

Parent Sheet Set: 102031_RCW Imp Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 10:45 AM Individual File Path: V:\Projects\WSFL112\1020000 Clearwater\00_Projects\00_Design\04_Drawings\01_CAD\001.dwg - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\001.dwg

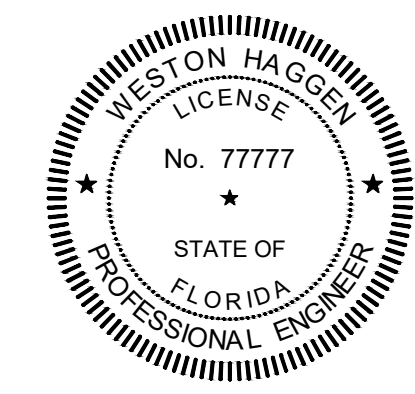
SHEET INDEX

SHEET #	SHEET DESCRIPTION
01	COVER SHEET, SHEET INDEX, AND PROJECT LOCATION
02	GENERAL NOTES AND ABBREVIATIONS
03	LEGENDS AND TEST HOLE TABLE
04-08	DRUID RD (AREA A) - PLAN AND PROFILES
09-11	N MARTIN LUTHER KING JR AVE (AREA B) - PLAN AND PROFILES
12-13	FAIRMONT ST (AREA C) - PLAN AND PROFILES
14-15	FAIRMONT ST - SANITARY SEWER REPLACEMENT - PLAN AND PROFILES
16-20	MEMORIAL CAUSEWAY (AREA D) - RECONNECTIONS
21-22	CITY OF CLEARWATER STANDARD DETAILS
23-24	FDOT FY 2021-22 STANDARD PLANS DETAILS
---	AREA E, AREA F, AND AREA G - SEE SUPPLEMENTAL ATTACHMENT



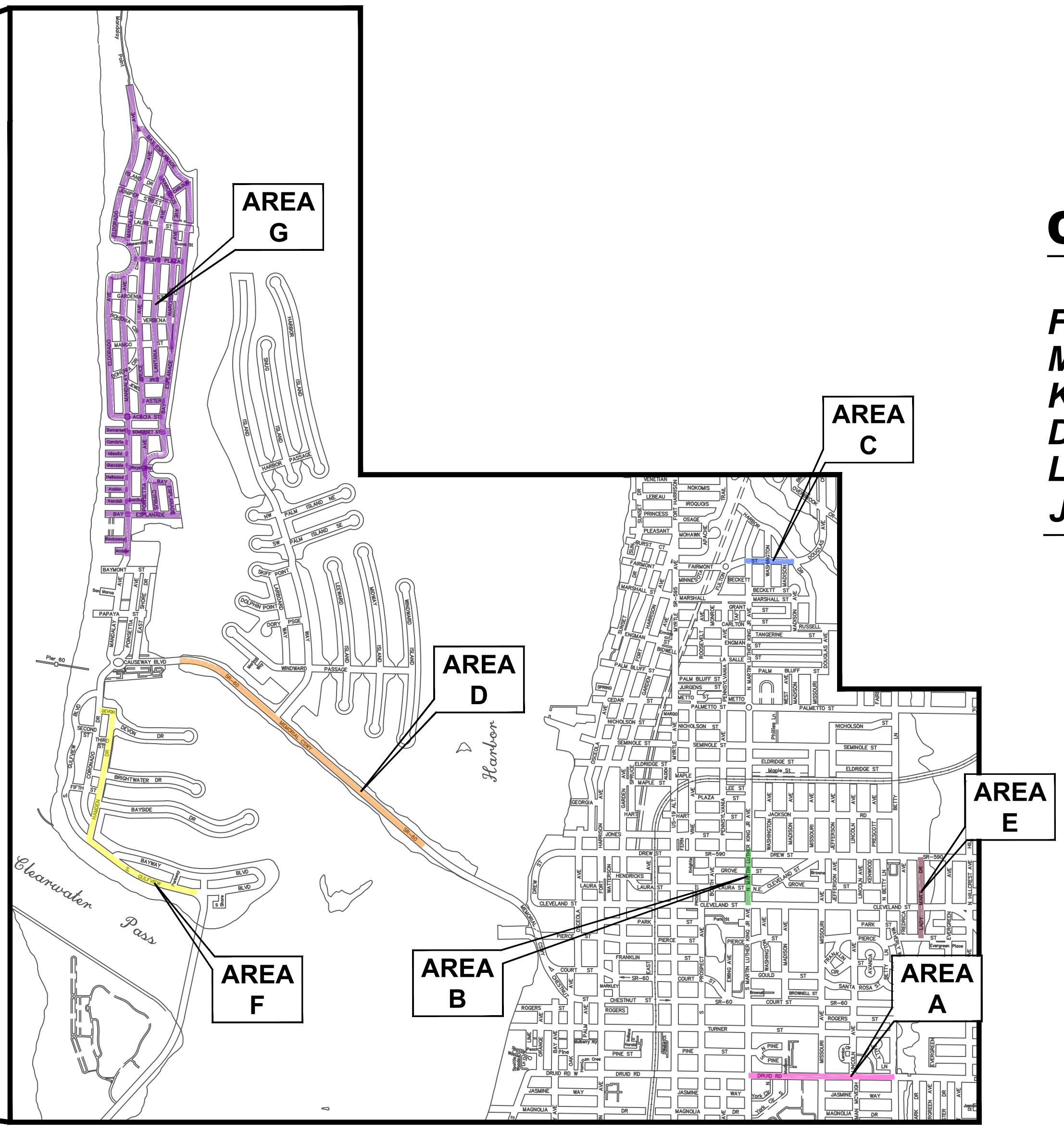
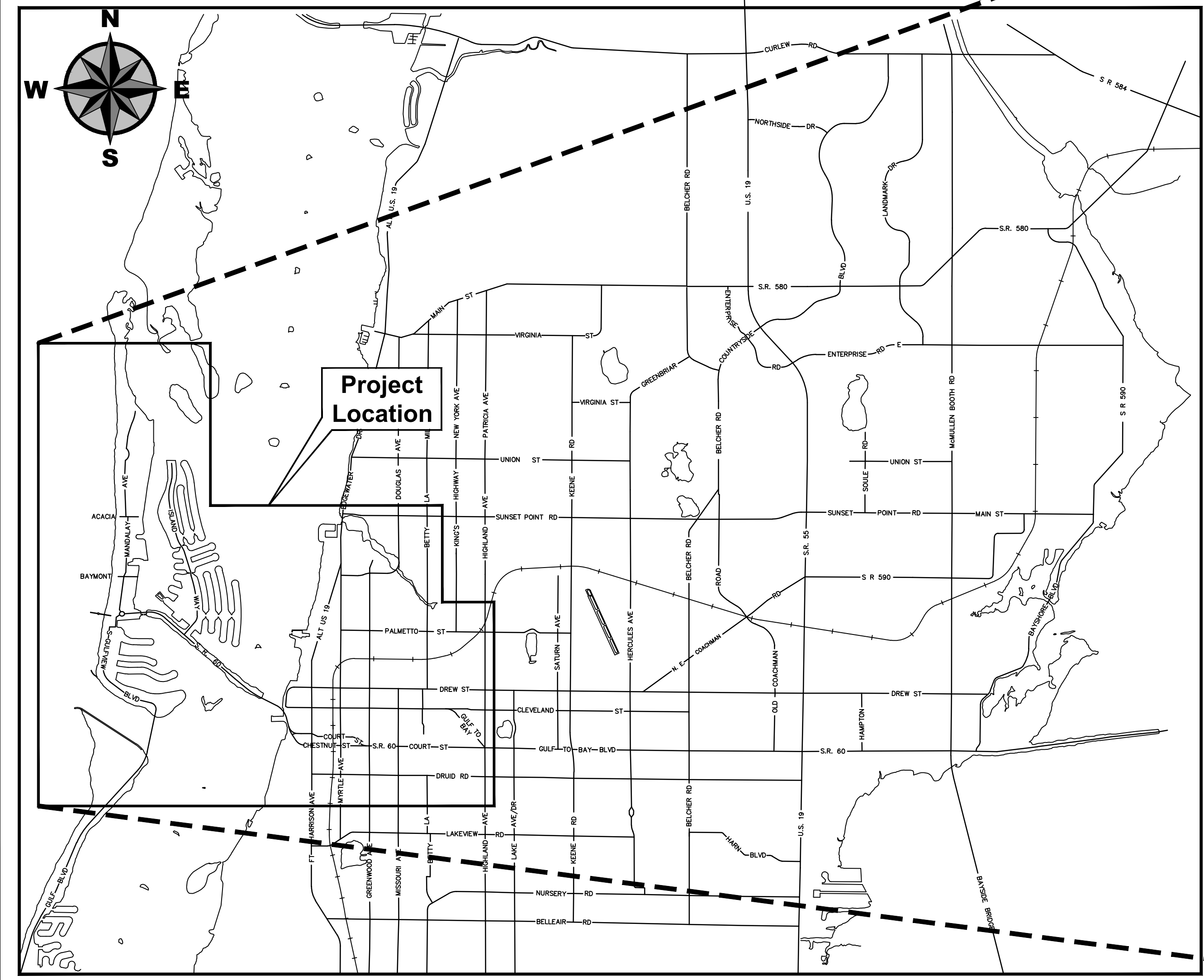
CLEARWATER
BRIGHT AND BEAUTIFUL · BAY TO BEACH

RECLAIMED WATER PIPING IMPROVEMENTS AREAS A - D



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



CITY OFFICIALS

<i>Frank Hibbard</i>	<i>Mayor</i>
<i>Mark Bunker</i>	<i>Councilmember</i>
<i>Kathleen Beckman</i>	<i>Councilmember</i>
<i>David Allbritton</i>	<i>Councilmember</i>
<i>Lina Teixeira</i>	<i>Councilmember</i>
<i>Jennifer Poirrier</i>	<i>Acting City Manager</i>

Tara L. Kivett, P.E.
City Engineer

Approved For Construction

CITY ENGINEER Tara L. Kivett, P.E. #86611

Date Approved

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027

GENERAL NOTES

- 1. All work performed shall comply with the regulations and ordinances of the various governmental agencies having jurisdiction over the work.
2. All workmanship and materials used in the construction of this project shall conform to the latest City of Clearwater standards, contract documents and specifications unless otherwise noted.
3. Specific requirements of the Florida Department of Transportation (FDOT) "Design Standards" and "Standard Specifications for Road and Bridge Construction", most current editions, are incorporated into the contract documents by reference.
4. The Contractor shall obtain all required permits prior to construction.
5. The Contractor shall notify all utility companies at least forty eight (48) hours prior to start of construction, demolition and/or excavation in accordance with Florida Statutes.
6. The Contractor shall call Sunshine 811, previously known as Sunshine State One Call of Florida, at 1-800-432-4770 or 811, a minimum of two (2) days and a maximum of five (5) days prior to start of construction.
7. Locations, elevations and dimensions of existing utilities, structures and other features are shown according to the best information available at the time of the preparation of these plans, but do not purport to be absolutely correct. The Contractor shall verify the location, elevations and dimensions of all existing utilities, structures and other features affecting the work prior to construction.
8. The Contractor shall be responsible to review the site to determine existing conditions. Anything not shown on these plans shall be brought to the attention of the City's Engineering Representative and shall not constitute additional scope of work approved by the Engineer.
9. The Contractor shall contact the City's Engineering Representative immediately concerning any conflicts arising during construction.
10. All construction activities must conform to the local noise ordinance.
11. Hours of work shall be in accordance with the local governmental agency.
12. These drawings do not include necessary components for construction safety. The Contractor is solely responsible for construction safety. Special precautions may be required in the vicinity of power lines and other utilities.
13. The Contractor shall furnish, erect and maintain all necessary traffic control and safety devices in accordance with the U.S. Department of Transportation, "Manual on Uniform Traffic Control Devices" and the latest Florida Department of Transportation "Design Standards".
14. The Contractor shall provide, erect and maintain effective barricades, danger signals, signs and pedestrian detours in all areas where required for the protection of the work and the safety of the public.
15. Maintenance of Traffic (MOT); if it becomes necessary for the Contractor to close any street to through traffic within the limits of construction, access for local traffic with destination within the project limits of construction shall be maintained. If during construction, access for local traffic is changed, the property owners affected shall be given at least three (3) days advance notice. The Contractor shall submit to the City's Engineering Representative the Traffic Control Plan for approval prior to implementation.
16. A registered Land Surveyor, at the Contractor's expense, shall reset all section corners or property corners dislocated or disturbed by any construction related activities.
17. Any National Geodetic Survey (NGS) Monument within the limits of construction is to be protected. If in danger of damage, contractor shall notify the city's field representative immediately and contact the National Geodetic Survey information center.
18. Unless noted on the plans, final grade is to generally be the same as existing grade. Restore uniformly and for proper yard drainage grade toward roadway.
19. All new utilities shall be installed with the minimum thirty six (36) inches of cover.
20. Where utilities cross the lowest pipe shall be installed first.
21. The Contractor shall be responsible for testing of all newly constructed utilities in accordance with current standards of local jurisdiction. The Contractor shall notify the local jurisdiction and the Owner or an authorized representative at least forty eight (48) hours in advance of performing tests.
22. The Contractor shall provide all sheeting, shoring and bracing required to protect adjacent structures or to minimize trench width. Where a separate pay item is not provided, the cost of all sheeting and bracing required shall be included in the contract price for the item of work for which sheeting, shoring and bracing is anticipated to be required in accordance with local, state, or federal regulations for construction.
23. All concrete shall have a minimum compressive strength of 3,000 psi (28-day strength), unless otherwise noted on drawings.
24. No surfacing material is to be applied to any manhole covers, frames, valve boxes, gas drops, etc. All existing and proposed utility and storm sewer structures whose tops will be exposed within any paved area shall be adjusted so that the top surface of covers or frames shall be flush with the pavement surface.
25. Materials interfering with construction shall be disposed of as directed by the City's Engineering Representative, unless otherwise noted on plans.
26. All excess soil resulting from construction activities that is not claimed by the Owner shall become the property of the Contractor and disposed of by the Contractor.
27. All disturbed landscaped and/or grassed areas shall be restored uniformly and be generally at the same elevation as existing grades.
28. All disturbed areas shall be replaced within fifteen (15) days to a condition equal to or better than existing conditions.
29. All voids after placement of sod shall be filled with prepared soil mix. The sod shall be rolled to meet the proposed grades. Sod placed on slopes 3:1 or steeper shall be pegged.
30. Areas of exposed earth resulting from construction shall be sodded in kind as directed by the City's Engineering Representative unless otherwise noted on plans.
31. The Contractor shall maintain an accurate set of marked-up drawings (As-Builts) at the construction site.
32. A CCTV inspection of the new sewer system in digital format utilizing the industry standard Pipeline Assessment and Certification Program (PACP) coding system shall be provided to the City. The video shall be taken prior to placing the new sewer system into service. Data will be collected utilizing CUES Granite software.
33. Installation of gravity sewer pipe shall be in conformance with recommended practices contained in Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications ASTM D2321. Connections to manholes with sanitary pipe shall use a joint two (2) feet in length and shall use an approved water stop around pipe joint entry.
34. The bottom trench width in an unsupported trench shall be limited to the minimum practicable width allowing working space to place and compact the hunching material. The use of trench boxes and movable sheeting shall be performed in such a manner that removal, backfill and compaction will not disturb compacted haunching material or pipe alignment. Dewatering of the trench bottom shall be accomplished using adequate means to allow preparation of bedding, placement of the haunching material and pipe in the trench without standing water. Dewatering shall continue until sufficient backfill is placed above the pipe to prevent flotation or misalignment.
35. The Contractor shall dispose of all unsuitable materials, construction debris, and other waste materials offsite in accordance with applicable regulatory agency requirements at the Contractor's expense. All backfill shall be free of unsuitable materials.
36. The Contractor shall be responsible for providing a Hurricane Preparation Plan to the City's Engineering Representative for review and approval prior to commencing construction activities.
37. Any damage to city, county, or state roads caused by the Contractor shall be repaired by the Contractor in a timely manner and to the satisfaction of the City's Engineering Representative. Payment shall not be made for this work.
38. The Contractor shall protect private property.

- 39. All RCW water service lines and meter boxes shall be installed with a minimum five (5) foot separation from existing potable water meter boxes and service lines, however separation may be reduced to three (3) foot where space is limited as approved by City's Engineering Representative.
40. The Contractor shall provide the City 60 days notice prior to starting any service line connections.
41. City of Clearwater to provide RCW service meter box location sheets to City's Engineering Representative directing location of RCW meter boxes to be installed.
42. All lane closures and work affecting traffic shall be scheduled, coordinated, and approved by the City. No lane closures on Memorial Causeway (SR60) will be allowed during Spring Break.

SURVEY NOTES

- 1. The City of Clearwater Control Network's Horizontal Datum is: North American Datum (N.A.D.), Florida State Plane Coordinates, Florida West Zone 83(1999).
2. The City of Clearwater Control Network's Vertical Datum is: North American Vertical Datum (N.A.V.D.) 1988.
3. The survey was provided by ECHO UES, INC. The last date of field survey is 03-03-2021.

TREE PROTECTION

- 1. The Contractor will be responsible for adhering to all Tree Protection measures required by the City of Clearwater codes, ordinances and Standard Specifications. This will include all tree barricades, root pruning and tree trimming/pruning activities. These requirements will apply within the specified "limits of work" and will also be applicable in all areas where the Contractor and/or his subcontractors stage, store or park vehicles, equipment, materials and debris.
2. All tree pruning and/or root pruning on existing trees to be preserved will only be performed by or under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist. Furthermore, all tree work shall conform to the American National Standards Institute (ANSI) 2001, American National Standard for Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard Practices (Pruning) ANSI A-300.
3. Where called for on the plans, install tree barricades, erosion control/silt fencing or other approved protective barriers around all trees to be preserved, per City Standard Detail. Where applicable, and specifically approved by the City's Engineering Representative protective barriers may be placed in root prune trenches.
4. Prior to any field changes taking place, it will be the Contractor's responsibility to review the potential impacts to existing trees with his Certified Arborist, and include any and all recommended tree protection measures in his proposal to modify the approved design. The City's Engineering Representative must approve, in writing, any changes to the approved design prior to implementation of said change.
5. The Contractor will avoid any open excavations, fill or other construction activities whenever possible within the "critical root zone" of any existing tree (i.e., under the drip line/canopy).
6. No vehicles, equipment or materials shall be parked or stored under/within the drip line/protective barrier area of any tree.
7. Where construction activities are anticipated to last for an extended period of time near existing trees, the Contractor shall install and maintain City approved tree barricades as shown in the Standard Details and as approved by the City's Engineering Representative.
8. Woodchips, mulch or another cushioning surface material approved by the City's Engineering Representative shall be placed to a minimum depth of ten (10) inches over areas where roots are present and construction traffic occurs.
9. All tree protection measures shall remain in place at all times during construction until the City's Engineering Representative authorizes removal.
10. The Contractor will coordinate with the City's Engineering Representative, Catherine Corcoran, at (727) 532-4749, to obtain approval in advance of any and all work within the critical root zone of any existing tree.

SEDIMENT & EROSION CONTROL

- 1. It is the responsibility of the Contractor to control and prevent erosion and the transportation of sediment to surface drains and outfalls.
2. The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Florida Department of Environmental Protection (FDEP) Criteria for a National Pollution Discharge Elimination System (NPDES) Activities Permit.
3. The Contractor must obtain a FDEP Generic Permit for The Discharge of Produced Ground Water, if dewatering with offsite discharge will be required. The Contractor is responsible for all required preliminary water samples to satisfy the FDEP Generic Permit for the Discharge of Produced Ground Water. Sampling shall occur thirty (30) days prior to the start of dewatering.
4. Construction operations shall be carried out in such a manner that erosion and pollution shall be minimized. The submitted SWPPP shall be complied with. All applicable federal, state, and local laws shall be complied with at all times. Please note that no hay bales are allowed on City of Clearwater projects.

ROOT PRUNING

- 1. Root pruning shall only be performed by or under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist.
2. Any proposed root pruning trenches shall be identified (i.e., staked or painted) on site, inspected and approved by the City's Engineering Representative prior to actual root pruning.
3. Root pruning shall be performed as far in advance of other construction activities as is feasible, but at a minimum shall be performed prior to any impacts to the soil. Associated tree protection measures should be implemented upon completion of said root pruning.
4. If there is a likelihood of excessive wind and/or rain, an exceptional care shall be taken on any root pruning activities.
5. Root pruning shall be limited to a minimum of twelve inches per one inch trunk diameter from the tree base. Any exception must be approved by the City's Engineering Representative prior to said root pruning.
6. Roots shall be cut cleanly, as far from the trunk of the tree as possible. Root pruning shall be done to a minimum depth of eighteen (18) inches from existing grade, or to the depth of the disturbance if less than eighteen (18) inches.
7. Root pruning shall be performed using a root cutting machine designed specifically for this purpose. Alternate equipment or techniques must be approved by the City's Engineering Representative, prior to any work adjacent to trees to be preserved.
8. Root pruning shall be completed, inspected and accepted prior to the commencement of any excavation or other impacts to the critical root zones of trees to be protected.
9. Excavations in an area where root are present shall not cause the tearing or ripping of tree roots. Roots must first be cleanly severed prior to continuing with the excavation, or tunneled around to prevent damage to the root.
10. Tree roots shall not be exposed to drying out. Root ends shall be covered with native soil or burlap and kept moist until final backfill or final grades have been established.
11. When deemed appropriate (e.g. during periods of drought) the city representative may require a temporary irrigation system be utilized in the remaining critical root zones of root pruned trees.

ABBREVIATIONS

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes entries like ABAN (ABANDON(ED)), FLEX (FLEXIBLE), QTY (QUANTITY), etc.

NOTE: THESE ABBREVIATIONS ARE FOR GENERAL REFERENCE. NOT ALL ABBREVIATIONS MAY BE USED IN THIS DESIGN, NOR IS THIS LIST COMPREHENSIVE. REFER TO INDIVIDUAL DRAWINGS, IF ABBREVIATIONS ARE NOT LISTED.

RECORD DRAWINGS table with columns for SURVEYED BY, DRAWN BY, REVIEWED BY, PROJECT ENGINEER, DATE, APPROVED BY, DATE, and a REVISION table with columns for OBID SET, BY, DATE.

CITY OF CLEARWATER, FLORIDA PUBLIC WORKS DEPARTMENT - ENGINEERING 100 S. MYRTLE AVE. CLEARWATER, FL 33756



CITY OF CLEARWATER RECLAIMED WATER PIPING IMPROVEMENTS GENERAL NOTES AND ABBREVIATIONS

Table with columns: DWG NAME (G02), FIELD BOOK (N/A), SURVEYED BY (N/A), SCALE (VERT. AS NOTED), CONTRACT NO. (21-0029-UT), DATE DRAWN (12/2022), DRAWN BY (VVV), HORIZ. AS NOTED, JOB NO. (102031), DESIGNED BY (WTH), CHECKED BY (SC/MKW), SHEET NO. (02 OF 24).

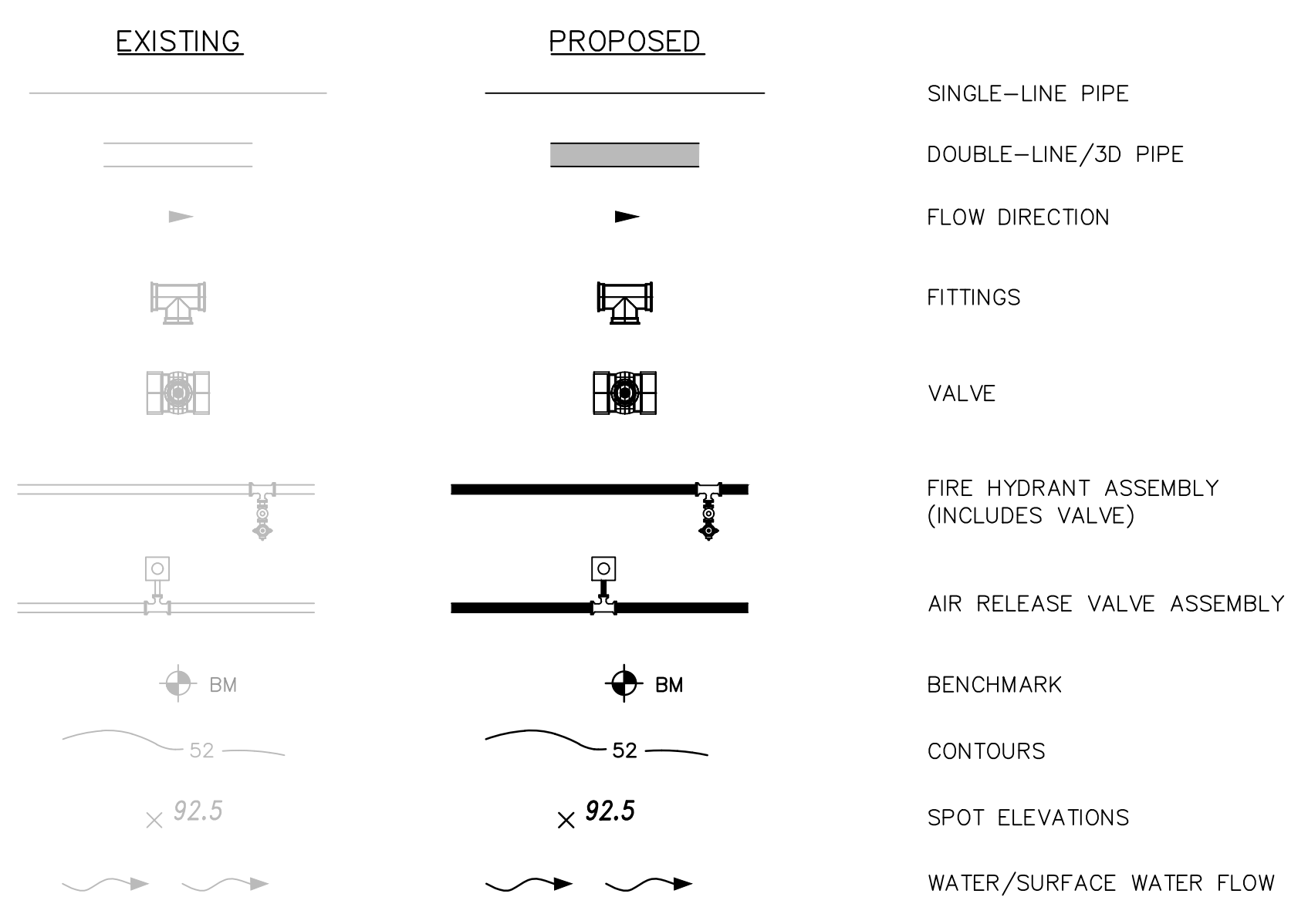


THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

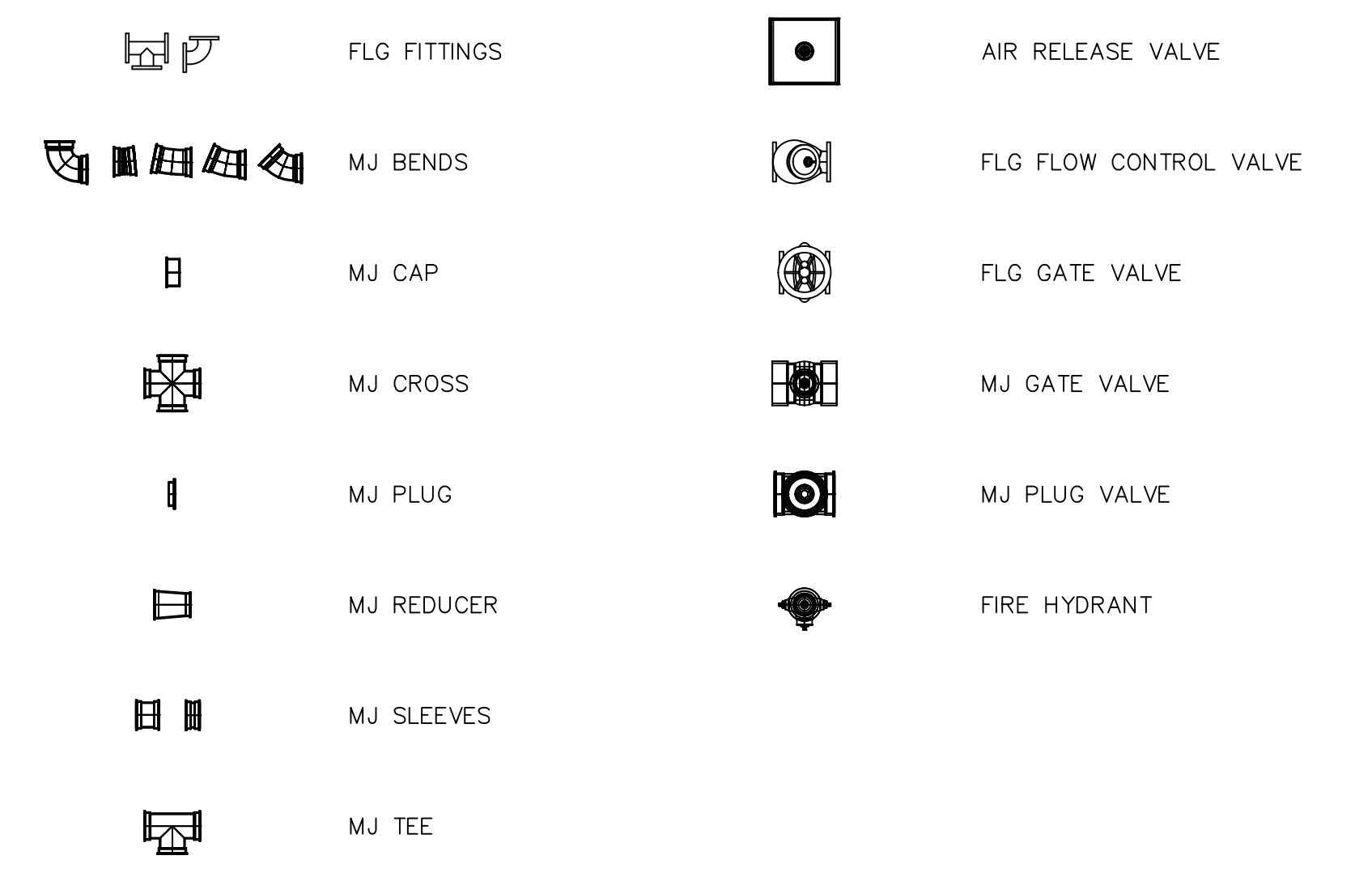
Parent Sheet: 102031 - RCW Imp. Rev/Plot by: VANATTA, WOLET. Rev on: 12/7/2022 10:45 AM. Individual File Path: V:\Projects\WSEF112\102000 Clearwater\00_Proj\Drawings\01_CAD\G02 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\G02

Parent Sheet: 102031_RCW Imp. Rev/PLOT by: VANATTA, WOLET Rev on: 2/28/2022 9:09 AM Individual File Path: V:\Projects\WSEFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\G03

CIVIL SYMBOLS LEGEND



FITTINGS AND VALVES (DOUBLE-LINE/3D)



SURVEY LEGEND

ASPH. = ASPHALT
 CONC. = CONCRETE
 DIA. = DIAMETER
 DIP = DUCTILE IRON PIPE
 E = EAST OR EASTING
 ELEC. = ELECTRIC
 ELEV. = ELEVATION
 E.P. = EDGE OF PAVEMENT
 F.O. = FIBER OPTIC
 ID. = IDENTIFICATION
 INV. = INVERT
 MKR. = MARKER
 N = NORTH OR NORTHING
 PEDS. = PEDESTRIANS
 PVC = POLYVINYL CHLORIDE
 RCW = RECLAIMED WATER
 SRVC. = SERVICE
 S/L = STREET LIGHTING
 SWK. = SIDEWALK
 T/S = TRAFFIC SIGNAL
 W/ = WITH
 W.U.P. = WOOD UTILITY POLE

UTILITY OWNERS

Spectrum
 Attention: Mr. Ted Bingham
 700 Carillon Parkway, Suite 6
 St. Petersburg, Florida 3716-1123
 Phone: (727) 329-2847

Frontier Communications, Inc.
 Attention: Mr. Chris Blauvelt
 MC, FLCW5033
 1280 Cleveland Street
 Clearwater, Florida 33782
 Phone: (727) 562-1130

Wide Open West (WOWI)
 FLSP2144
 Attention: Mr. James Sandman - Construction Project Coordinator
 3001 Gandy Boulevard North
 Pinellas Park, Florida 33782
 Phone: (727) 239-0224 Office

Duke Energy
 Attention: Mr. Rico Ashley
 2166 Palmetto Street, Bldg. F
 Clearwater, Florida 33765
 Phone: (727) 562-5767

Clearwater Gas System
 Attention: Mr. Robert Jaeger
 401 North Myrtle Avenue
 Clearwater, Florida 33755
 Phone: (727) 562-4900 Ext. 7438

City of Clearwater
 Engineering Department - Traffic Division
 Attention:
 100 South Myrtle Avenue, Room 220
 Clearwater, Florida 33756-4748
 Phone: (727) 562-4794

City of Clearwater
 Engineering Department - Survey Division
 Attention: Mr. Tom Mahony
 100 South Myrtle Avenue, Room 220
 Clearwater, Florida 33756-4748
 Phone: (727) 562-4762

City of Clearwater
 Engineering Department - Construction Management
 Attention: Mr. Tim Kurtz
 100 South Myrtle Avenue, Room 220
 Clearwater, Florida 33756
 Phone: (727) 562-4737

City of Clearwater
 Engineering Department - Public Utilities - Potable, Wastewater, and Reclaimed
 Attention: Mr. Glenn Daniel
 1650 North Arcturus Avenue
 Clearwater, Florida 33755
 Phone: (727) 562-4960 Ext. 7248

Test Hole	Utility Type	Utility Material	Utility Size Outside Diameter	Utility Manual Depth	Identified By	Surface Type	Surface Thickness inches	Apparent Utility Owner	Northing	Easting	Ground Elevation	Utility Elevation
AREA "A" - DRUID RD.												
1-1	RCW	PVC	4"	2.32'	IRC	NG	N/A	CITY OF CLEARWATER	1317946.76'	400640.40'	45.12'	42.80'
1-2	RCW	PVC	4"	3.16'	IRC	NG	N/A	CITY OF CLEARWATER	1317955.87'	400977.33'	39.87'	36.71'
1-3	WS	PVC	1.5"	1.42'	IRC	NG	N/A	CITY OF CLEARWATER	1317946.94'	401353.13'	31.34'	29.92'
1-4	WM	CI	8"	2.20'	IRC	NG	N/A	CITY OF CLEARWATER	1317937.42'	401582.19'	27.88'	25.68'
1-5	GM	PE	2"	2.74'	IRC	NG	N/A	CLEARWATER GAS	1317928.61'	401708.14'	28.95'	26.21'
1-6	GM	PE	2"	3.26'	IRC	NG	N/A	CLEARWATER GAS	1317922.57'	402455.12'	30.48'	27.22'
1-7	BT	DBC	1.5"	2.92'	IRC	NG	N/A	CITY OF CLEARWATER	1317914.56'	402516.14'	29.68'	26.76'
1-8	GM	PE	2"	2.22'	IRC	NG	N/A	CLEARWATER GAS	1317915.38'	402520.48'	29.37'	27.15'
1-9	WM	DIP	6"	3.48'	IRC	NG	N/A	CITY OF CLEARWATER	1317914.15'	402558.85'	28.98'	25.50'
1-10	GM	PE	2"	2.66'	IRC	NG	N/A	CLEARWATER GAS	1317929.18'	402784.10'	25.02'	22.36'
1-11	BE	PE	1"	2.50'	IRC	NG	N/A	TECO	1317936.80'	402849.32'	24.15'	21.65'
1-12	UNK	CI	1"	1.68'	IRC	NG	N/A	UNKNOWN	1317936.66'	402848.56'	24.14'	22.46'
1-13	GM	PE	2"	3.18'	IRC	NG	N/A	CLEARWATER GAS	1317928.03'	402900.11'	23.86'	20.88'
1-14	TS	PVC	2-2"	2.12'	NL	ASPH	6"	CITY OF CLEARWATER	1317941.13'	401857.31'	32.38'	30.26'
1-15	WM	CI	10"	3.02'	NL	ASPH	6"	CITY OF CLEARWATER	1317915.10'	401953.23'	34.85'	31.83'
1-16	FOC	PE	2-1.5"	5.56'	NL	ASPH	6"	UNKNOWN	1317914.35'	401959.16'	34.74'	29.18'
1-17	FOC	PE	2" & 2-1.5"	5.56'	NL	ASPH	6"	UNKNOWN	1317914.67'	401959.94'	34.70'	29.14'
1-18	FOC	PE	2"	4.26'	NL	ASPH	6"	FRONTIER	1317941.19'	401856.48'	32.36'	28.10'
1-19	FOC/BT DUCT	DBC/AC	28"	3.74'	NL	ASPH	3"	FRONTIER	1317891.18'	401890.08'	35.43'	31.69'
1-20	FOC/BT DUCT	DBC/AC	28"	3.74'	NL	ASPH	3"	FRONTIER	1317890.95'	401892.83'	35.54'	31.80'
1-21	UNK	PVC	2-2"	5.44'	NL	ASPH	6"	CITY OF CLEARWATER	1317925.94'	401971.15'	34.45'	29.01'
AREA "B" - N. MARTIN LUTHER KING AVE.												
2-1	GM	PE	4"	3.56'	IRC	NG	N/A	CLEARWATER GAS	1321322.72'	400571.80'	35.41'	31.85'
2-2	FOC	PE	2"	2.64'	IRC	NG	N/A	MCI	1321323.53'	400571.61'	35.42'	32.78'
2-3	BT	PVC & DBC	2-4" & 1"	2.90' & 3.12'	IRC	NG	N/A	FRONTIER	1321910.69'	400569.05'	32.25'	29.35' & 29.13'
2-4	TS	PVC	2-2"	4.88'	IRC	NG	N/A	CITY OF CLEARWATER	1321992.51'	400572.00'	30.88'	26.00'
2-5	GM	STL	2"	2.00'	IRC	NG	N/A	CLEARWATER GAS	1321979.84'	400563.77'	31.05'	29.05'
2-6	FOC/BT	PVC	MULT. 4"	4.70'	IRC	NG	N/A	FRONTIER	1321982.21'	400567.00'	30.84'	26.14'
2-7	FOC/BT	PVC	MULT. 4"	4.82'	IRC	NG	N/A	FRONTIER	1321980.20'	400565.83'	30.90'	26.08'
2-11	BE	PVC	3-2"	2.26'	NL	ASPH	3"	TECO	1321071.75'	400565.87'	33.11'	30.85'
2-12	BE	PVC	2-2"	2.14'	NL	ASPH	3"	TECO	1321086.82'	400570.05'	33.37'	31.23'
2-13	BE	CONC CAP	30"	2.68'	NL	ASPH	6"	TECO	1321356.91'	400561.50'	35.55'	32.87'
2-14	BE	CONC CAP	30"	2.68'	NL	ASPH	6"	TECO	1321354.49'	400561.51'	35.57'	32.89'
2-15	WM	DIP	6"	2.02'	NL	ASPH	6"	CITY OF CLEARWATER	1321372.42'	400571.64'	35.44'	33.42'
2-16	EXPLORATORY - NO UTILITIES FOUND - CLEARED TO 14"				X	CONC	9"	FRONTIER	1321067.54'	400564.59'	32.97'	N/A
2-17	WS	CI	2.5"	1.26'	NL	ASPH	6"	CITY OF CLEARWATER	1321679.96'	400571.84'	33.80'	32.54'
2-18	FOC	PE	1.5"	6.64'	NL	ASPH	6"	FRONTIER	1321635.19'	400574.17'	34.43'	27.79'
2-19	WM	PVC	4"	2.38'	NL	ASPH	6"	CITY OF CLEARWATER	1321930.78'	400568.53'	31.46'	29.08'
2-20	FOC	PE	2-1.5"	4.38'	IRC	NG	N/A	FRONTIER	1321922.33'	400566.52'	32.04'	27.66'
2-21	RCW	PVC	4"	2.58'	IRC	NG	N/A	CITY OF CLEARWATER	1322013.93'	400571.35'	30.50'	27.92'
2-22	WM	PVC	18"	3.42'	NL	ASPH	3"	CITY OF CLEARWATER	1321017.44'	400563.20'	33.07'	29.65'
2-23	RCW	PVC	6"	3.50'	NL	ASPH	3"	CITY OF CLEARWATER	1321027.00'	400565.19'	33.37'	29.87'
2-24	WM	PVC	8"	3.12'	NL	ASPH	3"	CITY OF CLEARWATER	1321043.85'	400554.72'	33.13'	30.01'
2-25	FOC/BT	AC	3-4"	3.76'	NL	ASPH	3"	FRONTIER	1321965.36'	400568.93'	31.43'	27.67'
2-26	WM	CI	6"	1.80'	NL	ASPH	6"	CITY OF CLEARWATER	1321968.85'	400569.17'	31.30'	29.50'
AREA "C" - FAIRMONT ST.												
3-1	WM	CI	12"	2.34'	IRC	NG	N/A	CITY OF CLEARWATER	1327229.91'	400617.82'	12.96'	10.62'
3-2	GM	CI	2"	2.26'	IRC	NG	N/A	CLEARWATER GAS	1327227.13'	400617.29'	13.02'	10.76'
3-3	GM	PE	2"	1.80'	IRC	NG	N/A	CLEARWATER GAS	1327224.17'	400616.07'	12.99'	11.19'
3-4	FOC	PVC	3"	6.20'	NL	ASPH	N/A	FRONTIER	1327238.26'	400615.35'	12.43'	6.23'
3-5	RCW	PVC	4"	3.70'	X	NG	N/A	CITY OF CLEARWATER	1327218.09'	400584.22'	12.99'	9.29'
3-6	GM	PE	2"	2.46'	IRC	NG	N/A	CLEARWATER GAS	1327214.90'	400583.85'	13.05'	10.59'
3-7	WM	PVC	6"	2.10'	IRC	NG	N/A	CITY OF CLEARWATER	1327224.02'	400959.76'	11.37'	9.27'
3-8	GM	PE	2"	2.40'	IRC	NG	N/A	CLEARWATER GAS	1327211.95'	400918.60'	11.79'	9.39'
3-9	GM	STL	2"	2.76'	IRC	NG	N/A	CLEARWATER GAS	1327221.56'	400917.16'	11.66'	8.90'
3-10	GM	PE	2"	2.62'	IRC	NG	N/A	CLEARWATER GAS	1327223.63'	401265.69'	9.22'	6.60'
3-11	WM	CI	2"	2.06'	IRC	NG	N/A	CITY OF CLEARWATER	1327223.60'	401266.90'	9.35'	7.29'
3-12	WM	CI	6"	2.50'	NL	ASPH	2"	CITY OF CLEARWATER	1327229.80'	401415.72'	8.03'	5.53'
3-13	RCW	DIP	12"	4.62'	NL	ASPH	2"	CITY OF CLEARWATER	1327229.79'	401428.37'	8.07'	3.45'
AREA "D" - CLEARWATER MEMORIAL CAUSEWAY												
4-1	RCW	DIP	16"	2.44'	IRC	NG	N/A	CITY OF CLEARWATER	1325053.03'	391222.18'	6.19'	3.75'
4-2	FOC	HDPE	3"	2.18'	IRC	NG	N/A	FRONTIER	1325053.39'	391226.83'	6.36'	4.18'
4-3	BE	PVC	1.5"	1.20'	NL	ASPH	3"	TECO	1325067.09'	391239.23'	7.08'	5.88'
4-4	BED	CONC CAP	24"	2.76'	NL	ASPH	3"	TECO	1325067.54'	391239.47'	7.10'	4.34'
4-5	BED	CONC CAP	24"	2.76'	NL	ASPH	3"	TECO	1325067.85'	391239.79'	7.13'	4.37'
4-6	BE	PVC	1.5"	1.14'	NL	ASPH	3"	TECO	1325069.20'	391240.80'	7.24'	6.10'
4-7	BED	CONC CAP	24"	2.84'	NL	ASPH	3"	TECO	1324642.25'	391738.99'	6.87'	4.03'
4-8	BED	CONC CAP	24"	2.70'	NL	ASPH	3"	TECO	1324640.59'	391737.67'	6.79'	4.09'
4-9	BE	PVC	1.5"	0.98'	NL	ASPH	N/A	TECO	1324641.04'	391738.14'	6.82'	5.84'
4-10	RCW/FOC	PVC & HDPE	1.5" & 3"	0.82' & 1.92'	IRC	NG	N/A	CLEARWATER & FRONTIER	1324629.40'	391727.46'	6.26'	5.44' & 4.34'
4-11	RCW	DIP	16"	2.34'	IRC	NG	N/A	CITY OF CLEARWATER	1324628.16'	391726.85'	6.17'	3.83'
4-12	RCW	DIP	16"	2.68'	IRC	NG	N/A	CITY OF CLEARWATER	1323655.26'	393039.65'	4.14'	1.46'
4-13	BT	DBC	1" & 2"	1.42'	NL	ASPH	3"	FRONTIER	1323653.82'	392993.80'	6.82'	5.40'
4-14	WS/RCW	PVC	2" & 3"	1.00'	IRC	NG	N/A	CITY OF CLEARWATER	1323629.72'	392975.51'	8.20'	7.20'
4-15	WS	PVC	2"	1.60'	IRC	NG	N/A	CITY OF CLEARWATER	1325096.09'	391265.05'	8.48'	6.88'
4-16	RCW	PVC	16"	2.86'	IRC	NG	N/A	CITY OF CLEARWATER	1322876.73'	393938.09'	4.55'	1.69'
4-17	BT	DBC	1"	1.92'	NL	ASPH	3"	FRONTIER	1322860.00'	393918.80'	6.51'	4.59'
4-18	BT	DBC	2"	1.46'	NL	ASPH	3"	FRONTIER	1322859.13'	393918.16'	6.60'	5.14'
4-19	RCW	PVC	4"	2.14'	IRC	NG	N/A	CITY OF CLEARWATER	1322835.04'	393903.04'	7.74'	5.60'
4-20	RCW	DIP	16"	3.20'	IRC	NG	N/A	CITY OF CLEARWATER	1323215.29'	393535.40'	5.06'	1.86'
4-21	BT	DBC	1"	1.34'	NL	ASPH	3"	FRONTIER	1323201.13'	393522.29'	6.63'	5.29'
4-22	BT	DBC	2"	1.50'	NL	ASPH	3"	FRONTIER	1323200.56'	393521.82'	6.66'	5.16'
4-23	WS	PVC	1.5"	1.06'	IRC	NG	N/A	CITY OF CLEARWATER	1323179.19'	393502.40'	7.46'	6.40'

NOTE: THESE LEGENDS ARE FOR GENERAL REFERENCE. NOT ALL ABBREVIATIONS, SYMBOLS, PROCESSES, MATERIALS, OR FITTINGS MAY BE USED IN THIS DESIGN, NOR IS THIS LEGEND COMPREHENSIVE. REFER TO INDIVIDUAL DRAWING LEGEND(S), IF ABBREVIATIONS ARE NOT LISTED. INDIVIDUAL DISCIPLINE STANDARD LEGENDS SUPERCEDE THIS GENERAL LEGEND, IF PROVIDED.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER	DATE	DATE
APPROVED BY:	DATE	BY	DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

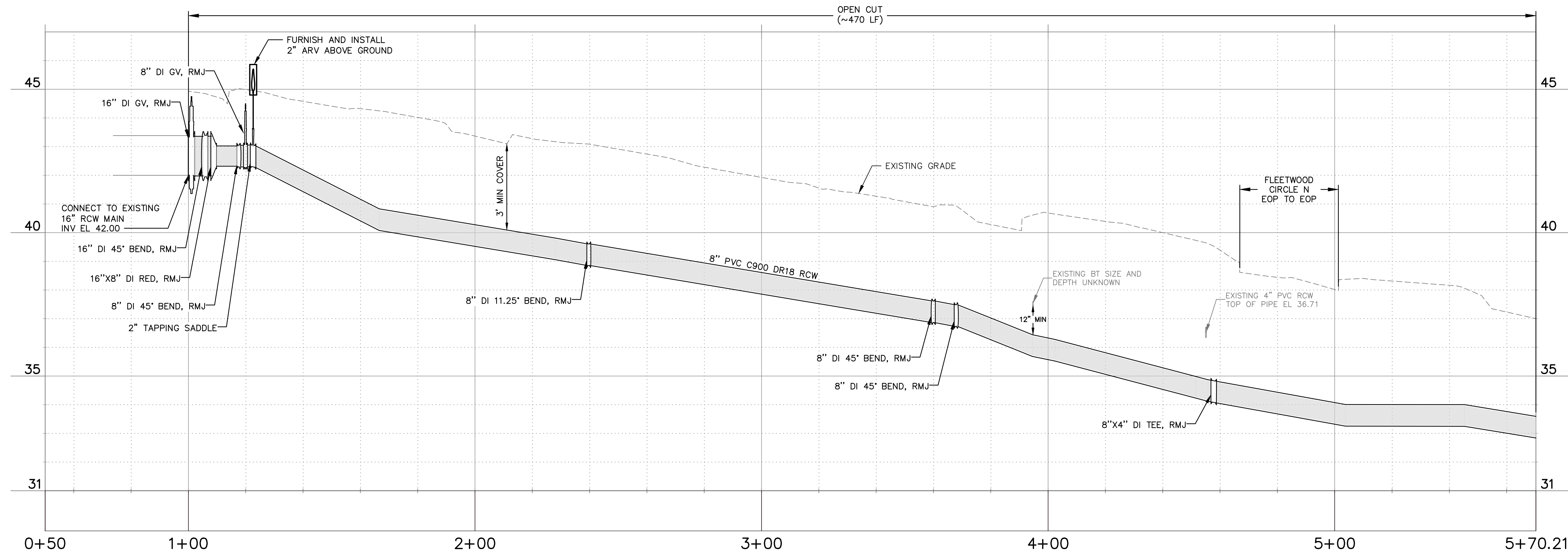
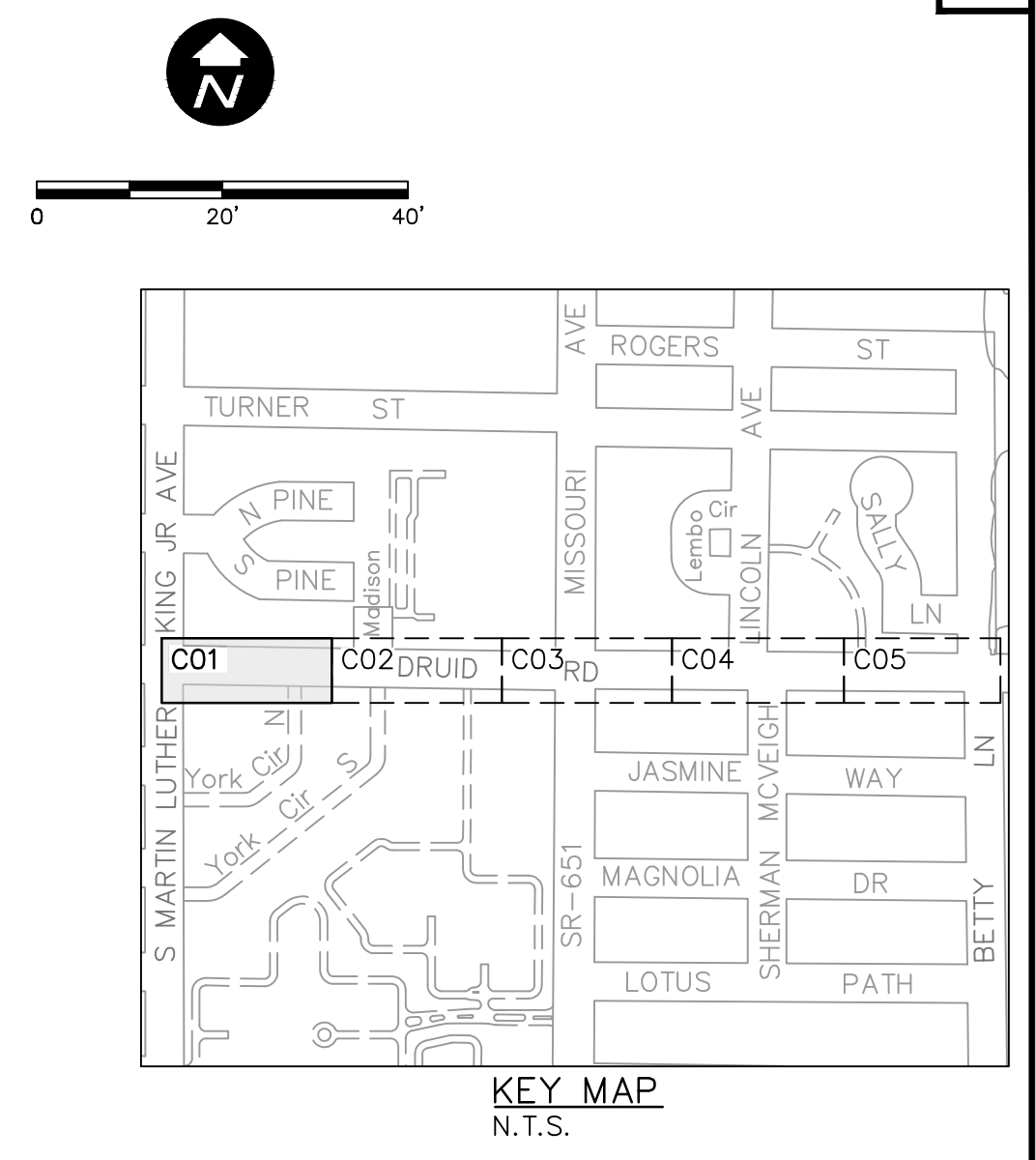
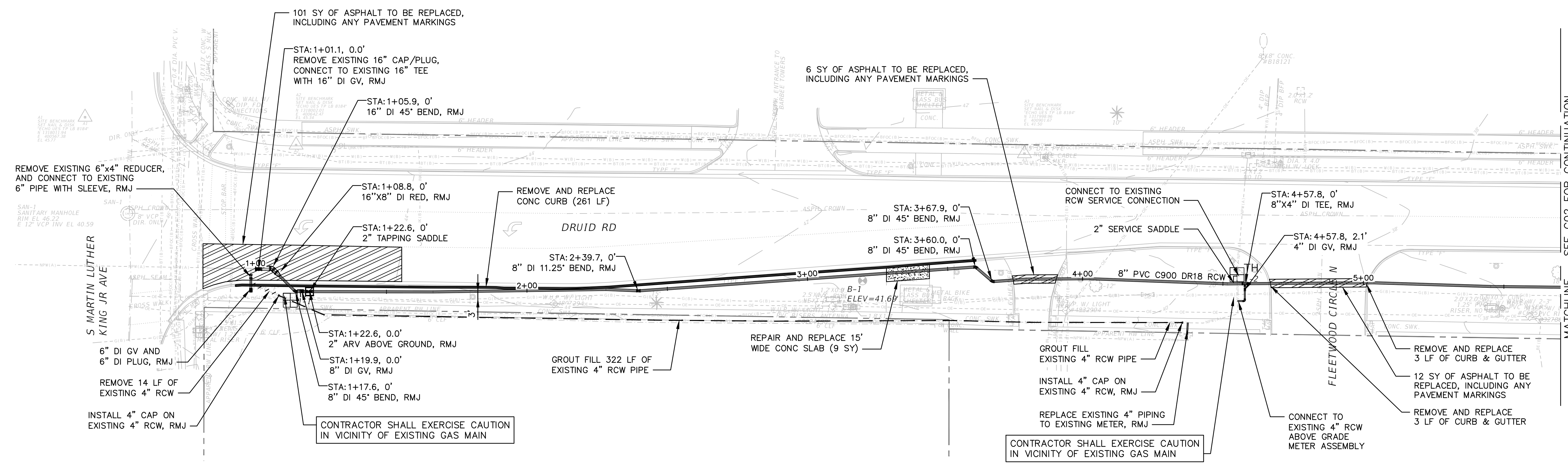
CALL 811
 SUNSHINE STATE ONE CALL OF FLORIDA
 www.call811sunshine.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 LEGENDS AND TEST HOLE TABLE

DWG NAME: G03	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 03 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE

Parent Sheet: 102031_RCW Imp. Rev on: 12/7/2022 8:52 AM Individual File Path: V:\Projects\WSE\112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-A_REI_C3D_CivilSheets



- NOTES**
1. MINIMUM SEPARATION BETWEEN PROPOSED 8" RECLAIMED WATER MAIN AND EXISTING GAS MAIN SHALL BE 3'.
 2. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 3. ONLY THE CITY MAY TURN EXISTING VALVES. IF RCW MAIN ISOLATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY. ISOLATION VALVE IS APPROXIMATELY 470 LF WEST AT THE INTERSECTION OF DRUID ROAD EAST AND EWING AVENUE.
 4. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (MIN 5' SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER	DATE	BY DATE
APPROVED BY:	DATE		

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**

100 S. MYRTLE AVE.
CLEARWATER, FL 33756

CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA
www.call811sunshine.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

**CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS**

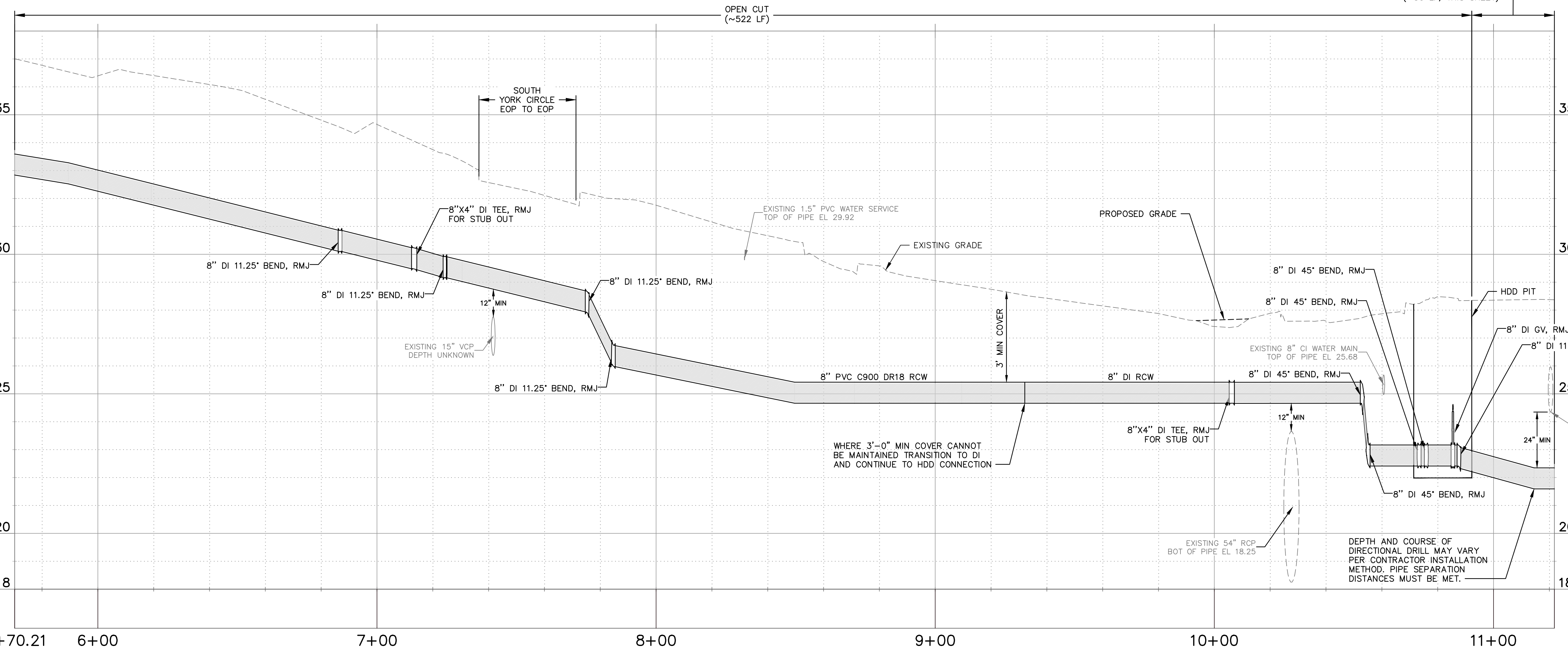
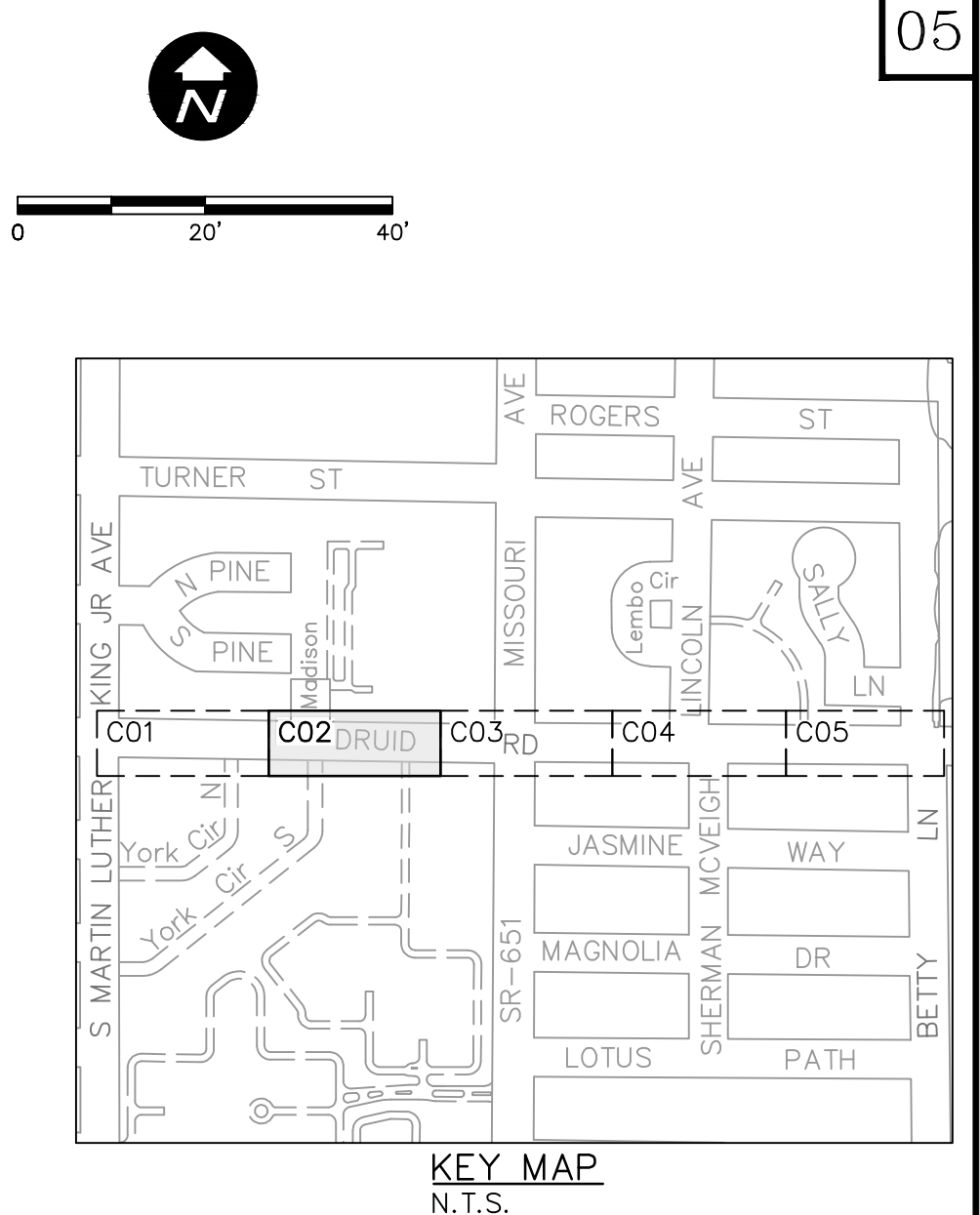
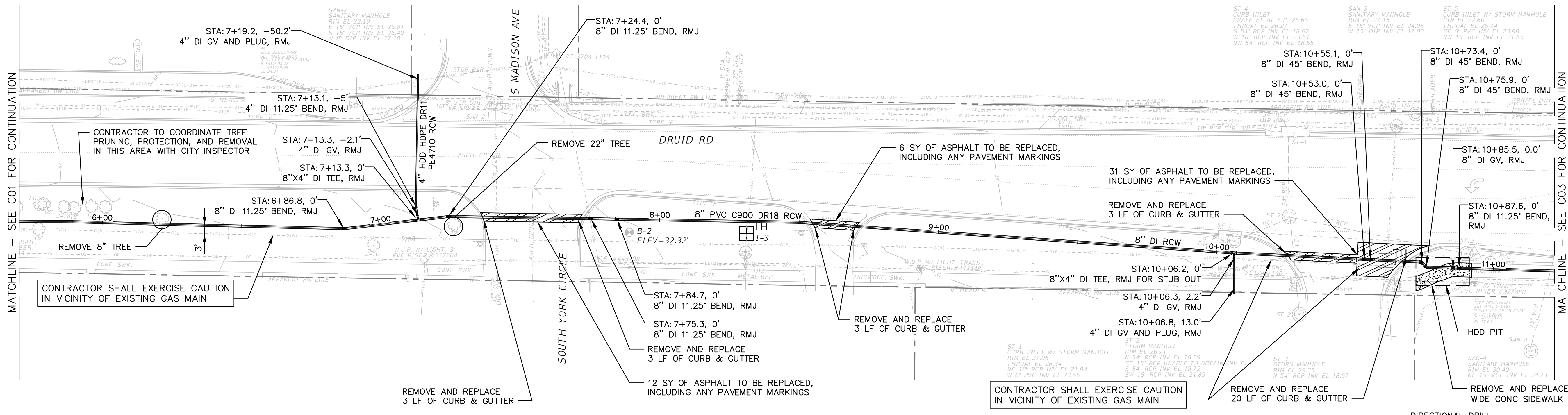
DRUID RD (AREA A) - STA 0+50 TO STA 5+70.21
PLAN & PROFILE

DWG NAME: C01	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 04 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
3507 EAST FRONTAGE ROAD SUITE 100
TAMPA, FL 33607
TEL: (813) 549-8919
CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, WOLET Rev on: 12/7/2022 8:52 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-A_REI_C3D_CivilSheets



NOTES

- MINIMUM SEPARATION BETWEEN PROPOSED 8" RECLAIMED WATER MAIN AND EXISTING GAS MAIN SHALL BE 3'.
- DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
- INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.
- ALL DUCTILE IRON PIPE SHALL BE POLYWRAPPED PER COLOR CODE AS DESCRIBED IN THE SPECIFICATIONS.

RECORD DRAWINGS	
DESIGNED BY:	DATE:
DRAWN BY:	DATE:
CHECKED BY:	DATE:
APPROVED BY:	DATE:
PROJECT ENGINEER	DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



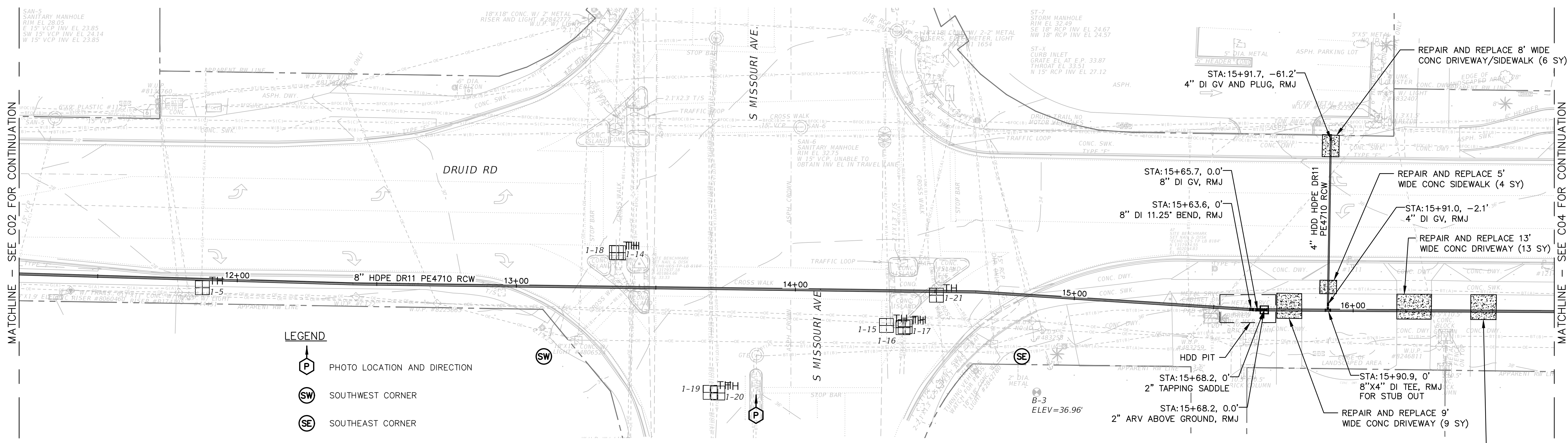
CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
 DRUID RD (AREA A) - STA 5+70.21 TO STA 11+21.81
 PLAN & PROFILE

DWG NO:	C02	FIELD BOOK:	N/A	SURVEYED BY:	N/A	SCALE:	VERT. AS NOTED
CONTRACT NO.:	21-0029-UT	DATE DRAWN:	12/2022	DRAWN BY:	VVV	HORIZ. AS NOTED	
JOB NO.:	102031	DESIGNED BY:	WTH	CHECKED BY:	SC/MKW	SHEET NO.:	05 OF 24

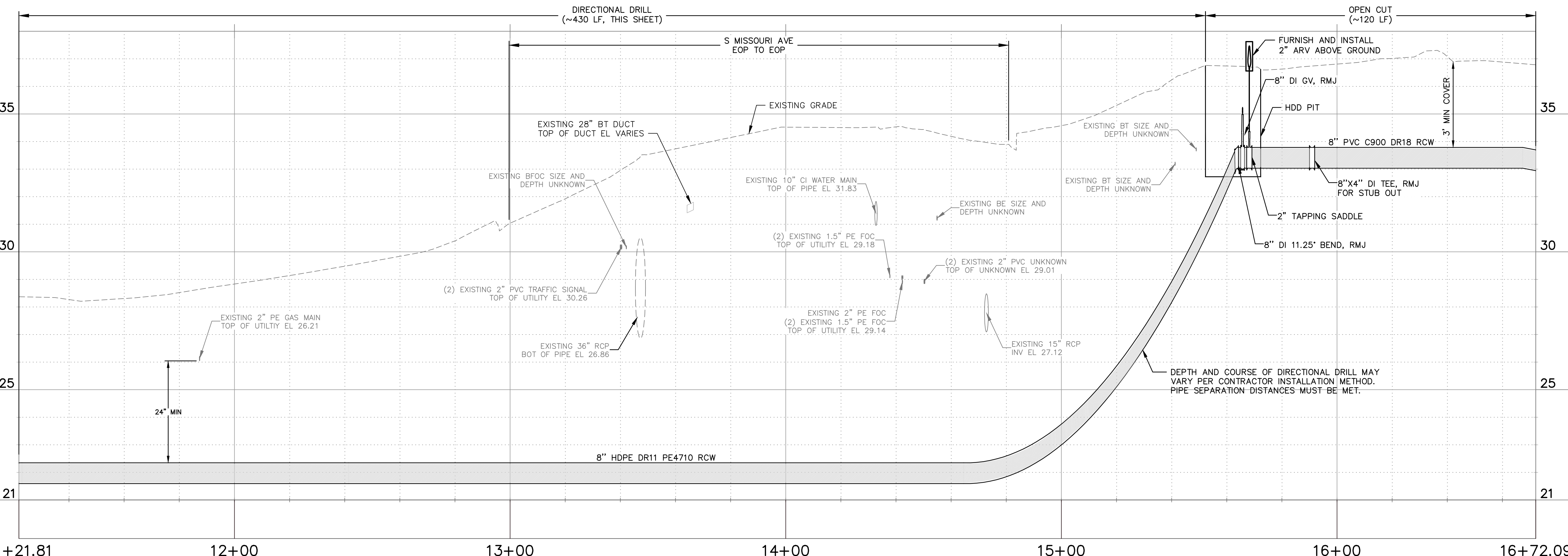
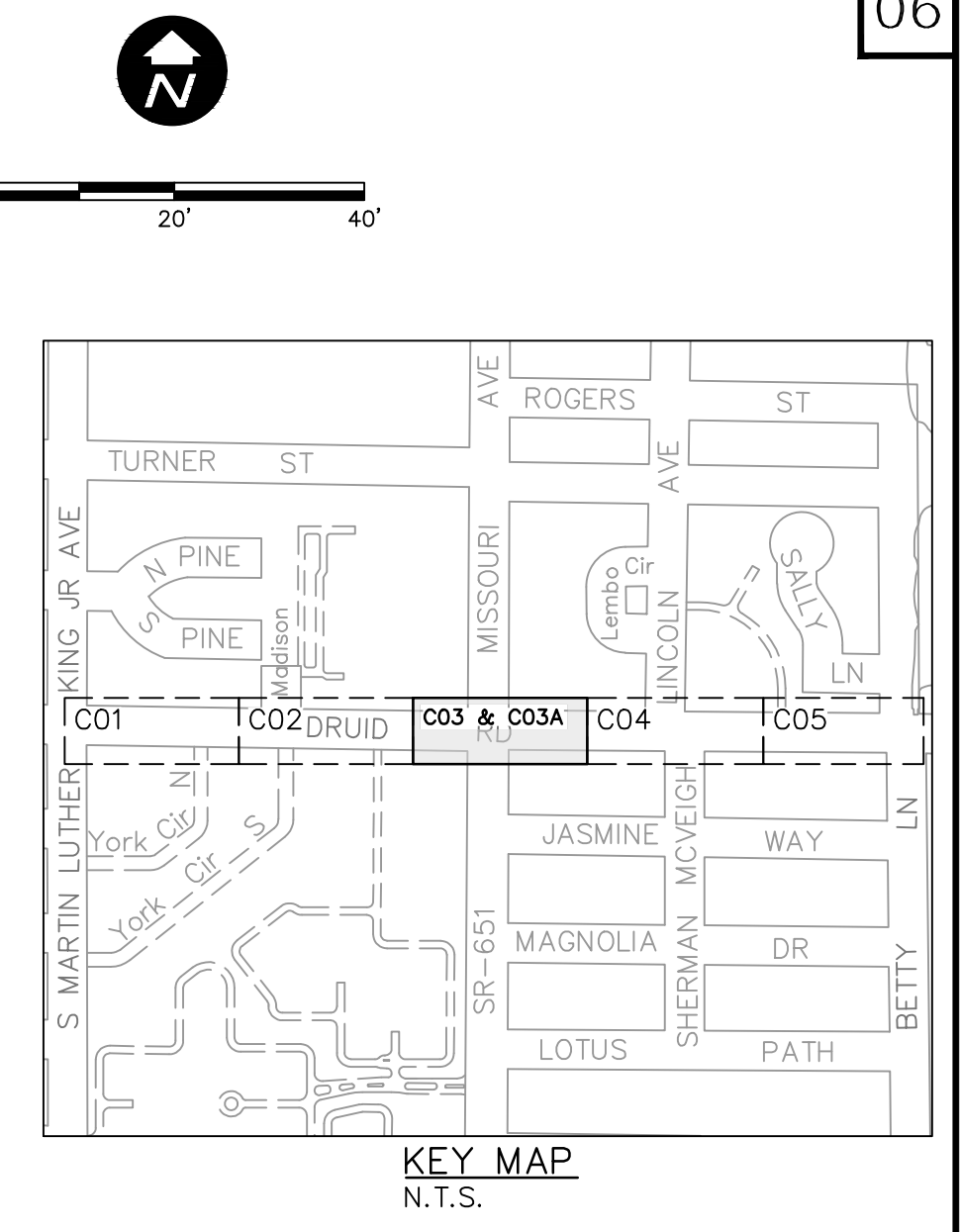
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 8:52 AM Individual File Path: V:\Projects\WSE\112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-A_REI_C3D_CivilSheets

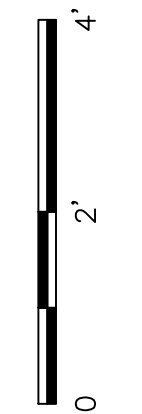


- LEGEND**
- PHOTO LOCATION AND DIRECTION
 - SOUTHWEST CORNER
 - SOUTHEAST CORNER



11+21.81 12+00 13+00 14+00 15+00 16+00 16+72.09

- NOTES**
- DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 - CONTRACTOR SHALL TEMPORARILY INSTALL AND MAINTAIN MILLINGS WHEN REMOVING ANY DRIVEWAYS UNTIL THE DRIVEWAYS ARE PERMANENTLY RESTORED.
 - INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.



RECORD DRAWINGS	
SURVEYED BY:	DRAWN BY:
REVIEWED BY:	PROJECT ENGINEER
APPROVED BY:	DATE
OBID SET	REVISION
BY	DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
 SUNSHINE STATE ONE CALL OF FLORIDA
 www.call811sunshine.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

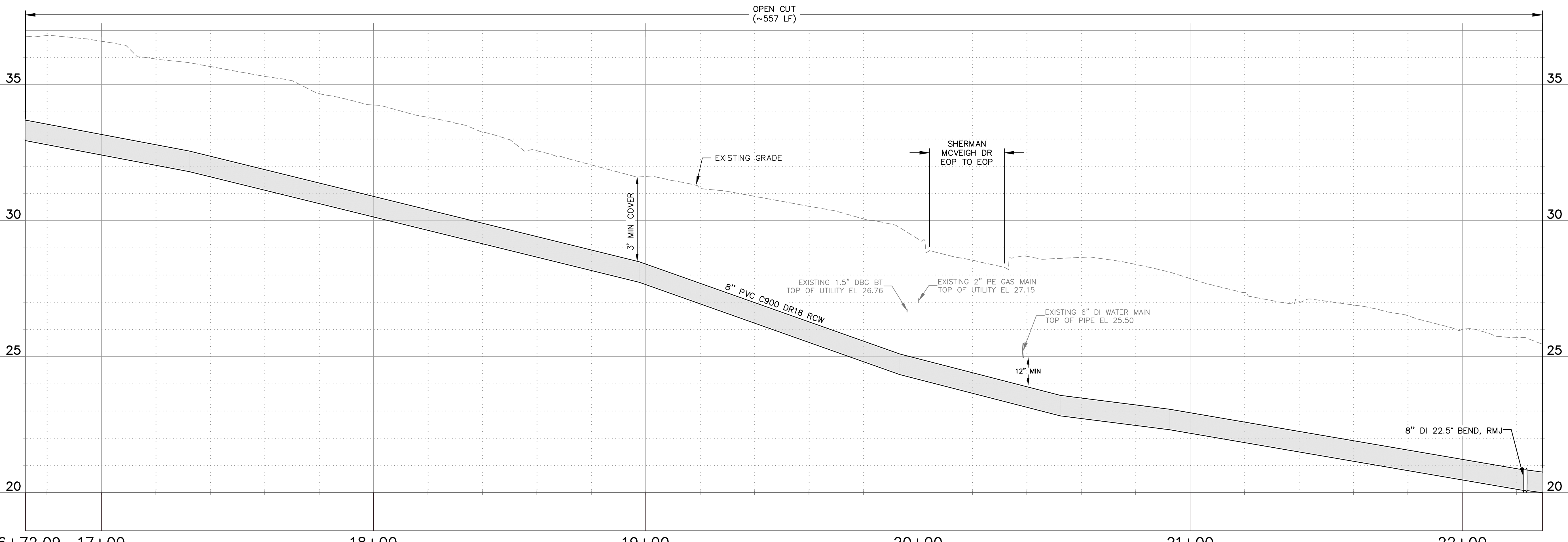
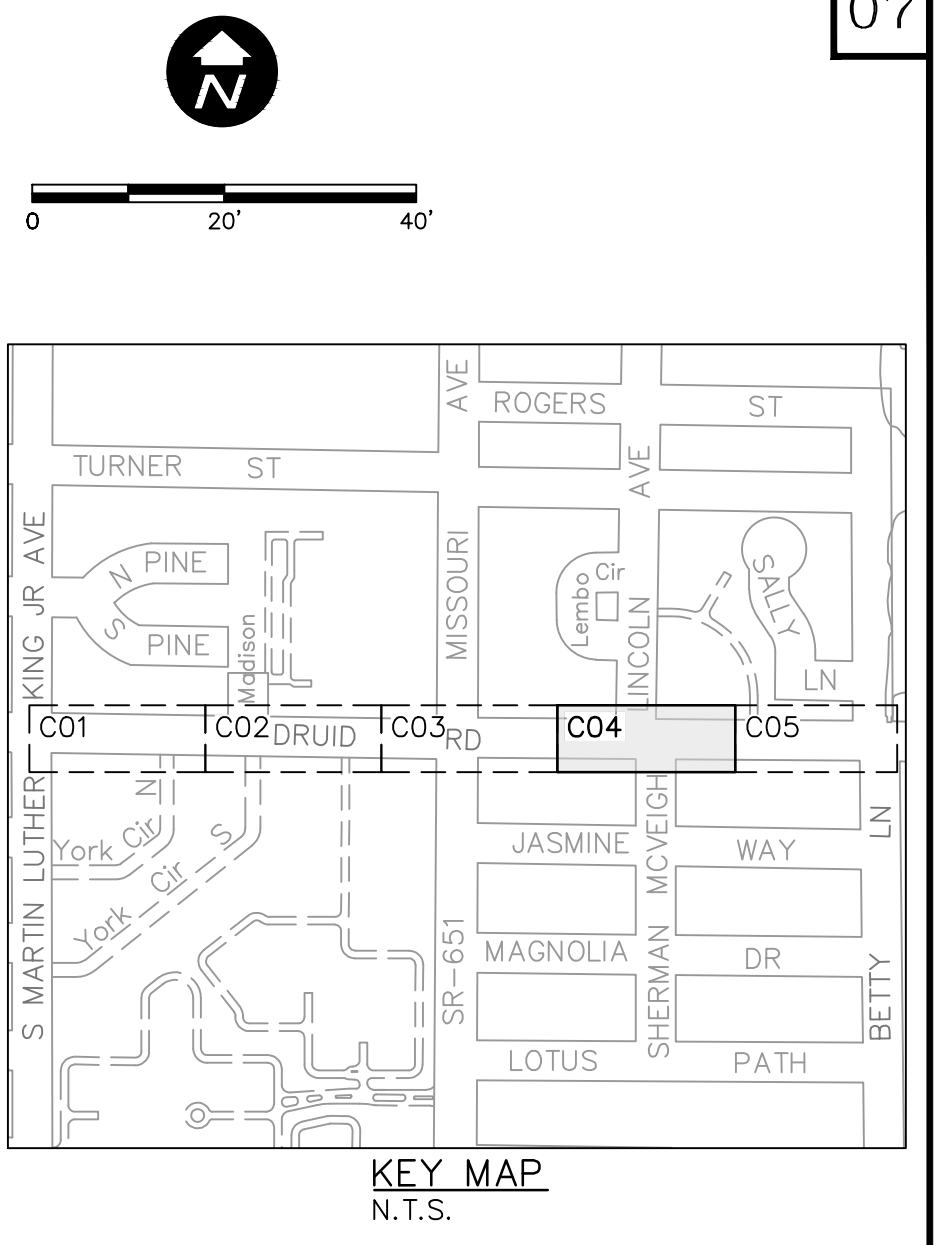
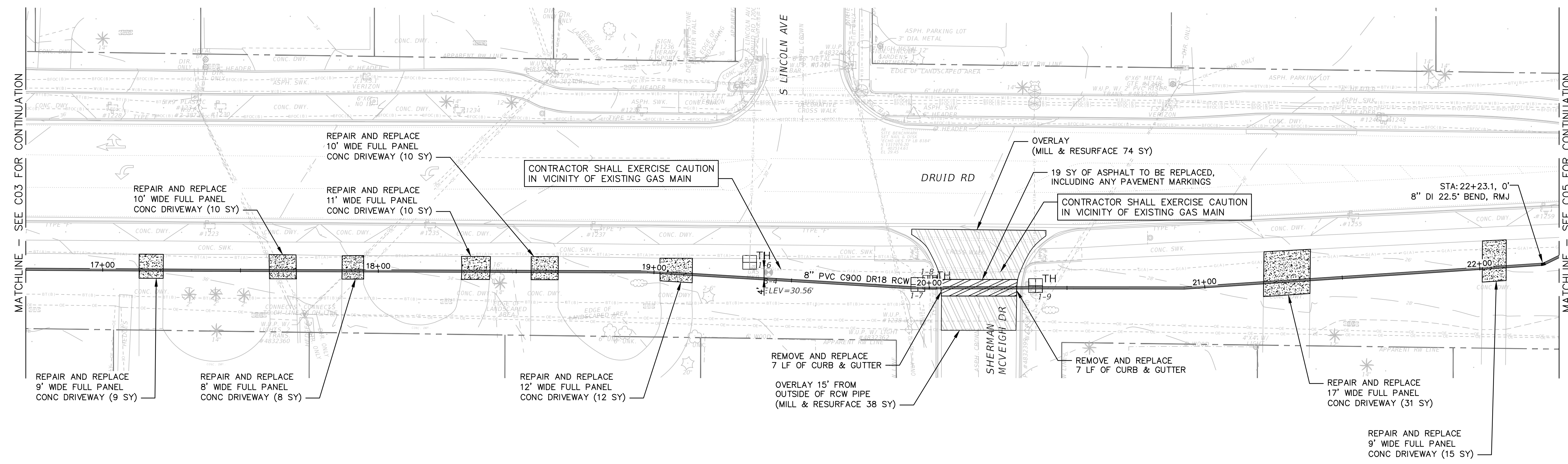
CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 DRUID RD (AREA A) - STA 11+21.81 TO STA 16+72.09
 PLAN & PROFILE

DWG NAME: C03	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 06 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 8:52 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\04_Design\04_Drawings\01_CAD\102031-A_REI_C3D_CivilSheets



- NOTES**
1. MINIMUM SEPARATION BETWEEN PROPOSED 8" RECLAIMED WATER MAIN AND EXISTING GAS MAIN SHALL BE 3'.
 2. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 3. CONTRACTOR SHALL TEMPORARILY INSTALL AND MAINTAIN MILLINGS WHEN REMOVING ANY DRIVEWAYS UNTIL THE DRIVEWAYS ARE PERMANENTLY RESTORED.
 4. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER	DATE	BY DATE
APPROVED BY:	DATE		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
 SUNSHINE STATE ONE CALL OF FLORIDA
 www.call811.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

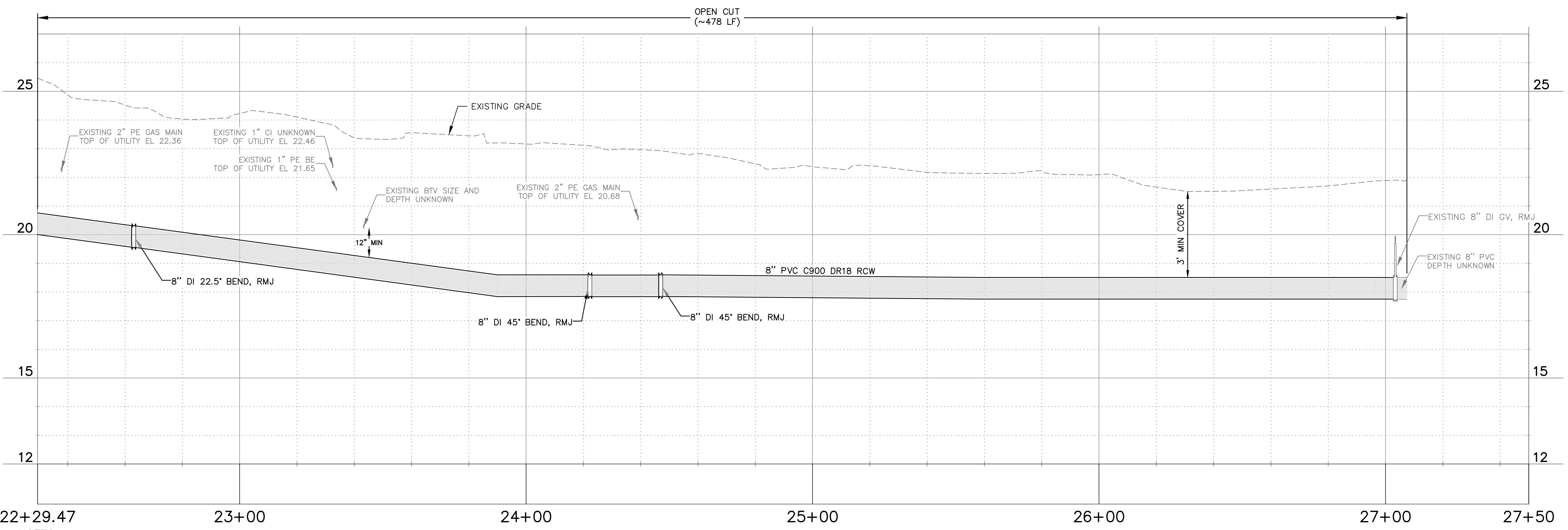
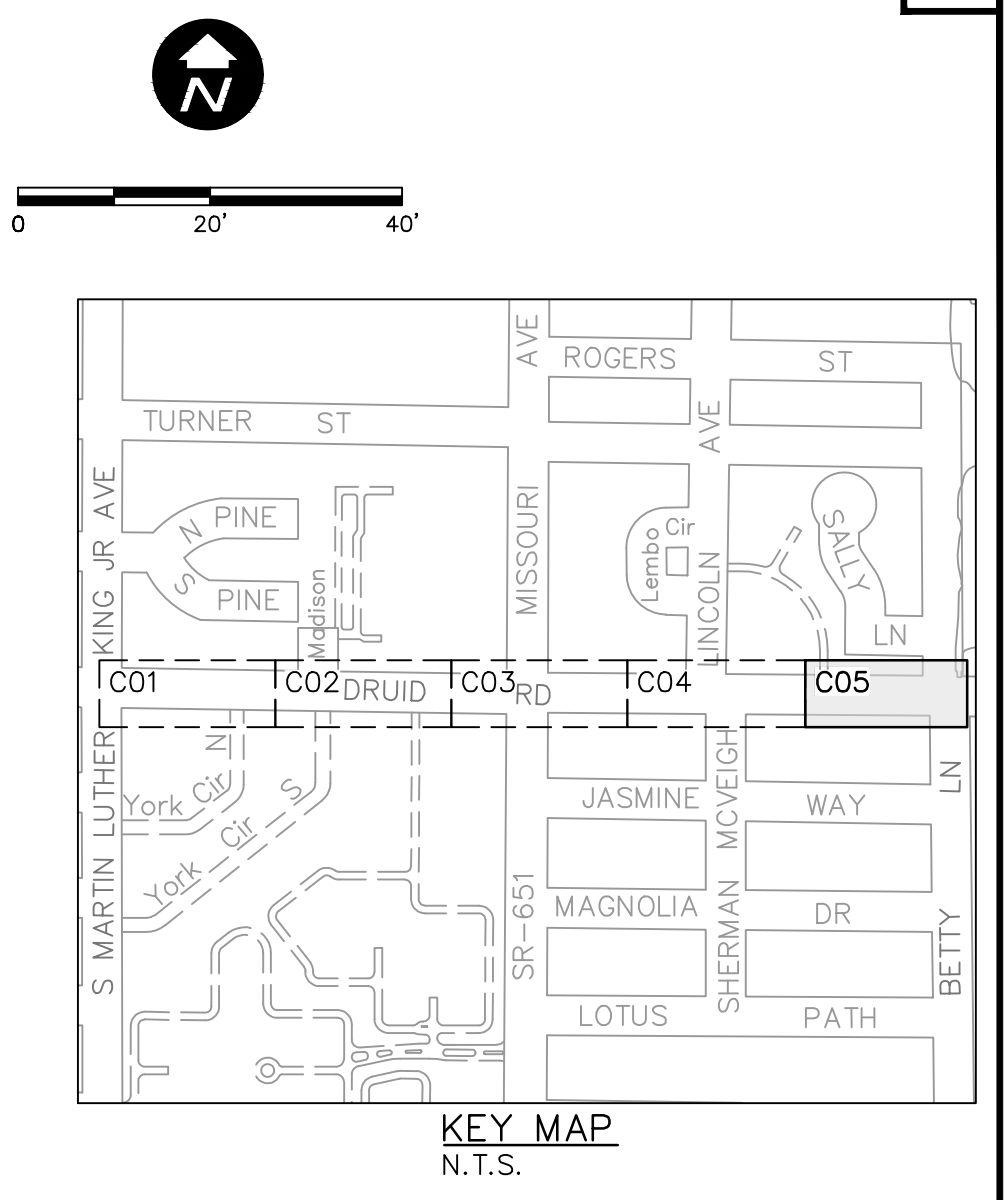
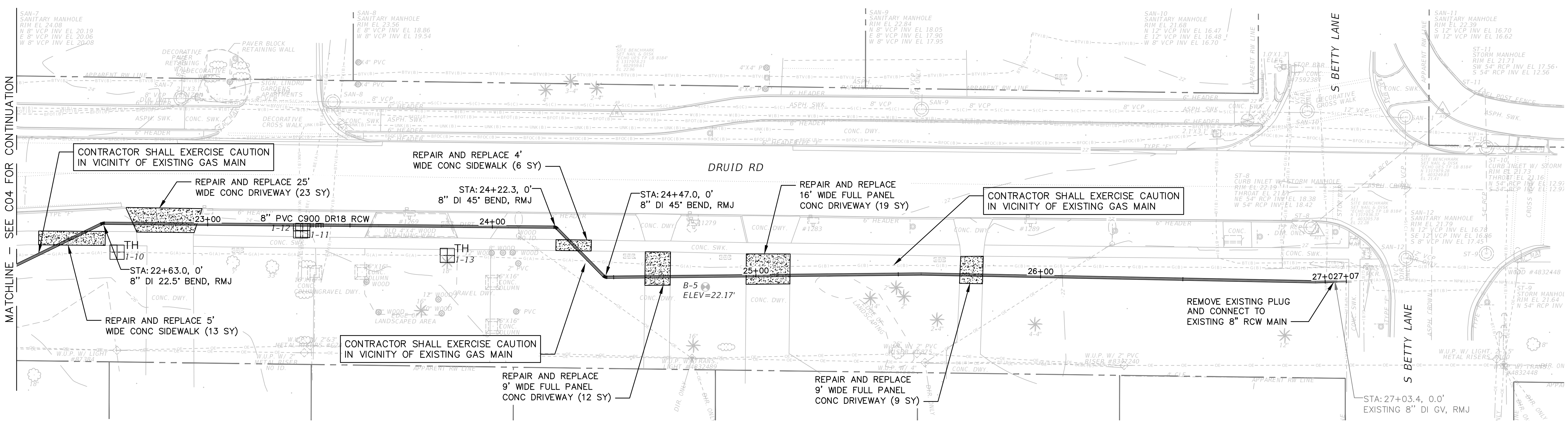
CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
 DRUID RD (AREA A) - STA 16+72.09 TO STA 22+29.47
 PLAN & PROFILE

DWG NAME: C04	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 07 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, WOLET Rev on: 12/7/2022 8:52 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-A_REI_C3D_CivilSheets



- NOTES**
- MINIMUM SEPARATION BETWEEN PROPOSED 8" RECLAIMED WATER MAIN AND EXISTING GAS MAIN SHALL BE 3'.
 - DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 - CONTRACTOR SHALL TEMPORARILY INSTALL AND MAINTAIN MILLINGS WHEN REMOVING ANY DRIVEWAYS UNTIL THE DRIVEWAYS ARE PERMANENTLY RESTORED.
 - INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	BY	DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
SUNSHINE STATE ONE CALL
 OF FLORIDA
 www.call811sunshine.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

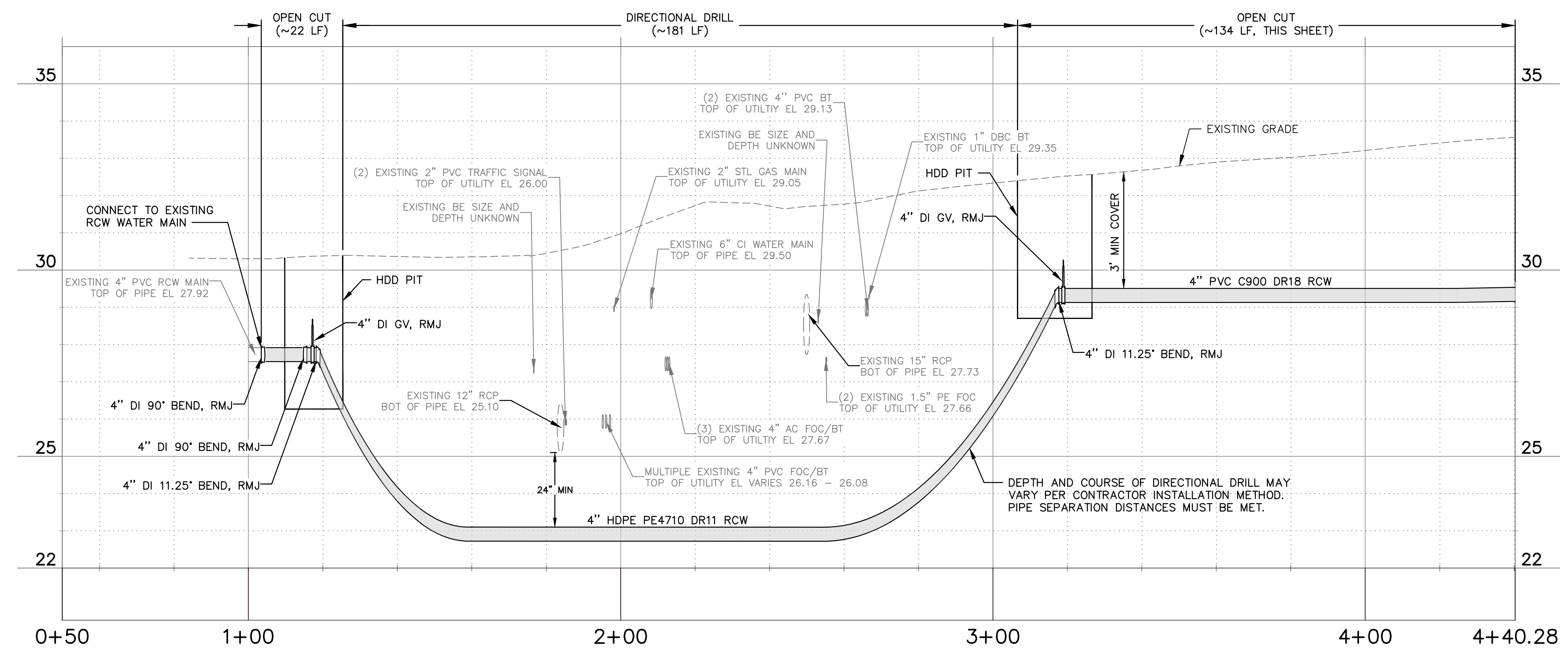
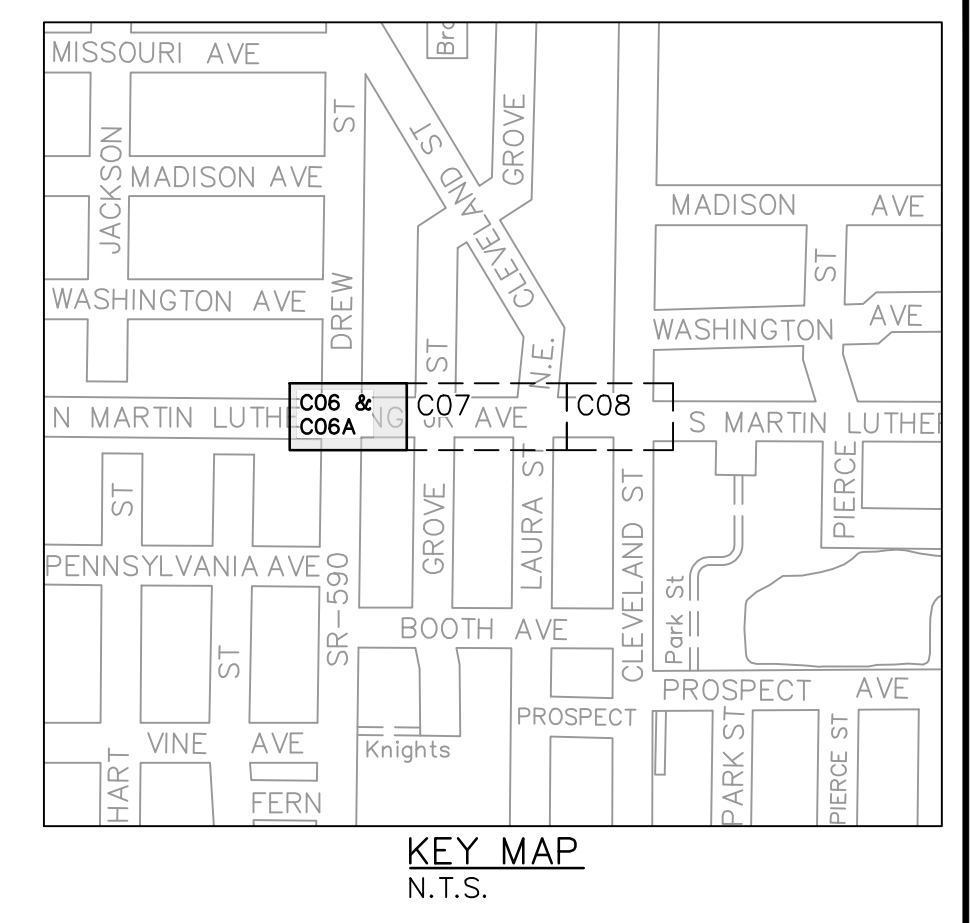
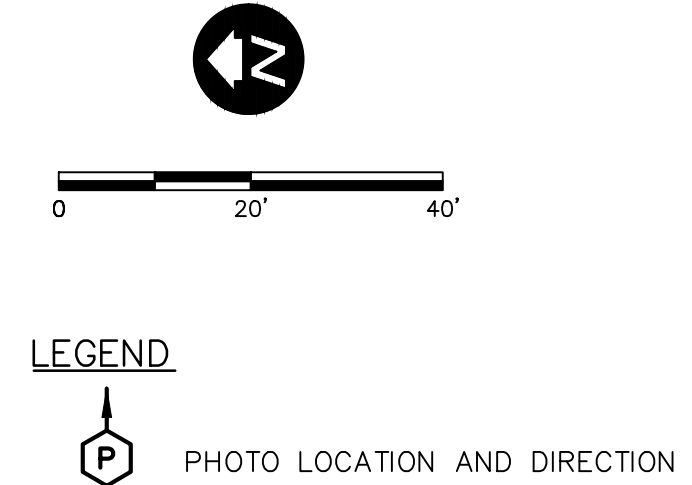
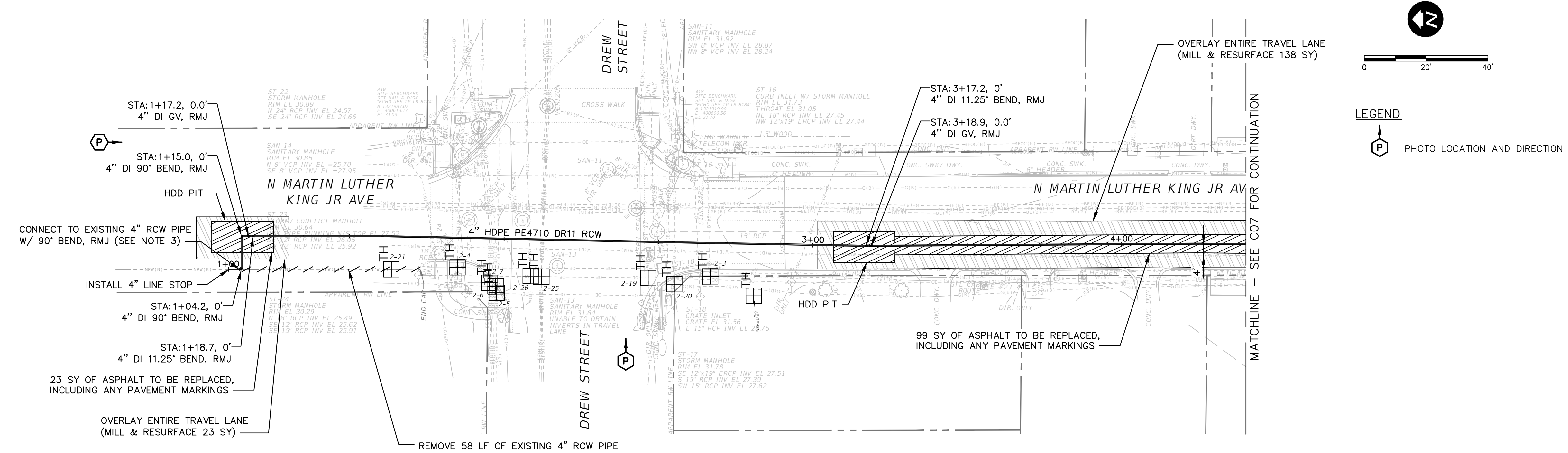
CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
 DRUID RD (AREA A) - STA 22+29.47 TO STA 27+50
 PLAN & PROFILE

DWG NAME: C05	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 08 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 8:55 AM Individual File Path: V:\Projects\WSF112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-B_REI_C3D_CivilSheets



- NOTES**
1. MINIMUM SEPARATION BETWEEN PROPOSED 4" RECLAIMED WATER MAIN AND EXISTING WATER MAIN SHALL BE 4'.
 2. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 3. ONLY THE CITY MAY TURN EXISTING VALVES. IF RCW MAIN ISOLATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY. ISOLATION VALVE IS APPROXIMATELY 1400 LF NORTH WEST AT THE INTERSECTION OF PLAZA STREET AND PENNSYLVANIA AVENUE NORTH.
 4. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	N/A	OBID SET	VVV 12/2022
DRAWN BY:	VVV	BY	DATE
PROJECT ENGINEER	DATE		
APPROVED BY:	DATE		

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**

100 S. MYRTLE AVE.
CLEARWATER, FL 33756

CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA
www.call811.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

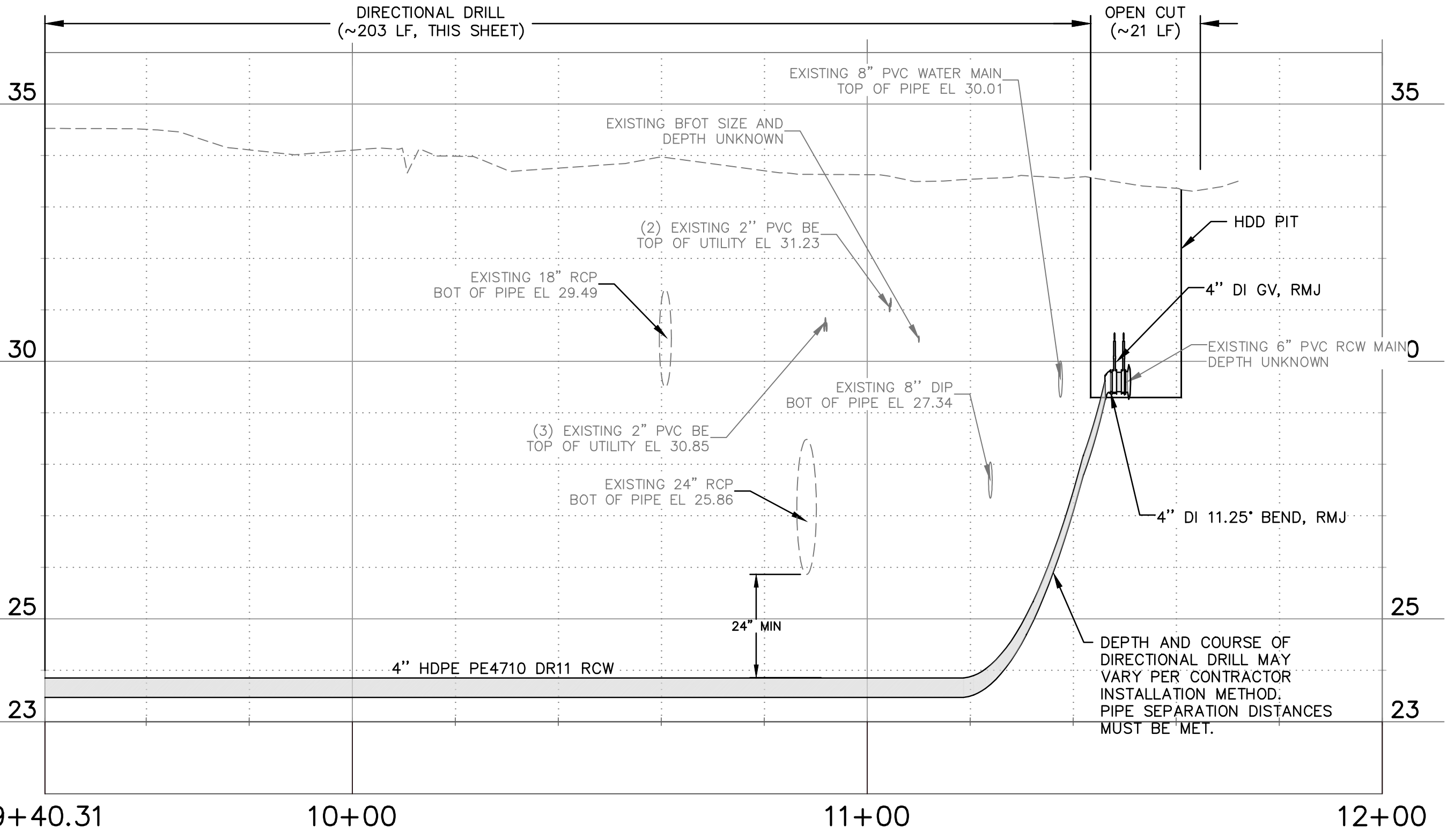
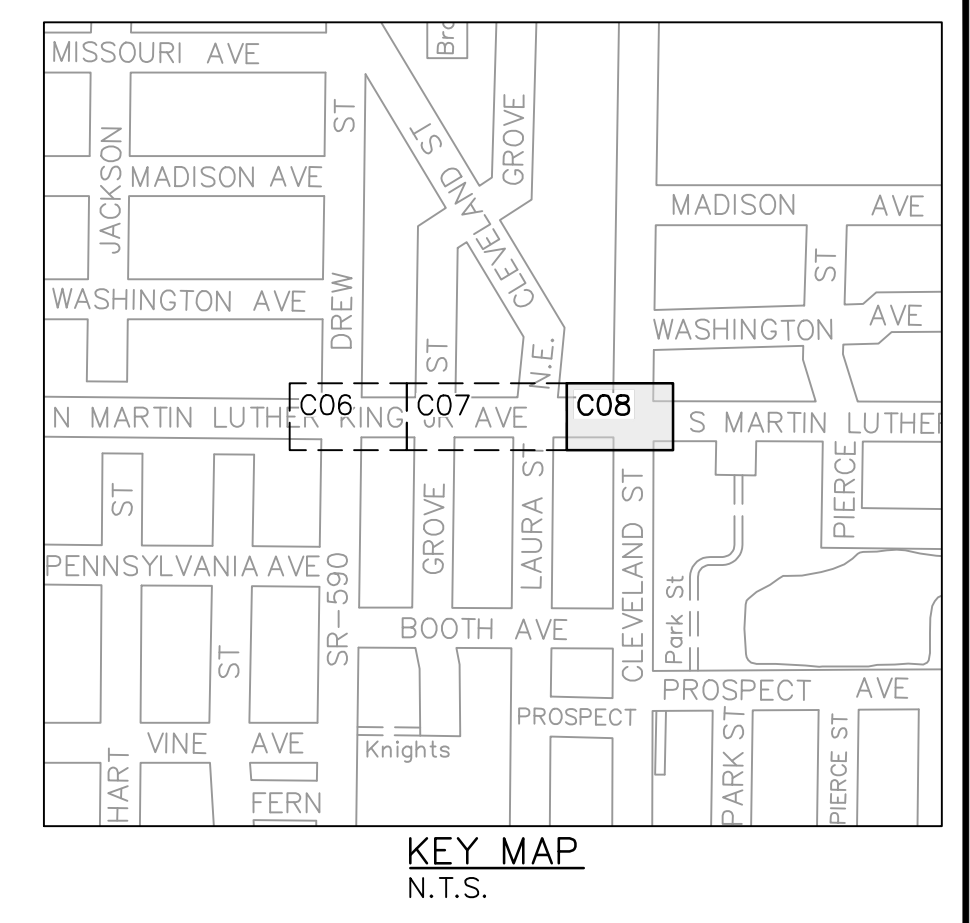
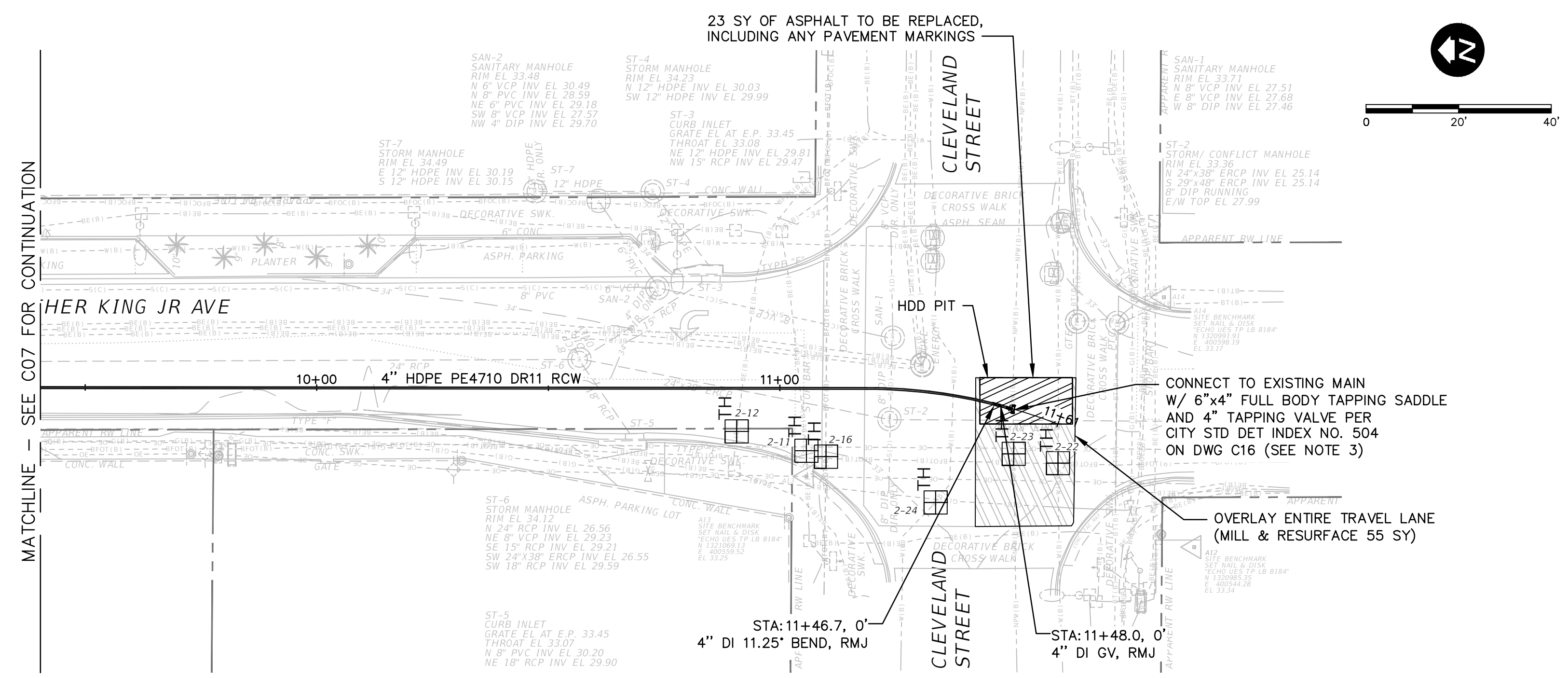
**CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS**

N MARTIN LUTHER KING JR AVE (AREA B) - STA 0+50 TO STA 4+40.28
PLAN & PROFILE

DWG NAME:	C06	FIELD BOOK:	N/A	SURVEYED BY:	N/A	SCALE:	VERT. AS NOTED
CONTRACT NO.:	21-0029-UT	DATE DRAWN:	12/2022	DRAWN BY:	VVV	HORIZ. AS NOTED	
JOB NO.:	102031	DESIGNED BY:	WTH	CHECKED BY:	SC/MKW	SHEET NO.:	09 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 8:55 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-B_REI_C3D_CivilSheets



- NOTES**
1. MINIMUM SEPARATION BETWEEN PROPOSED 4" RECLAIMED WATER MAIN AND EXISTING WATER MAIN SHALL BE 4'.
 2. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 3. ONLY THE CITY MAY TURN EXISTING VALVES. IF RCW MAIN ISOLATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY. ISOLATION VALVES ARE APPROXIMATELY 120 LF WEST ALONG NORTH MARTIN LUTHER KING JR AVENUE AND APPROXIMATELY 1320 LF EAST ALONG NORTH MARTIN LUTHER KING JR AVENUE.
 4. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.

RECORD DRAWINGS	
SURVEYED BY: N/A	DRAWN BY: VVV
REVIEWED BY:	DATE:
PROJECT ENGINEER	DATE
APPROVED BY:	DATE

OBID SET	BY	DATE
VVV	VVV	12/2022
REVISION		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
 SUNSHINE STATE
 ONE CALL
 OF FLORIDA
 www.call811.com
 (800) 432-4770
 MIN. 48 HOURS
 BEFORE YOU EXCAVATE

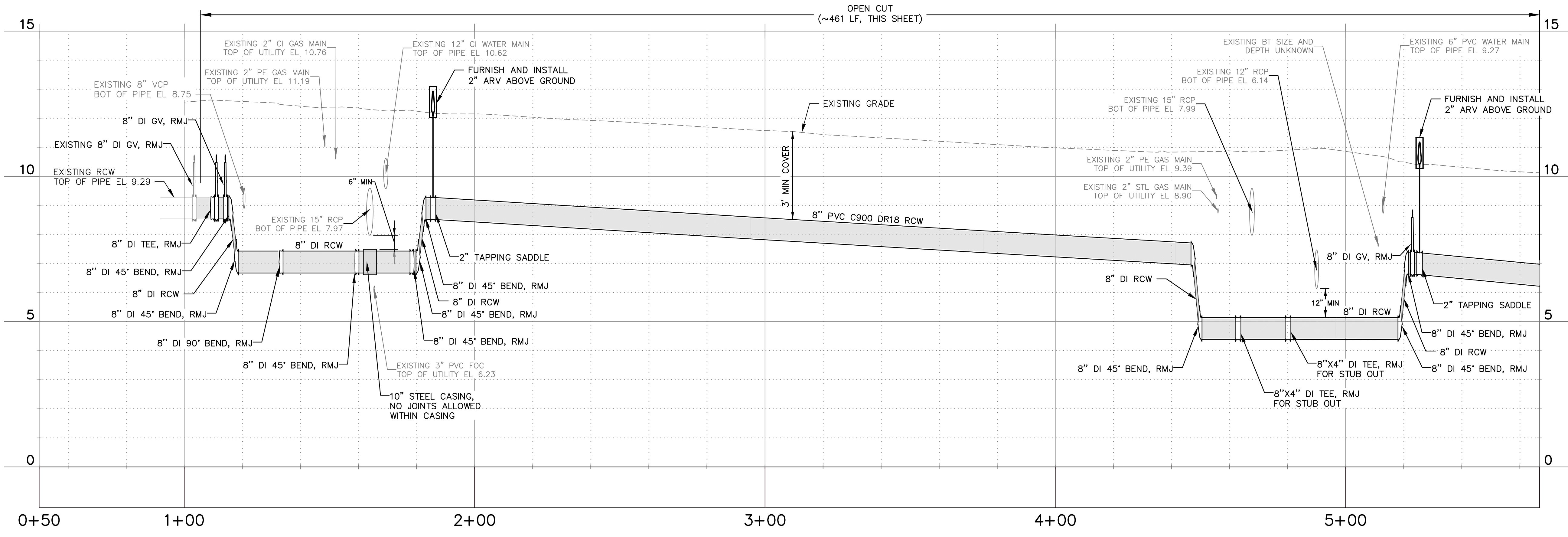
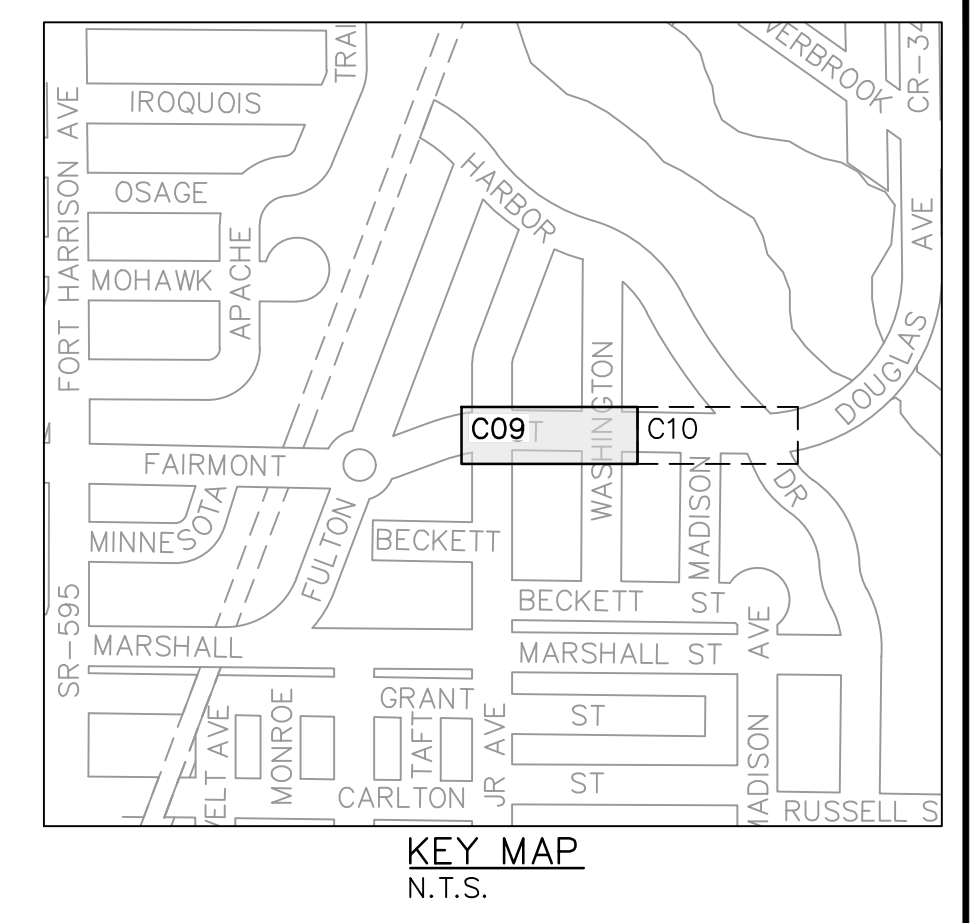
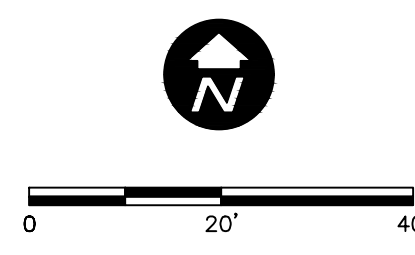
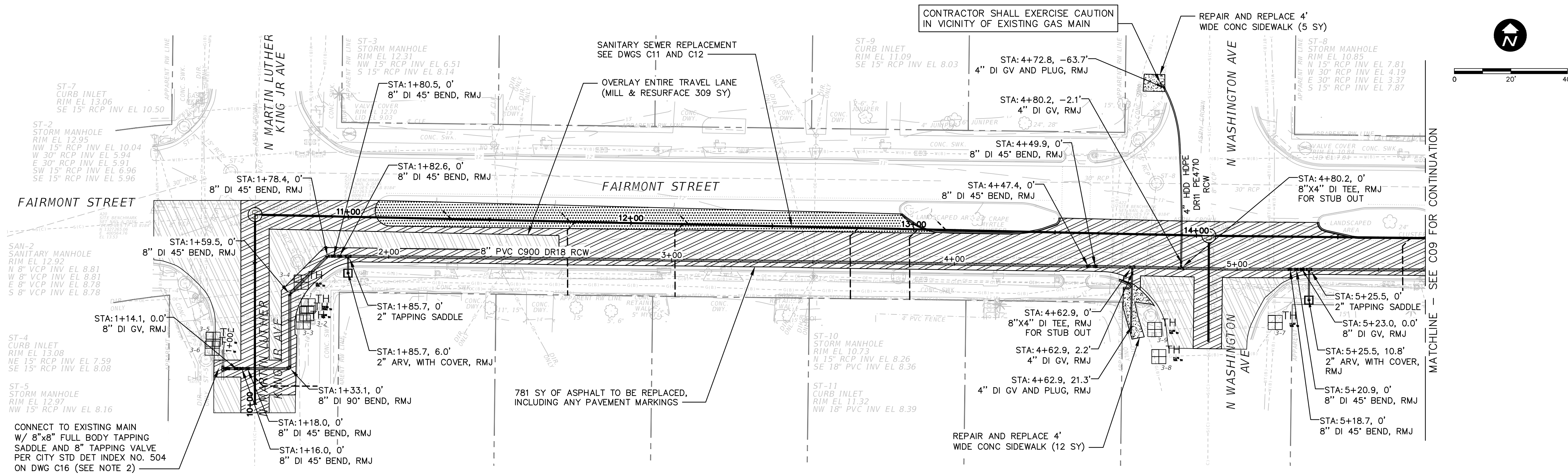
CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 N MARTIN LUTHER KING JR AVE (AREA B) - STA 9+40.31 TO STA 12+00
 PLAN & PROFILE

DWG NAME: C08	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 11 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN.
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED
 AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet Set: 102031 - RCW Imp. Rev on: 1/6/2022 9:00 AM Individual File Path: V:\Projects\WSE\112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-C-REI_C3D_CivilSheets



- NOTES**
1. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 2. ONLY THE CITY MAY TURN EXISTING VALVES. IF RCW MAIN ISOLATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY. ISOLATION VALVE IS APPROXIMATELY 3320 LF SOUTH AT THE INTERSECTION OF NORTH MARTIN LUTHER KING JR AVENUE AND SEMINOLE STREET.
 3. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.
 4. ALL DUCTILE IRON PIPE SHALL BE POLYWRAPPED PER COLOR CODE AS DESCRIBED IN THE SPECIFICATIONS.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	BY DATE
REVIEWED BY:	PROJECT ENGINEER		VVV 12/2022
APPROVED BY:	DATE		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

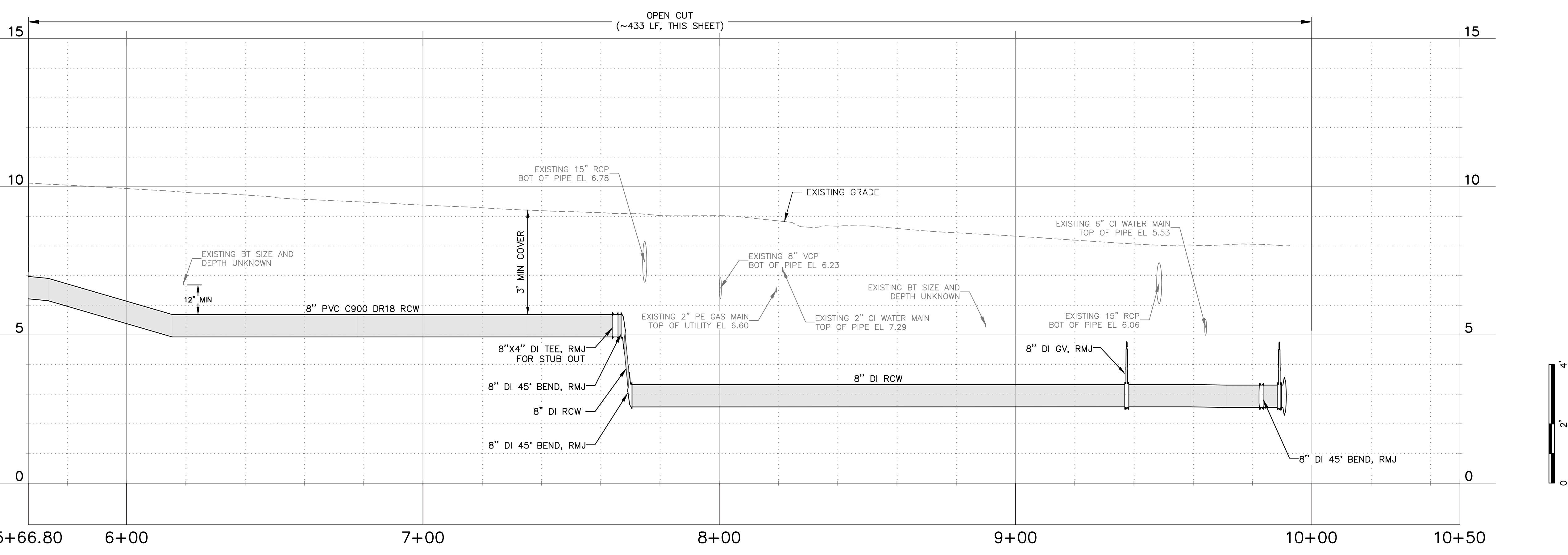
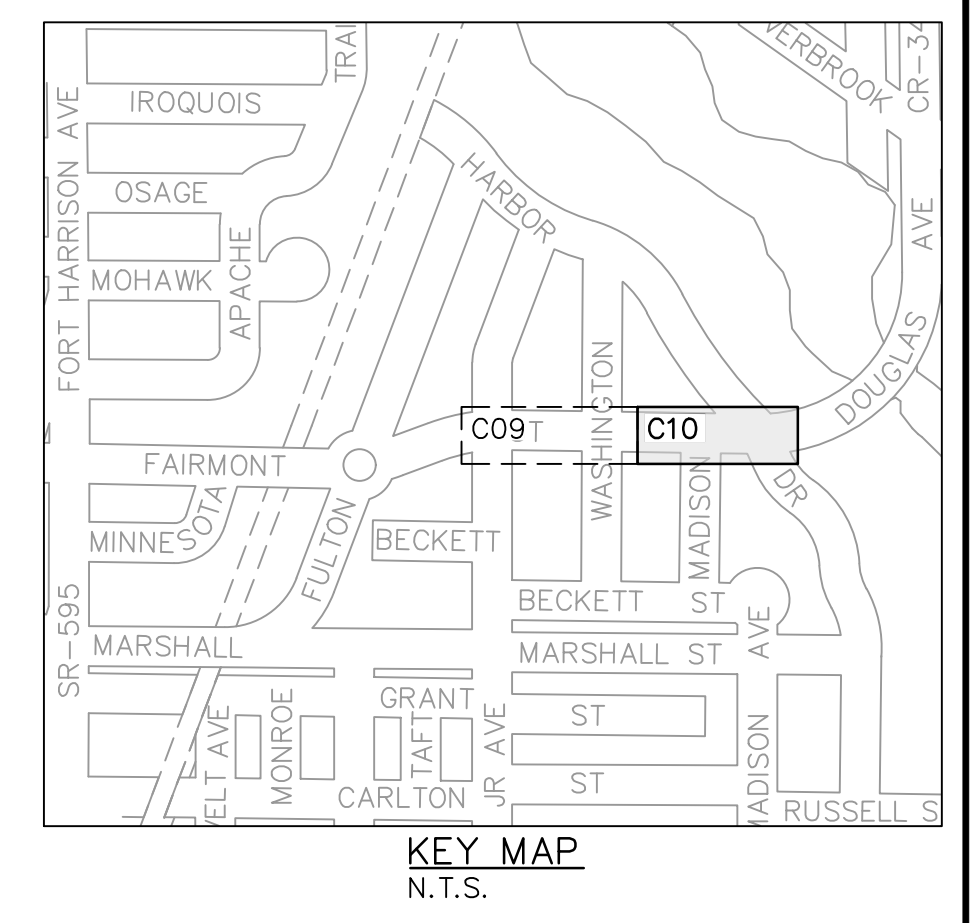
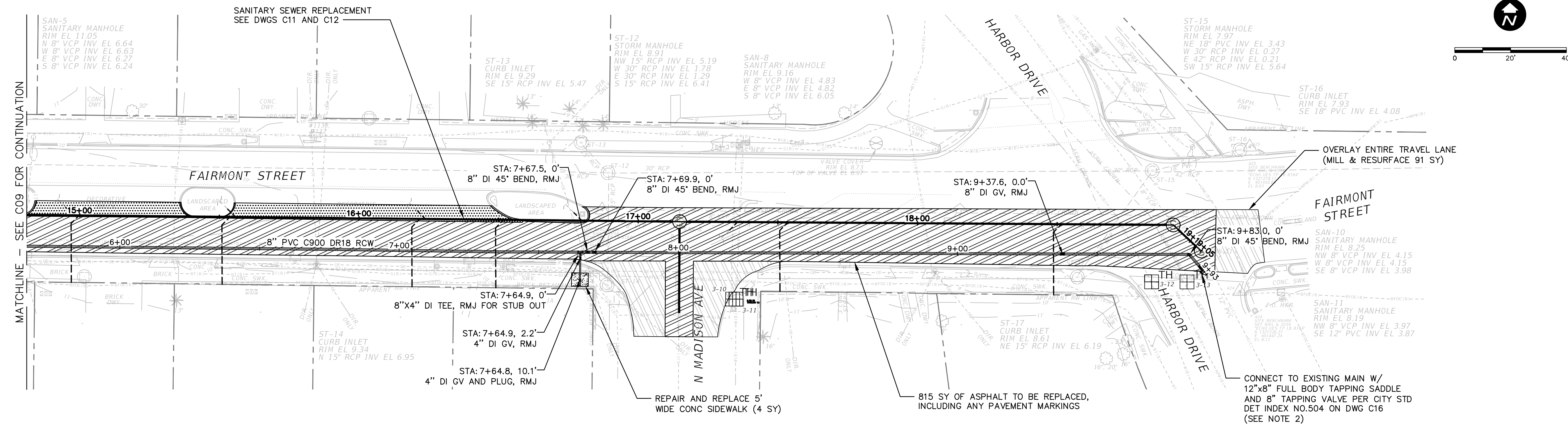
CALL 811
 SUNSHINE STATE ONE CALL OF FLORIDA
 www.call811sunshine.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 FAIRMONT ST (AREA C) - STA 0+50 TO STA 5+66.80
 PLAN & PROFILE

DWG NAME: C09	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 12 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, WOLET Rev on: 1/6/2022 9:00 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-C-REI_C3D_CivilSheets



- NOTES**
1. DEFLECT PIPE AT JOINTS MAXIMUM 75% OF MANUFACTURERS DEFLECTION.
 2. ONLY THE CITY MAY TURN EXISTING VALVES. IF RCW MAIN ISOLATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY. ISOLATION VALVES ARE APPROXIMATELY 280 LF NORTHEAST ALONG DOUGLAS AVENUE AND APPROXIMATELY 1770 LF SOUTH WITHIN THE MARSHALL WRF.
 3. INSTALL 1" RESIDENTIAL OR 2" COMMERCIAL SERVICE LINE AND RCW METER BOX ADJACENT TO EACH EXISTING WATER METER/PARCEL (5' MIN SEPARATION), ON BOTH SIDES OF ROW WITH SHORT SERVICES AND LONG SERVICES WITH CASINGS, IN ACCORDANCE WITH CITY INDEX 505 DETAILS. LOCATION TO BE DETERMINED BY CITY INSPECTOR.
 4. ALL DUCTILE IRON PIPE SHALL BE POLYWRAPPED PER COLOR CODE AS DESCRIBED IN THE SPECIFICATIONS.

RECORD DRAWINGS	
SURVEYED BY:	DRAWN BY:
REVIEWED BY:	PROJECT ENGINEER
APPROVED BY:	DATE
DATE	DATE

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

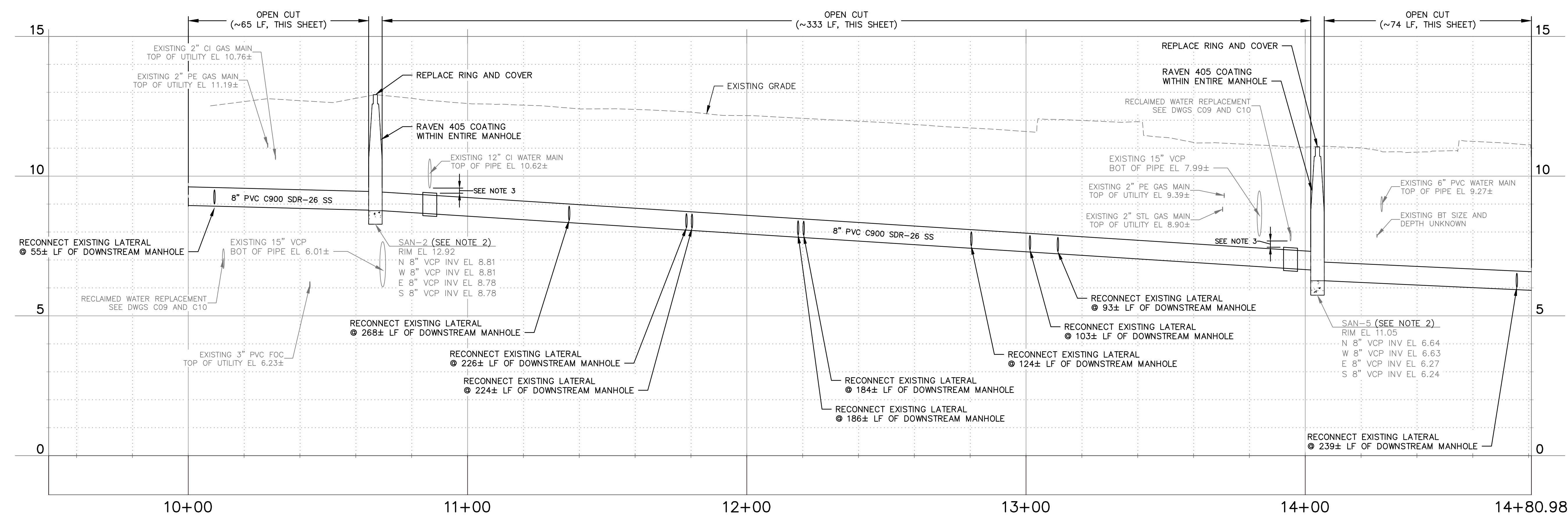
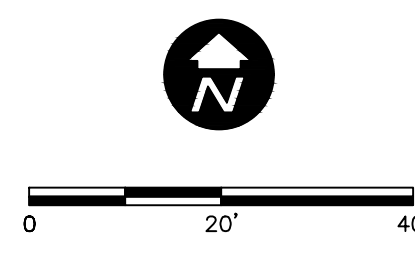
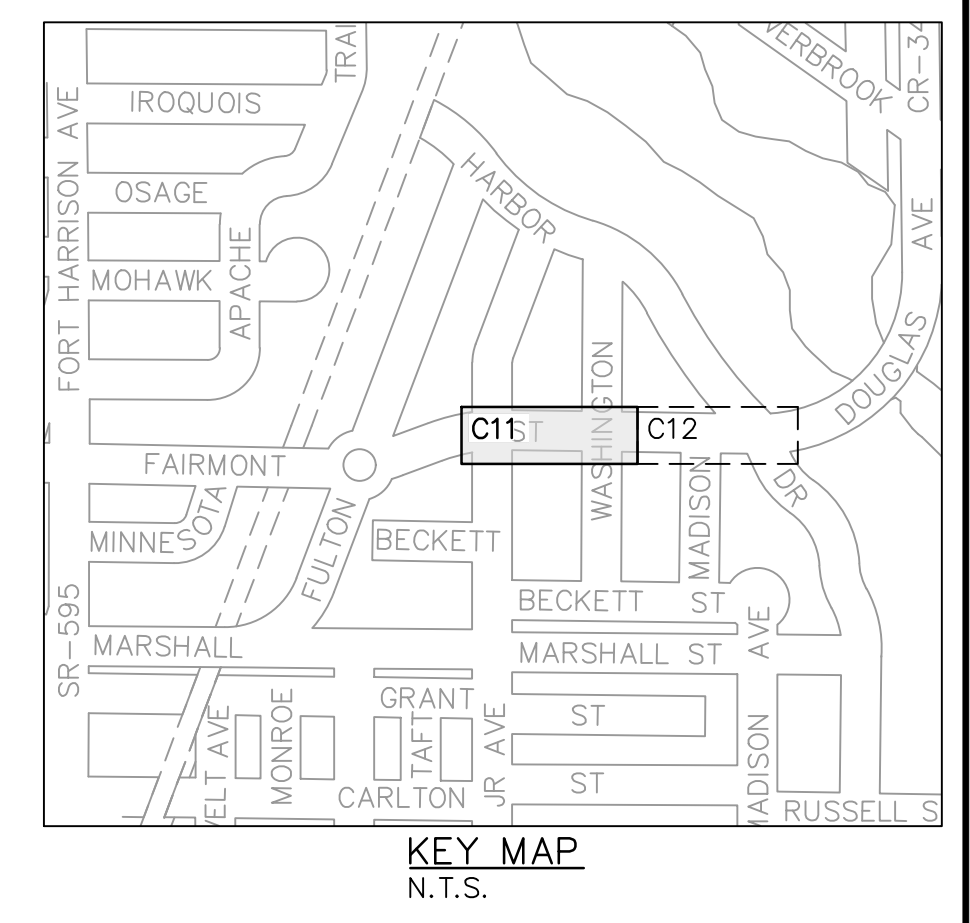
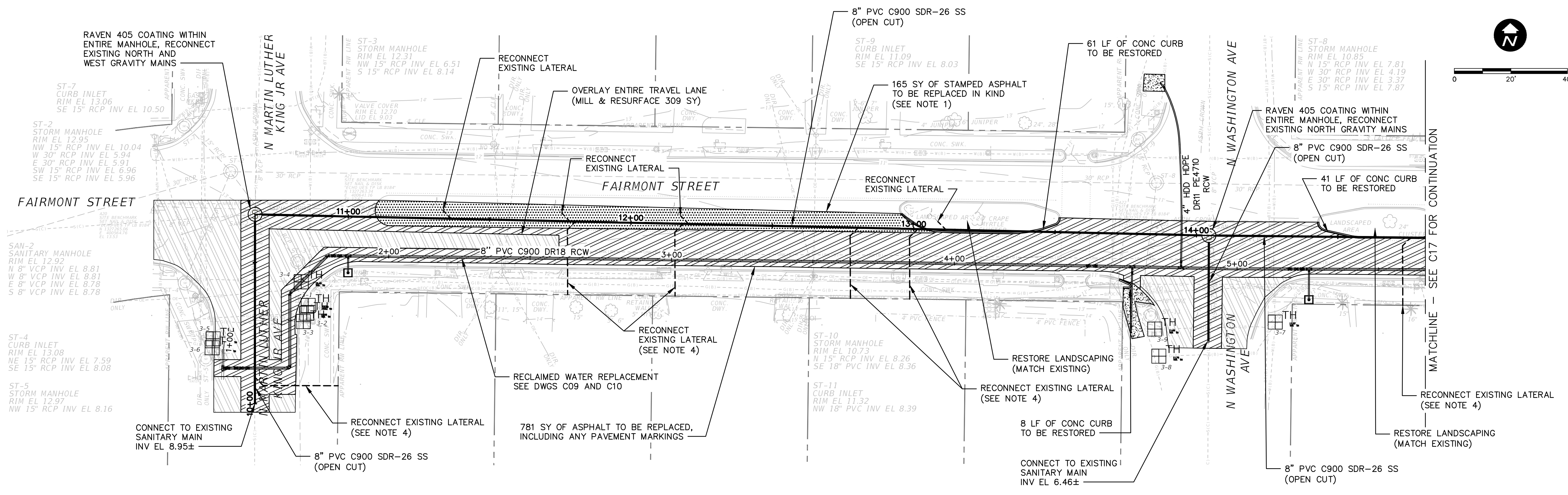
**CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA**
www.call811.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

**CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS**
FAIRMONT ST (AREA C) - STA 5+66.80 TO STA 10+50
PLAN & PROFILE

DWG NAME:	FIELD BOOK:	SURVEYED BY:	SCALE:
C10	N/A	N/A	VERT. AS NOTED
CONTRACT NO.:	DATE DRAWN:	DRAWN BY:	HORIZ. AS NOTED
21-0029-UT	12/2022	VVV	
JOB NO.:	DESIGNED BY:	CHECKED BY:	SHEET NO.:
102031	WTH	SC/MKW	13 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Sheet: 102031 - RCW Imp. Rev on: 1/6/2022 9:00 AM Individual File Path: V:\Projects\WSF112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-C-REI_C3D_CivilSheets



NOTES

- RESTORE EXISTING ASPHALT STAMPED MEDIAN, REPAINT ENTIRE MEDIAN, MATCH EXISTING COLOR.
- REBUILD EXISTING BENCH FOLLOWING PIPE INSTALLATIONS.
- WHEN SEPARATION IS LESS THAN 12" FROM EXISTING MAINS, A MINIMUM OF 5' OF 10" STEEL CASING SHALL BE INSTALLED AROUND 8" GRAVITY MAIN. NO JOINT SHALL BE ALLOWED IN CASING.
- SOUTH SIDE LATERAL CONNECTIONS SHALL BE REPLACED TO EXISTING HOMEOWNER LATERAL. THE CLEANOUT SHALL BE REPLACED. IF THERE IS NO CLEANOUT, ONE SHALL BE INSTALLED IF THE EXISTING LATERAL IS PVC AND IN GOOD CONDITION, THE LATERAL MAY REMAIN PENDING RPR APPROVAL. ALL EXISTING LATERAL LOCATIONS ARE BASED ON GIS DATA AND SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM LOCATIONS AND QUANTITIES IN THE FIELD.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	BY	DATE
		VVV	12/2022

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**

100 S. MYRTLE AVE.
CLEARWATER, FL 33756

CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA
www.call811.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

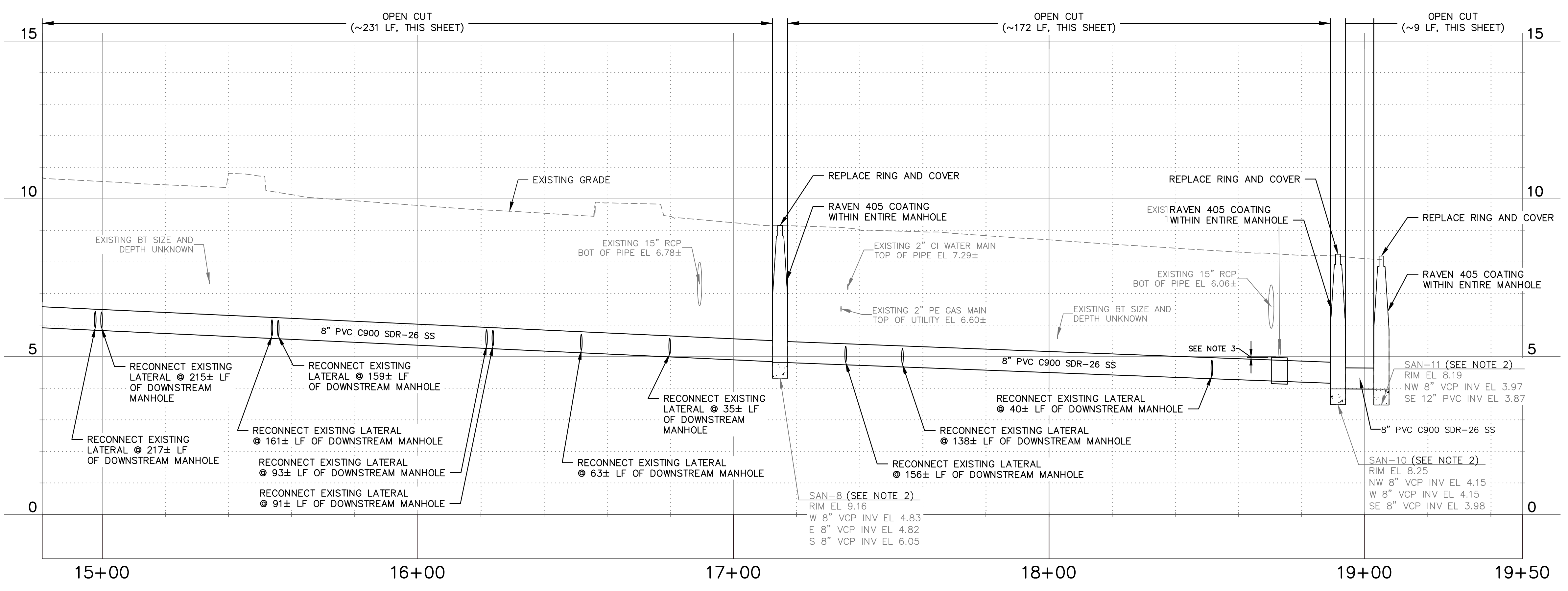
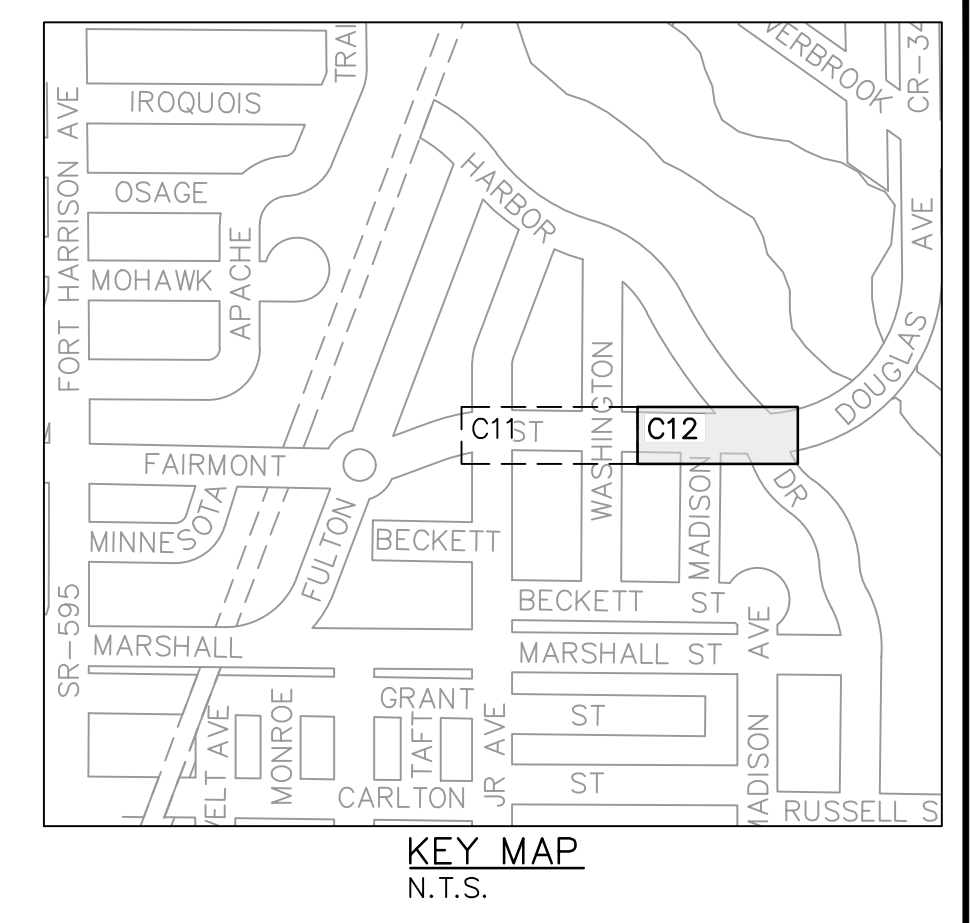
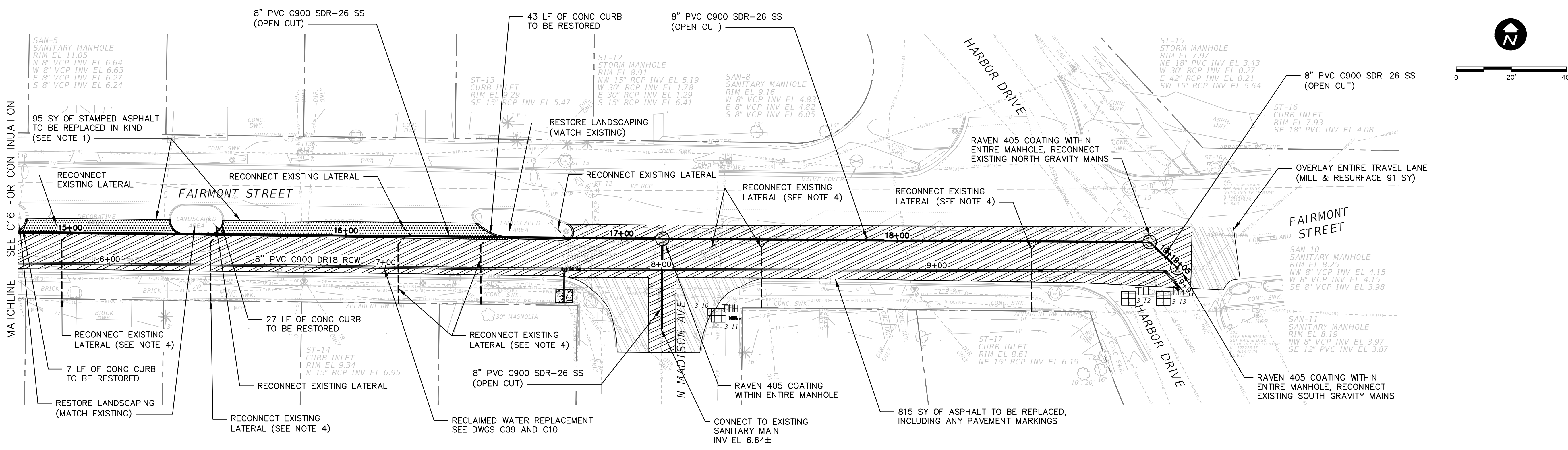
**CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
FAIRMONT ST - SANITARY SEWER REPLACEMENT
STA 10+00 TO STA 14+80.98 PLAN & PROFILE**

DWG NAME: C11	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 14 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
3507 EAST FRONTAGE ROAD SUITE 100
TAMPA, FL 33607
TEL: (813) 549-8919
CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, WOLET Rev on: 1/6/2022 9:00 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-C-REI_C3D_CivilSheets



- NOTES**
- RESTORE EXISTING ASPHALT STAMPED MEDIAN, REPAINT ENTIRE MEDIAN, MATCH EXISTING COLOR.
 - REBUILD EXISTING BENCH FOLLOWING PIPE INSTALLATIONS.
 - WHEN SEPARATION IS LESS THAN 12" FROM EXISTING MAINS, A MINIMUM OF 5' OF 10" STEEL CASING SHALL BE INSTALLED AROUND 8" GRAVITY MAIN. NO JOINT SHALL BE ALLOWED IN CASING.
 - SOUTH SIDE LATERAL CONNECTIONS SHALL BE REPLACED TO EXISTING HOMEOWNER LATERAL. THE CLEANOUT SHALL BE REPLACED. IF THERE IS NO CLEANOUT, ONE SHALL BE INSTALLED IF THE EXISTING LATERAL IS PVC AND IN GOOD CONDITION, THE LATERAL MAY REMAIN PENDING RPR APPROVAL. ALL EXISTING LATERAL LOCATIONS ARE BASED ON GIS DATA AND SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM LOCATIONS AND QUANTITIES IN THE FIELD.

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



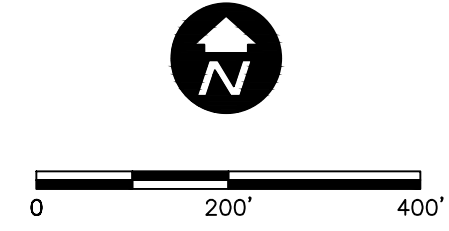
CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 FAIRMONT ST - SANITARY SEWER REPLACEMENT
 STA 14+80.98 TO STA 19+50 PLAN & PROFILE

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

DWG NAME: C12	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 15 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	BY DATE
REVIEWED BY:	PROJECT ENGINEER DATE	VVV 12/2022	
APPROVED BY:	DATE		



NOTES
 1. EXISTING 8" RCW MAIN LOCATION OUTSIDE OF SURVEY CIRCLES IS APPROXIMATE.



Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 10/12/2021 7:58 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\C13

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

RECORD DRAWINGS		REVISION	
SURVEYED BY:	DRAWN BY:	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER	BY	DATE
APPROVED BY:	DATE		

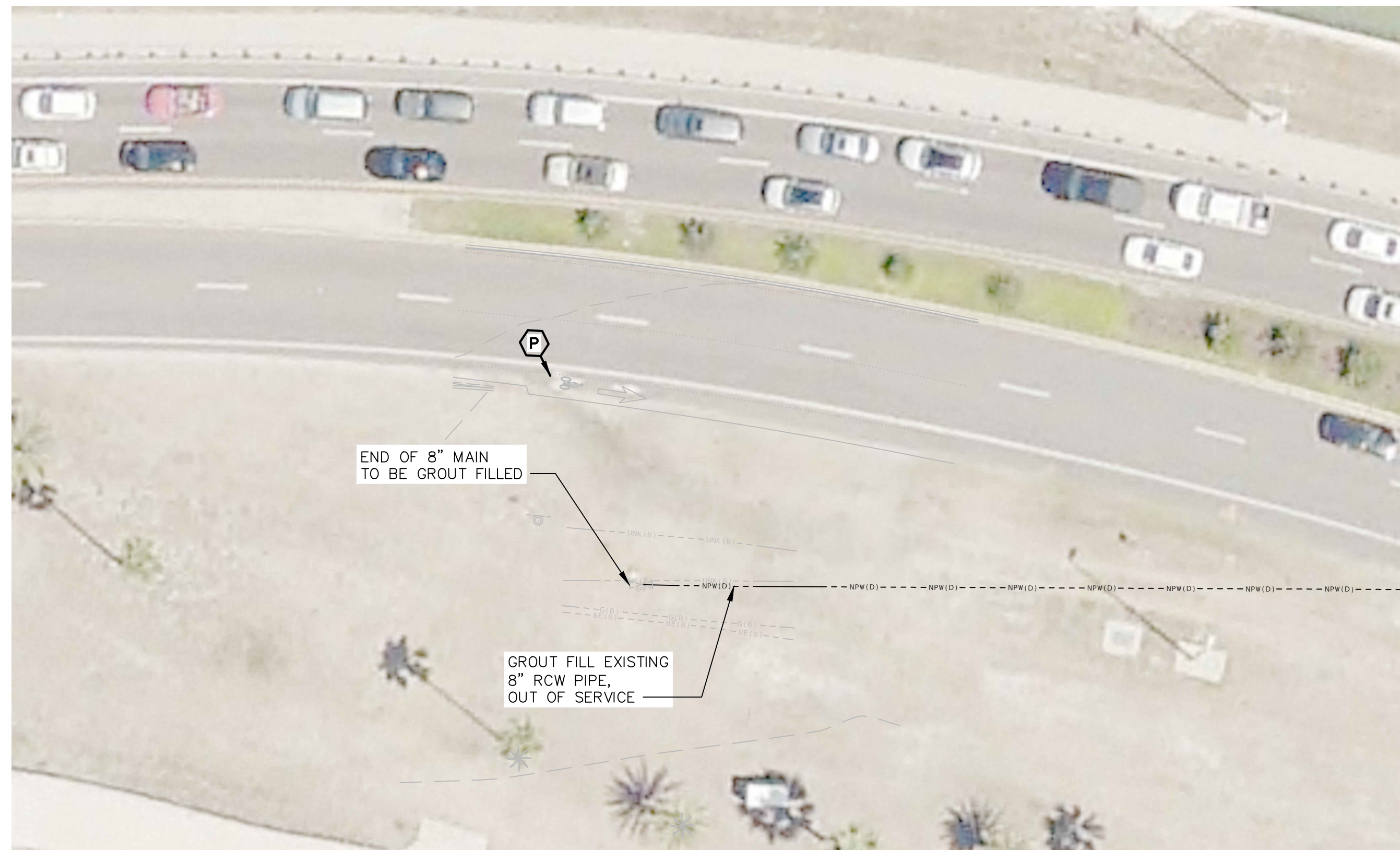
CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 MEMORIAL CAUSEWAY (AREA D) RECONNECTIONS
 OVERALL PLAN

DWG NAME: C13	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 16 OF 24

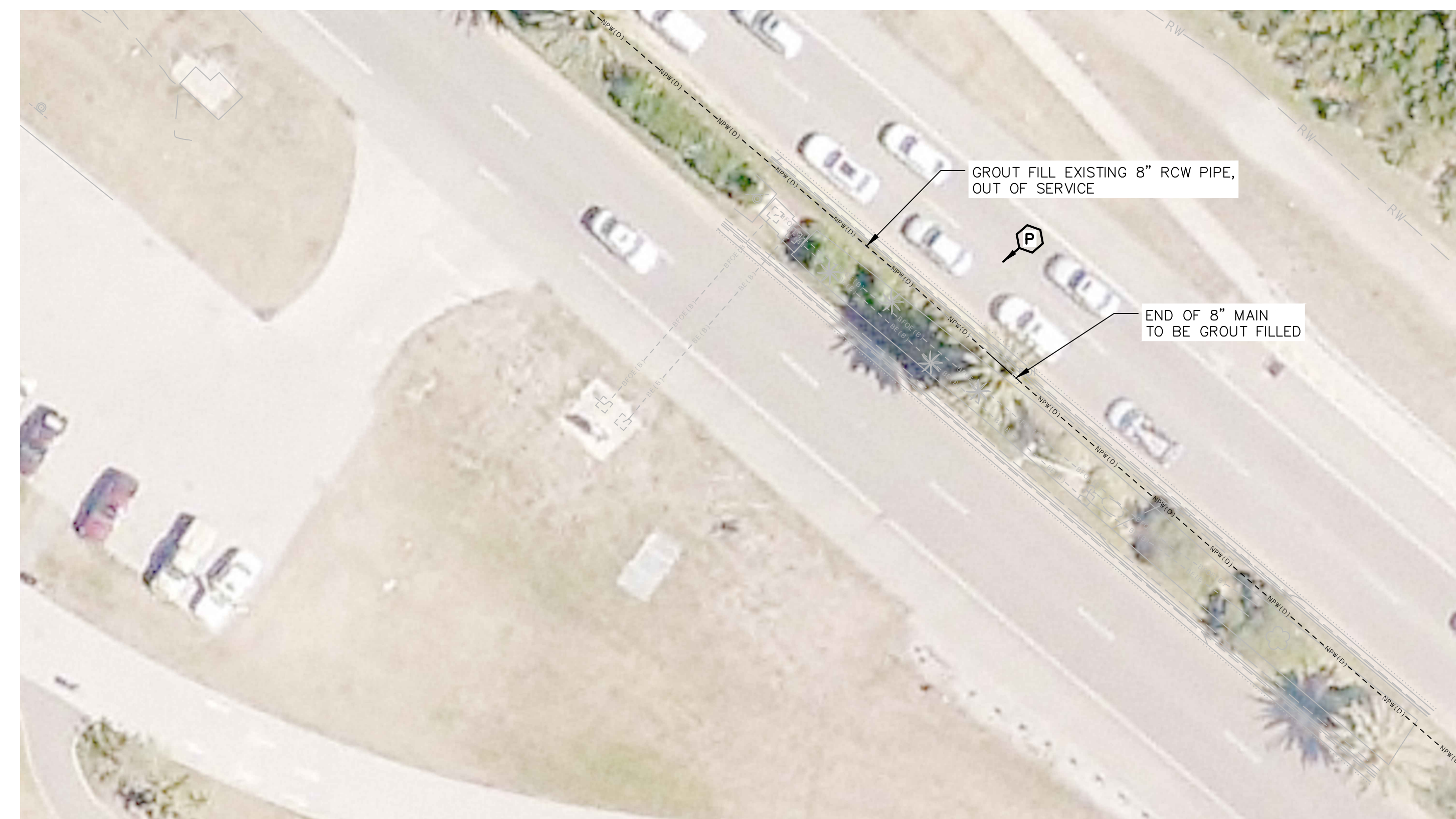
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



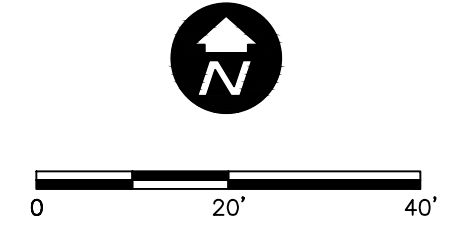
D1 - GROUT FILL TERMINATION POINT - PLAN



D4 - INSTALL CAP AND PLUG VALVE - PLAN



D8 - GROUT FILL TERMINATION POINT - PLAN



LEGEND
 PHOTO LOCATION AND DIRECTION

Parent Sheet Set: 102031 - RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 10/20/2021 1:38 PM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\C14

RECORD DRAWINGS	
SURVEYED BY:	DRAWN BY:
REVIEWED BY:	DATE:
PROJECT ENGINEER	DATE
APPROVED BY:	DATE
OBID SET	VVV 12/2022
REVISION	BY DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

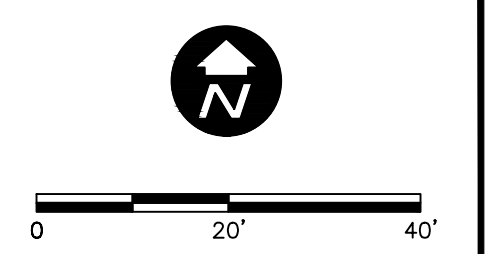


CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 MEMORIAL CAUSEWAY (AREA D) RECONNECTIONS - D1, D4 AND D8
 PLANS

DWG NAME: C14	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 17 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

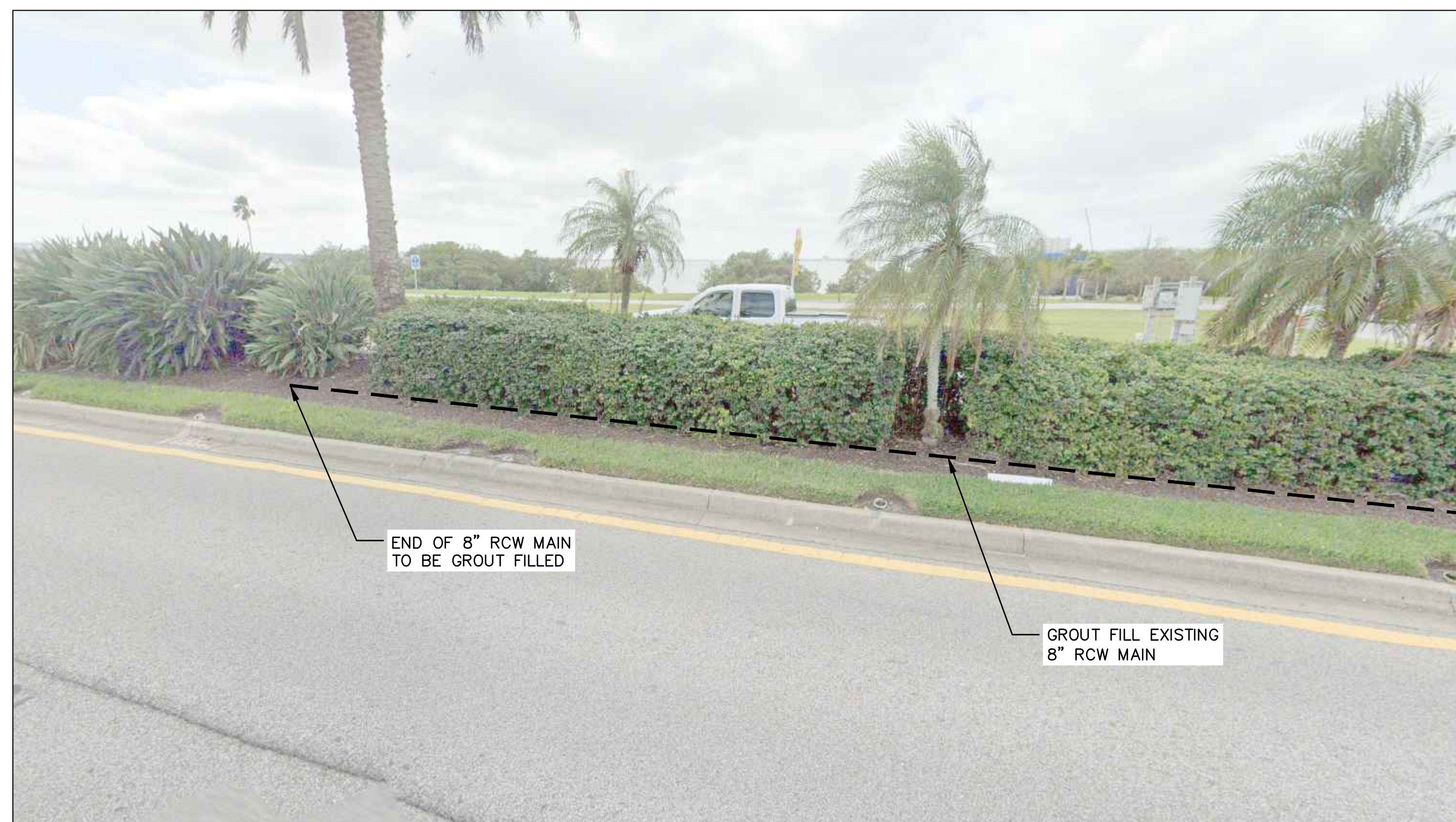
CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386



LOCATION D1



LOCATION D4



LOCATION D8

Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 10/20/2021 1:38 PM Individual File Path: C:\Users\7623\OneDrive - CHA Consulting, Inc\Desktop\01_CAD\G14

RECORD DRAWINGS	
SURVEYED BY:	DRAWN BY:
REVIEWED BY:	
PROJECT ENGINEER	DATE
APPROVED BY:	DATE
OBID SET	VVV 12/2022
REVISION	BY DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



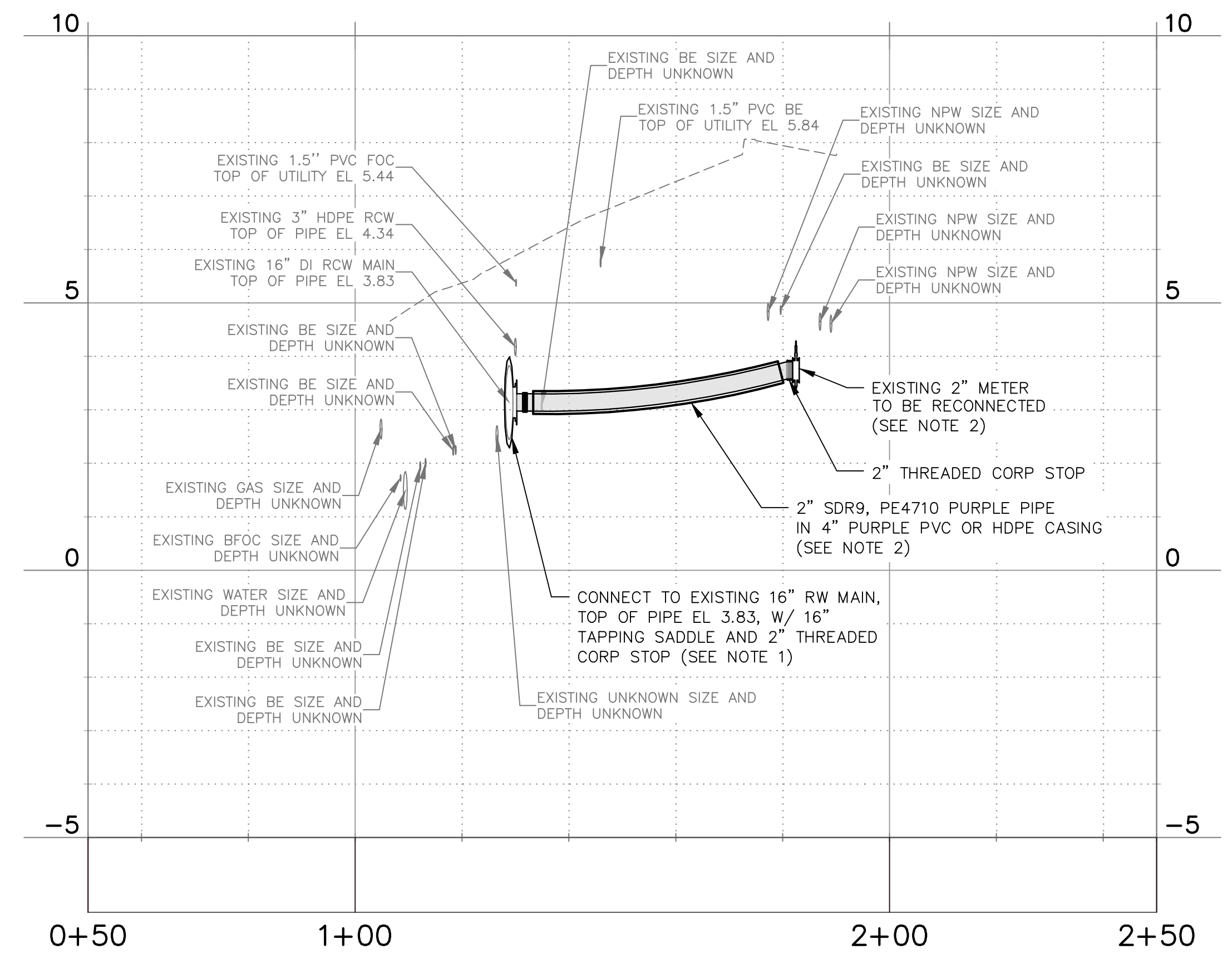
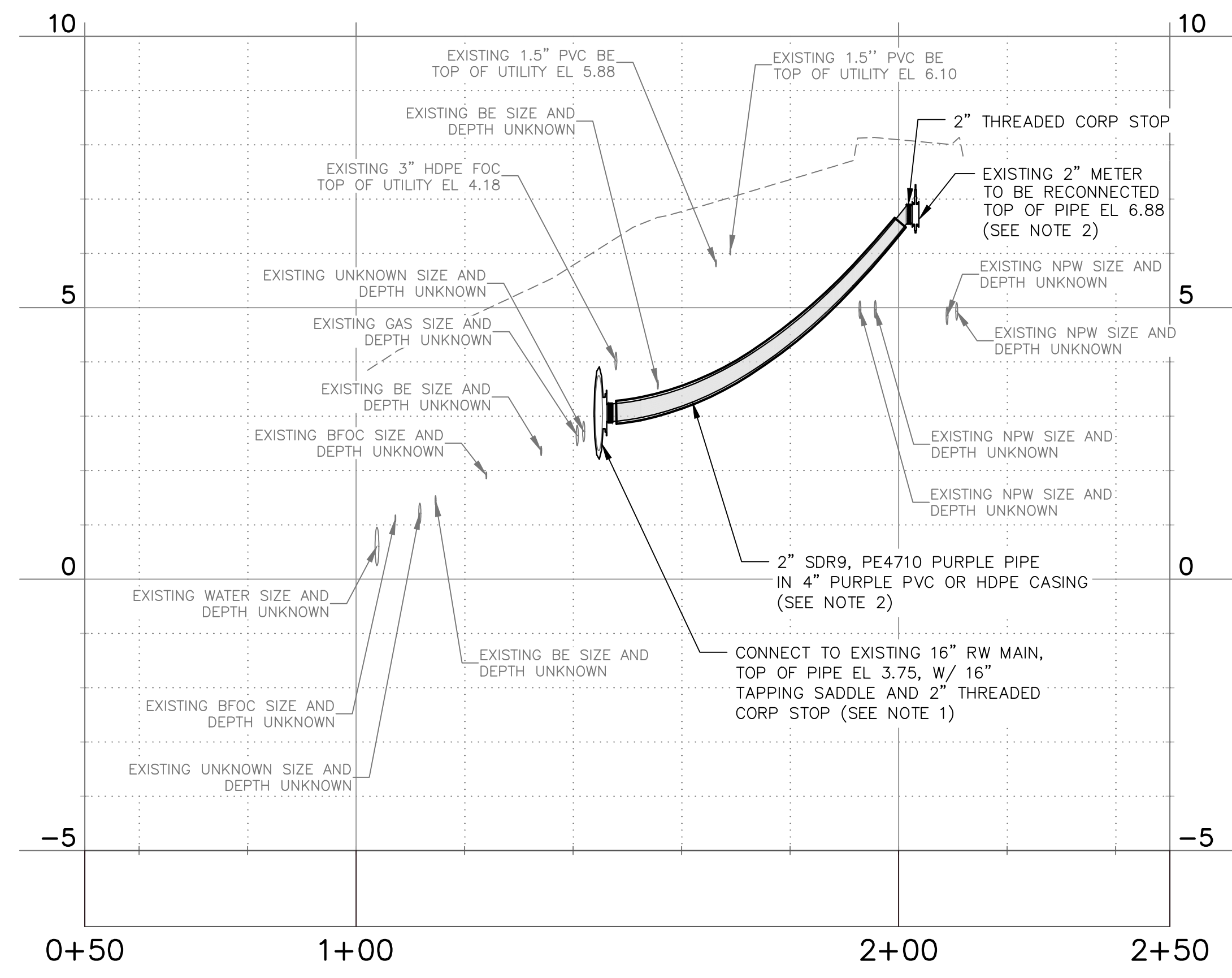
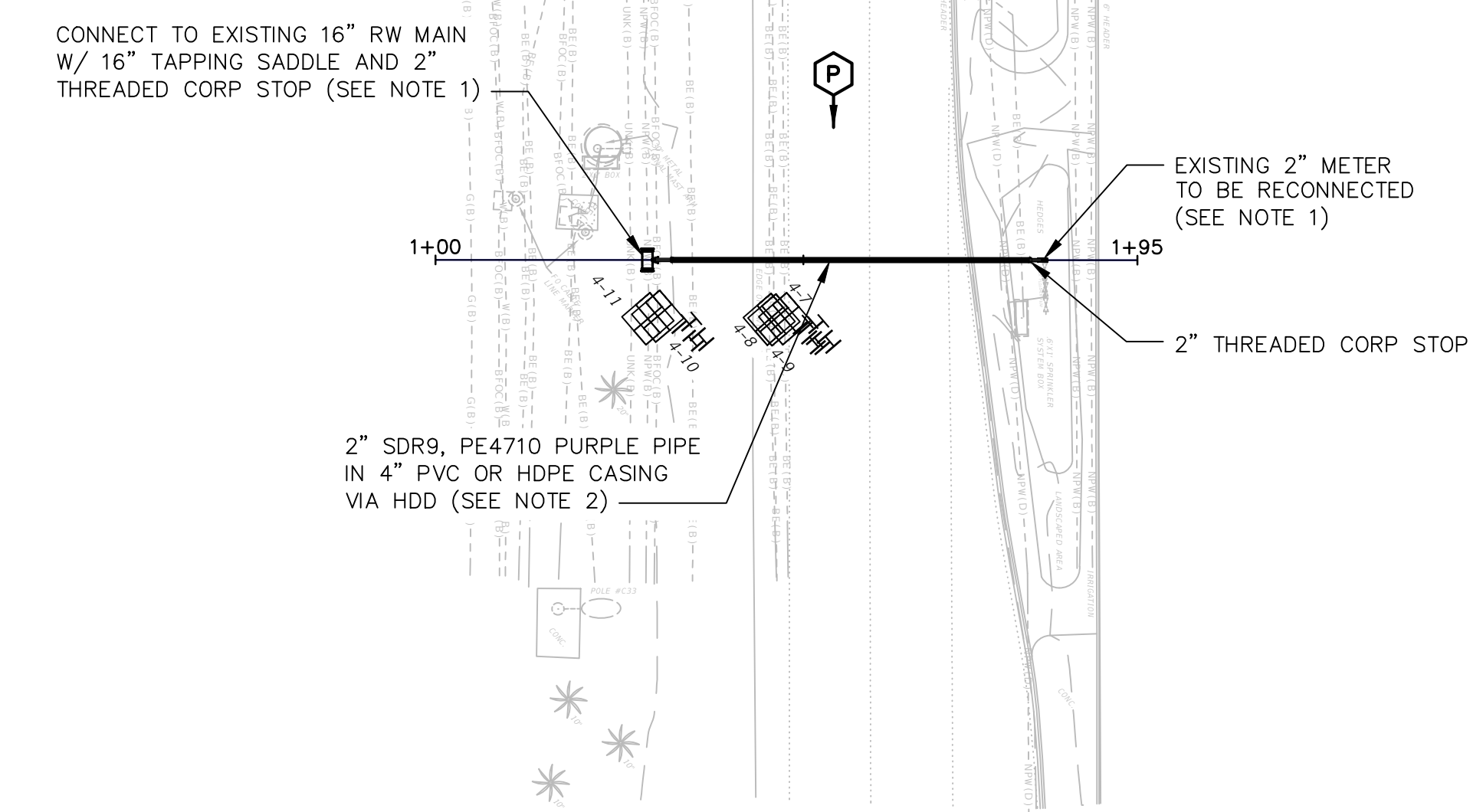
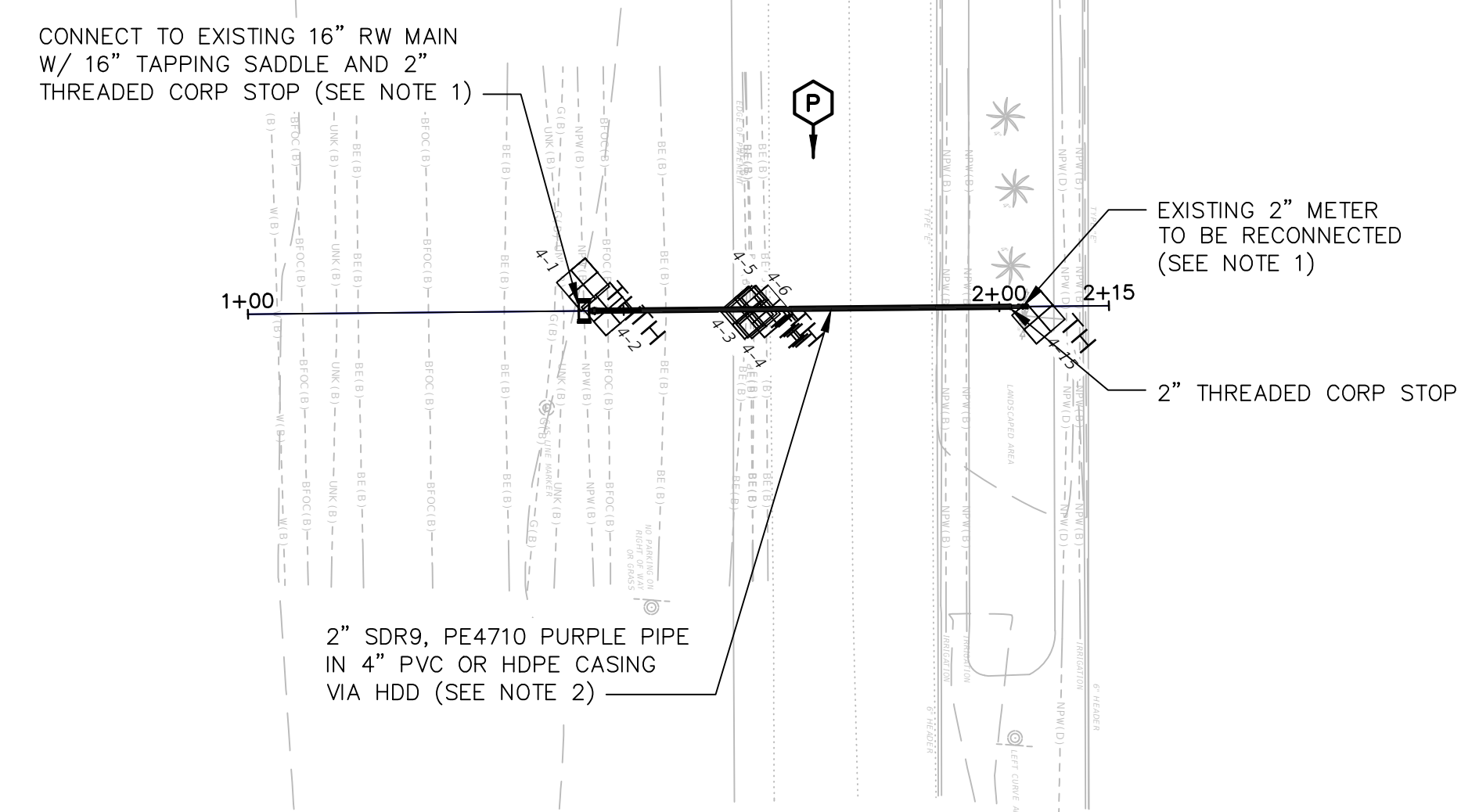
CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 AREA D – MEMORIAL CAUSEWAY
 LOCATIONS D1, D4 AND D8

DWG NAME:	C14	FIELD BOOK:	N/A	SURVEYED BY:	N/A	SCALE:	VERT. AS NOTED
CONTRACT NO.:	21-0029-UT	DATE DRAWN:	12/2022	DRAWN BY:	VVV	HORIZ. AS NOTED	
JOB NO.:	102031	DESIGNED BY:	WTH	CHECKED BY:	SC/MKW	SHEET NO.:	17A OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

Parent Sheet Set: 102031 - RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 9:07 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-D-REI_C3D_CivilSheets



D2 - METER RECONNECTION - PLAN & PROFILE

D3 - METER RECONNECTION - PLAN & PROFILE

NOTES

1. SEE INDEX NUMBERS 504, 505 PAGE 1 OF 3, 505 PAGE 2 OF 3 ON DRAWING C16, AND INDEX NUMBER 505 PAGE 3 OF 3 ON DRAWING C17 FOR DETAILS.
2. CONTRACTOR SHALL MAINTAIN AT LEAST 12" MINIMUM SEPARATION BETWEEN RCW RECONNECTION PIPING AND EXISTING UTILITIES.
3. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND DETERMINE ACTUAL ELEVATIONS PRIOR TO INSTALLATION OF NEW CASING PIPE.

LEGEND



RECORD DRAWINGS		REVISION	
SURVEYED BY: N/A	DRAWN BY: VVV	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER DATE	BY	DATE
APPROVED BY:	DATE		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



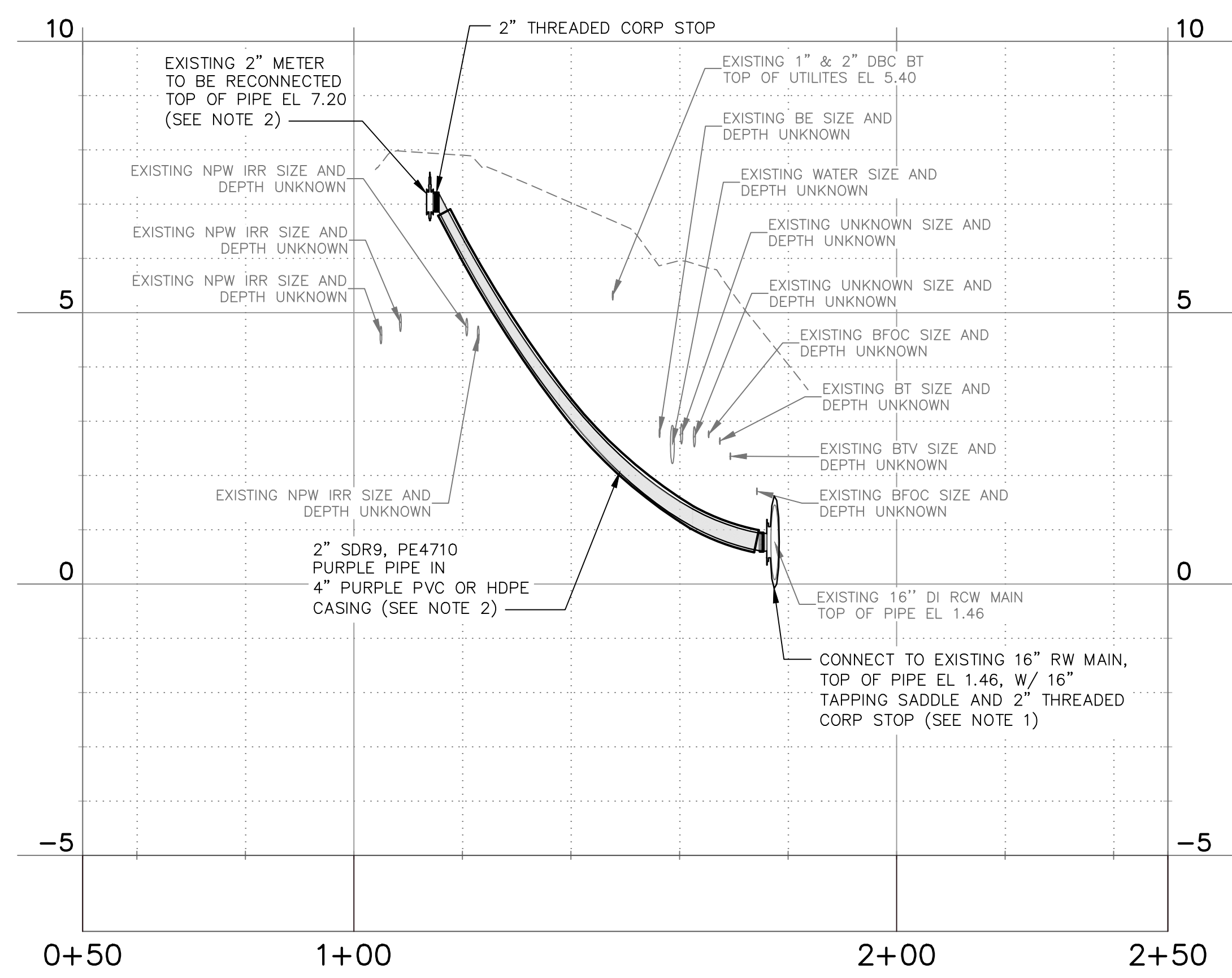
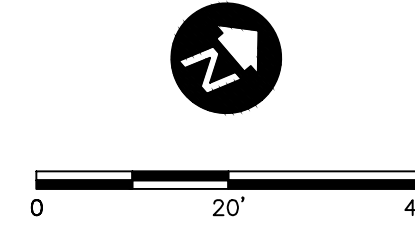
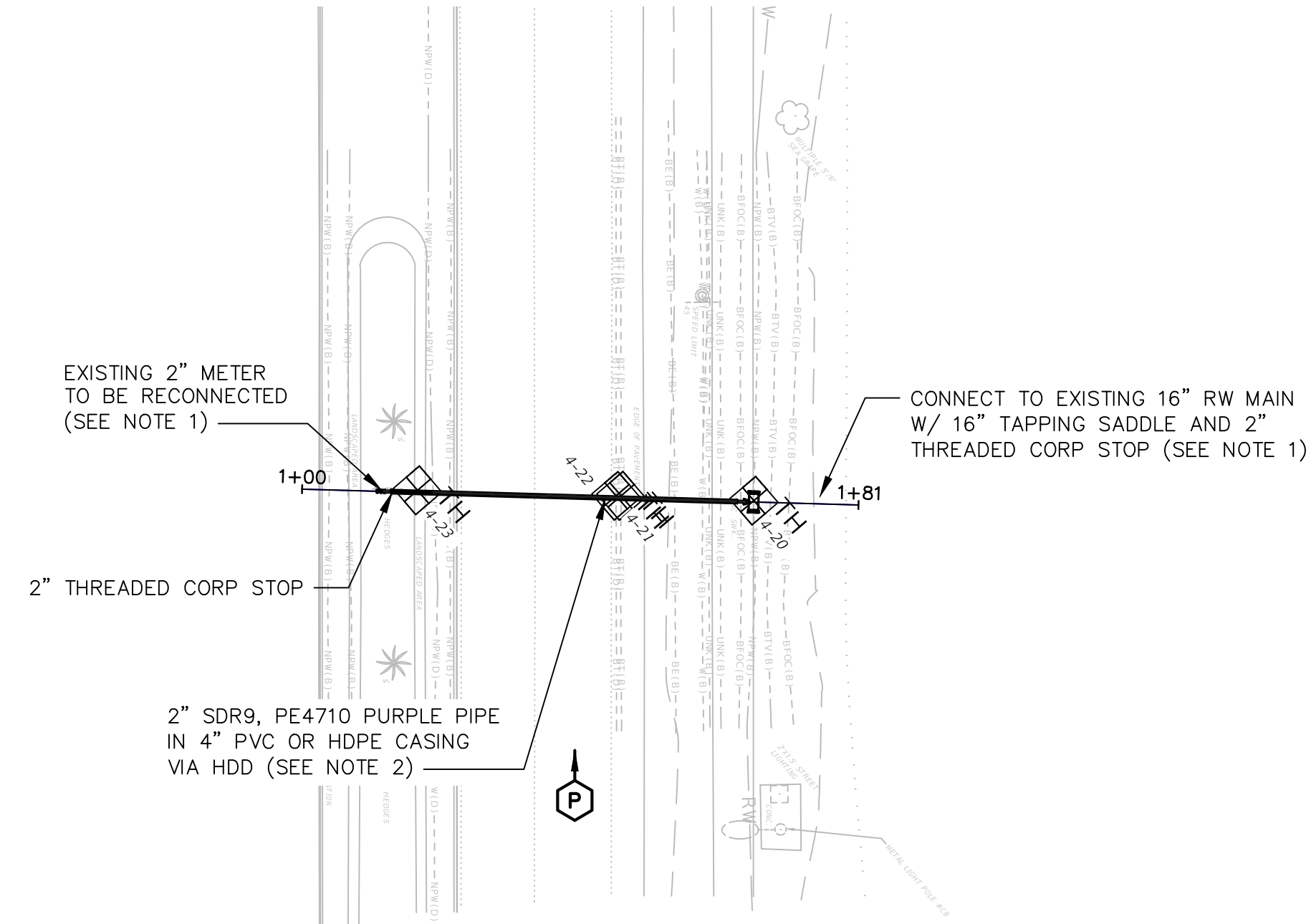
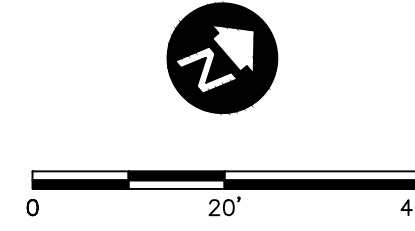
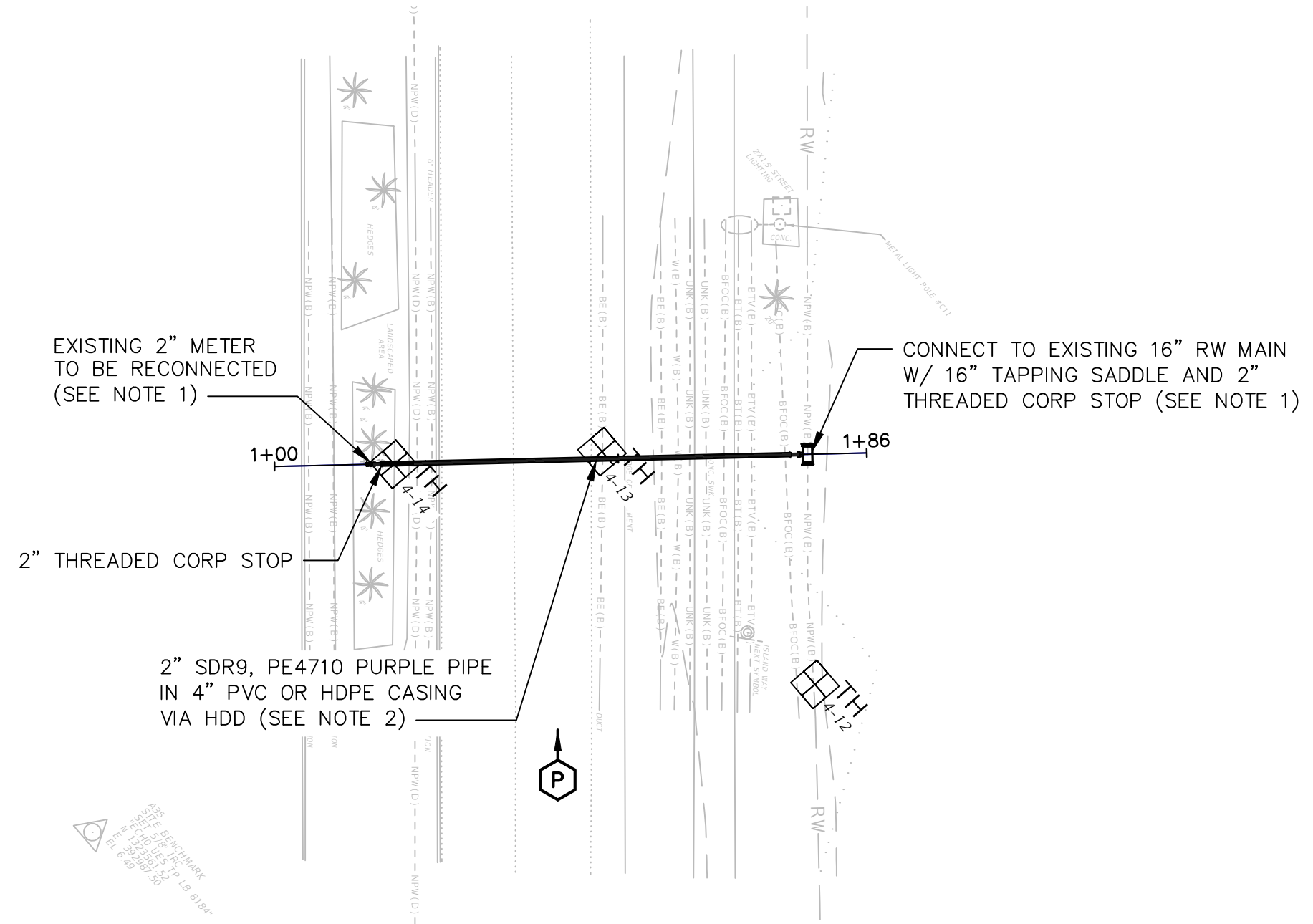
CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
 MEMORIAL CAUSEWAY (AREA D) RECONNECTINOS - D2 AND D3
 PLAN & PROFILES

DWG NAME: C15	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 18 OF 24

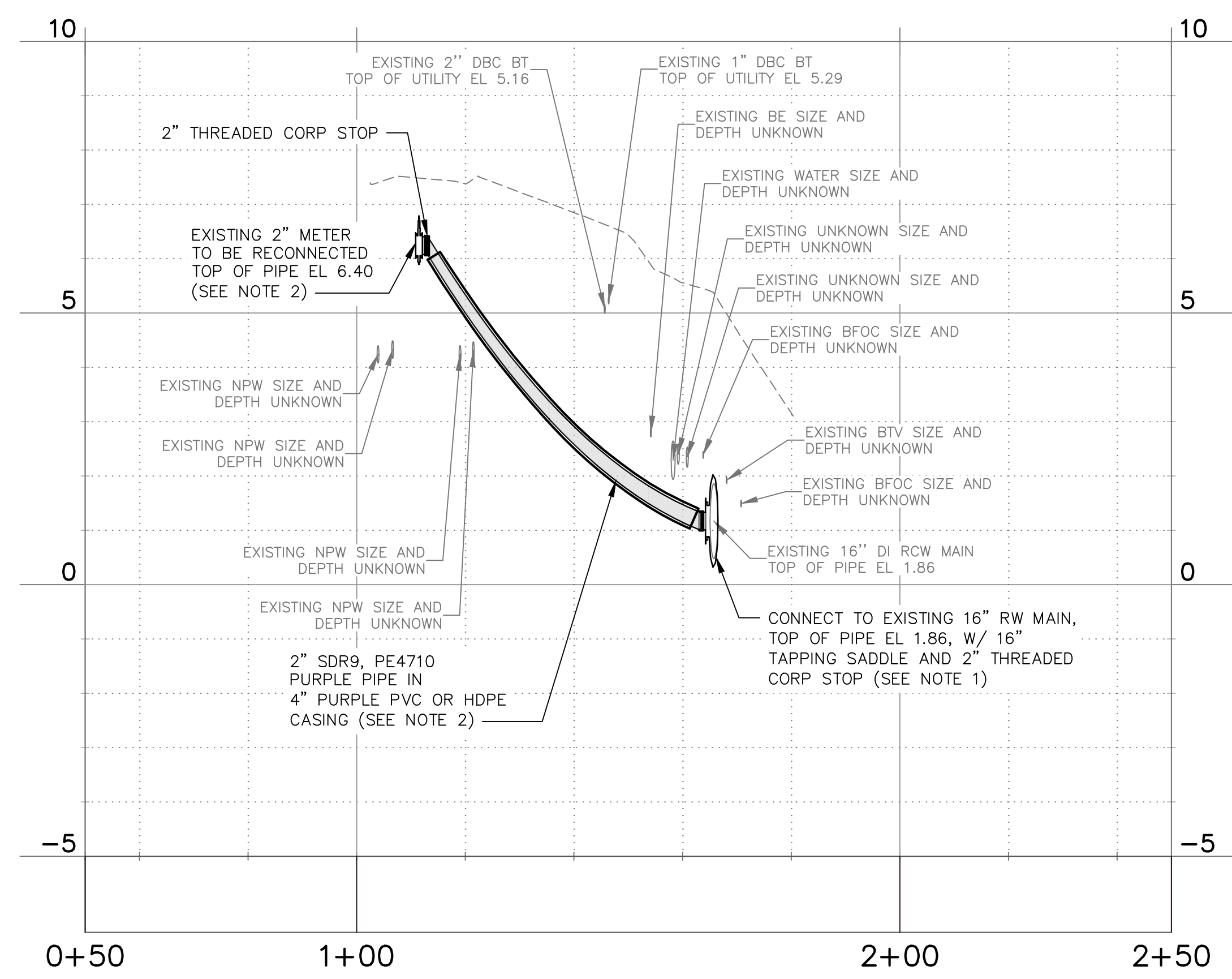
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



Parent Sheet Set: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 9:07 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-D_REI_C3D_CivilSheets



D5 - METER RECONNECTION - PLAN & PROFILE

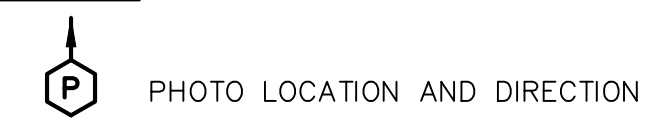


D6 - METER RECONNECTION - PLAN & PROFILE

NOTES

1. SEE INDEX NUMBERS 504, 505 PAGE 1 OF 3, 505 PAGE 2 OF 3 ON DRAWING C16, AND INDEX NUMBER 505 PAGE 3 OF 3 ON DRAWING C17 FOR DETAILS.
2. CONTRACTOR SHALL MAINTAIN AT LEAST 12" MINIMUM SEPARATION BETWEEN RCW RECONNECTION PIPING AND EXISTING UTILITIES.
3. CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND DETERMINE ACTUAL ELEVATIONS PRIOR TO INSTALLATION OF NEW CASING PIPE.

LEGEND



RECORD DRAWINGS		REVISION	
SURVEYED BY: N/A	DRAWN BY: VVV	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER DATE	BY	DATE
APPROVED BY:	DATE		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

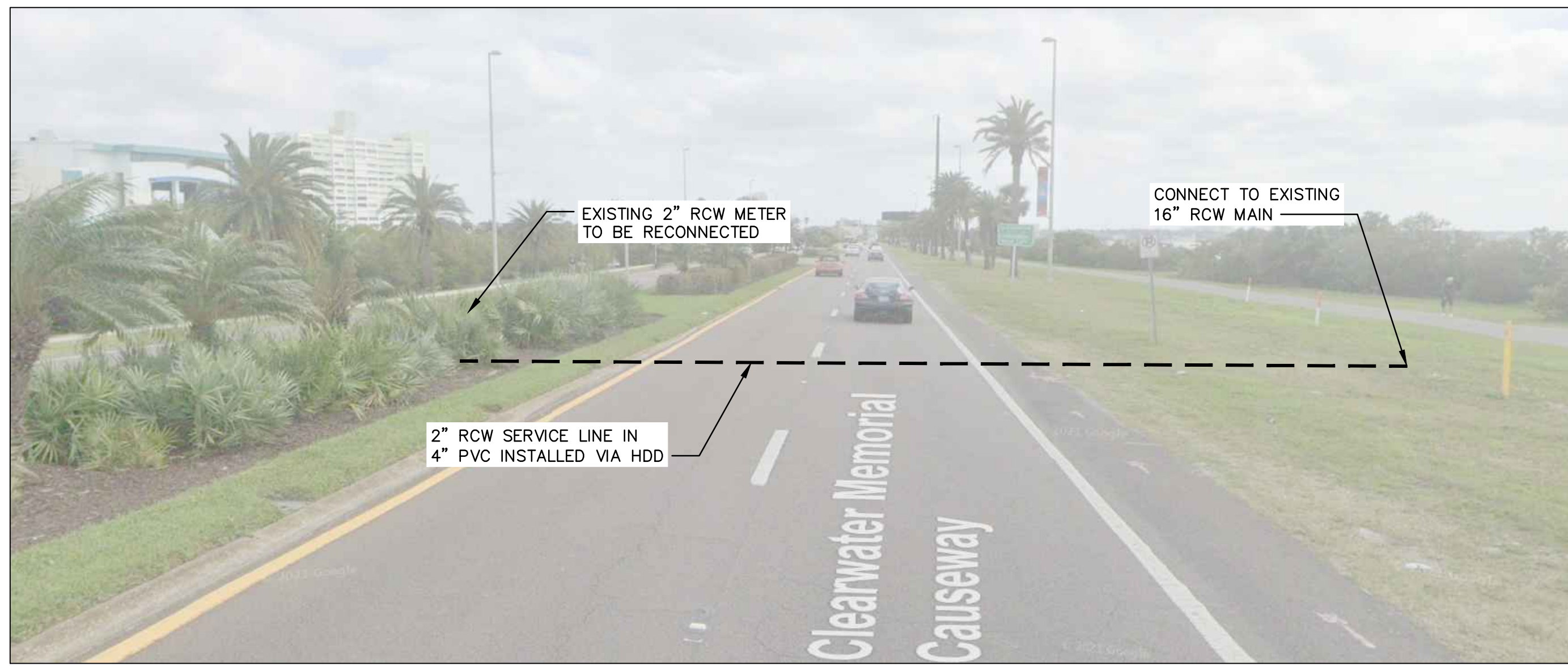


CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 MEMORIAL CAUSEWAY (AREA D) RECONNECTINOS - D5 AND D6
 PLAN & PROFILES

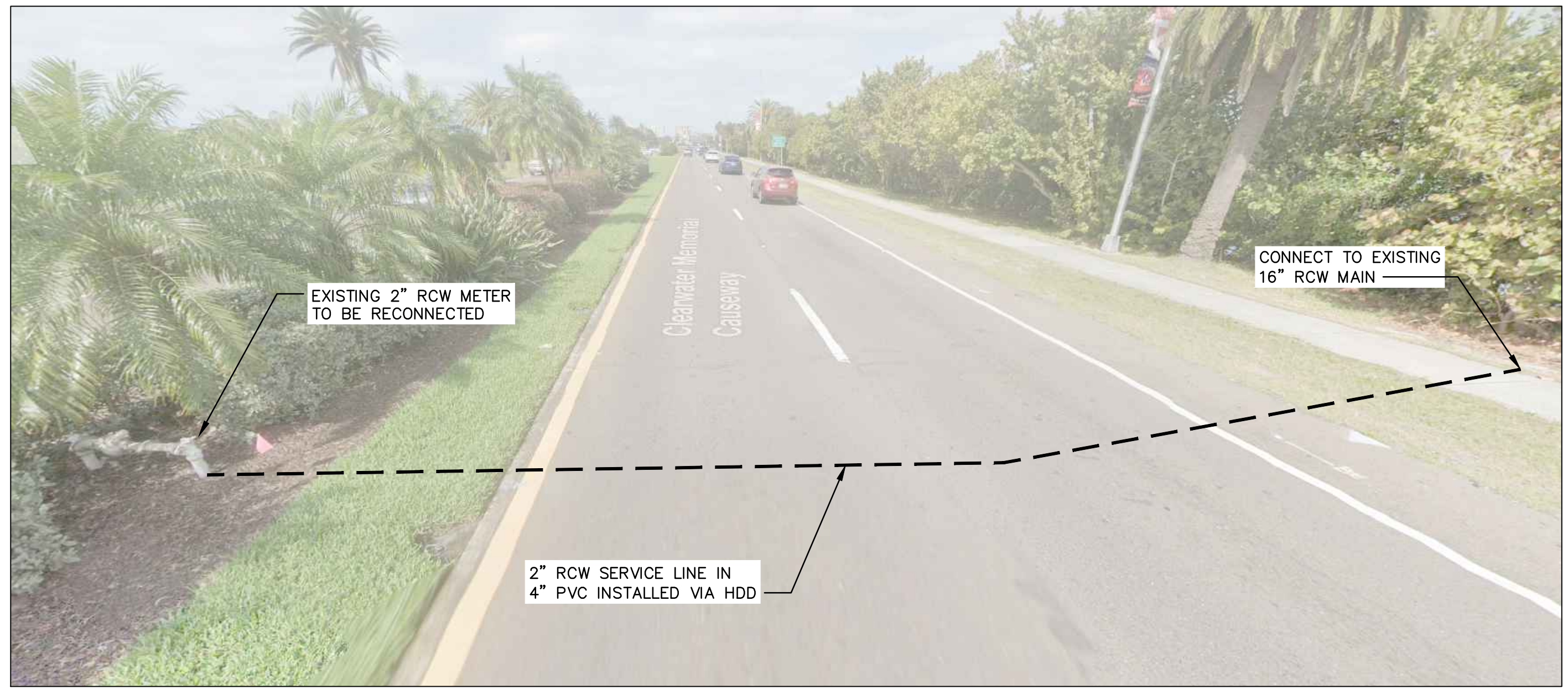
DWG NAME: C16	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 19 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

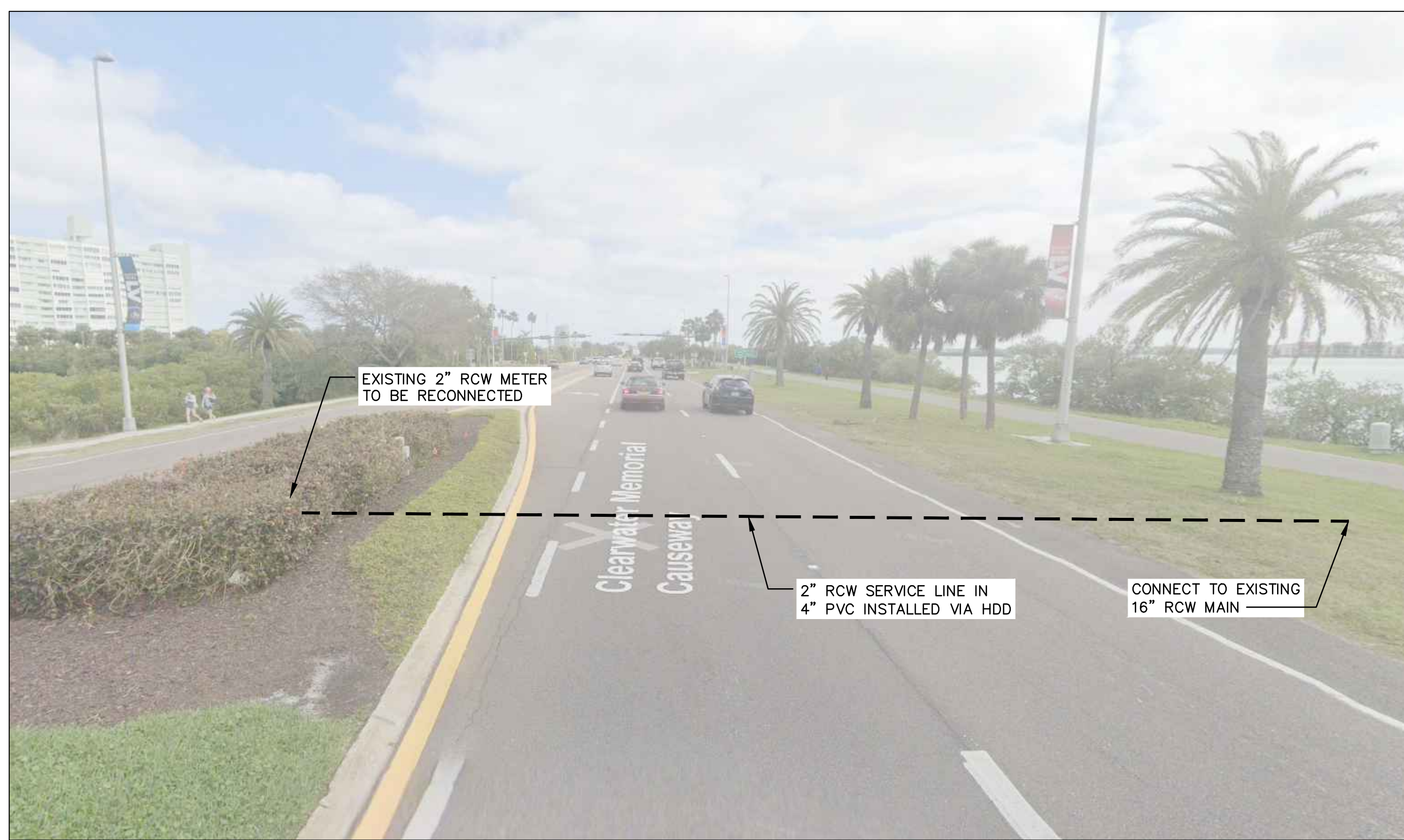




LOCATION D2



LOCATION D5



LOCATION D3



LOCATION D6

Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 1/6/2022 9:02 AM Individual File Path: c:\Users\7623\OneDrive - CHA Consulting, Inc\Desktop\01_CAD\102031-D_REI_C3D_Civil\Sheets

RECORD DRAWINGS		REVISION	
SURVEYED BY: N/A	DRAWN BY: VVV	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER DATE	BY	DATE
APPROVED BY:	DATE		

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756



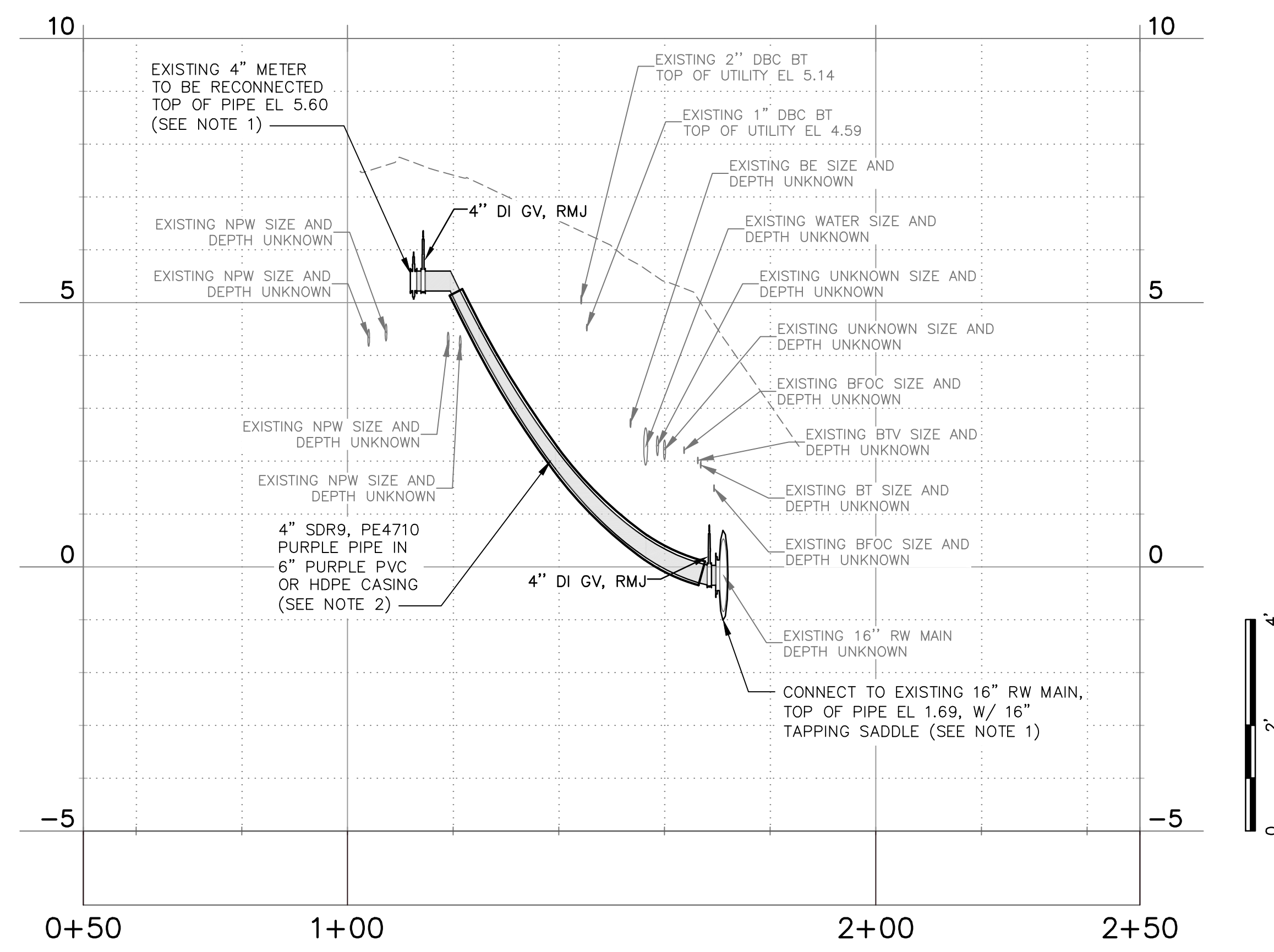
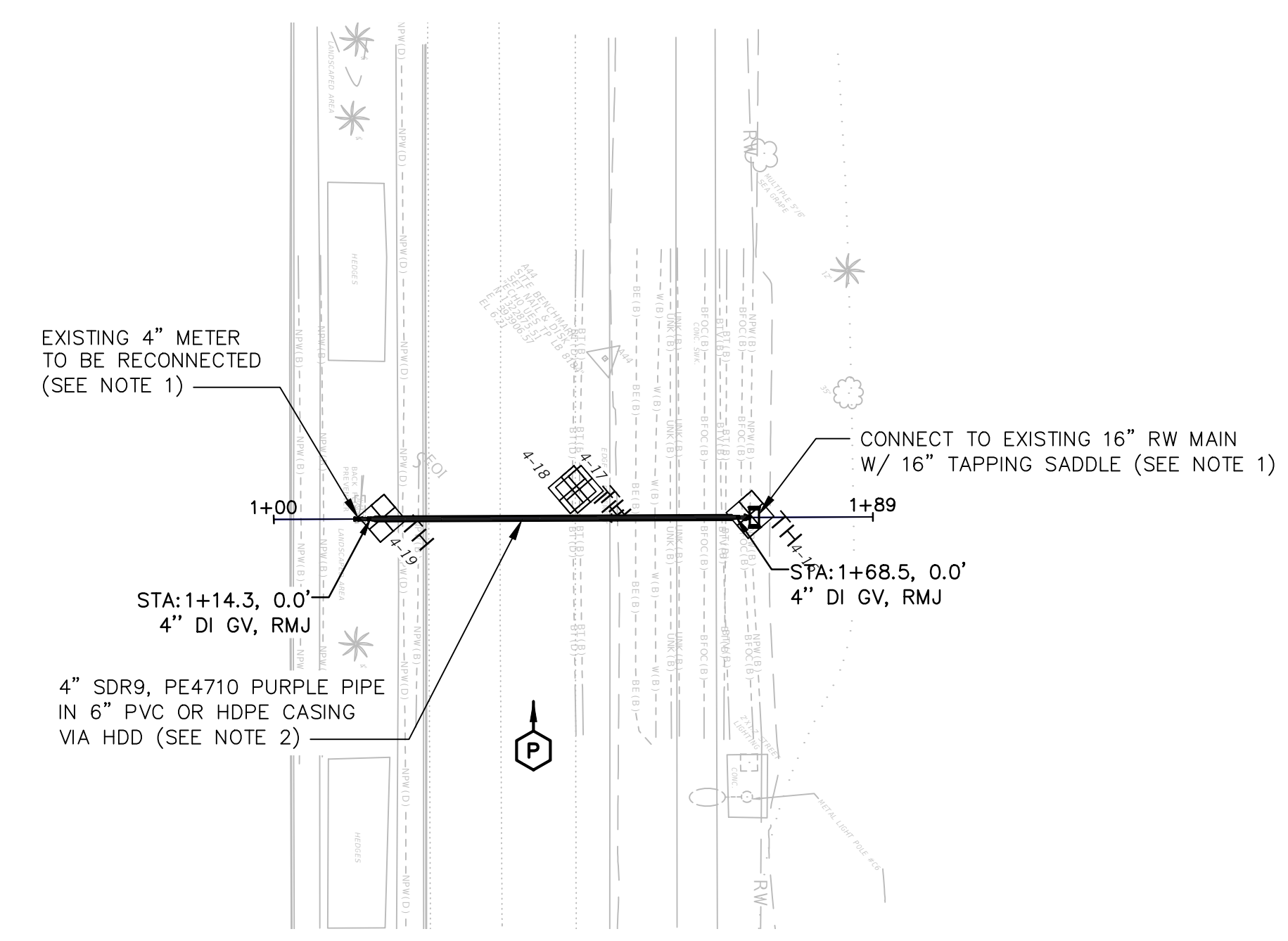
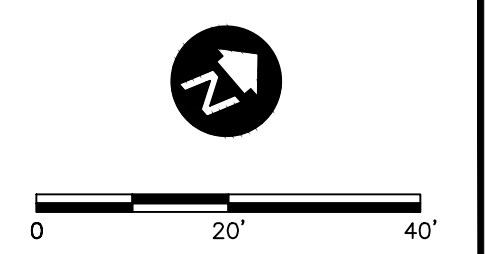
CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 AREA D – MEMORIAL CAUSEWAY
 LOCATIONS D2, D3, D5 AND D6



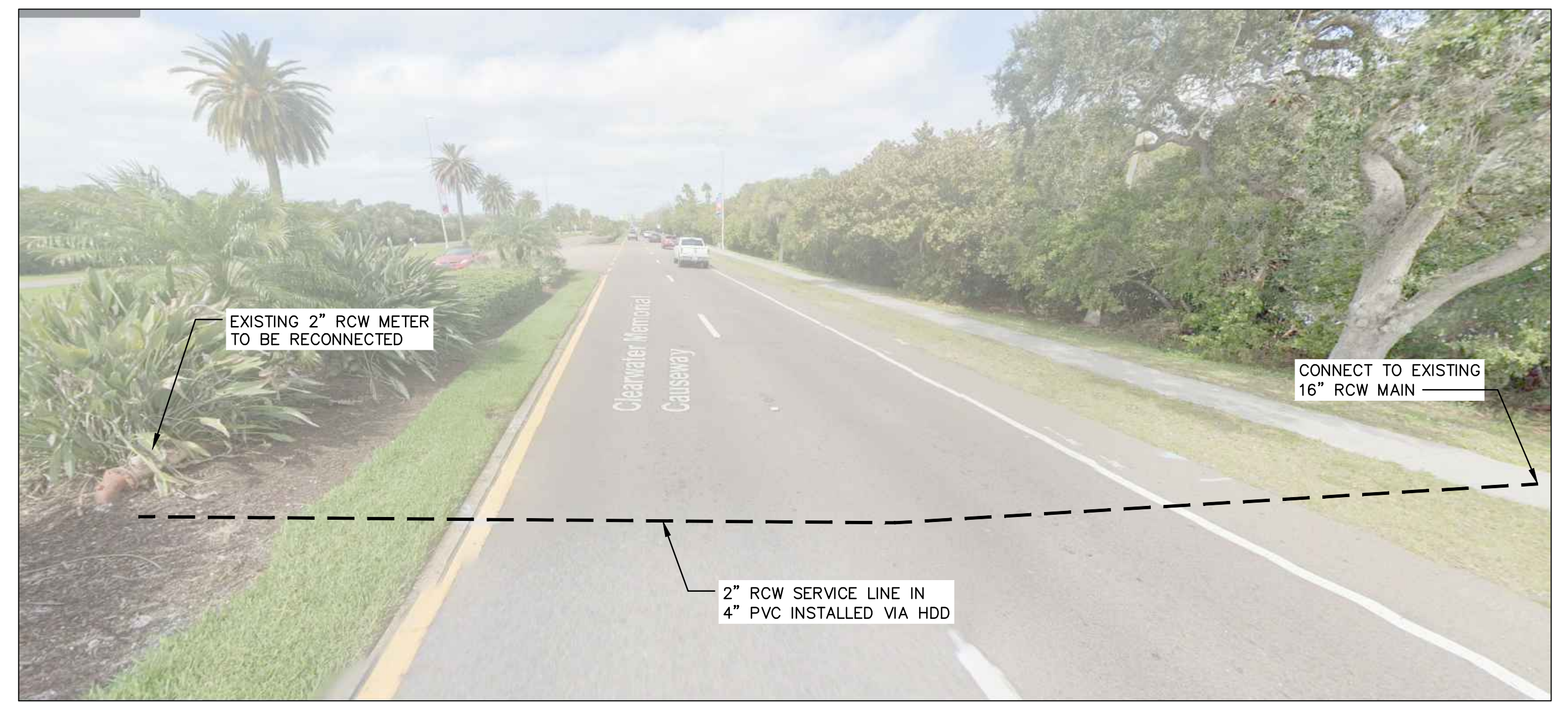
DWG NAME: C16	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 19A OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Sheet Set: 102031 - RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 12/7/2022 9:07 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\102031-D_REI_C3D_CivilSheets

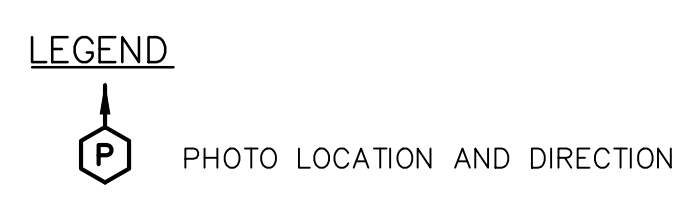


D7 - METER RECONNECTION - PLAN & PROFILE



LOCATION D7

- NOTES**
- SEE INDEX NUMBERS 504, 505 PAGE 1 OF 3, 505 PAGE 2 OF 3 ON DRAWING C16, AND INDEX NUMBER 505 PAGE 3 OF 3 ON DRAWING C17 FOR DETAILS.
 - CONTRACTOR SHALL MAINTAIN AT LEAST 12" MINIMUM SEPARATION BETWEEN RCW RECONNECTION PIPING AND EXISTING UTILITIES.
 - CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AND DETERMINE ACTUAL ELEVATIONS PRIOR TO INSTALLATION OF NEW CASING PIPE.



RECORD DRAWINGS		REVISION	
SURVEYED BY: N/A	DRAWN BY: VVV	OBID SET	VVV 12/2022
REVIEWED BY:	PROJECT ENGINEER	BY	DATE
APPROVED BY:	DATE		

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

**CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA**
www.call811sunshine.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

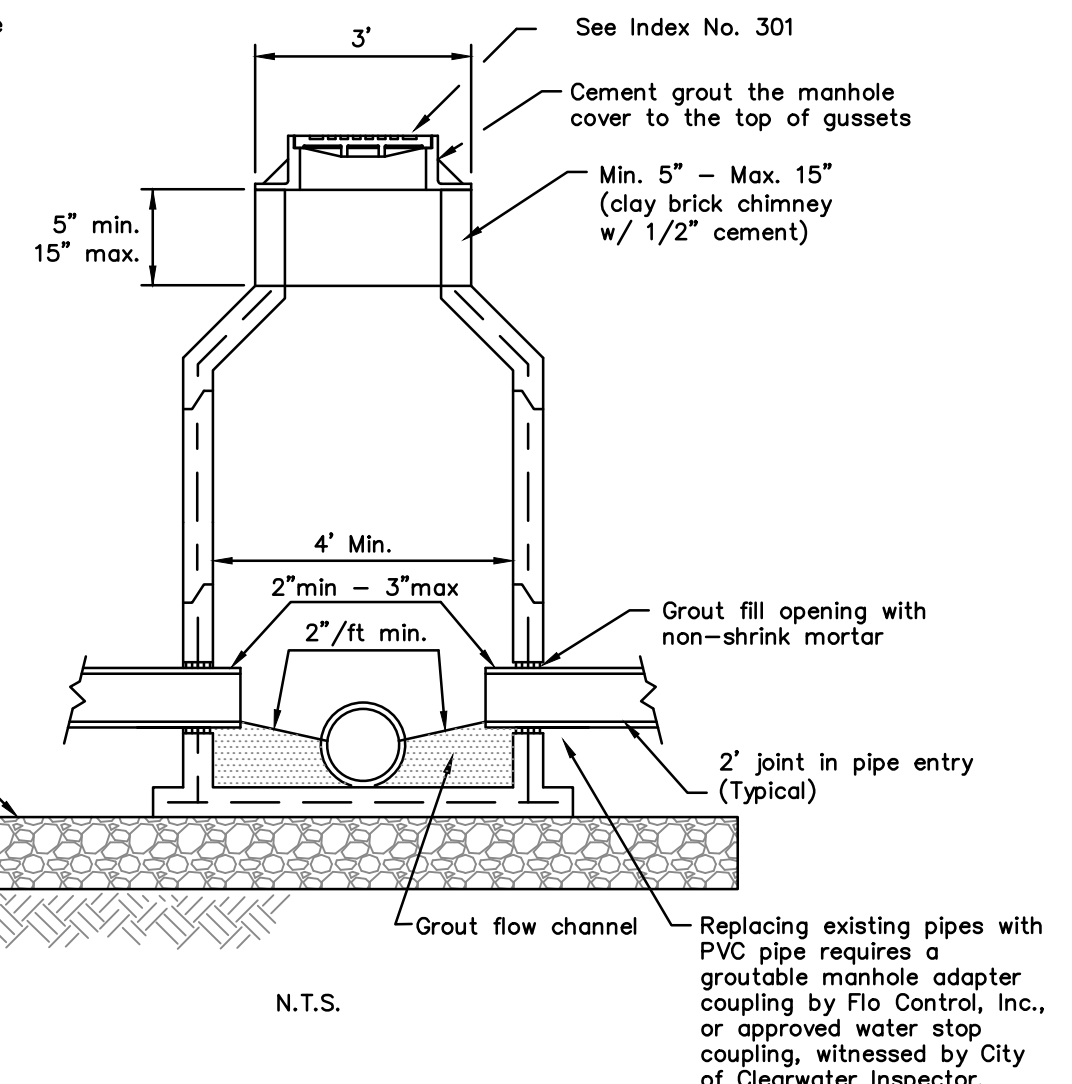
CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
MEMORIAL CAUSEWAY (AREA D) RECONNECTIONS - D7
PLAN & PROFILE

DWG NAME: C17	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 20 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
3507 EAST FRONTAGE ROAD SUITE 100
TAMPA, FL 33607
TEL: (813) 549-8919
CERTIFICATE OF AUTHORIZATION #28386

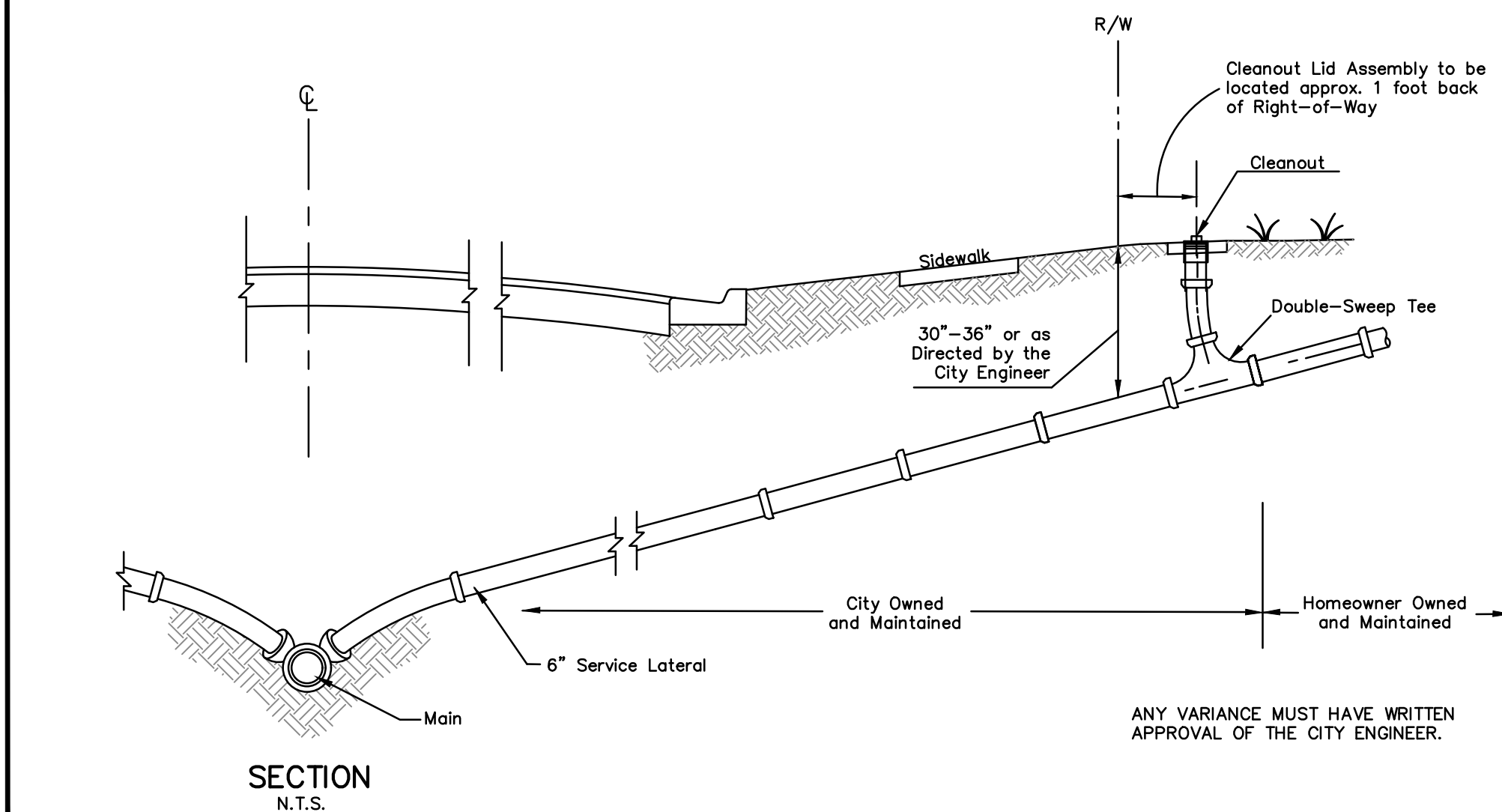
- NOTES:
- Any new manhole cores/connections may require a new coating. The new coating will be determined by City of Clearwater Inspector. See Note 2.
 - Interior shall be Strong Seal MS 2C, Raven 405 or Spraywall by Sprayco.
 - All pipe penetrations into manhole shall be precast or core drilled with a flexible Kor-N-Seal rubber boot or approved equal, installed.
 - All pipes must be color coded "Safety Green".
 - All connections to manhole shall be water tight.
 - All manhole coring must be witnessed by City Inspector.
 - Install 18 gauge 304 stainless steel manhole storm water inflow abatement insert (dish/pan).
 - Contractor to replace ring & cover if existing is in poor condition which will be determined by City of Clearwater Inspector.
 - See also City of Clearwater's Technical Specification Section IV.



EXISTING SANITARY MANHOLE DETAIL

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
SANITARY SEWER
DETAILS

INDEX NO. 302
PAGE NO. 3 of 3
LATEST REVISION 10/21/2019

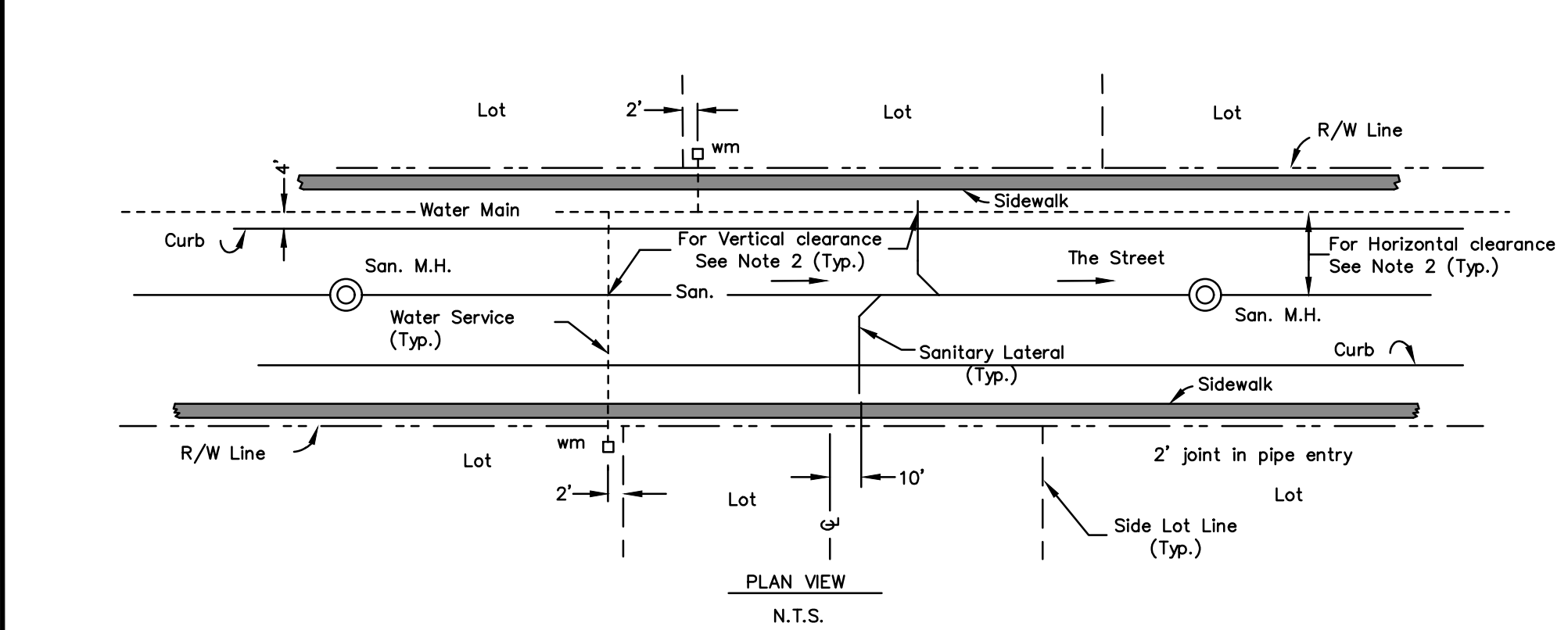


SECTION

STREET LATERAL DETAIL

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
SANITARY SEWER
DETAILS

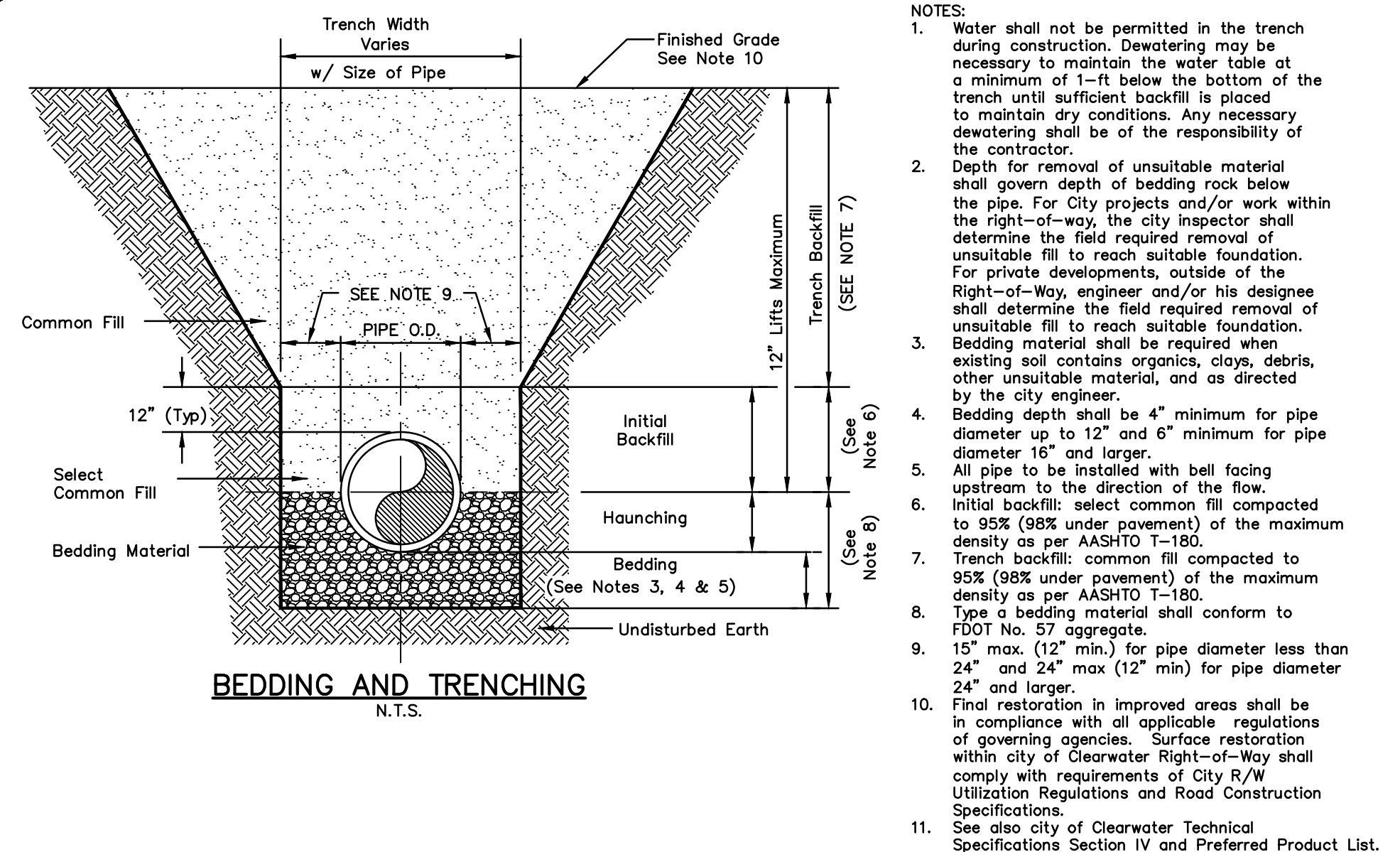
INDEX NO. 305
PAGE NO. 1 of 3
LATEST REVISION 2/22/2015



SANITARY LATERAL LOCATIONS

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
SANITARY SEWER
DETAILS

INDEX NO. 305
PAGE NO. 3 of 3
LATEST REVISION 2/22/2015



BEDDING AND TRENCHING

BEDDING AND TRENCHING

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
RECLAIMED WATER
DETAILS

INDEX NO. 501
PAGE NO. 1 of 1
LATEST REVISION 7/2021

HORIZONTAL AND VERTICAL UTILITY SEPARATION REQUIREMENTS

PROPOSED UTILITY	POTABLE WATER		RECLAIMED WATER		WASTEWATER FORCE MAIN		SANITARY SEWER		STORM SEWER		STRUCTURAL FOUNDATION, WALLS, ETC	ROADWAY RIGHTS-OF-WAY
	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT		
POTABLE WATER MAIN	4 FEET NOTE: 2	12"	4 FEET NOTE: 2 & 4	12" NOTE: 4	6 FEET NOTE: 4	12" / 18" NOTE: 3 & 4	6 FEET NOTE: 4	12" / 18" NOTE: 3 & 4	4 FEET NOTE: 2 & 4	12" / 18" NOTE: 3 & 4	15 FEET NOTE: 6	5 FEET NOTE: 2A
RECLAIMED WATER MAIN	4 FEET NOTE: 2 & 4	12" NOTE: 4	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" / 18" NOTE: 3	15 FEET NOTE: 6	5 FEET NOTE: 2A
WASTEWATER FORCE MAIN	6 FEET NOTE: 4	12" / 18" NOTE: 3 & 4	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" / 18" NOTE: 3	15 FEET NOTE: 6	5 FEET NOTE: 2A
SANITARY SEWER	6 FEET NOTE: 4	12" / 18" NOTE: 3 & 4	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" NOTE: 2	4 FEET NOTE: 2	12" / 18" NOTE: 3	VARIES PER DEPTH	5 FEET NOTE: 2A

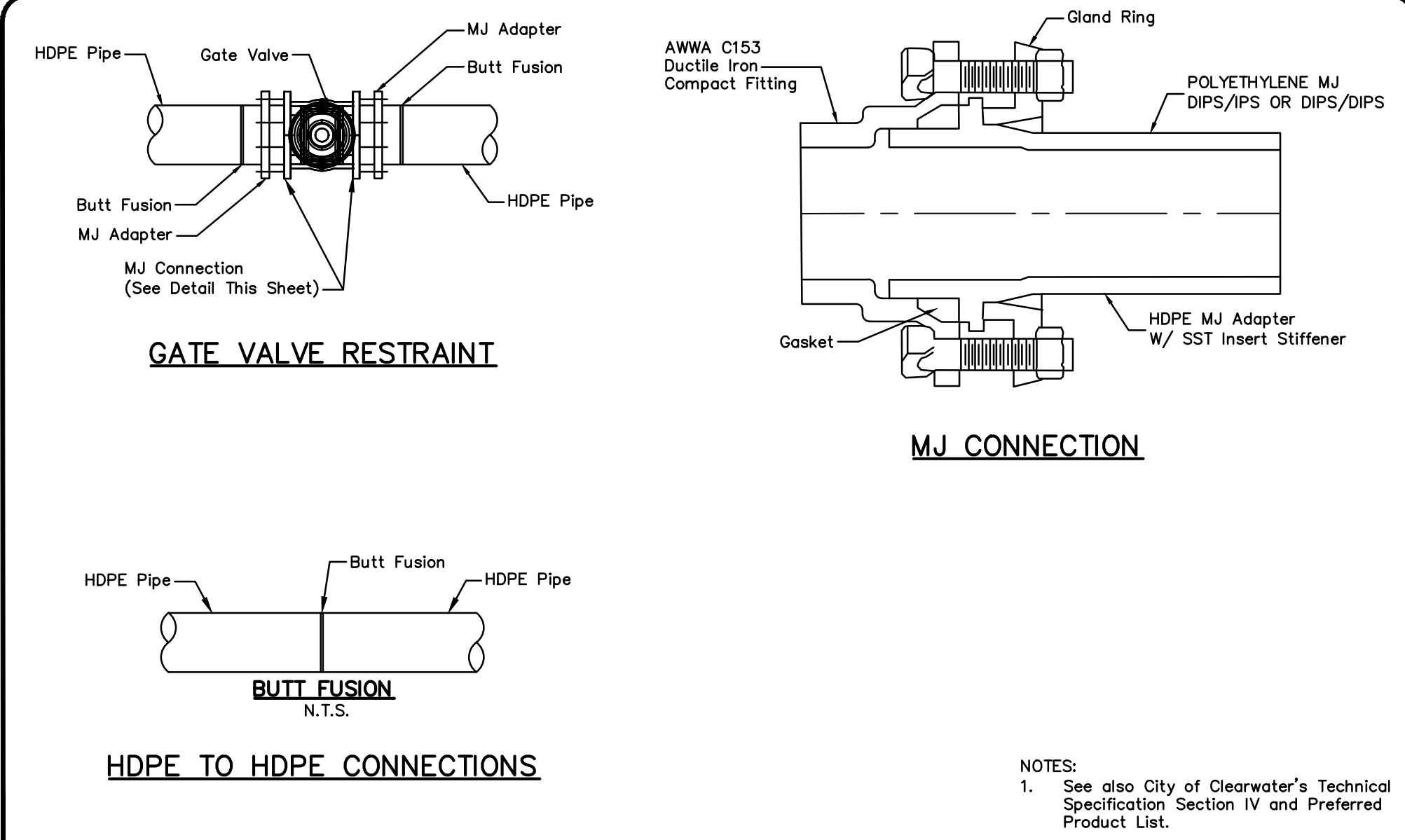
NOTES:

- Distances given are from outside of pipe to outside of pipe.
- (a) This separation requirement is to provide accessibility for construction and maintenance.
- (b) Four feet horizontal separation for utility pipelines is the minimum for pipes with three feet of cover. For pipes installed at greater depths, provide an additional foot of horizontal separation for each additional foot of depth.
- The 18-inch separation requirement applies when the wastewater force main, sanitary sewer or storm sewer crosses above the utility main, and when the storm sewer pipe has a diameter equal to or greater than 24-inches. Otherwise the required separation is 12-inches.
- This separation requirement complies with the minimum FEP separation requirements outlined in chapter 62-555.314, FAC. Variances from the FDEP requirements must comply with chapter 62-555.314(5), FAC and must be approved individually by both FDEP and the city utility engineering department.
- No water pipe shall pass through or come in contact with any part of sanitary sewer or a storm sewer manhole or structure.
- Separation of pressure utility mains may be reduced to 10-feet of separation from structural foundations, walls, etc if the cover of the utility main is 4-feet or less and all joints of the utility are restrained for a minimum of 25-feet outside the structure limits.
- See also City of Clearwater Technical Specifications Section IV and Preferred Product List.

HORIZONTAL AND VERTICAL UTILITY SEPARATION REQUIREMENTS

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
RECLAIMED WATER
DETAILS

INDEX NO. 502
PAGE NO. 1 of 1
LATEST REVISION 7/2021



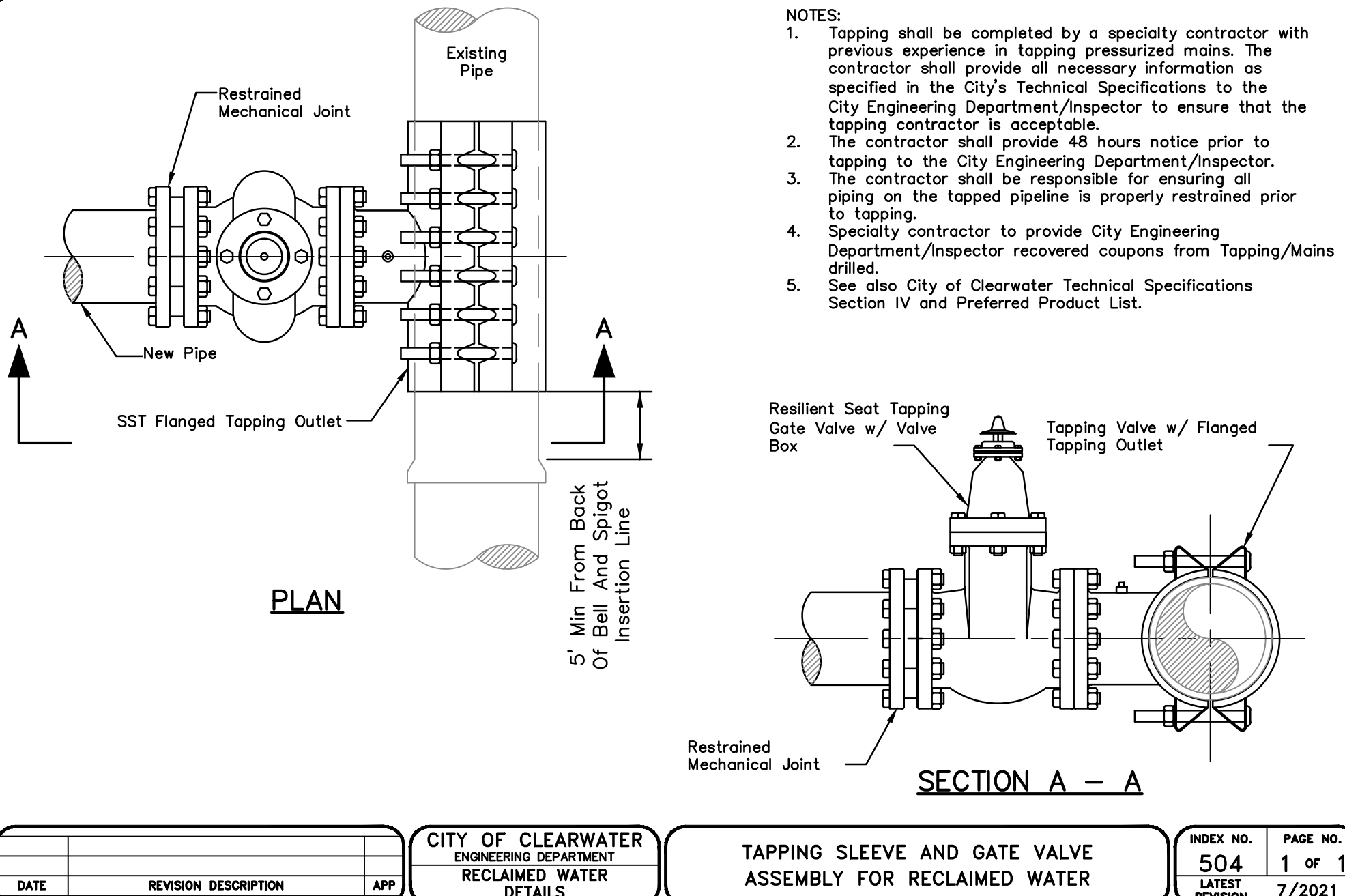
GATE VALVE RESTRAINT

HDPE TO HDPE CONNECTIONS

HDPE PIPE CONNECTIONS

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
RECLAIMED WATER
DETAILS

INDEX NO. 503
PAGE NO. 1 of 1
LATEST REVISION 7/2021



TAPPING SLEEVE AND GATE VALVE ASSEMBLY FOR RECLAIMED WATER

TAPPING SLEEVE AND GATE VALVE ASSEMBLY FOR RECLAIMED WATER

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
RECLAIMED WATER
DETAILS

INDEX NO. 504
PAGE NO. 1 of 1
LATEST REVISION 7/2021

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

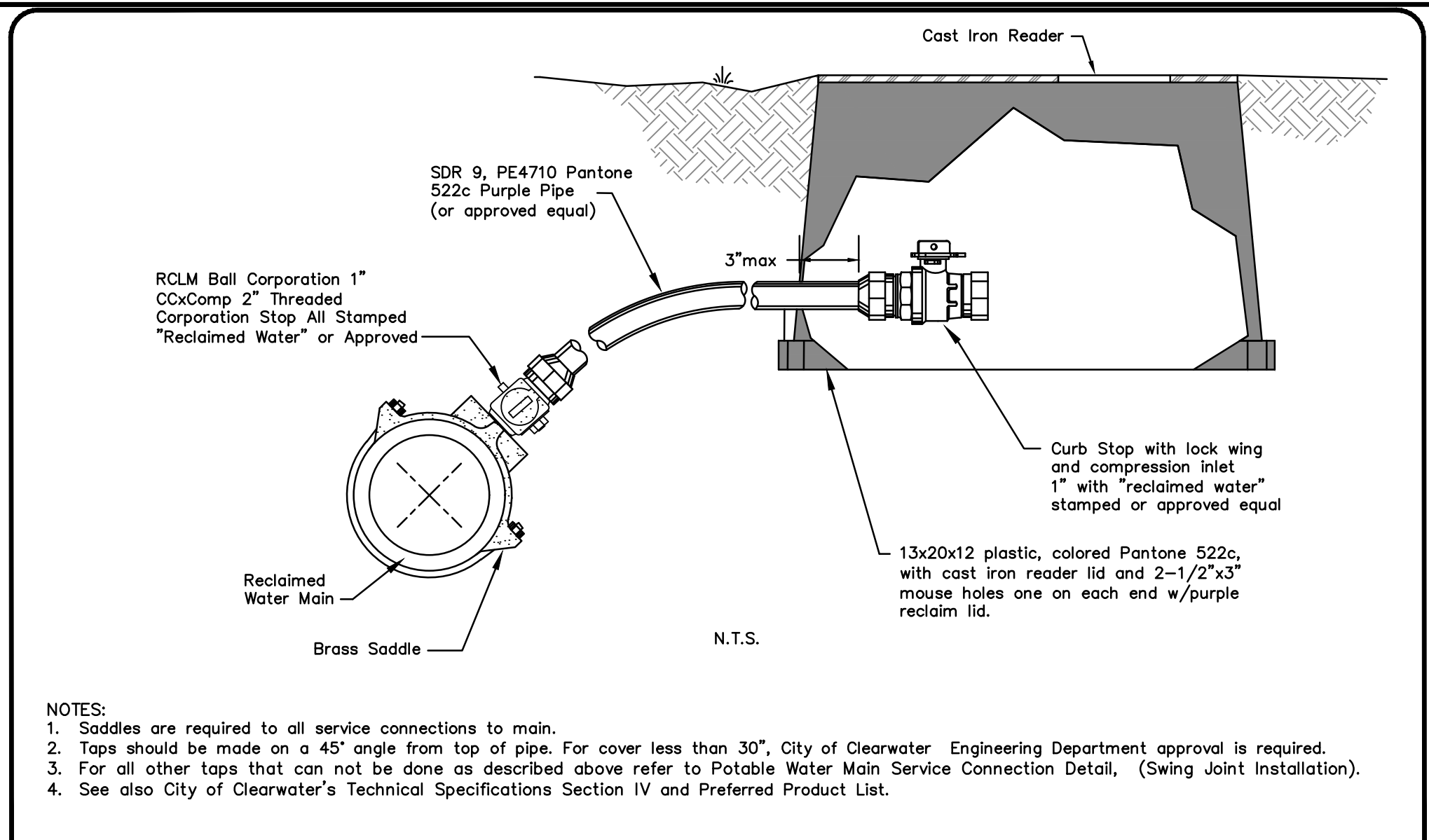
CALL 811
SUNSHINE STATE ONE CALL OF FLORIDA
www.call811.com
(800) 432-4770
MIN. 48 HOURS BEFORE YOU EXCAVATE

CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
CITY OF CLEARWATER STANDARD DETAILS
SANITARY SEWER AND RECLAIMED WATER

DWG NAME: C18	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY:	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY:	CHECKED BY:	SHEET NO.: 21 OF 24

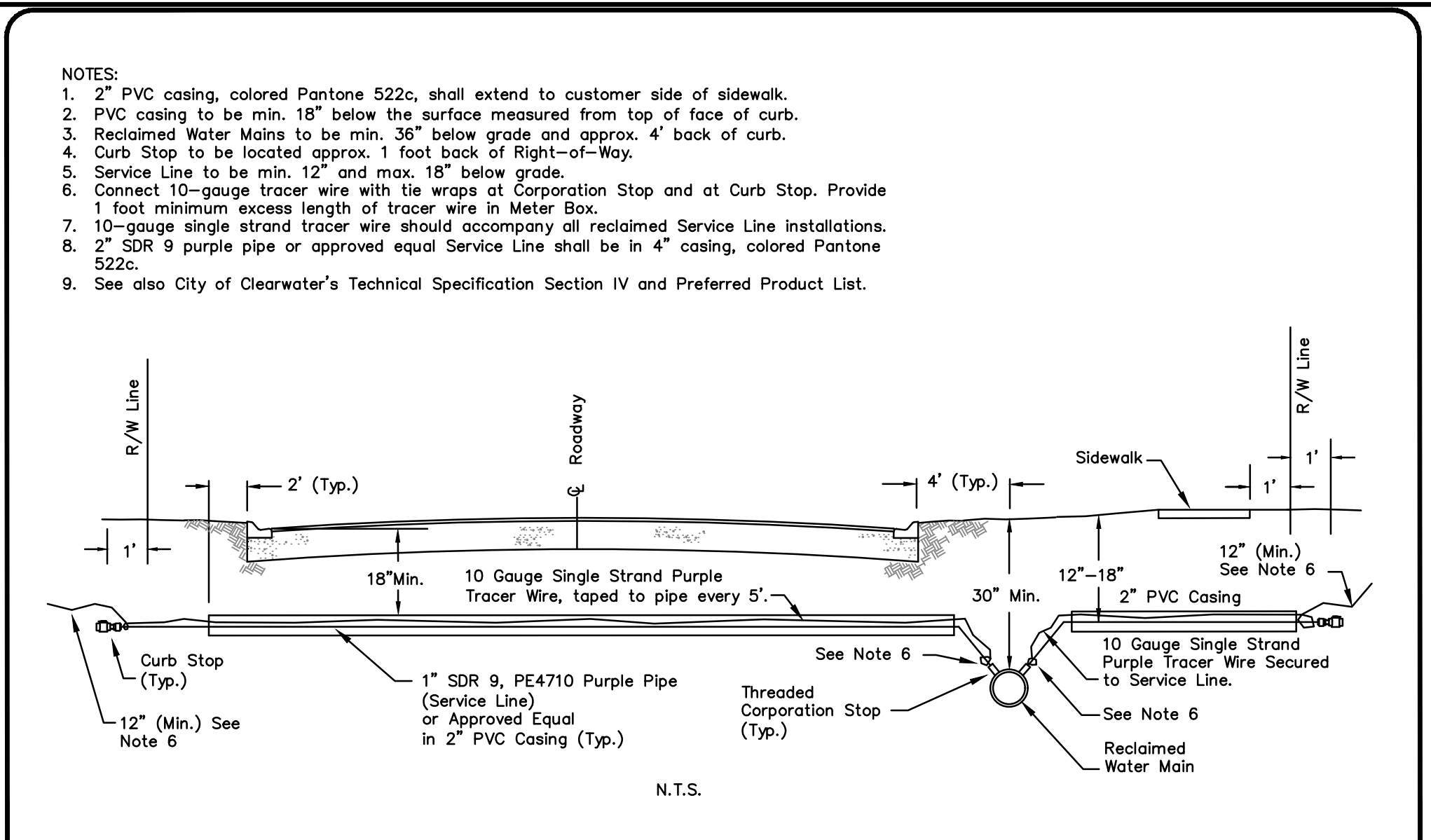
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Set: 102031_RCW Imp. Rev on: 10/12/2021 7:56 AM Individual File Path: V:\Projects\MSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\C18



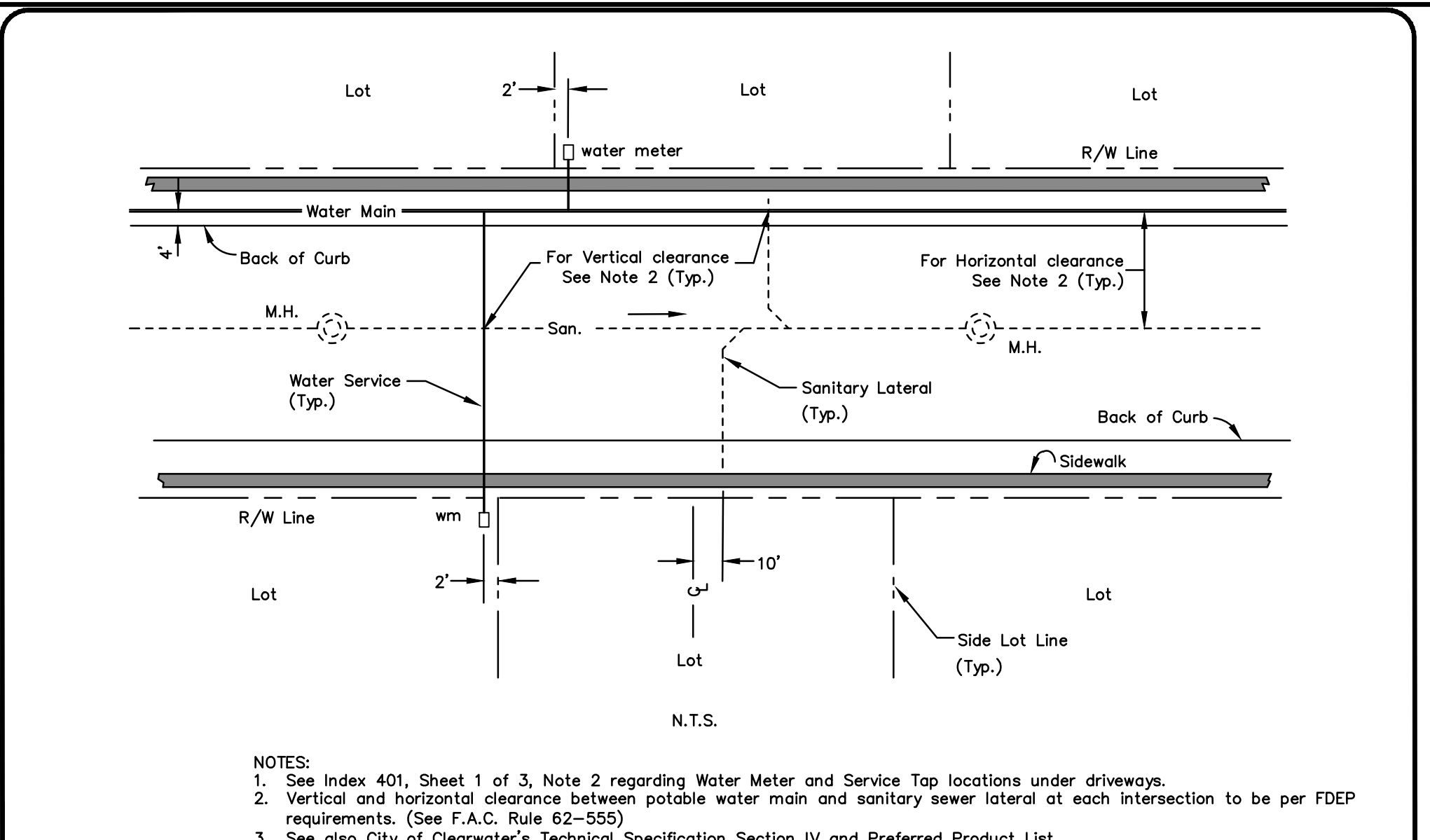
NOTES:
 1. Saddles are required to all service connections to main.
 2. Tags should be made on a 45° angle from top of pipe. For cover less than 30", City of Clearwater Engineering Department approval is required.
 3. For all other tags that can not be done as described above refer to Potable Water Main Service Connection Detail, (Swing Joint Installation).
 4. See also City of Clearwater's Technical Specifications Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RESIDENTIAL RECLAIMED WATER CONNECTION	INDEX NO. 505	PAGE NO. 1 of 3
					LATEST REVISION	7/2021



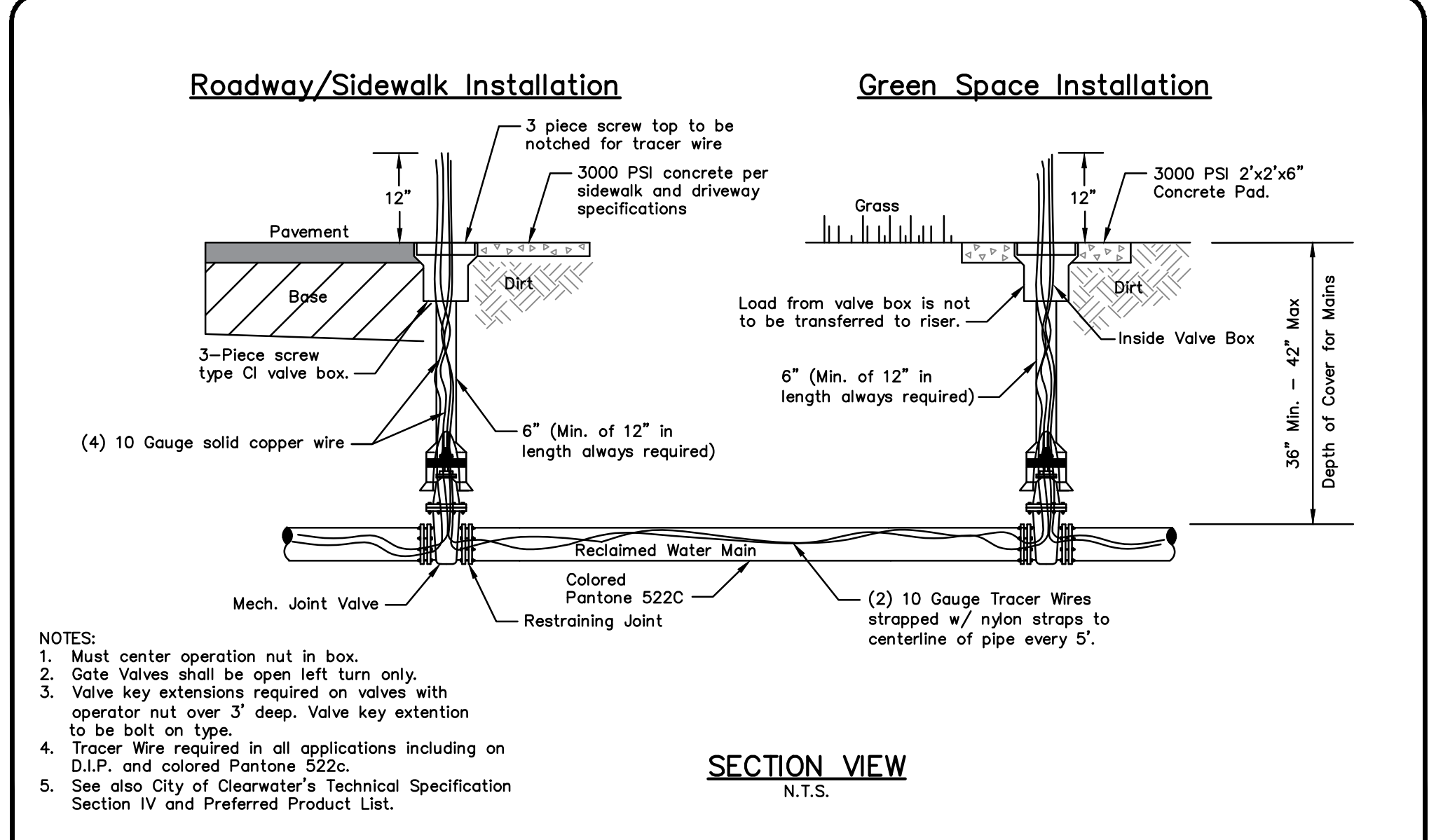
NOTES:
 1. 2" PVC casing, colored Pantone 522c, shall extend to customer side of sidewalk.
 2. PVC casing to be min. 18" below the surface measured from top of face of curb.
 3. Reclaimed Water Mains to be min. 36" below grade and approx. 4' back of curb.
 4. Curb Stop to be located approx. 1 foot back of Right-of-Way.
 5. Service Line to be min. 12" and max. 18" below grade.
 6. Connect 10-gauge tracer wire with tie wraps at Corporation Stop and at Curb Stop. Provide 1 foot minimum excess length of tracer wire in Meter Box.
 7. 10-gauge single strand tracer wire shall accompany all reclaimed Service Line installations.
 8. 2" SDR 9 purple pipe or approved equal Service Line shall be in 4" casing, colored Pantone 522c.
 9. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RECLAIMED WATER MAIN SERVICE LINES TYPICAL SECTION	INDEX NO. 505	PAGE NO. 2 of 3
					LATEST REVISION	7/2021



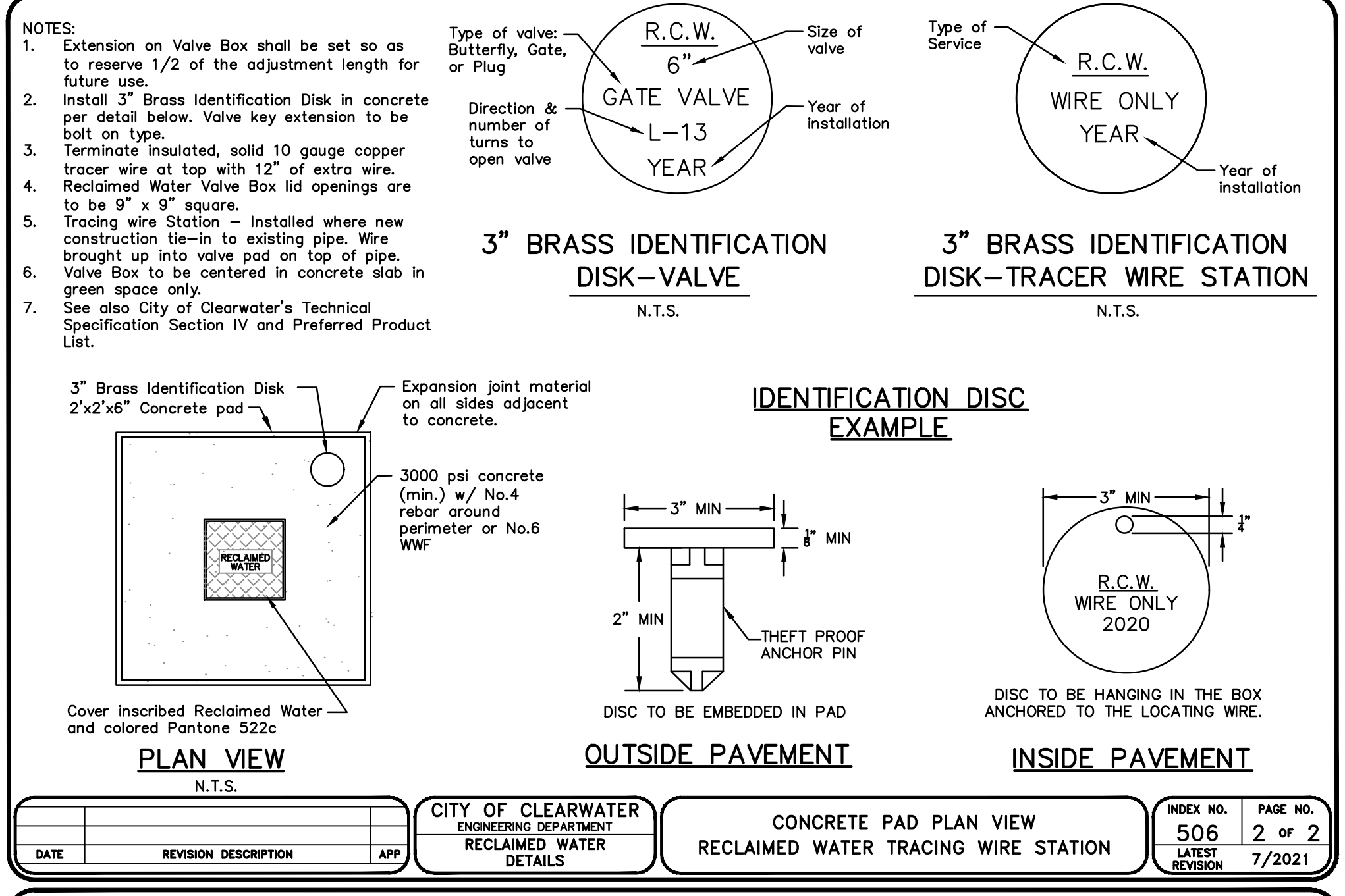
NOTES:
 1. See index 401, Sheet 1 of 3, Note 2 regarding Water Meter and Service Tap locations under driveways.
 2. Vertical and horizontal clearance between potable water main and sanitary sewer lateral at each intersection to be per FDEP requirements. (See F.A.C. Rule 62-555)
 3. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RECLAIMED WATER METER AND SERVICE LOCATIONS PLAN VIEW	INDEX NO. 505	PAGE NO. 3 of 3
					LATEST REVISION	7/2021



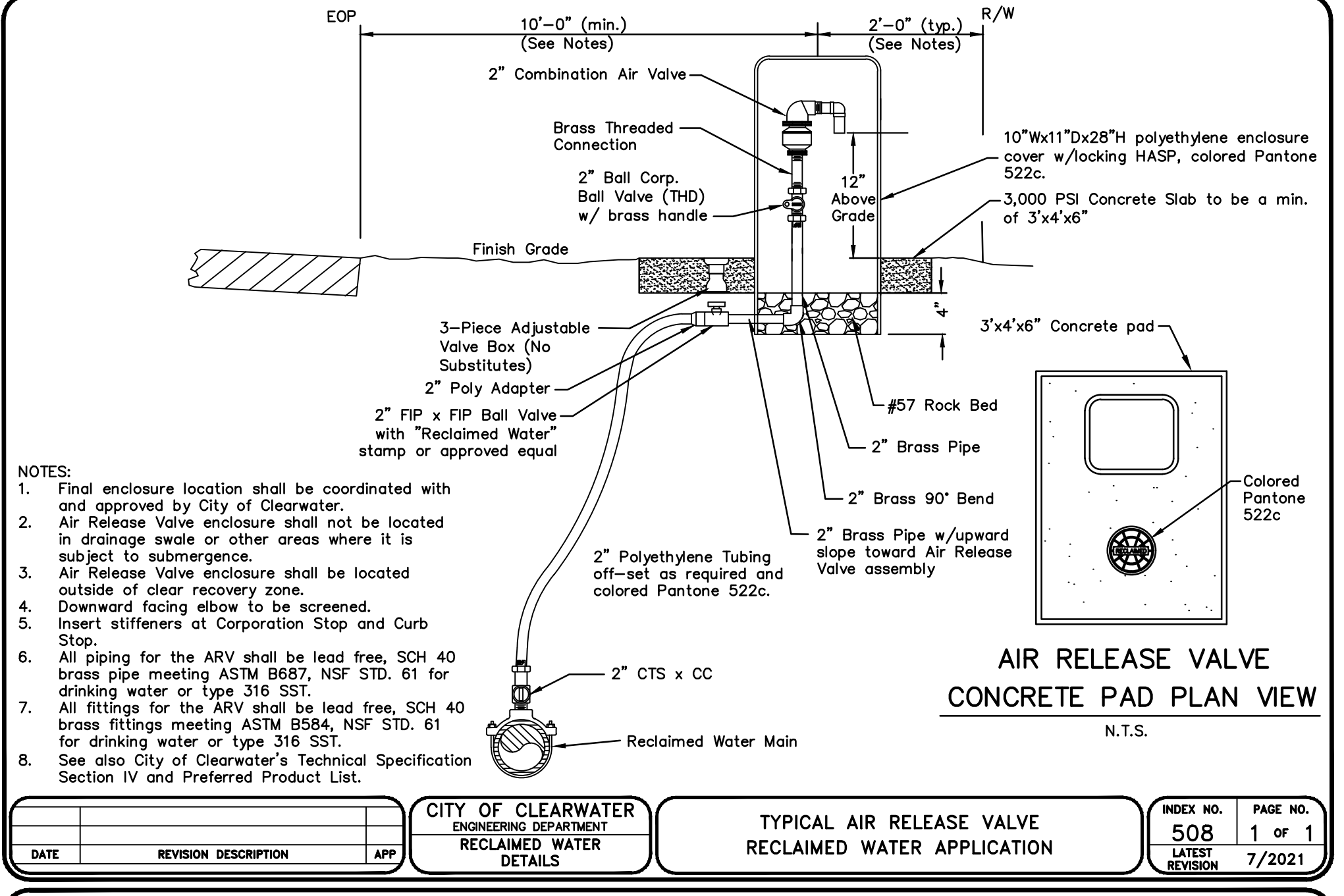
NOTES:
 1. Must center operation nut in box.
 2. Gate Valves shall be open left turn only.
 3. Valve key extensions required on valves with operator nut over 3" deep. Valve key extension to be bolt on type.
 4. Tracer Wire required in all applications including on D.I.P. and colored Pantone 522c.
 5. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RECLAIMED WATER TYPICAL VALVE & BOX SETTINGS	INDEX NO. 506	PAGE NO. 1 of 2
					LATEST REVISION	7/2021



NOTES:
 1. Extension on Valve Box shall be set so as to reserve 1/2 of the adjustment length for future use.
 2. Install 3" Brass Identification Disk in concrete per detail below. Valve key extension to be bolt on type.
 3. Terminate insulated, solid 10 gauge copper tracer wire at top with 12" of extra wire.
 4. Reclaimed Water Valve Box lid openings are to be 9" x 9" square.
 5. Tracing wire Station - installed where new construction tie-in to existing pipe. Wire brought up into valve pad on top of pipe.
 6. Valve Box to be centered in concrete slab in green space only.
 7. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	CONCRETE PAD PLAN VIEW RECLAIMED WATER TRACING WIRE STATION	INDEX NO. 506	PAGE NO. 2 of 2
					LATEST REVISION	7/2021



NOTES:
 1. Final enclosure location shall be coordinated with and approved by City of Clearwater.
 2. Air Release Valve enclosure shall not be located in drainage swale or other areas where it is subject to submergence.
 3. Air Release Valve enclosure shall be located outside of clear recovery zone.
 4. Downward facing elbow to be screened.
 5. Insert stiffeners at Corporation Stop and Curb Stop.
 6. All piping for the ARV shall be lead free, SCH 40 brass pipe meeting ASTM B587, NSF STD. 61 for drinking water or type 316 SST.
 7. All fittings for the ARV shall be lead free, SCH 40 brass fittings meeting ASTM B584, NSF STD. 61 for drinking water or type 316 SST.
 8. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	TYPICAL AIR RELEASE VALVE RECLAIMED WATER APPLICATION	INDEX NO. 508	PAGE NO. 1 of 1
					LATEST REVISION	7/2021

PIPE SIZE, FEET	PVC PIPE, FEET								DUCTILE IRON PIPE, FEET										
	4"	6"	8"	10"	12"	16"	20"	24"	4"	6"	8"	10"	12"	16"	20"	24"			
11.25'	H-B	3	4	5	6	6	8	9	11	VU-B	3	4	5	6	6	8	9	11	
	VD-B	6	9	11	13	16	20	24	28	H-B	5	7	9	11	12	16	18	21	
22.5'	H-B	5	7	9	11	12	16	18	21	VU-B	5	6	8	9	11	13	16	18	21
	VD-B	12	17	22	27	31	40	48	56	H-B	9	12	16	19	22	27	33	37	
45'	H-B	10	14	18	22	25	32	38	43	VU-B	9	12	16	19	22	27	33	37	
	VD-B	25	35	46	55	65	82	99	115	H-B	18	25	32	39	45	58	69	81	
90'	H-B	24	33	44	52	60	76	91	104	VU-B	21	29	37	44	52	65	78	90	
	VD-B	61	85	111	132	155	198	238	277	H-B	21	29	37	44	52	65	78	90	
DEAD END PLUG & VALVE	61	85	111	132	155	198	238	277	VU-B	21	29	37	44	52	65	78	90		
TEE	61	85	111	132	155	198	238	277	VD-B	43	59	78	93	109	139	167	194		

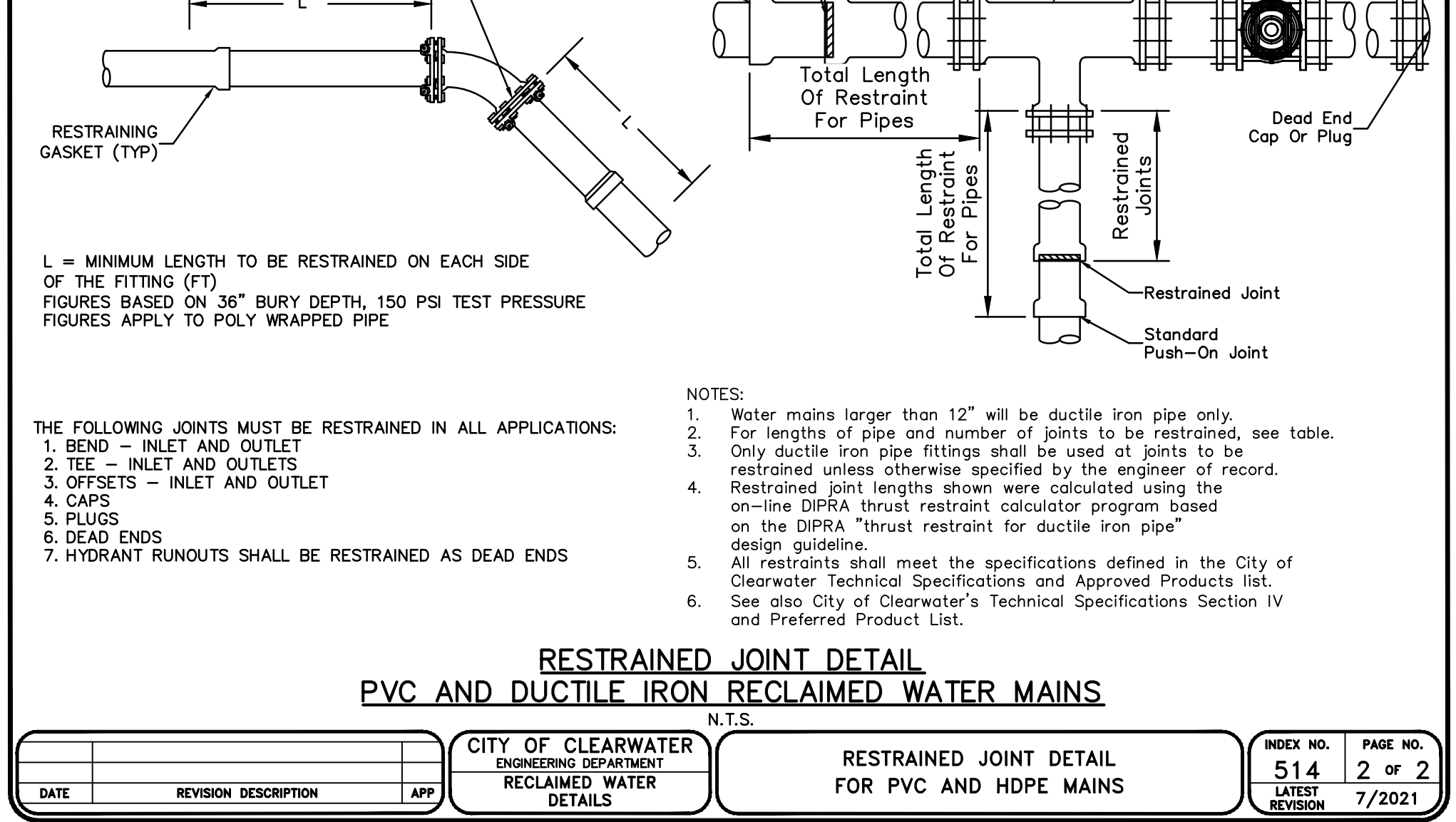
MINIMUM DESIGN CRITERIA
 BEDDING TYPE: 3
 DESIGN PRESSURE: 150 PSI
 SAFETY FACTOR: 1.5
 DEPTH OF COVER: 3.0 FT
 SOIL DESIGNATION: SM (SAND-SILT)

MINIMUM FOOTAGE OF PIPE RESTRAINT
 H-B: HORIZONTAL BEND
 VU-B: VERTICAL-UP BEND
 VD-B: VERTICAL-DOWN BEND

RESTRAINED JOINT DETAIL
 PVC AND DUCTILE IRON RECLAIMED WATER MAINS

NOTES:
 1. See also City of Clearwater's Technical Specification Section IV and Preferred Product List.

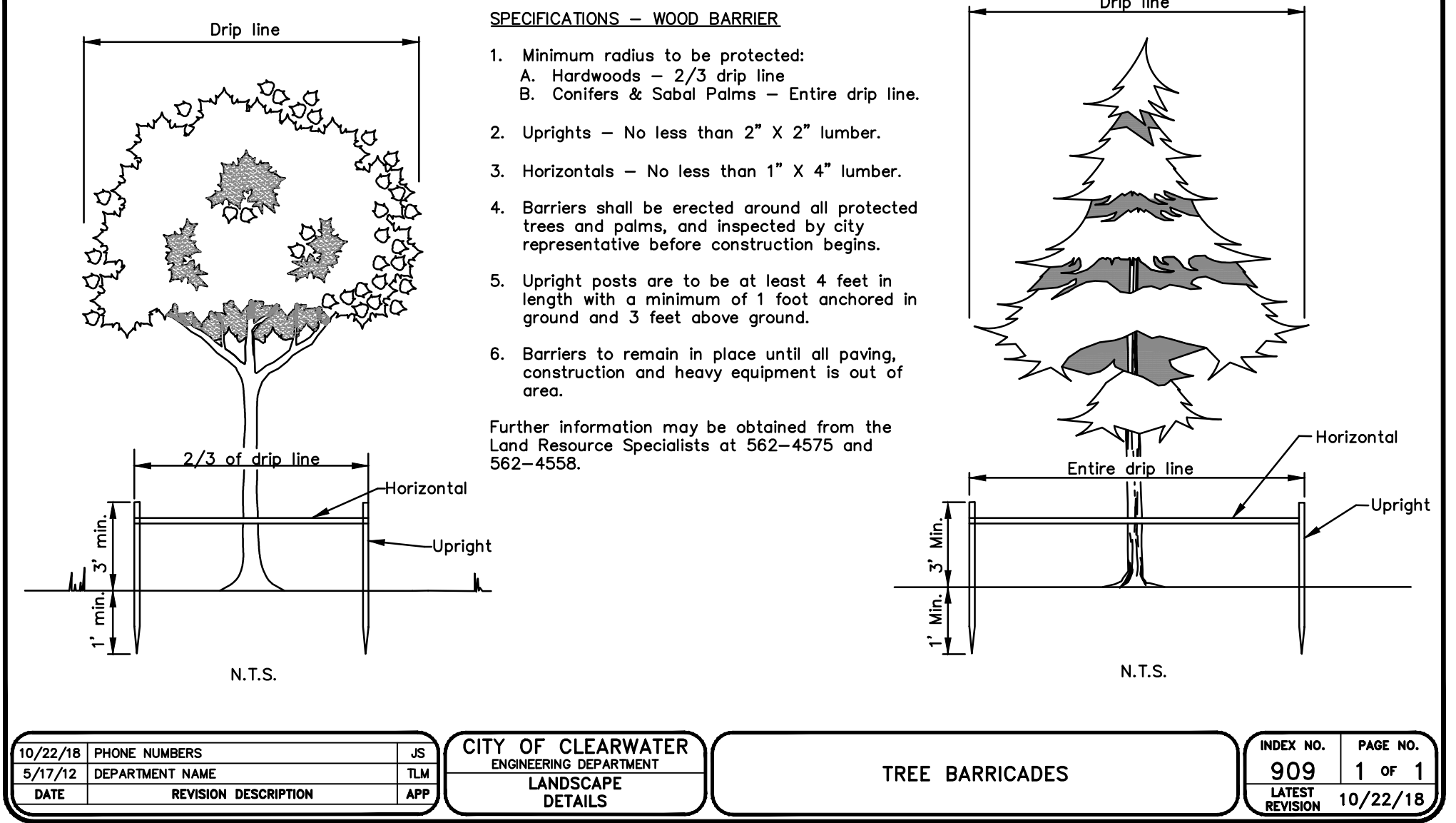
DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RESTRAINED JOINT DETAIL PVC AND DUCTILE IRON RECLAIMED WATER MAINS	INDEX NO. 514	PAGE NO. 1 of 2
					LATEST REVISION	7/2021



THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS:
 1. BEND - INLET AND OUTLET
 2. TEE - INLET AND OUTLETS
 3. OFFSETS - INLET AND OUTLET
 4. CAPS
 5. PLUGS
 6. DEAD ENDS
 7. HYDRANT RUNOUTS SHALL BE RESTRAINED AS DEAD ENDS

NOTES:
 1. Water mains larger than 12" will be ductile iron pipe only.
 2. For lengths of pipe and number of joints to be restrained, see table.
 3. Only ductile iron pipe fittings shall be used at joints to be restrained unless otherwise specified by the engineer of record.
 4. Restraint joint lengths shown were calculated using the on-line DIPRA thrust restraint calculator program based on the DIPRA "thrust restraint for ductile iron pipe" design guideline.
 5. All restraints shall meet the specifications defined in the City of Clearwater Technical Specifications and Approved Products List.
 6. See also City of Clearwater's Technical Specifications Section IV and Preferred Product List.

DATE	REVISION DESCRIPTION	APP	CITY OF CLEARWATER ENGINEERING DEPARTMENT RECLAIMED WATER DETAILS	RESTRAINED JOINT DETAIL FOR PVC AND HDPE MAINS	INDEX NO. 514	PAGE NO. 2 of 2
					LATEST REVISION	7/2021



SPECIFICATIONS - WOOD BARRIER
 1. Minimum radius to be protected:
 A. Hardwoods - 2/3 drip line
 B. Conifers & Sabal Palms - Entire drip line.
 2. Uprights - No less than 2" X 2" lumber.
 3. Horizontals - No less than 1" X 4" lumber.
 4. Barriers shall be erected around all protected trees and palms, and inspected by city representative before construction begins.
 5. Upright posts are to be at least 4 feet in length with a minimum of 1 foot anchored in ground and 3 feet above ground.
 6. Barriers to remain in place until all paving, construction and heavy equipment is out of area.

Further information may be obtained from the Land Resource Specialists at 562-4575 and 562-4558.

10/22/18	PHONE NUMBERS	JS	CITY OF CLEARWATER ENGINEERING DEPARTMENT LANDSCAPE DETAILS	TREE BARRICADES	INDEX NO. 909	PAGE NO. 1 of 1
5/17/12	DEPARTMENT NAME	TLM			LATEST REVISION	10/22/18
DATE	REVISION DESCRIPTION	APP				

Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\C19

RECORD DRAWINGS

SURVEYED BY:	DRAWN BY:	
REVIEWED BY:	PROJECT ENGINEER	DATE
APPROVED BY:		DATE

OBID SET

VVV	12/2022
BY	DATE

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT - ENGINEERING
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
 SUNSHINE STATE ONE CALL OF FLORIDA
 www.callsunshine.com
 (800) 432-4770
 MIN. 48 HOURS BEFORE YOU EXCAVATE

CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
 CITY OF CLEARWATER STANDARD DETAILS
 RECLAIMED WATER AND LANDSCAPE

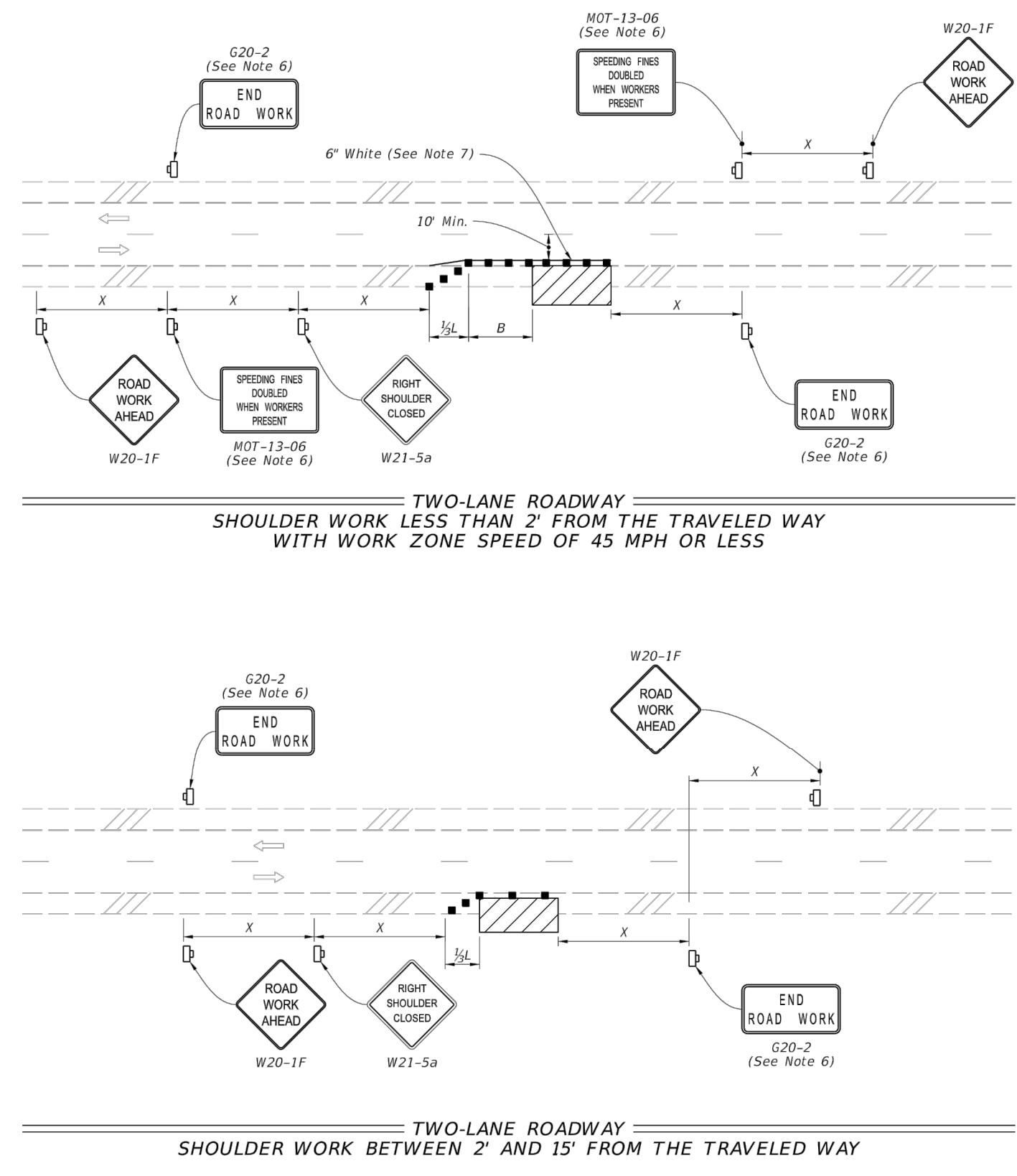
DWG NAME: C19	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY:	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY:	CHECKED BY:	SHEET NO.: 22 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Parent Sheet Set: 102031-RCW Imp. Rev/PLOT by VANATTA, WOLET Rev on: 10/12/2021 7:55 AM Individual File Path: V:\Projects\WSFL112\F\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\01_CAD\C20

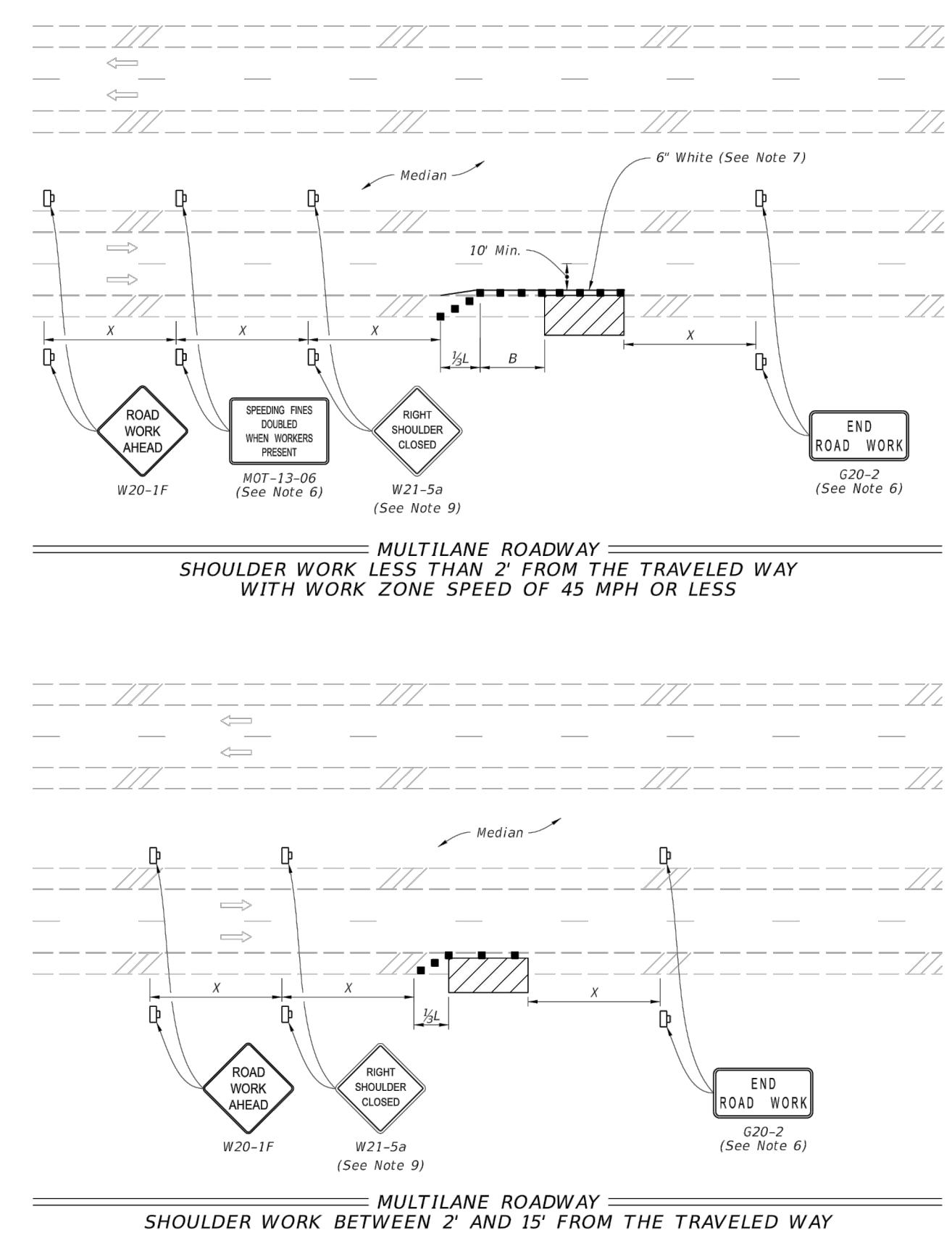
- NOTES:**
- This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
 - L = Taper Length
X = Work Zone Sign Spacing
B = Buffer Length
See Index 102-600 for "L", "X", "B", and channelizing device spacing values.
 - For incidental work (e.g. mowing or litter removal), only the Road Work Ahead sign is required.
 - When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.
 - For work less than two feet from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
 - The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the temporary condition is in place for 24 hours or less.
 - Temporary pavement markings may be omitted when the work zone is in place for 3 days or less.
 - If the work encroaches on a marked bicycle lane or rideable shoulder, close the lane or shoulder in accordance with the Plans.
 - Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.

- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Work Zone Sign
 - Lane Identification and Direction of Traffic



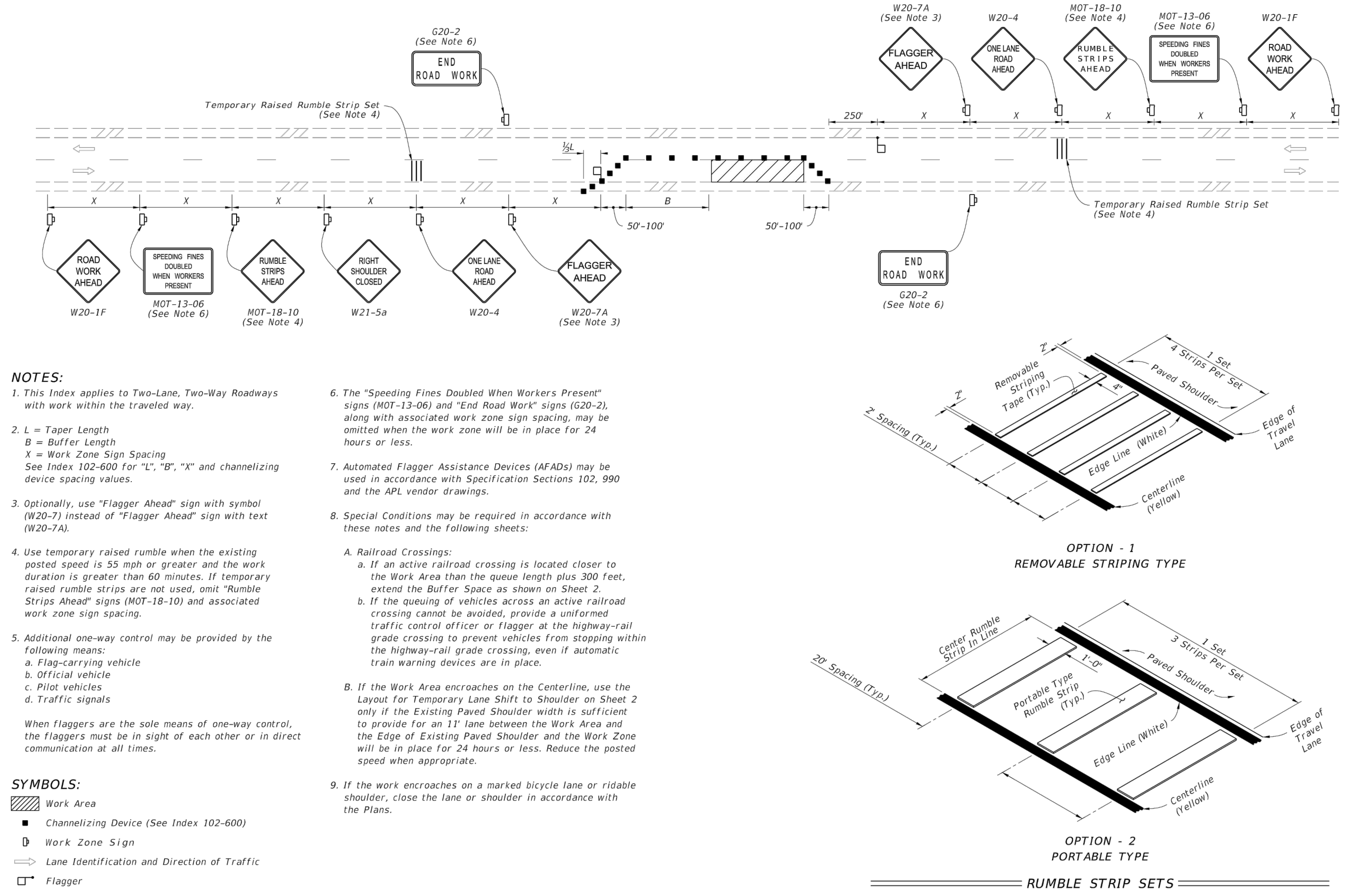
NOTE:
FDOT STANDARD TTC/MOT DETAILS ARE PROVIDED AS A REFERENCE TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING MOT PLANS NECESSARY TO COMPLETE THE WORK EFFORT(S) IN COMPLIANCE WITH OWNER'S STANDARDS FOR EACH PROJECT WORK AREA.

- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Work Zone Sign
 - Lane Identification and Direction of Traffic



LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX 102-602	SHEET 1 of 2
---------------------------	--------------	------	------------------------------	--	------------------	-----------------

LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX 102-602	SHEET 2 of 2
---------------------------	--------------	------	------------------------------	--	------------------	-----------------

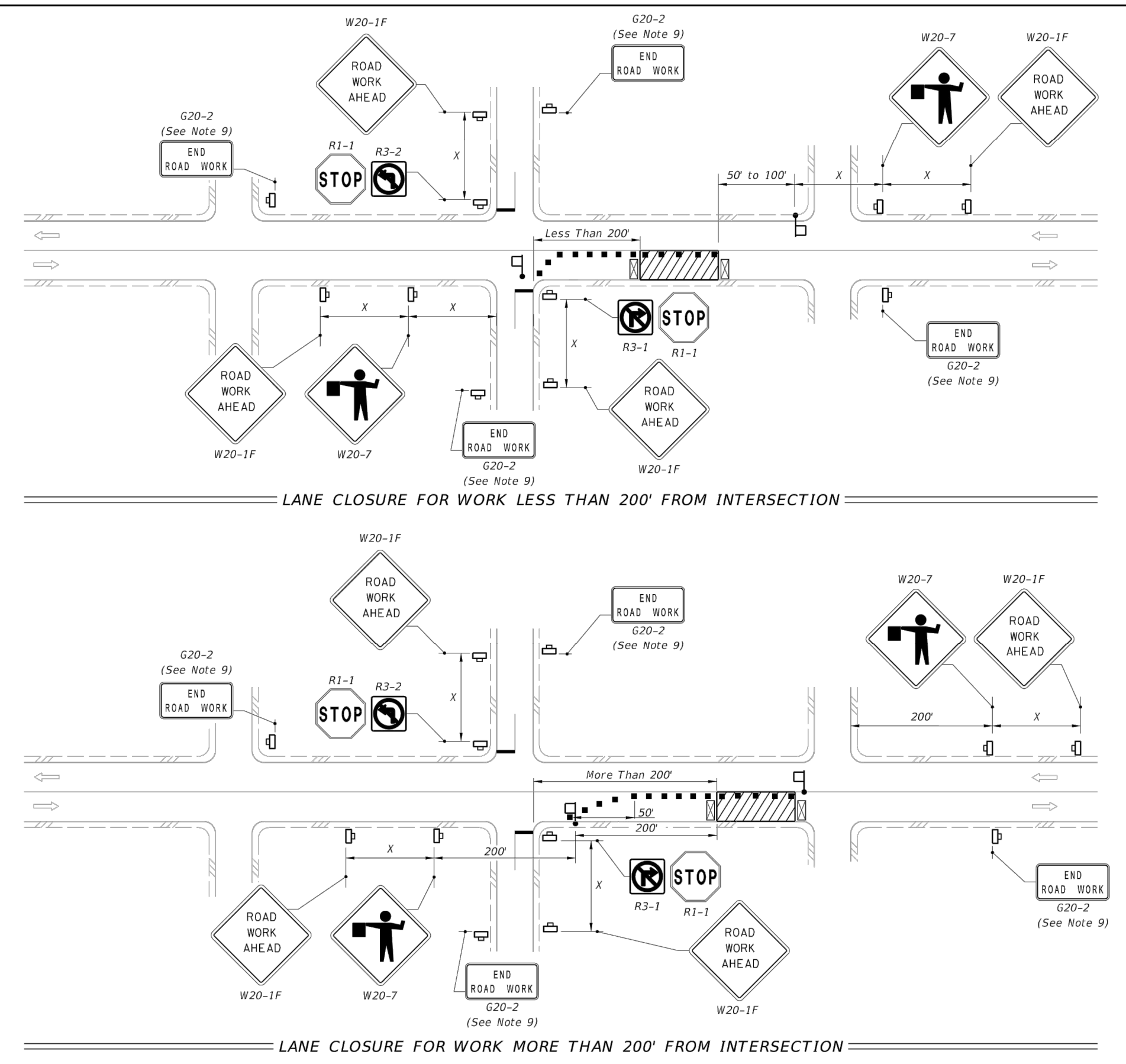


- NOTES:**
- This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
 - L = Taper Length
B = Buffer Length
X = Work Zone Sign Spacing
See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
 - Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
 - Use temporary raised rumble when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
 - Additional one-way control may be provided by the following means:
a. Flag-carrying vehicle
b. Official vehicle
c. Pilot vehicles
d. Traffic signals
 - When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
 - The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work zone will be in place for 24 hours or less.
 - Automated Flagger Assistance Devices (AFADS) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
 - Special Conditions may be required in accordance with these notes and the following sheets:
A. Railroad Crossings:
a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
B. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 2 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder and the Work Zone will be in place for 24 hours or less. Reduce the posted speed when appropriate.
 - If the work encroaches on a marked bicycle lane or rideable shoulder, close the lane or shoulder in accordance with the Plans.

LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX 102-603	SHEET 1 of 2
---------------------------	--------------	------	------------------------------	---	------------------	-----------------

- GENERAL NOTES:**
- This Index applies to two-lane, two-way roadways with work within or near the intersection.
 - X = Work Zone Sign Spacing
See Index 102-600 for "X" and channelizing device spacing values.
 - Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).
 - If vehicles in a parking zone block the line of sight to TCZ signs, locate and post mount signs in accordance with Index 700-101.
 - If the work area extends across a crosswalk, close the crosswalk in accordance with Index 102-660.
 - District Traffic Operations Engineer must approve temporary signal phasing modifications prior to beginning of work.
 - For unsignalized intersections, use Temporary Raised Rumble Strips in accordance with Index 102-603. Placement of Rumble Strips and additional signs should begin at FLAGGER sign location.
 - The "End Road Work" signs (G20-2) along with the associated work zone sign spacing may be omitted when the work zone will be in place for 24 hours or less.
 - If the work encroaches on a marked bicycle lane or rideable shoulder, close the lane or shoulder in accordance with the Plans.

- SYMBOLS:**
- Work Area
 - Channelizing Device (See Index 102-600)
 - Type III Barricade
 - Work Zone Sign
 - Stop Bar
 - Lane Identification and Direction of Traffic
 - Flagger



LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	TWO-LANE, TWO-WAY, INTERSECTION WORK	INDEX 102-604	SHEET 1 of 2
---------------------------	--------------	------	------------------------------	--------------------------------------	------------------	-----------------

RECORD DRAWINGS			
SURVEYED BY:	DRAWN BY:		
REVIEWED BY:	PROJECT ENGINEER:	DATE:	
APPROVED BY:	DATE:	REVISION:	
	OBID SET	VVV	12/2022
		BY	DATE

**CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING**
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

**CALL 811
SUNSHINE STATE
ONE CALL
OF FLORIDA**
www.callsunshine.com
(800) 432-4770
MIN. 48 HOURS
BEFORE YOU EXCAVATE

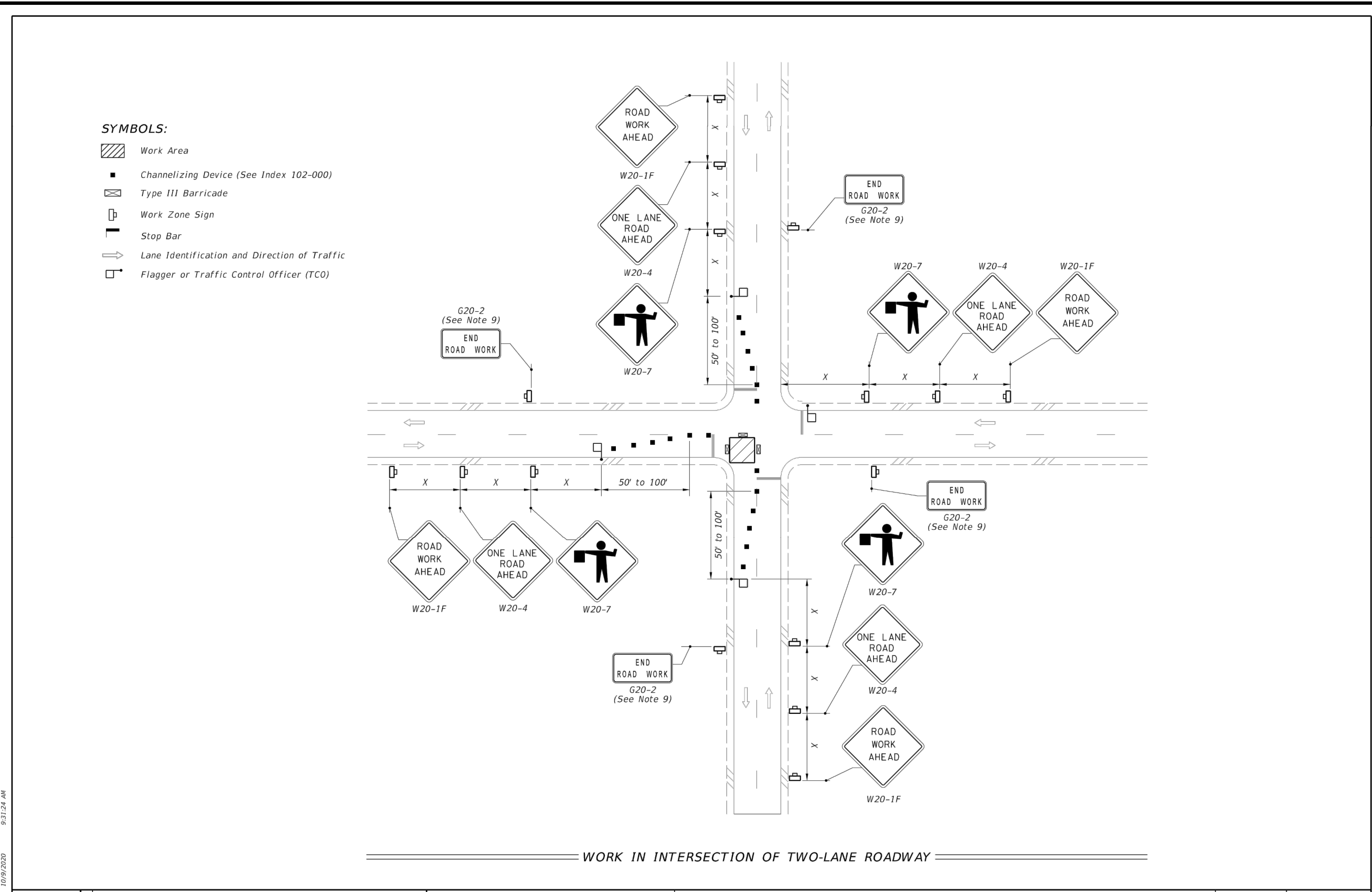
**CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS**
FDOT FY 2021-22 STANDARD PLANS DETAILS

DWG NO.: C20	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY:	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY:	CHECKED BY:	SHEET NO.: 23 OF 24

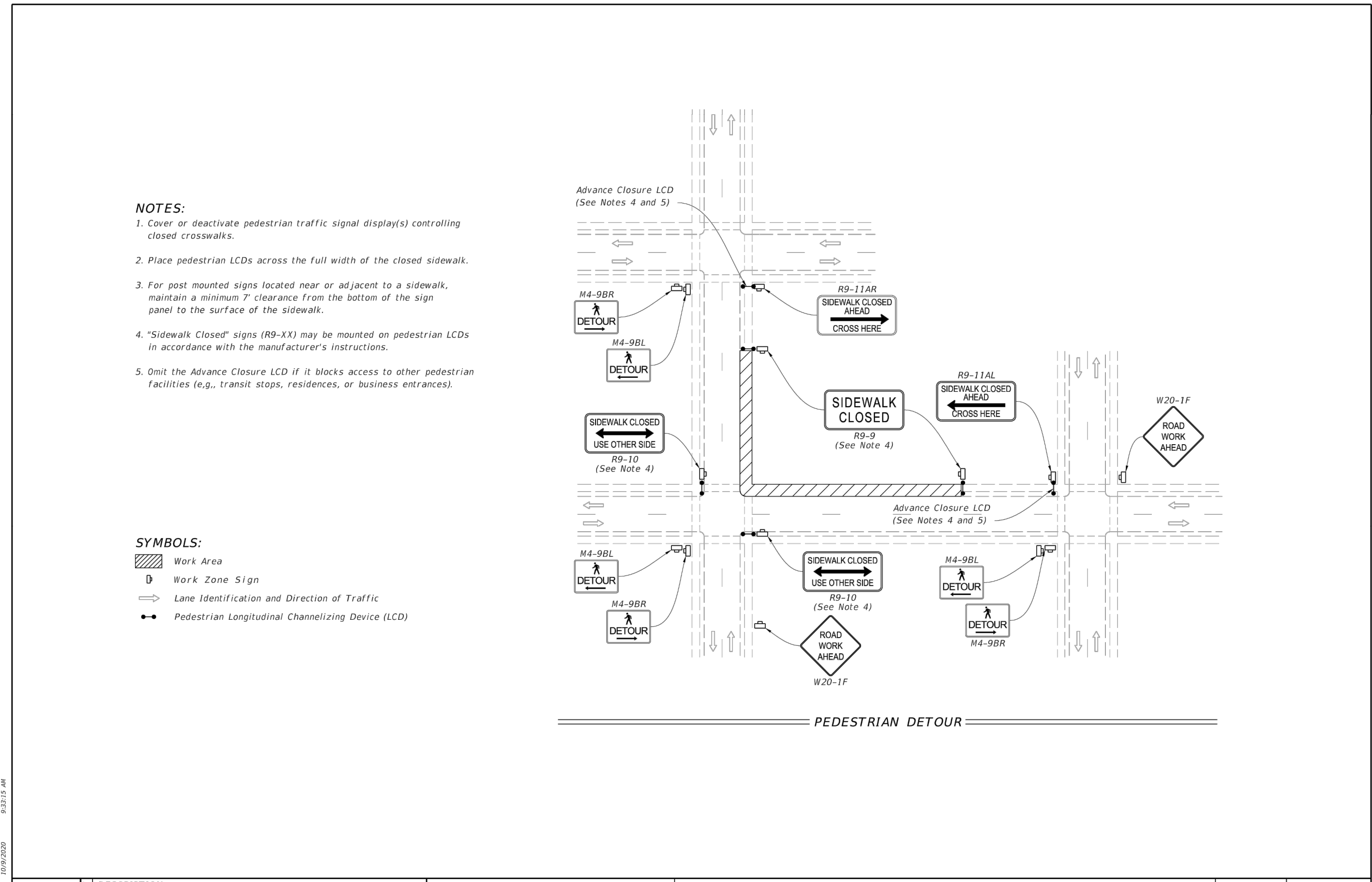
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
3907 EAST FRONTAGE ROAD SUITE 100
TAMPA, FL 33607
TEL: (813) 549-8919
CERTIFICATE OF AUTHORIZATION #28386

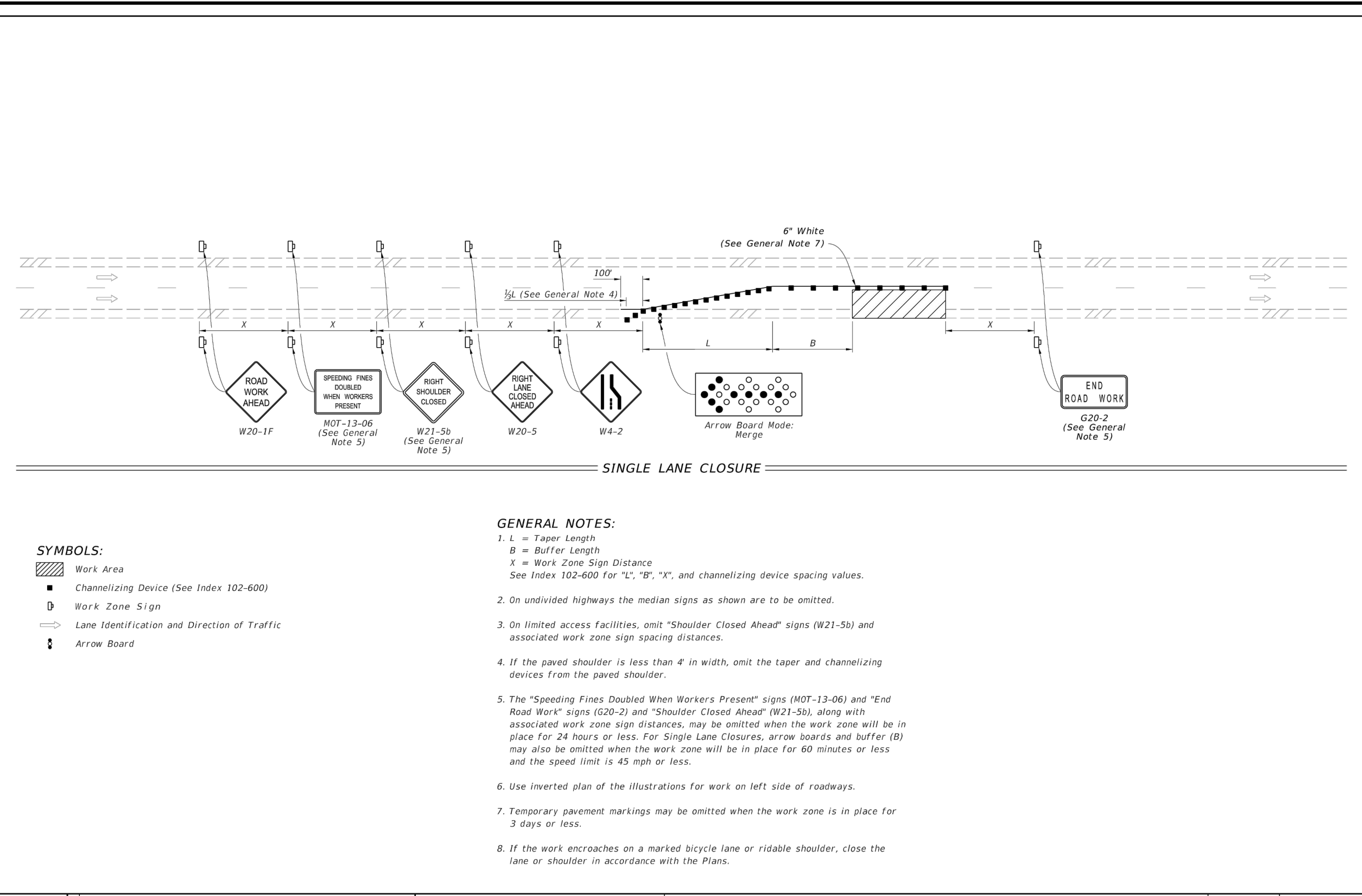
Parent Sheet: 102031_RCW Imp. Rev/Plot by: VANATTA, VIOLET Rev on: 10/12/2021 7:55 AM Individual File Path: V:\Projects\WSFL112\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\04_Drawings\01_CAD\C21



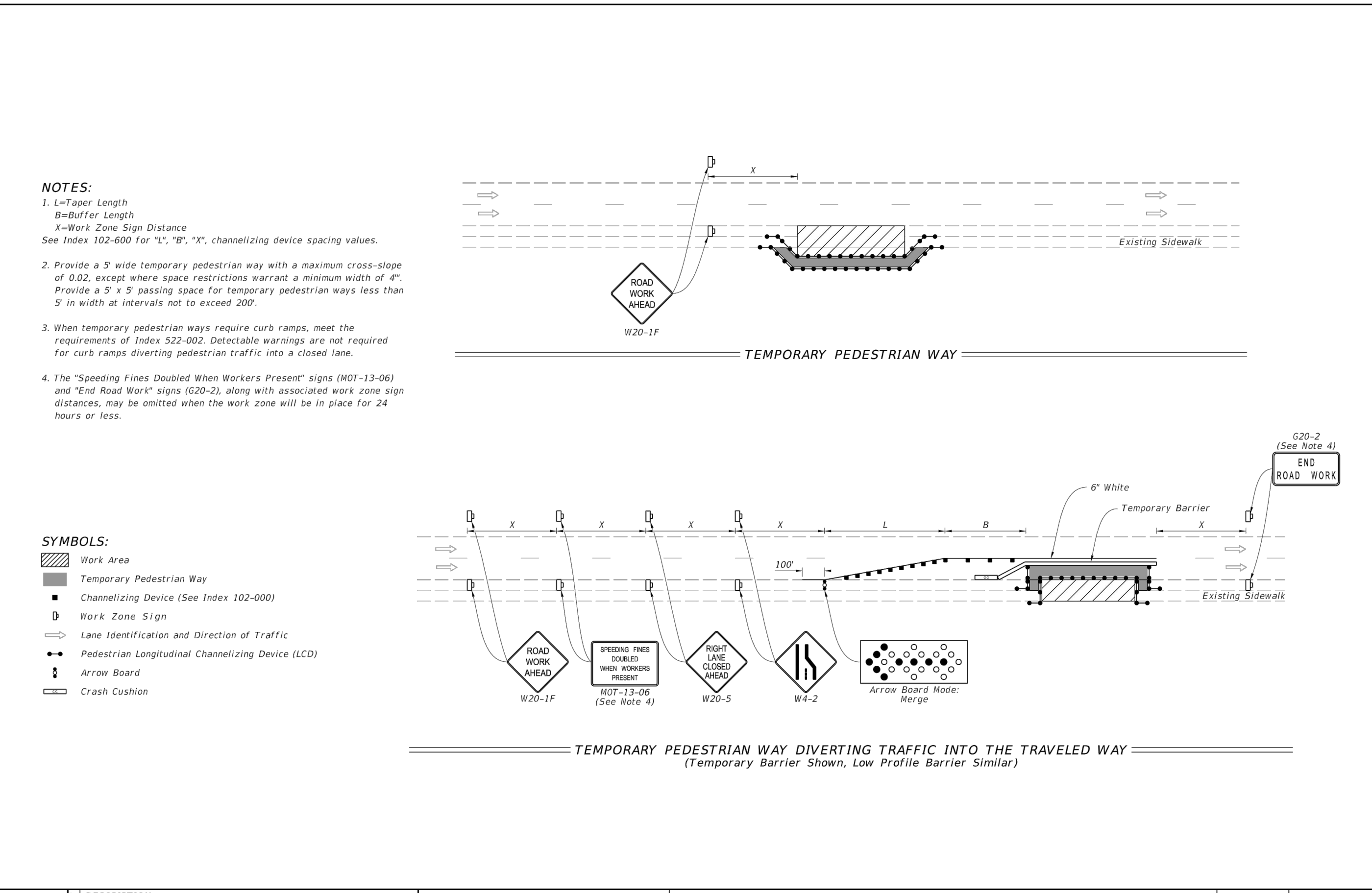
LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	TWO-LANE, TWO-WAY, INTERSECTION WORK	INDEX 102-604	SHEET 2 of 2
---------------------------	--------------	------	------------------------------	--------------------------------------	------------------	-----------------



LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	SIDEWALK CLOSURE	INDEX 102-660	SHEET 1 of 2
---------------------------	--------------	------	------------------------------	------------------	------------------	-----------------



LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX 102-613	SHEET 1 of 5
---------------------------	--------------	------	------------------------------	----------------------------------	------------------	-----------------



LAST REVISION 11/01/20	DESCRIPTION:	FDOT	FY 2021-22 STANDARD PLANS	SIDEWALK CLOSURE	INDEX 102-660	SHEET 2 of 2
---------------------------	--------------	------	------------------------------	------------------	------------------	-----------------

RECORD DRAWINGS					
SURVEYED BY:	DRAWN BY:				
REVIEWED BY:	PROJECT ENGINEER	DATE			
APPROVED BY:		DATE			
	OBID SET	VVV	12/2022		
	REVISION	BY	DATE		

**CITY OF CLEARWATER, FLORIDA
 PUBLIC WORKS DEPARTMENT -
 ENGINEERING**
 100 S. MYRTLE AVE.
 CLEARWATER, FL 33756

CALL 811
 SUNSHINE STATE
 ONE CALL
 OF FLORIDA
 www.callsunshine.com
 (800) 432-4770
 MIN. 48 HOURS
 BEFORE YOU EXCAVATE

**CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS**
 FDOT FY 2021-22 STANDARD PLANS DETAILS

DWG NAME: C21	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY:	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY:	CHECKED BY:	SHEET NO.: 24 OF 24

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CHA CONSULTING, INC.
 3507 EAST FRONTAGE ROAD SUITE 100
 TAMPA, FL 33607
 TEL: (813) 549-8919
 CERTIFICATE OF AUTHORIZATION #28386

SHEET INDEX

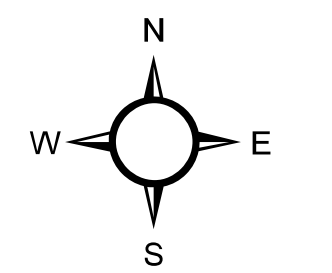
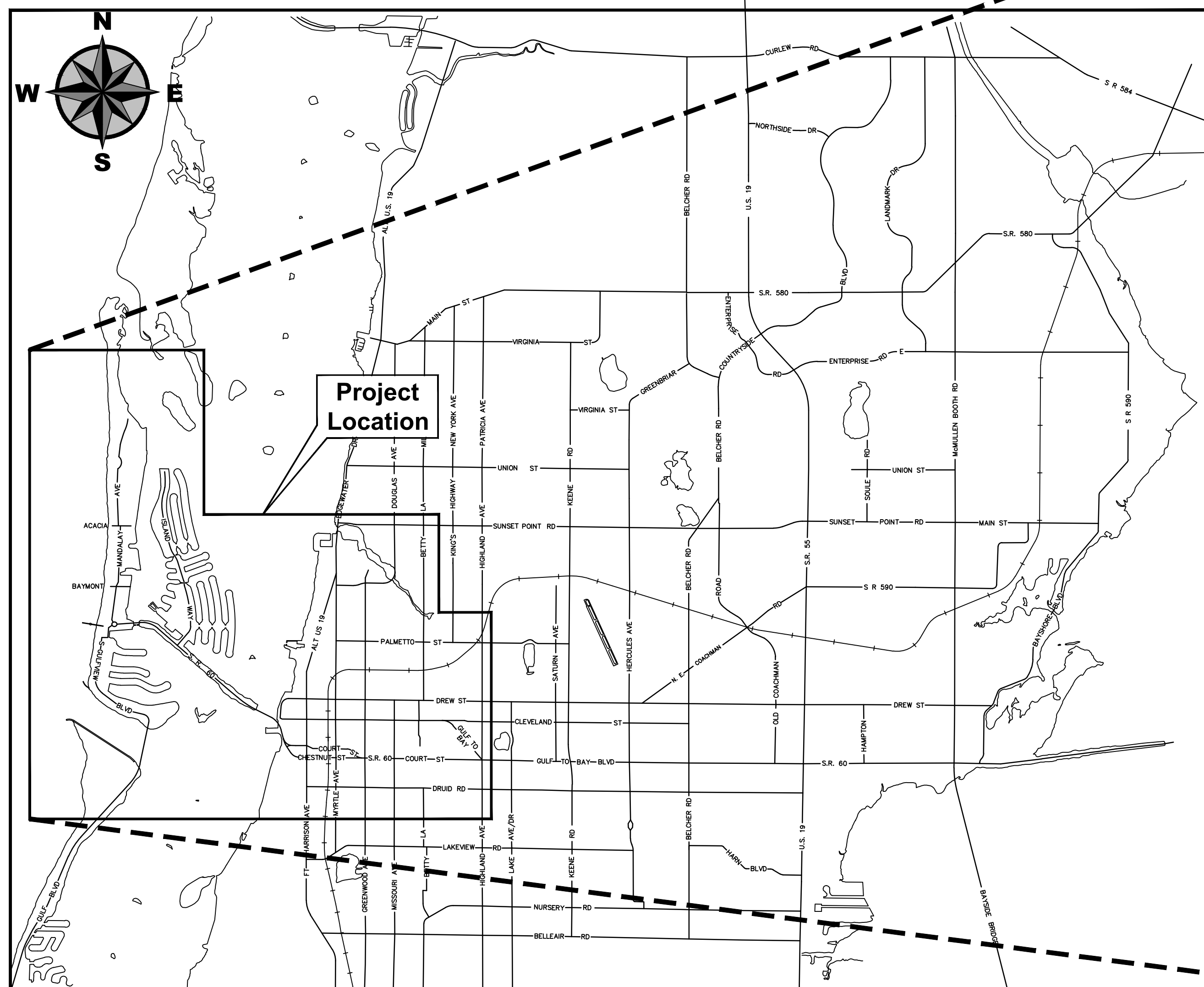
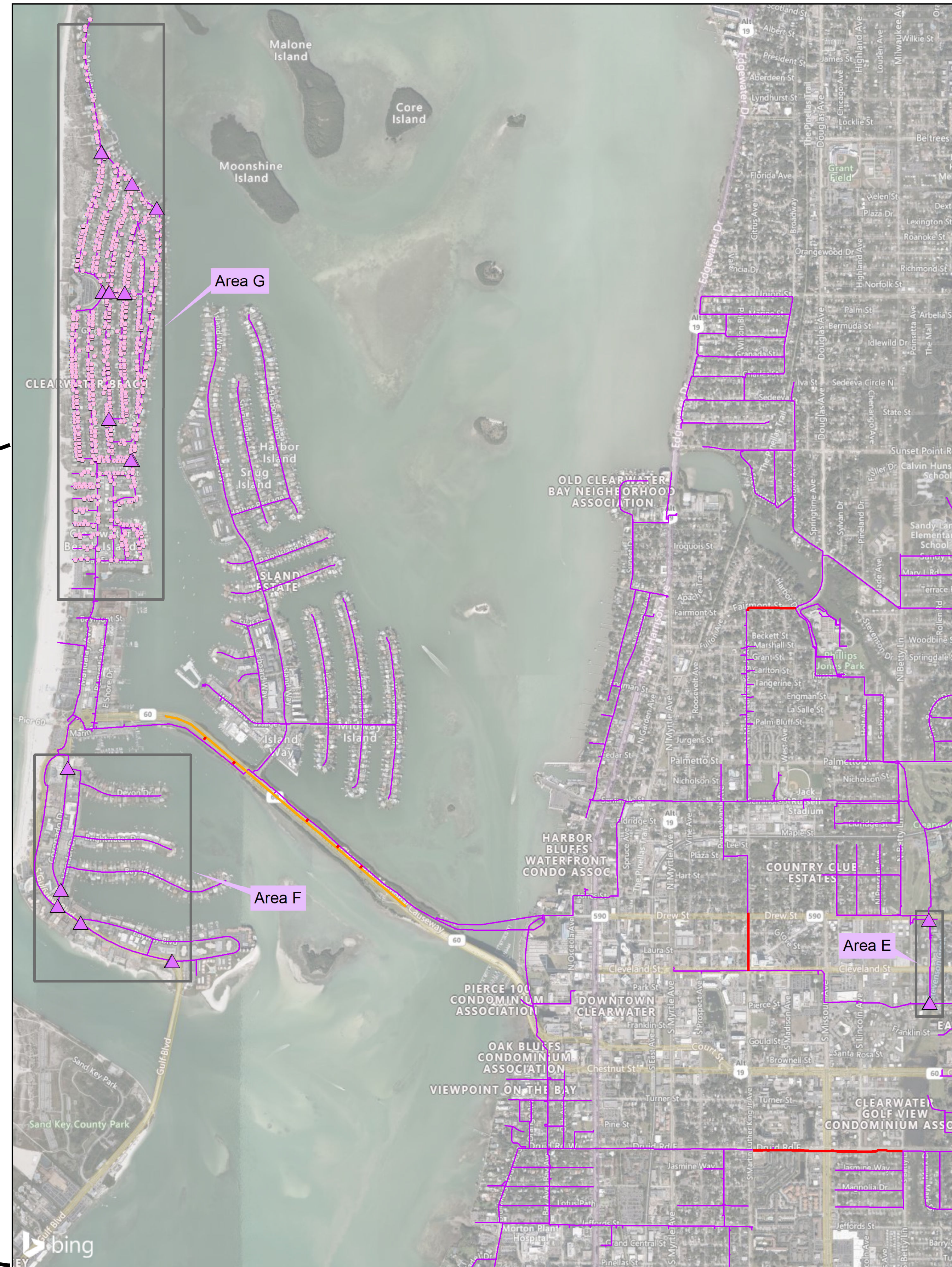
SHEET #	SHEET DESCRIPTION
01	COVER SHEET, SHEET INDEX, AND PROJECT LOCATION
02	GENERAL NOTES AND ABBREVIATIONS
03	AREA E VALVE COVER
04 - 05	AREA E VALVE MAPS
06	AREA F VALVE COVER
07 - 11	AREA F VALVE MAPS
12	AREA G VALVE COVER
13 - 20	AREA G VALVE MAPS
21	AREA G SERVICE LINE COVER
22	AREA G1 SERVICE LINE COVER
23	AREA G2 SERVICE LINE COVER
24	AREA G3 SERVICE LINE COVER
25	AREA G4 SERVICE LINE COVER
26	AREA G5 SERVICE LINE COVER
27	AREA G6 SERVICE LINE COVER
28	AREA G7 SERVICE LINE COVER
29	AREA G8 SERVICE LINE COVER

RECLAIMED WATER VALVE AND SERVIC LINE IMPROVEMENTS - AREAS E - G

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027



CLEARWATER
 BRIGHT AND BEAUTIFUL · BAY TO BEACH



LEGEND

- RCW Valve
- RCW Meter
- Proposed RCW Main
- Abandonment RCW Main
- Existing GIS RCW Main
- Area

GENERAL NOTES

- All work performed shall comply with the regulations and ordinances of the various governmental agencies having jurisdiction over the work.
- All workmanship and materials used in the construction of this project shall conform to the latest City of Clearwater standards, contract documents and specifications unless otherwise noted.
- Specific requirements of the Florida Department of Transportation (FDOT) "Design Standards" and "Standard Specifications for Road and Bridge Construction", most current editions, are incorporated into the contract documents by reference.
- The Contractor shall obtain all required permits prior to construction.
- The Contractor shall notify all utility companies at least forty eight (48) hours prior to start of construction, demolition and/or excavation in accordance with Florida Statutes.
- The Contractor shall call Sunshine 811, previously known as Sunshine State One Call of Florida, at 1-800-432-4770 or 811, a minimum of two (2) days and a maximum of five (5) days prior to start of construction.
- Locations, elevations and dimensions of existing utilities, structures and other features are shown according to the best information available at the time of the preparation of these plans, but do not purport to be absolutely correct. The Contractor shall verify the location, elevations and dimensions of all existing utilities, structures and other features affecting the work prior to construction.
- The Contractor shall be responsible to review the site to determine existing conditions. Anything not shown on these plans shall be brought to the attention of the City's Engineering Representative and shall not constitute additional scope of work approved by the Engineer.
- The Contractor shall contact the City's Engineering Representative immediately concerning any conflicts arising during construction.
- All construction activities must conform to the local noise ordinance.
- Hours of work shall be in accordance with the local governmental agency.
- These drawings do not include necessary components for construction safety. The Contractor is solely responsible for construction safety. Special precautions may be required in the vicinity of power lines and other utilities.
- The Contractor shall furnish, erect and maintain all necessary traffic control and safety devices in accordance with the U.S. Department of Transportation, "Manual on Uniform Traffic Control Devices" and the latest Florida Department of Transportation "Design Standards".
- The Contractor shall provide, erect and maintain effective barricades, danger signals, signs and pedestrian detours in all areas where required for the protection of the work and the safety of the public.
- Maintenance of Traffic (MOT); if it becomes necessary for the Contractor to close any street to through traffic within the limits of construction, access for local traffic with destination within the project limits of construction shall be maintained. If during construction, access for local traffic is changed, the property owners affected shall be given at least three (3) days advance notice. The Contractor shall submit to the City's Engineering Representative the Traffic Control Plan for approval prior to implementation.
- A registered Land Surveyor, at the Contractor's expense, shall reset all section corners or property corners dislocated or disturbed by any construction related activities.
- Any National Geodetic Survey (NGS) Monument within the limits of construction is to be protected. If in danger of damage, contractor shall notify the city's field representative immediately and contact the National Geodetic Survey information center.
- Unless noted on the plans, final grade is to generally be the same as existing grade. Restore uniformly and for proper yard drainage grade toward roadway.
- All new utilities shall be installed with the minimum thirty six (36) inches of cover.
- Where utilities cross the lowest pipe shall be installed first.
- The Contractor shall be responsible for testing of all newly constructed utilities in accordance with current standards of local jurisdiction. The Contractor shall notify the local jurisdiction and the Owner or an authorized representative at least forty eight (48) hours in advance of performing tests.
- The Contractor shall provide all sheeting, shoring and bracing required to protect adjacent structures or to minimize trench width. Where a separate pay item is not provided, the cost of all sheeting and bracing required shall be included in the contract price for the item of work for which sheeting, shoring and bracing is anticipated to be required in accordance with local, state, or federal regulations for construction.
- All concrete shall have a minimum compressive strength of 3,000 psi (28-day strength), unless otherwise noted on drawings.
- No surfacing material is to be applied to any manhole covers, frames, valve boxes, gas drops, etc. All existing and proposed utility and storm sewer structures whose tops will be exposed within any paved area shall be adjusted so that the top surface of covers or frames shall be flush with the pavement surface.
- Materials interfering with construction shall be disposed of as directed by the City's Engineering Representative, unless otherwise noted on plans.
- All excess soil resulting from construction activities that is not claimed by the Owner shall become the property of the Contractor and disposed of by the Contractor.
- All disturbed landscaped and/or grassed areas shall be restored uniformly and be generally at the same elevation as existing grades.
- All disturbed areas shall be replaced within fifteen (15) days to a condition equal to or better than existing conditions.
- All voids after placement of sod shall be filled with prepared soil mix. The sod shall be rolled to meet the proposed grades. Sod placed on slopes 3:1 or steeper shall be pegged.
- Areas of exposed earth resulting from construction shall be sodded in kind as directed by the City's Engineering Representative unless otherwise noted on plans.
- The Contractor shall maintain an accurate set of marked-up drawings (As-Builts) at the construction site.
- A CCTV inspection of the new sewer system in digital format utilizing the industry standard Pipeline Assessment and Certification Program (PACP) coding system shall be provided to the City. The video shall be taken prior to placing the new sewer system into service. Data will be collected utilizing CUES Granite software.
- Installation of gravity sewer pipe shall be in conformance with recommended practices contained in Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications ASTM D2321. Connections to manholes with sanitary pipe shall use a joint two (2) feet in length and shall use an approved water stop around pipe joint entry.
- The bottom trench width in an unsupported trench shall be limited to the minimum practicable width allowing working space to place and compact the hunching material. The use of trench boxes and movable sheeting shall be performed in such a manner that removal, backfill and compaction will not disturb compacted haunching material or pipe alignment. Dewatering of the trench bottom shall be accomplished using adequate means to allow preparation of bedding, placement of the haunching material and pipe in the trench without standing water. Dewatering shall continue until sufficient backfill is placed above the pipe to prevent flotation or misalignment.
- The Contractor shall dispose of all unsuitable materials, construction debris, and other waste materials offsite in accordance with applicable regulatory agency requirements at the Contractor's expense. All backfill shall be free of unsuitable materials.
- The Contractor shall be responsible for providing a Hurricane Preparation Plan to the City's Engineering Representative for review and approval prior to commencing construction activities.
- Any damage to city, county, or state roads caused by the Contractor shall be repaired by the Contractor in a timely manner and to the satisfaction of the City's Engineering Representative. Payment shall not be made for this work.
- The Contractor shall protect private property.

- All RCW water service lines and meter boxes shall be installed with a minimum five (5) foot separation from existing potable water meter boxes and service lines, however separation may be reduced to three (3) foot where space is limited as approved by City's Engineering Representative.
- The Contractor shall provide the City 60 days notice prior to starting any service line connections.
- City of Clearwater to provide RCW service meter box location sheets to City's Engineering Representative directing location of RCW meter boxes to be installed.
- All lane closures and work affecting traffic shall be scheduled, coordinated, and approved by the City. No lane closures on Memorial Causeway (SR60) will be allowed during Spring Break.

SURVEY NOTES

- The City of Clearwater Control Network's Horizontal Datum is: North American Datum (N.A.D.), Florida State Plane Coordinates, Florida West Zone 83(1999).
- The City of Clearwater Control Network's Vertical Datum is: North American Vertical Datum (N.A.V.D.) 1988.
- The survey was provided by ECHO UES, INC. The last date of field survey is 03-03-2021.

TREE PROTECTION

- The Contractor will be responsible for adhering to all Tree Protection measures required by the City of Clearwater codes, ordinances and Standard Specifications. This will include all tree barricades, root pruning and tree trimming/pruning activities. These requirements will apply within the specified "limits of work" and will also be applicable in all areas where the Contractor and/or his subcontractors stage, store or park vehicles, equipment, materials and debris.
- All tree pruning and/or root pruning on existing trees to be preserved will only be performed by or under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist. Furthermore, all tree work shall conform to the American National Standards Institute (ANSI) 2001, American National Standard for Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard Practices (Pruning) ANSI A-300.
- Where called for on the plans, install tree barricades, erosion control/silt fencing or other approved protective barriers around all trees to be preserved, per City Standard Detail. Where applicable, and specifically approved by the City's Engineering Representative protective barriers may be placed in root prune trenches.
- Prior to any field changes taking place, it will be the Contractor's responsibility to review the potential impacts to existing trees with his Certified Arborist, and include any and all recommended tree protection measures in his proposal to modify the approved design. The City's Engineering Representative must approve, in writing, any changes to the approved design prior to implementation of said change.
- The Contractor will avoid any open excavations, fill or other construction activities whenever possible within the "critical root zone" of any existing tree (i.e., under the drip line/canopy).
- No vehicles, equipment or materials shall be parked or stored under/within the drip line/protective barrier area of any tree.
- Where construction activities are anticipated to last for an extended period of time near existing trees, the Contractor shall install and maintain City approved tree barricades as shown in the Standard Details and as approved by the City's Engineering Representative.
- Woodchips, mulch or another cushioning surface material approved by the City's Engineering Representative shall be placed to a minimum depth of ten (10) inches over areas where roots are present and construction traffic occurs.
- All tree protection measures shall remain in place at all times during construction until the City's Engineering Representative authorizes removal.
- The Contractor will coordinate with the City's Engineering Representative, Catherine Corcoran, at (727) 532-4749, to obtain approval in advance of any and all work within the critical root zone of any existing tree.

SEDIMENT & EROSION CONTROL

- It is the responsibility of the Contractor to control and prevent erosion and the transportation of sediment to surface drains and outfalls.
- The Contractor shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Florida Department of Environmental Protection (FDEP) Criteria for a National Pollution Discharge Elimination System (NPDES) Activities Permit.
- The Contractor must obtain a FDEP Generic Permit for The Discharge of Produced Ground Water, if dewatering with offsite discharge will be required. The Contractor is responsible for all required preliminary water samples to satisfy the FDEP Generic Permit for the Discharge of Produced Ground Water. Sampling shall occur thirty (30) days prior to the start of dewatering.
- Construction operations shall be carried out in such a manner that erosion and pollution shall be minimized. The submitted SWPPP shall be complied with. All applicable federal, state, and local laws shall be complied with at all times. Please note that no hay bales are allowed on City of Clearwater projects.

ROOT PRUNING

- Root pruning shall only be performed by or under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist.
- Any proposed root pruning trenches shall be identified (i.e., staked or painted) on site, inspected and approved by the City's Engineering Representative prior to actual root pruning.
- Root pruning shall be performed as far in advance of other construction activities as is feasible, but at a minimum shall be performed prior to any impacts to the soil. Associated tree protection measures should be implemented upon completion of said root pruning.
- If there is a likelihood of excessive wind and/or rain, an exceptional care shall be taken on any root pruning activities.
- Root pruning shall be limited to a minimum of twelve inches per one inch trunk diameter from the tree base. Any exception must be approved by the City's Engineering Representative prior to said root pruning.
- Roots shall be cut cleanly, as far from the trunk of the tree as possible. Root pruning shall be done to a minimum depth of eighteen (18) inches from existing grade, or to the depth of the disturbance if less than eighteen (18) inches.
- Root pruning shall be performed using a root cutting machine designed specifically for this purpose. Alternate equipment or techniques must be approved by the City's Engineering Representative, prior to any work adjacent to trees to be preserved.
- Root pruning shall be completed, inspected and accepted prior to the commencement of any excavation or other impacts to the critical root zones of trees to be protected.
- Excavations in an area where root are present shall not cause the tearing or ripping of tree roots. Roots must first be cleanly severed prior to continuing with the excavation, or tunneled around to prevent damage to the root.
- Tree roots shall not be exposed to drying out. Root ends shall be covered with native soil or burlap and kept moist until final backfill or final grades have been established.
- When deemed appropriate (e.g. during periods of drought) the city representative may require a temporary irrigation system be utilized in the remaining critical root zones of root pruned trees.

SUMMARY OF WORK

S. Lady Mary Drive Valve Replacements

- Remove and replace one (1) 12-inch, two (2) 16-inch, and one (1) 20-inch reclaimed water valves. See below for product requirements.

South Beach Valve Replacements

- Remove and replace three (3) 6-inch, two (2) 8-inch, and five (5) 12-inch reclaimed water valves. See below for product requirements.

North Beach Valve Replacements and Service Line Replacements

- Remove and replace thirteen (13) 6-inch, three (3) 8-inch, and three (3) 12-inch reclaimed water valves. See below for product requirements.
- Remove and replace eight hundred and eight (808) reclaimed water service connections. See below for product requirements.

VALVE REPLACEMENTS

- Valve replacements shall include but not be limited to all labor and material necessary to furnish and install the valve size and type identified in the contract documents. This shall include but not be limited to any necessary removal, proper disposal, restraining of existing pipe, line stopping, bedding material, concrete, sheeting, shoring and bracing, backfilling, compacting, erosion control, as well as the valve size and type identified, valve box, cover, and all incidental and related work to complete each valve replacement or installation.
- The Contractor shall coordinate with the City for coordinating any service interruptions required to complete the installation of reclaimed water valves. In lieu of the line stopping, the City may allow temporary shut downs of the reclaimed water distribution system to facilitate the installation of the reclaimed water valves. All efforts shall be made by the Contractor to minimize the amount of time required to install the proposed valves.
- Potable water service shall be maintained throughout the duration of installation of line valves.
- Contractor shall temporarily install and maintain a temporary driving surface asphalt millings, etc. when removing any driveways until the driveways are permanently restored.
- Contractor shall maintain roadway access at all times. Where temporary closures are required, the Contractor shall coordinate with the City for temporary traffic control and any restrictions for road closure times/duration.
- Contractor shall install tree protection as necessary in accordance with City Standard Detail 909. Contractor shall coordinate with Arborist for proper completion of tree protection and root pruning.

SERVICE LINE REPLACEMENTS

- Service line replacements shall include but not be limited to all labor and material necessary to furnish and install the size service connection in kind with the existing size. Contractor shall install service line replacements using trenchless means. This item shall include all service tubing and accessories including casing, connections, fittings, reducers, service saddle, corporation stops, meter box, curb stop, tracer wire, labor, machinery, construction equipment, roadway subbase and asphalt repair, adjusting/relocating, supporting, protecting or replacement of existing underground or aboveground utilities including associated utility coordination; and necessary materials, work and equipment required to rehabilitate a complete operable service connection.
- Contractor shall coordinate with the City and field representatives for placement of any meter boxes for new or relocated services.
- Contractor shall temporarily install and maintain a temporary driving surface asphalt millings, etc. when removing any driveways until the driveways are permanently restored.
- Contractor shall maintain water service at all times to customers. any interruptions shall be coordinated with the city with minimum 10 day notice.
- Contractor shall install tree protection as necessary in accordance with City Standard Detail 909. Contractor shall coordinate with Arborist for proper completion of tree protection and root pruning.

Parent Sheet Set:102031_RCW Imp. Rev/Plot by:VANATTA, WOLET Individual File Path:C:\Users\7623\OneDrive - CHA Consulting, Inc\Desktop\01_CAD\G02 Rev on:1/6/2022 8:58 AM

RECORD DRAWINGS				
SURVEYED BY:	DRAWN BY:			
REVIEWED BY:				
PROJECT ENGINEER	DATE			
APPROVED BY:				
	DATE			
	OBID SET	VVV	12/2022	
	REVISION	BY	DATE	

CITY OF CLEARWATER, FLORIDA
PUBLIC WORKS DEPARTMENT -
ENGINEERING
100 S. MYRTLE AVE.
CLEARWATER, FL 33756

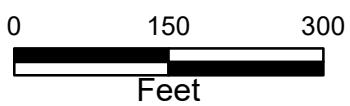
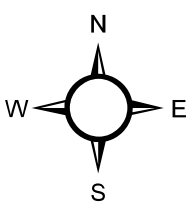
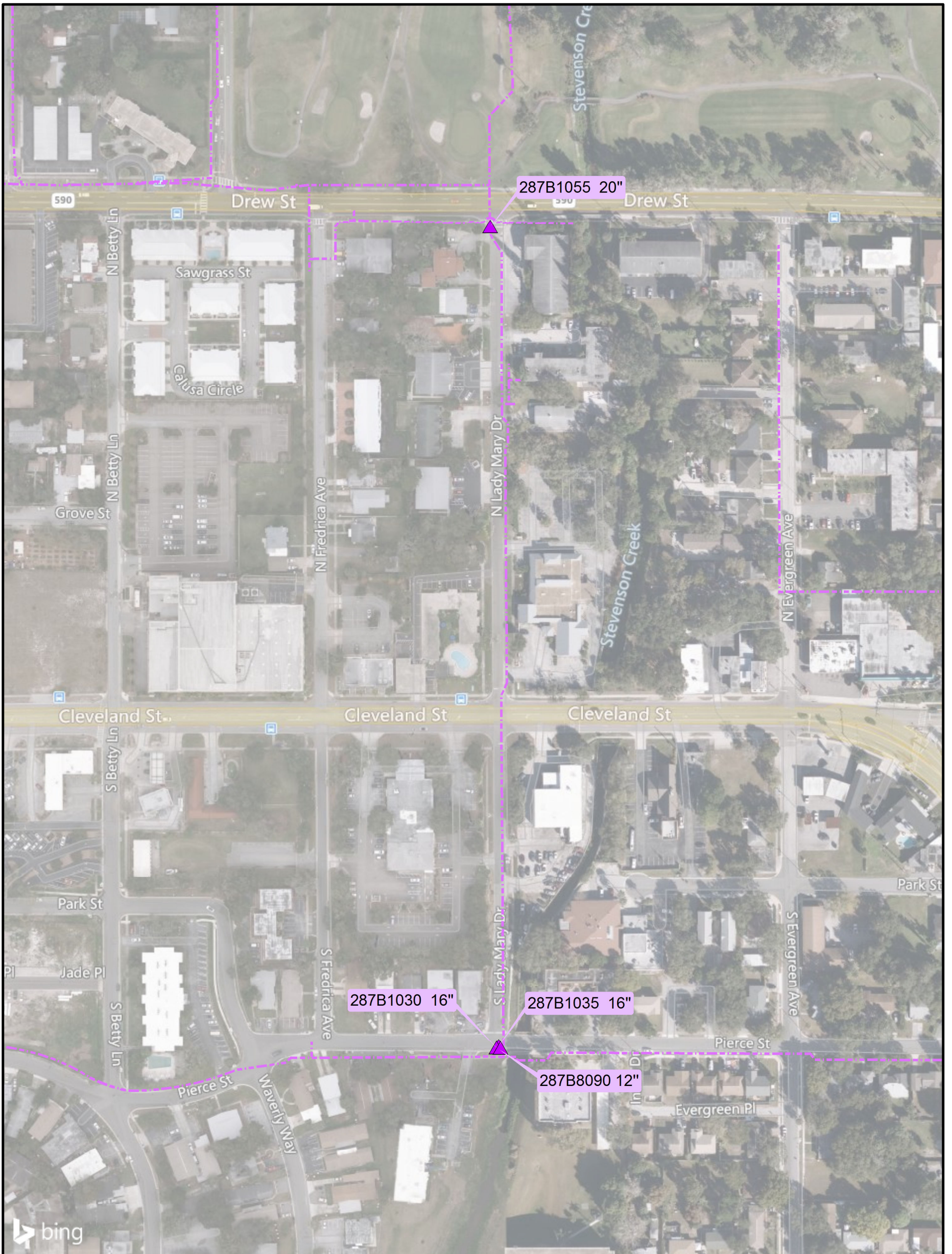


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS

GENERAL NOTES AND ABBREVIATIONS

DWG NAME: G02	FIELD BOOK: N/A	SURVEYED BY: N/A	SCALE: VERT. AS NOTED
CONTRACT NO.: 21-0029-UT	DATE DRAWN: 12/2022	DRAWN BY: VVV	HORIZ. AS NOTED
JOB NO.: 102031	DESIGNED BY: WTH	CHECKED BY: SC/MKW	SHEET NO.: 02

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WESTON HAGGEN. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



LEGEND

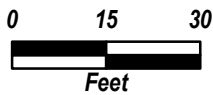
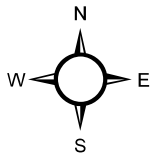
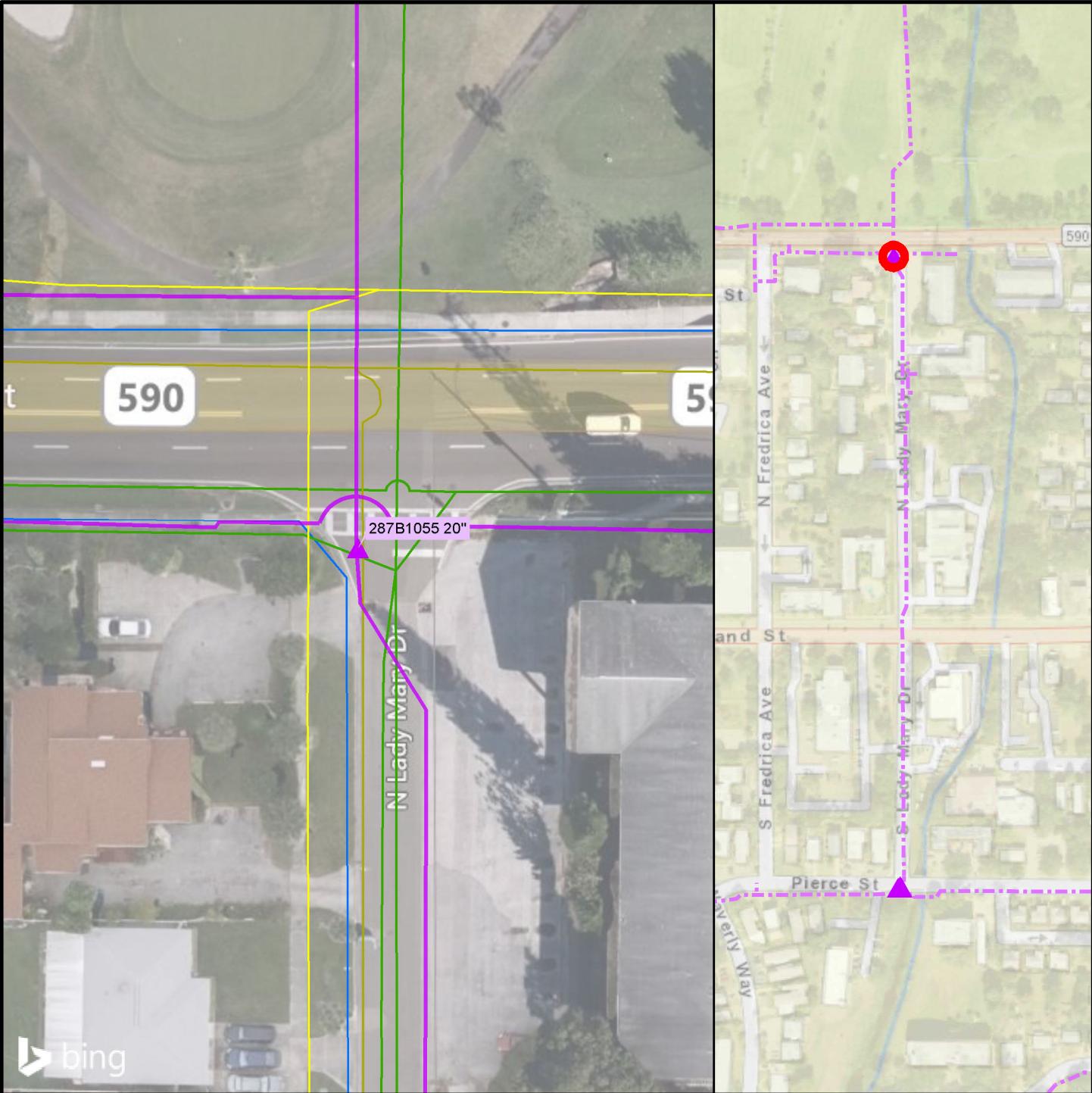
- ▲ RCW Valve
- - - Existing GIS RCW Main

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027



CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
S Lady Mary Dr Valve Replacements (Area E)

FIGURE E



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

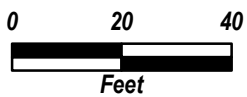
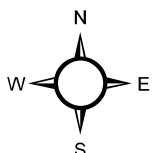
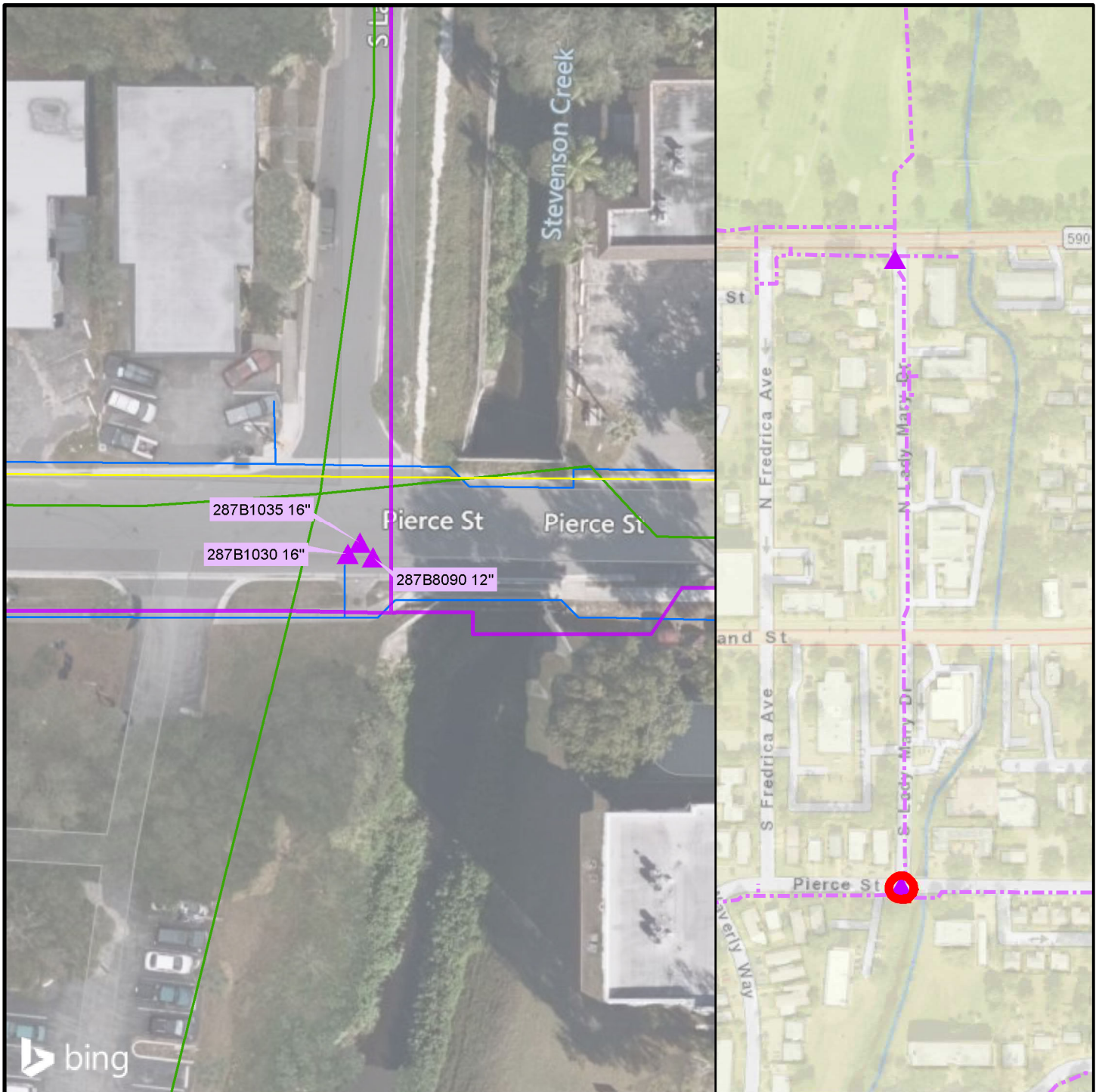
Intersection: S Lady Mary and Drew
 Valve IDs: 287B1055 20"

Top of Valve Nut within Valve Box is
 ~48" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - S Lady Mary and Drew

FIGURE E-1



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

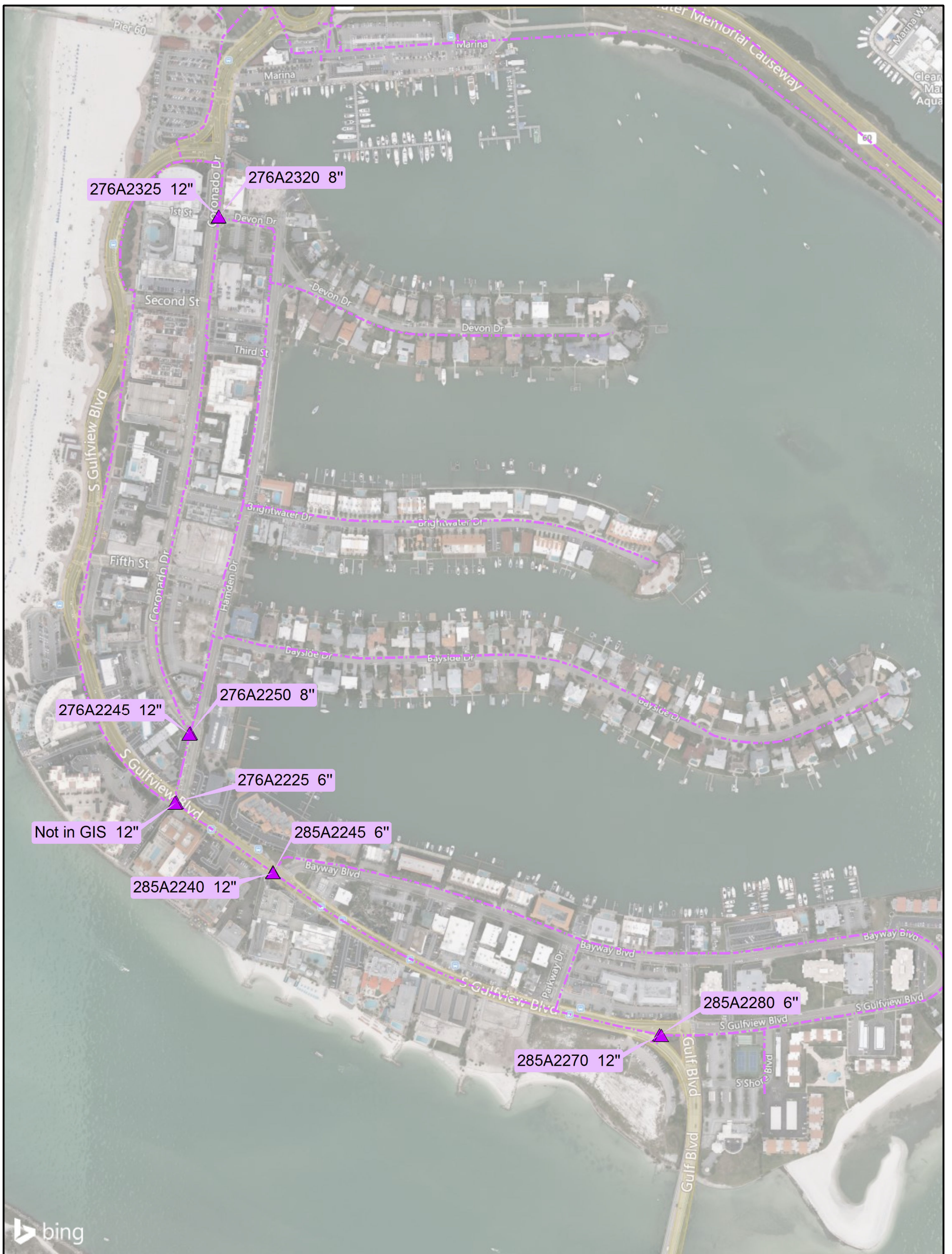
Intersection: S Lady Mary and Pierce
 Valve IDs: 287B1030 16"
 287B1035 16"
 287B8090 12"

Top of Valve Nuts within Valve Boxes
 are less than 24" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - S Lady Mary and Pierce

FIGURE E-2



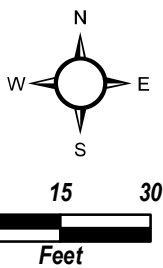
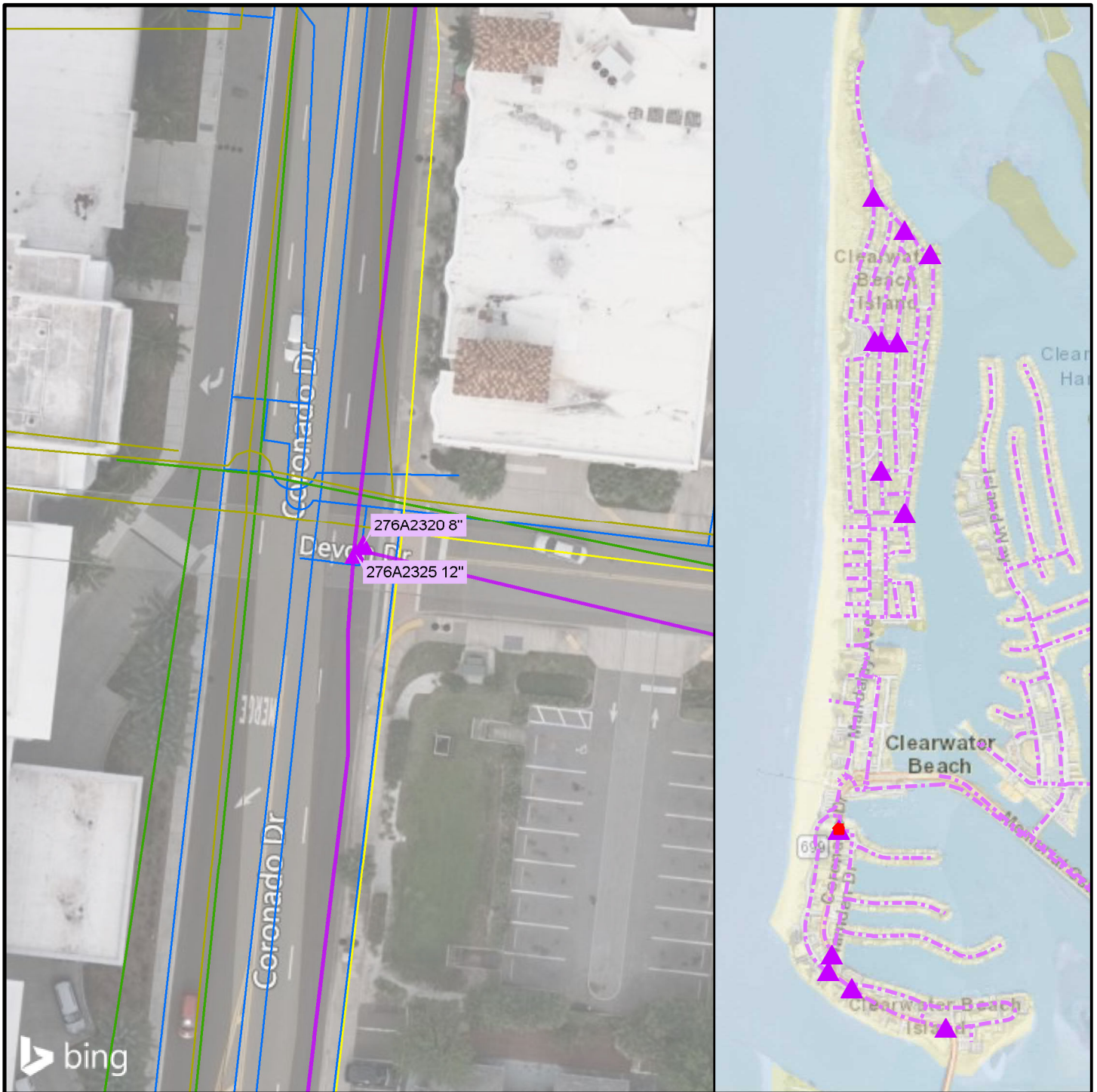
0 500 1,000
Feet

LEGEND

- ▲ RCW Valve
- - - Existing GIS RCW Main

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027

P:\102000 Clearwater\00_Projects\102031 - Reclaimed Water Pipe Improvements\60_Design\06_GIS\MXD\Memo Figures\Area F Figure 1 Valves.mxd



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

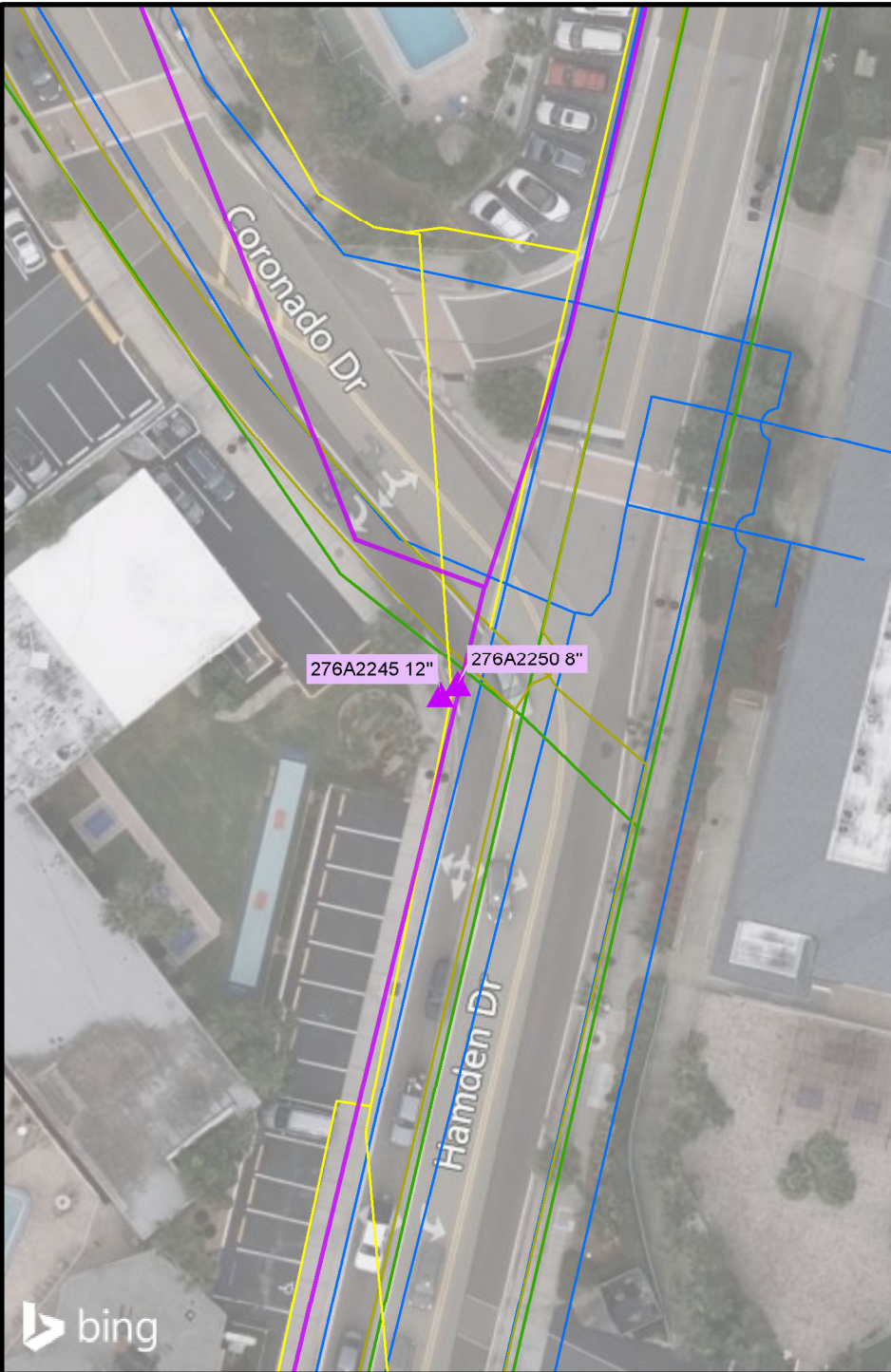
Intersection: Coronado and Devon
 Valve IDs: 276A2320 8"
 276A2325 12"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.

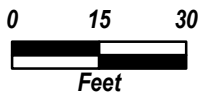
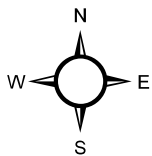


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Coronado and Devon

FIGURE F-1



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

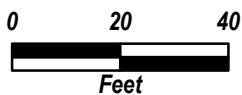
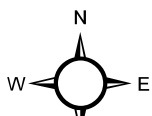
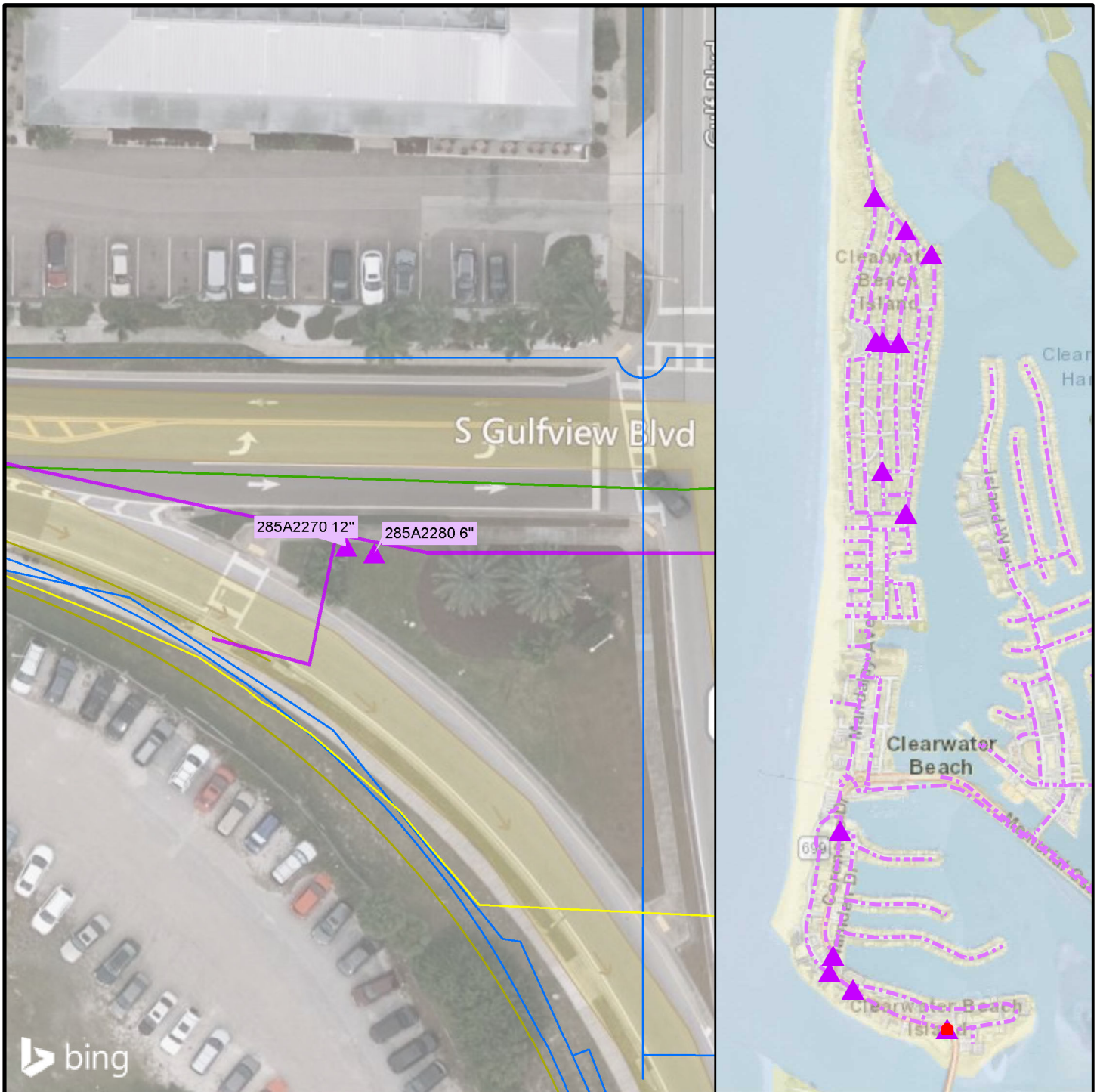
Intersection: Coronado and Hamden
 Valve IDs: 276A2245 12"
 276A2250 8"

Top of Valve Nuts within Valve Boxes are less than 48" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Coronado and Hamden

FIGURE F-2



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

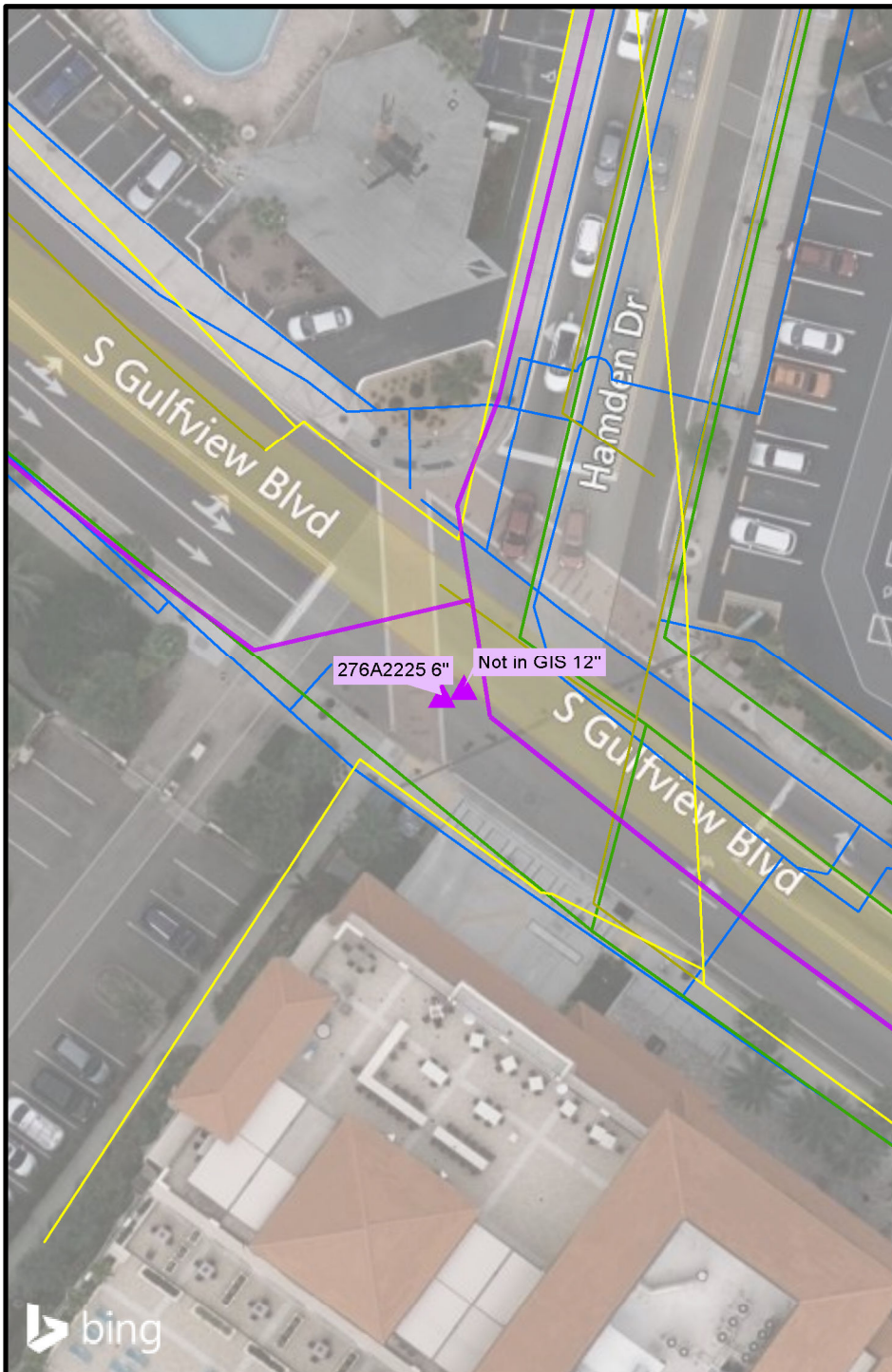
Intersection: Gulf Blvd and S Gulfview
 Valve IDs: 285A2270 12"
 285A2280 6"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.

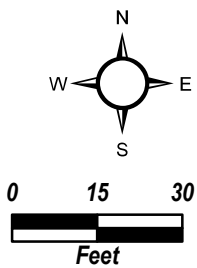


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Gulf Blvd and S Gulfview

FIGURE F-3



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

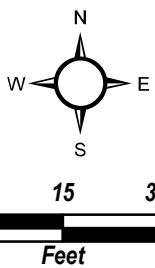
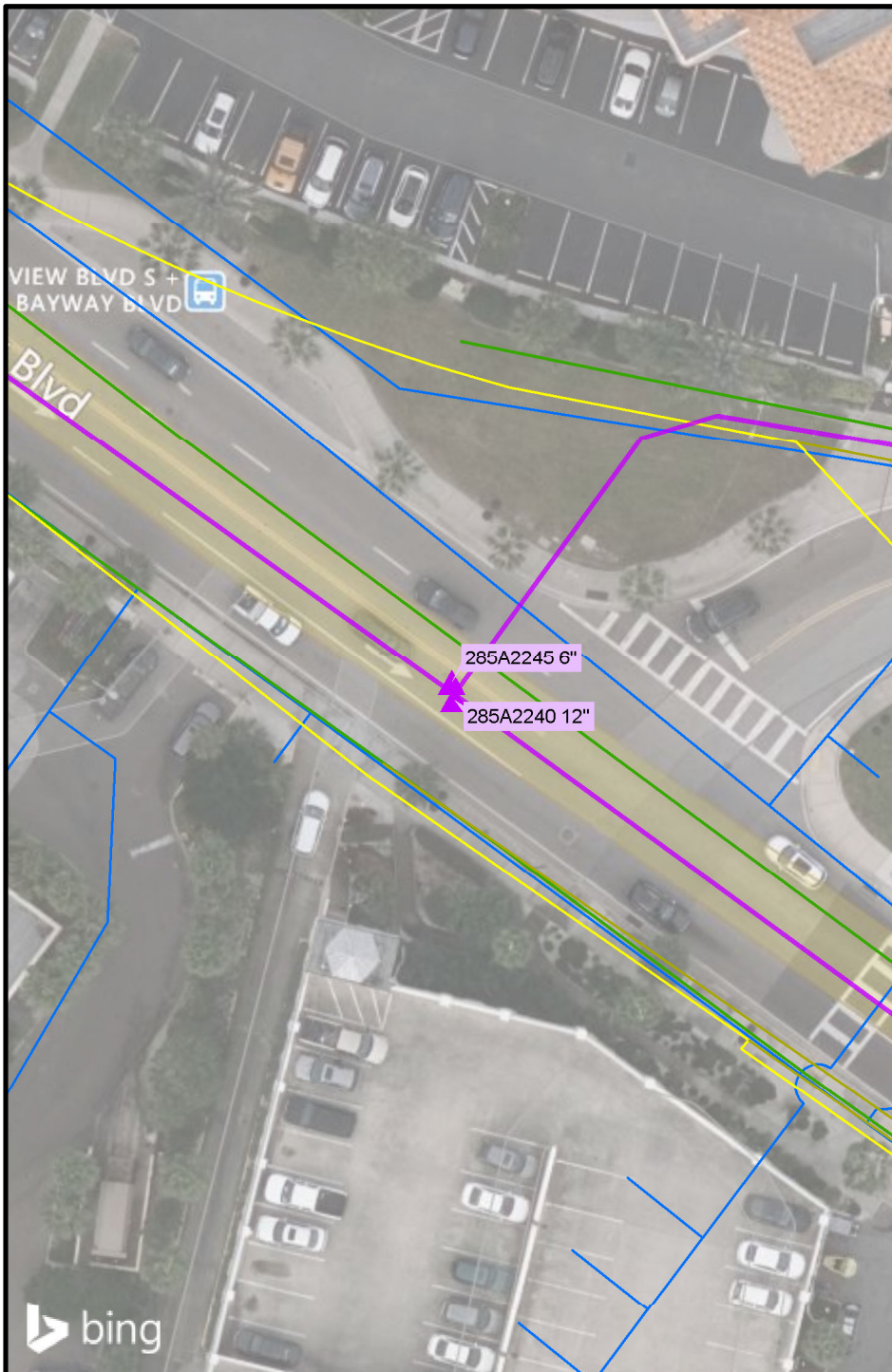
Intersection: Gulfview and Hamden
 Valve IDs: 276A2225 6"
 Not in GIS 12"

Top of Valve Nuts within Valve Boxes are less than 24" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Gulfview and Hamden

FIGURE F-4



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

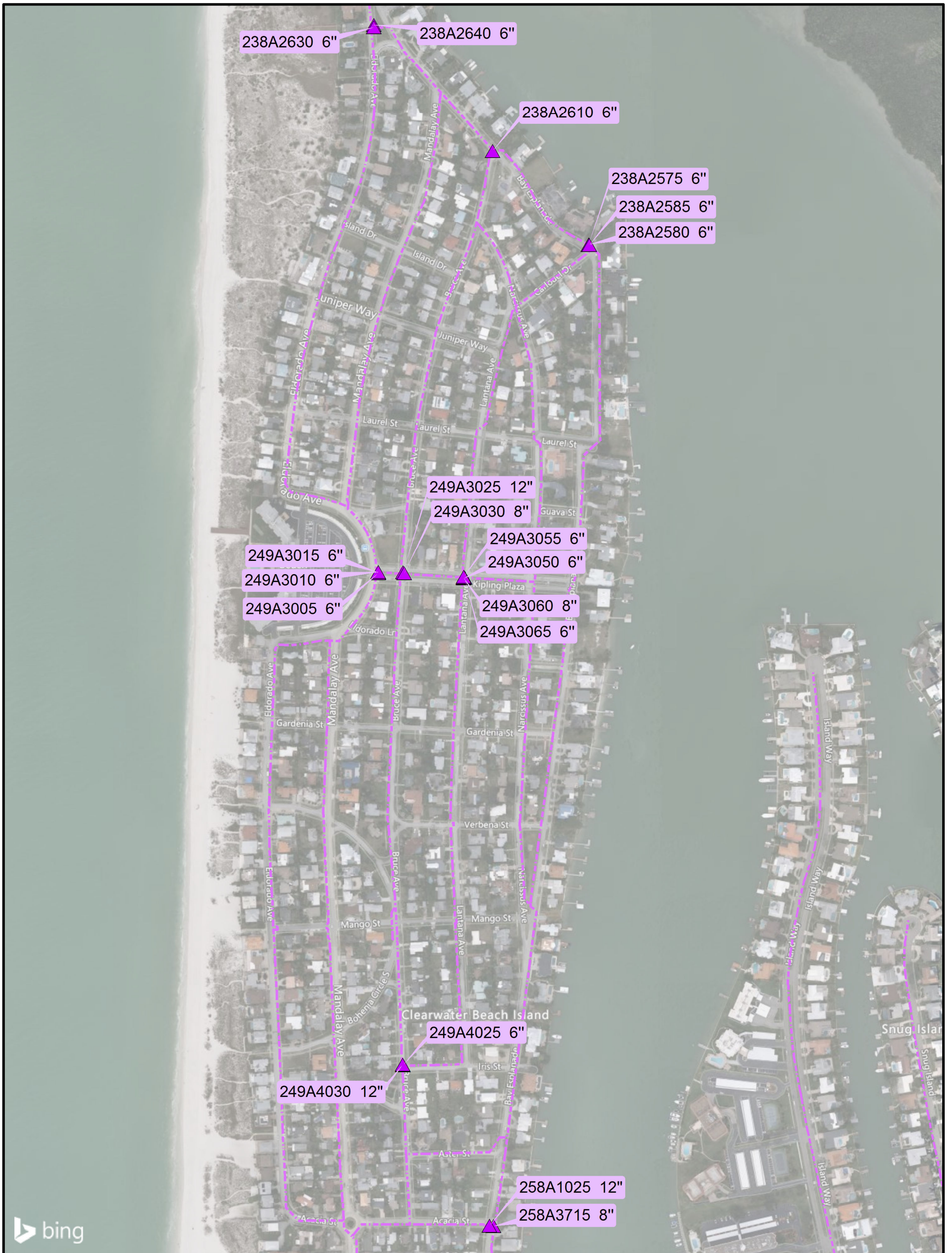
Intersection: S Gulfview and Bayway
 Valve IDs: 285A2240 12"
 285A2245 6"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.

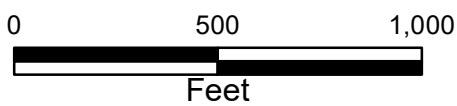
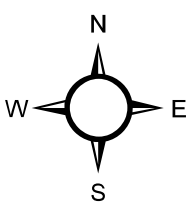


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - S Gulfview and Bayway

FIGURE F-5



bing



LEGEND

- ▲ RCW Valve
- Existing GIS RCW Main

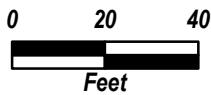
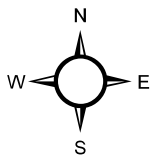
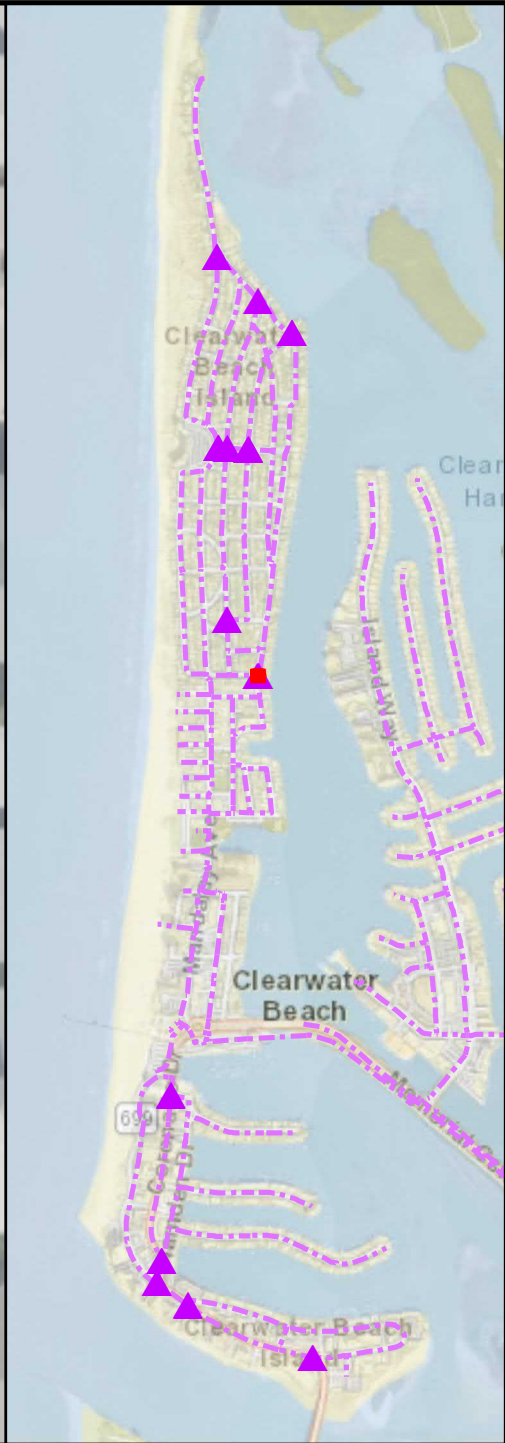
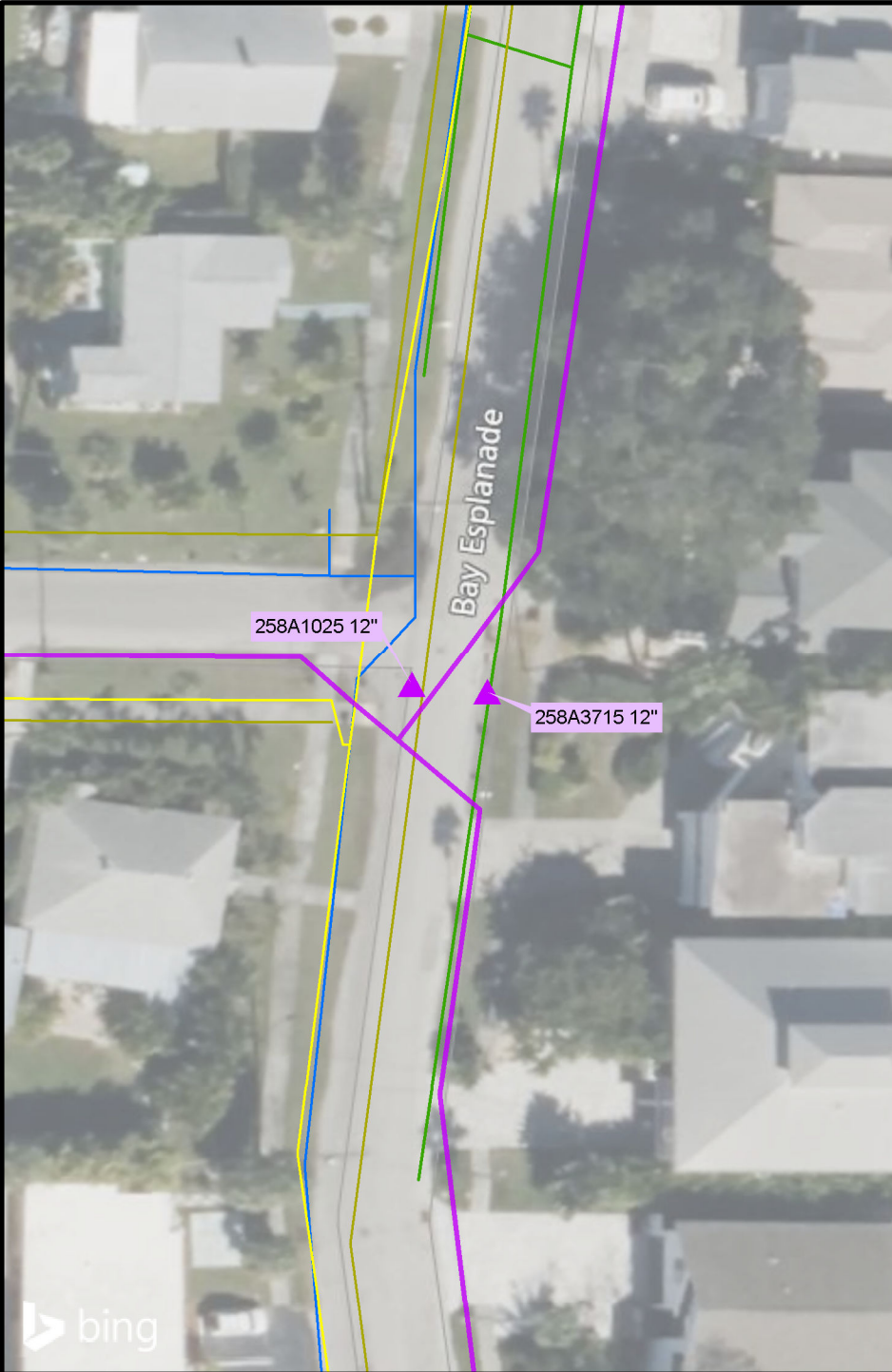
BID SET

City Project No. 21-0029-UT
 City Plan Set No. 2020027



**CITY OF CLEARWATER
 RECLAIMED WATER PIPING IMPROVEMENTS
 NORTH BEACH VALVE REPLACEMENTS (AREA G)**

FIGURE G-A



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

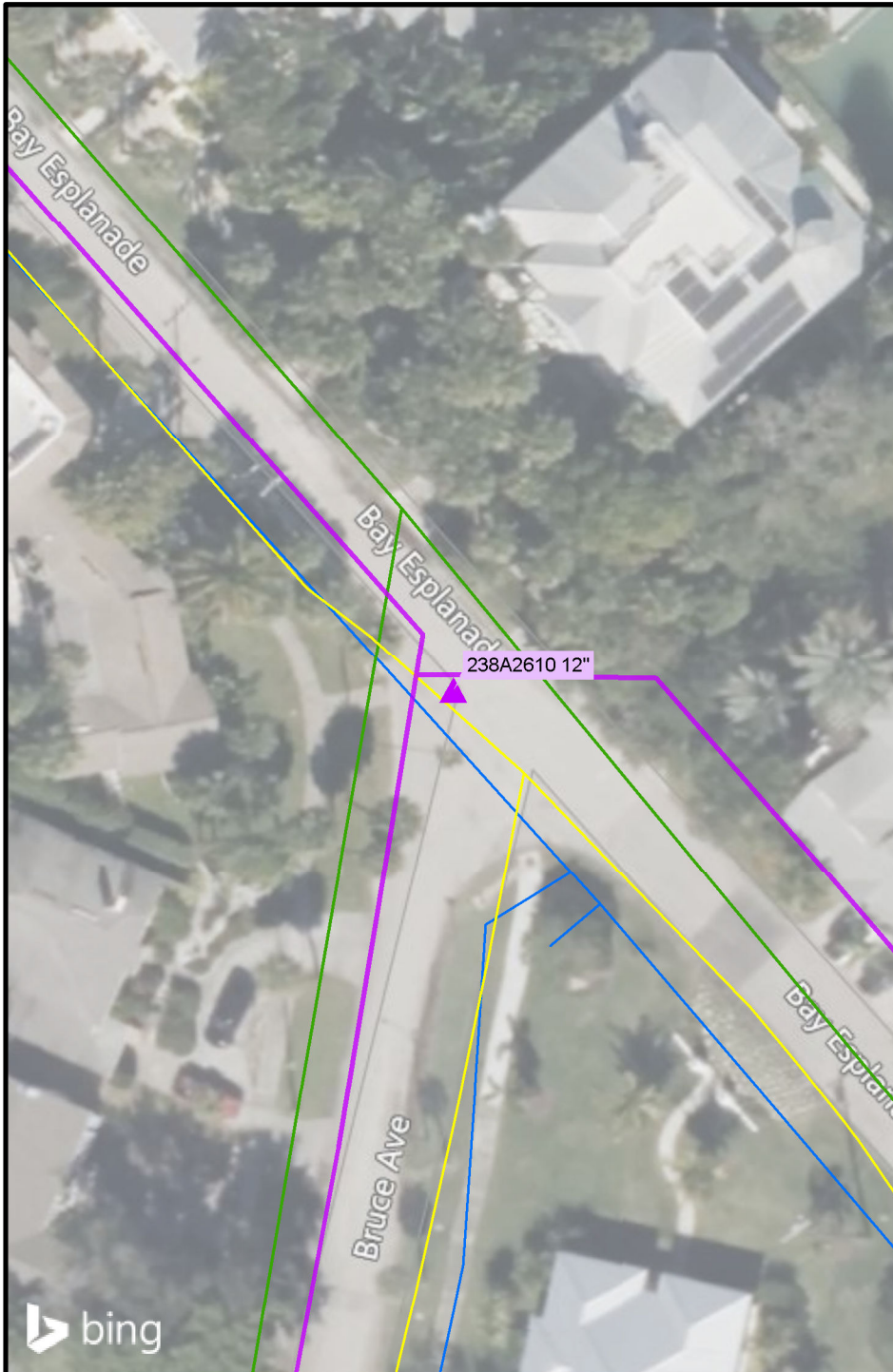
Intersection: Bay Esplanade and Acadia St
 Valve IDs: 258A1025 12"
 258A3715 12"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.

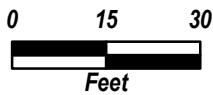
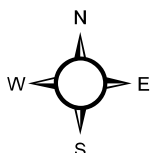


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Bay Esplanade and Acadia St

FIGURE G-1



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

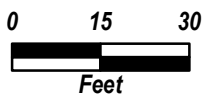
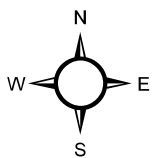
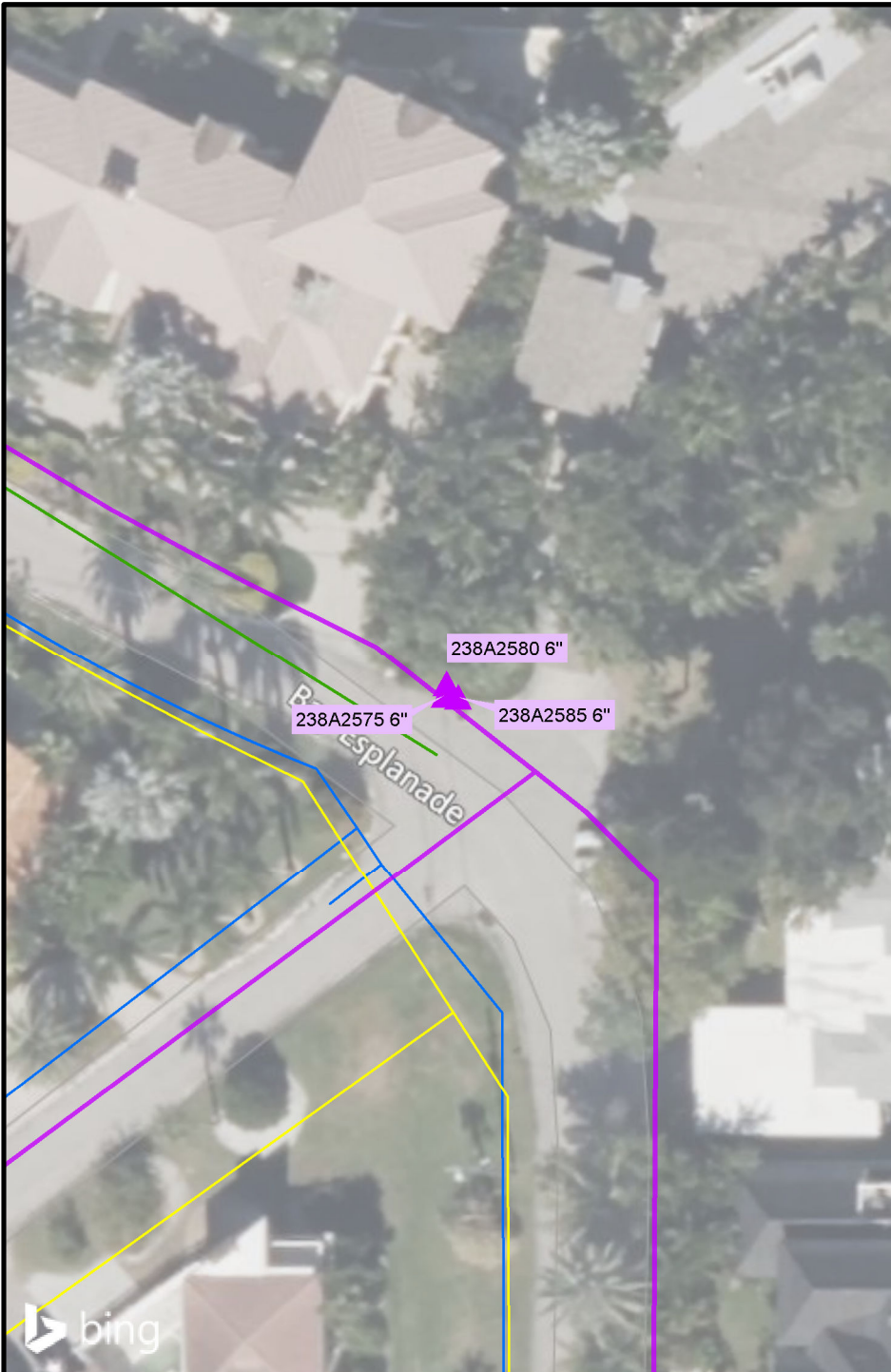
Intersection: Bay Espalade & Bruce Ave
 Valve IDs: 238A2610 12"

Top of Valve Nut within Valve Box is less than 36" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Bay Espalade and Bruce Ave

FIGURE G-2



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

Intersection: Bay Espalade & Carlousel
 Valve IDs: 238A2575 6"
 238A2580 6"
 238A2585 6"

Top of Valve Nuts within Valve Boxes are less than 24" from Grade.

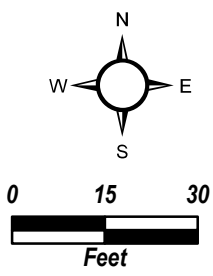


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Bay Espalade and Carlousel Drive

FIGURE G-3



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

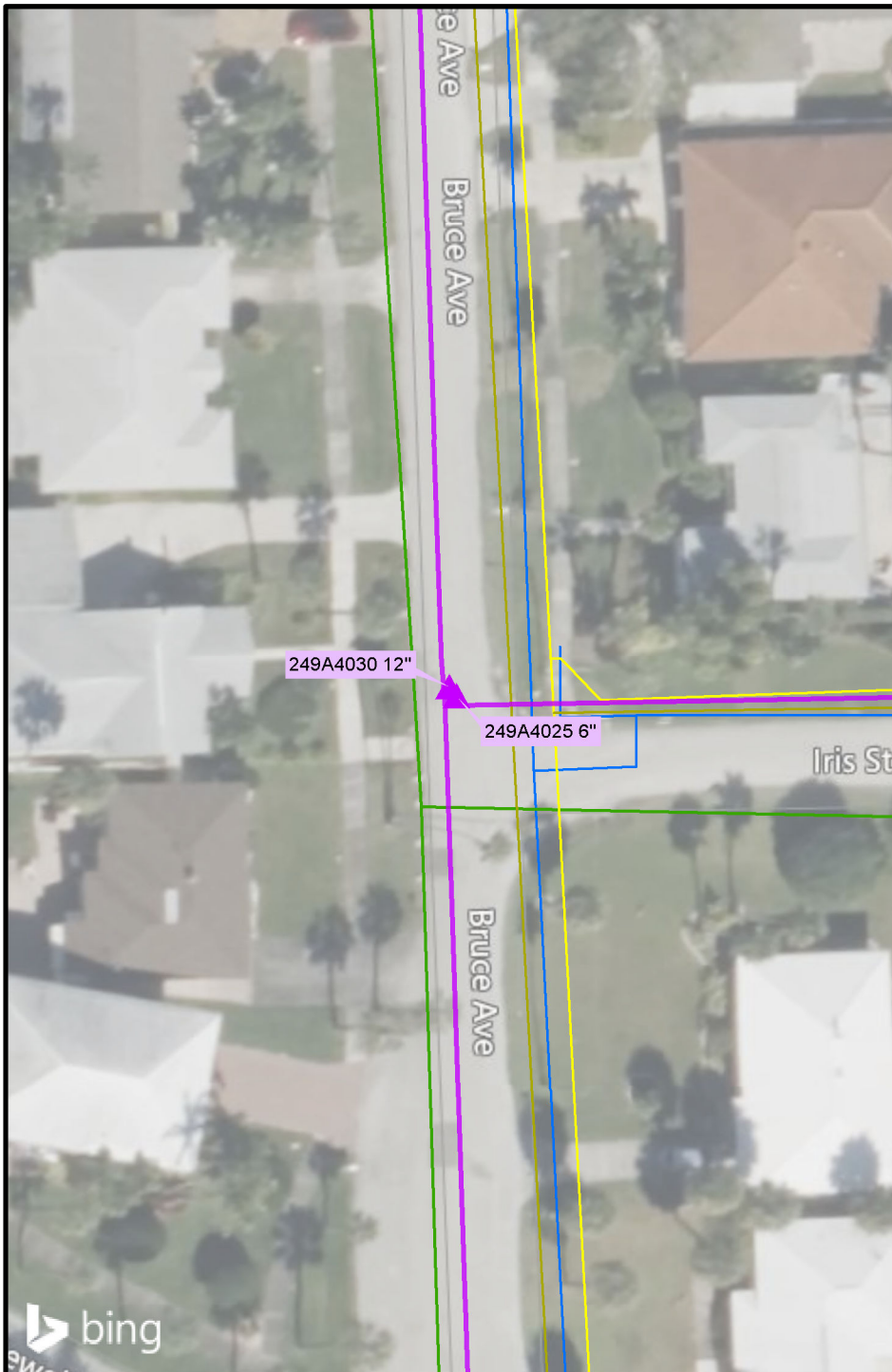
Intersection: Bay Espalade & Eldorado
 Valve IDs: 238A2630 6"
 238A2640 6"

Top of Valve Nuts within Valve Boxes are less than 24" from Grade.

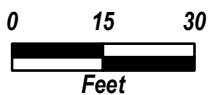
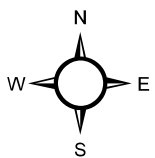


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Bay Espalade and Eldorado Ave

FIGURE G-4



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

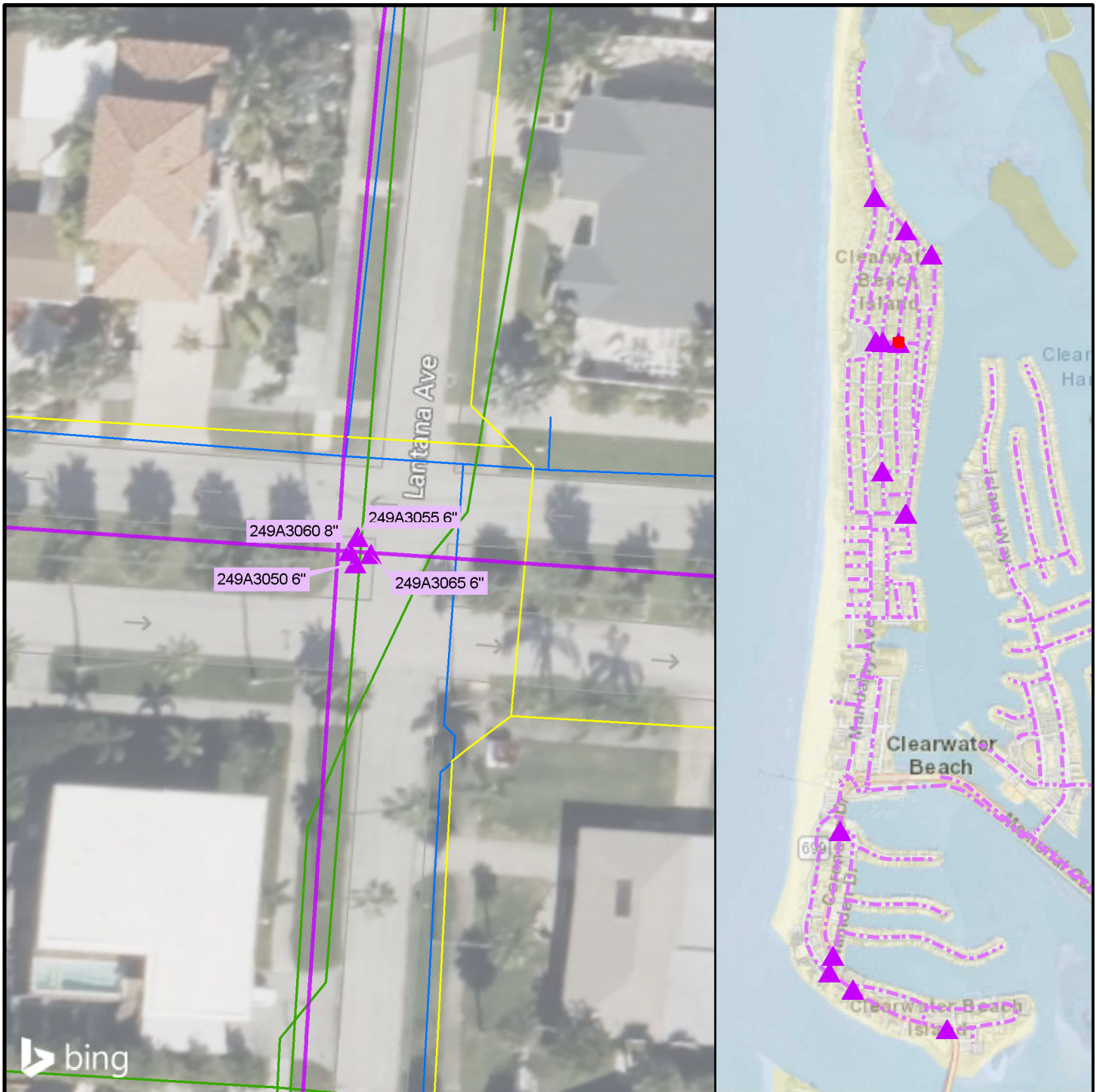
Intersection: Bruce Ave and Iris Street
 Valve IDs: 249A4025 6"
 249A4030 12"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.

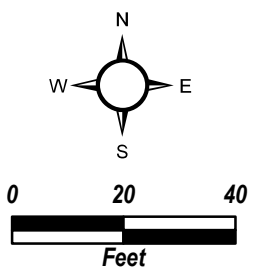


CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Bruce Ave and Iris Street

FIGURE G-5



bing



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027

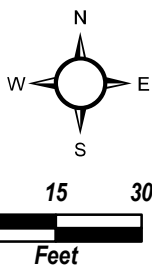
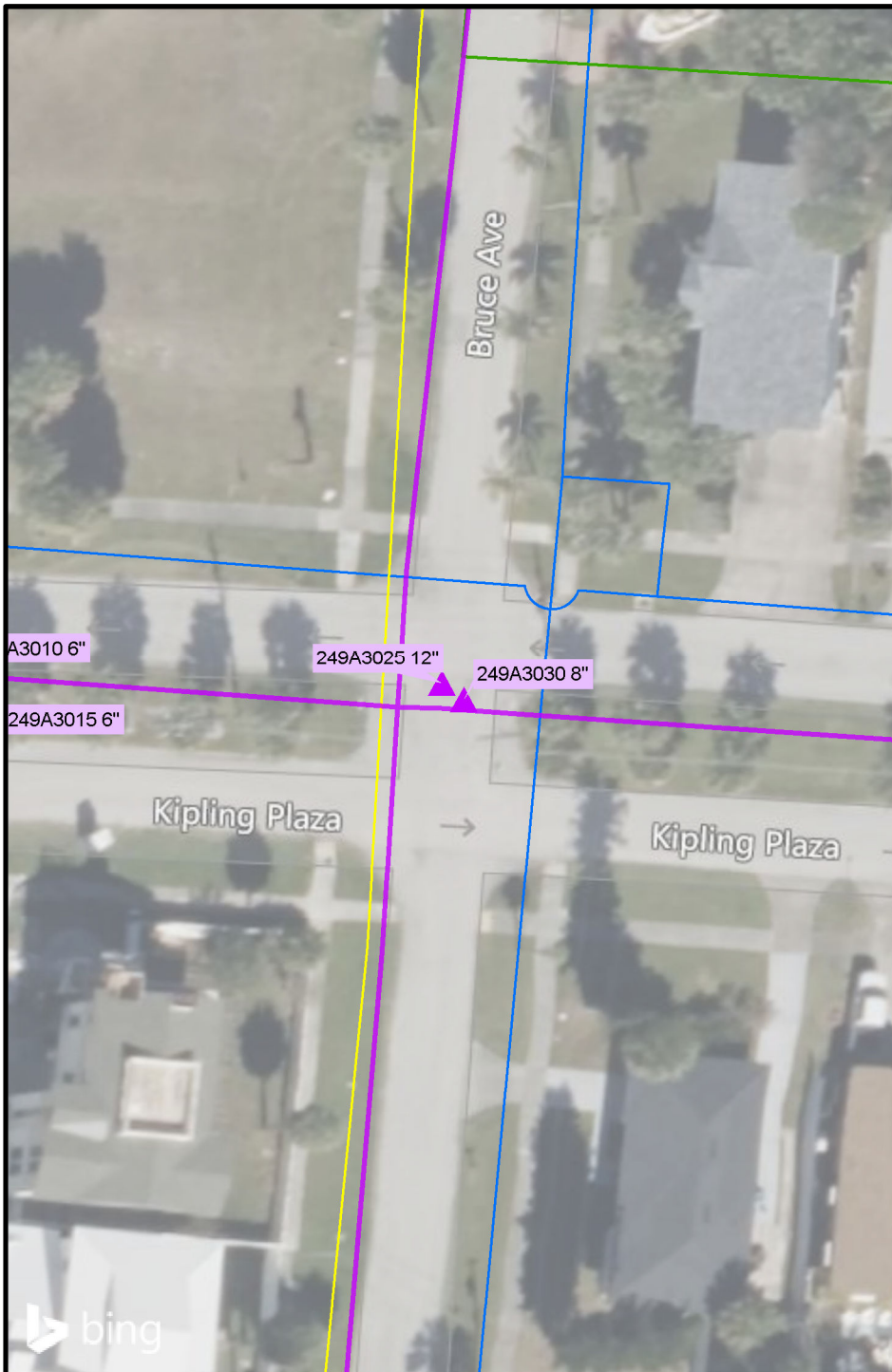
Intersection: Kipling Plaza & Lantana Ave
 Valve IDs: 249A3050 6"
 249A3055 6"
 249A3060 8"
 249A3065 6"

Top of Valve Nuts within Valve Boxes are less than 30" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Kipling Plaza and Lantana Avenue

FIGURE G-6



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

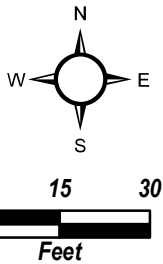
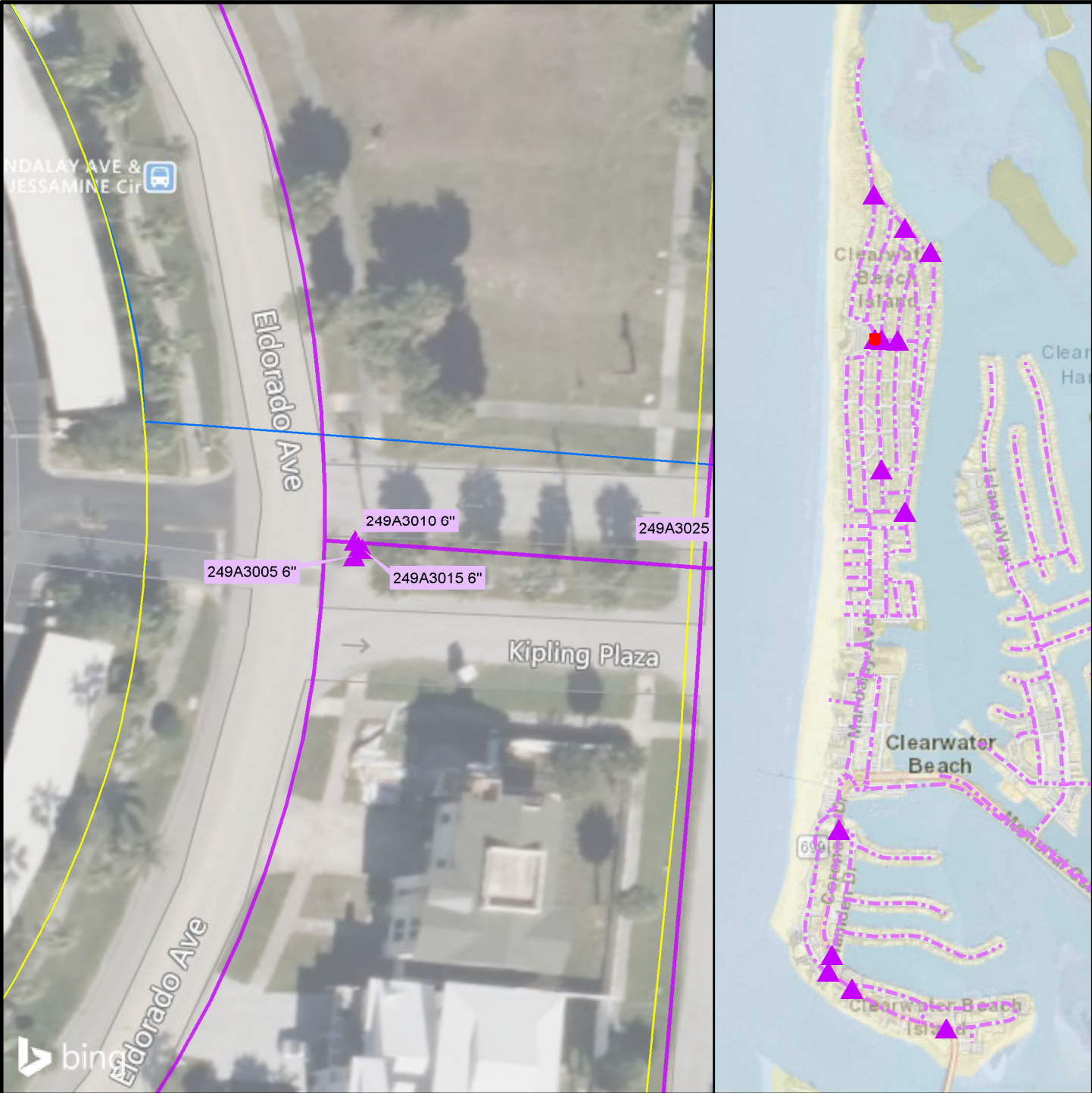
Intersection: Kipling Plaza & Bruce Ave
 Valve IDs: 249A3025 12"
 249A3030 8"

Top of Valve Nuts within Valve Boxes are less than 36" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Kipling Plaza and Bruce Avenue

FIGURE G-7



LEGEND

- ▲ GPS Located RCW Valve
- Existing GIS RCW Main
- Abandoned Gas Main
- Existing Gas Main
- Existing GIS Sanitary Pipe
- Existing GIS Water Main

BID SET

City Project No. 21-0029-UT
City Plan Set No. 2020027

Intersection: Kipling Plaza & Eldorado Ave

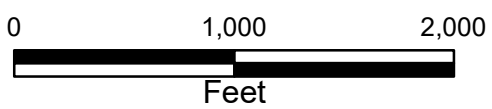
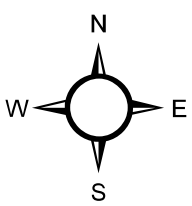
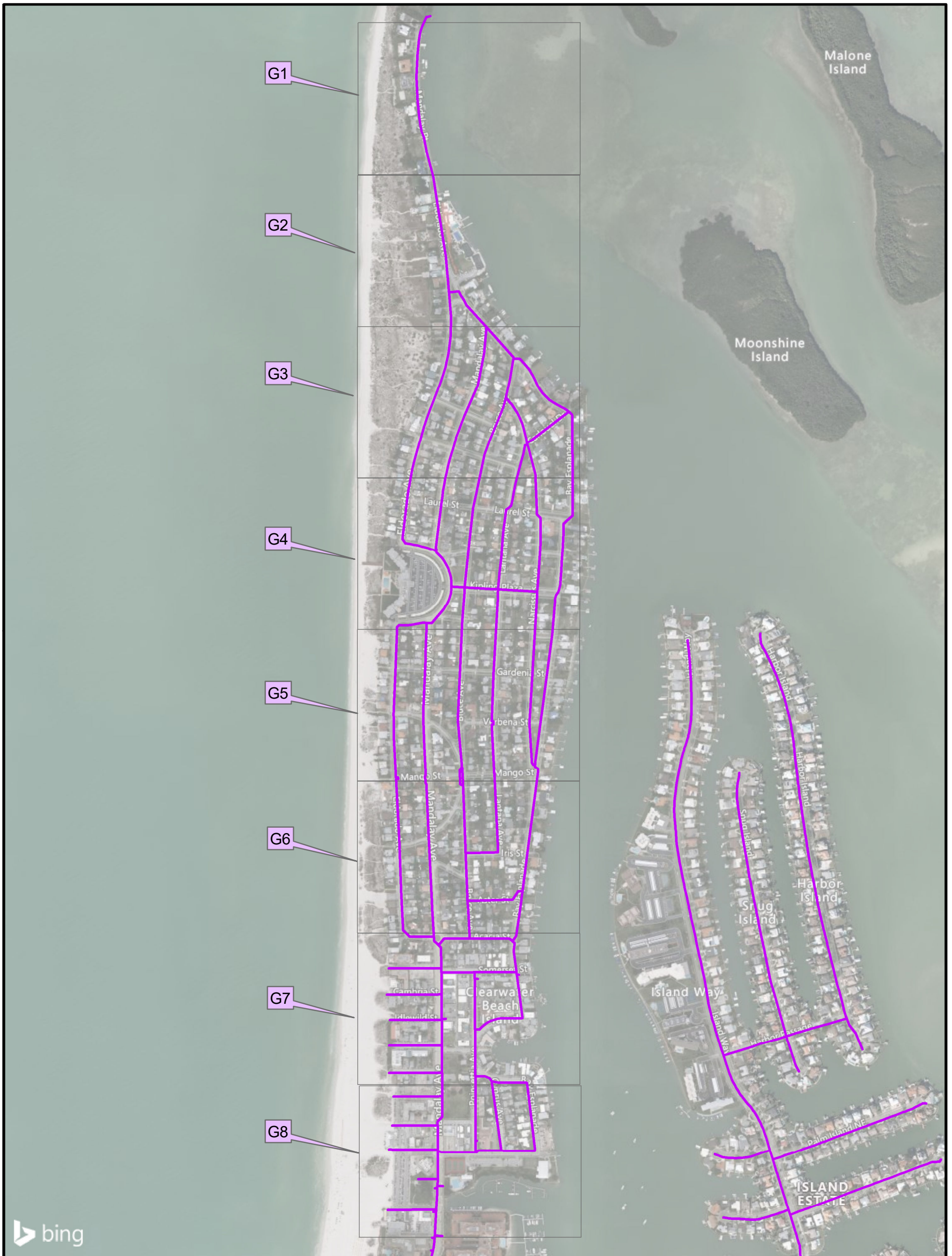
Valve IDs: 249A3005 6"
 249A3010 6"
 249A3015 6"

Top of Valve Nuts within Valve Boxes are less than 24" from Grade.



CITY OF CLEARWATER
RECLAIMED WATER PIPING IMPROVEMENTS
Valve Replacements - Kipling Plaza and Eldorado Ave

FIGURE G-8



LEGEND

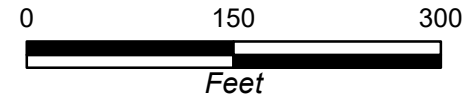
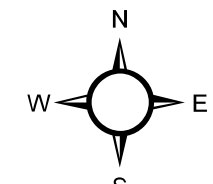
- Existing GIS RCW Main
- Sheets

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027






**CITY OF CLEARWATER
 VARIOUS RECLAIMED WATER IMPROVEMENTS
 NORTH BEACH OVERVIEW**

FIGURE G-B



LEGEND

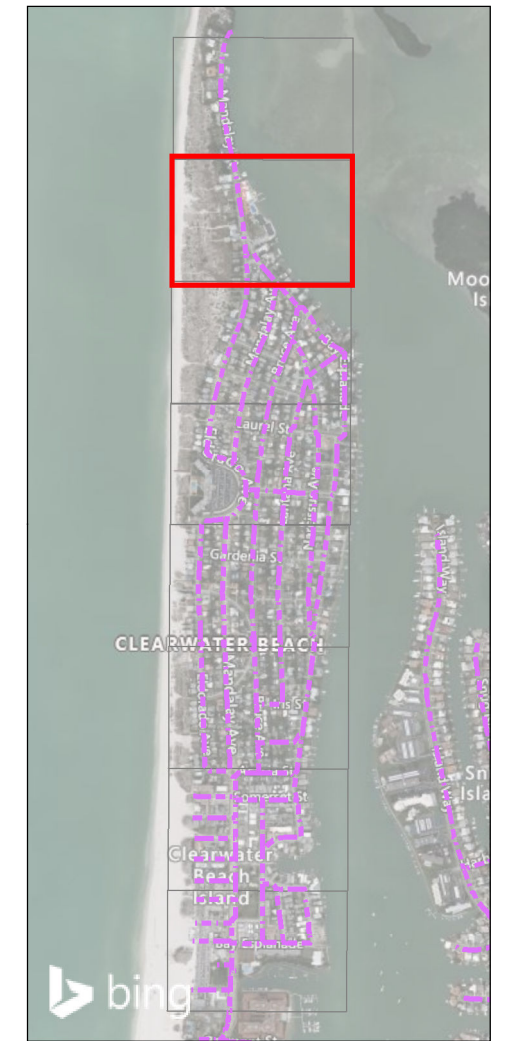
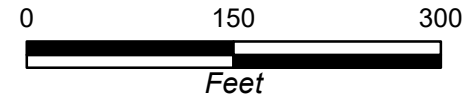
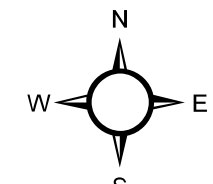
-  RCW Meter
-  GIS RCW Main
-  Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027






CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G1



LEGEND

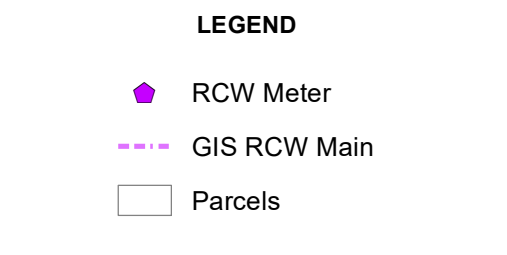
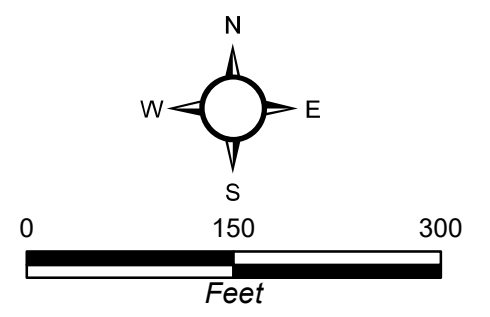
-  RCW Meter
-  GIS RCW Main
-  Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027



CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G2

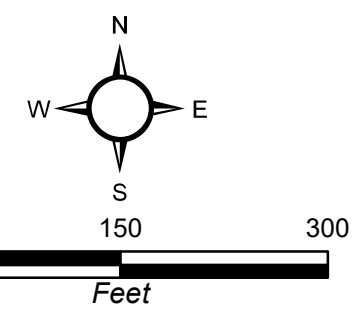
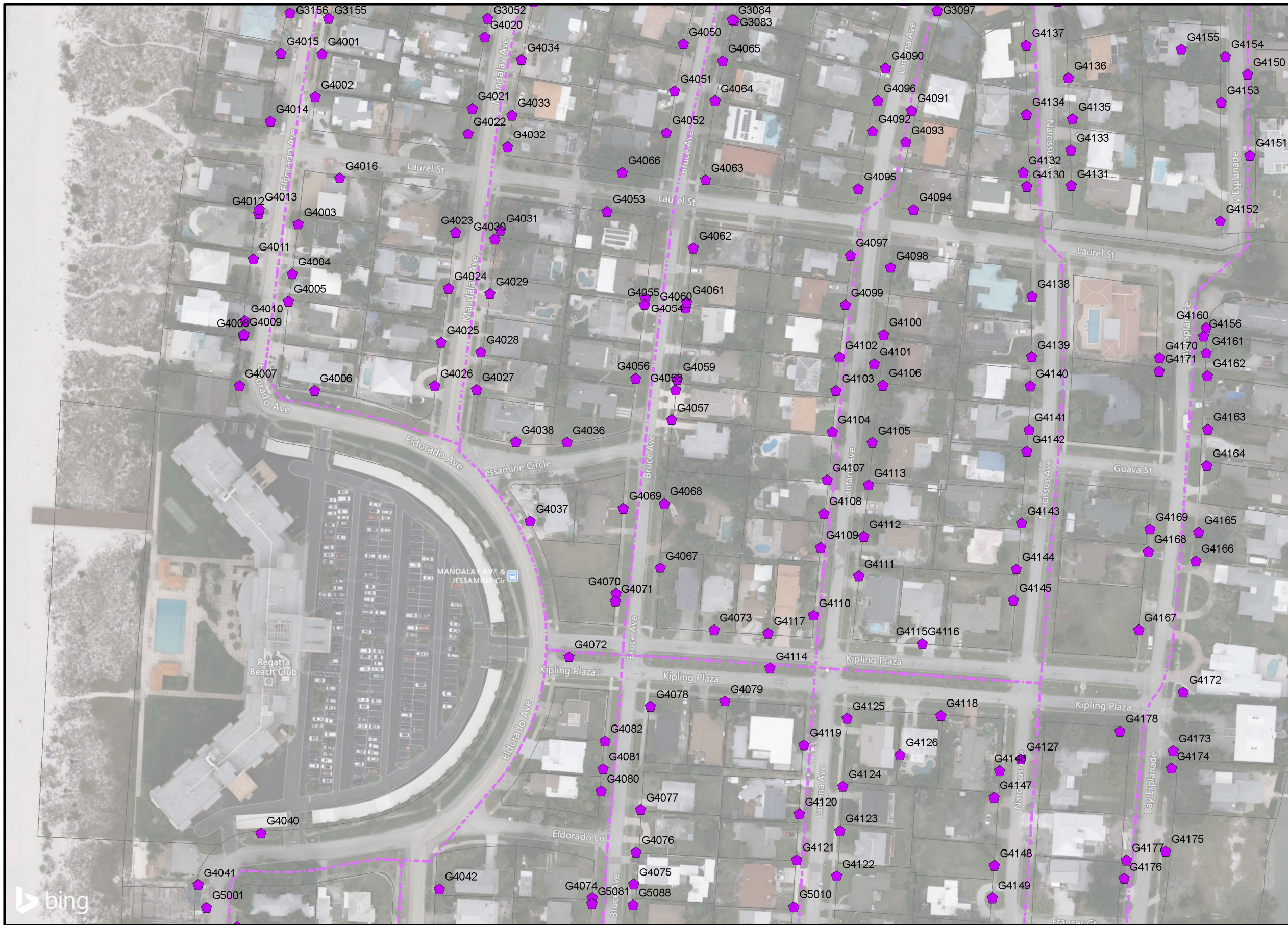


BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027

**CITY OF CLEARWATER
 VARIOUS RECLAIMED WATER IMPROVEMENTS
 North Beach Service Line Replacements**

FIGURE G3





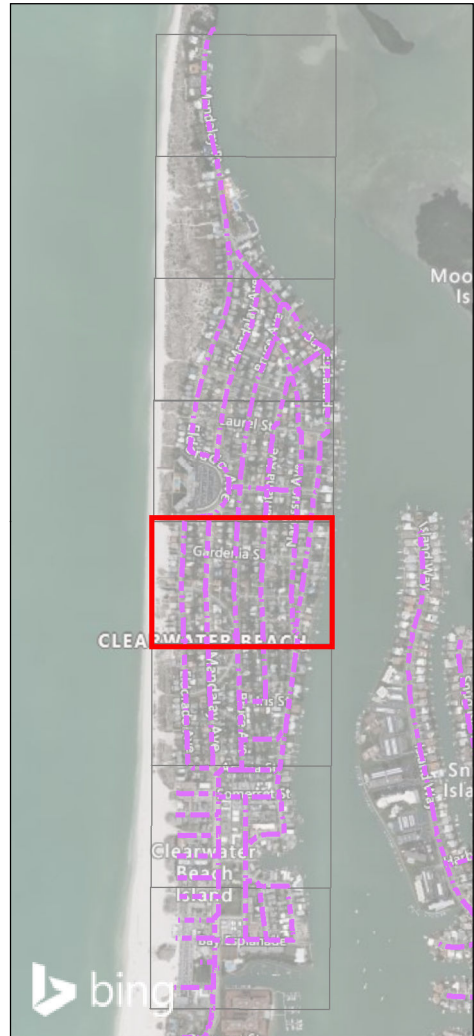
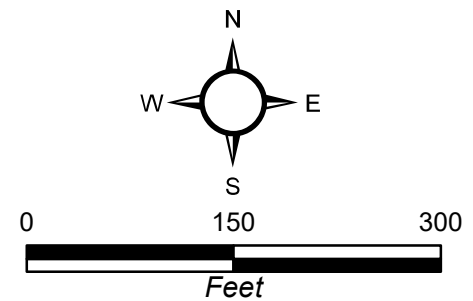
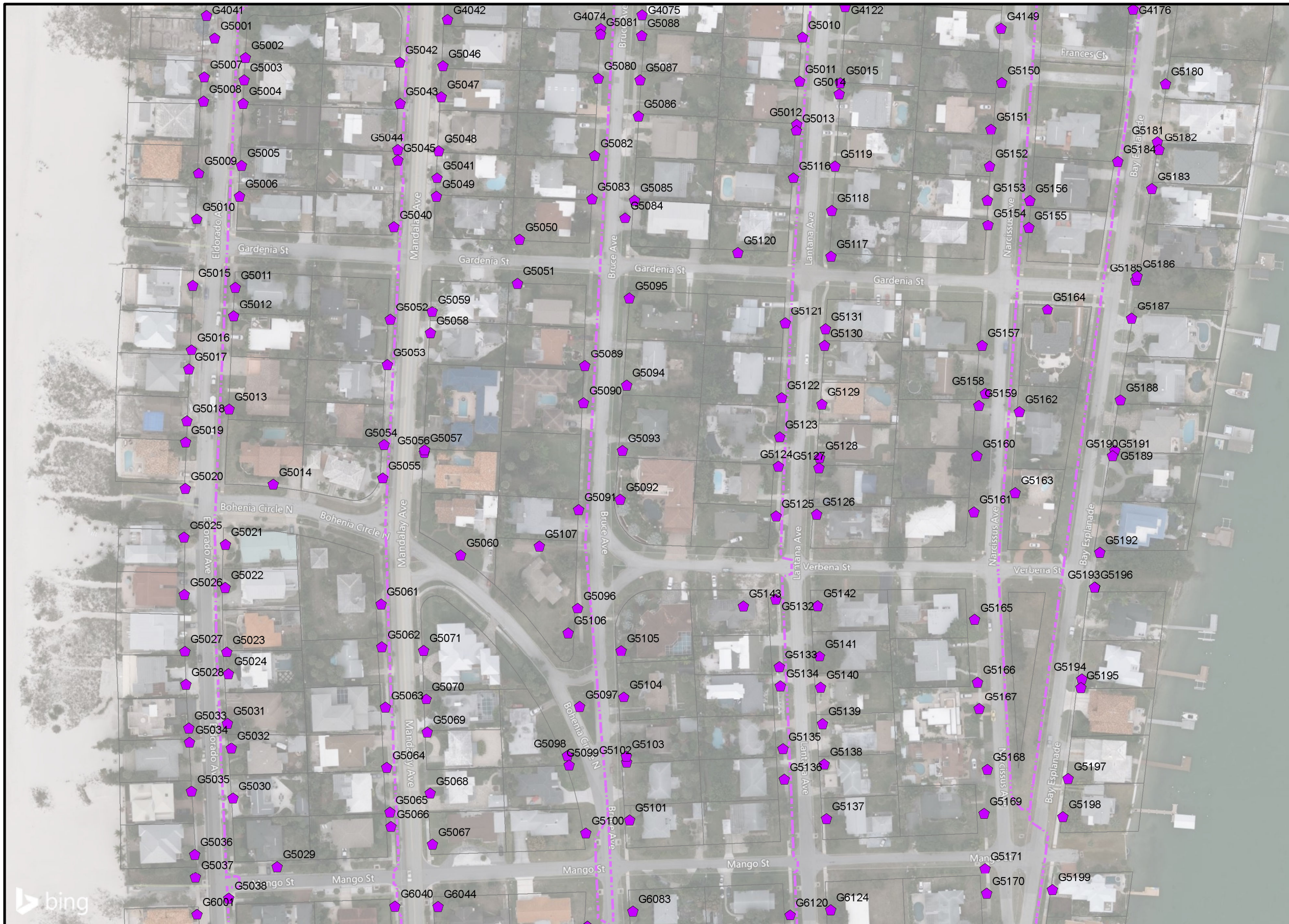
- LEGEND**
- ◆ RCW Meter
 - GIS RCW Main
 - Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027



**CITY OF CLEARWATER
 VARIOUS RECLAIMED WATER IMPROVEMENTS
 North Beach Service Line Replacements**

FIGURE G4



LEGEND

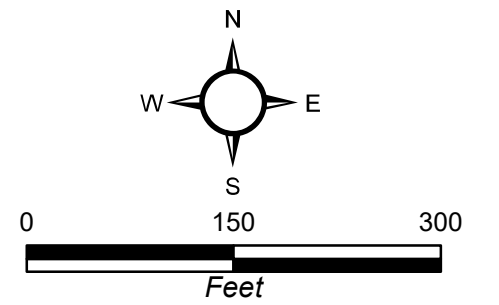
- RCW Meter
- GIS RCW Main
- Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027






CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G5



LEGEND

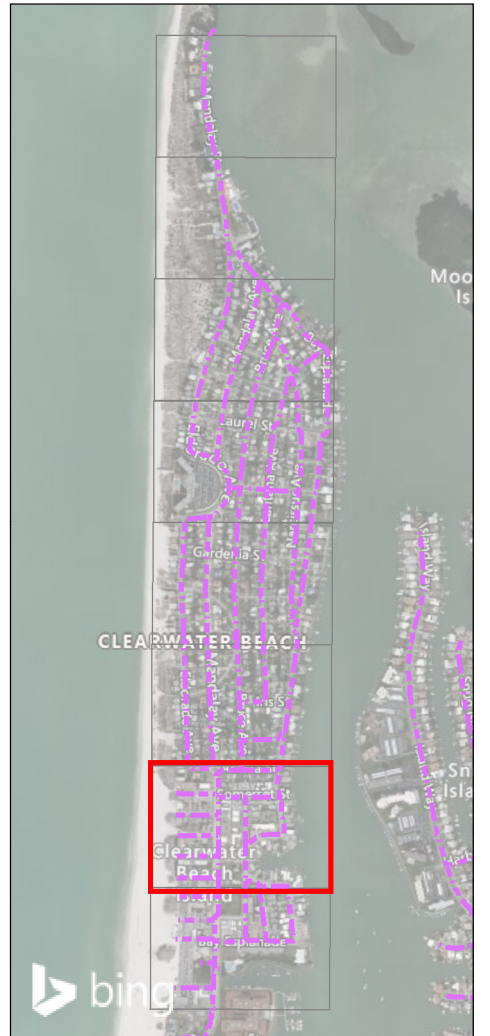
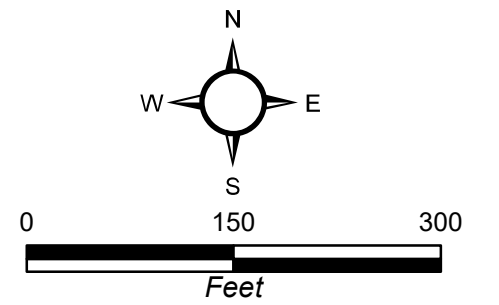
-  RCW Meter
-  GIS RCW Main
-  Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027






CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G6



LEGEND

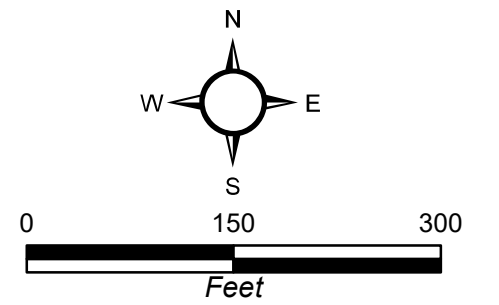
-  RCW Meter
-  GIS RCW Main
-  Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027




CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G7





LEGEND

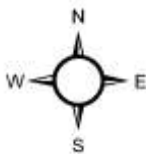
-  RCW Meter
-  GIS RCW Main
-  Parcels

BID SET
City Project No. 21-0029-UT
City Plan Set No. 2020027



CITY OF CLEARWATER
VARIOUS RECLAIMED WATER IMPROVEMENTS
North Beach Service Line Replacements

FIGURE G8



Legend

Address: 610 Mandalay Ave
 Location: Grass
 Longitude: -82.8267262003
 Latitude: 27.9861747705
 Distance from Curb: 50
 Notes: Under construction fence line

-  Replacement Meter
-  Meters
-  Reclaimed Pipe

Meter ID: G8001



CITY OF CLEARWATER
NORTH BEACH SERVICE LINE REPLACEMENTS
SERVICE LINE FIELD MAPS

