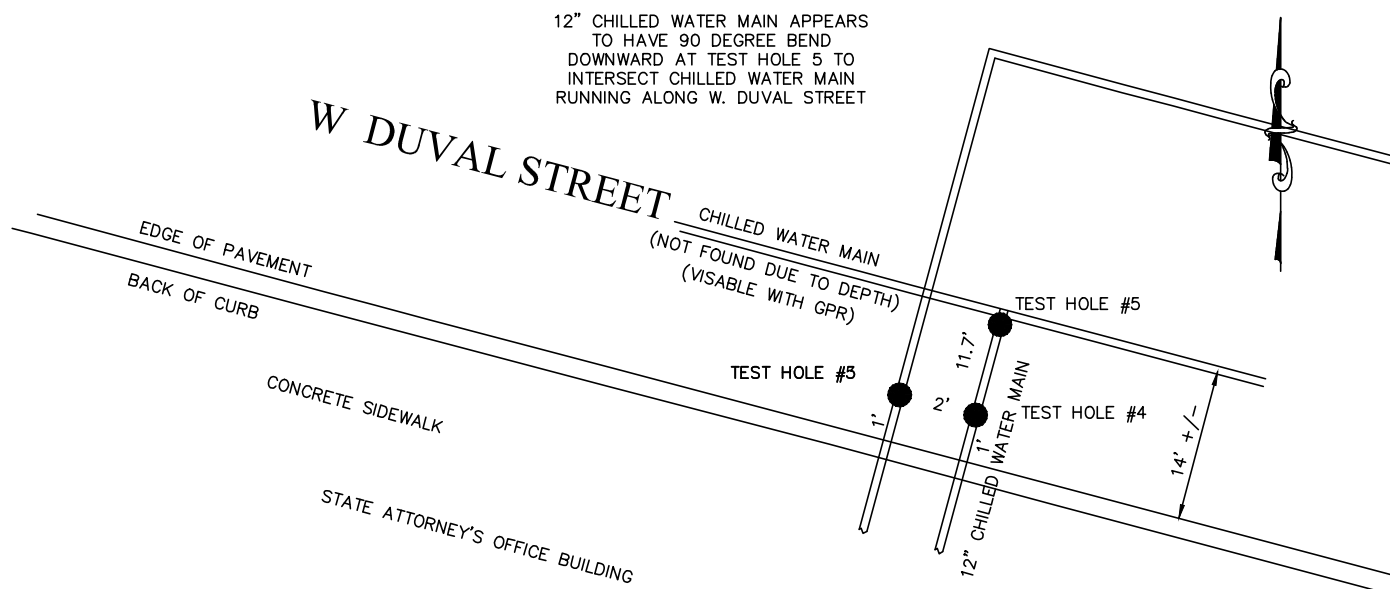
PROJECT NAME: JEA New Headquarters Chilled Water	TEST HOLE #: 5
DATE: 04/29/2020	DSI PROJECT #: 2020103
CLIENT: JEA / Mott	CREW: BS, CN
EXPECTED UTILITY: GAS STORM SAN COMM UNK FM CATV H2O TEL ELEC IRRIGATION REUSE	SURFACE TYPE: ASPHALT CONCRETE ASPHALT OVER CONCRETE BRICKS SIDEWALK DIRT/GRASS N/A
UTILITY FOUND: GAS STORM SAN COMM UNK FM CATV H2O TEL ELEC IRRIGATION RW	PAVEMENT CONDITION: GOOD FAIR POOR N/A
MATERIAL: DIP C/I STEEL CABLE PLASTIC VCP CLAY RCP CMP PVC HDPE PE UNK OTHER: COLOR: GRAY	SOIL CONDITION: HARD SOFT WET MOIST DRY SAND CLAY ROCK DIRT DEBRIS
SURVEY LOCATION BY: DSI	

VERTICAL INFORMATION:



TEST HOLE 3	HORIZONTAL INFORMATION: NAD83
NORTHING: 2180616.21	DIRECTION: NE-SW
EASTING: 447478.42	STATION: OFFSET:

LOCATION SKETCH AND NOTES:



TEST HOLE #5



LOOKING WESTERLY ALONG WEST DUVAL ST.



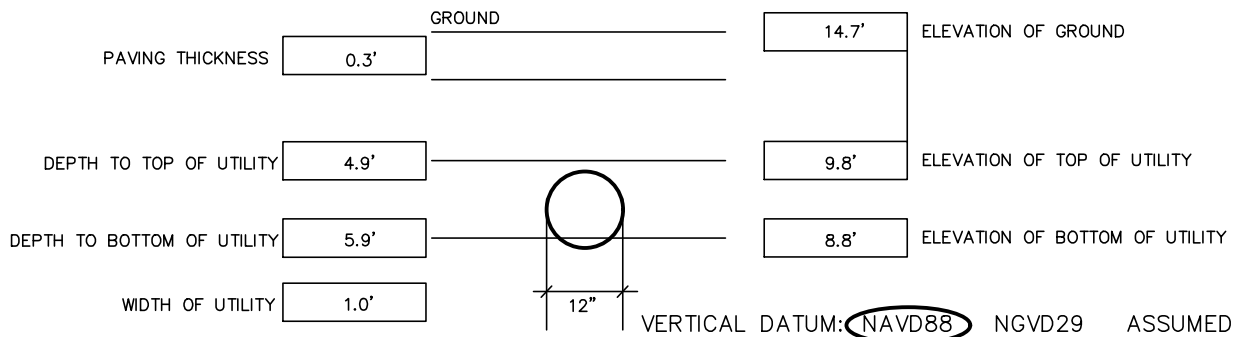
NORTH EDGE OF
PIPE

12" HDPE (WRAPPED) TURNS DOWNWARD

NORTH IS LEFT

PROJECT NAME: JEA New Headquarters Chilled Water	TEST HOLE #: 6
DATE: 05/05/2020	DSI PROJECT #: 2020103
CLIENT: JEA / Mott	CREW: BS, NC, CS
EXPECTED UTILITY: GAS STORM SAN COMM UNK FM CATV H2O TEL ELEC IRRIGATION REUSE	SURFACE TYPE: ASPHALT CONCRETE ASPHALT OVER CONCRETE BRICKS SIDEWALK DIRT/GRASS N/A
UTILITY FOUND: GAS STORM SAN COMM UNK FM CATV H2O TEL ELEC IRRIGATION RW	PAVEMENT CONDITION: GOOD FAIR POOR N/A
MATERIAL: DIP C/I STEEL CABLE PLASTIC VCP CLAY RCP CMP PVC HDPE PE UNK OTHER: UNKNOWN COLOR: GRAY	SOIL CONDITION: HARD SOFT WET MOIST DRY SAND CLAY ROCK DIRT DEBRIS
SURVEY LOCATION BY: DSI	

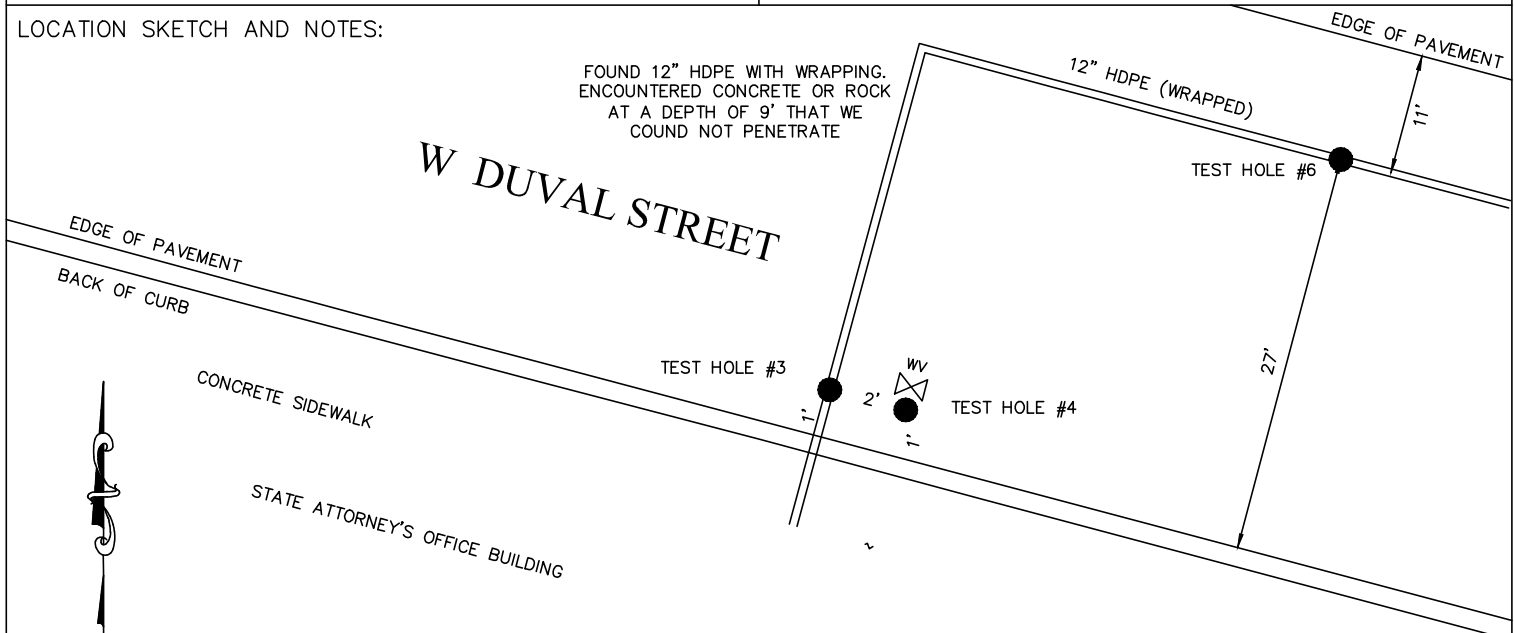
VERTICAL INFORMATION:



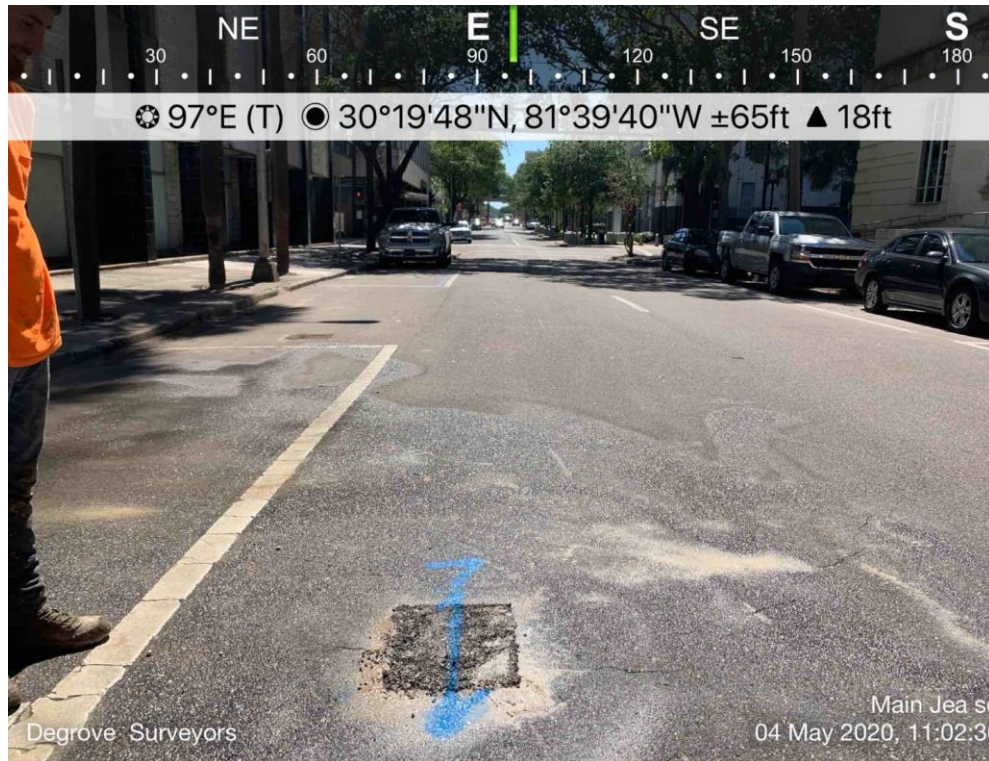
TEST HOLE 4	HORIZONTAL INFORMATION: NAD83
NORTHING: 2180604.88	DIRECTION: NE-SW
EASTING: 447475.46	STATION: OFFSET:

LOCATION SKETCH AND NOTES:

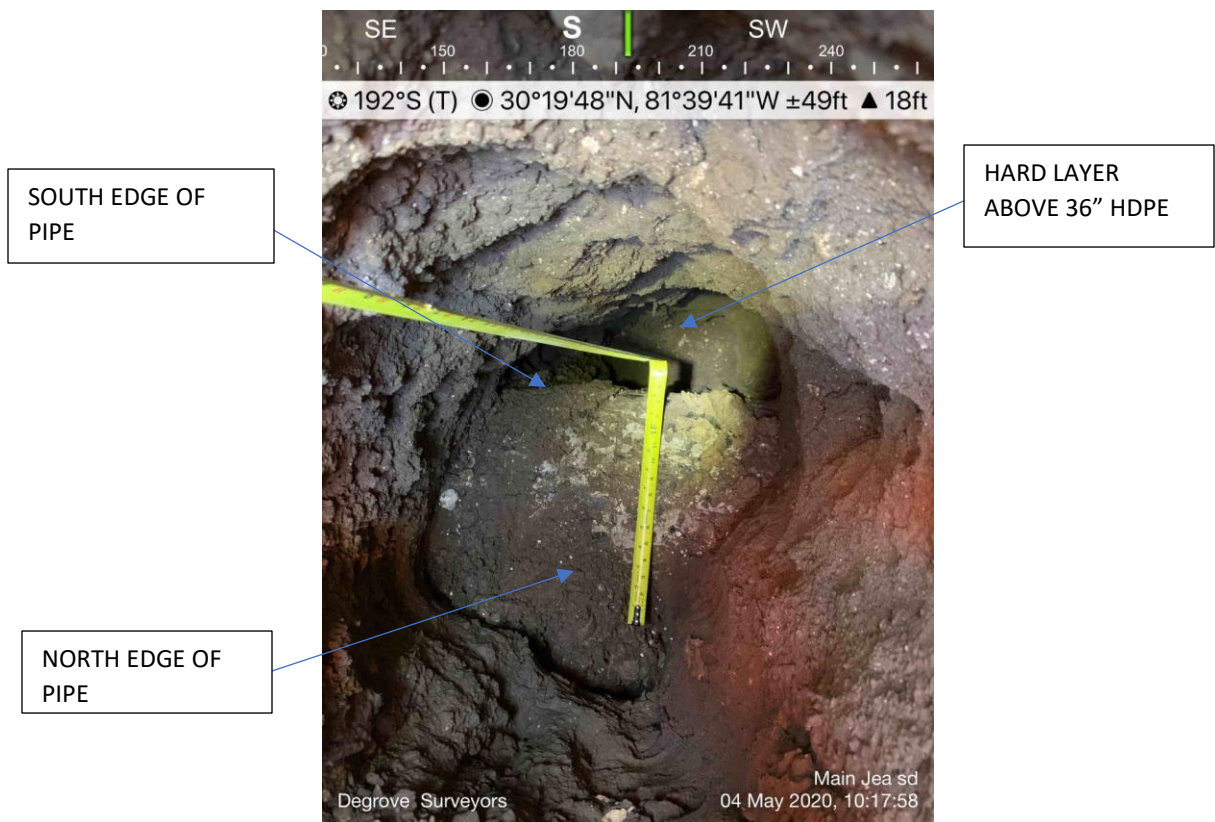
FOUND 12" HDPE WITH WRAPPING.
ENCOUNTERED CONCRETE OR ROCK
AT A DEPTH OF 9' THAT WE
COULD NOT PENETRATE



TEST HOLE #6



LOOKING EASTERLY ALONG WEST ADAMS ST.

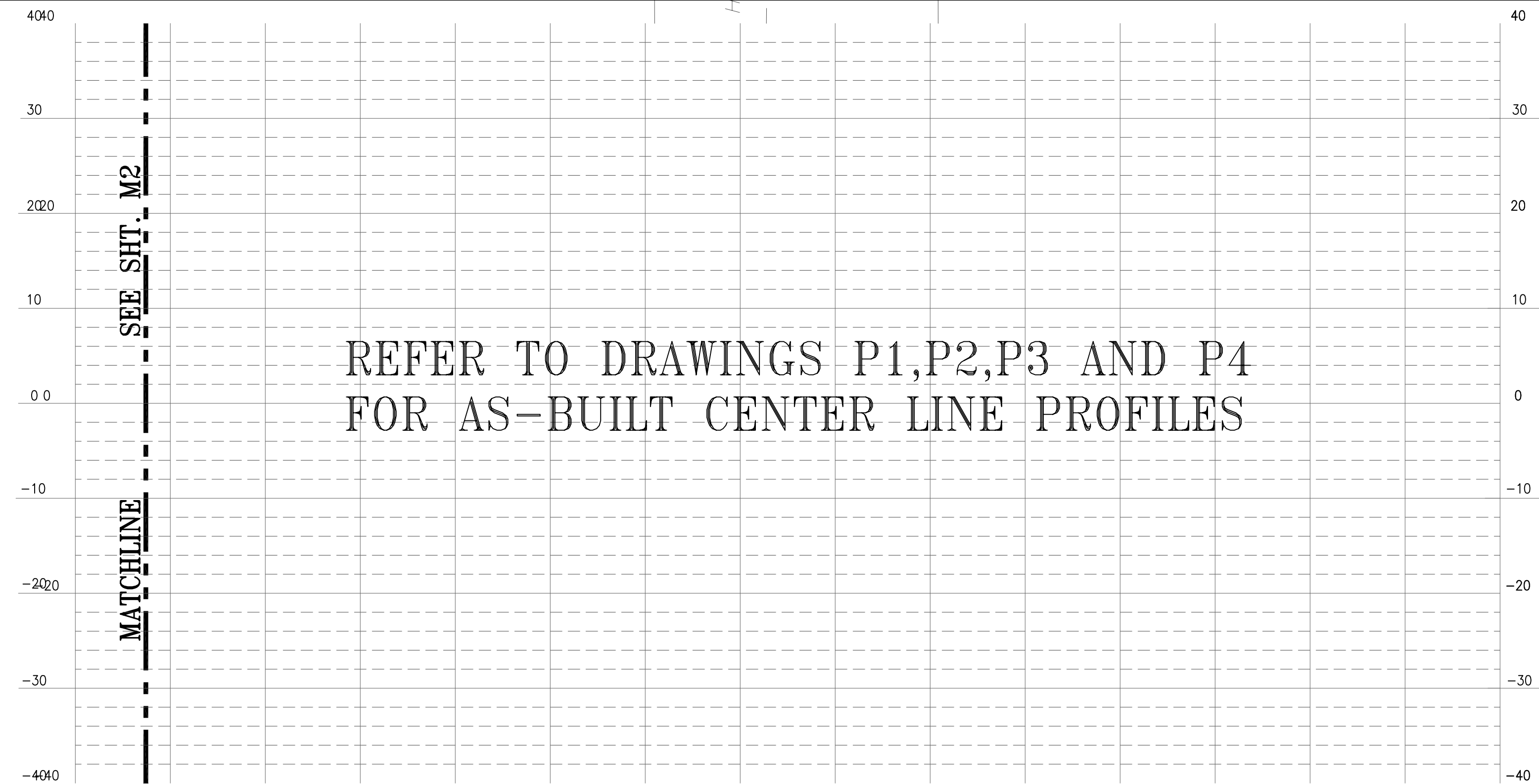
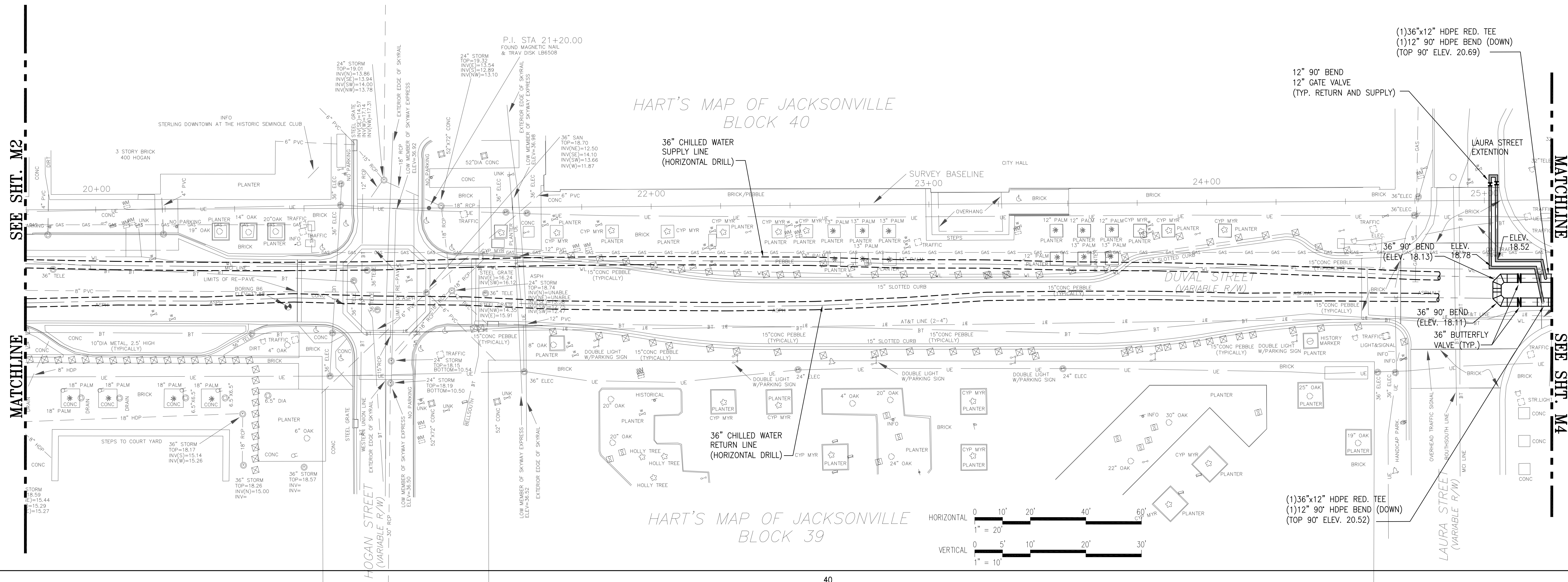
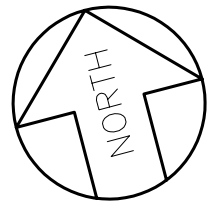


12" HDPE (WRAPPED)

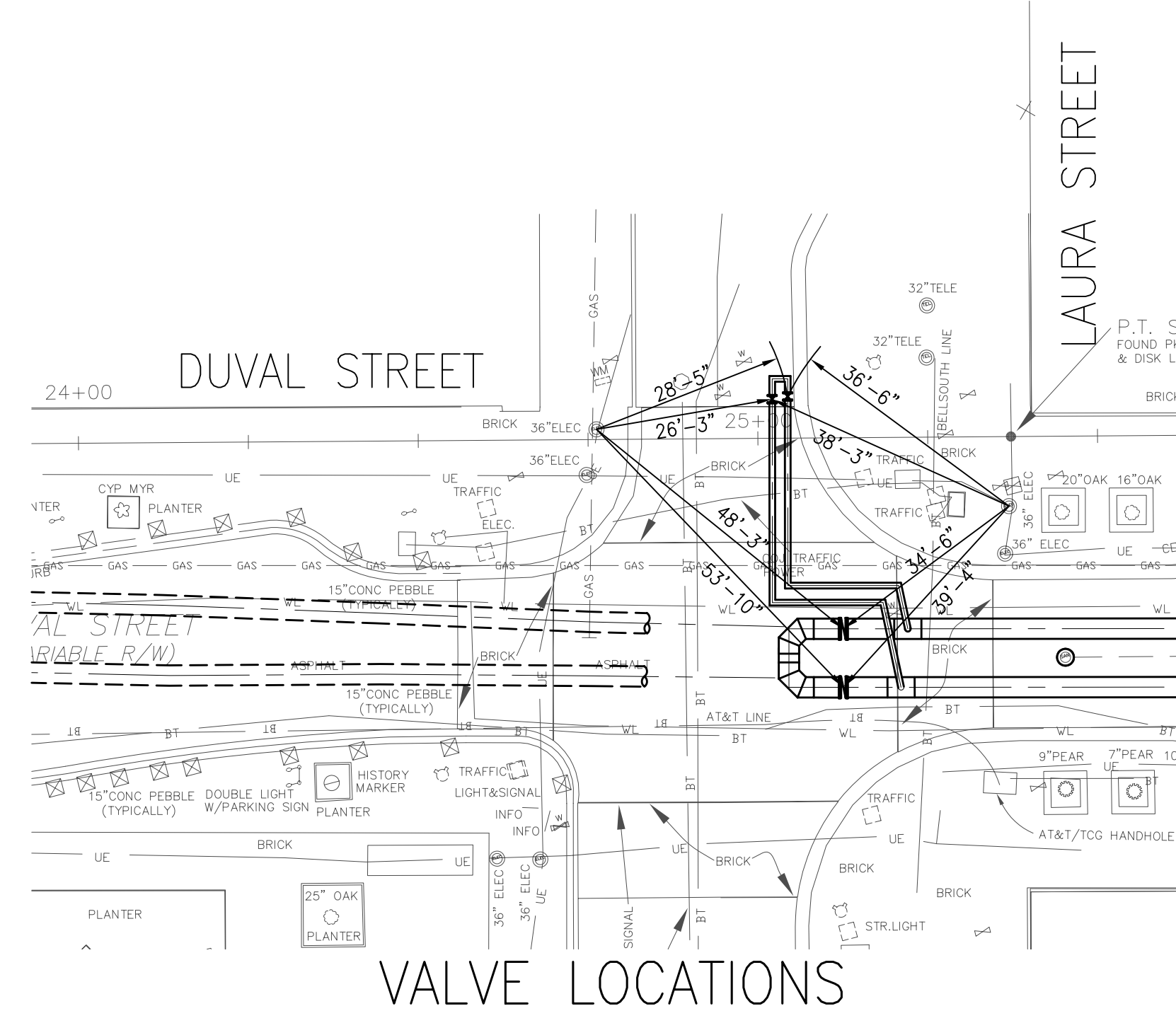
NORTH IS DOWN

Exhibit B

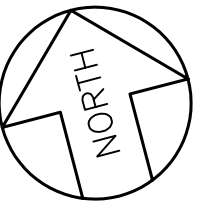
As-Builts



AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.



NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER:	DESIGN ENGINEER:	PROJECT NO.	JEA PROJECT:	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET	NO. SHEETS
6						S. LEE		1007739			11
5						J. KING					SHEET NO.
4						2-17-04					5
3						C. JACOBS					DRAWING NO.
2	J.K.	11/2004		ADDED VALVE LOCATION DIMENSIONS	ROBERT SCHUSTER, P.E.	2-17-04					M3
1	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	REG. ENGR. NO. 51034	MET PROJ. NO. 203012002B	FLORIDA REGISTRATION NO. 6365	DATE: FEBRUARY 2004	SCALE: AS SHOWN	PLAN AND PROFILE - STA. 19+75 TO STA. 25+25	



InterCon Construction, Inc.
Utility Contractors
an InfrastruX company

2880 Commerce Park Drive
Madison, WI 53719

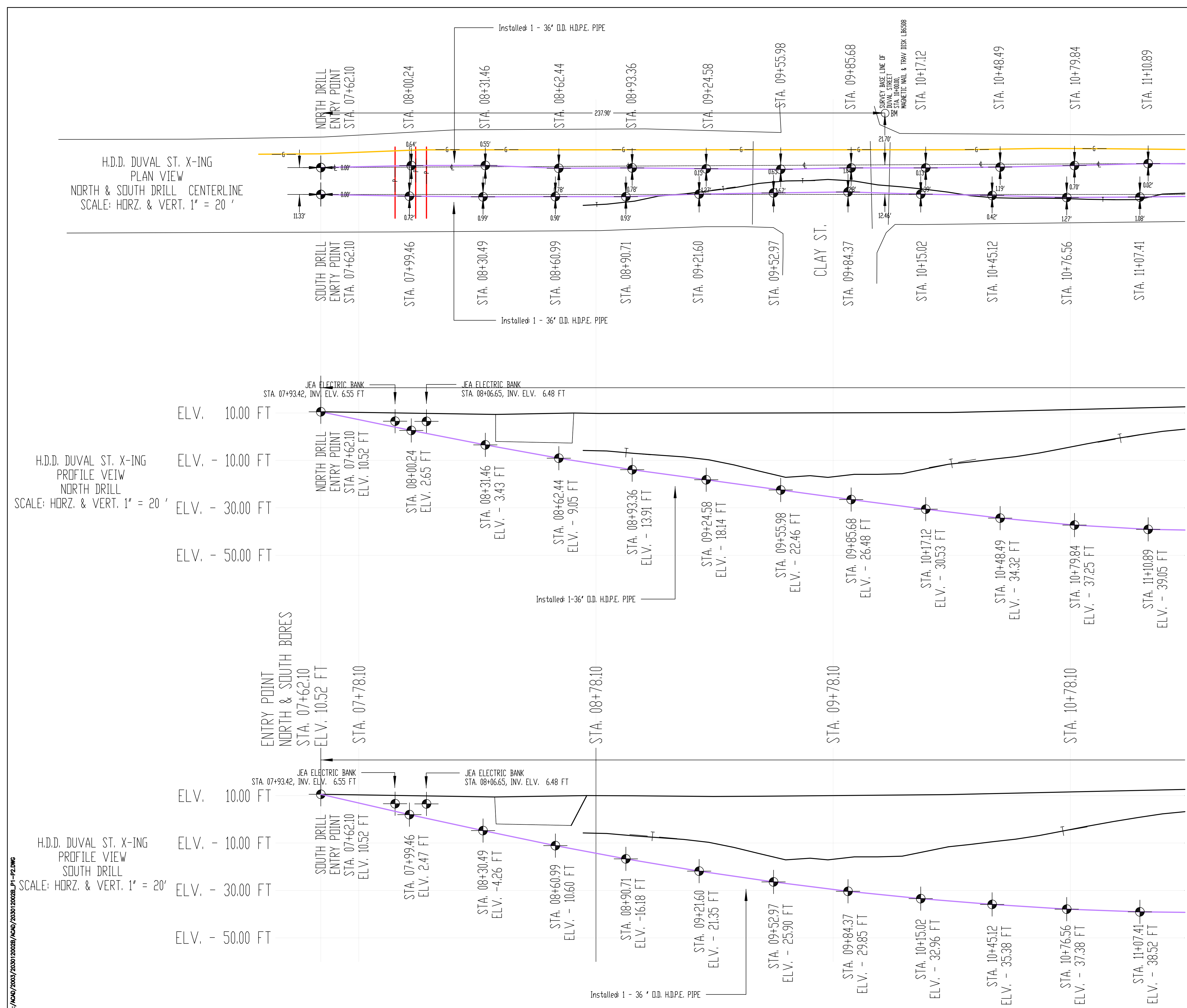
Office: (608) 227-7473

InterCon Construction, Inc. Asbuilt
JEA Chilled water distribution Drilled along Duval St. accross Clay & Pearl st. Jacksonville, Duval county, FL
South bore Horz. Dist. = 818.68 ft Curve Dist. = 826.54 ft
North bore Horz. Dist. = 849.00 ft Curve Dist. = 874.23 ft
Installed: 1- SDR 13.5 - 36" D.D. H.D.P.E. Pipe
InterCon job. no. 400156
Drawn By: Patrick M. Unwin 3/05/04

- North & South drill plan centerline & baseline
- North & South installed 36" o.d. h.d.p.e. pipe
- JEA sewer lines
- JEA under ground electric lines
- Gas 10" pipeline
- Fiber optic lines
- Survey station marker

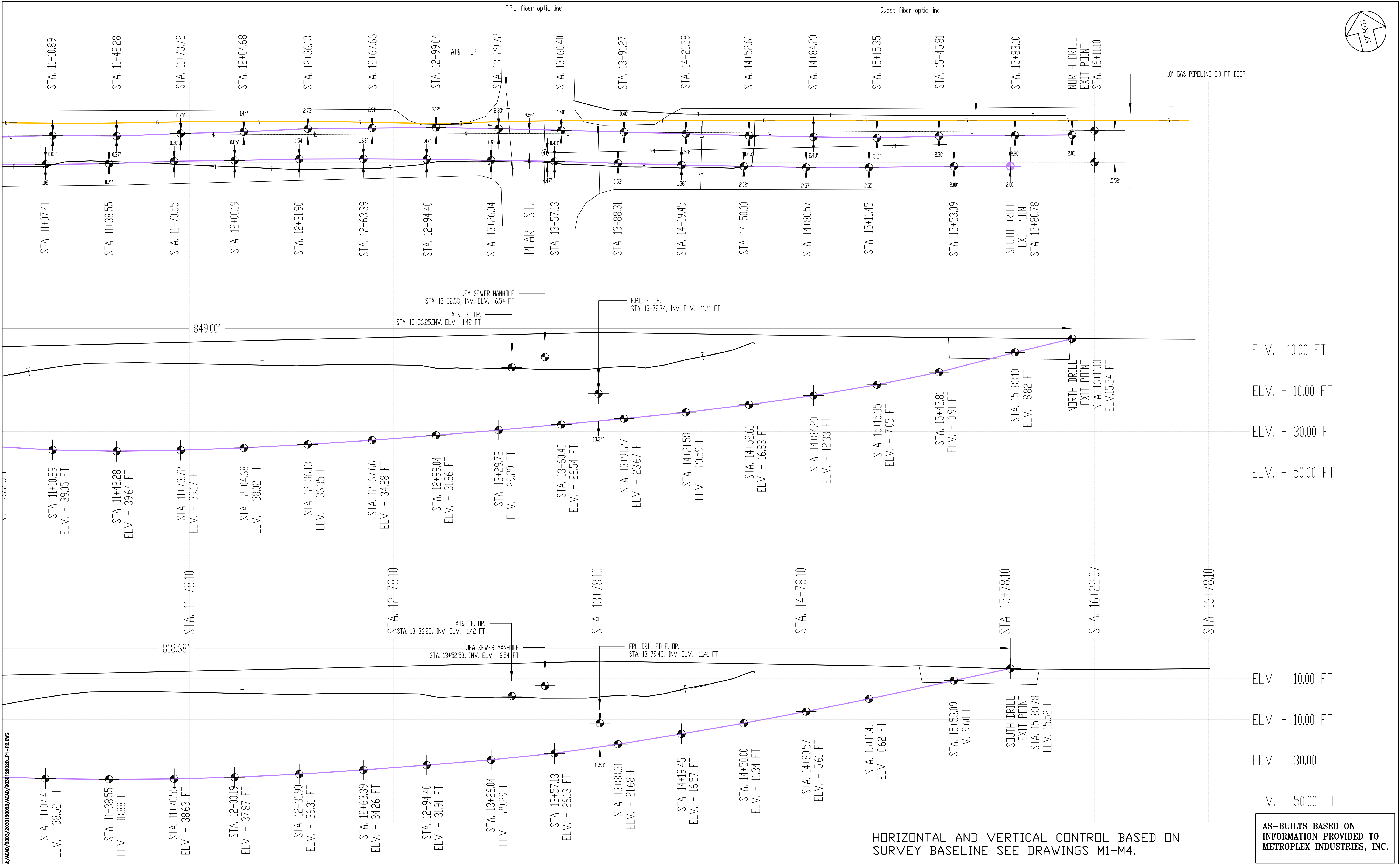
HORIZONTAL AND VERTICAL CONTROL BASED ON
SURVEY BASELINE SEE DRAWINGS M1-M4.



AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.

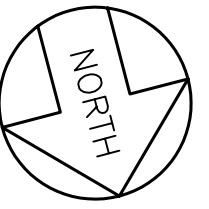


4/ACM/2003/203012002B/404/203012002B_P1-P2.DWG

NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER:	DESIGN ENGINEER:	PROJECT NO.	JEA RFP - JPS-147-03-P2	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET CENTER LINE PLAN AND PROFILE OF EAST BORE STA. 7+50± TO STA. 11+10.89	NO. SHEETS 6 SHEET NO. 2 DRAWING NO. P1
6.						S. LEE					
5.											
4.						1-07-03					
3.						C. JACOBS					
2.						1-07-03					
1.	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	C. SCOTT LEE, P.E. REG. ENGR. NO. 37305 DATE:	MET PROJ. NO: 203012002B	FLORIDA REGISTRATION NO. 6365	DATE: MARCH, 2004	SCALE: AS SHOWN		



NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER: S. LEE	DESIGN ENGINEER		PROJECT NO. JEA RFP - JPS-147-03-P2	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION	NO. SHEETS 11		
6.					C. SCOTT LEE, P.E. REG. ENGR. NO. 37305 DATE:	DATE: 1-07-03	 INDUSTRIAL BUILDING 2500 NW STREET, SUITE 200, TAMPA, FL 33605 PH: 813-277-1100 FAX: 813-277-1101 E: C. SCOTT LEE, P.E. FLORIDA REGISTRATION NO. 6365		DATE: MARCH 2004	DUVAL STREET	SHEET NO. 8		
5.						CHECKED BY: C. JACOBS			DATE: 1-07-03	SCALE: AS SHOWN	CENTER LINE PLAN AND PROFILE OF EAST BORE	DRAWING NO. P2	
4.									MET PROJ. NO: 2030120028	FLORIDA REGISTRATION NO. 6365		STA. 11+10.89 TO STA. 16+78.10	
3.													
2.													
1.	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS									



H.D.D. DUVAL ST. X-ING
NORTH & SOUTH BORE
PLAN VIEW
SCALE: HORZ. &
VERT. 1" = 20'

H.D.D. DUVAL ST. X-ING
NORTH BORE PROFILE VIEW
SCALE: HORZ. & VERT. 1" = 20'

H.D.D. DUVAL ST. X-ING
SOUTH BORE PROFILE VIEW
SCALE: HORZ. & VERT. 1" = 20'

J:\ACAD\2003\2030120028\4000\4a-bu\2030120028-23-24.dwg

NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER:	DESIGN ENGINEER:	PROJECT NO.	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION	NO. SHEETS
6.						S. LEE		JEA RFP - JPS-147-03-P2	PIPE INSTALLATION	11
5.									DUVAL STREET	SHEET NO.
4.								DATE: MARCH 2004	CENTER LINE PLAN AND PROFILE OF WEST BORE	9
3.								SCALE: AS SHOWN	STA. 26+66.33 TO STA. 22+00±	DRAWING NO.
2.										P3
1.	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	C. SCOTT LEE, P.E. REG. ENGR. NO. 37305 DATE:	7-07-04 CHECKED BY: C. JACOBS DATE: 1-07-03 MET PROJ. NO: 2030120028	Metroplex 1710 S. GUSTINE STREET, SUITE 200 DALLAS, TEXAS 75246 PHONE: 214-751-1000 FAX: 214-751-1001 E-MAIL: info@metroplex.com FLORIDA REGISTRATION NO. 6365			

InterCon Construction, Inc.
Utility Contractors
an InfrastruX company
2880 Commerce Park Drive
Madison ,WI 53719
Office: 608-227-7473
Fax: 608-227-7470

InterCon Construction, Inc. Asbuilt
JEA chilled water distribution system Drilled along Duval St. before Laura St. to past Julia St. Duval county, Jacksonville, FL
North Bore Horz. dist. = 1061.02 FT Curve dist. = 1065.95 FT
South Bore Horz. dist. = 1089.17 FT Curve dist. = 1093.88 FT
Installed: 1- SDR 13.5 - 36" O.D. H.D.P.E. Pipe
InterCon Job No. 400156
Drawn By: Patrick M. Unwin 3/20/04

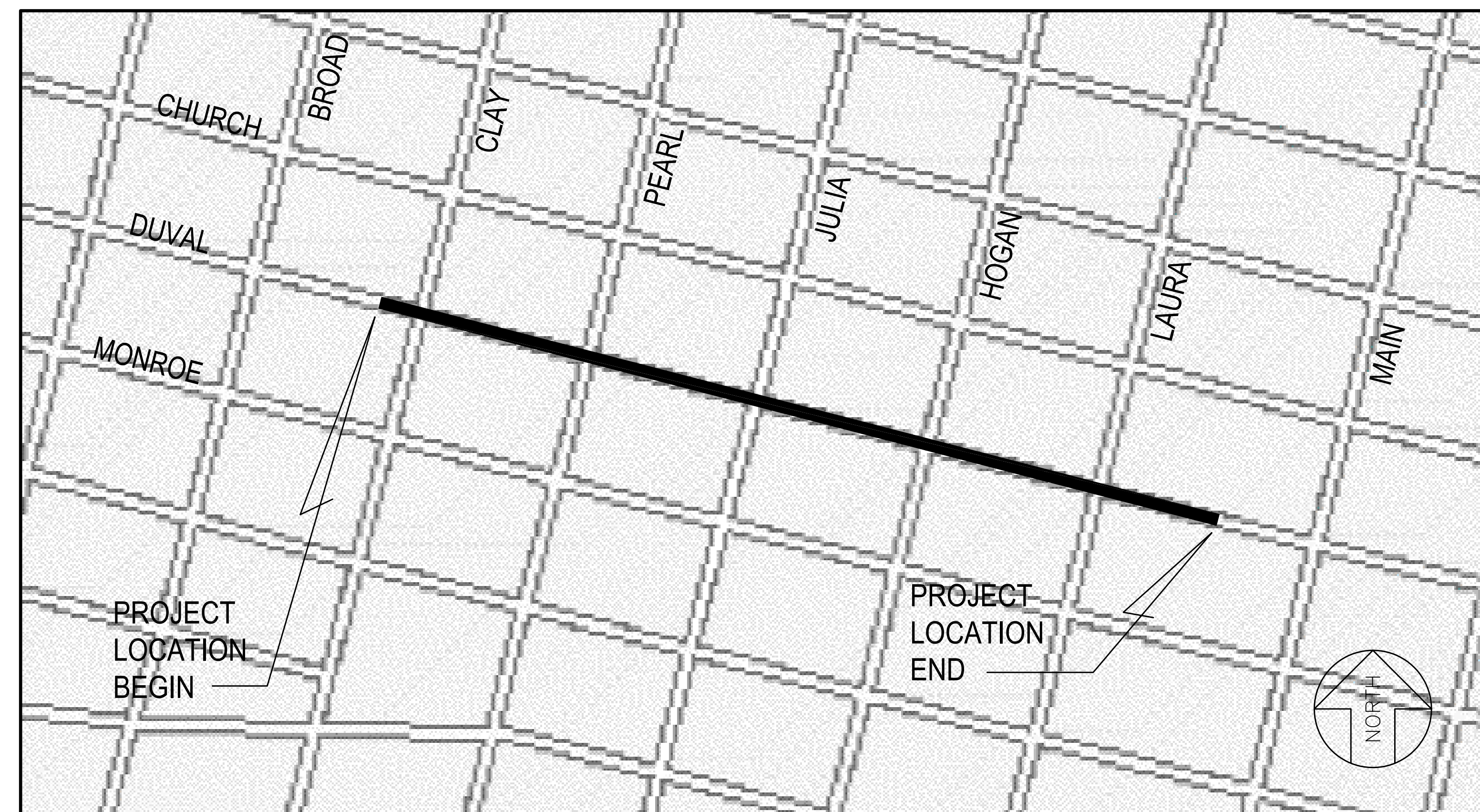
- North & South drill plan centerline & baseline
- North & South installed 36" o.d. h.d.p.e. pipe
- JEA Sewer lines
- JEA under ground electric lines
- Gas lines
- Fiber optic lines
- Water Main
- SouthernBell
- AT&T
- Survey station marker

HORIZONTAL AND VERTICAL CONTROL BASED ON
SURVEY BASELINE SEE DRAWINGS M1-M4.

AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.

CHILLED WATER DISTRIBUTION SYSTEM PIPE INSTALLATION – DUVAL STREET

JEA PROJECT NO. 1007739



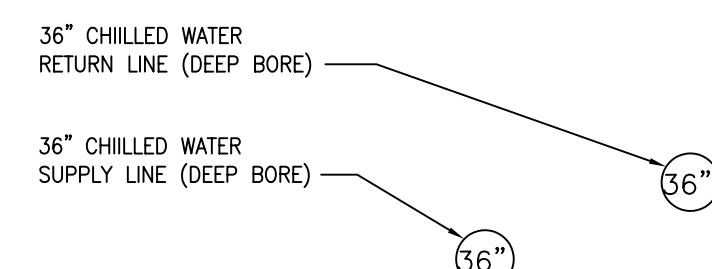
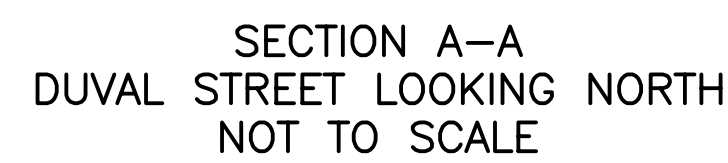
AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.

PREPARED BY:

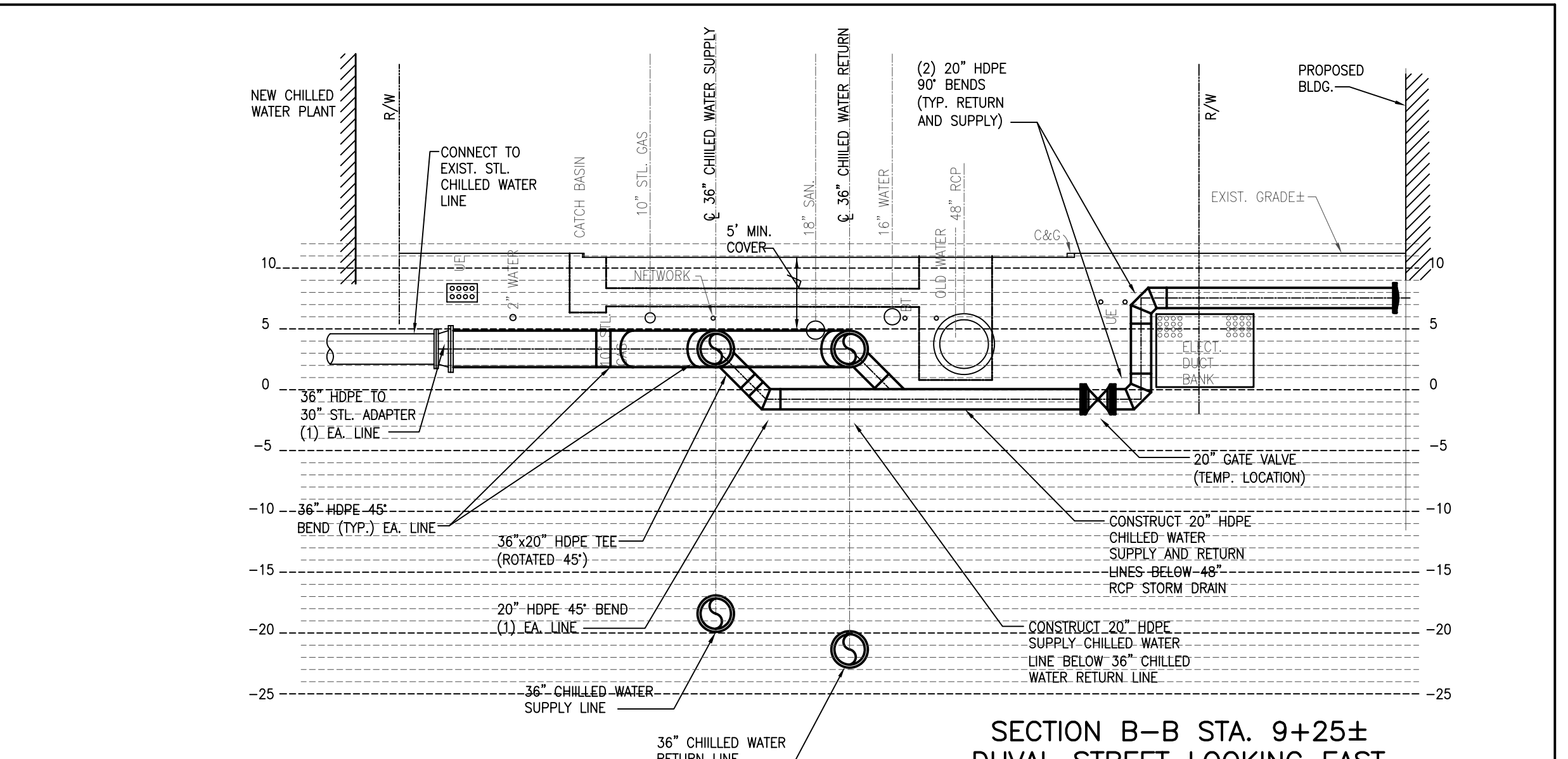
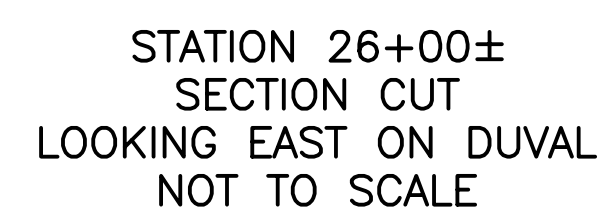
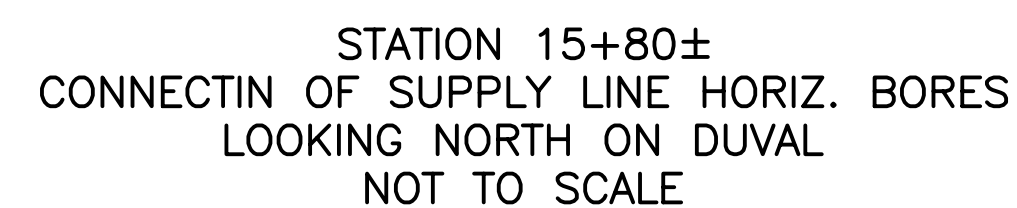


METROPLEX PROJECT NO.: 203012002B

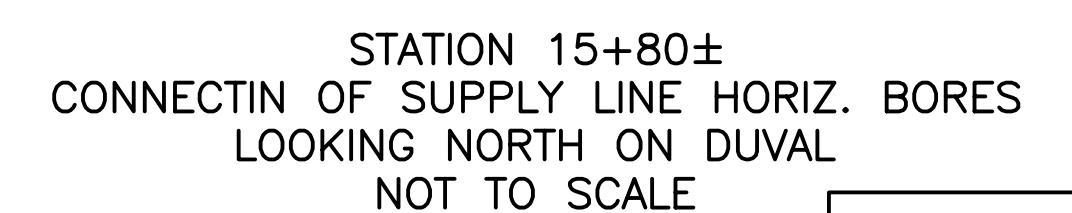
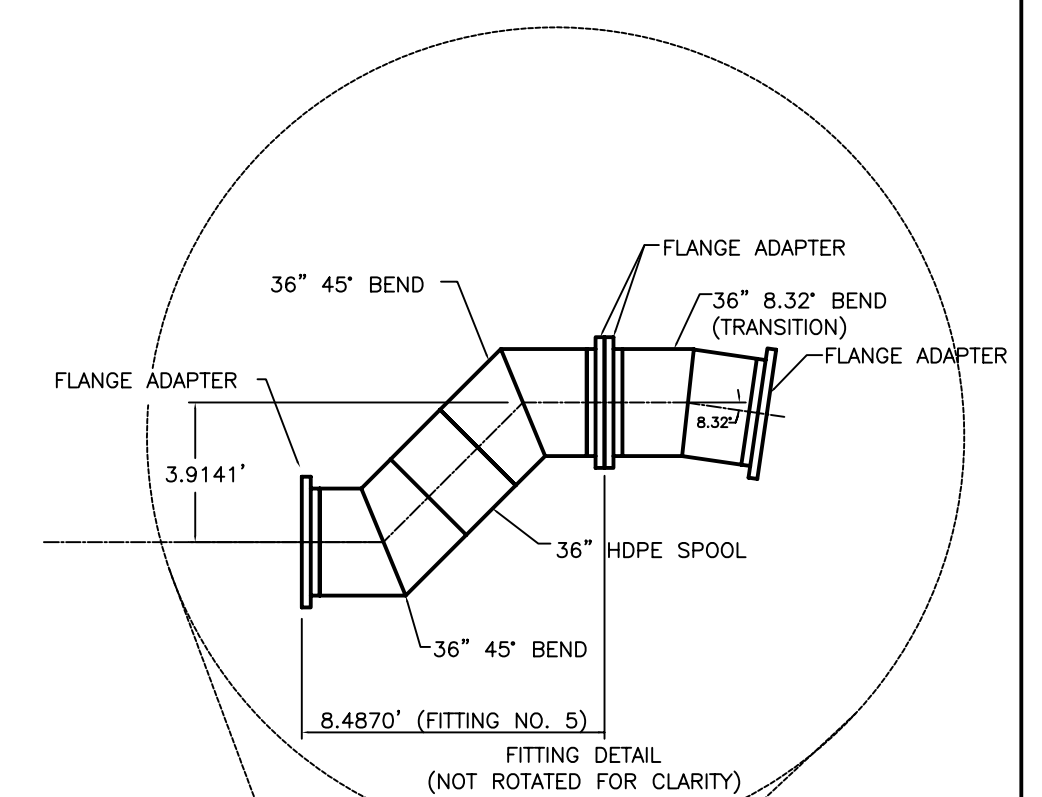
REVISED TO DIMENSION
VALVE LOCATIONS–NOV., 2004
REVISED TO REFLECT
AS–BUILTS–AUGUST, 2004
FEBRUARY 17, 2004



STATION 15+60±
SECTION CUT LOOKING EAST ON DUVAL
CONNECTION TO OLD COURT HOUSE
NOT TO SCALE



SECTION B-B STA. 9+25±
DUVAL STREET LOOKING EAST
CONNECTION TO NEW COURT HOUSE
NOT TO SCALE



**AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.**

NO. SHEETS 11
SHEET NO. 11
DRAWING NO. D1

J:\1400\2003\203012002B\1400-1000\GENERAL NOTES

GENERAL NOTES:

1. EXISTING UTILITIES, UNDERGROUND FACILITIES, AND STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE AS-BUILTS AND RECORDS. INTERCON, USING AVAILABLE TECHNOLOGIES, SHALL ATTEMPT TO FIELD VERIFY EXISTING UTILITIES AND CHANGE DRAWINGS TO REFLECT ANY DIFFERENCES BETWEEN ACTUAL AND AS BUILT INFORMATION. INTERCON, USING AVAILABLE TECHNOLOGIES, SHALL ATTEMPT TO INVESTIGATE THE EXISTENCE OF ANY UNDERGROUND INSTALLATIONS THAT HAVE NOT BEEN INCLUDED IN THE ORIGINAL DESIGN-BUILD DRAWINGS ISSUED BY THE JEA AND INCLUDE THEM IN OUR DRAWINGS.

2. WHENEVER POSSIBLE ALL UTILITY SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION. IF A SERVICE INTERRUPTION IS NECESSARY INTERCON SHALL FOLLOW THE CONTRACT SPECIFICATIONS FOR SERVICE INTERRUPTION.

3. IN THE EVENT THAT CONSTRUCTION REQUIRES EXISTING FACILITIES TO BE TEMPORARILY OR PERMANENTLY RELOCATED, THE ADJUSTMENT OR RELOCATION OF EXISTING FACILITIES SHALL BE COORDINATED WITH THE OWNER OF THE UTILITY PRIOR TO UNDERTAKING ANY CONSTRUCTION OPERATION. INTERCON SHALL RELOCATE FACILITIES ACCORDING TO GUIDELINES PROVIDED BY THE OWNER, THE JEA, AND CITY REGULATIONS.

4. UTILITIES THAT ARE EXPOSED DURING EXCAVATION AND THAT ARE NOT TO BE DEMOLISHED SHALL BE SUPPORTED, BRACED OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.

5. INTERCON SHALL CONTACT ALL LOCAL UTILITY OWNERS AT LEAST ONE WEEK PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS.

6. ALL AREAS AND UTILITIES DISTURBED BY INTERCON SHALL BE RESTORED AT NO ADDITIONAL COST TO THE JEA.

7. ALL TEMPORARY CONSTRUCTION UTILITY CONNECTIONS SHALL BE APPROVED AND PERMITTED BY THE CITY OF JACKSONVILLE.

8. INTERCON SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO ADJACENT AND NEARBY STRUCTURES, PAVEMENT, FENCING, LANDSCAPING, DRIVEWAYS, AND SIDEWALKS. ALL DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE JEA. PAVEMENT, CURBING, AND SIDEWALKS SHALL BE REPAIRED / REPLACED IN ACCORDANCE WITH CITY OF JACKSONVILLE STANDARDS.

9. INTERCON SHALL PROTECT TREES IN ACCORDANCE WITH JACKSONVILLE ORDINANCE CODE 656.

10. SHOULD STRUCTURES NEED TO BE REMOVED IN ORDER TO COMPLETE THE CONSTRUCTION THESE STRUCTURES WILL BE RESTORED TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE JEA.

11. INTERCON SHALL FOLLOW A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PROGRAM THAT DETAILS THE STEPS TO FOLLOW TO MINIMIZE SILTATION AND EROSION WHICH MAY RESULT FROM CONSTRUCTION.

12. INTERCON SHALL SUBMIT A CONSTRUCTION DEWATERING PLAN TO THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL BEFORE ANY DEWATERING OPERATIONS.

13. ROADS AND TRAVELED WAYS WILL BE KEPT CLEAR OF EXCAVATION MATERIAL AT ALL TIMES. THE WORK AREA SHALL BE KEPT FREE OF DEBRIS, STOCKPILED CONSTRUCTION MATERIALS, AND GARBAGE.

14. INTERCON SHALL OBTAIN THE APPROPRIATE PERMITS IN ORDER TO WORK IN THE CITY RIGHT OF WAY.

15. INTERCON SHALL FOLLOW THE REQUIREMENTS OF THE APPROVED RIGHT OF WAY PERMIT FOR MANAGEMENT OF TRAFFIC DURING CONSTRUCTION.

16. INTERCON SHALL ENSURE EXCAVATION WALLS ARE PROPERLY SECURED ACCORDING TO OSHA EXCAVATION AND TRENCH SAFETY STANDARDS AND DEWATERED BEFORE ENTRY.

17. INTERCON SHALL DISPOSE OF EXCAVATED MATERIALS AT A SITE APPROVED BY THE JEA REPRESENTATIVE.

18. UNSUITABLE MATERIALS UNDER CHILLED WATER PIPE SHALL BE REMOVED AND REPLACED WITH CLEAN BACK FILL PROPERLY COMPACTED PER JEA STANDARDS AND SPECIFICATIONS.

19. ALL WORK AREAS WILL BE SECURED BY TEMPORARY FENCING AT THE END OF EACH WORK DAY.

20. WORK SHALL BE PERFORMED IN A SAFE MANNER. INTERCON SHALL CONDUCT WORK ACCORDING TO THE JEA, LOCAL, FLORIDA, AND OSHA REGULATIONS.

21. INTERCON SHALL REQUIRE THE FOLLOWING SAFETY EQUIPMENT IN THE WORK ZONE: HARDHAT, SAFETY EYEWEAR, SAFETY VEST, AND SAFETY TOE BOOTS. HAND PROTECTION WILL BE REQUIRED WHEN HANDLING MATERIALS. RESPIRATORY PROTECTION WILL BE REQUIRED WHEN HANDLING DRY MUD COMPONENTS SUCH AS BENTONITE. SPECIAL PROTECTIVE EQUIPMENT WILL BE UTILIZED AS WORK SITUATIONS REQUIRE.

22. HORIZONTAL AND VERTICAL ALIGNMENT ARE SUBJECT TO ADJUSTMENTS IN THE FIELD.

23. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN AND VERBAL INSTRUCTIONS. ALL RELATED SPECIFICATIONS AND INFORMATION ON MATERIALS AND EQUIPMENT INSTALLED WILL BE SUBMITTED TO THE JEA PER CONTRACT REQUIREMENTS.

24. INTERCON SHALL PROVIDE A PRE AND POST CONSTRUCTION SURVEY OF EXISTING SITE CONDITIONS. THIS SURVEY MAY INCLUDE BUT IS NOT LIMITED TO DIGITAL PHOTOS, DRAWINGS, AND VIDEO.

25. INTERCON SHALL BE SOLELY RESPONSIBLE FOR THE PROPER LAYOUT AND COORDINATION OF THE WORK.

26. INTERCON SHALL PROVIDE ADEQUATE FACILITIES FOR THE PROPER STORAGE OF MATERIALS AND EQUIPMENT.

27. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE ALONG THE CENTER LINE OF CHILLED WATER MAINS.

28. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.

29. INTERCON SHALL EMPLOY A ENGINEER OR LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARK'S WHICH MAY BE DISTURBED BY CONSTRUCTION.

30. INTERCON SHALL ASSIST JEA WITH THE COORDINATION OF CONSTRUCTION WITH OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT, INTERCON SHALL NOTIFY THE JEA REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION.

31. INTERCON SHALL NOTIFIED APPLICABLE AGENCIES AS SPECIFIED IN PERMITS OBTAINED.

32. INTERCON SHALL NOTIFY THE JEA A MINIMUM OF TWO DAYS PRIOR TO CONNECTION OF CHILLED WATER MAINS TO EXISTING LINES. ALL NEW WORK MUST BE INSPECTED BY THE JEA REPRESENTATIVE. NO TESTS SHALL BE SCHEDULED FOR WEEKENDS. ANY CHANGE FROM THE TECHNICAL REQUIREMENTS MUST BE REVIEWED AND APPROVED BY THE JEA REPRESENTATIVE.

33. AS-BUILT REQUIREMENTS – INTERCON SHALL PROVIDE COMPLETE AS-BUILT INFORMATION TO THE JEA REPRESENTATIVE IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS: A) AS-BUILT DRAWINGS SHALL BE PREPARED IN AUTOCAD FORMAT BY A REGISTERED ENGINEER OR LAND SURVEYOR. ONE SET OF SIGNED MYLARS AND A CD OF THE PROJECT SHALL BE SUBMITTED TO THE JEA REPRESENTATIVE FOR REVIEW AND APPROVAL. TWO (2) SETS OF SIGNED AND SEALED PRINTS SHALL BE PROVIDED TO THE JEA REPRESENTATIVE AS REQUESTED. B) AS-BUILT DRAWINGS SHALL BE IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION. INTERCON SHALL COORDINATE AS-BUILT SUBMITTALS AND APPROVALS WITH JURISDICTIONAL AGENCIES UNLESS OTHERWISE DIRECTED BY THE JEA REPRESENTATIVE. C) PROVIDE BUILDING LOCATIONS, FINISH FLOOR ELEVATIONS, PAVEMENT GRADES AND ALL UNDERGROUND FACILITIES. D) PROVIDE SPECIAL DETAIL DRAWINGS WHERE INSTALLATIONS WERE NOT SHOWN ON CONTRACT DRAWINGS DUE TO FIELD CONDITIONS OR WHERE REQUIRED FOR CLARITY. E) PROVIDE LOCATION, ELEVATION AND DESCRIPTION OF BENCHMARK(S). F) LOCATE AND PROVIDE ELEVATIONS OF ALL STRUCTURES. LOCATION OF ALL STRUCTURES SHALL BE FROM TWO (2) DIRECTIONS. G) LOCATE ALL PIPES AND PROVIDE SIZE, ELEVATION, INVERT ELEVATIONS, LENGTH AND TYPE. H) THE AS-BUILTS SHALL INCLUDE A DETAIL OF EVERY CROSSING OF THE NEW CHILLED WATER MAIN WITH GRAVITY SEWER, FORCE MAINS, AND STORM PIPES CLEARLY SHOWN AND INDICATING THE VERTICAL CLEARANCES AT EACH CROSSING.

34. THESE PLANS DO NOT STAND BY THEMSELVES. BID DOCUMENTS, JEA STANDARD DETAILS AND MATERIALS, CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS, AND ANY OTHER STANDARDS LISTED OR REFERENCED, ARE INCLUDED IN THE PROJECT DOCUMENTS.

DRAWING INDEX

COVER SHEET	
G-1	GENERAL NOTES & INDEX
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M-2	PLAN AND PROFILE STA 14+15 TO 19+75
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M-4	PLAN AND PROFILE STA 25+25 TO 27+55.34
P-1	CENTER LINE PLAN AND PROFILE OF EAST BORE
P-2	CENTER LINE PLAN AND PROFILE OF EAST BORE
P-3	CENTER LINE PLAN AND PROFILE OF WEST BORE
P-4	CENTER LINE PLAN AND PROFILE OF WEST BORE
D-1	PIPING DETAILS AND CROSS SECTIONS

SURVEY NOTES

1. ELEVATIONS SHOWN HEREON ARE BASE UPON N.G.V.D. 29 AND REFERENCED TO: 1.) AN "X" CUT ON BACK OF SIDEWALK AT WEST END OF NORTH ENTRANCE TO NEWSOME FURNITURE COMPANY, CUT IS 46.25' EAST OF EAST CURB LINE OF BROAD STREET AND 7.38' SOUTH OF SOUTH CURB LINE OF ADAMS STREET. CUT IS 0.48' NORTH OF NORTH FACE OF BUILDING, ELEVATION OF 9.91 FEET; 2.) AN "X" CUT AT BACK OF STEP AT THE EAST ENTRANCE OF SNYDER MEMORIAL CHURCH, 50' SOUTH OF SOUTH CURB LINE OF MONROE STREET ANF 13.7' WEST OF WEST CURB LINE OF LAURA STREET, ELEVATION OF 22.76 FEET.

BENCHMARKS

BENCHMARK NO. 1
ELEVATION = 22.76 FEET
FOUND X-CUT AT BACK OF STEP AT THE EAST ENTRANCE OF SNYDER MEMORIAL CHRUCH, 50' SOUTH OF SOUTH CURB LINE OF MONROE STREET AND 13.7' WEST OF WEST CURB LINE OF LAURA STREET.

BENCHMARK NO. 2
ELEVATION = 12.37'
FOUND X-CUT 9.05' EAST OF THE EAST CURB LINE OF BROAD STREET AND 21.60' NORTH OF THE NORTH CURB OF DUVAL STREET.

BENCHMARK NO. 10
ELEVATION = 16.74'
SET SQUARE CUT IN PLANTER OF 404 JULIA STREET, A 3 STORY BUILDING, 38.3' NORTH OF THE SOUTHEAST CORNER OF THE BUILDING AND 16' WEST OF THE WEST CURB OF JULIA STREET.

3. BEARINGS SHOWN HEREON ARE BASED UPON FLORIDA STATE PLANE COORDINATE SYSTEM. TRANSVERSE MERCATOR, EAST ZONE (901) AND REFERENCED TO JEA, GPS CONTROL POINTS, STATIONS 140, 141 AND 147.

BEARING ARE BASED ON FLORIDA STATE PLANE COORDINATES (TRANSVERSE MERCATOR – EAST ZONE)

STATION	DISTANCE	BEARING	NORTHING	EASTING
BEGIN STATION 5+64.64			2180905.909	446523.025
P.T. STATION 10+00.00	435.36'	S 75°05'25" E	2180793.892	446943.727
P.I. STATION 17+05.44	705.44'	S 75°05'25" E	2180612.384	447625.417
P.I. STATION 21+20.00	414.56'	S 75°41'31" E	2180509.931	448027.120
END STATION 30+53.02	933.02'	S 75°51'47" E	2180282.050	448931.884

LEGEND OF UNDERGROUND UTILITIES

X"WHP	SIZE, HIGH PRESSURE WATER LINE	WILL	WILLIAMS COMMUNICATIONS
X"W	SIZE, WATER LINE	BELL	BELLSOUTH
X"G	SIZE, GAS LINE	EPIK	EPIK COMMUNICATIONS
ATTL	AT&T LOCAL NETWORK SERVICE	E-S	E-SPIRE COMMUNICATIONS
ATTBB	AT&T BROADBAND	BOW	BROADWING
ADEL	ADELPHIA BUSINESS	ELEC	ELGETRIC LINE
FPLF	FPL FIBERNET		

BURIED ELECTRIC	_____ UE _____
BURIED FIBER OPTIC	_____ BFDC _____
BURIED GAS	_____ GAS _____ GAS _____ GAS _____
BURIED TELEPHONE	_____ BT _____
BURIED WATER	_____ WL _____
BURIED SEWER	_____ 18" VCP(VPVC) _____
BURIED STORM	_____ ST _____

UTILITY CONTACTS

A.	AMERICAN TELEPHONE & TELEGRAPH CO.	904-359-2229
B.	BELL SOUTH TELEPHONE	1-800-432-4770
C.	COMCAST	904-380-6419
D.	FLORIDA DEPARTMENT OF TRANSPORTATION	904-381-8778
E.	FLORIDA POWER AND LIGHT	904-824-7647
F.	JEa – COLLECTION & DISTRIBUTION	904-665-6000
G.	JEa – GENERAL INFORMATION	904-665-6000
H.	JEa – GroundsWorks / COMMUNITY OUTREACH	904-665-7500
I.	JEa – POWER OUTAGES	904-665-0300
J.	JEa – SEWER PROBLEMS	904-665-6000
K.	JEa – WATER PROBLEMS	904-665-6000
L.	LIFESTREAM	407-466-7125
M.	MEDIA ONE	904-731-7960
N.	TECO GAS	904-759-5787
O.	SUNSHINE ONE CALL	1-800-432-4770

ALUM	ALUMINUM
ASPH	ASPHALT PAVEMENT
BC	BACK OF CURB
BFP	BACK FLOW PREVENTER
BOB	BOTTOM OF BANK
BRL	BUILDING RESTRICTION LINE
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
C-T	CABLE AND TELEPHONE
ELEC	ELECTRIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
UNK	UNKNOWN
MON	MONUMENT
ELEC	ELECTRIC
TELE	TELEPHONE
CONC	CONCRETE
SS	SWEETGUM
JWV	JACKSONVILLE WATER WORKS
SYC	SYCAMORE
TAL	TALLOW
HIC	HICKORY
HOL	HOLLY
LV OAK	LIVE OAK
B CHERRY	BLACK CHERRY
B TUP	BLACK TUPELO
CEC	CEDAR
CR MYR	CRAPE MYRTLE



LEGEND OF ABBREVIATIONS

FRCP	ELLIPTICAL REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
MH	MANHOLE
OHE	OVERHEAD ELECTRIC
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SO	SQUARE
TOB	TOP OF BANK
UGT	UNDERGROUND TELEPHONE
VCP	VITRIFIED CLAY PIPE
FL	FLOW LINE
UTO	UNABLE TO OPEN
TPB	TRAFFIC WIRE PULL BOX
TCB	TRAFFIC CONTROL BOX
CI	CURB INLET
ID	IDENTIFICATION
SAN	SANITARY SEWER
FIB OPT	FIBER OPTIC
PRK	PARKING METER
INFO	INFORMATION
MAG	MAGNOLIA
MAP	MAPLE
MUL	MULBERRY
OAK	ALL OAKS OTHER THAN LIVE OAK
PEC	PECAN
PLM	PALM
CYP	CYPRESS
DOG	DOGWOOD
CLF	CHAIN LINK FENCE
ID	NOMINAL INTERNAL DIAMETER

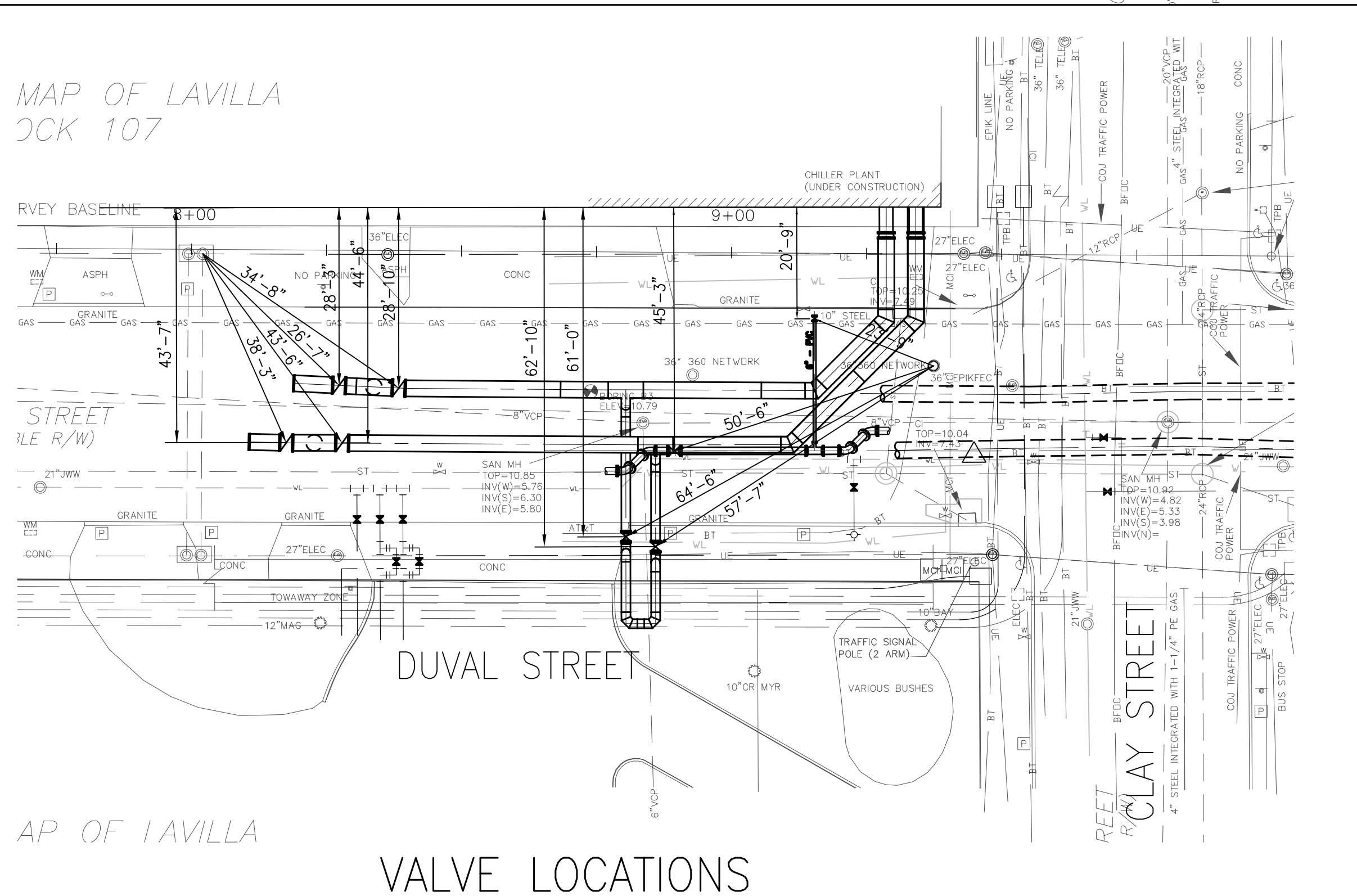
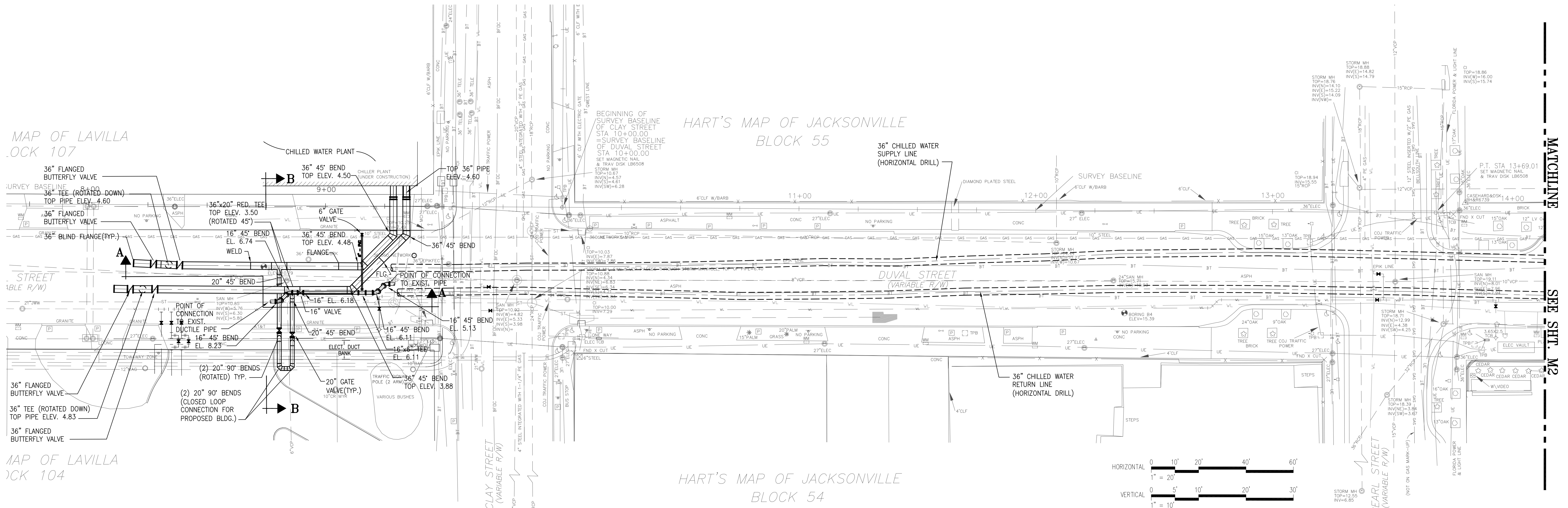
LEGEND OF SYMBOLS

	MULTICOLUMN SIGN		BENCH
	STANDPIPE		CABLE T.V. SERVICE BOX
	SPRINKLER HEAD		TOWER SINGLE COLUMN
	SPRING OR WATER SOURCE		CLEANOUT
	SERVICE CABINET		TEST HOLE
	SIGNAL SPAN POLE		ELECTRIC OUTLET
	SIGN SINGLE SUPPORT		FAUCET
	TREE STUMP		FIRE HYDRANT
	STORAGE TANK		FLOOD LIGHT
	TELEPHONE BOX		FLAG POLE
	TELEPHONE POLE		GUY ANCHOR
	TIDE GUAGE		GUY POLE
	TELEPHONE PEDESTAL		HIGH MAST LIGHT
	TREE		HANDICAP MARKING
	CONIFEROUS TREE		LIGHT POLE
	CITRUS TREE		METER ELECTRIC
	CYPRESS TREE		METER GAS
	DECIDUOUS TREE		MANHOLE STORM
	OAK TREE		MANHOLE ELECTRIC
	PALM TREE		MANHOLE SANITARY
	PINE TREE		MANHOLE TELEPHONE
	TRANSFORMER		MONITORING WELL
	VALVE BOX GAS		METER WATER
	VALVE BOX SANITARY		ORNAMENTAL PLANT
	VALVE BOX WATER		PILING,PIER,COLUMN
	VALVE COVER GAS		PLAYGROUND EQUIPMENT
	VALVE COVER SANITARY		WELL PUMP
	VALVE COVER WATER		POWER POLE
	VALVE GAS		POWER POLE WITH TRANSFORMER
	VALVE SANITARY SEWER		GAS REGULATOR
	VALVE WATER		SATELLITE DISH
	VENT GAS		SHARED POLE
	VENT SANITARY SEWER		SHARED POLE WITH TRANSFORMER
	WELL		SHRUB
	WETLAND POINT		TRAFFIC CONTROLLER
	WIRING PULL BOX		SIGNAL PEDESTAL
			SIGNAL ON MAST ARM

AS-BUILTS BASED ON INFORMATION PROVIDED TO METROPLEX INDUSTRIES, INC.

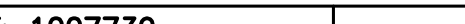

	BUTTERFLY VALVE
	GATE VALVE

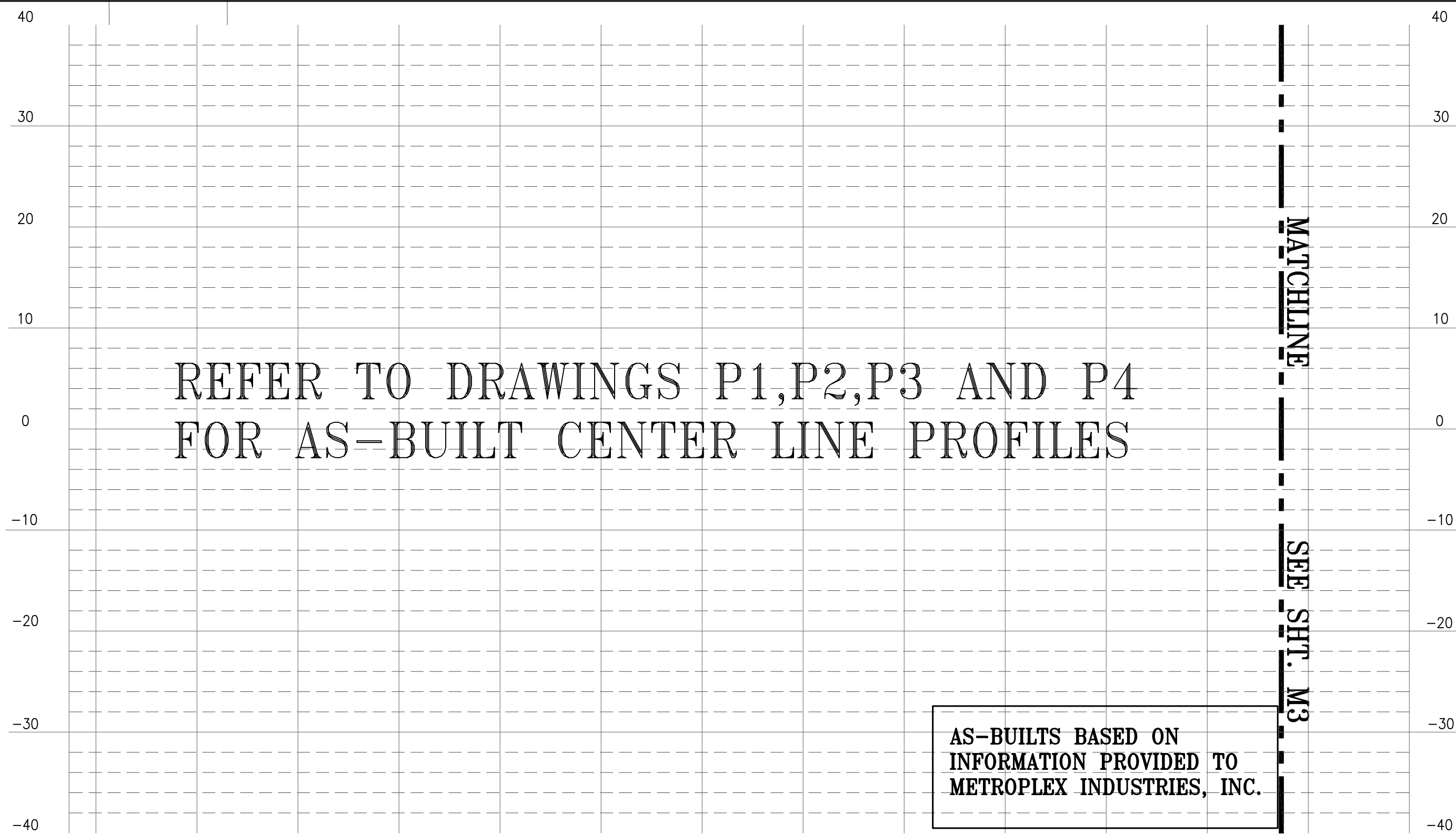
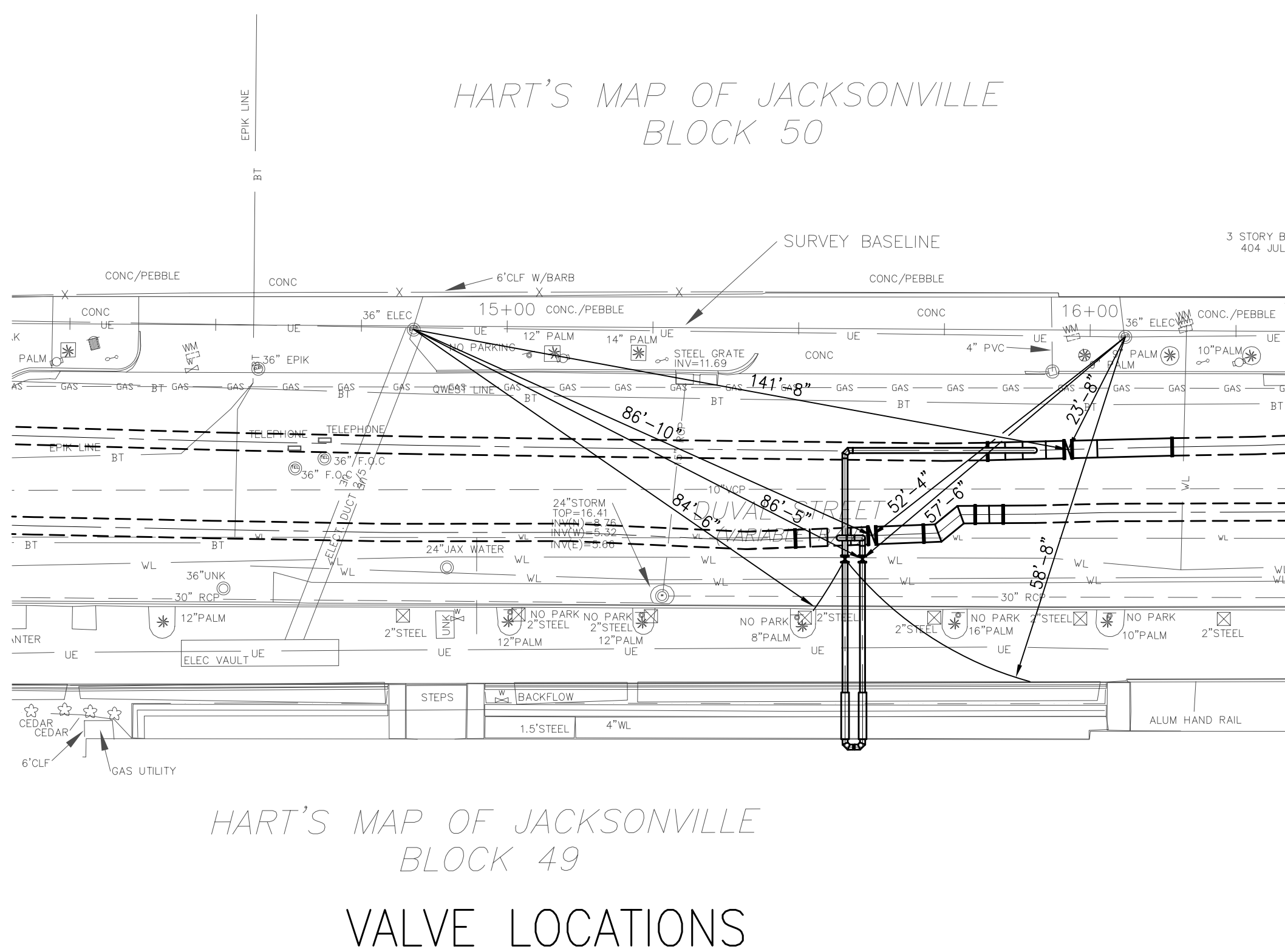
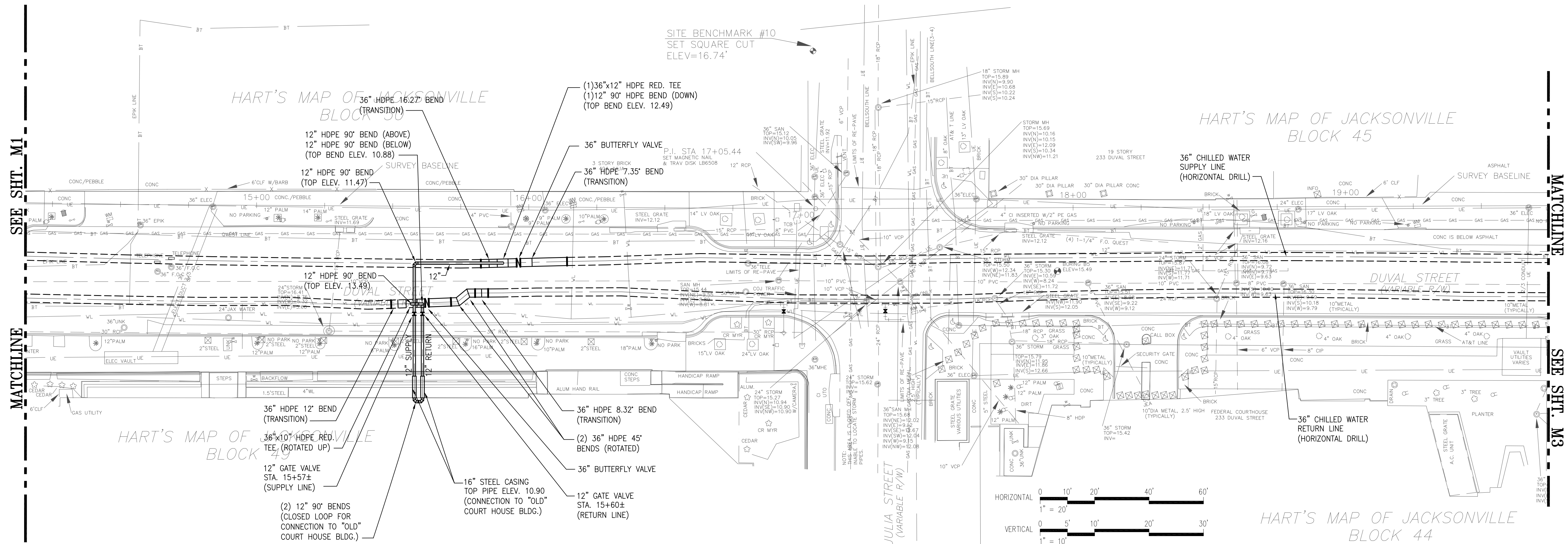
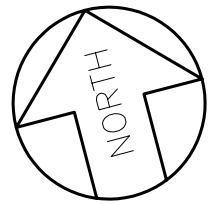
NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER:	DESIGN ENGINEER	PROJECT NO.	JEa PROJECT: 1007739	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET	NO. SHEETS
6						S. LEE					11
5						J. KING					SHEET NO.
4						DATE: 2-17-04					2
3						CHECKED BY: C. JACOBS					DRAWING NO.
2						DATE: 2-17-04					G1
1	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	REG. ENGR. NO. 51034	MET PROJ. NO: 203012002B	FLORIDA REGISTRATION NO. 6365		SCALE: AS SHOWN	GENERAL NOTES AND INDEX	



REFER TO DRAWINGS P1,P2,P3 AND P4
FOR AS-BUILT CENTER LINE PROFILES

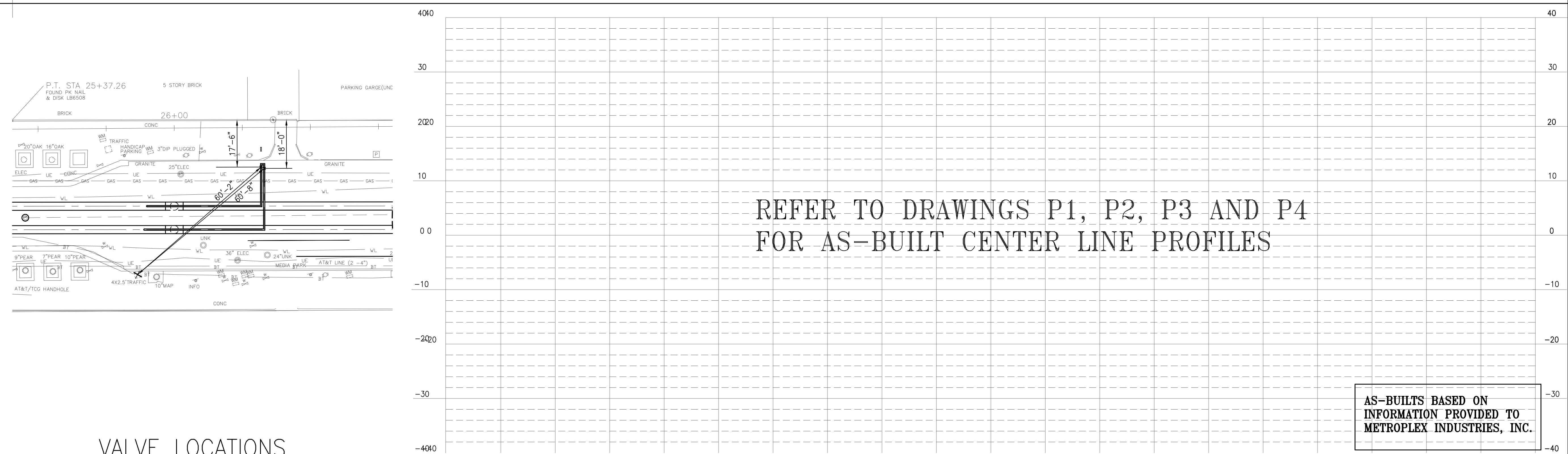
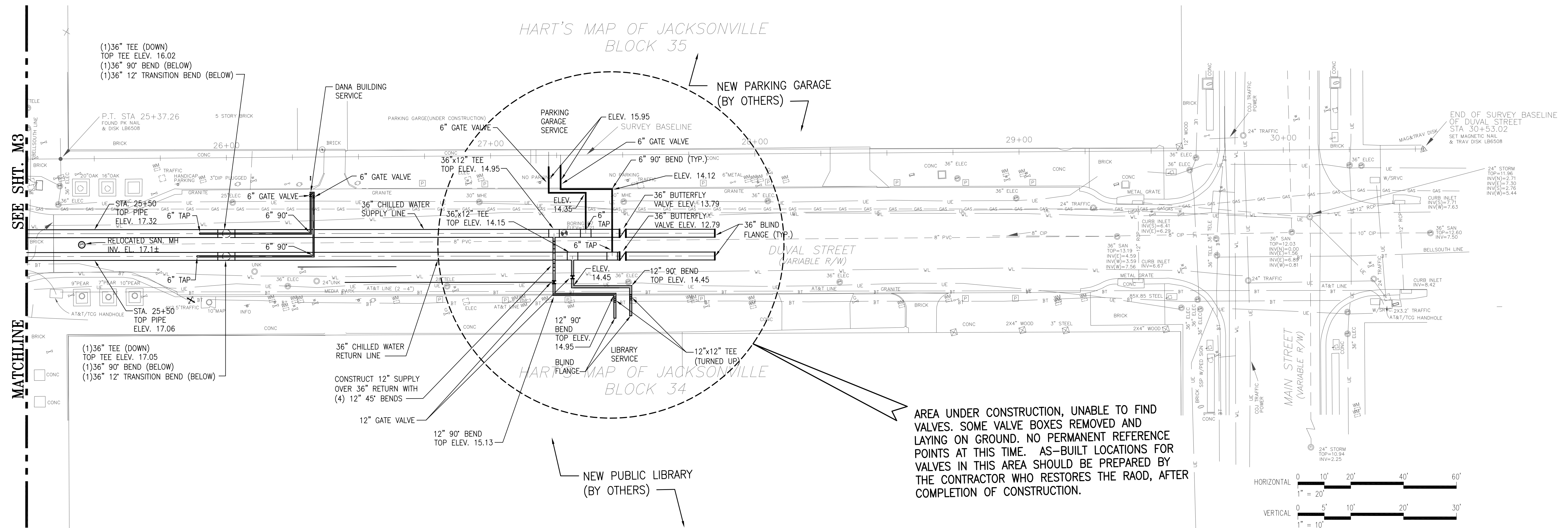
AS-BUILTS BASED ON
INFORMATION PROVIDED TO
METROPLEX INDUSTRIES, INC.



NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER: S. LEE	DESIGN ENGINEER		PROJECT NO. JEA PROJECT: 1007739	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET PLAN AND PROFILE - STA. 8+26 TO STA. 14+15	NO. SHEETS 11		
6.					ROBERT SCHUSTER, P.E.	DRAWN BY: J. KING	 INDUSTRIES INC. 2715 GAIL STREET, JACKSONVILLE, FLORIDA 32205 (904) 584-0725, FAX (904) 584-0778 CERT. OF AUTHORIZATION NO. 6365		DATE: FEBRUARY 2004		SHEET NO. 3		
5.						CHECKED BY: C. JACOBS					FLORIDA REGISTRATION NO. 6365	SCALE: AS SHOWN	DRAWING NO. M1
4.						DATE: 2-17-04							
3.						MET. PROJ. NO. 203012002R							
2.	J.K.	11/2004		ADDED VALVE LOCATION DIMENSIONS	REG. ENGR. NO. 37305								
1.	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	DATE:								



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NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER:	DESIGN ENGINEER:	PROJECT NO.	JEA PROJECT:	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET	NO. SHEETS
6.						S. LEE		1007739			11
5.						J. KING					SHEET NO.
4.						DATE: 2-17-04					4
3.	J.K.	11/2004		ADDED VALVE LOCATION DIMENSIONS	ROBERT SCHUSTER, P.E.	CHECKED BY: C. JACOBS		DATE: FEBRUARY 2004			DRAWING NO.
2.	J.K.	8/2004		REVISED TO REFLECT AS-BUILTS	REG. ENGR. NO. 51034	DATE: 2-17-04		SCALE: AS SHOWN			M2
1.					DATE:	MET PROJ. NO: 203012002B	FLORIDA REGISTRATION NO. 6365			PLAN AND PROFILE - STA. 14+15 TO STA. 19+75	



NO.	BY	DATE	SYMBOL	REVISIONS	APPROVED BY:	DESIGNER: S. LEE	DESIGN ENGINEER		PROJECT NO. JEA PROJECT:1007739	JEA CHILLED WATER DISTRIBUTION PIPE INSTALLATION DUVAL STREET	NO. SHEETS 11
6.						DRAWN BY: J. KING	 2715 5th STREET, JACKSONVILLE, FLORIDA 32205 904-384-5775, FAX 904-384-5781 CERT. OF AUTHORIZATION NO. 5360				SHEET NO. 6
5.						DATE: 2-17-04					
4.						CHECKED BY: C. JACOBS					
3.						DATE: 2-17-04					
2.	J.K.	11/2004		ADDED VALVE LOCATION DIMENSIONS	ROBERT SCHUSTER, P.E.		FLORIDA REGISTRATION NO. 6365		DATE: FEBRUARY 2004	PLAN AND PROFILE - STA. 25+25 TO STA. 27+55.34	DRAWING NO. M4
1.	J.K.	8/2004		REVISED TO MEET AS-BUILTS	REG. ENGR. NO. 51034			SCALE: AS SHOWN			