

CONTRACT PLANS COMPONENTS

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- SIGNALIZATION PLANS
- LANDSCAPE ARCHITECTURE PLANS
- UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT PLANS

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STATE OF FLORIDA

CITY OF TAMPA

WALK-BIKE LAP PROJECT

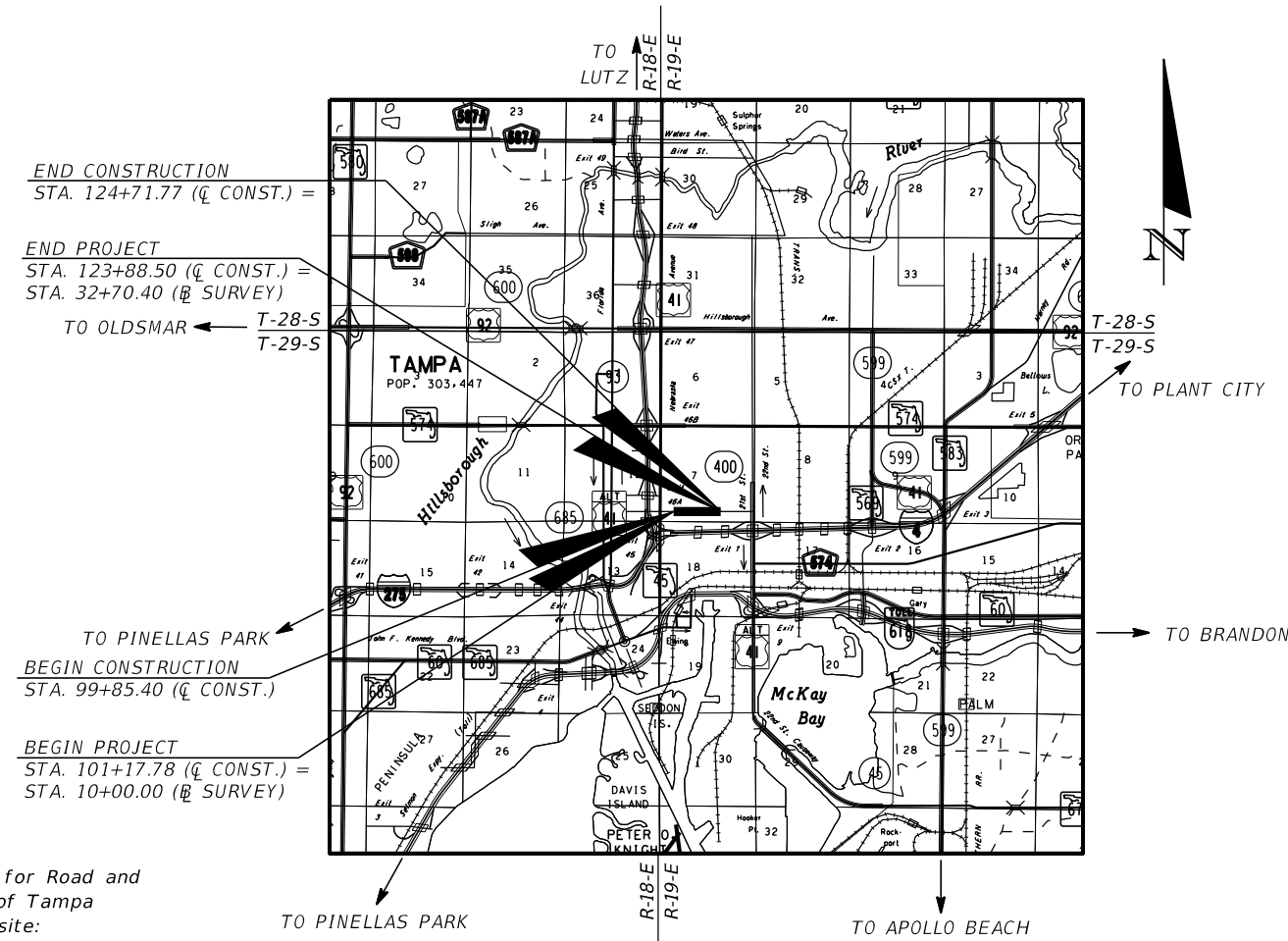
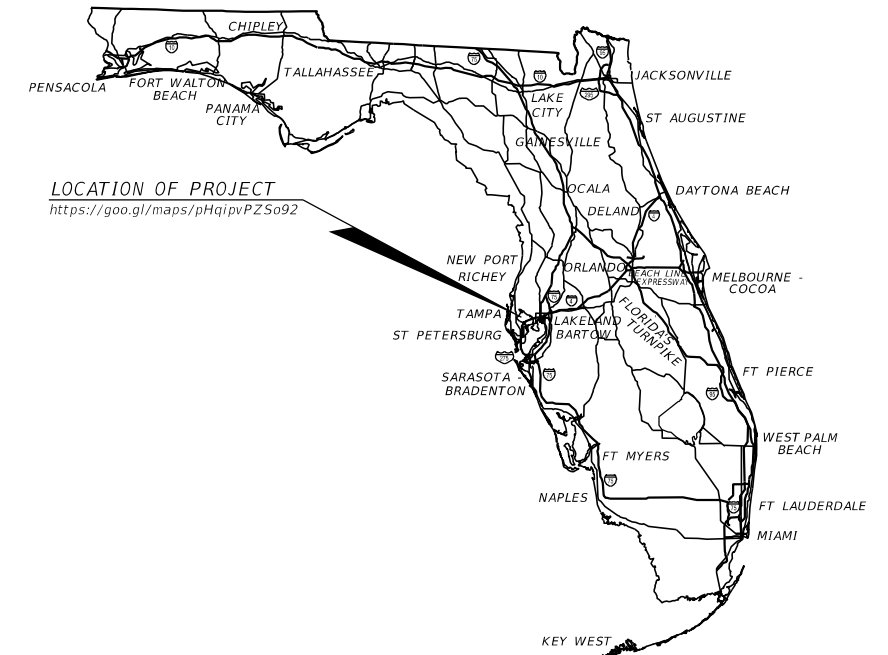
CITY PROJECT NO. 1001221

FINANCIAL PROJECT ID 436639-1-58-01

(FEDERAL FUNDS)

HILLSBOROUGH COUNTY

E COLUMBUS DR FROM N NEBRASKA AVE (SR45) TO 14TH ST



CONSTRUCTION PLANS
MARCH 2020

ROADWAY PLANS
ENGINEER OF RECORD:
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
(813) 978-8688
CERTIFICATE OF AUTHORIZATION 4356

PROJECT MANAGER:
NINA MABILLEAU, E.I.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2019-20 Standard Plans for Road and Bridge Construction, applicable Interim Revisions (IRs), and City of Tampa Stormwater Standards: Which can be found at the following web site:
<https://www.tampagov.net/sites/default/files/stormwater/files/sw-standard-details-2019.pdf>
For the City of Tampa Water Department Engineering Standard Details can be found at the following web site:
https://www.tampagov.net/sites/default/files/water/files/technical_standard_details_0.pdf
For the City of Tampa Wastewater Department Technical Standards Guideline for Construction of Wastewater Facilities, go to the web page site:
https://www.tampagov.net/sites/default/files/wastewater/files/TECHNICAL_STANDARDS_GUIDELINE_FOR_CONSTRUCTION_OF_WASTEWATER_FACILITIES_JULY_2014_VERSION_6.PDF

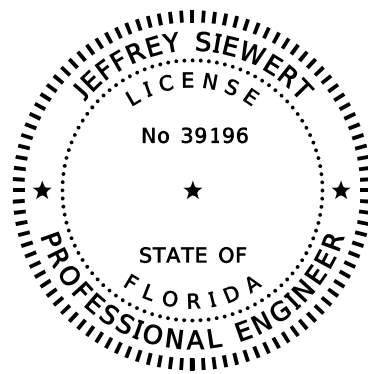
Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, January 2020 Standard Specifications for Road and Bridge Construction at the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

FISCAL YEAR	SHEET NO.
21	1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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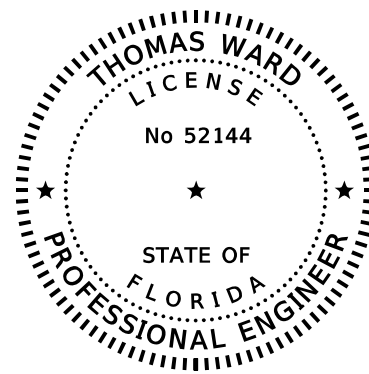
ON THE DATE ADJACENT TO THE SEAL

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AYRES ASSOCIATES INC.
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION: 4356
JEFFREY SIEWERT, P.E. NO. 39196

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
1	KEY SHEET
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SQ-5 - SQ-13	SUMMARY OF QUANTITIES



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BES INC.
1107 N 56TH ST, SUITE 209
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION: 9835
THOMAS WARD, P.E. NO. 52144

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
2	SIGNATURE SHEET
8 - 10	SUMMARY OF DRAINAGE STRUCTURES
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47 - 49	TREE WELL DETAILS DATA TABLE
SQ-2 - SQ-4	SUMMARY OF QUANTITIES

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			<i>SIGNATURE SHEET</i>	SHEET NO. 2
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

SUMMARY OF ROADWAY

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
0101 1	MOBILIZATION	LS	1
0102 1	MAINTENANCE OF TRAFFIC	LS	1
0102104	TEMPORARY SIGNALIZATION AND MAINTENANCE, INTERSECTION	ED	2120
0102107 1	TEMPORARY TRAFFIC DETECTION AND MAINTENANCE, INTERSECTION	ED	2120
0104 10 3	SEDIMENT BARRIER	LF	100
0104 18	INLET PROTECTION SYSTEM	EA	114
0110 1 1	CLEARING & GRUBBING	AC	0.824
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	2950
0120 1	REGULAR EXCAVATION	CY	500.5
0285709	OPTIONAL BASE, BASE GROUP 09	SY	1090
0327 70 7	MILLING EXIST ASPH PAVT, 4" AVG DEPTH	SY	8541
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	89.9
0337 7 83	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5, PG 76-22	TN	794.4
0350 3 5	PLAIN CEMENT CONCRETE PAVEMENT, 8"	SY	566
4.07	REMEDICATION	LS	1
0425 2 61	MANHOLES, P-8, <10'	EA	9
0425 2 91	MANHOLES, J-8, <10'	EA	1
0425 3 91	JUNCTION BOX, DRAINAGE, UTILITY, < 10'	EA	28
0425 5 1	MANHOLE, ADJUST, UTILITIES	EA	11
0425 6	VALVE BOXES, ADJUST	EA	17
425.10	CITY OF TAMPA Type 1 INLET	EA	14
425.20	CITY OF TAMPA TYPE T DITCH BOTTOM INLET	EA	36
425.30	CITY OF TAMPA TYPE E DITCH BOTTOM INLET	EA	9
0430174112	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 12"SD	LF	4
0430174115	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 15"SD	LF	279
0430174118	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18"SD	LF	112
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	4568
0520 2 4	CONCRETE CURB, TYPE D	LF	353
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1036
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK (SCORING PATTERNED)	SY	3643
0523 1	PATTERNED PAVEMENT, VEHICULAR AREAS	SY	209
0527 2	DETECTABLE WARNINGS	SF	241

SUMMARY OF SIGNING AND PAVEMENT MARKING

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	15
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF (HISTORIC SIGNS)	AS	1
0700 1 12	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF	AS	4
0700 1 12	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF (HISTORIC SIGNS)	AS	6
0700 1 60	SINGLE POST SIGN, REMOVE	AS	26
0700 3501	SIGN PANEL, RELOCATE, UP TO 12 SF	EA	1
0710 90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1
0711 11124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	220
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	229
0711 11141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/ 6-10 GAP EXTENSION, 6"	GM	0.053
0711 11160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	1
0711 11170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	6
0711 11224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	15
0711 14123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF	1106
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	811
0711 14160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	EA	22
0711 16101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	1.023
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.765

SUMMARY OF SIGNALIZATION

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	200
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	525
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	2
0632 7 6	SIGNAL CABLE, REMOVE- INTERSECTION	PI	1
0633 1121	FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS	LF	150
0633 2 32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	12

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

SUMMARY OF SIGNALIZATION (CONT.)			
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
0633 4 1	SIGNALS COMMUNICATION CABLE- TWISTED PAIR CABLE, FURNISH & INSTALL	LF	50
0633 4 6	SIGNALS COMMUNICATION CABLE- TWISTED PAIR CABLE, REMOVE	LF	30
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	28
0635 2 12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1
0639 1610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS	1
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	105
0639 3 11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1
0641 2 11	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II PEDESTAL	EA	2
0641 2 12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1
0641 2 70	PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL- POLE 30' AND GREATER	EA	2
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	15
0646 1 60	ALUMINUM SIGNALS POLE, REMOVE	EA	5
0649 21 12	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, DOUBLE ARM 60'-40'	EA	2
0650 1 14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	8
0650 1 16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4
0650 2102	VEHICULAR SIGNAL AUXILIARIES, REPAIR/REPLACE/RETROFIT- FURNISH & INSTALL, BACKPLATE- BLACK WITH REFLECT BORDER	EA	7
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	12
0653 1 12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	AS	3
0653 1 60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL- POLE/PEDESTAL TO REMAIN	AS	4
0654 2 22	RECTANGULAR RAPID FLASHING BEACON, FURNISH & INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS	6
0660 1103	LOOP DETECTOR INDUCTIVE, F&I, TYPE 3	EA	4
0660 2101	LOOP ASSEMBLY- F&I, TYPE A	AS	4
0660 4 11	VEHICLE DETECTION SYSTEM- VIDEO, FURNISH & INSTALL CABINET EQUIPMENT	EA	1
0660 4 12	VEHICLE DETECTION SYSTEM- VIDEO, FURNISH & INSTALL ABOVE GROUND EQUIPMENT	EA	4
0665 1 12	PEDESTRIAN DETECTOR, FURNISH & INSTALL, ACCESSIBLE	EA	18
0665 1 60	PEDESTRIAN DETECTOR, REMOVE- POLE/PEDESTAL TO REMAIN	EA	5
0670 5110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	2
0670 5600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	2
0685 1 13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	2
0700 3201	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	4
0700 5 22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	8

SUMMARY OF LANDSCAPING

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
526-1.2	RECYCLED BRICK BLOCK-PAVERS	SF	810
580-2.1.1	BALD CYPRESS 26' HT 10' SPREAD - INSTALL ONLY	EA	13
580-2.1.1.1	BALD CYPRESS 26' HT 10' SPREAD *FURNISH ONLY*	EA	13
580-2.1.2	CHINESE FAN PALM-16' CT INSTALL ONLY	EA	14
580-2.1.2.1	CHINESE FAN PALM-16' CT *FURNISH ONLY*	EA	14
580-2.1.3	IXORA 3 GALLON - FURNISH AND INSTALL	EA	49
580-2.4	PINE BARK MULCH	CY	2.4
580-2.5	PREPARED PLANTING SOILS	CY	2.8
580-3-1	STRUCTURED SOILS	CY	243
580-3-2	TREE GRATE - NEENAH CAST IRON 72" SQ 16" DIA OPENING (PALMS)	EA	14
580-3-3	TREE GRATE - NEENAH CAST IRON 72" SQ .36" DIA OPENING (TREES)	EA	13
580-3-4	TREE BRACING IN TREE WELL	EA	27
580-3-5	FABRIC WRAPPED STONE MATT #57 STONE	EA	27
580-3-6	TREE GRATE FRAME	EA	27
580-3-7	TREE GUARD TYPE-E, FOR 36" DIA OPENING (TREES)	EA	13

SUMMARY OF UTILITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
1050 51202	UTILITY PIPE- DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER/SEWER, 2"	LF	16
1050 51206	UTILITY PIPE- DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER/SEWER, 6"	LF	65
1050 51212	UTILITY PIPE- DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER/SEWER, 12"	LF	20
1055 51112	UTILITY FITTINGS, DUCTILE IRON/CAST IRON, FURNISH & INSTALL ELBOW, 12"	EA	4
1055 51412	UTILITY FITTINGS, DUCTILE IRON/CAST IRON, FURNISH & INSTALL UNION, 12"	EA	2
1080 23106	UTILITY FIXTURE- TAPPING SADDLE/SLEEVE, FURNISH & INSTALL, 6"	EA	1
1080 24106	UTILITY FIXTURE, VALVE ASSEMBLY, FURNISH AND INSTALL, 6"	EA	2
1080 27106	UTILITY FIXTURE- LINE STOP ASSEMBLY, FURNISH AND INSTALL, 6"	EA	1
1080 27112	UTILITY FIXTURE- LINE STOP ASSEMBLY, FURNISH AND INSTALL, 12"	EA	2
1080 29106	UTILITY FIXTURE, MECHANICAL JOINT RESTRAINT, FURNISH & INSTALL, 6"	EA	8
1080 29112	UTILITY FIXTURE, MECHANICAL JOINT RESTRAINT, FURNISH & INSTALL, 12"	EA	10
1644113 08	FIRE HYDRANT, F&I, STANDARD, 2 HOSE, 1PUMPER, 6"	EA	1
1644900	FIRE HYDRANT, REMOVE	EA	1

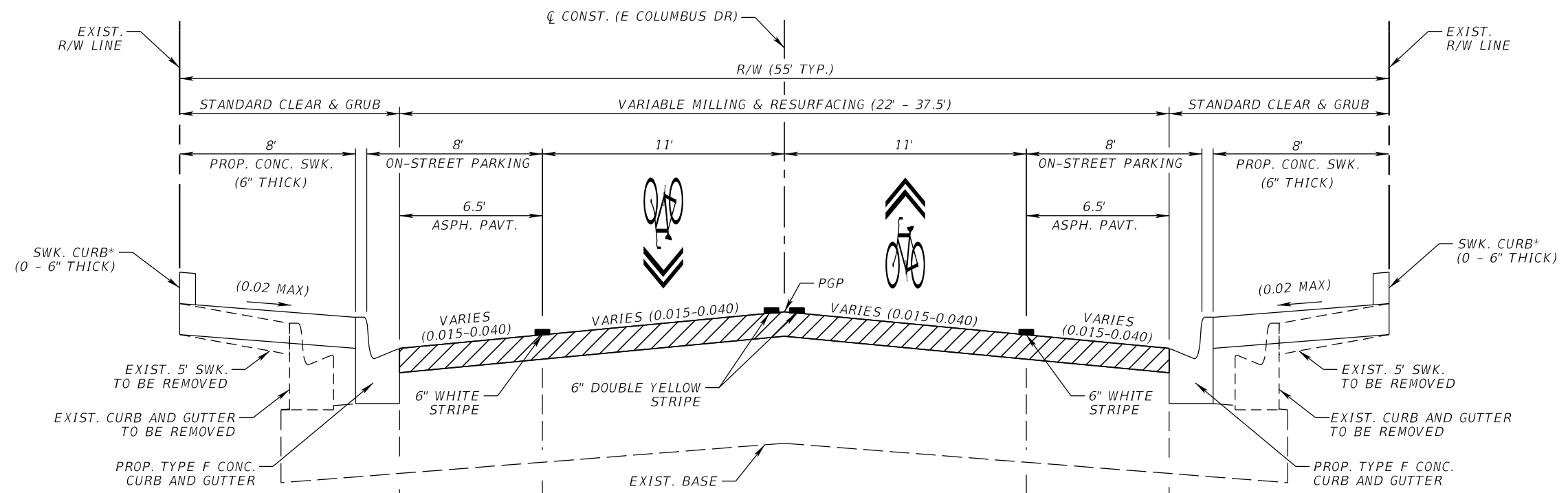
CITY OF TAMPA
TRANSPORTATION DEPARTMENT

CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

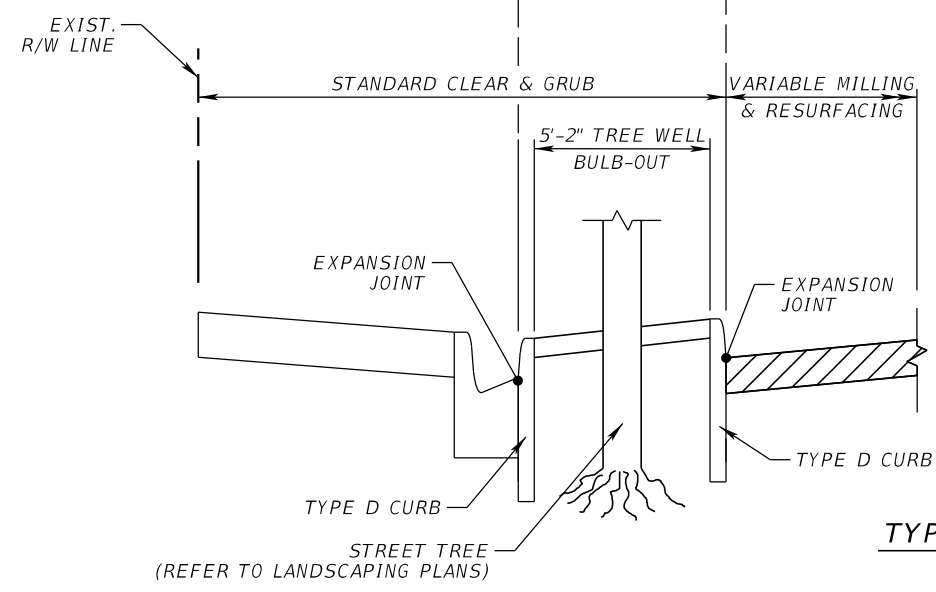
SUMMARY OF PAY ITEMS

SHEET NO.

3

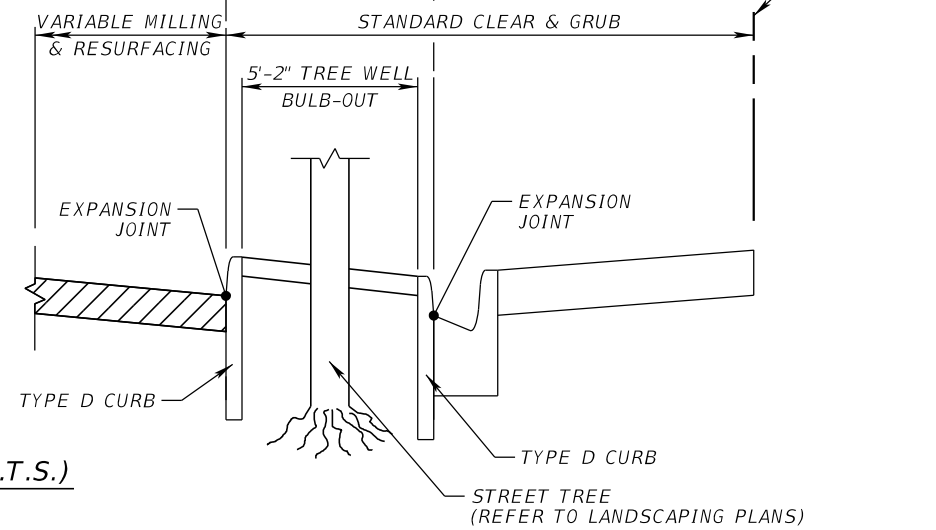


* SEE ROADWAY PLAN SHEETS FOR LOCATIONS OF SIDEWALK CURB.



Q TREE BULB-OUT DETAIL - LEFT (N)
SEE SUMMARY OF DRAINAGE STRUCTURES FOR TREE WELL STA. LOCATIONS

TYPICAL SECTION (N.T.S.)
E COLUMBUS DR
STA. 99+85.40 TO STA. 103+60.00
STA. 105+29.67 TO STA. 114+10.35
STA. 116+26.35 TO STA. 124+71.77



Q TREE BULB-OUT DETAIL - RIGHT (S)
SEE SUMMARY OF DRAINAGE STRUCTURES FOR TREE WELL STA. LOCATIONS

VARIABLE MILLING
MILL EXISTING ASPHALT PAVEMENT FOR DEPTH (4.0")

RESURFACING
FRICTION COURSE FC-12.5 (TRAFFIC C) (1.5")

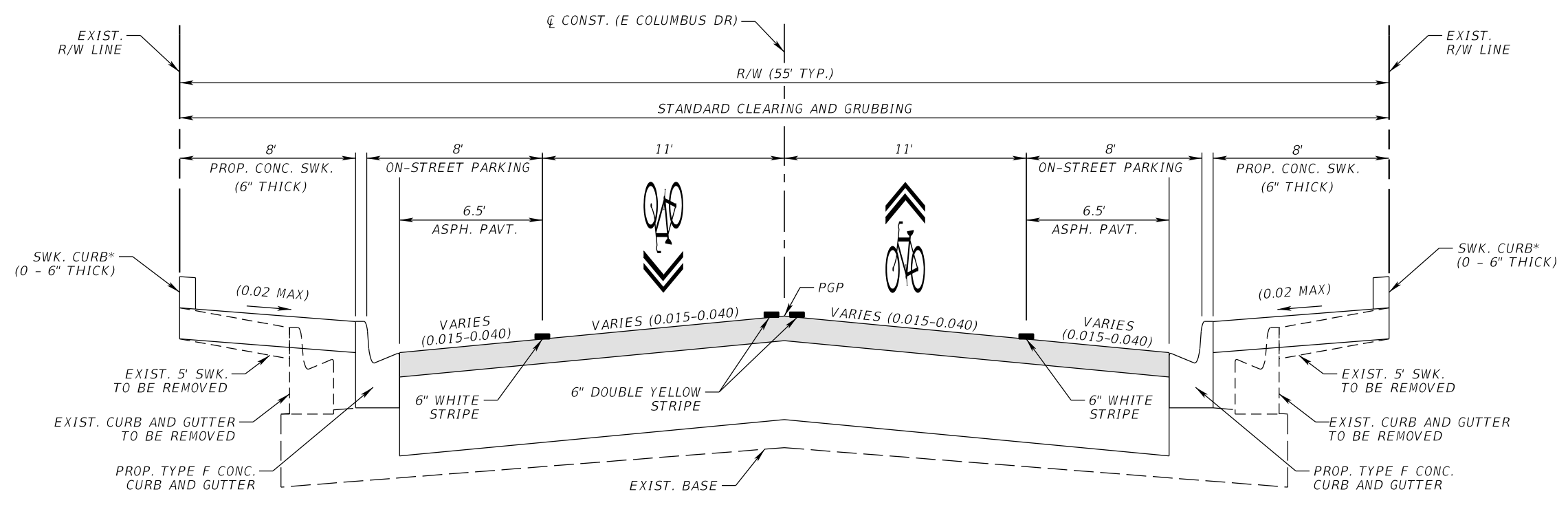
TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 11,135
ESTIMATED OPENING YEAR = 2020 AADT = 11,391
ESTIMATED DESIGN YEAR = 2040 AADT = 13,600
K = 9 % D = 50% T = 14% (24 HOUR)
DESIGN HOUR T = 7%
DESIGN SPEED = 30 MPH

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 4
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

TYPICAL SECTION (1)

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* SEE ROADWAY PLAN SHEETS FOR LOCATIONS OF SIDEWALK CURB.

TYPICAL SECTION (N.T.S.)
E COLUMBUS DR
STA. 103+60.00 TO STA. 105+29.67
STA. 114+10.35 TO STA. 116+26.35

NEW CONSTRUCTION

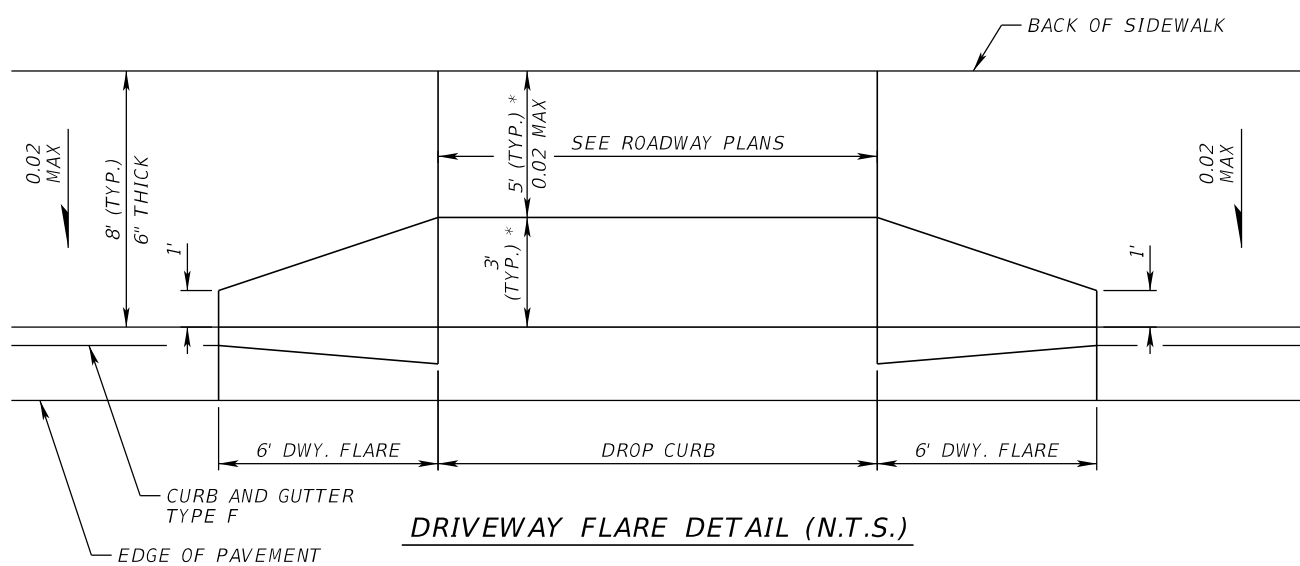
OPTIONAL BASE GROUP 9 WITH
 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (1.5")
 AND FRICTION COURSE FC-12.5 (TRAFFIC C) (1.5")

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 11,135
 ESTIMATED OPENING YEAR = 2020 AADT = 11,391
 ESTIMATED DESIGN YEAR = 2040 AADT = 13,600
 K = 9 % D = 50% T = 14% (24 HOUR)
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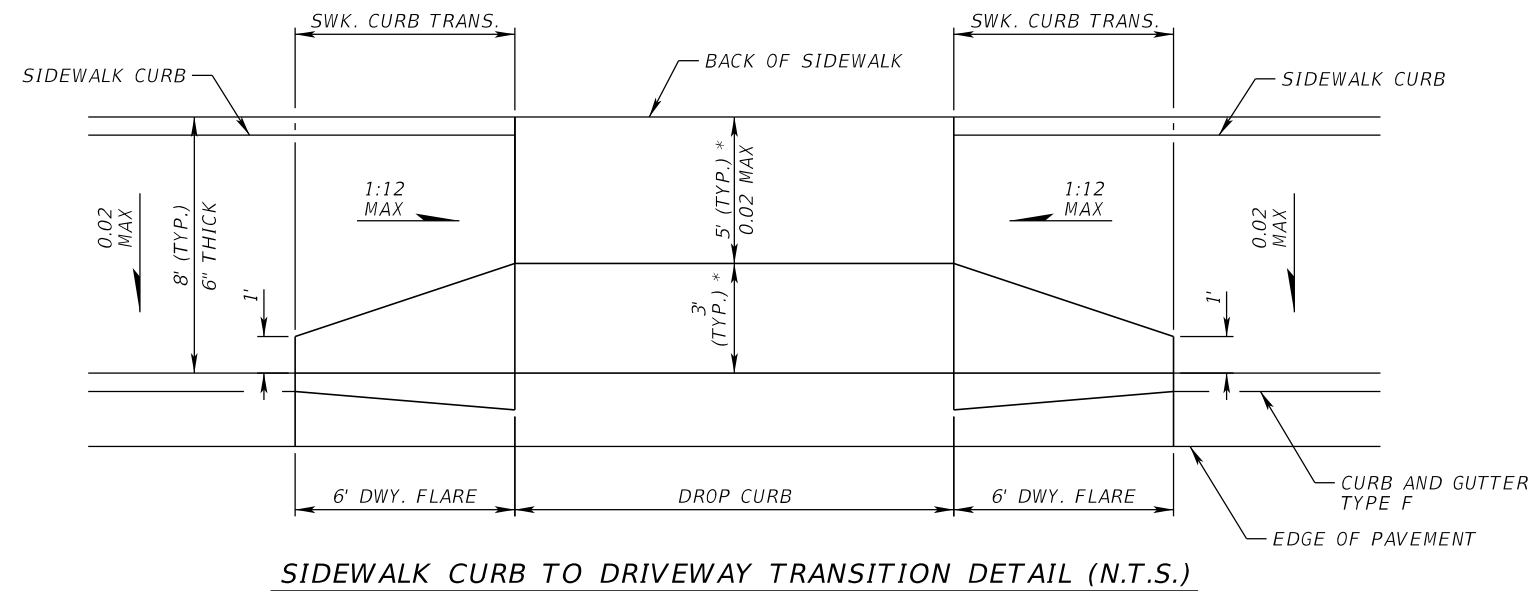
REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 5
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
						1001221	HILLSBOROUGH	

TYPICAL SECTION (2)



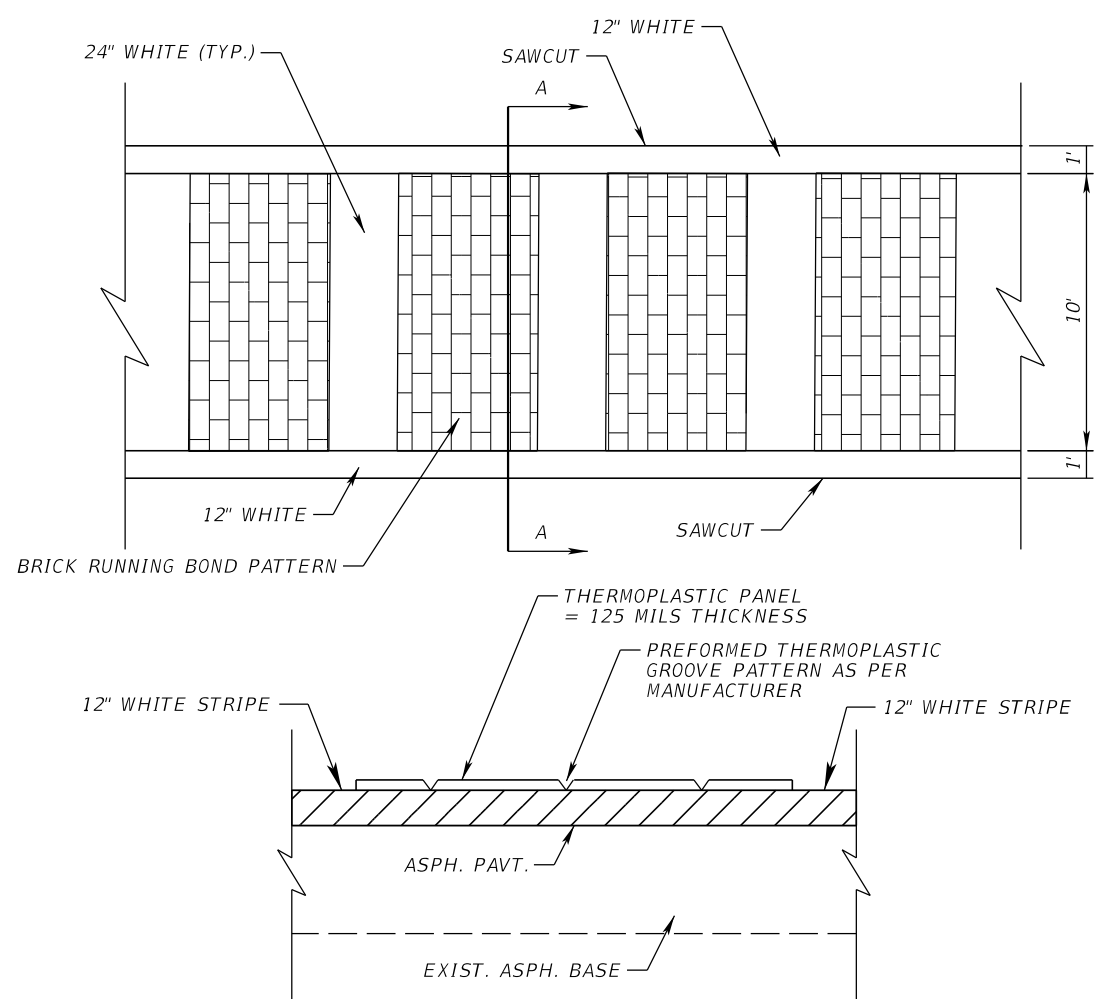
DRIVEWAY FLARE DETAIL (N.T.S.)

* SEE DRIVEWAY HALF-SECTIONS FOR ALL DRIVEWAY WIDTH DIMENSIONS



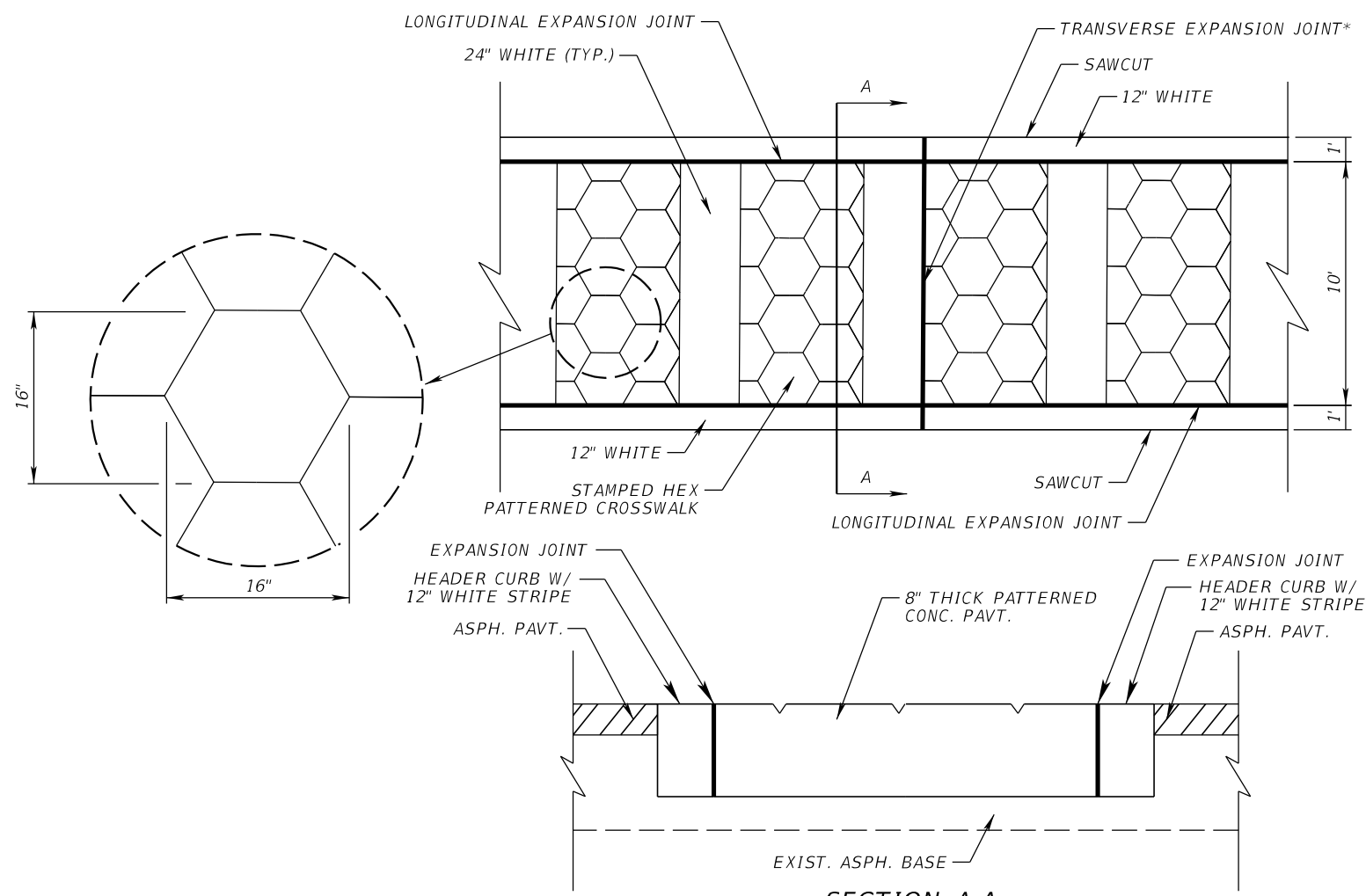
SIDEWALK CURB TO DRIVEWAY TRANSITION DETAIL (N.T.S.)

* SEE DRIVEWAY HALF-SECTIONS FOR ALL DRIVEWAY WIDTH DIMENSIONS



SECTION A-A

THERMOPLASTIC PAVT. OVERLAY CROSSWALK (DETAIL 1) (N.T.S.)



SECTION A-A

HEXAGONAL PATTERNED CROSSWALK PAVT. (DETAIL 2) (N.T.S.)

* PLACE THE TRANSVERSE EXPANSION JOINT TOWARDS THE CENTER OF EACH CROSSWALK AT THE NEAREST EDGE OF STAMPED PATTERN.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

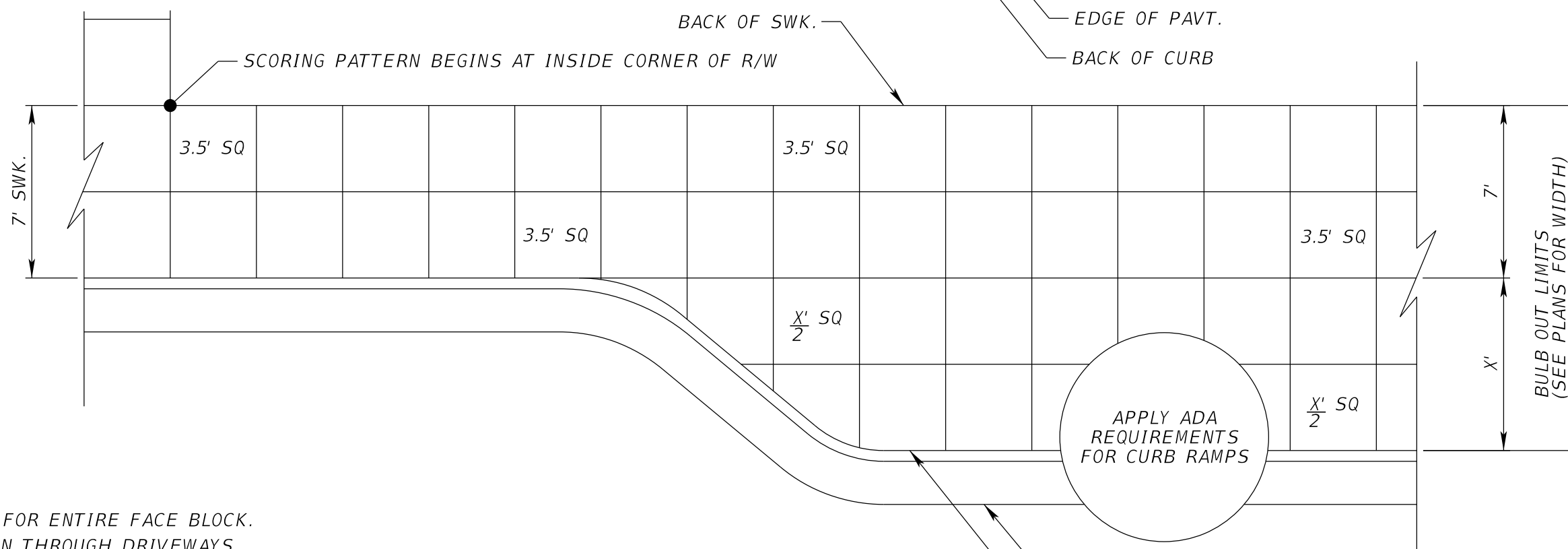
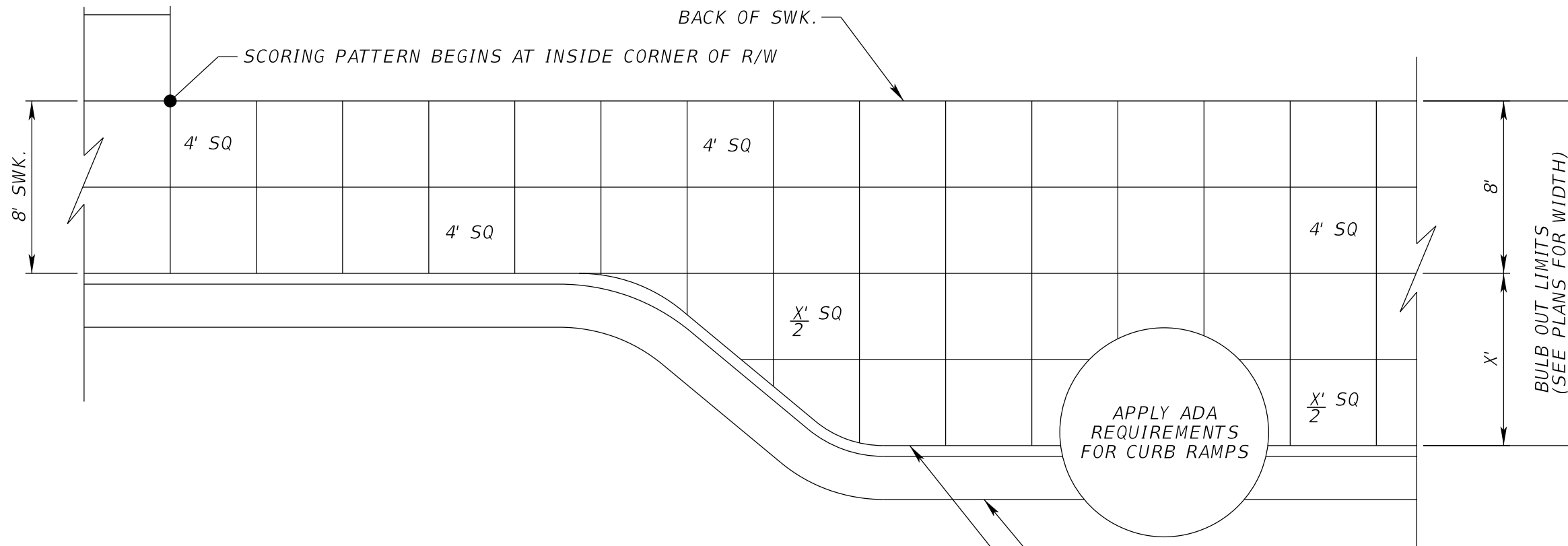
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

TYPICAL SECTION DETAILS

SHEET NO.
6

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BASED UPON:
 SIDEWALK SCORING ILLUSTRATION
 CITY OF TAMPA
 HISTORIC PRESERVATION &
 URBAN DESIGN
 OCTOBER 31, 2009



- NOTES:
- SCORING PATTERN CONSISTENT FOR ENTIRE FACE BLOCK.
 - DO NOT PLACE SCORING PATTERN THROUGH DRIVEWAYS AND CURB RAMPS.
 - PRIOR TO CONSTRUCTION, CONTACT THE EOR FOR REVIEWAL OF FINAL SCORING LAYOUT TO CLARIFY ANY AREAS IN QUESTION.

CONC. SWK. SCORING PATTERN DETAIL (N.T.S.)

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			TYPICAL SECTION DETAILS	SHEET NO. 7
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	STORM DRAIN RCP MATERIAL (CLASS II)			CURB INLETS COT	FDOT MANHOLES	FDOT MANHOLES	DITCH BOTTOM INLETS COT		FDOT BOT (TREE WELLS)	CONCRETE JACKETS (INCLUDED IN PIPE COST)	REMARKS			
					ROUND						TYPE 1	P-8				J-8	T	E
					12"	15"	18"											
P	S-1	104+02.95	RT.	DIVERSION BOX									EA					
F																		
P	TW-1	104+08.16	RT.	TREE WELL								1						
F																		
P	O-1	104+13.51	RT.	OUTLET BOX							1							
F																		
P	S-2	104+13.78	LT.	DIVERSION BOX								1						
F																		
P	TW-2	104+07.60	LT.	TREE WELL								1						
F																		
P	S-5	104+39.38	RT.	TYPE 1 CURB INLET		4		1					1	COT TYPE 1 INLET WITH FDOT 2' DIA MH COVER ASSEMBLY, S.I. 425-001				
F																		
P	S-8	104+76.08	LT.	DIVERSION BOX								1						
F																		
P	TW-8	104+82.16	LT.	TREE WELL								1						
F																		
P	S-9	105+11.26	LT.	DIVERSION BOX								1						
F																		
P	TW-9	105+17.42	LT.	TREE WELL								1						
F																		
P	S-10	105+11.38	RT.	DIVERSION BOX							1							
F																		
P	TW-10	105+16.67	RT.	TREE WELL								1						
F																		
P	O-10	105+21.96	RT.	OUTLET BOX							1							
F																		
P	S-11	106+26.57	RT.	DIVERSION BOX							1							
F																		
P	TW-11	106+31.86	RT.	TREE WELL								1						
F																		
P	O-11	106+37.16	RT.	OUTLET BOX							1							
F																		
P	S-12	106+38.59	LT.	DIVERSION BOX							1							
F																		
P	TW-12	106+43.89	LT.	TREE WELL								1						
F																		
P	O-12	106+49.18	LT.	OUTLET BOX							1							
F																		
P	S-13	107+37.55	LT.	DIVERSION BOX							1							
F																		
P	TW-13	107+42.84	LT.	TREE WELL								1						
F																		
P	O-13	107+48.14	LT.	OUTLET BOX		13					1							
F																		
P	S-14	107+37.89	RT.	DIVERSION BOX							1							
F																		
P	TW-14	107+43.18	RT.	TREE WELL								1						
F																		
P	O-14	107+48.47	RT.	OUTLET BOX		34					1							
F																		
P	S-17	107+68.28	RT.	DIVERSION BOX								1						
F																		
P	TW-17	107+74.45	RT.	TREE WELL								1						
F																		
P	S-18	107+77.46	RT.	MANHOLE		13			1					FDOT MH TYPE P-8, S.I. 425-001,425-010				
F																		
P	S-22	108+14.06	LT.	MANHOLE										NOT USED				
F																		
P	S-22A	108+18.06	LT.	TYPE 1 CURB INLET		4		1					1	COT TYPE 1 INLET WITH FDOT 2' DIA MH COVER ASSEMBLY, S.I. 425-001				
F																		
P	S-23	108+10.10	LT.	DIVERSION BOX								1						
F																		
P	TW-23	108+03.94	LT.	TREE WELL								1						
F																		
P	S-25	108+51.20	RT.	DIVERSION BOX							1							
F																		
P	TW-25	108+45.91	RT.	TREE WELL								1						
F																		
P	O-25	108+40.62	RT.	OUTLET BOX			22				1							
F																		
Summary					0	68	22	2	1	0	14	4	13	2				

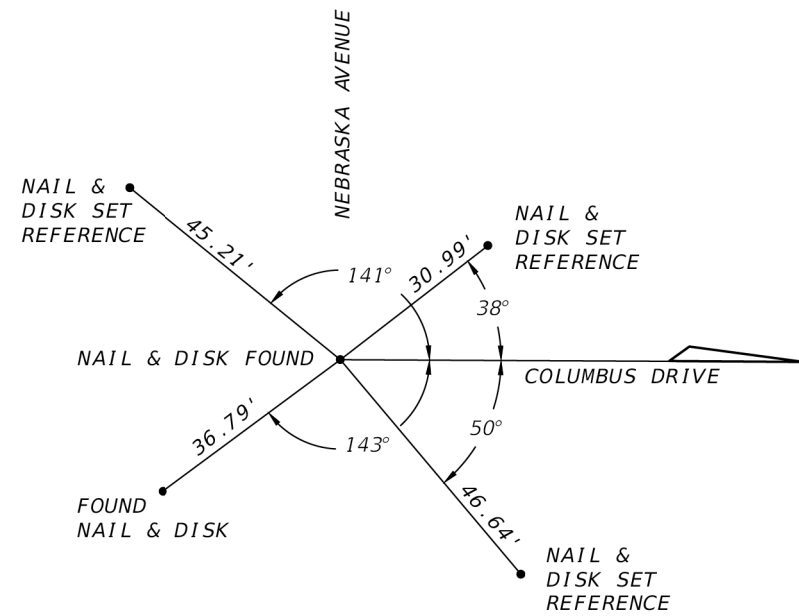
REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF DRAINAGE STRUCTURES	SHEET NO. 8
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

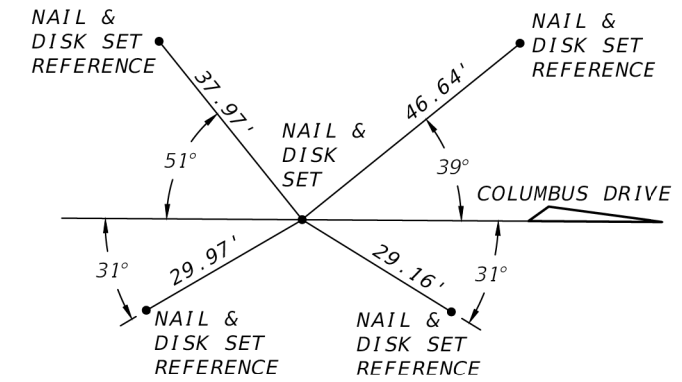
QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	STORM DRAIN RCP MATERIAL (CLASS II)			CURB INLETS COT	FDOT MANHOLES	FDOT MANHOLES	DITCH BOTTOM INLETS COT		FDOT BOT (TREE WELLS)	CONCRETE JACKETS (INCLUDED IN PIPE COST)	REMARKS			
					ROUND						TYPE 1	P-8				J-8	T	E
					12"	15"	18"											
					12"	15"	18"	<10'	P-8 <10'	J-8 <10'	T <10'	E <10'		EA				
P	S-26	108+80.94	LT.	DIVERSION BOX							1							
F													1					
P	TW-26	108+75.64	LT.	TREE WELL														
F																		
P	O-26	108+70.35	LT.	OUTLET BOX		49					1							
F																		
P	S-27	110+18.72	LT.	DIVERSION BOX							1							
F																		
P	TW-27	110+13.43	LT.	TREE WELL									1					
F																		
P	O-27	110+08.14	LT.	OUTLET BOX							1							
F																		
P	S-28	110+81.51	RT.	DIVERSION BOX							1							
F																		
P	TW-28	110+76.22	RT.	TREE WELL									1					
F																		
P	O-28	110+70.93	RT.	OUTLET BOX							1							
F																		
P	S-29	111+17.68	LT.	TYPE 1 CURB INLET		4		1					1		COT TYPE 1 INLET WITH FDOT 2' DIA MH COVER ASSEMBLY, S.I. 425-001			
F																		
P	S-30	111+18.49	RT.	TYPE 1 CURB INLET		4		1					1		COT TYPE 1 INLET WITH FDOT 2' DIA MH COVER ASSEMBLY, S.I. 425-001			
F																		
P	S-31	113+14.61	LT.	DIVERSION BOX							1							
F																		
P	TW-31	113+09.32	LT.	TREE WELL									1					
F																		
P	O-31	113+04.03	LT.	OUTLET BOX							1							
F																		
P	S-32	113+34.16	RT.	DIVERSION BOX							1							
F																		
P	TW-32	113+28.87	RT.	TREE WELL									1					
F																		
P	O-32	113+23.58	RT.	OUTLET BOX							1							
F																		
P	S-33	114+21.64	LT.	DIVERSION BOX									1					
F																		
P	TW-33	114+97.29	LT.	TREE WELL									1					
F																		
P	S-33A	114+36.66	LT.	MANHOLE	4	4	4		1	1			2					
F																		
P	S-34	114+91.12	RT.	DIVERSION BOX									1					
F																		
P	TW-34	114+97.29	RT.	TREE WELL									1					
F																		
P	S-35	115+77.20	LT.	DIVERSION BOX									1					
F																		
P	TW-35	115+83.37	LT.	TREE WELL									1					
F																		
P	S-36	117+26.06	LT.	DIVERSION BOX							1							
F																		
P	TW-36	117+31.35	LT.	TREE WELL									1					
F																		
P	O-36	117+36.64	LT.	OUTLET BOX							1							
F																		
P	S-37	117+30.90	RT.	DIVERSION BOX							1							
F																		
P	TW-37	117+36.19	RT.	TREE WELL									1					
F																		
P	O-37	117+41.48	RT.	OUTLET BOX							1							
F																		
P	S-38	119+21.70	LT.	DIVERSION BOX							1							
F																		
P	TW-38	119+27.07	LT.	TREE WELL									1					
F																		
P	O-38	119+32.29	LT.	OUTLET BOX			4				1			1				
F																		
P	S-39	119+29.63	LT.	MANHOLE											NOT USED			
F																		
				Summary	4	61	8	2	1	1	16	3	11	5				

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF DRAINAGE STRUCTURES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		9

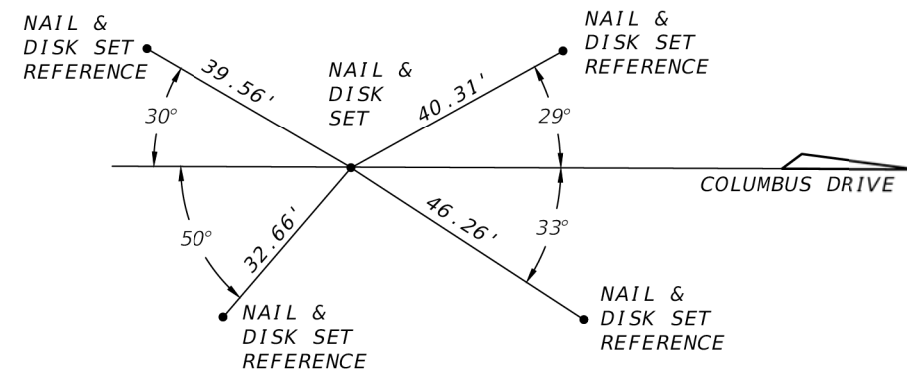
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



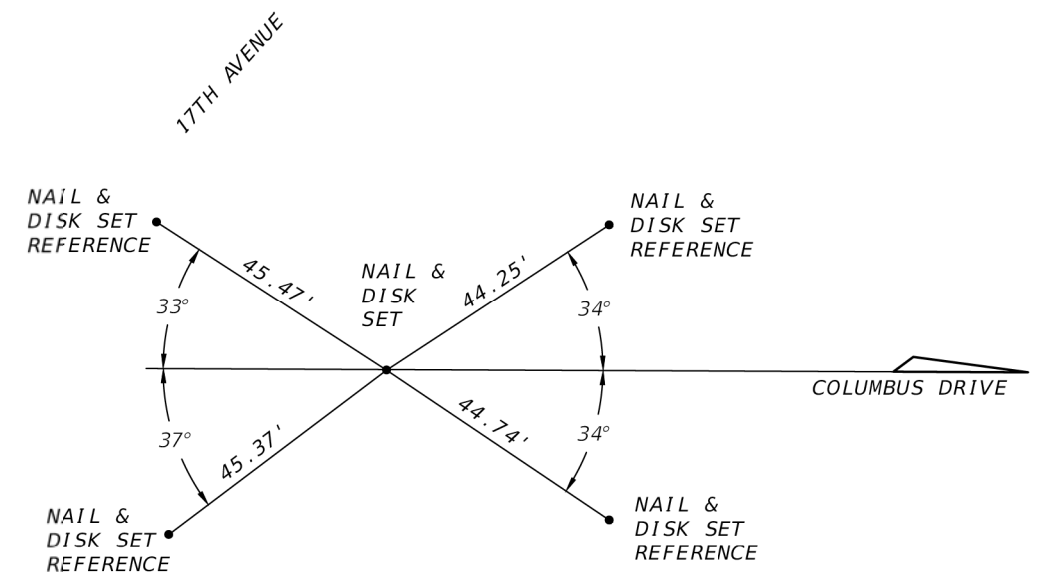
BEGIN STATION 10+00
FOUND NAIL & DISK



STATION 20+00
SET NAIL & DISK #7203



STATION 30+00
SET NAIL & DISK #7203



STATION 34+00
SET NAIL & DISK #7203

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

PROJECT CONTROL

SHEET NO.

11

GENERAL NOTES

ROADWAY

1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. ALL SURVEY INFORMATION WAS OBTAINED FROM A LICENSED FLORIDA PROFESSIONAL SURVEYOR AND MAPPER AND UTILIZED AS SUPPORTING DATA IN THE PRODUCTION OF DESIGN PLANS AND FOR CONSTRUCTION ON E COLUMBUS DR FROM SR 45 (N NEBRASKA AVE) TO N 14TH ST. THE PROFESSIONAL SURVEYOR AND MAPPER OF RECORD IS:

 RUSSELL P. HYATT, P.S.M.
 P.S.M. NO.: 5303
 HYATT SURVEY SERVICES, INC.
 2012 LENA RD.
 BRADENTON, FL 34211
 CERTIFICATE OF AUTHORIZATION: 4213
3. INFORMATION AND SUBSEQUENT LOCATION OF THE RIGHT OF WAY LINES INDICATED HEREIN WERE OBTAINED BY A REVIEW OF THE LAST DEED OF RECORD AVAILABLE PER HILLSBOROUGH COUNTY, FLORIDA CLERK OF THE CIRCUIT COURT WEBSITE TOGETHER WITH PERTINENT STATE ROAD DEPARTMENT MAPS AVAILABLE PER FDOT RIGHT OF WAY MAPPING WEBSITE. TITLE WORK WAS NOT PROVIDED.
4. LANE DIRECTION ARROWS ARE FOR INFORMATIONAL PURPOSES ONLY.
5. ALL PARTIAL STATION CALL OUTS IN THE PLANS ARE BASED ON $\frac{1}{4}$ CONST. (E COLUMBUS DR).
6. REFER TO DRIVEWAY HALF-SECTIONS FOR DRIVEWAY WIDTHS AND TIE-DOWN LIMITS.
7. RESOLUTION OF ANY CONTAMINATED OR HAZARDOUS MATERIALS INVOLVEMENT AT IDENTIFIED OR ENCOUNTERED AREAS BY THE CONTRACTOR WILL BE COORDINATED BY CITY OF TAMPA WITH THE APPROPRIATE REGULATORY AGENCIES. CITY OF TAMPA WILL UNDERTAKE, AT ITS OWN EXPENSE, ANY REMEDIAL ACTIONS NECESSARY TO ALLOW THE CONTRACTOR TO CONTINUE CONSTRUCTING THE PROJECT.

 CERTAIN CONTAMINATED AREAS INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING ADDRESSES:
 - 2317 N NEBRASKA AVE
 - 1023 E COLUMBUS DR
 - 1312 E COLUMBUS DR

DRAINAGE

1. INFORMATION FOR THE EXISTING STORM DRAIN SYSTEM HAS BEEN PROVIDED ON ROADWAY PLAN SHEET (5).
2. ALL GRATES & MANHOLE COVERS TO BE HEAVY DUTY, AND STEEL GRATES TO BE GALVANIZED, NOT PAINTED.

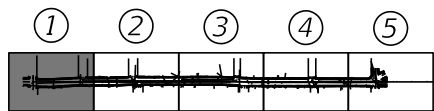
UTILITIES

1. INFORMATION FOR THE EXISTING SANITARY SYSTEM HAS BEEN PROVIDED ON UTILITY ADJUSTMENT SHEET (5).

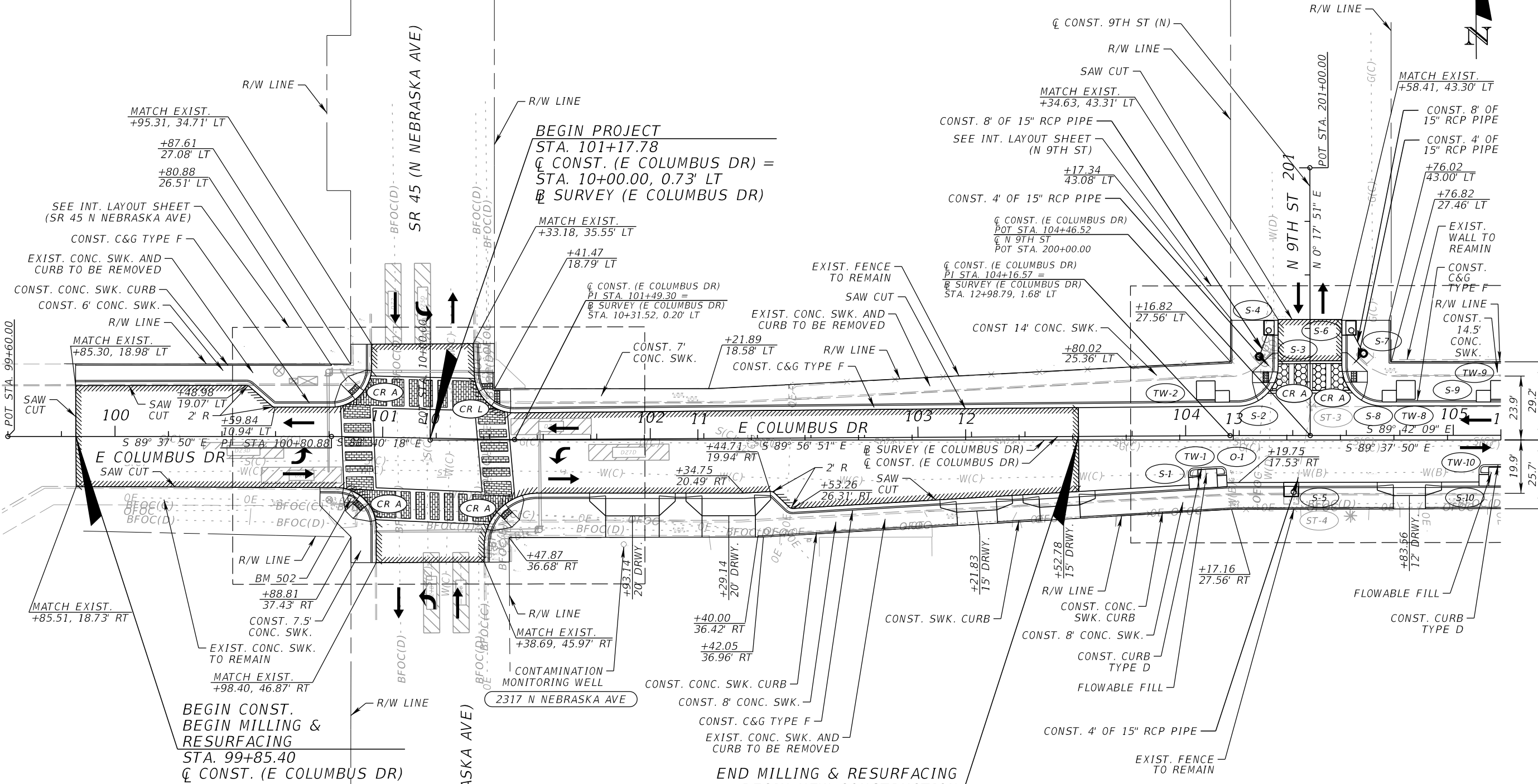
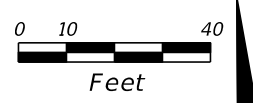
NOTES TO REVIEWERS

1. ROADWAY PLAN SHEET LIMITS AND DIMENSIONS ALONG MATCHLINES ARE BASED UPON THE $\frac{1}{4}$ OF SURVEY.
2. ALL PROPOSED SIDEWALK WITHIN PROJECT LIMITS TO BE MAINTAINED BY HILLSBOROUGH COUNTY AFTER CONSTRUCTION. SIDEWALK THICKNESS SHALL BE 6" THICK PER COUNTY STANDARDS.

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
						1001221	HILLSBOROUGH		436639-1-58-01



BM 502 - FOUND MAG NAIL & DIST
 "CITY OF TAMPA T&SS SURVEY CONTROL"
 EL. 42.80'



LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
THERMOPLASTIC CROSSWALK (SEE DETAIL 1)	
PATTERNED CROSSWALK (SEE DETAIL 2)	

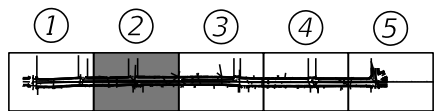
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

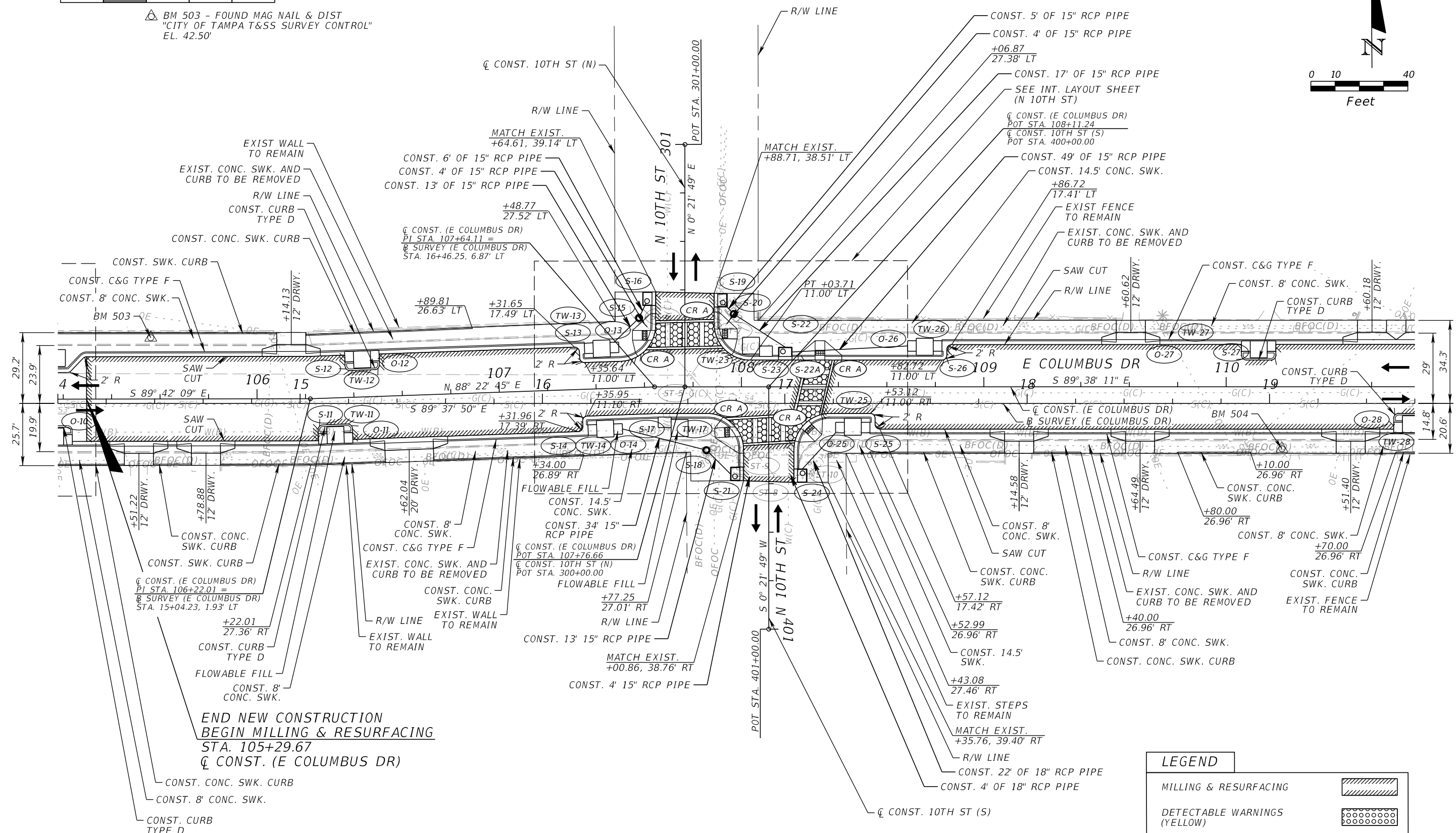
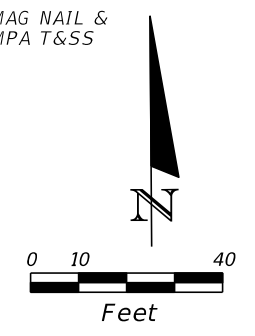
ROADWAY PLANS (1)		SHEET NO. 13
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BM 503 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"
EL. 42.50'

BM 504 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"
EL. 41.81'



END NEW CONSTRUCTION
BEGIN MILLING & RESURFACING
STA. 105+29.67
Q CONST. (E COLUMBUS DR)

LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL)	

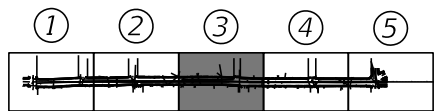
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

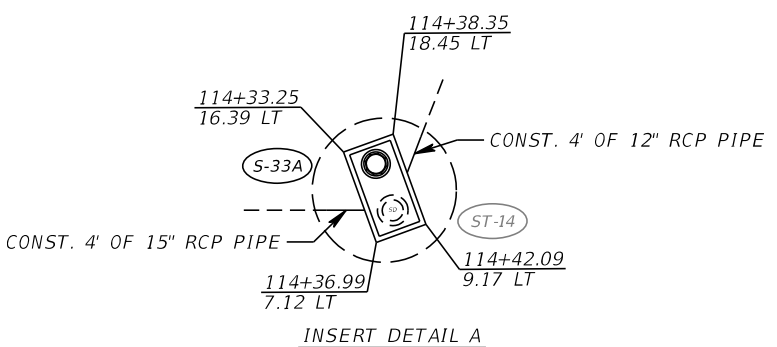
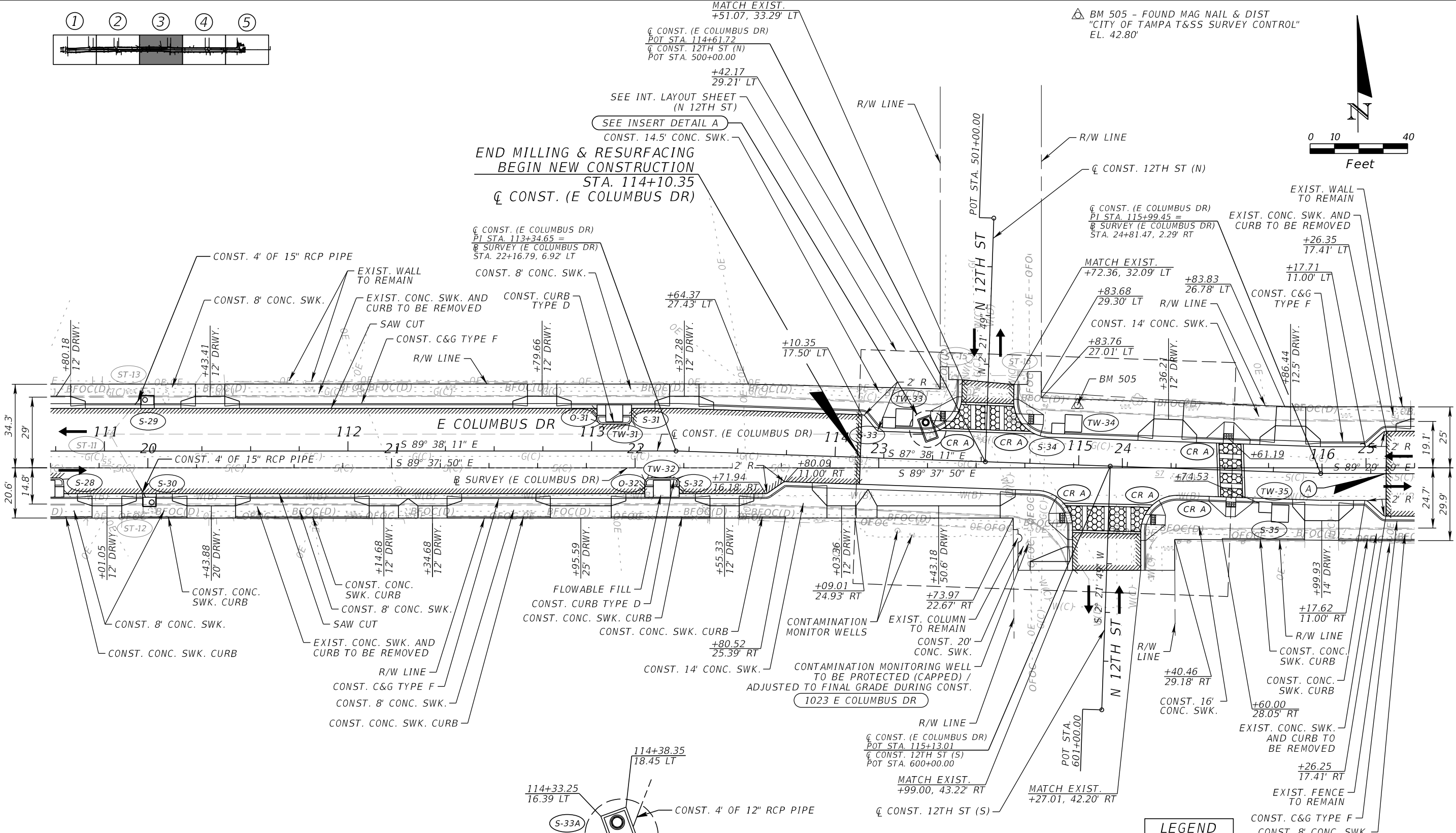
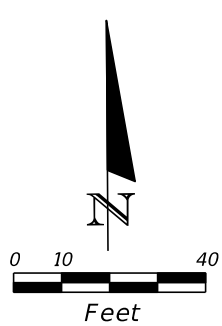
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

ROADWAY PLANS (2)	
DATE	SHEET NO.
	14

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



BM 505 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"
EL. 42.80'



(A) END NEW CONSTRUCTION
BEGIN MILLING & RESURFACING
STA. 116+26.35
CL CONST. (E COLUMBUS DR)

LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL)	

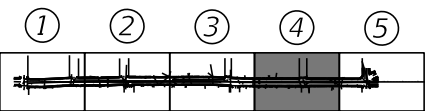
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

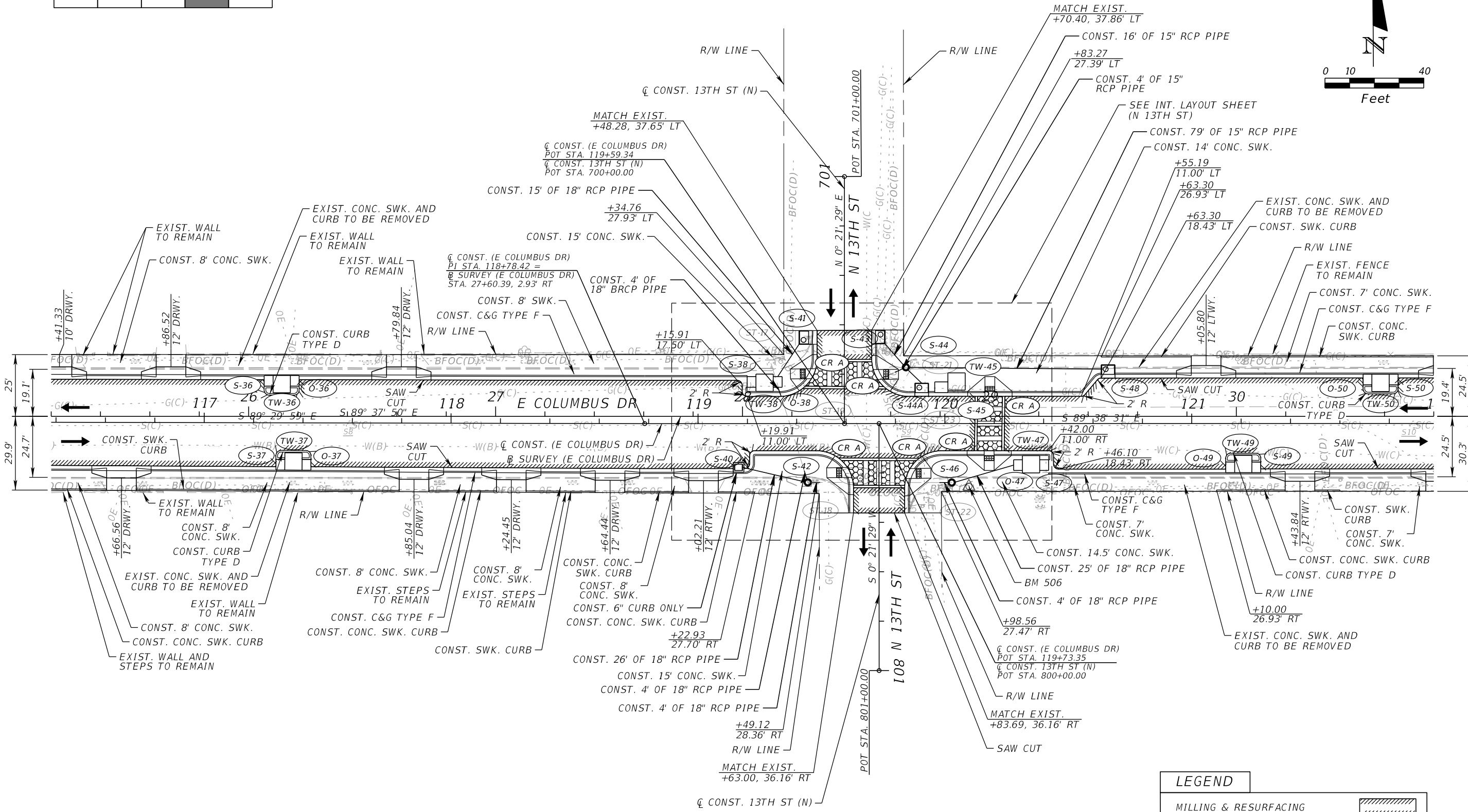
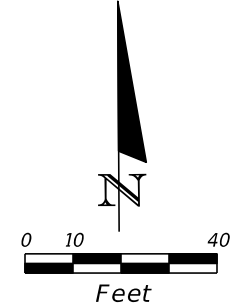
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

ROADWAY PLANS (3)		SHEET NO. 15
--------------------------	--	------------------------

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



BM 506 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"
EL. 39.24'



LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL)	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

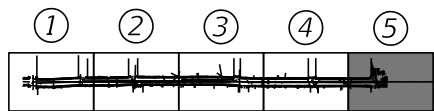
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

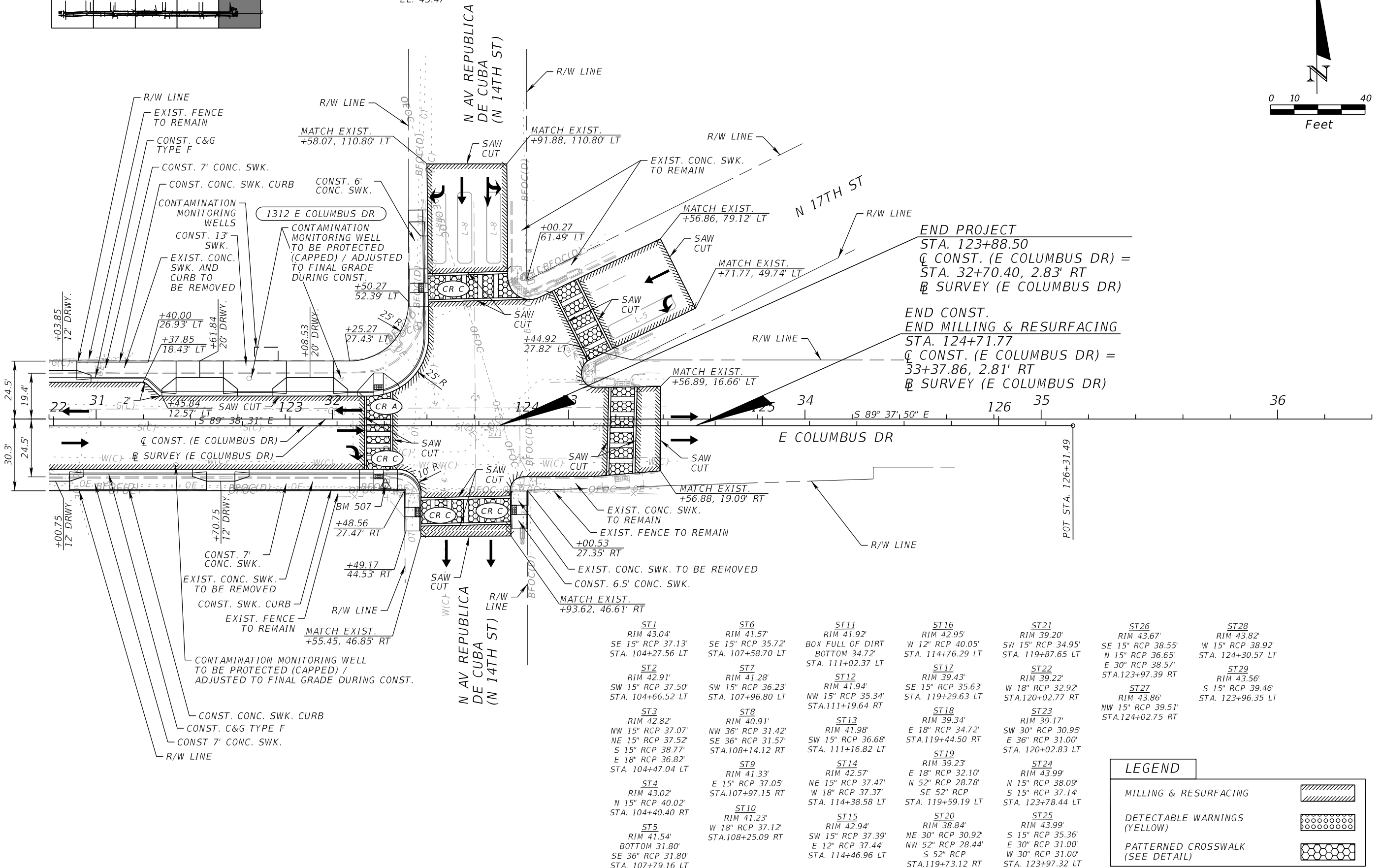
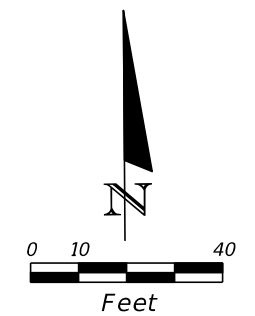
ROADWAY PLANS (4)

SHEET NO.
16

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



BM 507 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"
EL. 43.47'



ST1 RIM 43.04' SE 15" RCP 37.13' STA. 104+27.56 LT	ST6 RIM 41.57' SE 15" RCP 35.72' STA. 107+58.70 LT	ST11 RIM 41.92' BOX FULL OF DIRT BOTTOM 34.72' STA. 111+02.37 LT	ST16 RIM 42.95' W 12" RCP 40.05' STA. 114+76.29 LT	ST21 RIM 39.20' SW 15" RCP 34.95' STA. 119+87.65 LT	ST26 RIM 43.67' SE 15" RCP 38.55' N 15" RCP 36.65' E 30" RCP 38.57' STA. 123+97.39 RT	ST28 RIM 43.82' W 15" RCP 38.92' STA. 124+30.57 LT
ST2 RIM 42.91' SW 15" RCP 37.50' STA. 104+66.52 LT	ST7 RIM 41.28' SW 15" RCP 36.23' STA. 107+96.80 LT	ST12 RIM 41.94' NW 15" RCP 35.34' STA. 111+19.64 RT	ST17 RIM 39.43' SE 15" RCP 35.63' STA. 119+29.63 LT	ST22 RIM 39.22' W 18" RCP 32.92' STA. 120+02.77 RT	ST27 RIM 43.86' NW 15" RCP 39.51' STA. 124+02.75 RT	ST29 RIM 43.56' S 15" RCP 39.46' STA. 123+96.35 LT
ST3 RIM 42.82' NW 15" RCP 37.07' NE 15" RCP 37.52' S 15" RCP 38.77' E 18" RCP 36.82' STA. 104+47.04 LT	ST8 RIM 40.91' NW 36" RCP 31.42' SE 36" RCP 31.57' STA. 108+14.12 RT	ST13 RIM 41.98' SW 15" RCP 36.68' STA. 111+16.82 LT	ST18 RIM 39.34' E 18" RCP 34.72' STA. 119+44.50 RT	ST23 RIM 39.17' SW 30" RCP 30.95' E 36" RCP 31.00' STA. 120+02.83 LT		
ST4 RIM 43.02' N 15" RCP 40.02' STA. 104+40.40 RT	ST9 RIM 41.33' E 15" RCP 37.05' STA. 107+97.15 RT	ST14 RIM 42.57' NE 15" RCP 37.47' W 18" RCP 37.37' STA. 114+38.58 LT	ST19 RIM 39.23' E 18" RCP 32.10' N 52" RCP 28.78' SE 52" RCP STA. 119+59.19 LT	ST24 RIM 43.99' N 15" RCP 38.09' S 15" RCP 37.14' STA. 123+78.44 LT		
ST5 RIM 41.54' BOTTOM 31.80' SE 36" RCP 31.80' STA. 107+79.16 LT	ST10 RIM 41.23' W 18" RCP 37.12' STA. 108+25.09 RT	ST15 RIM 42.94' SW 15" RCP 37.39' E 12" RCP 37.44' STA. 114+46.96 LT	ST20 RIM 38.84' NE 30" RCP 30.92' NW 52" RCP 28.44' S 52" RCP STA. 119+73.12 RT	ST25 RIM 43.99' S 15" RCP 35.36' E 30" RCP 31.00' W 30" RCP 31.00' STA. 123+97.32 LT		

LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL)	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

ROADWAY PLANS (5)

SHEET NO. 17

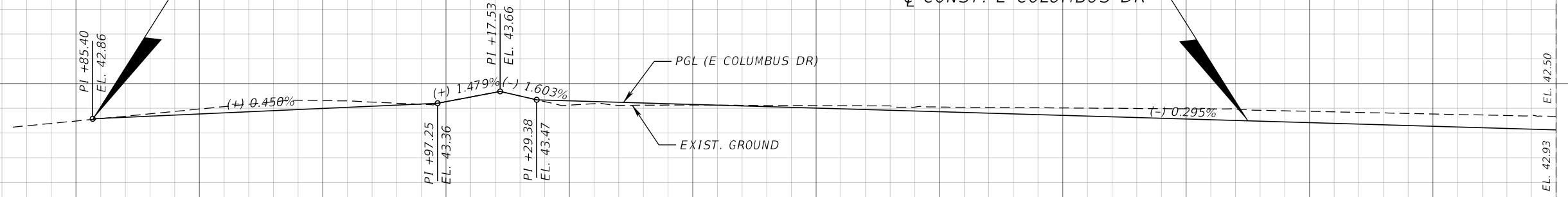
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

△ BM 502 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"

BEGIN CONSTRUCTION
BEGIN MILLING & RESURFACING
BEGIN VARIABLE MILLING
STA. 99+85.40
℄ CONST. E COLUMBUS DR

END MILLING & RESURFACING
BEGIN NEW CONSTRUCTION
STA. 103+60.00
℄ CONST. E COLUMBUS DR



1" = 40' Horizontal
1" = 4' Vertical

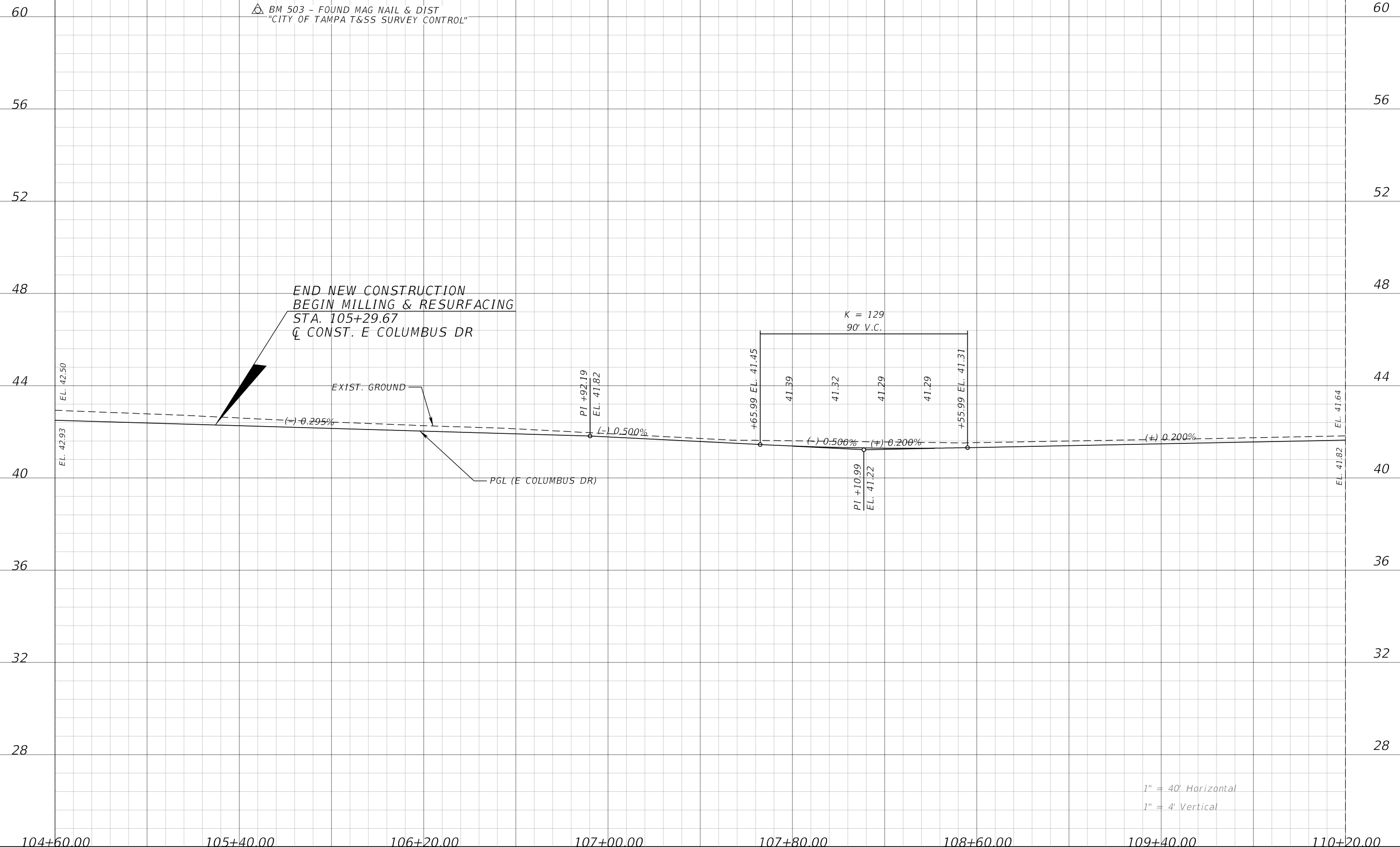
99+80.00 100+60.00 101+40.00 102+20.00 103+00.00 103+80.00 104+60.00

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			ROADWAY PROFILES (1)	SHEET NO. 18
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

△ BM 503 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"



1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

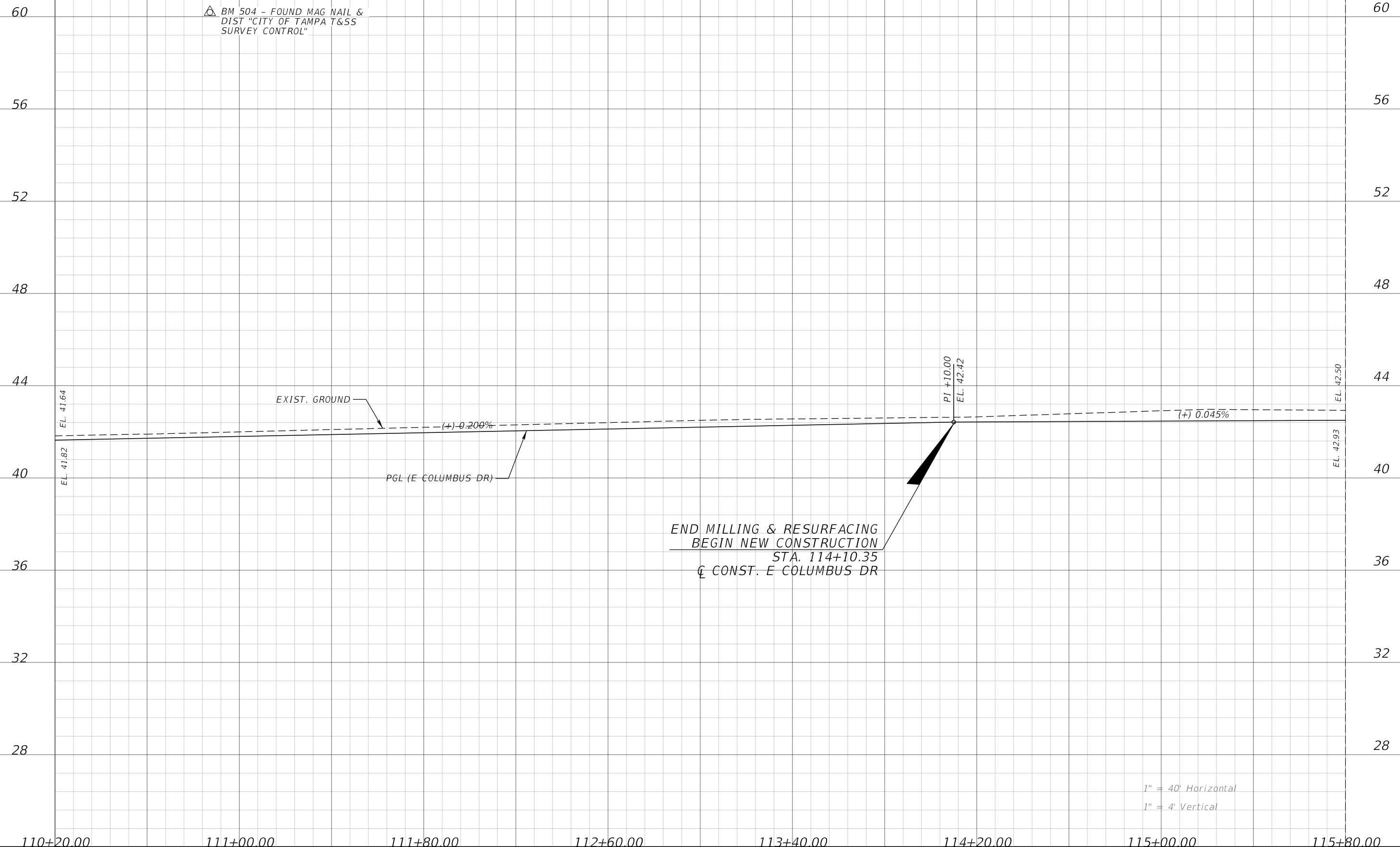
ROADWAY PROFILES (2)

SHEET NO.
19

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

△ BM 504 - FOUND MAG NAIL &
DIST "CITY OF TAMPA T&SS
SURVEY CONTROL"



END MILLING & RESURFACING
BEGIN NEW CONSTRUCTION
STA. 114+10.35
C CONST. E COLUMBUS DR

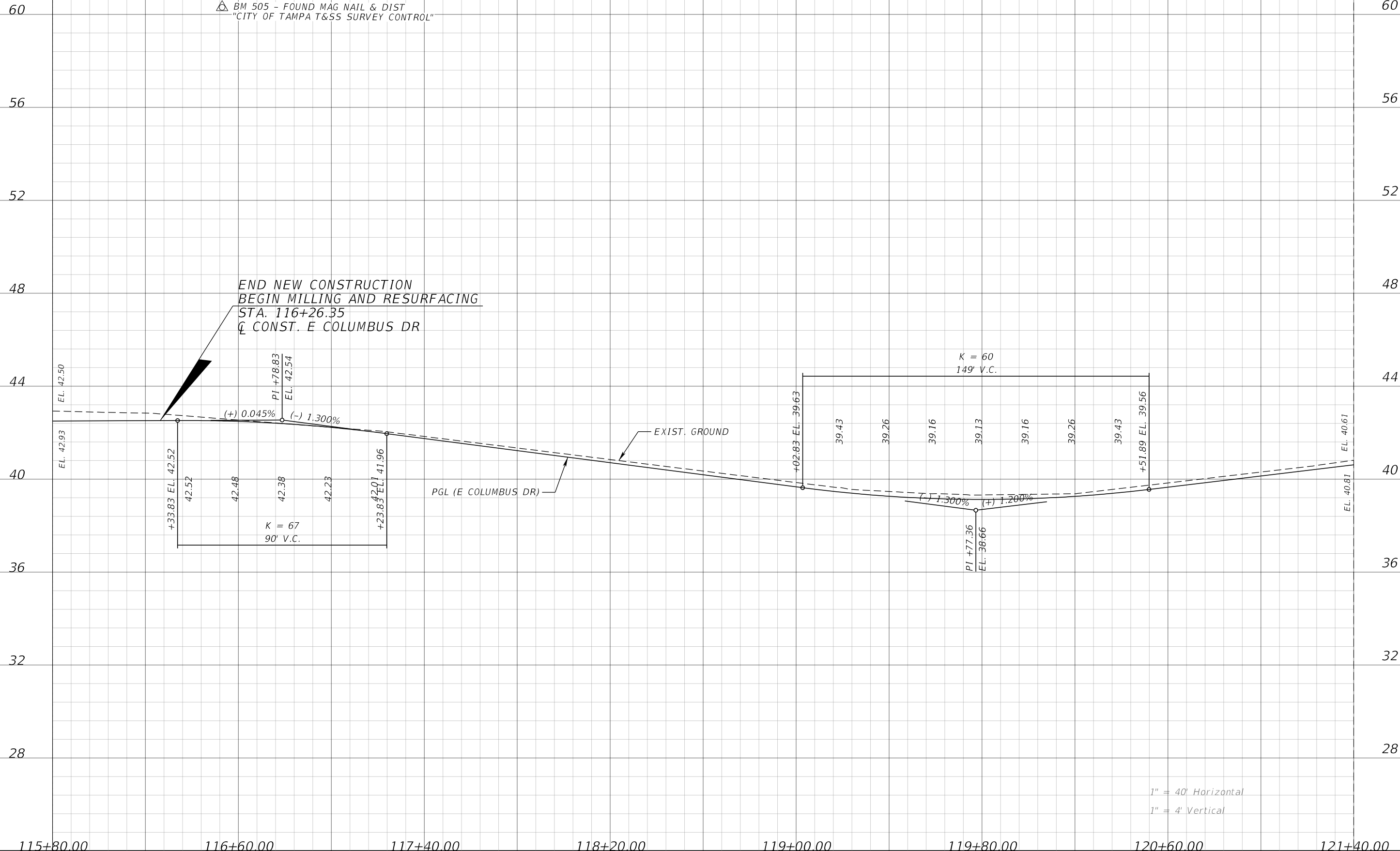
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1" = 4' Vertical

DATE		DESCRIPTION		REVISIONS		JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356		CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 20
						CITY PROJECT NO. COUNTY FINANCIAL PROJECT ID		ROADWAY PROFILES (3)			
						1001221 HILLSBOROUGH 436639-1-58-01					

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NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

△ BM 505 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"



1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

ROADWAY PROFILES (4)

SHEET NO.
21

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

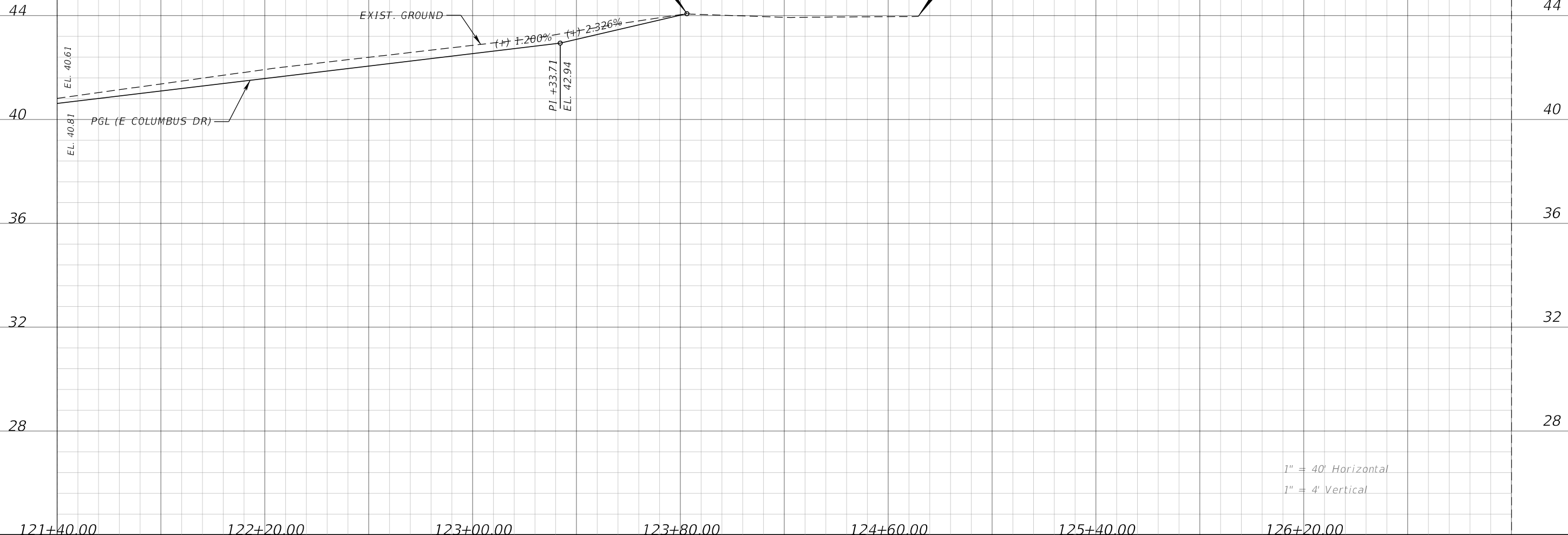
△ BM 507 - FOUND MAG NAIL & DIST
"CITY OF TAMPA T&SS SURVEY CONTROL"

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END PROP. PGL
END VARIABLE MILLING
MATCH EXIST.
STA. 123+82.47
℄ CONST. E COLUMBUS DR

END CONSTRUCTION
END MILLING & RESURFACING
STA. 124+71.77
℄ CONST. E COLUMBUS DR



1" = 40' Horizontal
1" = 4' Vertical

<p>121+40.00 122+20.00 123+00.00 123+80.00 124+60.00 125+40.00 126+20.00</p>				<p>JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356</p>			<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p>			<p>ROADWAY PROFILES (5)</p>	<p>SHEET NO.</p>											
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION							<table border="1"> <thead> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </tbody> </table>			CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01
DATE	DESCRIPTION	DATE	DESCRIPTION																			
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																				
1001221	HILLSBOROUGH	436639-1-58-01																				
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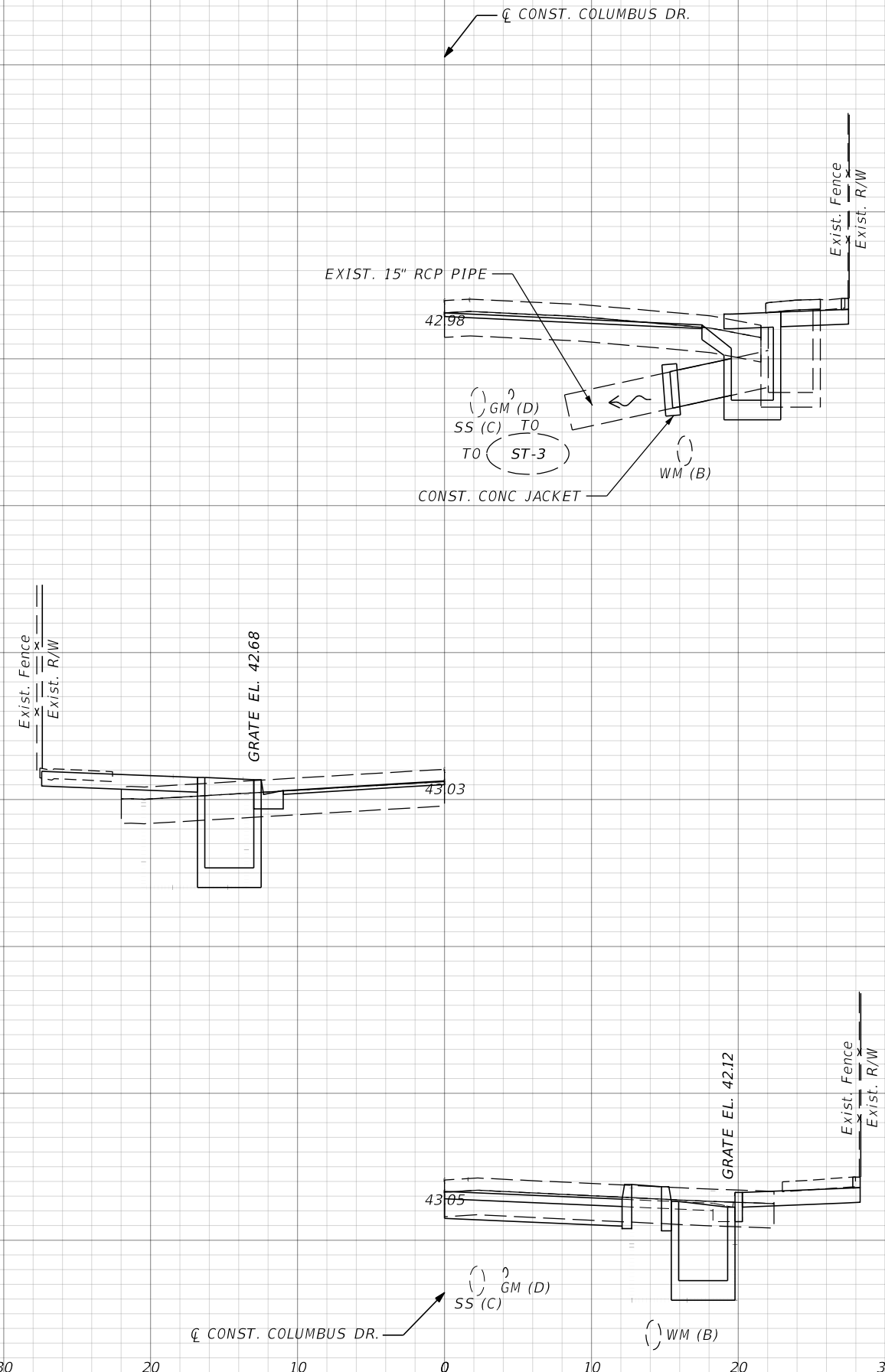
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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S-5
 STA. 104+39.38, 20.85' RT.
 REMOVE EXIST. COT TYPE 1 INLET
 CONST. COT TYPE 1 INLET
 WITH FDOT 2" DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 42.14'
 N 15" INV. = 39.75'

S-2
 STA. 104+13.78, 14.64' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.68'
 INV. EL. = 40.18'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

S-1
 STA. 104+02.95, 17.60' RT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 42.12'
 INV. EL. = 39.62'
 SEE DRAINAGE DETAIL B
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



104+39.38 **S-5** **ST-4**

104+13.78 **S-2**
TW-2

104+02.95 **S-1**
O-1
TW-1

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

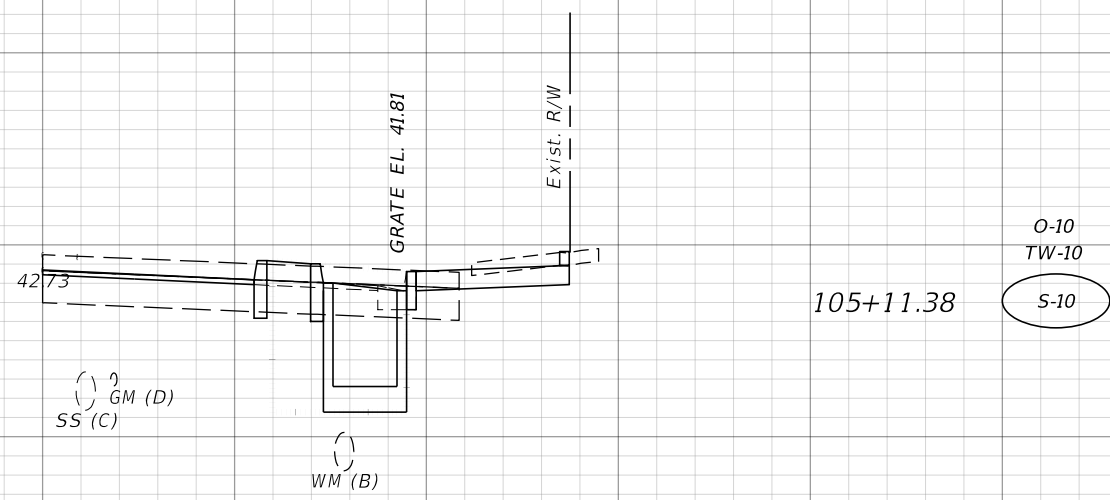
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
23

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

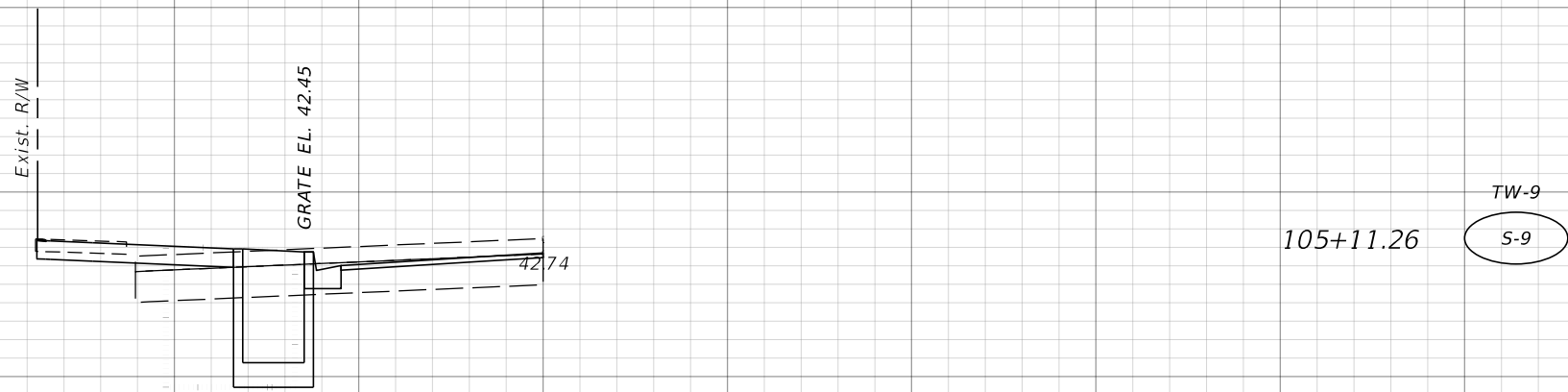
CL CONST. COLUMBUS DR.



S-10

STA. 105+11.38, 16.80' RT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 41.80'
 INV. EL. = 39.30'
 SEE DRAINAGE DETAIL B
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

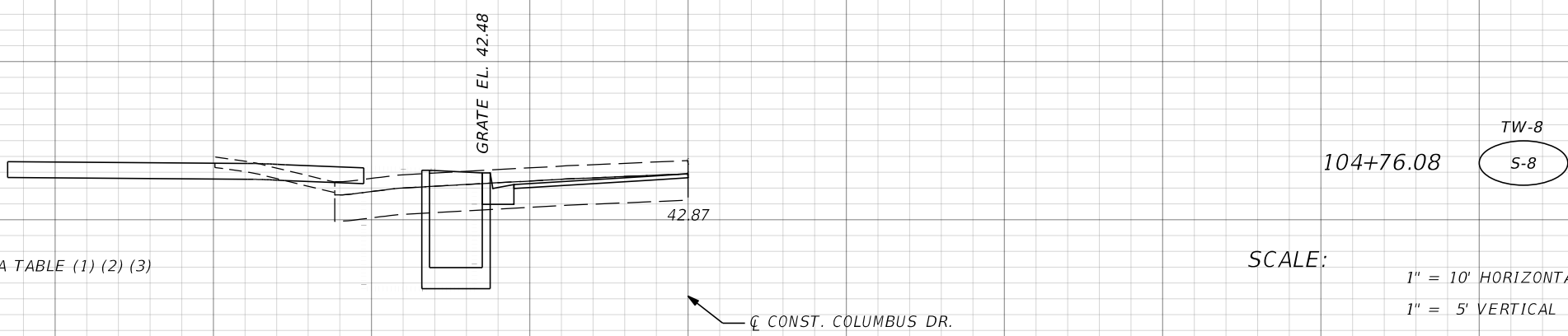
105+11.38
 O-10
 TW-10
 S-10



TW-9
 S-9

STA. 105+11.26, 14.63' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.37'
 INV. EL. = 39.87'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

105+11.26
 TW-9
 S-9



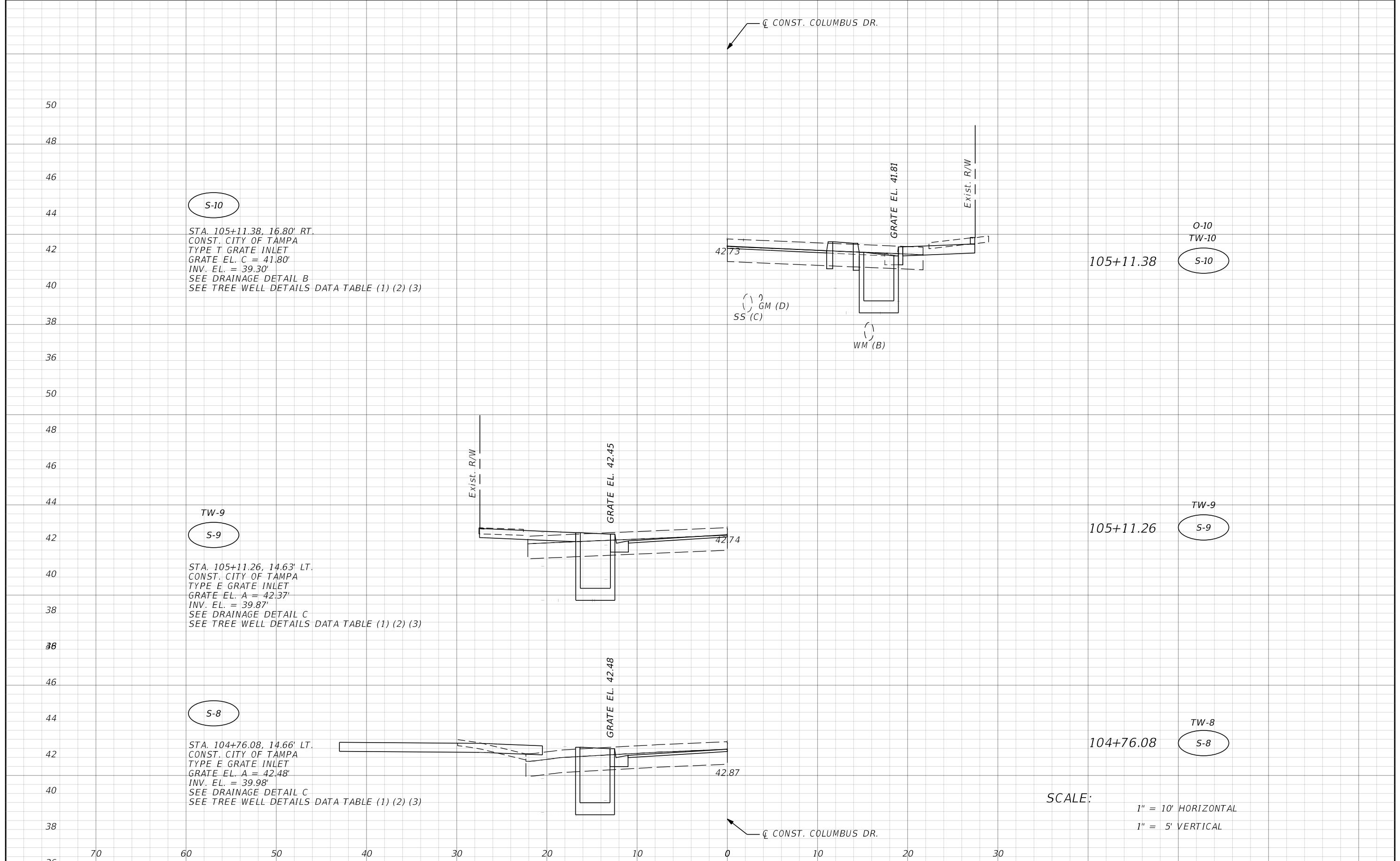
S-8

STA. 104+76.08, 14.66' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.48'
 INV. EL. = 39.98'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

104+76.08
 TW-8
 S-8

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

CL CONST. COLUMBUS DR.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

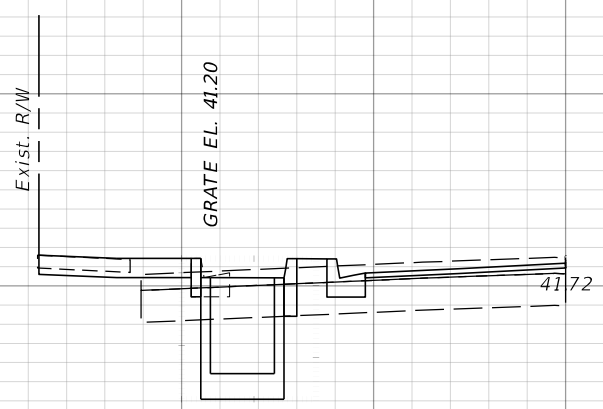
SHEET NO.
 24

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S-13

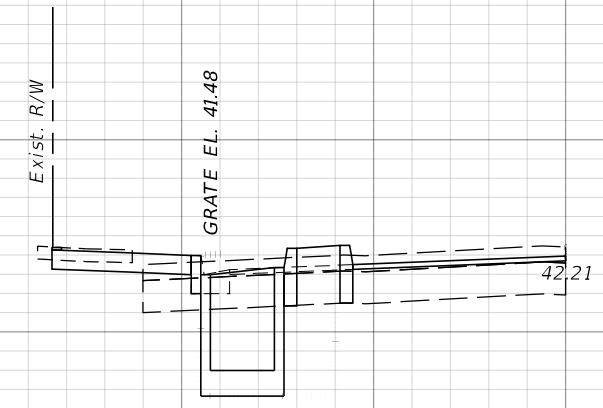
STA. 107+37.55, 16.83' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.21'
INV. EL. = 38.71'
SEE DRAINAGE DETAIL A
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



107+37.55
O-13
TW-13
S-13

S-12

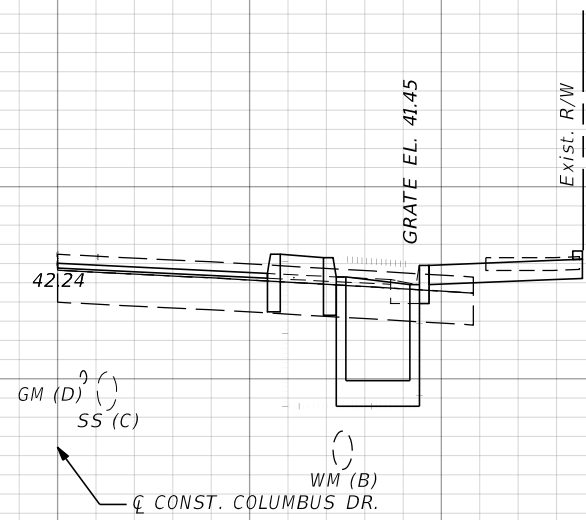
STA. 106+38.59, 16.87' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.48'
INV. EL. = 38.98'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



106+38.59
O-12
TW-12
S-12

S-11

STA. 106+26.57, 16.68' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.45'
INV. EL. = 38.95'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



106+26.57
O-11
TW-11
S-11

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

70 60 50 40 30 20 10 0 10 20 30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

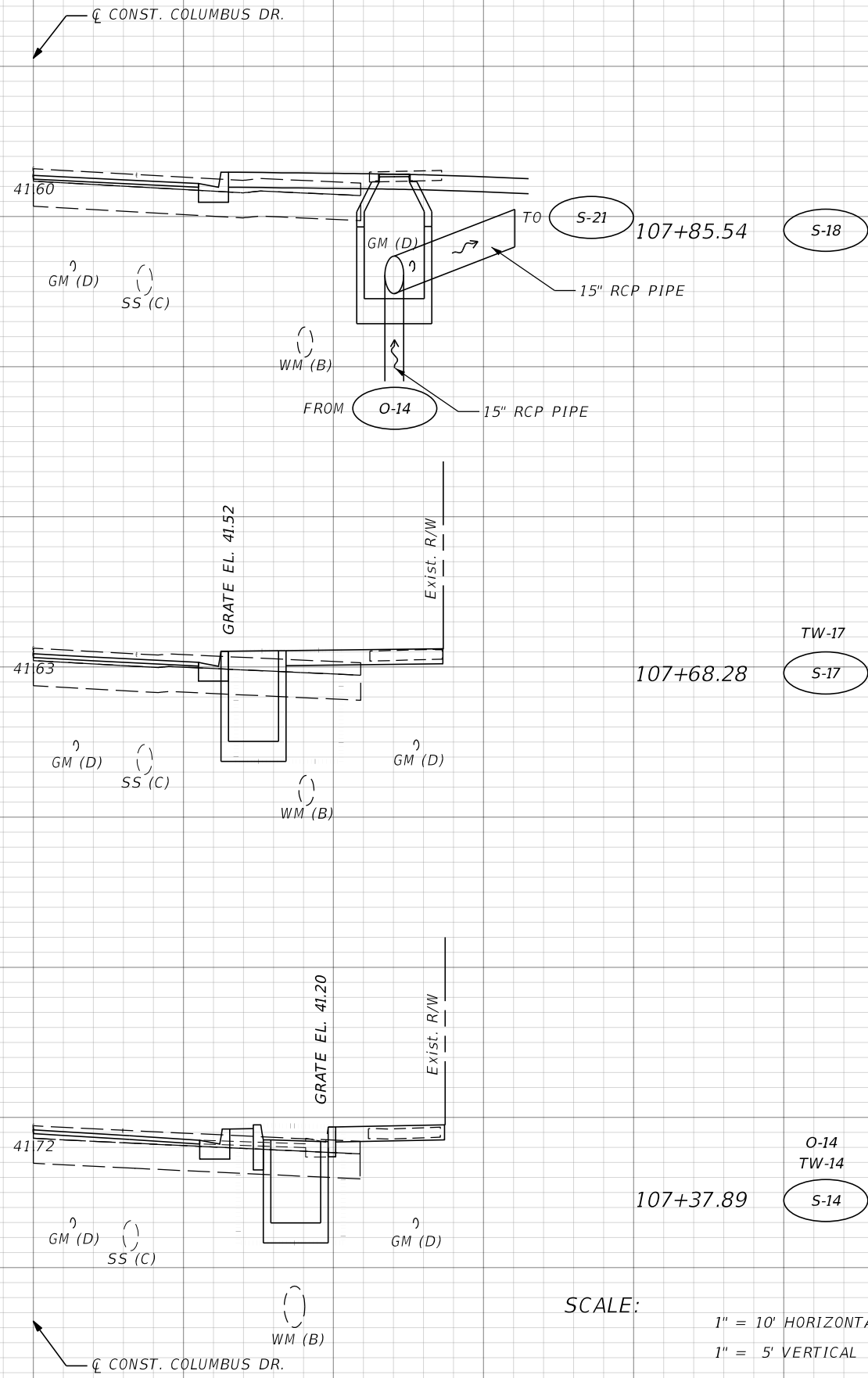
THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
25

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



S-18
 STA. 107+85.54, 26.12' RT.
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 41.01'
 SE 15" INV. = 37.43'
 NW 15" INV. = 37.43'

S-17
 STA. 107+68.28, 14.67' RT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 41.51'
 GUTTER EL. = 41.03'
 INV. EL. = 39.01'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

S-14
 STA. 107+37.89, 16.92' RT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 41.20'
 INV. EL. = 38.70'
 SEE DRAINAGE DETAIL A
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
26

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

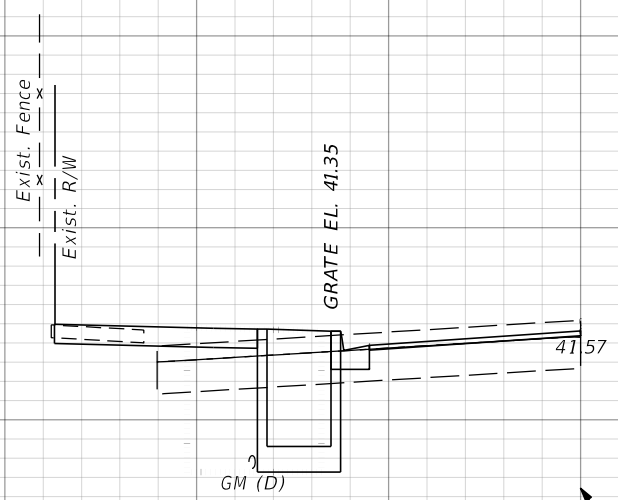
CL CONST. COLUMBUS DR.

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S-23

STA. 108+10.10, 14.67' LT.
CONST. CITY OF TAMPA
TYPE E GRATE INLET
GRATE EL. A = 41.35'
INV. EL. = 38.85'
SEE DRAINAGE DETAIL C
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



108+10.10

S-23
TW-23

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

CL CONST. COLUMBUS DR.

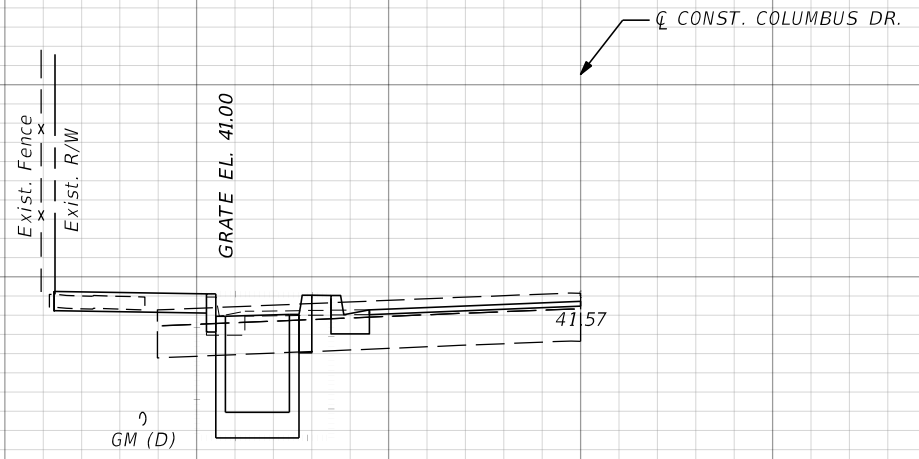
REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 27
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

DRAINAGE STRUCTURES

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

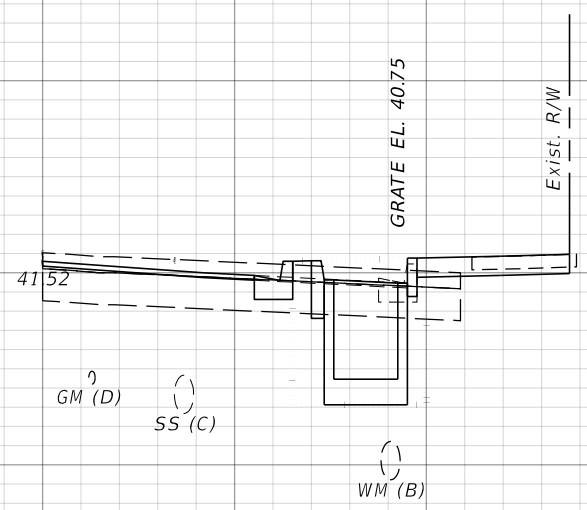
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S-26
 STA. 108+80.94, 16.84' LT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 40.00
 INV. EL. = 38.50
 SEE DRAINAGE DETAIL A
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



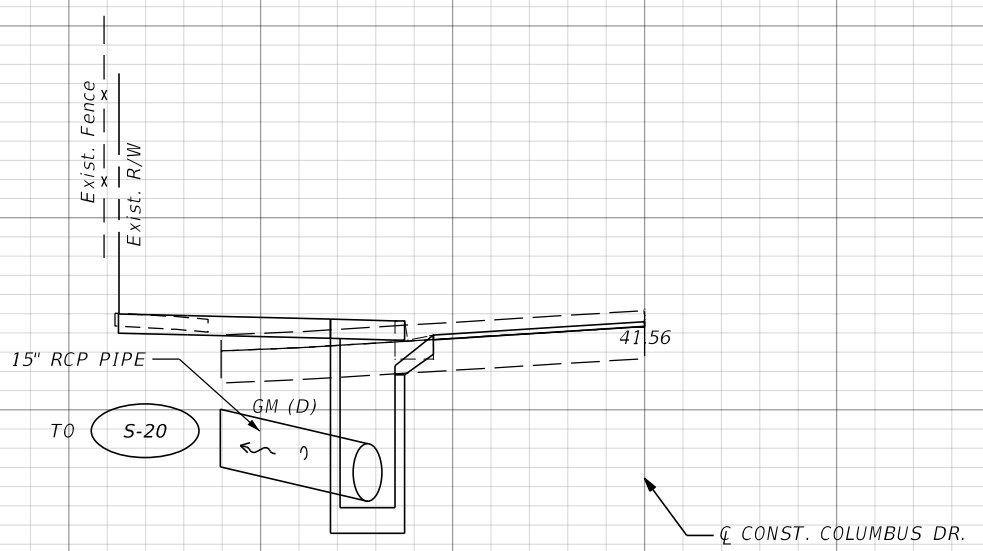
108+80.94 **TW-26**
S-26

S-25
 STA. 108+51.20, 16.84' RT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 40.75
 INV. EL. = 38.25
 SEE DRAINAGE DETAIL A
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



108+51.20 **S-25**
 TW-25
 O-25

S-22A
 STA. 108+18.06, 14.25' LT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 40.94'
 SW 15" INV. = 36.62'



108+18.06 **S-22A**

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

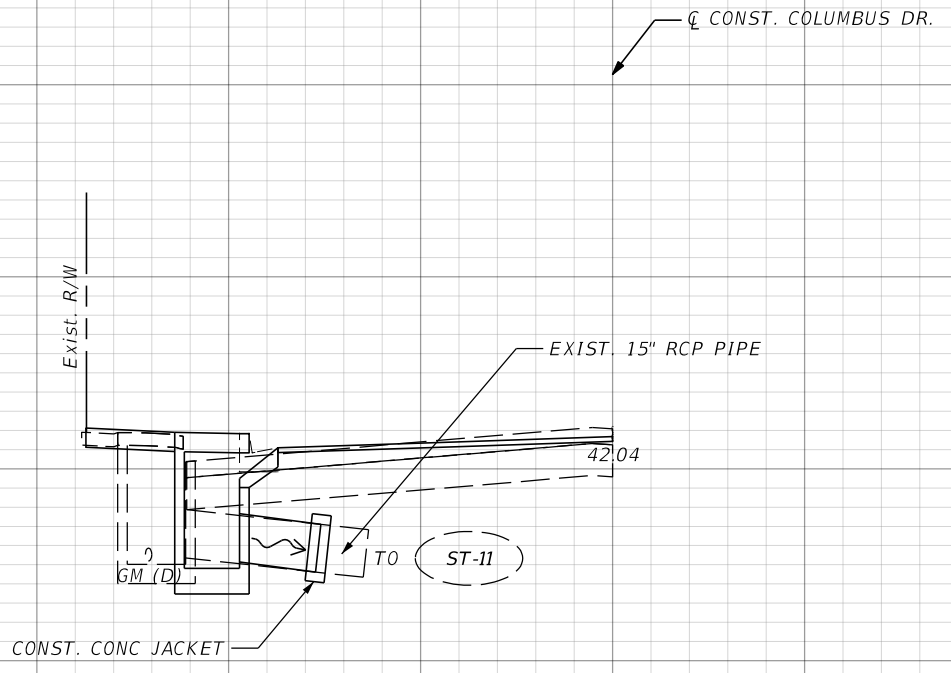
SHEET NO.
28

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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S-29

STA. 111+17.68, 20.69' LT.
REMOVE EXIST. COT TYPE 1 INLET
CONST. COT TYPE 1 INLET
WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
S.I. 425-001
EOP EL. = 41.55'
N 15" INV. = 36.68'



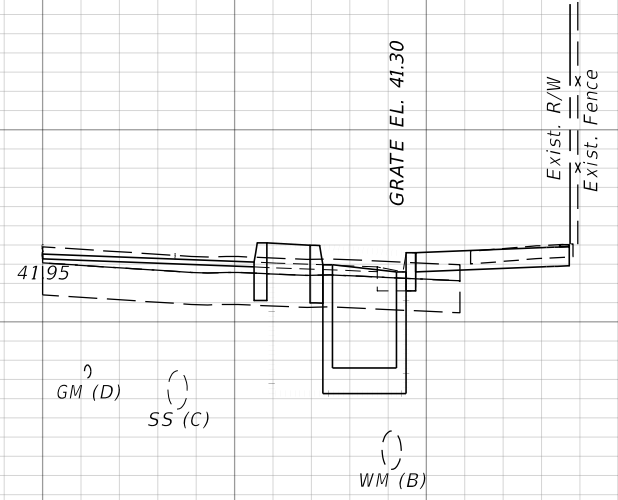
111+17.68

S-29

ST-13

S-28

STA. 110+81.51, 16.77' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C. = 41.30'
INV. EL. = 38.80'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



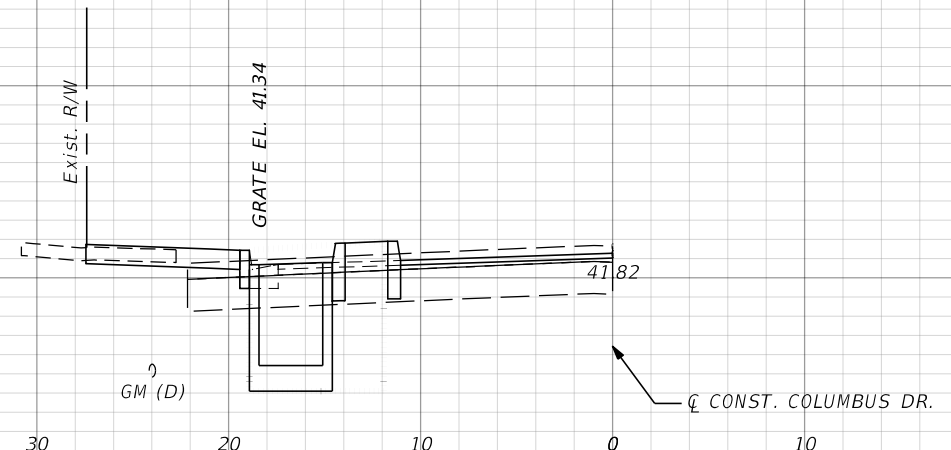
110+81.51

S-28

TW-28
O-28

S-27

STA. 110+18.72, 16.80' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.34'
INV. EL. = 38.84'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



110+18.72

S-27

TW-27
O-27

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

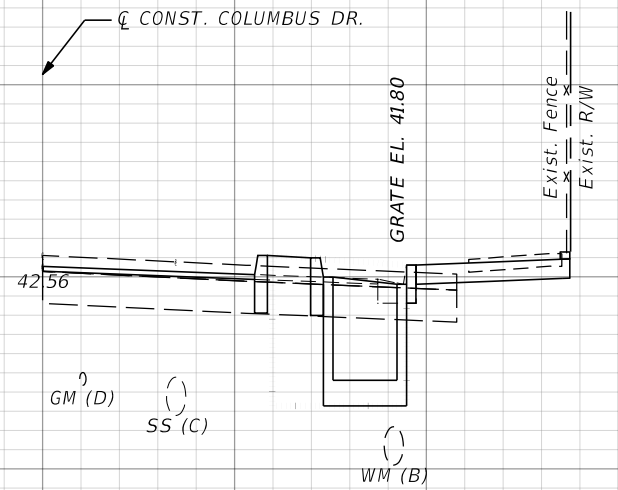
SHEET NO.
29

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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S-32

STA. 113+34.16, 16.79' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.80'
INV. EL. = 39.30'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

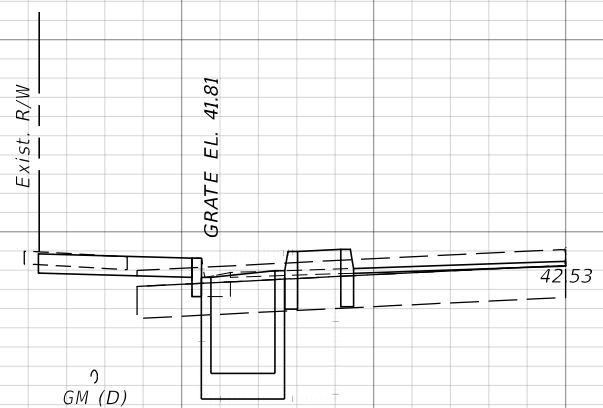


113+34.16

S-32
TW-32
O-32

S-31

STA. 113+14.61, 16.80' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.81'
INV. EL. = 39.31'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

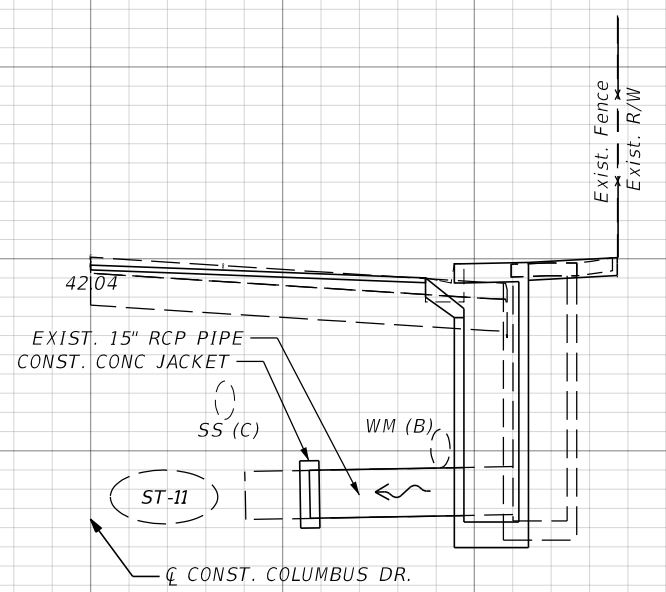


113+14.61

S-31
TW-31
O-31

S-30

STA. 111+18.49, 20.69' RT.
REMOVE EXIST. COT TYPE I INLET
CONST. COT TYPE I INLET
WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
S.I. 425-001
EOP EL. = 41.50'
N 15" INV. = 35.34'



111+18.49

S-30 ST-12

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

70 60 50 40 30 20 10 0 10 20 30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
30

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

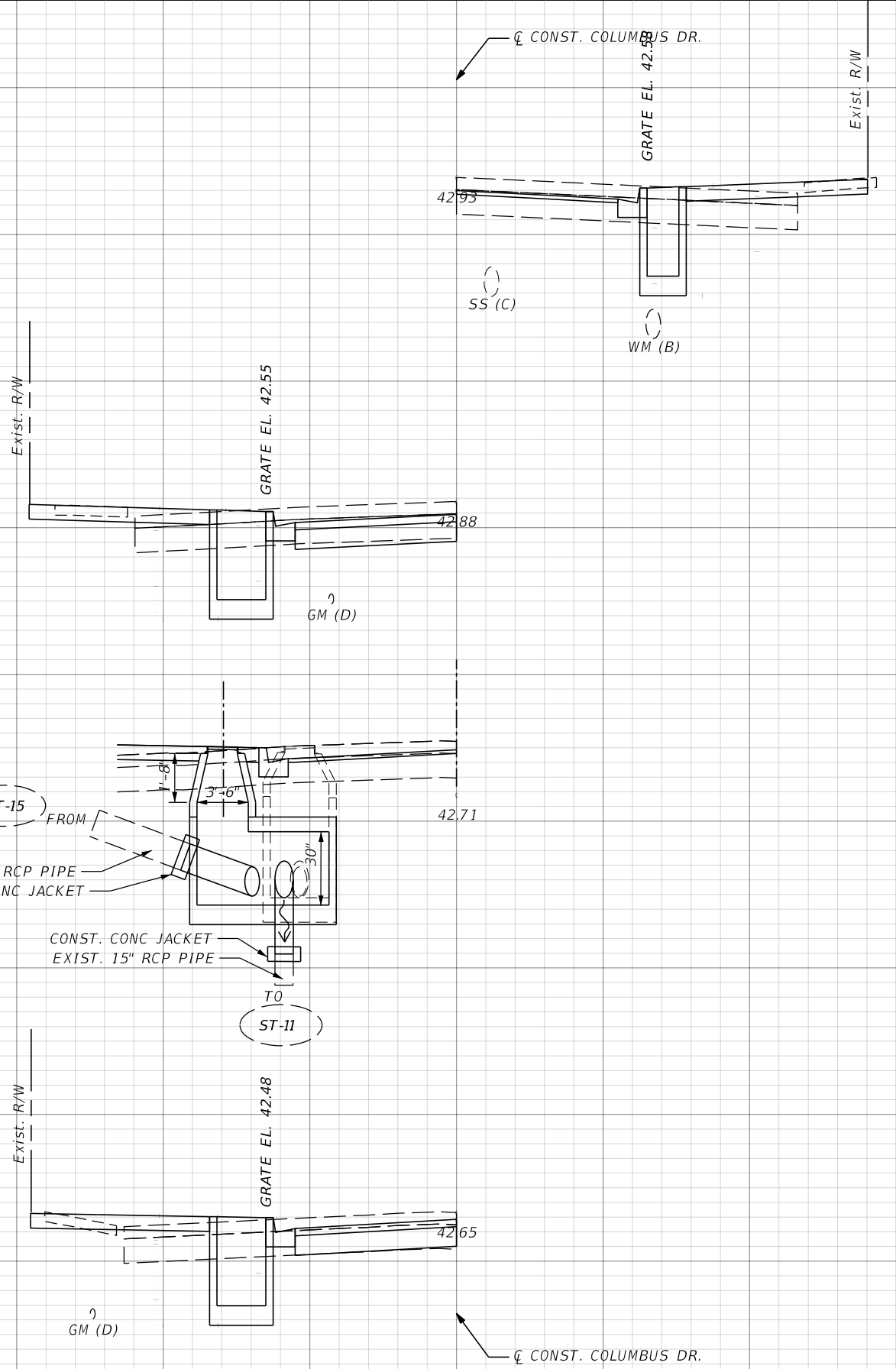
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S-35
 STA. 115+77.20, 14.67' RT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.57'
 INV. EL. = 40.07'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

S-34
 STA. 114+91.12, 14.68' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.55'
 INV. EL. = 40.05'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

S-33A
 STA. 114+36.66, 15.29' LT.
 CONST. FDOT CONC. CONCENTRIC CONE
 TYPE 8
 S.I. 425-001
 CONST. J-BOTTOM 108"X52"
 S.I. 425-001
 GRATE EL. = 42.53'
 S 15" INV. = 37.39'
 N 12" INV. = 37.44'

S-33
 STA. 114+21.64, 14.67' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 42.48'
 INV. EL. = 39.98'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



115+77.20 **S-35** TW-35

114+91.12 **S-34** TW-34

114+39.54 (SKEW) **S-33A** **ST-14**

114+21.64 **S-33** TW-33

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

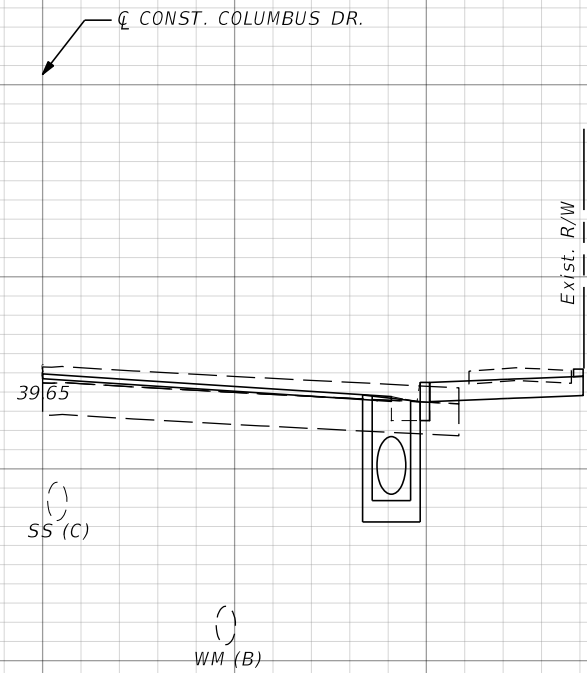
SHEET NO.
31

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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S-40

STA. 119+16.41, 17.70' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. = 38.77'
INV. EL. = 36.34'
SEE DRAINAGE DETAIL A
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



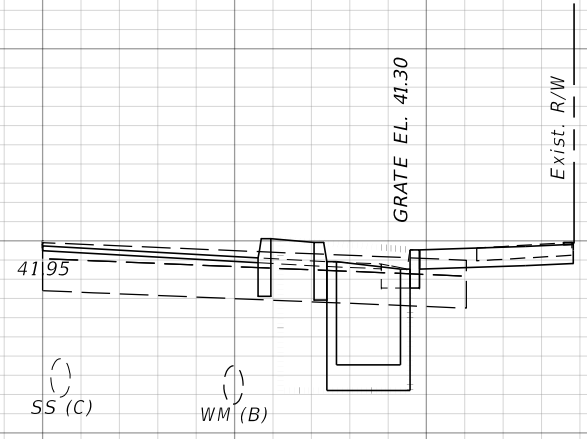
119+16.41

S-40

TO ST-11

S-37

STA. 117+30.90, 16.98' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.23'
INV. EL. = 38.73'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

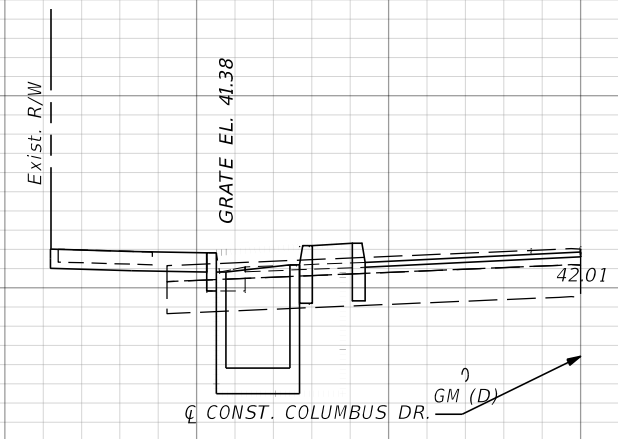


117+30.90

O-37
TW-37
S-37

S-36

STA. 117+26.06, 16.97' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 41.38'
INV. EL. = 38.88'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



117+26.06

O-36
TW-36
S-36

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

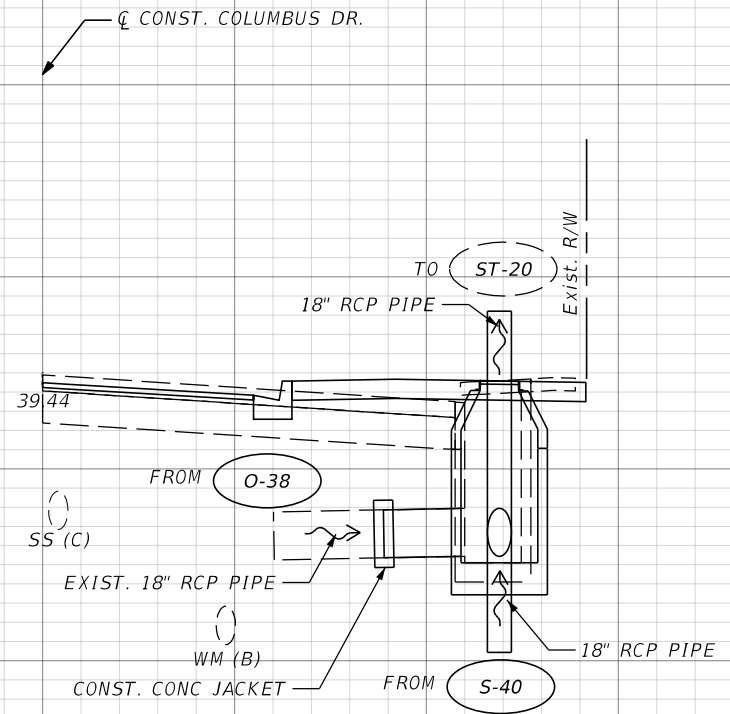
THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

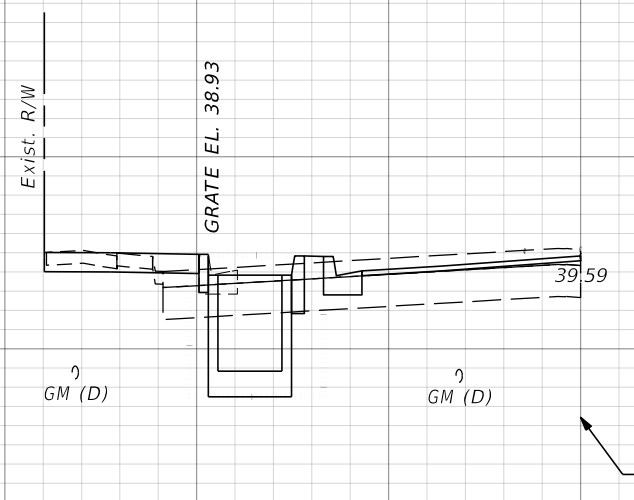
SHEET NO.
32

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S-42
 STA. 119+44.50, 23.80' RT.
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 39.28'
 N 18" INV. = 34.72'
 W 18" INV. = 34.72'
 E 18" INV. = 34.72'

119+44.50 S-42 ST-18



S-38
 STA. 119+21.70, 16.89' LT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. A = 38.91'
 INV. EL. = 36.41'
 SEE DRAINAGE DETAIL A
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

119+21.70 O-38 TW-38 S-38

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

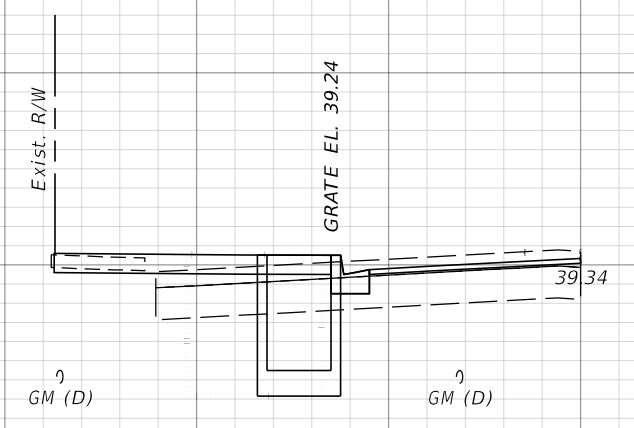
SHEET NO.
33

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CL CONST. COLUMBUS DR.

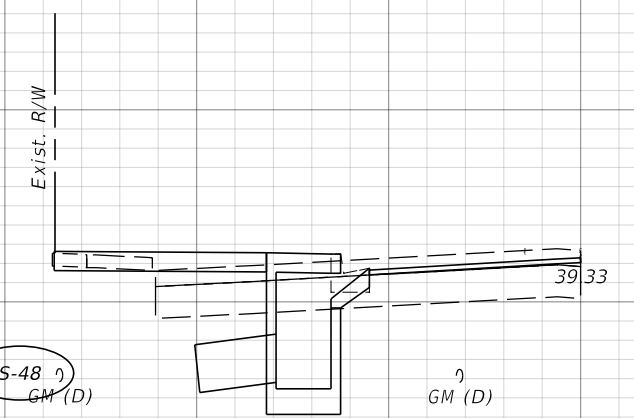
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S-45
 STA. 119+98.57, 14.67' LT.
 CONST. CITY OF TAMPA
 TYPE E GRATE INLET
 GRATE EL. A = 39.24'
 INV. EL. = 36.74'
 SEE DRAINAGE DETAIL C
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)



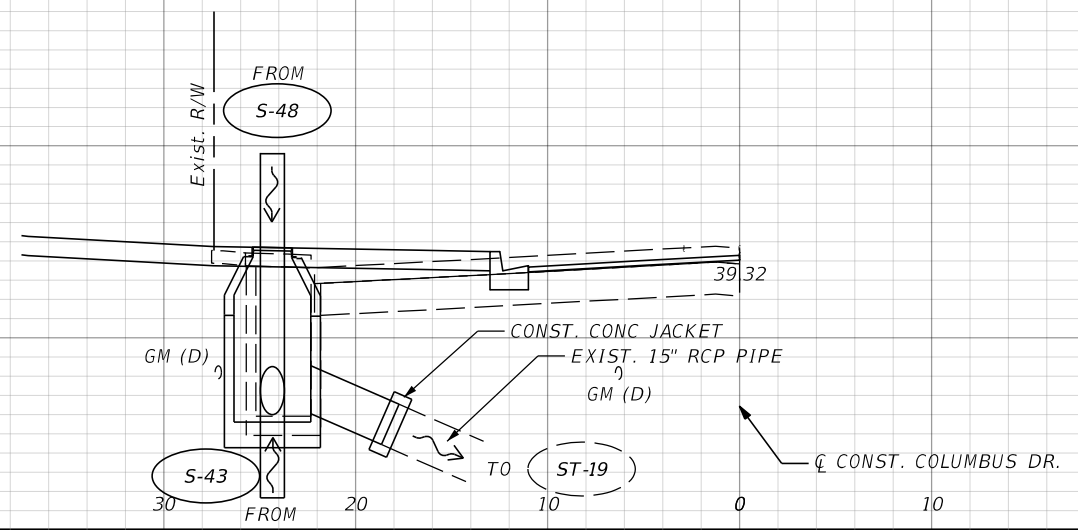
119+98.57 **S-45** TW-45

S-44A
 STA. 119+90.62, 14.25' LT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 38.83'
 SW 15" INV. = 35.90'



119+90.62 **S-44A**

S-44
 STA. 119+84.19, 23.78' LT.
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 39.35'
 NW 15" INV. = 35.00'
 SW 15" INV. = 35.00'
 E 15" INV. = 35.00'



119+84.19 **S-44** **ST-19**

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

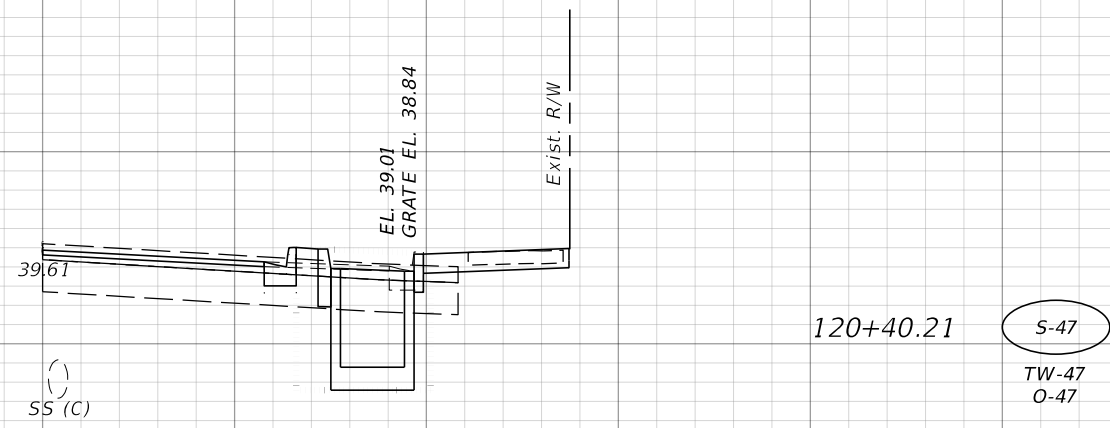
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
34

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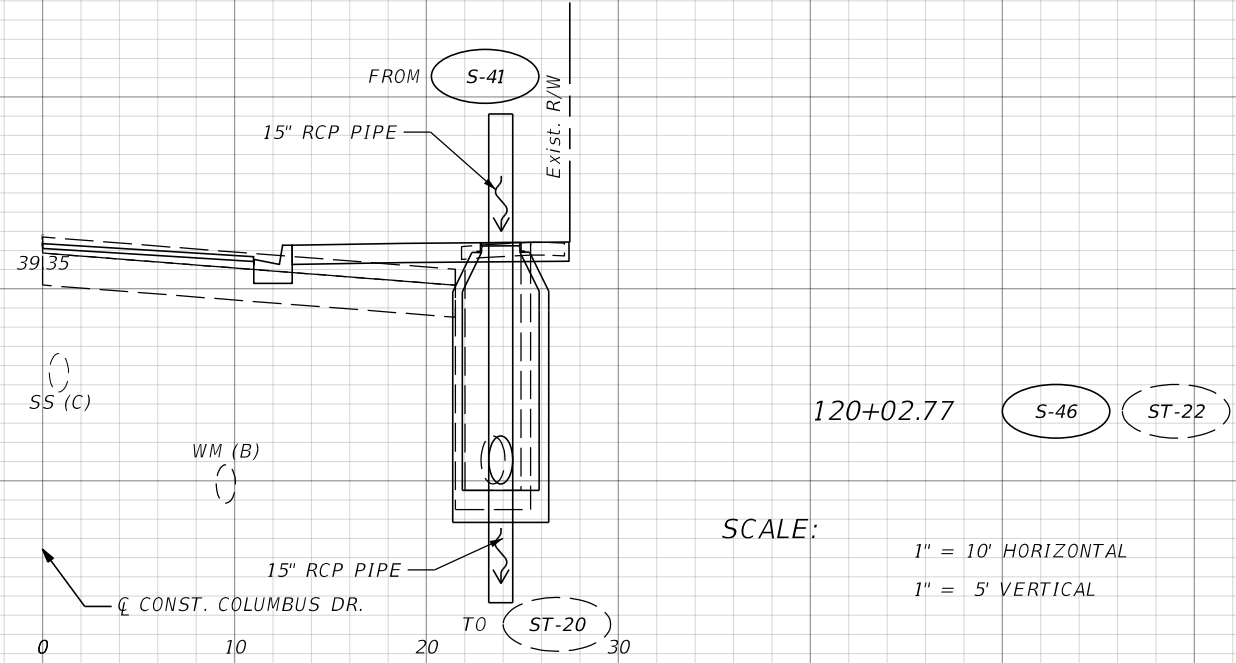
CL CONST. COLUMBUS DR.



S-47

STA. 120+40.21, 16.83' RT.
 CONST. CITY OF TAMPA
 TYPE T GRATE INLET
 GRATE EL. C = 38.84'
 INV. EL. = 36.32'
 SEE DRAINAGE DETAIL A
 SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

120+40.21 S-47
 TW-47
 O-47



S-46

STA. 120+02.77, 23.87' RT.
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 39.18'
 W 15" INV. = 32.92'
 E 15" INV. = 32.92'

120+02.77 S-46 ST-22

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

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70 60 50 40 30 20 10 0 10 20 30

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

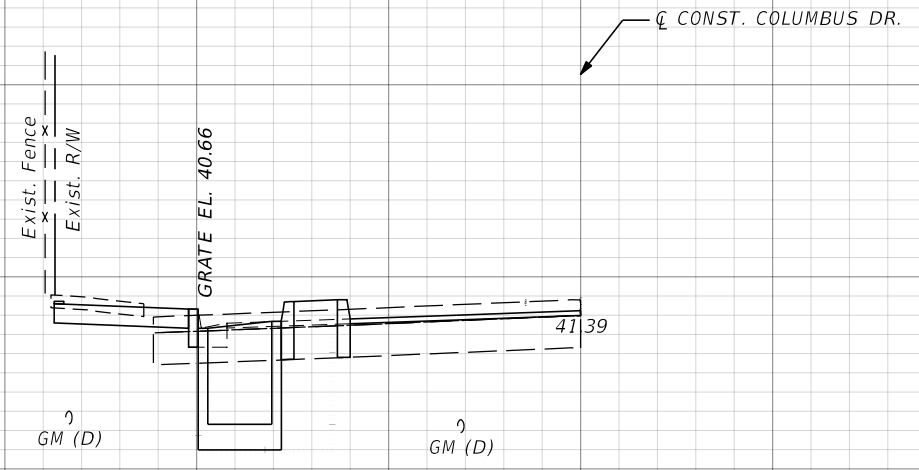
SHEET NO.
35

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S-50

STA. 121+81.75, 17.76' LT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 40.66'
INV. EL. = 38.16'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

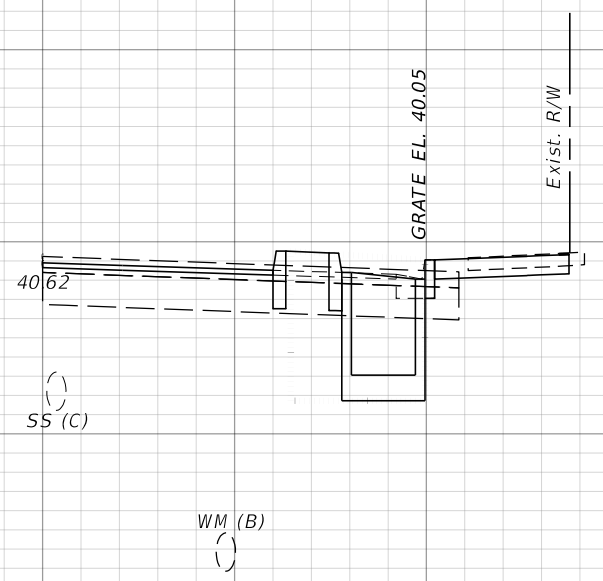


121+81.75

S-50
TW-50
O-50

S-49

STA. 121+26.13, 17.76' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. C = 40.05'
INV. EL. = 37.55'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2) (3)

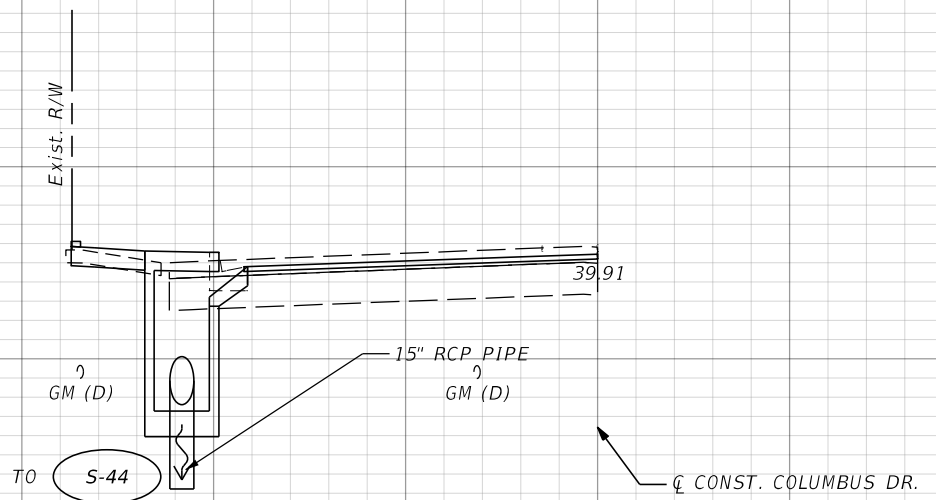


121+26.13

S-49

S-48

STA. 120+66.10, 21.67' LT.
CONST. COT TYPE 1 INLET
WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
S.I. 425-001
EOP EL. = 39.40'
W 15" INV. = 35.81'



120+66.10

S-48

SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

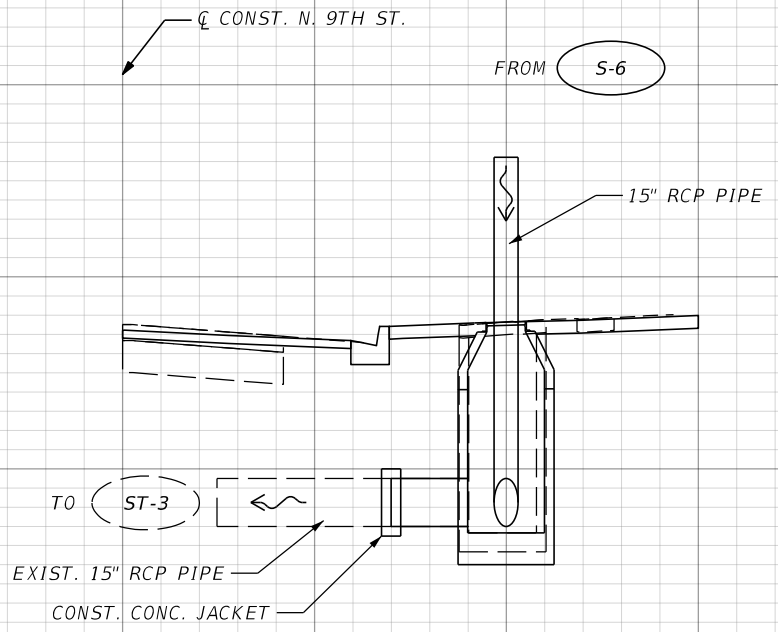
SHEET NO.
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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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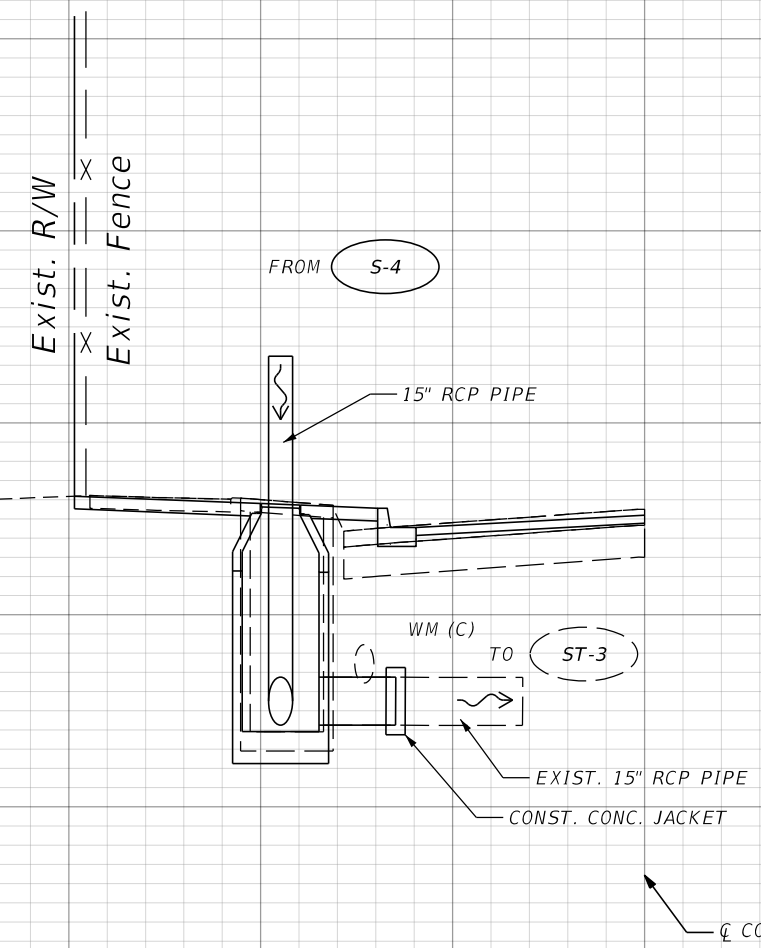
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S-7
 STA. 200+30.60, 19.99' RT.
 REMOVE EXIST. TYPE I INLET
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 42.82'
 NW 15" INV. = 37.50'
 SW 15" INV. = 37.50'



200+30.60 **S-7** **ST-2**

S-3
 STA. 200+29.48, 18.97' LT.
 REMOVE EXIST. TYPE I INLET
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 42.88'
 NE 15" INV. = 37.13'
 SE 15" INV. = 37.13'



200+29.48 **S-3** **ST-1**

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

70 60 50 40 30 20 10 0 10 20 30 40 50

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

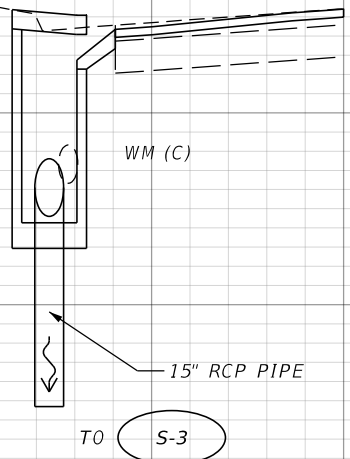
SHEET NO.
37

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☐ CONST. N. 9TH ST.

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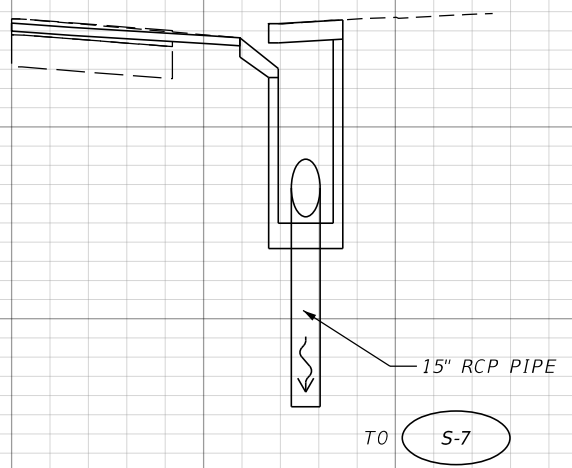
S-4
STA. 200+40.27, 15.15' LT.
CONST. COT TYPE 1 INLET
WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
S.I. 425-001
EOP EL. = 42.17'
SW 15" INV. = 37.30'



200+40.27 **S-4**

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S-6
STA. 200+40.22, 15.14' RT.
CONST. COT TYPE 1 INLET
WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
S.I. 425-001
EOP EL. = 42.32'
SE 15" INV. = 37.66'



200+40.22 **S-6**

☐ CONST. N. 9TH ST.

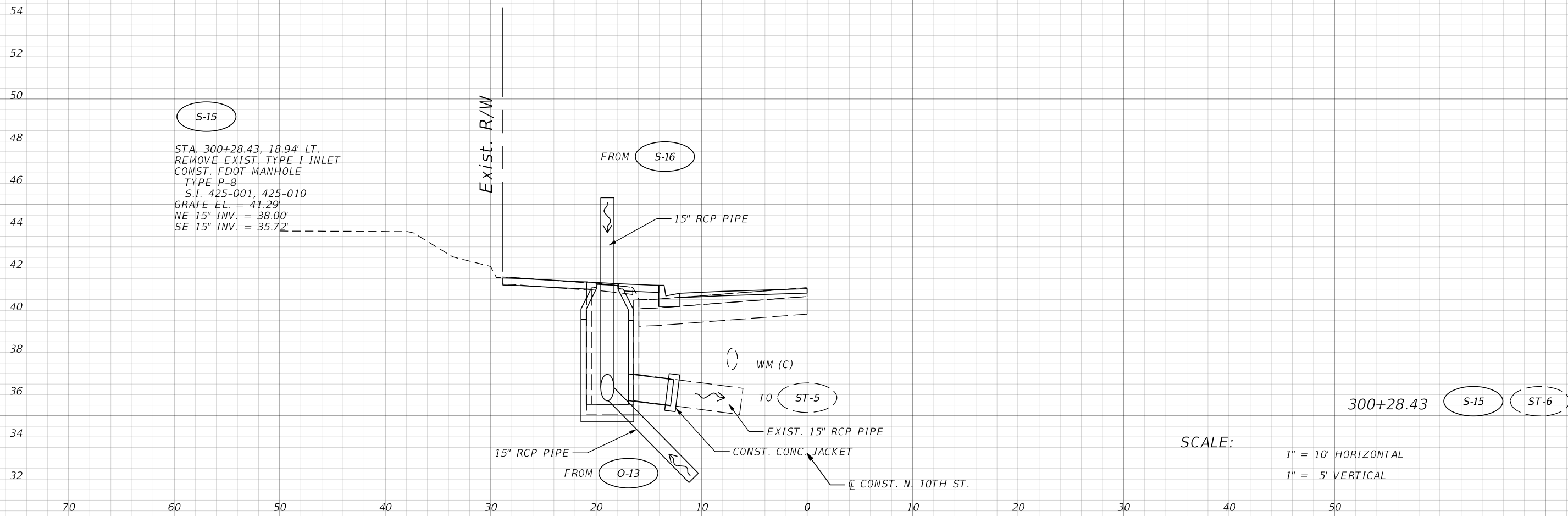
SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

70 60 50 40 30 20 10 0 10 20 30 40 50

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 38
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
				1001221	HILLSBOROUGH	436639-1-58-01	DRAINAGE STRUCTURES	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

☐ CONST. N. 10TH ST.



S-15
 STA. 300+28.43, 18.94' LT.
 REMOVE EXIST. TYPE I INLET
 CONST. FDOT MANHOLE
 TYPE P-8
 S.I. 425-001, 425-010
 GRATE EL. = 41.29'
 NE 15" INV. = 38.00'
 SE 15" INV. = 35.72'

Exist. R/W

FROM S-16

15" RCP PIPE

WM (C)

TO ST-5

EXIST. 15" RCP PIPE

CONST. CONC. JACKET

15" RCP PIPE

FROM O-13

☐ CONST. N. 10TH ST.

300+28.43 S-15 ST-6

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

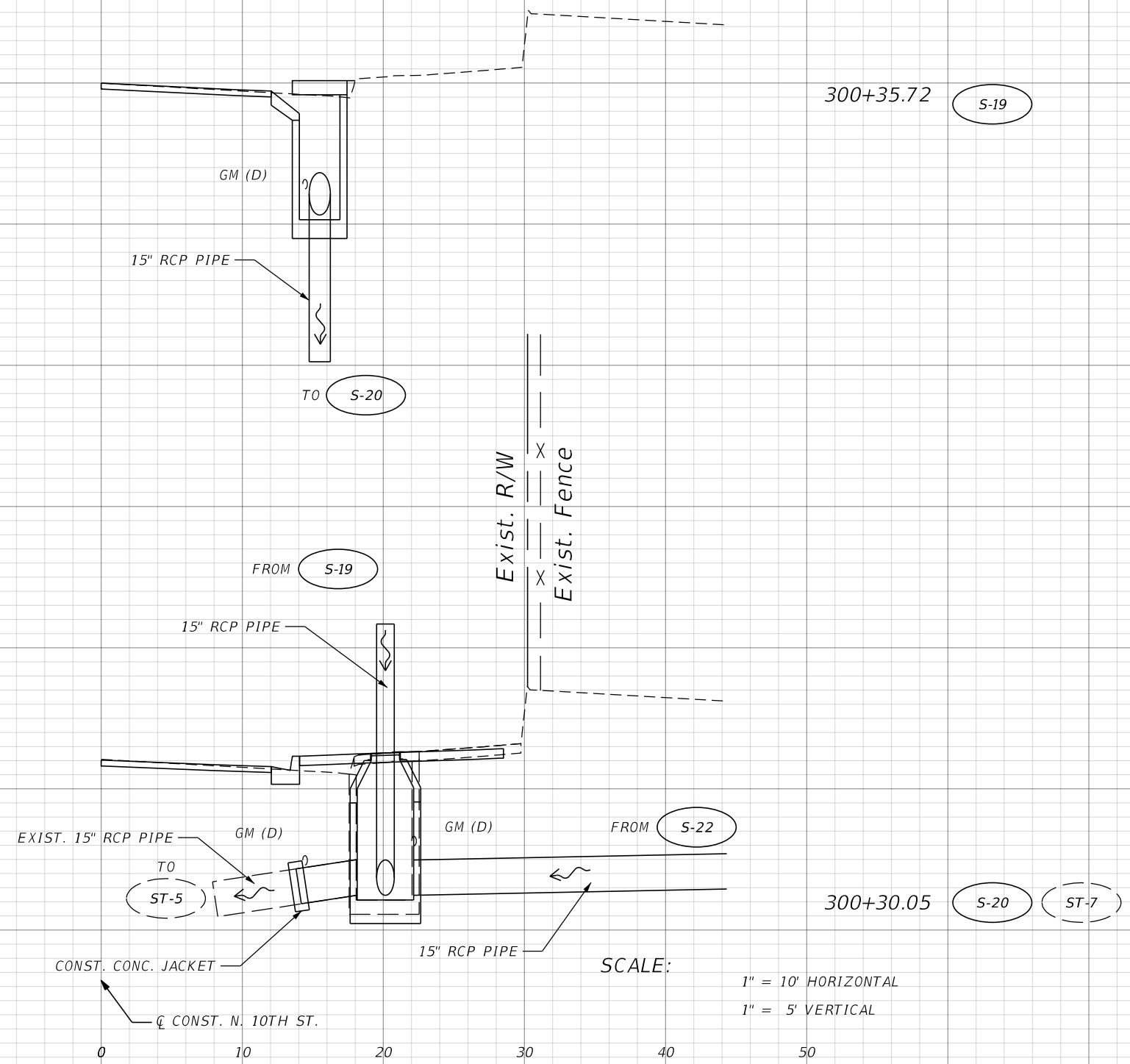
SHEET NO.
39

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CL CONST. N. 10TH ST.

S-19
 STA. 300+35.72, 15.30' RT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 40.71'
 SE 15" INV. = 38.00'

S-20
 STA. 300+30.05, 20.14' RT.
 REMOVE EXIST. TYPE 1 INLET
 CONST. FDOT MANHOLE
 TYPE P-8 S.I.
 425-001, 425-010
 GRATE EL. = 41.27'
 NW 15" INV. = 36.23'
 SE 15" INV. = 36.23'
 SW 15" INV. = 36.23'



44
42
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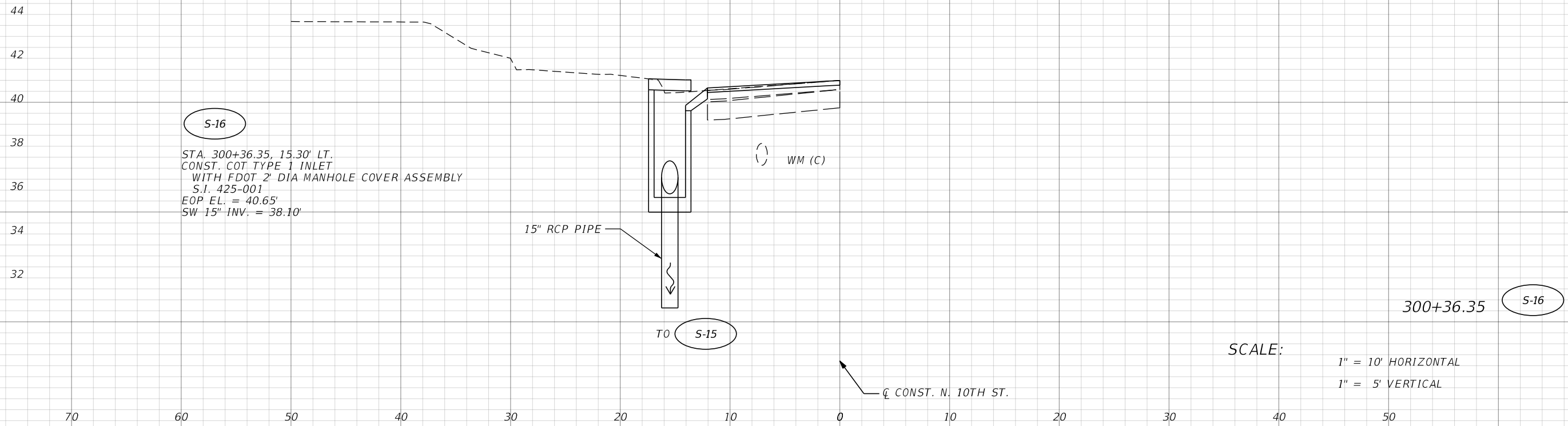
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REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			DRAINAGE STRUCTURES	SHEET NO. 40
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

☐ CONST. N. 10TH ST.

☐ CONST. N. 10TH ST.



S-16
 STA. 300+36.35, 15.30' LT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 40.65'
 SW 15" INV. = 38.10'

WM (C)

15" RCP PIPE

TO S-15

300+36.35 S-16

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

70 60 50 40 30 20 10 0 10 20 30 40 50

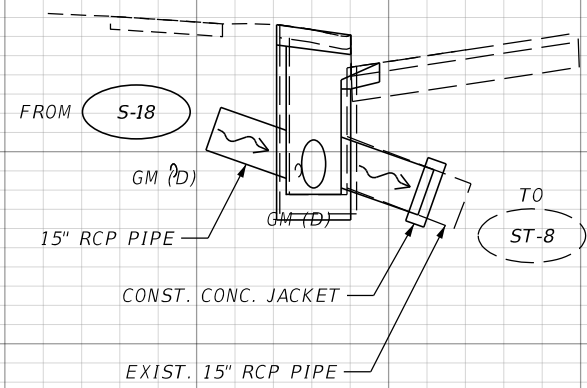
DATE		DESCRIPTION		REVISIONS		THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835		CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 41
CITY PROJECT NO.		COUNTY		FINANCIAL PROJECT ID		DRAINAGE STRUCTURES					
1001221		HILLSBOROUGH		436639-1-58-01							

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CL CONST. N. 10TH ST.

S-21

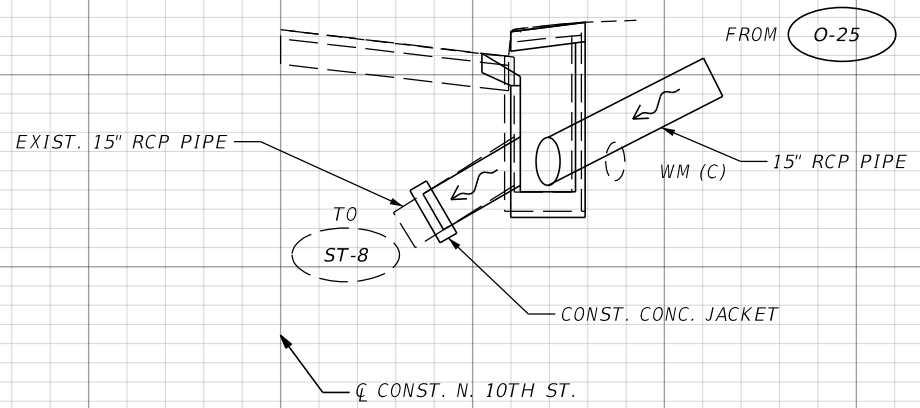
STA. 400+36.66, 13.72' LT.
 REMOVE EXIST. COT TYPE 1 INLET
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 40.32'
 NW 15" INV. = 37.05'
 E 15" INV. = 37.05'



400+36.66 S-21 ST-9

S-24

STA. 400+35.96, 13.75' RT.
 REMOVE EXIST. COT TYPE 1 INLET
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 40.56'
 NE 15" INV. = 37.12'
 W 15" INV. = 37.12'



400+35.96 S-24 ST-10

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

42
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36
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42
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38
36
34

70 60 50 40 30 20 10 0 10 20 30 40 50

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			DRAINAGE STRUCTURES	SHEET NO. 42
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

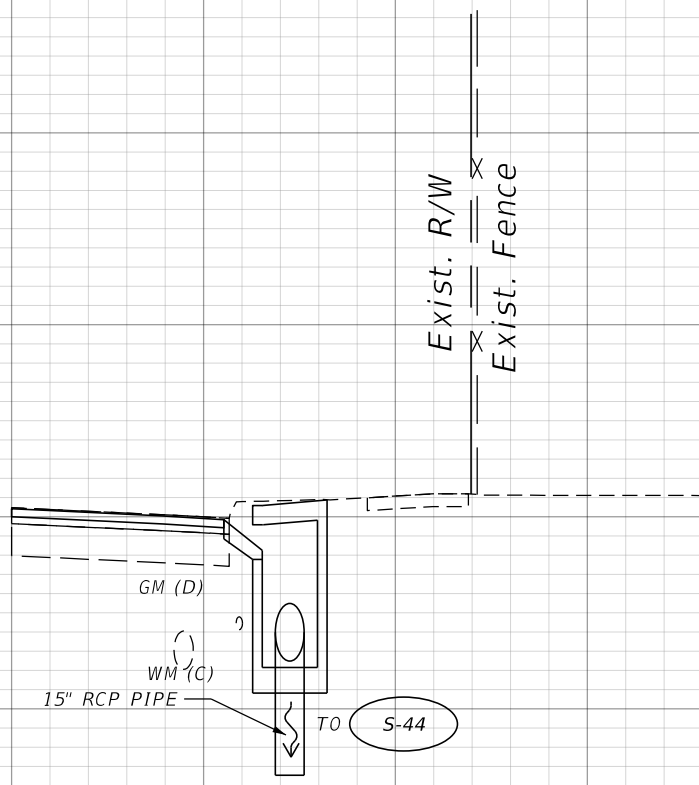
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CL CONST. N. 13TH ST.

52
50
48
46
44
42
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38

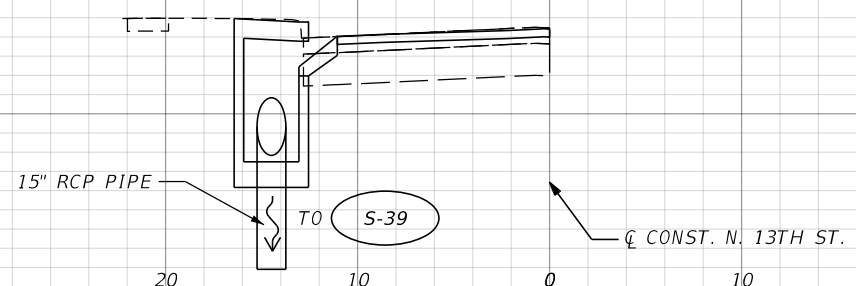
42
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32

S-43
 STA. 700+35.07, 14.31' RT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 38.92'
 SE 15" INV. = 35.24'



700+35.07 **S-43**

S-41
 STA. 700+34.87, 14.31' LT.
 CONST. COT TYPE 1 INLET
 WITH FDOT 2' DIA MANHOLE COVER ASSEMBLY
 S.I. 425-001
 EOP EL. = 39.02'
 SW 15" INV. = 35.75'



700+34.87 **S-41**

SCALE:
 1" = 10' HORIZONTAL
 1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

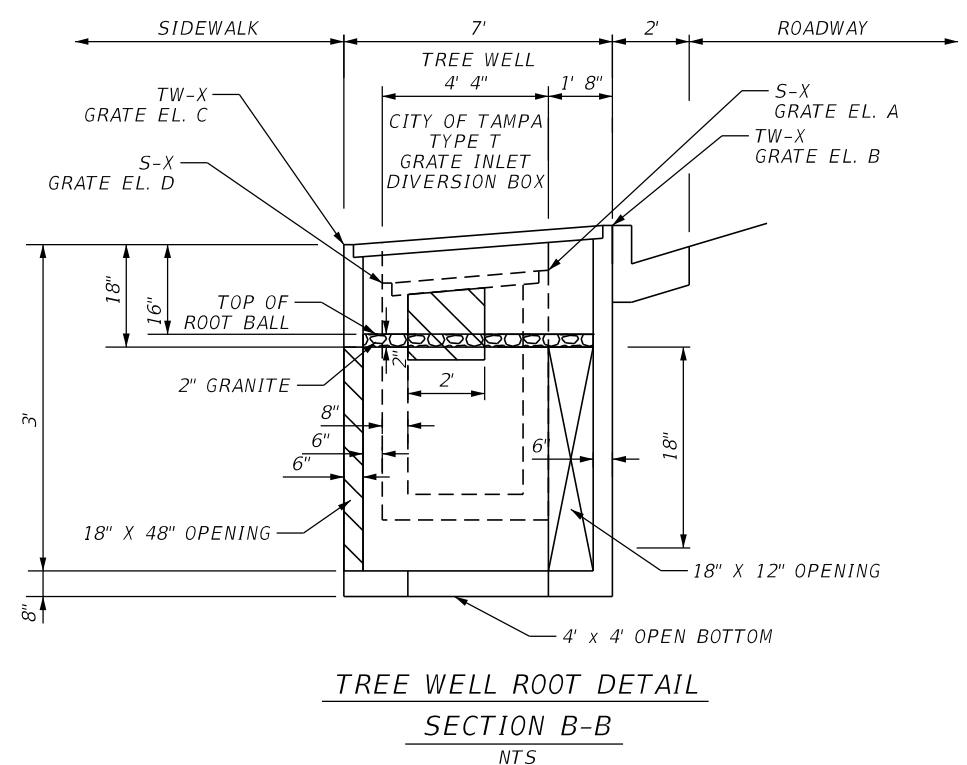
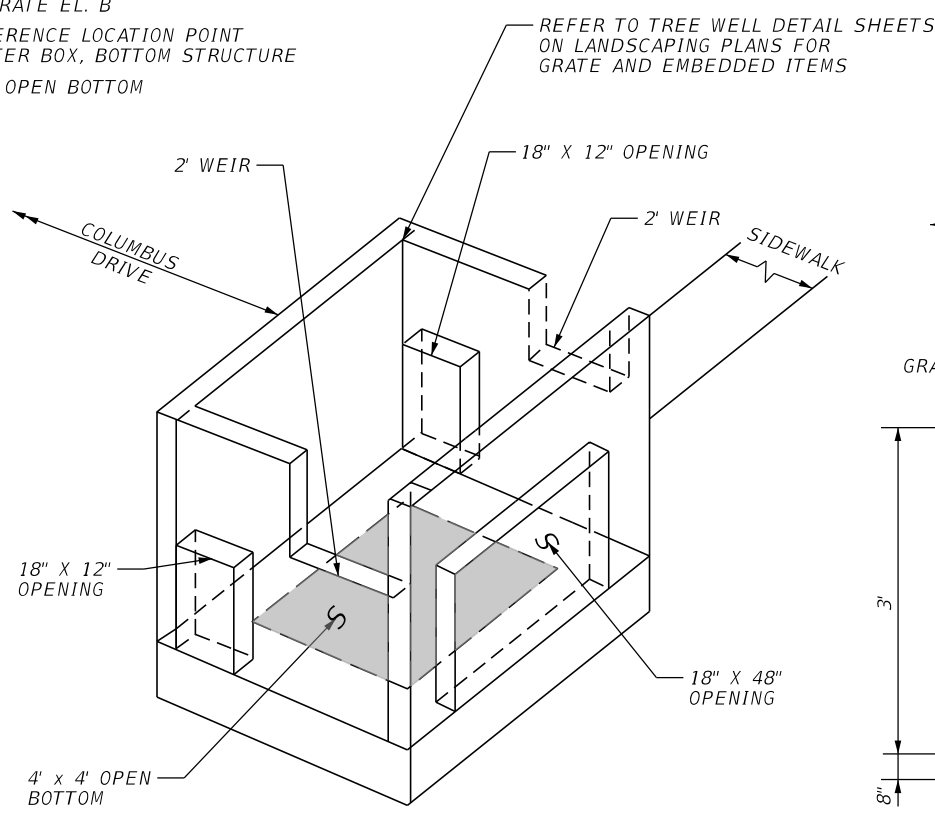
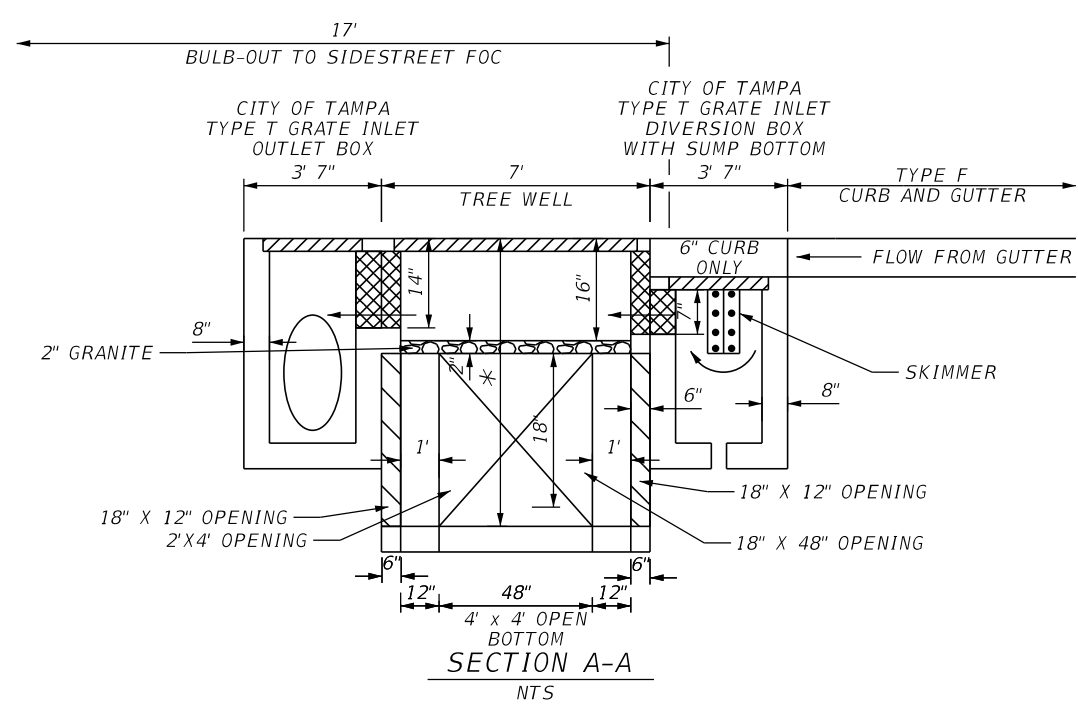
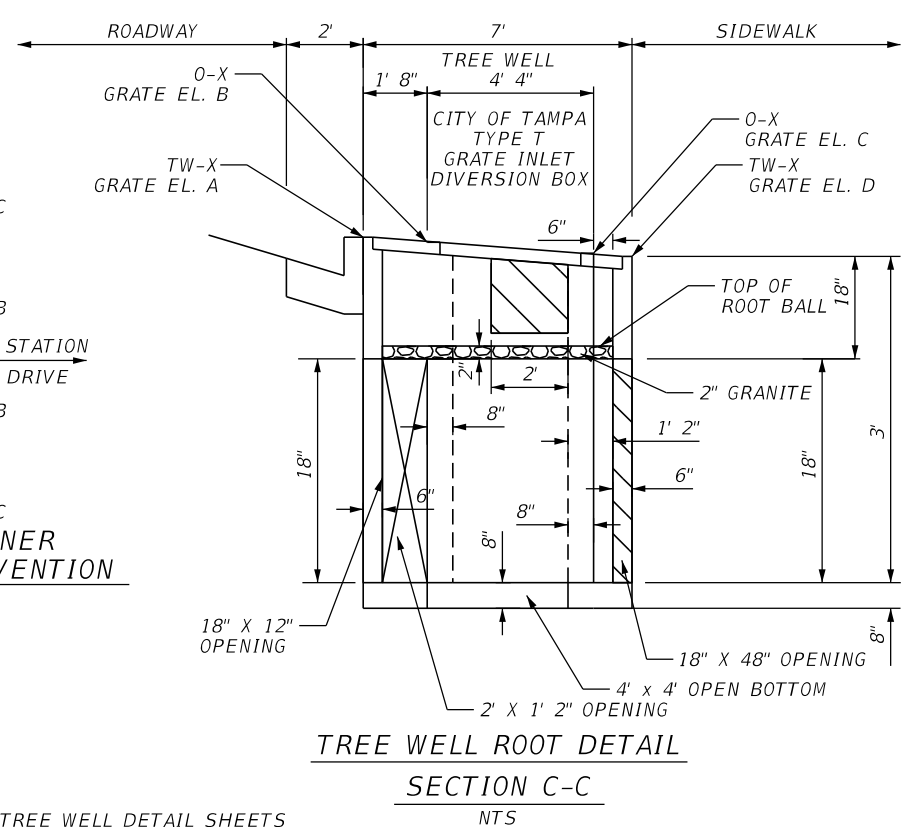
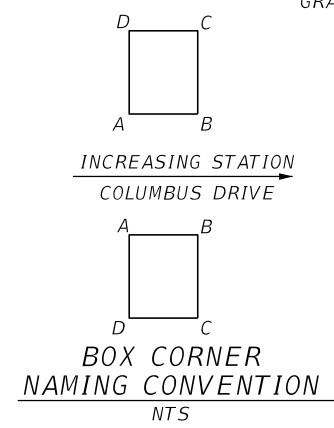
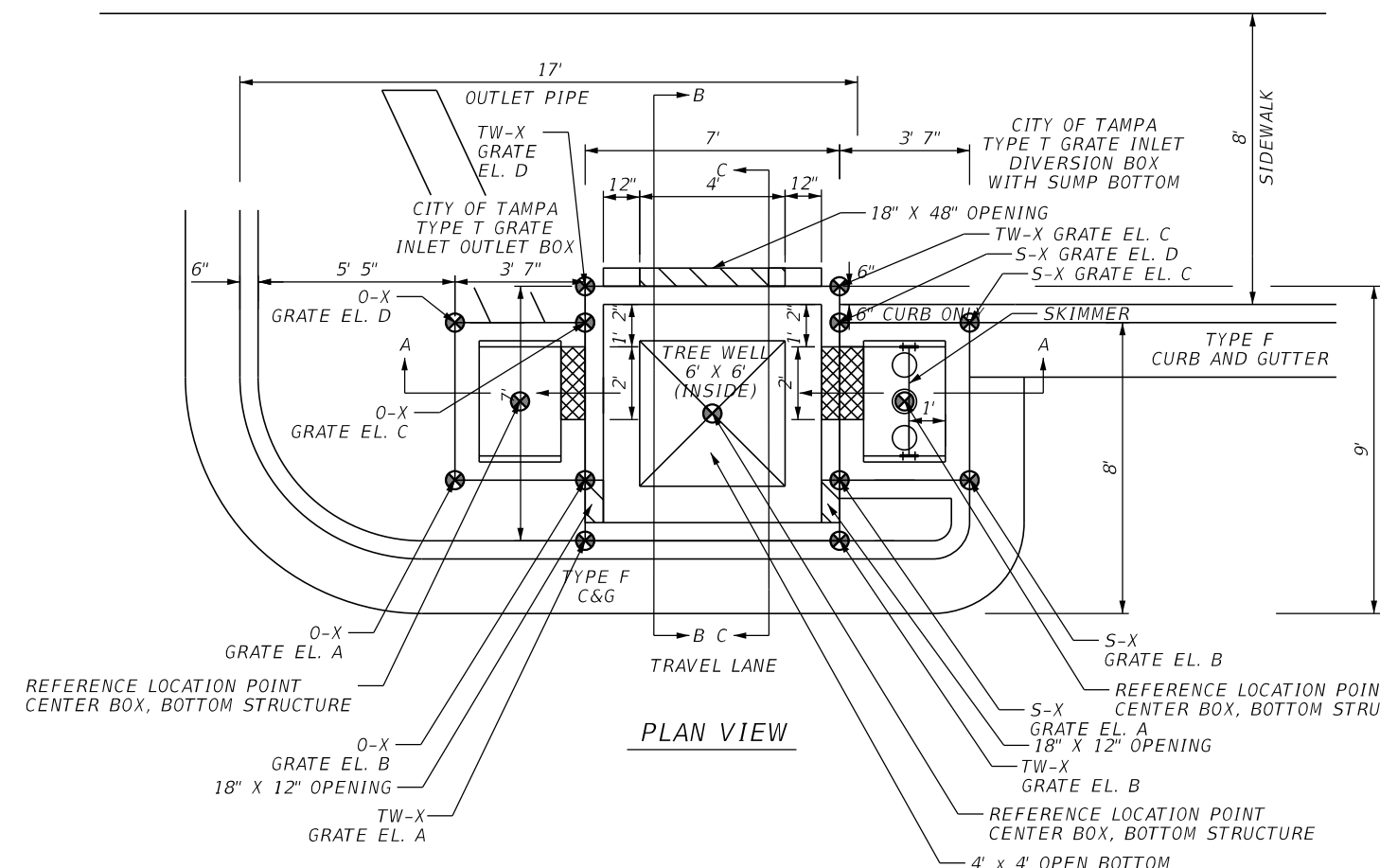
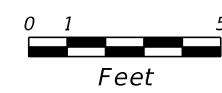
THOMAS J. WARD, P.E.
 P.E. LICENSE NUMBER 52144
 BES, INC.
 11007 N. 56TH ST., SUITE 208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE STRUCTURES

SHEET NO.
43

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SEE TREE WELL DATA SHEET (2) FOR TOP OF TREE WELL ELEVATION.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

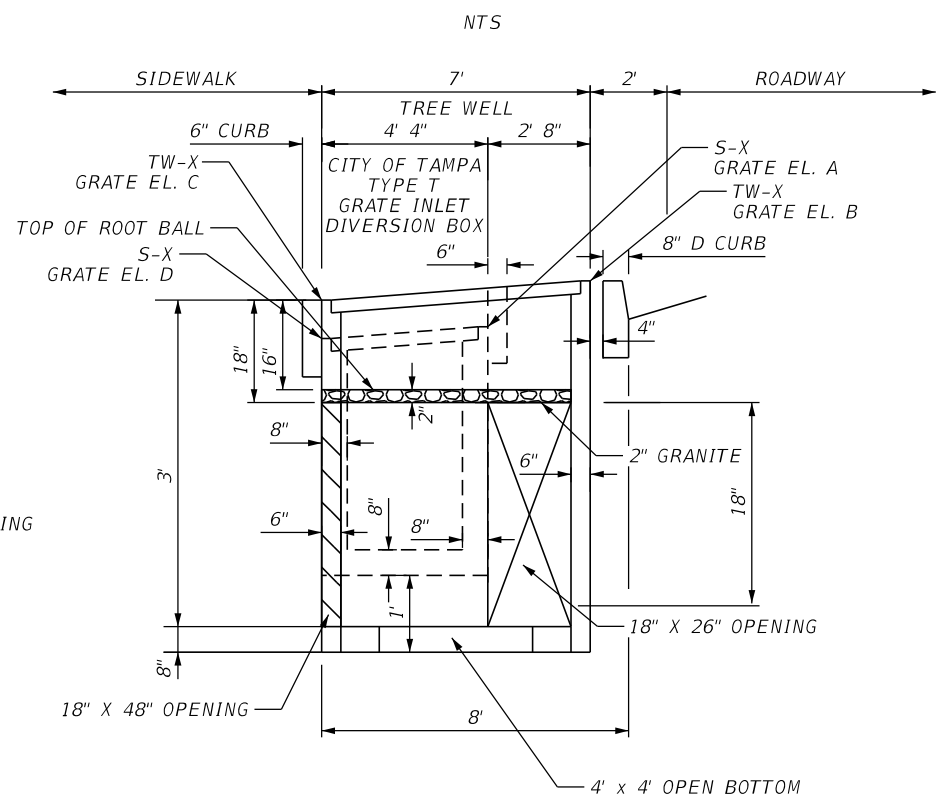
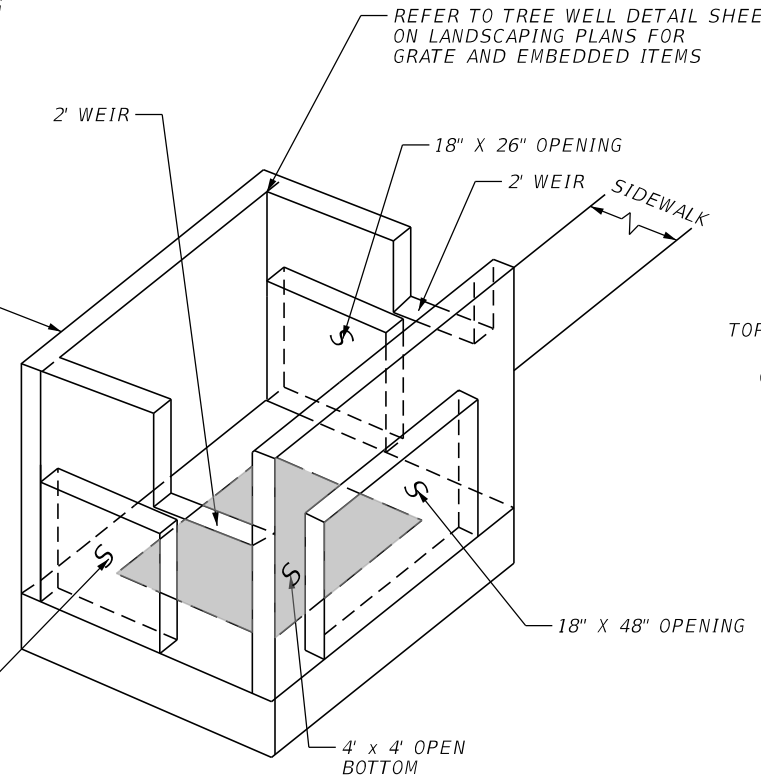
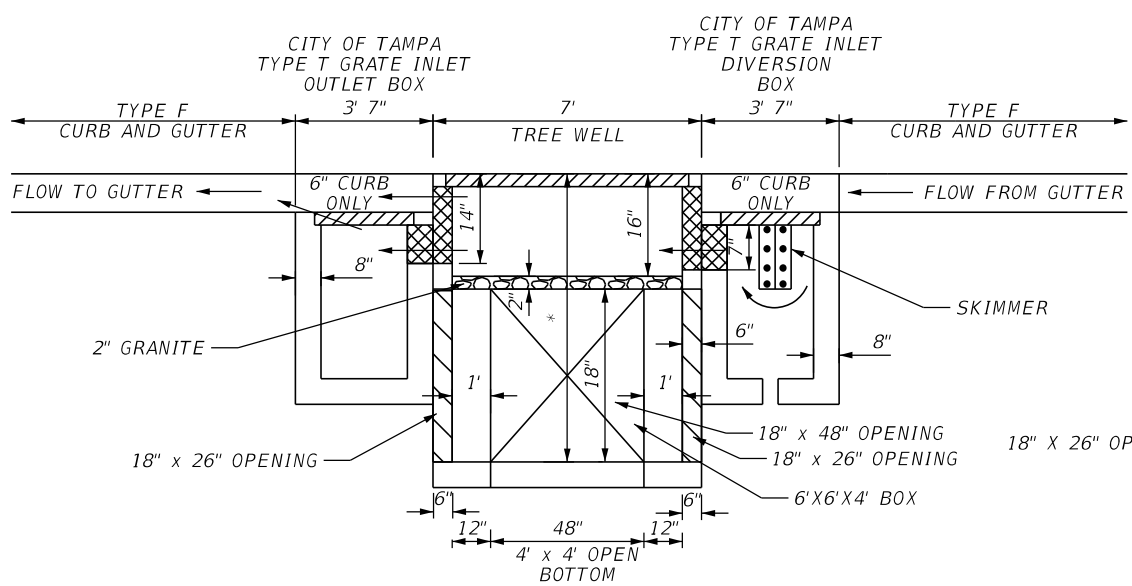
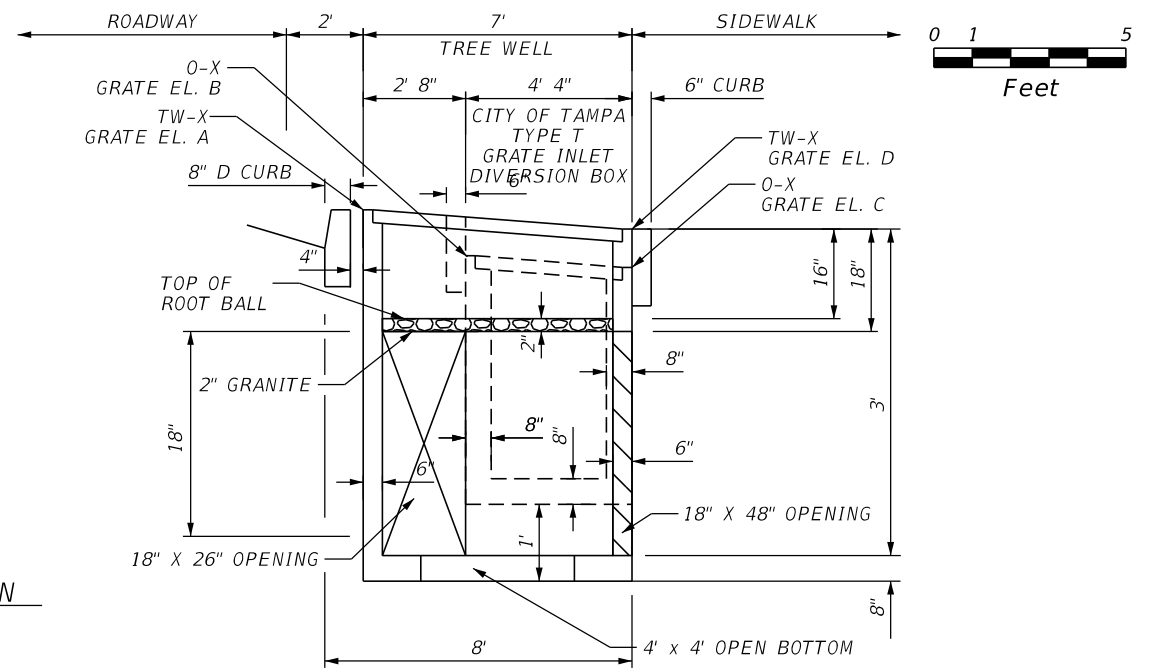
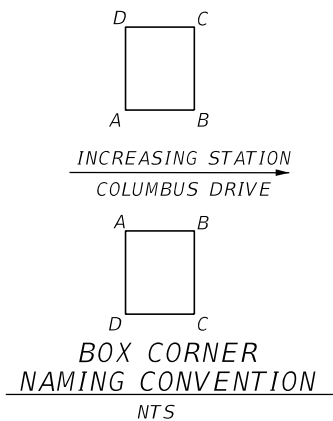
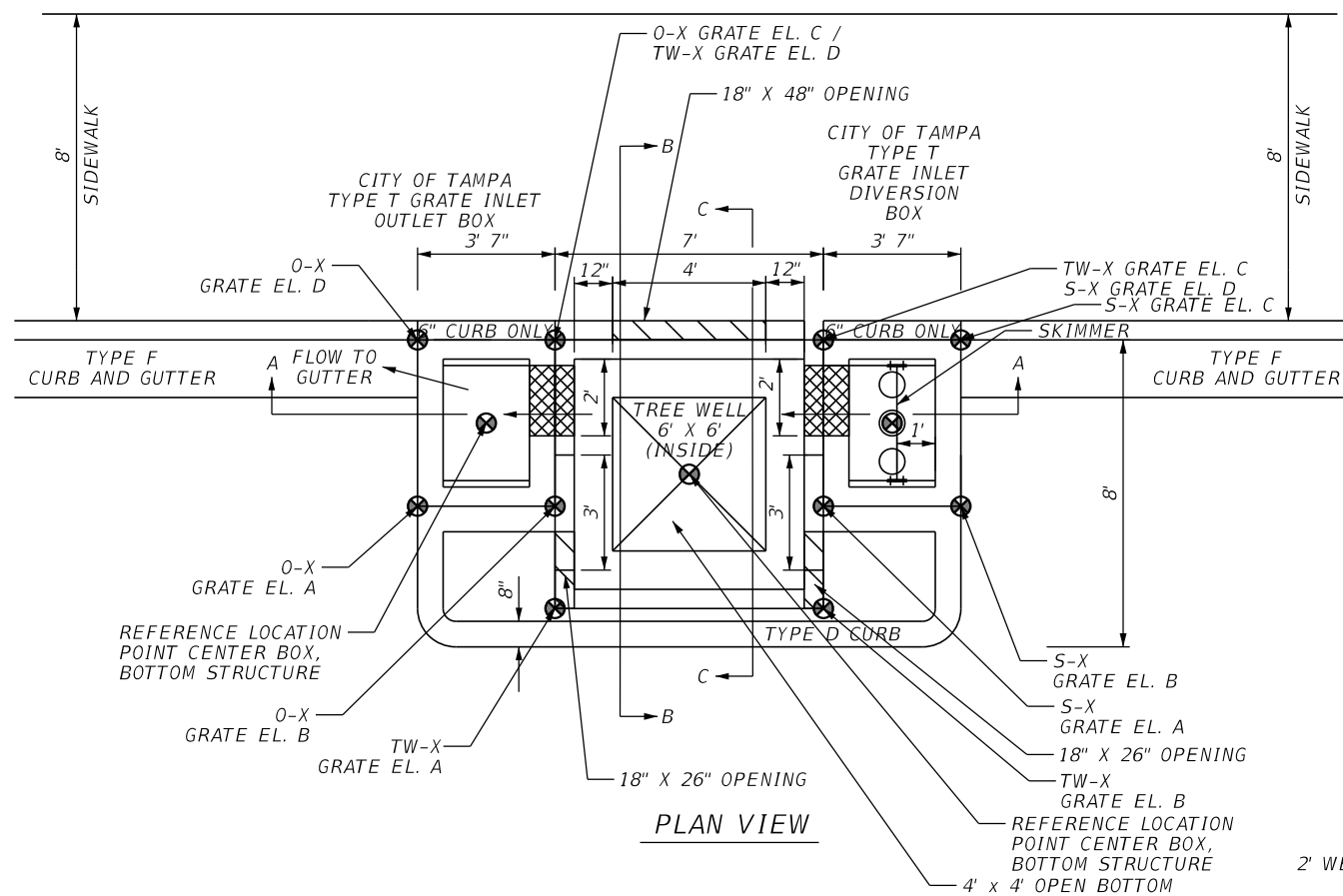
THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE DETAILS (1)

SHEET NO. 44

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



SEE TREE WELL DATA SHEET (2) FOR TOP OF TREE WELL ELEVATION.

TREE WELL DETAIL B

TREE WELL ROOT DETAIL SECTION B-B
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

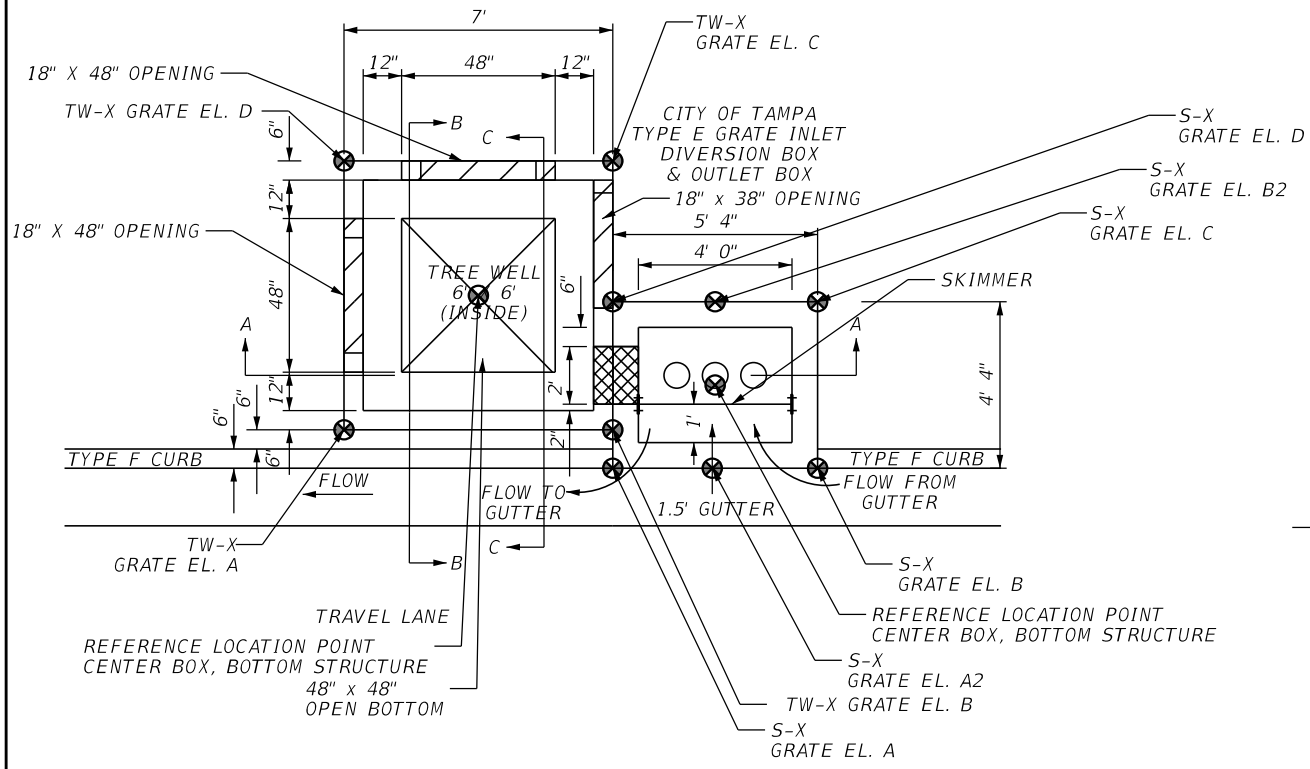
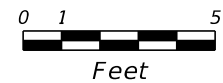
THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE DETAILS (2)

SHEET NO.

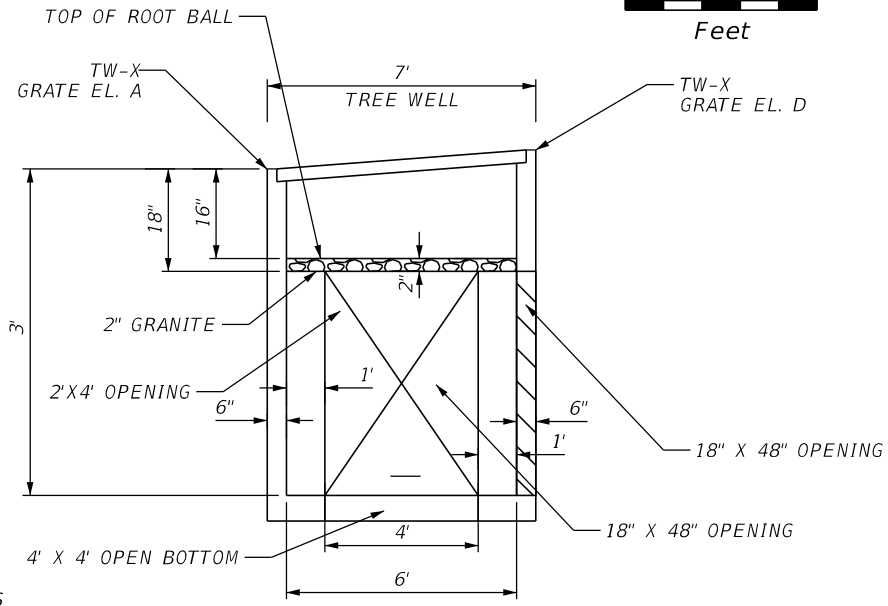
45



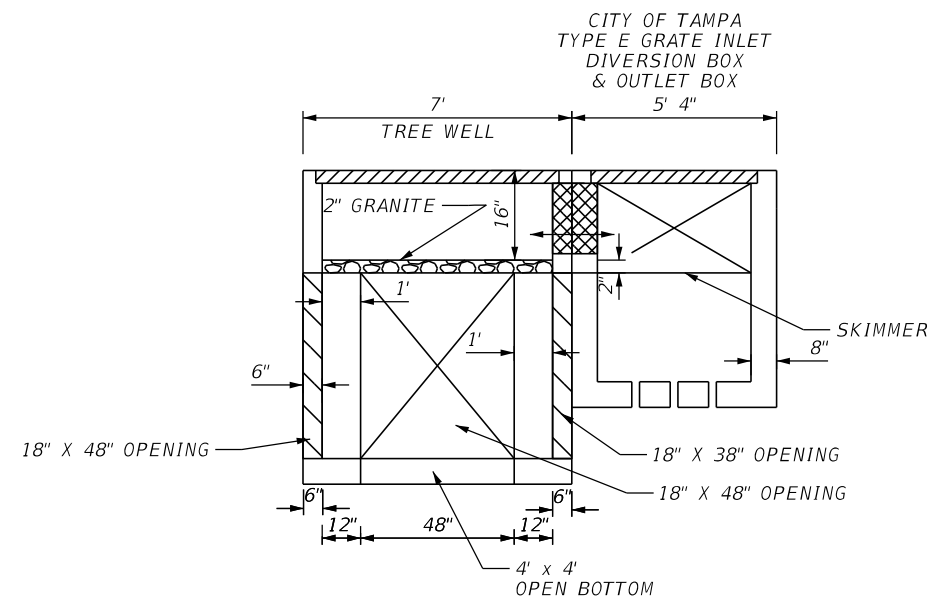
TREE WELL DIVERSION BOX (ALONG TRAVEL LANE)
PLAN VIEW
NTS



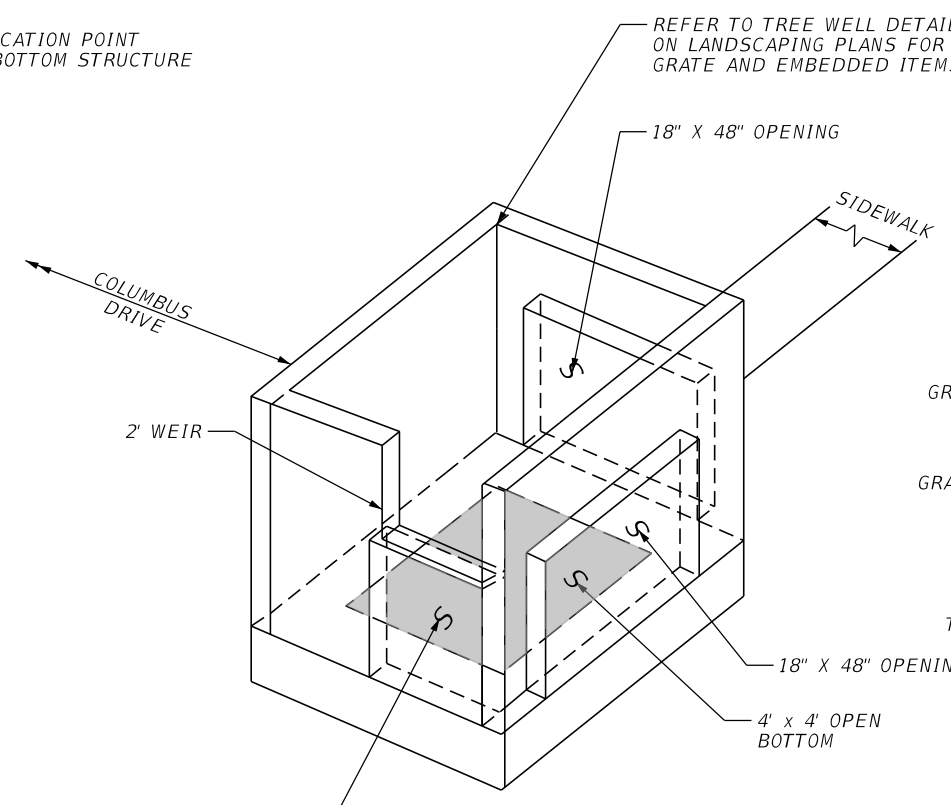
BOX CORNER NAMING CONVENTION
NTS



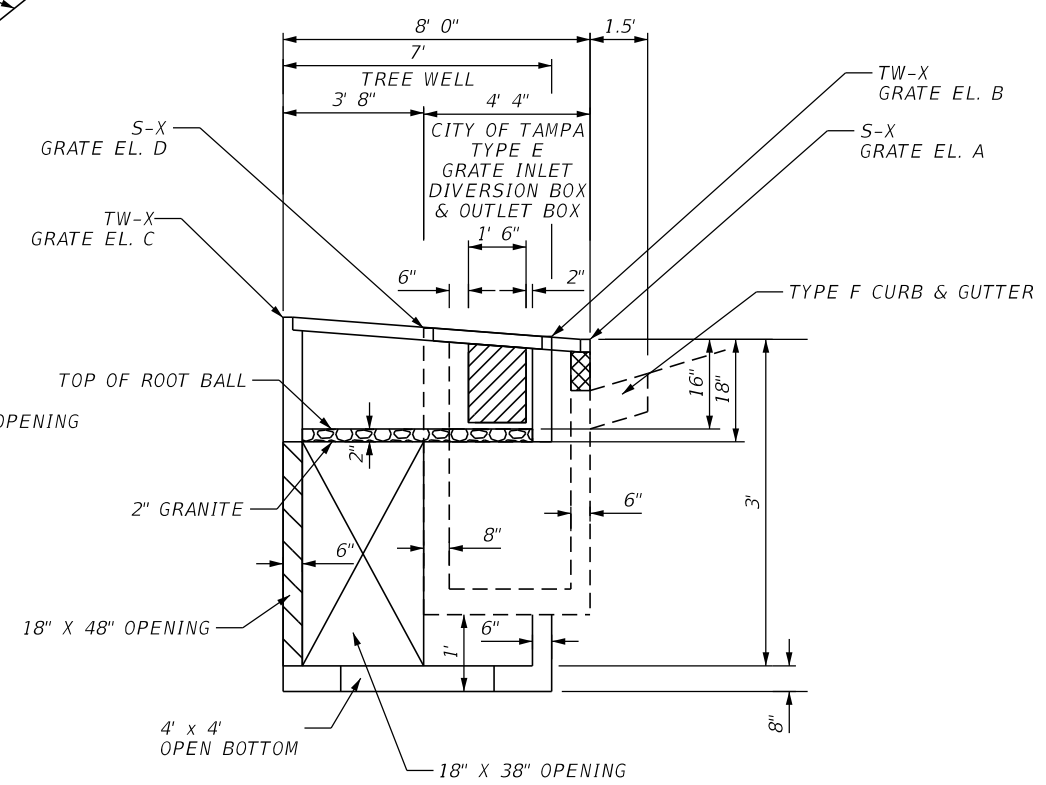
TREE WELL ROOT DETAIL
SECTION C-C
NTS



SECTION A-A
NTS



TREE WELL DETAIL C



TREE WELL ROOT DETAIL
SECTION B-B
NTS

SEE TREE WELL DATA SHEET 3 FOR TOP OF TREE WELL ELEVATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

THOMAS J. WARD, P.E.
P.E. LICENSE NUMBER 52144
BES, INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRAINAGE DETAILS (3)

SHEET NO.
46

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TREE WELL DETAIL DATA SHEET (SHEET 1 OF 3)											
Detail Type	Diversion Box Structure No.	Station	City Of Tampa Type Grate Inlet	Offset	Side	Pavt /Grate @ El. A	Pavt /Grate @ El. B	Gutter /Grate @ El. C	Gutter /Grate @ El. D	Grate Top Elevation @ Reference Point Location	Interior Structure Bottom Elevation
Tree Well Detail B	S-1	104+02.95	T	17.60	RT	42.32	42.32	42.12	42.12	42.22	39.62
Tree Well Detail C	S-2	104+13.78	E	14.64	LT	42.68	42.68	42.76	42.76	42.72	40.18
Tree Well Detail C	S-8	104+76.08	E	14.66	LT	42.48	42.48	42.58	42.58	42.53	39.98
Tree Well Detail C	S-9	105+11.26	E	14.63	LT	42.37	42.37	42.45	42.45	42.41	39.87
Tree Well Detail B	S-10	105+11.38	T	16.79	RT	42.00	42.00	41.80	41.80	41.90	39.30
Tree Well Detail B	S-11	106+26.57	T	16.68	RT	41.65	41.65	41.45	41.45	41.55	38.95
Tree Well Detail B	S-12	106+38.59	T	16.83	LT	41.68	41.68	41.48	41.48	41.58	38.98
Tree Well Detail A	S-13	107+37.55	T	16.83	LT	41.27	41.27	41.21	41.21	41.24	38.71
Tree Well Detail A	S-14	107+37.89	T	16.92	RT	41.24	41.24	41.20	41.20	41.22	38.70
Tree Well Detail C	S-17	107+68.28	E	14.67	RT	41.51	41.51	41.53	41.53	41.52	39.01
Tree Well Detail C	S-23	108+10.10	E	14.67	LT	41.35	41.35	41.35	41.35	41.35	38.85
Tree Well Detail A	S-25	108+51.20	T	16.84	RT	40.85	40.85	40.75	40.75	40.80	38.25
Tree Well Detail A	S-26	108+80.94	T	16.83	LT	41.10	41.10	41.00	41.00	41.05	38.50
Tree Well Detail B	S-27	110+18.72	T	16.80	LT	41.40	41.40	41.34	41.34	41.37	38.84
Tree Well Detail B	S-28	110+81.51	T	16.77	RT	41.48	41.48	41.30	41.30	41.39	38.80
Tree Well Detail B	S-31	113+14.61	T	16.80	LT	41.99	41.99	41.81	41.81	41.90	39.31
Tree Well Detail B	S-32	113+34.16	T	16.79	RT	42.00	42.00	41.80	41.80	41.90	39.30
Tree Well Detail C	S-33	114+21.64	E	14.67	LT	42.48	42.48	42.52	42.52	42.50	39.98
Tree Well Detail C	S-34	114+91.12	E	14.68	LT	42.55	42.55	42.61	42.61	42.58	40.05
Tree Well Detail C	S-35	115+77.20	E	14.67	RT	42.57	42.57	42.63	42.63	42.60	40.07
Tree Well Detail B	S-36	117+26.06	T	16.97	LT	41.58	41.58	41.38	41.38	41.48	38.88
Tree Well Detail B	S-37	117+30.90	T	16.98	RT	41.45	41.45	41.23	41.23	41.34	38.73
Tree Well Detail A	S-38	119+21.70	T	16.87	LT	38.91	38.91	38.93	38.93	38.92	36.41
Tree Well Detail C	S-45	119+98.57	E	14.67	LT	39.24	39.24	39.28	39.28	39.26	36.74
Tree Well Detail A	S-47	120+40.21	T	16.83	RT	38.82	38.82	38.84	38.84	38.83	36.32
Tree Well Detail B	S-49	121+26.13	T	17.76	RT	40.23	40.23	40.05	40.05	41.25	37.55
Tree Well Detail B	S-50	121+81.75	T	17.76	LT	40.84	40.84	40.66	40.66	40.75	38.16

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			TREE WELL DETAILS DATA TABLE (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		47

TREE WELL DETAIL DATA SHEET (SHEET 2 OF 3)												
Detail Type	Tree Well Structure No.	Station	FDOT Bottom with 8" Bottom Slab	FDOT Standard Index	Offset	Side	Grate @ El. A	Grate @ El. B	Grate @ El. C	Grate @ El. D	Grate Top Elevation @ Reference Point Location	Interior Structure Bottom Elevation
Tree Well Detail B	TW-1	104+08.16	6'x6'	425-010	15.99	RT	42.75	42.75	42.61	42.61	42.68	39.61
Tree Well Detail C	TW-2	104+07.60	6'x6'	425-010	16.95	LT	42.69	42.69	42.85	42.85	42.77	39.69
Tree Well Detail C	TW-8	104+82.16	6'x6'	425-010	16.99	LT	42.48	42.48	42.62	42.62	42.55	39.48
Tree Well Detail C	TW-9	105+17.42	6'x6'	425-010	16.96	LT	42.38	42.38	42.52	42.52	42.45	39.38
Tree Well Detail B	TW-10	105+16.67	6'x6'	425-010	15.45	RT	42.34	42.34	42.30	43.30	42.32	39.30
Tree Well Detail B	TW-11	106+31.86	6'x6'	425-010	15.35	RT	42.09	42.09	41.95	41.95	42.02	38.95
Tree Well Detail B	TW-12	106+43.89	6'x6'	425-010	15.50	LT	42.10	42.10	41.96	41.96	42.03	38.96
Tree Well Detail A	TW-13	107+42.84	6'x6'	425-010	16.50	LT	41.65	41.65	41.71	41.71	41.68	38.65
Tree Well Detail A	TW-14	107+43.18	6'x6'	425-010	16.58	RT	41.55	41.55	41.65	41.65	41.60	38.55
Tree Well Detail C	TW-17	107+74.45	6'x6'	425-010	17.00	RT	41.52	41.52	41.56	41.56	41.54	38.52
Tree Well Detail C	TW-23	108+03.94	6'x6'	425-010	17.00	LT	41.35	41.35	41.35	41.35	41.35	38.35
Tree Well Detail A	TW-25	108+45.91	6'x6'	425-010	16.50	RT	41.26	41.26	41.34	41.34	41.30	38.26
Tree Well Detail A	TW-26	108+75.64	6'x6'	425-010	16.50	LT	41.43	41.43	41.50	41.50	41.43	38.43
Tree Well Detail B	TW-27	110+13.43	6'x6'	425-010	15.47	LT	41.80	41.80	41.78	41.78	41.79	38.80
Tree Well Detail B	TW-28	110+76.22	6'x6'	425-010	15.44	RT	41.90	41.90	41.80	41.80	41.85	38.90
Tree Well Detail B	TW-31	113+09.32	6'x6'	425-010	15.46	LT	42.40	42.40	42.30	42.30	42.35	39.40
Tree Well Detail B	TW-32	113+28.87	6'x6'	425-010	15.46	RT	42.00	42.00	42.30	42.30	42.35	39.00
Tree Well Detail C	TW-33	114+97.29	6'x6'	425-010	17.01	LT	42.49	42.49	42.55	42.55	42.52	39.49
Tree Well Detail C	TW-34	114+97.29	6'x6'	425-010	17.01	LT	42.56	42.56	42.66	42.66	42.61	39.56
Tree Well Detail C	TW-35	115+83.37	6'x6'	425-010	17.00	RT	42.58	42.58	42.72	42.72	42.65	39.58
Tree Well Detail B	TW-36	117+31.35	6'x6'	425-010	15.65	LT	41.96	41.96	41.82	41.82	41.89	38.96
Tree Well Detail B	TW-37	117+36.19	6'x6'	425-010	15.66	RT	41.85	41.85	41.67	41.67	41.34	38.85
Tree Well Detail A	TW-38	119+27.07	6'x6'	425-010	16.48	LT	39.37	39.37	39.43	39.43	39.40	36.37
Tree Well Detail C	TW-45	120+04.74	6'x6'	425-010	17.00	LT	39.25	39.25	39.31	39.31	39.28	36.25
Tree Well Detail A	TW-47	120+34.92	6'x6'	425-010	16.50	RT	39.29	39.29	39.31	39.31	39.30	36.29
Tree Well Detail B	TW-49	121+20.84	6'x6'	425-010	16.42	RT	40.56	40.56	40.50	40.50	40.53	37.56
Tree Well Detail B	TW-50	121+76.46	6'x6'	425-010	16.43	LT	41.20	41.20	41.10	41.10	41.15	38.20

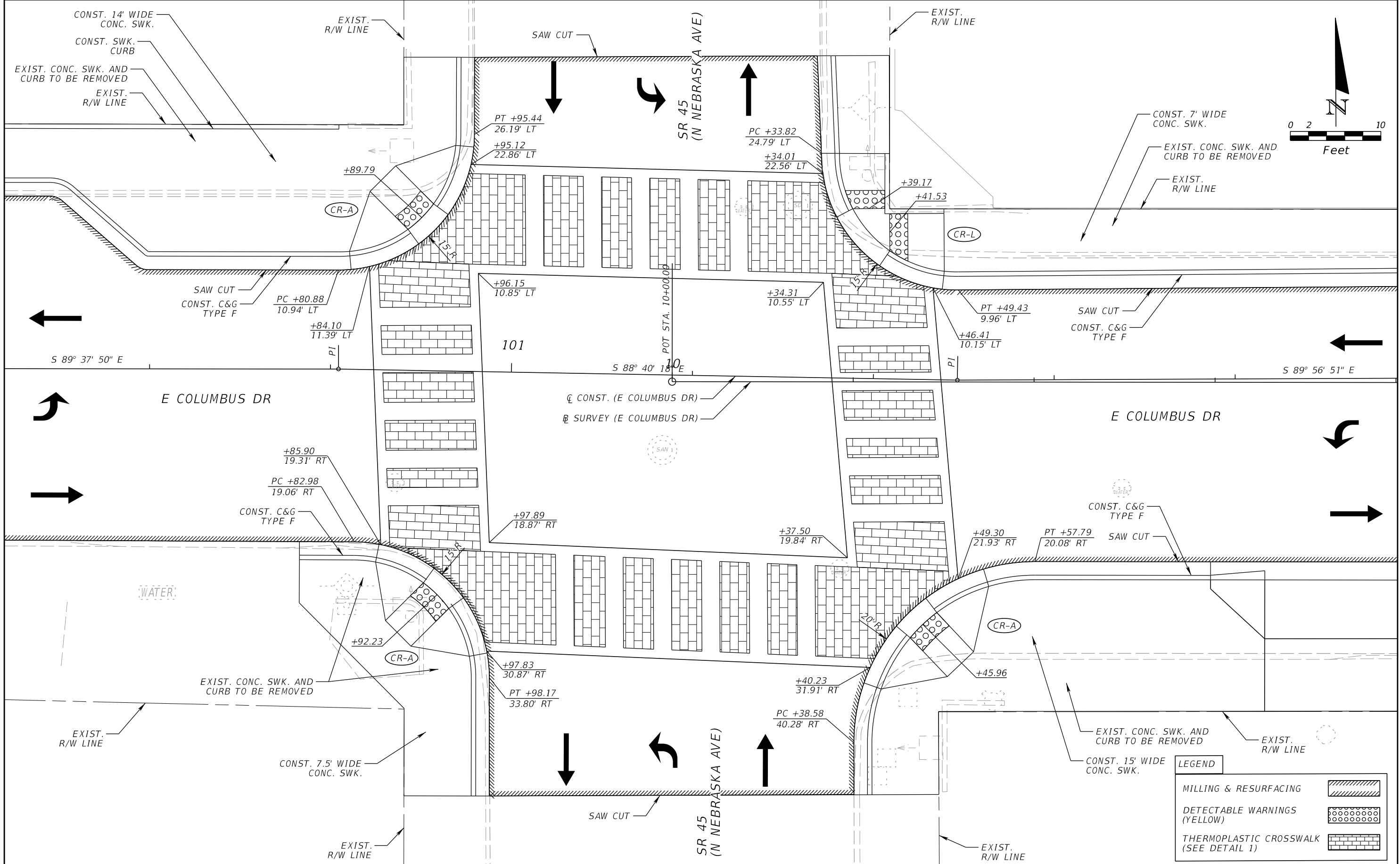
REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			TREE WELL DETAILS DATA TABLE (2)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		48

TREE WELL DETAIL DATA SHEET (SHEET 3 OF 3)

Detail Type	Outlet Box Structure No.	Station	City of Tampa Grate Inlet Type	Offset	Side	Pavt/Grate El. A	Pavt/Grate El. B	Gutter/Grate El. C	Gutter/Grate El. D	Grate Top Elevation @ Reference Point Location	Outlet Pipe Size	Interior Structure Bottom/Outlet Pipe Invert El.
Tree Well Detail B	O-1	104+13.51	T	17.03	RT	42.30	42.30	42.11	42.11	42.20	NA	39.61
Tree Well Detail C	S-2	104+13.78	E	14.64	LT	42.68	42.68	42.76	42.76	42.72	NA	40.18
Tree Well Detail C	S-8	104+76.08	E	14.66	LT	42.48	42.48	42.58	42.58	42.53	NA	39.98
Tree Well Detail C	S-9	105+11.26	E	14.63	LT	42.37	42.37	42.45	42.45	42.41	NA	39.87
Tree Well Detail B	O-10	105+21.96	T	16.78	RT	41.96	41.96	41.80	41.80	41.88	NA	39.30
Tree Well Detail B	O-11	106+37.16	T	16.69	RT	41.63	41.63	41.43	41.43	41.53	NA	38.93
Tree Well Detail B	O-12	106+49.18	T	16.83	LT	41.64	41.64	41.45	41.45	41.55	NA	38.95
Tree Well Detail A	O-13	107+48.14	T	16.83	LT	41.64	41.64	41.70	41.70	41.67	15.00	39.14
Tree Well Detail A	O-14	107+48.47	T	16.89	RT	41.62	41.62	41.64	41.64	41.63	15.00	39.12
Tree Well Detail C	S-17	107+68.28	E	14.67	RT	41.51	41.51	41.53	41.53	41.52	NA	39.01
Tree Well Detail C	S-23	108+10.10	E	14.67	LT	41.35	41.35	41.35	41.35	41.35	NA	38.85
Tree Well Detail A	O-25	108+40.62	T	16.83	RT	41.28	41.28	41.34	41.34	41.31	18.00	38.78
Tree Well Detail A	O-26	108+70.35	T	16.83	LT	41.42	41.42	41.48	41.48	41.45	15.00	38.92
Tree Well Detail B	O-27	110+08.14	T	16.80	LT	41.38	41.38	41.20	41.20	41.29	NA	38.70
Tree Well Detail B	O-28	110+70.93	T	16.77	RT	41.47	41.47	41.27	41.27	41.38	NA	38.77
Tree Well Detail B	O-31	113+04.03	T	16.80	LT	41.97	41.97	41.79	41.79	41.88	NA	39.29
Tree Well Detail B	O-32	113+23.58	T	16.80	RT	41.97	41.97	41.79	41.79	41.88	NA	39.29
Tree Well Detail C	S-33	114+21.64	E	14.67	LT	42.48	42.48	42.52	42.52	42.50	NA	39.98
Tree Well Detail C	S-34	114+91.12	E	14.68	LT	42.55	42.55	42.61	42.61	42.58	NA	40.05
Tree Well Detail C	S-35	115+77.20	E	14.67	RT	42.57	42.57	42.63	42.63	42.60	NA	40.07
Tree Well Detail B	O-36	117+36.64	T	16.99	LT	41.44	41.44	41.24	41.24	41.34	NA	38.74
Tree Well Detail B	O-37	117+41.48	T	17.00	RT	41.33	41.33	41.17	41.17	41.25	NA	38.67
Tree Well Detail A	O-38	119+32.29	T	16.88	LT	39.39	39.39	39.41	39.41	39.40	15.00	36.89
Tree Well Detail C	S-45	119+98.57	E	14.67	LT	39.24	39.24	39.28	39.28	39.26	NA	36.78
Tree Well Detail A	O-47	120+29.63	T	16.83	RT	39.30	39.30	39.30	39.30	39.30	18.00	36.80
Tree Well Detail B	O-49	121+15.55	T	17.75	RT	40.08	40.08	39.90	39.90	39.99	NA	37.40
Tree Well Detail B	O-51	121+71.17	T	17.76	LT	40.71	40.71	40.53	40.53	40.62	NA	38.03

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			TREE WELL DETAILS DATA TABLE (3)	SHEET NO. 49
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

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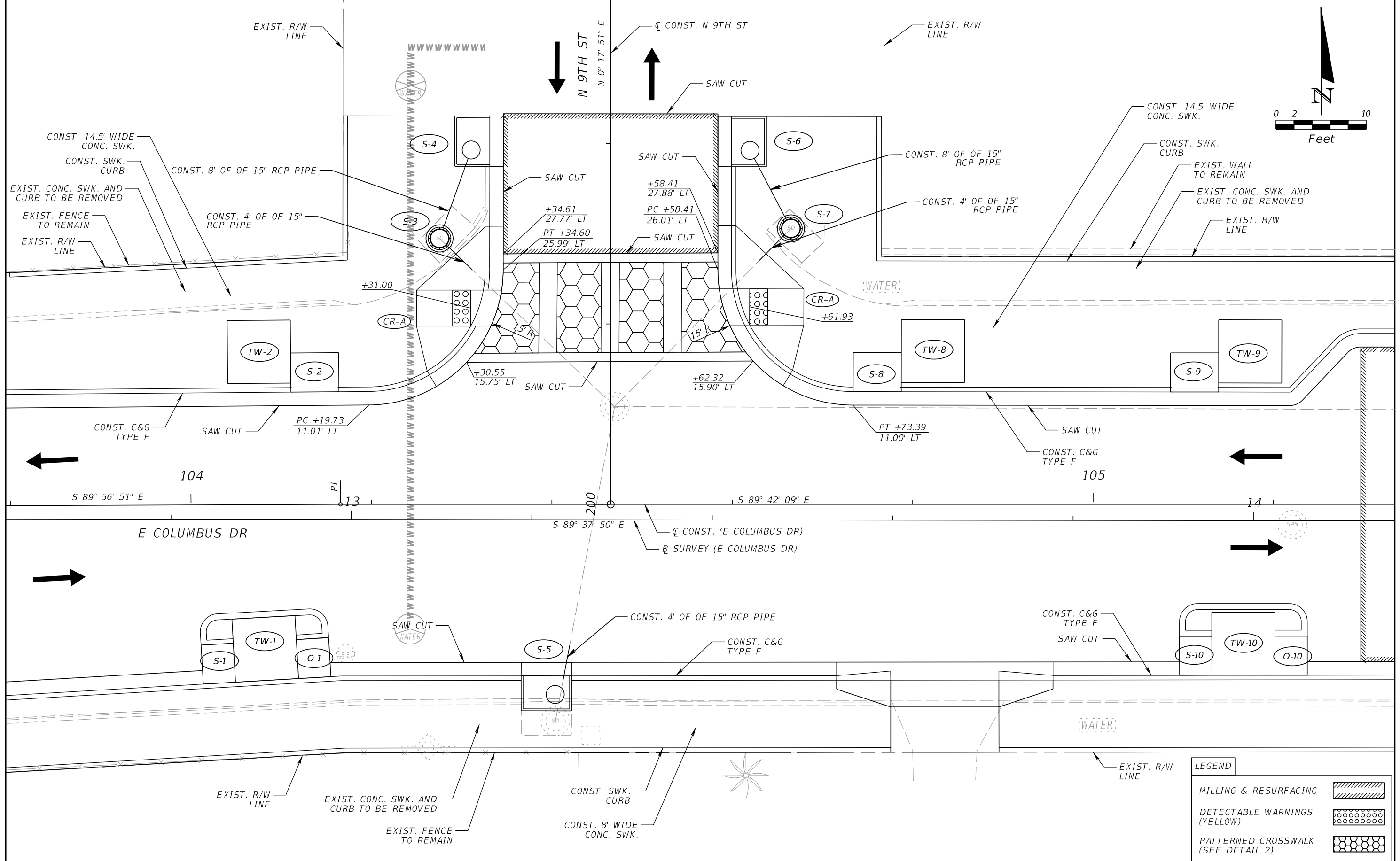
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

INTERSECTION LAYOUT
SR 45 (N NEBRASKA AVE)

SHEET NO.
 50



LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL 2)	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

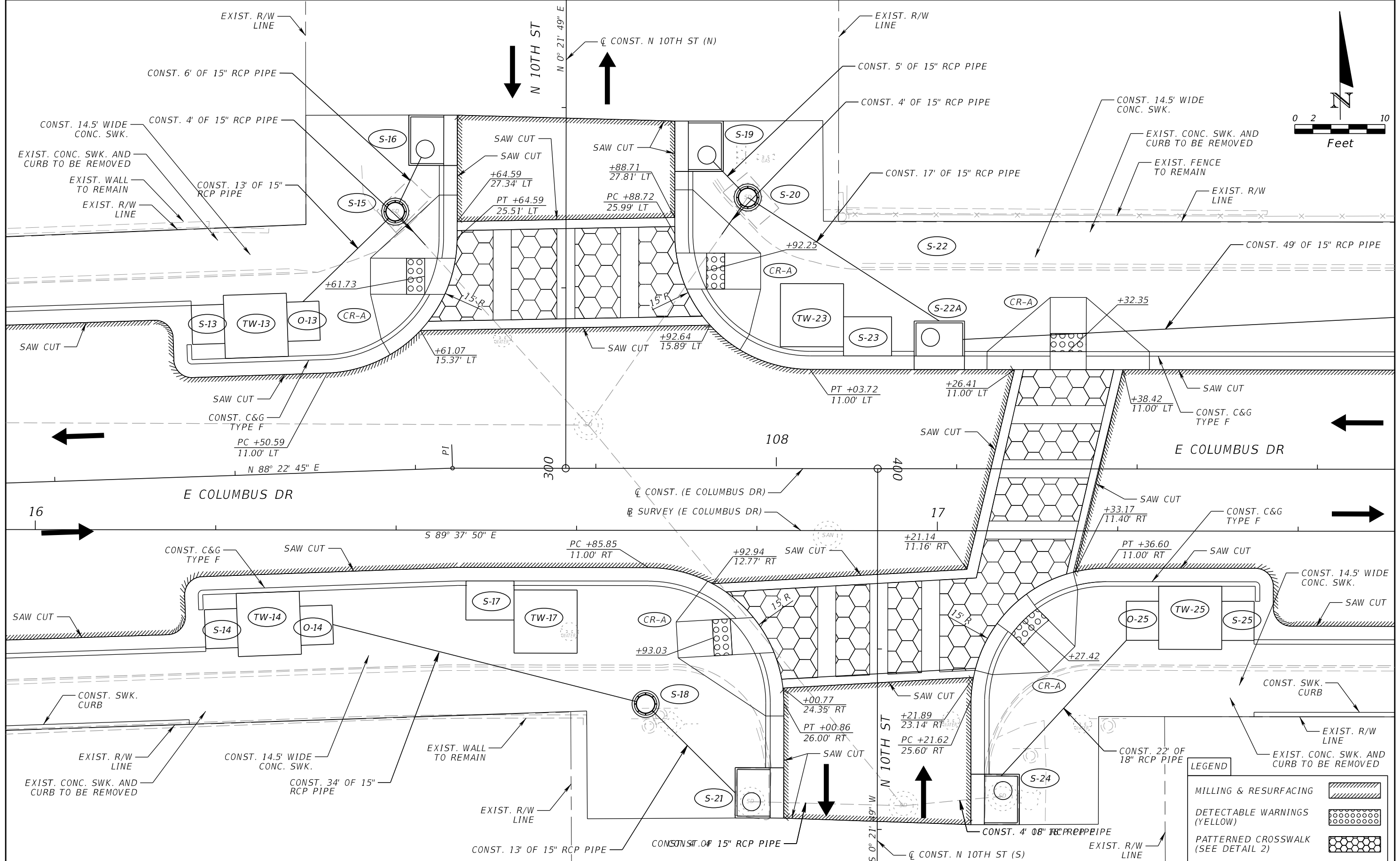
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

INTERSECTION LAYOUT
N 9TH ST

SHEET NO.
 51

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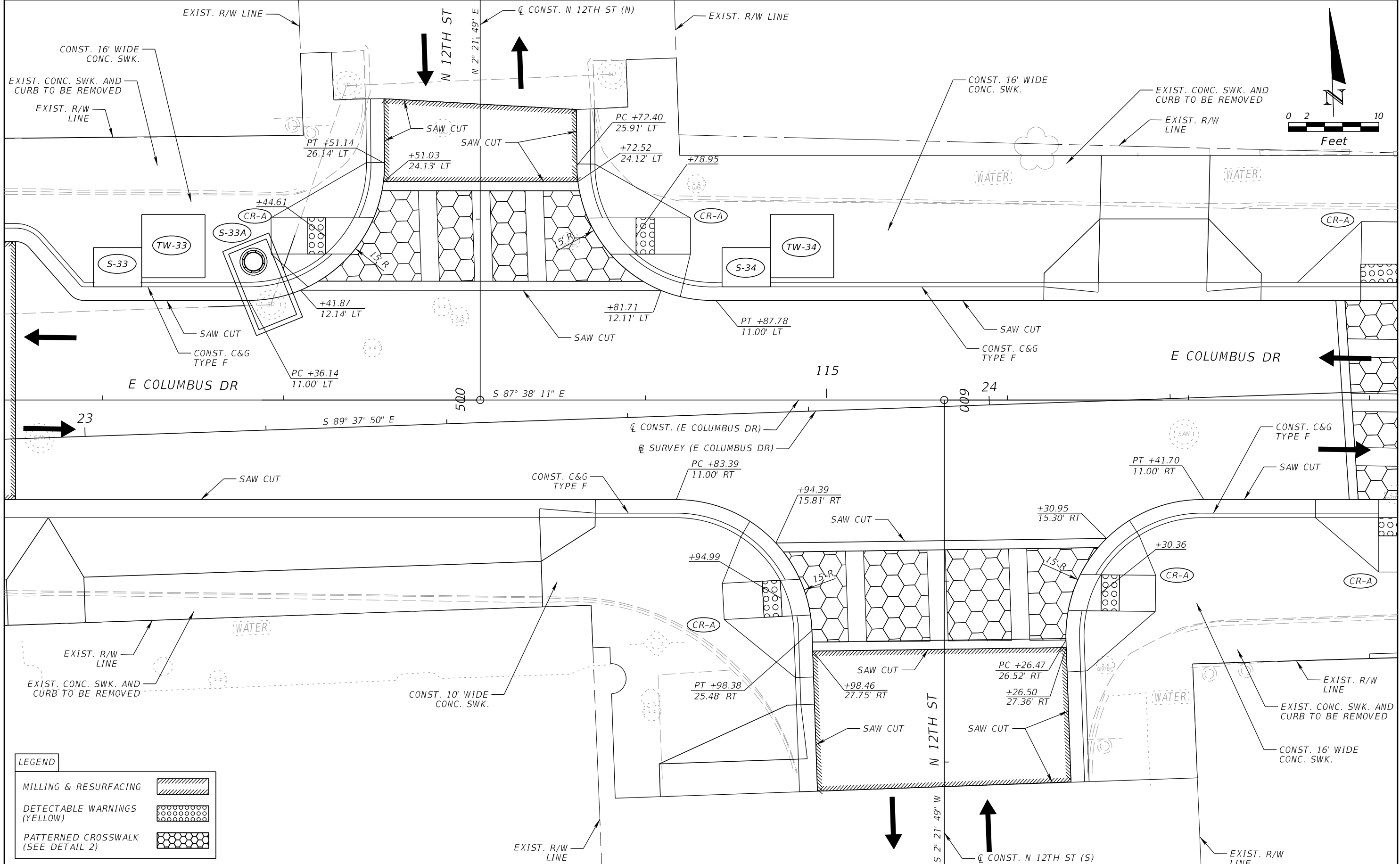
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

INTERSECTION LAYOUT
N 10TH ST

SHEET NO.
 52



LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL 2)	

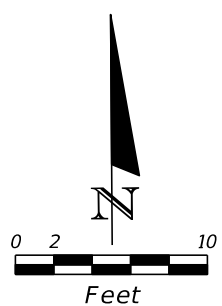
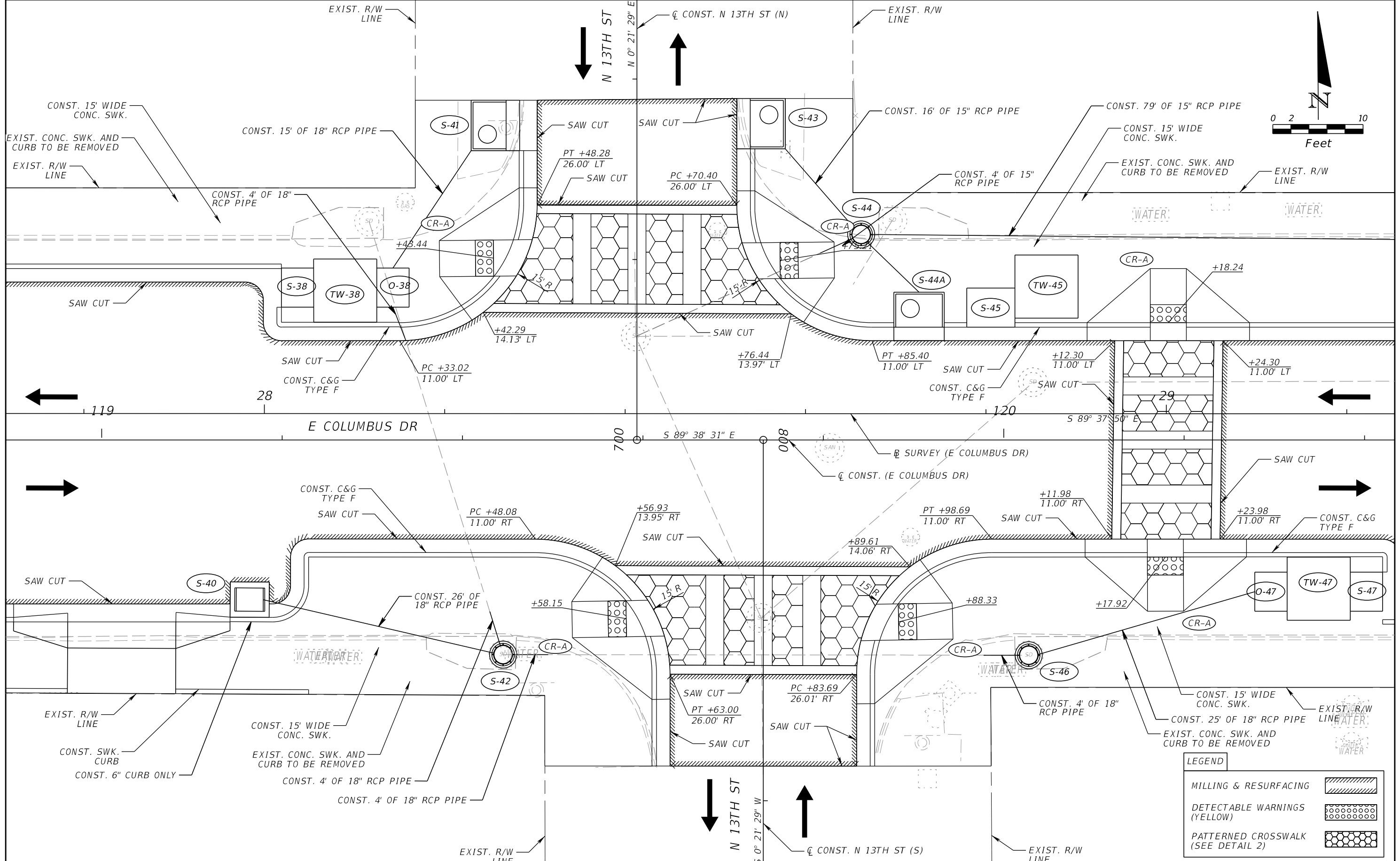
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

INTERSECTION LAYOUT N 12TH ST	
SHEET NO.	53

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LEGEND	
MILLING & RESURFACING	
DETECTABLE WARNINGS (YELLOW)	
PATTERNED CROSSWALK (SEE DETAIL 2)	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

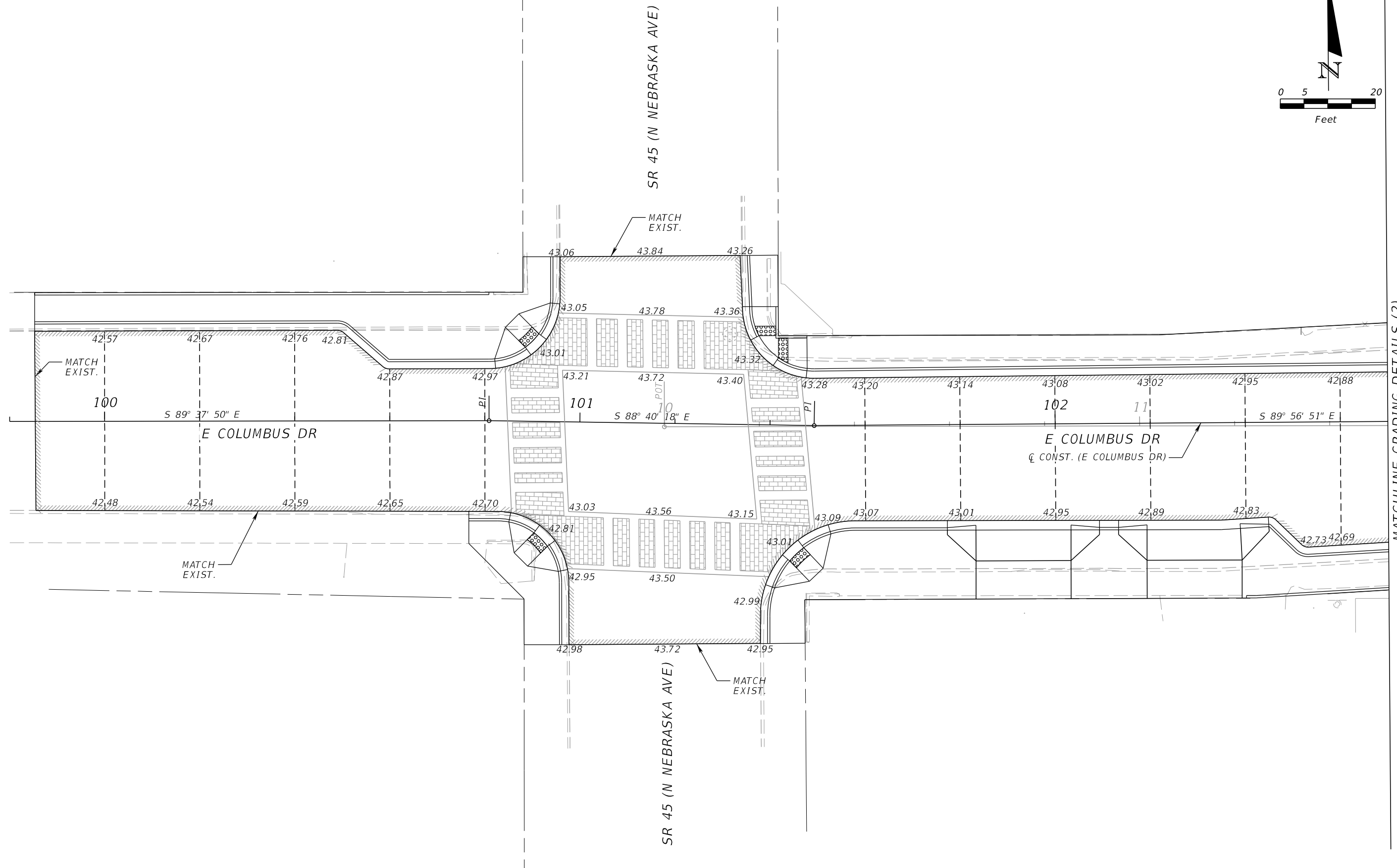
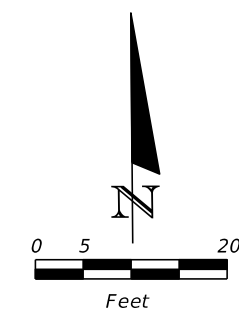
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
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 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

INTERSECTION LAYOUT
N 13TH ST

SHEET NO.
 54

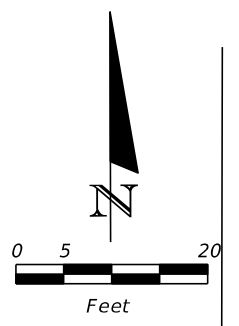
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MATCHLINE GRADING DETAILS (2)

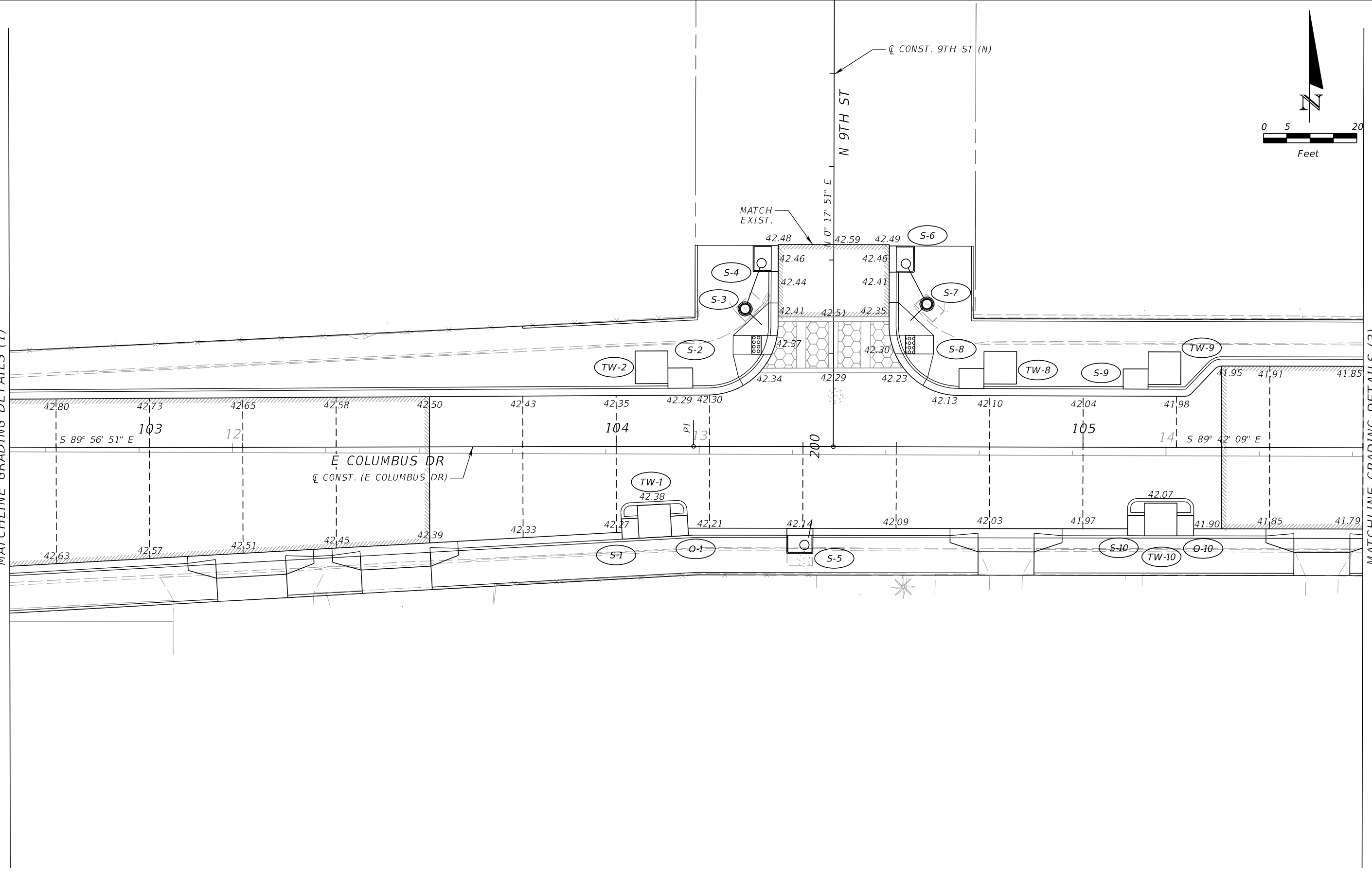
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DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

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MATCHLINE GRADING DETAILS (1)

MATCHLINE GRADING DETAILS (3)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

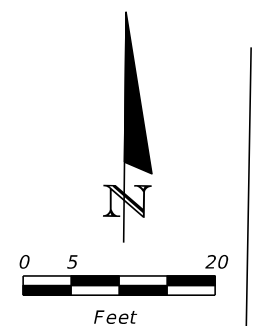
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

GRADING DETAILS (2)

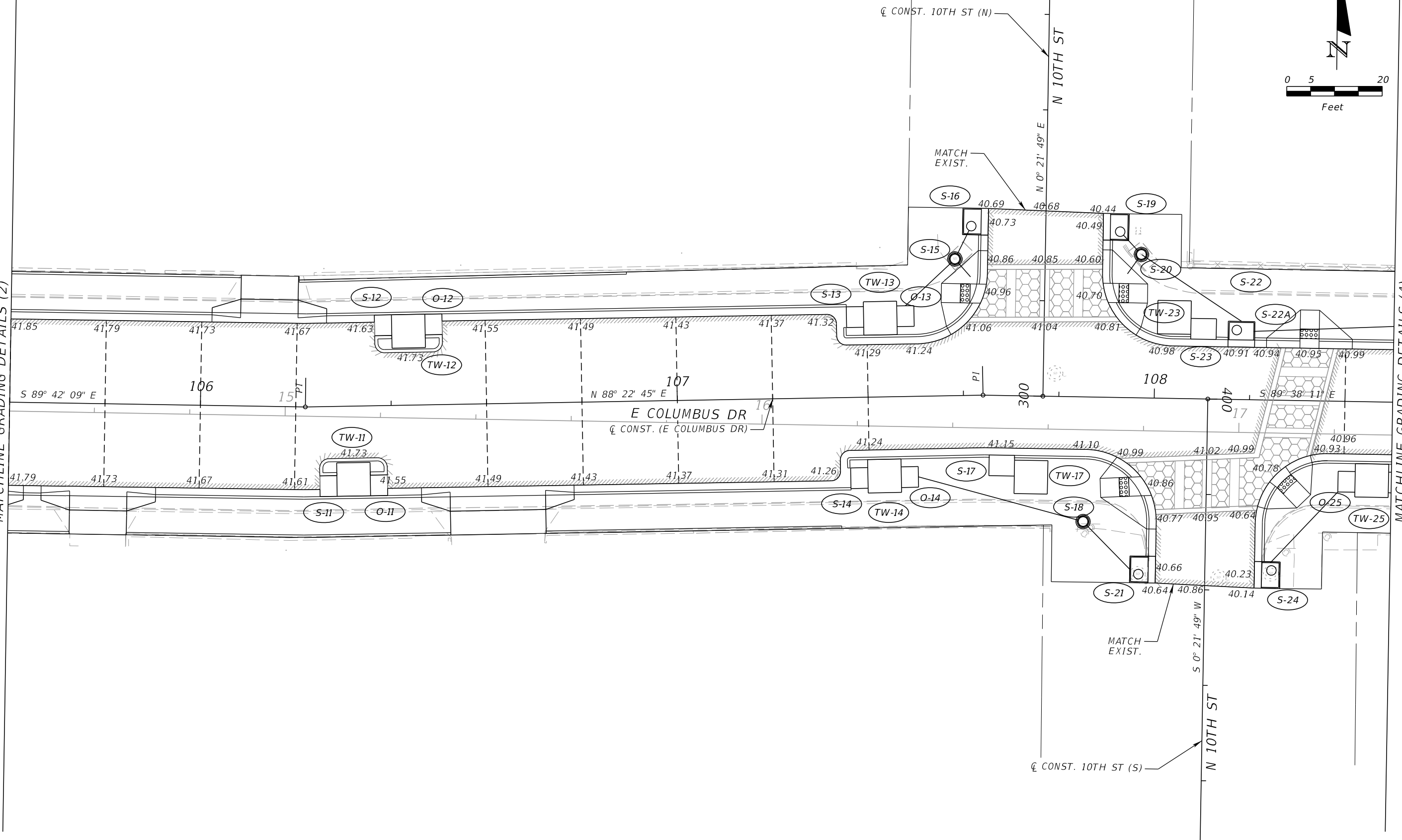
SHEET NO.
56

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MATCHLINE GRADING DETAILS (2)

MATCHLINE GRADING DETAILS (4)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

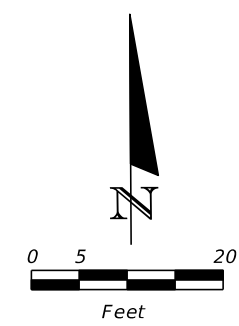
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

GRADING DETAILS (3)

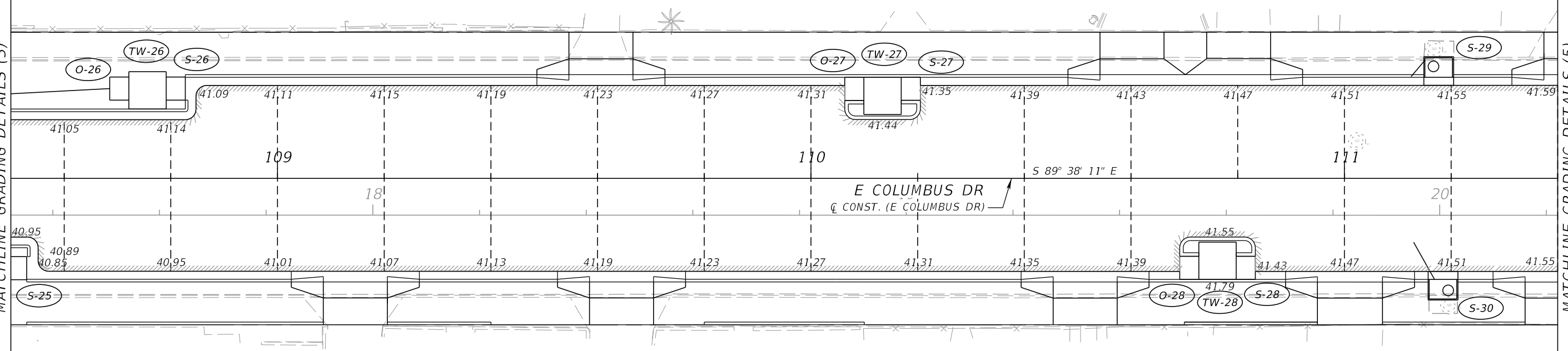
SHEET NO.
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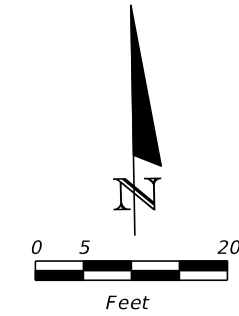
MATCHLINE GRADING DETAILS (3)

MATCHLINE GRADING DETAILS (5)



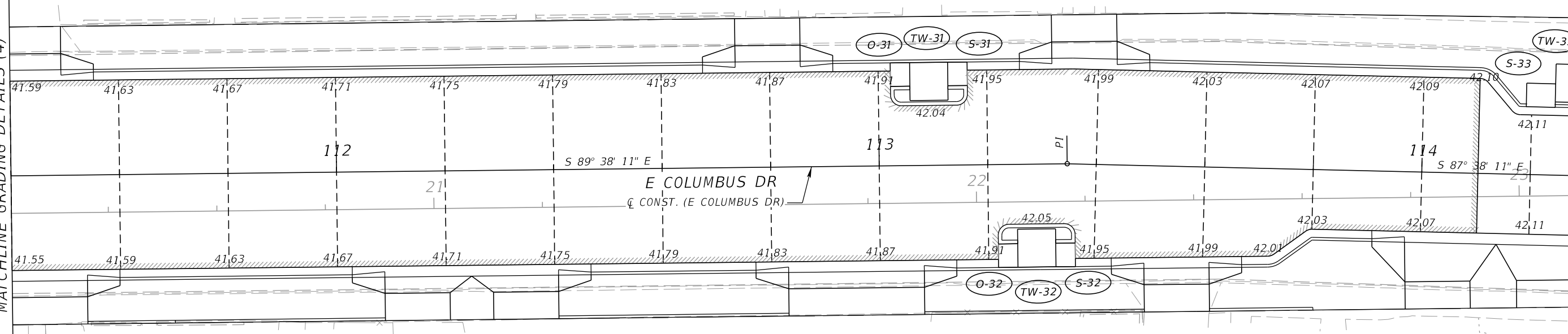
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DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

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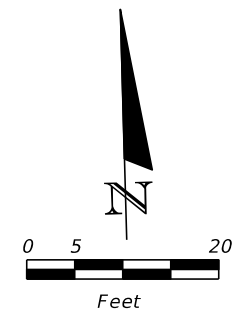
MATCHLINE GRADING DETAILS (4)

MATCHLINE GRADING DETAILS (6)



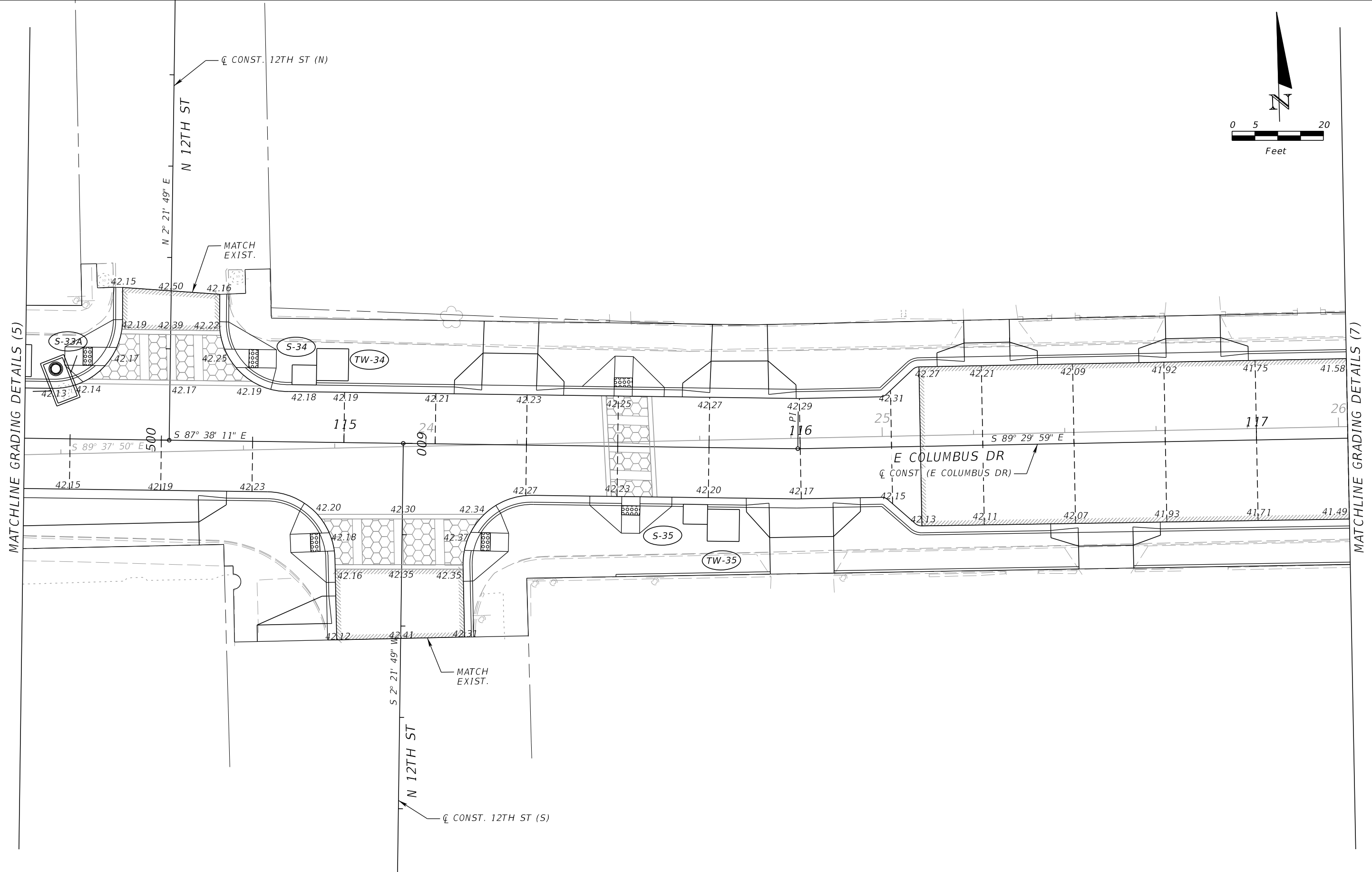
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DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

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MATCHLINE GRADING DETAILS (5)

MATCHLINE GRADING DETAILS (7)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

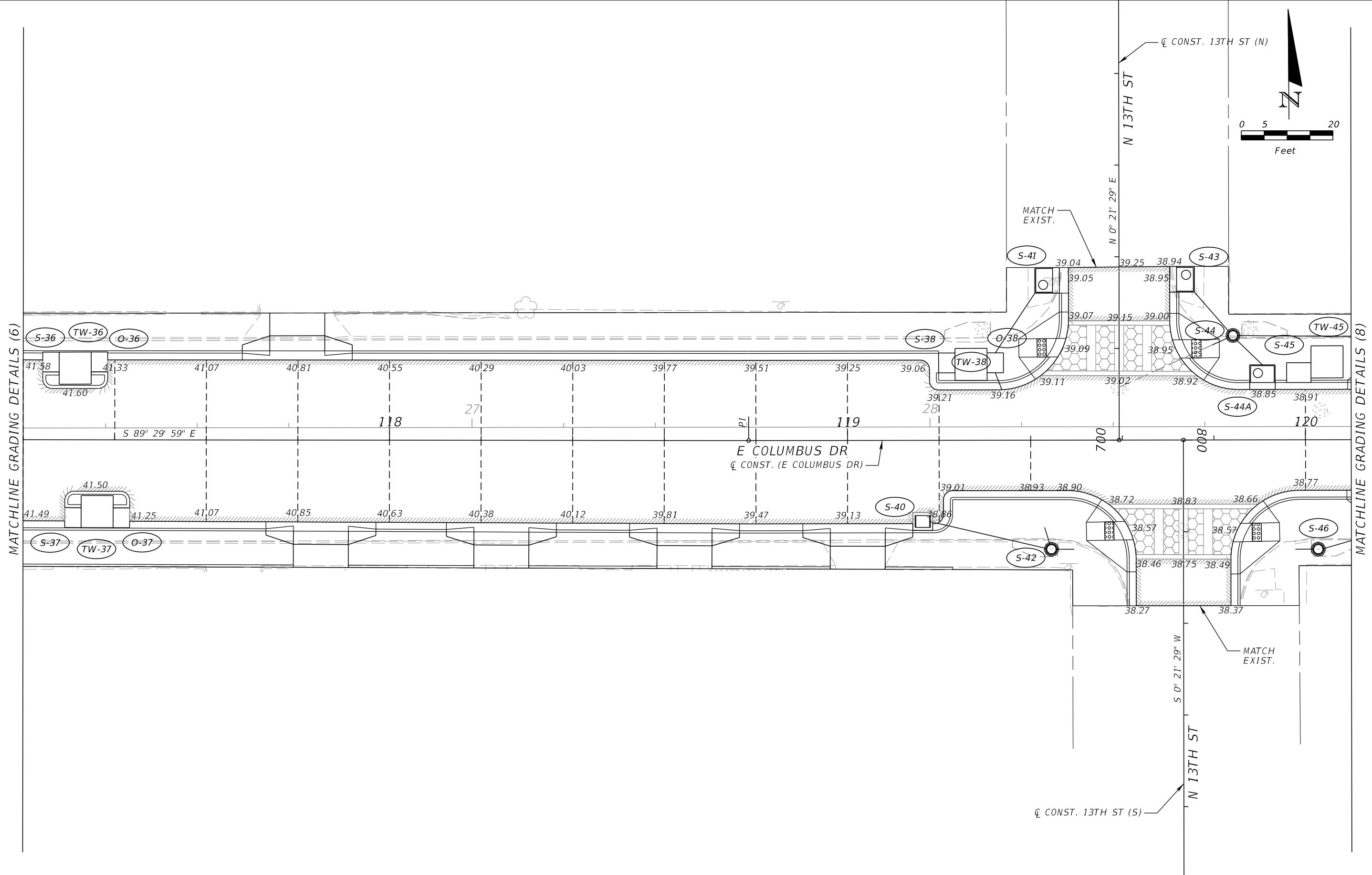
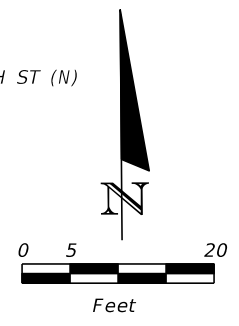
GRADING DETAILS (6)

SHEET NO.
60

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MATCHLINE GRADING DETAILS (6)

MATCHLINE GRADING DETAILS (8)



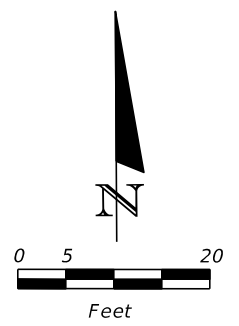
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

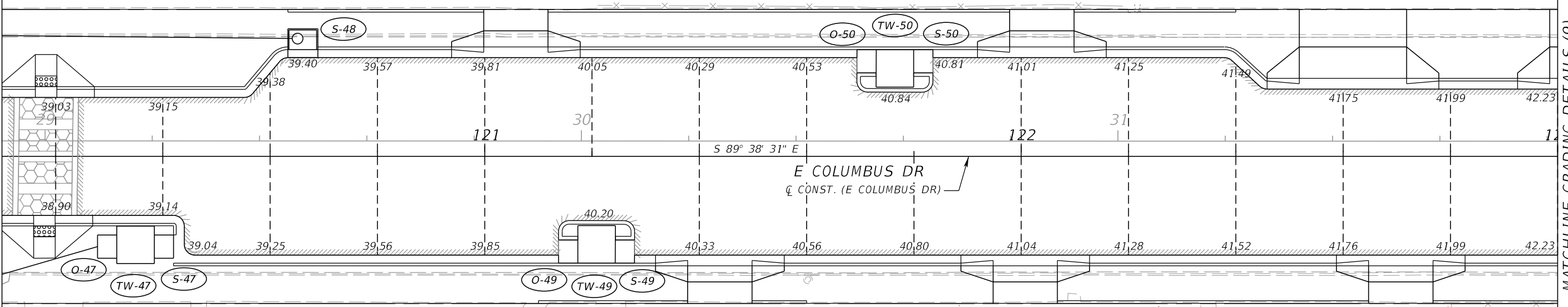
GRADING DETAILS (7)

SHEET NO.
61



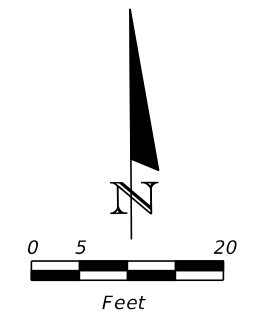
MATCHLINE GRADING DETAILS (7)

MATCHLINE GRADING DETAILS (9)

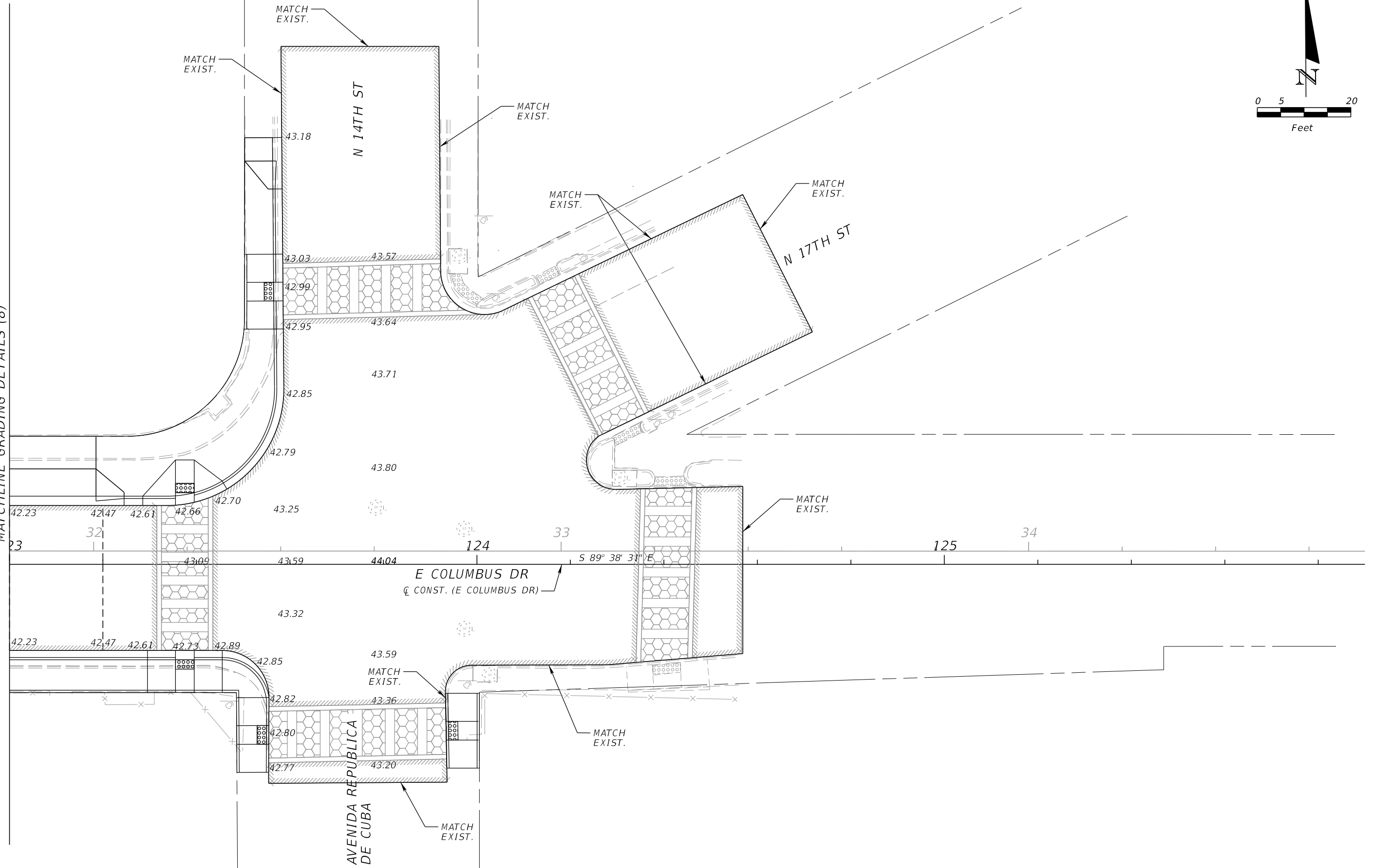


REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GRADING DETAILS (8)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		62
					1001221	HILLSBOROUGH	436639-1-58-01		

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MATCHLINE GRADING DETAILS (8)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

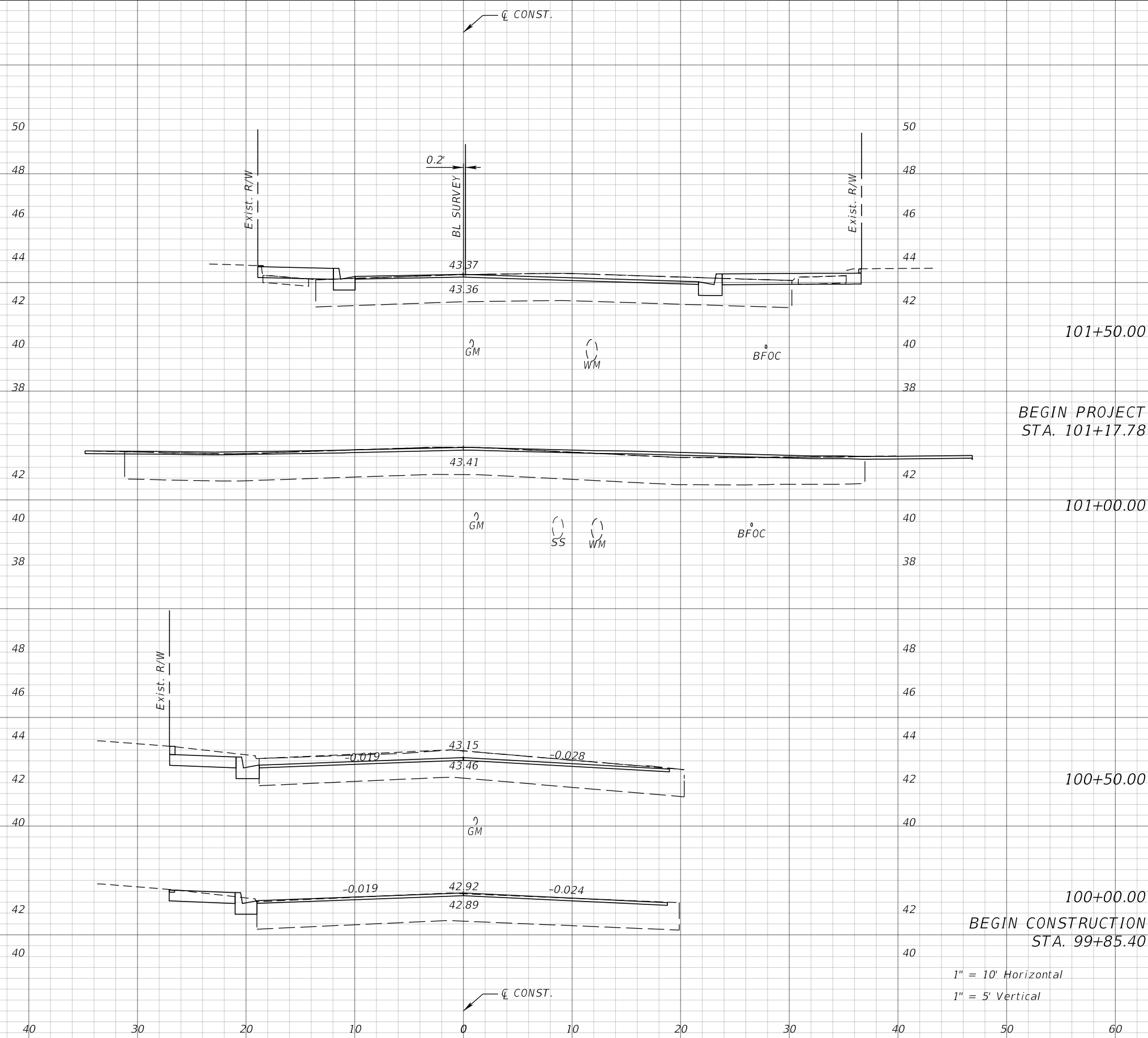
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

GRADING DETAILS (9)

SHEET NO.
63

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BEGIN PROJECT
STA. 101+17.78

BEGIN CONSTRUCTION
STA. 99+85.40

1" = 10' Horizontal
1" = 5' Vertical

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

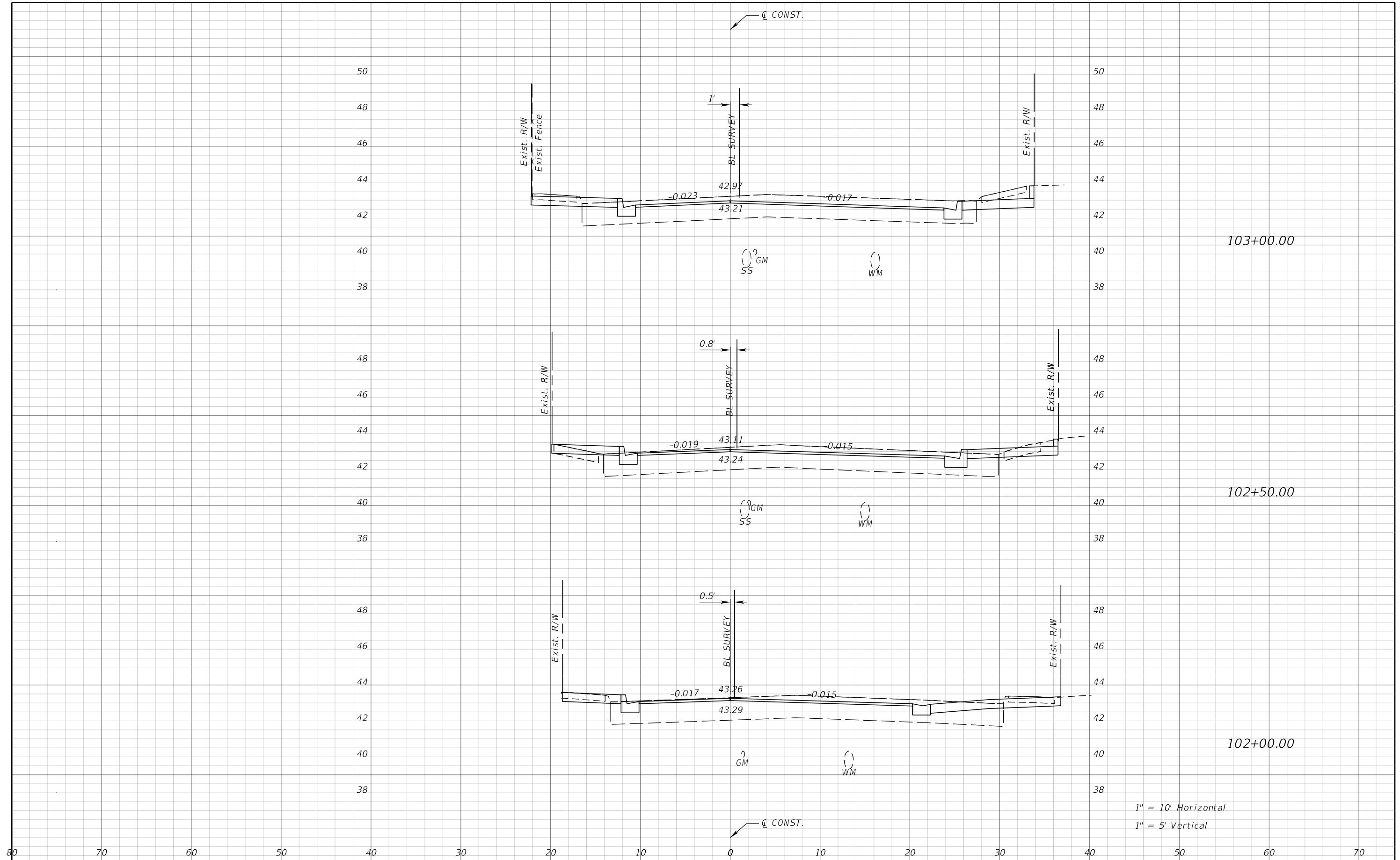
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
64

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

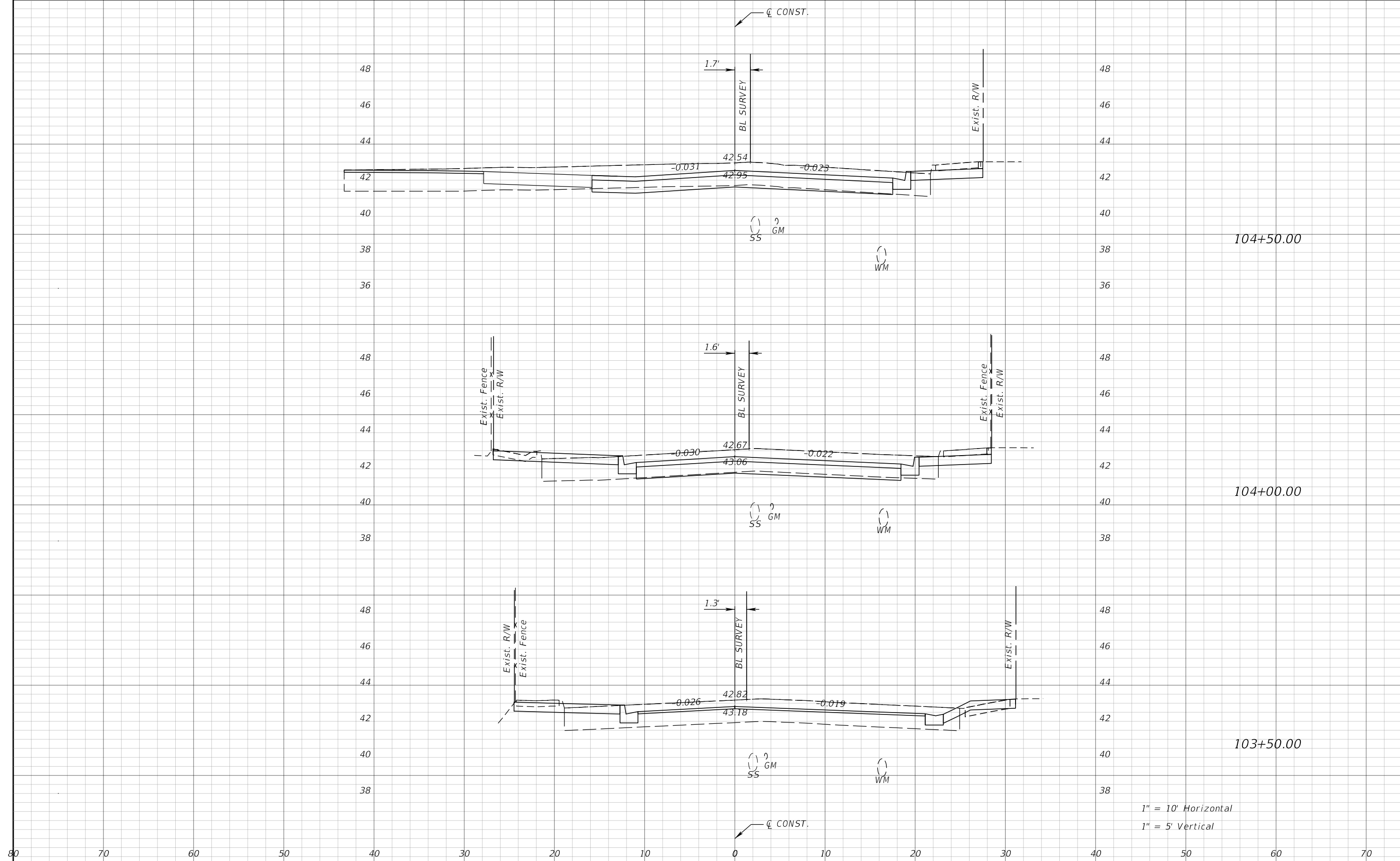
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
65

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1" = 10' Horizontal
 1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

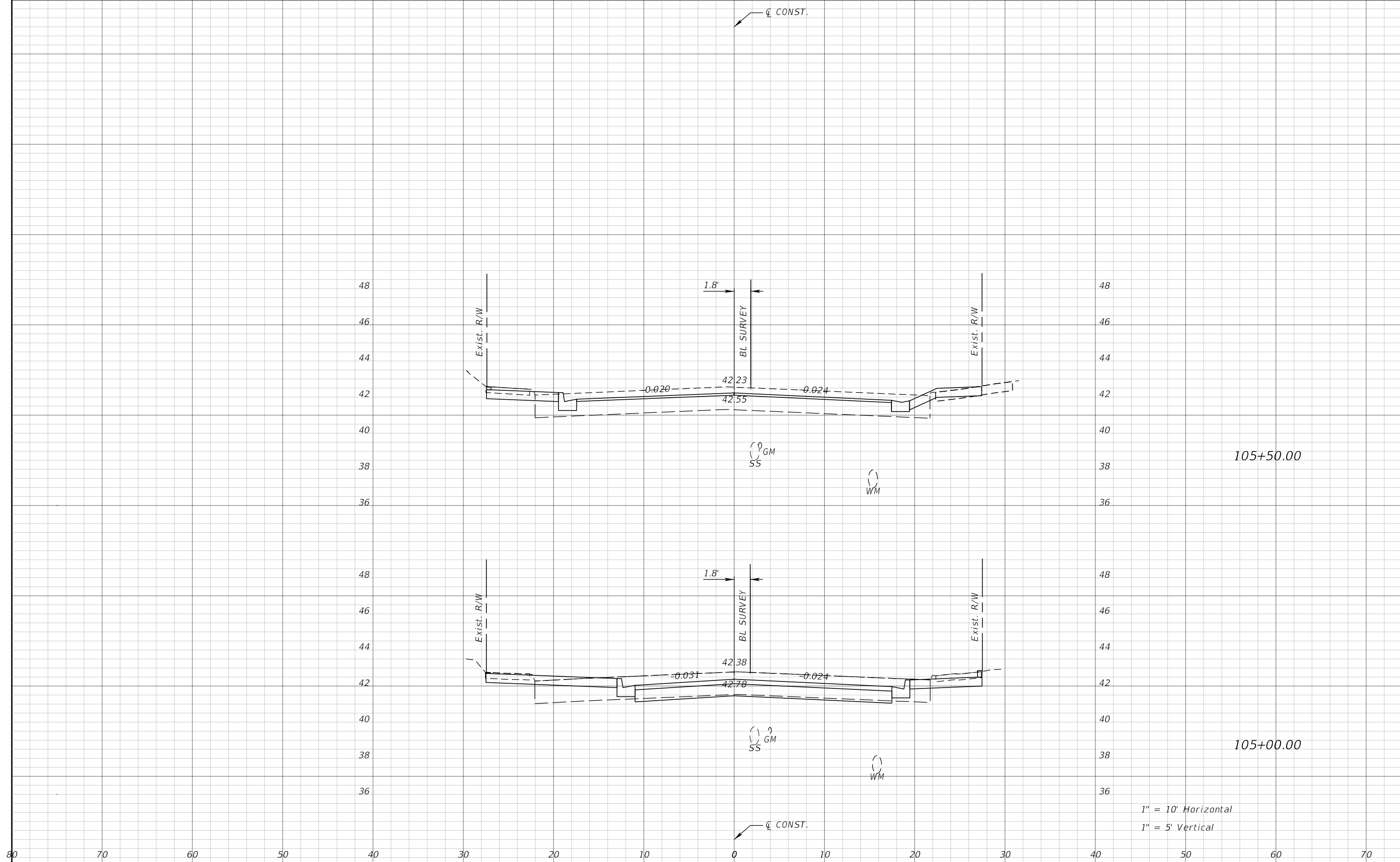
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
 66

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1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
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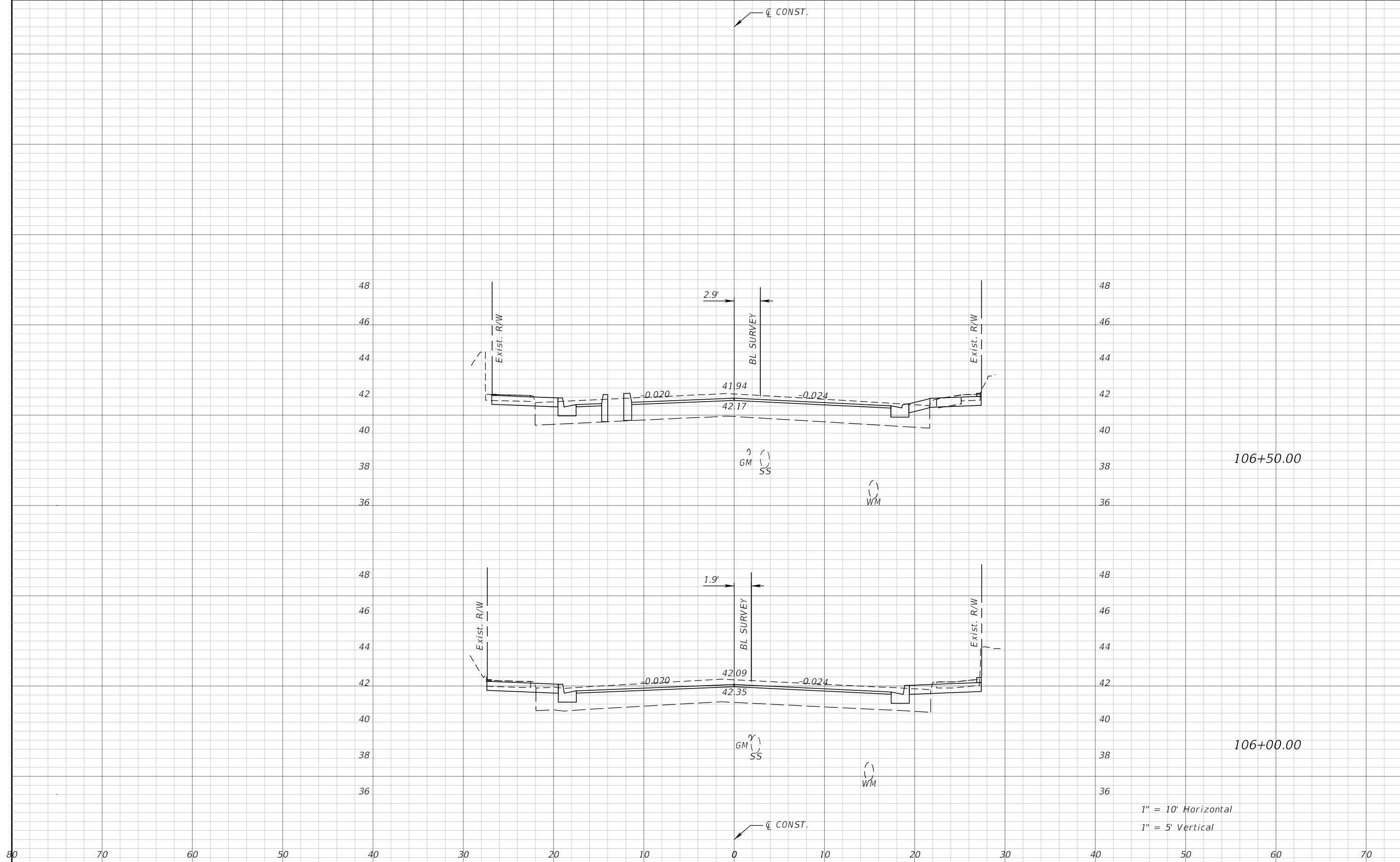
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
67

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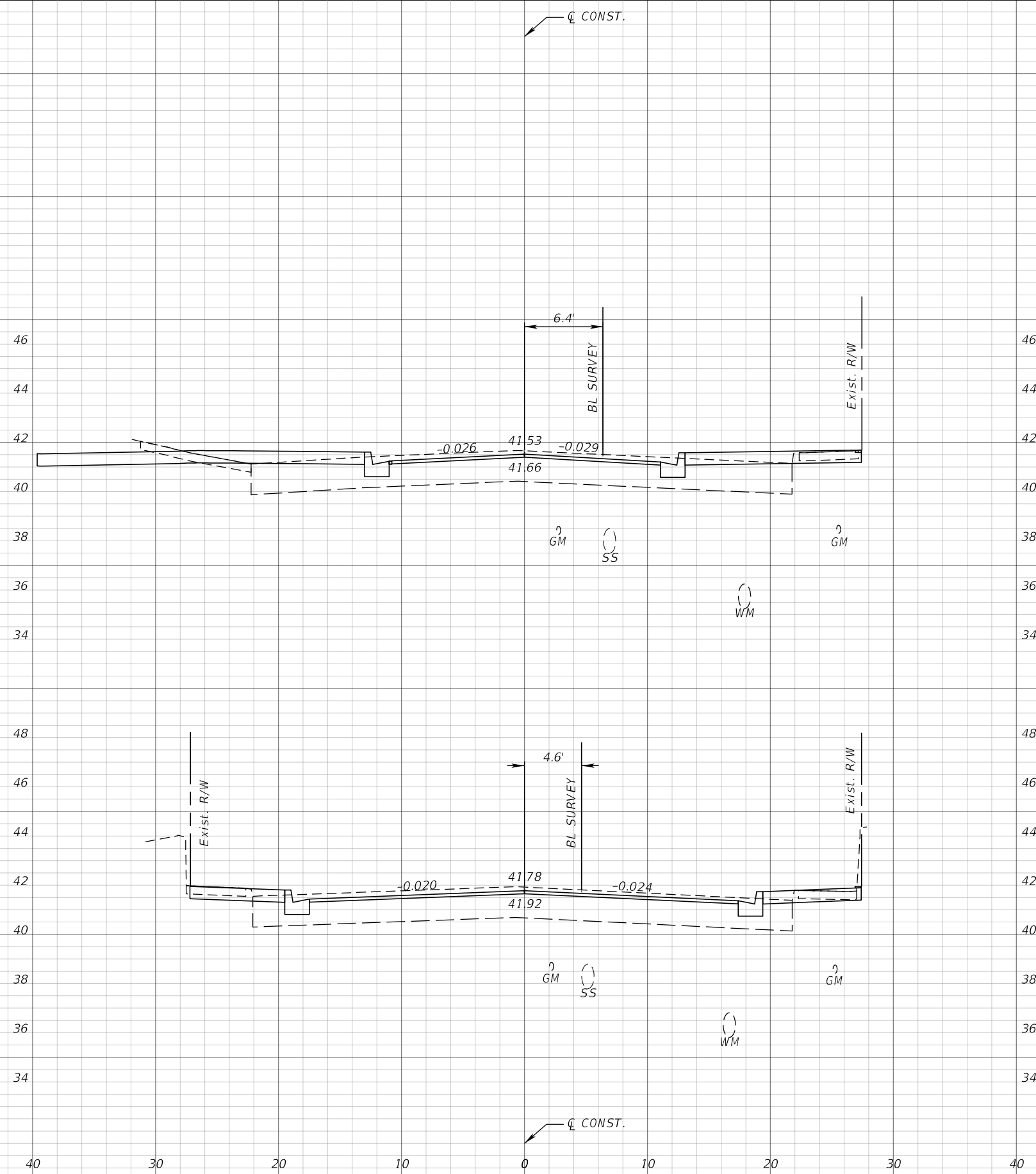
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
68

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107+50.00

107+00.00

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

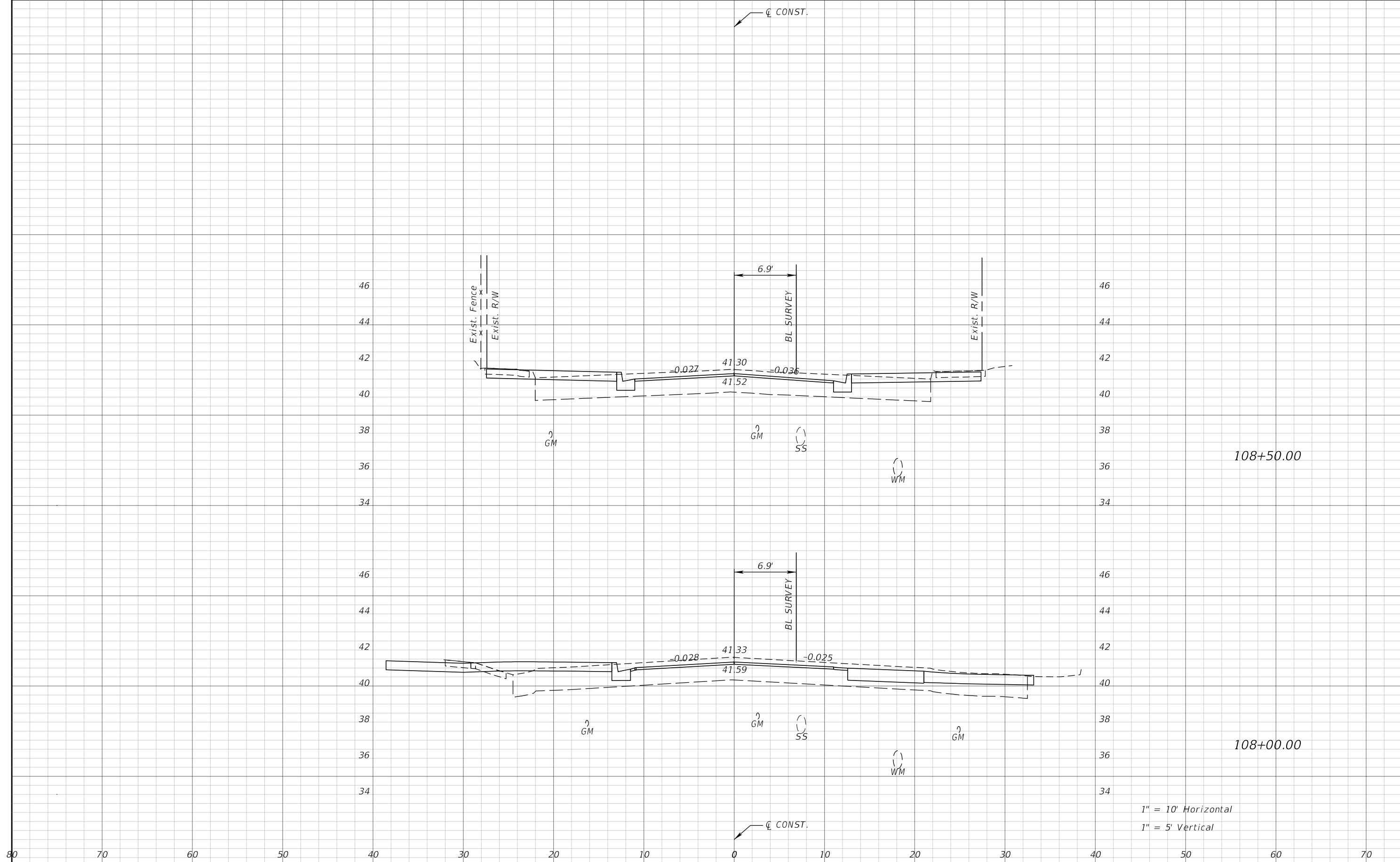
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
69

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
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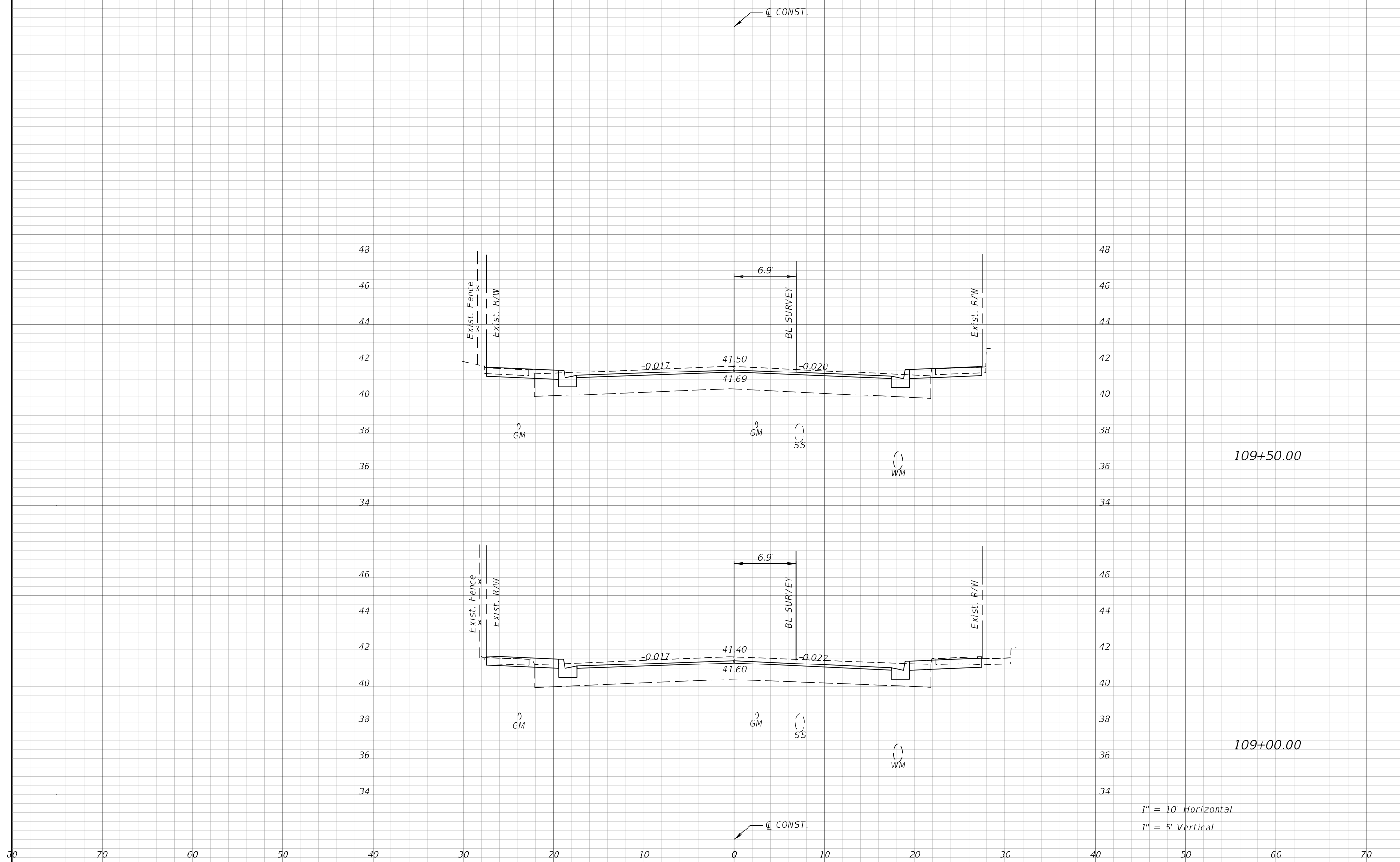
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
70

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REVISIONS			
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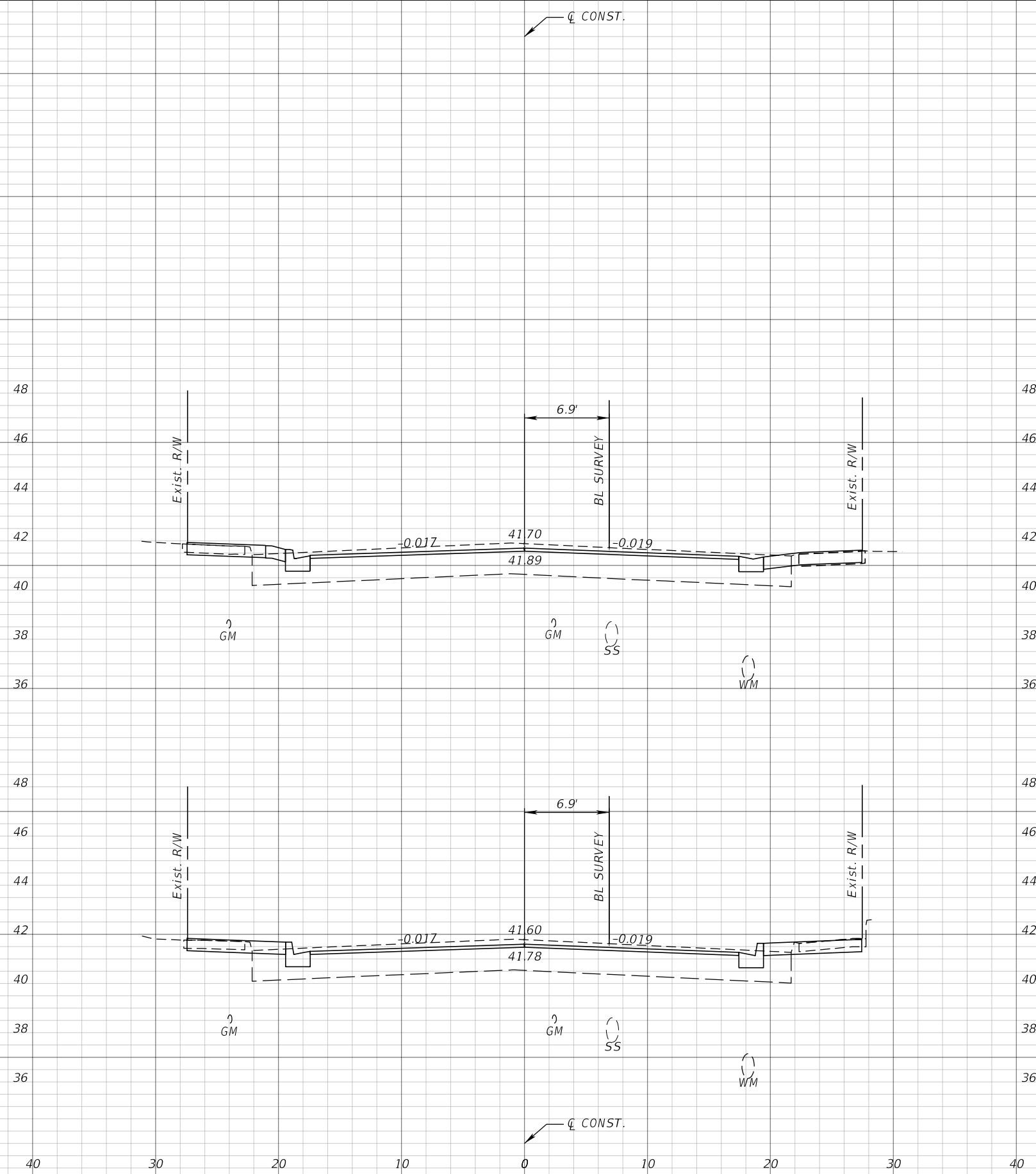
JEFFREY SIEWERT, P.E.
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
71

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1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

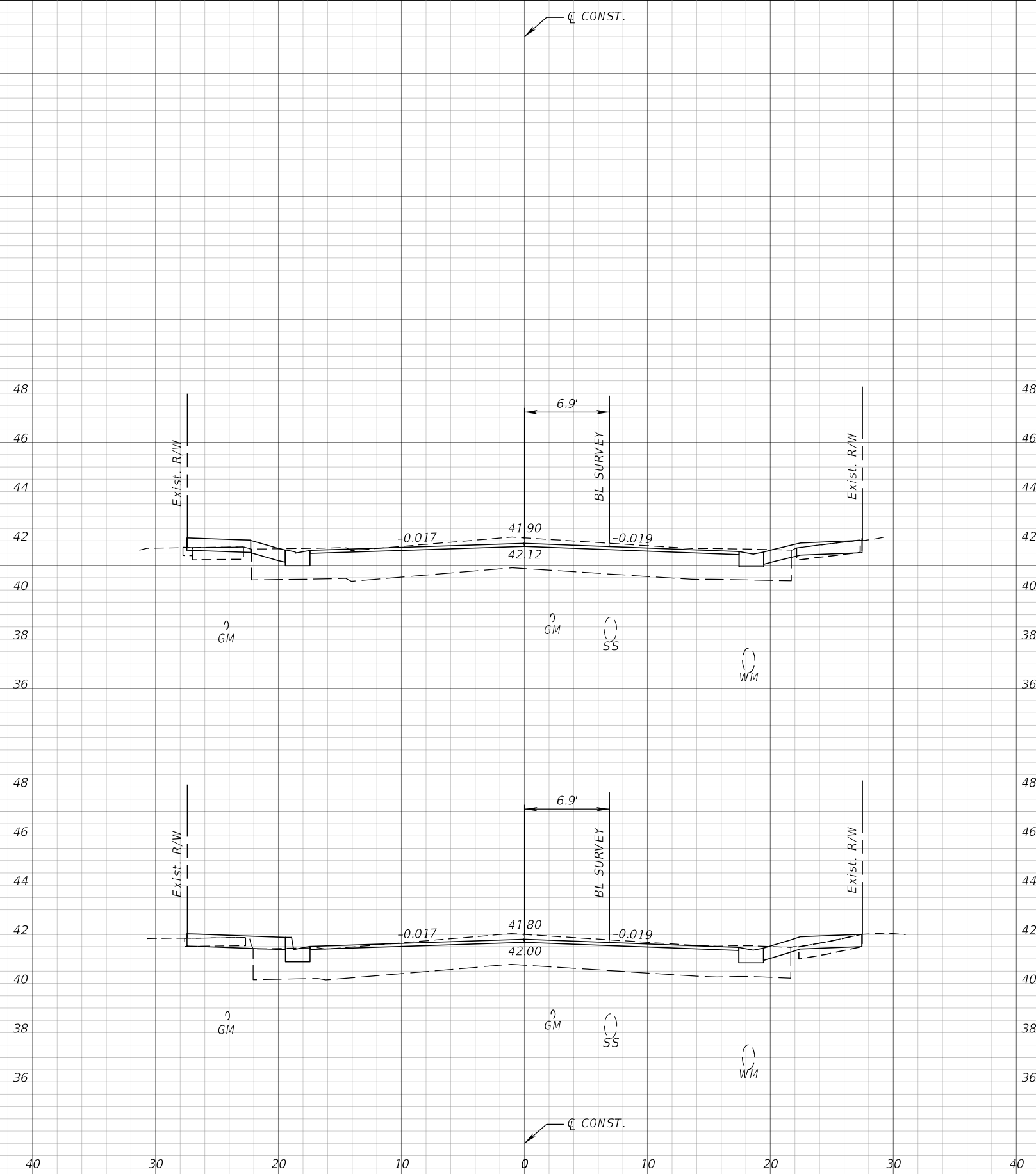
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
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8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
72

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1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
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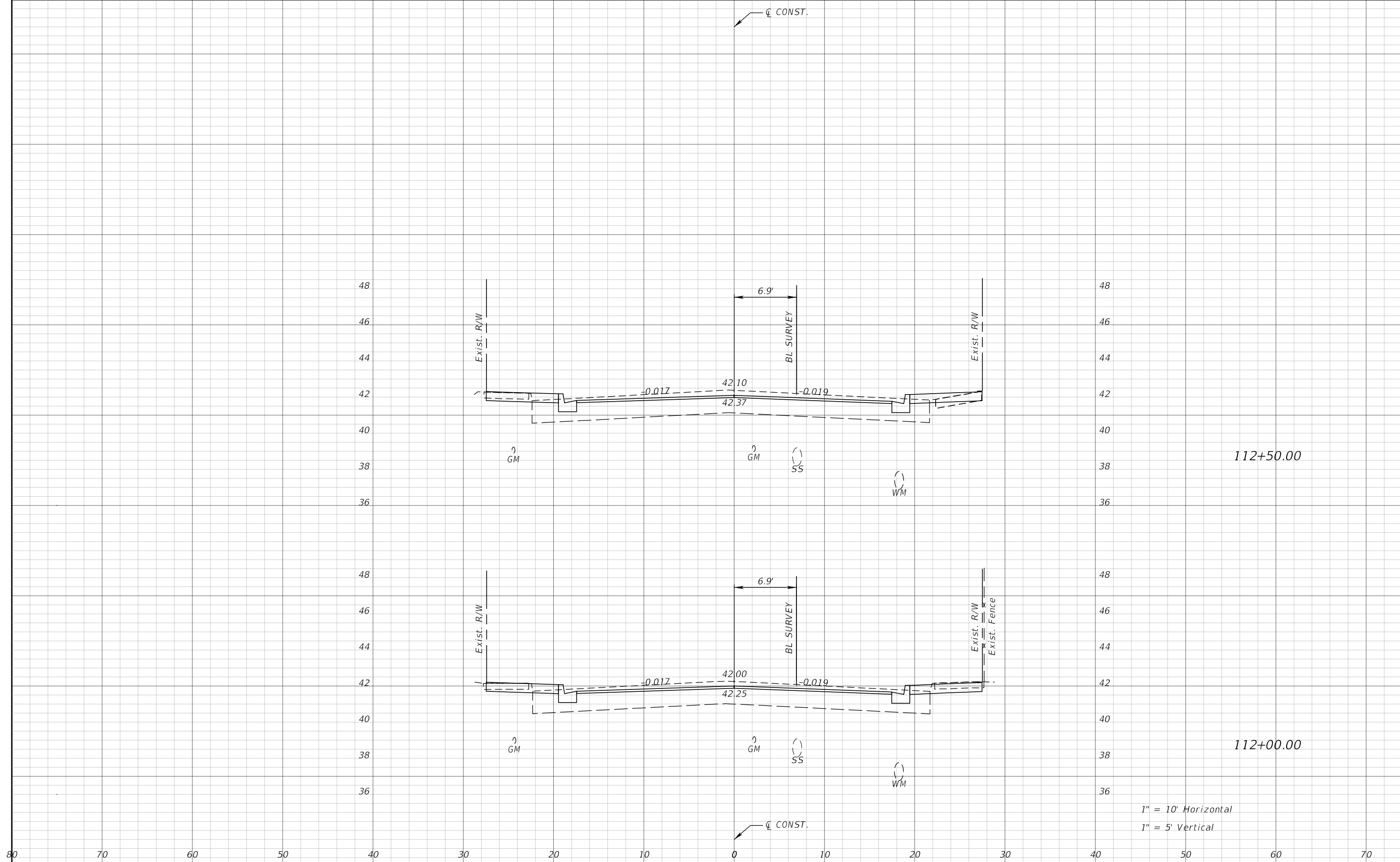
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
73

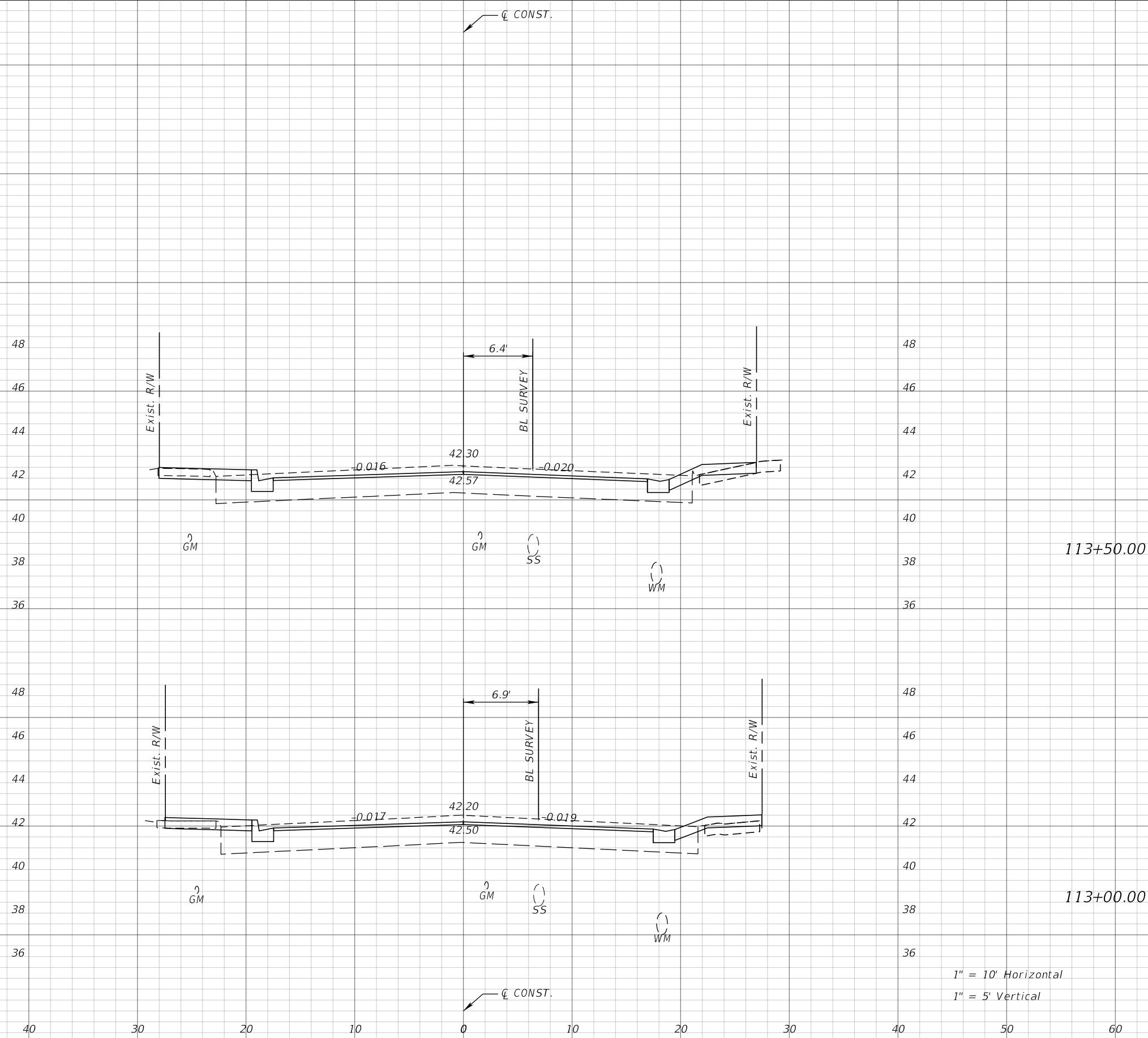
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1" = 10' Horizontal
 1" = 5' Vertical

DATE		DESCRIPTION		REVISIONS	
				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	
				CITY OF TAMPA TRANSPORTATION DEPARTMENT	
CITY PROJECT NO.		COUNTY		FINANCIAL PROJECT ID	
1001221		HILLSBOROUGH		436639-1-58-01	
CROSS SECTIONS					SHEET NO.
					74

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1" = 10' Horizontal
 1" = 5' Vertical

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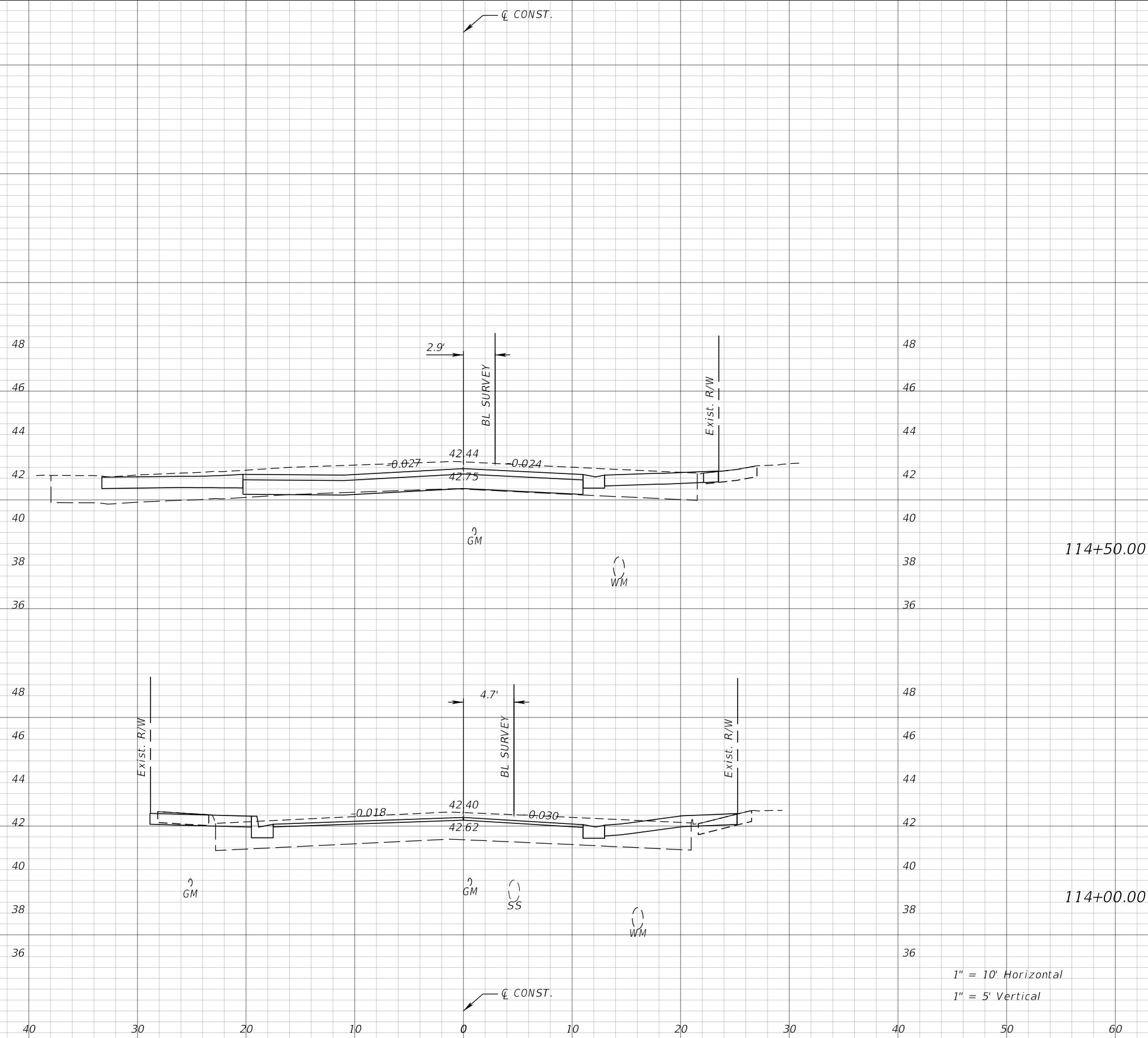
JEFFREY SIEWERT, P.E.
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
 75

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 1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

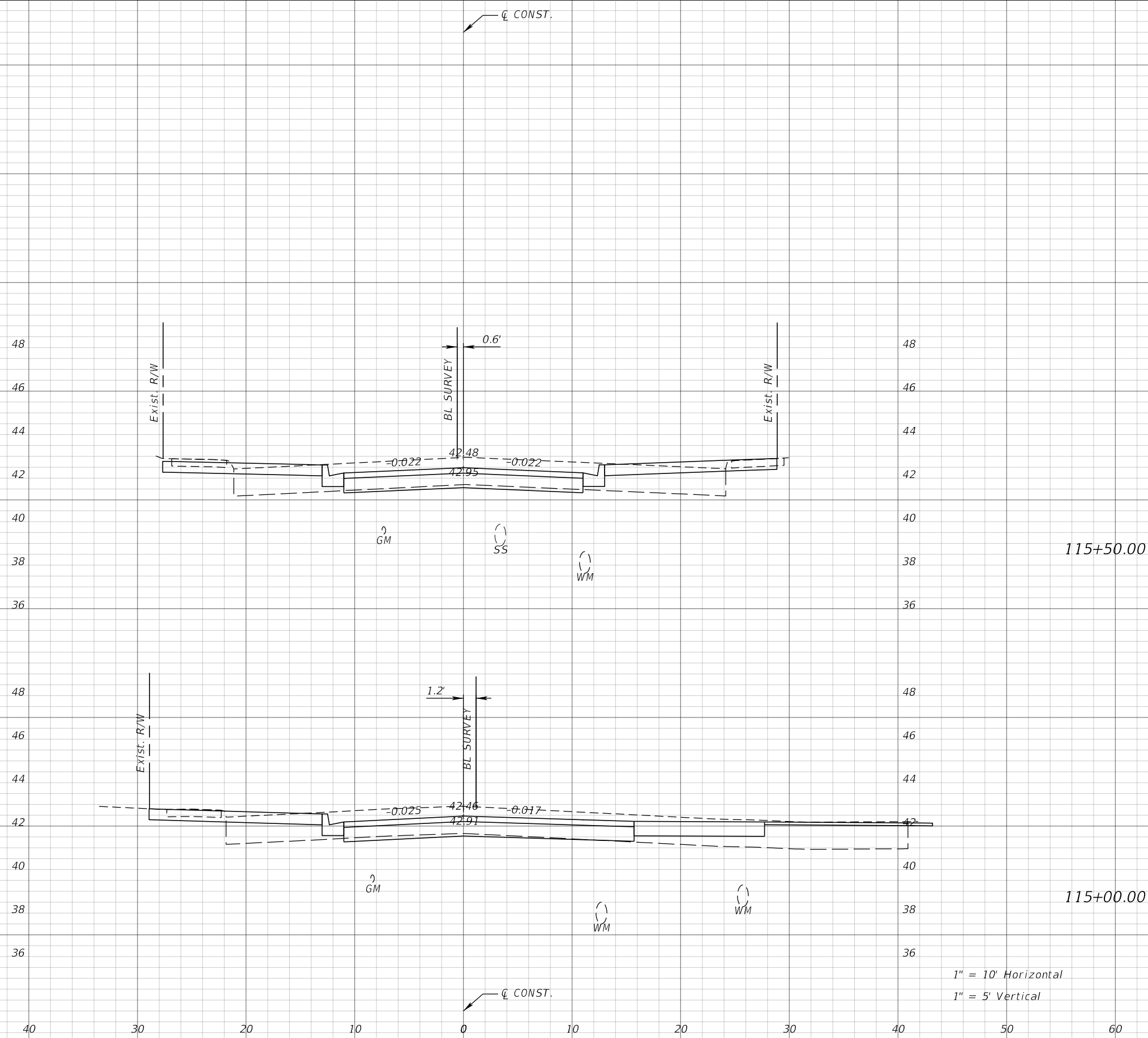
JEFFREY SIEWERT, P.E.
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
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CROSS SECTIONS

SHEET NO.
76

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1" = 10' Horizontal
1" = 5' Vertical

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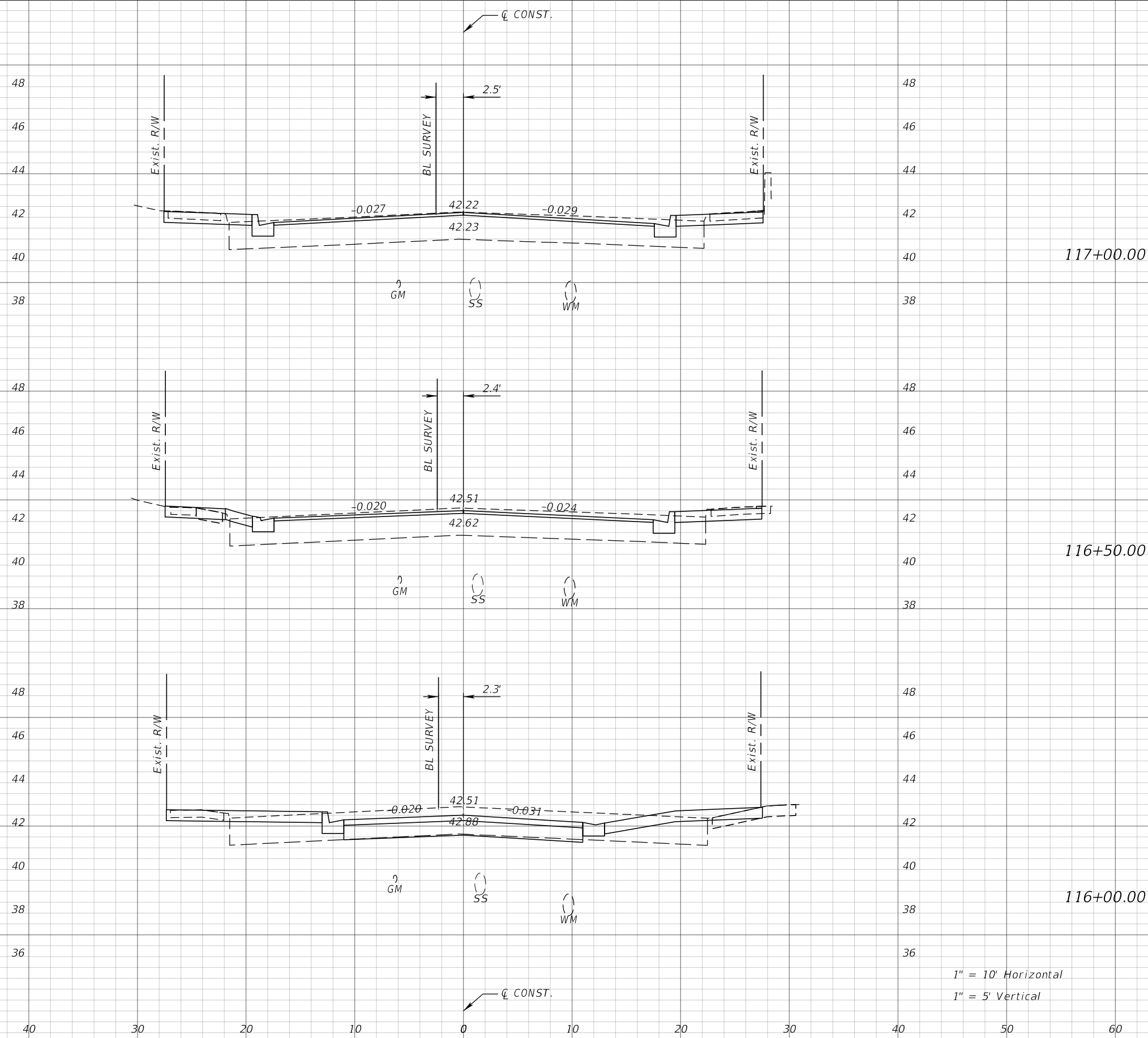
JEFFREY SIEWERT, P.E.
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8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
77

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1" = 10' Horizontal
 1" = 5' Vertical

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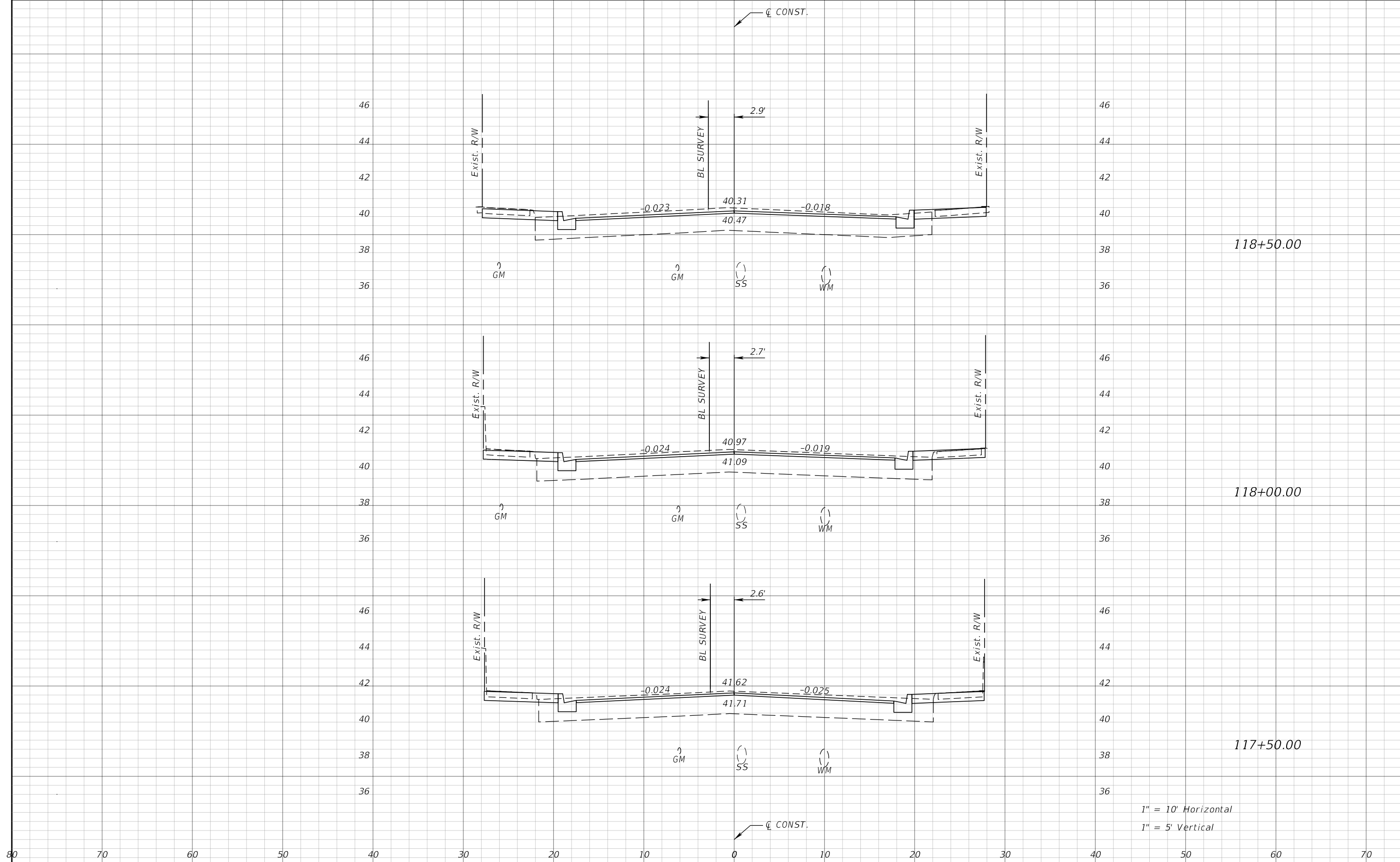
JEFFREY SIEWERT, P.E.
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 AYRES ASSOCIATES
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
78

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1" = 10' Horizontal
 1" = 5' Vertical

REVISIONS			
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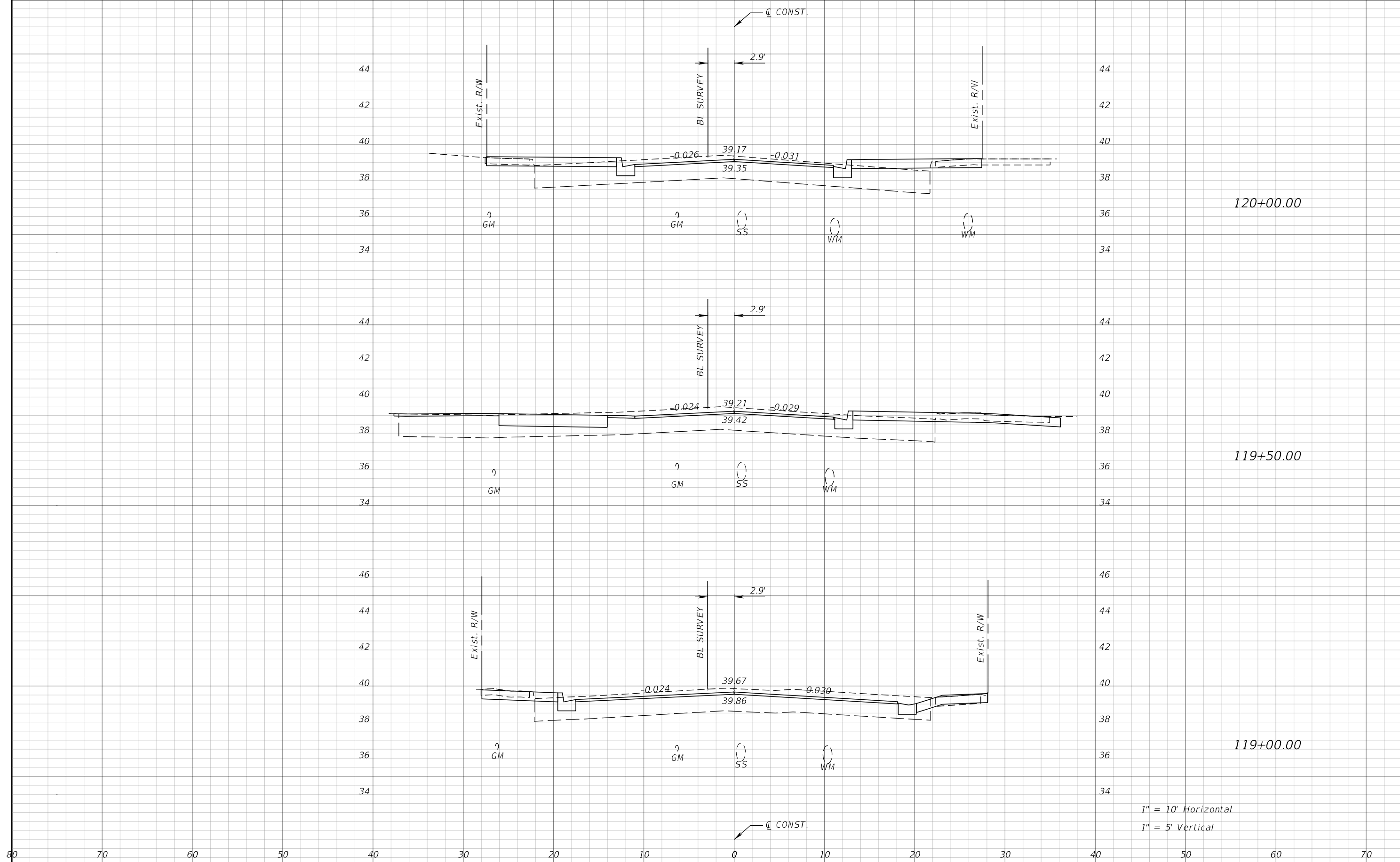
JEFFREY SIEWERT, P.E.
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 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
79

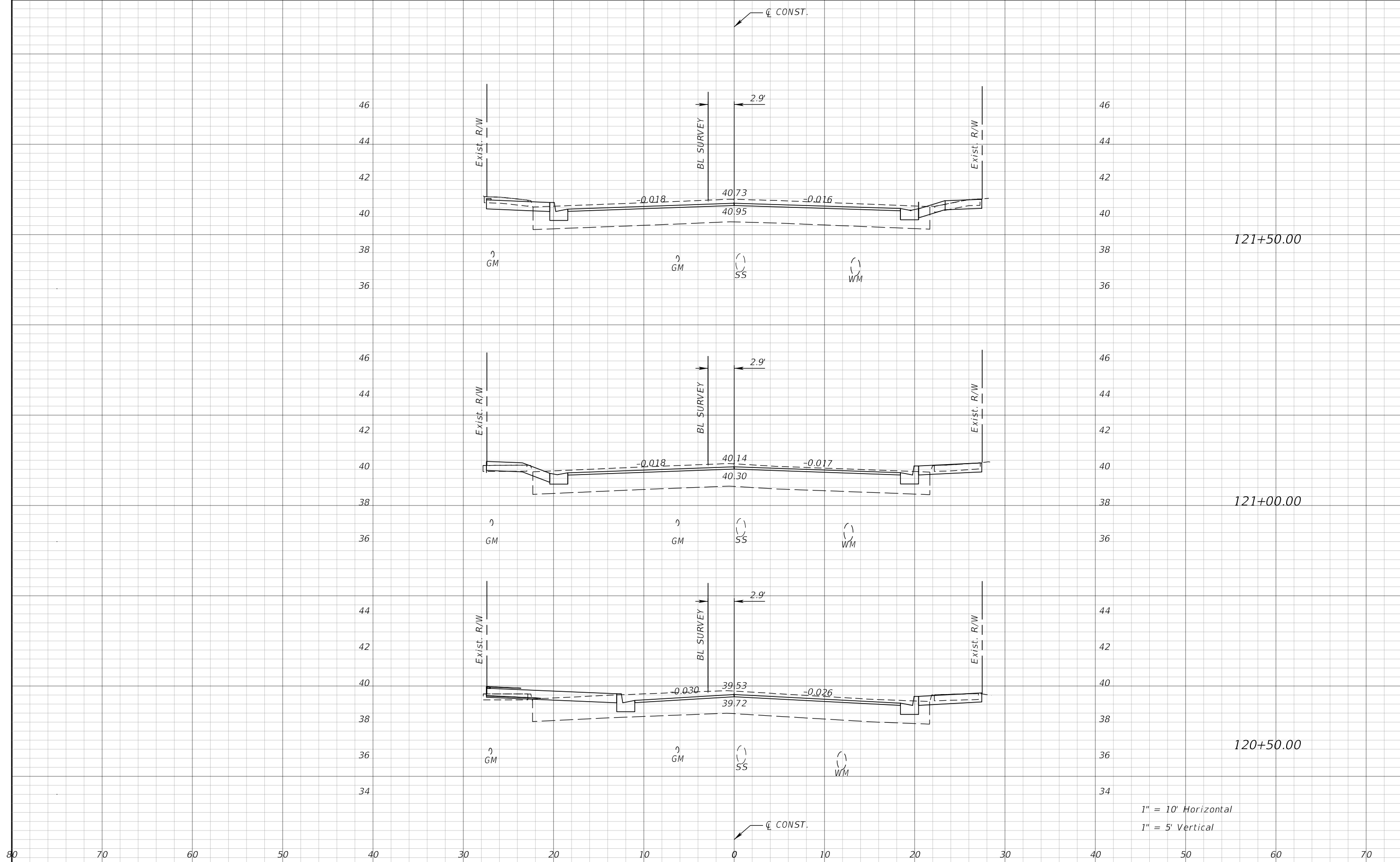
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1" = 10' Horizontal
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REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			CROSS SECTIONS SHEET NO. 80
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
				1001221	HILLSBOROUGH	436639-1-58-01		

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

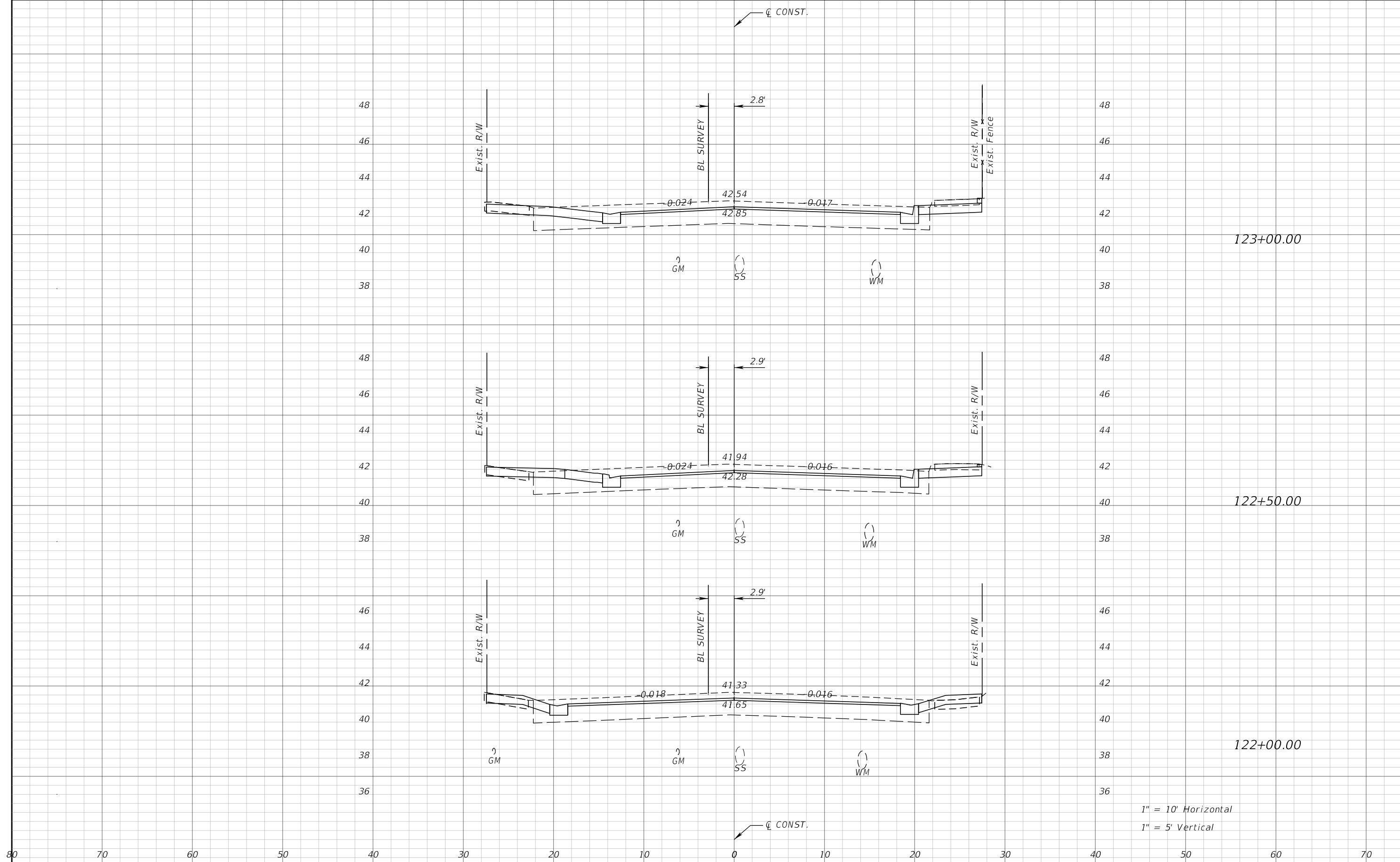
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
81

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1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
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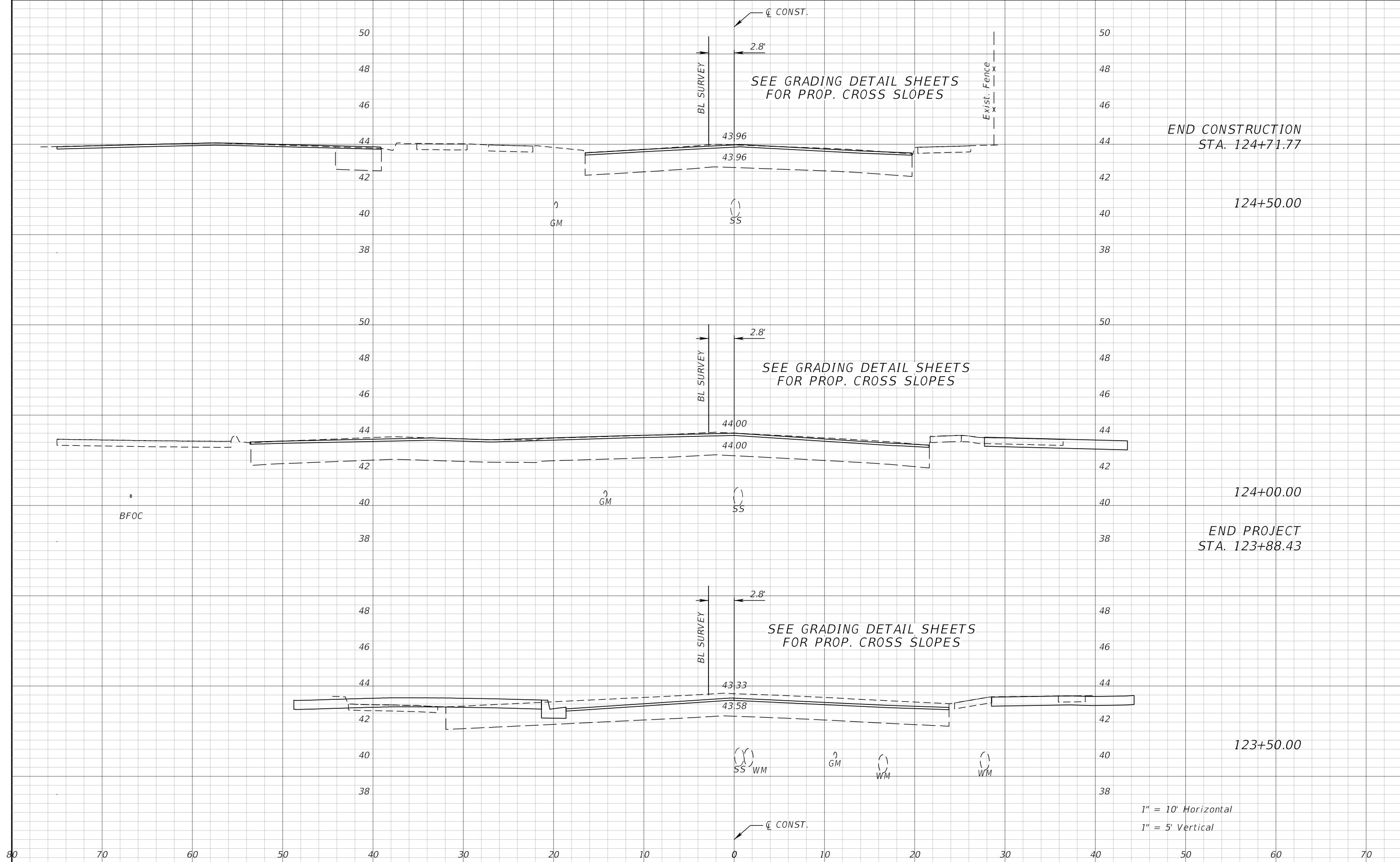
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
82

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1" = 10' Horizontal
1" = 5' Vertical

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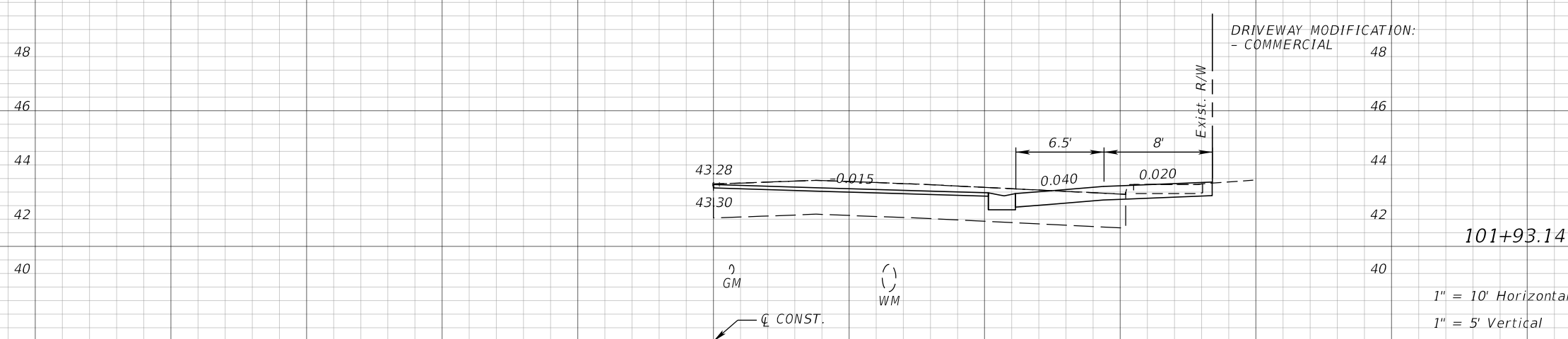
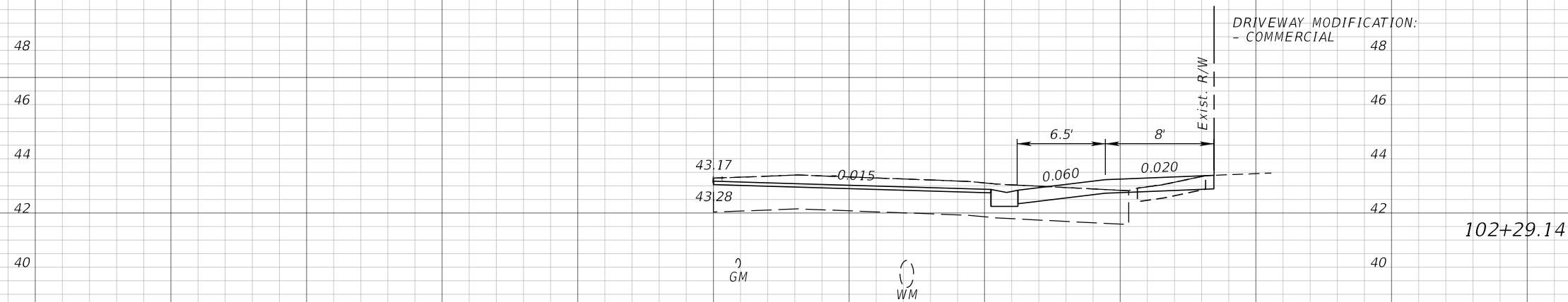
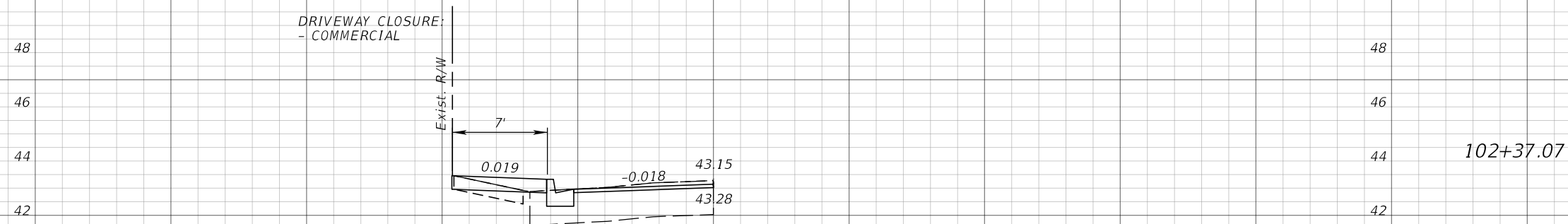
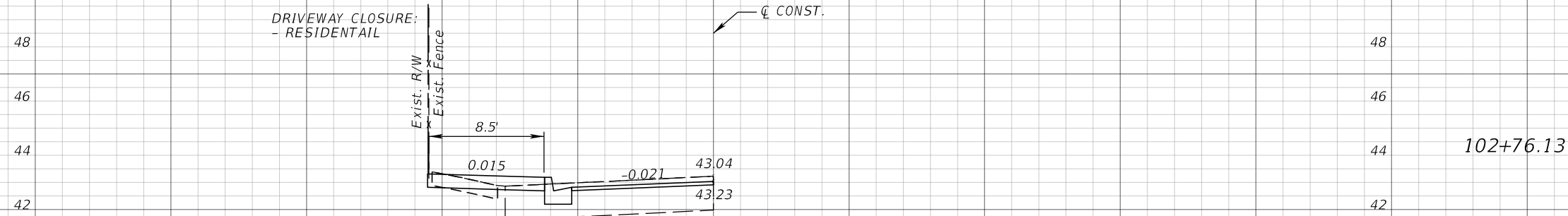
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

CROSS SECTIONS

SHEET NO.
83

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1" = 10' Horizontal
1" = 5' Vertical

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

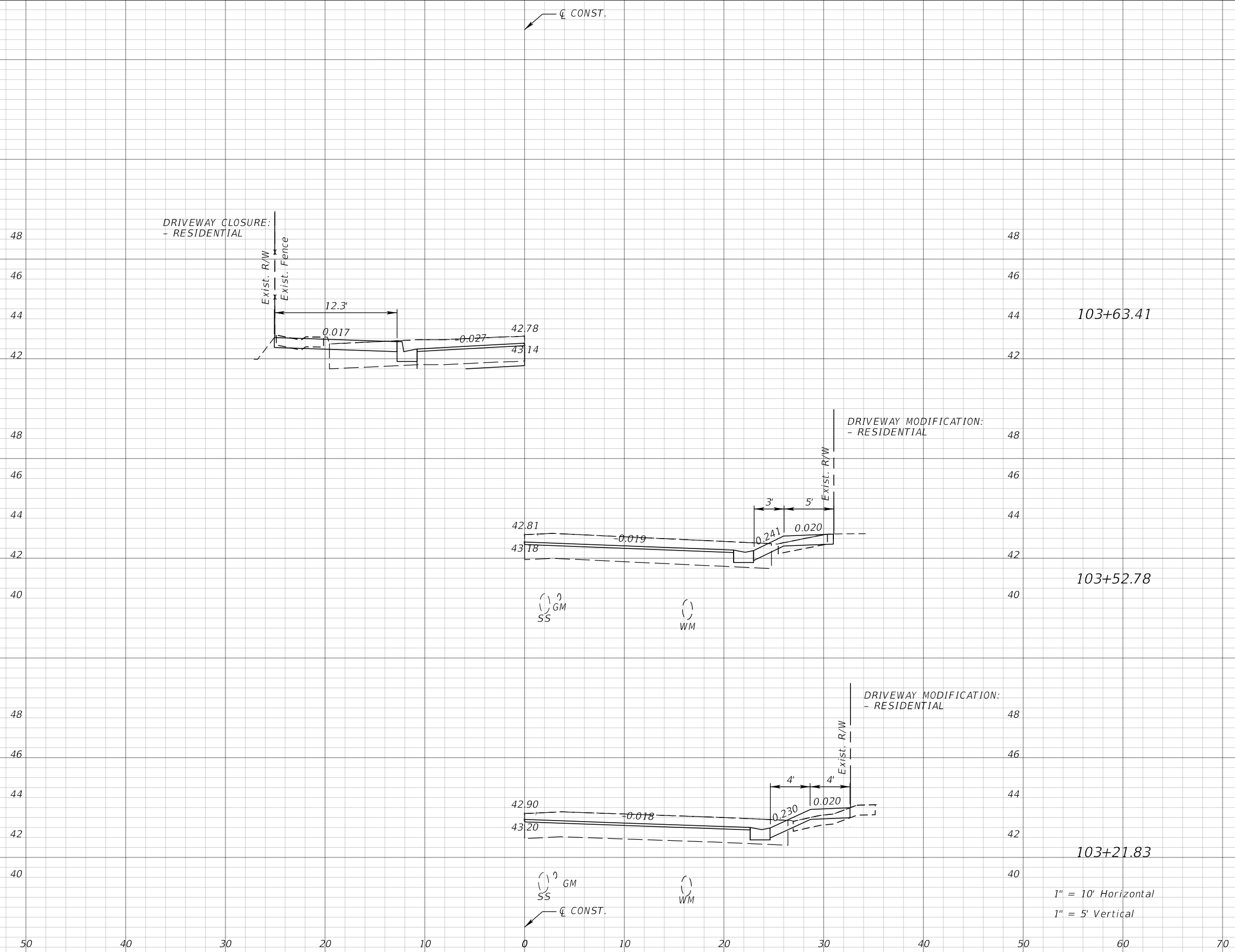
JEFFREY SIEWERT, P.E.
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8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
84

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103+63.41

103+52.78

103+21.83

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

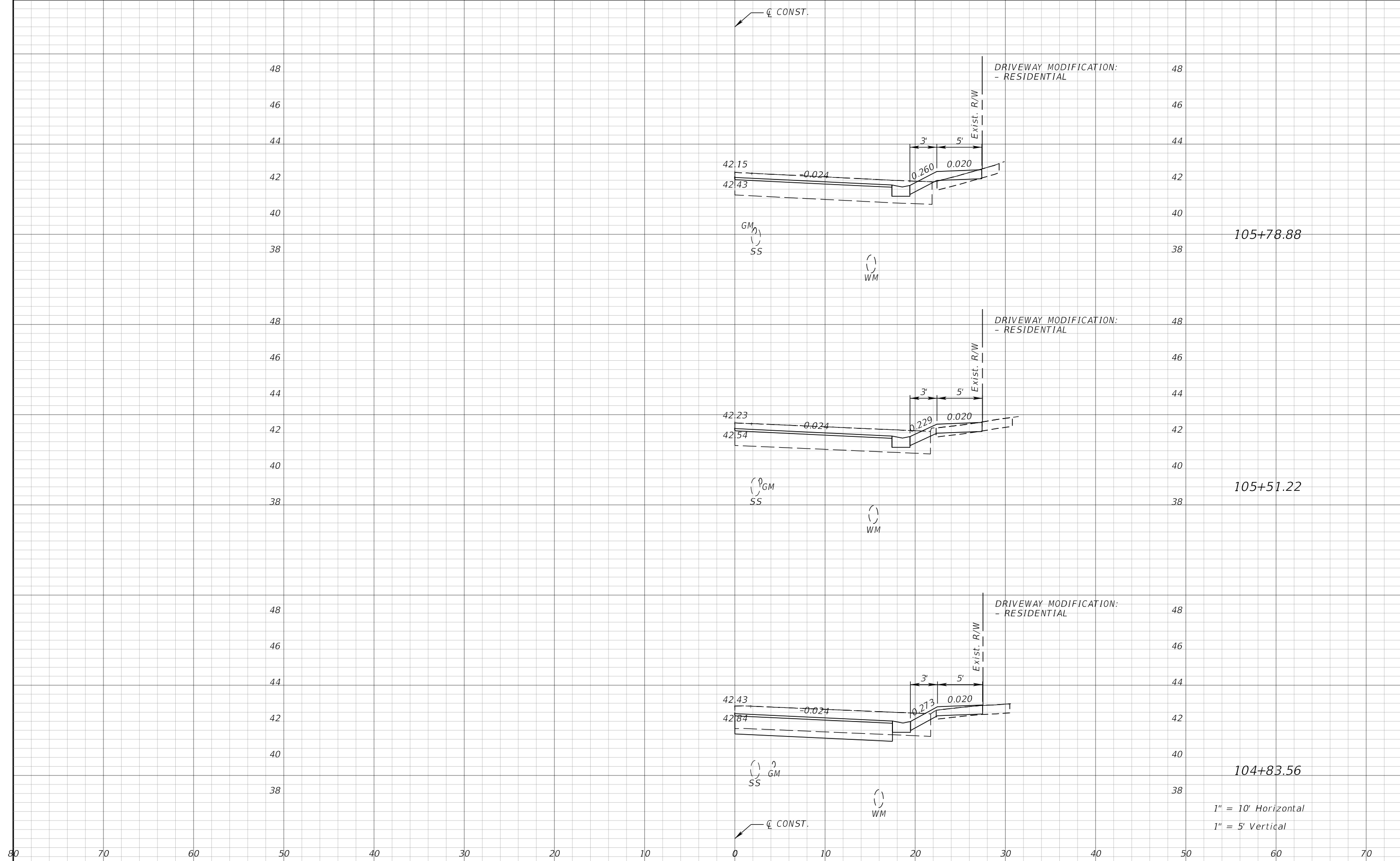
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
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TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
85

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1" = 10' Horizontal
 1" = 5' Vertical

REVISIONS			
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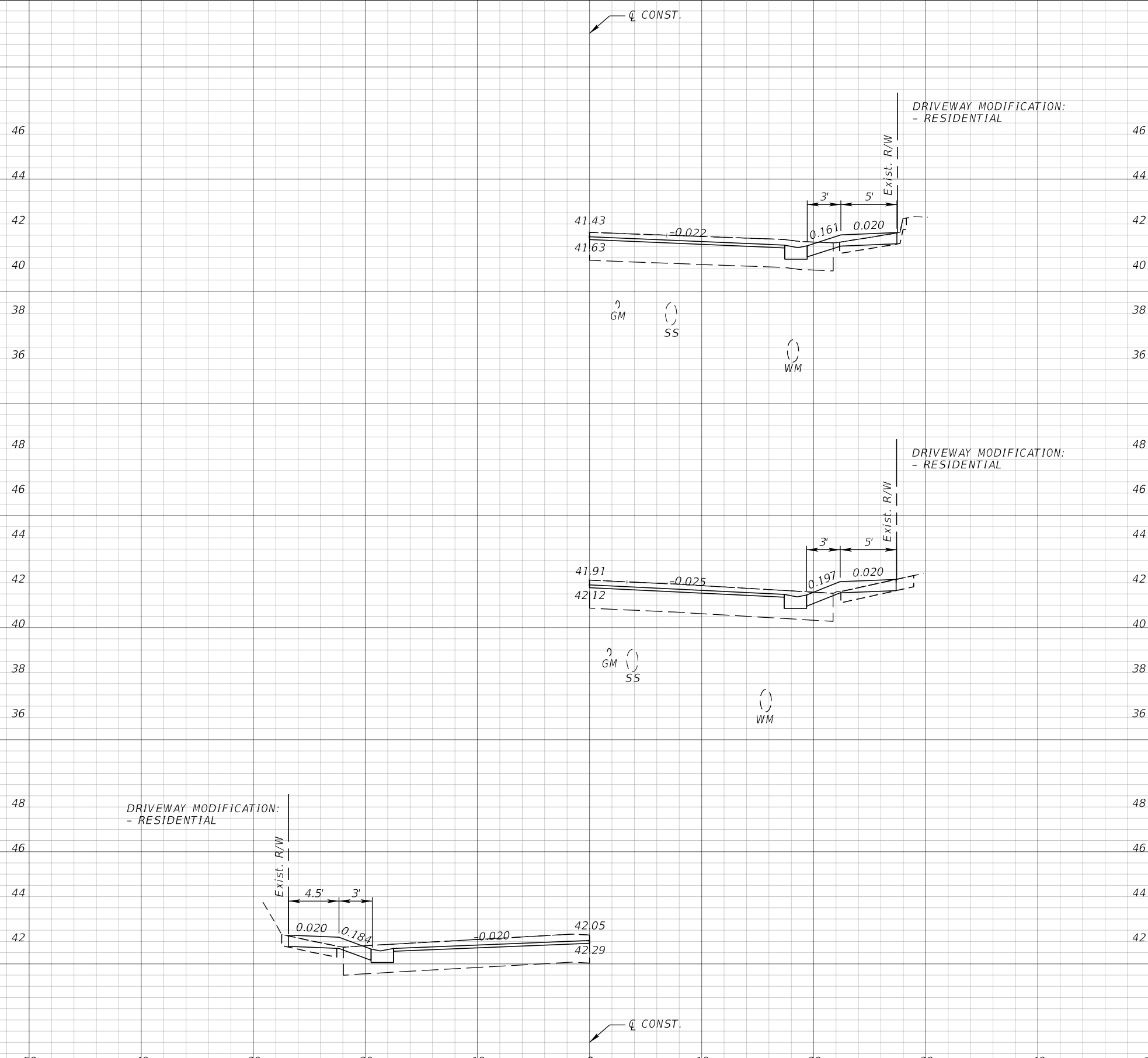
JEFFREY SIEWERT, P.E.
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
 86

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109+14.58

106+62.04

106+14.13

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
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TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

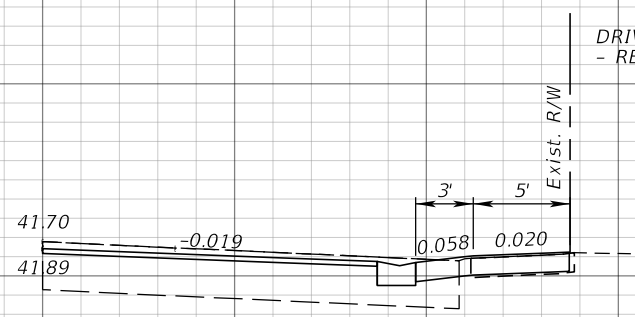
SHEET NO.
87

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

46
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Q CONST.

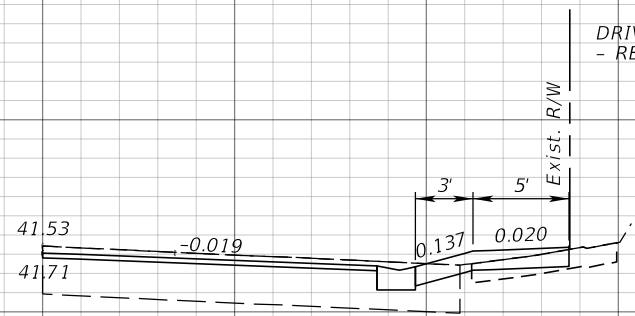
DRIVEWAY MODIFICATION:
- RESIDENTIAL



GM () SS () WM ()

110+51.40

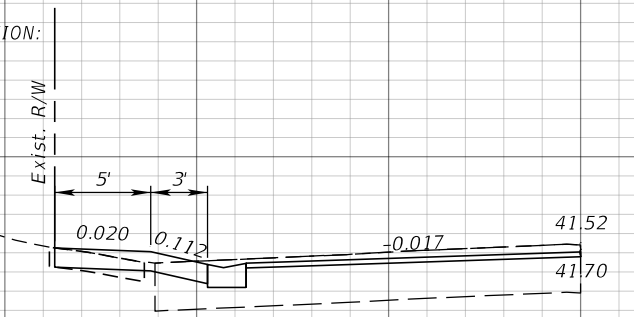
DRIVEWAY MODIFICATION:
- RESIDENTIAL



GM () SS () WM ()

109+64.49

DRIVEWAY MODIFICATION:
- RESIDENTIAL



GM

109+60.62

1" = 10' Horizontal
1" = 5' Vertical

Q CONST.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

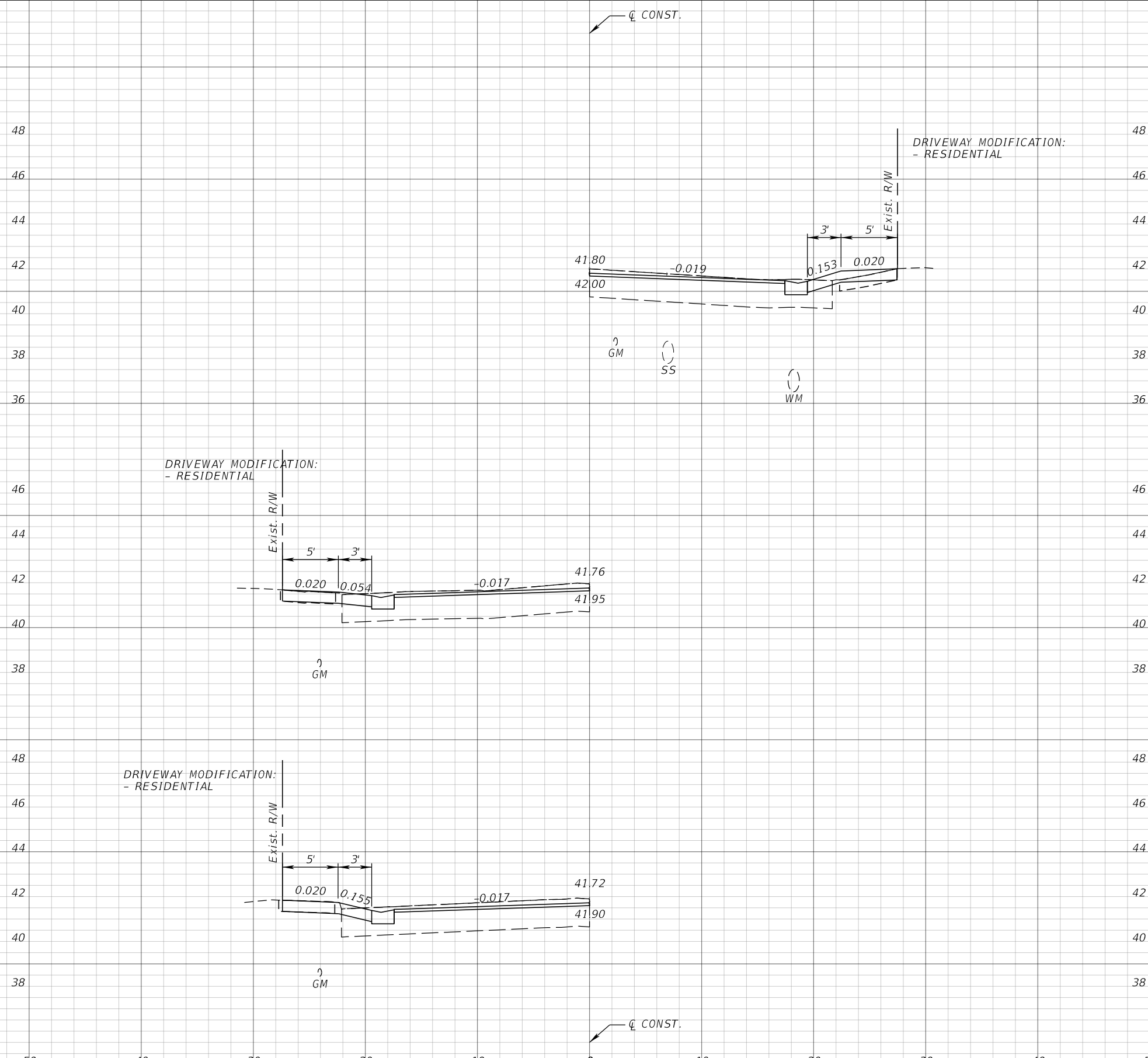
JEFFREY SIEWERT, P.E.
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
88

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111+01.05

110+80.18

110+60.18

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

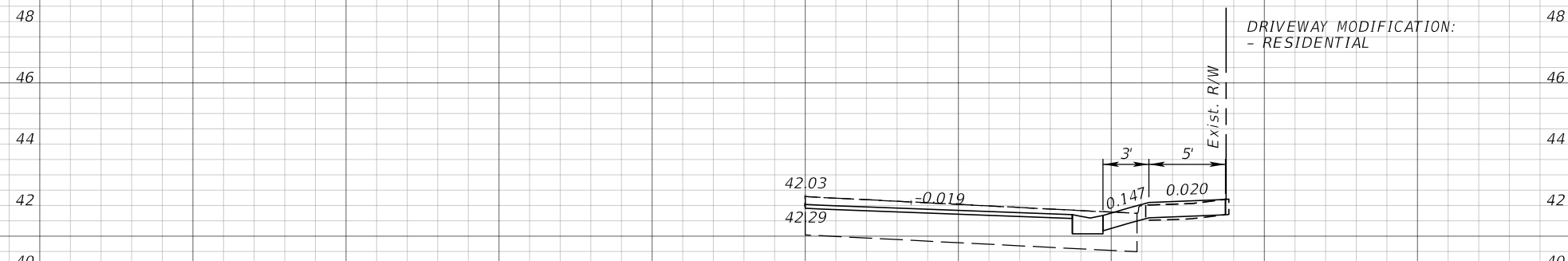
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
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CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
89

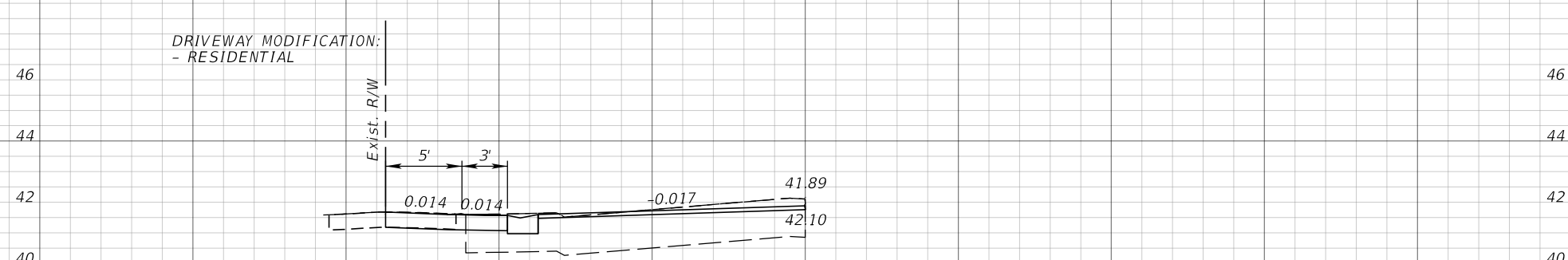
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112+14.68



111+43.88



111+43.41

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

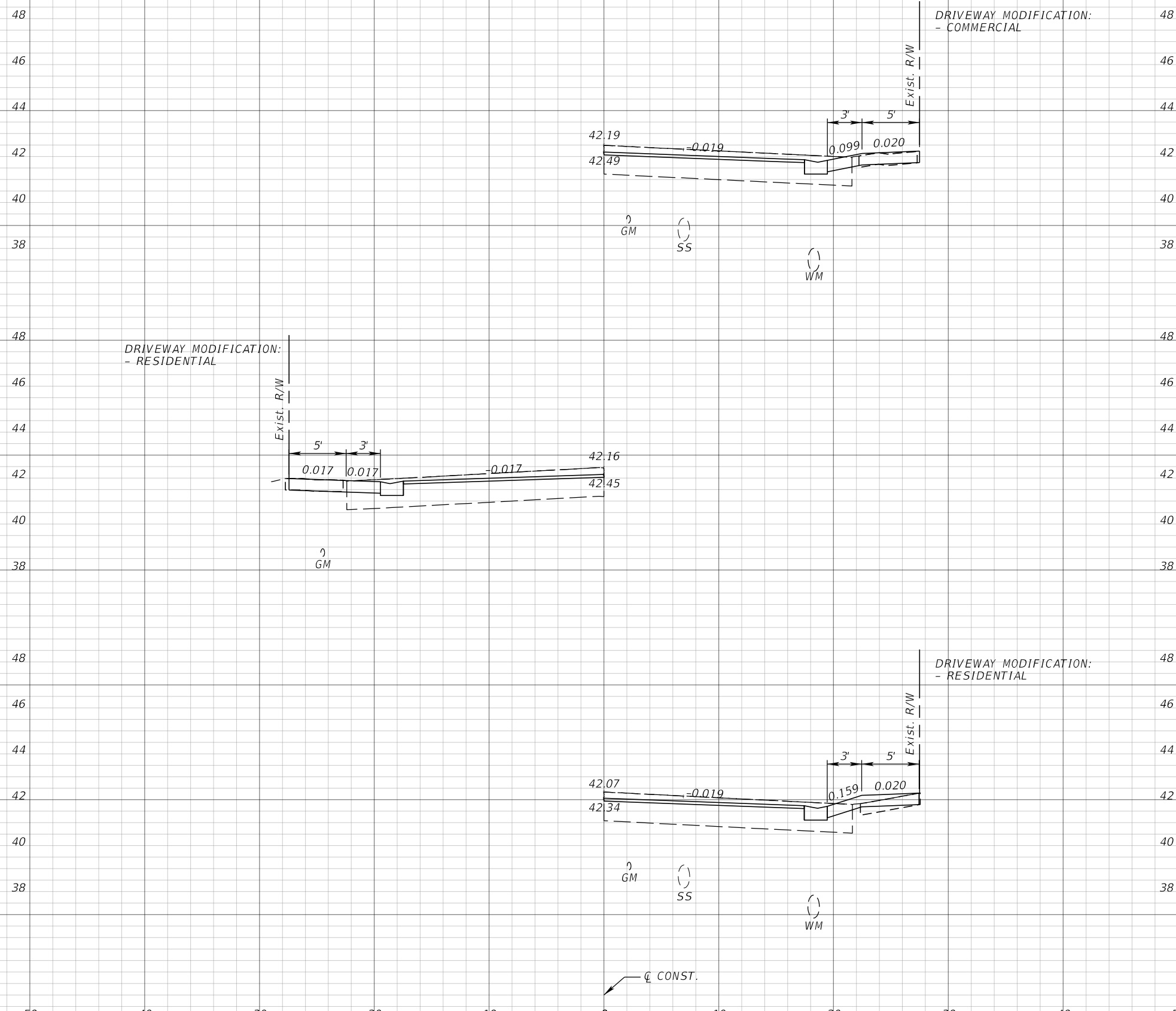
JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

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CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
90

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112+95.59

112+79.66

112+34.68

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REVISIONS			
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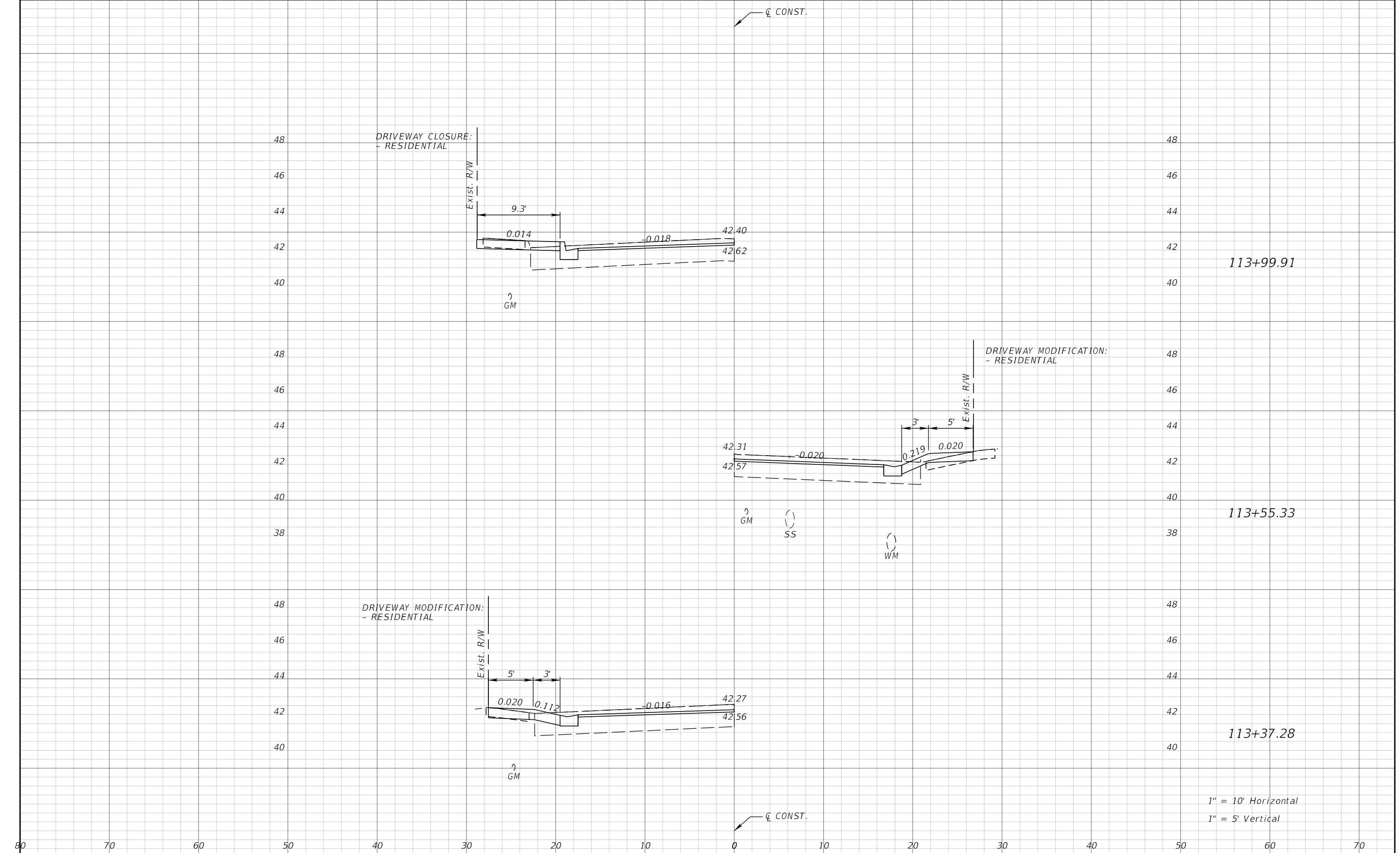
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1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
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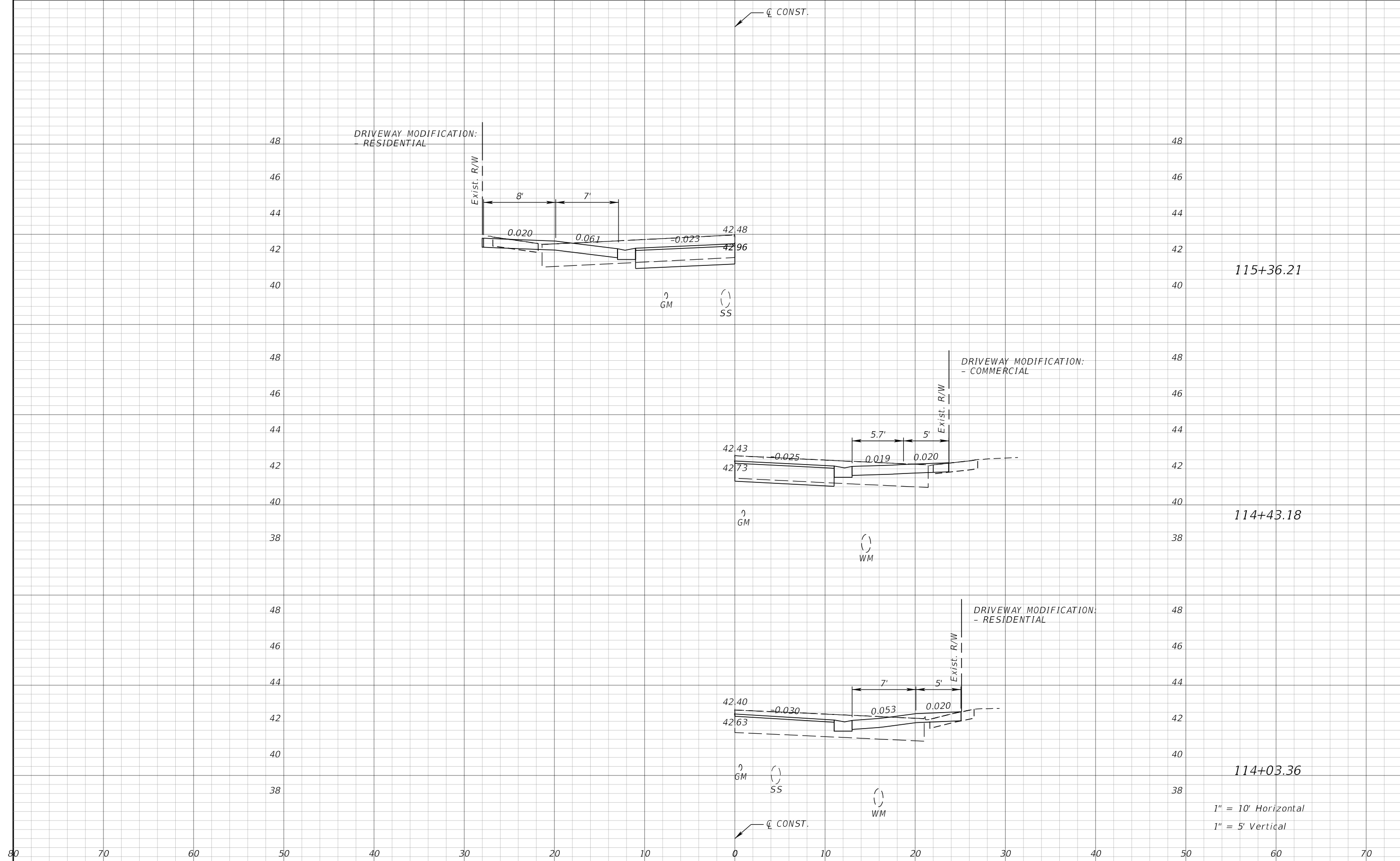
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DRIVEWAY HALF-SECTIONS

SHEET NO.
92

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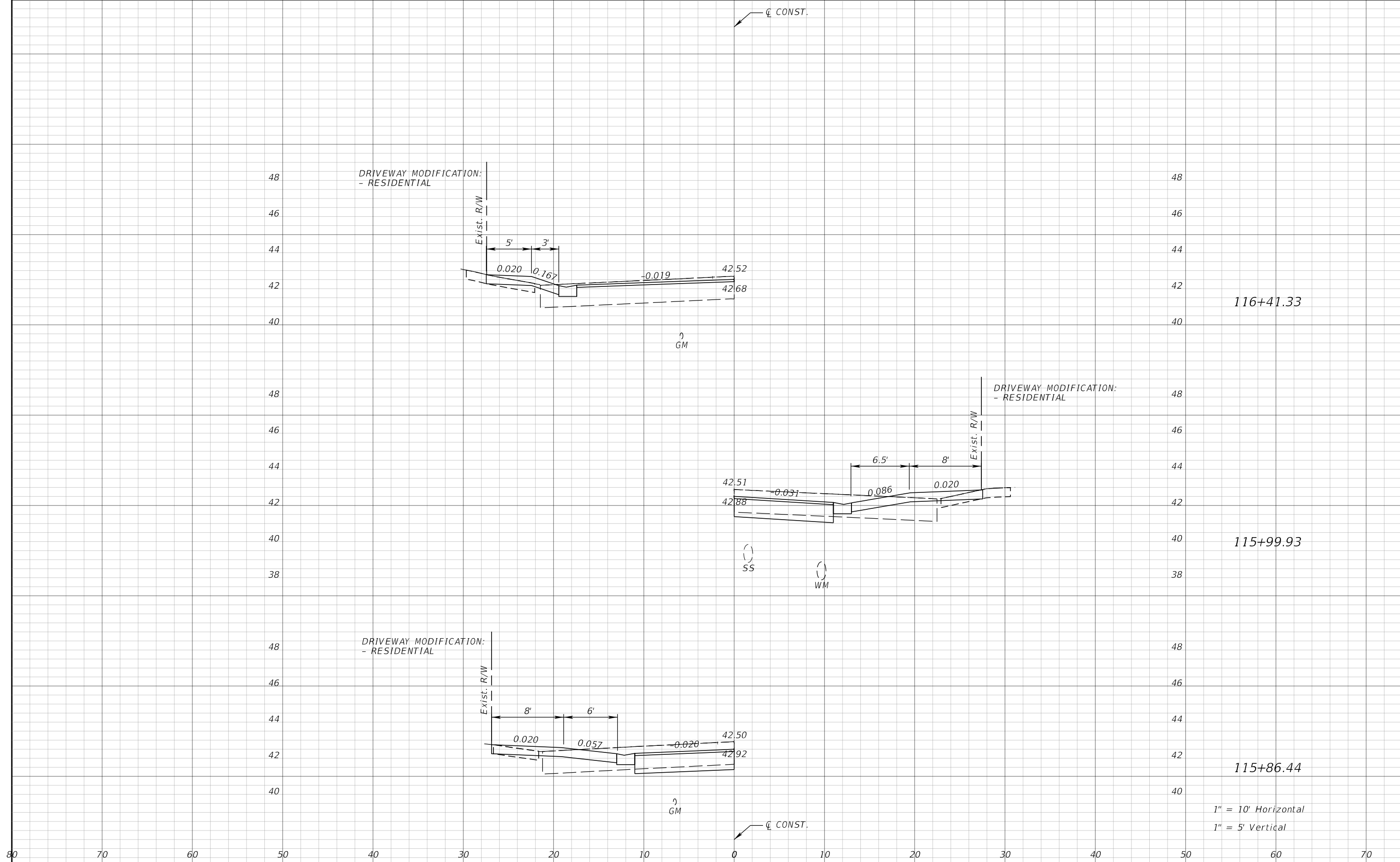
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1001221	HILLSBOROUGH	436639-1-58-01

DRIVEWAY HALF-SECTIONS

SHEET NO.
93

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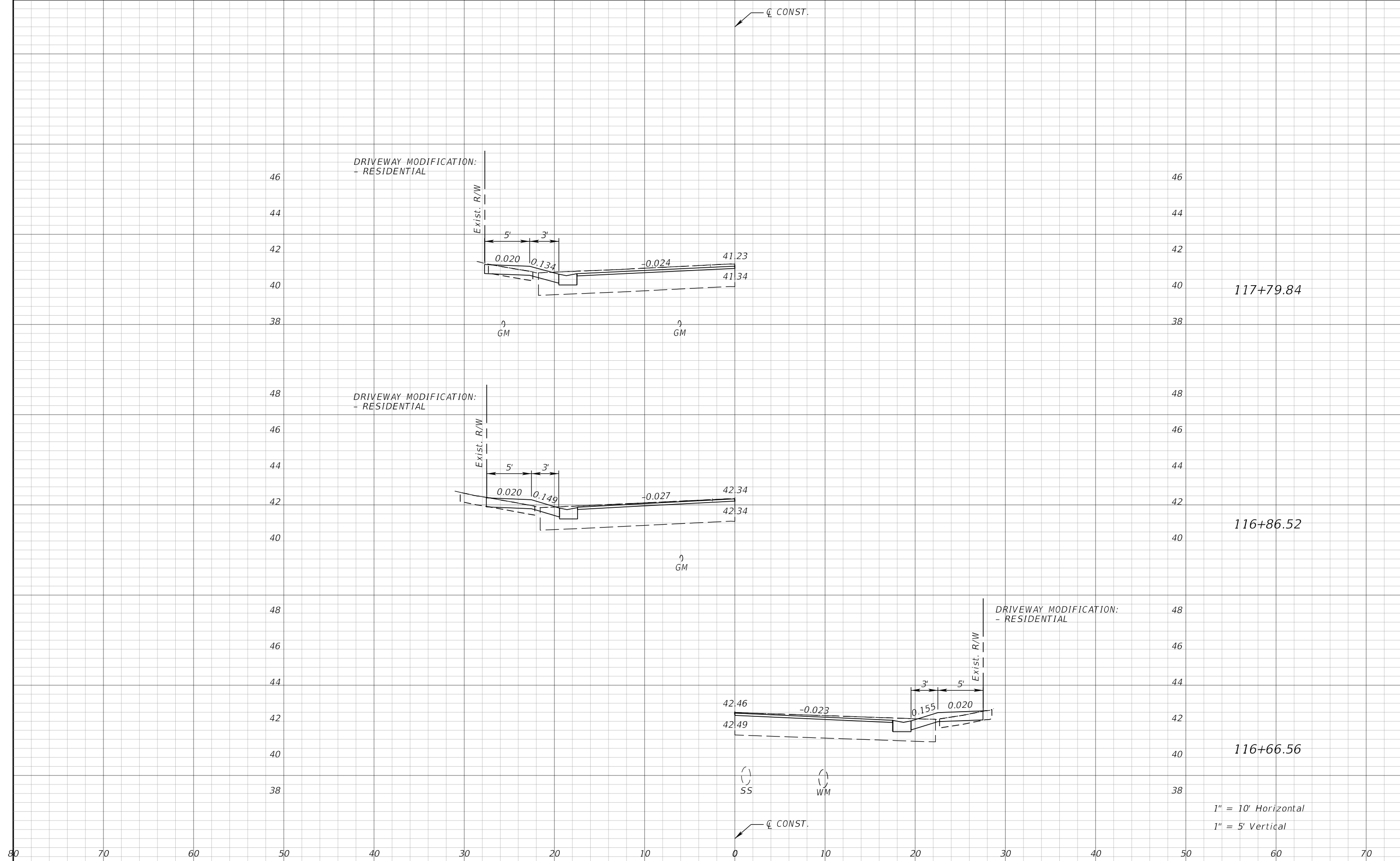
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DRIVEWAY HALF-SECTIONS

SHEET NO.
94

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117+79.84

116+86.52

116+66.56

1" = 10' Horizontal
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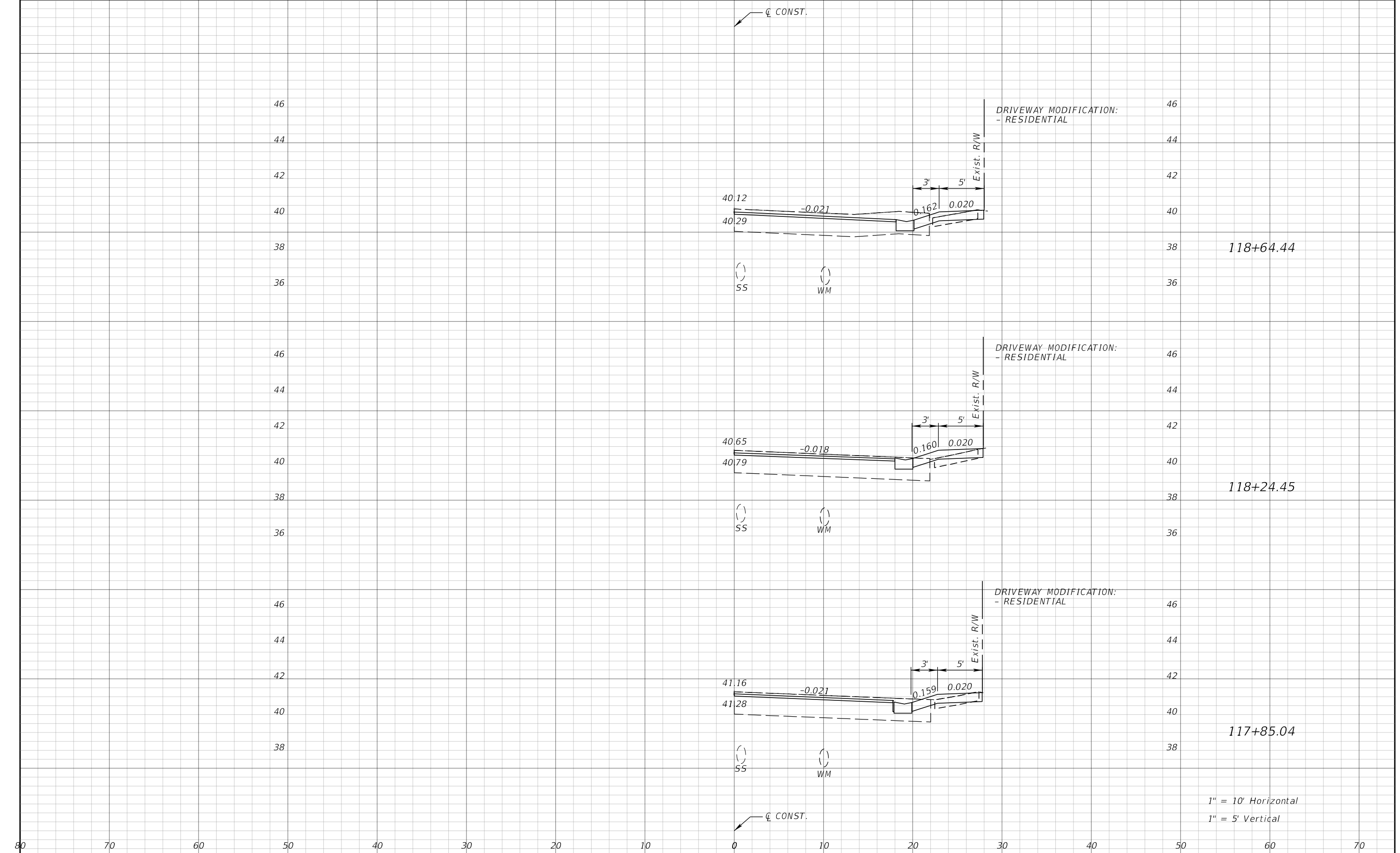
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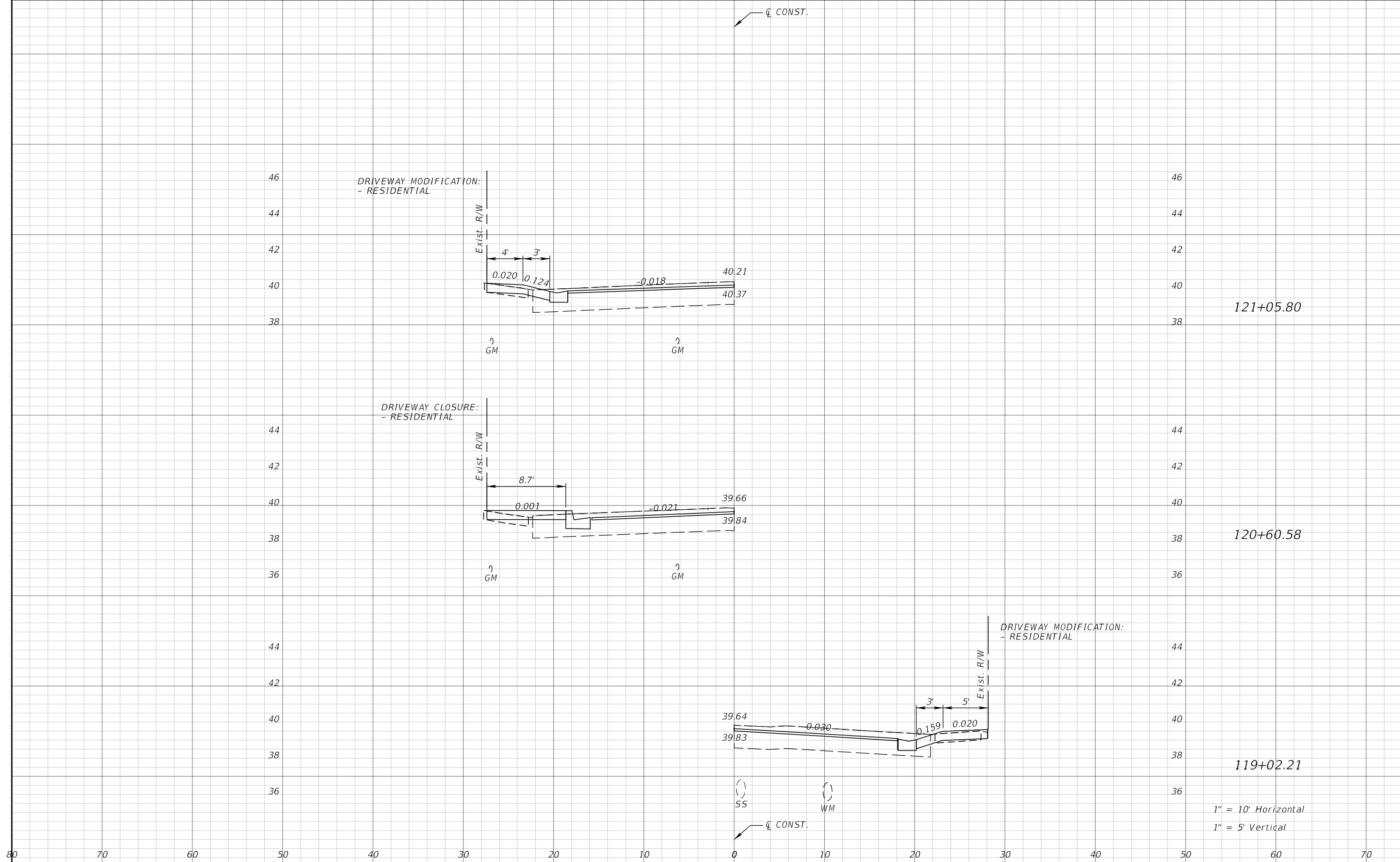
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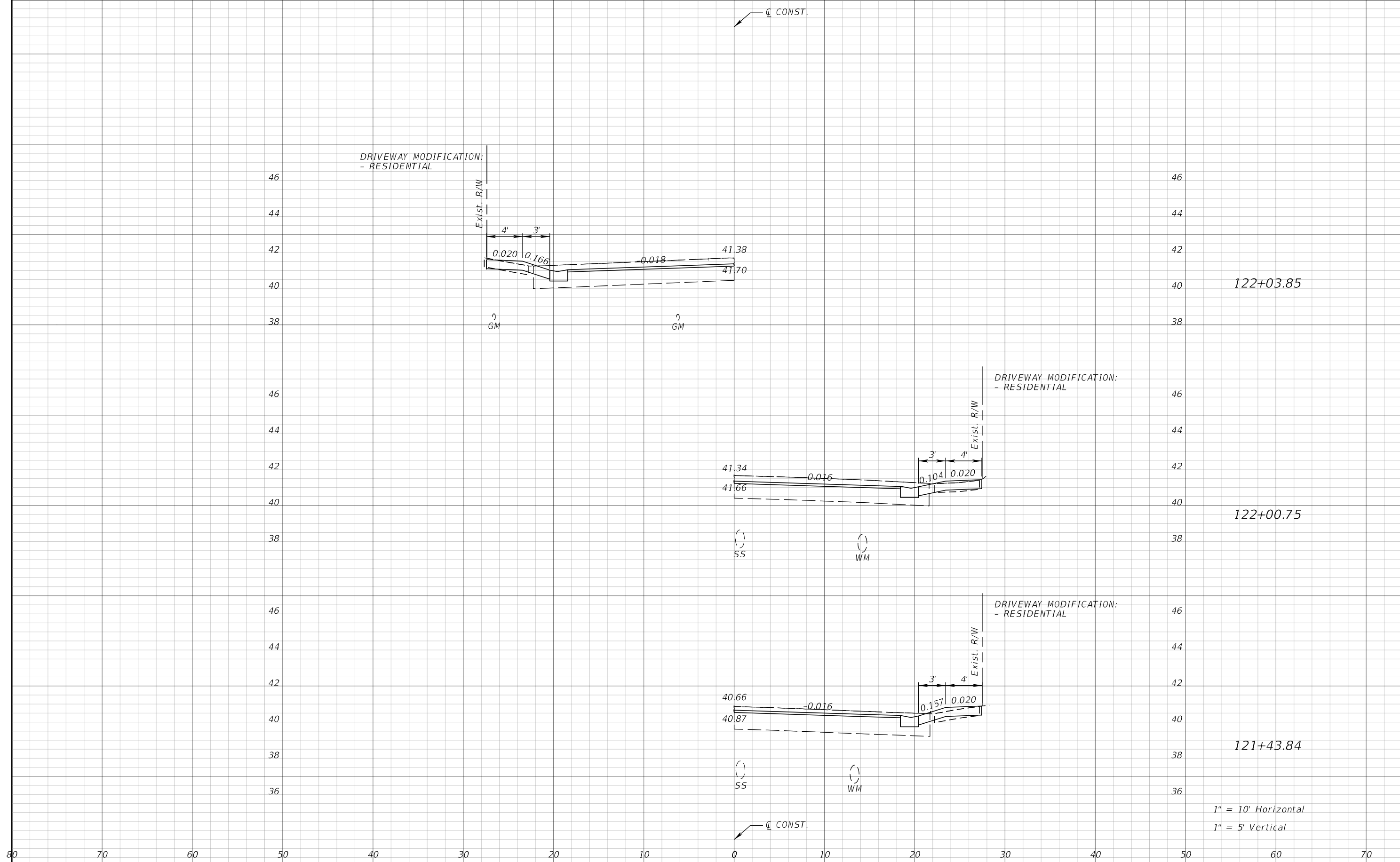
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DRIVEWAY HALF-SECTIONS

SHEET NO.
97

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122+03.85

122+00.75

121+43.84

1" = 10' Horizontal
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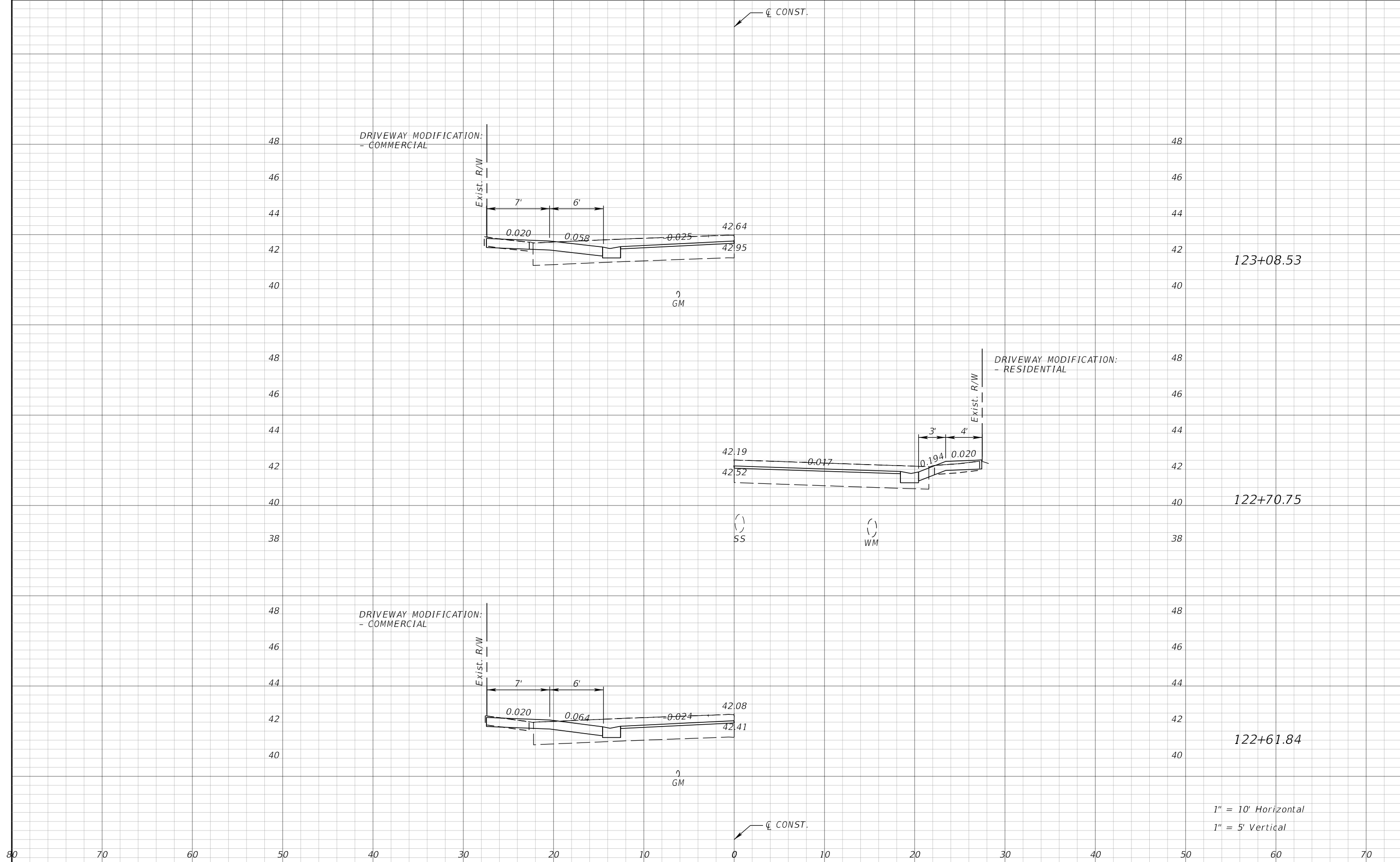
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DRIVEWAY HALF-SECTIONS

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TEMPORARY TRAFFIC CONTROL PLAN - NOTES

GENERAL

- FOR GENERAL TRAFFIC CONTROL ZONE REQUIREMENTS AND ADDITIONAL INFORMATION, REFER TO STANDARD PLANS INDEX, 102-600 SERIES. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH INDEX NO. 102-600 SERIES UNLESS OTHERWISE NOTED.
- THE EXACT LOCATION OF ALL SIGNS AND BARRICADES SHALL BE DETERMINED IN THE FIELD TO MEET THE STANDARD PLANS INDEX 102-600.
- TEMPORARY REFLECTIVE PAVEMENT MARKERS SHALL BE PROVIDED WITH TEMPORARY STRIPING IN ACCORDANCE WITH INDEXES 102-600 AND 706-001.
- ALL EXISTING PAVEMENT MARKINGS OUTSIDE OF THE CONSTRUCTION LIMITS THAT ARE REMOVED FOR TRAFFIC CONTROL PURPOSES ARE TO BE REPLACED IN-KIND UPON COMPLETION OF THE TRAFFIC CONTROL PURPOSE WHICH CAUSED ITS REMOVAL.
- THROUGHOUT THE MILLING & RESURFACING OPERATIONS, USE A SELF-CONTAINED VACUUM TYPE MOBILE BROOM, OR EQUIVALENT, FOR CLEANUP OF MILLED DUST MATERIAL.
- ENSURE THAT STREET NAME SIGNS ARE VISIBLE TO FACILITATE EMERGENCY VEHICLE TRAFFIC.
- THERE WILL BE NO PAVEMENT MARKING ERADICATION PERMITTED AFTER THE FINAL ASPHALT COURSE IS PLACED. ANY EXISTING ROADWAYS THAT HAVE TEMPORARY STRIPING ERADICATED SHALL HAVE THE FULL WIDTH OF THE EXISTING TOP PAVEMENT COURSE MILLED AND RESURFACED PRIOR TO FINAL ACCEPTANCE.

PEDESTRIANS

- PEDESTRIAN FACILITIES SHALL BE MAINTAINED AND SHALL CONFORM TO ADA REQUIREMENTS.
- THROUGHOUT THE PROJECT LIMITS WHERE SIDEWALKS CURRENTLY EXIST, PEDESTRIAN TRAFFIC SHALL BE MAINTAINED ON AT LEAST ONE SIDE OF EACH ROADWAY ON THE PROJECT AT ALL TIMES, USING 102-660. THE SIDEWALK TRAVEL WAY SHALL BE A MINIMUM OF 4-FT WIDE, WITH A PAVED SURFACE, RAMPED AS PER INDEX 522-002. TEMPORARY ASPHALT MAY BE USED FOR THE PAVED SURFACE AND SHALL BE PAID FOR UNDER LUMP SUM MAINTENANCE OF TRAFFIC, PAY ITEM 102-1. ENSURE THAT A SAFE AND UNOBSTRUCTED ROUTE EXISTS FOR PEDESTRIANS, INCLUDING AT BUS STOP LOCATIONS. REFER TO STANDARD PLANS INDEX 102-660.
- ASPHALT MILLINGS ARE NOT ALLOWED FOR TEMPORARY SIDEWALK.

SIGNALS, SIGNING & MARKING

- ALL EXISTING WARNING, GUIDE, AND REGULATORY SIGNS SHALL BE MAINTAINED AT ALL TIMES. SIGNS SHALL BE RELOCATED, REMOVED OR COVERED FOR EACH PHASE'S TRAFFIC PATTERN.
- ALL EXISTING TRAFFIC SIGNALS SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. IN CASES WHERE THE SIGNAL IS TO BE REMOVED IN THE FINAL PLANS, THE SIGNAL SHALL BE MAINTAINED UNTIL THE INTERSECTION IS IN ITS FINAL CONFIGURATION AS SHOWN IN THE TRAFFIC CONTROL PLANS.
- ALL EXISTING SIGNS TO REMAIN, UNLESS NOTED OTHERWISE.

LANE CLOSURES / DETOURS

- IN ACCORDANCE WITH FDOT SPECIFICATION 8-8.4, SPECIAL EVENT DAYS FOR THIS PROJECT INCLUDE:
 - ALL EVENTS AT THE AMALIE ARENA WITH AN ANTICIPATED CROWD OF 15,000 ATTENDEES OR HIGHER
 - ALL EVENTS IN DOWNTOWN TAMPA OR BAYSHORE BLVD (TAMPA) WITH AN ANTICIPATED CROWD OF 20,000 ATTENDEES OR HIGHER
 - ALL EVENTS IN YBOR CITY OR WITH AN ANTICIPATED CROWD OF 20,000 ATTENDEES OR HIGHER

NO DETOUR SHALL BE ACTIVE DURING ANY OF THESE LISTED EVENTS.

- PLACE A PCMS 7 DAYS IN ADVANCE OF ANY CLOSURES, TRAFFIC SHIFTS, OR DETOUR NOTIFYING THE PUBLIC OF THE UPCOMING EVENT.

MESSAGE 1: ROADWORK
WORKON
COLUMBUS

MESSAGE 2: BEGIN
MM/DD
CCCC

- COORDINATE ALL WORK, ALL LANE CLOSURES, AND ALL TEMPORARY TRAFFIC CONTROL WITH ANY OTHER PROJECTS IN THE VICINITY.
- THE DETOURS ILLUSTRATED IN THE DETOUR SHEETS SHOULD BE APPLIED IN ALL INSTANCES.
- ACCESSABILITY TO LOCAL TRAFFIC TO BE MAINTAINED AT ALL TIMES.
- TRAFFIC SHIFT SET UPS AND BREAK DOWNS, ROADWAY STRIPING AND MARKING SHALL BE DONE DURING THE NIGHT HOURS OF 9 PM TO 6 AM.
- NO LANE CLOSURES ALLOWED ON NEBRASKA AVENUE FROM 6 AM TO 9:30 PM.

TTCP GENERAL NOTES

PHASE 1 - MILL ALONG E COLUMBUS DR FROM N NEBRASKA AVE TO N 14TH ST

THE INTENT OF THIS PHASE IS TO SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE EXISTING EASTBOUND LANE. THIS WILL ALLOW FOR MILLING OF THE WESTBOUND LANE. AFTERWARDS SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE NEWLY MILLED WESTBOUND LANE. THIS WILL ALLOW FOR MILLING OF THE EASTBOUND LANE. REPEAT THIS PROCESS UNTIL EXISTING ASPHALT HAS BEEN MILLED 1.5" BELOW FINAL SURFACE GRADE. PLACE TEMPORARY PAVEMENT IN AREAS OF EXPOSED EXISTING BASE.

- INSTALL TRAFFIC CONTROL DEVICES AND SIGNING IN ACCORDANCE WITH STANDARD PLAN INDICES 102-603 AND 102-605.
- MILL EXISTING OVERLAYED ASPHALT AT 1.5" INCREMENTS UNTIL EXISTING PAVEMENT IS 1.5" BELOW FINAL SURFACE GRADE.

CONCURRENT WORK:

- INSTALL EROSION CONTROL DEVICES.

PHASE 2 - RECONSTRUCTION ALONG E COLUMBUS DR FROM N NEBRASKA AVE TO N 14TH ST

THE INTENT OF THIS PHASE IS TO SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE EXISTING EASTBOUND LANE. THIS WILL ALLOW FOR RECONSTRUCTION OF THE WESTBOUND LANE. AFTERWARDS SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE NEWLY RECONSTRUCTED WESTBOUND LANE. THIS WILL ALLOW FOR RECONSTRUCTION OF THE EASTBOUND LANE. IN AREAS WHERE PROPOSED CURB AND SIDEWALK WILL BE INSTALLED, USE TEMPORARY PAVEMENT UNTIL PHASE 3 IS COMPLETED.

- INSTALL TRAFFIC CONTROL DEVICES AND SIGNING IN ACCORDANCE WITH STANDARD PLAN INDICES 102-603 AND 102-605.
- INSTALL LOW PROFILE BARRIERS PER STANDARD PLAN INDEX 102-120.

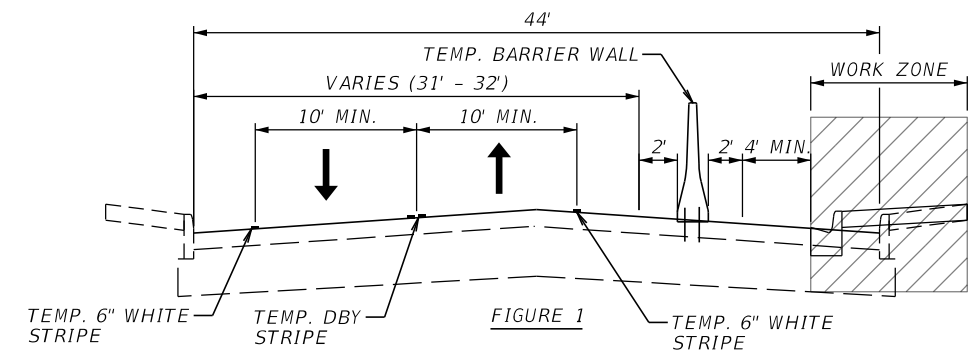
PHASE 3 - SIDEWALK CONSTRUCTION ALONG E COLUMBUS DR FROM N NEBRASKA AVE TO N 14TH ST

THE INTENT OF THIS PHASE IS TO SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE NEWLY MILLED EASTBOUND LANE. THIS WILL ALLOW FOR THE INSTALLATION OF TEMPORARY BARRIER WALLS (SEE FIGURE 1 BELOW) TO ACCOMMODATE PEDESTRIAN ACCESS DURING THE CONSTRUCTION OF NEW SIDEWALK AND CURB AND GUTTER. AFTERWARDS SHIFT THE EASTBOUND AND WESTBOUND TRAFFIC TO THE EASTBOUND LANE. THIS WILL ALLOW FOR THE CONSTRUCTION OF NEW SIDEWALK AND CURB AND GUTTER ALONG THE NORTH SIDE OF THE ROADWAY. MAINTAIN PEDESTRIAN ACCESS AND HART BUS STOP LOCATIONS AT ALL TIMES.

- INSTALL TRAFFIC CONTROL DEVICES AND SIGNING IN ACCORDANCE WITH STANDARD PLAN INDICES 102-603 AND 102-605.
- CONSTRUCT CURB & GUTTER, SIGNALIZATION, SIGNING, AND DRAINAGE IMPROVEMENTS WITHIN WORK ZONE.

CONCURRENT WORK:

- SIGN CONSTRUCTION.



PHASE 4 - RESURFACE ALONG E COLUMBUS DRIVE FROM NEBRASKA AVE TO N 14TH ST

THE INTENT OF THIS PHASE IS TO SHIFT EASTBOUND AND WESTBOUND TRAFFIC TO THE EXISTING EASTBOUND LANE. THIS WILL ALLOW FOR FINAL RESURFACING OF THE WESTBOUND LANE. AFTERWARDS SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC TO THE NEWLY RESURFACED WESTBOUND LANE. THIS WILL ALLOW FOR FINAL RESURFACING OF THE EASTBOUND LANE.

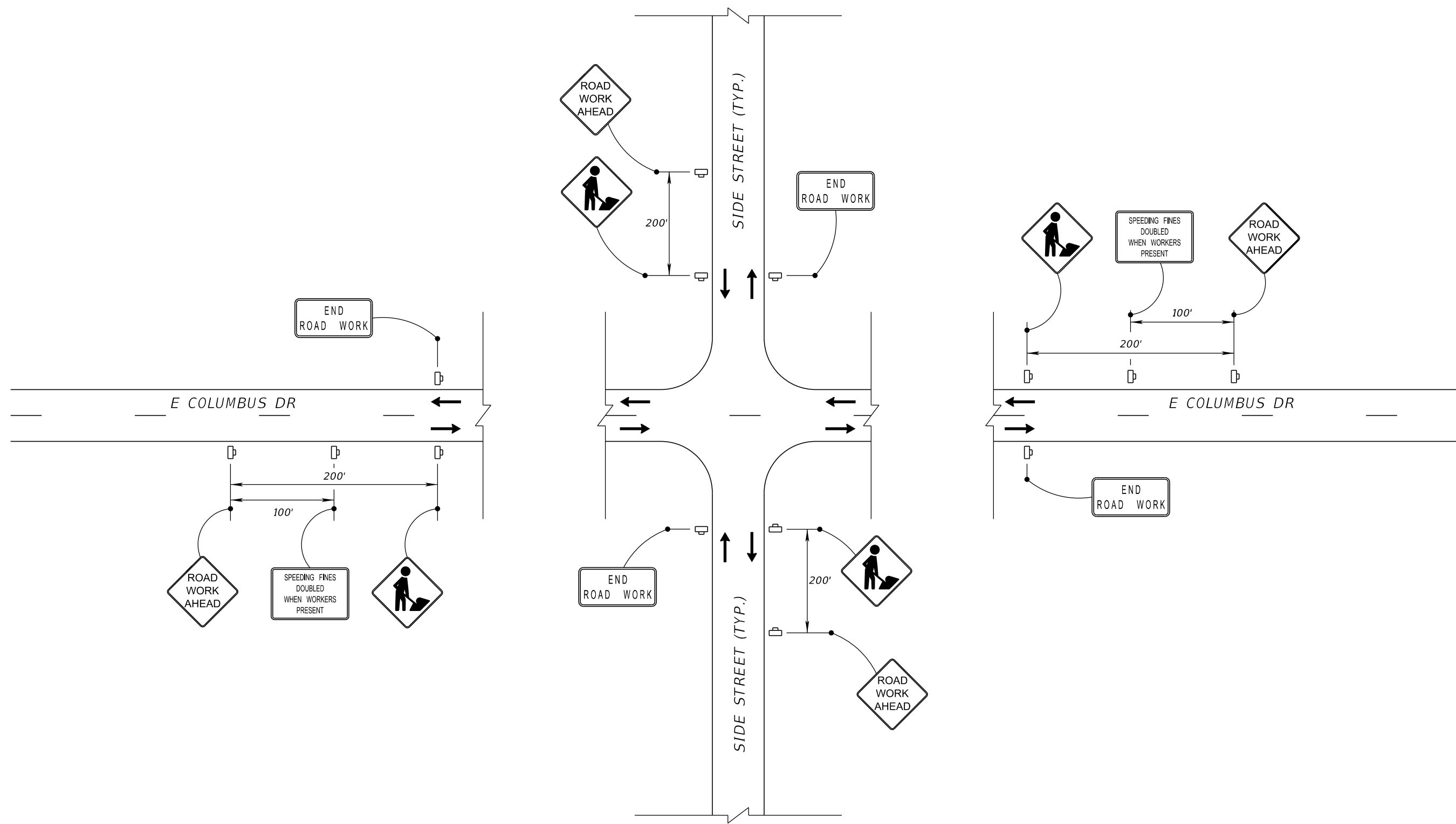
- INSTALL TRAFFIC CONTROL DEVICES, CONFIGURE ONE-LANE TWO-WAY SETUP, AND SIGNING IN ACCORDANCE WITH STANDARD PLAN INDEX 102-603 AND 102-605.
- RESURFACE TO PROPOSED PROFILE GRADE LINE AND CROSS SLOPES.
- INSTALL PAINTED PAVEMENT MARKINGS AS SHOWN IN THE SIGNING AND PAVEMENT MARKING PLANS.

CONCURRENT WORK:

- CONSTRUCT CONCRETE PATTERNED CROSSWALKS.

TTCP PHASING NOTES

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			TEMPORARY TRAFFIC CONTROL PLANS (1)	SHEET NO. 100
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		



N 46TH ST ADVANCE WARNING LAYOUT DETAIL
N.T.S.

ADVANCE WARNING
DETAIL LAYOUT

LEGEND			
→ LANE IDENTIFICATION AND DIRECTION OF TRAFFIC			
□ WORK ZONE SIGN			

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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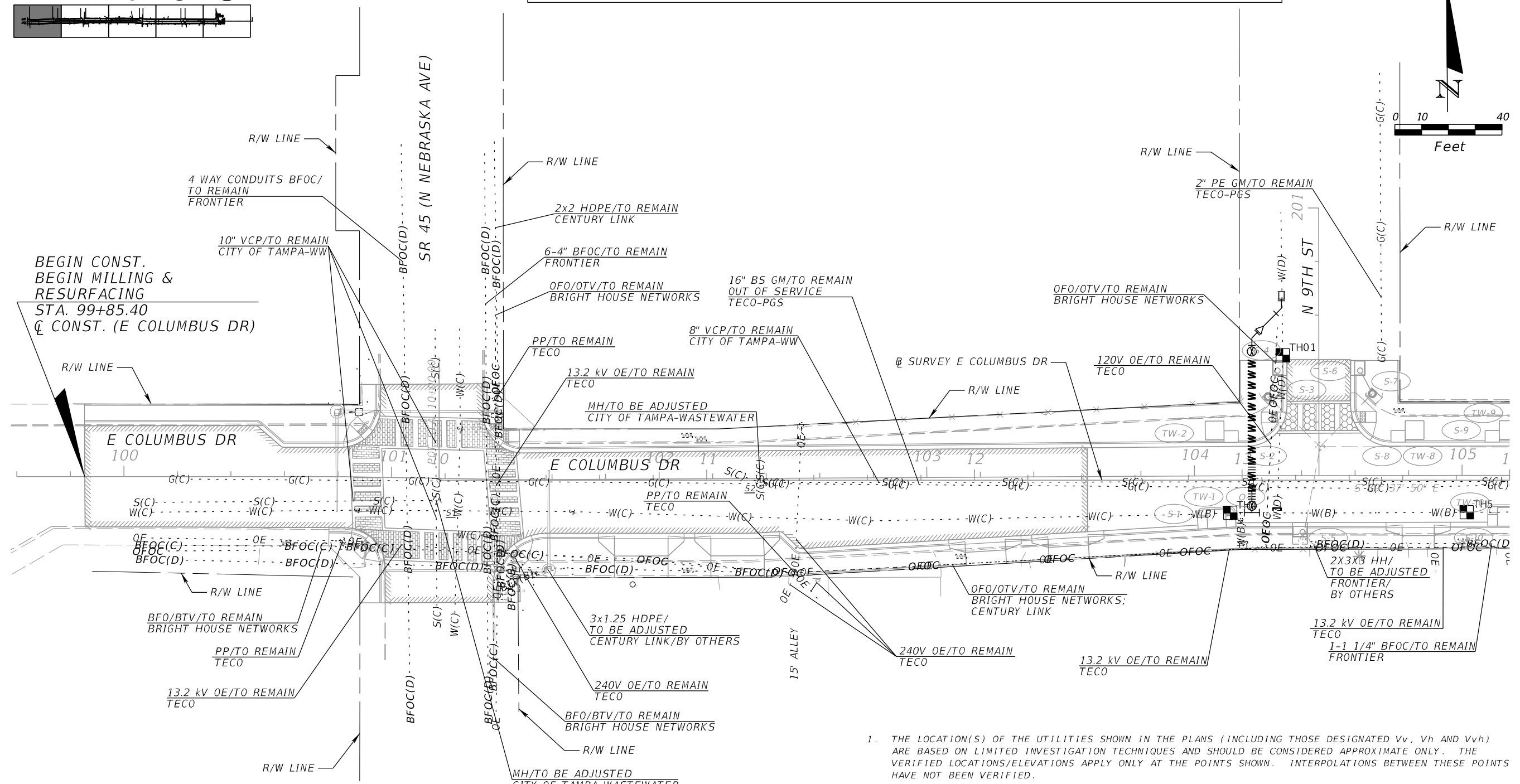
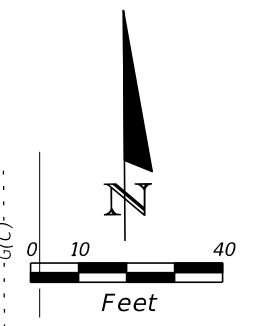
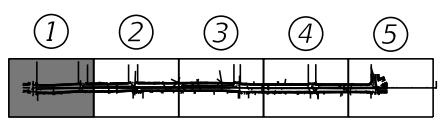
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

TEMPORARY TRAFFIC CONTROL PLANS (2)	

SHEET NO.
101

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NOTE: SEE THE UWHCA COMPONENT PLAN SET FOR ALL CITY OF TAMPA - WATER EXISTING AND PROPOSED UTILITY DISPOSITIONS.



- THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- UTILITY AGENCY OWNERS COMPANY CONTACT TELEPHONE NUMBERS EMAIL ADDRESS

BRIGHT HOUSE NETWORKS	PAUL PERRINI	813-918-5295	PAUL.PERRINI@CHARTER.COM
CENTURY LINK	XAN RYPKEMA	720-888-1089	XAN.RYPKEMA@CENTURYLINK.COM
CITY OF TAMPA-TRAFFIC	DON GILL	813-393-8499	DON.GILL@TAMPAGOV.NET
CITY OF TAMPA-WASTEWATER	RICHARD RIVERA	813-274-8957	RICHARD.RIVERA@TAMPAGOV.NET
CITY OF TAMPA WATER	RYNALDO DESHAUTEURS	813-724-7221	WATERUTILITYCOORDINATION@TAMPAGOV.NET
FRONTIER COMMUNICATIONS	RANDALL JAMES	813-892-9692	RANDALL.JAMES@FTR.COM
HART	DANIEL RODRIGUEZ	813-384-6438	RODRIGUEZD@GOHART.ORG
TECO-ENERGY	HEATHER LOVETT	813-275-3433	CSADMIN@TECOENERGY.COM
TECO-PEOPLES GAS	JAMES HAMILTON	813-275-3732	JKHAMILTON@TECOENERGY.COM
UNITI FIBER	DAVID WOODS	813-539-1180	DAVID.WOODS@UNITI.COM
- PHOTOMETRICS MEETING THE LIGHTING CRITERIA ARE BASED ON A LED LUMINAIRE MADE BY NAVION WHICH HAS 113 WATTS, 4 -FOOT BRACKET ARM AND MOUNTED AT 25 FEET UNLESS NOTED OTHERWISE. THE MODEL NUMBER IS: MVN-AF-02-LED-U-SL2 WITH INDIVIDUAL PHOTOCCELL AND IS POWERED THROUGH AERIAL CONDUCTORS.

SUMMARY OF VERIFIED UTILITIES

TH#	UTILITY DESCRIPTION (Owner, Type)	SIZE	MATERIALS	@ and/or ☉			DEPTH OF COVER	COMMENTS
				STATION	OFFSET	LT/RT		
TH01	CITY OF TAMPA-WATER MAIN	2"	CIP	104+33	45'	LT	2.04'	
TH02	TECO PEOPLES GAS-GM	6"	PE	107+97	37'	LT	7.00'	
TH03	UNKNOWN			107+90	28'	RT	12.00'	PROBED 12' -NO UTILITIES FOUND- 20" CI RETIRED NOT FOUND
TH04	CITY OF TAMPA-WATER MAIN	12"	STEEL	104+13	14'	RT	4.30'	
TH05	CITY OF TAMPA-WATER MAIN	12"	STEEL	105+02	14'	RT	4.24'	
TH06	CITY OF TAMPA-WATER MAIN	12"	STEEL	106+23	14'	RT	4.20'	
TH07	CITY OF TAMPA-WATER MAIN	12"	STEEL	107+50	18'	RT	4.95'	
TH08	CITY OF TAMPA-WATER MAIN	12"	STEEL	111+08	19'	RT	3.92'	
TH09	CITY OF TAMPA-WATER MAIN	12"	STEEL	115+91	10'	RT	3.85'	

REVISIONS

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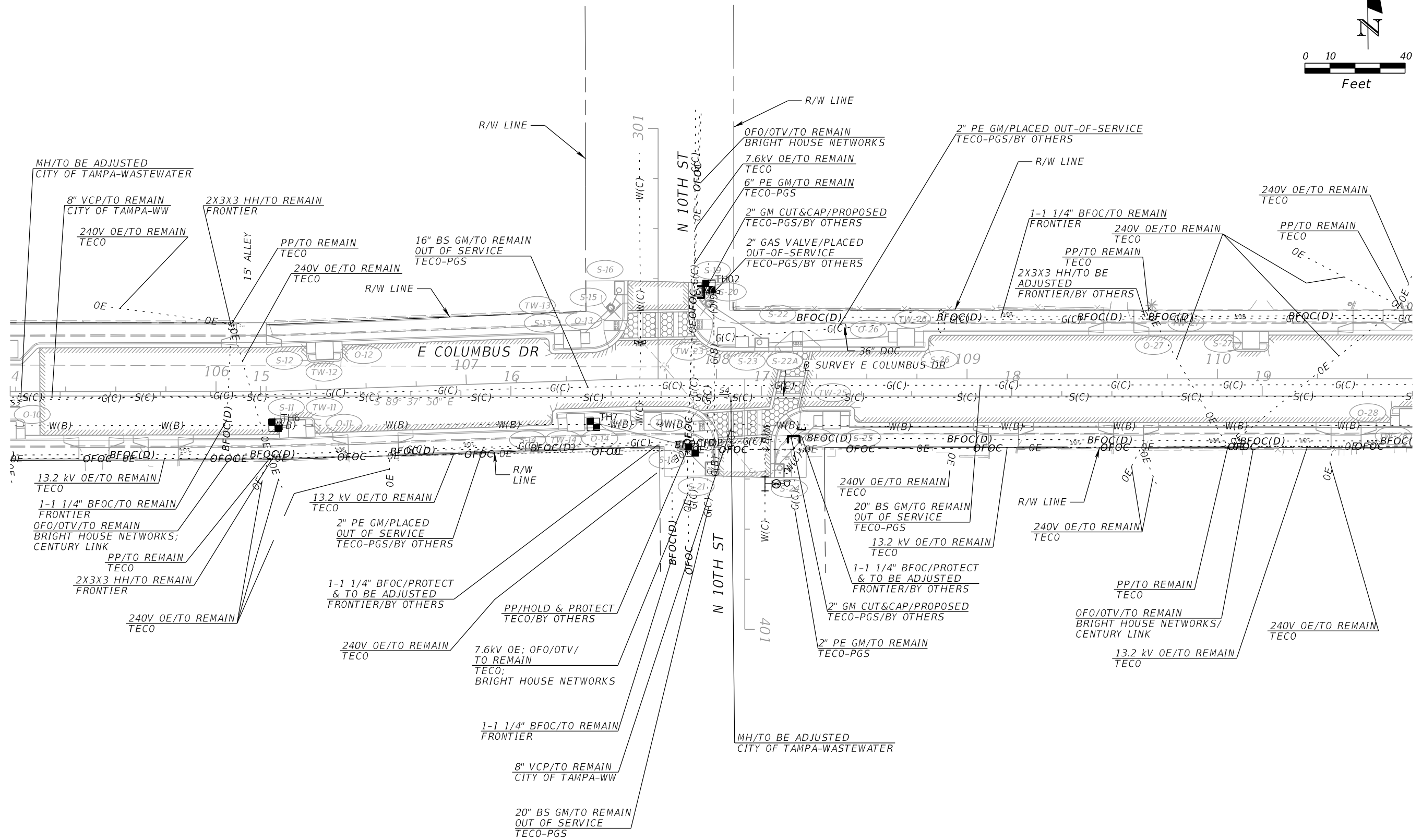
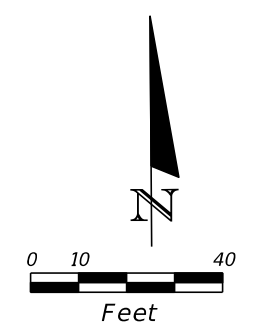
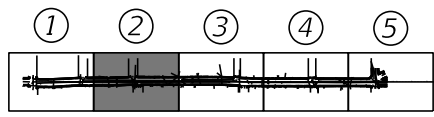
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UTILITY ADJUSTMENTS (1)

SHEET NO.	102
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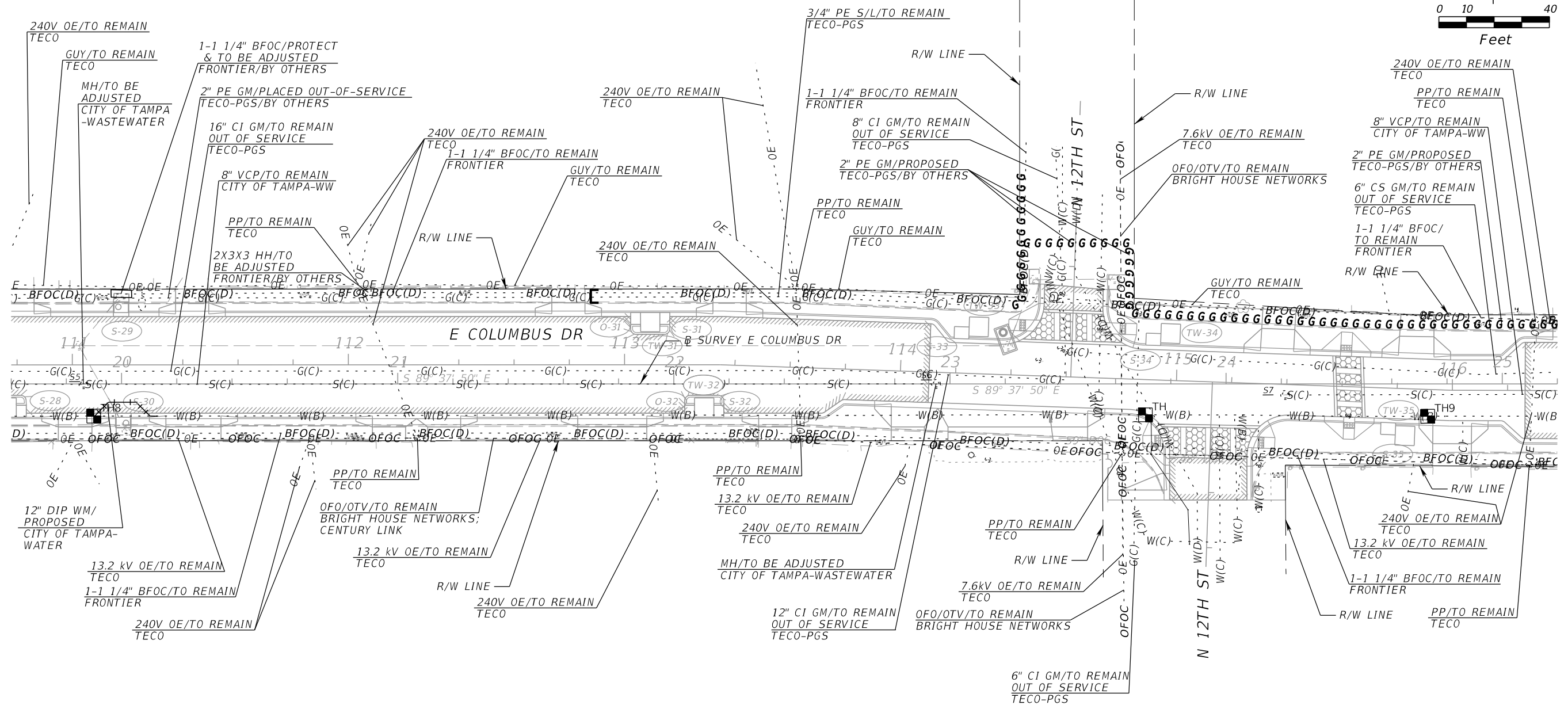
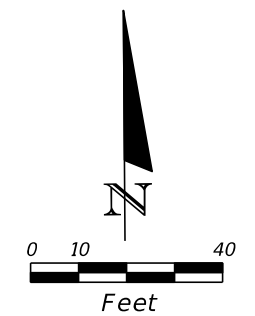
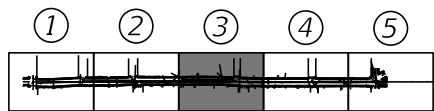
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE: SEE THE UWHCA COMPONENT PLAN SET FOR ALL CITY OF TAMPA - WATER EXISTING AND PROPOSED UTILITY DISPOSITIONS.

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 103
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

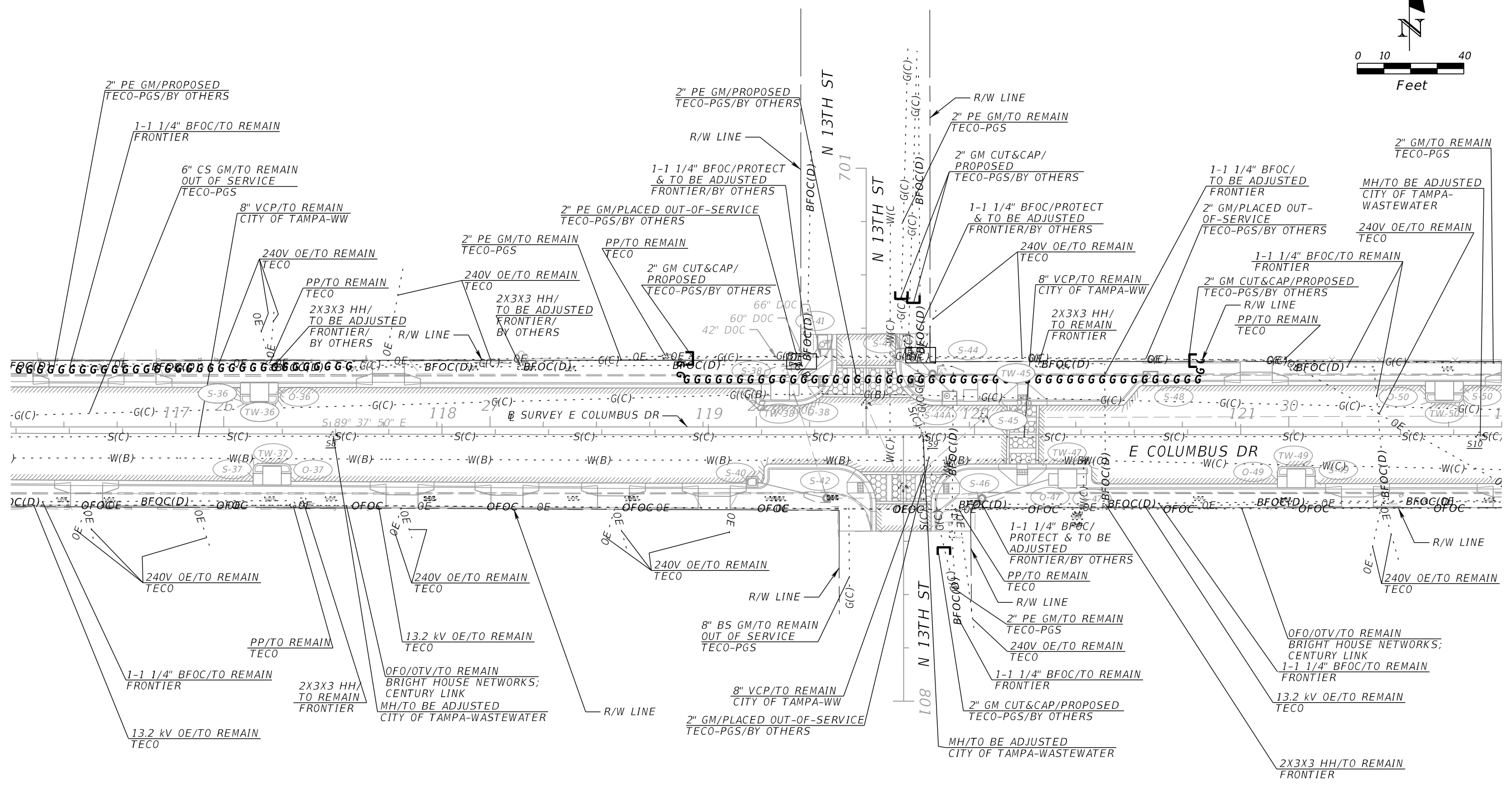
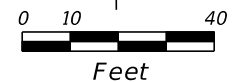
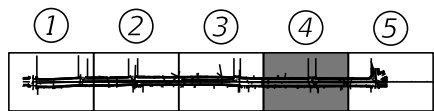


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REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 104
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

UTILITY ADJUSTMENTS (3)

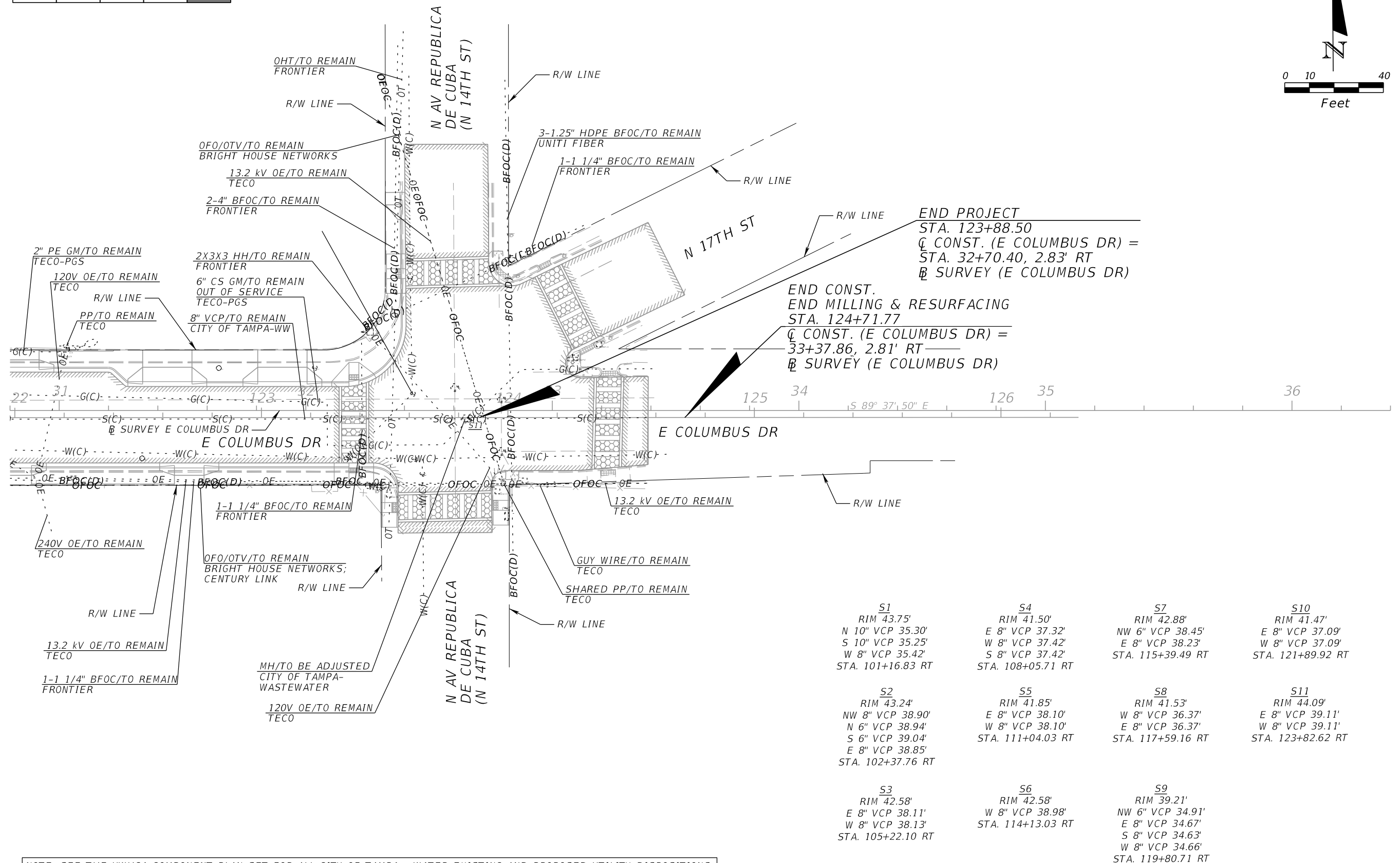
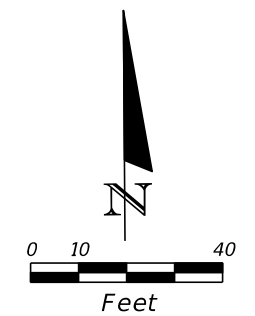
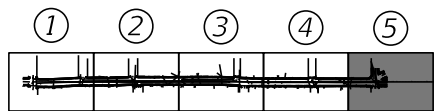
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REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. 105
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

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REVISIONS																		
DATE	DESCRIPTION																	
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																
1001221	HILLSBOROUGH	436639-1-58-01																

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INDEX OF SUMMARY OF QUANTITY SHEETS

SHEET NO.	SHEET NO.
SQ-1	SUMMARY OF LUMP SUM ITEMS SUMMARY OF TEMPORARY TRAFFIC CONTROL PLANS SUMMARY OF TEMPORARY SIGNALIZATION & DETECTION
SQ-2 - SQ-4	SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES
SQ-5	SUMMARY OF CLEARING AND GRUBBING & REMOVAL ITEMS SUMMARY OF EARTHWORK
SQ-6 - SQ-7	SUMMARY OF PAVEMENT
SQ-8	SUMMARY OF UTILITY ADJUSTMENTS
SQ-9	SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS
SQ-10 - SQ-13	SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

PAY ITEM NOTES

SHEET NO.	NOTES
0430-174-115	COST OF 35 CY OF FLOWABLE FILL BETWEEN CITY OF TAMPA WATERMAIN AND PROPOSED DRAINAGE STRUCTURES TO BE INCIDENTAL TO THE COST OF APPLICABLE DRAINAGE STRUCTURES.
0526-1-2	NOTIFY CITY OF TAMPA IN ADVANCE OF ANY POTENTIAL SHORTAGE OF HISTORIC BRICKS.

SUMMARY OF LUMP SUM ITEMS					
PAY ITEM NO.	PAY ITEM DESCRIPTION	QUANTITY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
0101 1	MOBILIZATION	1			
4.07	REMEDIATION	1			

SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS												
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	PHASE I			PHASE II			TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			DURATION	QUANTITY	TOTAL	DURATION	QUANTITY	TOTAL	P	F		
			DAYS	P	P	DAYS	P	P				
0102 1	MAINTENANCE OF TRAFFIC	LS		1			1		1		530 CONSTRUCTION DAYS	

SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS														
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	PHASE III			PHASE IV			TOTAL		GRAND TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			DURATION	QUANTITY	TOTAL	DURATION	QUANTITY	TOTAL	P	F	P	F		
			DAYS	P	P	DAYS	P	P						
0102 1	MAINTENANCE OF TRAFFIC	LS		1			1		1		1		530 CONSTRUCTION DAYS	

SUMMARY OF TEMPORARY SIGNALIZATION & DETECTION															
PHASE	DURATION	0102104						0102107 1						DESIGN NOTES	CONSTRUCTION REMARKS
		TEMPORARY SIGNALS & MAINTENANCE OF INTERSECTION - EACH DAY													
		EXISTING			TEMPORARY			EXISTING			TEMPORARY/NEW				
		DAYS	#	P	F	#	P	F	#	P	F	#	P		
1 THRU 4	530	2	1060		2	1060		2	1060		2	1060			
SUB-TOTAL		1060			1060			1060			1060				
TOTAL		2120			2120			2120			2120				

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		SQ-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES

LOCATION STA. TO STA.	SIDE	SEDIMENT BARRIER		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
		0104 10 3		0104 18			
		LF		EA			
		P	F	P	F		
N/A		100				TO BE USED IF REQ.	
104+02.95	RT			1			
104+08.16	RT			1			
104+13.51	RT			1			
104+13.78	LT			1			
104+07.60	LT			1			
104+27.55	LT			1		EXIST. INLET	
104+39.38	RT			1			
104+40.39	RT			1		EXIST. INLET	
104+66.51	LT			1		EXIST. INLET	
104+76.08	LT			1			
104+82.16	LT			1			
105+11.26	LT			1			
105+17.42	LT			1			
105+11.38	RT			1			
105+16.67	RT			1			
105+21.96	RT			1			
106+26.57	RT			1			
106+31.86	RT			1			
106+37.16	RT			1			
106+38.59	LT			1			
106+43.89	LT			1			
106+49.18	LT			1			
107+37.55	LT			1			
107+42.84	LT			1			
107+48.14	LT			1			
107+58.70	LT			1		EXIST. INLET	
107+37.89	RT			1			
107+43.18	RT			1			
107+48.47	RT			1			
107+68.28	RT			1			
107+74.45	RT			1			
107+77.46	RT			1			
107+96.80	LT			1		EXIST. INLET	
107+97.15	RT			1		EXIST. INLET	
108+14.06	LT			1			
108+18.06	LT			1			
108+10.10	LT			1			
108+03.94	LT			1			
108+25.09	RT			1		EXIST. INLET	
108+51.20	RT			1			
108+45.91	RT			1			
108+40.62	RT			1			
108+80.94	LT			1			
108+75.64	LT			1			
108+70.35	LT			1			
SUB-TOTAL:		100		45			
TOTAL:		100		114			

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	<p align="center">CITY OF TAMPA TRANSPORTATION DEPARTMENT</p> <table border="1"> <thead> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </tbody> </table>	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	<p align="center">SUMMARY OF QUANTITIES</p>	SHEET NO. SQ-2
DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES

LOCATION STA. TO STA.	SIDE	SEDIMENT BARRIER		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
		0104 10 3		0104 18			
		LF		EA			
P	F	P	F				
110+18.72	LT			1			
110+13.43	LT			1			
110+08.14	LT			1			
110+81.51	RT			1			
110+76.22	RT			1			
110+70.93	RT			1			
111+16.82	LT			1		EXIST. INLET	
111+17.68	LT			1			
111+18.49	RT			1			
111+19.64	RT			1		EXIST. INLET	
113+14.61	LT			1			
113+09.32	LT			1			
113+04.03	LT			1			
113+34.16	RT			1			
113+28.87	RT			1			
113+23.58	RT			1			
114+21.64	LT			1			
114+97.29	LT			1			
114+36.66	LT			1			
114+46.96	LT			1		EXIST. INLET	
114+76.09	LT			1		EXIST. INLET	
114+91.12	RT			1			
114+97.29	RT			1			
115+77.20	LT			1			
115+83.37	LT			1			
117+26.06	LT			1			
117+31.35	LT			1			
117+36.64	LT			1			
117+30.90	RT			1			
117+36.19	RT			1			
117+41.48	RT			1			
119+21.70	LT			1			
119+27.07	LT			1			
119+29.63	LT			1		EXIST. INLET	
119+32.29	LT			1			
119+29.63	LT			1			
119+16.41	RT			1			
119+44.50	RT			1		EXIST. INLET	
119+44.50	RT			1			
119+87.65	LT			1		EXIST. INLET	
119+87.95	LT			1			
119+90.62	LT			1			
120+40.21	LT			1			
120+04.74	LT			1			
120+02.77	RT			1		EXIST. INLET	
120+02.84	RT			1			
120+40.21	RT			1			
SUB-TOTAL:				47			

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DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES							
LOCATION	SIDE	SEDIMENT BARRIER		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
STA. TO STA.		0104 10 3		0104 18			
		LF		EA			
	P	F	P	F			
120+34.92	RT			1			
120+29.63	RT			1			
120+50.07	LT			1			
121+26.13	RT			1			
121+20.84	RT			1			
121+15.55	RT			1			
121+81.75	LT			1			
121+76.46	LT			1			
121+71.17	LT			1			
123+96.35	LT			1		EXIST. INLET	
124+02.75	RT			1		EXIST. INLET	
200+29.48	LT			1			
200+30.60	RT			1			
200+40.22	RT			1			
200+40.27	LT			1			
300+28.43	LT			1			
300+30.05	RT			1			
300+36.35	LT			1			
400+35.96	RT			1			
400+36.66	LT			1			
700+34.87	LT			1			
700+35.07	RT			1			
SUB-TOTAL:					22		

REVISIONS				THOMAS J. WARD, P.E. P.E. LICENSE NUMBER 52144 BES, INC. 11007 N. 56TH ST., SUITE 208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		SQ-4
					1001221	HILLSBOROUGH	436639-1-58-01		

SUMMARY OF CLEARING AND GRUBBING & REMOVAL ITEMS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION		SIDE	UNITS	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA.	TO STA.			P	F	P	F		
0110 1 1	CLEARING AND GRUBBING	100+49.41	TO 100+95.44	LT	AC	0.007		0.824			
		101+35.83	TO 104+34.63	LT		0.045					
		100+76.57	TO 100+90.57	RT		0.002					
		104+30.55	TO 104+62.32	LT		0.007					
		107+61.07	TO 107+92.64	LT		0.007					
		107+92.94	TO 108+38.42	RT		0.014					
		114+41.87	TO 114+81.71	LT		0.007					
		114+94.39	TO 115+30.75	RT		0.008					
		120+00.05	TO 120+12.37	RT		0.006					
		119+56.93	TO 119+89.61	RT		0.007					
		119+42.29	TO 119+76.44	LT		0.007					
		123+55.44	TO 123+93.53	RT		0.010					
		123+31.53	TO 123+43.53	RT		0.009					
		123+58.47	TO 124+00.35	LT		0.010					
		124+10.93	TO 124+36.72	LT		0.009					
		124+34.06	TO 124+47.02	RT		0.010					
		107+88.71	TO 114+51.14	LT		0.099					
		104+58.41	TO 107+64.59	LT		0.057					
		114+72.36	TO 119+48.28	LT		0.077					
		119+83.69	TO 123+55.53	RT		0.041					
108+21.62	TO 114+99.00	RT		0.097							
101+38.58	TO 108+00.86	RT		0.097							
115+26.47	TO 119+63.00	RT		0.071							
119+70.40	TO 123+58.70	LT		0.071							
115+56.29	TO 115+68.78	RT		0.006							
101+16.92	TO 101+16.92	RT		0.043							
0110 4 10	REMOVAL OF EXISTING CONCRETE	99+85.28	TO 100+95.31	LT	SY	101.1		2950			
		114+74.08	TO 119+45.71	LT		305.5					
		101+38.69	TO 107+99.50	RT		449.2					
		100+76.57	TO 100+98.40	RT		29.1					
		123+93.27	TO 124+01.05	RT		13.6					
		101+33.18	TO 104+33.12	LT		195.4					
		104+59.91	TO 107+64.11	LT		193.2					
		107+92.13	TO 114+49.04	LT		395.3					
		119+85.69	TO 123+55.47	RT		256.1					
		115+28.82	TO 119+61.52	RT		283.5					
108+23.11	TO 114+97.00	RT		456.3							
119+71.36	TO 123+58.56	LT		271.5							

SUMMARY OF EARTHWORK

PAY ITEM NO.	PAY ITEM DESCRIPTION	CY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
0120 1	REGULAR EXCAVATION	500.5			

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DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

SUMMARY OF PAVEMENT

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.			P	F	P	F		
		285709			OPTIONAL BASE, BASE GROUP 09	103+60.00 to 105+29.67	LT/RT	SY		
		114+10.35 to 115+57.76	LT/RT		391.3					
		115+67.32 to 116+26.34	LT/RT		148.5					
0327 70 7	MILLING EXIST ASPH PAVT, 4" AVG DEPTH	99+85.30 to 103+60.00	LT/RT	SY	1614.8		8541			
		104+34.61 to 104+58.41	LT		40.9					
		105+29.67 to 108+26.40	LT/RT		1014.3					
		107+64.59 to 107+88.71	LT		30.1					
		108+00.77 to 108+21.89	RT		35.5					
		108+33.17 to 114+10.35	LT/RT		2111.2					
		114+51.03 to 114+72.52	LT		20.3					
		114+98.46 to 115+27.01	RT		47.3					
		116+26.25 to 120+12.30	LT/RT		1382.1					
		119+48.28 to 119+70.40	LT		28.9					
		119+63.00 to 119+83.69	RT		23.3					
		120+23.98 to 123+31.53	LT/RT		1135.2					
		123+43.53 to 124+35.01	LT/RT		680.7					
		123+55.43 to 123+93.62	RT		19.8					
		123+58.07 to 123+92.23	LT		172.4					
		124+21.74 to 124+71.77	LT		143.0					
		124+46.09 to 124+56.89	LT/RT		41.4					
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG 76-22	103+60.00 to 105+29.67	LT/RT	TN	45.38		89.9			
		114+10.35 to 115+57.76	LT/RT		32.29					
		115+67.32 to 116+26.34	LT/RT		12.25					
0337 7 83	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	99+85.30 to 103+60.00	LT/RT	TN	133.22		794.4			
		103+60.00 to 105+29.67	LT/RT		45.38					
		104+34.61 to 104+58.41	LT		3.38					
		105+29.67 to 108+26.40	LT/RT		83.67					
		107+64.59 to 107+88.71	LT		2.49					
		108+00.77 to 108+21.89	RT		2.92					
		108+33.17 to 114+10.35	LT/RT		174.17					
		114+10.35 to 115+57.76	LT/RT		32.29					
		114+51.03 to 114+72.52	LT		1.67					
		114+98.46 to 115+27.01	RT		3.90					
		115+67.32 to 116+26.34	LT/RT		12.25					
		116+26.35 to 120+12.30	LT/RT		113.99					
		119+48.28 to 119+70.40	LT		2.39					
		119+63.00 to 119+83.69	RT		1.93					
		120+23.98 to 123+31.53	LT/RT		93.65					
		123+43.53 to 124+35.01	LT/RT		56.07					
		123+55.43 to 123+93.62	RT		1.63					
		123+58.07 to 123+92.23	LT		14.22					
		124+21.74 to 124+71.77	LT		11.80					
		124+46.09 to 124+56.89	LT/RT		3.42					
0350 3 5	PLAIN CEMENT CONCRETE PAVEMENT, 8"	104+30.55 to 104+62.32	LT	SY	34.6		566	STAMPED HEXAGONAL PATTERN		
		107+61.48 to 107+92.30	LT		35.0					
		107+93.95 to 108+38.42	LT/RT		65.7					
		114+43.57 to 114+81.71	LT		35.4					
		114+94.39 to 115+30.25	RT		38.2					
		115+56.30 to 115+68.78	LT/RT		26.9					
		119+42.29 to 119+76.44	LT		34.2					

REVISIONS DATE DESCRIPTION DATE DESCRIPTION				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT CITY PROJECT NO. COUNTY FINANCIAL PROJECT ID 1001221 HILLSBOROUGH 436639-1-58-01			SHEET NO. SQ-6
				SUMMARY OF QUANTITIES				

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SUMMARY OF PAVEMENT

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.			P	F	P	F		
		0350 3 5			PLAIN CEMENT CONCRETE PAVEMENT, 8" (CONT'D)	119+56.93 to 119+89.61	RT	SY		
		120+11.98 to 120+24.30	LT/RT		29.3					
		123+31.53 to 123+43.53	LT/RT		42.1					
		123+55.44 to 123+93.53	RT		51.6					
		123+58.47 to 124+01.91	LT		47.5					
		124+10.93 to 124+36.72	LT		43.7					
		124+34.06 to 124+47.02	LT/RT		49.1					
0523 1	PATTERNED PAVEMENT, VEHICULAR AREAS	100+84.10 to 101+49.30	LT/RT	SY	209.4		209		BRICK PATTERNED PAVT.	

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		SQ-7
					1001221	HILLSBOROUGH	436639-1-58-01		

SUMMARY OF UTILITY ADJUSTMENTS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STATION	SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
					P	F	P	F		
0425 5 1	MANHOLE, ADJUST, UTILITIES	101+17	RT	EA	1		11			
		102+38	RT		1					
		105+22	RT		1					
		108+06	RT		1					
		111+04	RT		1					
		114+13	RT		1					
		115+39	RT		1					
		117+59	RT		1					
		119+81	RT		1					
		120+90	RT		1					
		123+83	RT		1					
0425 6	VALVE BOX, ADJUST	100+87	RT	EA	1		17			
		101+25	LT		1					
		101+37	RT		1					
		101+67	RT		1					
		107+70	LT		1					
		108+19	RT		1					
		114+72	LT		1					
		114+81	RT		1					CONTAMINATION MONITORING WELL (WITHIN SWK.)
		115+63	RT		1					
		119+68	LT		1					
		119+90	RT		1					
		122+52	RT		1					CONTAMINATION MONITORING WELL (WITHIN ROAD)
		122+83	LT		1					CONTAMINATION MONITORING WELL (WITHIN ROAD)
		123+22	LT		1					CONTAMINATION MONITORING WELL (WITHIN ROAD)
123+60	LT		1							
123+62	RT		1							
123+65	RT		1							

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	<p align="center">CITY OF TAMPA TRANSPORTATION DEPARTMENT</p> <table border="1"> <thead> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </tbody> </table>	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	<p align="center">SUMMARY OF QUANTITIES</p>	SHEET NO. SQ-8
DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

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SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	SIDE	UNIT	NET LENGTH		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
					P	F	P	F		
					0520 1 10	CONCRETE CURB & GUTTER, TYPE F	99+85.29 TO 100+93.94	LT		
		100+76.59 TO 100+96.90	RT		40.3					
		101+34.68 TO 104+11.12	LT		293.9					
		101+40.08 TO 104+01.27	RT		281.1					
		104+15.42 TO 104+36.60	RT		21.1					
		104+16.45 TO 104+33.12	LT		35.9					
		104+42.19 TO 105+09.59	RT		67.4					
		104+59.91 TO 104+73.41	LT		32.6					
		104+78.74 TO 105+08.59	LT		29.8					
		105+13.92 TO 107+35.18	LT		223.2					
		105+23.75 TO 106+24.78	RT		101.7					
		106+38.95 TO 107+36.10	RT		97.2					
		107+35.14 TO 107+64.11	LT		46.1					
		107+35.46 TO 107+65.61	RT		31.7					
		107+70.95 TO 107+99.36	RT		43.3					
		107+90.21 TO 108+07.44	LT		31.9					
		108+20.85 TO 108+83.24	LT		64.3					
		108+23.11 TO 108+53.62	RT		48.0					
		108+52.99 TO 110+69.14	RT		216.3					
		108+82.72 TO 110+06.34	LT		123.7					
		110+20.51 TO 111+14.89	LT		94.4					
		110+83.45 TO 111+15.70	RT		32.3					
		111+20.48 TO 113+02.24	LT		181.8					
		111+21.28 TO 113+21.79	RT		200.6					
		113+16.40 TO 114+19.10	LT		106.1					
		113+36.62 TO 114+98.02	RT		187.0					
		114+24.18 TO 114+49.64	LT		40.4					
		114+73.86 TO 114+88.45	LT		28.4					
		114+93.79 TO 117+24.26	LT		232.5					
		115+27.97 TO 115+74.53	RT		67.3					
		115+79.87 TO 117+29.10	RT		152.0					
		117+38.43 TO 119+17.85	LT		179.4					
		117+43.26 TO 119+14.23	RT		171.2					
		119+18.56 TO 119+61.50	RT		66.3					
		119+19.55 TO 119+46.78	LT		42.9					
		119+71.91 TO 119+87.82	LT		29.9					
		119+85.19 TO 120+42.57	RT		77.2					
		119+93.41 TO 120+63.30	LT		73.1					
		120+42.00 TO 121+13.75	RT		71.8					
		120+68.89 TO 121+69.38	LT		100.5					
		121+27.92 TO 123+55.53	RT		232.1					
		121+83.55 TO 123+57.20	LT		243.1					
0520 2 4	CONCRETE CURB, TYPE D	104+00.97 TO 104+15.19	RT	LF	26.2		353			
		105+09.58 TO 105+23.75	RT		26.9					
		106+24.78 TO 106+38.95	RT		26.8					
		106+36.80 TO 106+50.97	LT		26.8					
		110+06.35 TO 110+20.51	LT		26.8					
		110+69.14 TO 110+83.31	RT		26.8					
		113+02.24 TO 113+16.41	LT		26.8					
		113+21.79 TO 113+36.46	RT		26.8					
		117+24.27 TO 117+38.44	LT		26.8					
		117+29.11 TO 117+43.28	RT		26.8					
		121+13.76 TO 121+27.92	RT		26.8					
		121+69.38 TO 121+83.54	LT		26.8					
		123+55.43 TO 123+55.53	RT		16.0					
		123+93.77 TO 123+94.06	RT		16.0					

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DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

LOCATION	SIDE	CONC SIDEWALK 6" (SCORING PATTERN)		CONC SIDEWALK 6"		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
		0522 2		0522 2		0527 2			
		SY		SY		SF			
STA. TO STA.		P	F	P	F	P	F		
99+85.29 to 100+93.44	LT	95.6							
100+76.57 to 100+96.40	RT	24.7							
101+35.18 to 101+41.35	LT	6.9							
101+40.58 to 101+83.14	RT	60.4							
101+47.47 to 104+32.62	LT	308.9							
102+03.10 to 102+19.14	RT	20.7							
102+39.10 to 103+14.58	RT	65.9							
103+29.32 to 103+45.53	RT	10.7							
103+60.27 to 104+77.57	RT	92.8							
104+60.41 to 106+08.14	LT	165.4							
104+89.56 to 105+45.23	RT	43.6							
105+57.22 to 105+72.89	RT	10.4							
105+84.88 to 106+52.04	RT	53.9							
106+20.13 to 107+63.76	LT	131.3							
106+72.03 to 107+98.86	RT	143.7							
107+90.71 to 109+54.62	LT	186.5							
108+23.62 to 109+08.58	RT	86.7							
109+20.58 to 109+58.49	RT	30.1							
109+66.62 to 110+54.18	LT	74.9							
109+70.49 to 110+45.40	RT	62.5							
110+57.40 to 110+94.96	RT	29.4							
110+66.18 to 110+74.18	LT	5.8							
110+86.18 to 111+37.41	LT	40.7							
111+07.14 to 111+33.88	RT	17.6							
111+49.41 to 112+73.66	LT	107.6							
111+53.88 to 112+08.68	RT	43.1							
112+20.68 to 112+28.68	RT	5.8							
112+40.68 to 112+83.09	RT	32.7							
112+85.66 to 113+32.04	LT	38.6							
113+08.09 to 113+49.49	RT	31.1							
113+43.12 to 114+49.14	LT	117.5							
113+61.33 to 113+97.54	RT	37.5							
114+09.36 to 114+18.08	RT	8.0							
114+68.45 to 114+96.65	RT	52.4							
114+74.36 to 115+30.39	LT	73.1							
115+28.59 to 115+93.78	RT	97.9							
115+42.21 to 115+80.40	LT	46.0							
115+92.40 to 116+36.33	LT	54.3							
116+06.91 to 116+60.57	RT	51.0							
116+46.32 to 116+80.52	LT	27.9							
116+72.56 to 117+79.04	RT	85.3							
116+92.51 to 117+73.84	LT	71.0							
117+85.83 to 119+46.33	LT	154.9							
117+91.03 to 118+18.45	RT	19.9							
118+30.44 to 118+58.44	RT	20.2							
118+70.43 to 118+96.21	RT	18.5							
119+08.19 to 119+61.00	RT	74.6							
SUB-TOTAL:		3038.0							
TOTAL:		3643		1036		241			

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		SQ-10
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

LOCATION	SIDE	CONC SIDEWALK 6" (SCORING PATTERN)		CONC SIDEWALK 6"		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
		0522 1		0522 2		0527 2			
		SY		SY		SF			
STA. TO STA.		P	F	P	F	P	F		
119+72.41 to 120+99.80	LT	146.5							
119+85.69 to 121+37.84	RT	145.3							
121+11.80 to 121+97.85	LT	59.5							
121+49.84 to 121+94.75	RT	31.7							
122+06.75 to 122+64.75	RT	39.2							
122+09.85 to 122+51.84	LT	33.4							
122+71.84 to 122+98.53	LT	33.5							
122+76.75 to 123+29.53	RT	36.8							
123+18.53 to 123+56.70	LT	62.1							
123+45.53 to 123+54.91	RT	5.8							
123+50.30 to 123+56.46	LT	11.1							
100+81.87 to 100+93.40	LT			7.3					
100+85.38 to 100+95.91	RT			6.5					
101+35.82 to 101+47.63	LT			8.7					
101+41.48 to 101+52.66	RT			7.1					
101+77.17 to 102+09.18	RT			37.2					
102+13.17 to 102+44.88	RT			37.0					
103+08.19 to 103+35.20	RT			15.6					
103+39.14 to 103+66.16	RT			15.6					
104+25.00 to 104+32.61	LT			7.9					
104+60.41 to 104+67.93	LT			7.8					
104+71.56 to 104+95.56	RT			13.3					
105+39.24 to 105+63.20	RT			12.6					
105+66.88 to 105+90.88	RT			13.8					
106+02.13 to 106+26.81	LT			12.5					
106+46.04 to 106+78.04	RT			19.2					
107+55.67 to 107+63.64	LT			7.9					
107+88.92 to 107+98.86	RT			7.8					
107+90.71 to 107+98.25	LT			7.8					
108+23.35 to 108+41.35	LT			7.3					
108+24.01 to 108+33.43	RT			5.5					
109+02.58 to 109+25.42	RT			13.0					
109+48.62 to 109+72.62	LT			12.6					
109+53.23 to 109+76.49	RT			13.0					
110+39.40 to 110+63.40	RT			13.4					
110+48.18 to 110+70.21	LT			12.6					
110+70.21 to 110+92.18	LT			12.6					
110+88.96 to 111+13.14	RT			13.2					
111+27.88 to 111+59.88	RT			20.8					
111+31.41 to 111+55.41	LT			13.3					
112+02.68 to 112+24.69	RT			12.7					
112+24.68 to 112+46.68	RT			12.8					
112+67.66 to 112+91.66	LT			12.7					
112+77.09 to 113+14.09	RT			24.2					
113+26.04 to 113+49.43	LT			12.9					
113+43.24 to 113+67.22	RT			12.4					
113+91.09 to 114+13.98	RT			20.3					
114+13.98 to 114+74.43	RT			63.3					
SUB-TOTAL:		604.9		554.2					

REVISIONS DATE DESCRIPTION DATE DESCRIPTION				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO. SQ-11
CITY PROJECT NO.		COUNTY			FINANCIAL PROJECT ID				
1001221		HILLSBOROUGH		436639-1-58-01					

SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

LOCATION	SIDE	CONC SIDEWALK 6" (SCORING PATTERN)		CONC SIDEWALK 6"		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
		0522 1		0522 2		0527 2			
		SY		SY		SF			
STA. TO STA.		P	F	P	F	P	F		
114+38.60 to 114+49.14	LT			7.4					
114+74.40 to 114+84.95	LT			7.6					
114+81.51 to 114+97.00	RT			11.3					
114+88.48 to 114+96.56	RT			8.0					
115+24.03 to 115+48.05	LT			24.0					
115+28.46 to 115+36.38	RT			7.6					
115+52.04 to 115+70.04	LT			8.2					
115+54.04 to 115+72.03	RT			7.5					
115+74.03 to 115+98.89	LT			23.2					
115+88.34 to 116+12.94	RT			25.9					
116+30.34 to 116+52.34	LT			12.0					
116+54.55 to 116+78.55	RT			12.6					
116+74.53 to 116+98.53	LT			13.6					
117+67.84 to 117+91.85	LT			14.7					
117+73.04 to 117+97.04	RT			13.0					
118+12.45 to 118+36.45	RT			13.0					
118+52.44 to 118+76.44	RT			13.0					
118+90.22 to 119+18.91	RT			13.8					
119+37.42 to 119+46.29	LT			7.1					
119+52.11 to 119+61.00	RT			7.7					
119+72.25 to 119+81.24	LT			7.0					
119+85.69 to 119+94.37	RT			7.7					
120+09.02 to 120+26.92	RT			7.3					
120+09.71 to 120+27.24	LT			7.2					
120+93.80 to 121+17.80	LT			12.0					
121+31.84 to 121+55.84	RT			12.0					
121+88.75 to 122+12.75	RT			12.0					
121+91.85 to 122+15.85	LT			12.0					
122+45.82 to 122+77.84	LT			33.1					
122+58.75 to 122+82.75	RT			12.0					
122+92.53 to 123+24.53	LT			33.1					
123+28.53 to 123+45.50	LT			8.7					
123+29.53 to 123+45.53	RT			12.3					
123+48.56 to 123+55.43	RT			11.7					
123+50.18 to 123+56.60	LT			11.1					
123+50.33 to 123+56.34	LT			5.6					
123+93.77 to 124+01.05	RT			12.7					
123+93.77 to 124+01.05	RT			12.7					
100+87.10 to 100+91.08	LT					7.4			
100+89.27 to 100+93.55	RT					8.0			
101+36.53 to 101+41.47	LT					9.0			
101+41.47 to 101+43.60	LT					10.6			
101+43.40 to 101+47.40	RT					7.4			
101+43.40 to 101+47.40	RT					7.4			
104+29.00 to 104+31.00	LT					8.0			
104+61.93 to 104+63.93	LT					8.0			
107+59.67 to 107+61.80	LT					8.0			
107+92.25 to 107+94.25	LT					8.0			
SUB-TOTAL:				481.4		81.8			

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	<p align="center">CITY OF TAMPA TRANSPORTATION DEPARTMENT</p> <table border="1"> <thead> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </tbody> </table>	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	<p align="center">SUMMARY OF QUANTITIES</p>	SHEET NO. SQ-12
DATE	DESCRIPTION	DATE	DESCRIPTION																		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																			
1001221	HILLSBOROUGH	436639-1-58-01																			

SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

LOCATION	SIDE	CONC SIDEWALK 6" (SCORING PATTERN)		CONC SIDEWALK 6"		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
		0522 1		0522 2		0527 2			
		SY		SY		SF			
STA. TO STA.		P	F	P	F	P	F		
107+92.92 to 107+95.15	RT					8.0			
108+26.12 to 108+30.05	RT					7.0			
108+30.34 to 108+34.34	LT					8.0			
114+42.61 to 114+44.61	LT					8.0			
114+78.93 to 114+80.94	LT					8.0			
114+92.89 to 114+95.09	RT					8.0			
115+30.34 to 115+32.38	RT					8.0			
115+59.04 to 115+63.07	LT					8.0			
115+61.03 to 115+65.03	RT					8.0			
119+41.42 to 119+43.46	LT					8.0			
119+56.11 to 119+58.18	RT					8.0			
119+75.19 to 119+77.24	LT					8.0			
119+88.30 to 119+90.37	RT					8.0			
120+15.84 to 120+19.85	RT					8.0			
120+16.41 to 120+20.41	LT					8.0			
123+35.53 to 123+39.53	LT					8.0			
123+35.53 to 123+39.53	RT					8.0			
123+52.97 to 123+54.99	RT					8.0			
123+54.47 to 123+56.51	LT					8.0			
123+93.88 to 123+95.99	RT					8.1			
SUB-TOTAL:						159.1			

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REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SUMMARY OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		SQ-13
					1001221	HILLSBOROUGH	436639-1-58-01		

STATE OF FLORIDA
CITY OF TAMPA

WALK-BIKE LAP PROJECT

CITY PROJECT NO. 1001221

FINANCIAL PROJECT ID 436639-1-58-01

(FEDERAL FUNDS)

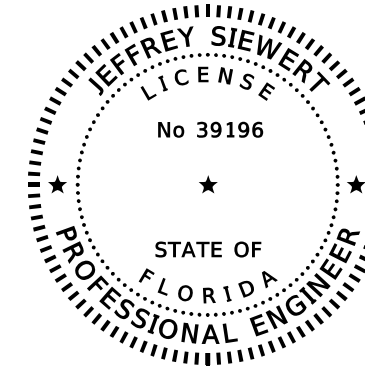
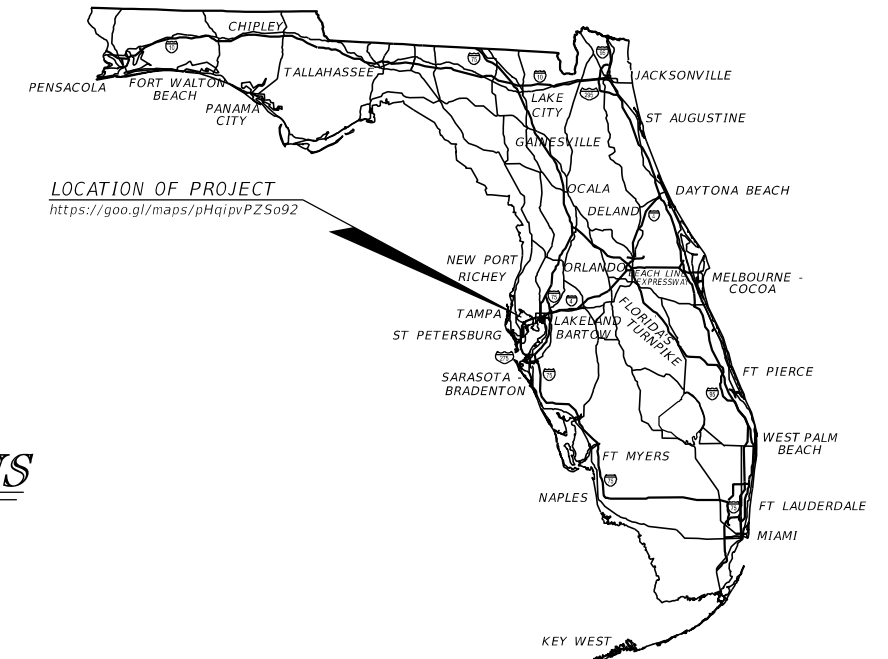
HILLSBOROUGH COUNTY

E COLUMBUS DR FROM N NEBRASKA AVE (SR45) TO 14TH ST

SIGNING AND PAVEMENT MARKING PLANS

INDEX OF SIGNING AND
PAVEMENT MARKING PLANS

SHEET NO.	SHEET DESCRIPTION
S-1	KEY SHEET
S-2	TABULATION OF QUANTITIES
S-3	GENERAL NOTES
S-4 - S-8	PLAN SHEETS
S-9 - S-10	HISTORIC SIGN DETAILS



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

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.

SIGNING AND
PAVEMENT MARKING PLANS
ENGINEER OF RECORD:

JEFFREY SIEWERT, P.E.
P.E. LICENSE NUMBER 39196
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
(813) 978-8688
CERTIFICATE OF AUTHORIZATION 4356

CONSTRUCTION PLANS
MARCH 2020

FDOT PROJECT MANAGER:
NINA MABILLEAU, E.I.

FISCAL YEAR	SHEET NO.
21	S-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL		
			S-4		S-5		S-6		S-7		S-8		PLAN	FINAL	PLAN	FINAL			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL							
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	3		1		1		3		7					15		15	
0700 1 12	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12-20 SF	AS							1		3					4		4	
0700 1 11** (HISTORIC SIGNS)	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS									1					1		1	
0700 1 12** (HISTORIC SIGNS)	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF	AS	1		2		2		1							6		6	
0700 1 60	SINGLE POST SIGN, REMOVE	AS	1		4		7		4		10					26		26	
700 3 501	SIGN PANEL, RELOCATE, UP TO 12 SF	EA	1													1		1	
0710 90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS/LS														1		1	
*	RETRO-REFLECTIVE PAVEMENT MARKERS	EA	22		1						12					35		35	
*	PAINTED PM, STD, WHITE, SOLID, 6"	GM	0.215		0.231		0.217		0.234		0.126					1.023		1.023	
*	PAINT, STD., WHITE, SOLID, DIAG./CHEVRON, 18"	LF	77.3						26.8		115.8					219.9		220	
*	PAINT, WHITE, SOLID, STOP LINES/CROSSWALK, 24"	LF	52.0		22.0		10.7		21.5		122.4					228.6		229	
*	PAINT, STD., WHITE, GUIDE LINE, 6" (2/4)	GM	0.029								0.024					0.053		0.053	
*	PAINT, STD., MESSAGE OR SYMBOL (ONLY)	EA									1					1		1	
*	PAINT, STD., ARROWS	EA	2								4					6		6	
*	PAINTED PM, STD, YELLOW, SOLID, 6"	GM	0.136		0.188		0.169		0.210		0.063					0.766		0.766	
*	PAINT, STD., YELLOW, SOLID, DIAG/CHEVRONS, 18"	LF									14.7					14.7		15	
0711 11124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	77.3						26.8		115.8					219.9		220	
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	52.0		22.0		10.7		21.5		122.4					228.6		229	
0711 11141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/6-10 GAP EXTENSION, 6"	GM	0.029								0.024					0.053		0.053	
0711 11160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA									1					1		1	
0711 11170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	2								4					6		6	
0711 11224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF									14.7					14.7		15	
0711 14123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF	287.6		149.1		165.4		151.1		352.5					1105.8		1106	
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	264.0		99.0		96.0		99.0		253.0					811.0		811	
0711 14160	THERMOPLASTIC, PREFORMED, WHITE MESSAGE	EA	5		4		5		5		3					22		22	
0711 16101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.215		0.231		0.217		0.234		0.126					1.023		1.023	
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.136		0.188		0.169		0.210		0.063					0.765		0.765	

* THESE QUANTITIES ARE PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM - ITEM NO. 710-90. THE QUANTITIES SHOWN ARE FOR ONE APPLICATION; SEE SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

PAY ITEM NOTES:

- 0700-1-11 - SIGN POSTS TO BE ALUMINUM POSTS. POSTS AND BACK OF TRAFFIC SIGN PANELS TO BE PAINTED WITH BLACK VINYL PAINT.
- 0700-1-12 - SIGN POSTS TO BE ALUMINUM POSTS. POSTS AND BACK OF TRAFFIC SIGN PANELS TO BE PAINTED WITH BLACK VINYL PAINT.
- 0700-1-11** - COST OF HISTORIC SIGN ASSEMBLIES INCLUDES NEW DECORATIVE POST, NEW STREET NAME SIGNS AND NEW TRAFFIC SIGN PANELS. BACK OF TRAFFIC SIGN PANELS TO BE PAINTED WITH BLACK VINYL PAINT.
- 0700-1-12** - COST OF HISTORIC SIGN ASSEMBLIES INCLUDES NEW DECORATIVE POST, NEW STREET NAME SIGNS AND NEW TRAFFIC SIGN PANELS. BACK OF TRAFFIC SIGN PANELS TO BE PAINTED WITH BLACK VINYL PAINT.
- 0700-3-501 - SIGN PANEL TO B PAINTED WITH BLACK VINYL PAINT.

<p>JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356</p>				<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p>			<p>TABULATION OF QUANTITIES</p>	<p>SHEET NO. S-2</p>
<p>REVISIONS</p>		<p>CITY PROJECT NO. COUNTY FINANCIAL PROJECT ID</p>		<p>1001221 HILLSBOROUGH 436639-1-58-01</p>				
DATE	DESCRIPTION	DATE	DESCRIPTION					

SIGNING AND PAVEMENT MARKING GENERAL NOTES

- REMOVE AND REPLACE ALL EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS. IF SIGNS ARE DAMAGED BY THE CONTRACTOR, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- FOR RETRO-REFLECTIVE PAVEMENT MARKER PLACEMENT DETAILS, REFER TO FDOT STANDARD PLANS 706-001.
- ALL CROSSWALKS ARE 10' WIDE AND WILL BE STRIPED USING SPECIAL EMPHASIS 12" AND 24" PREFORMED THERMOPLASTIC.

RPM LEGEND

BDWR = BI-DIRECTIONAL WHITE/RED
BDY = BI-DIRECTIONAL YELLOW

- ALL EXISTING SIGNS ARE TO REMAIN UNLESS OTHERWISE NOTED IN THE PLANS. EXISTING SIGNS SHOWN FOR INFORMATION ONLY.
- ALL CALLOUTS ARE TO CENTERLINE OF CONSTRUCTION OF COLUMBUS AVENUE, UNLESS NOTED OTHERWISE.
- ALL PARKING SPACES TO BE 6.5 FT FROM EDGE OF PAVEMENT.

HISTORIC SIGNS GENERAL NOTES

- THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE AESTHETICS OF DESIGN INTENT ONLY. DETAILS ARE INTENDED AS A GUIDE FOR THE INTERFACING OF ADJACENT SURFACES. THE FABRICATION CONTRACT IS RESPONSIBLE FOR ALL STRUCTURAL, FASTENING AND ENGINEERING OF SIGNS AND FOUNDATIONS.
- PROVIDE SCALED, SIGNED AND SEALED STRUCTURAL ENGINEERING DRAWINGS FOR ALL SIGNS AND FOUNDATIONS.
- PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION, PERMITS, LICENSES AND INSURANCE NECESSARY TO FURNISH AND INSTALL ALL SIGNS.
- PROVIDE COORDINATION OF ALL SUBMITTALS, CORRESPONDENCE, PROJECT DOCUMENTATION AND COMMUNICATION.
- ALL MATERIALS SHALL BE OF TOP QUALITY WORKMANSHIP AND TECHNIQUES, AND BE FREE OF DEFECTS. DEFECTIVE IS DEFINED TO INCLUDE LAMINATION FAILURES, ABNORMAL DETERIORATION, FADING AND DISCOLORATION, WEATHERING, FAILURE OF SECURING TO SUBSTRATES INDICATED, CRACKING, CORROSION OR COATING DAMAGE, OR VISIBLE SCRATCHES ON SURFACES.
- SIGNAGE SHALL NOT BEAR MANUFACTURER'S CODE OR OTHER IDENTIFYING MARKS ON ANY AREA OR PART WHICH MAY BE VISIBLE IN THE NORMAL POSITIONING, ATTITUDE, OR USE OF THE SIGN.
- THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE AESTHETIC OF "DESIGN INTENT" ONLY. DETAILS SHOWN ARE INTENDED AS A GUIDE FOR THE INTERFACING OF ADJACENT SURFACES.
- THE SPECIFICATION MAKES NO ATTEMPT TO CONSIDER ALL CONSTRUCTION REQUIREMENTS THAT MAY APPLY. THE CONTRACTOR SHALL FIELD VERIFY THE MEASUREMENTS, SITE CONDITIONS OF ANY EXISTING STRUCTURES.
- THE CITY RESERVES THE RIGHT TO VISIT THE PLANT WHERE FABRICATION WILL OCCUR. THE CONTRACTOR SHALL SUBMIT PROOF OF PREVIOUS PROJECTS TO ILLUSTRATE MANUFACTURING CAPABILITIES.
- SHOP DRAWINGS SHALL SHOW ALL DIMENSIONS, DETAILS OF CONSTRUCTION, MATERIALS, TECHNICAL DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF SIGN REQUIRED. SHOW ANCHORAGES AND ACCESSORY ITEMS.
- SIGN SAMPLES AND LAYOUTS.
 - SUBMIT PROOFS OF ART WORK AND SYMBOLS OF ACTUAL PAINTED ALUMINUM FINISHES FOR EACH COLOR SPECIFIED.
 - SUBMIT PROTOTYPE SAMPLES AND COLOR MATCH SAMPLES.
 - SUBMIT COMPLETE ALPHABET, NUMERALS, PUNCTUATION, AND GRAPHICS FOR REVIEW PRIOR TO START OF FABRICATION. IF MORE THAN ONE SUP-PLIER'S CUT WILL BE USED, SUBMIT EACH CUT FOR REVIEW.
 - SUBMIT SCALED TEXT LAYOUTS FOR EACH SIGN FACE FOR APPROVAL OF FORMAT, SPACING AND COPY.
- SUBMIT FABRICATION SCHEDULE.
- PROVIDE WRITTEN CERTIFICATION THAT ALL REQUIRED PERMITS, VARIANCES AND APPROVALS FROM AGENCIES HAVING JURISDICTION HAVE BEEN SECURED.
- THE SIGN CONTRACTORS ACCEPTS RESPONSIBILITY TO REVIEW THE SITE AND CONDITIONS AND WILL FIELD VERIFY EACH SIGN LOCATION.

HISTORIC SIGNS GENERAL NOTES- (CONT'D)

- PROVIDE A WRITTEN WARRANTY FOR ONE YEAR FOR ELECTRICAL COMPONENTS EXCEPT LAMPS, AND A SEVEN-YEAR MINIMUM WARRANTY ON THE SIGN CONSTRUCTION, STRUCTURES, PAINTS AND FINISHES.
- PROVIDE A WRITTEN MAINTENANCE CONTRACT WHICH, IF ACCEPTED, SHALL BECOME EFFECTIVE ON THE EXPIRATION DATE OF WRITTEN WARRANTY.
- ALL EDGES OF LETTER FORMS SHALL BE SHARP AND CLEAN WITH NO EDGE BUILD-UP OR BLEEDING. ALL SURFACES OF LETTER FORMS SHALL BE WITHOUT PINHOLES OR DEFECTS.
- ALL UNITS SHALL BE ADEQUATELY VENTED TO DISSIPATE HEAT AND SHALL BE PROPERLY VENTED AND DRAINED TO PREVENT WATER CONTAINMENT. ALL UNIT OPENINGS SHALL BE BACKED WITH A NON-FERROUS FINE SCREEN MESH AND SHALL NOT DIRECTLY INLET WATER CONDENSATION OR CONTAMINANTS.
- ALL UNITS SHALL BE CONSTRUCTED OF VANDAL-RESISTANT CONSTRUCT ION MATERIALS, METHODS AND EQUIPMENT. ALL COMPONENTS SHALL BE PROPERLY INSULATED TO PREVENT CORROSION BETWEEN ALUMINUM, STEEL, AND NON-ALUMINUM METALLIC SURFACES. ALL COMPONENTS SHALL BE NON-FERROUS AND SHALL BE RUSTPROOF. ALL JOINTS AND SEAMS SHALL BE SEALED AND WEATHER PROOFED.
- FASTENERS SHALL BE STAINLESS STEEL, NON-CORROSIVE TYPE FASTENERS AND SHALL BE NON-CONDUCTIVE OR INSULATED WHEN JOINING NON-COMPATIBLE MATERIALS. VANDAL-RESISTANT FASTENERS SHALL BE USED WHENEVER POSSIBLE.
- PAINTS: THE BACK OF ALL SIGNS, POSTS AND ENTIRE OVERHEAD SIGN STRUCTURES SHALL BE PAINTED BLACK. WORKMANSHIP IN CONNECTION WITH PAINT AND FINISHES SHALL CONFORM TO THE HIGHEST STANDARDS OF THE TRADE. PAINTS SHALL BE EVENLY APPLIED WITHOUT PINHOLES, SCRATCHES, PEELING, APPLICATION MARKS, DUST PARTICLES, ETC. NO PAINT THAT WILL FADE, DISCOLOR OR DELAMINATE AS A RESULT OF PROXIMITY TO AN ULTRAVIOLET LIGHT SOURCE OR HEAT SHALL BE USED. THE COST OF PRIMING ALL SURFACES (PRETREATMENT) SHALL BE INCLUDED IN THE WORK AS PART OF THE FINISHED SURFACE WORK. THE PAINT AND PRE-TREATMENTS SHALL BE APPLIED AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND SPECIFICATIONS. THE PAINT SHALL BE PORTER PAINT, GLIDEX 4100 SERIES OR EQUIVALENT.
- INSPECT EXISTING CONDITIONS OF THE PROJECT, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR TO MOVEMENT DURING CUTTING AND PATCHING. AFTER UNCOVERING WORK, INSPECT THE CONDITIONS AFFECTING THE INSTALLATION OF PRODUCTS OR PERFORMANCE OF THE WORK. REPORT UNSATISFACTORY OR QUESTIONABLE CONDITIONS IN WRITING; DO NOT PROCEED WITH THE WORK UNTIL THE CITY AND/OR THEIR APPOINTED REPRESENTATIVE HAS PROVIDED FURTHER INSTRUCTIONS.

- ALL SIGNS SHOULD HAVE A CITY OF TAMPA DECAL (PROVIDED BY THE CITY) WITH DATE INSTALLED AFFIXED TO THE BACK OF THE SIGN IN THE BOTTOM RIGHT CORNER.
- UTILITY CLEARANCE SHALL BE REQUIRED FOR ALL SIGN INSTALLATIONS INCLUDING EXISTING SIGN LOCATION. THE AWARDEE SHALL SECURE SAID UTILITY CLEARANCE.
- ALL MATERIALS SHALL MEET FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS UNLESS APPROVED BY THE CITY OF TAMPA. SAID APPROVAL SHALL BE IN WRITING.
- REPLACE STREET NAME SIGNS AS SHOWN ON THE SIGNING AND PAVEMENT MARKING PLANS AND THE HISTORIC SIGN DETAIL SHEETS, USING THE HISTORIC SIGNS TABLE BELOW.

HISTORIC SIGNS TABLE			
STA	OFFSET	SIGN ASSEMBLY NAME	SIGN TYPE
104+25	39' LT	Columbus Dr	A
		9th St	A
107+56	39' LT	Columbus Dr	A
		10th St	A
108+28	29' RT	Columbus Dr	A
		10th St	A
114+43	29' LT	Columbus Dr	A
		12th St	A
115+30	30' RT	Columbus Dr	A
		12th St	A
119+91	34' RT	Columbus Dr	A
		13th St	A
123+47	30' RT	Columbus Dr	A
		14th St/Republica de Cuba	B

LETTER STYLE: CAXTON BOLD
ABCDEFGHIJKLMN OPQR
abcdefghijklmn 1234567890

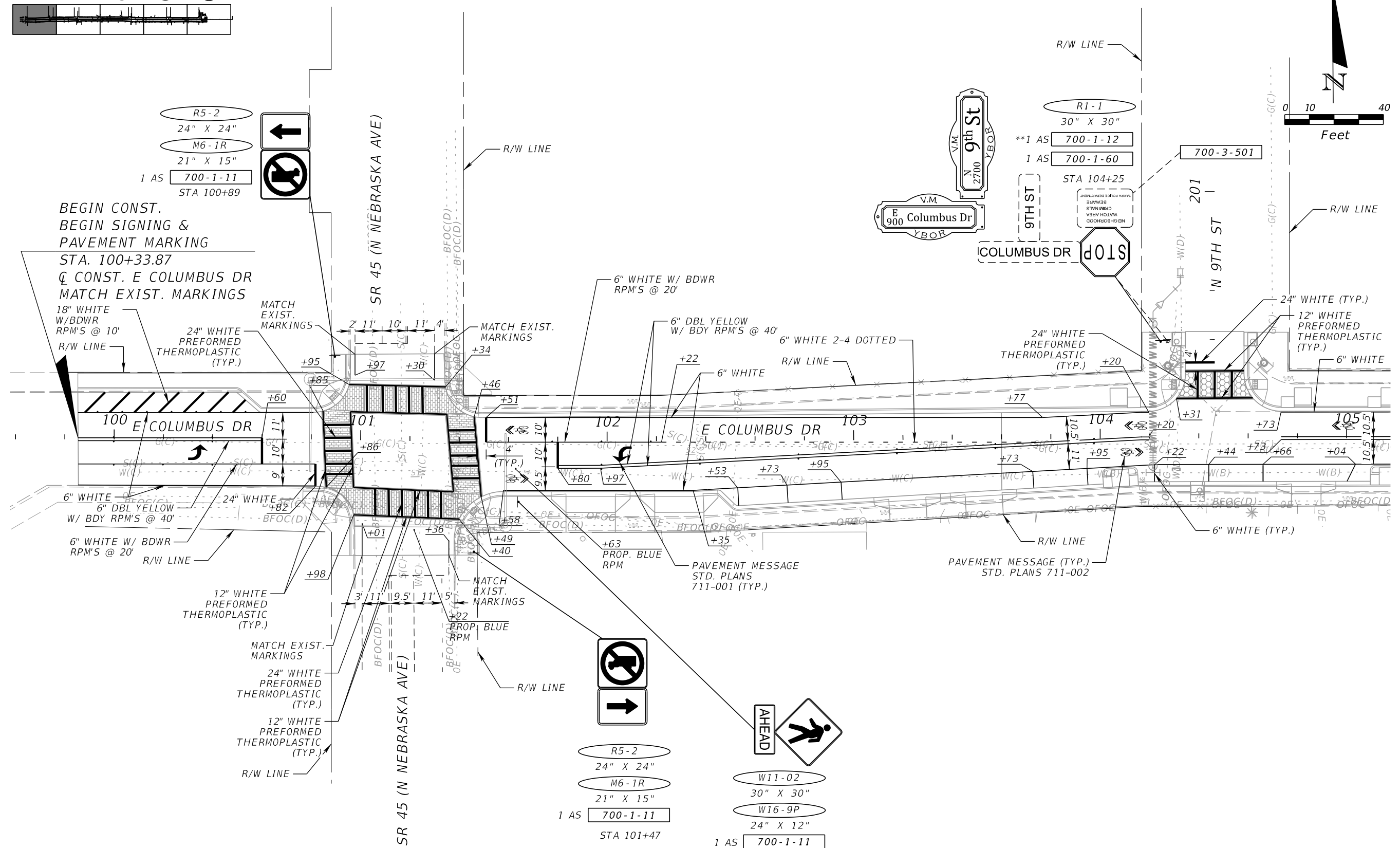
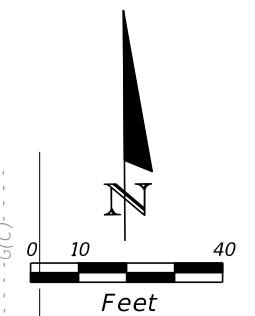
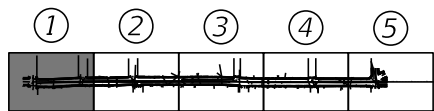
LETTER STYLE: CHARLEMAGNE BOLD
ABCDEFGHIJKLMN OPQR
1234567890

LETTERSTYLE CYERHEAD SIGNS:
 "E-MOD" per FDOT Standard

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. S-3
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

GENERAL NOTES

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R5-2
24" X 24"
M6-1R
21" X 15"
1 AS 700-1-11
STA 100+89

R1-1
30" X 30"
**1 AS 700-1-12
1 AS 700-1-60
STA 104+25

R5-2
24" X 24"
M6-1R
21" X 15"
1 AS 700-1-11
STA 101+47

W11-02
30" X 30"
W16-9P
24" X 12"
1 AS 700-1-11
STA 100+77

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

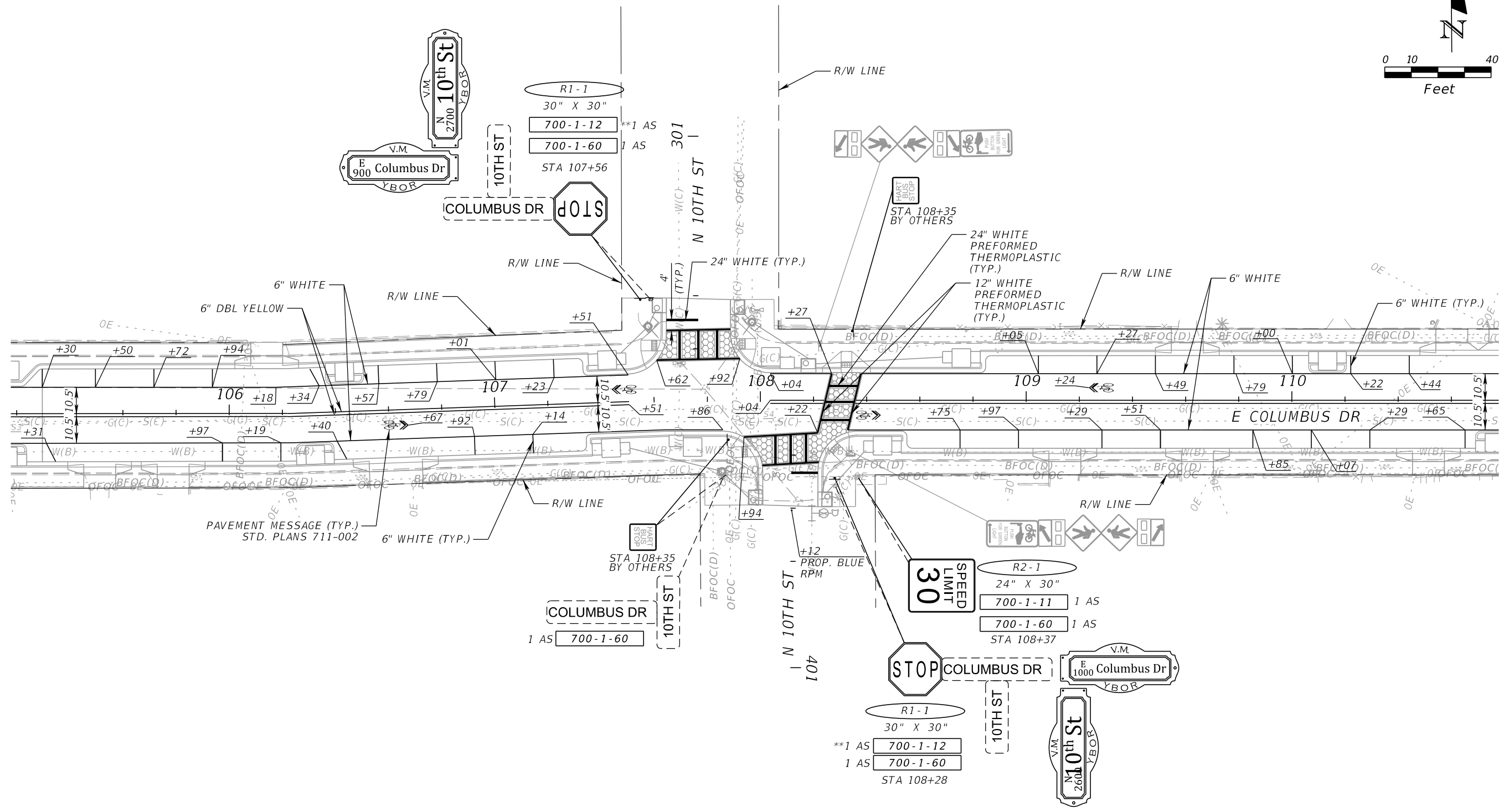
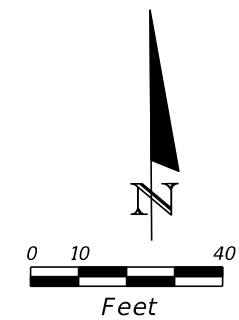
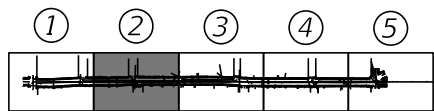
JEFFREY SIEWERT, P.E.
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AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

**SIGNING AND PAVEMENT
MARKING PLANS (1)**

SHEET NO.
S-4

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REVISIONS			
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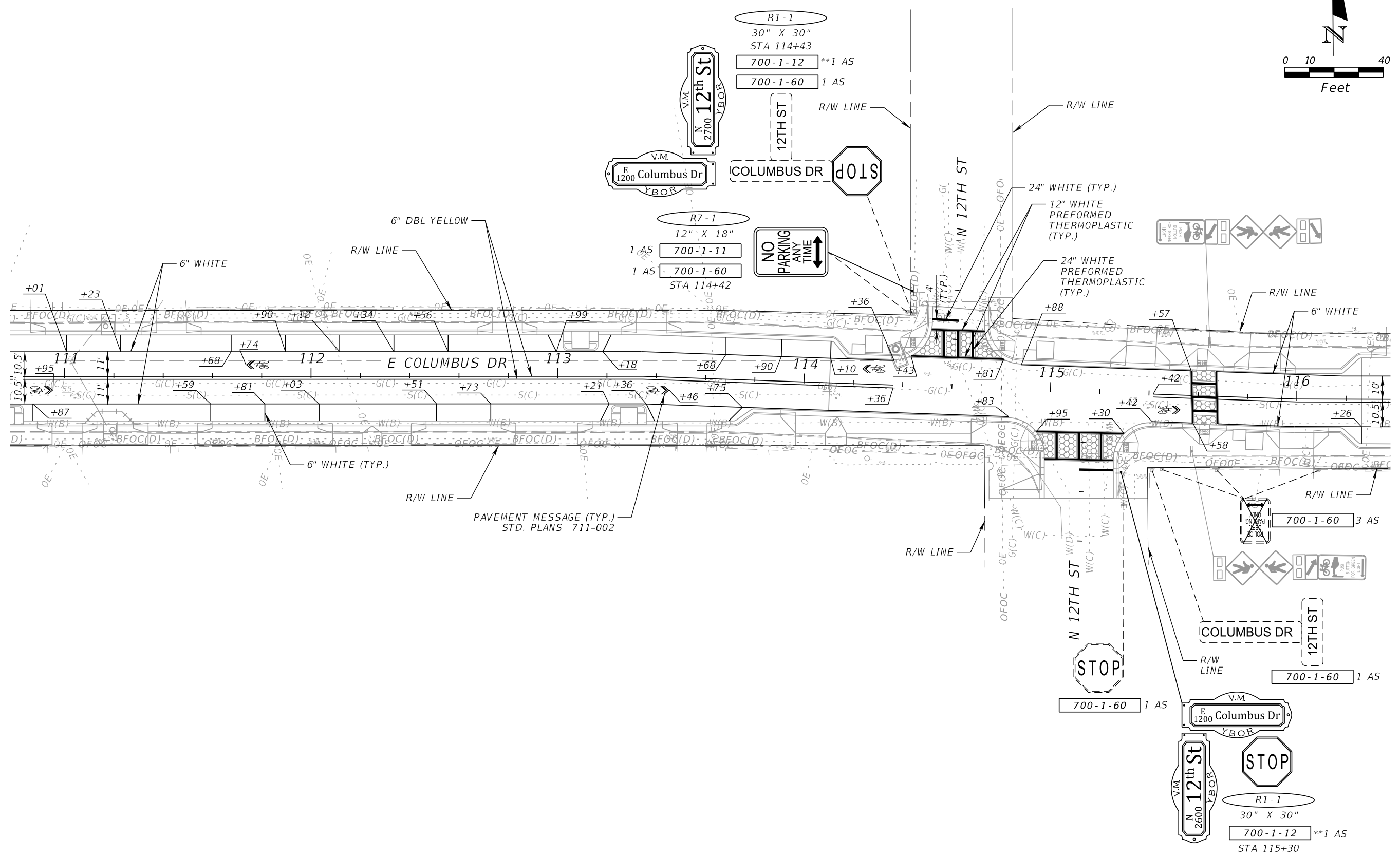
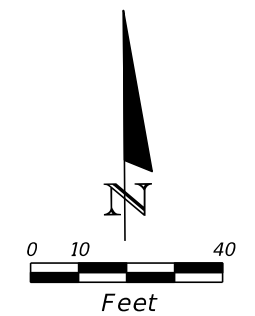
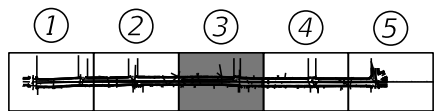
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

**SIGNING AND PAVEMENT
MARKING PLANS (2)**

SHEET NO.
S-5

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

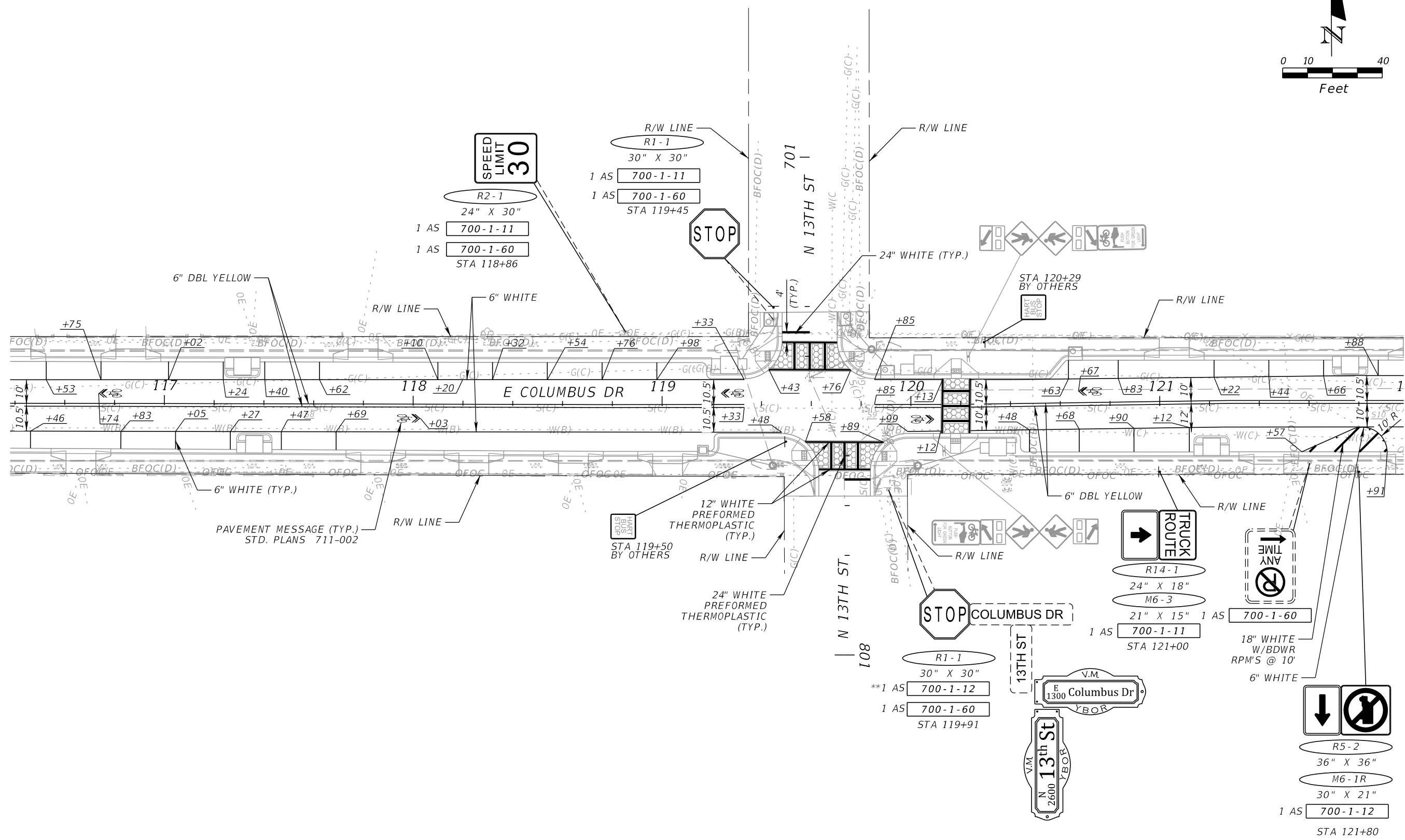
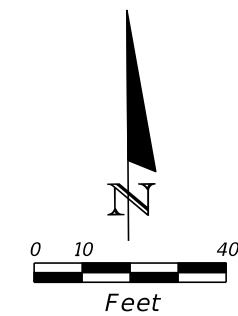
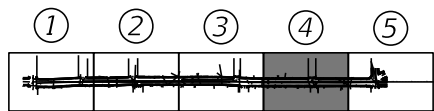
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

**SIGNING AND PAVEMENT
MARKING PLANS (3)**

SHEET NO.
S-6

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

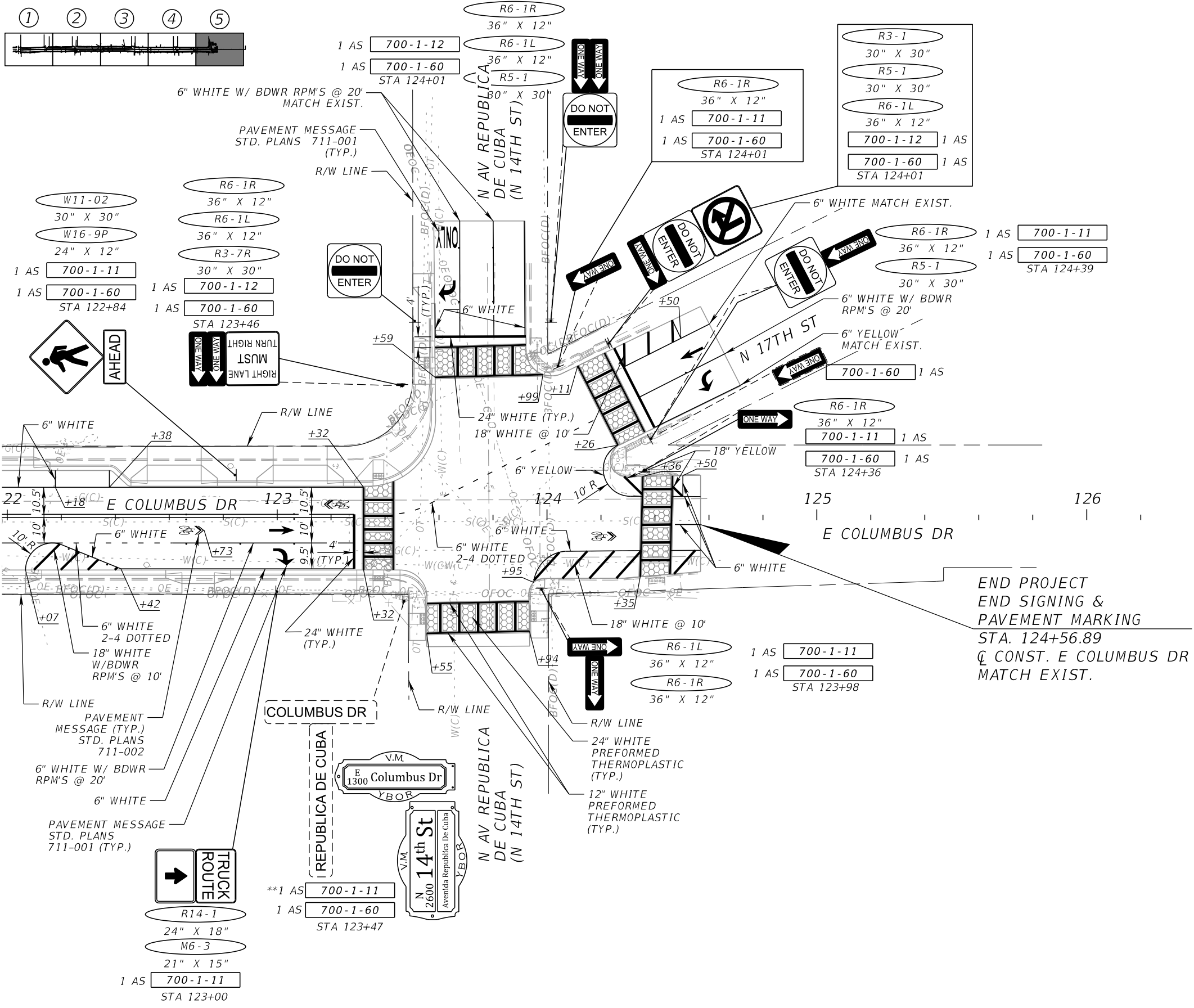
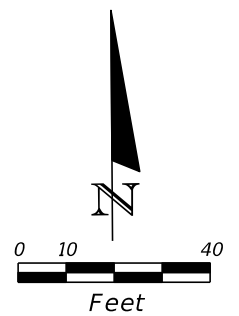
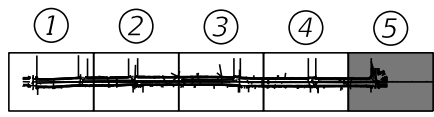
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

**SIGNING AND PAVEMENT
MARKING PLANS (4)**

SHEET NO.
S-7

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END PROJECT
 END SIGNING &
 PAVEMENT MARKING
 STA. 124+56.89
 Q CONST. E COLUMBUS DR
 MATCH EXIST.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

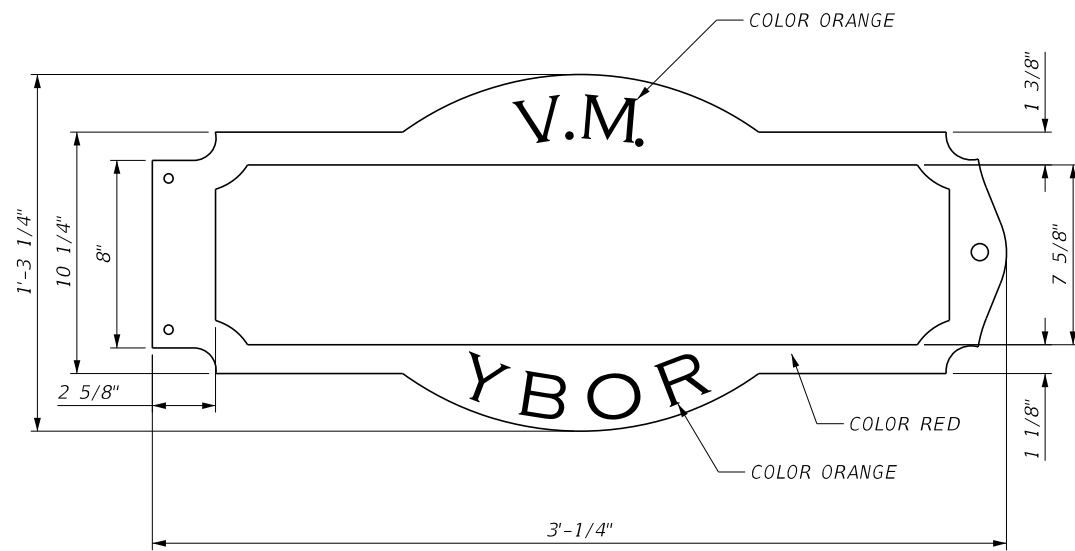
JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

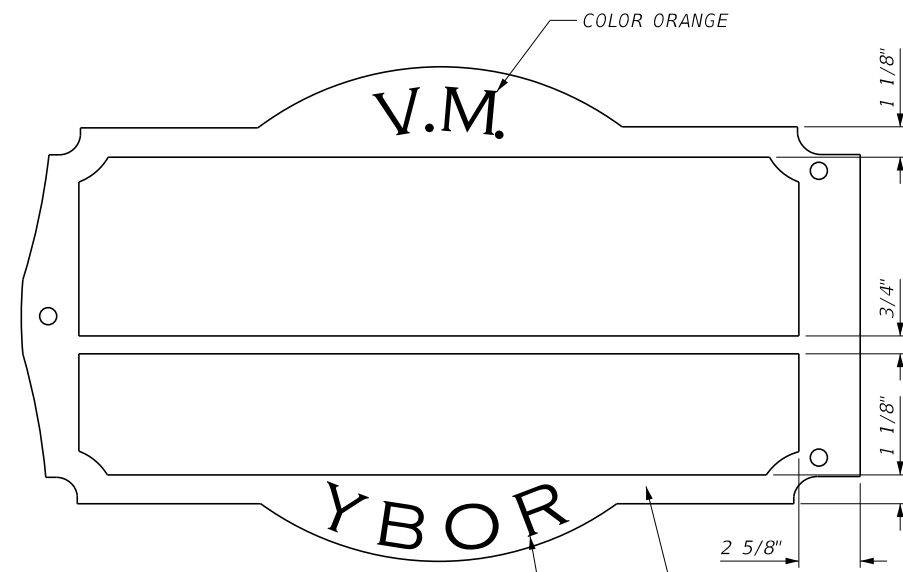
**SIGNING AND PAVEMENT
 MARKING PLANS (5)**

SHEET
 NO.
S-8

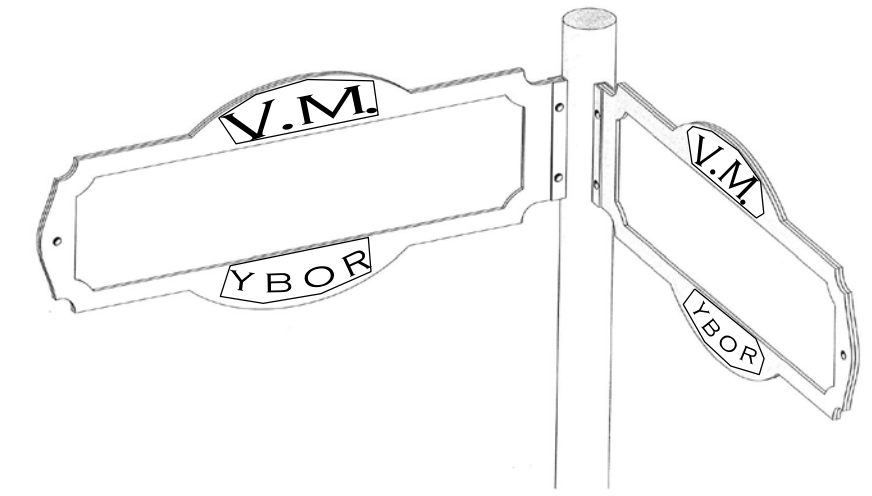
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



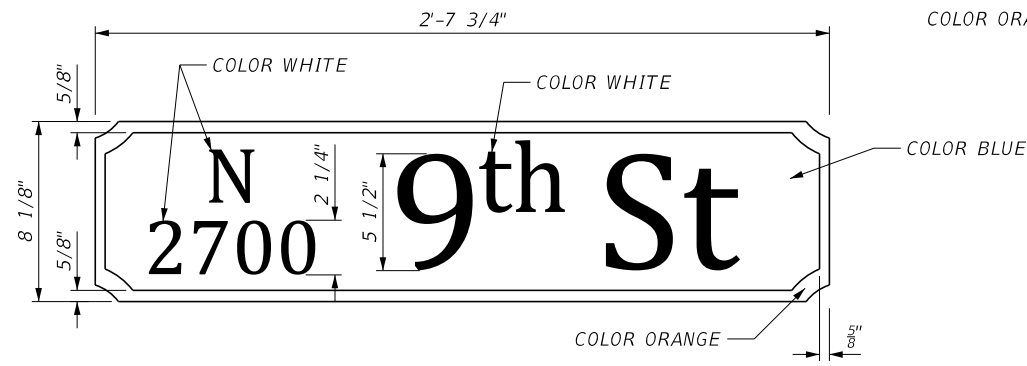
FRAME-STREET NAME-TYPE A
1/4" LASER-CUT ALUMINUM



FRAME-STREET NAME-TYPE B
1/4" LASER-CUT ALUMINUM



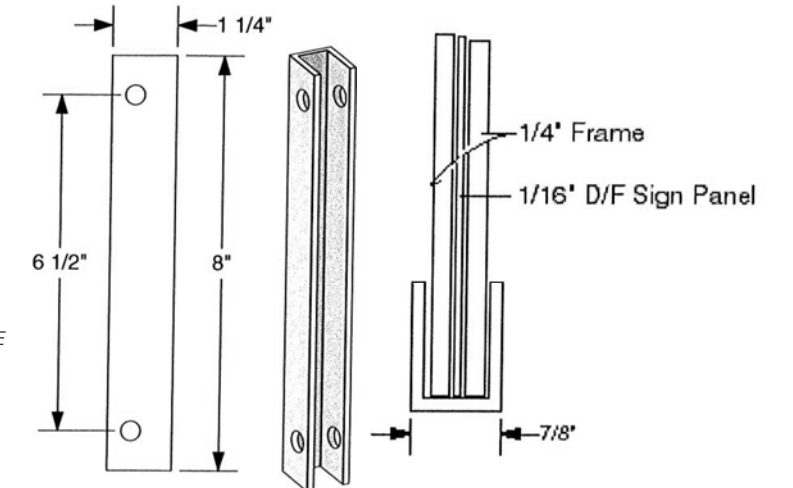
ISOMETRIC DETAIL
NTS



SIGN BLADE A-STREET NAME-TYPE A
1/16" ALUMINUM



SIGN BLADE A & B-STREET NAME-TYPE B
1/16" ALUMINUM



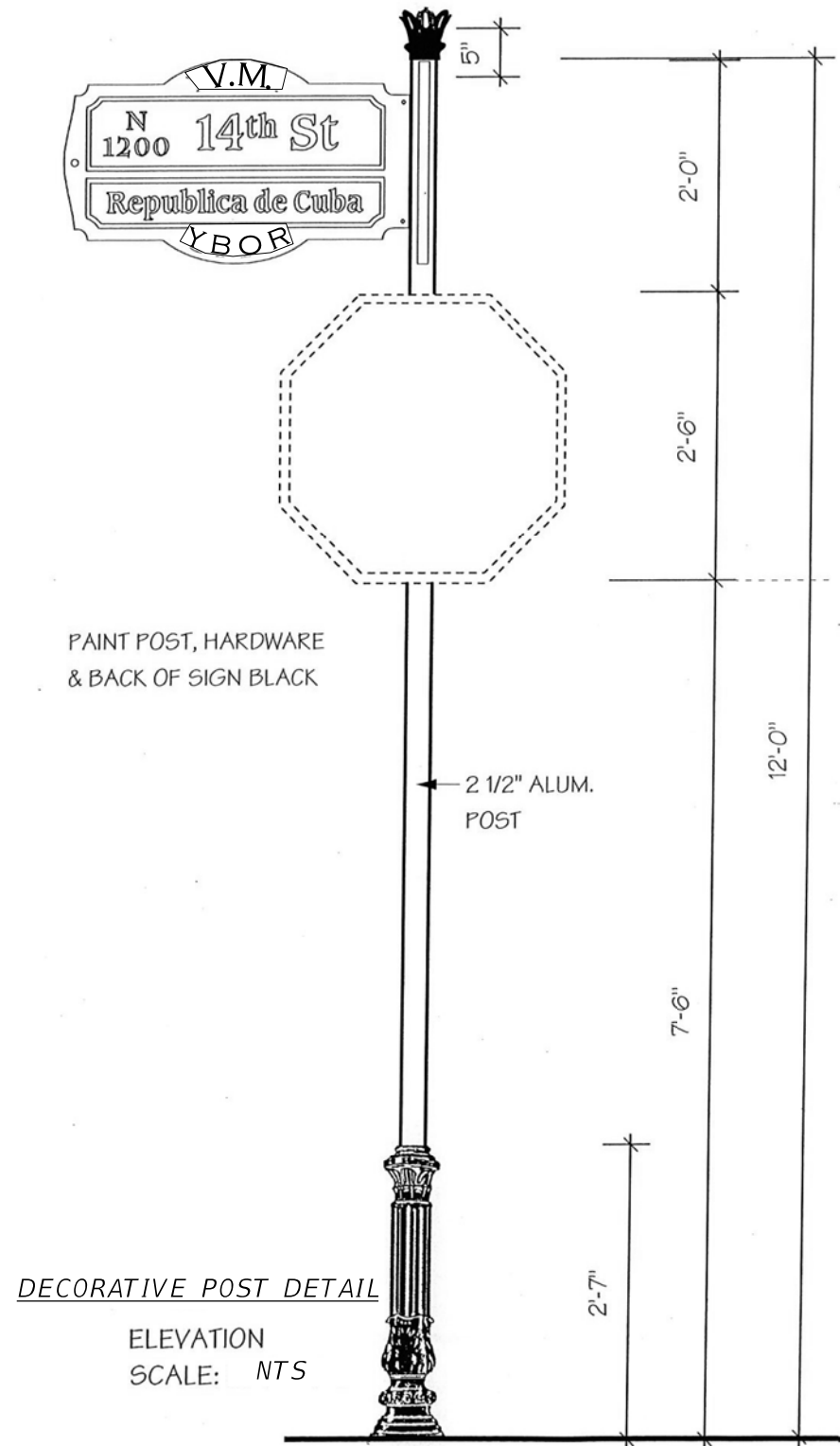
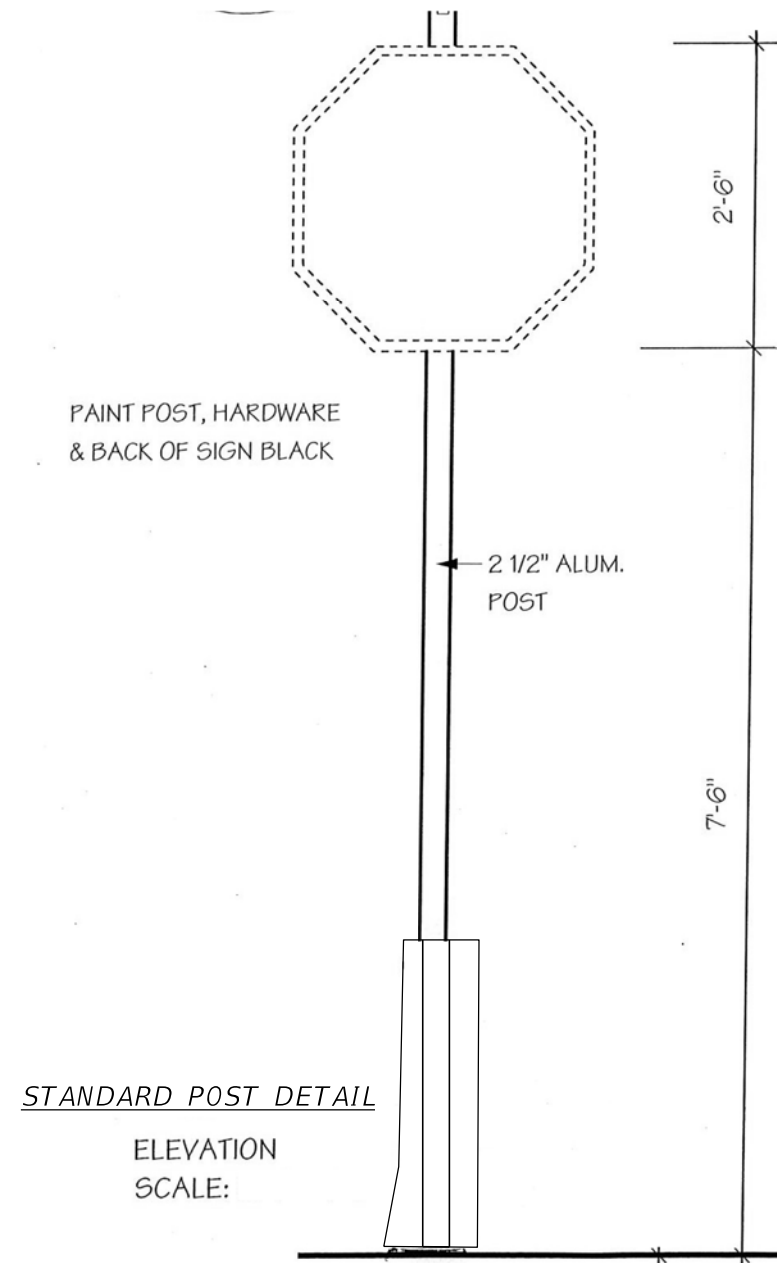
U-CHANNEL MOUNTING BRACKET

NOTE:
REFER TO LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2009 EDITION, INCLUDING REVISION 1, DATED MAY 2012 AND REVISION 2, DATED MAY 2012 FOR MAINTAINING MINIMUM RETROREFLECTIVITY.

REVISIONS				JEFFREY SIEWERT, P.E. P.E. LICENSE NUMBER 39196 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. S-9
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

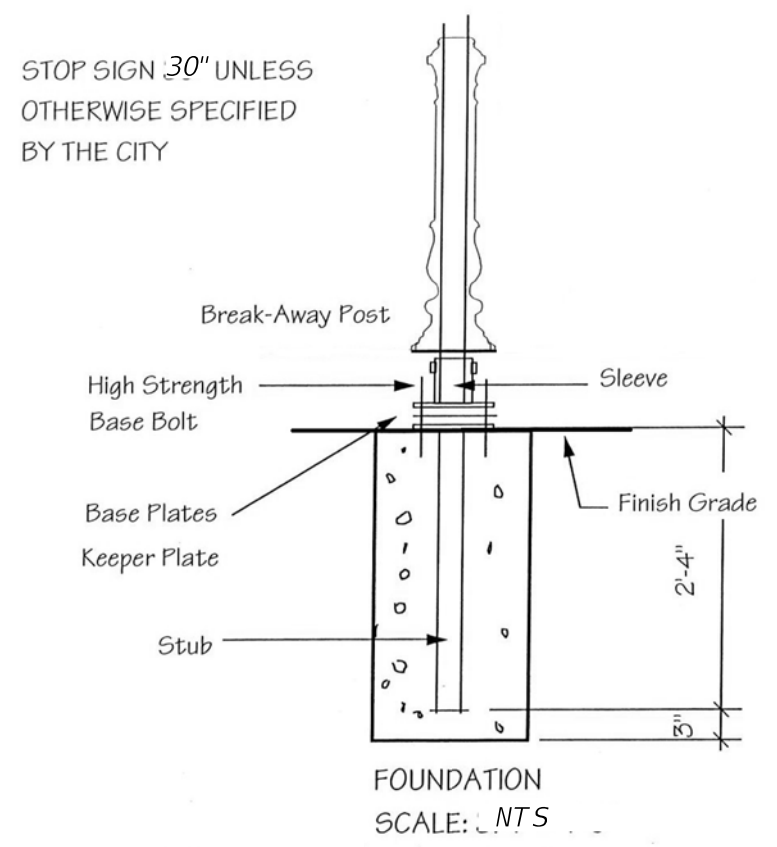
HISTORIC SIGN DETAILS (1)

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NOTE: MODIFIED CAP TO BE TRIMMED AS SHOWN.
 (2) PIECE CAST ALUM.
 WELD, FILL, SAND, PRIME & PAINT BLACK. PROVIDED POST CAP.
 FITS 2 1/2" POST.
 5" H X 5 1/2" W.

Corinthian Post & Cap
 Orleans Ornamental Iron
 3053 N. Rampart St.
 New Orleans, LA 70117
 800-824-3608



STOP SIGN 30" UNLESS OTHERWISE SPECIFIED BY THE CITY

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JEFFREY SIEWERT, P.E.
 P.E. LICENSE NUMBER 39196
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

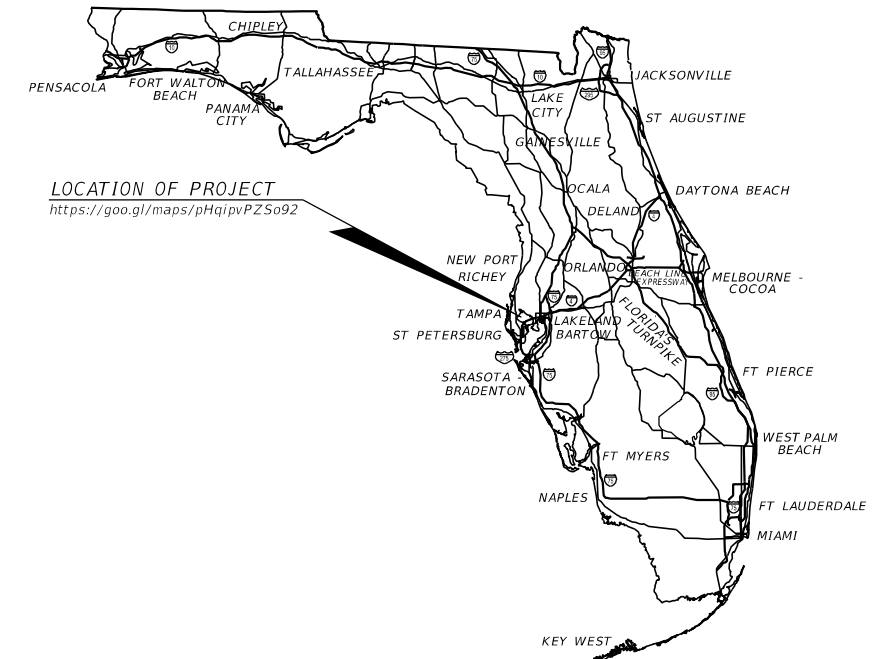
HISTORIC SIGN DETAILS (2)

SHEET NO.
S-10

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STATE OF FLORIDA
CITY OF TAMPA

WALK-BIKE LAP PROJECT



LOCATION OF PROJECT
<https://goo.gl/maps/pHqjpvPZSo92>

INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	GENERAL NOTES
T-5 THRU T-9	SIGNALIZATION PLAN
T-10	MAST ARM TABULATION SHEET
T-11	STANDARD MAST ARM ASSEMBLIES DATA TABLE
T-12 THRU T-13	GUIDESIGN WORKSHEET
T-14	REPORT OF CORE BORINGS
REFERENCE	HART SPLICING AND CONNECTION DETAIL

CITY PROJECT NO. 1001221
FINANCIAL PROJECT ID 436639-1-58-01
(FEDERAL FUNDS)
HILLSBOROUGH COUNTY
E COLUMBUS DR FROM SR 45 (N NEBRASKA AVE) TO N 14TH ST
SIGNALIZATION PLANS

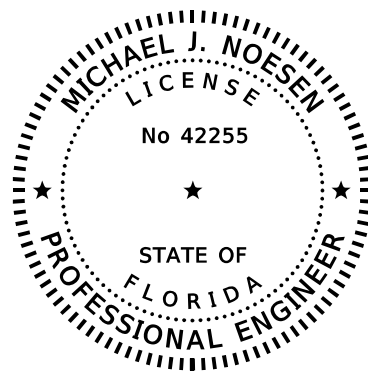
CONSTRUCTION PLANS
MARCH, 2020

SIGNALIZATION PLANS
ENGINEER OF RECORD:
MICHAEL J. NOESEN, P.E.
P.E. LICENSE NUMBER 42255
BES INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
813-985-7800
CERTIFICATE OF AUTHORIZATION 9835

CITY PROJECT MANAGER:
NINA MABILEAU, E.I.

FISCAL YEAR	SHEET NO.
21	T-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



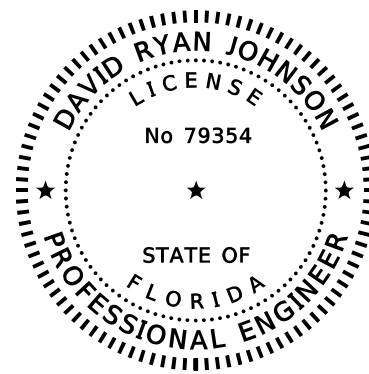
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

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.

BES INC.
 1107 N 56TH ST, SUITE 209
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF AUTHORIZATION: 9835
 MICHAEL J. NOESON, P.E. NO. 52144

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T- 1	KEY SHEET
T- 2	SIGNATURE SHEET
T- 3	TABULATION OF QUANTITIES
T- 4	GENERAL NOTES
T- 5 THRU T- 9	SIGNALIZATION PLAN
T- 10	MAST ARM TABULATION SHEET
T- 12 THRU T- 13	GUIDESIGN WORKSHEET



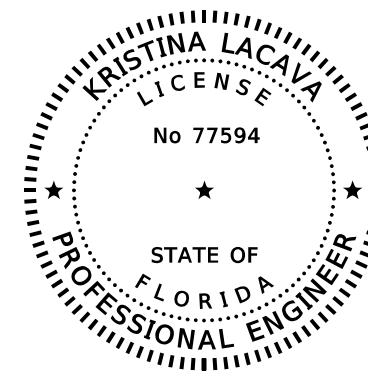
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ON THE DATE ADJACENT TO THE SEAL
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AYRES ASSOCIATES INC
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION: 4356
 DAVID RYAN JOHNSON, P.E. NO. 79354

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-2	SIGNATURE SHEET
T-11	STANDARD MAST ARM ASSEMBLIES DATA TABLE



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL
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AREHNA ENGINEERING INC.
 5012 WEST LEMON STREET
 TAMPA, FL 33609
 CERTIFICATE OF AUTHORIZATION: 28410
 KRISTINA LACAVA, P.E. NO. 77594

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T- 2	SIGNATURE SHEET
T- 14	REPORT OF CORE BORINGS

REVISIONS				MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	T-2

SIGNATURE SHEET

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T-5		T-6		T-7		T-8		T-9		PLAN	FINAL	PLAN	FINAL			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL							
630-2-11	CONDUIT, F& I, OPEN TRENCH	LF	80									120				200		200	
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	LF	305									220				525		525	
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1									1				2		2	
632-7-6	SIGNAL CABLE, REMOVE - INTERSECTION	PI										1				1		1	
633-1-121	FIBER OPTIC CABLE, F&I, 2-12 FIBERS	LF	150													150		150	
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	12													12		12	
633-4-1	SIGNALS COMMUNICATION CABLE-TWISTED PAIR CABLE, F&I	LF										50				50		50	
633-4-6	SIGNALS COMMUNICATION CABLE-TWISTED PAIR CABLE, REMOVE	LF										30				30		30	
635-2-11	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE	EA	13									15				28		28	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1													1		1	
639-1-122	ELECTRICAL POWER SERVICE, F& I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1													1		1	
639-1-610	ELECTRICAL POWER SERVICE, REMOVE OVERHEAD	AS	1													1		1	
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	75									30				105		105	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1													1		1	
641-2-11	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II, PEDESTAL	EA	2													2		2	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II, SERVICE POLE (TEMPORARY)	EA	1													1		1	
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL- POLE 30' AND GREATER	EA	2													2		2	
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	5									10				15		15	
646-1-60	ALUMINUM SIGNALS POLE, REMOVAL	EA	2									3				5		5	
649-21-12	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, DOUBLE ARM 60'-40'	EA	2													2		2	
650-1-14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	8													8		8	
650-1-16	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4													4		4	
650-2-102	VEHICULAR SIGNAL AUXILIARIES, REPAIR/REPLACE/RETROFIT- F& I, BACKPLATE- BLACK WITH REFLECTIVE BORDER	EA										7				7		7	
653-1-11	PED. SIGNAL, F&I, LED-COUNTDOWN, 1 WAY	AS	2									10				12		12	
653-1-12	PED SIGNAL, F&I, LED-COUNTDOWN, 2-WAYS	AS	3													3		3	
653-1-60	PED. SIGNAL, REMOVE PED SIGNAL - POLE/PEDESTAL TO REMAIN	AS										4				4		4	
654-2-22	RECTANGULAR RAPID FLASHING BEACON, FURNISH & INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS			2		2		2							6		6	
660-1-103	LOOP DETECTOR , INDUCTIVE, F&I, TYPE 3	EA										4				4		4	
660-2-101	LOOP ASSEMBLY- F&I, TYPE A	AS										4				4		4	
660-4-11	VEHICLE DETECTION SYSTEM-VIDEO, F&I, CABINET EQUIPMENT	EA	1													1		1	
660-4-12	VEHICLE DETECTION SYSTEM-VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA	4													4		4	
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	EA	8									10				18		18	
665-1-60	PEDESTRIAN DETECTOR, REMOVE - POLE/PEDESTAL TO REMAIN	EA										5				5		5	
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	1									1				2		2	
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1									1				2		2	
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE WITH CABINET	EA	1									1				2		2	
700-3-201	SIGN PANEL, F&I, OVERHEAD MOUNT, UP TO 12 SF	EA	4													4		4	
700-5-22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	4									4				8		8	

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT <table border="1"> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </table>	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	SHEET NO. T-3
REVISIONS																								
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CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																						
1001221	HILLSBOROUGH	436639-1-58-01																						

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SIGNALIZATION NOTES:

1. ONE WEEK PRIOR TO THE START OF THE TRAFFIC SIGNAL INSTALLATION, CONTACT BOTH:

CITY TRAFFIC MANAGEMENT CENTER (TMC) MR. BRIAN PASZKO CITY OF TAMPA 1104 E TWIGGS ST SUITE 200 TAMPA, FLORIDA 33602 PHONE: (813) 393-8439 EMAIL: Brian.Paszko@Tampagov.net	AND	TRAFFIC SIGNAL SHOP SUPERVISOR MR. SCOTT KEITH CITY OF TAMPA PHONE: (813) 951-2915 EMAIL: SCOTT.KEITH@TAMPAGOV.NET
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2. DISPOSE ALL REMOVED EQUIPMENT IN CONTRACTOR PROVIDED AREAS EXCEPT FOR THE TRAFFIC CONTROLLER. THE TRAFFIC CONTROLLER SHALL BE RETURNED TO THE TAMPA SIGNAL SHOP.
3. CONTACT MR JOHN GASKINS @ 813-351-9973 FOR INFORMATION AND INSTALLATION OF CITY OF TAMPA COMPATIBLE VIDEO DETECTION
4. ALL HART EQUIPMENT WITHIN THE CABINET ON THE SOUTHEAST STRAIN POLE SHALL BE TRANSFERRED TO THE NEW CABINET AND MOUNTED WITHIN THE NEW CONTROLLER CABINET AND PLACED BACK INTO OPERATION. HART MUST BE CONTACTED 72 HOURS BEFORE TRANSFER. COST SHALL BE INCLUDED IN THE COST OF THE NEW CONTROLLER. HART'S ITS SPLICING AND CONNECTION DETAIL IS INCLUDED IN THE PLAN SET FOR REFERENCE. ITS SYSTEM SHALL NOT BE OUT OF SERVICE FOR MORE THAN 24 HOURS.
5. TEMPORARY VEHICLE DETECTION AND PEDESTRIAN CROSSING DETECTION SHALL BE MAINTAINED PER PAY 102-104 AND 102-107 IN THE ROADWAY PLANS.
6. SUBMIT SIGNALIZATION BORE LOGS WITH THE AS-BUILT PLANS.
7. REQUEST AND OBTAIN APPROVAL FROM THE ENGINEER FOR AVIAN ABATEMENT TO PREVENT NESTING IN THE MAST ARM ASSEMBLY, INCLUDING THE ARM CONNECTION AREA.
8. EXISTING OVERHEAD COPPER COMMUNICATIONS CABLE AT COLUMBUS DR AND NEBRASKA AVE SHALL NOT BE REMOVED. THE COPPER COMMUNICATION CABLE IS IN USE AND MUST BE SUPPORTED BY A POLE AT THE SOUTHEAST CORNER. CONTACT MR SCOTT KEITH (CITY OF TAMPA, 813-951-2915) FOR GUIDANCE IN REMOVING THE DROP FROM THE AERIAL SPLICE BAGGIE AND ANY OTHER NECESSARY SPLICING NEEDS. PROVIDE MATERIAL FOR ANY NECESSARY RE-SPLICING/TERMINATING OF ANY ACTIVE/INACTIVE COPPER PAIRS. BEAR RESPONSIBILITY FOR ANY DAMAGE AND/OR REPLACEMENT OF ANY COPPER CABLE AND/OR RELATED EQUIPMENT.
9. CONTACT MR. SCOTT KEITH (CITY OF TAMPA, 813-951-2915) PRIOR TO REMOVAL AND REPLACEMENT OF THE 6 PAIR COPPER COMMUNICATIONS CABLE AT AVENIDA REPUBLICA DE CUBA INTERSECTION TO ENSURE PROPER COLORS ARE SPLICED.

PAY ITEM NOTES:

1. 630-2-11 AND 630-2-12
 CONDUITS INSTALLED WITH THE DIRECTIONAL BORE METHOD ARE HDPE, UNLESS OTHERWISE NOTED IN THE PLANS.

 TWO SEPARATE UNDERGROUND CONDUIT RUNS LOCATED 180 DEGREES APART ARE REQUIRED FOR MAST ARMS. INSTALL A MINIMUM OF TWO RUNS OF TWO INCH CONDUIT BETWEEN THE LAST LOW VOLTAGE (LOOPS) PULL BOX LOCATED NEAR THE CONTROLLER CABINET AND THE CONTROLLER CABINET.

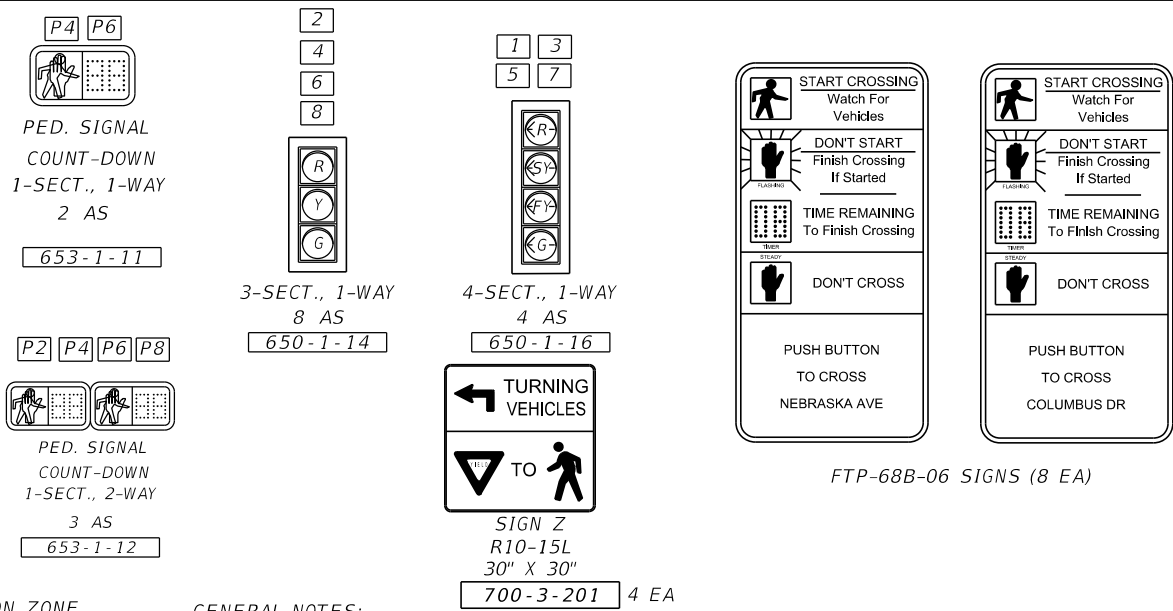
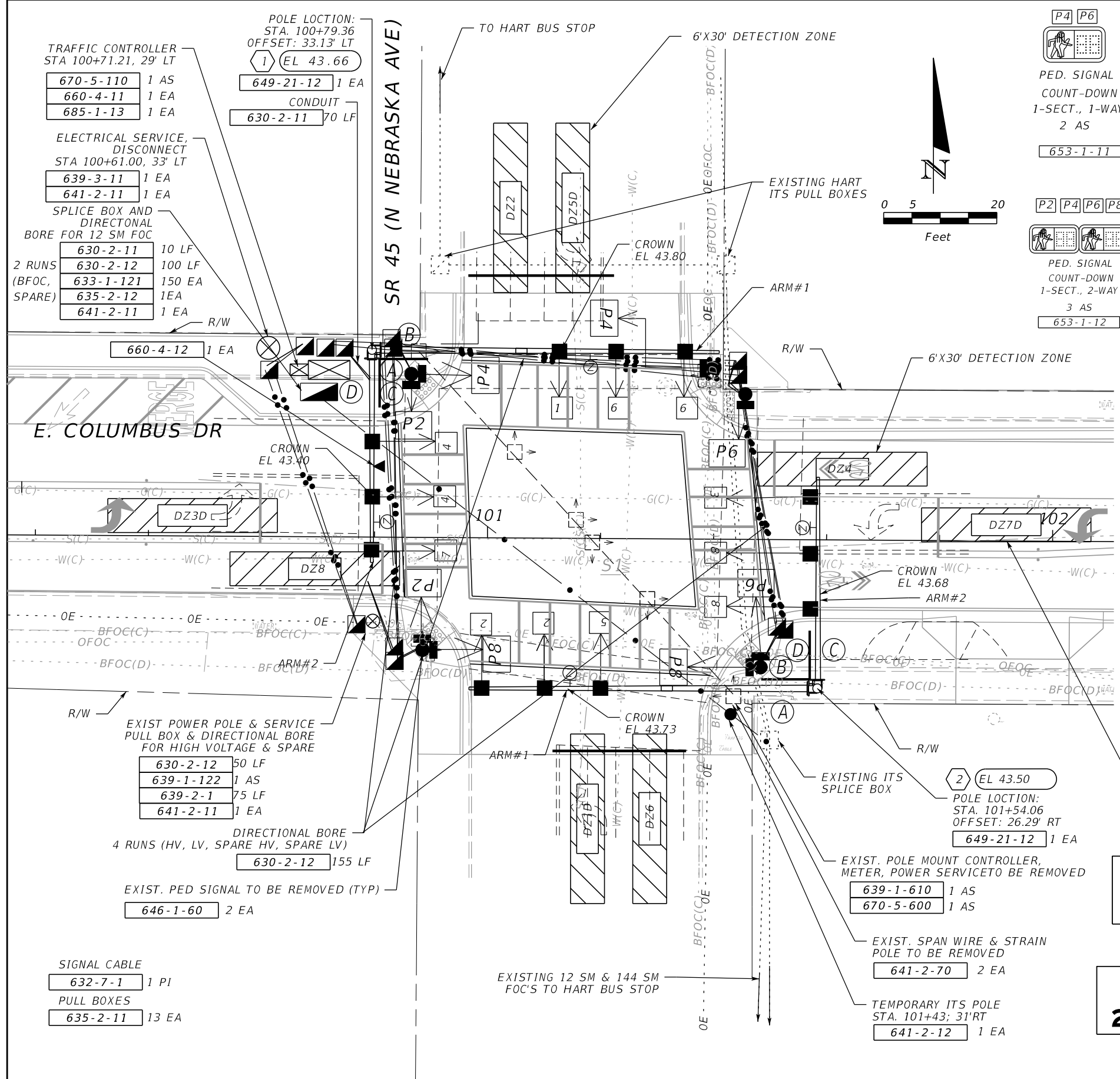
 CONDUIT RUNS SHOWN ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. DETERMINE EXACT LOCATIONS OF ALL UTILITIES PRIOR TO DIGGING. ALL CONDUITS SHALL BE TERMINATED WITH A BELL END. SPARE CONDUITS ARE TO BE CAPPED AND HAVE TRACK WIRE OR MULE TAPE.
2. 632-7-1:
 WIRE EACH PHASE/MOVEMENT FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES THE LEFT TURN MOVEMENT WHICH HAVE CONDUCTORS AVAILABLE FOR EITHER PROTECTED OR PERMISSIVE MOVEMENTS. VERIFY COLOR CODES FOR SIGNAL CABLE AND INTERCONNECT CABLE WITH THE CITY OF TAMPA TRAFFIC SIGNAL SUPERVISOR BEFORE ORDERING, AND WIRE THE SIGNAL IN ACCORDANCE WITH THAT COLOR CODE AND F.D.O.T. SPECIFICATIONS. INSTALL ONE NEUTRAL PER APPROACH.

 ALL FIELD WIRING MUST BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT, LEGIBLE, WEATHER-PROOF TAGS SECURELY ATTACHED TO EACH CABLE. THE TAGGING SYSTEM SHALL BE SUBMITTED FOR APPROVAL WITH THE OTHER EQUIPMENT SUBMITTALS.
3. 635-2-11: ANY PULL BOXES THAT REMAIN AFTER THE CONSTRUCTION OF THE PROJECT BUT NO LONGER NEEDED FOR THE TRAFFIC OPERATION ARE TO BE REMOVED, AND FILLED IN WITH CONCRETE OR REPLACEMENT OF SIDEWALK PANEL.

 GROUND RODS CAN BE WITHIN THE PEDESTRIAN SIGNAL FOUNDATION OR WITHIN THE PEDESTRIAN SIGNAL PULL BOX THAT IS WITHIN 10 FEET OF THE PEDESTRIAN POLE. IF THESE APPLICATIONS ARE NOT AVAILABLE, GROUND RODS NEED TO BE ACCESSIBLE FOR INSPECTION. ONE GROUND ROD PER POLE.
4. 649-21-12: MAST ARM STRUCTURES ARE TO BE RATED FOR 150 MPH WIND SPEED.
5. 654-2-22: RRFB'S MUST BE ACCEPTABLE TO THE CITY. RRFB PEDESTRIAN BUTTONS MUST HAVE A TACTILE ARROW WITH NO LED, CHIRP OR LATCHING CAPABILITIES. RRFB'S MUST HAVE SUPPORT COLLARS WITH ROLL PINS. SIDE CAPS MOUNTED ON THE EDGES OF THE FLASHER HOUSING ARE TO BE REMOVED.
6. 660-4-12: ONE FISHEYE, BELL TYPE CAMERA TO DETECT TRAFFIC IN ALL DIRECTIONS.
7. 665-1-12:
 COORDINATE WITH THE CITY OF TAMPA SIGNAL SHOP FOR ACCEPTABLE CHOICES OF PEDESTRIAN DETECTORS AND OPERATIONS. PIEZO STYLE LATCHING PUSH BUTTON SHALL INCLUDE VISUAL INDICATION OF ACTUATION AND SHALL REMAIN ILLUMINATED UNTIL THE PEDESTRIAN WALK INDICATION IS DISPLAYED. DIRECTION SPECIFIC PUSH BUTTON SHALL HAVE A TACTILE ARROW. APPROPRIATE BUTTONS MUST HAVE LEFT OR RIGHT ARROWS AND MUST BE ALIGNED WITH AND POINTING AT THE DESIGNATED PEDESTRIAN RAMP. THE BUTTON MUST BE MOUNTED SO SPEAKER IS FACING DOWN. INCIDENTAL EQUIPMENT MAY BE REQUIRED FOR PROPER OPERATION.
8. 670-5-100:
 THIS PAY ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING A FULLY LOADED TS2 TYPE-1, SIZE P-44 CONTROLLER ASSEMBLY WITH AN EIGHT PHASE BACKPLANE, MINIMUM SIXTEEN LOAD BAY POSITIONS, NO PAINT OUTSIDE, WHITE PAINT INSIDE, GPS CLOCK SYNC, TWO QUAD OUTLETS, ONE DUPLEX GFI, WALL MOUNT PATCH PANEL (12X SINGLE MODE WITH SC-CONNECTORS), ETHERNET EDGE SWITCH, CONTROLLER WITH CENTRAL SOFTWARE LICENSE COMPATIBLE WITH THE CITY'S CENTRACS TRAFFIC CONTROL SYSTEM MMU AND ANY HART EQUIPMENT. NOTIFY CITY OF TAMPA SIGNAL SHOP (MR SCOTT KEITH @ 813-951-2915, SCOTT.KEITH@TAMPAGOV.NET) AND FDOT DISTRICT SEVEN TRAFFIC OPERATION (MR DWAYNE DEMPSEY, 813-975-6226, CURTIS.DEMPSEY@DOT.STATE.FL.US) AT LEAST 48 HOURS IN ADVANCE OF TURNING ON A NEW OR MODIFIED CONTROLLER CABINET ASSEMBLY. CABINET DOOR SHALL OPEN AWAY FROM THE TRAFFIC. THE TECHNICIAN SLAB SHALL BE A MAXIMUM OF 4" BELOW THE TOP OF THE CONCRETE PAD.
9. 700-5-21; 700-5-22:
 SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS FOR THE FREE-SWINGING INTERNALLY ILLUMINATED STREET NAME BRACKET ARMS PER STANDARD PLAN INDEX 700-050. THE DESIGN WIND SPEED IS 150 MPH. THE PANELS SHALL BE TWO-SIDED (BACK TO BACK).

REVISIONS				MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL NOTES	SHEET NO. T-4
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

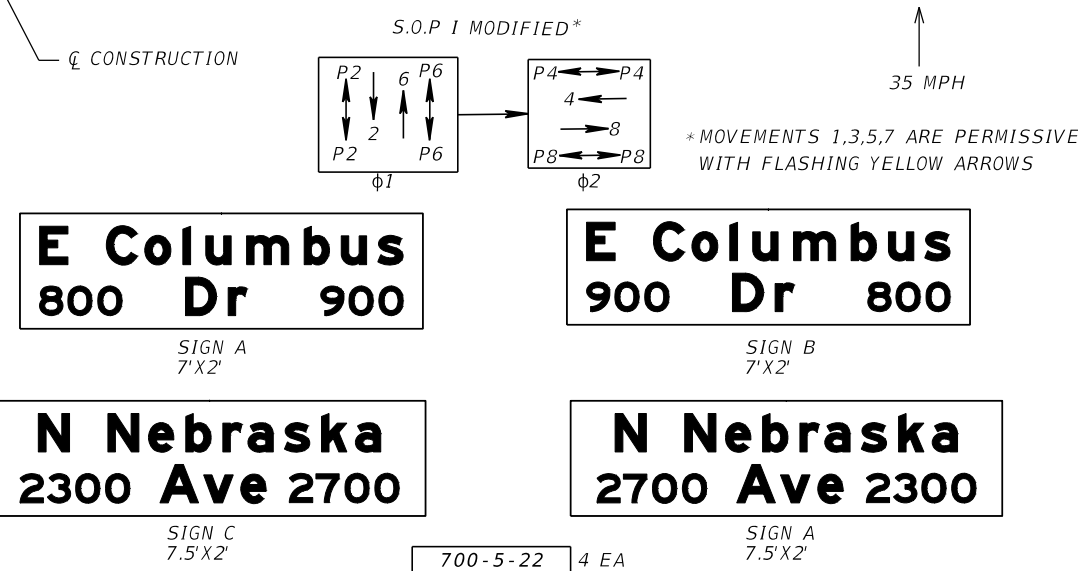


- GENERAL NOTES:**
1. MAJOR STREET IS SR 45 - N. NEBRASKA AVENUE (MOVEMENTS 2 & 6), AND MINOR STREET IS E. COLUMBUS DR. (MOVEMENTS 4 & 8).
 2. FLASHING OPERATION IS YELLOW FOR MOVEMENTS 2 & 6 AND RED FOR MOVEMENTS 1,3,4,5,7&8.
 3. ALL ABOVE GROUND EQUIPMENT SHALL REMAIN UNLESS OTHERWISE NOTED.
 4. EXISTING SIGNAL TIMINGS ARE TO REMAIN UNLESS OTHERWISE NOTED.
 5. HART EQUIPMENT TO BE RELOCATED TO NEW CONTROLLER. AERIAL COPPER COMMUNICATION CABLE TO BE RELOCATED TO TEMPORARY POLE.

CONTROLLER TIMINGS

TIMING FUNCTION	1	2	3	4	5	6	7	8
MINIMUM GREEN	*	*	*	*	*	*	*	*
EXTENSION	*	*	*	*	*	*	*	*
MAXIMUM GREEN 1	*	*	*	*	*	*	*	*
MAXIMUM GREEN 2	*	*	*	*	*	*	*	*
YELLOW CLEARANCE	4.0	4.0	3.7	3.7	4.0	4.0	3.7	3.7
ALL RED	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PEDESTRIAN WALK	7.0		7.0		7.0		7.0	
PED. CLEARANCE	7.0		8.0		7.0		8.0	
RECALL	*	*	*	*	*	*	*	*

- PEDESTRIAN SIGNALS**
- 646-1-11 5 EA
 - 665-1-12 8 EA
- P2/P8: STA 100+86, 20' RT.
P2/P4: STA 100+86, 31' LT.
P4: STA 101+40, 30' LT.
P6: STA 101+46, 26' LT.
P6/P8: STA 101+50, 24' RT.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN
P.E. LICENSE NO. 42255
BES INC.
11007 N. 56TH ST., #208
TEMPLE TERRACE, FL 33617
CERTIFICATE OF AUTHORIZATION NO. 9835

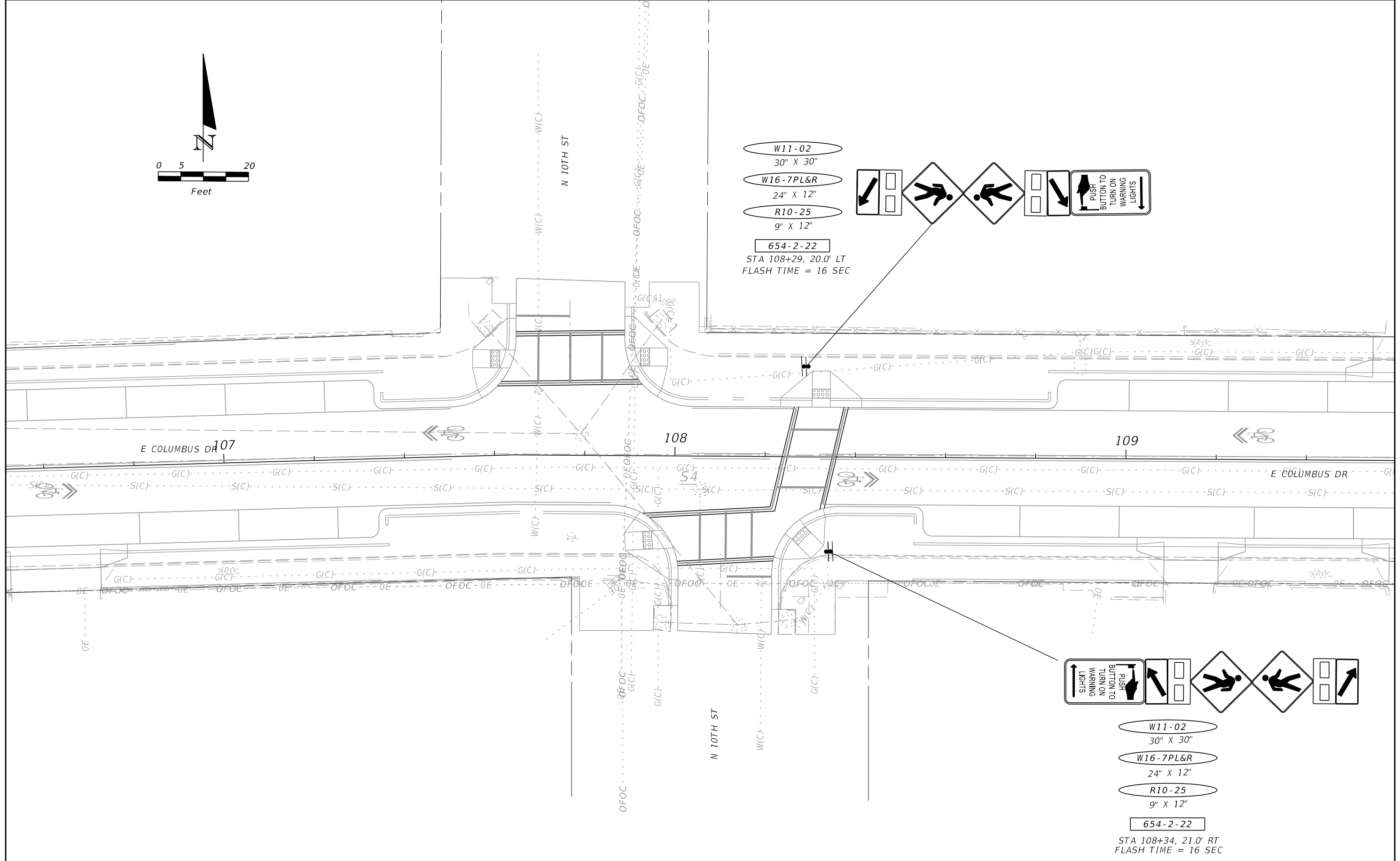
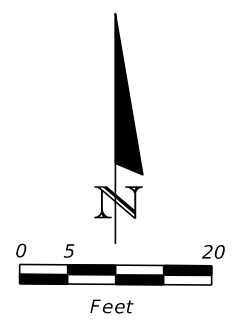
**CITY OF TAMPA
TRANSPORTATION DEPARTMENT**

CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

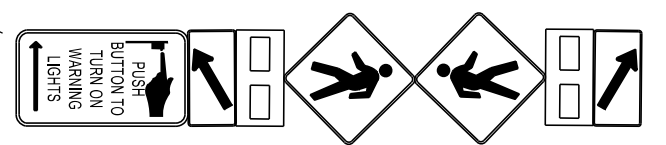
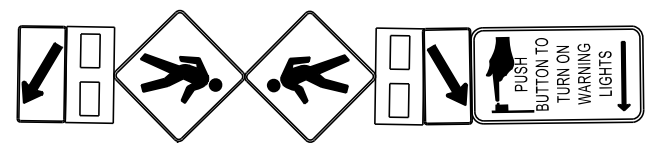
SIGNALIZATION PLAN (1)

SHEET NO.
T-5

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 108+29, 20.0' LT
 FLASH TIME = 16 SEC



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 108+34, 21.0' RT
 FLASH TIME = 16 SEC

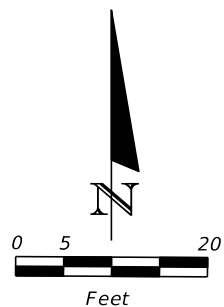
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MICHAEL J. NOESEN
 P.E. LICENSE NO. 42255
 BES INC.
 11007 N. 56TH ST., #208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF
 AUTHORIZATION NO. 9835

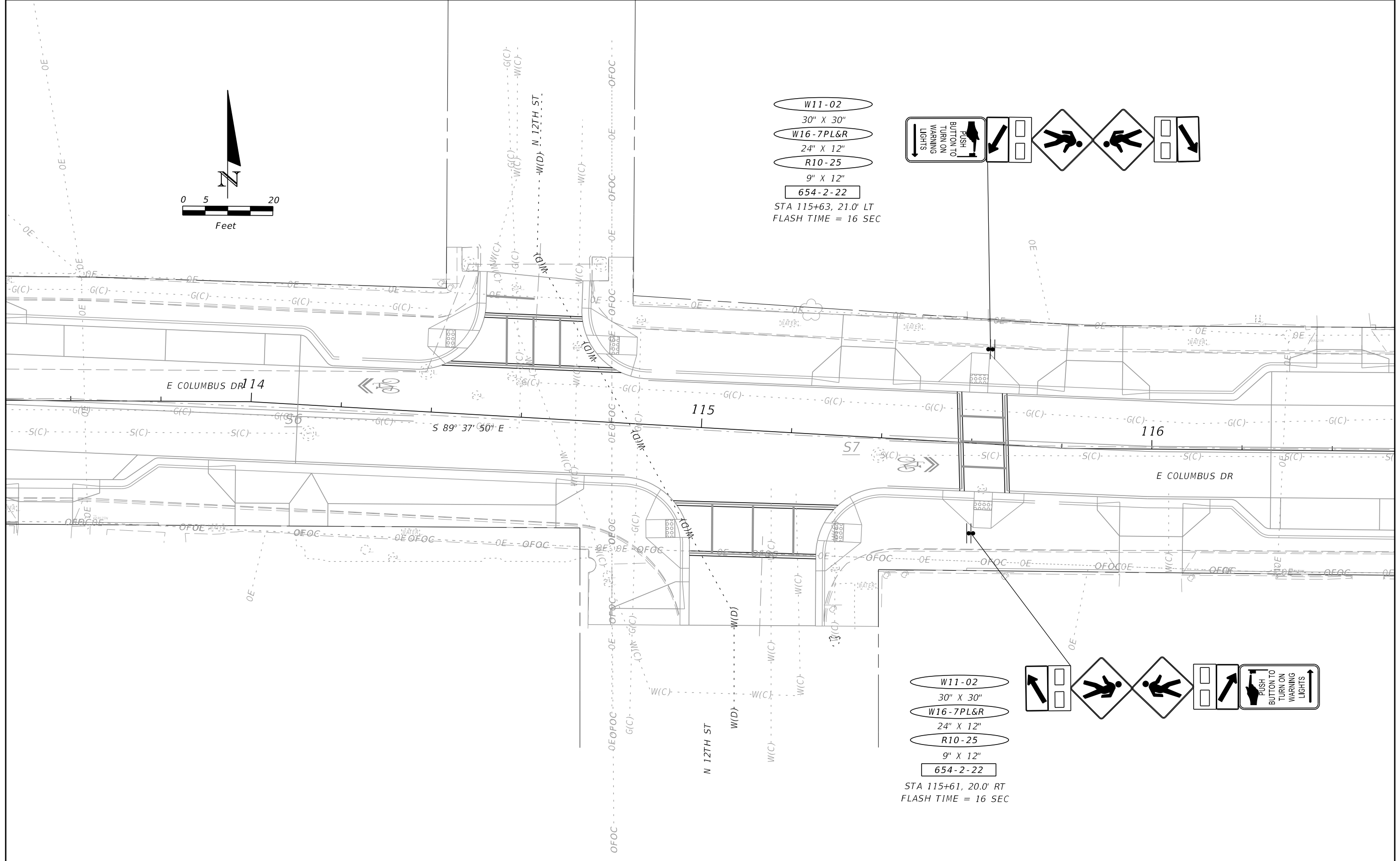
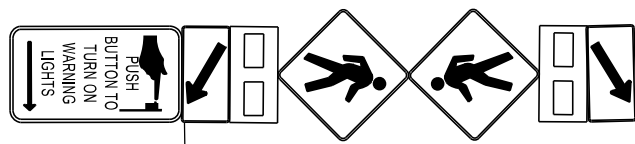
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

SIGNALIZATION PLAN (2)
 SHEET NO.
 T-6

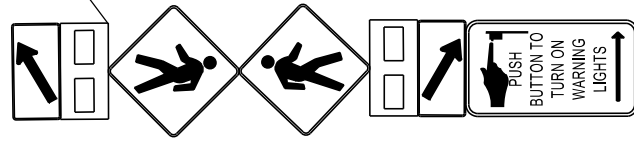
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 115+63, 21.0' LT
 FLASH TIME = 16 SEC



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 115+61, 20.0' RT
 FLASH TIME = 16 SEC



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

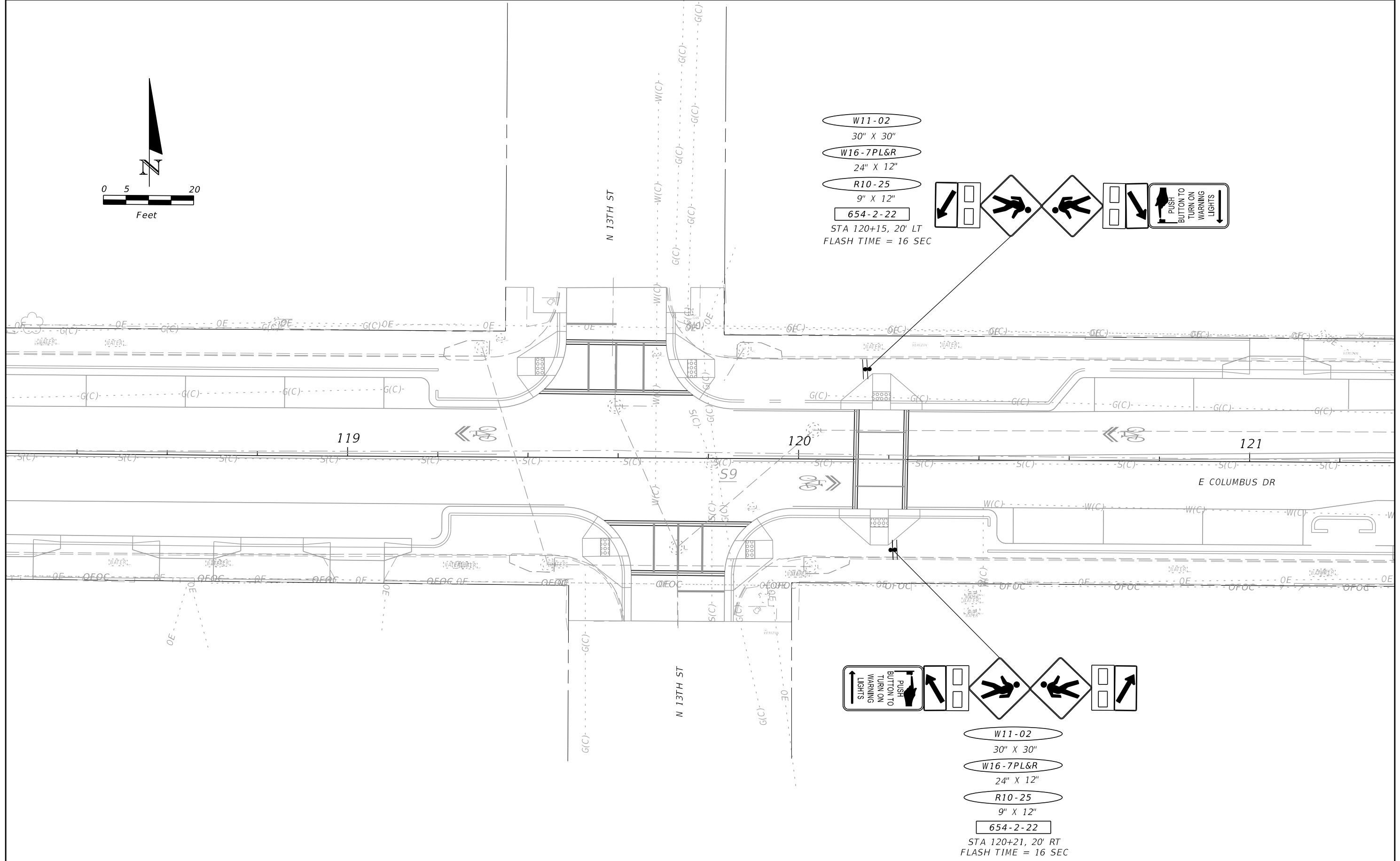
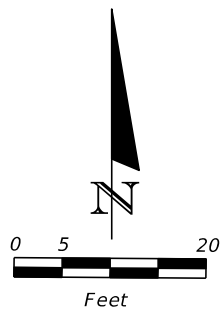
MICHAEL J. NOESEN
 P.E. LICENSE NO. 42255
 BES INC.
 11007 N. 56TH ST., #208
 TEMPLE TERRACE, FL 33617
 CERTIFICATE OF
 AUTHORIZATION NO. 9835

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

SIGNALIZATION PLAN (3)

SHEET NO.
T-7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 120+15, 20' LT
 FLASH TIME = 16 SEC

W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 120+21, 20' RT
 FLASH TIME = 16 SEC

REVISIONS				MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SIGNALIZATION PLAN (4)	SHEET NO. T-8
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

**Avenida Republica
2600 de Cuba 2700**

SIGN E
8'X2'

**Avenida Republica
2700 de Cuba 2600**

SIGN F
8'X2'

**E Columbus
1300 Dr 1400**

SIGN G
7'X2'

**E Columbus
1400 Dr 1300**

SIGN H
7'X2'

700-5-22 4 EA

PED SIGNAL POLE & DETECTOR
STA 123+51, 59.0' LT

646-1-11 1 EA

665-1-12 1 EA

630-2-11 30 LF

EXISTING CONC. SIGNAL
POLE TO REMAIN

EXISTING PED SIGNALS &
DETECTORS TO BE REMOVED

653-1-60 2 AS

665-1-60 2 EA

PED SIGNAL POLE & DETECTOR
STA 123+35, 24.0' LT

646-1-11 1 EA

665-1-12 1 EA

TYPE "A" 6'X 30' LOOPS
660-2-101 3 AS

REMOVE/REPLACE EXISTING 2-WAY PED SIGNAL
TO 1-WAY.

653-1-60 1 AS

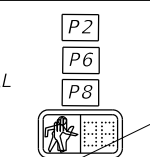
665-1-12 1 EA

665-1-60 1 EA

PED SIGNAL POLE & DETECTOR
STA 124+14, 63' LT

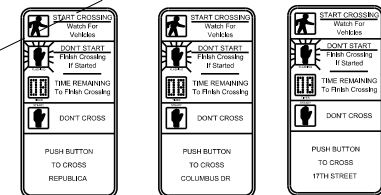
646-1-11 1 EA

665-1-12 1 EA

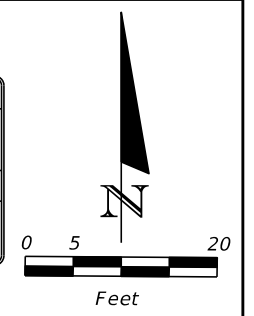


PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
10 AS

653-1-11



FTP-68B-06 9 AS



630-2-12 50 LF

4 RUNS
(HV, LV, SPARE HV & SPARE LV)

TYPE "A" 6'X 30' LOOPS

660-2-101 1 AS

EXISTING PULL BOX FOR
LOOP LEAD-INS TO REMAIN

REMOVE EXISTING PED SIGNAL

646-1-60 1 EA

PED SIGNAL POLE & DETECTOR
STA 124+31, 20' LT

646-1-11 1 EA

665-1-12 1 EA

PED SIGNAL POLE & DETECTOR
STA 124+45, 27' LT

646-1-11 1 EA

665-1-12 1 EA

END PROJECT
END SIGNING &
PAVEMENT MARKING
STA. 124+61.33
Q CONST. E COLUMBUS DR

630-2-12 55 LF

4 RUNS
(HV, LV, SPARE HV & SPARE LV)

PED SIGNAL POLE & DETECTOR
STA 124+43, 26' RT

646-1-11 1 EA

665-1-12 1 EA

PED SIGNAL POLE & DETECTOR
STA 123+35, 26.0' RT

646-1-11 1 EA

665-1-12 1 EA

DIRECTIONAL BORE - 4 RUNS
(HV, LV, SPARE HV, SPARE LV)

630-2-12 60 LF

EXISTING PED SIGNAL
POLE & DETECTOR
TO BE REMOVED

646-1-60 1 EA

55 LF 630-2-12

4 RUNS
(HV, LV, SPARE HV &
SPARE LV)

6 PAIR COPPER CABLE REPLACEMENT

633-4-1 50 LF

633-4-6 30 LF

PED SIGNAL POLE & DETECTOR
STA 123+50, 36.0' RT

646-1-11 1 EA

665-1-12 1 EA

EXISTING PEDESTRIAN SIGNAL & DETECTOR TO BE REMOVED

653-1-60 2 AS

665-1-60 2 EA

EXISTING JOINT USE POLE AND POWER SERVICE TO REMAIN

670-5-600 1 AS

EXISTING TRAFFIC CONTROLLER TO BE REMOVED

646-1-11 1 EA

665-1-12 1 EA

TRAFFIC CONTROLLER
STA 124+00, 36.0' RT

630-2-11 20 LF

639-2-1 30 LF

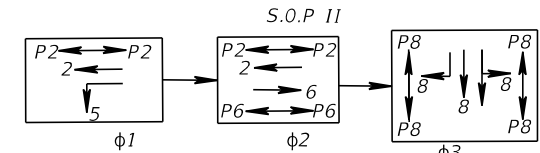
660-1-103 4 EA

670-5-110 1 AS

685-1-13 1 EA

30 MPH

30 MPH



CONTROLLER TIMINGS								
TIMING FUNCTION	1	2	3	4	5	6	7	8
MOVEMENT NO.	1	2	3	4	5	6	7	8
MIN. GRN. (INT.)	*				*	*	*	*
EXT. (PASS)	*				*	*	*	*
MAX. GRN.I	*				*	*	*	*
MAX. GRN.II	*				*	*	*	*
YELLOW CLR.	3.7				3.7	3.7	3.7	
ALL RED CLR.	2.3				2.5	2.5	2.5	
PED. WALK	7.0				-	7.0	7.0	
PED. CLR.	7.0				-	8.0	22.0	

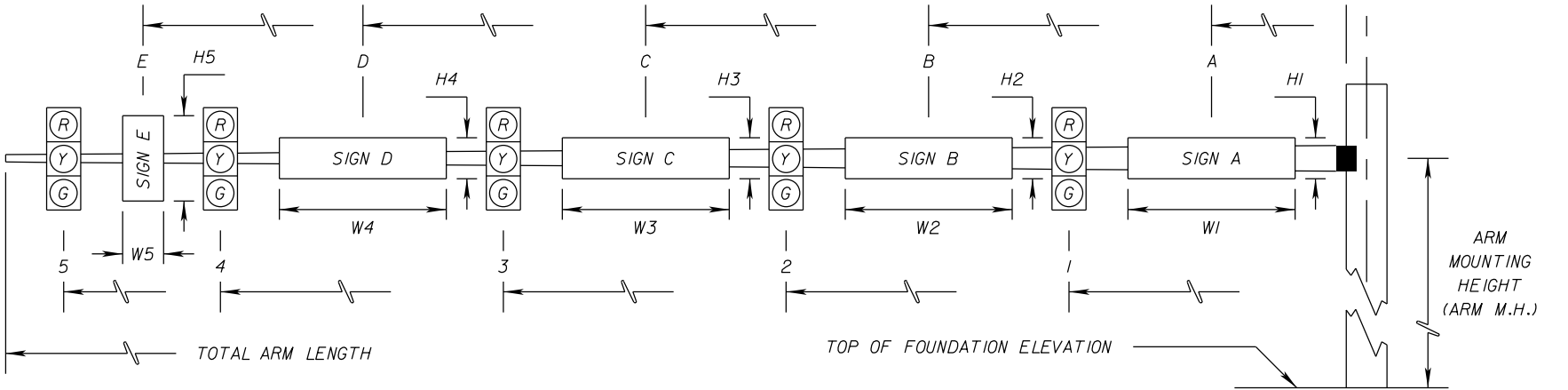
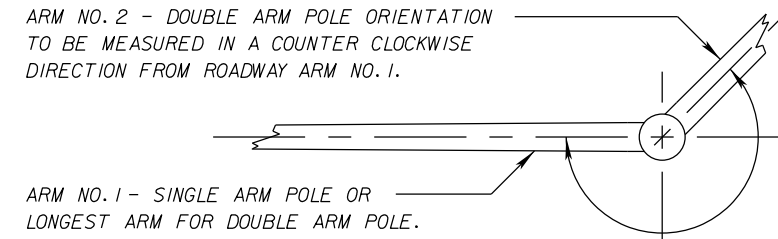
* EXISTING SIGNAL TIMINGS TO REMAIN

<p>DATE DESCRIPTION</p>		<p>REVISIONS</p>		<p>MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835</p>		<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p>			<p>SIGNALIZATION PLAN (5)</p>	<p>SHEET NO. T-9</p>
DATE	DESCRIPTION	DATE	DESCRIPTION	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SPECIAL INSTRUCTIONS

ID NO.	PED. BUTTON	PED. SIGNALS	HANDHOLE LOCATION



* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

ID NO.	SHEET NO.	LOCATION BY STA.	TOP OF FOUND. ELEVATION	RDWY ARM NO.	CROWN ELEV.	SIGNAL DATA										TOTAL ARM LENGTH	ARM M.H.	ANGLE BETWEEN DUAL ARMS 90/270	SIGN DATA										PAINT COLOR																										
						SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE										DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN																																				
									1	*	2	*	3	*	4				*	5	*	A	H1	W1	B	H2	W2	C		H3	W3	D	H4	W4	E	H5	W5																		
1	T-5	100+79.36	43.66	1	43.80	V	Y	N	34.0	4	42.0	3	50.0	3																		60.0	22.0		36.5	2.5	2.5																		
						V	Y	N	14.0	3	23.0	3	32.0	4																							34.0	22.0	270	30.5	2.5	2.5													
2	T-5	101+54.06	43.50	1	43.73	V	Y	N	38.0	4	48.0	3	56.0	3																			60.0	22.0		40.5	2.5	2.5																	
						V	Y	N	15.0	3	23.0	3	33.0	4																							36.0	22.0	270	30.5	2.5	2.5													

REVISIONS				MICHAEL J. NOESEN P.E. LICENSE NO. 42255 BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 CERTIFICATE OF AUTHORIZATION NO. 9835	CITY OF TAMPA TRANSPORTATION DEPARTMENT			<h1 style="margin: 0;">MAST ARM TABULATION SHEET</h1>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		T-10
					1001221	HILLSBOROUGH	436639-1-58-01		

STANDARD MAST ARM ASSEMBLIES DATA TABLE											Table Date 11-16-18
STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (deg)	LL (deg)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (ft.)	ARM ID	SAA (ft.)			POLE ID	UAA (ft.)	UB (ft.)	
1	A60/D-A40/D-P4/D	A60/D		A40/D	34	270		P4/D		22	D5/18/5.0
2	A60/D-A40/D-P4/D	A60/D		A40/D	36	270		P4/D		22	D5/18/5.0

NOTES [Notes Date 11-01-16]:

1. If an entry appears in column FAA, a shorter arm is required. This is obtained by removing length from the arm tip and the arm length shortened from FA to FAA. SAA Similar.
2. If an entry appears in column UAA, a shorter pole is required. This is obtained by removing length from the pole tip and the pole height shortened from UA to UAA.
3. Work with Index 649-030 and 649-031.
4. Design based on Borings taken by Arehna Engineering Inc. on March 27, 2018. Geotechnical Engineering Services Report sealed by Kristina S. Lacava, P.E.

Assumptions and Values used in design:

Soil Type: Sand
 Soil Layer Thickness = 30 ft.
 Soil Friction Angle = 29 deg.
 Soil Weight = 43 pcf
 Design Water Table is assumed at groundline.

REVISIONS				DAVID RYAN JOHNSON P.E. LICENSE NUMBER 79354 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			STANDARD MAST ARM ASSEMBLIES DATA TABLE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		T-11

REPORT OF CORE BORING



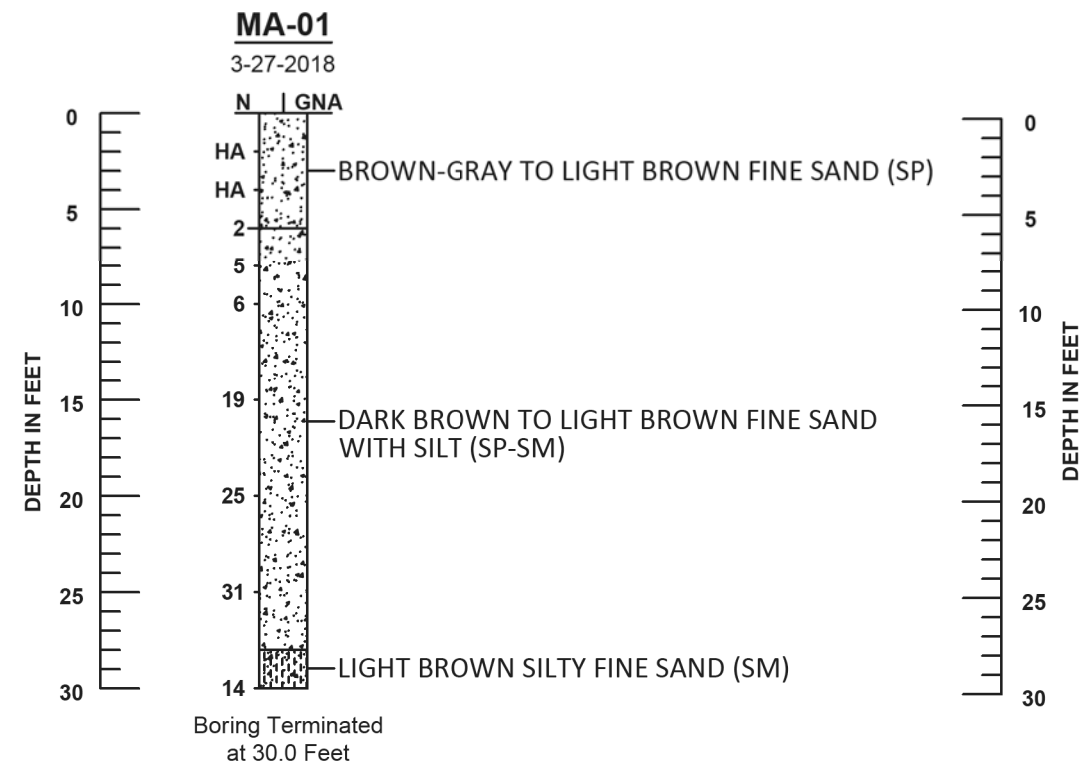
LEGEND



- SP Unified Soil Classification System (ASTM D 2488) Group Symbol as Determined by Visual Review and/or Laboratory Testing
- HA Hand Augered To Avoid Utility Conflicts and Safety Reasons
- N SPT N-Value in Blows/Foot for 12 Inches of Penetration Utilizing Automatic Hammer
- GNA Groundwater Table Not Apparent at Time of Drilling

BORING NUMBER	DEPTH (FEET)	SPT "N" AVERAGE	SOIL CLASSIFICATION	APPROXIMATE SOIL UNIT WEIGHT (PCF)		COHESION (PSF)	SOIL ANGLE OF FRICTION (DEGREES)	EARTH PRESSURE COEFFICIENT	
				γ SAT	γ SUB			Ka	Kp
MA-01	0 - 13	4	SP	100	37.6	-	29	0.350	2.859
	13 - 30	22	SP-SM, SM	115	52.6	-	32	0.302	3.309

SOIL PROFILE



Soil Profile Notes:

- The profiles depicted are of a generalized nature to highlight the major subsurface stratification features and material characteristics. The soil profiles include soil description, stratifications and penetration resistances. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.
- Groundwater levels generally fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels or temporary perched conditions are normally recorded in rainy seasons.

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS-RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	LESS THAN 4 4 to 10 10 to 30 30 to 50 GREATER THAN 50	LESS THAN 3 3 to 8 8 to 24 24 to 40 GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT SOFT FIRM STIFF VERY STIFF HARD	LESS THAN 2 2 to 4 4 to 8 8 to 15 16 to 30 GREATER THAN 30	LESS THAN 1 1 to 3 3 to 6 6 to 12 12 to 24 GREATER THAN 24
LIMESTONE CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
SOFT MEDIUM HARD VERY HARD	LESS THAN 20 20 to 50 51 to 50/3" GREATER THAN 50/3"	LESS THAN 17 17 to 41 42 to 50/6" GREATER THAN 50/6"

Report of Core Borings

REVISIONS			PREPARED BY:		NAME DATE		PROJECT NAME		PROJECT NO.	SHEET NO.	
NO.	DATE	DESCRIPTIONS	APPROVED		DESIGNED BY:	BRH	04/2019	E. Columbus Dr.-City of Tampa Walk\Bike From North Nebraska to 14th Street Tampa, Florida		B-18-092.02	T-14
					DRAWN BY:	BRH	04/2019				
					CHECKED BY:	KL	04/2019				
					SUPERVISED BY:	Kristina LaCava, P.E.					

AREHNA Engineering, Inc.
5012 West Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959
Certificate of Authorization No. 28410

Z:\Projects\B-18-092-COT-TWO-Walk-Bike-FDOT-LAP-Ayres\Task-02-Columbus-Dr-Corridor\Task-2-Columbus-Dr-Corridor.dwg (BKH) (brynda) Apr 10, 2019 - 2:34pm

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INDEX OF ROADWAY PLANS

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L14	TREE GRATE DETAILS
L15	BRICK PAVER DETAILS
L16	LANDSCAPE MAINTENANCE NOTES

STATE OF FLORIDA
CITY OF TAMPA

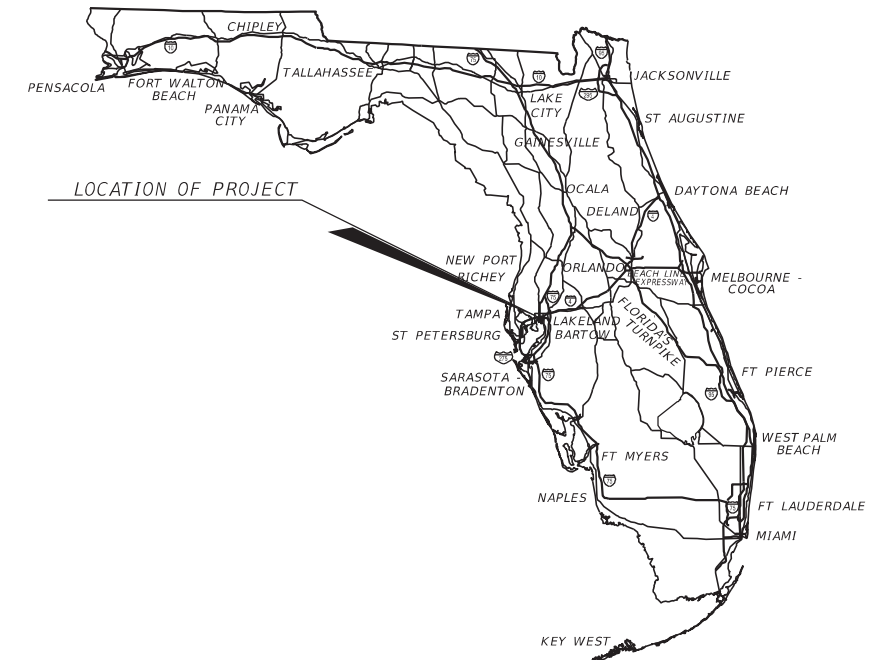
WALK-BIKE LAP PROJECT
LANDSCAPE PLANS

FINANCIAL PROJECT ID 436639-1-58-01

CITY PROJECT NO. 1001221

HILLSBOROUGH COUNTY

COLUMBUS DRIVE FROM EAST OF NEBRASKA AVE. (STA 110+33.87)
TO EAST OF N. 14TH STREET (STA 124+61.33)



THIS ITEM HAS BEEN DIGITALLY
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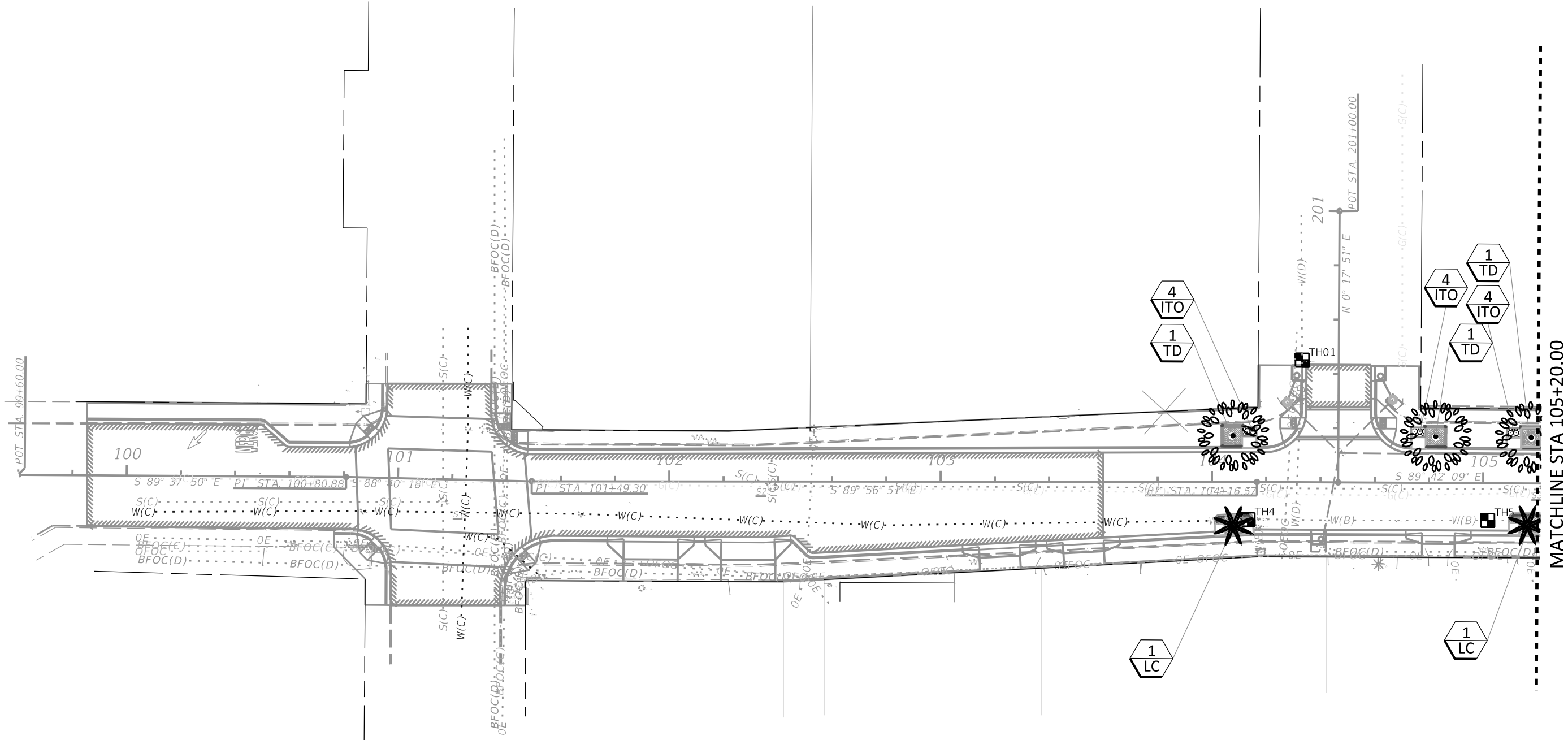
CONSTRUCTION PLANS
APRIL 2020

LANDSCAPE PLANS
LANDSCAPE ARCHITECT OF RECORD:

JONATHAN H. TONER, RLA
LIC# FL0001123
TERRA TECTONICS DESIGN GROUP, INC.
1188 KAPP DRIVE
CLEARWATER, FLORIDA 33765
CERTIFICATE OF AUTHORIZATION: #254

PROJECT MANAGER:
NINA MABILLEAU, E.I.
City of Tampa Transportation and Stormwater Services

FISCAL YEAR	SHEET NO.
21	L1



Planting Legend	
	TD-Bald Cypress - 28' ht x 12' spread B+B
	LC-Chinese Fan Palm 16' ct
	3-gallon Dw. Orange Ixora

MATCHLINE STA 105+20.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

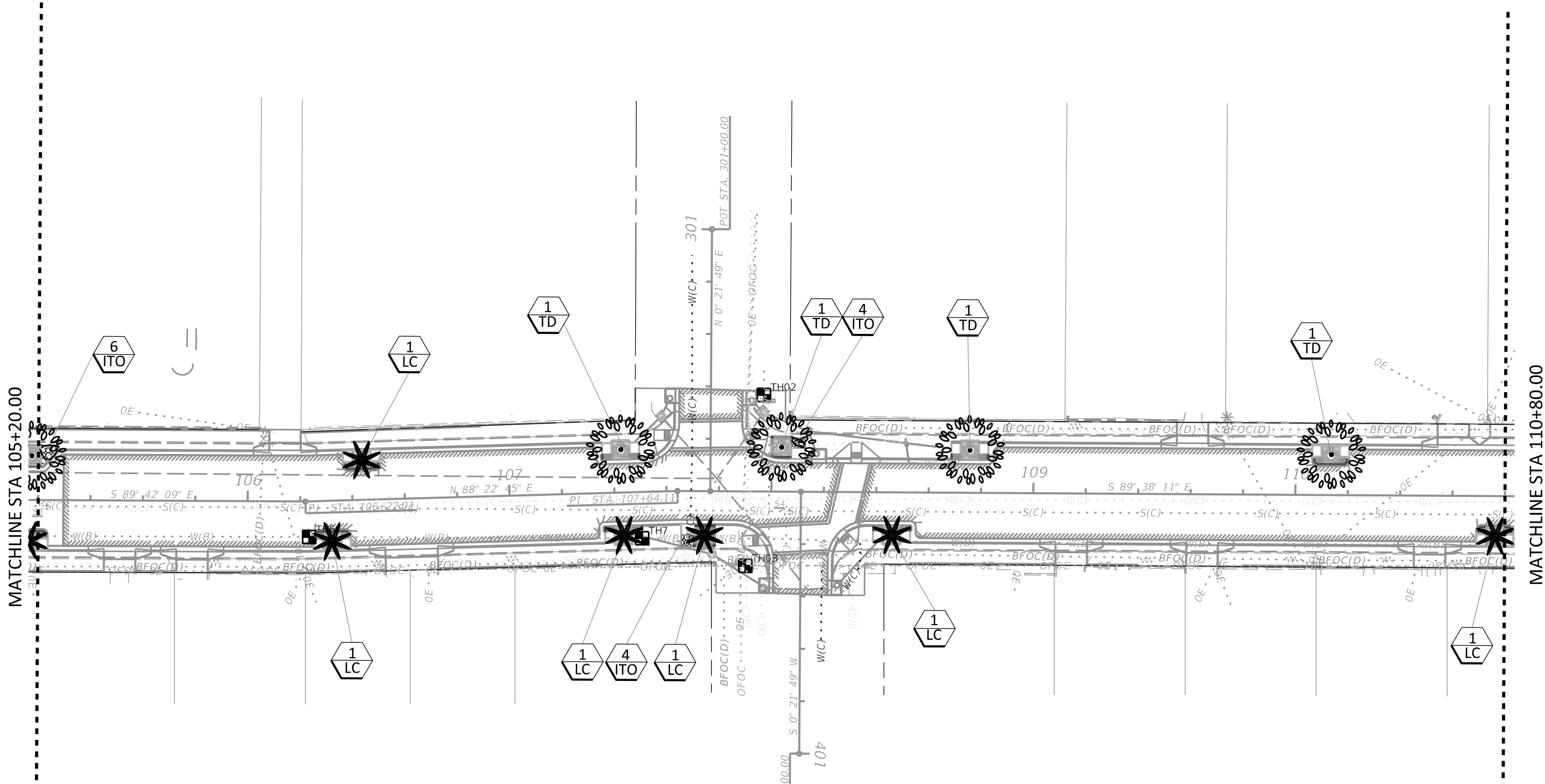

TERRA TECTONICS
 Design Group International, Inc.
 LANDSCAPE ARCHITECTS
 ISA CERTIFIED ARBORISTS
 URBAN DESIGNERS
 1188 Kapp Drive | Clearwater, Florida | 33765 | 727.441.4504

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

PLANTING PLAN 1

SHEET NO.
L2

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Planting Legend	
	TD-Bald Cypress - 28' ht x 12' spread B+B
	LC-Chinese Fan Palm 16' ct
	3-gallon Dw. Orange Ixora

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

TERRA TECTONICS
 design group international, inc.
 LANDSCAPE ARCHITECTS
 ISA CERTIFIED ARBORISTS
 URBAN DESIGNERS
 1188 Kapp Drive | Clearwater, Florida

Jonathan H. Toner
 Landscape Architect
 Florida LIC #0001123

Corporate
 Authorization # 254
 33765 | 727.441.4504

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

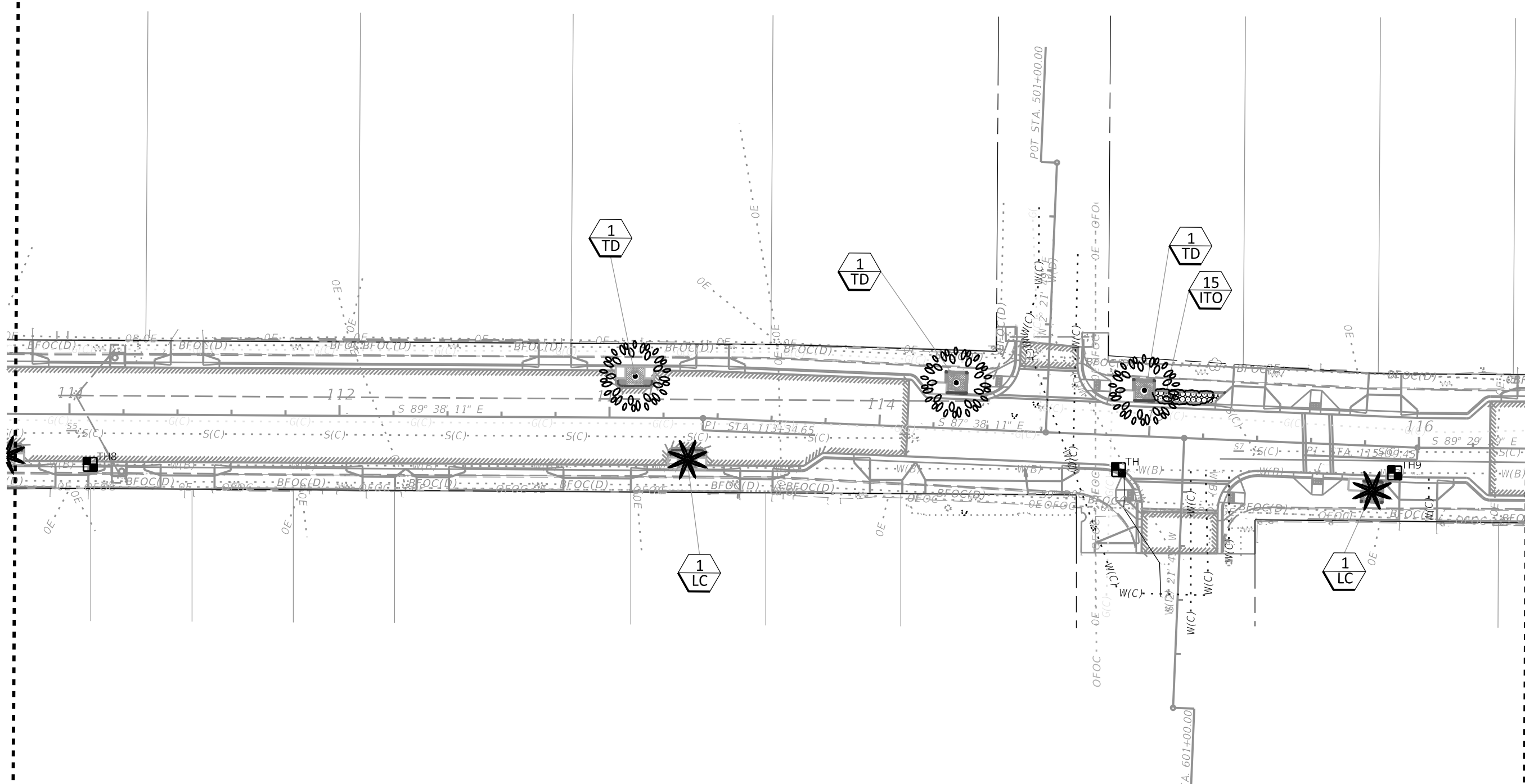
<p>PLANTING PLAN 2</p>
<p>L3</p>

SHEET NO.
L3

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MATCHLINE STA110+80.00

MATCHLINE STA 116+40.00



Planting Legend	
	TD-Bald Cypress - 28' ht x 12' spread B+B
	LC-Chinese Fan Palm 16' ct
	3-gallon Dw. Orange Ixora

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

TERRA
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LANDSCAPE ARCHITECTS
ISA CERTIFIED ARBORISTS
URBAN DESIGNERS
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Jonathan H. Toner
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Corporate
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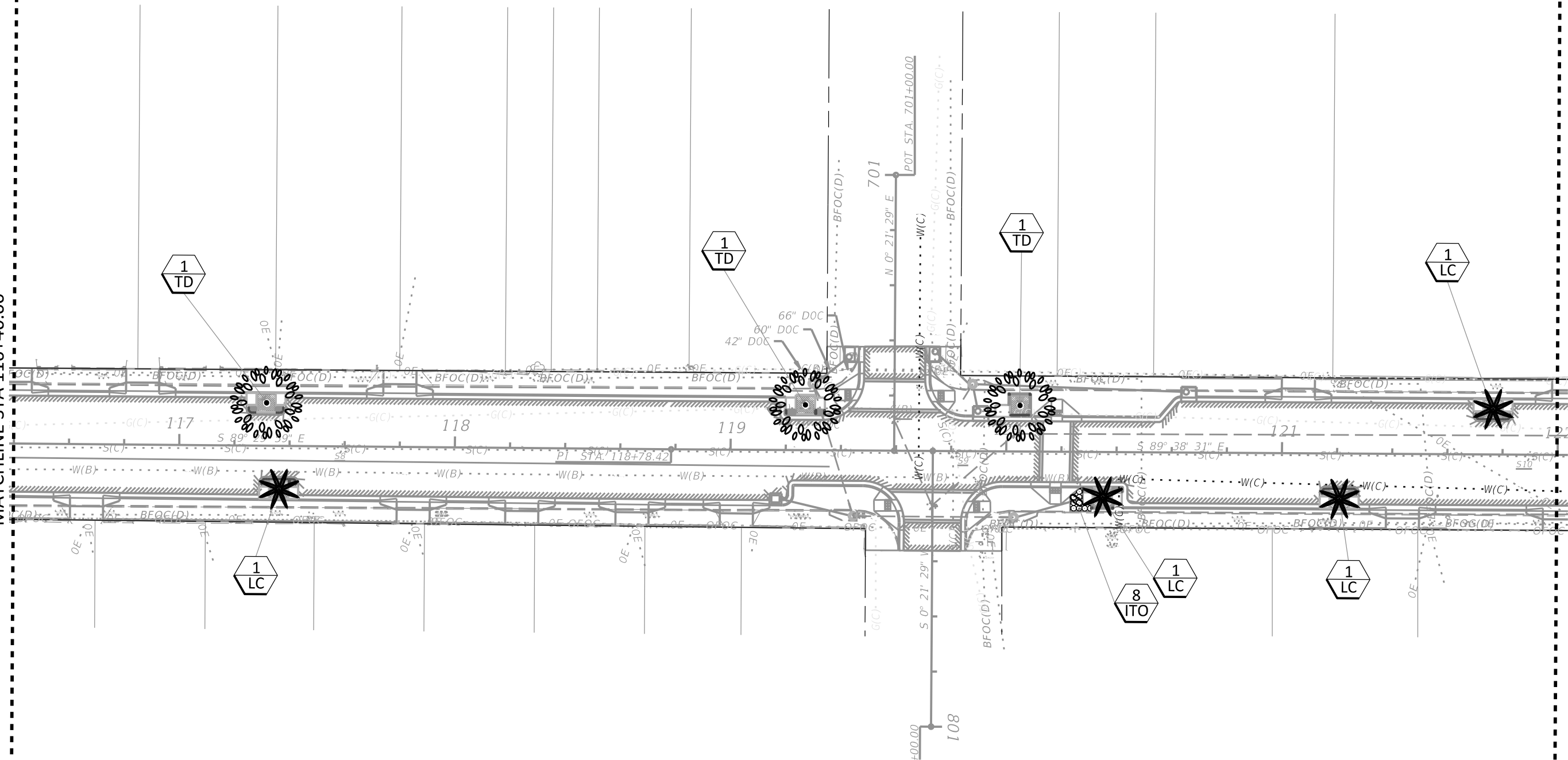
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

PLANTING PLAN 3

SHEET NO.
L4

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MATCHLINE STA 116+40.00



MATCHLINE STA 122+00.00

Planting Legend	
	TD-Bald Cypress - 28' ht x 12' spread B+B
	LC-Chinese Fan Palm 16' ct
	3-gallon Dw. Orange Ixora

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Jonathan H. Toner
 Landscape Architect
 Florida LIC #0001123

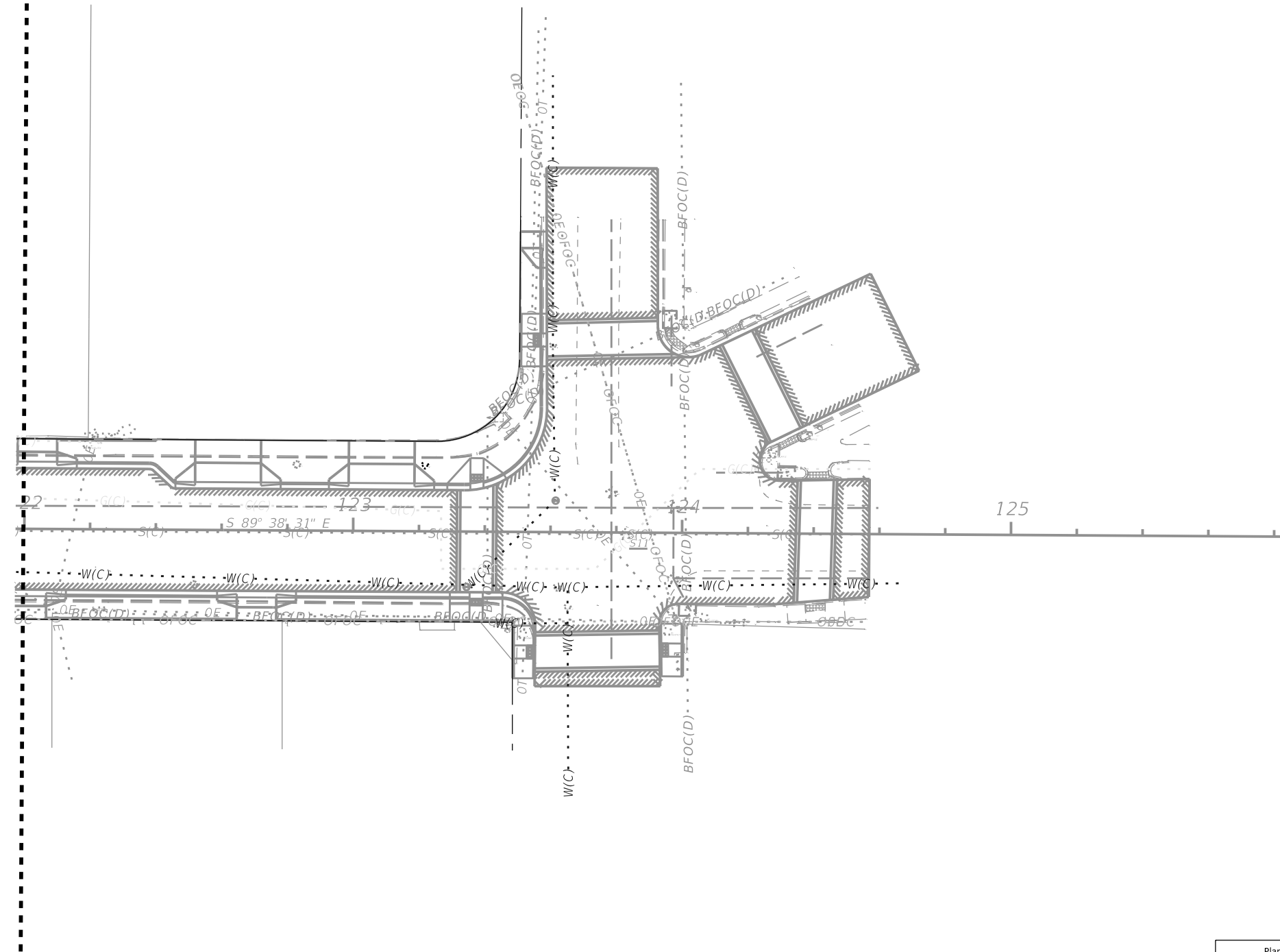
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

<p>PLANTING PLAN 4</p>
<p>SHEET NO. L5</p>

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MATCHLINE STA 122+00.00



Planting Legend	
	TD-Bald Cypress - 28' ht x 12' spread B+B
	LC-Chinese Fan Palm 16' ct
	3-gallon Dw. Orange Ixora

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION



Jonathan H. Toner
Landscape Architect
Florida LIC #0001123

Corporate
Authorization # 254
33765 | 727.441.4504


CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

<p>PLANTING PLAN 5</p>
<p>L6</p>

<p>SHEET NO.</p>
<p>L6</p>


GENERAL LANDSCAPE NOTES

1. Prior to submission of bid, visit the site and become informed of the conditions under which the work is to be accomplished.
2. The work includes soil preparation, finish grading, supplying and planting of trees, shrubs, groundcovers and sod, of the species, sizes and quality as shown on the drawings and/or as specified herein.
3. Provided plant material to be graded Florida No.1 or better as outlined under the 2015 - Grades and Standards for Nursery Plants, Parts I and II, State of Florida, Department of Agriculture, and to conform to AAN Standards for Nursery Stock (ANSI 260.1-1980).
4. Provide any necessary truck watering to maintain the plant materials in a Florida No.1 condition, according to the 2015 Florida Nursery Grades and Standards.
5. Provide a Lump Sum Price for truck watering with potable water, as needed. The pricing is to be for potable quality water as Reclaimed water not acceptable for this project.
6. Verify all utility locations (existing and proposed), related paving, elevations, water and electrical supply, etc. prior to start of work and excavations. Notify City of Tampa Construction Representative in writing of unsatisfactory conditions prior to start of work. Start of work will indicate acceptance of conditions and full responsibility for completed work.
7. Provide sole responsibility for any and all damages that result from activities due to improper verification of utilities and/or operator error during excavations. Coordinate on-site with the City of Tampa Construction representative before digging or commencement of any work.
8. Project Site to be clear of debris and weed growth before any plantings to commence. If weed growth is still present and viable, re-spray with herbicide and wait the required time period, according to manufacturer's instructions.
9. Required erosion control measures to remain intact throughout construction. Proposed storm water runoff for the street trees and palms to be directed to the Tree Well areas by way of the roadway inlets and any surface grading within the project. Do not place silt barriers or other blockage devices between the street run-off and the tree wells, after the trees are installed.
10. Notify the City of Tampa Construction Representative of site conditions which may require planting design adjustments. Submit proposed changes for written approval to City of Tampa & Landscape Architect, prior to the installation of plant materials.
11. Planting Limits refer to FDOT Standard Index 700 and are based on project design speed and median applications for this project, which is based on <30mph.
Outside roadways: Locate trees no less than 4 feet from face of curb in accordance with Design Standard Index 546
12. Structured soils as shown on the plan consist of the following: (see specifications)
 - a. STRUCTURED SOIL:
 - i. 35% #57 Aggregate- consisting of washed crushed concrete or crushed granite. Crushed Limestone will not be acceptable.
 - ii. 35% White Builders sand
 - iii. 30% Organic Topsoil
13. All trees to be single trunked and cleared to a height of a min of 8.5' above finished grade of tree wells and sidewalks. See FDOT index 700 and FDOT Index 546.
14. If containers are used, then container size is to be as specified. A minimum of 80% of the container root ball must contain active and viable root system. Girdling or "ring" roots are prohibited and will be cause for rejection of plant material. See notes and details for root observations and corrective actions. Be responsible to demonstrate the root ball conditions of the plan materials while the plantings are either on the truck at time of delivery or in-field, to Landscape Architect to illustrate root conditions of the plant materials. Any root ball or container planted materials that cannot be corrected in field to be rejected and will need to be replaced at contractors' expense.
15. No substitutions will be made without the explicit written permission of the City of Tampa Construction Representative. Submit written verification of any plant material(s) that may be unavailable as specified during the bid process, to the City of Tampa Construction Representative.
16. Landscape Architect of Record to review, before any delivery to the construction site, all proposed trees, shrubs and ground cover materials, by means of accurate and representative photographs taken from nursery of the grower of the materials, that will be delivered to job site. Submittal to be in an electronic e-mail format sent to City of Tampa Construction representative. The project name and location to be labeled on the front of each e-mail, with the Contractor's name, address and phone number listed on the inside first page with the index of photographs.
17. The City of Tampa Construction Representative reserves the right to make minor adjustments, in the field, to the locations of trees, palms, shrubs and groundcovers. Do not remove vegetation by grubbing or place soil deposits, debris, solvents, concrete, paint, chemicals or other foreign substance in or on the soil. Required tree barricades and erosion control measures to remain intact during construction. No construction debris, construction materials, machinery or equipment of any kind placed within the dripline of a tree to remain on the site. All areas within the dripline of a protected tree to be maintained at their original grade with no trenching or cutting of any kind.
18. In the event of a variation between the plant list and the actual number of plants shown or noted on the plans, the plans to control. City of Tampa Construction Representative to be notified of any discrepancy during bid process in writing, with the plans taking precedent over tabulation list.
19. Plants and trees to be set plumb, at the same grade at which they have been grown, best side facing prime visibility and thoroughly watered-in at time of planting to eliminate air pockets. If site conditions are unfavorable to vigorous plant growth, the City of Tampa Construction Representative to be notified prior to submitting bid and commencing construction. The conditions are considered accepted, if written notification is not received by City of Tampa Construction Representative before commencement of installation of the materials.
20. Provide proper drainage for all trees and plant materials. Trees set too high or low may be rejected. Verify proposed finish grades and set trees accordingly. See details for planting, staking and guying.
21. Properly securing all trees, palms and large shrubs immediately after planting. Tree bracing to be performed by the detail shown on plans for bracing the rootball within the Tree Well. No external guy wires will be permitted.
22. Shrubs to be planted as shown on plans. Trees and palms to be backfilled with Structured Soils, as specified and shown in locations on plans and details. Remove container and all synthetic bindings from trees and palms, Upon installation of Trees and Palms in Tree Wells, a blanket of #57 stone (washed crushed concrete or granite – not limestone) and wrapped on all sides with Mirifi 140 fabric 4" deep to be laid over the rootball for erosion control as shown on details.
23. Provide a 12-month Warranty, from date of Final Acceptance, for all plantings as part of this contract. Dead plantings to be replaced within 30 days of the time they have perished.
24. Maintain the watering required for the establishment of plant materials from the date of installation to the date of the Final Acceptance. The cost of watering and its application to be borne by contractor until Final Acceptance by City of Tampa.
25. Replace all Plant Materials that are in a deteriorated and/or perished Condition or that have perished within the 12-month warranty period. Monthly inspections are required to be performed to determine deficiencies and perished items to be replaced on a Monthly basis, as needed.
26. Trees, Palms or shrubs shown in a line on the plan to have the trunks/canopies in proper alignment upon visual inspection after installation. Groundcover and shrub beds to be planted on triangular spacing with plants installed and faced for optimum growth into the bed.
27. Any areas subject to erosion (e.g. grass swales, retention area embankments) must be stabilized by solid Bahia sod.
28. The job site to be kept orderly and reasonably clean on a daily basis during construction operations. Upon daily completion of work, remove all debris and waste generated by operations on-site, including the cleaning of walks and paving.
29. The maintenance period for plantings begins at time of installation and continues until end of 12-Month Warranty period.

REVISIONS				 TERRA TECTONICS <small>design group international, inc.</small> LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL LANDSCAPE NOTES 1	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		L7
					1001221	HILLSBOROUGH	436639-1-58-01		

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30. Provide clearly delineated electronic prepared As-Built PDF drawings of landscape and irrigation, to the City of Tampa Construction representative at end of project. This consists of representations of quantities and locations all planted palms, trees, shrubs, groundcovers and turf areas prior to final acceptance. Any and all deviations from the original construction documents to be duly and accurately recorded. A PDF of the Final Construction Plans to be the basis for the As-Built mark-ups. Upon completion, deliver to City of Tampa Construction representative. Hand marked plans will not be acceptable.
31. An "As-Built" of the landscape plans to be provided by the contractor and signed and sealed by a Landscape Architect Registered in the State of Florida. The Landscape Architect to be obtained by the Contractor. Submit to the City of Tampa Construction Representative prior to the final walk-through and Final Acceptance. The "As-Built" to be up-dated daily and to be kept on-site at all times during the construction period.
32. At the time of Final Acceptance, provide the City of Tampa Construction Representative, with a maintenance manual containing instructions for the proper care of all materials specific to the job, and any pertinent manufacturer's literature.
33. All landscape material to be installed and maintained at all times in a manner whereby traffic control signage and devices are visible to motorists and pedestrians.
34. No work to be performed on City Holidays
35. All Landscape material to be maintained in accordance with FDOT Standard indices 546 and 700 and all other applicable Department standards and regulations.
<http://www.dot.state.fl.us/rddesign/DS/15/STDs.shtm>
36. Application of herbicides to be performed by a person possessing a current Florida Restricted Use Pesticide License in the Core Curriculum, Right-of-way and Aquatic Categories.
37. Pursuant to section 2.10 of the departments "Roadway and Roadside Maintenance" Procedure (topic No. 850-000-015-I of 91/01/2014), all individuals who contract the application of fertilizer to ensure that they are licensed commercial applicators who have been trained through the Green Industry BMP Program, and have obtained a limited certification for Urban commercial fertilizer application under Section 482.1562, F.S. Furnish the City of Tampa Construction representative, current copies of licenses/certifications belonging to the personnel that will be involved in the application of fertilizer on the Hillsborough County right of way prior to start of work.

REVISIONS				 TERRA TECTONICS <small>design group international, inc.</small> LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL LANDSCAPE NOTES 2	SHEET NO. L8
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

GENERAL NOTES:

- Roadway Design Speed is **30 MPH**. Criteria for a **30 MPH** design speed for **COLUMBUS AVENUE STREETScape PROJECT** was the basis for the design setbacks criteria for this project.
- Project limits are from Nebraska Avenue to the west and 14th street to the east, as shown on plan. These have been used in order to establish Landscaping Clear Zones for the median plantings, for the roadway for the project.
- Standard Indexes 613, 616 and 619 will be used for the Maintenance of Traffic for landscaping work as well as the FDOT 2019 Design Standards.
- Criteria based on the FDOT 2019 Plans Preparation Manual and the 2007 AASHTO "Green Book".
- In accordance with Rule 14.40.003(3)(b), Florida Administrative Code, no planting is allowed which screens, or when mature will screen an outdoor advertising sign permitted under Chapter 479 F.S. billboard noticed have been issued to billboard owners by certified letter.
- No vegetation to be placed in a manner whereby official departmental traffic control signing would be discerned as being screened.
- All applicable departmental Maintenance of Traffic standards to be utilized at all times while construction and maintenance activities are being performed as a result of this project.
- A minimum vertical clearance of 14.5' between the grade of roadway and the bottom canopy of foliage to be maintained at all times.

PAY ITEM NOTES:

EXISTING LANDSCAPE

All existing landscape to remain in place unless specified on the plans. Patch existing sod in areas disturbed by construction with utilizing the existing sod type, after construction is completed.

CLEARING AND GRUBBING

Where plant beds, trees and palms are installed in sodded areas or areas with other plant growth, existing plants to be removed, and the plant bed prepared to meet the requirements below before planting. Existing sod to be treated with herbicide and follow manufacturer's directions for the appropriate waiting period to confirm the sod is dead, before continuing construction of the landscape. The plant beds to be marked, and the sod removed within the plant beds areas. Project site to be free of shrub/tree/palm paper, boards, chips, sticks, trash, or any other undesirable material. There to be no exotic or noxious weeds or weed seeds (i.e. Nut grass, Bermuda grass, Sedges and the like). In no case to there be more than 5% by volume of stones, limestone, asphalt waste to pay items ratio. Where plant beds, trees and palms are installed in sodded areas or areas with other plant growth, existing plants to be removed, and the plant bed prepared to meet the requirements below before planting. with the peanut. Plant beds to have Bahia sod removed in its entirety to a depth of 3" before planting any of the shrub and ground cover materials.

STRUCTURED SOILS

As shown on plans, backfill around the Tree Wells to be with Structured Soils. Contractor to submit sample of structured soils in 1 gal Ziplock bag along with applicable soil analysis, for approval by City of Tampa Construction Representative, before delivery to site. Structured soils shall consist of the following: Crushed Granite or washed Crushed Concrete Aggregate 35%, White Builders Sand 35% & Organic Topsoil 30%

PREPARED SOIL LAYER 3" DEPTH

All shrub planting pits to be supplemented with 3" of Prepared Planting Soils for each plant item during installation. See Specifications for Prepared Planting Soils. Maximum Soluble Salts: 200 ppm. Contractor to submit sample and soil analysis, for approval by City of Tampa Construction Representative, before delivery to site.

IRRIGATION

The Contractor to provide a Lump Sum Price for Truck watering as needed for watering the landscape shown on plans.

Supplemental watering may be needed during the establishment period, to be provided in the form of truck watering. MOT practices to be employed during truck watering practices. Inform City of Tampa Construction Representative before performing truck watering. The entire 12-month Warranty Period will require plant watering, as needed. Watering timing shall be determined by the need to keep plant materials in no less than a Florida #1 condition. Any plant materials that suffer or perish due to over or under watering will need to be replaced. Truck watering, if used, to comply with potable water standards and not be reclaimed water. Truck water costs to be the responsibility of the Contractor and shall be shown in a Lump Sum price. Watering shall be for the duration of the project, until the end of the 12-month Warranty period.

PRE-EMERGENT ON PREPARED SOIL LAYER

Prior to mulching, the proposed plant beds indicated on plans, to be treated with granular Pre-Emergent Herbicide containing 1% Benefin and 1% Oryzaly. Apply granular herbicide per manufacturer's directions. Use a properly calibrated granular applicator and do not apply chemical directly onto leaves of plants. Applicator to be licensed by State of Florida and trained for proper application.

LANDSCAPE COMPLETE - B+B Plant Materials

The B+B (Balled + Burlapped) plant materials to be field grown, hardened-off a minimum of 90 days before delivery to job site and to be balled and burlapped and of sizes according to the 2015 Florida Grade and Standards for Nursery Plants. All other material under this pay item number is to be container grown.

LANDSCAPE QUALITY STANDARD

All Plant materials to be delivered to the site in a 'Florida No.1' condition, according to the 2015 Florida Grades and Standards for Nursery Plants. Root ball, canopy spread, overall height as well as caliper inches, to comply with 'Florida No.1' requirements.

TREE PLACEMENT

Adjust trees and palms to be placed as far from utilities as possible with the 811 locator.

LANDSCAPE COMPLETE - STAKING AND GUYING

Staking and Guying to be included in the cost of the plant material. Staking and guying to be per the details shown on plans. Staking and Guying to be maintained throughout the one-year warranty period, and to be removed at the end of the one-year Warranty period at Contractors expense.

LANDSCAPE COMPLETE - MULCH - WOOD CHIPS


All new shrub beds to be mulched with 3" depth of either Pine Bark-Mini-Nuggets (1-1/2-3" pieces) or "Enviro-mulch" mulch material. Cypress mulch will not be allowed on the job site. Planting quantities do not include mulch in shrub beds or tree/palm beds and individual trees/palms. The mulch to be free of other vegetative yard waste, plastic, glass, metal, palm trees, sand and other foreign materials. The mulch to have the consistency of appearance. The mulch to be certified to be sterile and free from viable weed and grass seed. Submit samples in 1-gallon Ziplocs bags to Project Tampa Construction Representative, for approval before delivery to site.

LANDSCAPE COMPLETE - 12 MONTH MAINTENANCE & WARRANTY PERIOD

There will be a Landscape Establishment and Maintenance period of 12-Months after Final Acceptance, included in the contract pricing from Contractors during bidding, for the items shown in the project specifications. The date of Final Acceptance will be determined by City of Tampa Project Representative and will be based on the contract being fully and satisfactorily executed to the requirements of the plans and specifications. All plant materials to be maintained in a Florida #1 Condition. Any plant materials not found to be in this condition to be replaced, including materials and labor, at the end of every calendar month, from date of Final Acceptance until 12 months from the date of Final Acceptance.

MAINTENANCE AFTER COMPLETION

All landscape maintenance after completion of 12-month Warranty period, shall be the responsibility of Hillsborough County.


REVISIONS				 TERRA TECTONICS <small>design group international, inc.</small> LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL NOTES & PAY ITEM NOTES L9
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

COLUMBUS DRIVE WALK/BIKE PROJECT

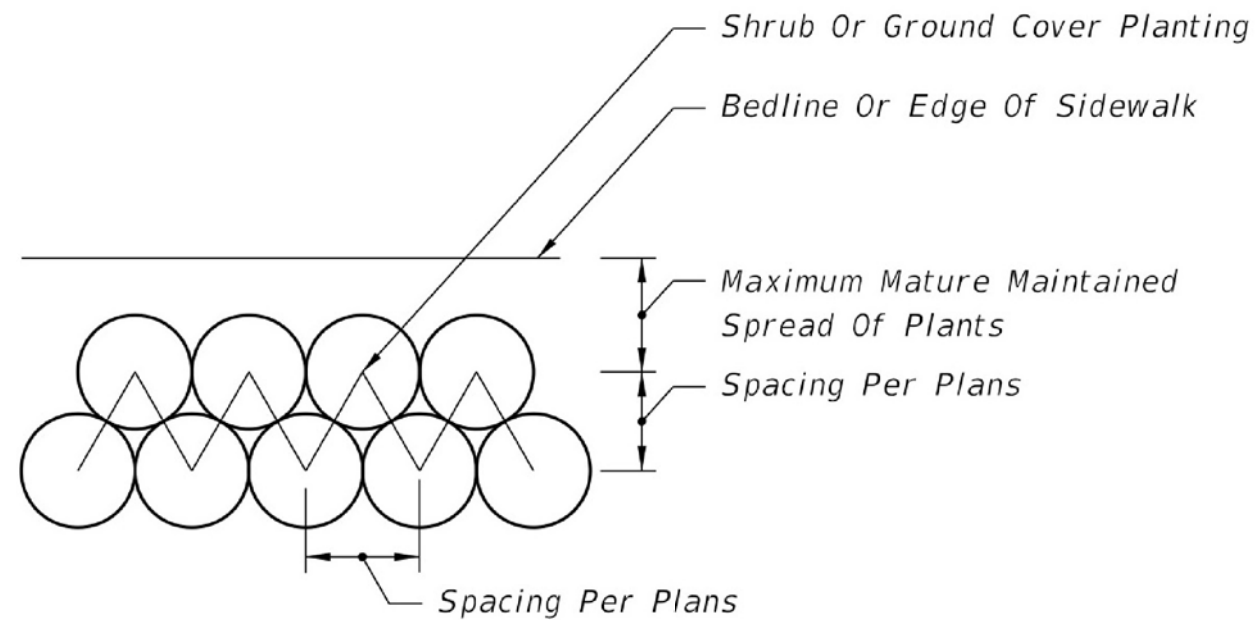
LANDSCAPE TABULATIONS

100% SUBMITTAL

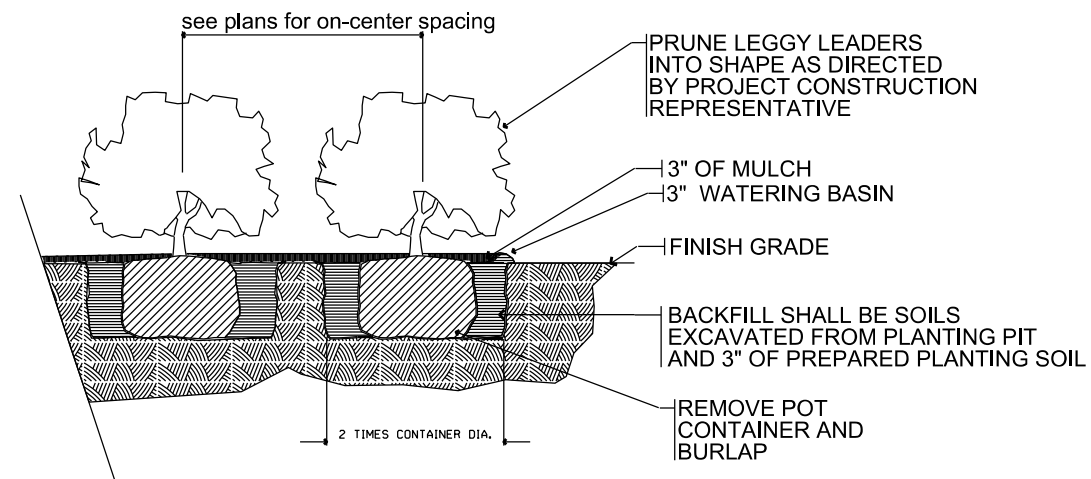
PLANTINGS:					PLAN	PLAN	PLAN	PLAN	PLAN	
SYM	COMMON NAME	BOTANICAL NAME	Container size	SPECIFICATION	1	2	3	4	5	TOTAL
LARGE TREES AND PALMS:										
LC	* Chinese Fan Palm- *FURNISH AND INSTALL *	LIVISTONA chinensis	B+B	16' CT. to frond base. Min 18" caliper	2	6	2	4	0	14
TD	* Bald Cypress *FURNISH AND INSTALL*	TAXODIUM distichum	B+B	26' ht' 10' spread, 9' ct 8" caliper B+B max 72" rootball-max 42" depth	3	4	3	3	0	13
LC	** Chinese Fan Palm - INSTALL ONLY	LIVISTONA chinensis	B+B	16' CT. to frond base. Min 18" caliper	2	6	2	4	0	14
TD	** Bald Cypress - INSTALL ONLY	TAXODIUM distichum	B+B	26' ht' 10' spread, 9' ct 8" caliper B+B max 72" rootball-max 42" depth	3	4	3	3	0	13
Small shrubs and ground covers:										
ITO	Dw Orange Ixora	IXORA taiwanensis' Orange'	3 gallon	18" ht x 12" spread	12	14	15	8	0	49
Site work soils and mulch										
	City of TAMPA BRICK BLOCK PAVERS	SEE PLANS FOR DETAILS	SF	USE COT STOCKPILE	150	300	150	210	0	810
	6' SQ X 2" - FABRIC WRAPPED #57 STONE MATT FOR ROOTBALL	SEE PLANS FOR DETAILS	EA	Crush Granite or Crushed concrete	5	10	5	7	0	27
	TREE GRATE TREE BRACING	SEE PLANS FOR DETAILS	EA	Aluminum angle - see details	5	10	5	7	0	27
	TREE GRATE 16" dia opening	FOR PALMS	EA	Cast Iron #8718a	2	6	2	4	0	14
	TREE GRATE 36" dia opening	FOR CYPRESS TREES	EA	Cast Iron #8718	3	4	3	3	0	13
	TREE GRATE FRAMES	SEE PLANS FOR DETAILS	EA	cast into tree well structure	3	4	3	3	0	13
	TREE GUARDS Type E	FOR ALL CYPRESS TREE LOCATIONS	EA	TO MATCH TREE GRATE - Assemble in-field to tree grate - for 36" dia opening	3	4	3	3	0	13
	STRUCTURAL SOILS	PREPARED STRUCTURAL SOILS -SEE SPECIFICATIONS	cu yard		45	90	45	63		243
	PREPARED PLANTING SOILS	SEE SPECIFICATIONS	cu yard		0.7	0.8	0.8	0.4	0.0	2.7
	PINE BARK MULCH	3" -SEE PLANS FOR LOCATIONS	cu yard		0.6	0.6	0.7	0.4	0.0	2.3
	1 YEAR OF TRUCK WATERING AS NEEDED	for watering of all plant materials as needed	LS	Until end of 12-month Warranty period						1
*	Trees shall be tagged in field and photographs provided to project Landscape architect and COT-Construction representative before delivery to project site.									
*	Trees shall be dug and root pruned and hardened-off, a min of 90 days before pick up and delivery to construction site.									
*	Every effort should be made to procure trees at beginning of project commencement and hold in nursery to assure trees will be available for project at time of tree placement.									
**	Price shall be for install of previously purchased and tagged Palm and Tree materials only. Pickup from nursery, install and provide bracing, soils, fertilizers as specified.									
	Coordinate with City of Tampa Construction Representative									

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					 <p>TERRA TECTONICS design group international, inc. LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504</p>	<p align="center">CITY OF TAMPA TRANSPORTATION DEPARTMENT</p> <table border="1"> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </table>			CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	<p align="center">LANDSCAPE TABULATIONS</p>	<p>SHEET NO.</p> <p align="center">L10</p>
REVISIONS																											
DATE	DESCRIPTION	DATE	DESCRIPTION																								
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID																									
1001221	HILLSBOROUGH	436639-1-58-01																									
<p>Jonathan H. Toner Landscape Architect Florida LIC #00011223</p> <p>Corporate Authorization # 254 33765 727.441.4504</p>																											

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GROUND COVER/SHRUB LAYOUT DETAIL

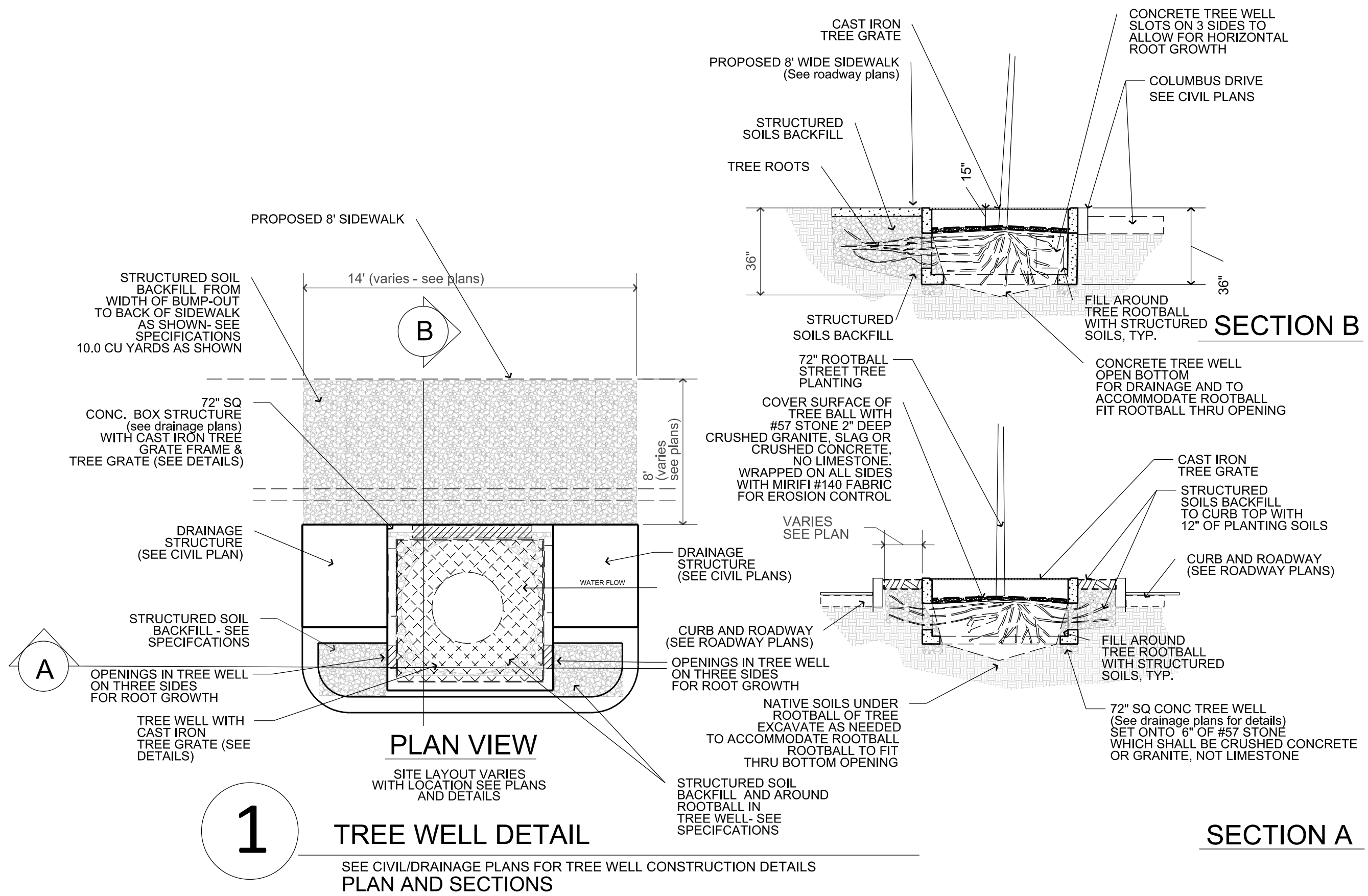


SHRUB BED PLANTING DETAIL

A

NO SCALE

REVISIONS				 <p>Jonathan H. Toner Landscape Architect Florida LIC #00011223</p> <p>Corporate Authorization # 254 33765 727.441.4504</p>	CITY OF TAMPA TRANSPORTATION DEPARTMENT			PLANTING DETAILS 1	SHEET NO. L11
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		



1

TREE WELL DETAIL

SEE CIVIL/DRAINAGE PLANS FOR TREE WELL CONSTRUCTION DETAILS
 PLAN AND SECTIONS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

TERRA TECTONICS
 design group international, inc.
 LANDSCAPE ARCHITECTS
 ISA CERTIFIED ARBORISTS
 URBAN DESIGNERS
 1188 Kapp Drive | Clearwater, Florida | 33765 | 727.441.4504

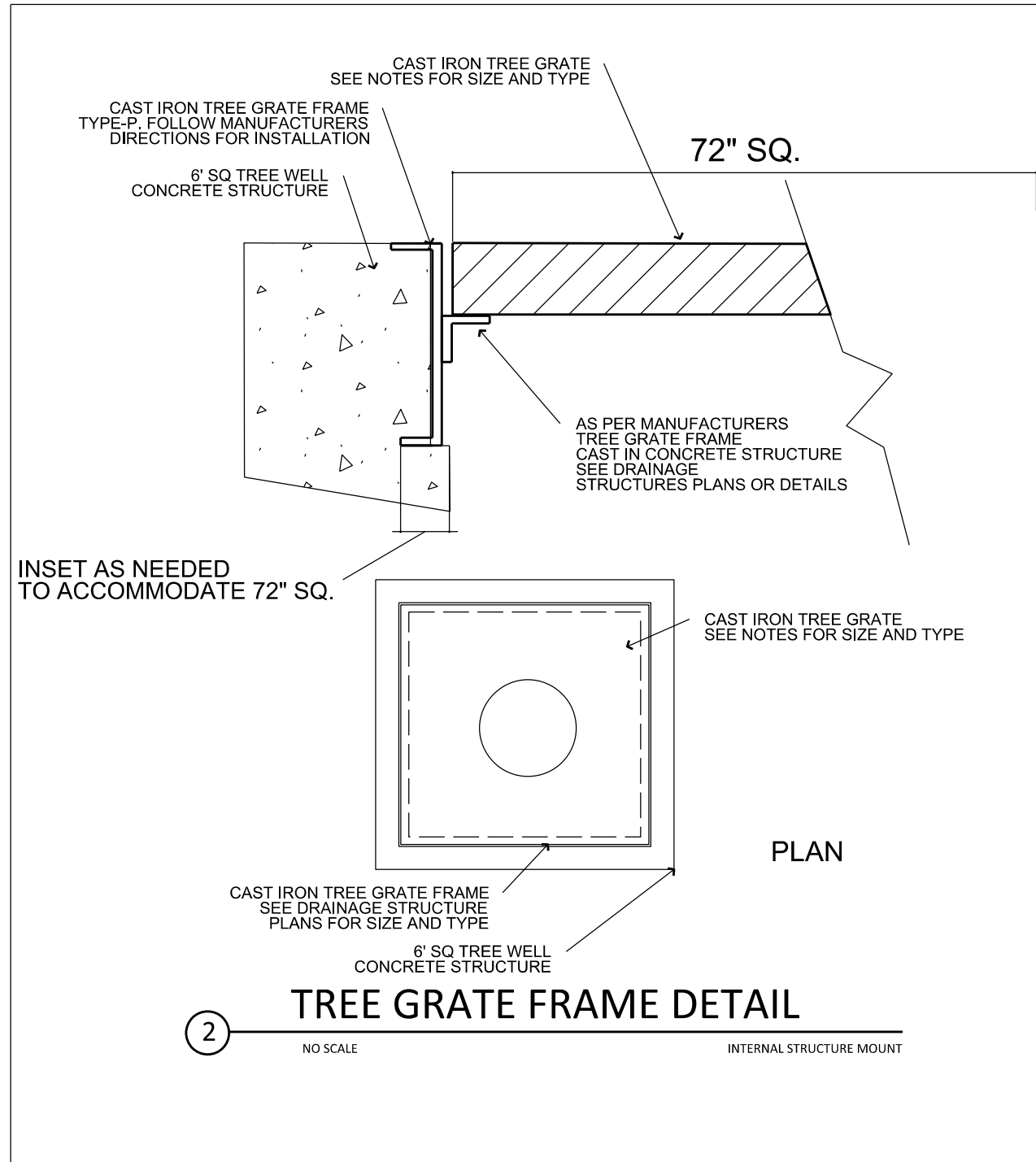
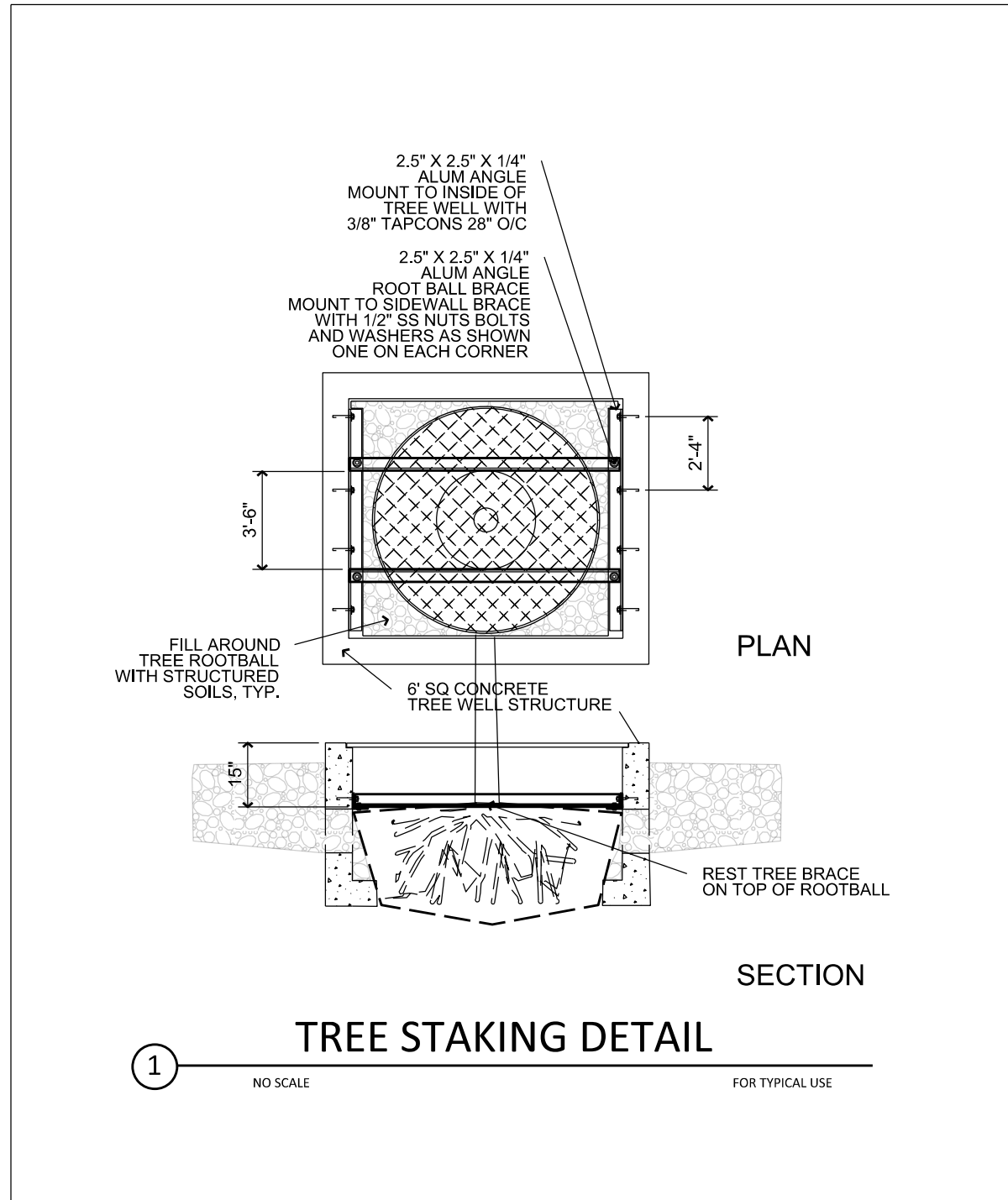
Jonathan H. Toner
 Landscape Architect
 Florida LIC #0001123

Corporate
 Authorization # 254
 33765 | 727.441.4504


CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

<p>TREE WELL DETAILS 1</p>
<p>SHEET NO. L12</p>

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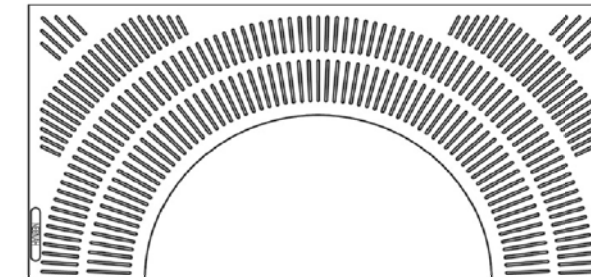
- TREE GRATE NOTES:**
1. CAST IRON R-8718A -CAST IRON POWDER COATED BLACK - 72" SQ OPENING
 2. MATCH EXISTING STYLE AND TYPE LOCATED WITHIN YBOR CITY AND APPROVED BY CITY OF TAMPA.
 3. TREE GRATE SHALL BE APPROVED IN WRITING FROM CITY OF TAMPA PRIOR TO ORDERING
 4. TREE GRATE FRAME SHALL BE CAST INTO TREE WELL STRUCTURE- SEE CIVL PLANS FOR STRUCTURAL DETAILS
 5. TREE WELL GRATE FRAME SHALL BE MOUNTING INTO OPENING OF TREE WELL AFTER TREE/PALM IS INSTALLED
 6. TREE GUARDS TO BE INSTALLED IN TREE WELLS WITH BALD CYPRESS TREES ONLY.

REVISIONS				 TERRA TECTONICS <small>design group international, inc.</small> LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	
TREE WELL DETAILS 2							L13	

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SQUARE

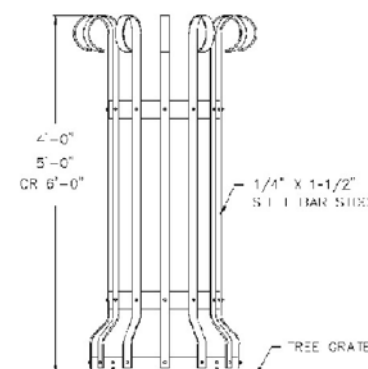
SERIES NO.	GRATE SIZE	AVAILABLE TREE OPENING SIZES	SLOT SIZE
R-8719	48" x 48"	32" dia.	0.25"
R-8717	60" x 60"	36" dia.	0.25"
--R-8717-A	60" x 60"	16" dia.	0.25"
R-8718	72" x 72"	36" dia.	0.25"
--R-8718-A	72" x 72"	16" dia.	0.25"



R-8717

DETAILS

- Available with light openings: R-8718, R-8718-A
- R-8717-A and R-8718-A use reducer grates for smaller tree opening




TYPE E

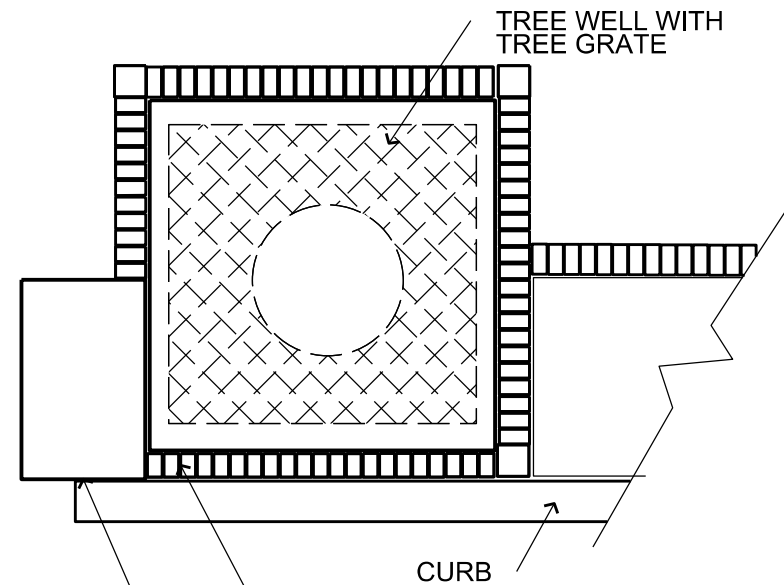
SPECIFY WHEN ORDERING:

- Style
- Dimension "L" (guard height as measured from top of grate - standard heights are 4', 5' or 6')
- Tree opening diameter
- Paint specifications if different from standard
- Shop drawings for approval

TREE GRATE NOTES:

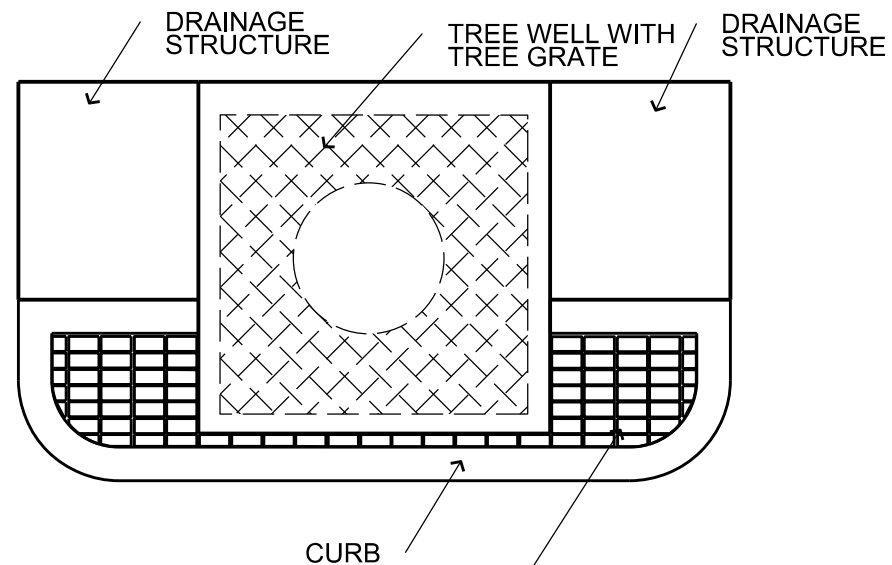
- CAST IRON R-8718A -CAST IRON POWDER COATED BLACK - 72" SQ OPENING
- MATCH EXISTING STYLE AND TYPE LOCATED WITHIN YBOR CITY AND APPROVED BY CITY OF TAMPA.
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- TREE GRATE FRAME SHALL BE CAST INTO TREE WELL STRUCTURE- SEE CIVL PLANS FOR STRUCTURAL DETAILS
- TREE WELL GRATE FRAME SHALL BE MOUNTED INTO OPENING OF TREE WELL AFTER TREE/PALM IS INSTALLED
- TREE GUARDS TO BE INSTALLED IN TREE WELLS WITH BALD CYPRESS TREES ONLY.

REVISIONS				 Jonathan H. Toner Landscape Architect Florida LIC #0001123 Corporate Authorization # 254 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	TREE GRATE DETAILS
								L14

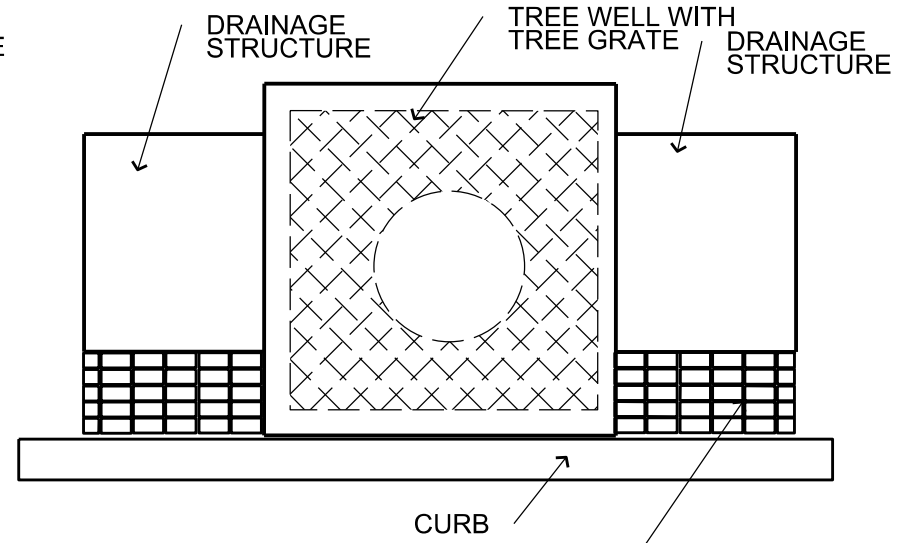


USE ONE ROW OF BRICK AROUND TREE WELL AS SHOWN. END ROW AT INLET STRUCTURE. CONTINUE ALONG PLANTER EDGE WHERE PLANTERS ARE SHOWN ON PLAN

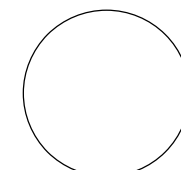
DRAINAGE STRUCTURE



USE BRICK BLOCK STACKED IN SOLDIER COURSE TO FILL IN SPACE BETWEEN TREE WELL AND BACK OF CURB. SEE PLAN FOR LOCATIONS



USE BRICK BLOCK STACKED IN SOLDIER COURSE TO FILL IN SPACE BETWEEN INLET STRUCTURES AND BACK OF CURB. SEE PLAN FOR LOCATIONS

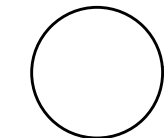
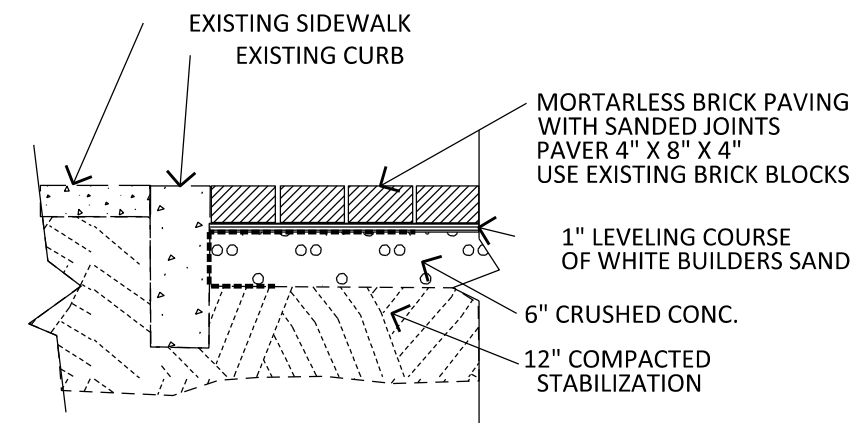


DETAIL- BRICKBLOCK PAVER APPLICATION AGAINST CURB-TREE WELL

PLAN

NTS

NOTE: SAWCUT BRICK BLOCK AS NEEDED TO FIT IN SPACES AS SHOWN. BRICK BLOCK IS AVAILABLE THROUGH CITY OF TAMPA STOCKPILE. CONTACT COT-CONSTRUCTION REPRESENTATIVE FOR COORDINATING LOCATIONS AND PICKUP OF MATERIALS.



RESTORED BRICK PAVERS IN WALK

SECTION

NTS

REVISIONS				CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
				1001221	HILLSBOROUGH	436639-1-58-01	BRICK PAVER DETAILS L15

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URBAN DESIGNERS
1188 Kapp Drive | Clearwater, Florida | 33765 | 727.441.4504

Jonathan H. Toner
Landscape Architect
Florida LIC #0001123
Corporate
Authorization # 254
33765 | 727.441.4504

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Columbus Avenue Streetscape

Streetscape Maintenance Plan Narrative:

This project will be maintained by Hillsborough County upon the ending of the 12-Month Warranty Period. During the 12-Month Warranty Period, this project will be maintained by Contractor. The project falls within the USDA Zone 9-9A, with minimum temps between 26-32 degrees F, but only every few years. This project is surrounded by mostly residential and some industrial areas. It can be expected that this landscape will be subjected to incoming winter fronts from the NW and then summer daily rain from June to September with a drastic increase during tropical storms and hurricanes. Summers are typically very hot humid and frequent rainfall in the afternoons. Temperatures in the roadway edges can be harsh as it is surrounded by roadway asphalt & development. The summer warm evening temps can have the tendency to create conditions conducive to fungus production when combined with the high daily rainfall. Tree wells are design to use existing rainfall to water the trees. However, in periods of low or no rainfall, supplemental watering will be required. Supplemental truck watering if needed, will be the source of shrub landscape watering. Supplemental watering will be required to establish the plantings after installation and up to end of warranty period.

MAINTENANCE PLAN:

Maintenance to be done on the current Hillsborough County schedules. This to be on a bi-weekly basis from April through September and a month basis September through March. This includes litter pickup, mowing, edging weed removal and line trimming Pruning, fertilization and mulch replenishment to be done on an annual or semi-annual basis

Mowing:

The final project surface will be completed with Bahia sod in all areas not defined as plant bed. The mowing to be to a height of 3". This is to remove the seed heads from weeds and help control the invasive weeds. It can also be controlled by applications of specific herbicides, according to manufacturer's directions and frequency, to control initial weed growth after construction.

Edging:

Edging to be performed around the rootball perimeter of the street tree and palm root balls, with a diameter of 6' for each tree and palm. This to coincide with the mowing schedule.

Weeding:

Use of herbicides is encouraged to minimize hand pulling of weeds along the edge of the busy roadway. Care should be taken not to overspray onto the leaves of the desired landscape plantings. Correct applications of the proper herbicides have been proven to work effectively to reduce weeds, but not harm the trees and palms. Only Florida State licensed applicators will be permitted to apply herbicides.

Mulch:

Frequent observation and replacement of mini-pine bark mulch as required to maintain a 2-3" cover will help reduce invasive weeds. Spot mulch, semi-annually as needed for areas that need mulch cover. Replenish Mulch to a 3" depth at the end of the 12-month warranty period prior to turning the site over to the Hillsborough County Representative for maintenance.

Pruning:


The shrub selections are chosen for their habit of maintaining a small size and pruning should not be required other than an annual trimming of overgrown palm fronds and branches. Dead tree limbs and palm fronds need to be removed as soon as they are seen.

Fertilization:

The trees, shrubs and ground covers to be fertilized annually in March. Use a Time-release 2-8-10 Osmocote or equal, and according to manufacturer's recommendations for the particular plant material. Do not Fertilize in summer months, Check local ordinances for times of non-fertilization within City of Tampa.

Watering:

The watering will be by use of either Truck Watering or natural rainfall. Watering to be performed daily if needed, for the first month after Substantial Completion, and then weekly as needed to maintain the plantings in a Florida #1 condition up to Final Acceptance and to end of the 12-month warranty period. Watering to be the responsibility of the Landscape Contractor up to Final Acceptance and also during the entire 12-month Warranty Period. After the 12-month Warranty Period, Hillsborough County will be responsible for watering.

REVISIONS				 TERRA TECTONICS <small>design group international, inc.</small> LANDSCAPE ARCHITECTS ISA CERTIFIED ARBORISTS URBAN DESIGNERS 1188 Kapp Drive Clearwater, Florida 33765 727.441.4504	CITY OF TAMPA TRANSPORTATION DEPARTMENT			LANDSCAPE MAINTENANCE NOTES	SHEET NO. L16
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

STATE OF FLORIDA
CITY OF TAMPA

WALK-BIKE LAP PROJECT

CITY PROJECT NO. 1001221

FINANCIAL PROJECT ID 436639-1-58-01

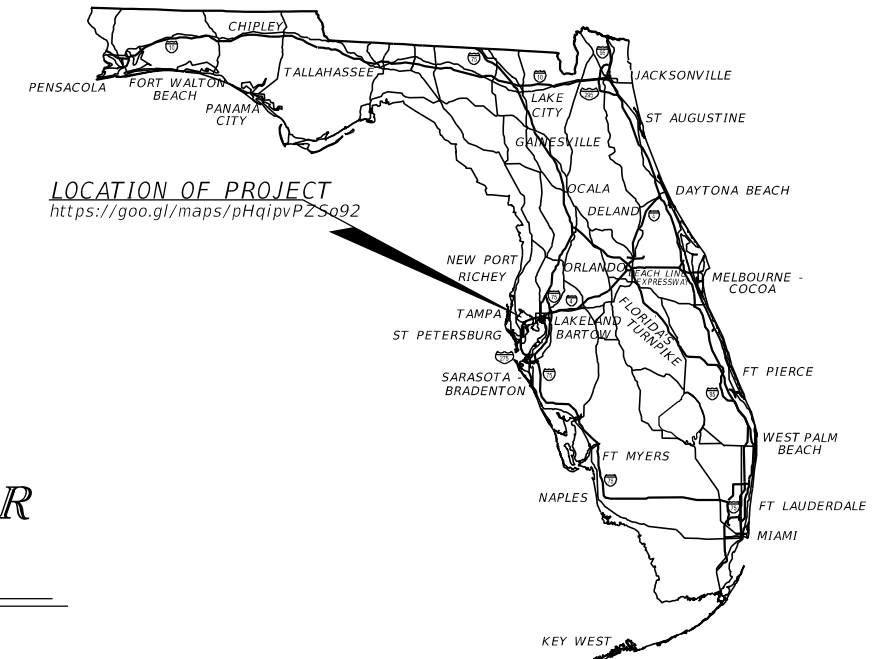
HILLSBOROUGH COUNTY

E COLUMBUS DR FROM SR 45 (N NEBRASKA AVE) TO N 14TH ST

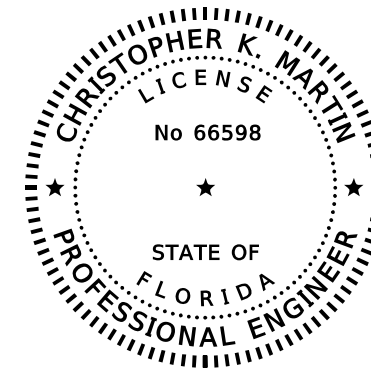
**UTILITY WORK BY HIGHWAY CONTRACTOR
WATER RELOCATION PLANS**

INDEX OF WATER
RELOCATION PLANS

SHEET NO.	SHEET DESCRIPTION
U-01	KEY SHEET
U-02	TABULATION OF QUANTITIES
U-03	GENERAL NOTES
U-04 - U-08	WATER MAIN PLAN SHEETS
U-09	WATER MAIN PROFILE SHEET
U-10	WATER MAIN DRAINAGE STRUCTURE DETAIL
U-11	WATER MAIN CROSS SECTION DETAIL
U-12 - U-19	WATER MAIN STANDARD DETAILS



LOCATION OF PROJECT
<https://goo.gl/maps/pHqipvPZSo92>



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

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.

**WATER RELOCATION PLANS
ENGINEER OF RECORD:**

CHRISTOPHER K. MARTIN, P.E.
P.E. LICENSE NUMBER 66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
(813) 978-8688
CERTIFICATE OF AUTHORIZATION 4356

CONSTRUCTION PLANS
MARCH 2020

FDOT PROJECT MANAGER:
NINA MABILLEAU, E.I.

FISCAL YEAR	SHEET NO.
21	U-01

CITY OF TAMPA
CIP NO.: 1001221 / FPID: 436639-1-58-01

SUMMARY OF UTILITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY TOTAL
1050- 51-202	UTILITY PIPE-DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER/SEWER, 2"	LF	16
1050- 51-206	UTILITY PIPE-DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER/SEWER, 6"	LF	65
1050- 51-212	UTILITY PIPE-DUCTILE IRON/CAST IRON,, FURNISH & INSTALL, WATER/SEWER, 12"	LF	20
1055- 51-112	UTILITY FITTINGS, DUCTILE IRON/CAST IRON, FURNISH & INSTALL ELBOW, 12"	EA	4
1055- 51-412	UTILITY FITTINGS, DUCTILE IRON/CAST IRON, FURNISH & INSTALL UNION, 12"	EA	2
1080- 23-106	UTILITY FIXTURE-TAPPING SADDLE/SLEEVE, FURNISH & INSTALL, 6"	EA	1
1080- 24-106	UTILITY FIXTURE, VALVE ASSEMBLY, FURNISH AND INSTALL, 6"	EA	2
1080- 27-106	UTILITY FIXTURE-LINE STOP ASSEMBLY, FURNISH AND INSTALL, 6"	EA	1
1080- 27-112	UTILITY FIXTURE-LINE STOP ASSEMBLY, FURNISH AND INSTALL, 12"	EA	2
1080- 29-106	UTILITY FIXTURE-MECHANICAL JOINT RESTRAINT, FURNISH & INSTALL, 6"	EA	8
1080- 29-112	UTILITY FIXTURE, MECHANICAL JOINT RESTRAINT, FURNISH & INSTALL, 12"	EA	10
1644-113-08	FIRE HYDRANT , F&I, STANDARD, 2 HOSE, 1 PUMPER, 6"	EA	1
1644-900	FIRE HYDRANT, REMOVE	EA	1

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. U-02
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

GENERAL

- A. WATER SERVICE SHALL BE PROVIDED BY THE CITY OF TAMPA.
- B. ALL WORK TO BE PERFORMED ON EXISTING OR ON FUTURE WATER FACILITIES TO BE OWNED AND MAINTAINED BY THE CITY OF TAMPA SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CITY OF TAMPA WATER DEPARTMENT TECHNICAL MANUAL. ALL CONSTRUCTION DETAILS AND STANDARDS DESCRIBED THERE WITHIN SHALL BE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
- C. CONSTRUCTION OF ANY WATER INSTALLATIONS TO BE OWNED AND MAINTAINED BY THE CITY OF TAMPA SHALL BE COORDINATED WITH THE CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER OF RECORD AND / OR CONTRACTOR SHALL CONTACT THE ADMINISTRATION DEPARTMENT AT (813) 635-3400 TO SCHEDULE A PRE-CONSTRUCTION MEETING FOR THE REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CONSTRUCTION.
- D. PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE CITY OF TAMPA REGARDING THE PUBLIC WATER FACILITIES, THE CONTRACTOR SHALL OBTAIN THE LATEST EDITION OF THE CITY OF TAMPA WATER DEPARTMENT TECHNICAL MANUAL. ALL PRIVATELY INSTALLED PUBLIC FACILITIES, INCLUDING CONSTRUCTION, MATERIALS, AND WORKMANSHIP, ARE TO CONFORM WITH THE SPECIFICATIONS OUTLINED IN THE DEPARTMENT'S TECHNICAL MANUAL. IN THE EVENT OF A DISCREPANCY, THE MOST STRINGENT CRITERIA SHALL APPLY.
- E. BENDS SHALL BE INSTALLED ON ALL WATER MAINS AS NECESSARY TO MAINTAIN PROPER ALIGNMENT. JOINT DEFLECTIONS SHALL BE IN ACCORDANCE WITH AWWA C-600 (LATEST EDITION) EXCEPT DEFLECTIONS ALLOWED SHALL BE LESS 80% OF THE DEFLECTION VALUES GIVEN IN THE AWWA DEFLECTION TABLE.
- F. VALVES ON EXISTING CITY OF TAMPA WATER MAINS ARE TO BE OPERATED BY CITY PERSONNEL ONLY.
- G. FIRE HYDRANT ASSEMBLIES TO BE OWNED AND MAINTAINED BY THE CITY SHALL BE 5 1/4" DNS.
- H. ALL FIRE HYDRANT ASSEMBLIES AND FIRE LINE DOUBLE DETECTOR CHECK VALVES WHICH ARE TO BE PRIVATELY OWNED AND MAINTAINED SHALL BE PAINTED RED.
- I. FOR ANY NEW, ADJUSTED, OR RELOCATED FIRE HYDRANT ASSEMBLY, HYDRANT EXTENSIONS ARE NOT PERMITTED. FIRE HYDRANT ASSEMBLY INSTALLATIONS MUST CONFIRM WITH THE WATER DEPARTMENT STANDARD. IF A NEW, ADJUSTED, OR RELOCATED FIRE HYDRANT ASSEMBLY IS NOT PROPERLY SIZED, A NEW HYDRANT MUST BE ORDERED AT THE DEVELOPER'S EXPENSE.
- J. THE DEVELOPER SHALL BE RESPONSIBLE TO LOCATE ALL EXISTING PUBLIC WATER SERVICE LINES NO LONGER TO BE SERVING THE PARCEL. THESE SERVICE LINES ARE TO BE REMOVED, AND CUT & CAPPED AT THE PUBLIC WATER MAIN BY THE DEVELOPER.
- K. ALL PROPOSED PIPE AND AFFECTED EXISTING PIPE SHALL BE RESTRAINED IN ACCORDANCE WITH THE RESTRAINT JOINT DETAILS.
- L. THE MATERIAL QUANTITIES AND CALLOUT LENGTHS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY QUANTITIES PRIOR TO ACQUISITION AND COMMENCEMENT OF CONSTRUCTION WORK.

PIPE CLEARANCES

- A. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES AND SHALL MAINTAIN A MINIMUM OF THREE (3) FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES, EXCEPT STORM, WASTEWATER, AND GAS WHICH SHALL MAINTAIN TEN (10) FEET HORIZONTAL SEPARATION, UNLESS OTHERWISE NOTED.
- B. WATER MAINS SHALL CROSS ABOVE OTHER PIPES. WHEN WATER MAINS CROSS ANOTHER UTILITY, 18" OF OUTSIDE-TO-OUTSIDE VERTICAL SEPARATIONS SHOULD BE PROVIDED. IN CASES WHERE THE PREFERRED SEPARATION MAY NOT BE MET, A MINIMUM OF 12" OF OUTSIDE-TO-OUTSIDE VERTICAL SEPARATION MUST BE PROVIDED.
- C. ALL WATER MAIN CROSSINGS WILL OTHER UTILITIES SHALL BE ARRANGED SO THAT THE JOINTS OF THE CROSSING PIPES ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
- D. CLEARANCE BETWEEN ALL TREES AND WATER MAINS SHALL MEET CITY OF TAMPA PARKS DEPARTMENT LATEST REQUIREMENTS. NO TREE SHALL BE PLANTED WITHIN 10 FEET OF INSTALLED OR EXISTING WATER MAINS.
- E. ALL WATER MAINS SHALL MAINTAIN SEPARATION AS DESCRIBED IN F.A.C. 62-555.314.

MATERIAL

- A. ALL VALVES SHALL BE RIGHT HAND (CLOCKWISE) OPEN.
- B. ALL DUCTILE IRON PIPE (DIP) FITTINGS AND APPURTENANCES SHALL UTILIZE POLYWRAP.
- C. ALL HARDWARE SHALL BE, AT MINIMUM, 304 STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- D. ALL BELOW GROUND BENDS SHALL BE MECHANICAL JOINT.
- E. ALL VALVES AND FITTINGS SHALL BE RESTRAINED.
- F. CONCRETE THRUST BLOCKS SHALL NOT BE USED TO PROVIDE THRUST RESTRAINT. RESTRAINT OF PUSH-ON DIP (OTHER THAN FOR FITTINGS AND VALVES) SHALL BE WITH APPROVED PUSH-ON "GRIPPER-TYPE" RESTRAINTS. FITTINGS AND VALVES SHALL BE CONNECTED TO PIPE WITH MEGA LUGS, OR APPROVED EQUAL.
- G. ALL POTABLE WATER SERVICE LATERALS, AIR RELEASE VALVES, AND TEMPORARY SAMPLE POINTS SHALL BE CONSTRUCTED OF BLUE SDR-9 HIGH DENSITY POLYETHYLENE (HDPE) TUBING. ALL HDPE TUBING SHALL BE INSTALLED WITHIN A CASING AS DEFINED IN THE SPECIFICATIONS AND DETAILS OF THE CITY OF TAMPA WATER DEPARTMENT TECHNICAL MANUAL.

DIRECTIONAL DRILLING

- A. HORIZONTAL ALIGNMENT SHALL BE AS SHOWN ON THE DRAWINGS. THE PIPE SHALL HAVE A MINIMUM 48-INCH COVER. THE MAXIMUM DEPTH SHALL BE DETERMINED BASED ON 36-INCH MINIMUM CLEARANCE UNDER WATER OR GAS LINES AND 24-INCH CLEARANCE UNDER ALL OTHER EXISTING OR PROPOSED UTILITIES TO BE CROSSED. COMPOUND CURVATURES MAY BE USED, BUT SHALL NOT EXCEED THE MAXIMUM DEFLECTIONS AS SET FORTH BY THE HDPE PIPE MANUFACTURE OR AWWA STANDARDS, WHICHEVER IS STRICTER.
- B. ENTRY ANGLE SHALL BE 12° - 14° IDEAL (NOT TO EXCEED 15°). EXIT ANGLE SHALL BE 6° - 12° TO FACILITATE "PULL-BACK."
- C. ENTRY AND EXIST ANGLES ARE DEFINED AS ANGLES FROM THE HORIZONTAL.
- D. A BORING LOG FOR THE VERTICAL AND HORIZONTAL ALIGNMENTS OF THE DIRECTIONAL DRILLED PIPES SHALL BE PROVIDED AND SUBMITTED ALONG WITH THE AS BUILT PACKAGE.

TESTING

- A. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL BE PROPERLY PRESSURE TESTED, WITNESSED, AND ACCEPTED BY THE CITY. PRESSURE TEST TO BE PERFORMED IN ACCORDANCE WITH CITY OF TAMPA WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE ASSIGNED CITY INSPECTOR A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE OF PERFORMING TESTS. CONTRACTOR SHALL PRESSURE TEST WATER MAINS AT A MINIMUM OF 150 PSI FOR A PERIOD OF TWO (2) HOURS IN ACCORDANCE WITH AWWA C600-87 STANDARDS. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS.
- B. ALL SAMPLE, PRESSURE TEST, AND CHLORINATION POINT PIPING SHALL BE COMPLETELY REMOVED PRIOR TO FINAL ACCEPTANCE. THE CORPORATION STOP SHALL BE CLOSED AND PLUGGED AT THE MAIN.
- C. CONTRACTOR SHALL PERFORM DISINFECTION AND HIRE INDEPENDENT FIRMS TO CONDUCT BACTERIOLOGICAL TESTING AS DEFINED IN F.A.C. 62-55.340. CONTRACTOR SHALL SUPPLY THE CITY WITH AS-BUILTS AND SAMPLE RESULTS NECESSARY TO OBTAIN DEP CLEARANCES.

RESTORATION

- A. ROADWAY RESTORATION SHALL BE IN CONFORMANCE WITH CORRESPONDING JURISDICTIONS LATEST'S STANDARDS. 2. ALL ASPHALT OPEN CUTS WITHIN CITY RIGHT-OF-WAY SHALL BE FULLY MILLED AND OVERLAYED FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT PER THE WATER DEPARTMENT'S STANDARD DETAIL.
- B. DISTURBANCE TO ANY PROPERTY, PUBLIC OR PRIVATE, AS PART OF THE CONSTRUCTION OF PUBLIC WATER FACILITIES, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

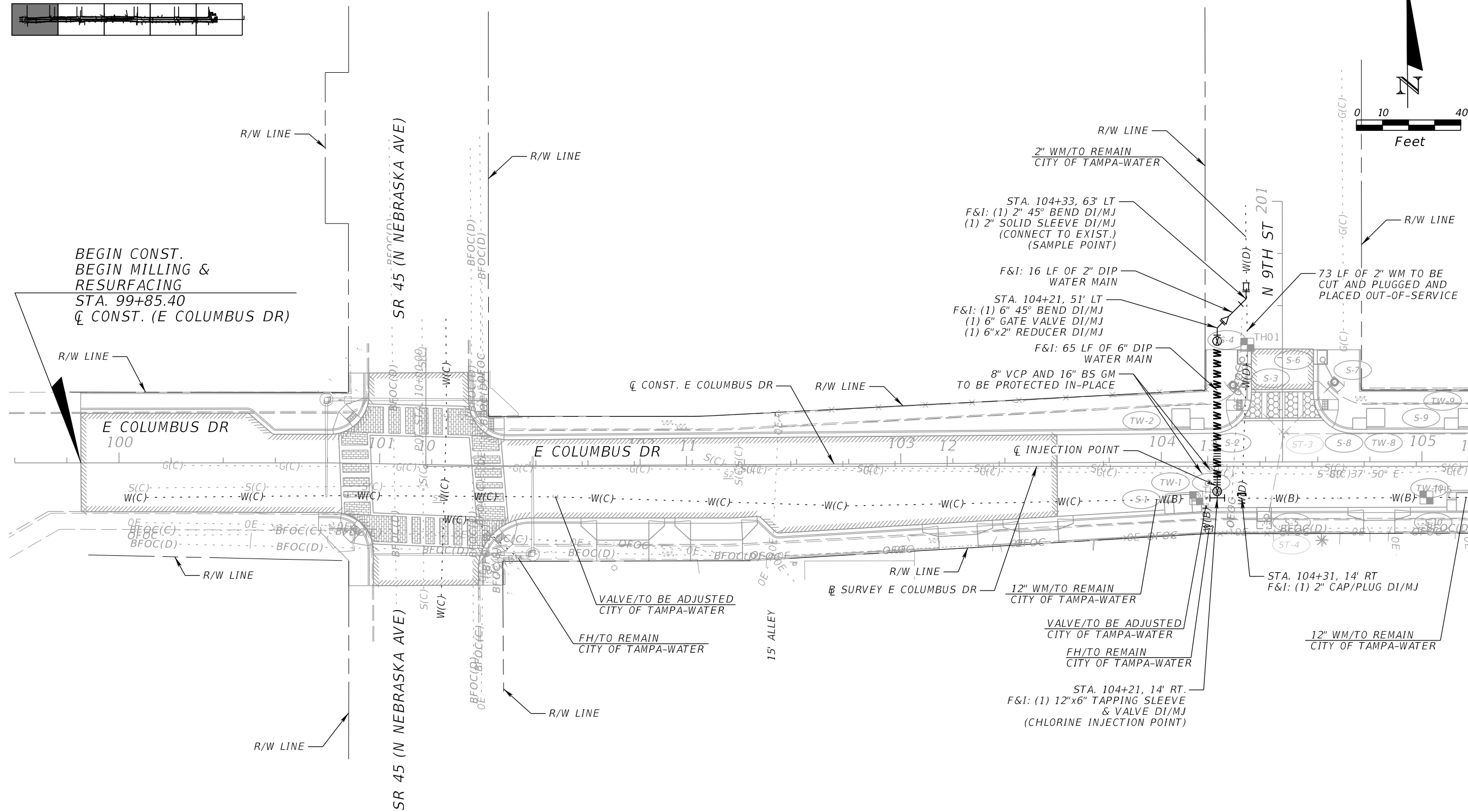
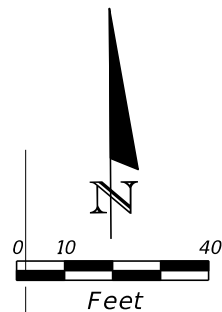
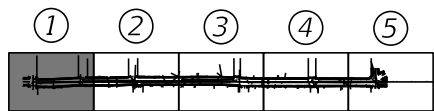
CERTIFICATE OF OCCUPANCY

THE CITY OF TAMPA WATER DEPARTMENT'S HOLD ON THE CERTIFICATE OF OCCUPANCY WILL NOT BE RELEASED UNTIL ALL CLOSEOUT REQUIREMENTS SET FORTH BY CITY OF TAMPA WATER DEPARTMENT AND CONTRACT ADMINISTRATION HAVE BEEN SATISFIED. THESE REQUIREMENTS MAY INCLUDE BY NOT BE LIMITED TO:

- A. FINAL INSPECTION IN CONJUNCTION WITH THE CONTRACT ADMINISTRATION DEPARTMENT PERSONNEL COMPLETED AND APPROVED.
- B. AS-BUILTS, BOTH HARD COPIES AND PDF, HAVE BEEN RECEIVED AND ACCEPTED.
- C. ALL NECESSARY TESTING COMPLETED AND CERTIFIED.
- D. PAYMENT OF ALL CITY OF TAMPA WATER DEPARTMENT FEES.
- E. ISSUANCE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION / HILLSBOROUGH COUNTY HEALTH DEPARTMENT CERTIFICATION OF COMPLETION APPROVAL (IF APPLICABLE).
- F. RECEIPT AND ACCEPTANCE OF ALL REQUIRED EASEMENT DEDICATION DOCUMENTS (IF APPLICABLE).
- G. RECEIPT AND ACCEPTANCE OF ALL REQUIRED TRANSFER OF OWNERSHIP DOCUMENTS (IF APPLICABLE).

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SHEET NO. U-03
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	
					1001221	HILLSBOROUGH	436639-1-58-01	

GENERAL NOTES



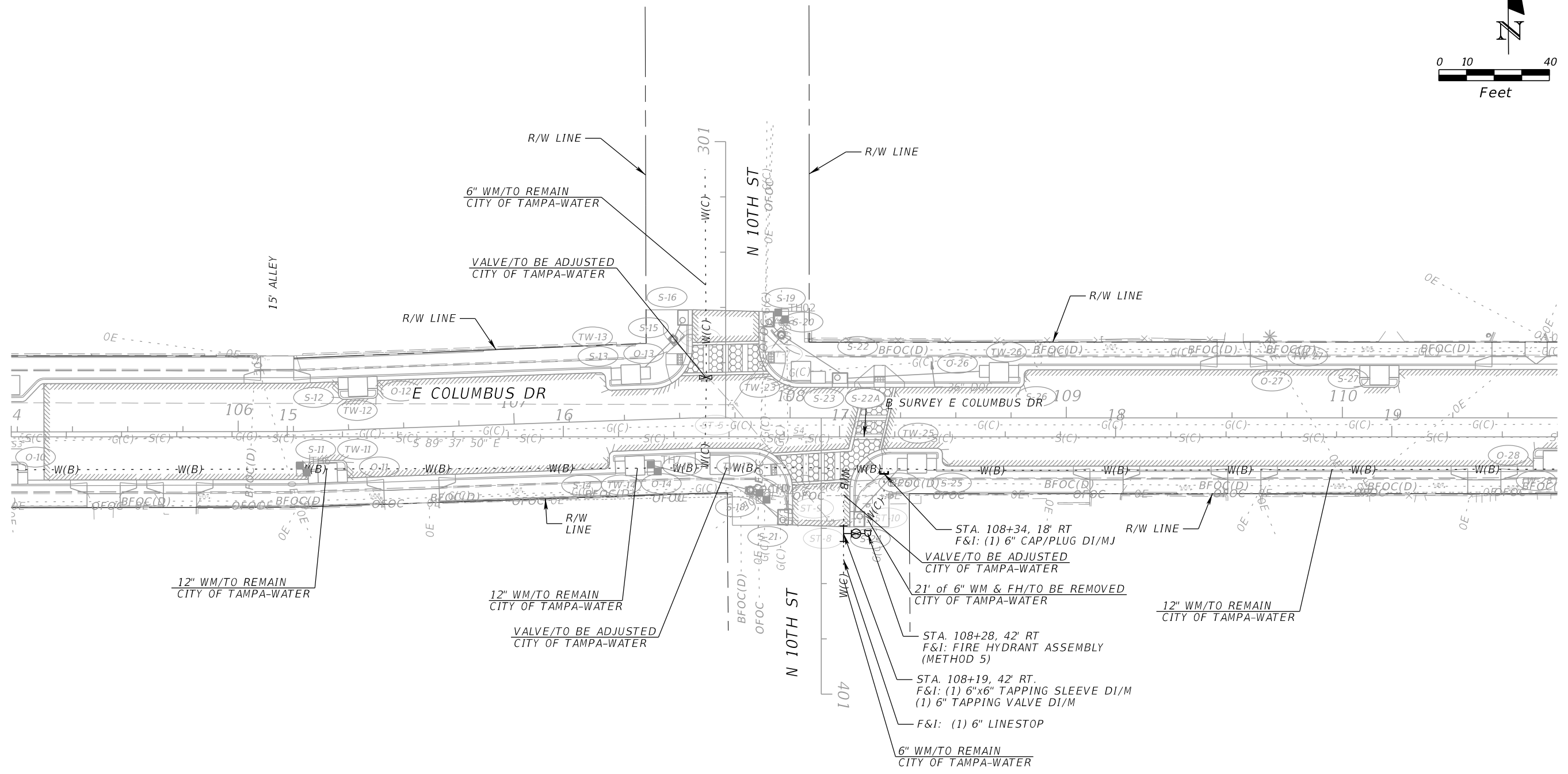
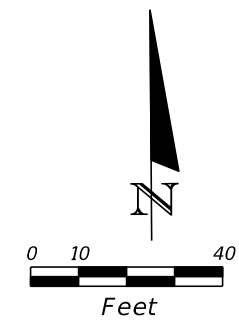
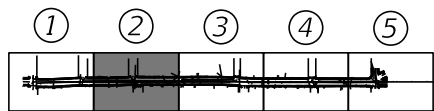
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CHRISTOPHER K. MARTIN, P.E.
 P.E. LICENSE NUMBER 66598
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637
 CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001221	HILLSBOROUGH	436639-1-58-01

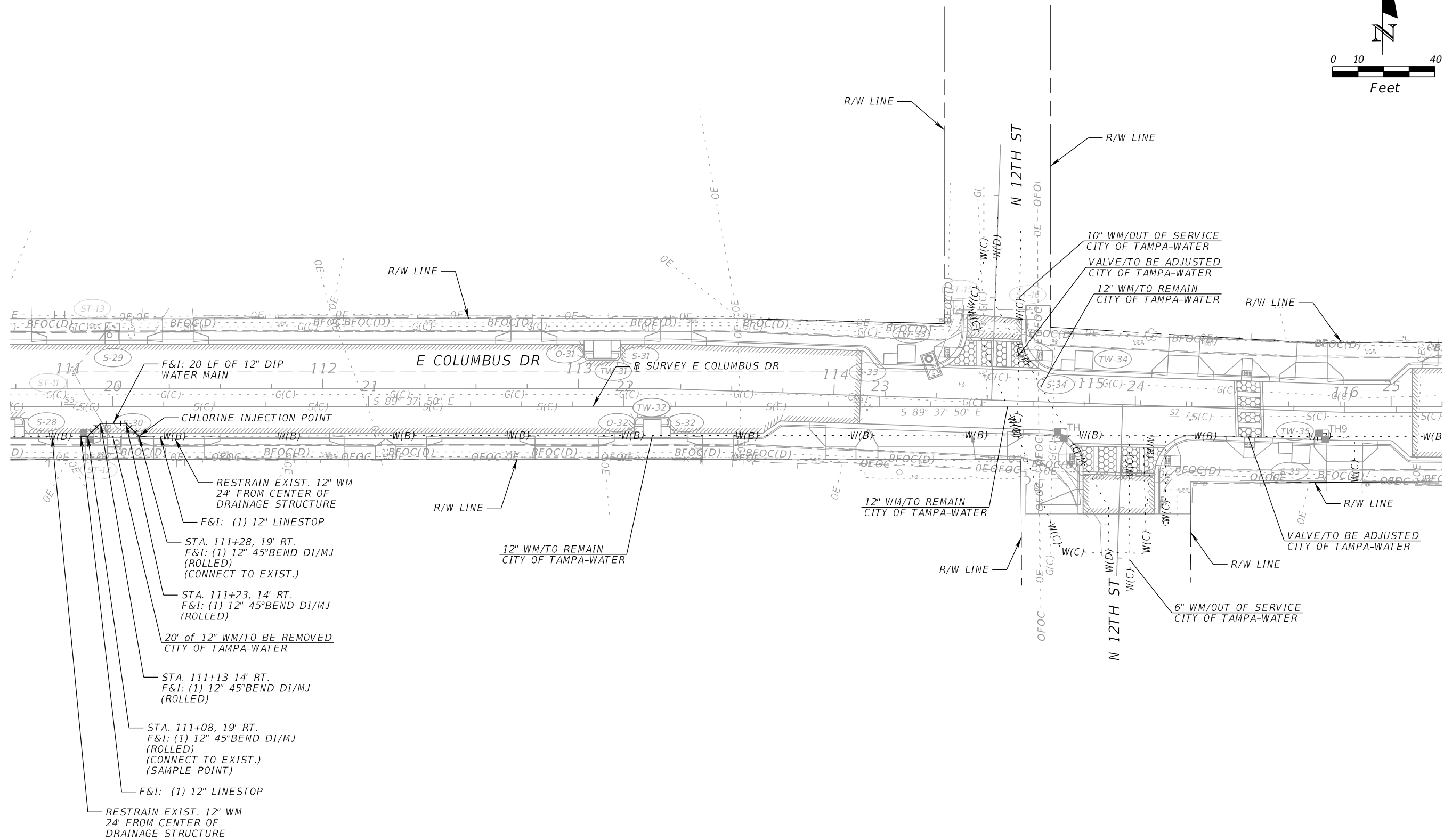
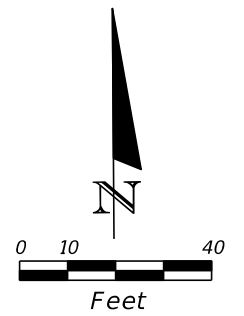
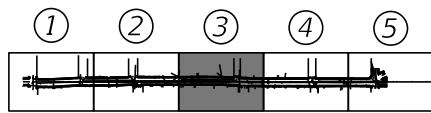
WATER MAIN PLAN (1)	SHEET NO. U-04
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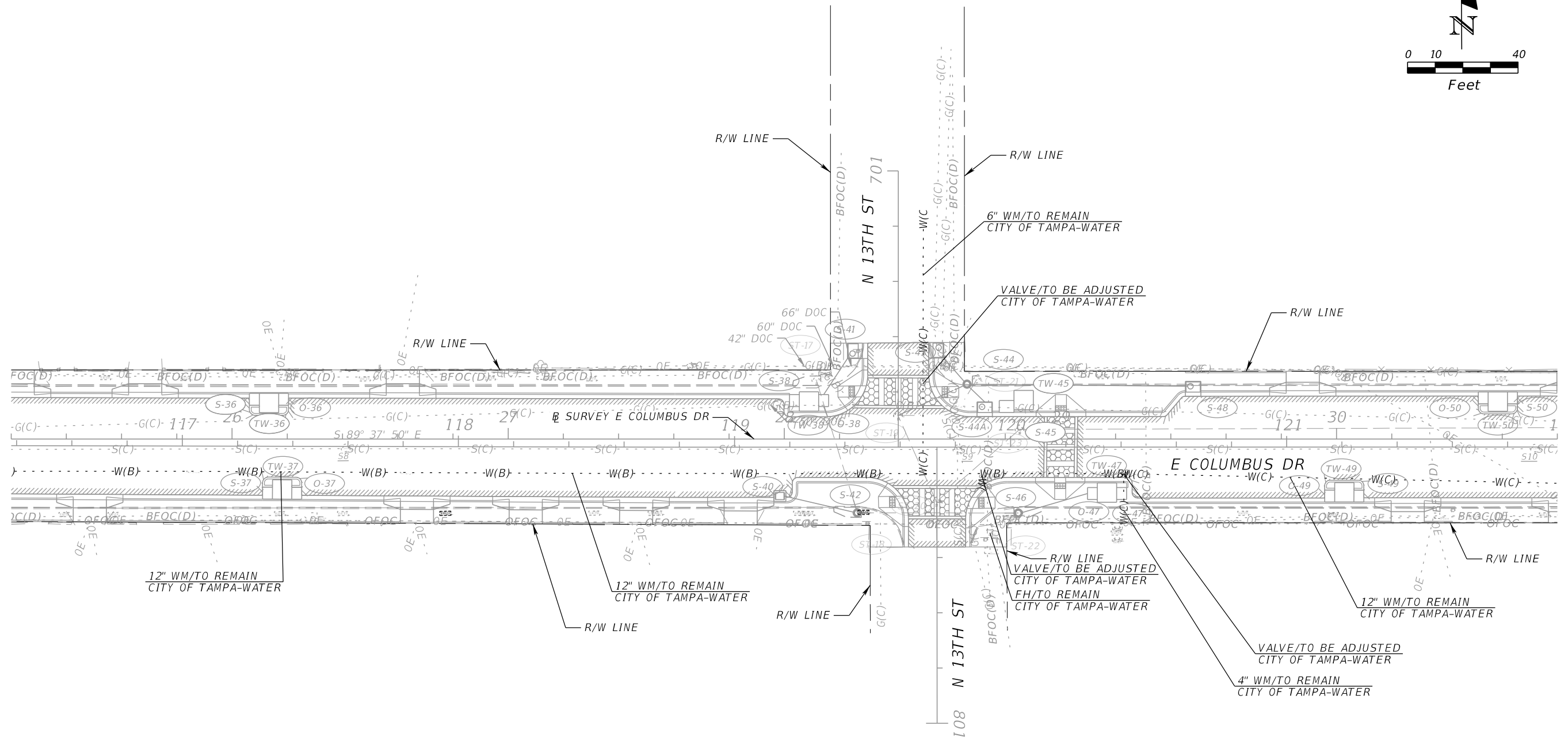
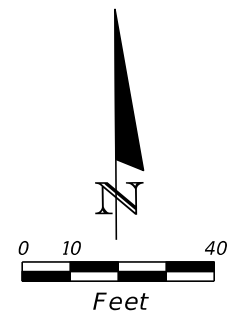
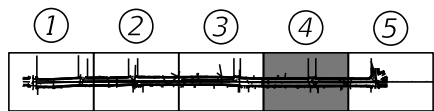


REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN PLAN (2)	SHEET NO. U-05
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

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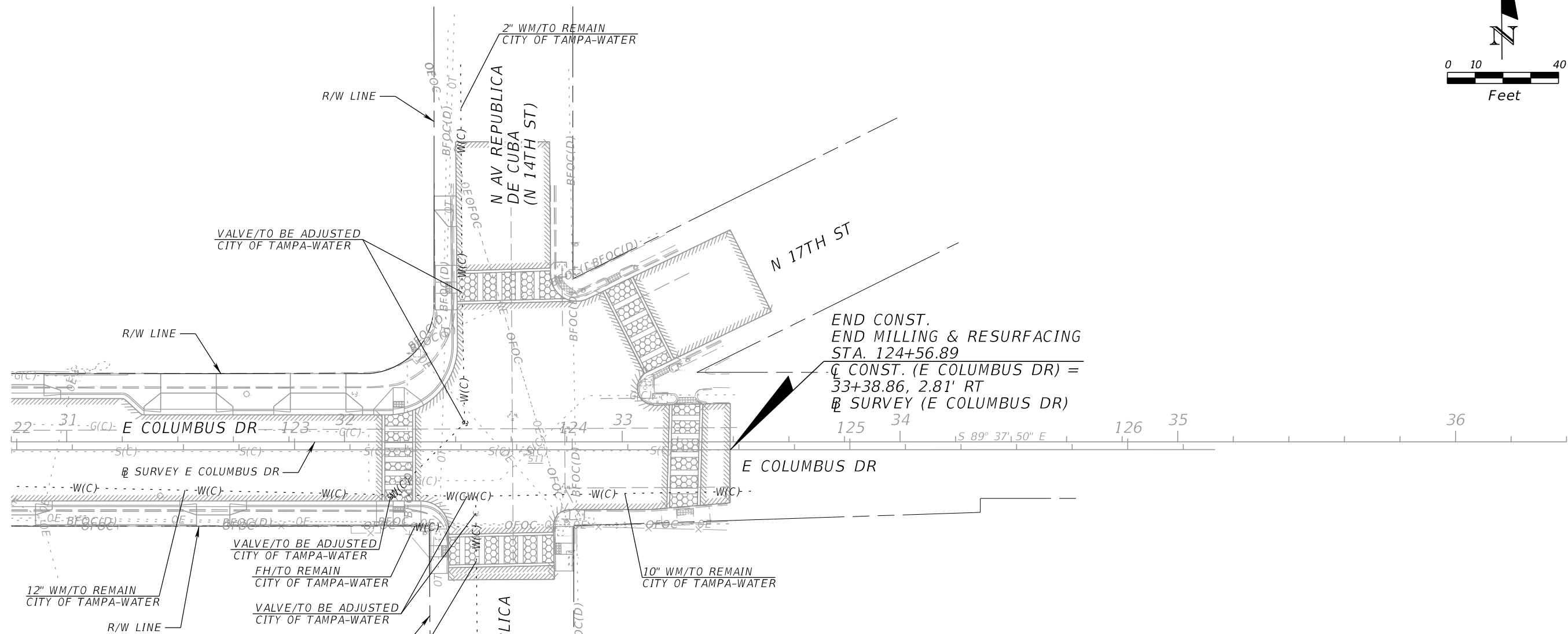
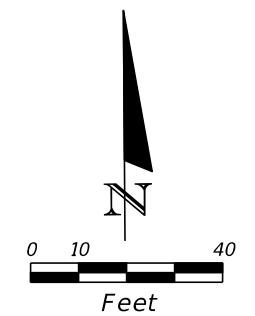
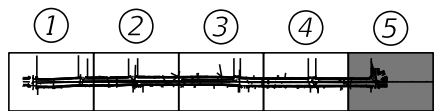


<p>CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356</p>				<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p> <table border="1"> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>1001221</td> <td>HILLSBOROUGH</td> <td>436639-1-58-01</td> </tr> </table>			CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001221	HILLSBOROUGH	436639-1-58-01	<p>WATER MAIN PLAN (3)</p>		<p>SHEET NO. U-06</p>
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID													
1001221	HILLSBOROUGH	436639-1-58-01													



REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN PLAN (4)	SHEET NO. U-07
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

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END CONST.
 END MILLING & RESURFACING
 STA. 124+56.89
 C.C. CONST. (E COLUMBUS DR) =
 33+38.86, 2.81' RT
 S&C SURVEY (E COLUMBUS DR)

S1 RIM 43.75' N 10" VCP 35.30' S 10" VCP 35.25' W 8" VCP 35.42'	S5 RIM 41.85' E 8" VCP 38.10' W 8" VCP 38.10'	S9 RIM 39.21' NW 6" VCP 34.91' E 8" VCP 34.67' S 8" VCP 34.63' W 8" VCP 34.66'
S2 RIM 43.24' NW 8" VCP 38.90' N 6" VCP 38.94' S 6" VCP 39.04' E 8" VCP 38.85'	S6 RIM 42.58' W 8" VCP 38.98'	S10 RIM 41.47' E 8" VCP 37.09' W 8" VCP 37.09'
S3 RIM 42.58' E 8" VCP 38.11' W 8" VCP 38.13'	S7 RIM 42.88' NW 6" VCP 38.45' E 8" VCP 38.23'	S11 RIM 44.09' E 8" VCP 39.11' W 8" VCP 39.11'
S4 RIM 41.50' E 8" VCP 37.32' W 8" VCP 37.42' S 8" VCP 37.42'	S8 RIM 41.53' W 8" VCP 36.37' E 8" VCP 36.37'	

REVISIONS DATE DESCRIPTION DATE DESCRIPTION				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN PLAN (5)	SHEET NO. U-08
CITY PROJECT NO.		COUNTY	FINANCIAL PROJECT ID		1001221	HILLSBOROUGH	436639-1-58-01		

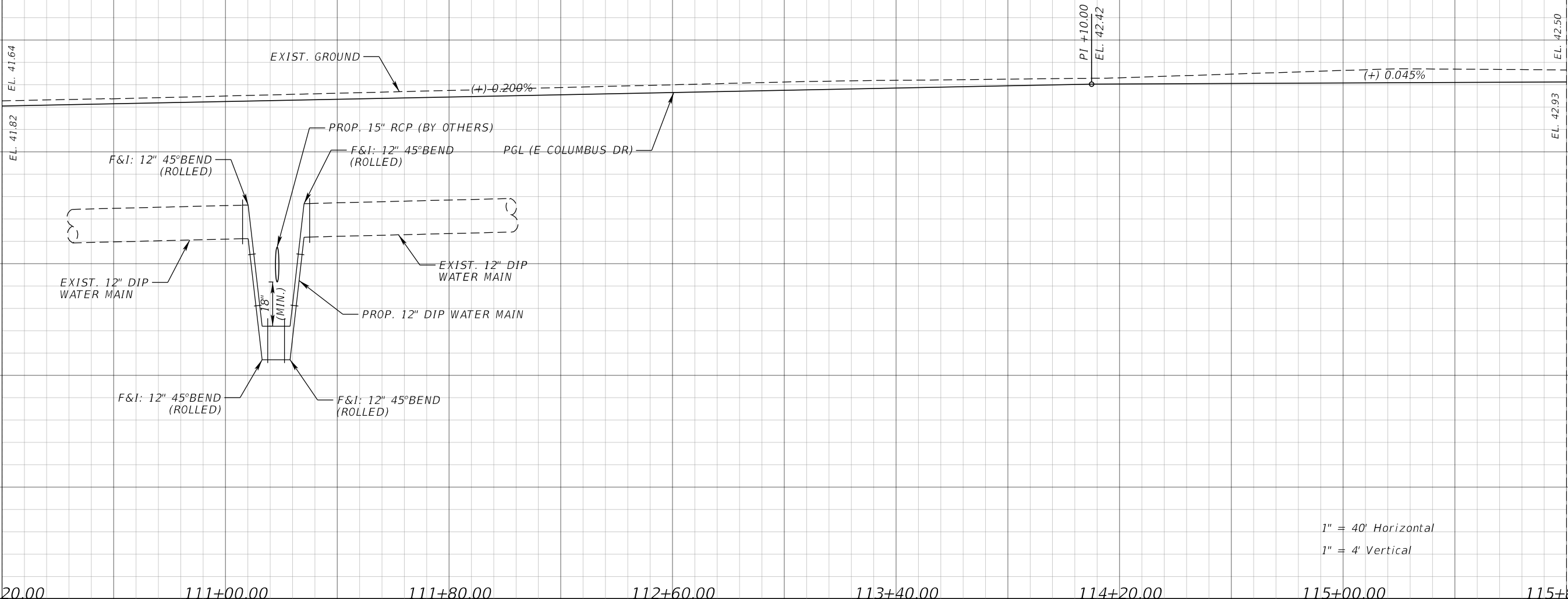
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: SEE GRADING DETAIL SHEETS FOR EOP ELEVATIONS.

△ BM 504 - FOUND MAG NAIL &
DIST "CITY OF TAMPA T&SS
SURVEY CONTROL"

60
56
52
48
44
40
36
32
28

60
56
52
48
44
40
36
32
28



1" = 40' Horizontal
1" = 4' Vertical

<p>110+20.00 111+00.00 111+80.00 112+60.00 113+40.00 114+20.00 115+00.00 115+80.00</p>				<p>CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356</p>	<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p>			<p>WATER MAIN PROFILE</p>	<p>SHEET NO. U-09</p>
<p>REVISIONS</p>					CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
DATE	DESCRIPTION	DATE	DESCRIPTION		1001221	HILLSBOROUGH	436639-1-58-01		

S-32

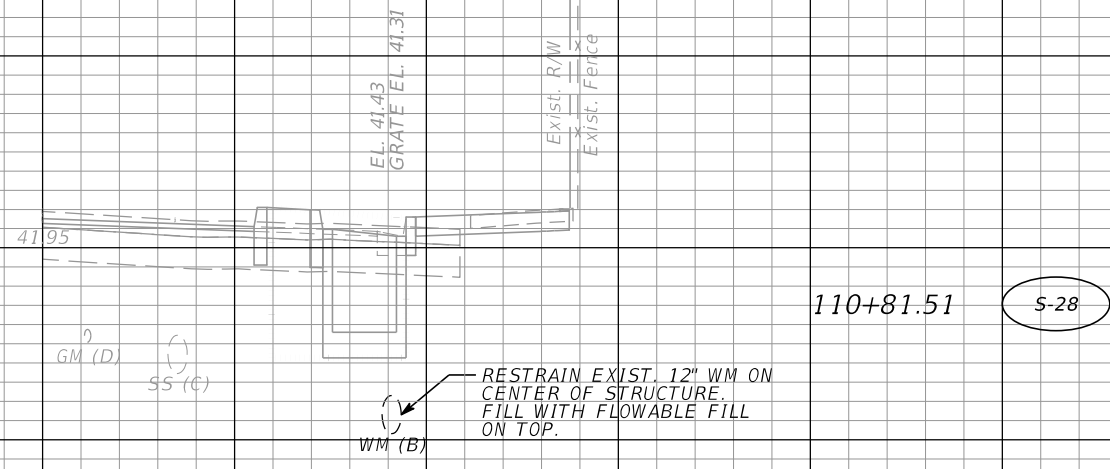
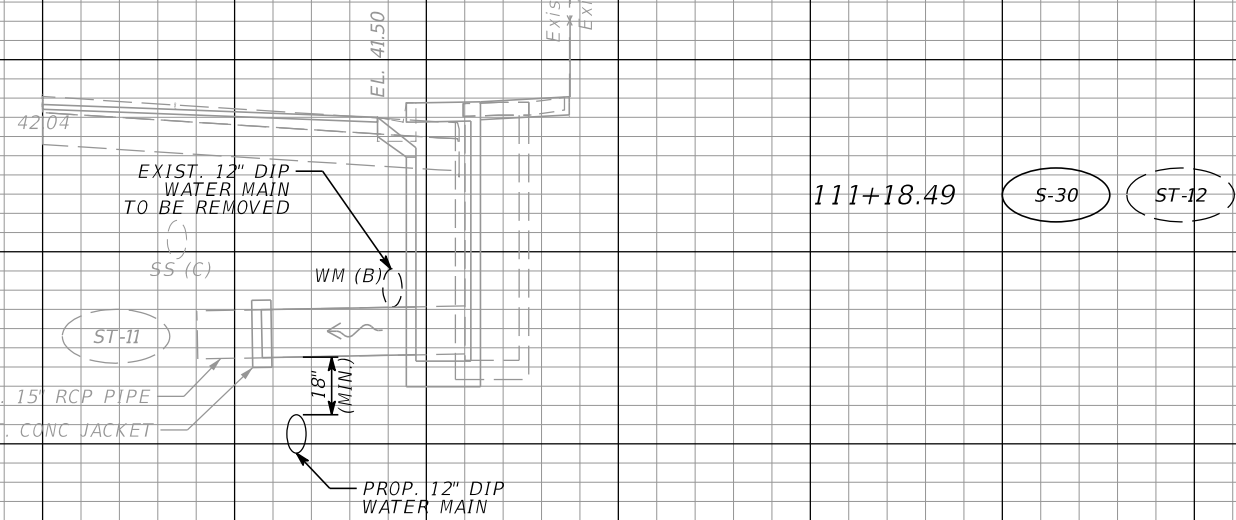
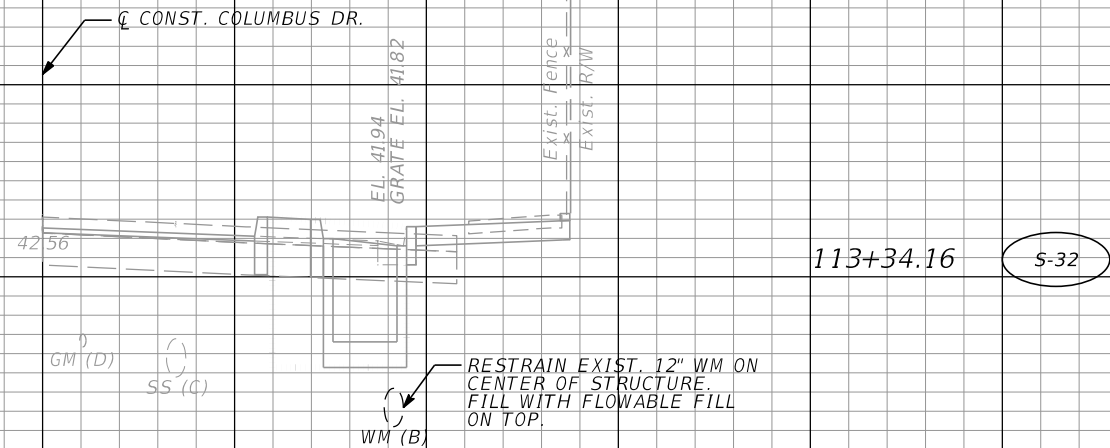
STA. 113+34.16, 16.80' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. A = 41.82'
INV. EL. = 39.32'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2)

S-30

STA. 111+18.49, 20.69' RT.
REMOVE EXIST. COT TYPE I INLET
CONST. COT TYPE I INLET
EOP EL. = 41.50'
N 15" INV. = 35.34'

S-28

STA. 110+81.51, 16.78' RT.
CONST. CITY OF TAMPA
TYPE T GRATE INLET
GRATE EL. A = 41.43'
INV. EL. = 38.93'
SEE DRAINAGE DETAIL B
SEE TREE WELL DETAILS DATA TABLE (1) (2)



SCALE:
1" = 10' HORIZONTAL
1" = 5' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

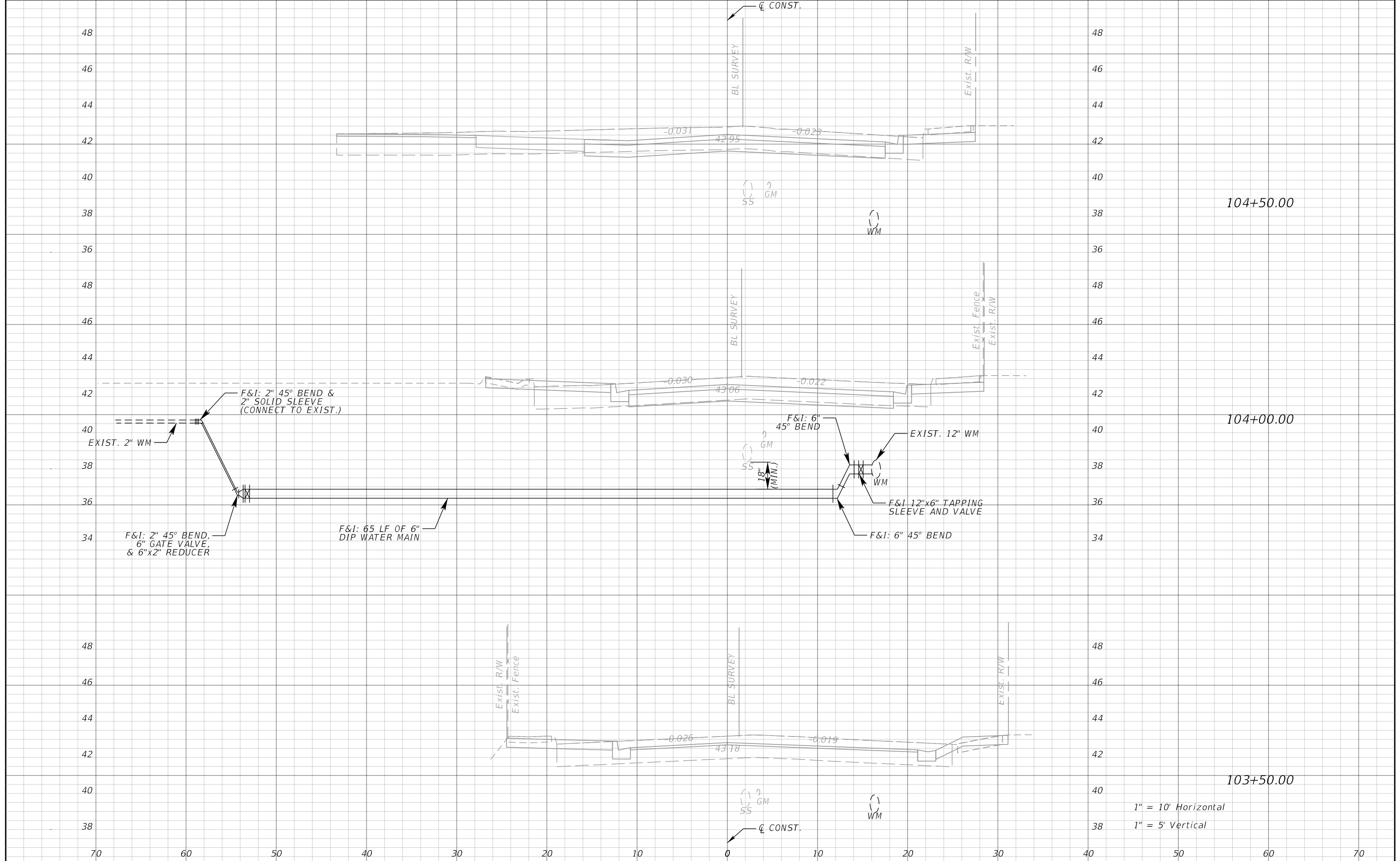
CHRISTOPHER K. MARTIN, P.E.
P.E. LICENSE NUMBER 66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637
CERTIFICATE OF AUTHORIZATION 4356

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY CONTRACT NO.	COUNTY	FINANCIAL PROJECT ID
18-D-00007	HILLSBOROUGH	437246-1-58-01

**WATER MAIN DRAINAGE
STRUCTURE DETAIL**

SHEET NO.
U-10

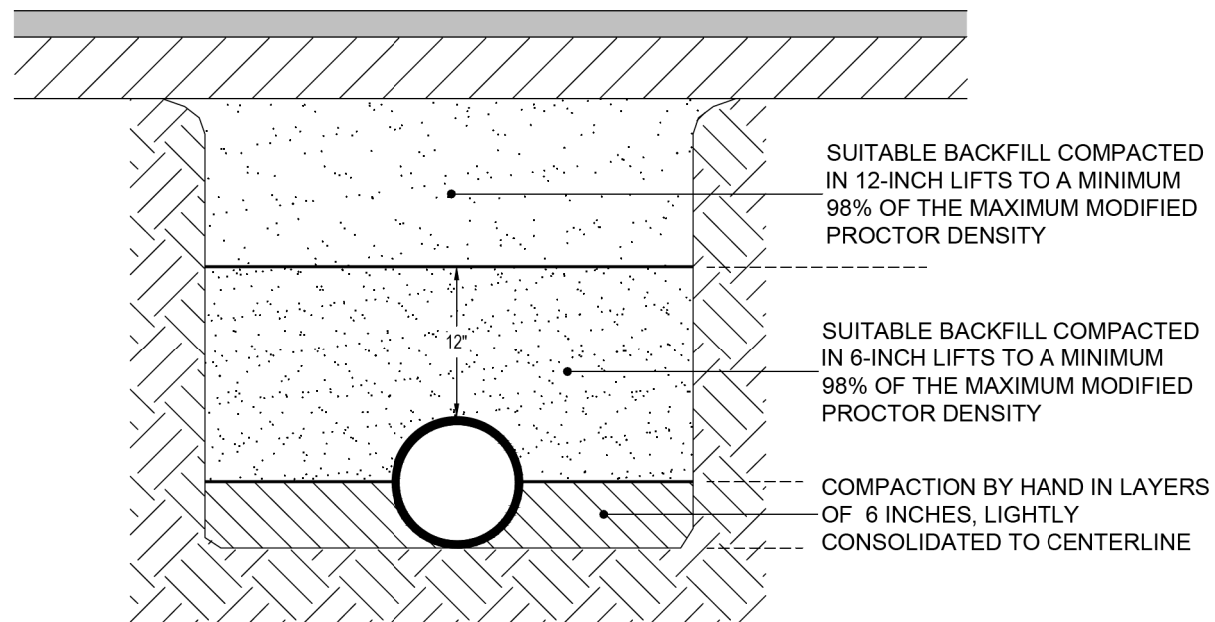
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1" = 10' Horizontal
1" = 5' Vertical

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN CROSS SECTION DETAIL	SHEET NO. U-11
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
				1001221	HILLSBOROUGH	436639-1-58-01			

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SUITABLE BACKFILL COMPACTED IN 12-INCH LIFTS TO A MINIMUM 98% OF THE MAXIMUM MODIFIED PROCTOR DENSITY

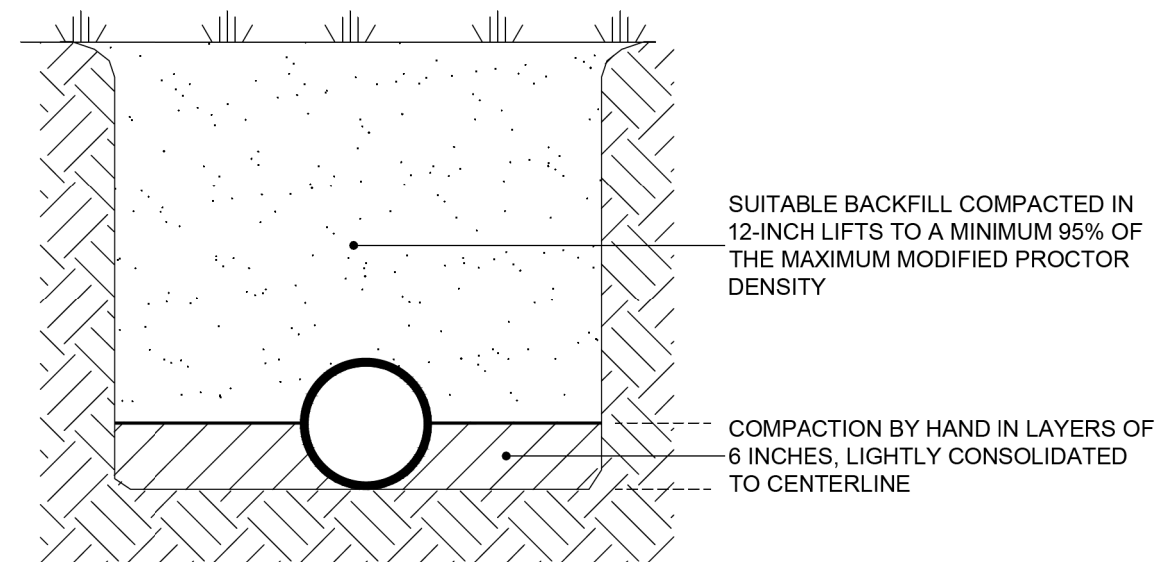
SUITABLE BACKFILL COMPACTED IN 6-INCH LIFTS TO A MINIMUM 98% OF THE MAXIMUM MODIFIED PROCTOR DENSITY

COMPACTION BY HAND IN LAYERS OF 6 INCHES, LIGHTLY CONSOLIDATED TO CENTERLINE

NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PERVIOUS AREAS SHALL MEAN ANY CONCRETE OR ASPHALT CURB, SIDEWALK, TRAIL, DRIVEWAY, OR ROADWAY.

	LAST REVISION	TRENCHING, BEDDING AND BACKFILL DETAIL FOR NON-PERVIOUS (PAVED) AREAS	2.01A
	JAN 2018		



SUITABLE BACKFILL COMPACTED IN 12-INCH LIFTS TO A MINIMUM 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY

COMPACTION BY HAND IN LAYERS OF 6 INCHES, LIGHTLY CONSOLIDATED TO CENTERLINE

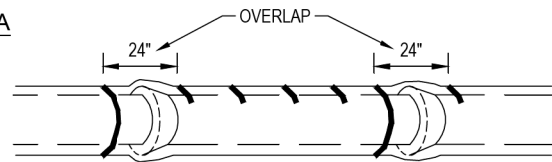
NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PAVED AREA IS A PERVIOUS AREA. IF ANY PART OF THE TRENCH IS WITHIN A CONCRETE OR ASPHALT CURB, SIDEWALK, DRIVEWAY, OR ROADWAY, THEN STANDARD DETAIL 2.01 APPLIES.

	LAST REVISION	TRENCHING, BEDDING, AND BACKFILL DETAIL FOR PERVIOUS (NON-PAVED) AREAS	2.02
	JUL 2018		

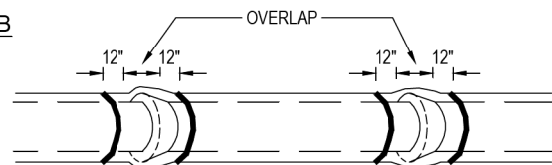
REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		U-12
					1001221	HILLSBOROUGH	436639-1-58-01		

METHOD A



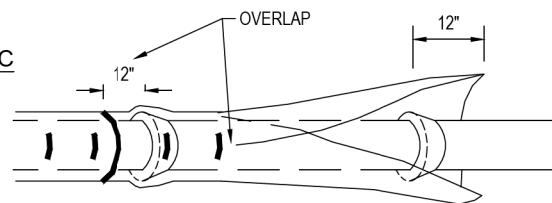
POLYETHYLENE TUBE IS CUT INTO LENGTHS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION AND PLACED AROUND IT. AFTER THE PIPE JOINT IS ASSEMBLED, THE POLYETHYLENE TUBE IS MADE TO OVERLAP THE JOINT AND THE OVERLAP SECURED IN PLACE. SINCE THE TUBE IS CONSIDERABLY LARGER THAN THE BARREL OF PIPE, IT IS MADE TO FIT SNUGLY BY FOLDING OVER AT THE TOP AND SECURING WITH TAPE EVERY 24" ALONG THE PIPE SECTION.

METHOD B



POLYETHYLENE TUBE IS CUT ONE FOOT SHORTER THAN THE LENGTH OF THE PIPE SECTION. AFTER PLACEMENT OF THE PIPE, IT IS FOLDED AND SECURED SNUGLY OVERALL. A THREE FOOT LENGTH OF POLYETHYLENE TUBE PLACED OVER THE END OF THE PRECEEDING SECTION IS THEN PULLED IN PLACE OVER THE JOINT AFTER ASSEMBLY AND SECURED.

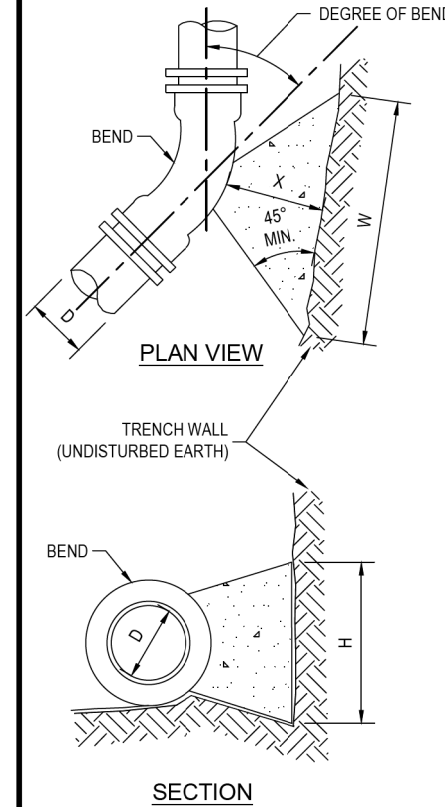
METHOD C



POLYETHYLENE SHEET IS CUT TO A LENGTH TWO FEET LONGER THAN THE PIPE SECTION. THE SHEET IS WRAPPED AROUND THE PIPE SO THAT IT OVERLAPS CIRCUMFERENTIALLY OVER THE TOP QUADRANT OF THE PIPE, THEN SECURED. AFTER JOINT ASSEMBLY, THE SURPLUS LENGTH OF POLYETHYLENE FILM IS SECURED AROUND THE JOINT, PROVIDING AN OVERLAP OF EACH JOINT. TAPE AT EACH JOINT AND AT 3' INTERVALS IN BETWEEN.

NOTES:

1. USE BLUE POLYETHYLENE FILM AND TAPE ONLY.
2. POLYETHYLENE FILM SHALL BE A MINIMUM OF 8 MIL. THICKNESS.
3. SPIRAL WRAP NOT REQUIRED WITH POLYWRAP.



DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL								
BEND	SIZE (D)	4"	6"	8"	12"	16"	20"	24"
	11-1/4° BEND	THRUST (LBS.)	674	1,393	2,396	5,097	8,857	13,649
BEARING AREA (FT. ²)		0.51	1.05	1.80	3.83	6.65	10.25	14.63
CONCRETE (YDS. ³)		0.005	0.015	0.033	0.104	0.239	0.459	0.783
H (FT.)		0.6	0.8	1.1	1.6	2.1	2.6	3.1
W (FT.)		0.9	1.3	1.6	2.4	3.2	3.9	4.7
22-1/2° BEND	THRUST (LBS.)	1,342	2,772	4,769	10,145	17,628	27,166	38,757
	BEARING AREA (FT. ²)	1.01	2.08	3.58	7.61	13.22	20.37	29.07
	CONCRETE (YDS. ³)	0.012	0.035	0.080	0.252	0.580	1.113	1.792
	H (FT.)	0.8	1.2	1.5	2.3	3.0	3.7	4.4
	W (FT.)	1.2	1.8	2.3	3.4	4.5	5.5	6.6
45° BEND	THRUST (LBS.)	2,632	5,437	9,355	19,901	34,579	53,288	76,024
	BEARING AREA (FT. ²)	1.97	4.08	7.02	14.93	25.94	39.98	57.04
	CONCRETE (YDS. ³)	0.029	0.087	0.198	0.620	1.387	2.301	3.517
	H (FT.)	1.2	1.7	2.2	3.2	4.2	5.2	6.2
	W (FT.)	1.7	2.5	3.2	4.7	6.2	7.7	9.3
90° BEND	THRUST (LBS.)	4,863	10,047	17,286	36,772	63,894	98,463	140,474
	BEARING AREA (FT. ²)	3.65	7.53	12.96	27.58	47.91	73.84	105.34
	CONCRETE (YDS. ³)	0.068	0.203	0.459	1.360	2.561	4.250	6.496
	H (FT.)	1.6	2.2	3.0	4.3	5.7	7.0	8.4
	W (FT.)	2.3	3.4	4.4	6.4	8.5	10.5	12.6
	X (FT.)	1.2 MIN.	1.7 MIN.	2.2 MIN.	3.0 MIN.	3.0 MIN.	3.0 MIN.	3.0 MIN.

NOTES:

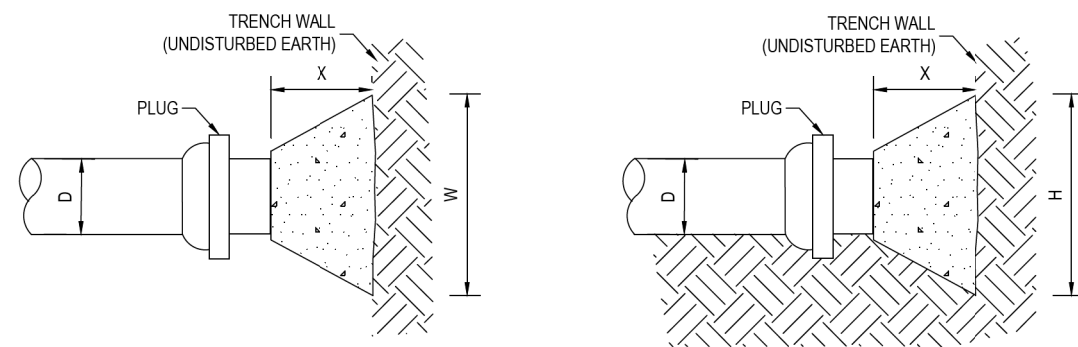
1. CONCRETE SHALL BE KEPT AT SUFFICIENT DISTANCE FROM JOINT FOR REMOVAL OF ALL JOINT ACCESSORIES INCLUDING BOLTS.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
3. THIS TABLE SHOWS THE MINIMUM SIZE THRUST BLOCKS FOR SOIL BEARING PRESSURE OF 2000 PSF AND AN INTERNAL PRESSURE OF 190 PSI. COVER TO T.O.P. IS 3 FEET FOR 12" AND SMALLER MAINS; 4 FEET FOR 16" AND LARGER MAINS.
4. FITTINGS SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.

WARNING - POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

	LAST REVISION	<p>POLYETHYLENE ENCASEMENT INSTALLATION DETAIL</p>	<p>2.05</p>
	<p>JUL 2018</p>		

	LAST REVISION	<p>THRUST BLOCKS FOR BENDS</p>	<p>2.07</p>
	<p>JUL 2018</p>		

REVISIONS				<p>CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356</p>	<p>CITY OF TAMPA TRANSPORTATION DEPARTMENT</p>			<p>WATER MAIN STANDARD DETAILS (2)</p>	<p>SHEET NO.</p>
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		U-13



PLAN VIEW

SECTION

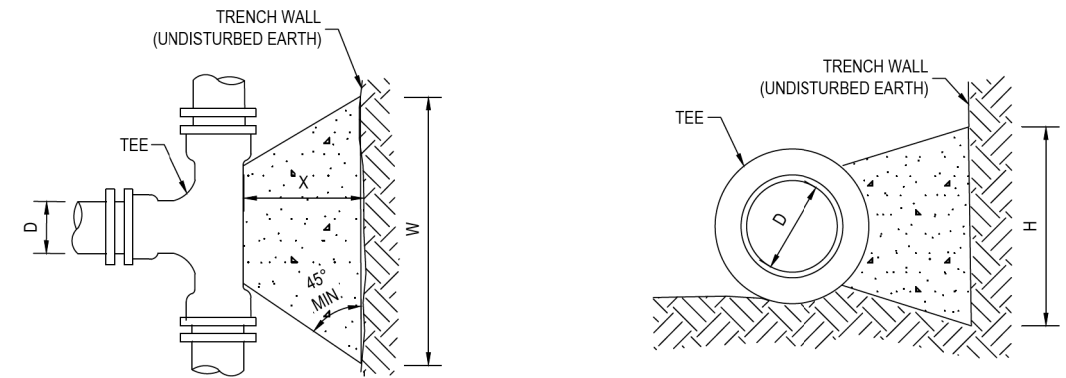
DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL								
PLUG	SIZE (D)	4"	6"	8"	12"	16"	20"	24"
	THRUST (LBS.)	3,439	7,104	12,223	26,002	45,180	69,624	99,330
	BEARING AREA (FT. ²)	2.58	5.33	9.17	19.50	33.89	52.22	74.50
	CONCRETE (YDS. ³)	0.042	0.126	0.285	0.891	1.811	3.005	4.594
	H (FT.)	1.3	1.9	2.5	3.6	4.8	5.9	7.0
	W (FT.)	2.0	2.8	3.7	5.4	7.1	8.9	10.6
	X (FT.)	1.0 MIN.	1.4 MIN.	1.9 MIN.	2.7 MIN.	3.0 MIN.	3.0 MIN.	3.0 MIN.

NOTES:

1. CONCRETE SHALL BE KEPT AT SUFFICIENT DISTANCE FROM JOINT FOR REMOVAL OF ALL JOINT ACCESSORIES INCLUDING BOLTS.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
3. THIS TABLE SHOWS THE MINIMUM SIZE THRUST BLOCKS FOR SOIL BEARING PRESSURE OF 2000 PSF AND AN INTERNAL PRESSURE OF 190 PSI. COVER TO T.O.P. IS 3 FEET FOR 12" AND SMALLER MAINS; 4 FEET FOR 16" AND LARGER MAINS.
4. PLUGS SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.

WARNING - POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

	LAST REVISION	THRUST BLOCKS FOR PLUGS	2.08
	JUL 2018		



PLAN VIEW

SECTION

DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL								
TEES	SIZE (D)	4"	6"	8"	12"	16"	20"	24"
	THRUST (LBS.)	3,439	7,104	12,223	26,002	45,180	69,624	99,330
	BEARING AREA (FT. ²)	2.58	5.33	9.17	19.50	33.89	52.22	74.50
	CONCRETE (YDS. ³)	0.042	0.126	0.285	0.891	1.811	3.005	4.594
	H (FT.)	1.3	1.9	2.5	3.6	4.8	5.9	7.0
	W (FT.)	2.0	2.8	3.7	5.4	7.1	8.9	10.6
	X (FT.)	1.0 MIN.	1.4 MIN.	1.9 MIN.	2.7 MIN.	3.0 MIN.	3.0 MIN.	3.0 MIN.

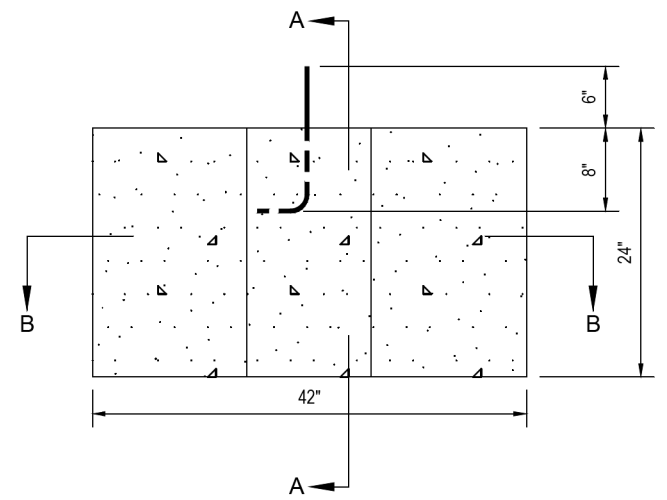
NOTES:

1. SIZE (D), SHALL BE THE BRANCH SIZE OF TEES.
2. CONCRETE SHALL BE KEPT AT SUFFICIENT DISTANCE FROM JOINT FOR REMOVAL OF ALL JOINT ACCESSORIES INCLUDING BOLTS.
3. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
4. THIS TABLE SHOWS THE MINIMUM SIZE THRUST BLOCKS FOR SOIL BEARING PRESSURE OF 2000 PSF AND AN INTERNAL PRESSURE OF 190 PSI.
5. TEES SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.

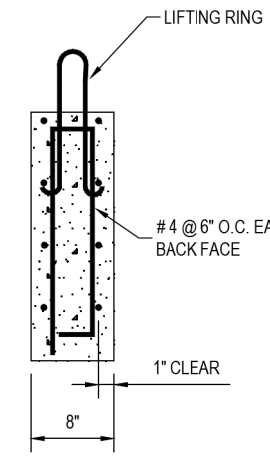
WARNING - COVER TO T.O.P. IS 3 FEET FOR 12" AND SMALLER MAINS; 4 FEET FOR 16" AND LARGER MAINS. POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

	LAST REVISION	THRUST BLOCKS FOR TEES	2.09
	JUL 2018		

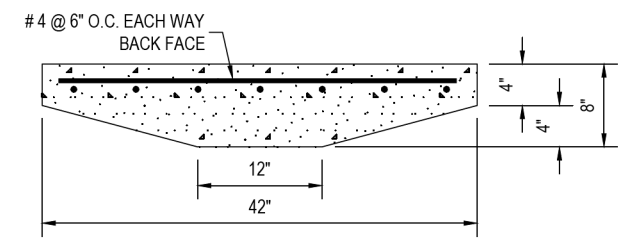
REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (3)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
						1001221	HILLSBOROUGH		436639-1-58-01



ELEVATION



SECTION A-A

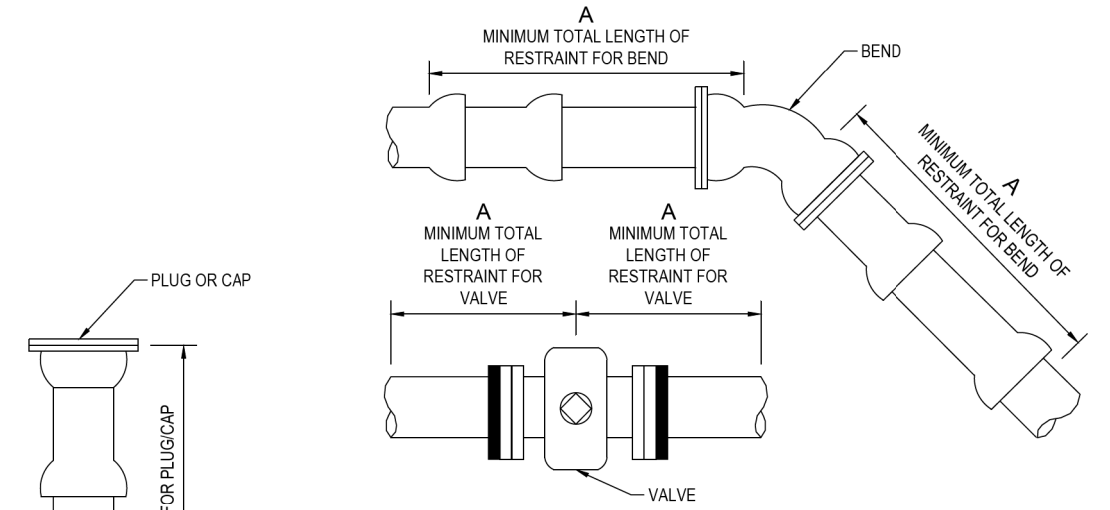


SECTION B-B

NOTES:

1. REINFORCING TO BE STANDARD 60 KSI DEFORMED BAR.
2. CONCRETE F'C=3000 PSI
3. PRECAST THRUST BLOCKING TO BE USED ONLY ON FIRE HYDRANTS AND 8" OR SMALLER FITTINGS, IF ALLOWED BY CITY ENGINEER.
4. A 12"x18" SPACER BLOCK SHALL BE PLACED BETWEEN THE PRECAST THRUST BLOCK AND FITTING IF SO DIRECTED BY CITY ENGINEER.

	LAST REVISION		
	JUL 2018	PRECAST CONCRETE THRUST BLOCK	2.10



RESTRAIN "A" (LF)									
FITTING / PIPE	4"	6"	8"	12"	16"	20"	24"	30"	36"
11-1/4"	4	5	8	10	11	13	15	19	21
22-1/2"	8	11	15	20	21	26	31	38	44
45°/OFFSET	16	23	30	43	45	55	65	78	91
90°	39	55	73	103	109	133	156	189	220
PLUG/CAP/VALVE*	69	98	128	179	179	218	255	306	356

A = MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED

* = FOR IN-LINE VALVE, RESTRAINT LENGTH "A" REQUIRED BOTH WAYS FROM VALVE

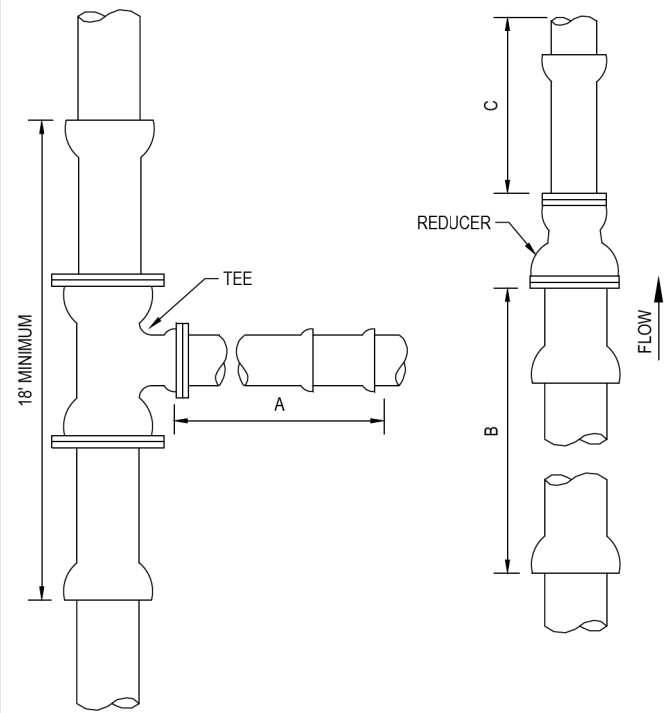
NOTES:

1. THIS TABLE IS BASED ON:
 - a. MAXIMUM TEST PRESSURE OF 190 PSI
 - b. LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
 - c. POOR SOIL CONDITIONS
 - d. USING D.I.P.
 - e. 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
 - f. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
2. "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
3. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

	LAST REVISION		
	JUL 2018	RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, CAPS, AND VALVES	2.11

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (4)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		U-15
					1001221	HILLSBOROUGH	436639-1-58-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

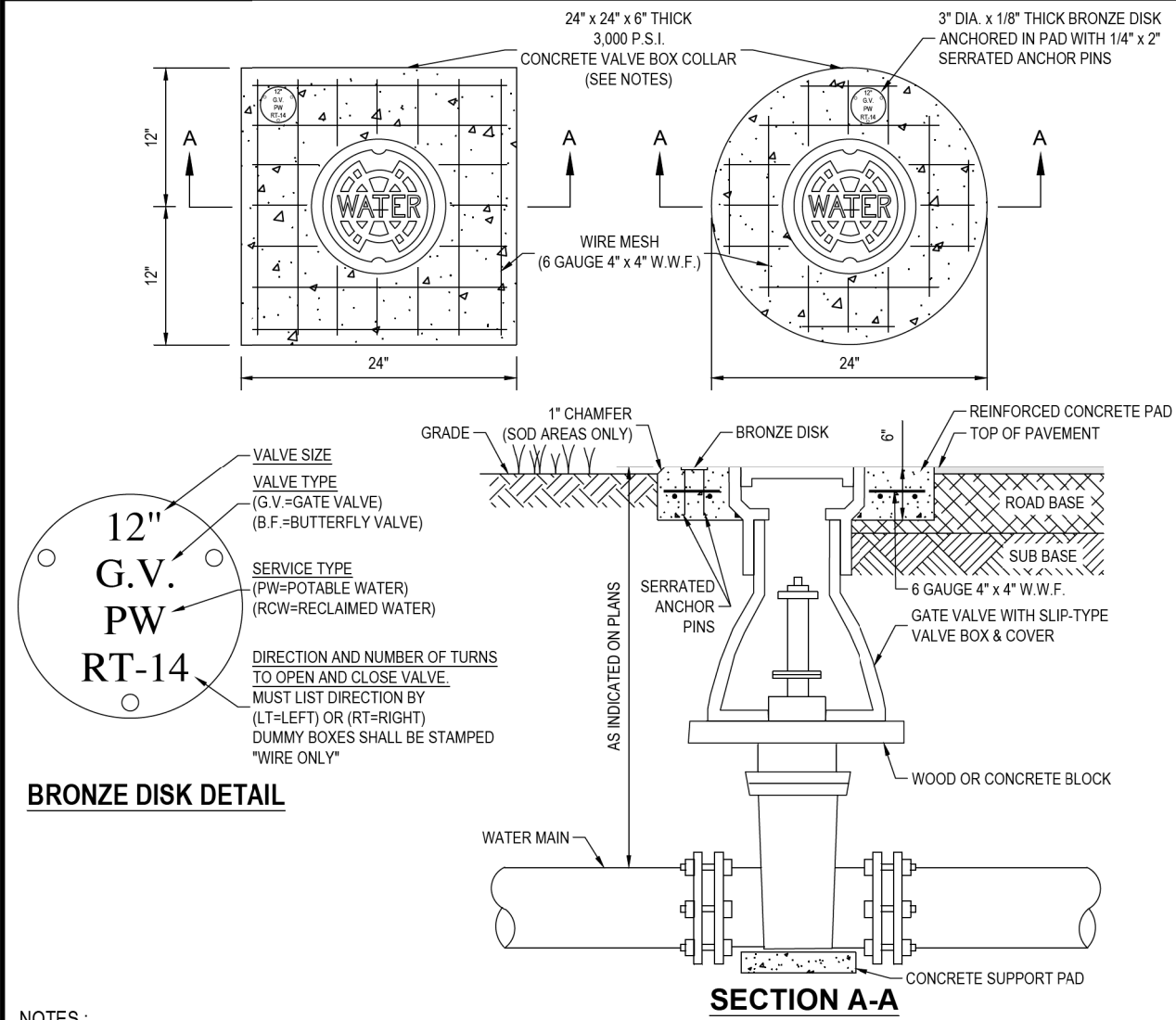


FITTING SIZE	RESTRAIN (LF)		UNRESTRAINED STRAIGHT RUN (LF)
	TEE "A"	REDUCER "B"	REDUCER "C"
4x4	31	*	*
6x4	14	50	74
6x6	60	*	*
8x4	A.T.	91	178
8x6	48	54	70
8x8	90	*	*
12x4	A.T.	155	455
12x6	24	130	260
12x8	71	95	144
12x12	143	*	*
16x6	A.T.	151	401
16x8	34	130	265
16x12	96	76	103
16x16	148	*	*
20x6	A.T.	195	659
20x8	18	180	461
20x12	85	136	233
20x16	139	76	96
20x20	186	*	*
24x6	A.T.	236	971
24x8	A.T.	224	700
24x12	74	188	391
24x16	130	139	215
24x20	180	76	93
24x24	224	*	*
30x6	A.T.	293	1534
30x8	A.T.	283	1130
30x12	56	255	678
30x16	118	216	426
30x20	169	168	260
30x24	215	108	138
30x30	275	*	*
36x6	A.T.	345	2230
36x8	A.T.	336	1860
36x12	38	314	1030
36x16	104	283	689
36x20	159	244	466
36x24	206	195	306
36x30	269	108	133
36x36	326	*	*

A.T. = RESTRAINT REQUIRED AT TEE ONLY. * = NOT APPLICABLE

- NOTES:
- THIS TABLE IS BASED ON:
 - MAXIMUM TEST PRESSURE OF 190 PSI
 - LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
 - POOR SOIL CONDITIONS
 - USING D.I.P.
 - 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
 - HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
 - RESTRAINT FOR REDUCERS: IF "C" STRAIGHT RUN OF PIPE DOWNSTREAM OF REDUCER NOT AVAILABLE, THE RESTRAIN "B" UPSTREAM OF REDUCER.
 - "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
 - ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

	LAST REVISION	RESTRAINED JOINT STANDARD FOR TEES AND REDUCERS	2.12A
	JUL 2018		

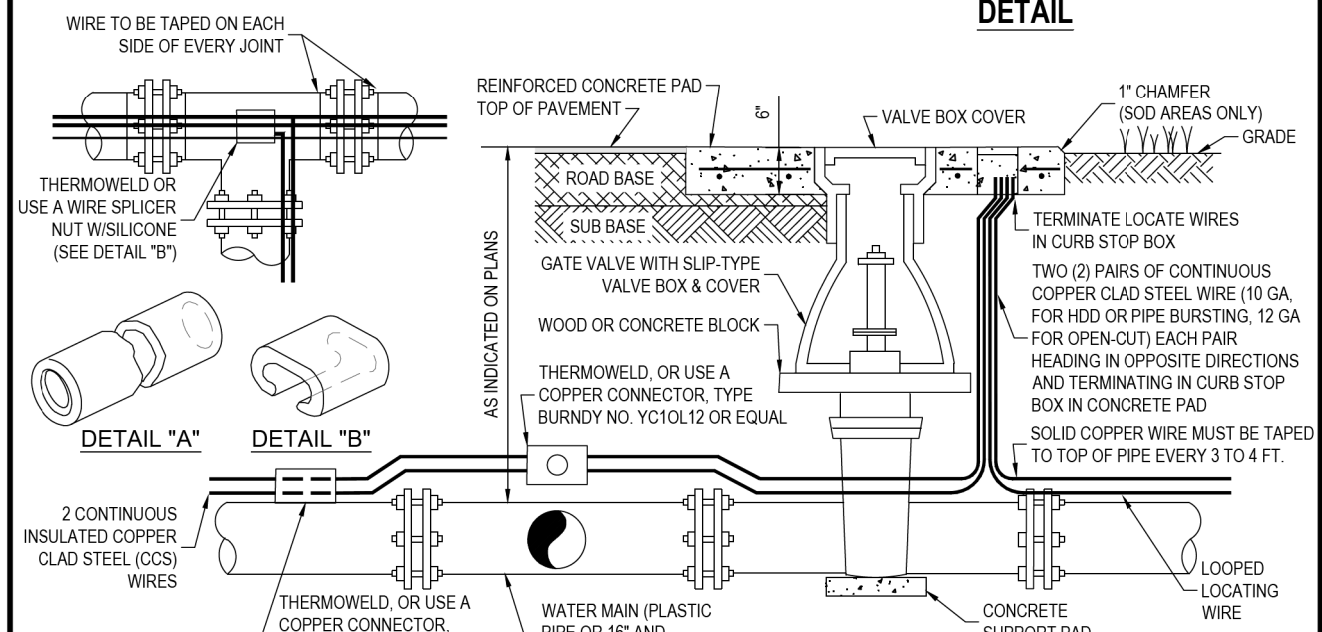
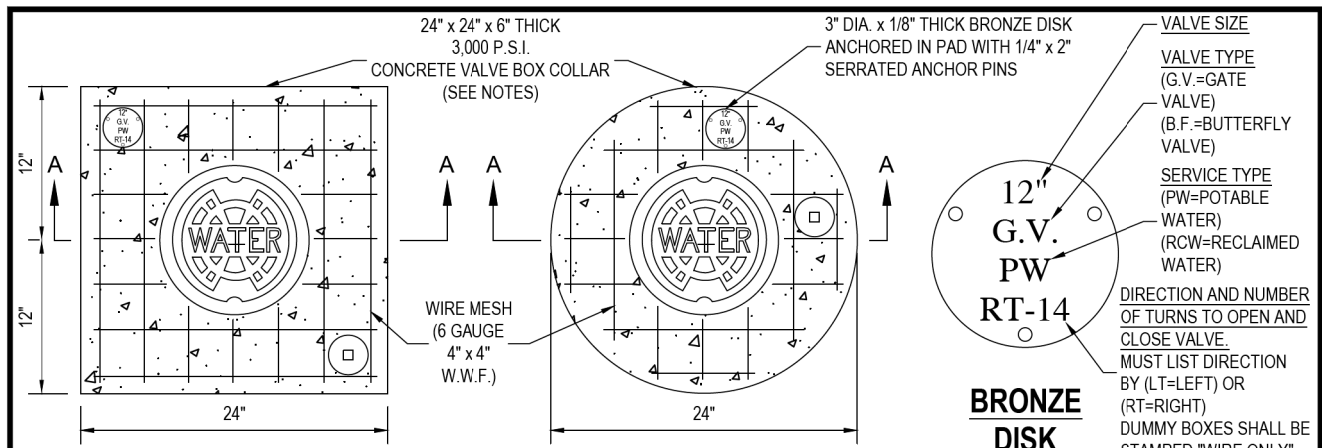


BRONZE DISK DETAIL

- NOTES:
- CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
 - CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
 - "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
 - EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
 - ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
 - IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
 - BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

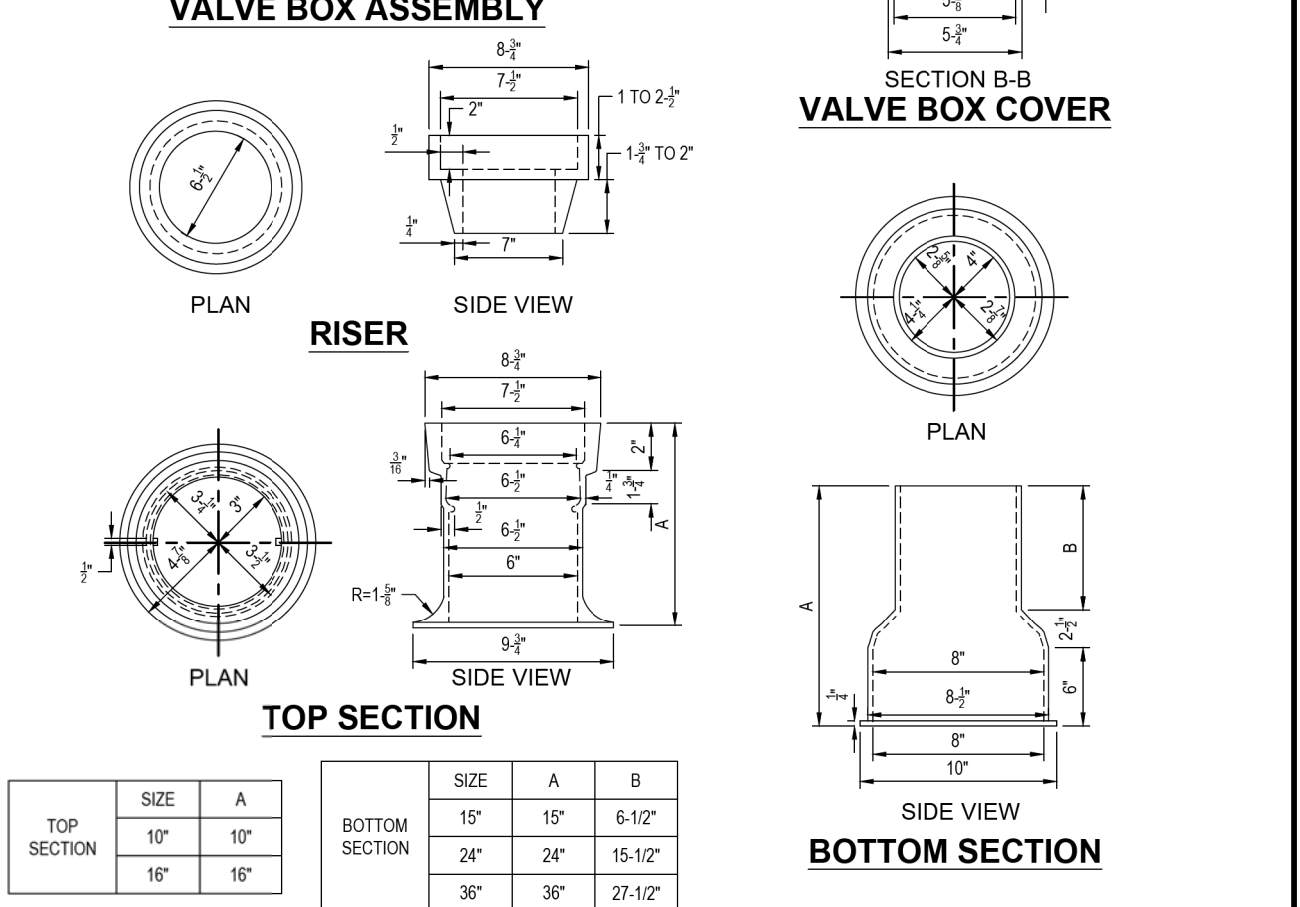
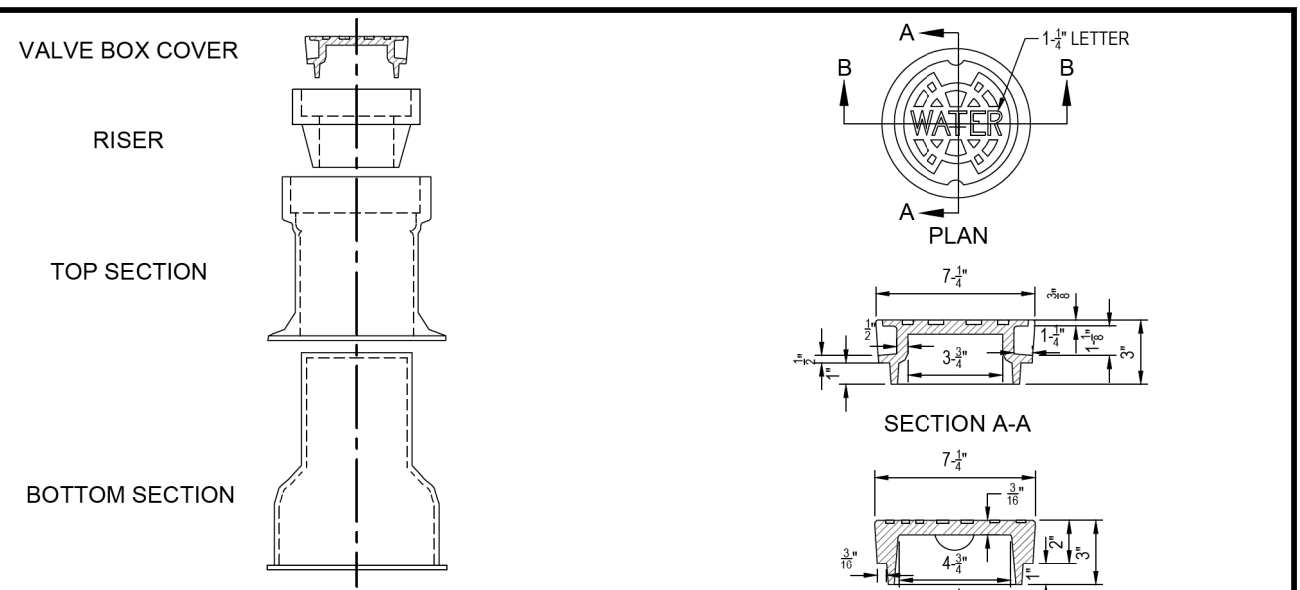
	LAST REVISION	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01
	JUL 2018		

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- NOTES :
1. CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
 2. CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
 3. "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
 4. EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
 5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
 6. IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
 7. BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.
 8. ALL CONNECTIONS SHALL BE SEALED WITH A BITUMINOUS COATING FOR CORROSION PROTECTION.

	LAST REVISION	VALVE INSTALLATION W/VALVE BOX & PAD FOR PLASTIC PIPE WITH DOUBLE COPPER TRACER WIRE ON PIPE	3.02
	JUL 2018		

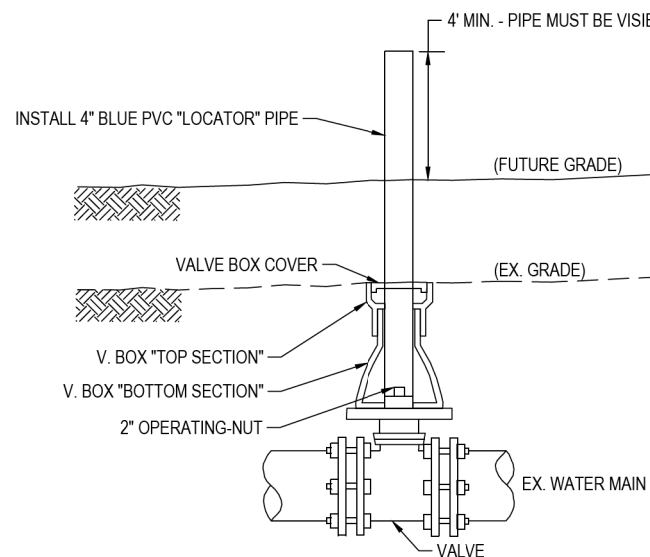


	LAST REVISION	VALVE BOX, SLIP TYPE	3.04
	JUL 2018		

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (6)	SHEET NO. U-17
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001221	HILLSBOROUGH	436639-1-58-01		

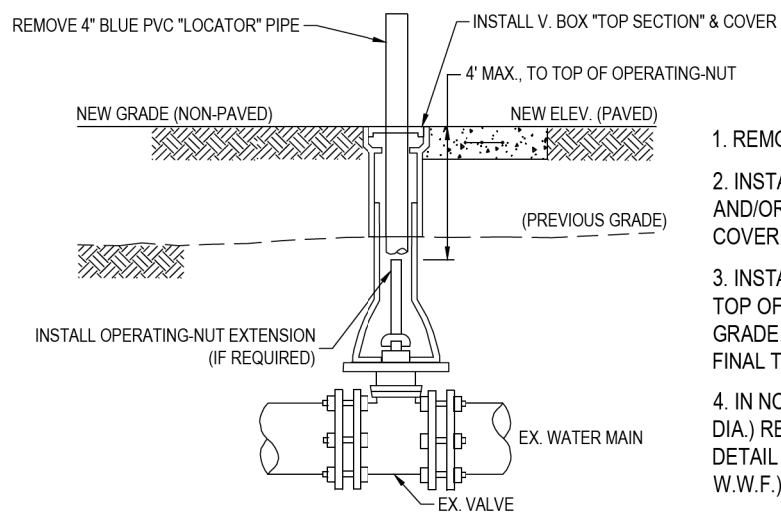
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

TO PROTECT VALVE BOX LOCATION DURING CLEARING & GRUBBING



1. REMOVE (OR DO NOT INSTALL) V. BOX COVER & "TOP SECTION".
2. INSTALL 4" BLUE PVC PIPE INTO V. BOX "BOTTOM SECTION", OVER 2" OPERATING- NUT, & TO 4' MIN. ABOVE FUTURE GRADE.
3. PACK ANNULAR SPACE TO PREVENT BACKFILL SOILS ENTERING V. BOX "BOTTOM SECTION".

TO ADJUST HEIGHT OF VALVE BOX FOR CHANGED GRADE

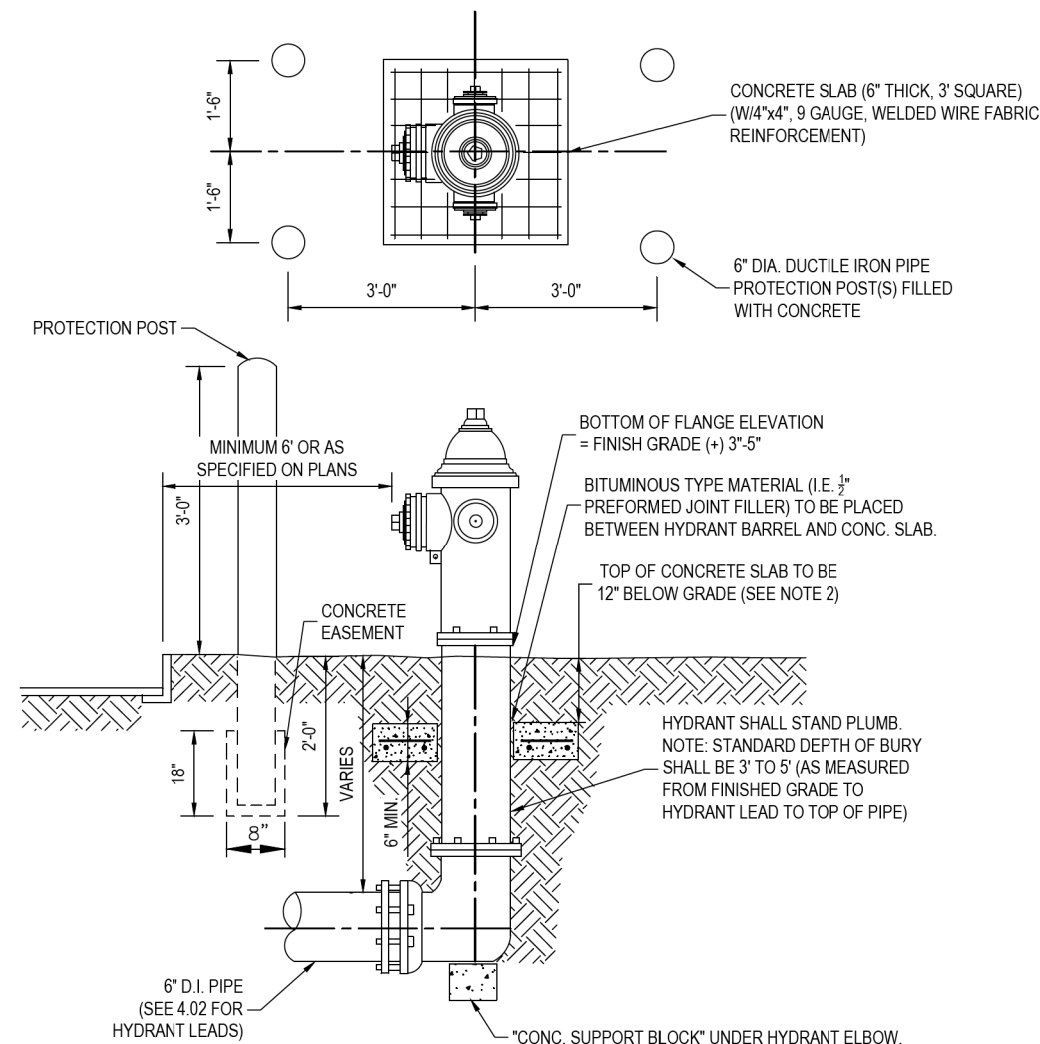


1. REMOVE PVC LOCATOR PIPE.
2. INSTALL APPROVED V. BOX "TOP SECTION" AND/OR RISER & COVER, SUCH THAT TOP OF COVER MATCHES NEW GRADE ELEVATION.
3. INSTALL STD CI OPERATING-NUT EXTENSION IF TOP OF OPERATING-NUT (T.O.N.) > 4' BELOW GRADE. FINAL T.O.N. TO BE < 4' DEEP.
4. IN NON-PAVED AREAS, CONSTRUCT 2'X2' (OR 2' DIA.) REINFORCED CONCRETE PAD, PER STD. DETAIL 3.01 (3000 P.S.I. CONCRETE, 6-GAUGE 4"X4" W.W.F.)

NOTES:

1. MATERIALS FOR & INSTALLATION OF VALVE BOXES & PADS SHALL CONFORM TO TAMPA WATER DEPT. SPECIFICATIONS & STD. CONSTRUCTION DETAILS (DETAILS 3.01 & 3.03)

	LAST REVISION	VALVE BOX (V. BOX) ADJUSTMENTS FOR GRADE CHANGE	3.05
	JAN 2018		

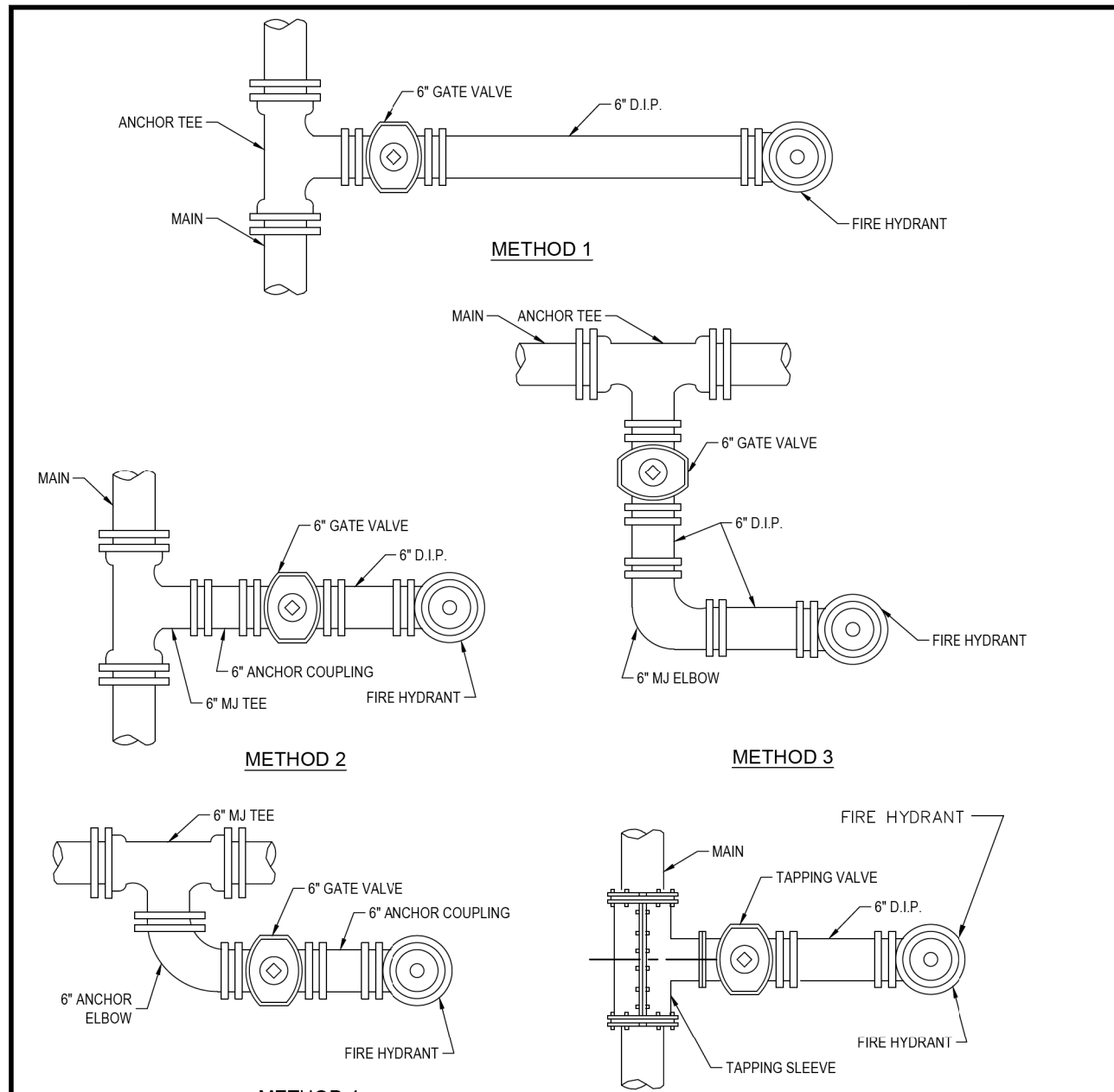


NOTES:

1. FIRE HYDRANT BARREL ABOVE THE GROUND LINE SHALL BE PAINTED WITH A HIGH-GRADE ENAMEL PAINT, FEDERAL SAFETY YELLOW (OSHA APPROVED), AND THE HYDRANT BONNET SHALL BE PAINTED OSHA GREEN.
2. CONCRETE SLAB MAY BE ELIMINATED IN AREAS WHERE HYDRANT IS SET IN SIDEWALK AND SIDEWALK HAS BEEN INSTALLED PRIOR TO FINAL ACCEPTANCE OF THE HYDRANT.
3. THRUST RESTRAINT FOR HYDRANT:
 - a) HYDRANT SHALL BE FIRMLY SUPPORTED UNDER ELBOW IN ALL METHODS BY SUPPORT BLOCK
 - b) ALL BACKFILL SHALL BE THOROUGHLY COMPACTED UNDER SUPPORT BLOCK AND UNDER THRUST COLLAR
 - c) ALL HYDRANT LEADS SHALL BE RESTRAINED BY MEGALUGS OR EQUIVALENT MECHANICAL RESTRAINTS
4. PROTECTION POSTS ARE REQUIRED WHEN HYDRANT IS LESS THAN 6 FEET FROM EDGE OF PAVEMENT, OR AS DIRECTED BY THE ENGINEER.
5. FOR PVC MAINS, INSTALL CONCRETE SUPPORT BLOCK UNDER ALL HYDRANT TEES.

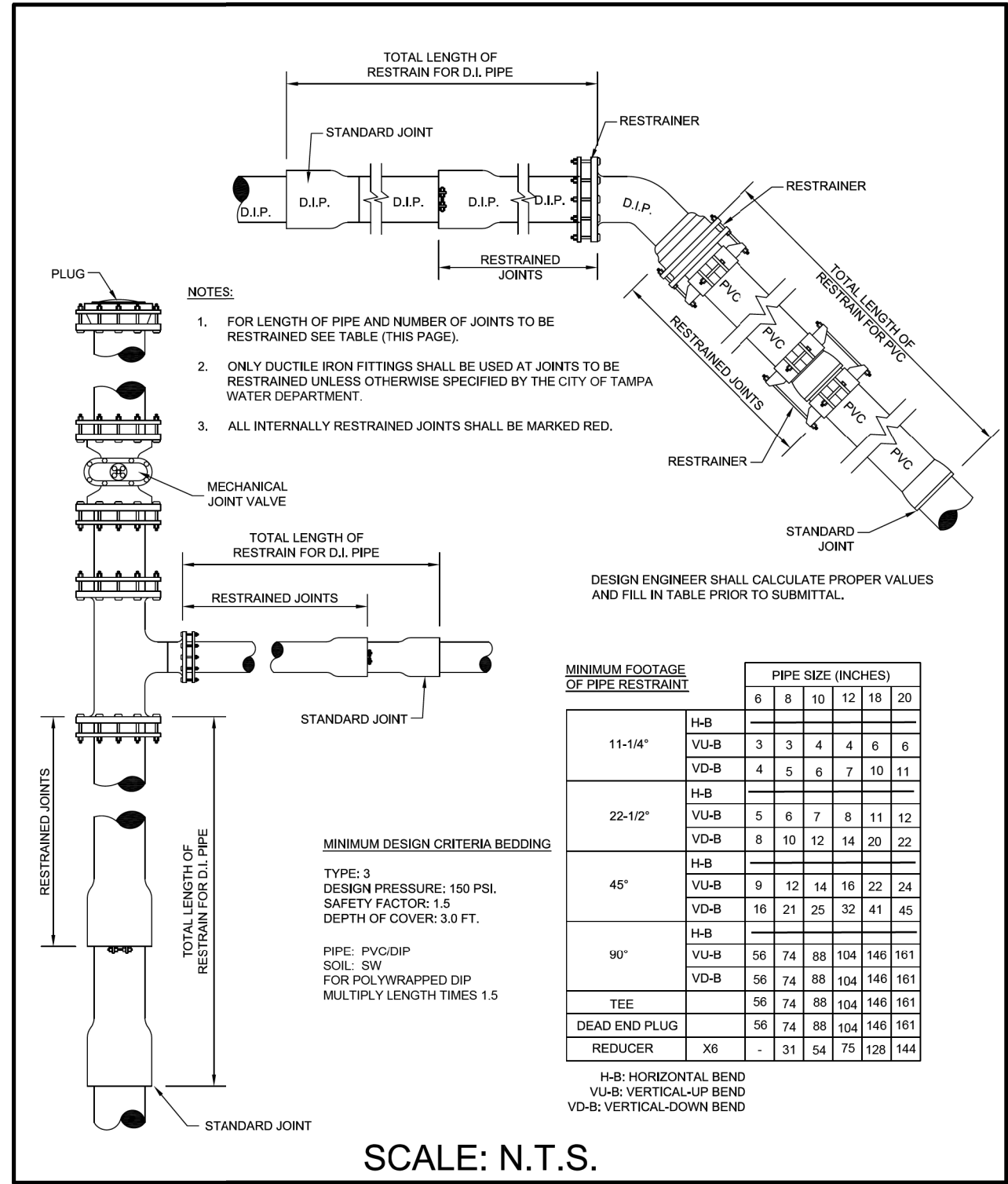
	LAST REVISION	FIRE HYDRANT INSTALLATION	4.01
	JUL 2018		

REVISIONS				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (7)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
						1001221	HILLSBOROUGH		436639-1-58-01



- NOTES:**
1. VALVE SHALL BE SET IN ACCORDANCE WITH DETAIL 3.01. FOR HYDRANT SET, SEE DETAIL 4.01.
 2. ALL VALVES SHALL BE ANCHORED TO BRANCH OF TEE ON ALL HYDRANT INSTALLATIONS.
 3. ALL HYDRANT LEADS SHALL BE RESTRAINED BY MEGALUGS OR EQUIVALENT.
 4. FOR PVC MAINS, INSTALL CONCRETE SUPPORT BLOCK UNDER HYDRANT TEES.

	LAST REVISION	FIRE HYDRANT METHODS OF INSTALLATION	4.02
	JUL 2018		



REVISIONS DATE DESCRIPTION DATE DESCRIPTION				CHRISTOPHER K. MARTIN, P.E. P.E. LICENSE NUMBER 66598 AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 4356	CITY OF TAMPA TRANSPORTATION DEPARTMENT			WATER MAIN STANDARD DETAILS (8)	SHEET NO.
					CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		U-19
				1001221	HILLSBOROUGH	436639-1-58-01			

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