



Purchasing Division

ADDENDUM NO. 1

DATE: May 21, 2020
FROM: City of Grand Junction Purchasing Division
TO: All Offerors
RE: 2020 Waterline Replacement Project
IFB-4798-20-DH

Offerors responding to the above referenced solicitation are hereby instructed that the requirements have been clarified, modified, superseded and supplemented as to this date as hereinafter described.

Please make note of the following clarifications:

1. Q. I'm reaching out to see if the City of Grand Junction will be considering horizontal directional drilling as a means of installation for the upcoming 2020 waterline replacement project?

A. *No. The City won't be considering Horizontal Directional Drilling (HDD) for the 2020 Waterline Replacement Project. With all the fittings and valves, the City believes that HDD isn't the best installation method for this particular waterline project.*

2. Q. Would the City entertain the use of Sanexen Aqua Pipe trenchless repair for rehabilitating the existing waterlines instead of the traditional open trench and replace methods?

A. *No. This particular waterline replacement project the City believes isn't a good candidate for the Sanexen Aqua Pipe trenchless repair method.*

3. Q. For the restrained couplings (note/item #426) are you wanting to use a Romac Alpha (or equal) on all connections, or use a MJ Solid Sleeve when it's PVC x PVC, and an Alpha when it's non-PVC?

A. *For restrained couplings, the City will accept either Romac Alpha, Hymax, or Engineer approved equal restrained couplings. For pipe connections into existing AC water pipe, the Contractor will be required to use either Romac, Hymax, or Engineer approved equal couplings that are not restrained. In all cases, the couplings shall be epoxy coated.*

4. Q. Is there something special wanted for page #11, note #424...epoxy restrained coupling? How is it different than item/note #426?

A. Construction note #424 on sheet #11 has been changed to be construction note #423 due to a conflict with number #424 being used on the Elm Ave. portion of this waterline project.

Construction note #423 on sheet #11 has been updated to call out a 20" dia. MJ Solid Sleeve Fitting (Epoxy Coated). The MJ fittings used shall be EBAA Iron MegaLug fittings or Engineer approved equal.

5. Q. There is no "restrained" coupling made for AC pipe, would a standard Hymax (or equal) be acceptable? 1 needed for the 12" connection on page 12.

A. *For pipe connections into existing AC water pipe, the Contractor will be required to use either Romac, Hymax, or Engineer approved equal solid couplings that are not restrained. In all cases, the couplings shall be epoxy coated.*

6. Q. Item #36 – Is 180 feet of ¾" copper correct, that's less than 5-ft of pipe per service (37 – ¾" services)?

A. *The total quantity of ¾" copper service pipe has been increased to 230 lineal feet. The updated bid schedule is attached to this addendum.*

7. Q. I didn't see plans/specs attached in the plan service, and just wanted to make sure we could go off Grand Junction City Standard specs?

A. *Yes, the July 2010 edition of the "City Standard Contract Documents for Capital Improvements Construction" shall be used and referenced for this 2020 Waterline Replacement Project. The City Standard Specifications and other Bid Documents are available for review or download on the City Engineering page at www.gjcity.org*

8. Q. Standard specs state: 104.3f – Installation of Butterfly Valves - "Unless otherwise approved by the City Utilities Engineer, each butterfly valve shall be installed in a vault. The diameter of the vault shall be as detailed on the plans." Can I assume this, and if so assume Flanged ends as well?

A. *The butterfly valves installed on this waterline project do not have to be installed in a vault. Also, the butterfly valves shall be MJ valves and used with EBAA Iron MegaLug restrained MJ fittings or Engineer approved equal.*

9. An updated Bid Schedule is attached to this Addendum. Contractors shall utilized this Addendum 1 Price Bid Schedule when submitting their bid response.

10. Updated waterline construction plans are attached to this Addendum. The changes to the construction plans include: Sheet #5 has a Tree Stump removal construction note added at Desert Vista Park, and Sheet #11 has been updated to include a revised construction note for the 20" MJ Solid Sleeve fitting.

11. Special Condition 3.3.16, Traffic Control, has been updated to include the following information for working in Ute Ave. and Pitkin Ave:

Special conditions for traffic control:

5. Due to the difficulties of providing detours while the Contractor is working in Ute Ave. and Pitkin Ave., the Contractor shall work both Ute Ave. and Pitkin Ave. within CDOT roadway right-of-way one half at a time. This will allow traffic in both Ute Ave. and Pitkin Ave. to be reduced to one-lane of travel while the Contractor installs the new waterline and backfills with flow-fill in the other half of the roadway. Once the flow-fill material cures and the cold-mix asphalt is placed and compacted, the Contractor can switch the traffic control and start installing the new waterline on the other half of the road. Detours will not be required while working in Ute Ave. and Pitkin Ave.

The original solicitation for the project noted above is amended as noted.

All other conditions of subject remain the same.

Respectfully,

A handwritten signature in black ink, appearing to read 'Duane Hoff Jr.', is written over a light yellow rectangular background.

Duane Hoff Jr., Senior Buyer
City of Grand Junction, Colorado

Bid Schedule: 2020 Waterline Replacement Project
ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	Water Main (6") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	1,907.	Lin. Ft.	\$ _____	\$ _____
2	108.2	Water Main (8") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	98.	Lin. Ft.	\$ _____	\$ _____
3	108.2	Water Main (12") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	58.	Lin. Ft.	\$ _____	\$ _____
4	108.2	Water Main (18") (C-900 PVC, DR-25) (Includes cost of restrained connection to existing pipe)	1,282.	Lin. Ft.	\$ _____	\$ _____
5	108.2	Water Main (20") (C-900 PVC, DR-25) (Includes cost of restrained connection to existing pipe)	1,380.	Lin. Ft.	\$ _____	\$ _____
6	108.2	Water Main (20") (Restrained C-900 PVC, DR-25) (Certa-Lok Restrained Joint, Coupled or Approved Equal) (Sta. 34+00 - 35+95)	195.	Lin. Ft.	\$ _____	\$ _____
7	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft ³)	600.	Ton	\$ _____	\$ _____
8	108.3	Gate Valve (6") (MJ)	17.	Each	\$ _____	\$ _____
9	108.3	Gate Valve (8") (MJ)	5.	Each	\$ _____	\$ _____
10	108.3	Gate Valve (12") (MJ)	1.	Each	\$ _____	\$ _____
11	108.3	Butterfly Valve (18") (MJ)	3.	Each	\$ _____	\$ _____
12	108.3	Butterfly Valve (20") (MJ)	2.	Each	\$ _____	\$ _____
13	108.3	Tee (6" x 6") MJ Swivel Tee (Epoxy Coated)	11.	Each	\$ _____	\$ _____
14	108.3	Tee (8" x 6") MJ Swivel Tee (Epoxy Coated)	1.	Each	\$ _____	\$ _____
15	108.3	Tee (12" x 6") MJ Swivel Tee (Epoxy Coated)	1.	Each	\$ _____	\$ _____
16	108.3	Tee (18" x 18") (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
17	108.3	Tee (20" x 8") MJ Swivel Tee (Epoxy Coated)	3.	Each	\$ _____	\$ _____
18	108.3	Tee (20" x 18") (MJ) (Epoxy Coated)	2.	Each	\$ _____	\$ _____
19	108.3	Elbow (6" x 45 deg) (MJ) (Epoxy Coated)	28.	Each	\$ _____	\$ _____

Bid Schedule: 2020 Waterline Replacement Project
ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
20	108.3	Elbow (8" x 11.25 deg) (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
21	108.3	Elbow (8" x 22.5 deg) (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
22	108.3	Elbow (8" x 45 deg) (MJ) (Epoxy Coated)	8.	Each	\$ _____	\$ _____
23	108.3	Elbow (12" x 45 deg) (MJ) (Epoxy Coated)	2.	Each	\$ _____	\$ _____
24	108.3	Elbow (18" x 22.5 deg) (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
25	108.3	Elbow (18" x 45 deg) (MJ) (Epoxy Coated)	11.	Each	\$ _____	\$ _____
26	108.3	Elbow (20" x 11.25 deg) (MJ) (Epoxy Coated)	4.	Each	\$ _____	\$ _____
27	108.3	Elbow (20" x 45 deg) (MJ) (Epoxy Coated)	7.	Each	\$ _____	\$ _____
28	108.3	Reducer (20" x 12") (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
29	108.3	Cross Fitting (12" x 8") (MJ) (Epoxy Coated)	1.	Each	\$ _____	\$ _____
30	108.3	End Cap/Plug (6") (Restrained) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (To be used on Elm Ave. to abandon existing fire hydrant at Sta. 8+20)	1.	Each	\$ _____	\$ _____
31	108.3	End Cap/Plug (18") (Restrained) (w/ 2" FIPT) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (Can be used for pressure testing pipeline)	1.	Each	\$ _____	\$ _____
32	108.3	End Cap/Plug (20") (Restrained) (w/ 2" FIPT) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (Can be used for pressure testing pipeline)	2.	Each	\$ _____	\$ _____
33	108.3	Fire Hydrant Assembly	5.	Each	\$ _____	\$ _____
34	108.3	8" Welded Flange or Hy-Max Solid Sleeve Restrained Coupling with Stiffener for connection into existing HDPE pipe	2.	Each	\$ _____	\$ _____
35	108.3	20" Welded Flange or Hy-Max Solid Sleeve Restrained Coupling with Stiffener for connection into existing HDPE pipe	2.	Each	\$ _____	\$ _____
36	108.3	20" MJ Solid Sleeve (Epoxy Coated) (Sta 39+63) (Includes MegaLug MJ Restraint fittings or Approved Equal)	1.	Each	\$ _____	\$ _____

Bid Schedule: 2020 Waterline Replacement Project
ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
37	108.4	Water Service Line (3/4") (Type K Copper) (If Lead or Poly service line is encountered, water service shall be replaced to meter) (Includes cost of connection to existing pipe)	230.	Lin. Ft.	₹ _____	₹ _____
38	108.4	Water Service Line (1-1/2") (Type K Copper or HDPE 3408) (If lead service line is encountered, water service shall be replaced to meter) (Includes cost of connection to existing pipe)	150.	Lin. Ft.	₹ _____	₹ _____
39	108.4	Tapping Saddle (6" x 3/4")	36.	Each	₹ _____	₹ _____
40	108.4	Tapping Saddle (20" x 3/4")	1.	Each	₹ _____	₹ _____
41	108.4	Tapping Saddle (20" x 1-1/2")	1.	Each	₹ _____	₹ _____
42	108.4	Corporation Stop (3/4")	37.	Each	₹ _____	₹ _____
43	108.4	Corporation Stop (1-1/2")	1.	Each	₹ _____	₹ _____
44	108.4	Meter Setter and Meter Pit Installation (Install Only) (City Furnished Meter Pit) (Includes removal and disposal of existing meter pit)	6.	Each	₹ _____	₹ _____
45	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft ³)	75.	Ton	₹ _____	₹ _____
46	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	13.	Each	₹ _____	₹ _____
47	202	Abandon Existing Water Valve (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material)	9.	Each	₹ _____	₹ _____
48	202	Remove Existing Fire Hydrant (Return Hydrant to City Shops)	4.	Each	₹ _____	₹ _____
49	202	Removal of Existing Pipe (Size & type as shown on plans)	307.	Lin. Ft.	₹ _____	₹ _____
50	202	Removal of Asphalt Mat (Full Depth)	1,328.	Sq. Yd.	₹ _____	₹ _____
51	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	704.	Sq. Yd.	₹ _____	₹ _____

Bid Schedule: 2020 Waterline Replacement Project

ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
52	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	428.	Sq. Ft.	\$ _____	\$ _____
53	202	Removal of Sod	2,547.	Sq. Ft.	\$ _____	\$ _____
54	202	Removal of Tree Stump (18" dia.) (In Desert Vista Park, there is an existing tree stump next to the proposed new waterline and the City would like for the Contractor to remove this stump)	1.	Each	\$ _____	\$ _____
55	203	Disposal of Radioactive Material (Dispose at City Shops, 333 West Ave.)	50.	Cu. Yd.	\$ _____	\$ _____
56	206	Structure Backfill (Flow-Fill)	180.	Cu. Yd.	\$ _____	\$ _____
57	208	Storm Drain Inlet Protection (Gravel Filter at Curb Inlet) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	7.	Each	\$ _____	\$ _____
58	208	Concrete Washout Facility	1.	Lump Sum	\$ _____	\$ _____
59	210	Reset Landscape Ground Cover (Match in Kind) (Contractor shall remove ground cover and underlying weed barrier as needed and stockpile materials. Contractor shall reset these materials and provide additional materials as needed)	560.	Sq. Ft.	\$ _____	\$ _____
60	210	Reset Landscape Borders (Concrete Pavers) (Property 1510 N. 18th Street)	1.	Lump Sum	\$ _____	\$ _____
61	210	Reset Landscape Rock (Reddish Rock) (Property 1505 N. 20th Street) (Match in Kind)	20.	Sq. Ft.	\$ _____	\$ _____
62	210	Reset Sprinkler System (Desert Vista Park) (Complete in Place) (Various Pipe Sizes) (Contractor shall repair all sprinkler pipe breaks whether PVC or HDPE pipe of any size within the sodded area of Desert Vista Park) (City Parks Dept. can be contacted ahead of time to get an idea of sprinkler system within the park)	1.	Lump Sum	\$ _____	\$ _____
63	210	Reset Fence (6' High Chain-Link w/ Barbed Wire Top) (12th St. and D Road intersection)	40.	Lin. Ft.	\$ _____	\$ _____
64	210	Reset Fence (4' High Barbed Wire Fence) (Along Pitkin Ave. near Sta. 10+00)	20.	Lin. Ft.	\$ _____	\$ _____

Bid Schedule: 2020 Waterline Replacement Project

ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
65	210	Reset Sign (Along Pitkin Ave. near Sta. 10+00)	3.	Each	\$ _____	\$ _____
66	212	Re-Sod Areas (Desert Vista Park and various other locations) (Includes 6" Thick Imported Topsoil placed prior to sod placement)	2,547.	Sq. Ft.	\$ _____	\$ _____
67	304	Aggregate Base Course (Class 6) (4" thick) (Shoulder Base)	491.	Sq. Yd.	\$ _____	\$ _____
68	304	Aggregate Base Course (Class 6) (15" thick)	1,238.	Sq. Yd.	\$ _____	\$ _____
69	401	Cold Mix Asphalt (Temporary Patching) (3" Thick) (To be used on Ute Ave. and Pitkin Ave. as a temporary surface until the Hot Bituminous Pavement can be laid) (To be placed on top of the cured flow-fill)	87.	Sq. Yd.	\$ _____	\$ _____
70	401	Hot Bituminous Pavement (Patching) (3 " Thick) (Grading SX, PG 64-22) (GYR.=75) (One 3" Lift Bottom Mat)	490.	Sq. Yd.	\$ _____	\$ _____
71	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) (T-Top)	2,018.	Sq. Yd.	\$ _____	\$ _____
72	401	Hot Bituminous Pavement (Patching) (2 " Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Lift Bottom Mat) (Elm Ave.)	838.	Sq. Yd.	\$ _____	\$ _____
73	407	Emulsified Asphalt (Tack Coat)	335.	Gallon	\$ _____	\$ _____
74	608	Concrete Curb and Gutter (2' Wide) (Match in Kind) (City Std. Detail C-05)	54.	Lin. Ft.	\$ _____	\$ _____
75	608	Concrete Curb, Gutter, & Sidewalk (6' Wide) (Match in Kind) (City Std. Detail C-02)	150.	Sq. Ft.	\$ _____	\$ _____
76	608	Concrete Drainage Pan (6' Wide x 8" Thick) (Match in Kind) (Includes #5 rebar tie-bars) (City Std. Detail C-12)	150.	Sq. Ft.	\$ _____	\$ _____
77	608	Cap Top Half of Sewer Pipe in Concrete per City Std. Detail GU-04 (If necessary)	1.	Each	\$ _____	\$ _____
78	620	Portable Sanitary Facility	2.	Each	\$ _____	\$ _____
79	625	Construction Surveying (Includes As-Built Drawings)	1.	Lump Sum	\$ _____	\$ _____
80	626	Mobilization	1.	Lump Sum	\$ _____	\$ _____

Bid Schedule: 2020 Waterline Replacement Project ADDENDUM #1

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
81	627	Pavement Marking Paint (Water Based) (Double Yellow Lines) (12th St. between Ute Ave. and Pitkin Ave., and D Road)	72.	Lin. Ft.	\$ _____	\$ _____
82	627	Pavement Marking Paint (Water Based) (Single Yellow Line) (Pitkin Ave.)	10.	Lin. Ft.	\$ _____	\$ _____
83	627	Pavement Marking Paint (Water Based) (Single White Line) (Pitkin Ave. & D Road)	40.	Lin. Ft.	\$ _____	\$ _____
84	627	Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) (To be used at the Ute Ave. and 12th Street intersection)	62.	Sq. Ft.	\$ _____	\$ _____
85	629	Survey Monumentation (Complete in Place)	2.	Each	\$ _____	\$ _____
86	630	Traffic Control Plan	1.	Lump Sum	\$ _____	\$ _____
87	630	Traffic Control (Complete in Place)	1.	Lump Sum	\$ _____	\$ _____
88	630	Flagging	1,240.	Hour	\$ _____	\$ _____
MCR		Minor Contract Revisions	---	---	---	\$ <u>55,000.00</u>
Bid Amount:						\$ _____

Bid Amount:

dollars

Contractor Name:
Contractor Address:
Contractor Phone #:

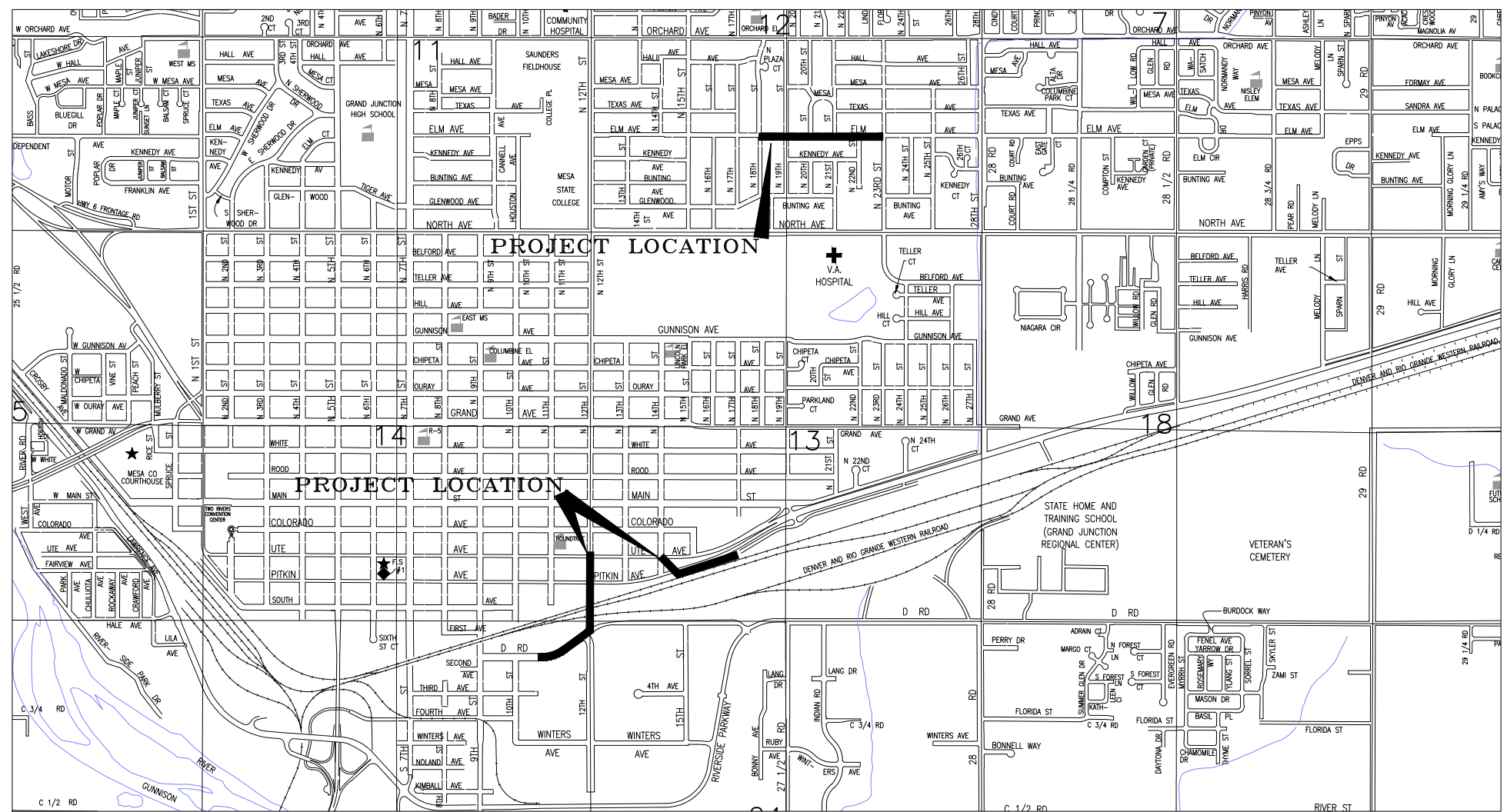
CITY OF GRAND JUNCTION

2020 WATERLINE REPLACEMENT PROJECT

MAY 2020

SHEET INDEX

- 1 Cover Sheet
- 2 Standard Abbreviations, Legend, and Symbols
- 3 Summary of Approximate Quantities
- 4 Control Plan
- 5-7 Waterline Plans for Pitkin Ave from 14th to 17th
- 8-12 Waterline Plans for D Road and 12th
- 13-17 Waterline Plans for Elm Ave from 18th to 23rd



NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE UTILITY PLAN WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

811
Know what's below.
Call before you dig.

UTILITIES AND AGENCIES									
AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX	
CITY OF GRAND JUNCTION	LEE COOPER	PROJECT ENGINEER	PROJECT ENGINEER	333 WEST AVE BLDG C	333 WEST AVE BLDG C	GRAND JCT., CO 81501	(970) 256-4155	(970) 256-4022	
CITY OF GRAND JUNCTION	LEE COOPER	PROJECT ENGINEER	SANITARY SEWER	333 WEST AVE BLDG C	333 WEST AVE BLDG C	GRAND JCT., CO 81501	(970) 256-4155	(970) 256-4022	
GRAND VALLEY IRRIGATION CO.	PHIL BERTRAND	MANAGER	IRRIGATION	688 26 RD	688 26 RD	GRAND JCT., CO 81506	(970) 242-2762		
SPECTRUM	JEFF VALDEZ	MANAGER	CABLE TV	2502 FORESIGHT CIRCLE	2502 FORESIGHT CIRCLE	GRAND JCT., CO 81504	(970) 245-8750	(970) 245-6803	
CENTURYLINK	CHRIS JOHNSON	ENGINEER	TELEPHONE	2524 BLICHMANN AVE	2524 BLICHMANN AVE	GRAND JCT., CO 81504	(970) 244-4311	(970) 240-4349	
UTE WATER	JUSTIN BATES	SUPERVISOR	WATER	PO BOX 460	2190 H 1/4 RD	GRAND JCT., CO 81502	(970) 242-7491	(970) 242-9189	
XCEL	STEVE PIBURN	UNIT MANAGER	ELECTRIC	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2664	(970) 244-2664	
XCEL	SARAH BARRICAU	UNIT MANAGER	GAS	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2656	(970) 244-2656	

REVISION	DESCRIPTION	DATE
REVISION 1	ADDENDUM #1 - REVISED SHEETS 5 & 11	05/20/20
REVISION 2		
REVISION 3		
REVISION 4		

DRAWN BY	JCS	DATE	2020
DESIGNED BY	JCS	DATE	2020
CHECKED BY	ALC	DATE	2020
APPROVED BY	ICP	DATE	2020

SCALE



**PUBLIC WORKS
ENGINEERING DIVISION**

**2020 WATERLINE REPLACEMENT PROJECT
COVER - 1**

ABBREVIATIONS

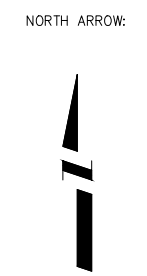
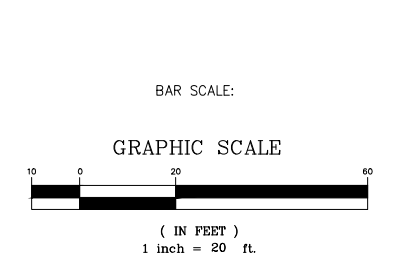
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASP	ALUMINIZED STEEL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	BACK OF WALK
BCR	BEGIN CURB RETURN
BOT	BOTTOM
BSWMP	BETTER STORM WATER MANAGEMENT PRACTICES
CH	CHORD
CAP	CORRUGATED ALUMINUM PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CI	CAST IRON
C,G,& SW	CURB, GUTTER & SIDEWALK
CL	CLEAR
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMB	COMBINATION (AS IN STORM SEWER AND SANITARY SEWER)
CONC	CONCRETE
CSM	CITY SURVEY MONUMENT
CSP	CORRUGATED STEEL PIPE
CU	COPPER
DI	DUCTILE IRON
DWY	DRIVEWAY
E	ELECTRIC
ECR	END CURB RETURN
EG	EDGE OF GUTTER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FB	FULL BODY
FC	FACE OF CURB
FG	FINISHED GRADE
FL	FLOW LINE
FL	FLANGE
FM	FORCE MAIN
FO	FIBER OPTICS
FS	FAR SIDE
FTG	FOOTING
G	GAS
GB	GRADE BREAK
GM	GAS METER
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
IRR	IRRIGATION
L	LENGTH OF ARC
LC	LONG CHORD
LF	LINEAR FEET
LL	LONG ARC
LS	SHORT ARC
LT	LEFT
MB	MAILBOX
MCSM	MESA COUNTY SURVEY MONUMENT
MH	MANHOLE
MJ	MECHANICAL JOINT
MW	MILL WRAP
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOP	NO ONE PERSON
NRC	NON-REINFORCED CONCRETE PIPE
NS	NEAR SIDE
NTS	NOT TO SCALE
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PR	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RG	RESTRAINED GLANDS
RL	LONG RADIUS
ROW	RIGHT OF WAY
RP	RADIUS POINT
RR	RAIL ROAD
RS	SHORT RADIUS
RT	RIGHT
S	SLOPE
SAN	SANITARY
SC	SHORT CHORD
SCD	STANDARD CONTRACT DOCUMENTS
SCH	SCHEDULE
SF	SILT FENCE
SL	SECTION LINE
SSRB	STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
SSUU	STANDARD SPECIFICATIONS FOR CONSTRUCTION OF UNDERGROUND UTILITIES
STA	STATION
STL	STEEL
STM	STORM
T	TELEPHONE
TAN	LENGTH OF TANGENT
TC	TOP OF CURB
TH	TEST HOLE
TV	TELEVISION
(TYP)	TYPICAL
UU	UNDERGROUND UTILITIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVATURE
VPRC	VERTICAL POINT OF REVERSE CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WATER
Δ	DELTA ANGLE

LEGEND

BSWMP DRAINAGE BASIN BOUNDARY		PROPOSED CONCRETE CURB AND GUTTER	
BSWMP ANCHORED STRAW BALES		PROPOSED CONCRETE CURB, GUTTER, & SIDEWALK	
BSWMP SILT FENCE		PROPOSED CONCRETE SIDEWALK	
BUILDING		PROPOSED "WET" UTILITIES (CONSTRUCTION NOTE WILL INDICATE TYPE, SIZE, AND MATERIAL OF NEW MAIN)	
CONCRETE CURB AND GUTTER		8" PVC SANITARY SEWER	
CONCRETE CURB, GUTTER, & SIDEWALK		ALL PROPOSED FEATURES NOT SHOWN IN LEGEND WILL BE SHOWN THE SAME AS THEIR EXISTING COUNTERPART, BUT INDICATED BY BOLDER LINETYPE	
CONCRETE DITCH		RAIL ROAD	
CONCRETE SIDEWALK		RETAINING WALL	
CULVERT		STRIPING (CONTINUOUS WHITE)	
EARTH DITCH		STRIPING (DASHED WHITE)	
EDGE OF GRAVEL		STRIPING (CONTINUOUS YELLOW)	
EDGE OF PAVEMENT		STRIPING (DASHED YELLOW)	
FENCE (HT & MATL NOTED)		TOP OF SLOPE	
GUARD RAIL		CONTOUR LINES (SHOWN BETWEEN TOP & TOE)	
HATCHING: INDICATES ASPHALT REMOVAL		TOE OF SLOPE	
HATCHING: INDICATES CONCRETE REMOVAL		TRAFFIC DETECTOR LOOP	
HATCHING: INDICATES CLASS 6 AREA		UTILITY LINE (ABANDON) (THIS CASE A WATER LINE)	
HATCHING: INDICATES STAGING AREA		UTILITY LINE (CABLE TV)	
LINE (CENTER OF IMPROVEMENTS)		UTILITY LINE (ELECTRIC)	
LINE (CITY LIMITS)		UTILITY LINE (FIBER OPTIC)	
LINE (CONTROL)		UTILITY LINE (GAS)	
LINE (EASEMENT)		UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)	
LINE (MONUMENT/SECTION)		UTILITY LINE (OVERHEAD POWER)	
LINE (PROPERTY)		UTILITY LINE (OVERHEAD TELEPHONE)	
LINE (RIGHT OF WAY)		UTILITY LINE (SANITARY SEWER)	
MATCH LINE		UTILITY LINE (SANITARY SEWER FORCE MAIN)	
PIPE (IRRIGATION)		UTILITY LINE (SANITARY SEWER SERVICE)	
PIPE (SIPHON)		UTILITY LINE (STORM SEWER)	
		UTILITY LINE (STORM SEWER, PERFORATED)	
		UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)	
		UTILITY LINE (TELEPHONE)	
		UTILITY LINE (WATER)	

SYMBOLS

BENCH MARK	
CATCH BASIN	
CLEAN OUT	
CURB STOP	
FIRE HYDRANT	
GUY WIRE ANCHOR	
HEADGATE	
IRRIGATION PUMP	
MAILBOX	
MANHOLE (ELECTRIC)	
MANHOLE (GAS)	
MANHOLE (SANITARY/STORM)	
MANHOLE (TELEPHONE)	
MANHOLE (TV)	
MANHOLE (WATER)	
METER (GAS)	
METER (WATER)	
PEDESTAL (TELEPHONE)	
PEDESTAL (TV)	
PROPERTY PIN	
PULL BOX	
REDUCER FITTING	
SIGN OR POST (SIGN TYPE NOTED)	
SPRINKLER HEAD	
STREET LIGHT	
SURVEY MONUMENT (CITY)	
SURVEY MONUMENT (TYPE NOTED)	
TEST HOLE	
TRAFFIC PAINT MARKING	
TRAFFIC SIGNAL POLE AND MAST ARM	
UTILITY POLE	
VALVE (GAS)	
VALVE (IRRIGATION)	
VALVE (WATER)	
VEGETATION (HEDGE OR BUSH)	
VEGETATION (TREE STUMP)	
VEGETATION (TREE) (CALIPER SIZE NOTED)	
WATER HYDRANT	
WEIR	
YARD LIGHT	



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALE
REVISION Δ REV 1			JCS	2020	
REVISION Δ REV 2			JCS	2020	
REVISION Δ REV 3			ALC	2020	
REVISION Δ REV 4			ICP	2020	



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
STANDARD ABBREVIATIONS LEGEND AND
SYMBOLS — 1

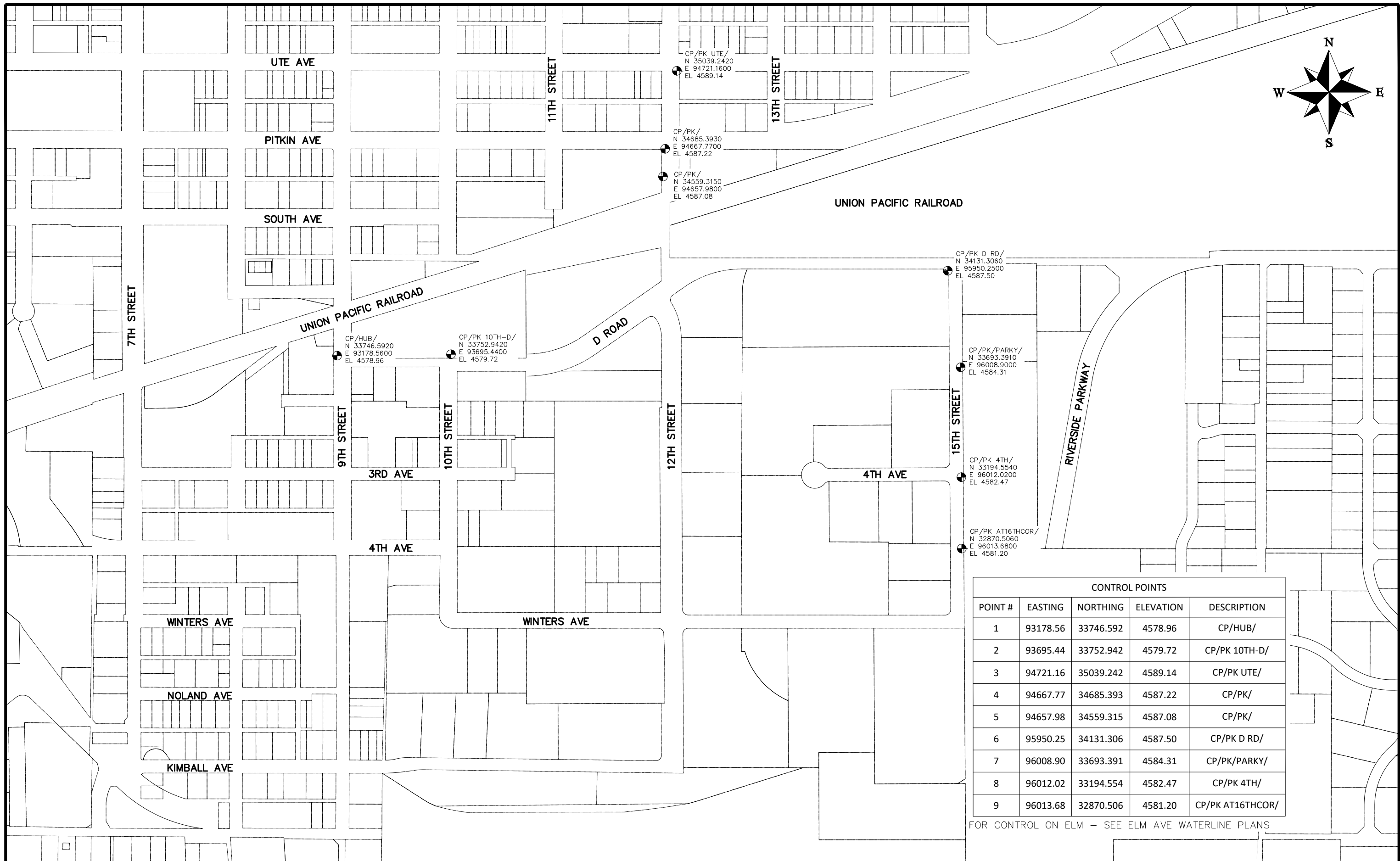
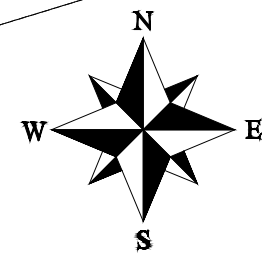
Item No.	CDOT, City Ref.	Description	Quantity	Units	Item No.	CDOT, City Ref.	Description	Quantity	Units	Item No.	CDOT, City Ref.	Description	Quantity	Units	Item No.	CDOT, City Ref.	Description	Quantity	Units
1	108.2	Water Main (6") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	1,907.	Lin. Ft.	28	108.3	Reducer (20" x 12") (MJ) (Epoxy Coated)	1.	Each	47	202	Remove Existing Fire Hydrant (Return Hydrant to City Shops)	4.	Each	66	304	Aggregate Base Course (Class 6) (15" thick)	1,238.	Sq. Yd.
					29	108.3	Cross Fitting (12" x 8") (MJ) (Epoxy Coated)	1.	Each	48	202	Removal of Existing Pipe (Size & type as shown on plans)	307.	Lin. Ft.	67	401	Hot Bituminous Pavement (Patching) (3" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 3" Lift Bottom Mat)	490.	Sq. Yd.
2	108.2	Water Main (8") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	98.	Lin. Ft.	30	108.3	End Cap/Plug (6") (Restrained) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (To be used on Elm Ave. to abandon existing fire hydrant at Sta. 8+20)	1.	Each	49	202	Removal of Asphalt Mat (Full Depth)	1,328.	Sq. Yd.	68	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) (T-Top)	2,018.	Sq. Yd.
3	108.2	Water Main (12") (C-900 PVC, DR-18) (Includes cost of restrained connection to existing pipe)	58.	Lin. Ft.	31	108.3	End Cap/Plug (18") (Restrained) (w/ 2" FIPT) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (Can be used for pressure testing pipeline)	1.	Each	50	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	704.	Sq. Yd.	69	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Lift Bottom Mat) (Elm Ave.)	838.	Sq. Yd.
4	108.2	Water Main (18") (C-900 PVC, DR-25) (Includes cost of restrained connection to existing pipe)	1,282.	Lin. Ft.	32	108.3	End Cap/Plug (20") (Restrained) (w/ 2" FIPT) (Includes Concrete Thurstblock per City Std Detail W-07 & W-08) (Can be used for pressure testing pipeline)	2.	Each	51	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, landscape borders, and concrete walls)	428.	Sq. Ft.	70	407	Emulsified Asphalt (Tack Coat)	335.	Gallon
5	108.2	Water Main (20") (C-900 PVC, DR-25) (Includes cost of restrained connection to existing pipe)	1,380.	Lin. Ft.	33	108.3	Fire Hydrant Assembly	5.	Each	52	202	Removal of Sod	2,547.	Sq. Ft.	71	608	Concrete Curb and Gutter (2' Wide) (Match in Kind) (City Std. Detail C-05)	54.	Lin. Ft.
6	108.2	Water Main (20") (Restrained C-900 PVC, DR-25) (Certa-Lok Restrained Joint, Coupled or Approved Equal) (Sta. 34+00 - 35+95)	195.	Lin. Ft.	34	108.3	8" Welded Flange or Hy-Max Solid Sleeve Restrained Coupling with Stiffener for connection into existing HDPE pipe	2.	Each	53	203	Disposal of Radioactive Material (Dispose at City Shops, 333 West Ave.)	50.	Cu. Yd.	72	608	Concrete Curb, Gutter, & Sidewalk (6' Wide) (Match in Kind) (City Std. Detail C-02)	150.	Sq. Ft.
7	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed material unit weight = 133 lbs/ft ³)	600.	Ton	35	108.3	20" Welded Flange or Hy-Max Solid Sleeve Restrained Coupling with Stiffener for connection into existing HDPE pipe	2.	Each	54	206	Structure Backfill (Flow-Fill)	180.	Cu. Yd.	73	608	Concrete Drainage Pan (6' Wide x 8" Thick) (Match in Kind) (Includes #5 rebar tie-bars) (City Std. Detail C-12)	150.	Sq. Ft.
8	108.3	Gate Valve (6")	17.	Each	36	108.4	Water Service Line (3/4") (Type K Copper) (If Lead or Poly service line is encountered, water service shall be replaced to meter) (Includes cost of connection to existing pipe)	180.	Lin. Ft.	55	208	Storm Drain Inlet Protection (Gravel Filter at Curb Inlet) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	7.	Each	74	608	Cap Top Half of Sewer Pipe in Concrete per City Std. Detail GU-04 (If necessary)	1.	Each
9	108.3	Gate Valve (8")	5.	Each	37	108.4	Water Service Line (1-1/2") (Type K Copper or HDPE 3408) (If lead service line is encountered, water service shall be replaced to meter) (Includes cost of connection to existing pipe)	150.	Lin. Ft.	56	208	Concrete Washout Facility	1.	Lump Sum	75	620	Portable Sanitary Facility	2.	Each
10	108.3	Gate Valve (12")	1.	Each	38	108.4	Tapping Saddle (6" x 3/4")	36.	Each	57	210	Reset Landscape Ground Cover (Match in Kind) (Contractor shall remove ground cover and underlying weed barrier as needed and stockpile materials. Contractor shall reset these materials and provide additional materials as needed)	560.	Sq. Ft.	76	625	Construction Surveying (Includes As-Built Drawings)	1.	Lump Sum
11	108.3	Butterfly Valve (18")	3.	Each	39	108.4	Tapping Saddle (20" x 3/4")	1.	Each	58	210	Reset Landscape Borders (Concrete Pavers) (Property 1510 N. 18th Street)	1.	Lump Sum	77	626	Mobilization	1.	Lump Sum
12	108.3	Butterfly Valve (20")	2.	Each	40	108.4	Tapping Saddle (20" x 1-1/2")	1.	Each	59	210	Reset Landscape Rock (Reddish Rock) (Property 1505 N. 20th Street) (Match in Kind)	20.	Sq. Ft.	78	627	Pavement Marking Paint (Water Based) (Double Yellow Lines) (12th St. between Ute Ave. and Pitkin Ave., and D Road)	72.	Lin. Ft.
13	108.3	Tee (6" x 6") MJ Swivel Tee (Epoxy Coated)	11.	Each	41	108.4	Corporation Stop (3/4")	37.	Each	60	210	Reset Sprinkler System (Desert Vista Park) (Complete in Place) (Various Pipe Sizes) (Contractor shall repair all sprinkler pipe breaks whether PVC or HDPE pipe of any size within the sodded area of Desert Vista Park) (City Parks Dept. can be contacted ahead of time to get an idea of sprinkler system within the park)	1.	Lump Sum	79	627	Pavement Marking Paint (Water Based) (Single Yellow Line) (Pitkin Ave.)	10.	Lin. Ft.
14	108.3	Tee (8" x 6") MJ Swivel Tee (Epoxy Coated)	1.	Each	42	108.4	Corporation Stop (1-1/2")	1.	Each	61	210	Reset Fence (6' High Chain-Link w/ Barbed Wire Top) (12th St. and D Road intersection)	40.	Lin. Ft.	80	627	Pavement Marking Paint (Water Based) (Single White Line) (Pitkin Ave. & D Road)	40.	Lin. Ft.
15	108.3	Tee (12" x 6") MJ Swivel Tee (Epoxy Coated)	1.	Each	43	108.4	Meter Setter and Meter Pit Installation (Install Only) (City Furnished Meter Pit) (Includes removal and disposal of existing meter pit)	6.	Each	62	210	Reset Fence (4' High Barbed Wire Fence) (Along Pitkin Ave. near Sta. 10+00)	20.	Lin. Ft.	81	627	Preformed Thermoplastic Pavement Marking (Xwalk-Stop Line) (To be used at the Ute Ave. and 12th Street intersection)	62.	Sq. Ft.
16	108.3	Tee (18" x 18") (MJ) (Epoxy Coated)	1.	Each	44	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft ³)	75.	Ton	63	210	Reset Sign (Along Pitkin Ave. near Sta. 10+00)	3.	Each	82	629	Survey Monumentation (Complete in Place)	2.	Each
17	108.3	Tee (20" x 8") MJ Swivel Tee (Epoxy Coated)	3.	Each	45	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	13.	Each	64	212	Re-Sod Areas (Desert Vista Park and various other locations) (Includes 6" Thick Imported Topsoil placed prior to sod placement)	2,547.	Sq. Ft.	83	630	Traffic Control Plan	1.	Lump Sum
18	108.3	Tee (20" x 18") (MJ) (Epoxy Coated)	2.	Each	46	202	Abandon Existing Water Valve (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material)	9.	Each	65	304	Aggregate Base Course (Class 6) (4" thick) (Shoulder Base)	491.	Sq. Yd.	84	630	Traffic Control (Complete in Place)	1.	Lump Sum
19	108.3	Elbow (6" x 45 deg) (MJ) (Epoxy Coated)	28.	Each											85	630	Flagging	1,240.	Hour
20	108.3	Elbow (8" x 11.25 deg) (MJ) (Epoxy Coated)	1.	Each											MCR		Minor Contract Revisions	---	---
21	108.3	Elbow (8" x 22.5 deg) (MJ) (Epoxy Coated)	1.	Each															
22	108.3	Elbow (8" x 45 deg) (MJ) (Epoxy Coated)	8.	Each															
23	108.3	Elbow (12" x 45 deg) (MJ) (Epoxy Coated)	2.	Each															
24	108.3	Elbow (18" x 22.5 deg) (MJ) (Epoxy Coated)	1.	Each															
25	108.3	Elbow (18" x 45 deg) (MJ) (Epoxy Coated)	11.	Each															
26	108.3	Elbow (20" x 11.25 deg) (MJ) (Epoxy Coated)	4.	Each															
27	108.3	Elbow (20" x 45 deg) (MJ) (Epoxy Coated)	7.	Each															

REVISION Δ REV 1	DESCRIPTION	DATE	DRAWN BY DJM	DATE 2020	SCALE
REVISION Δ REV 2			DESIGNED BY LC	DATE 2020	
REVISION Δ REV 3			CHECKED BY LC	DATE 2020	
REVISION Δ REV 4			APPROVED BY LC	DATE 2020	



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
SUMMARY OF QUANTITIES

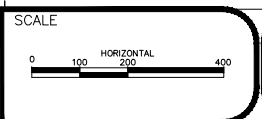


CONTROL POINTS				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
1	93178.56	33746.592	4578.96	CP/HUB/
2	93695.44	33752.942	4579.72	CP/PK 10TH-D/
3	94721.16	35039.242	4589.14	CP/PK UTE/
4	94667.77	34685.393	4587.22	CP/PK/
5	94657.98	34559.315	4587.08	CP/PK/
6	95950.25	34131.306	4587.50	CP/PK D RD/
7	96008.90	33693.391	4584.31	CP/PK/PARKY/
8	96012.02	33194.554	4582.47	CP/PK 4TH/
9	96013.68	32870.506	4581.20	CP/PK AT16THCOR/

FOR CONTROL ON ELM - SEE ELM AVE WATERLINE PLANS

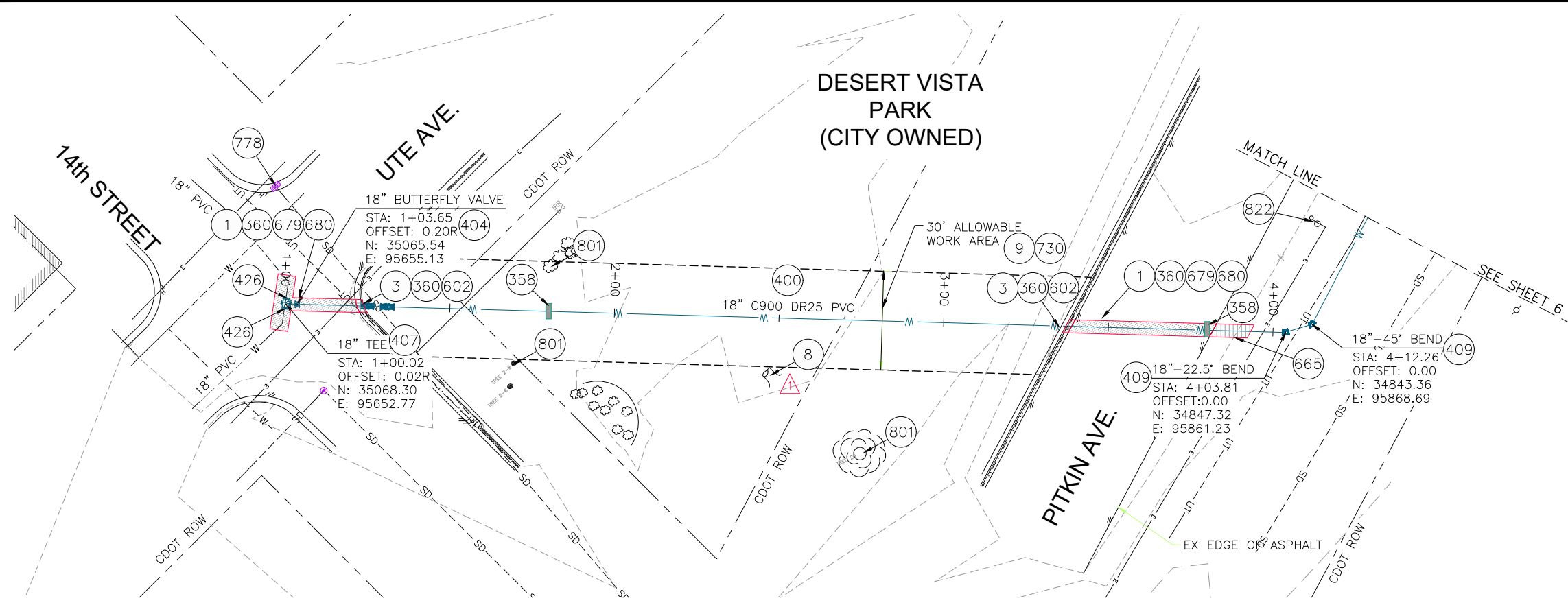
REVISION	DESCRIPTION	DATE
REVISION Δ REV 1		
REVISION Δ REV 2		
REVISION Δ REV 3		
REVISION Δ REV 4		

DRAWN BY	DJM	DATE	4/2020
DESIGNED BY	LC	DATE	4/2020
CHECKED BY	LC	DATE	4/2020
APPROVED BY	LC	DATE	4/2020

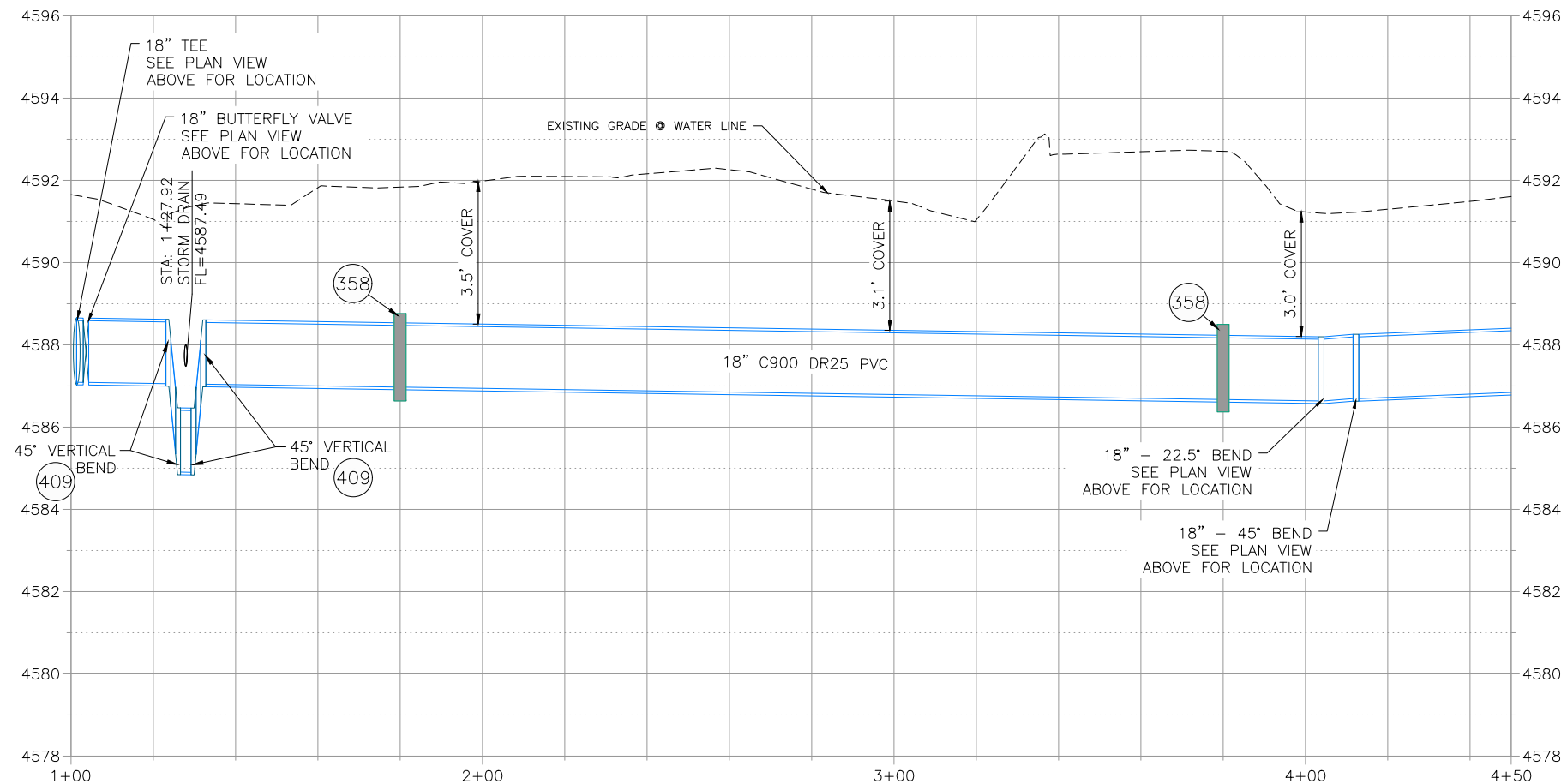


**PUBLIC WORKS
ENGINEERING DIVISION**
PROJECT NO. 301-F0005

**2020 WATERLINE REPLACEMENT PROJECT
PROJECT CONTROL MAP**



- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 8 202 - REMOVAL OF TREE STUMP (18" DIA.)
- 9 202 - REMOVAL OF SOD.
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- 360 206 - STRUCTURE BACKFILL (FLOW-FILL) (WATERLINE TRENCH SHALL BE BACKFILLED WITHIN CDOT SPEC FLOW-FILL WITHIN CDOT RIGHT-OF-WAY)
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 404 102.8e/108.3 - BUTTERFLY VALVE (SIZE AS SHOWN) (EPOXY COATED)
- 407 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- 602 608.06 - CONCRETE CURB AND GUTTER (MATCH IN KIND) (2' WIDE)
- 665 304 - AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (SHOULDER BASE)
- 679 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 3" LIFT BOTTOM MAT)
- 680 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 730 212 - RESOD AREA AS SHOWN (INCLUDES 6" OF TOPSOIL)
- 778 208 - STORM DRAIN INLET PROTECTION (GRAVEL FILTER AT CURB INLET) (AS SHOWN AND PER DETAIL)
- 801 PROTECT TREE
- 822 PROTECT LIGHT POLE



- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7c AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



Know what's below.
Call before you dig.

**CALL 2 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES**

Per Date: 5/20/2020 8:54 AM Plotted By: Dan Maloney
 Date Created: 4/22/2020 N:\LANDP\2020 WATERLINE REPLACEMENT F000532\ADD\DESIGN\ROAD\81-18-028_C201X\PITKINDWG

REVISION	DESCRIPTION	DATE
REVISION A	ADDENDUM #1 - UPDATED SHEET 5	05/20/20
REVISION B		
REVISION C		
REVISION D		

DRAWN BY	DJM	DATE	4/2020
DESIGNED BY	LC	DATE	4/2020
CHECKED BY	LC	DATE	4/2020
APPROVED BY	LC	DATE	4/2020

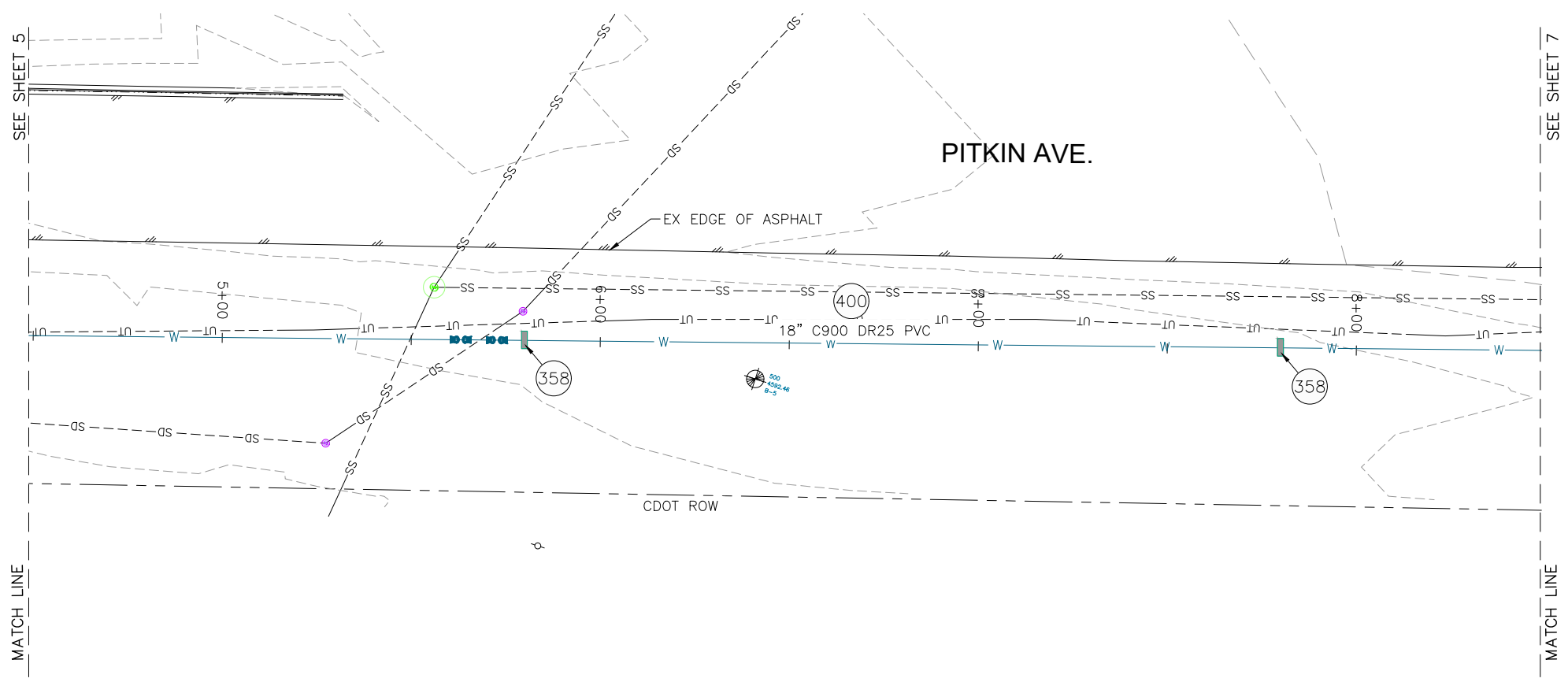
SCALES:

PLAN	1" = 20'
PROFILE	1" = 20'

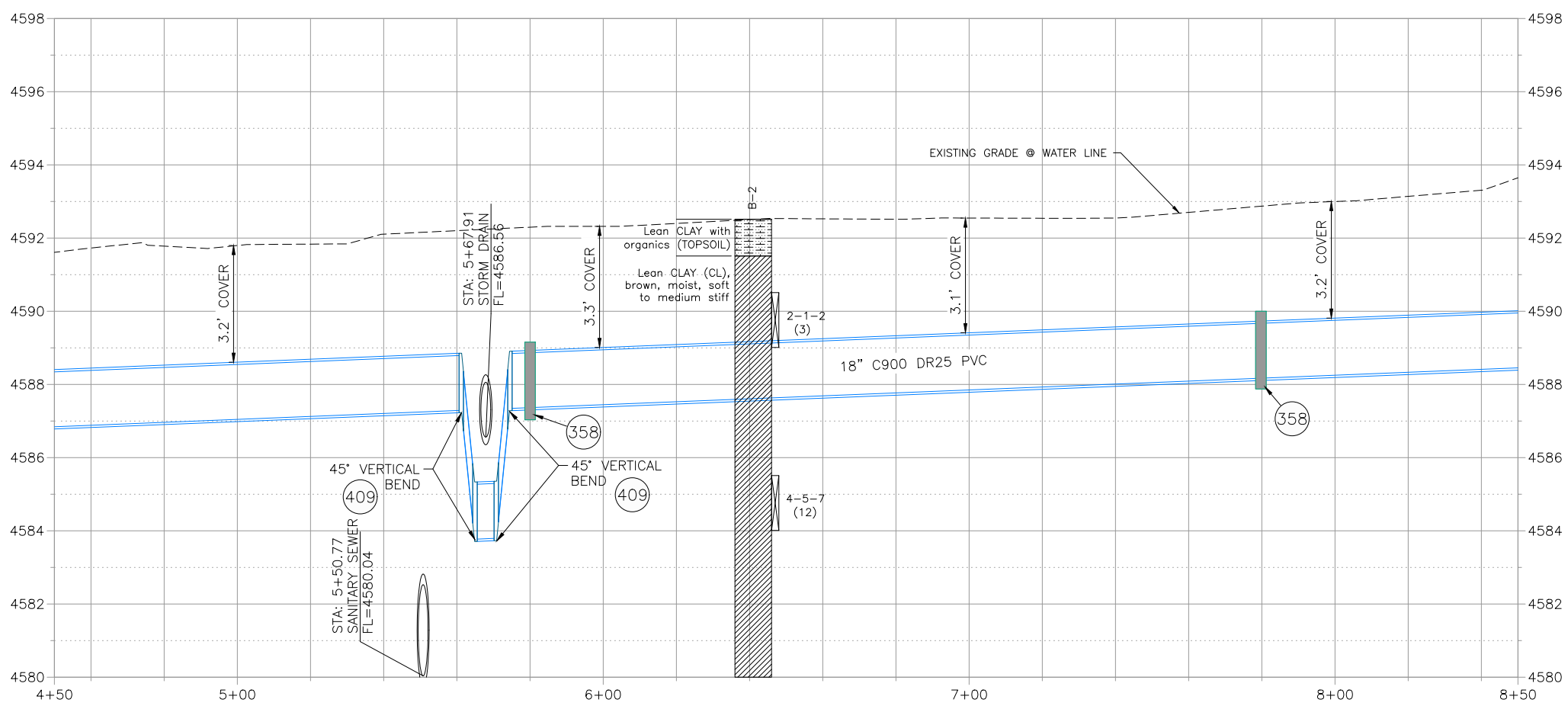


PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - PITKIN AVE
PLAN AND PROFILE 1+00 TO 4+50



- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- 409 102.8/108.3 - ELBOW (SIZE AN ANGLE AS SHOWN) (EPOXY COATED)



- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7a AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



Know what's below.
Call before you dig.

**CALL 2 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES**

Plot Date: 5/20/2020 8:55 AM Plotted By: Dan Maloney
 Date Created: 4/22/2020 N:\LANDPRJ\2020 WATERLINE REPLACEMENT F000352\CAD\DD\DESIGN\ROAD\81-F00352-PITKIN.DWG

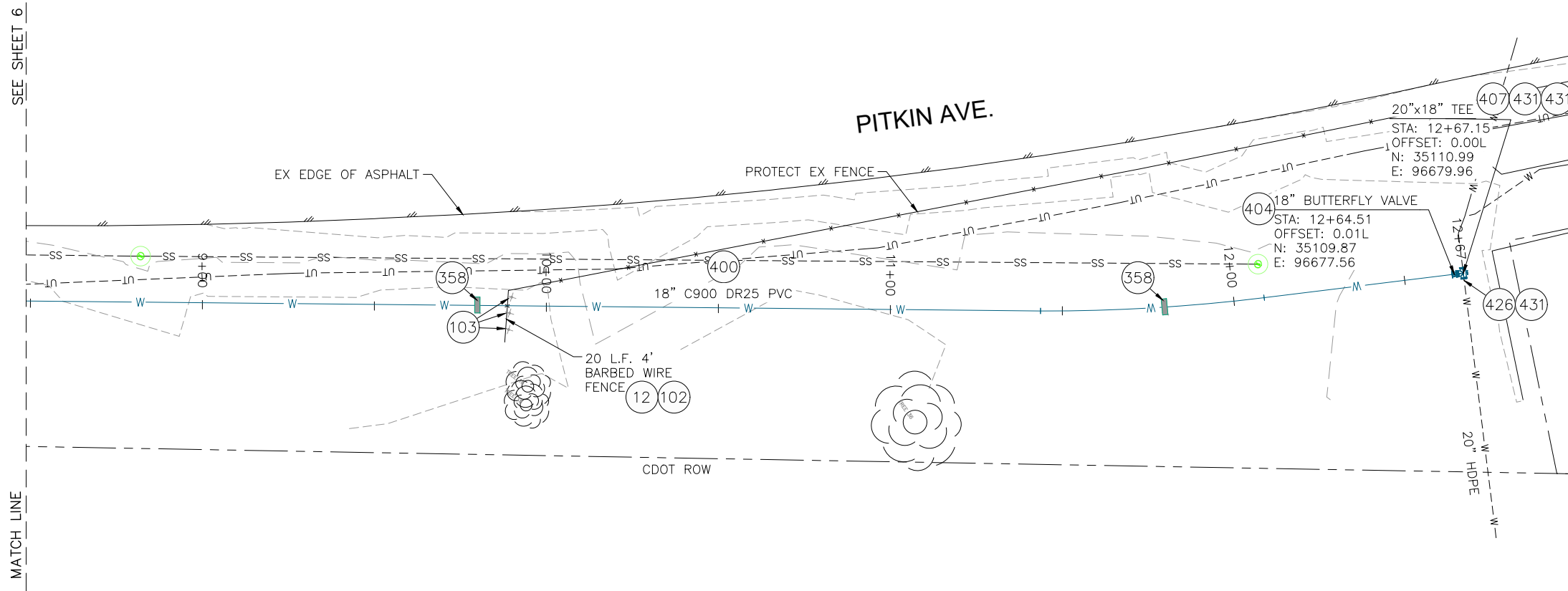
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1			DJM	4/2020
2			LC	4/2020
3			LC	4/2020
4			LC	4/2020

SCALES:	
PLAN	1" = 20'
PROFILE	1" = 2'

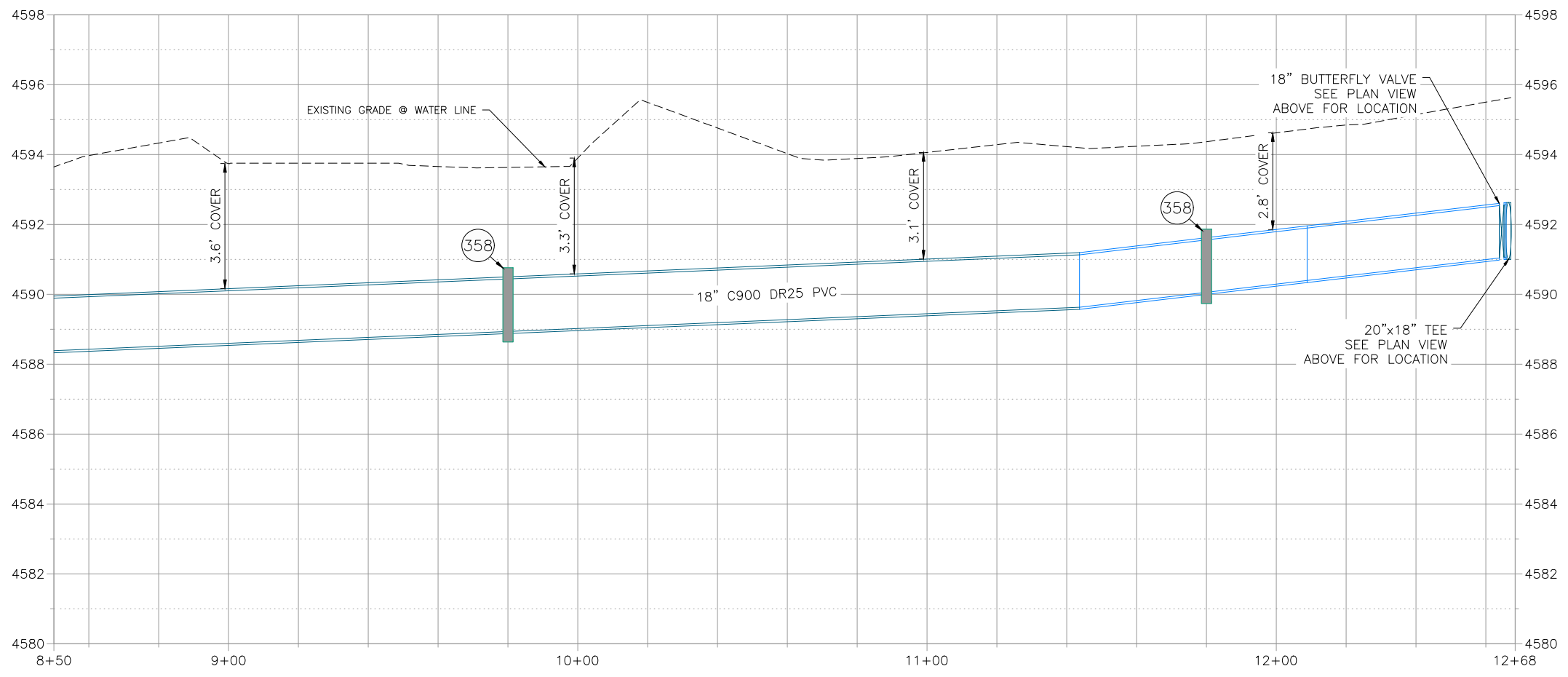


**PUBLIC WORKS
ENGINEERING DIVISION**

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - PITKIN AVE
PLAN AND PROFILE 4+50 TO 8+50**



- 12 202 - REMOVAL OF FENCE AS SHOWN. (HEIGHT AND MATERIAL AS SHOW ON PLAN)
- 102 210 - RESET FENCE. (HEIGHT AND MATERIAL AS SHOW ON PLAN)
- 103 210 - RESET SIGN
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 404 102.8e/108.3 - BUTTERFLY VALVE (SIZE AS SHOWN) (EPOXY COATED)
- 407 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- 426 CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- 431 102.8/108.3 - WELDED FLANGE OR HY-MAX SOLID SLEEVE RESTRAINED COUPLING WITH STIFFENER FOR CONNECTION TO HDPE



- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7c AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.

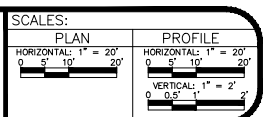


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**CALL 2 BUSINESS DAYS IN ADVANCE
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EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES**

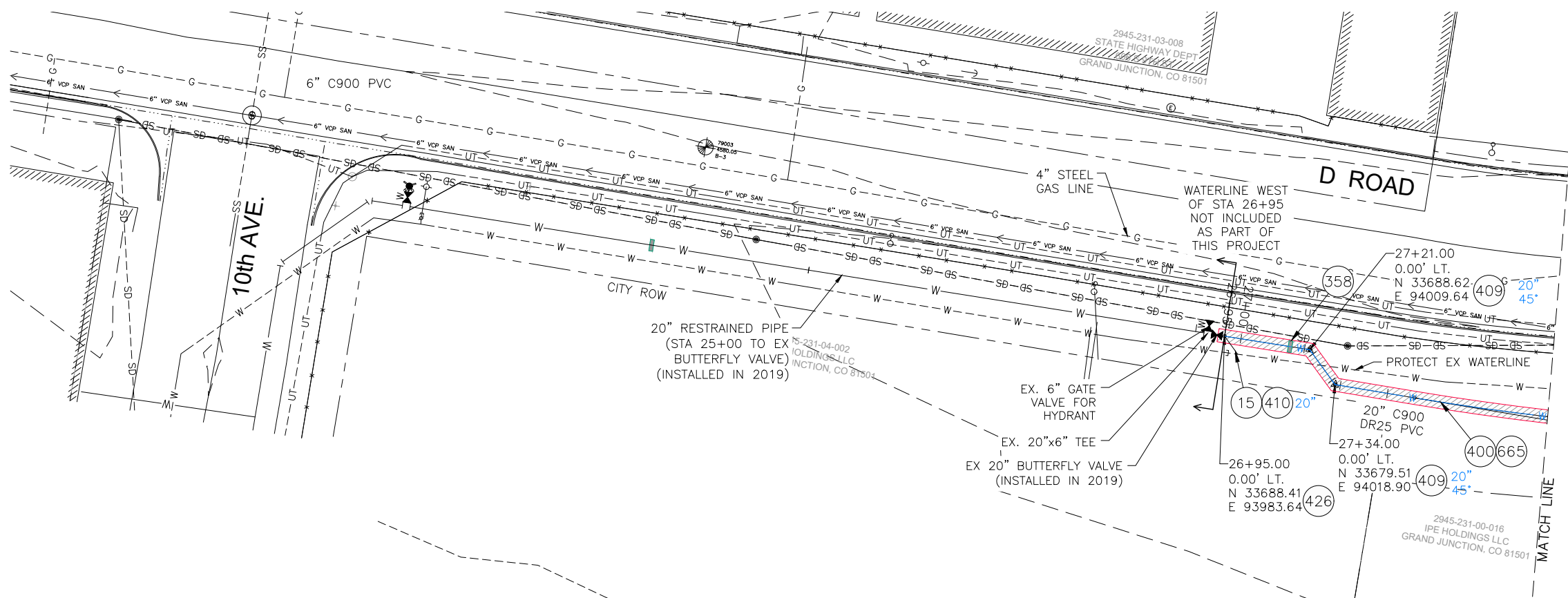
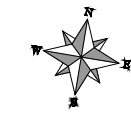
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REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
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2			LC	4/2020
3			LC	4/2020
4			LC	4/2020

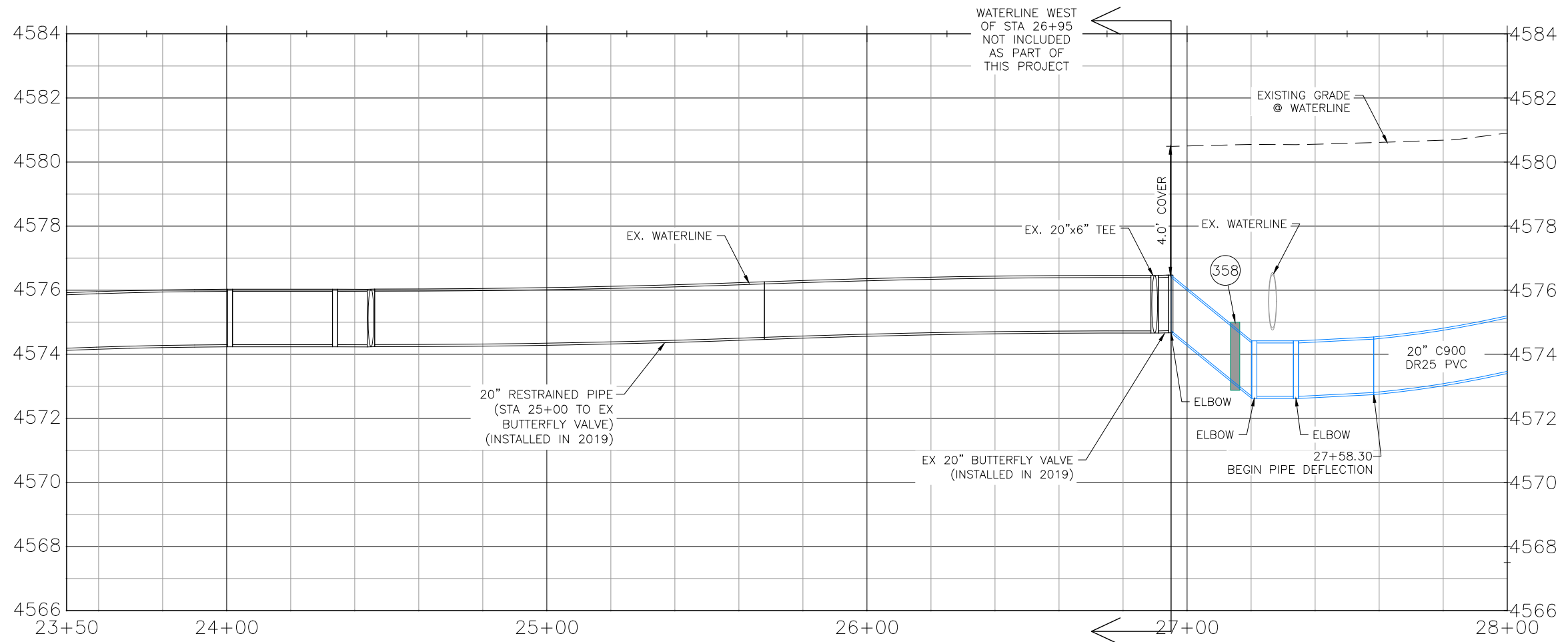


PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - PITKIN AVE
PLAN AND PROFILE 8+50 TO 12+68



- (15) 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
- (358) 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- (400) 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- (409) 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) EPOXY COATED
- (410) 102.8/108.3 - END CAP / PLUG (SIZE AS SHOWN) (INCLUDES THRUST BLOCK)
- (426) RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- (665) 304 - AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (WIDTH OF TRENCH SURFACE TREATMENT)



- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7g AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



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Plot Date: 5/20/2020 8:57 AM Plotted By: Dan Maloney
 Date Created: 5/20/2020 N:\LANDPROJ\2020 WATERLINE REPLACEMENT F000532\AD\000\DESIGN\ROAD\81-F028_C201X_20200416.DWG

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION			DJM	4/2020
REVISION			LC	4/2020
REVISION			LC	4/2020
REVISION			LC	4/2020

SCALES:	
PLAN	HORIZONTAL: 1" = 20'
PROFILE	HORIZONTAL: 1" = 20'
	VERTICAL: 1" = 2'

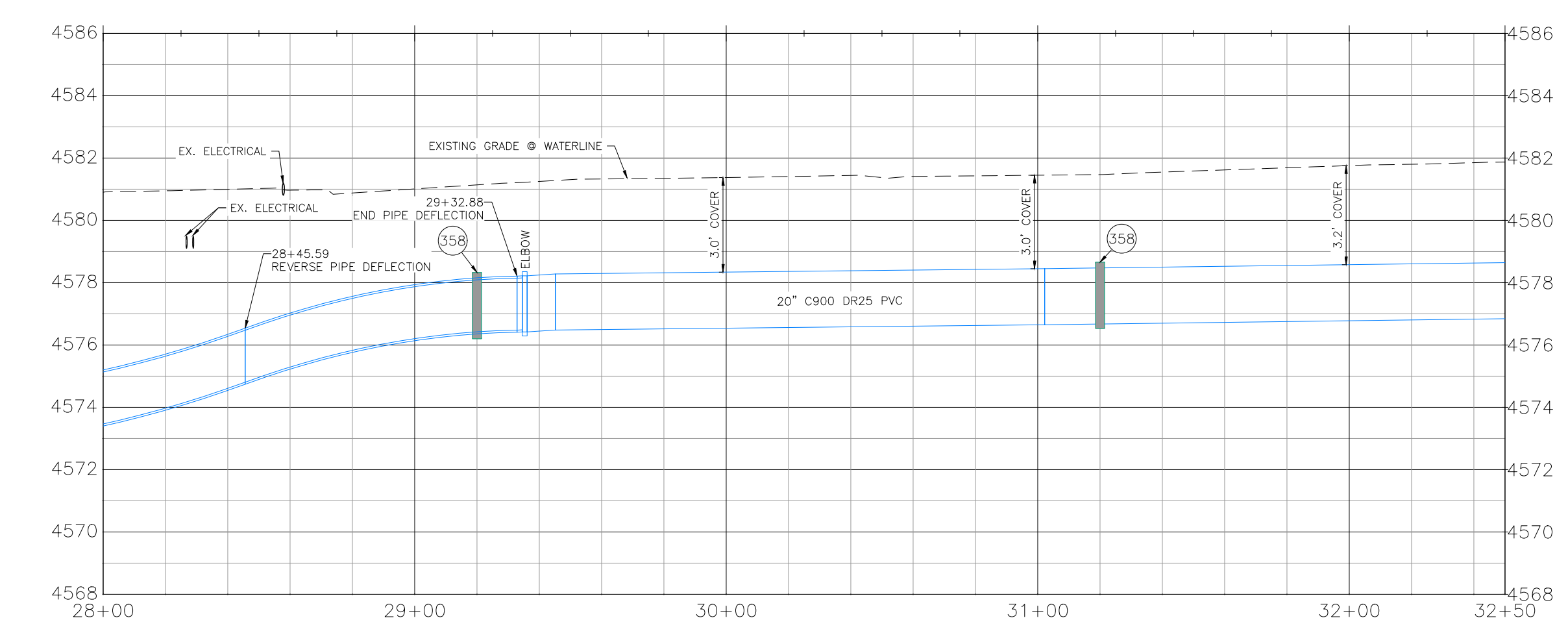
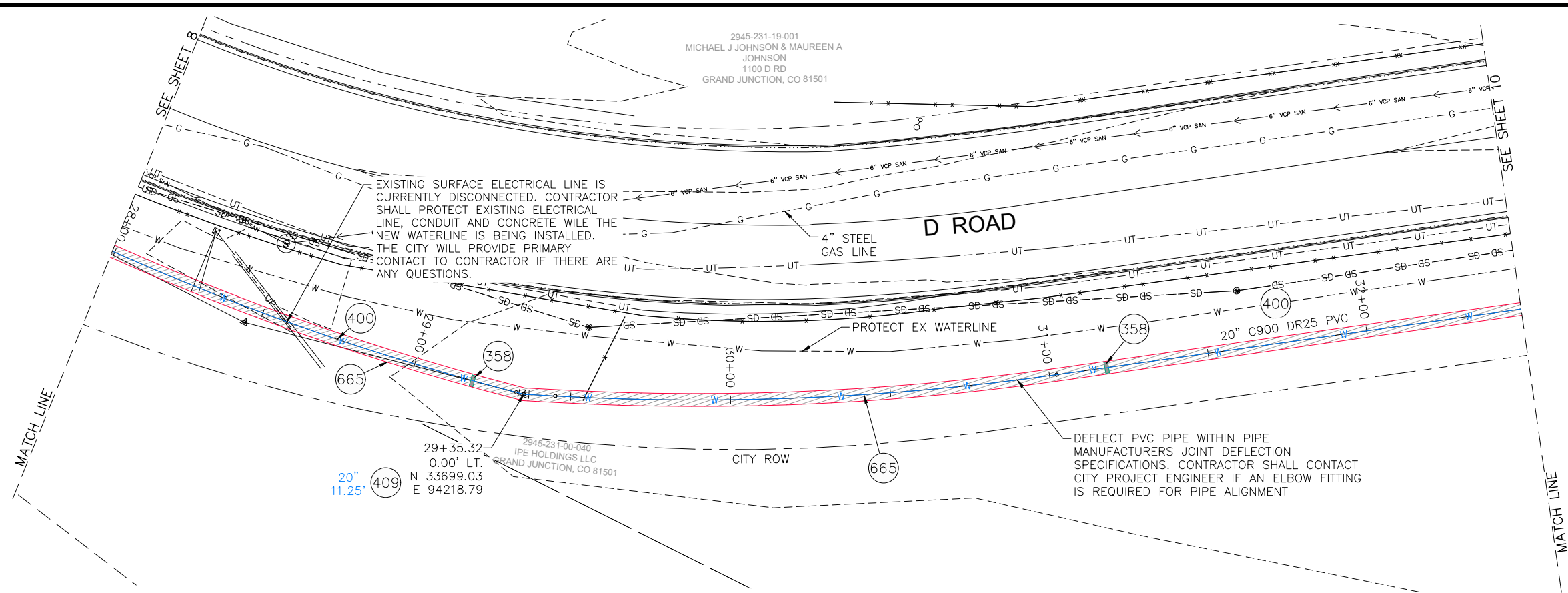


PUBLIC WORKS ENGINEERING DIVISION

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - D ROAD
PLAN AND PROFILE 26+95 TO 28+00**



2945-231-19-001
MICHAEL J JOHNSON & MAUREEN A JOHNSON
1100 D RD
GRAND JUNCTION, CO 81501



- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- 665 304 - AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (WIDTH OF TRENCH SURFACE TREATMENT)

- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7g AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Per Date: 5/20/2020 8:57 AM Plotted By: Dan Maloney
 Date Created: 5/20/2020 N:\LANDPRQ\2020 WATERLINE REPLACEMENT F000532\AD\DD\DESIGN\ROAD\91-18-028_C201X_2020\416.DWG

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REVISION			LC	4/2020

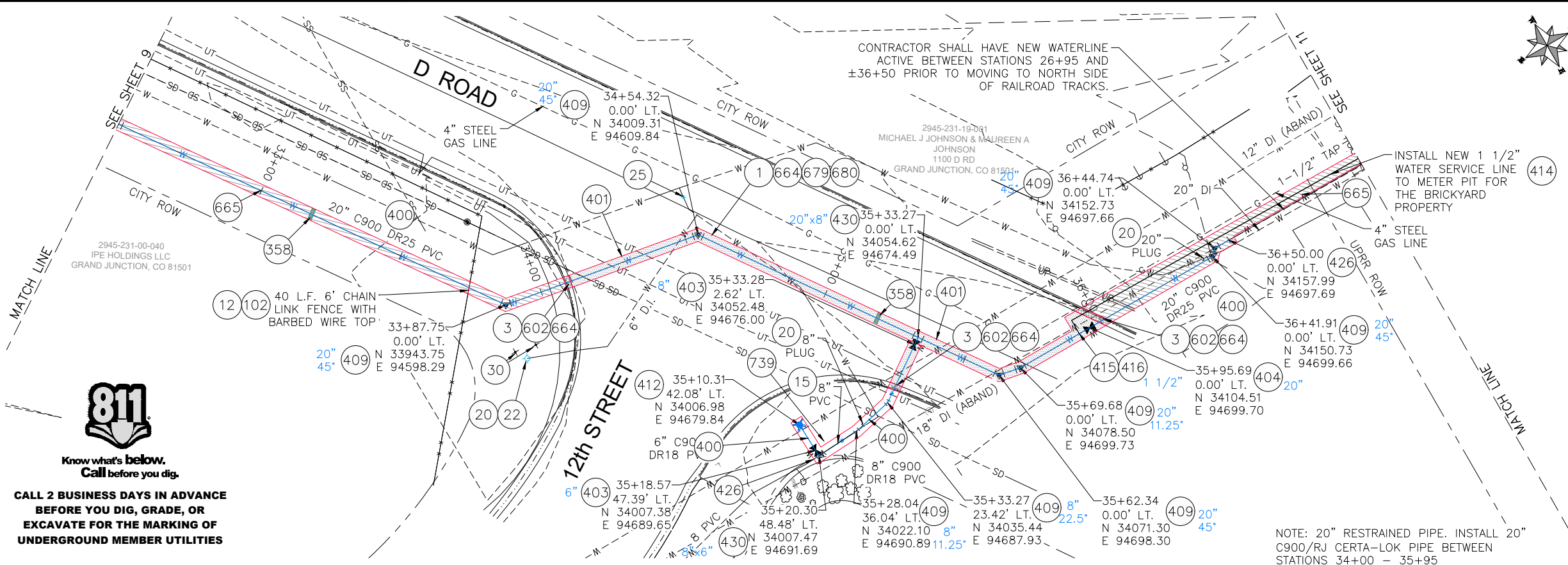
SCALES:

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PUBLIC WORKS ENGINEERING DIVISION

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE - D ROAD
PLAN AND PROFILE 28+00 TO 32+50**

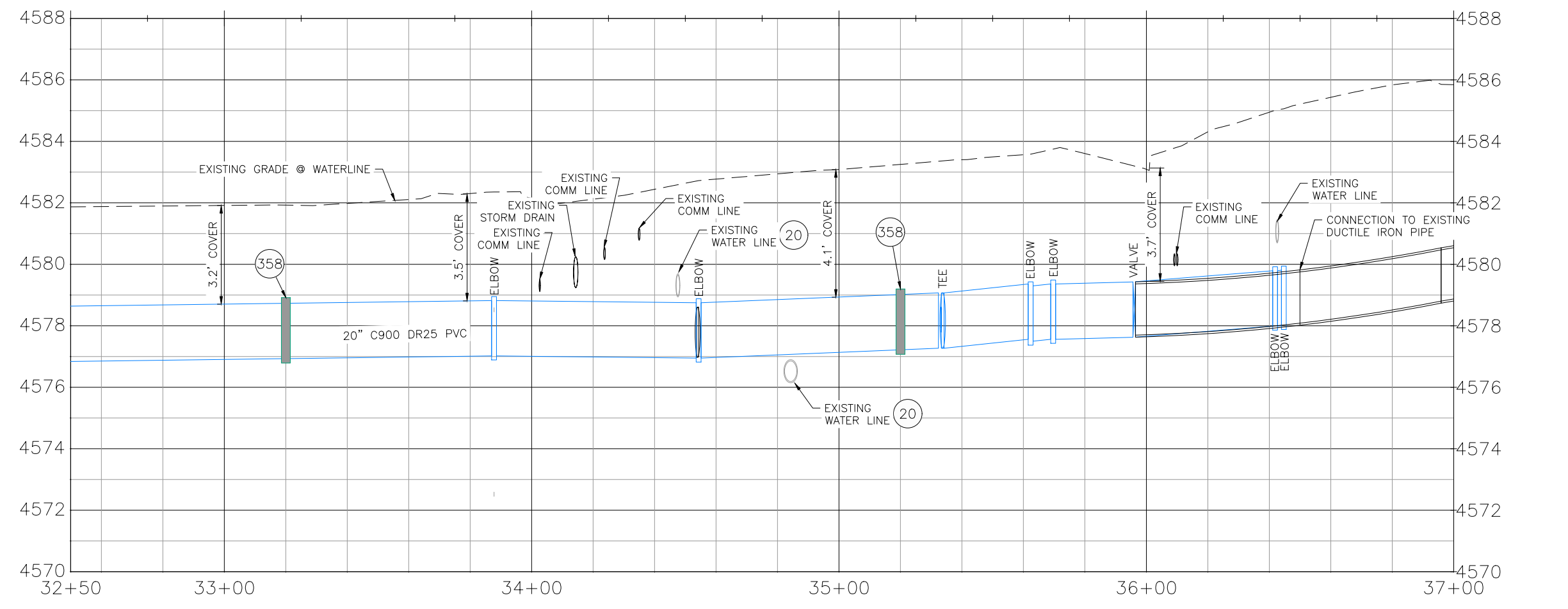


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EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES

CONTRACTOR SHALL HAVE NEW WATERLINE ACTIVE BETWEEN STATIONS 26+95 AND ±36+50 PRIOR TO MOVING TO NORTH SIDE OF RAILROAD TRACKS.

NOTE: 20" RESTRAINED PIPE. INSTALL 20" C900/RJ CERTA-LOK PIPE BETWEEN STATIONS 34+00 - 35+95

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS
 - 12 202 - REMOVAL OF FENCE AS SHOWN. (HEIGHT AND MATERIAL AS SHOWN ON PLAN)
 - 15 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
 - 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
 - 22 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS.
 - 25 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW-FILL MATERIAL.
 - 30 202 - REMOVE BOLLARD
 - 102 210 - RESET FENCE. (HEIGHT AND MATERIAL AS SHOWN ON PLAN)
 - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
 - 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
 - 401 102.7/108.2 - WATER MAIN PIPE (20" C-900/RJ CERTA-LOK PIPE) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
 - 403 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
 - 404 102.8e/108.3 - BUTTERFLY VALVE (SIZE AS SHOWN) (EPOXY COATED)
 - 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
 - 412 102.8a/108.3 - FIRE HYDRANT ASSEMBLY
 - 414 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER OR HDPE 3408 PIPE) (SIZE AS SHOWN ON PLAN) IF LEAD OF POLY SERVICE LINE IS ENCOUNTERED, WATER SERVICE SHALL BE REPLACED TO METER.
 - 415 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
 - 416 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
 - 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
 - 430 102.8/108.3 - MJ x SWIVEL TEE (SIZE AS SHOWN) (EPOXY COATED)
 - 602 608.06 - CONCRETE CURB AND GUTTER (MATCH IN KIND) (2' WIDE)
 - 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
 - 665 304 - AGGREGATE BASE COURSE (CLASS 6) (4" THICK) (WIDTH OF TRENCH SURFACE TREATMENT)
 - 679 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22, CYR=75) (ONE 3" LIFT BOTTOM MAT)
 - 680 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, CYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
 - 739 610 - REMOVE AND PROTECT GROUND COVER MATERIAL (INCLUDES RESETTING ROCK GROUND COVER UPON COMPLETION OF WATER LINE)
- NOTES:
 • ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7a AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 • 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 • CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 • CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



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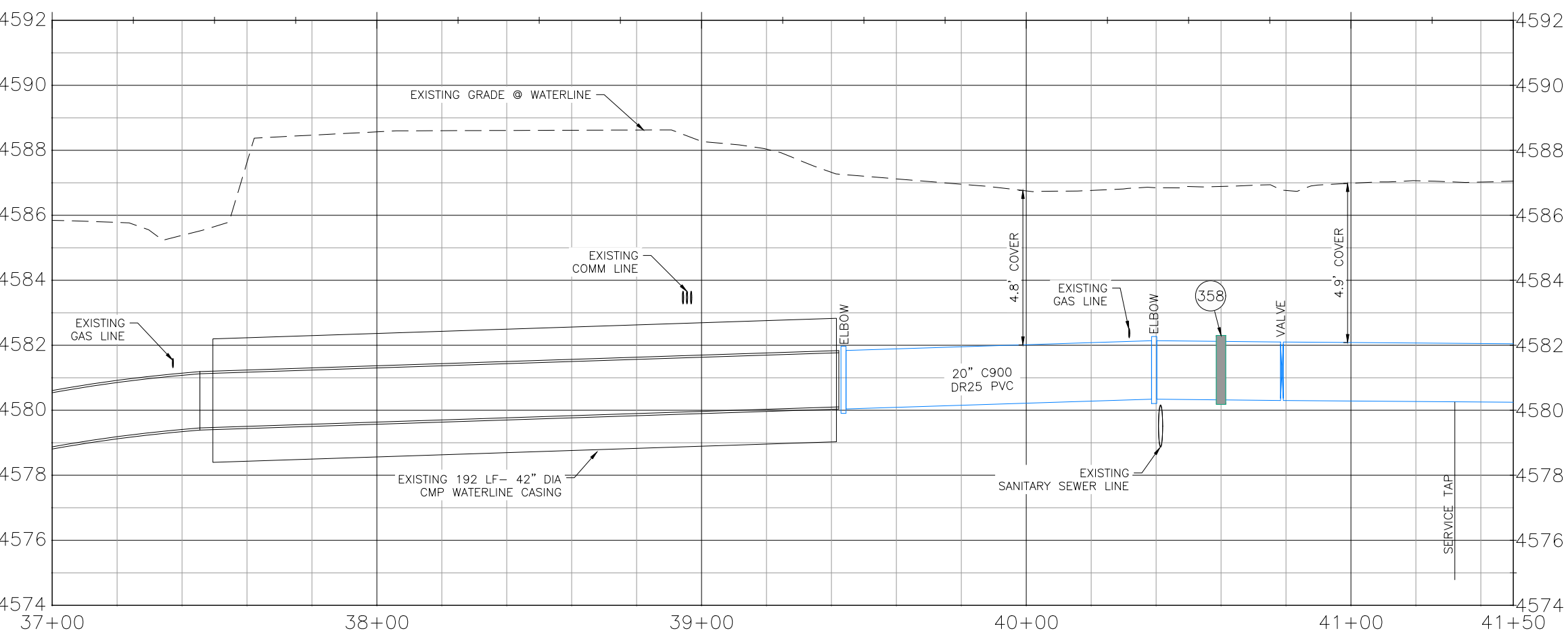
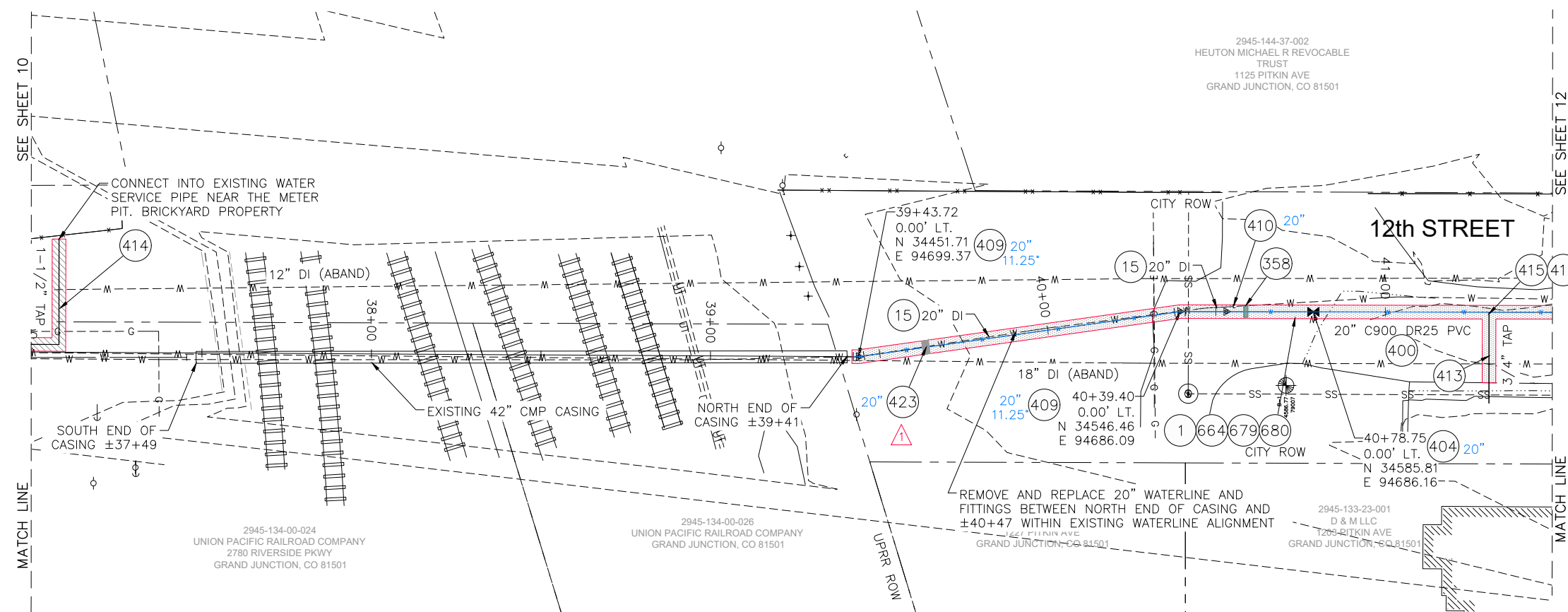
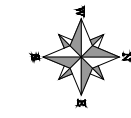
REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1			DJM	4/2020
2			LC	4/2020
3			LC	4/2020
4			LC	4/2020

SCALE:	PLAN	PROFILE
HORIZONTAL:	1" = 20'	1" = 20'
VERTICAL:	1" = 2'	1" = 2'



**PUBLIC WORKS
ENGINEERING DIVISION**

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - D ROAD
PLAN AND PROFILE 32+50 TO 37+00**



- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 15 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 404 102.8e/108.3 - BUTTERFLY VALVE (SIZE AS SHOWN) (EPOXY COATED)
- 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- 410 102.8/108.3 - END CAP / PLUG (SIZE AS SHOWN) (INCLUDES THRUST BLOCK)
- 413 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN) IF LEAD OR POLY SERVICE LINE IS ENCOUNTERED, WATER SERVICE SHALL BE REPLACED TO METER.
- 414 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER OR HDPE 3408 PIPE) (SIZE AS SHOWN ON PLAN) IF LEAD OF POLY SERVICE LINE IS ENCOUNTERED, WATER SERVICE SHALL BE REPLACED TO METER.
- 415 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- 416 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- 423 102.8/108.3 - 20" MJ SOLID SLEEVE (EPOXY COATED) (INCLUDES MJ FITTINGS THAT SHALL BE MEGALUG FITTINGS OR APPROVED EQUAL) (INSTALL SLEEVE ABOUT 20 FT NORTH OF THE 11.25' ELBOW)
- 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
- 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- 679 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 3" LIFT BOTTOM MAT)
- 680 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

NOTES:

- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7a AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
- 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
- CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
- CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.



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Per Date: 5/20/2020 8:59 AM Plotted By: Dan Maloney
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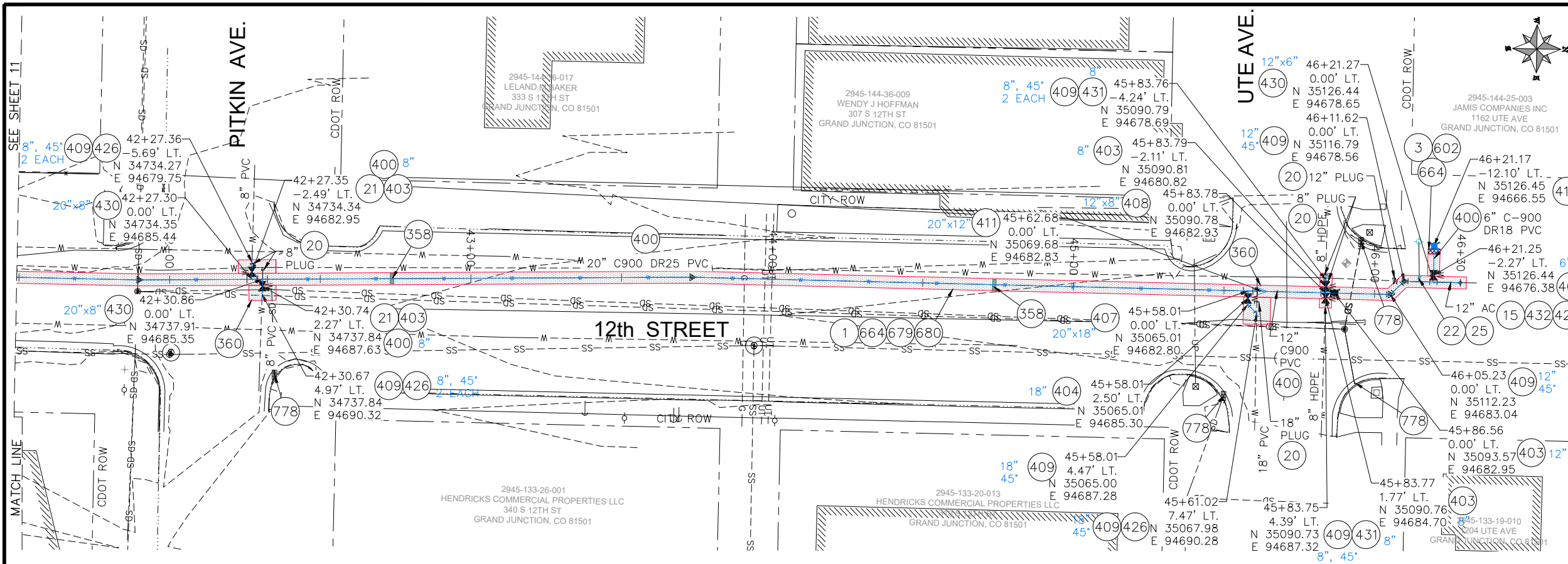
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REVISION B			LC	4/2020
REVISION C			LC	4/2020
REVISION D			LC	4/2020

SCALES:	
PLAN	1" = 20'
PROFILE	1" = 2'

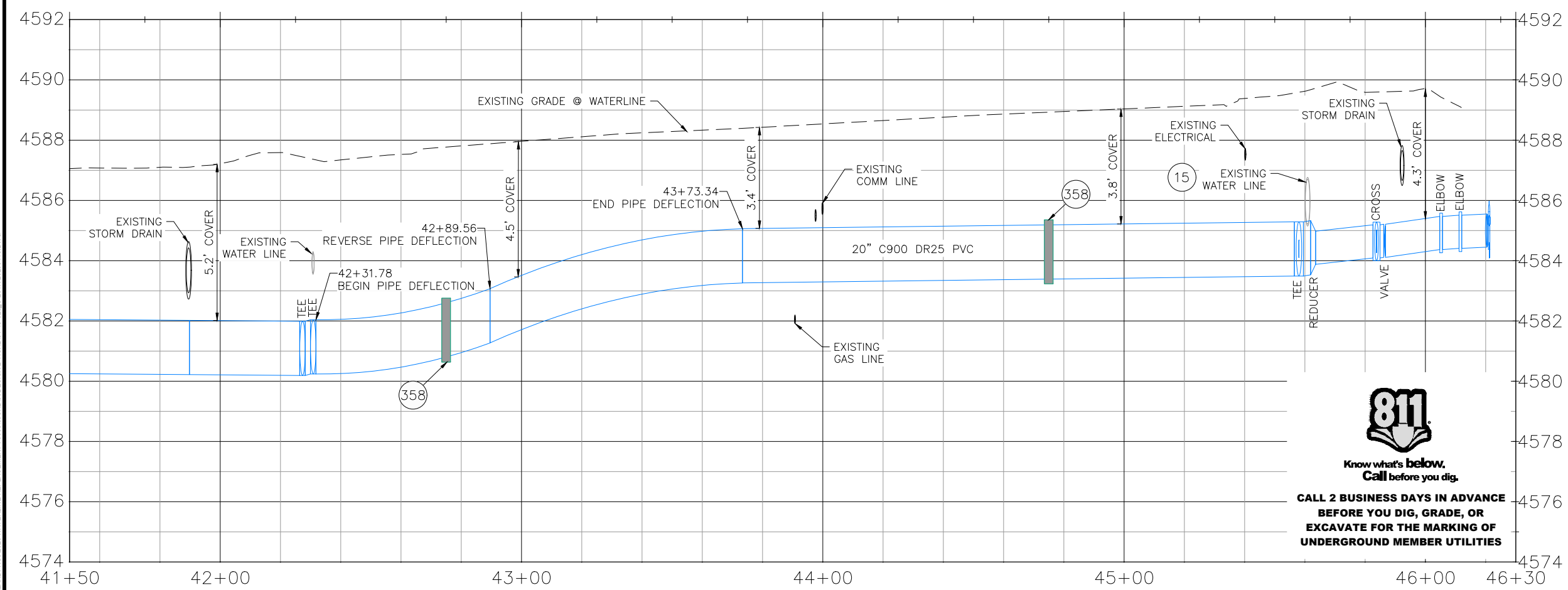


PUBLIC WORKS ENGINEERING DIVISION

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - D ROAD
PLAN AND PROFILE 37+00 TO 41+50**



- PROJECT NO. 301-F000532
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
 - 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
 - 15 202 - REMOVAL OF PIPE AS SHOWN. (SIZE AND TYPE AS SHOWN ON PLAN)
 - 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE
 - 21 202 - REMOVE EXISTING WATER VALVE
 - 22 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS
 - 25 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW FILL MATERIAL.
 - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATERLINE INSTALLATION PAY ITEM)
 - 360 206 - STRUCTURE BACKFILL (FLOW-FILL) (WATERLINE TRENCH SHALL BE BACKFILLED WITHIN CDOT SPEC FLOW-FILL WITHIN CDOT RIGHT-OF-WAY).
 - 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
 - 403 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
 - 404 102.8e/108.3 - BUTTERFLY VALVE (SIZE AS SHOWN) (EPOXY COATED)
 - 407 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
 - 408 102.8/108.3 - CROSS (SIZE AS SHOWN) (EPOXY COATED)
 - 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
 - 411 102.8/108.3 - REDUCER (SIZE AS SHOWN) (EPOXY COATED)
 - 412 102.8a/108.3 - FIRE HYDRANT ASSEMBLY
 - 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
 - 430 102.8/108.3 - MJ x SWIVEL TEE (SIZE AS SHOWN) (EPOXY COATED)
 - 431 102.8/108.3 - WELDED FLANGE OR HY-MAX SOLID SLEEVE RESTRAINED COUPLING WITH STIFFENER FOR CONNECTION TO HDPE
 - 432 102.8/108.3 - CONNECT TO EXISTING AC PIPE USING FULL 20'-FT STICK OF PVC PIPE
 - 602 608.06 - CONCRETE CURB AND GUTTER (MATCH IN KIND) (2' WIDE)
 - 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
 - 679 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 3" LIFT BOTTOM MAT)
 - 680 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
 - 778 208 - STORM DRAIN INLET PROTECTION (GRAVEL FILTER AT CURB INLET) (AS SHOWN AND PER DETAIL)

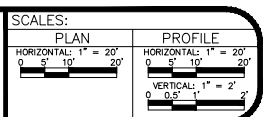


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- NOTES:
- ALL WATERLINE FITTINGS SHALL BE EPOXY COATED PER CITY STANDARD SPECIFICATION 102.7c AND WRAPPED WITH 8 MIL POLYETHYLENE AND TO INCLUDE THRUST BLOCK PER CITY STD DETAILS W-07 & W-08.
 - 36" BURY DEPTH UNLESS OTHERWISE NOTED IN THE PROFILE.
 - CONTRACTOR TO REFERENCE EBAA IRON RESTRAINT LENGTH CALCULATOR FOR DETERMINING PIPE RESTRAINT LENGTH.
 - CONCRETE THRUSTBLOCKS SHALL BE INSTALL AT ELBOW AND TEE FITTINGS PER CITY STD. DETAIL W-07 AND W-08. THRUSTBLOCKS ARE INCIDENTAL TO THE PROJECT AND WILL NOT BE PAID FOR SEPARATELY.

Per Date: 5/20/2020 8:59 AM Plotted By: Dan Maloney
 Date Created: 5/20/2020 N:\LANDPROJ\2020 WATERLINE REPLACEMENT F000532\ADD\DESIGN\ROAD\1-18-20B_C201X_20200416.DWG

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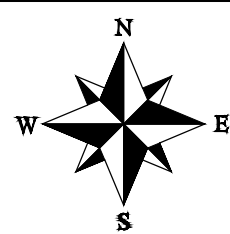


PUBLIC WORKS
ENGINEERING DIVISION

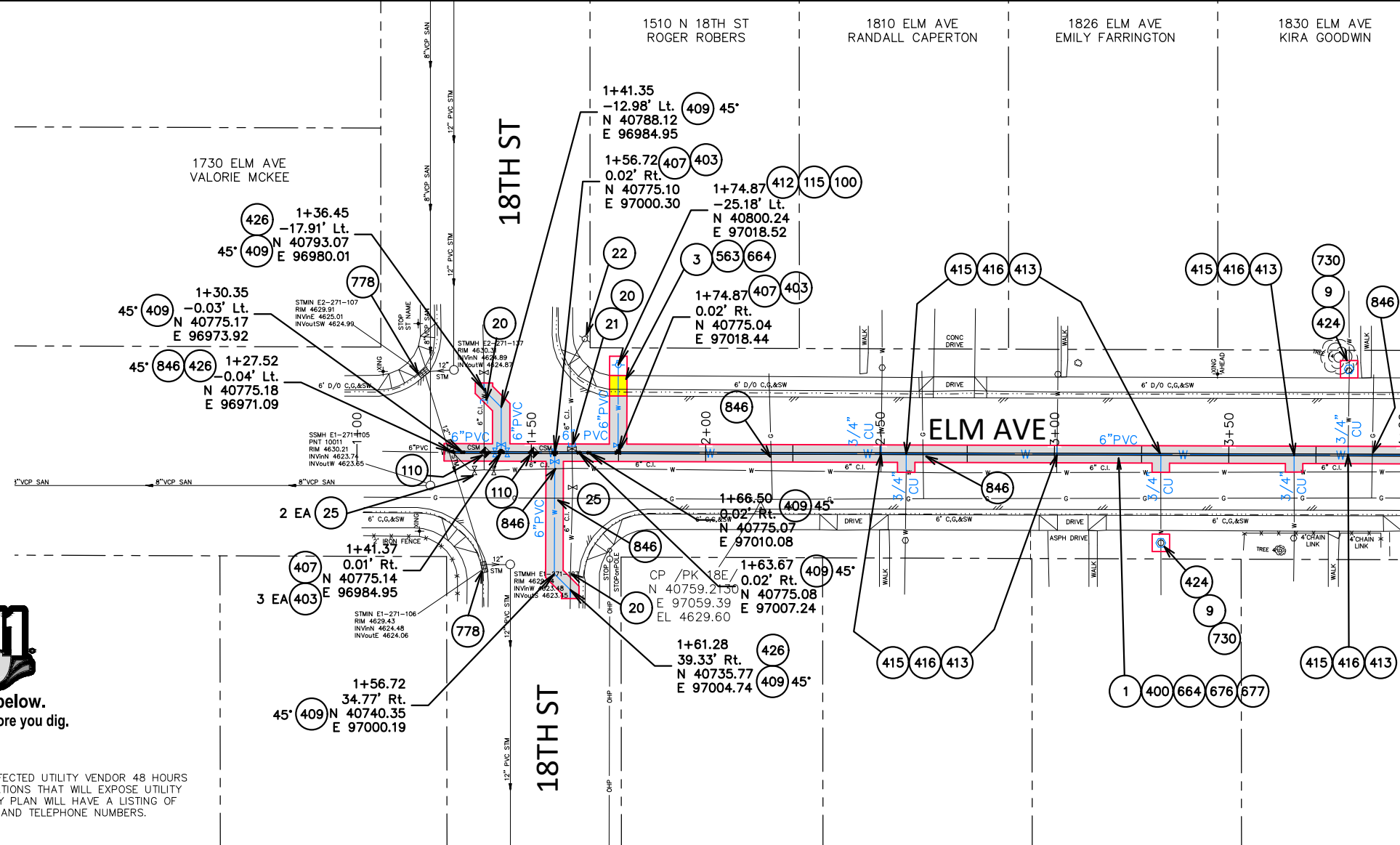
2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - D ROAD
PLAN AND PROFILE 41+50 TO 46+30

CONSTRUCTION NOTES

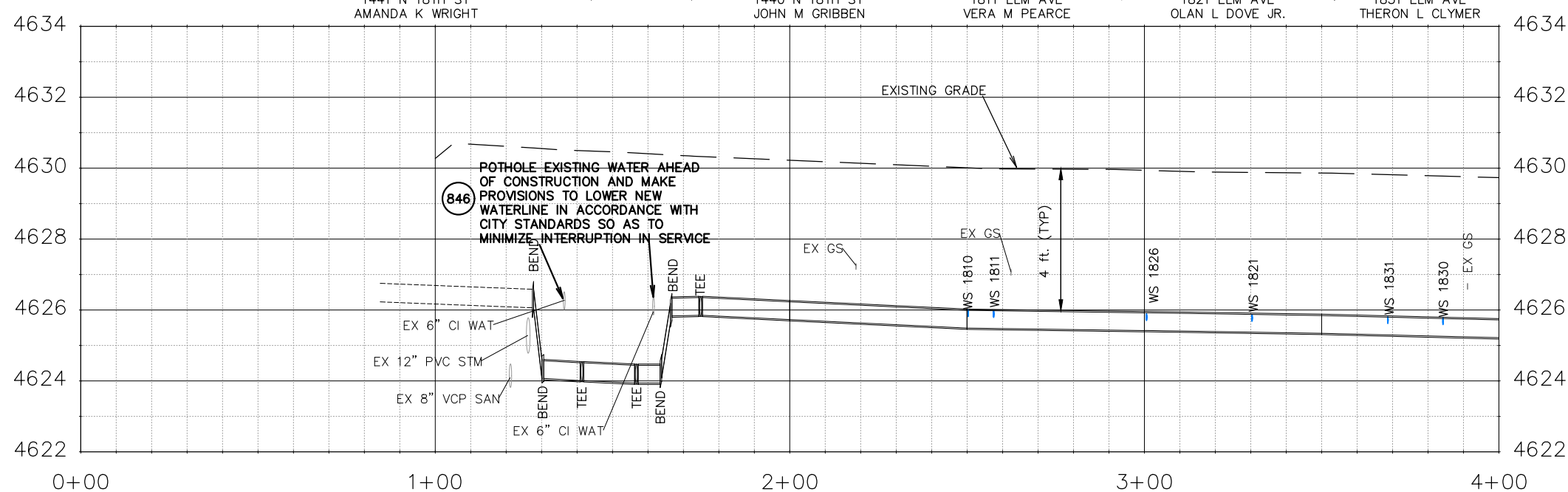
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY GREY SHADING)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY YELLOW SHADING) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 9 202 - REMOVAL OF SOD
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 21 202 - REMOVE EXISTING WATER VALVE.
- 22 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS.
- 25 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW FILL MATERIAL.
- 100 210 - RESET LANDSCAPE GROUND COVER. CONTRACTOR SHALL REMOVE GROUND COVER AND ANY UNDERLYING WEED BARRIER AS NEEDED AND STOCKPILE MATERIALS. CONTRACTOR SHALL RESET THESE MATERIALS AND PROVIDE ADDITIONAL MATERIALS AS NEEDED TO RESTORE LANDSCAPING.
- 110 629 - REFERENCE AND RESET SURVEY MONUMENT. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR'S SURVEYOR MUST SUBMIT FIELD NOTES DETAILING THE PERMANENT REFERENCES PLACED FOR EACH MONUMENT IN DANGER OF LOSS DUE TO CONSTRUCTION.
- 115 210 - RESET LANDSCAPE BORDERS (CONCRETE PAVERS)
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 403 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
- 407 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- 412 102.8a/108.3 - FIRE HYDRANT ASSEMBLY
- 413 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- 415 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- 416 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- 424 102.8/108.4 - REMOVE AND REPLACE METER PIT (CITY WILL FURNISH NEW METER PIT FOR CONTRACTOR TO INSTALL)
- 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- 563 608.06 - MONOLITHIC DRIVE OVER CURB, GUTTER AND SIDEWALK (6' WIDE)
- 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- 676 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 730 212 - RESOD AREA AS SHOWN (INCLUDES 6" OF TOPSOIL)
- 778 208 - STORM DRAIN INLET PROTECTION (GRAVEL FILTER AT CURB INLET) (AS SHOWN AND PER DETAIL)
- 846 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. TRANSITION WATER PIPE AS NEEDED TO MAINTAIN 18" CLEARANCE MINIMUM ABOVE SEWER PIPES AND 6" CLEARANCE MINIMUM ABOVE OR BELOW OTHER UTILITY LINES.



SEE SHEET 14
MATCH LINE



NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE UTILITY PLAN WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE	SCALES:
REV 1			JCS	04/2020	PLAN & PROFILE 0 10 40 HORIZONTAL 0 1 4 VERTICAL
REV 2			JCS	04/2020	
REV 3			ALC	04/2020	
REV 4			ICP	04/2020	



**PUBLIC WORKS
ENGINEERING DIVISION**

**2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - ELM AVE
PLAN AND PROFILE 0+00 TO 4+00**

1830 ELM AVE
KIRA GOODWIN

1840 ELM AVE
GARY PARMELE

1500 N 19TH ST
JAMES PAGE TRUST

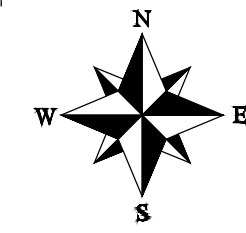
1910 ELM AVE
JILL ELLIOT

1920 ELM AVE
JENNIFER BIBBING

1505 N 20TH ST
RODNEY ADAMS

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY GREY SHADING)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY YELLOW SHADING) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 9 202 - REMOVAL OF SOD
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 25 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW FILL MATERIAL.
- 100 210 - RESET LANDSCAPE GROUND COVER. CONTRACTOR SHALL REMOVE GROUND COVER AND ANY UNDERLYING WEED BARRIER AS NEEDED AND STOCKPILE MATERIALS. CONTRACTOR SHALL RESET THESE MATERIALS AND PROVIDE ADDITIONAL MATERIALS AS NEEDED TO RESTORE LANDSCAPING.
- 110 629 - REFERENCE AND RESET SURVEY MONUMENT. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR'S SURVEYOR MUST SUBMIT FIELD NOTES DETAILING THE PERMANENT REFERENCES PLACED FOR EACH MONUMENT IN DANGER OF LOSS DUE TO CONSTRUCTION.
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 403 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
- 407 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- 409 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- 412 102.8a/108.3 - FIRE HYDRANT ASSEMBLY
- 413 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- 415 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- 416 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- 424 102.8/108.4 - REMOVE AND REPLACE METER PIT (CITY WILL FURNISH NEW METER PIT FOR CONTRACTOR TO INSTALL)
- 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- 563 608.06 - MONOLITHIC DRIVE OVER CURB, GUTTER AND SIDEWALK (6' WIDE)
- 581 608.06 - CONCRETE DRAINAGE PAN (6' WIDE)
- 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- 676 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 730 212 - RESOD AREA AS SHOWN (INCLUDES 6" OF TOPSOIL)
- 846 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. TRANSITION WATER PIPE AS NEEDED TO MAINTAIN 18" CLEARANCE MINIMUM ABOVE SEWER PIPES AND 6" CLEARANCE MINIMUM ABOVE OR BELOW OTHER UTILITY LINES.



SEE SHEET 13

SEE SHEET 15

MATCH LINE

MATCH LINE

1831 ELM AVE
THERON L CLYMER

1841 ELM AVE
THERON L CLYMER

1903 ELM AVE
LORI LAW

1923 ELM AVE
JESSICA BOTKIN

1933 ELM AVE
JAMES OLWINE

4632

4632

4630

4630

4628

4628

4626

4626

4624

4624

4622

4622

4620

4620

4+00

5+00

6+00

7+00

8+00

EXISTING GRADE

4 ft. (TYP)

EX GAS

EX 6" C.I. WAT

EX 6" C.I. WAT

POTHOLE EXISTING WATER AHEAD OF CONSTRUCTION AND MAKE PROVISIONS TO LOWER NEW WATERLINE IN ACCORDANCE WITH CITY STANDARDS SO AS TO MINIMIZE INTERRUPTION IN SERVICE

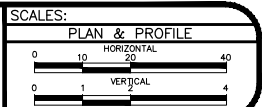


Know what's below.
Call before you dig.

NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE UTILITY PLAN WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

REVISION	DESCRIPTION	DATE
REVISION 1	REV 1	DATE
REVISION 2	REV 2	DATE
REVISION 3	REV 3	DATE
REVISION 4	REV 4	DATE

DRAWN BY	JCS	DATE	04/2020
DESIGNED BY	JCS	DATE	04/2020
CHECKED BY	ALC	DATE	04/2020
APPROVED BY	ICP	DATE	04/2020



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - ELM AVE
PLAN AND PROFILE 4+00 TO 8+00

1505 N 20TH ST
RODNEY ADAMS

2000 ELM AVE
KEVIN COLE

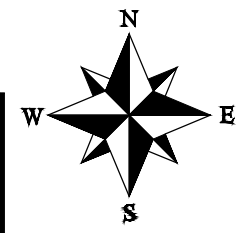
2010 ELM AVE
SHARON DENNIS

2020 ELM AVE
JOHN MICHELS

2030 ELM AVE
KRISTA FOLEY

CONSTRUCTION NOTES

- ① 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY GREY SHADING)
- ③ 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY YELLOW SHADING) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- ②0 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- ②1 202 - REMOVE EXISTING WATER VALVE.
- ②2 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS.
- ②5 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW FILL MATERIAL.
- ①00 210 - RESET LANDSCAPE GROUND COVER. CONTRACTOR SHALL REMOVE GROUND COVER AND ANY UNDERLYING WEED BARRIER AS NEEDED AND STOCKPILE MATERIALS. CONTRACTOR SHALL RESET THESE MATERIALS AND PROVIDE ADDITIONAL MATERIALS AS NEEDED TO RESTORE LANDSCAPING
- ①18 210 - RESET LANDSCAPE ROCK (REDDISH ROCK) (PROPERTY 1505 N. 20TH STREET) (MATCH IN KIND)
- ③55 104.40 - CAP TOP HALF OF SEWER IN CONCRETE PER STD. DETAIL GU-04. (WATERLINE LESS THAN 18" ABOVE SEWER LINE)
- ④00 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- ④03 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
- ④07 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- ④09 102.8/108.3 - ELBOW (SIZE AND ANGLE AS SHOWN) (EPOXY COATED)
- ④12 102.8a/108.3 - FIRE HYDRANT ASSEMBLY
- ④13 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- ④15 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- ④16 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- ④24 102.8/108.4 - REMOVE AND REPLACE METER PIT (CITY WILL FURNISH NEW METER PIT FOR CONTRACTOR TO INSTALL)
- ④26 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- ④28 INSTALL RESTRAINED CAP ON WATERLINE SO EXISTING FIRE HYDRANT CAN BE REMOVED. EXISTING 6" PIPE SHOULD CAST IRON.
- ⑤63 608.06 - MONOLITHIC DRIVE OVER CURB, GUTTER AND SIDEWALK (6' WIDE)
- ⑤81 608.06 - CONCRETE DRAINAGE PAN (6' WIDE)
- ⑥64 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- ⑥76 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT)
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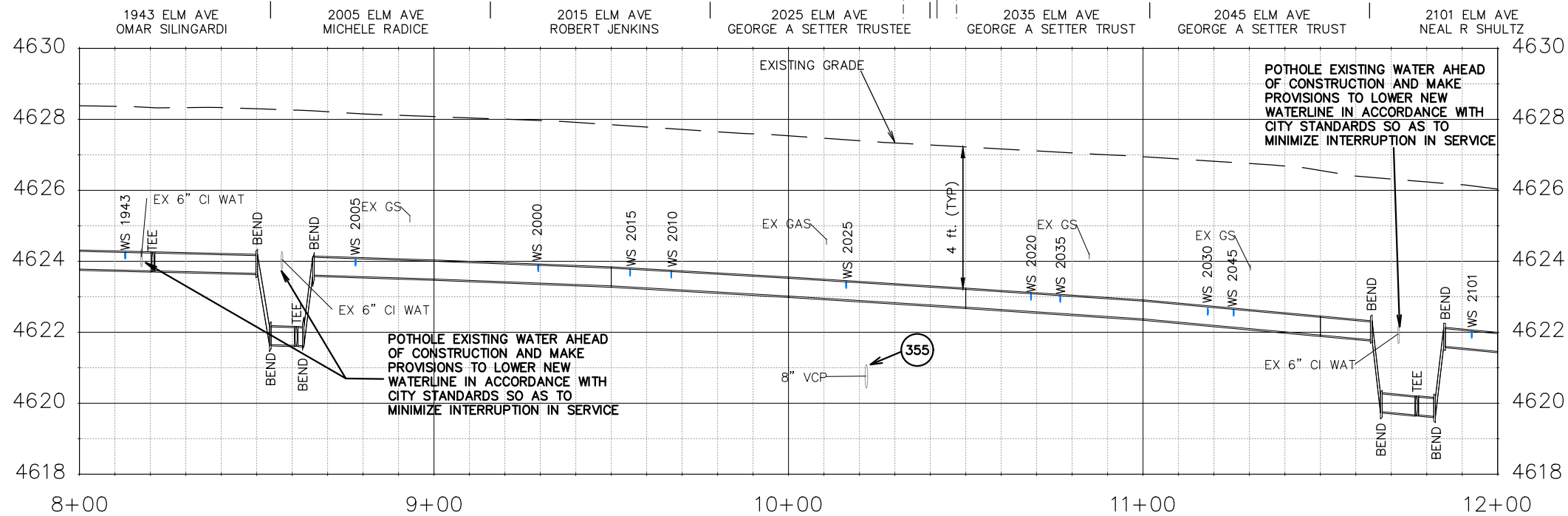
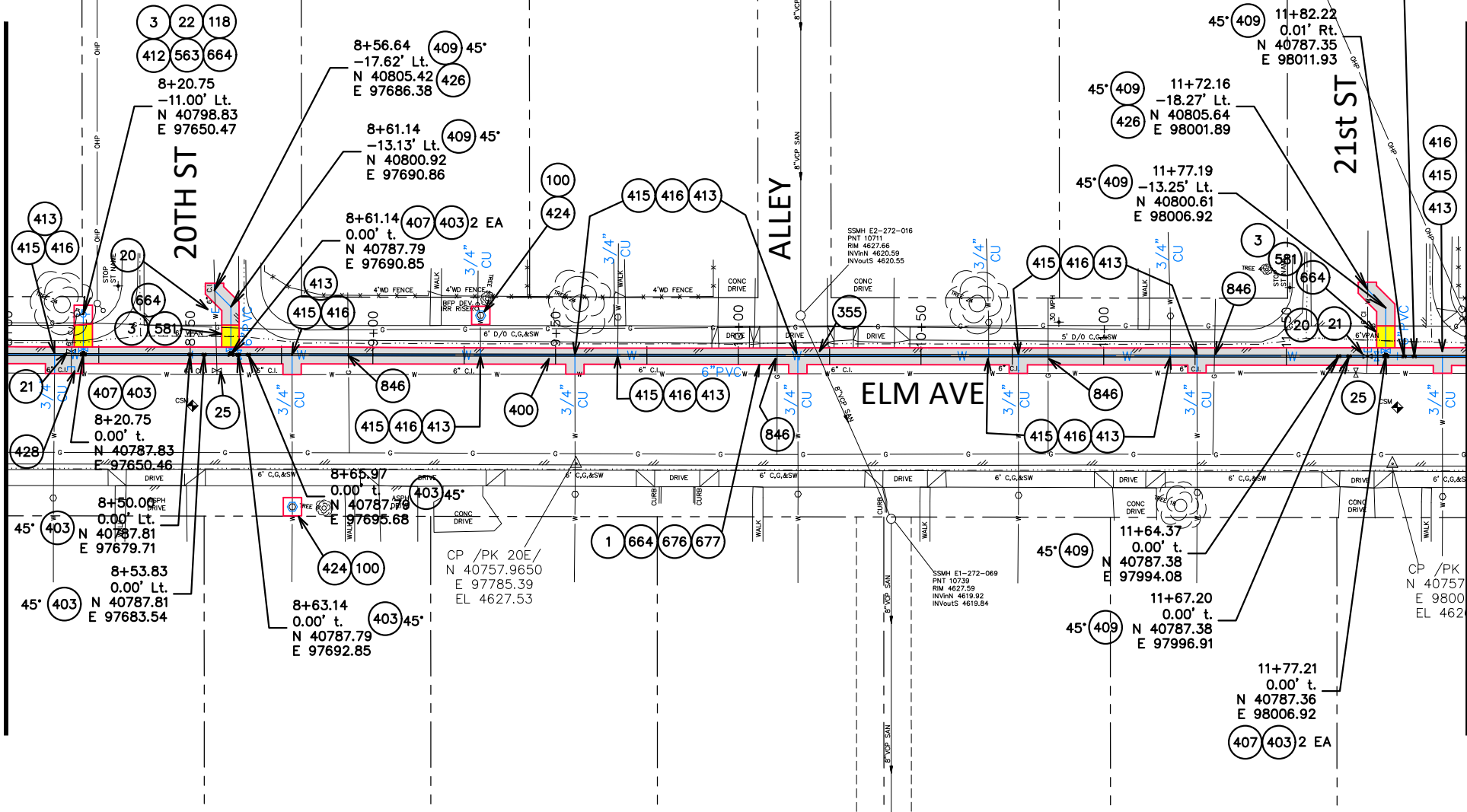


SEE SHEET 14

MATCH LINE

SEE SHEET 16

MATCH LINE

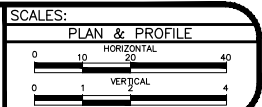


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NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE UTILITY PLAN WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

REVISION	DESCRIPTION	DATE
REV 1		
REV 2		
REV 3		
REV 4		

DRAWN BY	JCS	DATE	04/2020
DESIGNED BY	JCS	DATE	04/2020
CHECKED BY	ALC	DATE	04/2020
APPROVED BY	ICP	DATE	04/2020



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - ELM AVE
PLAN AND PROFILE 8+00 TO 12+00

2110 ELM AVE
SCHOOL DISTRICT 51

2126 ELM AVE
PHYLLIS J HANSEN

2144 ELM AVE
RICHARD A HILL

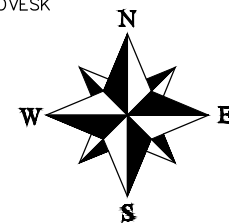
2160 ELM AVE
J&K PROPERTIES LLC

2210 ELM AVE
STANLEY C PERINO

2220 ELM AVE
CRAIG MEDVESK

CONSTRUCTION NOTES

- ① 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY GREY SHADING)
- ②1 202 - REMOVE EXISTING WATER VALVE
- ④00 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- ④03 102.8b/108.3 - GATE VALVE. (SIZE AS SHOWN) (EPOXY COATED)
- ④07 102.8/108.3 - TEE (SIZE AS SHOWN) (EPOXY COATED)
- ④13 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
- ④15 102.8k/108.4 - TAPPING SADDLE (SIZE AS SHOWN ON PLAN)
- ④16 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- ④24 102.8/108.4 - REMOVE AND REPLACE METER PIT (CITY WILL FURNISH NEW METER PIT FOR CONTRACTOR TO INSTALL)
- ④26 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- ⑥64 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- ⑥76 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, BINDER GRADE PG 64-22, GYR=75) (ONE 2" LIFT)
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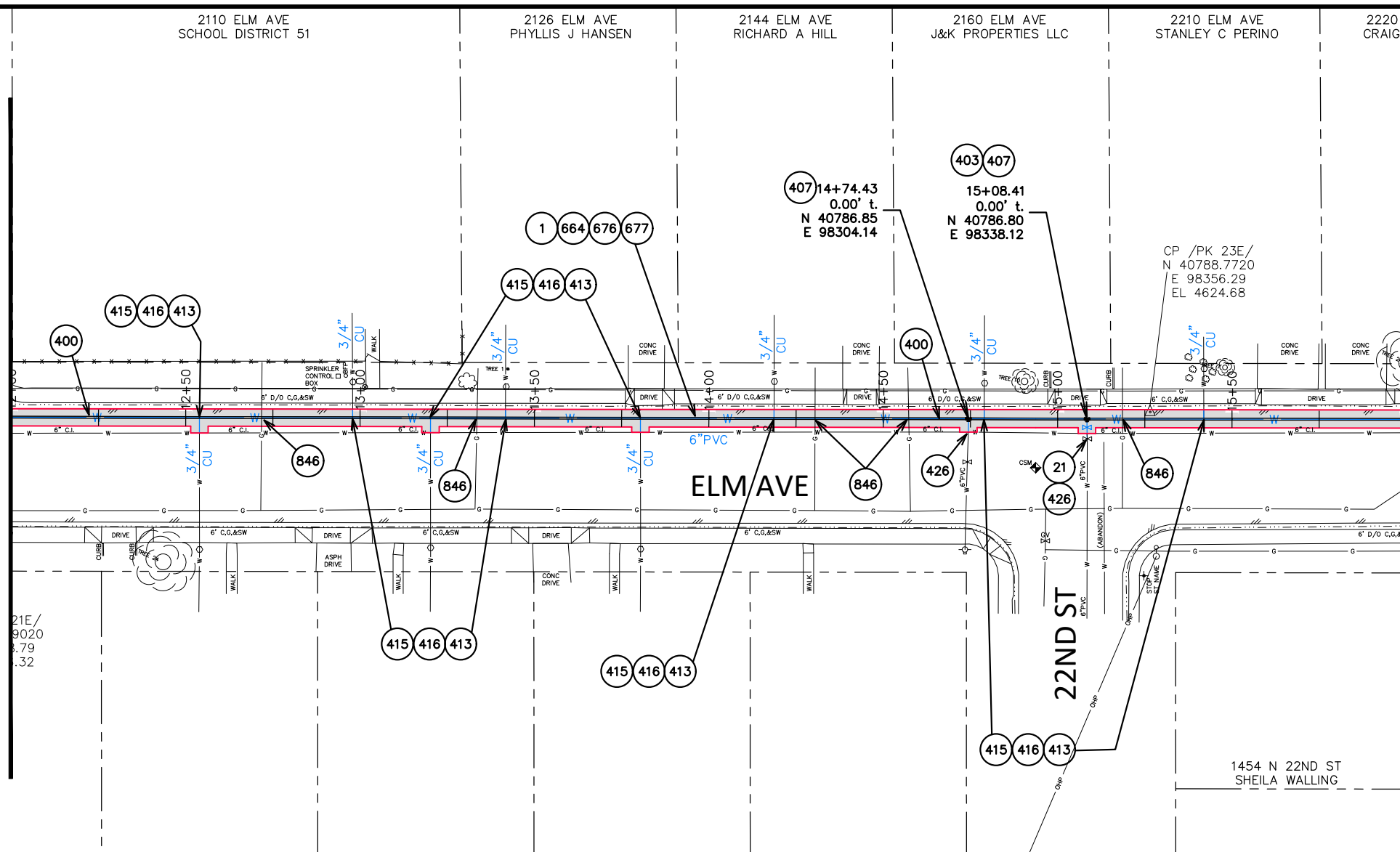


SEE SHEET 15

SEE SHEET 17

MATCH LINE

MATCH LINE



④07 14+74.43
0.00' t.
N 40786.85
E 98304.14

④03 ④07
15+08.41
0.00' t.
N 40786.80
E 98338.12

CP /PK 23E/
N 40788.7720
E 98356.29
EL 4624.68

① ⑥64 ⑥76 ⑥77

④15 ④16 ④13

④15 ④16 ④13

④15 ④16 ④13

④15 ④16 ④13

④846

④26

④21

④846

④15 ④16 ④13

1454 N 22ND ST
SHEILA WALLING

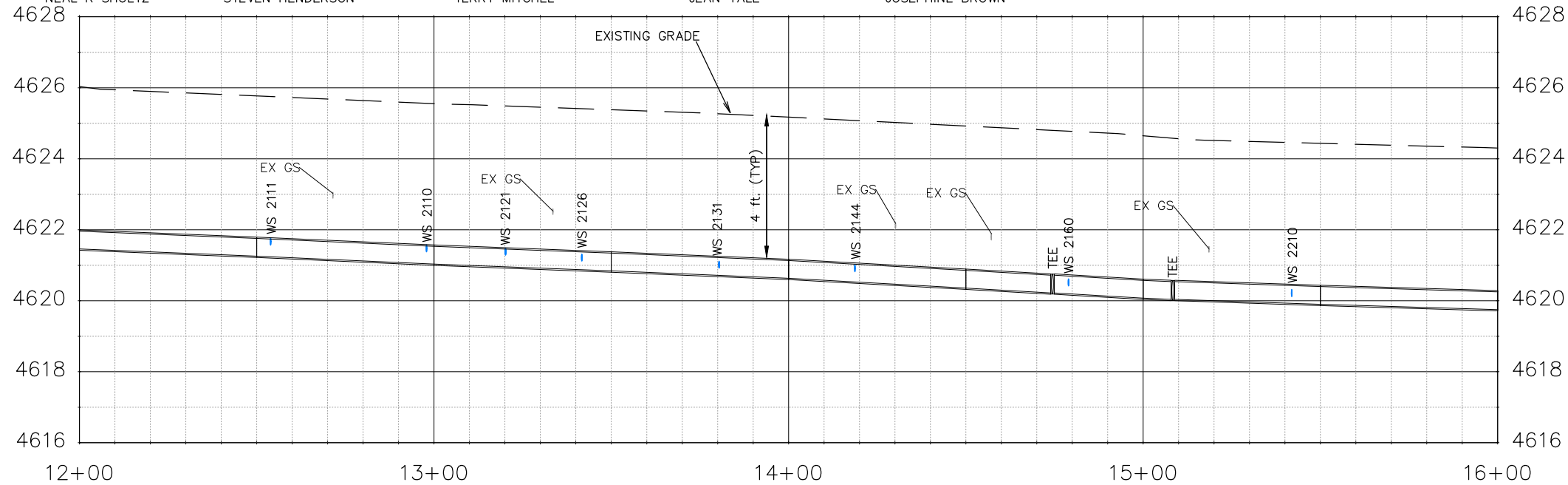
2101 ELM AVE
NEAL R SHULTZ

2111 ELM AVE
STEVEN HENDERSON

2121 ELM AVE
TERRY MITCHEL

2131 ELM AVE
JEAN YALE

2141 ELM AVE
JOSEPHINE BROWN

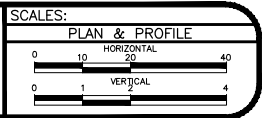


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REVISION	DESCRIPTION	DATE
REV 1		
REV 2		
REV 3		
REV 4		

DRAWN BY JCS DATE 04/2020
 DESIGNED BY JCS DATE 04/2020
 CHECKED BY ALC DATE 04/2020
 APPROVED BY ICP DATE 04/2020



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - ELM AVE
PLAN AND PROFILE 12+00 TO 16+00

2220 ELM AVE
CRAIG MEDVESK

2236 ELM AVE
MARY BORSZICH

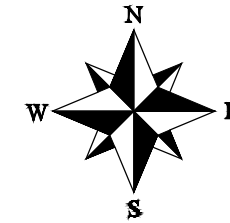
2240 ELM AVE
CRAIG MEDVESK

1505 N 23RD ST
ROBERT LOVELACE

2304 ELM AVE
EVERETTE HENDERSON

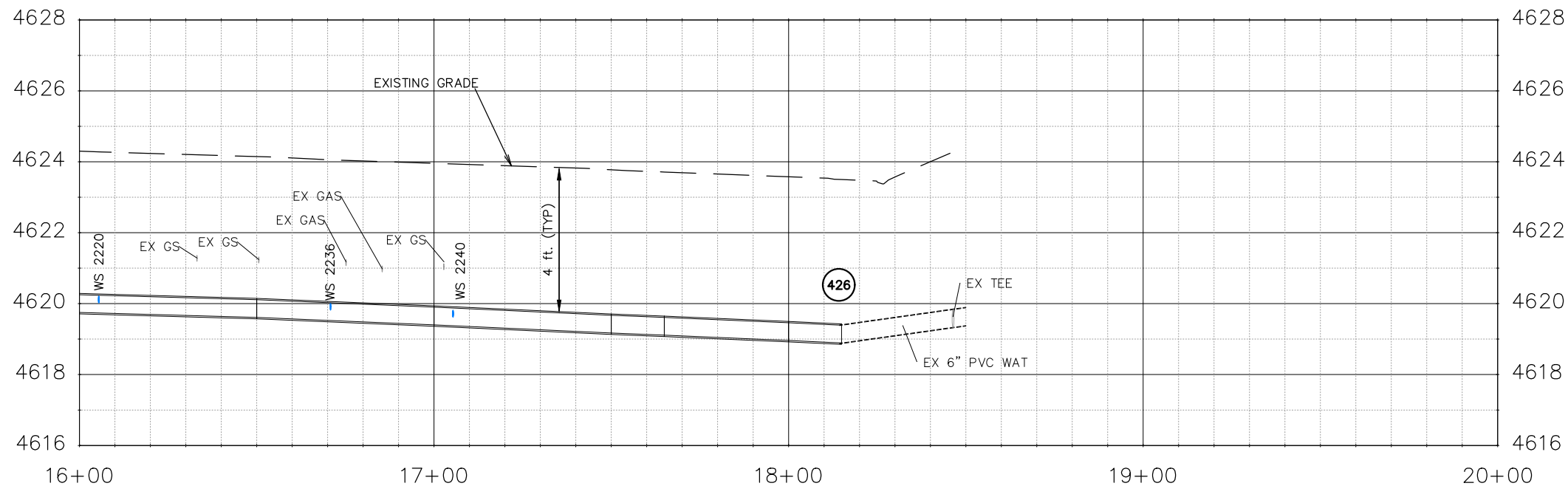
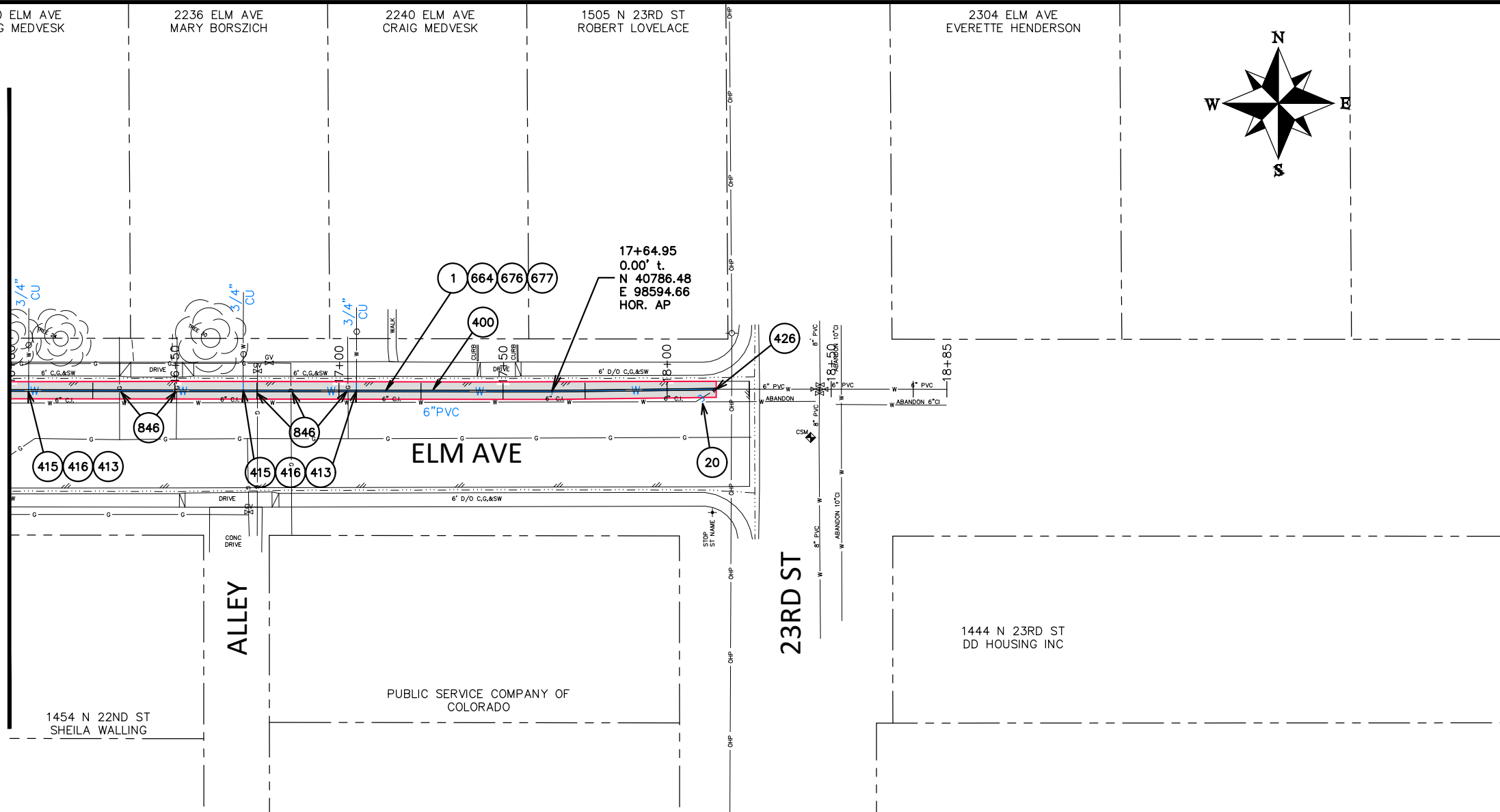
CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY GREY SHADING)
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 400 102.7/108.2 - WATER MAIN PIPE (C-900 PVC) (SIZE AS SHOWN). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 413 102.7c/108.4 - WATER SERVICE LINE (TYPE K COPPER) (SIZE AS SHOWN ON PLAN)
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- 416 102.8j/108.4 - CORPORATION STOP (SIZE AS SHOWN ON PLAN)
- 426 RESTRAINED CONNECTION TO EXISTING WATER PIPE/VALVE/FITTING. THE UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE
- 664 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
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SEE SHEET 16

MATCH LINE



Know what's below.
Call before you dig.

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REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
REVISION 1	REV 1		JCS	04/2020
REVISION 2	REV 2		JCS	04/2020
REVISION 3	REV 3		ALC	04/2020
REVISION 4	REV 4		ICP	04/2020

SCALES:
PLAN & PROFILE
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 4'



PUBLIC WORKS
ENGINEERING DIVISION

2020 WATERLINE REPLACEMENT PROJECT
WATERLINE PLAN - ELM AVE
PLAN AND PROFILE 16+00 TO 20+00