

# CITY of TAMPA



## MOBILITY DEPARTMENT

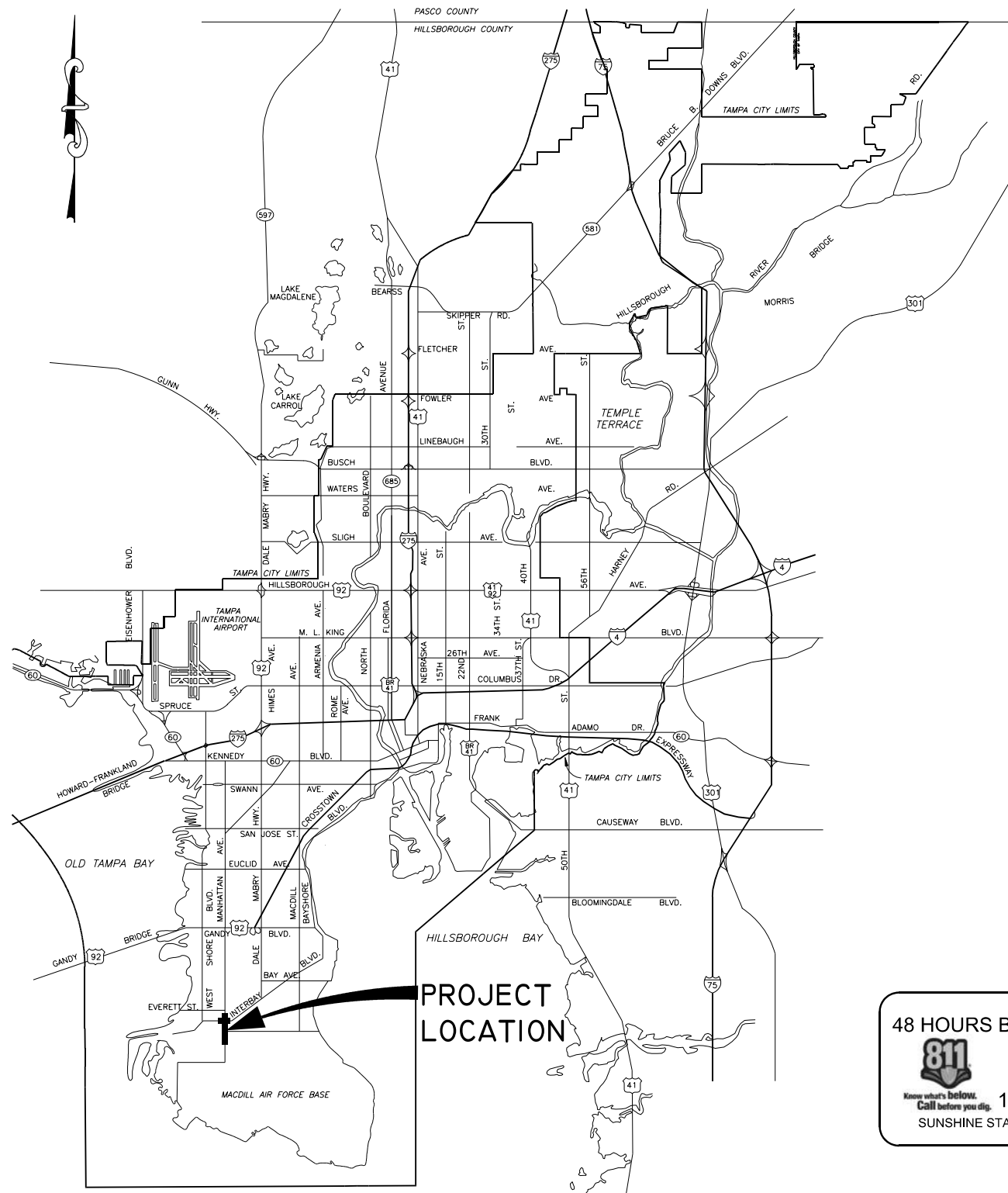
### PLANS FOR S. MANHATTAN AVE. AND INTERBAY BLVD. ROADWAY AND INTERSECTION IMPROVEMENT PROJECT

C.I.P. # 1000980

100% SUBMITTAL - JUN. 22, 2021

CITY PROJECT MANAGER: BEN MONEY, PE

48 HOURS BEFORE DIGGING  
 CALL 811  
 OR TOLL FREE  
 1-800-432-4770  
 SUNSHINE STATE ONE CALL CENTER



**PROJECT  
LOCATION**

GOVERNING STANDARDS AND SPECIFICATIONS:  
 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS  
 FISCAL YEAR 2020-21.  
 FLORIDA DEPARTMENT OF TRANSPORTATION, JULY 2020 STANDARD SPECIFICATIONS  
 FOR ROAD AND BRIDGE CONSTRUCTION.  
 SPECIFICATIONS CAN BE FOUND AT THE FOLLOWING WEBSITE:  
[HTTP://WWW.FDOT.GOV/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS](http://www.fdot.gov/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS)

**BALA**  
 Consulting Services, LLC

APPROVED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
 BALA PADMANABHAN, P.E. #37332  
 BALA CONSULTING SERVICES, LLC  
 18527 BITTERN AVE., LUTZ, FL 33558  
 T: (813) 962-4697 E: balapadman@balacs.net  
 CERTIFICATE OF AUTHORIZATION NO: 31398

No.	DATE	REVISIONS
3		
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DES: RL  
 DRN: RL  
 CKD: BP  
 DATE: 6/22/21

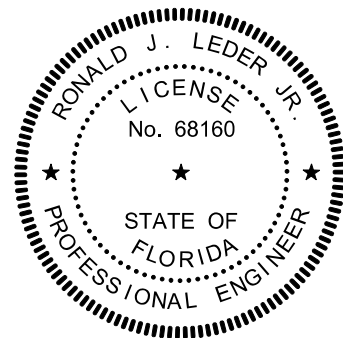
CITY of TAMPA  
 MOBILITY DEPARTMENT  
 C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
 ROADWAY and INTERSECTION IMPROVEMENT PROJECT

COVER SHEET

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SHEET NO.	SHEET DESCRIPTION
RD	ROADWAY PLANS (VOLUME 1 OF 3)
1	COVER SHEET
2	INDEX AND SIGNATURE SHEET
3	SUMMARY OF QUANTITIES
4	GENERAL NOTES AND SITE DETAILS
5 - 7	TYPICAL SECTIONS
8	SURVEY CONTROL SHEET
9	PROJECT LAYOUT SHEET
10	LEGEND - ABBREVIATIONS
11 - 15	TOPOGRAPHIC SURVEY
16 - 23	S. MANHATTAN AVE. - PLAN / PROFILE
24 - 25	INTERBAY BLVD. - PLAN / PROFILE
26	INTERSECTION DETAIL SHEET
27 - 39	ROADWAY CROSS SECTIONS
40 - 41	MAINTENANCE OF TRAFFIC
42	UTILITY ADJUSTMENTS
SPM	SIGNING AND PAVEMENT MARKING PLANS (VOLUME 2 OF 3)
SIG	SIGNALIZATION PLANS (VOLUME 3 OF 3)



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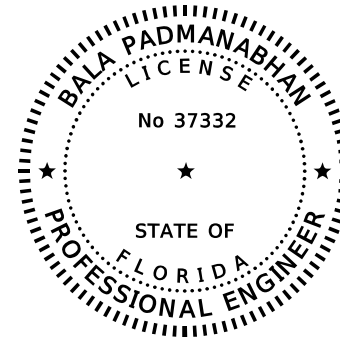
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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE.  
LUTZ, FL 33558  
CERTIFICATE OF AUTHORIZATION NO: 31398  
BALA PADMANABHAN, P.E. NO. 37332

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

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS



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

- SIGNALIZATION PLANS

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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
INDEX AND SIGNATURE SHEET

SHEET  
2  
OF 42

PAY ITEM #	PAY ITEM DESCRIPTION	UNIT	QUANTITY
0101 1	MOBILIZATION	LS	1
0102 1	MAINTENANCE OF TRAFFIC	LS	1
0104 10 3	SEDIMENT BARRIER	LF	4240
0104 18	INLET PROTECTION SYSTEM	EA	4
0110 1 1	CLEARING & GRUBBING	AC	2.28
0110 4 10	REMOVAL OF EXIST CONC PAVT/REMOVAL OF EXIST CONC	SY	310
0110 7 1	MAILBOX, F&I SINGLE	EA	10
0120 1	REGULAR EXCAVATION	CY	500
0120 6	EMBANKMENT	CY	250
0160 4	TYPE B STABILIZATION	SY	5830
0285701	OPTIONAL BASE, BASE GROUP 01 (ASPH. S/W) INCL. STAB. SUB-GRADE	SY	504
0285706	OPTIONAL BASE, BASE GROUP 06	SY	5686
0286 1	TURNOUT CONSTRUCTION	SY	165
0327 70 5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	SY	1984
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	844
0337 7 74	ASPHALT CONCRETE FRICTION COURSE (SP-9.5) (ASPH. S/W)	TN	28
0425 1521	INLETS, CURB, TYPE 1, <10'	EA	4
0425 2 41	MANHOLES, P-7, <10'	EA	1
0430175118	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 18"S/CD	LF	118
0430984125	MITERED END SECTION, OPTIONAL ROUND, 18" SD	EA	1
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	1380
0520 2 4	CONCRETE CURB, TYPE D	LF	60
0522 1	CONCRETE SIDEWALK, 6" THICK	SY	872
0522 2	CONCRETE DRIVEWAY, 6" THICK	SY	520
0522 3	BUS BOARDING PAD- CONCRETE	SY	20
0527 2	DETECTABLE WARNINGS	SF	14
0570 1 2	PERFORMANCE TURF, SOD	SY	1100

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MOBILITY DEPARTMENT  
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
SUMMARY OF QUANTITIES

**GENERAL NOTES:**

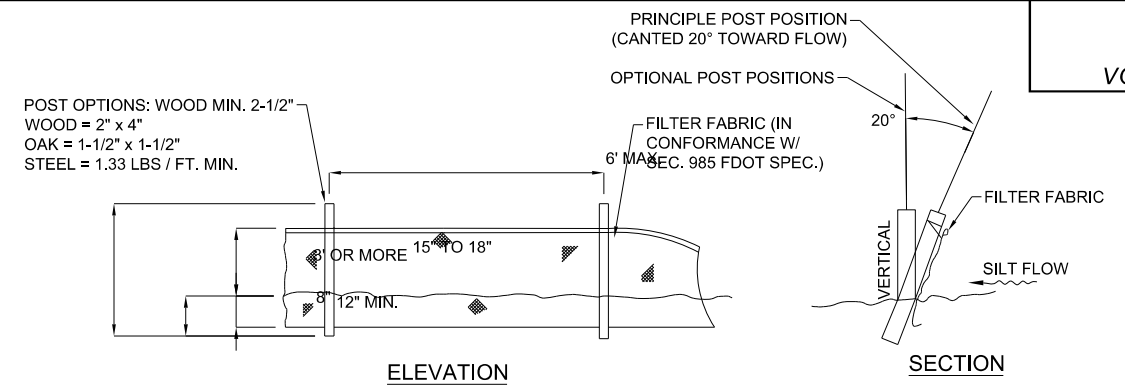
- VERTICAL DATUM ELEVATION WAS ESTABLISHED AT THE PROJECT SITE BASED ON CITY OF TAMPA BENCHMARK "HV-02-0060" WITH A PUBLISHED ELEVATION OF 9.32' NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- ALL SURVEY INFORMATION HAS BEEN PROVIDED BY:  
MASER CONSULTING, P.A.  
5471 WEST WATERS AVE., SUITE 100  
TAMPA, FL 33634  
PHONE: 813.207.1061  
STATE OF F.L. C.O.A.: 30301 / LB7388  
  
ROBERT W. ALTMAN  
FLORIDA PROFESSIONAL SURVEYOR & MAPPER  
LICENSE NUMBER: LS7062
- ALL DRAINAGE STRUCTURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- THE CONTRACTOR WILL CONTACT THE CITY OF TAMPA PARKS & RECREATION DEPT. FOR ANY SPECIAL EVENTS SCHEDULED DURING THE DURATION OF THE CONSTRUCTION CONTRACT AND ADJUST CONSTRUCTION PHASING ACCORDINGLY.

**UTILITY NOTES:**

- THE CONTRACTOR WILL PROTECT UTILITIES AND OTHER IMPROVEMENTS SHOWN ON THESE PLANS ALONG WITH OTHER UTILITIES AND OTHER IMPROVEMENTS NOT SHOWN. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF UTILITIES AND OTHER IMPROVEMENTS DAMAGED DURING CONSTRUCTION (AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER) AND WILL MAINTAIN SUFFICIENT PROTECTION TO UTILITIES REQUIRED TO PROTECT THEM FROM DAMAGE AND TO PROTECT THE PUBLIC DURING CONSTRUCTION.
- THE CONTRACTOR WILL NOTIFY UTILITY COMPANIES (WHICH MAY HAVE THEIR UTILITIES WITHIN THE CONSTRUCTION AREAS) TO LOCATE THEIR FACILITIES IN THE FIELD FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION.
- CHAPTER 553 - 851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY GAS COMPANIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. THE DRAWINGS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS AND DO NOT SHOW SERVICE LINES.
- THE CONTRACTOR WILL MAINTAIN VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS AND WASTEWATER FORCEMAINS, PER F.A.C. RULE 62-555.314.
- CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING OTHER UTILITY COMPANIES AND ARRANGE TO HAVE UTILITY POLES HELD OR RELOCATED IF DETERMINED NECESSARY FOR CONSTRUCTION.
- LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES EXPOSED DURING CONSTRUCTION WILL BE ACCURATELY RECORDED ON THE CONSTRUCTION DRAWINGS. THE ENGINEER WILL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS WITH PROPOSED CONSTRUCTION. THE ENGINEER AND/OR OWNER ARE TO WITHHOLD PROGRESS PAYMENTS IF AS-BUILT DRAWINGS ARE NOT MAINTAINED DURING CONSTRUCTION AND KEPT UP TO DATE WITH NEW AND EXISTING UTILITIES ACCURATELY RECORDED.
- THE CONTRACTOR WILL COORDINATE WITH ALL UTILITY OWNERS (EXISTING AND PROPOSED) TO VERIFY FINAL LOCATIONS, DEPTHS, QUANTITIES, AND SIZE OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.
- THE INFORMATION SHOWN ON THESE DRAWINGS (TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES) IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR WILL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH PROJECT CONSTRUCTION.
- IF FIELD CONDITIONS REQUIRE, THE LOCATION OF PROPOSED WATER MAINS CAN BE ADJUSTED WITHIN THE RIGHT-OF-WAY WITH THE APPROVAL OF THE ENGINEER AND THE CITY OF TAMPA.
- THE CONTRACTOR WILL RESTRAIN ALL EXISTING UTILITIES, AS NECESSARY.
- ALL EXISTING UTILITIES WILL MAINTAIN SERVICE THROUGHOUT CONSTRUCTION. TEMPORARY SHUTDOWNS MAY BE REQUIRED, AND WILL BE COORDINATED WITH THE CITY OF TAMPA.

**UTILITY CONTACTS:**

UTILITY	STREET ADDRESS	CITY, STATE, ZIP	PHONE	POINT OF CONTACT
CITY OF TAMPA WASTEWATER DEPARTMENT	32545 GUY N. VERGER BOULEVARD	TAMPA, FL 33605	(813) 274-8095	JACK FERRAS
CITY OF TAMPA WATER DEPARTMENT	306 E. JACKSON STREET	TAMPA, FL 33602	(813) 274-7109	ROY MCKENZIE
CITY OF TAMPA TRANSPORTATION DEPARTMENT	1104 E. TWIGGS, SUITE 200	TAMPA, FL 33602	(813) 274-7109	JAE-SANG LEE
CITY OF TAMPA STORMWATER DEPARTMENT	306 E. JACKSON STREET	TAMPA, FL 33605	(813) 274-8428	JEFF DEBOSIER
AT&T	2901 W. BUSCH BOULEVARD, SUITE 711	TAMPA, FL 33618	(813) 888-8300 EXT: 203	NINA FRANK
CHARTER COMMUNICATIONS	4145 S. FALKENBURG ROAD	RIVERVIEW, FL 33578	(813) 684-6100 EXT: 32143	WINDELL CREAMY
CENTURYLINK	5908-A HAMPTON OAKS PARKWAY	TAMPA, FL 33610	(813) 382-8753	BOB PRIESTAP
FRONTIER COMMUNICATIONS	3712 W. WALNUT STREET	TAMPA, FL 33607	(813) 875-1014	RANDALL JAMES
MCI/VERIZON	400 INTERNATIONAL PARKWAY	RICHARDSON, TX 75081	(469) 886-4238	JOHN BACHELDER
TAMPA ELECTRIC COMPANY (TECO)	P.O. BOX 111	TAMPA, FL 33601	(813) 275-3037	HEATHER LOVETT
TECO PEOPLES GAS	8416 PALM RIVER ROAD	TAMPA, FL 33619	(813) 275-3783	DARLENE CALLENDAR



NOTE: TO BE INSTALLED 6" INSIDE OF EXIST. AIR FORCE BASE FENCE, EASEMENT OR RIGHT OF WAY LINE.  
**STAKED SEDIMENT BARRIER**  
N.T.S.

**EROSION & SEDIMENT CONTROL**

PRIOR TO INITIATING CONSTRUCTION OF PLANNED IMPROVEMENTS, ALL WRA'S WILL BE EXCAVATED AND ROUGH GRADED TO PROVIDE SEDIMENT AND RUNOFF CONTROL DURING CONSTRUCTION.

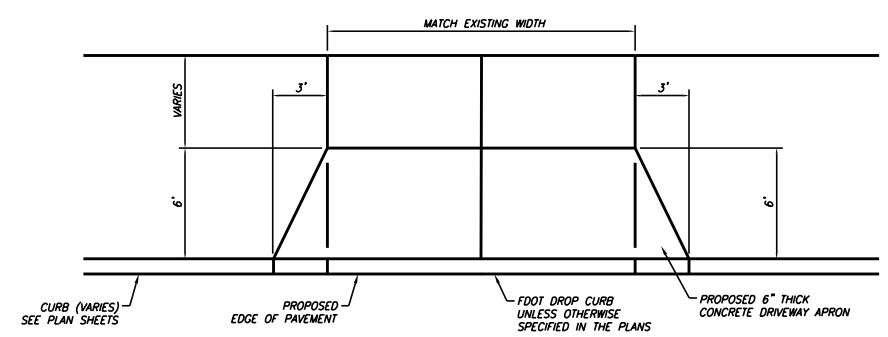
ALL DISTURBED AREAS WILL BE BROUGHT TO FINAL GRADE AND SEEDED AND MULCHED AS SOON AS POSSIBLE.

AREAS WHICH MAY ERODE DUE TO SLOPES OR CONCENTRATED RUNOFF DURING CONSTRUCTION WILL BE TREATED. TEMPORARY SLOPE DRAIN PROTECTION WILL BE PROVIDED PER BEST MANAGEMENT PRACTICES.

OFF SITE DISCHARGE OF UNTREATED STORMWATER WILL BE PREVENTED USING TEMPORARY BERMS AND DIKES WHERE NEEDED. DEVICES CONSISTENT WITH FDOT ROADWAY DESIGN STANDARDS WILL BE USED.

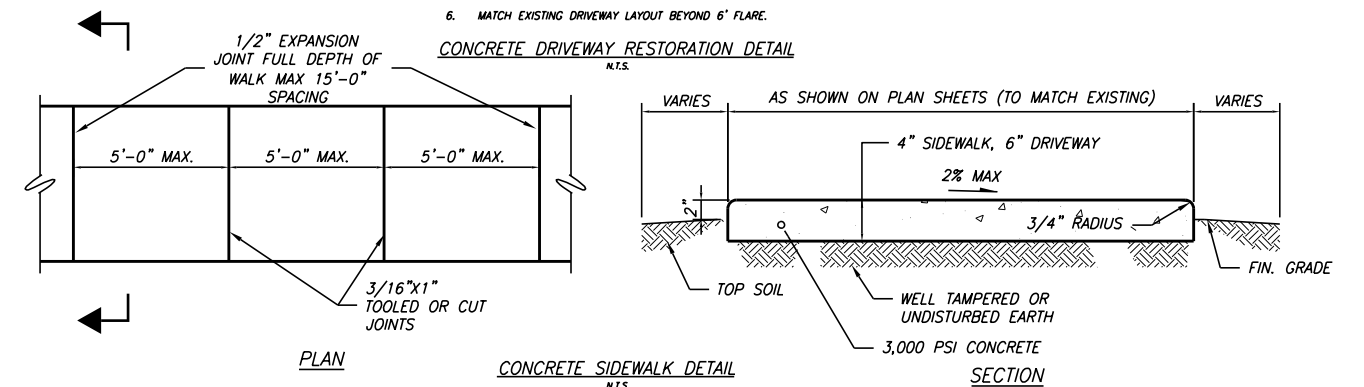
UPON COMPLETION OF SITE IMPROVEMENTS, THE WRA'S, SWALES, AND OTHER STORMWATER MANAGEMENT DEVICES WILL BE FINAL GRADED AND SODDED AS SPECIFIED IN THE APPROVED CONSTRUCTION PLANS.

**EROSION & SEDIMENT CONTROL**  
N.T.S.



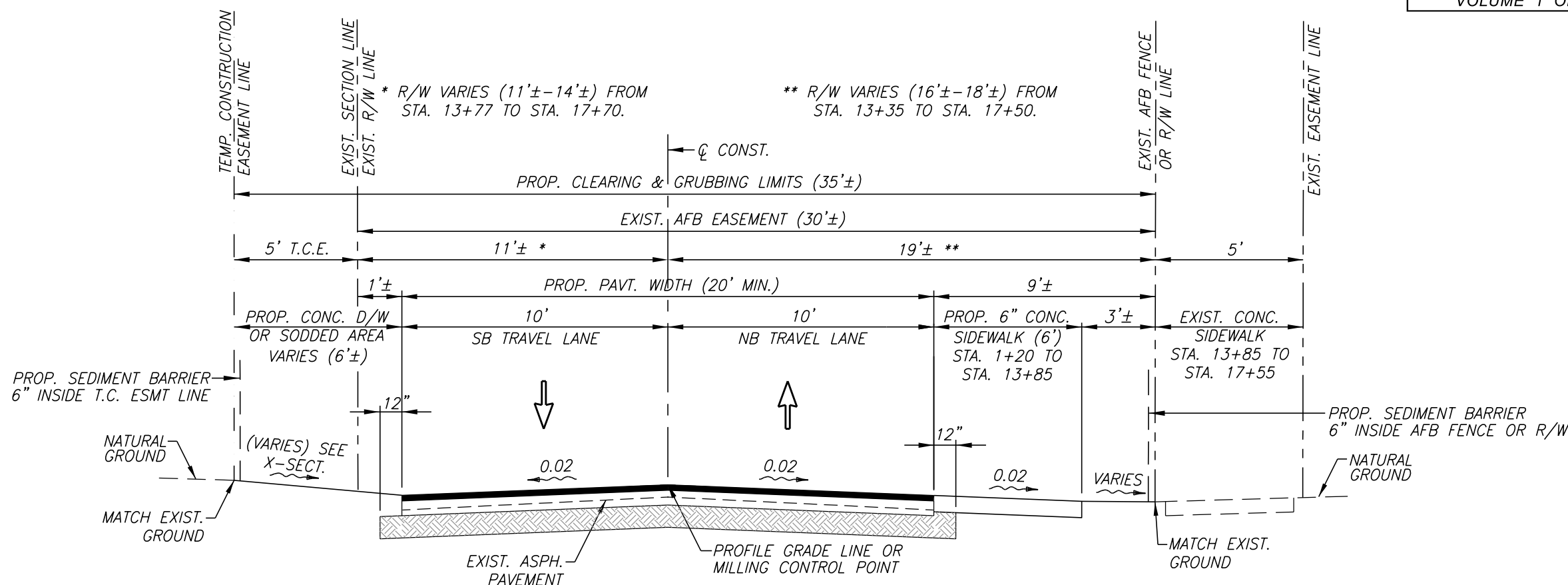
- NOTES:**
- REMOVE AND REPLACE EXISTING DRIVEWAY AS NECESSARY WITHIN RIGHT-OF-WAY.
  - DRIVEWAYS SHALL BE SAW CUT IN A STRAIGHT LINE.
  - PROVIDE EXPANSION JOINT FILLER BETWEEN NEW AND EXISTING DRIVEWAY. AFTER PLACING THE NEW CONCRETE, SAW CUT TO CONTROL CRACKING WITHIN 24 HOURS. SAW CUT FOR CONTROL JOINTS SHALL BE INSTALLED A MAXIMUM OF 10'-FT IN EITHER DIRECTION FOR A MAXIMUM 100 SQ FT AREA. SAW CUTS SHALL BE INSTALLED SUCH THAT NO MORE THAN A 2:1 LENGTH TO WIDTH RATIO IS PROVIDED. NUMBER OF SAW CUTS SHALL BE NO MORE THAN 4 TRANSVERSE JOINTS FOR TYPICAL RESIDENTIAL DRIVEWAYS UNLESS APPROVED BY THE CITY.
  - ALL CONCRETE SHALL BE MINIMUM 3000 PSI IN 28 DAYS.
  - SUBGRADE SHALL BE AS SHOWN IN CONCRETE DETAIL.
  - MATCH EXISTING DRIVEWAY LAYOUT BEYOND 6' FLARE.

**CONCRETE DRIVEWAY RESTORATION DETAIL**  
N.T.S.



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	APPROVED BY:	No.	DATE	REVISIONS	DES: RL		S. MANHATTAN AVE. and INTERBAY BLVD. ROADWAY and INTERSECTION IMPROVEMENT PROJECT  GENERAL NOTES AND SITE DETAILS	SHEET <b>4</b> OF 42
	BALA PADMANABHAN, P.E. #37332	3			DRN: RL			
	BALA CONSULTING SERVICES, LLC	2			CKD: BP			
	18527 BITTERN AVE., LUTZ, FL 33558 T: (813) 962-4697 E: balapadman@balacs.net CERTIFICATE OF AUTHORIZATION NO: 31398	1			DATE: 6/22/21			



TYPICAL SECTION – S. MANHATTAN AVE. (SOUTH).  
N.T.S.

STA. 1+20.00 TO STA. 17+55.00  
DESIGN SPEED = 25 MPH  
ROADWAY CLASSIFICATION: LOCAL ROAD (RURAL)

PAVEMENT DESIGN – RECONSTRUCTION OPTION

2" TYPE SP-12.5 ASPHALT CONCRETE STRUCTURAL COURSE  
OPTIONAL BASE GROUP 6 (LIMEROCK NOT PERMITTED)  
12" TYPE B STABILIZATION (LBR 40)

PAVEMENT DESIGN – FULL DEPTH RECLAMATION OPTION

FULL DEPTH RECLAMATION (BETWEEN 6"-12")  
2" TYPE SP-12.5 ASPHALT CONCRETE SURFACE COURSE

CONSTRUCTION NOTES:

1. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF LANE TAPERS, PROPOSED CURBING AND MATCH EXISTING LIMITS.
2. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF EXISTING AND PROPOSED SIDEWALKS AND DRIVEWAYS.
3. CONTRACTOR TO INTALL FDOT APPROVED SEDIMENT BARRIER 6" INSIDE EXIST. R/W LINE ON BOTH SIDES OF THE ROADWAY ALONG LIMITS OF CONSTRUCTION.

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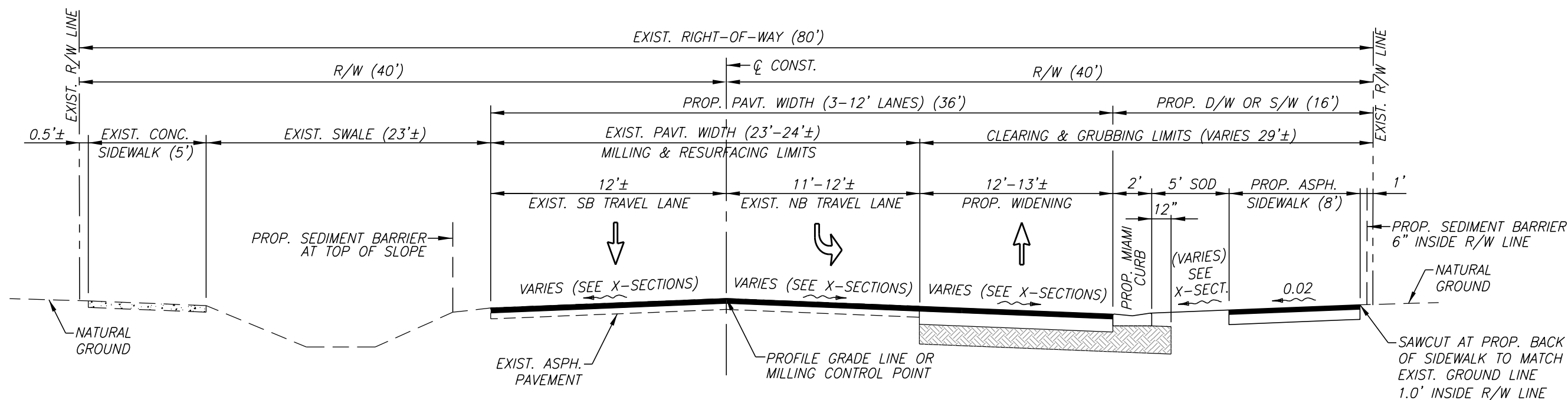
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
TYPICAL SECTION (I) - S. MANHATTAN AVE (SOUTH)  
STA. 1+20.00 TO STA. 17+55.00

SHEET  
5  
OF 42



TYPICAL SECTION – S. MANHATTAN AVE. (NORTH)  
N.T.S.

STA. 18+50.00 TO STA. 24+25.00  
DESIGN SPEED = 30 MPH  
ROADWAY CLASSIFICATION: LOCAL ROAD (RURAL)

PAVEMENT DESIGN – MILLING & RESURFACING

MILLING  
MILL EXIST. ASPHALT PAVEMENT (2" AVG. DEPTH)

RESURFACING  
2" TYPE SP-12.5 ASPHALT CONCRETE STRUCTURAL COURSE

PAVEMENT DESIGN – PROP. WIDENING

2" TYPE SP-12.5 ASPHALT CONCRETE STRUCTURAL COURSE  
OPTIONAL BASE GROUP 6 (LIMEROCK NOT PERMITTED)  
12" TYPE B STABILIZATION (LBR 40)

PAVEMENT DESIGN – ASPHALT SIDEWALK

1" TYPE SP-9.5 ASPHALT CONCRETE  
4" CRUSHED CONCRETE BASE (LBR 40)  
6" STABILIZED SUB-GRADE

CONSTRUCTION NOTES:

1. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF LANE TAPERS, PROPOSED CURBING AND MATCH EXISTING LIMITS.
2. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF EXISTING AND PROPOSED SIDEWALKS AND DRIVEWAYS.
3. CONTRACTOR TO CONFIRM EXISTING SUB-GRADE MEETS STABILIZED DENSITY OF LBR 40 PRIOR TO PLACEMENT OF PROPOSED CURBING.
4. ALL LOCATIONS OF MATCHING EXISTING CONDITIONS AND PROPOSED CURBING ARE TO BE SAWCUT.
5. ALL LOCATIONS OF PROPOSED CURBING SHALL BE FIELD VERIFIED TO BE INSTALLED AT A MINIMUM OF 0.30% LONGITUDINAL SLOPE.
6. CONTRACTOR TO INTALL FDOT APPROVED SEDIMENT BARRIER 6" INSIDE EXIST. R/W LINE ON BOTH SIDES OF THE ROADWAY ALONG LIMITS OF CONSTRUCTION.

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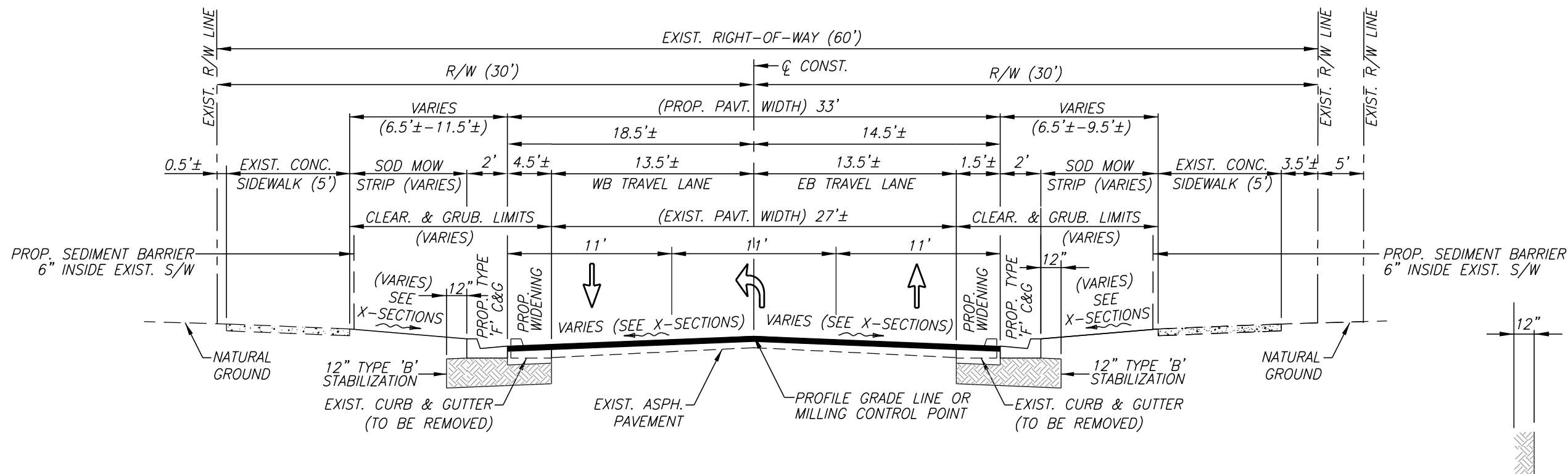
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ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
TYPICAL SECTION (2) - S. MANHATTAN AVE. (NORTH)  
STA. 18+50.00 TO STA. 24+25.00



TYPICAL SECTION – INTERBAY BLVD.

N.T.S.

STA. 50+27.00 TO STA. 53+93.00 (RECONSTRUCTION)  
 STA. 53+93.00 TO STA. 54+88.00 (MILLING & RESURFACING)  
 DESIGN SPEED = 30 MPH  
 ROADWAY CLASSIFICATION: LOCAL ROAD (URBAN)

PAVEMENT DESIGN – MILLING & RESURFACING

MILLING

MILL EXIST. ASPHALT PAVEMENT (2" AVG. DEPTH)

RESURFACING

2" TYPE SP-12.5 ASPHALT CONCRETE STRUCTURAL COURSE

PAVEMENT DESIGN – RECONSTRUCTION

2" TYPE SP-12.5 ASPHALT CONCRETE STRUCTURAL COURSE  
 OPTIONAL BASE GROUP 6 (LIMEROCK NOT PERMITTED)  
 12" TYPE B STABILIZATION (LBR 40)

CONSTRUCTION NOTES:

1. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF LANE TAPERS, PROPOSED CURBING AND MATCH EXISTING LIMITS.
2. SEE PLAN-PROFILE SHEETS FOR EXACT LOCATION AND LIMITS OF EXISTING AND PROPOSED SIDEWALKS AND DRIVEWAYS.
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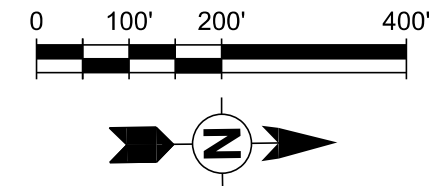
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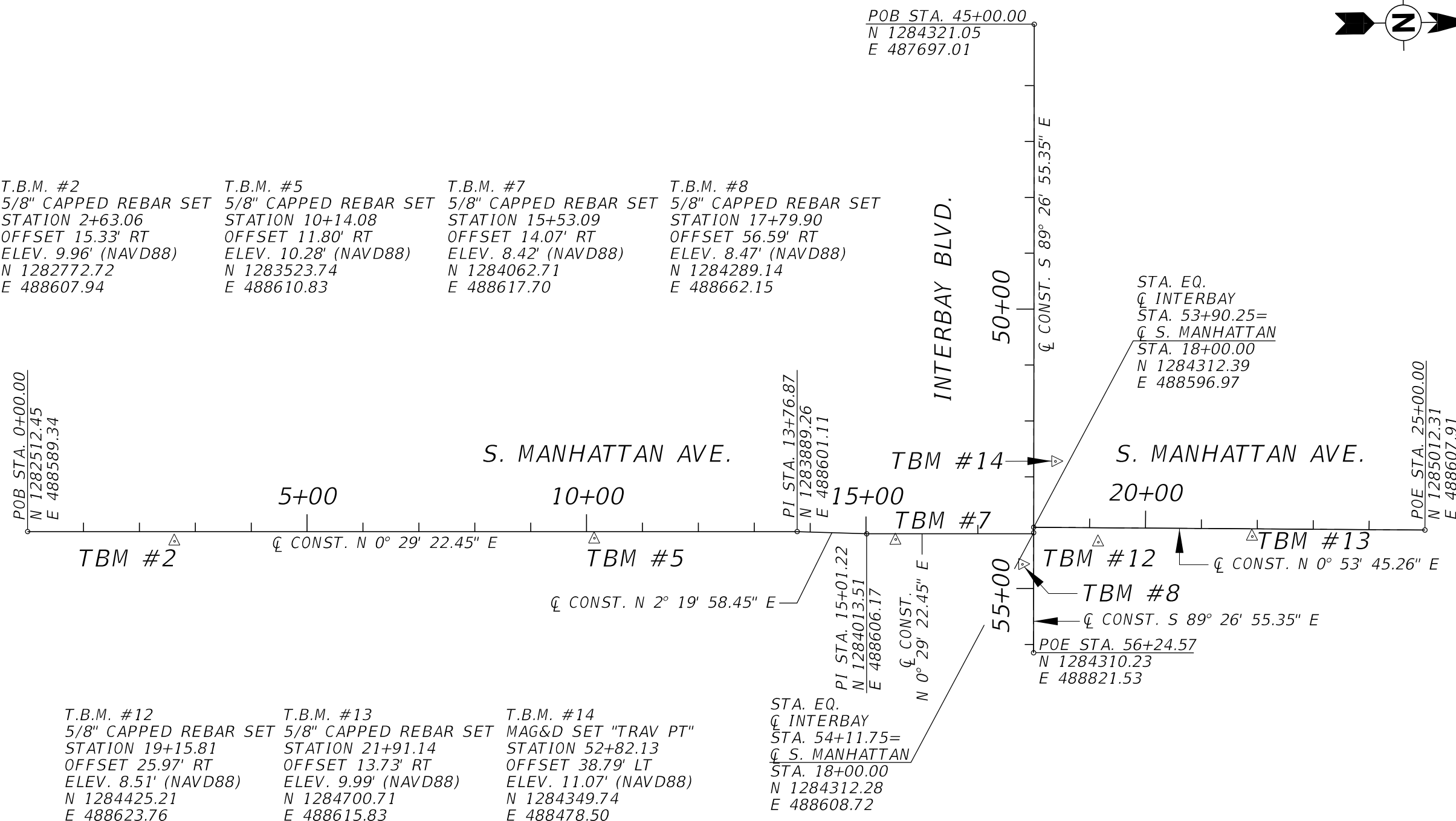
CITY of TAMPA  
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 C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
 ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
 TYPICAL SECTION (3) - INTERBAY BLVD.  
 STA. 50+27.00 TO STA. 54+88.00

SHEET  
**7**  
 OF 42



T.B.M. #2 5/8" CAPPED REBAR SET STATION 2+63.06 OFFSET 15.33' RT ELEV. 9.96' (NAVD88) N 1282772.72 E 488607.94	T.B.M. #5 5/8" CAPPED REBAR SET STATION 10+14.08 OFFSET 11.80' RT ELEV. 10.28' (NAVD88) N 1283523.74 E 488610.83	T.B.M. #7 5/8" CAPPED REBAR SET STATION 15+53.09 OFFSET 14.07' RT ELEV. 8.42' (NAVD88) N 1284062.71 E 488617.70	T.B.M. #8 5/8" CAPPED REBAR SET STATION 17+79.90 OFFSET 56.59' RT ELEV. 8.47' (NAVD88) N 1284289.14 E 488662.15
--	--	---	---



T.B.M. #12 5/8" CAPPED REBAR SET STATION 19+15.81 OFFSET 25.97' RT ELEV. 8.51' (NAVD88) N 1284425.21 E 488623.76	T.B.M. #13 5/8" CAPPED REBAR SET STATION 21+91.14 OFFSET 13.73' RT ELEV. 9.99' (NAVD88) N 1284700.71 E 488615.83	T.B.M. #14 MAG&D SET "TRAV PT" STATION 52+82.13 OFFSET 38.79' LT ELEV. 11.07' (NAVD88) N 1284349.74 E 488478.50
--	--	---

STA. EQ.  
Q INTERBAY  
STA. 54+11.75=  
Q S. MANHATTAN  
STA. 18+00.00  
N 1284312.28  
E 488608.72

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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

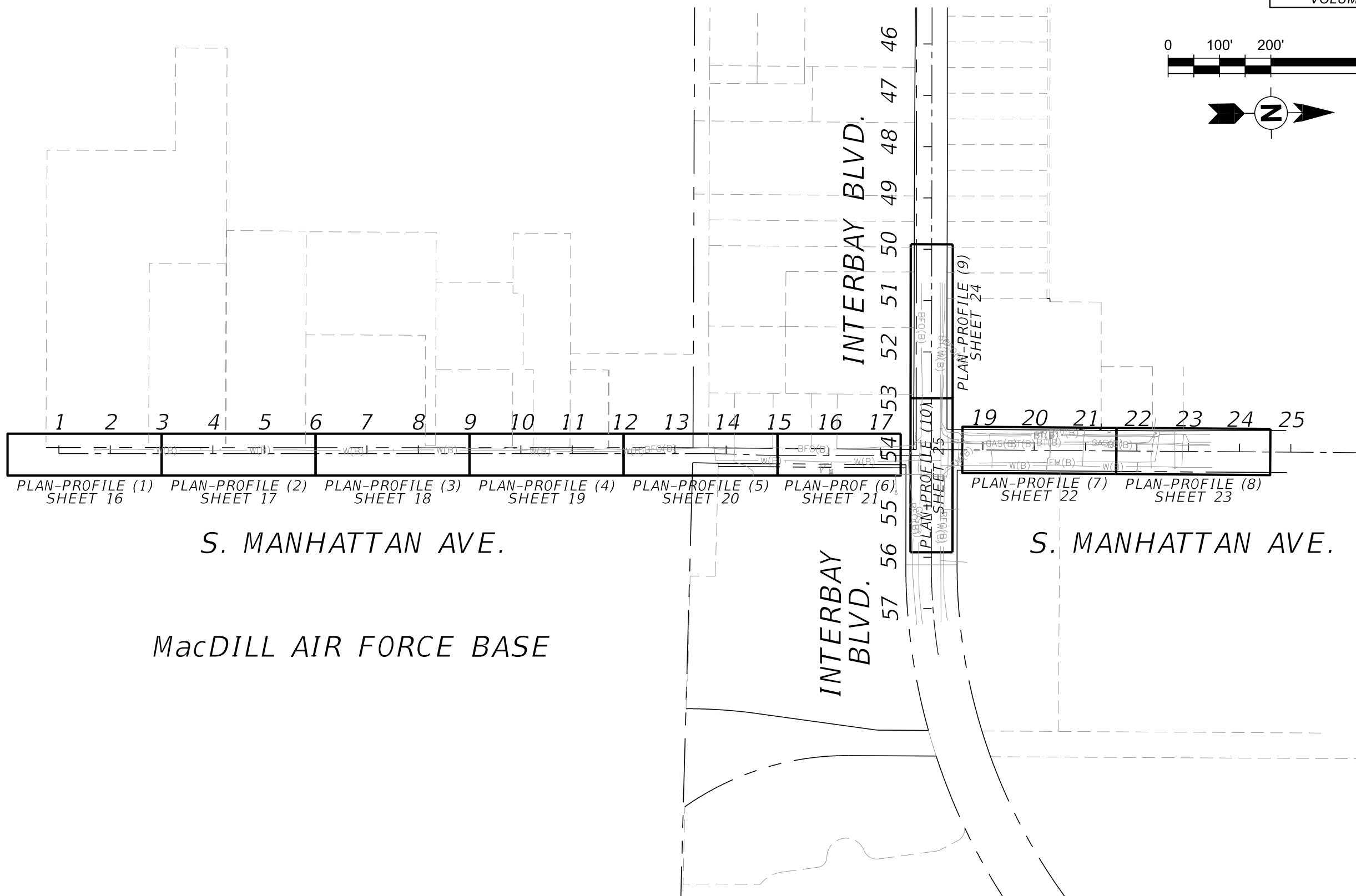
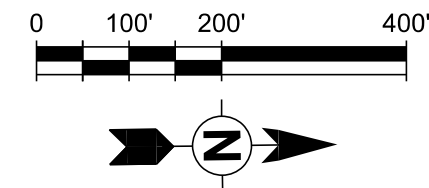
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DATE: 6/22/21

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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
SURVEY CONTROL SHEET





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DATE: 6/27/2021 PLOT TIME: 2:25:39 AM

S. MANHATTAN AVE.

MacDILL AIR FORCE BASE

S. MANHATTAN AVE.

INTERBAY BLVD.

INTERBAY BLVD.



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

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DRN: RL  
CKD: BP  
DATE: 6/22/21

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C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PROJECT LAYOUT SHEET

SHEET  
**9**  
OF 42

GROUND SURVEY LEGEND

ABBREVIATIONS

	BLOWOFF VALVE		RECLAIMED IRRIGATION CONTROL BOX		OAK TREE
	BOLLARD		UTILITY MANHOLE		PALM TREE
	CATCH BASIN		UTILITY BOX		MONITORING WELL
	CLEANOUT		TELEPHONE BOX		VAULT
	LIGHT POLE		GAS VALVE		WET WELL
	MAILBOX		POWER POLE		IRON ROD
	MITERED END		IRRIGATION BOX		GUY WIRE
	SANITARY MANHOLE		ELECTRIC MANHOLE		BENCHMARK
	STORM MANHOLE		CABLE HAND HOLD		BUSH
	SIGN		WATER METER		GRATE INLET
	VALVE		FIRE HYDRANT		BACKFLOW PREVENTER
	TRAFFIC SIGNAL BOX		SANITARY CONTROL PANEL		BORE HOLE
	FENCE				APPROXIMATE SURFACE FLOW

ARV	AIR RELEASE VALVE
BV	BUTTERFLY VALVE
CL	CENTERLINE
CPP	CORRUGATED PLASTIC PIPE
DIP	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
VCP	VITRIFIED CONCRETE PIPE
INV	INVERT
EL	ELEVATION
CONC	CONCRETE
PVMT	PAVEMENT
SIRC	SET IRON ROD AND CAP
NLDS	NAIL & DISK
TV	TRAVERSE POINT
NAVD	NORTH AMERICAN VERTICAL DATUM
LB	LICENSED BUSINESS
BM	BENCHMARK
PKND	P.K. NAIL AND DISC
IRC	IRON ROD AND CAP
IRF	IRON ROD FOUND
IPF	IRON PIPE FOUND
TP	TRAVERSE POINT
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
E/P	EDGE OF PAVEMENT
P/L	PROPERTY LINE
WM	WATER MAIN
WL	WATER LINE
S/W	SIDEWALK
R/W	RIGHT-OF-WAY
RCW	RECLAIMED WATER
NG	NATURAL GAS
SA	SANITARY SEWER MAIN
SD	STORM SEWER
ST	STORMWATER STRUCTURE
XCF	CROSS IN CONCRETE FOUND

EXISTING LEGEND

	EXIST. RIGHT-OF-WAY
	EXIST. PROPERTY LINE
	EXIST. SANITARY SEWER (SIZE X")
	EXIST. STORM DRAIN
	EXIST. WATER (SIZE X")
	EXIST. ELECTRICAL
	EXIST. GAS
	EXIST. TELEPHONE
	EXIST. OVERHEAD UTILITIES

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ROBERT W. ALTMAN, P.S.M. #7062  
MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

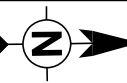
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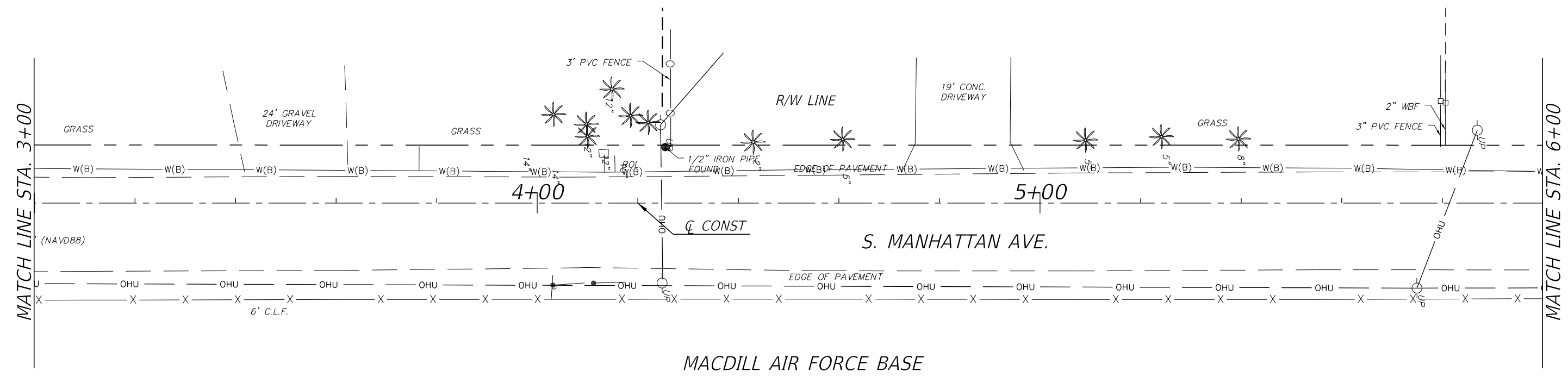
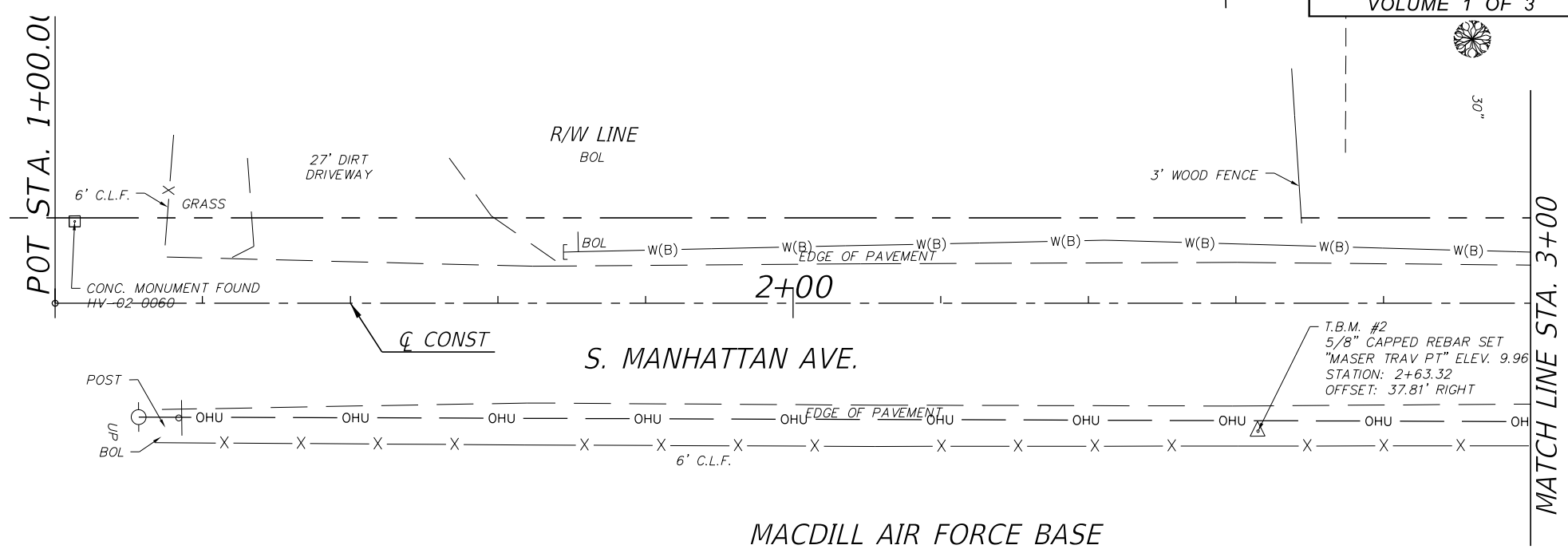
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
LEGEND - ABBREVIATIONS

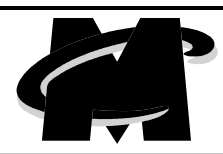
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ROADWAY  
VOLUME 1 OF 3



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ROBERT W. ALTMAN, P.S.M. #7062  
MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

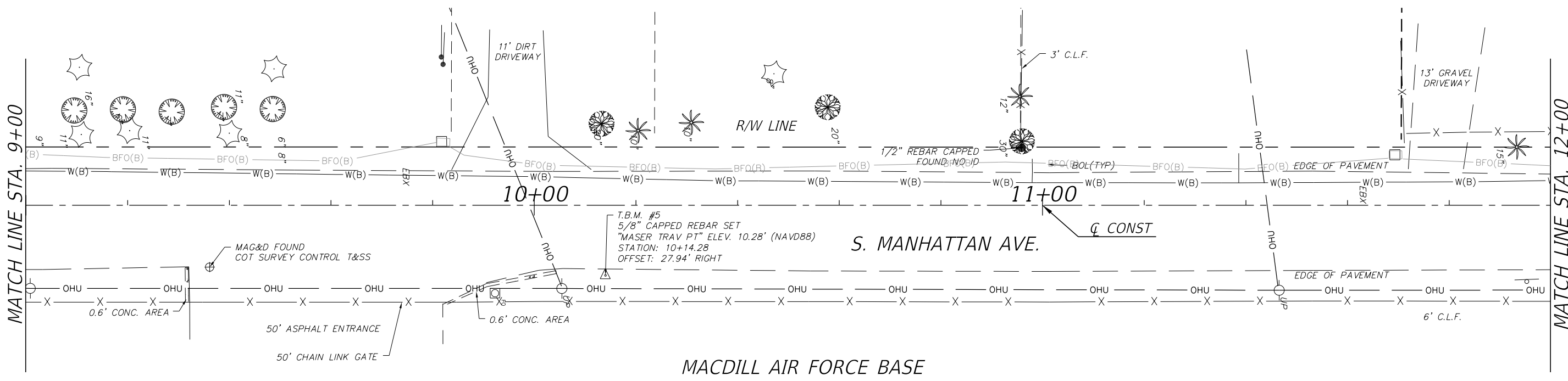
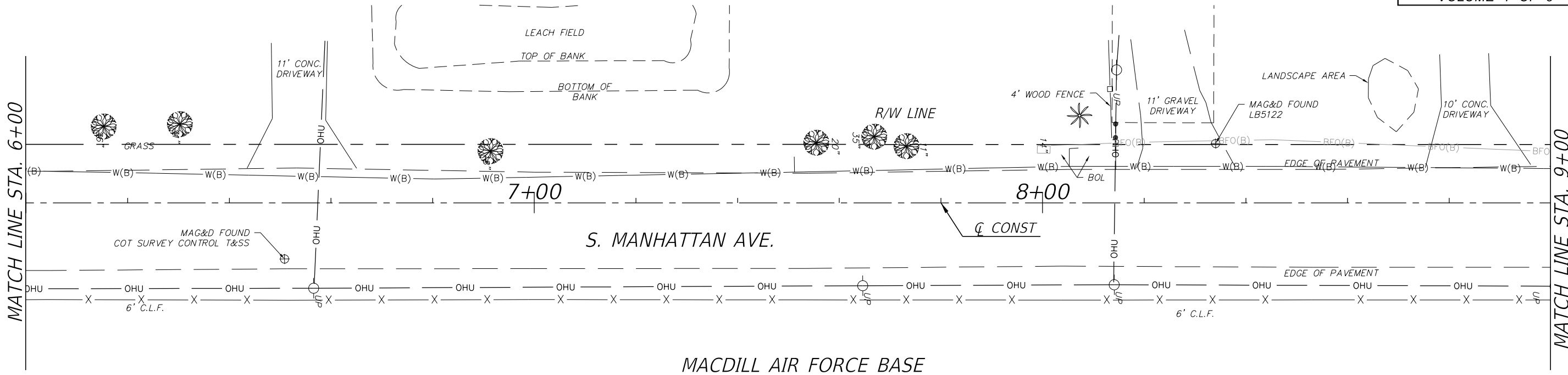
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
TOPOGRAPHIC SURVEY (I)  
S. MANHATTAN AVE.

SHEET  
11  
OF 42



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ROBERT W. ALTMAN, P.S.M. #7062  
MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

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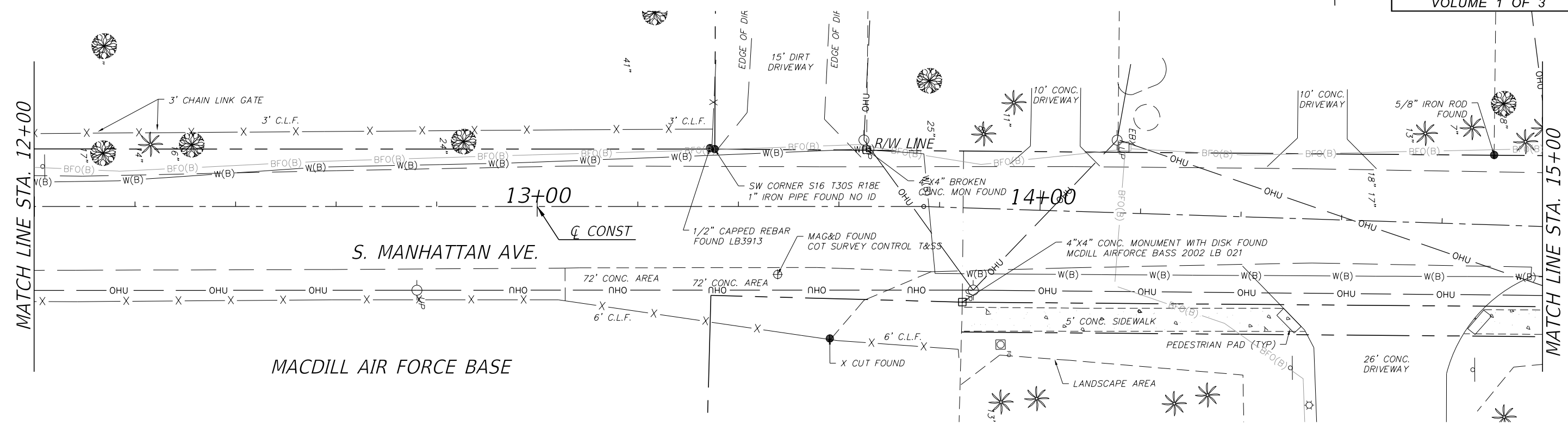
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
  
TOPOGRAPHIC SURVEY (2)  
S. MANHATTAN AVE.

SHEET  
12  
OF 42

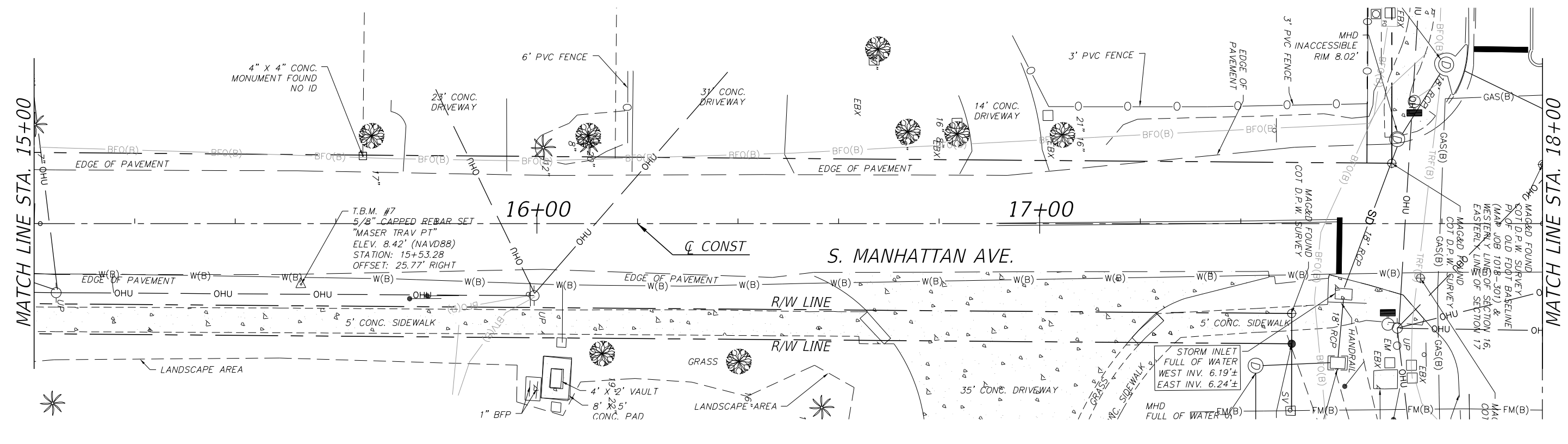
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MATCH LINE STA. 15+00



MATCH LINE STA. 15+00

MATCH LINE STA. 18+00



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MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

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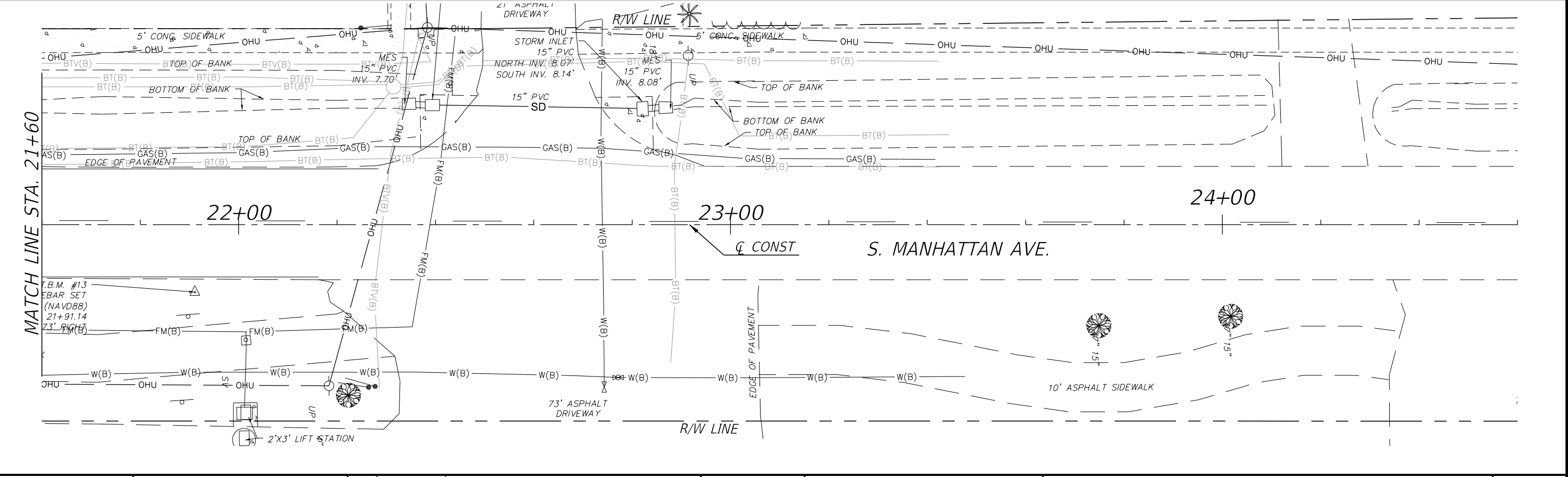
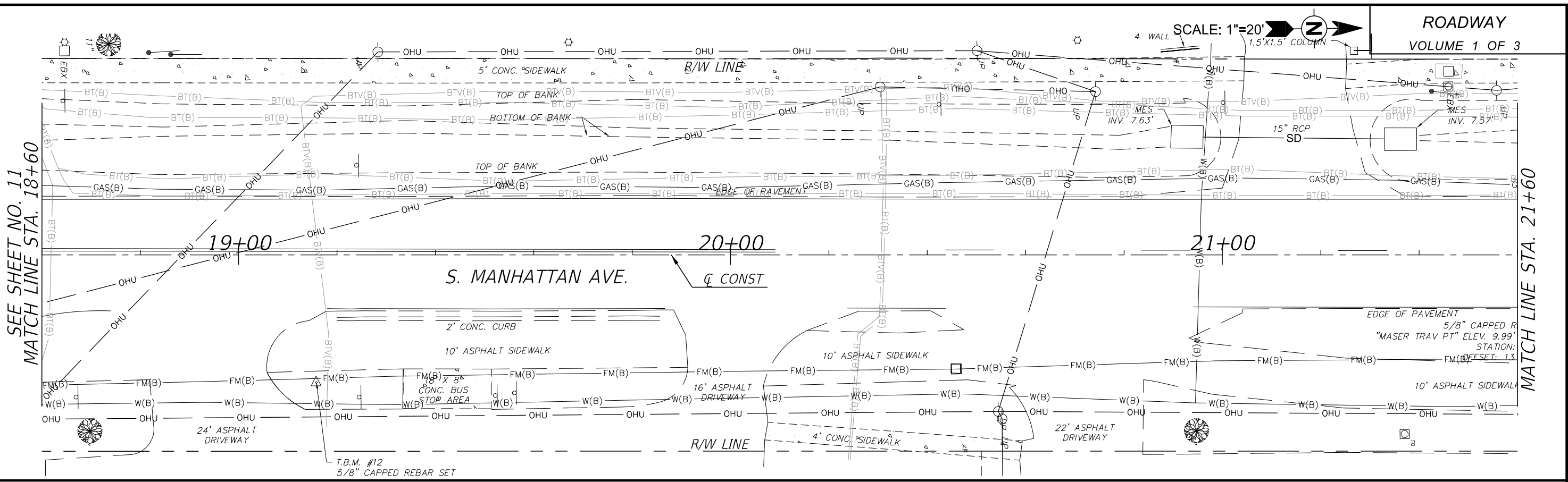
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**S. MANHATTAN AVE. and INTERBAY BLVD.**  
**ROADWAY and INTERSECTION IMPROVEMENT PROJECT**  
TOPOGRAPHIC SURVEY (3)  
S. MANHATTAN AVE.

SCALE: 1"=20'  
1.5'X1.5' COLUMN

SEE SHEET NO. 11  
MATCH LINE STA. 18+60

MATCH LINE STA. 21+60



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MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

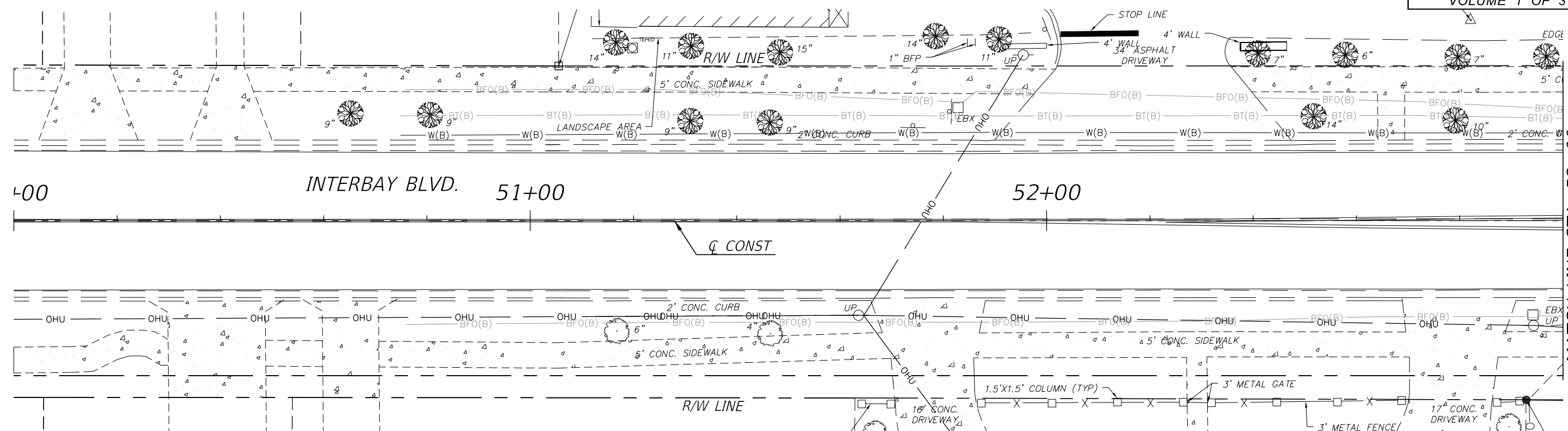
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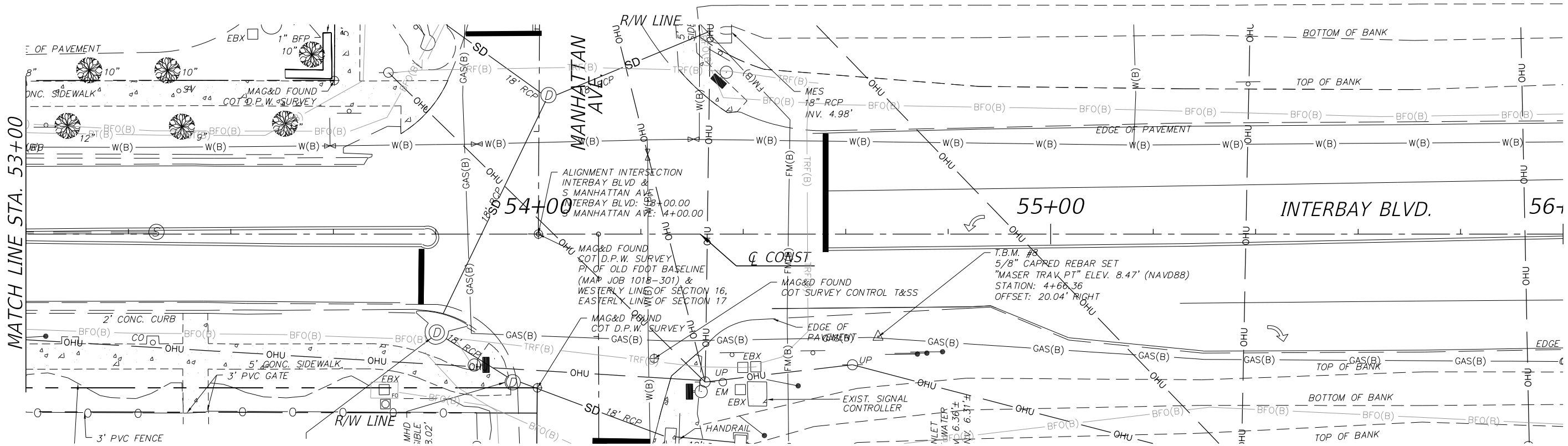
S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
TOPOGRAPHIC SURVEY (4)  
S. MANHATTAN AVE.

SHEET  
14  
OF 42



MATCH LINE STA. 53+00

SCALE: 1"=20'



MATCH LINE STA. 53+00

SCALE: 1"=20'

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ROBERT W. ALTMAN, P.S.M. #7062  
MASER CONSULTING P.A.  
5471 WEST WATERS AVENUE, SUITE 100  
TAMPA, FL 33634  
T: (813) 207-1061

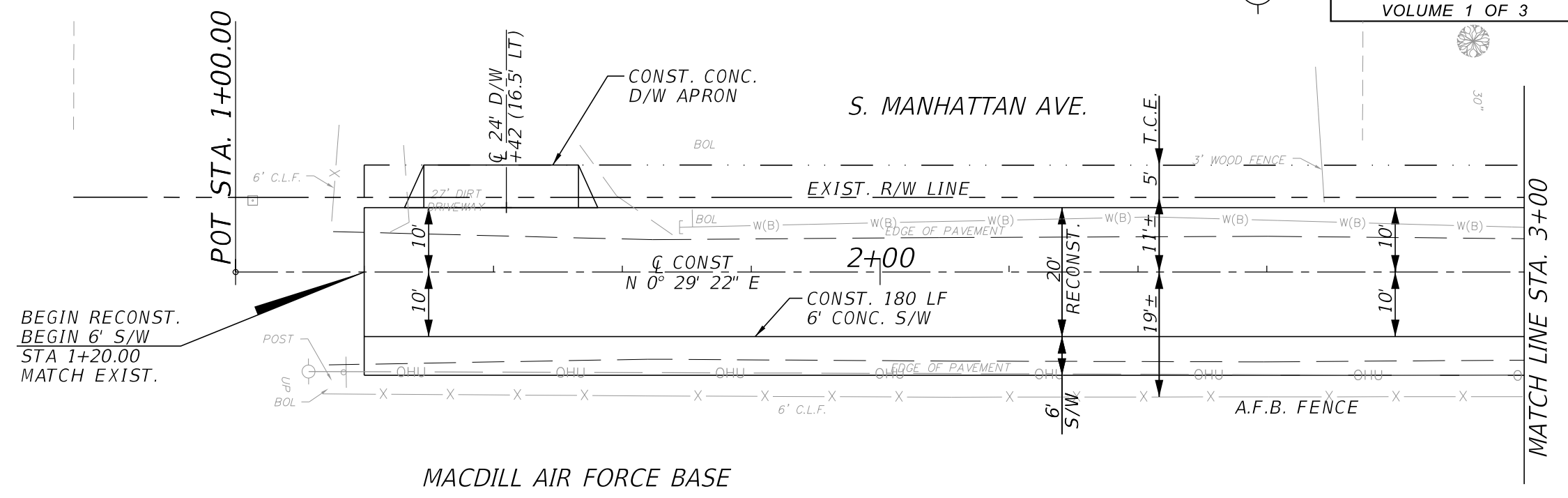
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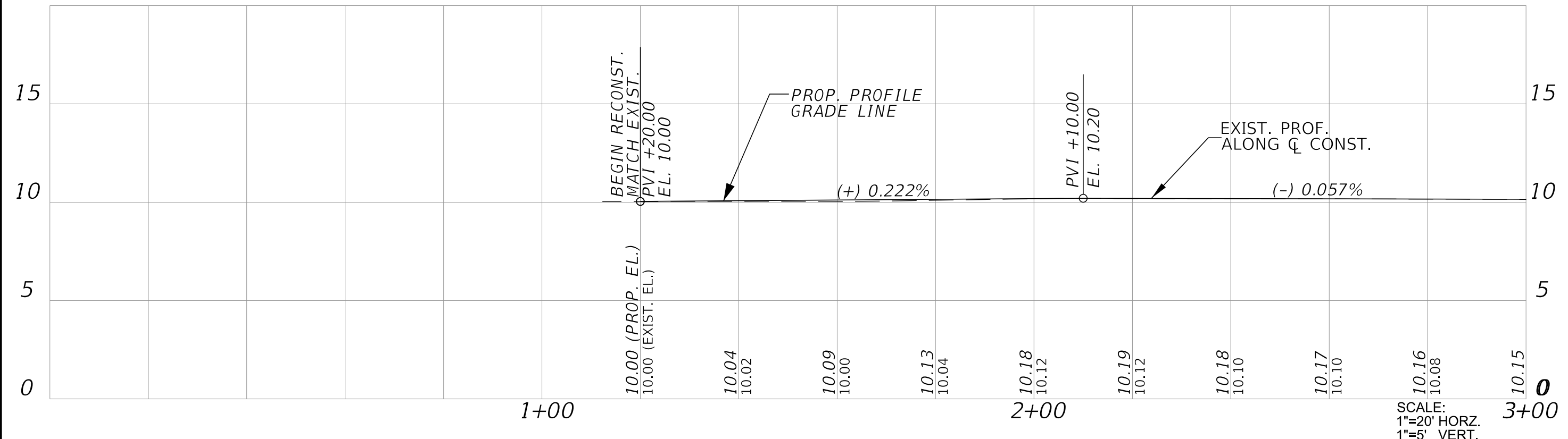
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
TOPOGRAPHIC SURVEY (5)  
INTERBAY BLVD.

SHEET  
15  
OF 42



PROP. 6' SIDEWALK



SCALE:  
1"=20' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\16\_PLANRD01.dwg  
DATE: 6/27/2021 PLOT TIME: 2:38:33 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

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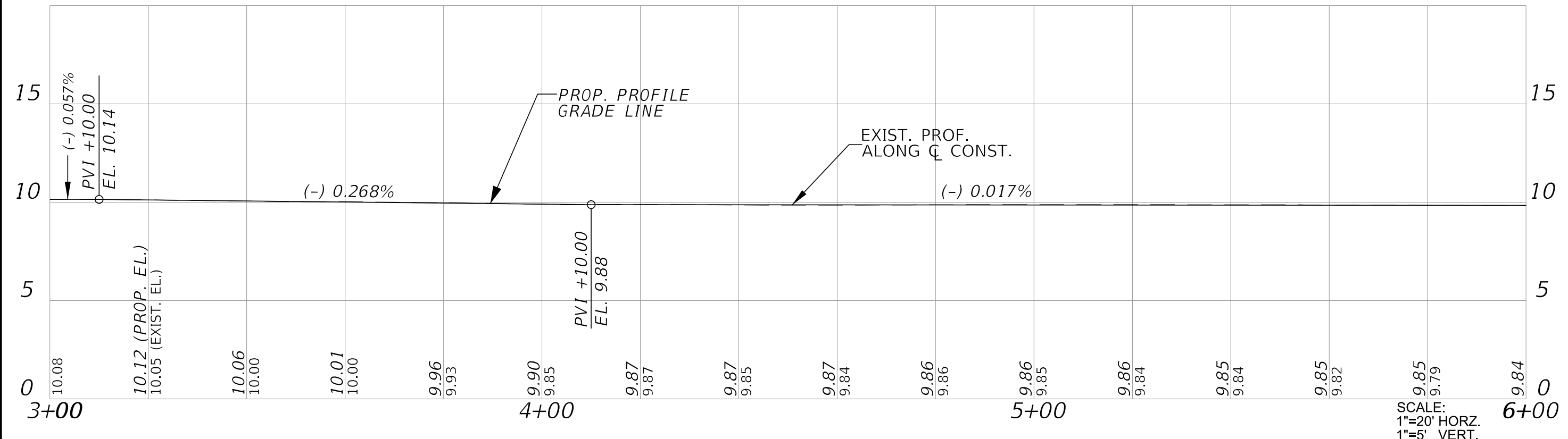
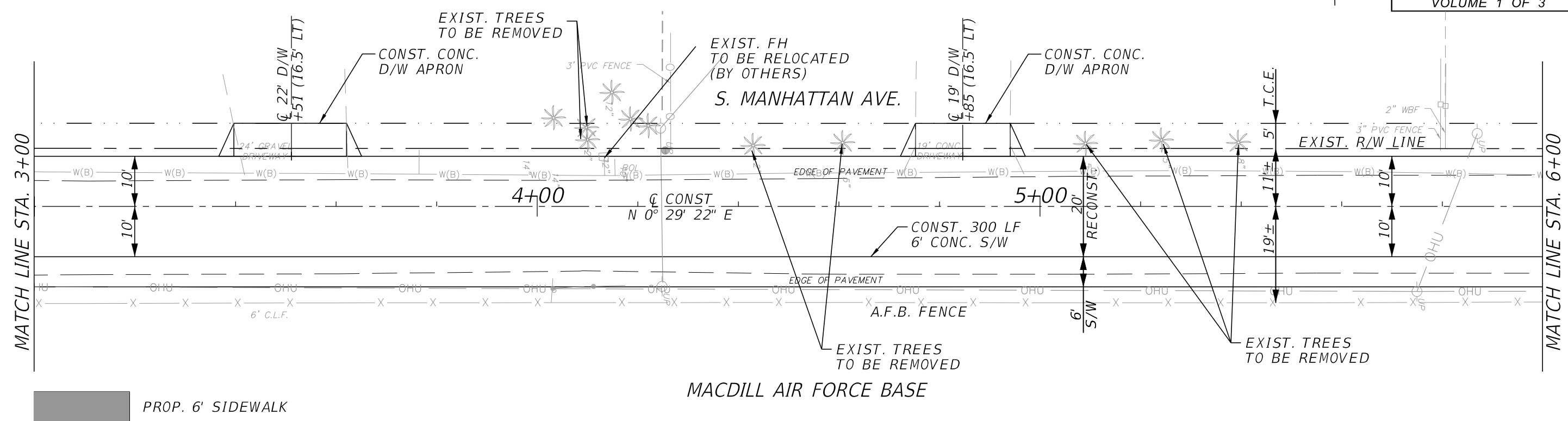
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (I)  
S. MAHHATTAN AVE.

SHEET  
16  
OF 42





SCALE:  
1"=20' HORZ.  
1"=5' VERT.

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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
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CERTIFICATE OF AUTHORIZATION NO: 31398

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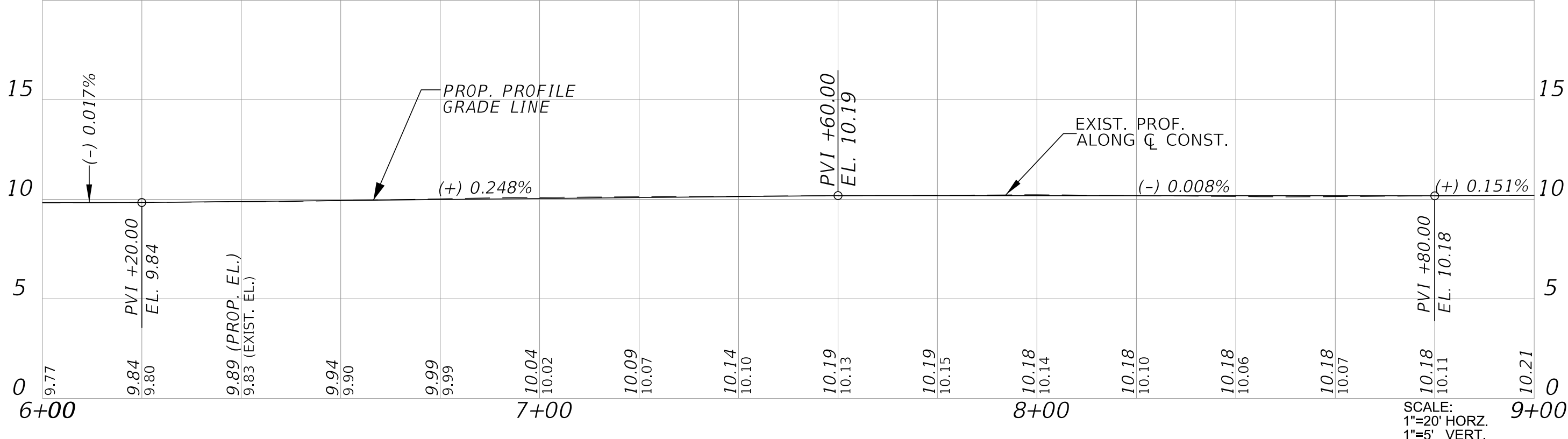
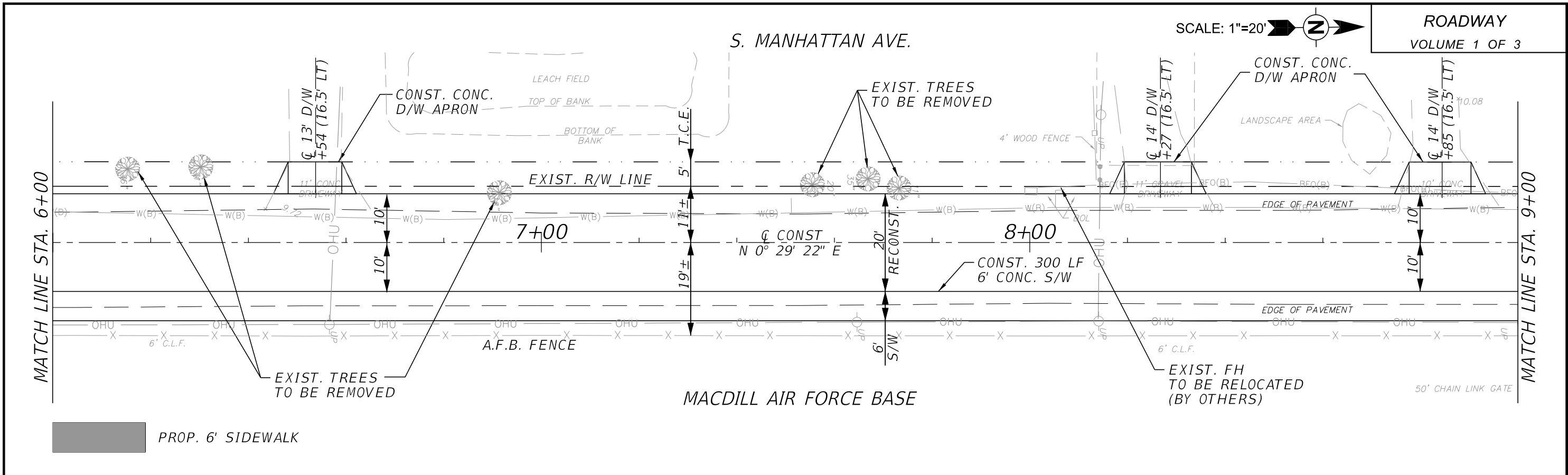
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (2)  
S. MAHHATTAN AVE.

SHEET  
17  
OF 42

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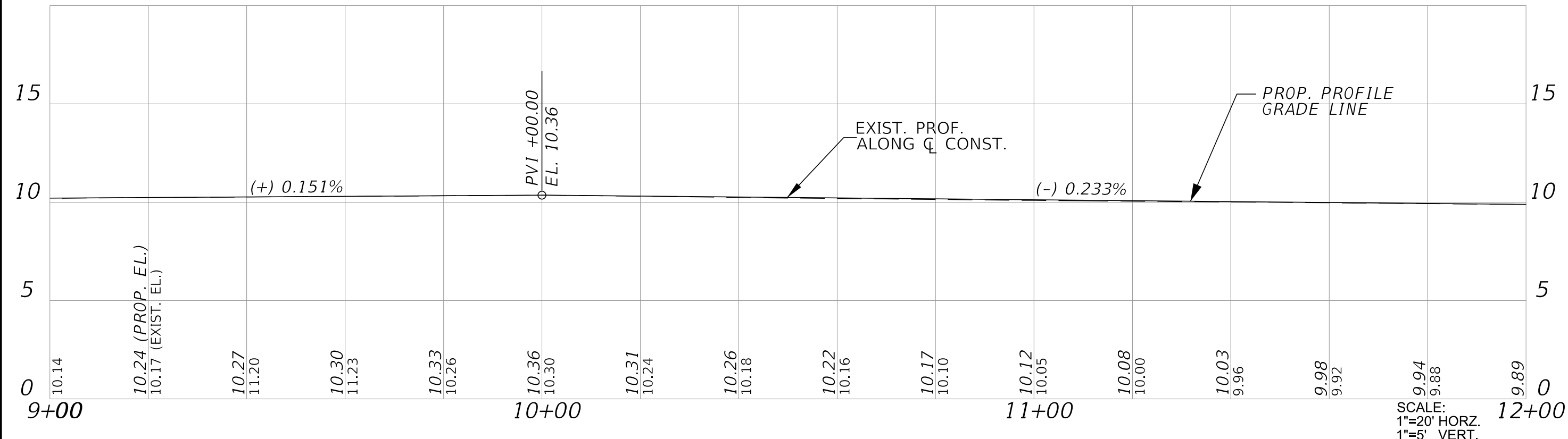
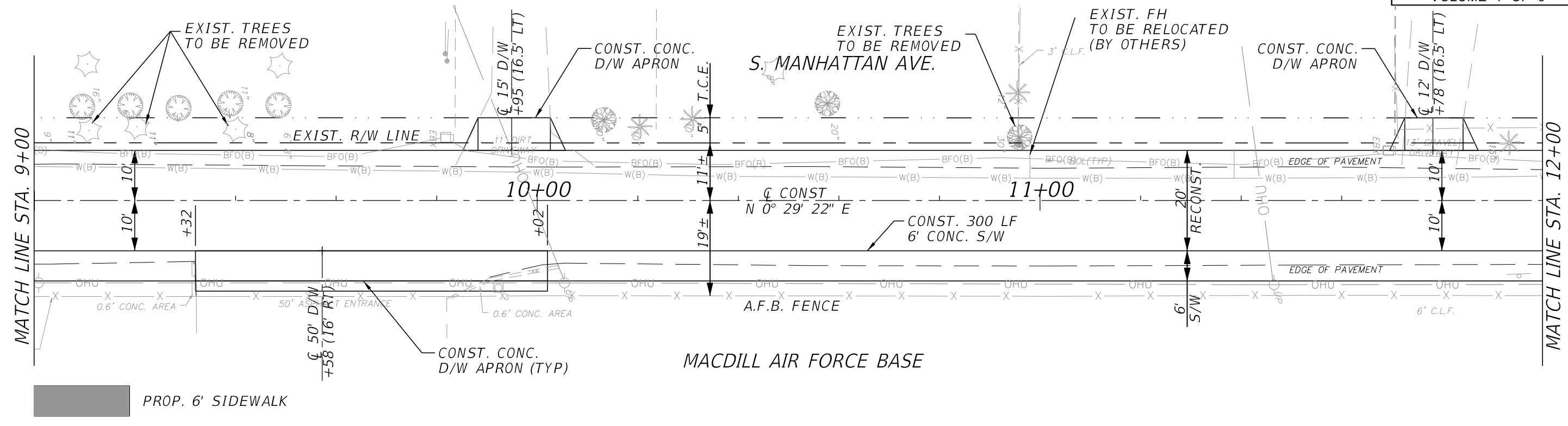
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DATE: 6/22/21

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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (3)  
S. MAHHATTAN AVE.

SHEET  
18  
OF 42



FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\19\_PLANRD04.dwg  
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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
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ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (4)  
S. MAHHATTAN AVE.

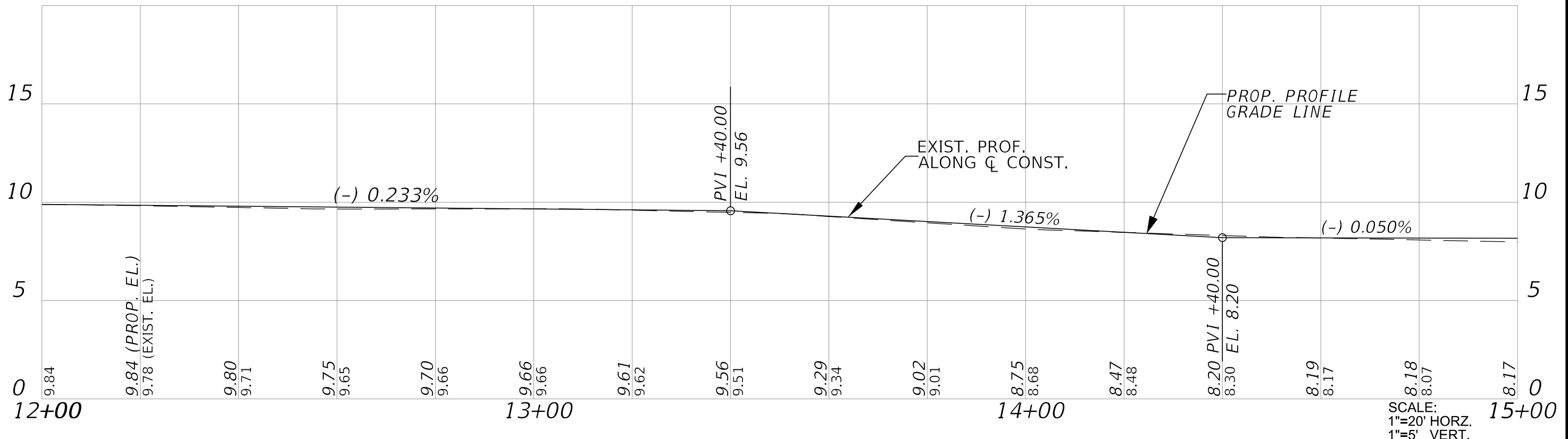
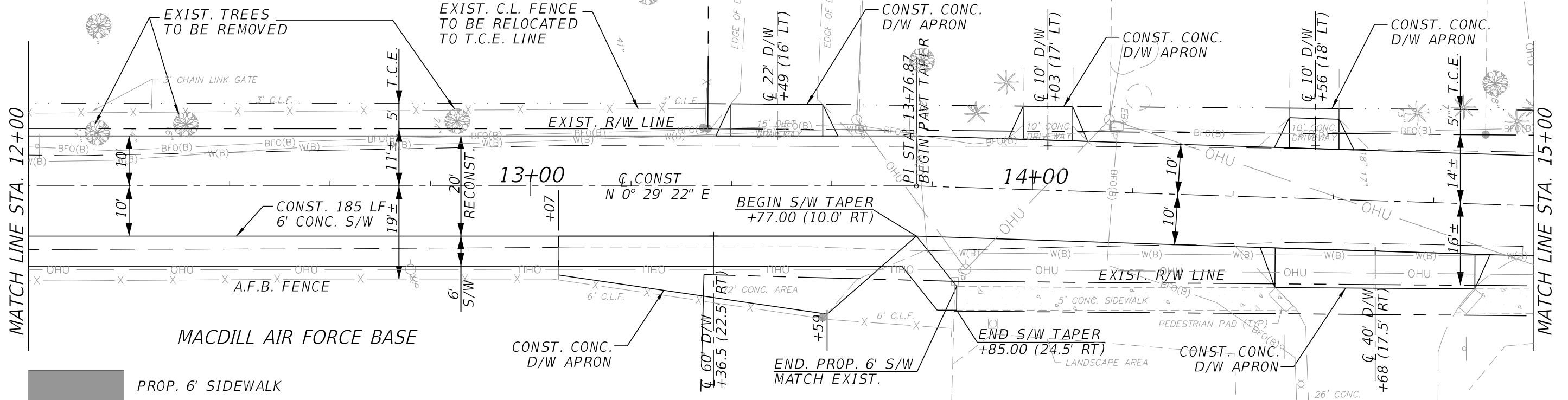
SHEET  
19  
OF 42

S. MANHATTAN AVE.

SCALE: 1"=20'



ROADWAY  
VOLUME 1 OF 3



SCALE:  
1"=20' HORZ.  
1"=5' VERT.

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DATE: 6/27/2021 PLOT TIME: 2:39:34 AM



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BALA CONSULTING SERVICES, LLC  
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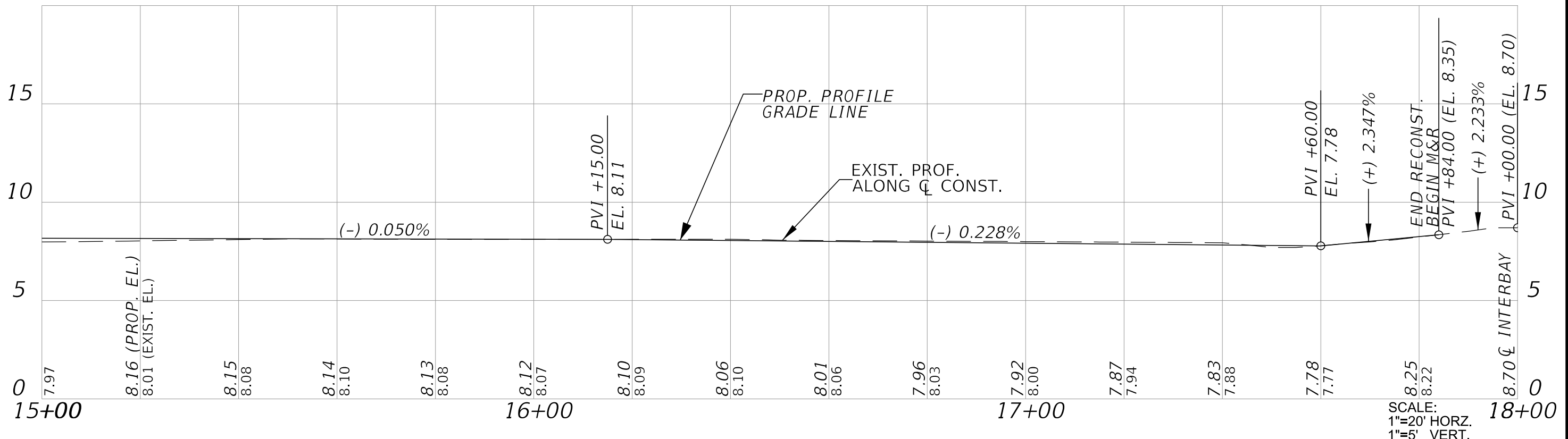
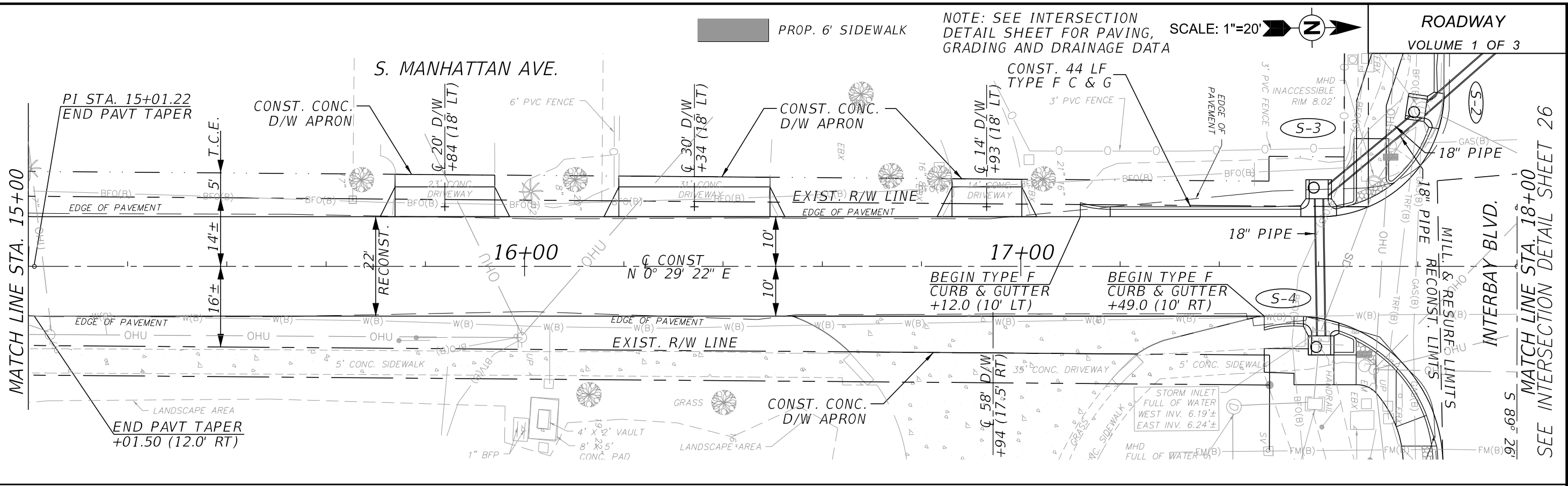
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S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (5)  
S. MAHHATTAN AVE.

SHEET  
20  
OF 42

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 BALA CONSULTING SERVICES, LLC  
 18527 BITTERN AVE., LUTZ, FL 33558  
 T: (813) 962-4697 E: balapadman@balacs.net  
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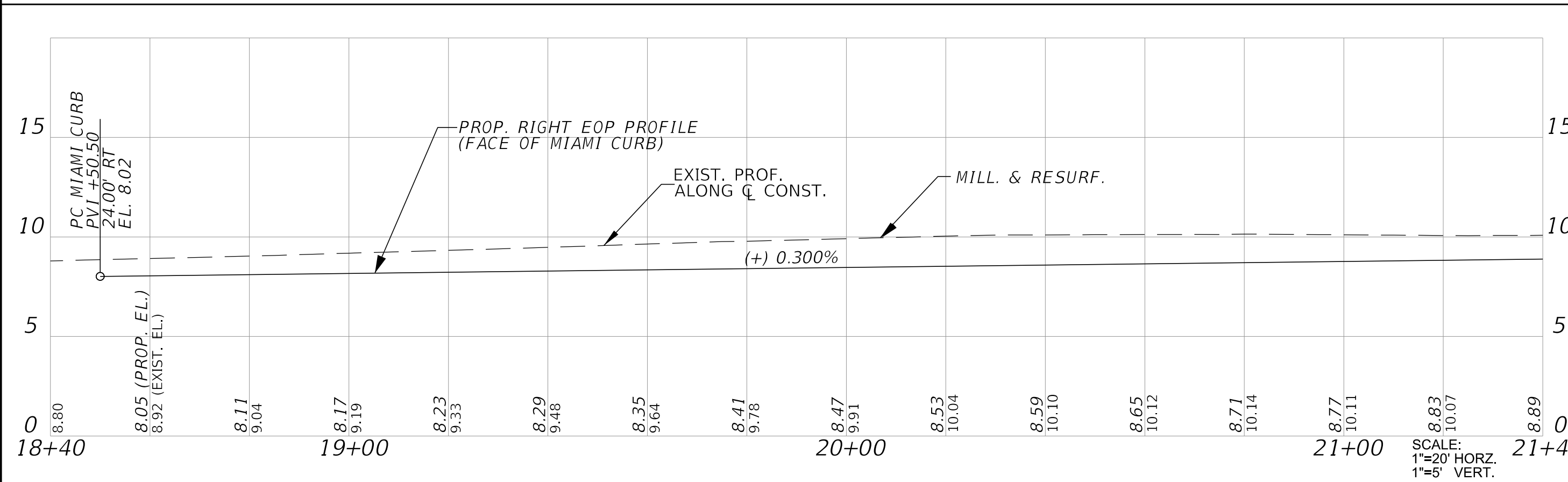
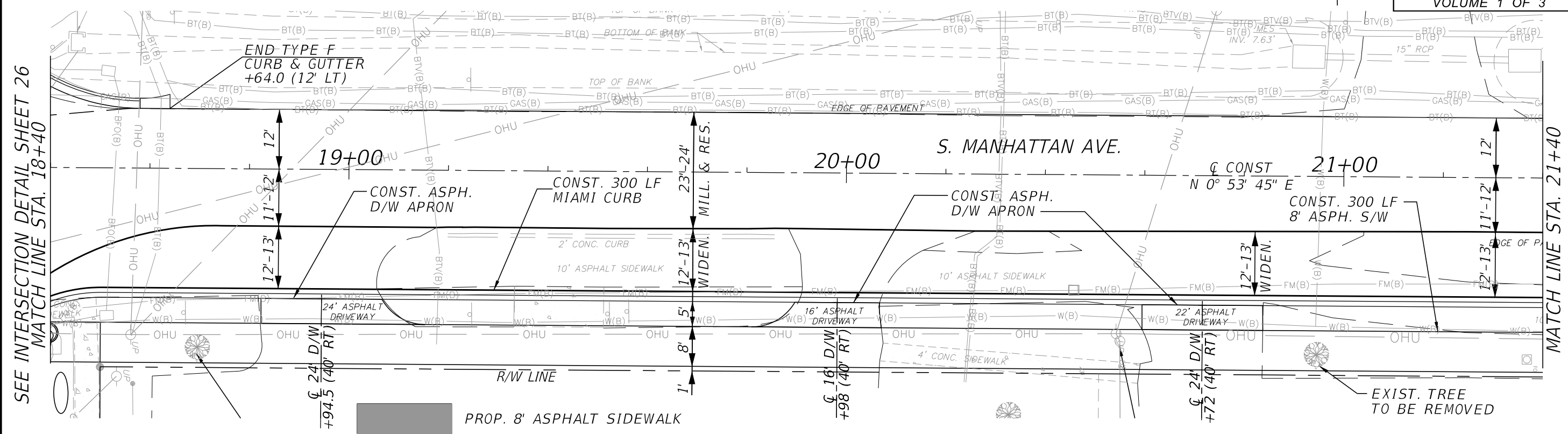
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 CKD: BP  
 DATE: 6/22/21

CITY of TAMPA  
 MOBILITY DEPARTMENT  
 C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
 ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
 PLAN - PROFILE (6)  
 S. MAHHTAN AVE.

SHEET  
**21**  
 OF 42

SCALE:  
 1"=20' HORZ.  
 1"=5' VERT.



FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\22\_PLANRD07.dwg  
DATE: 6/27/2021 PLOT TIME: 3:15:58 AM



APPROVED BY:  
BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

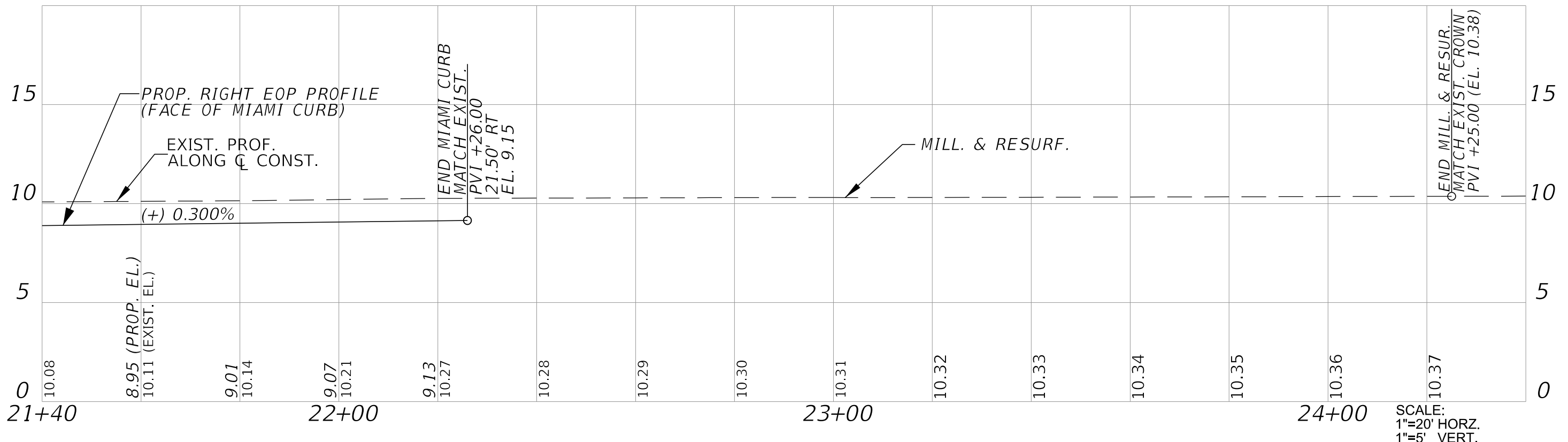
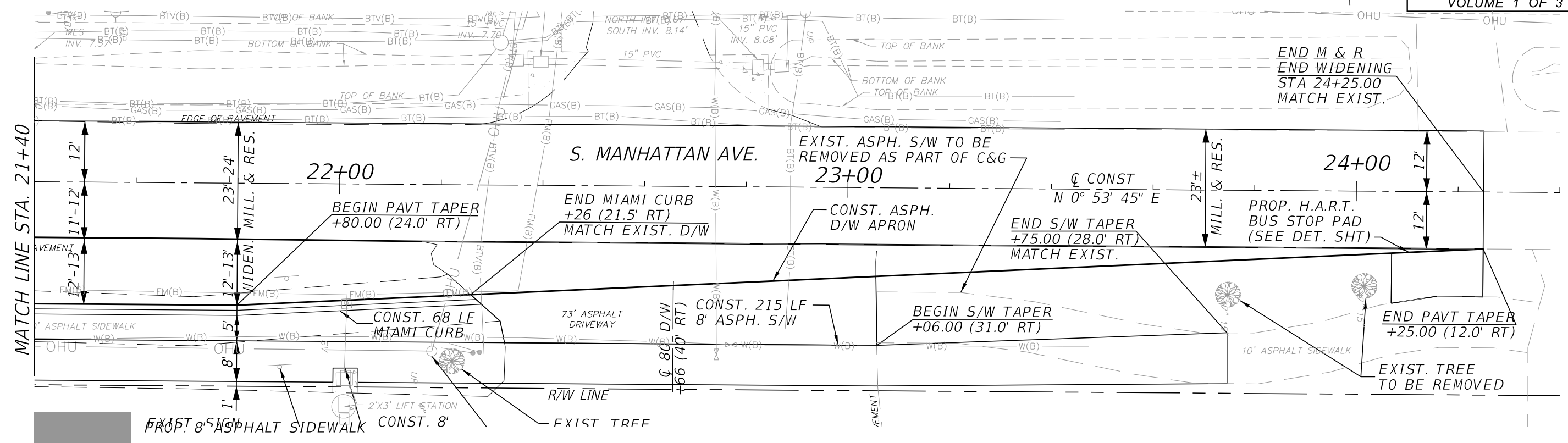
No.	DATE	REVISIONS
3		
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (7)  
S. MAHHATTAN AVE.

SHEET  
22  
OF 42



FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\23\_PLANRD08.dwg  
DATE: 6/27/2021 PLOT TIME: 2:40:13 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

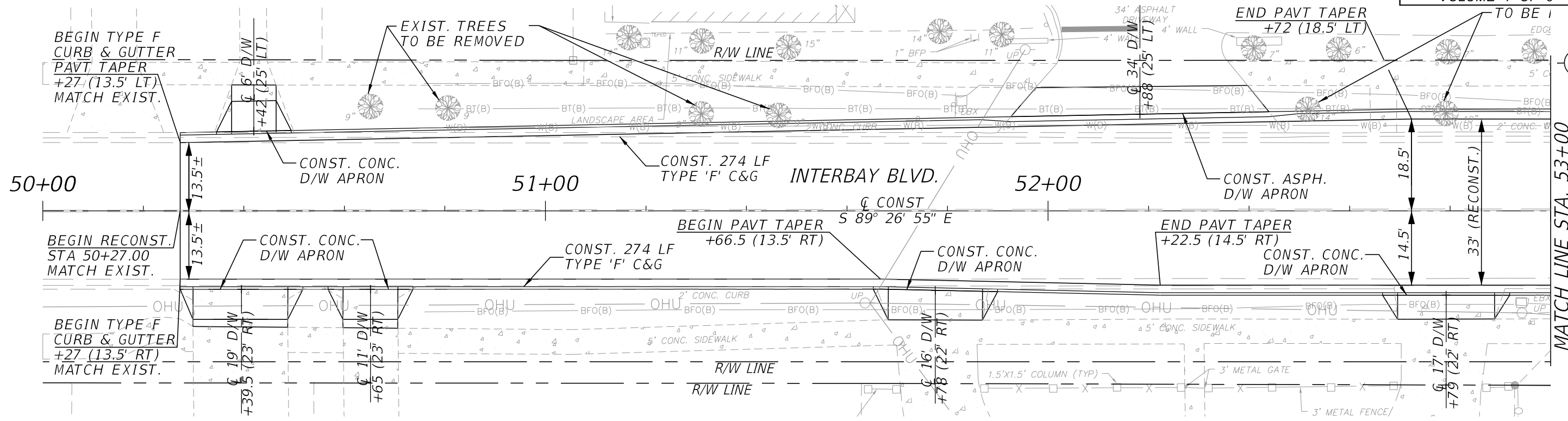
No.	DATE	REVISIONS
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DES: RL  
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CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

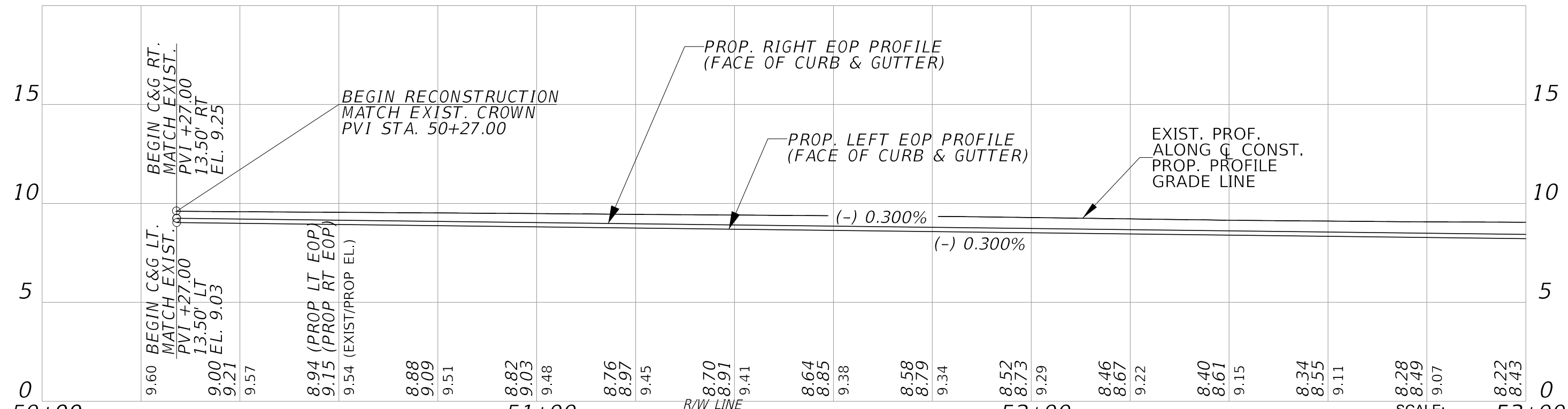
S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (8)  
S. MAHATTAN AVE.

SHEET  
23  
OF 42



MATCH LINE STA. 53+00

SCALE: 1"=20'



SCALE: 1"=20' HORZ. 1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\24\_PLANRD09.dwg DATE: 6/27/2021 PLOT TIME: 2:40:28 AM



APPROVED BY: BALA PADMANABHAN, P.E. #37332 BALA CONSULTING SERVICES, LLC 18527 BITTERN AVE., LUTZ, FL 33558 T: (813) 962-4697 E: balapadman@balacs.net CERTIFICATE OF AUTHORIZATION NO: 31398

No.	DATE	REVISIONS
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DRN: RL  
CKD: BP  
DATE: 6/22/21

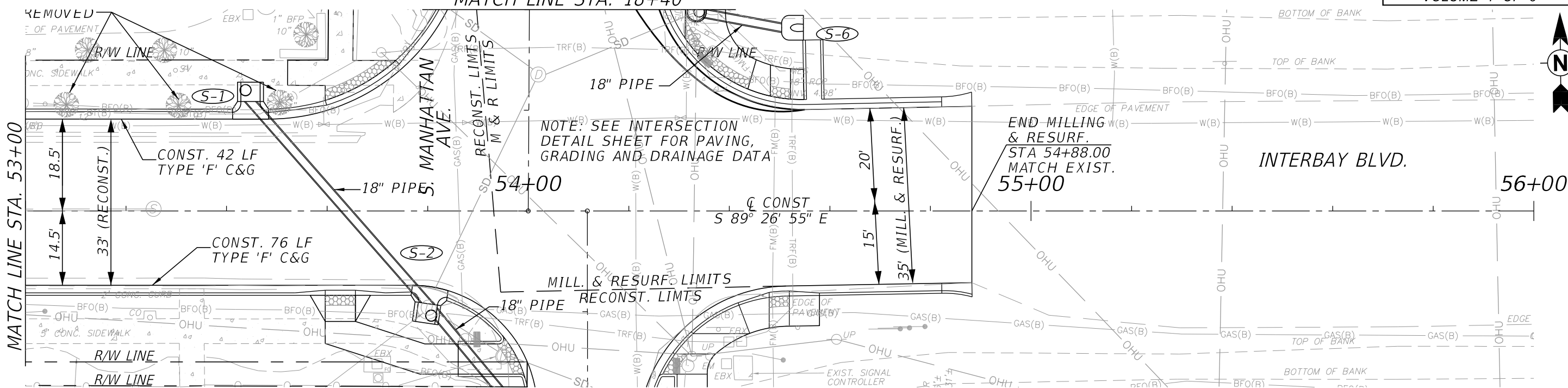
CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (9)  
INTERBAY BLVD.

SHEET 24 OF 42

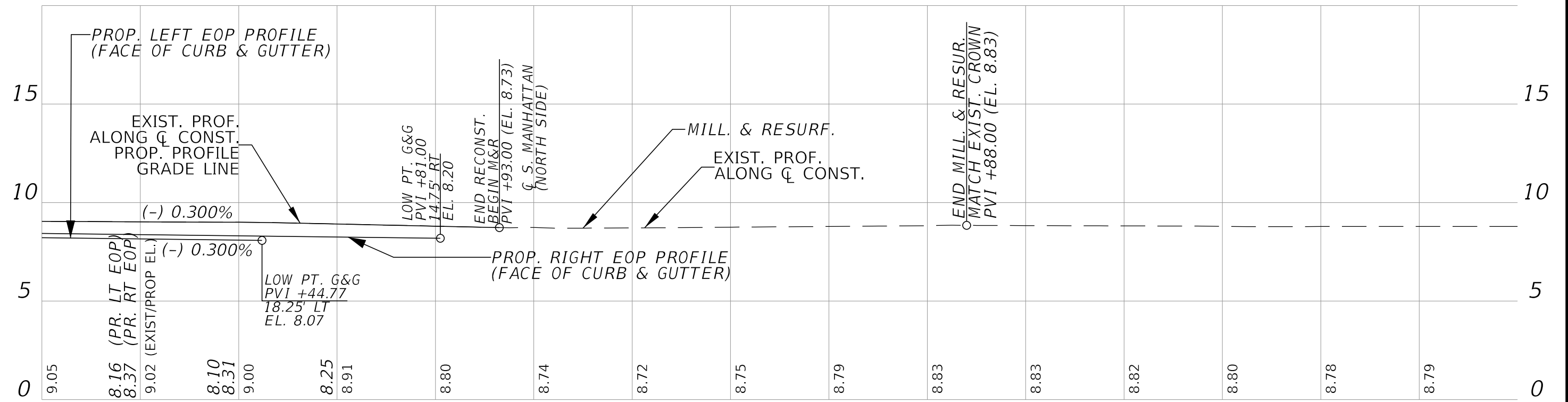


SEE SHEET 21  
MATCH LINE STA. 18+40



DETECTABLE WARNING (RED)

SCALE: 1"=20'



SCALE:  
1"=20' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\25\_PLANRD10.dwg  
DATE: 6/27/2021 PLOT TIME: 2:40:47 AM



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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

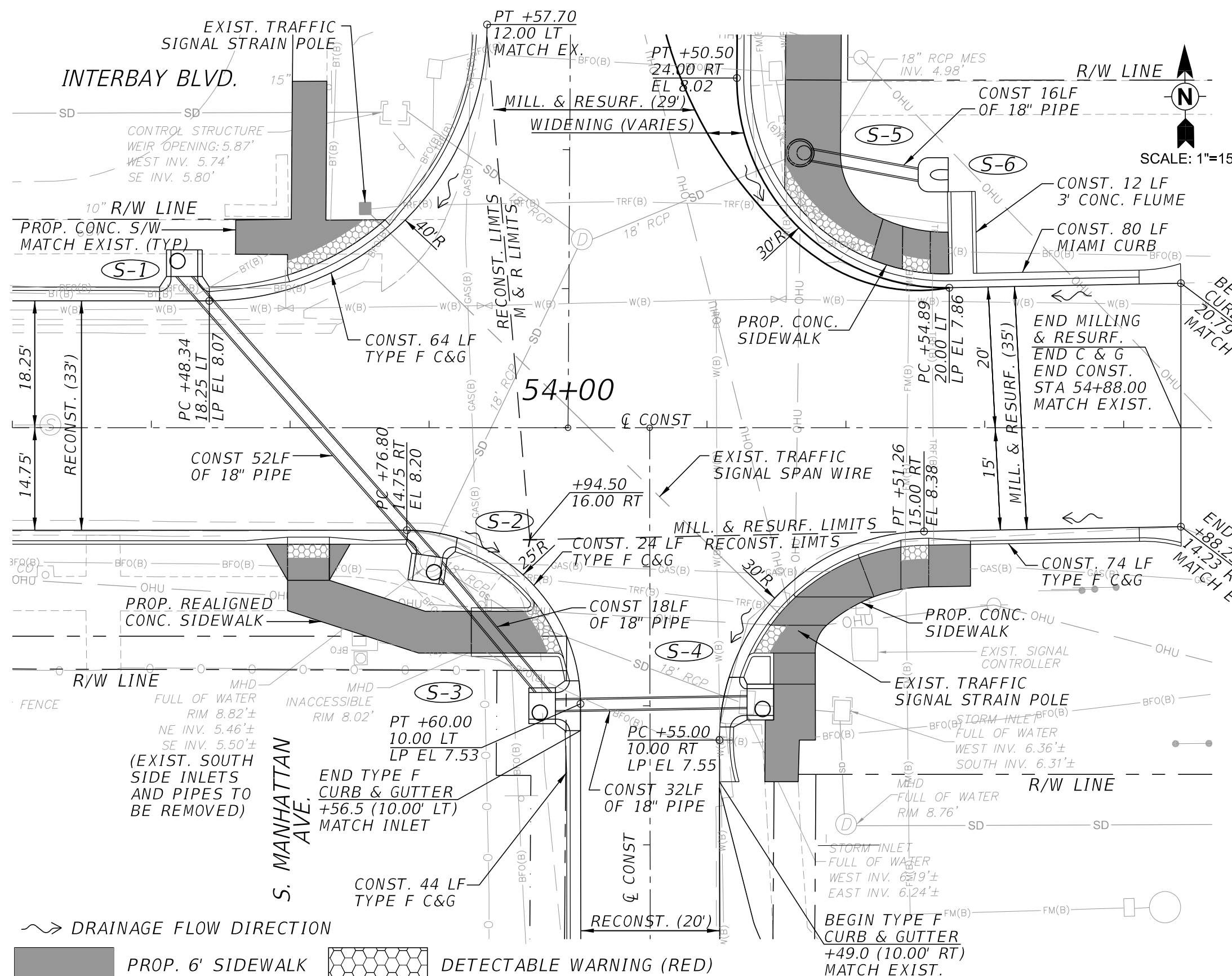
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
PLAN - PROFILE (10)  
INTERBAY BLVD.

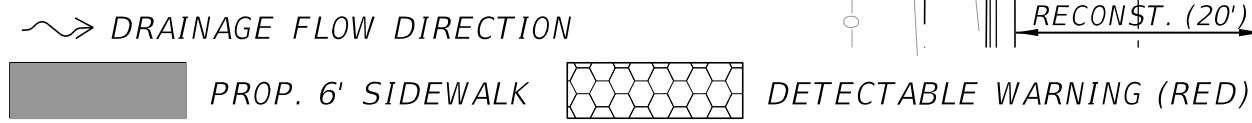
SHEET  
25  
OF 42



**DRAINAGE STRUCTURES**

- S-1** TYPE 1 INLET (MOD.)  
STA. 53+44.77 (23.66 LT)  
EOP EL. 8.07  
TOP EL. 8.45  
SE INV. EL. 5.56
- S-2** REMOVE EXIST. INLET  
TYPE 1 INLET (MOD.)  
STA. 53+79.77 (20.50 RT)  
EOP EL. 8.20  
TOP EL. 8.58  
NW & NE INV. EL. 5.46  
SE INV. EL. 5.50
- S-3** TYPE 1 INLET (MOD.)  
STA. 17+60.50 (15.50 LT)  
EOP EL. 7.52  
TOP EL. 7.90  
NW INV. EL. 5.60  
E INV. EL. 5.70
- S-4** REMOVE EXIST. INLET  
TYPE 1 INLET (MOD.)  
STA. 17+60.50 (15.50 RT)  
EOP EL. 7.54  
TOP EL. 7.92  
W INV. EL. 5.80  
E INV. EL. 6.24
- S-5** REMOVE EXIST. 18" MES  
MANHOLE TYPE P-7  
STA. 18+39.74 (33.18 RT)  
TOP EL. 8.10  
W INV. EL. 5.50  
E INV. EL. 5.50
- S-6** 18" M.E.S.  
STA. 18+36.70 (51.95 RT)  
INV. EL. 5.40

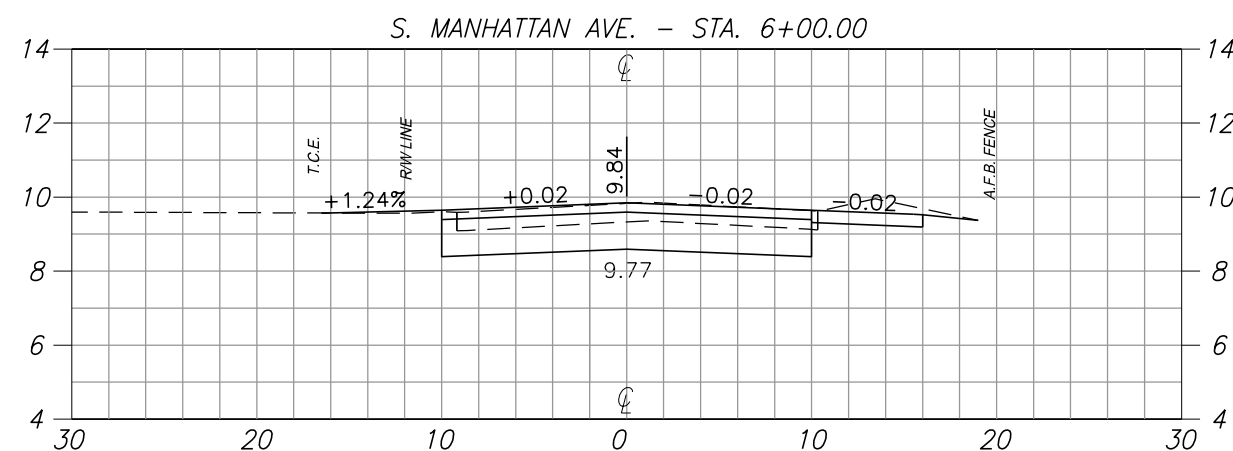
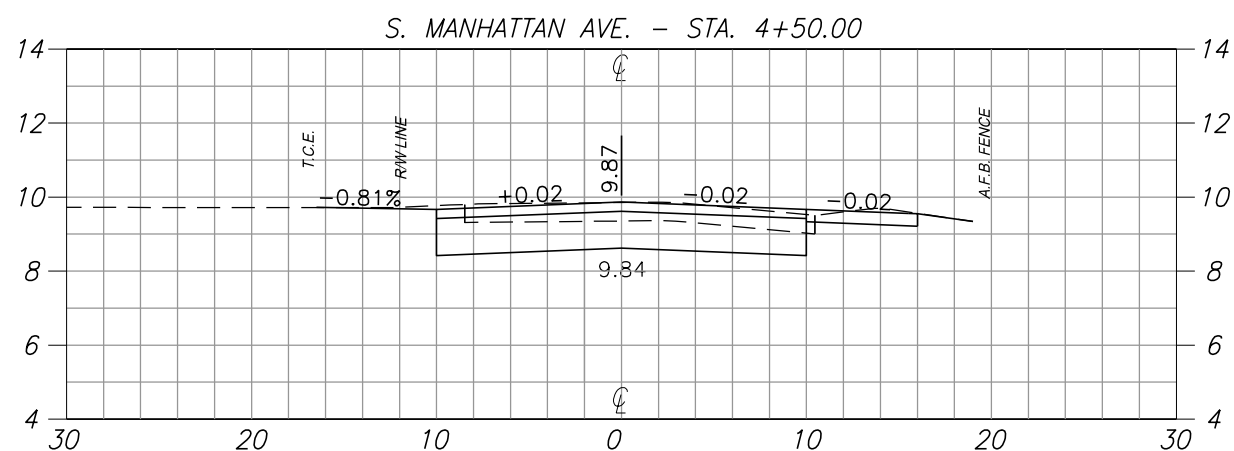
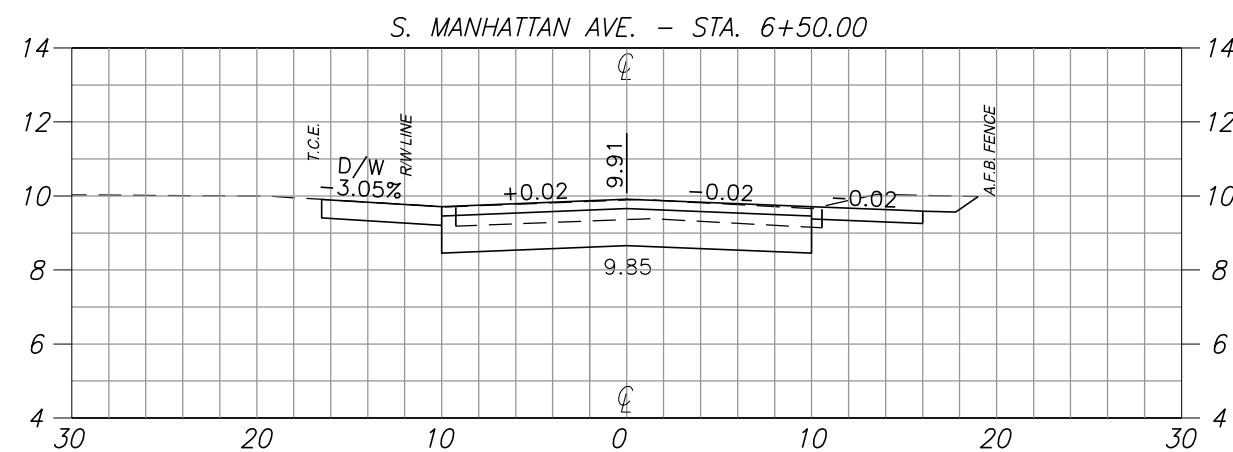
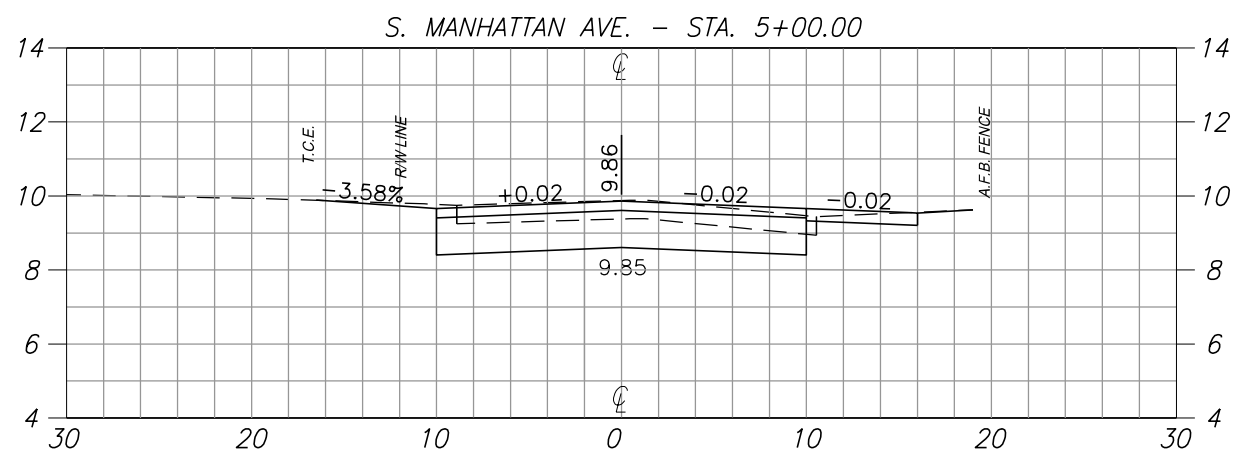
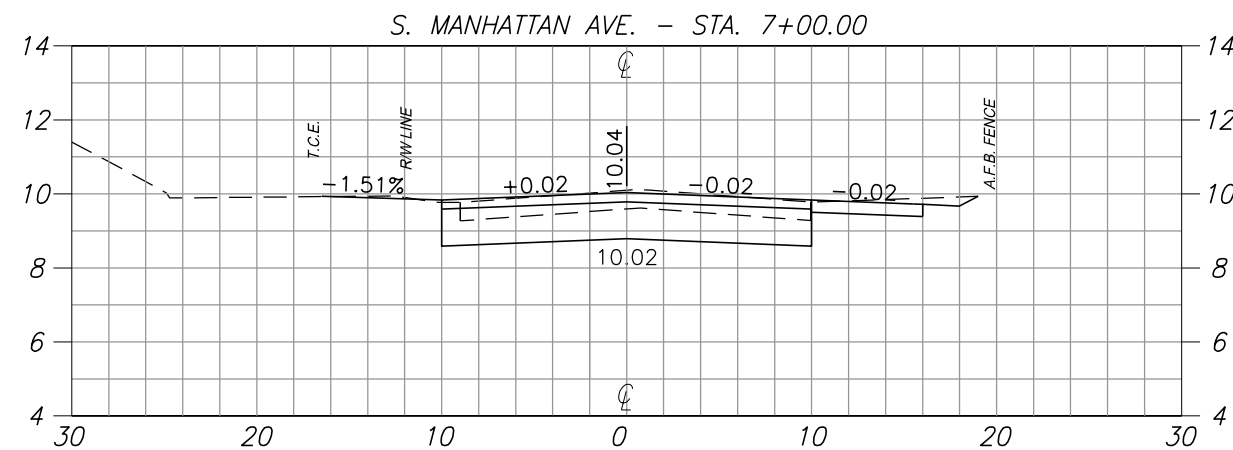
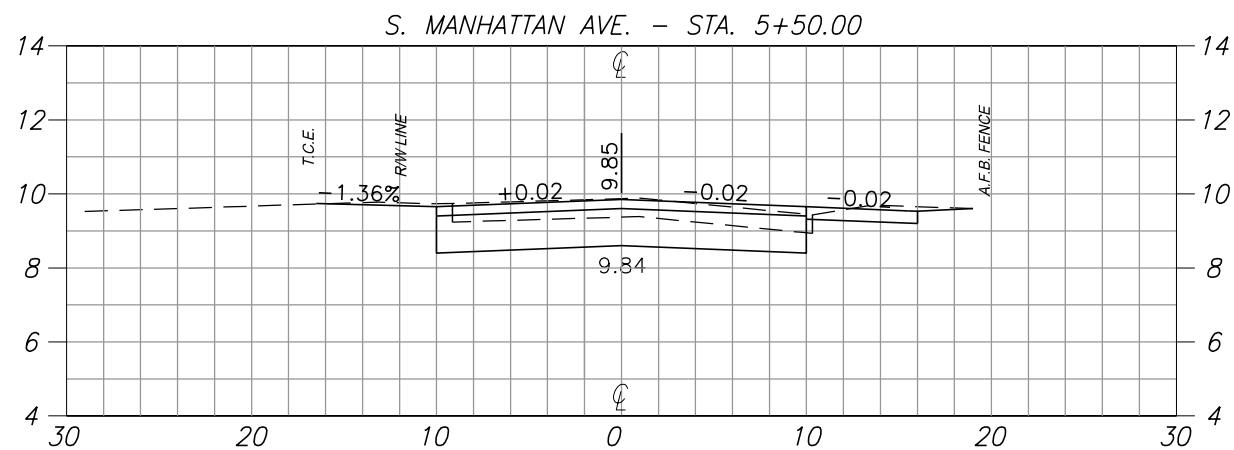
NOTE:  
REMOVE EXIST. STORM PIPE  
BETWEEN PROP. INLETS  
S-2, S-3 AND S-4.



FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Roadway\26\_INTDR001.dwg  
DATE: 6/27/2021 PLOT TIME: 2:41:08 AM

	APPROVED BY:	No.	DATE	REVISIONS	DES: RL	<b>CITY of TAMPA</b> <b>MOBILITY DEPARTMENT</b> C.I.P. No. 1000980	S. MANHATTAN AVE. and INTERBAY BLVD. ROADWAY and INTERSECTION IMPROVEMENT PROJECT INTERSECTION DETAIL SHEET	SHEET <b>26</b> OF 42	
	BALA PADMANABHAN, P.E. #37332 BALA CONSULTING SERVICES, LLC 18527 BITTERN AVE., LUTZ, FL 33558 T: (813) 962-4697 E: balapadman@balacs.net CERTIFICATE OF AUTHORIZATION NO: 31398	DATE	3						DRN: RL
			2						CKD: BP
			1						DATE: 6/22/21





SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:07:28 AM



APPROVED BY:  
BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

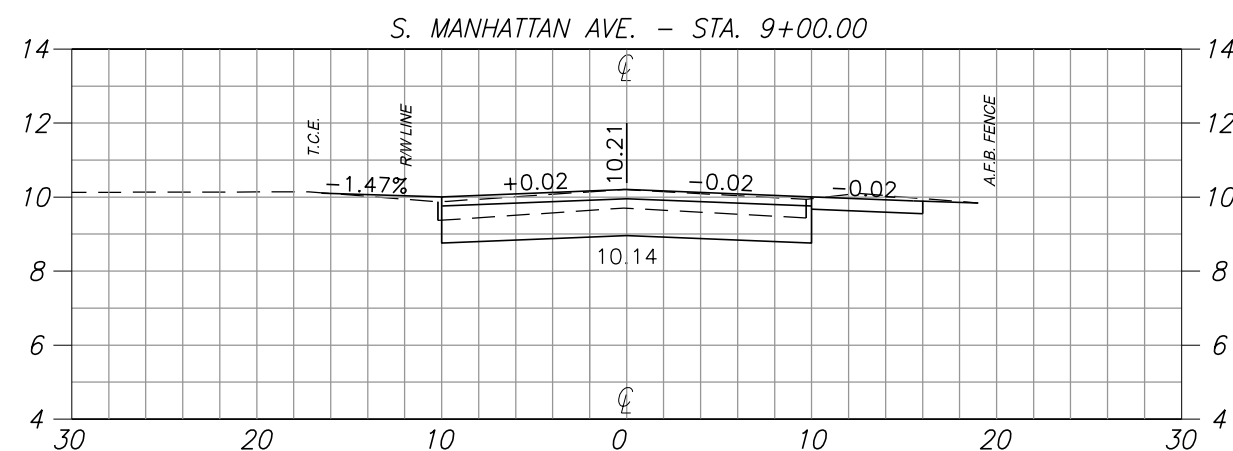
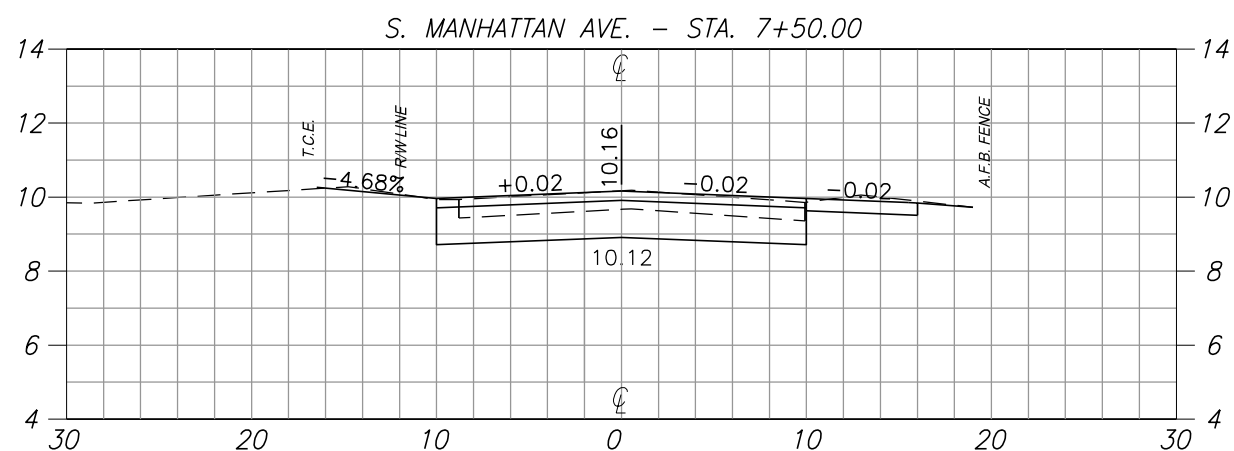
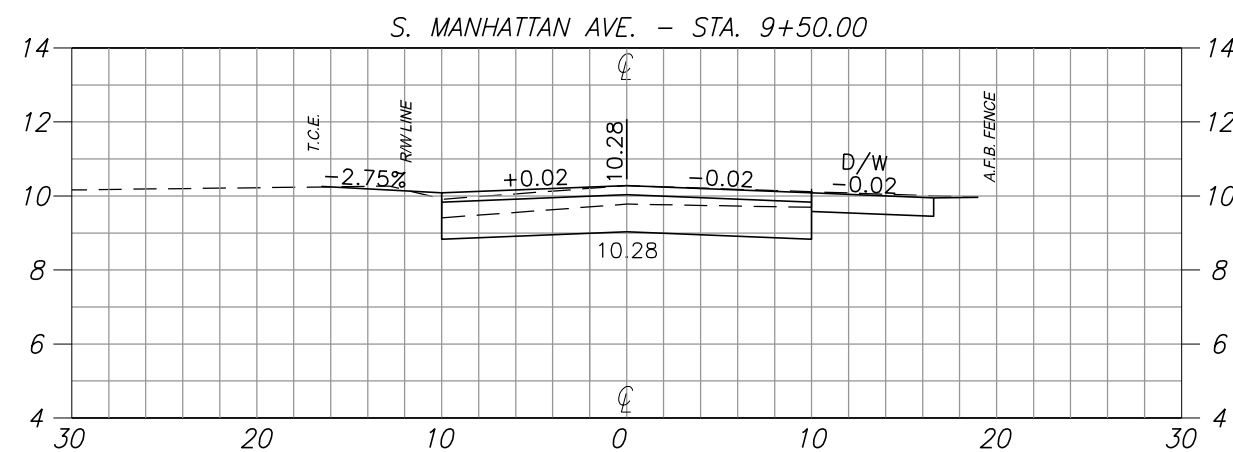
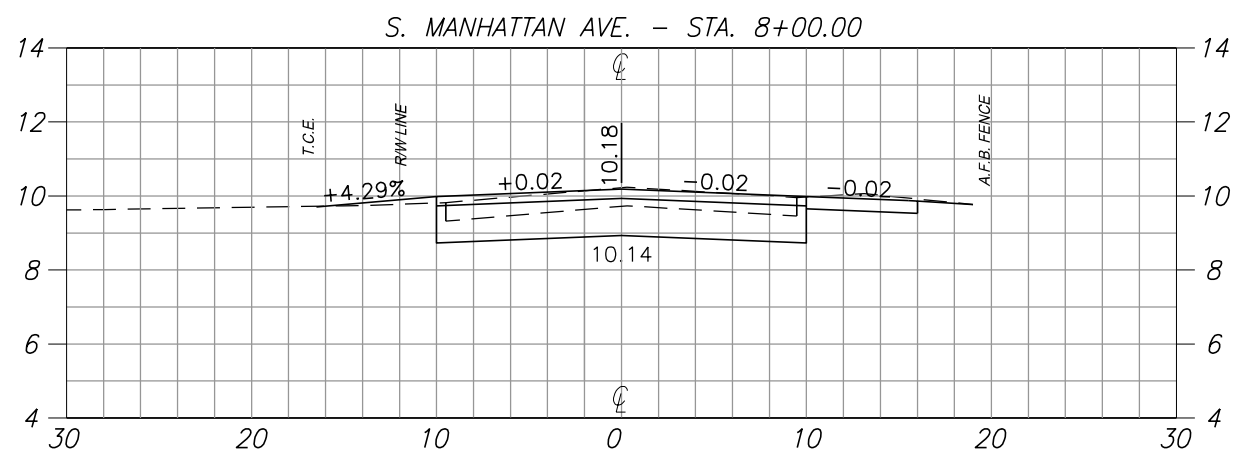
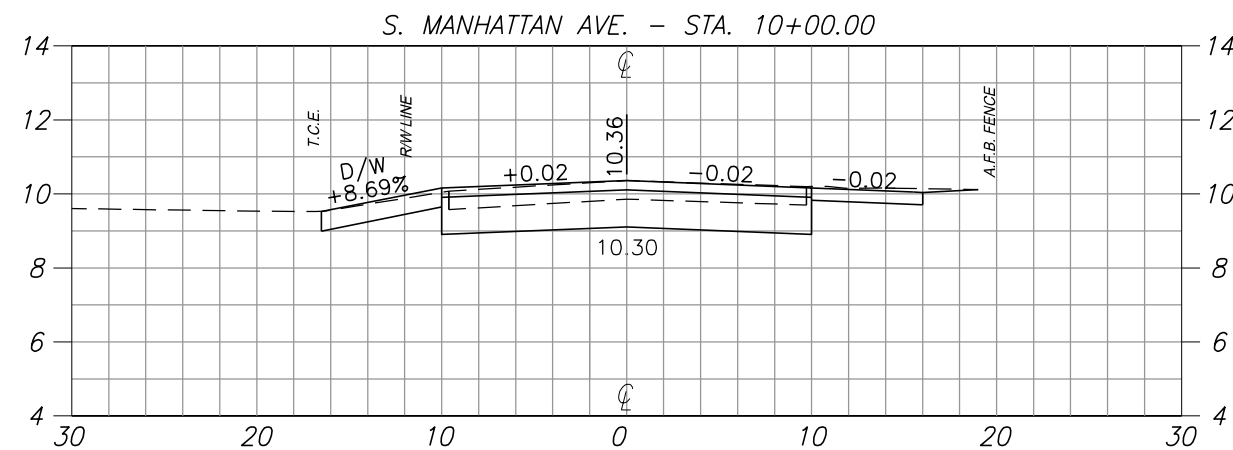
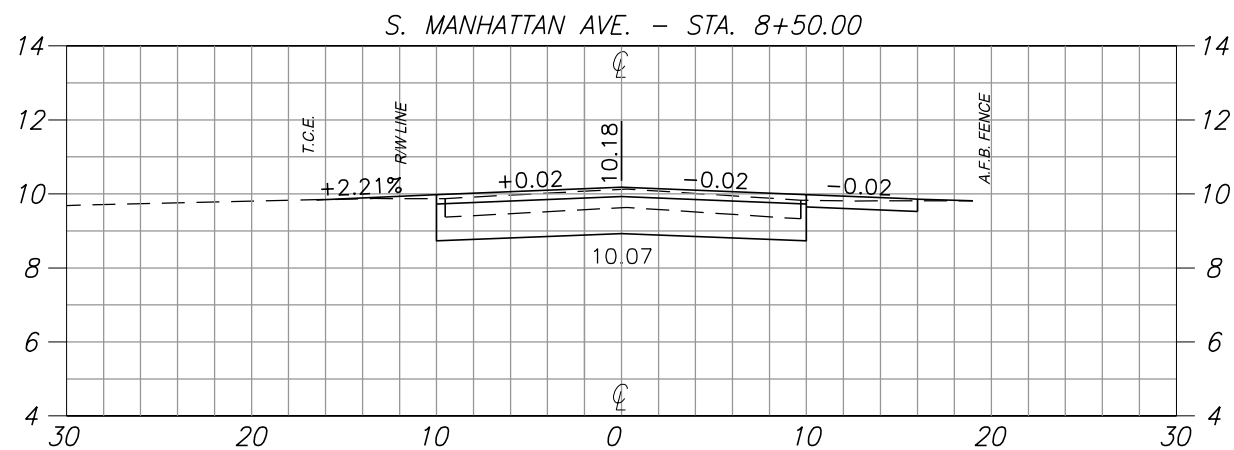
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (2)

SHEET  
28  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:07:38 AM



APPROVED BY:  
BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

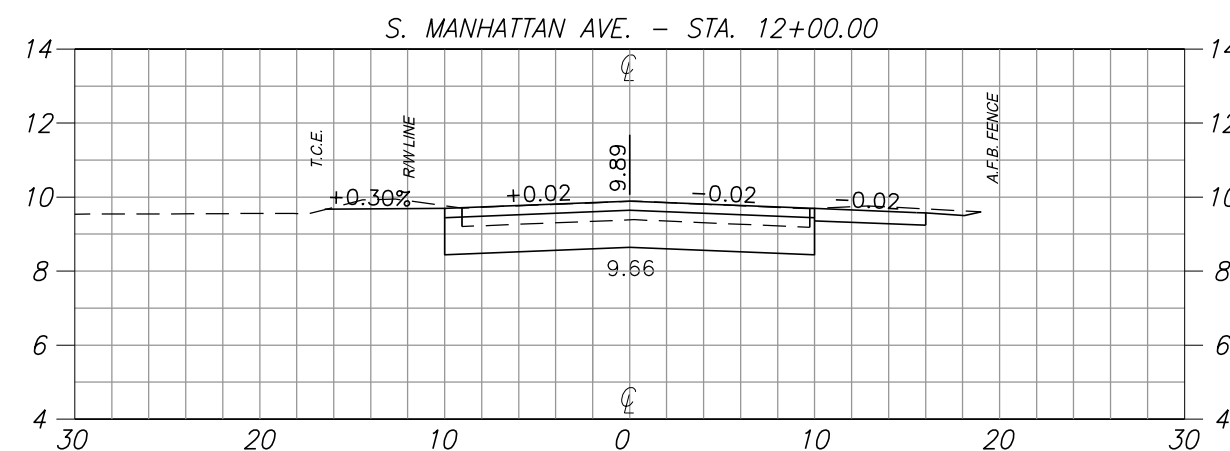
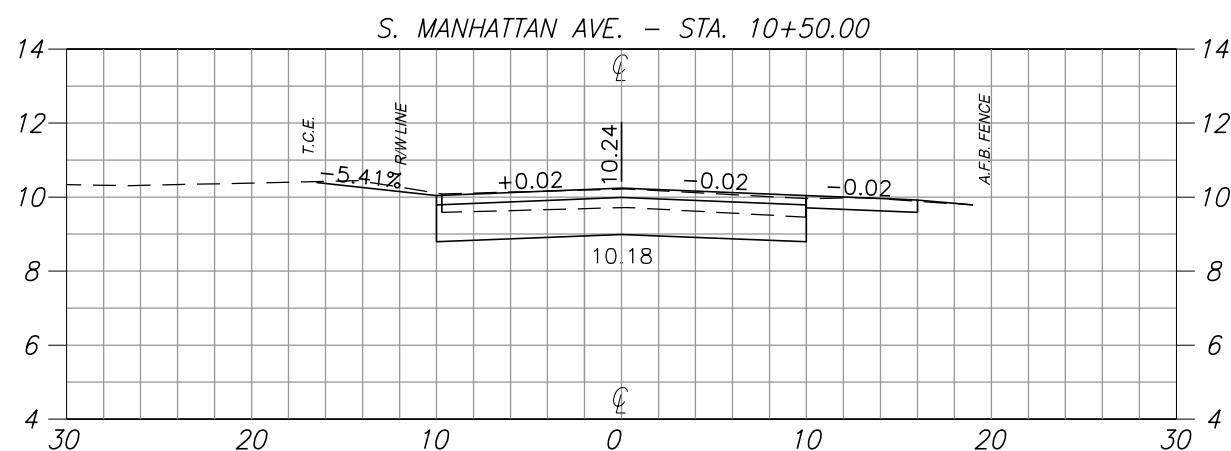
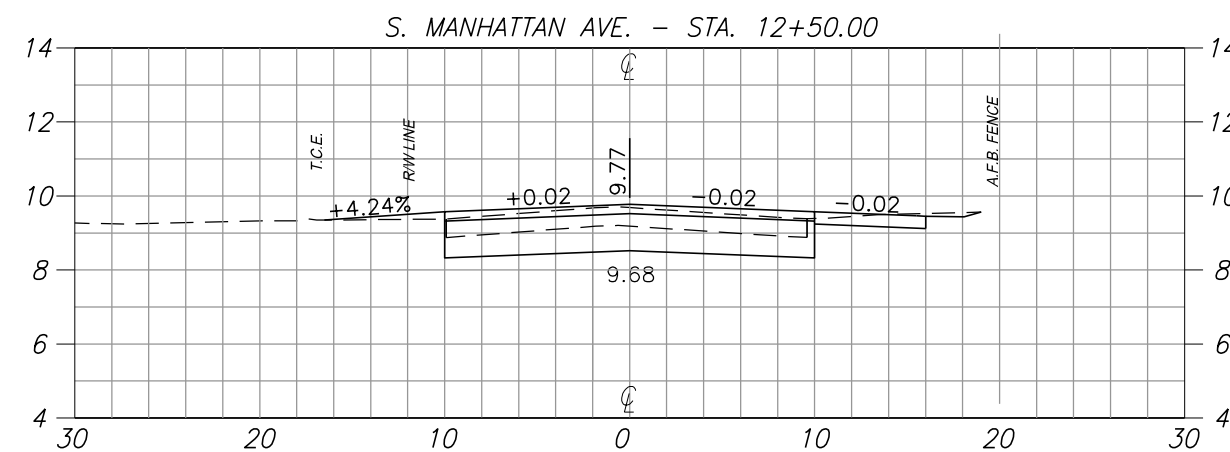
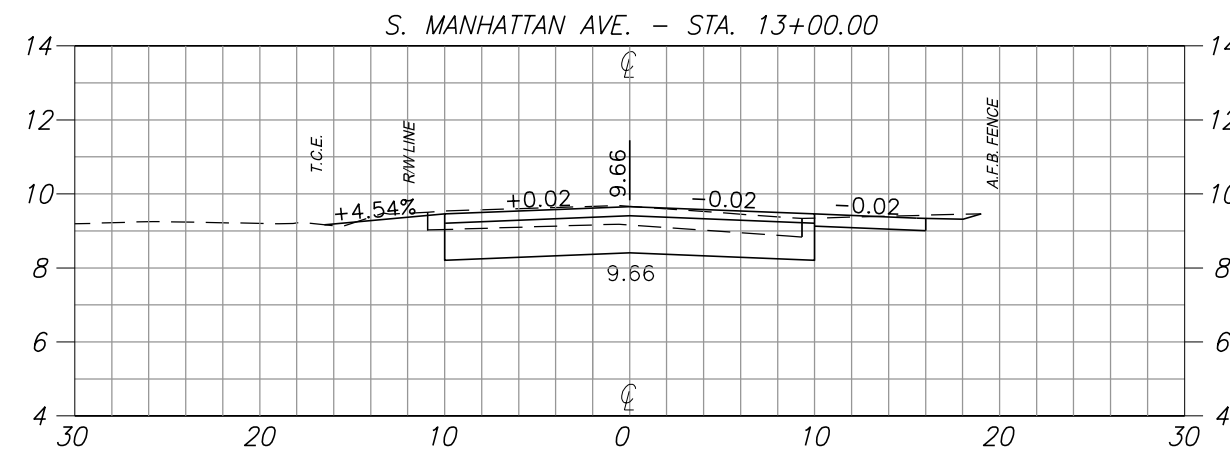
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (3)

SHEET  
29  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:07:50 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

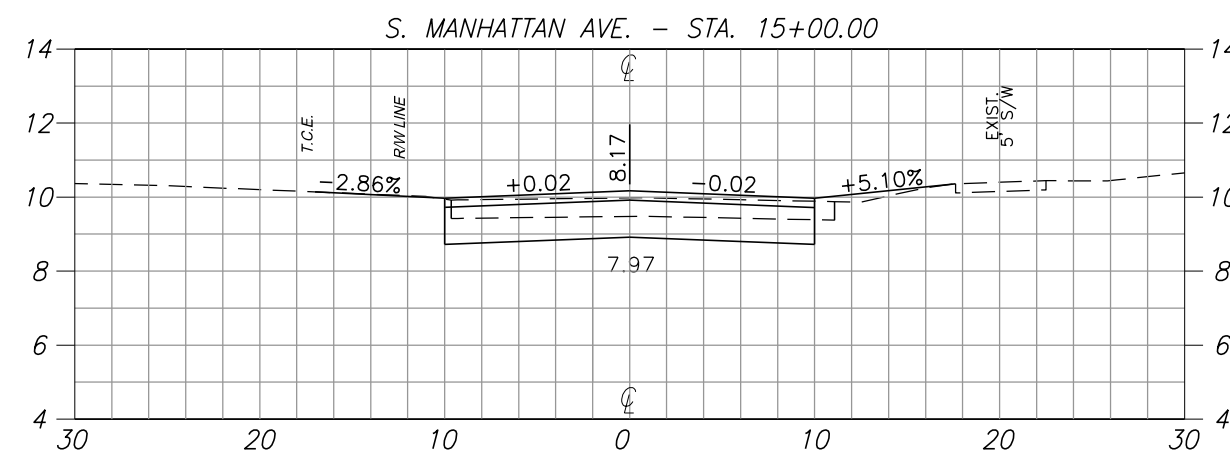
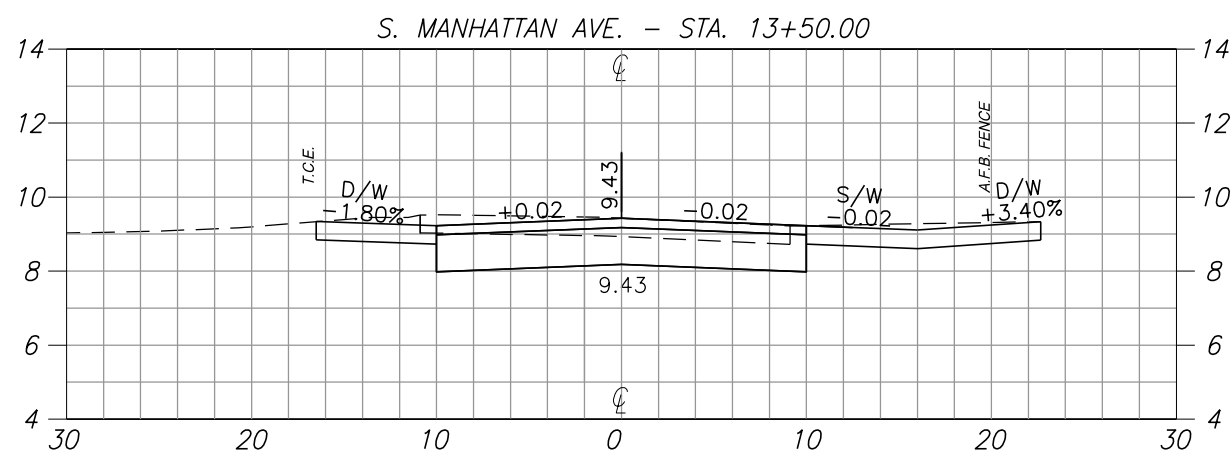
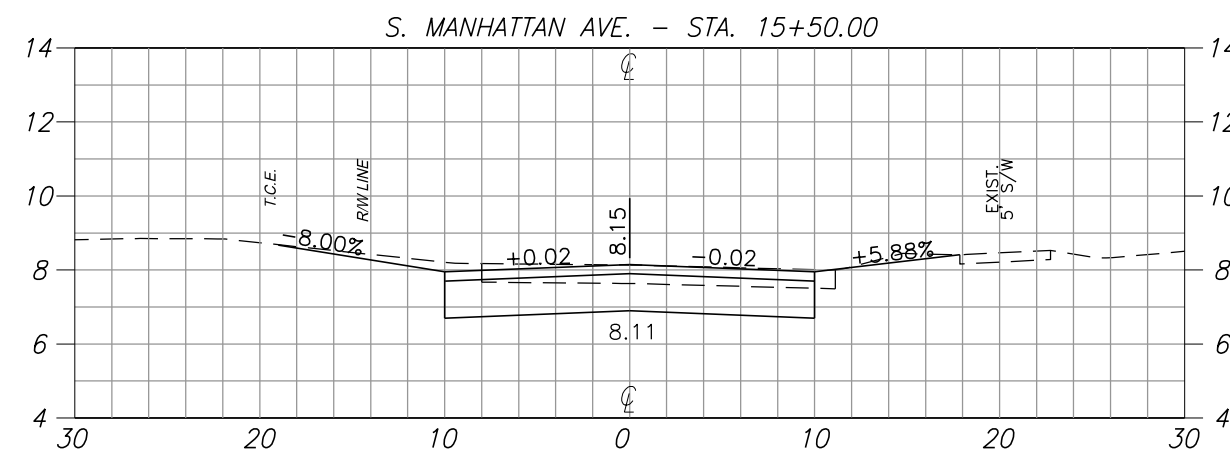
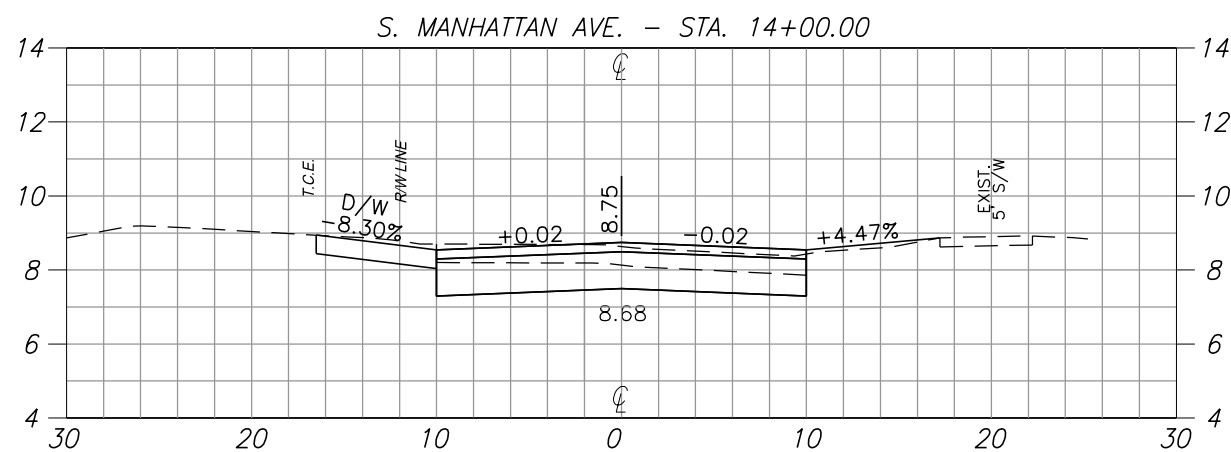
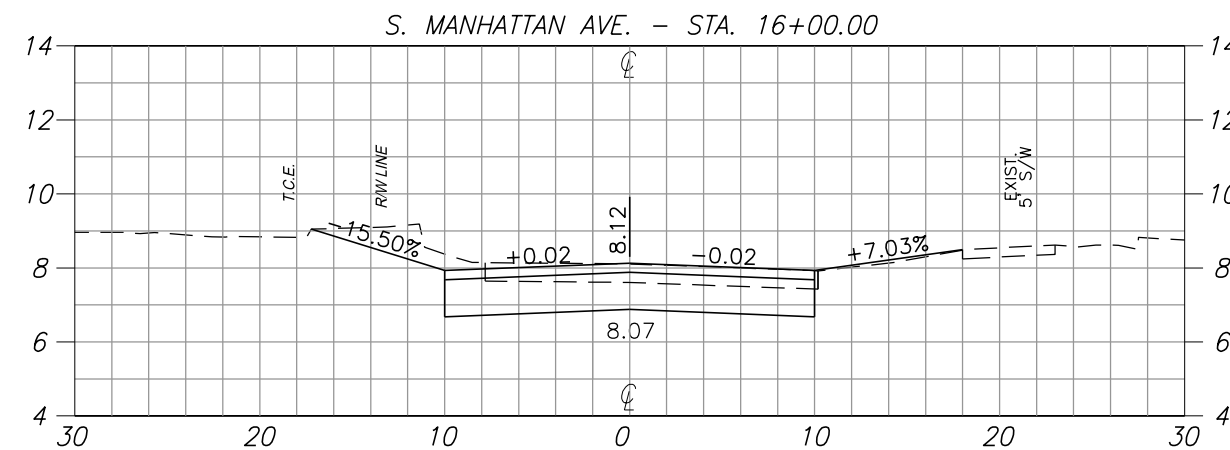
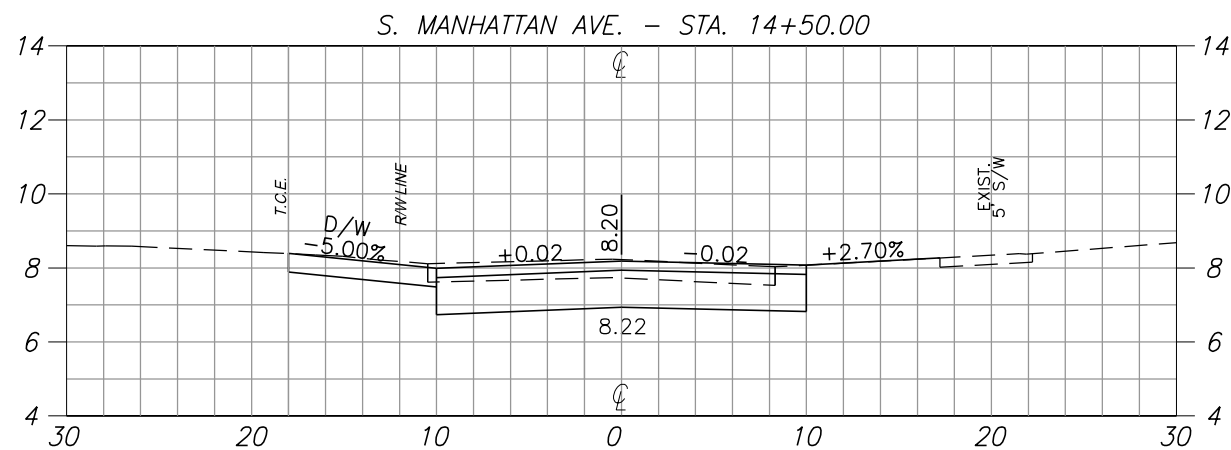
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (4)

SHEET  
30  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:01 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

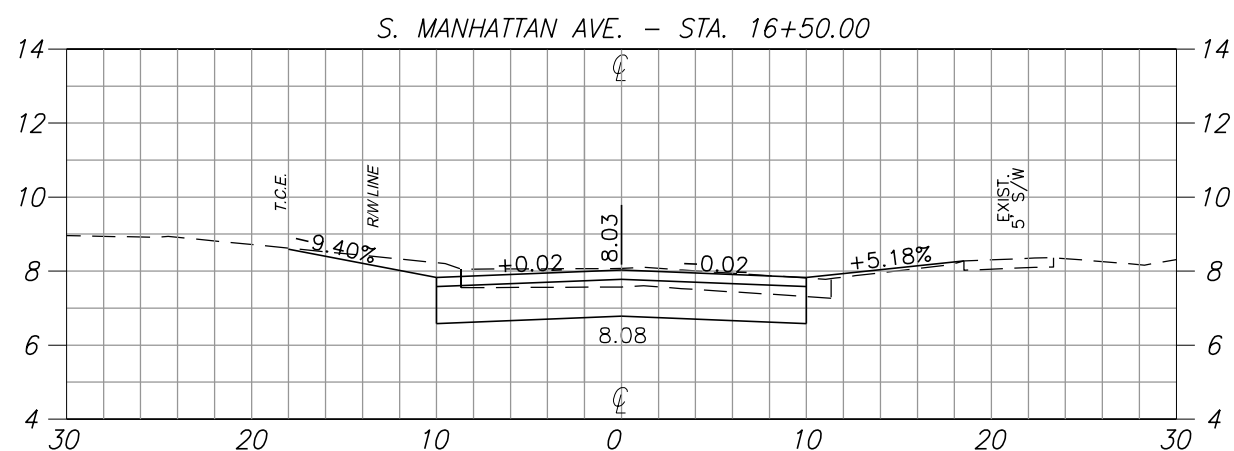
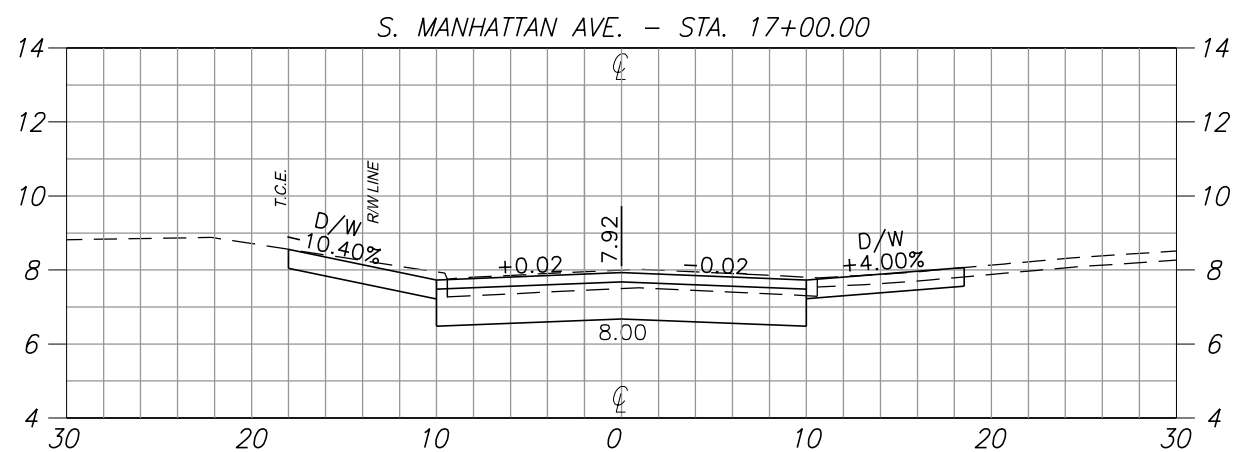
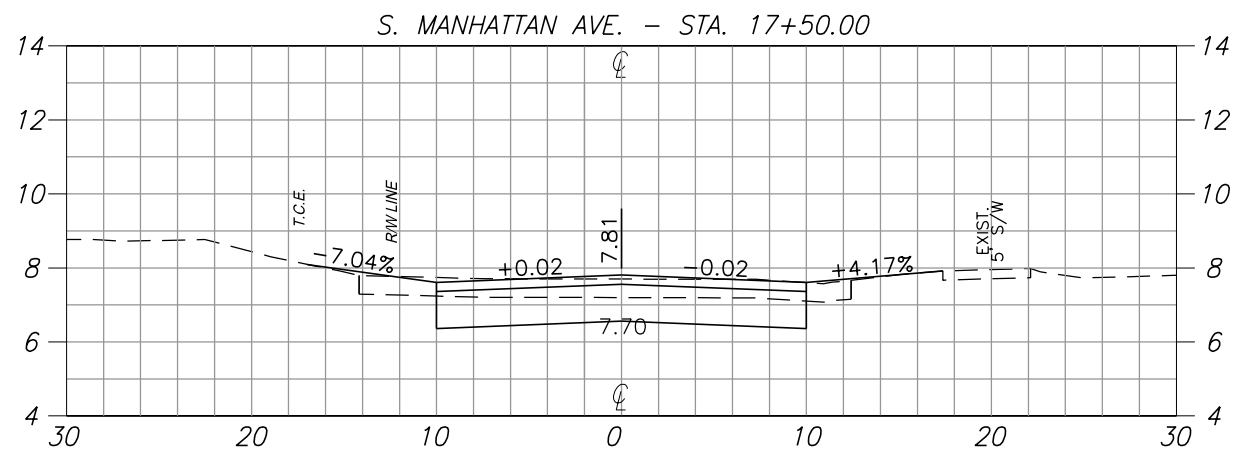
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DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (5)

SHEET  
31  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:13 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

No.	DATE	REVISIONS
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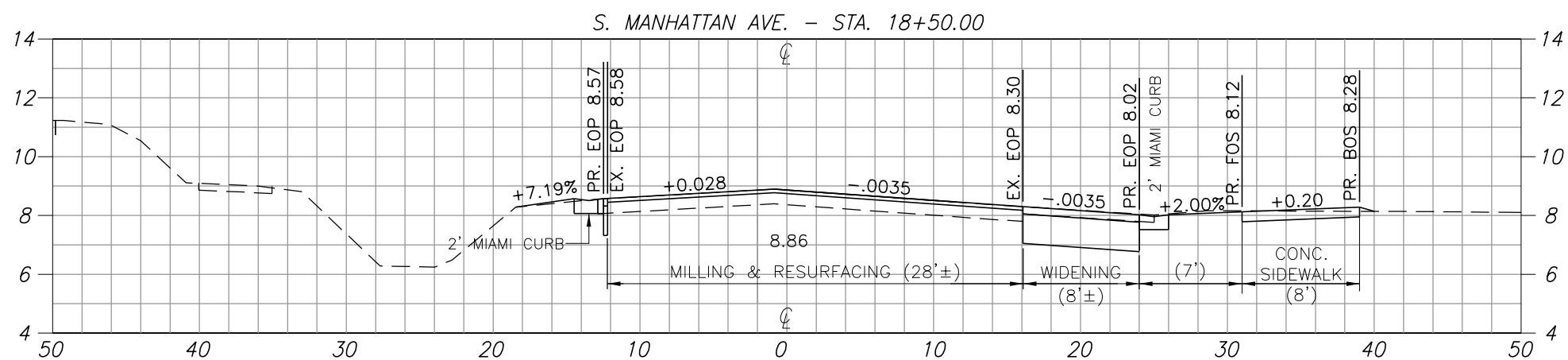
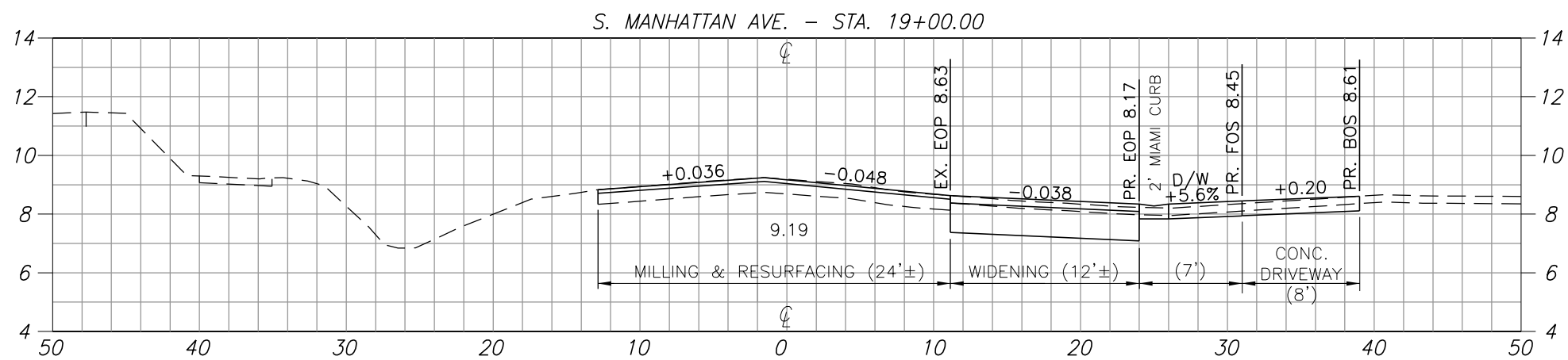
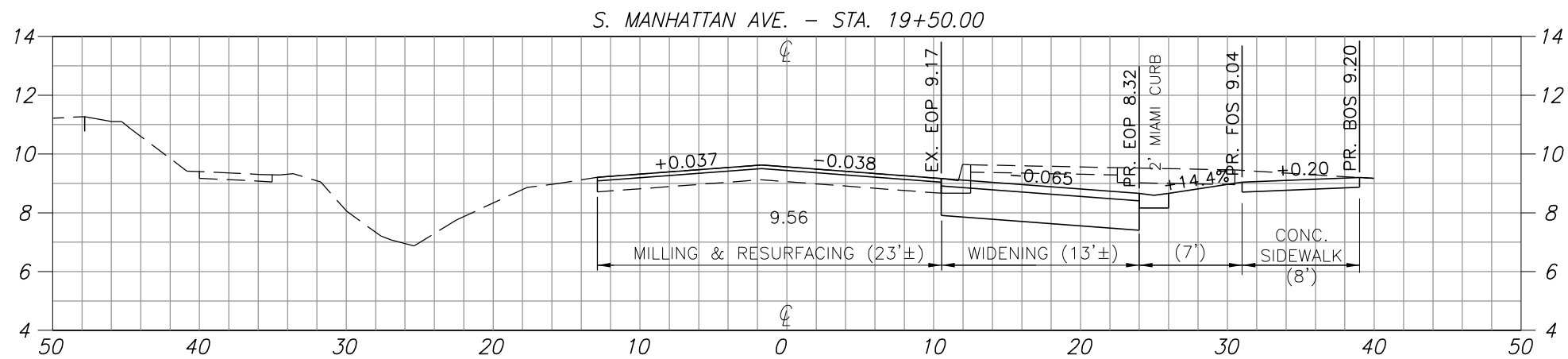
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CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (6)

SHEET  
32  
OF 42





SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:23 AM



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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

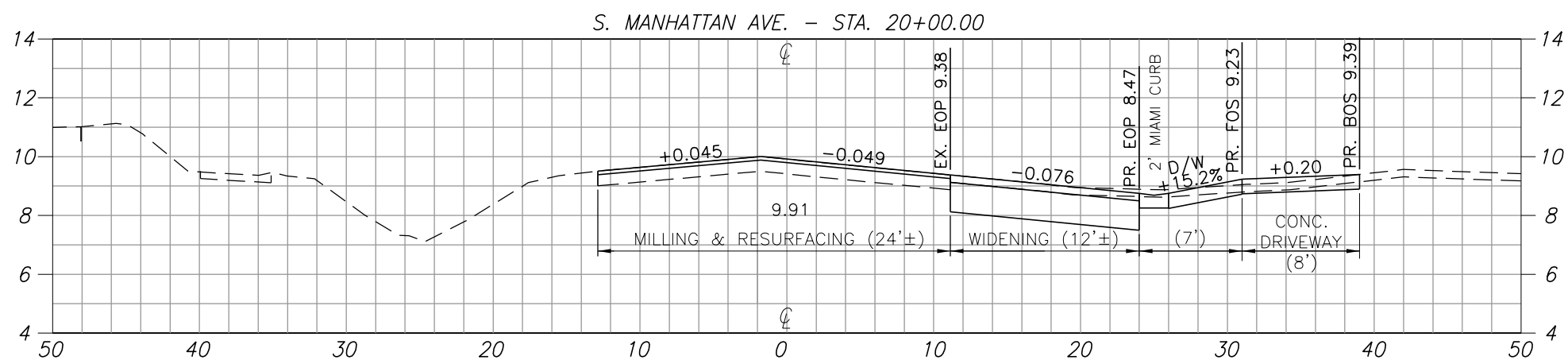
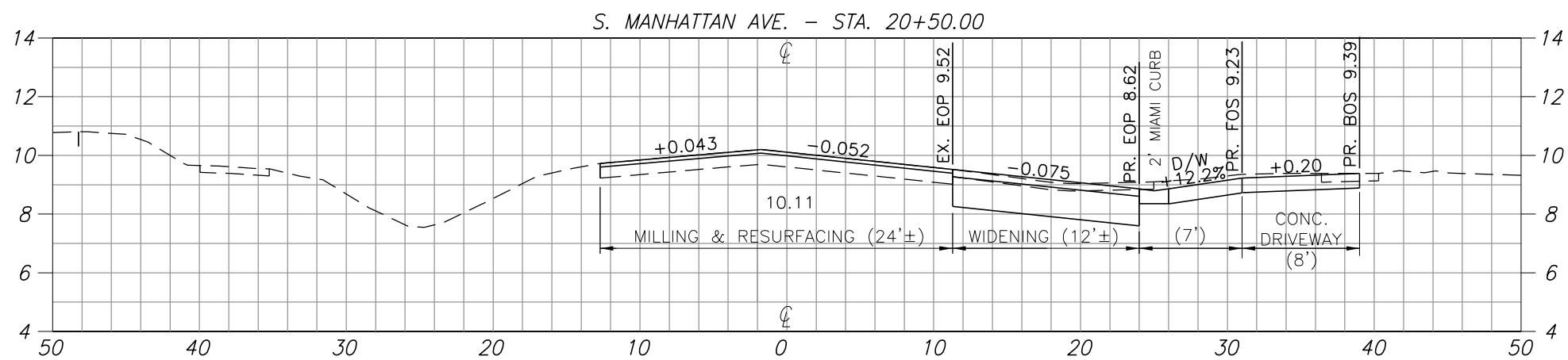
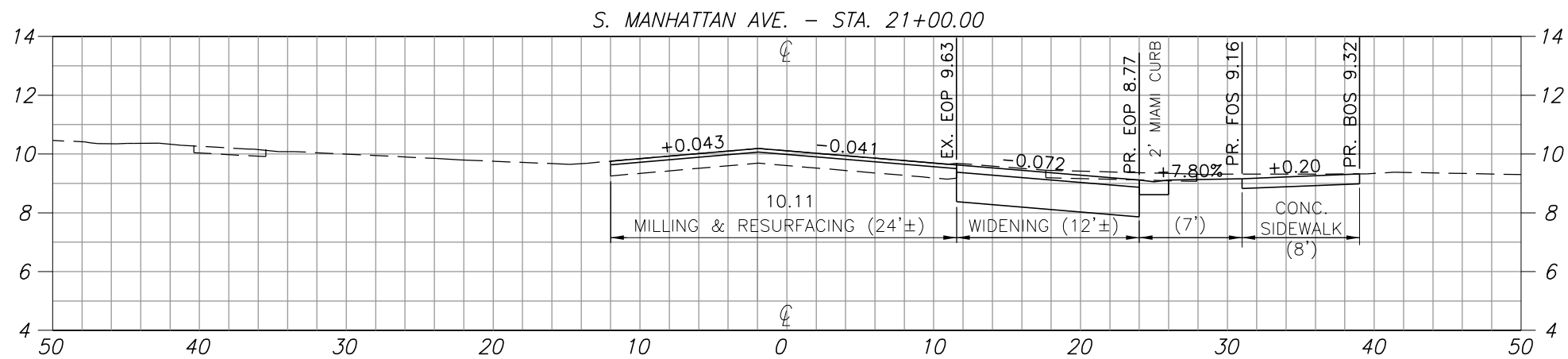
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (7)

SHEET  
33  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:31 AM



APPROVED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
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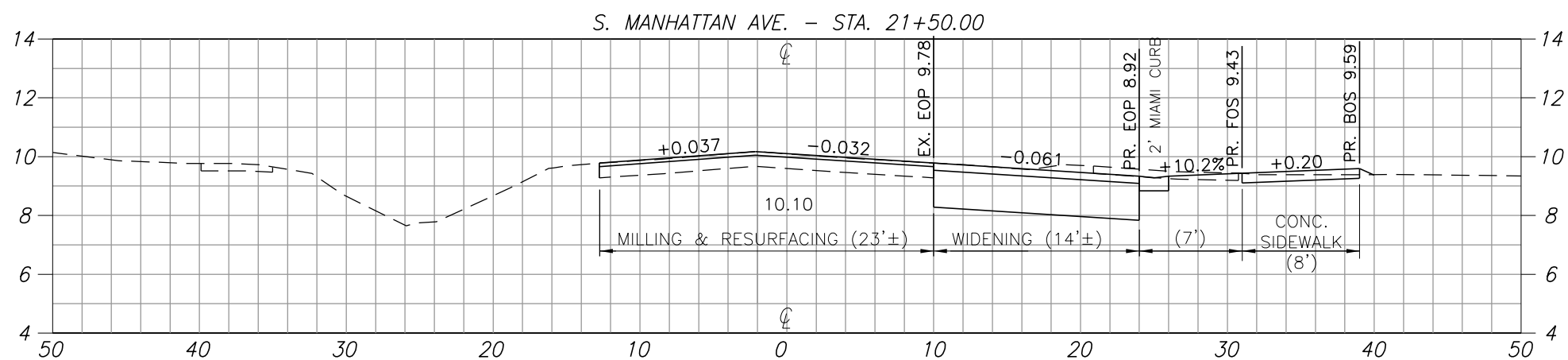
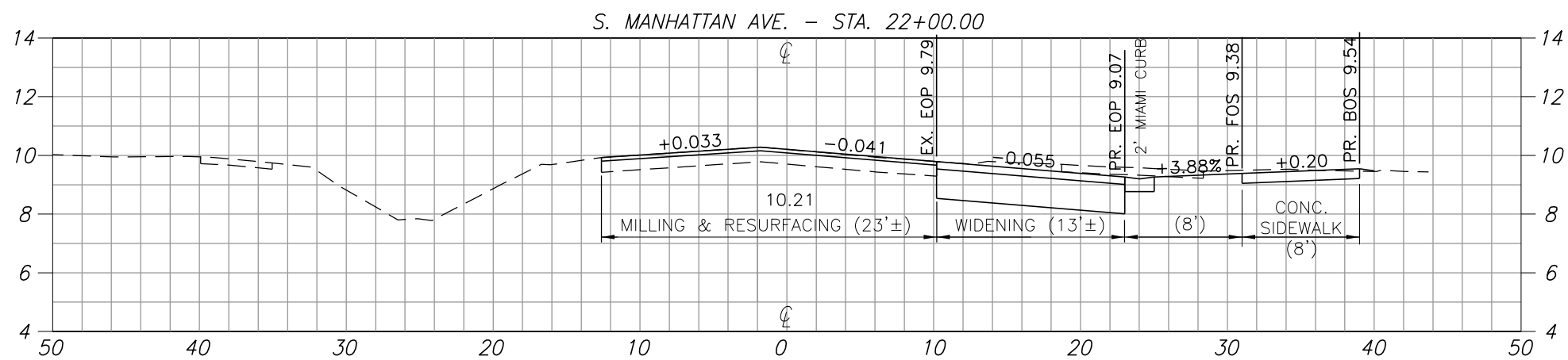
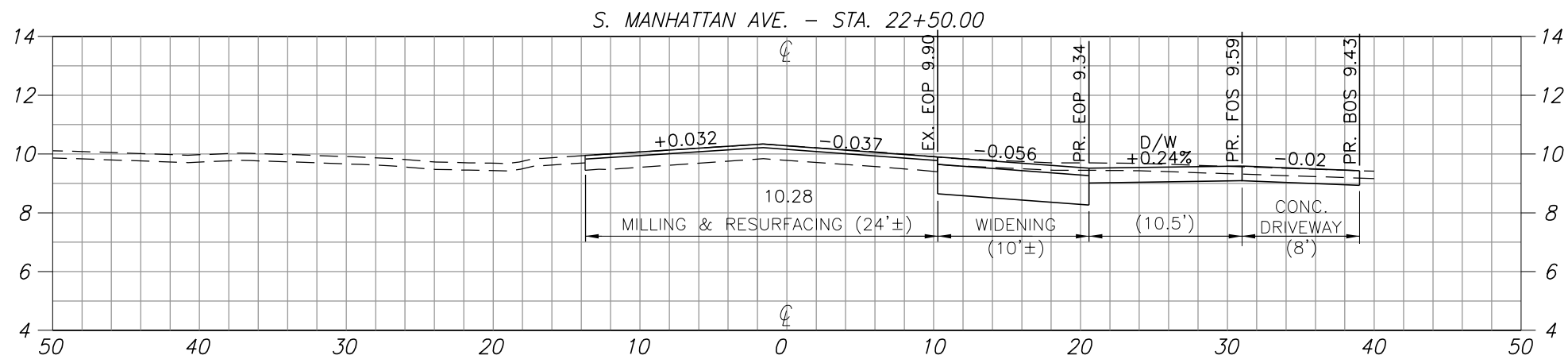
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (8)

SHEET  
34  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:41 AM



APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

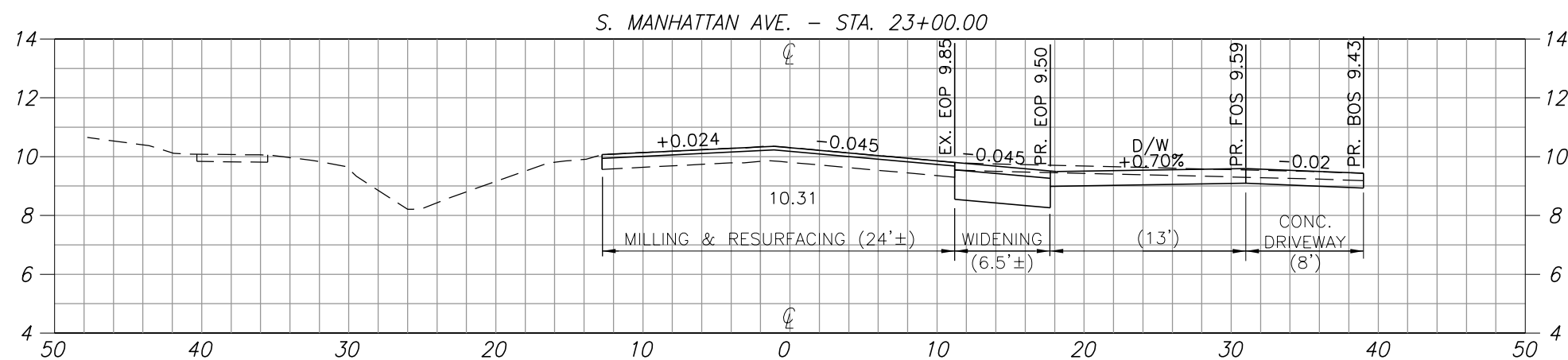
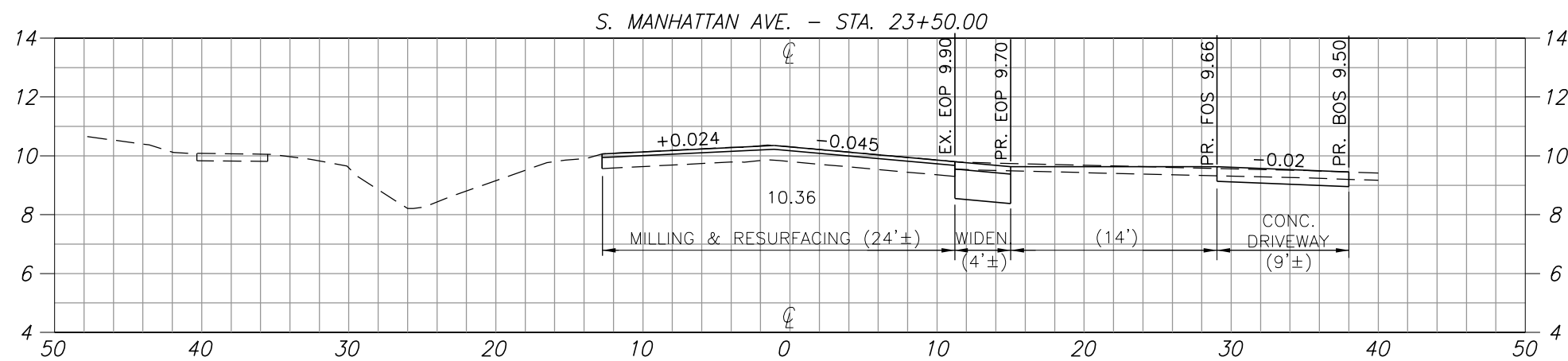
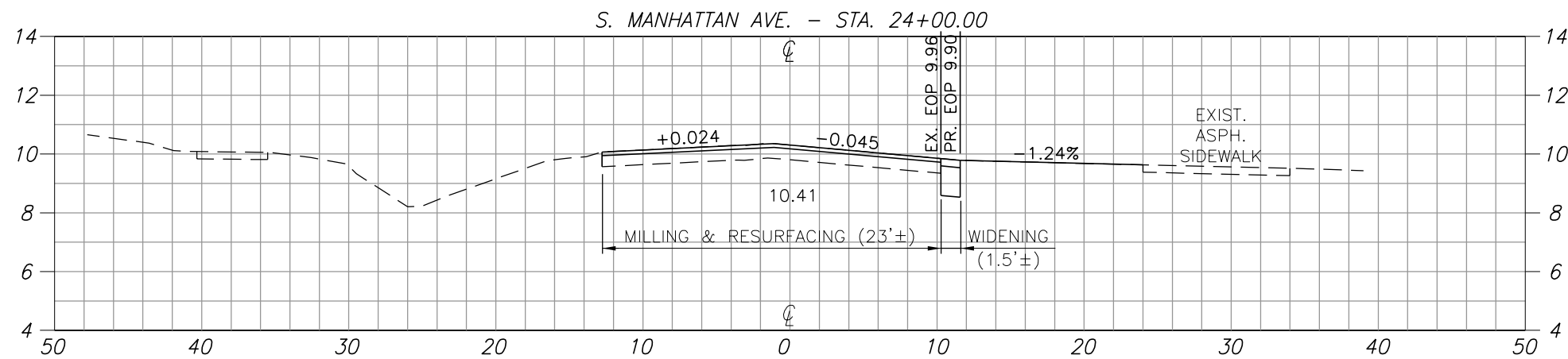
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (9)

SHEET  
35  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:08:53 AM



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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
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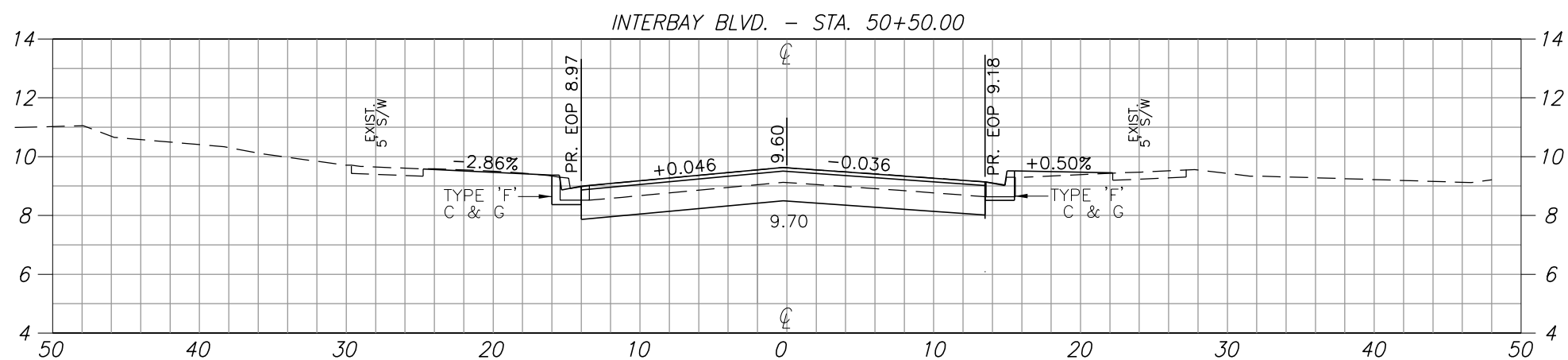
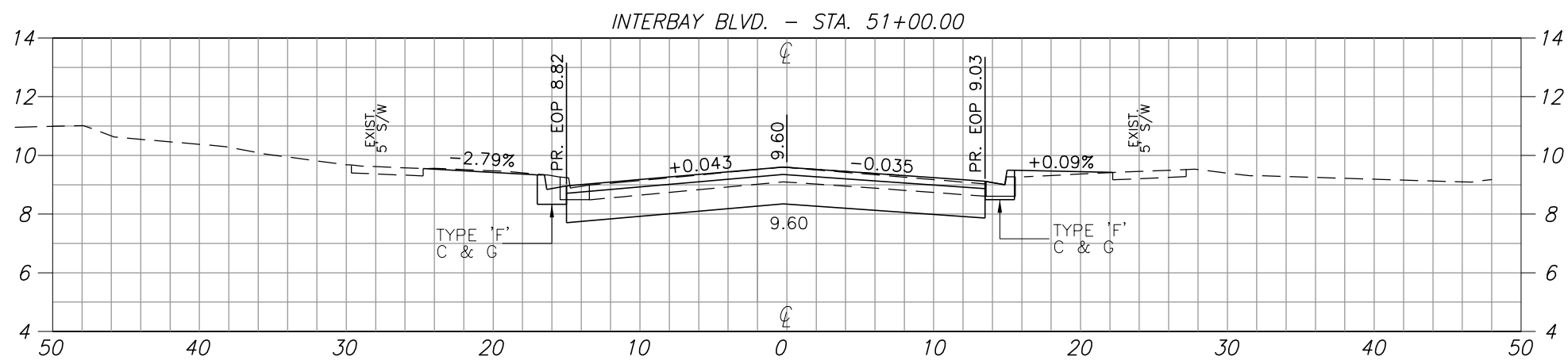
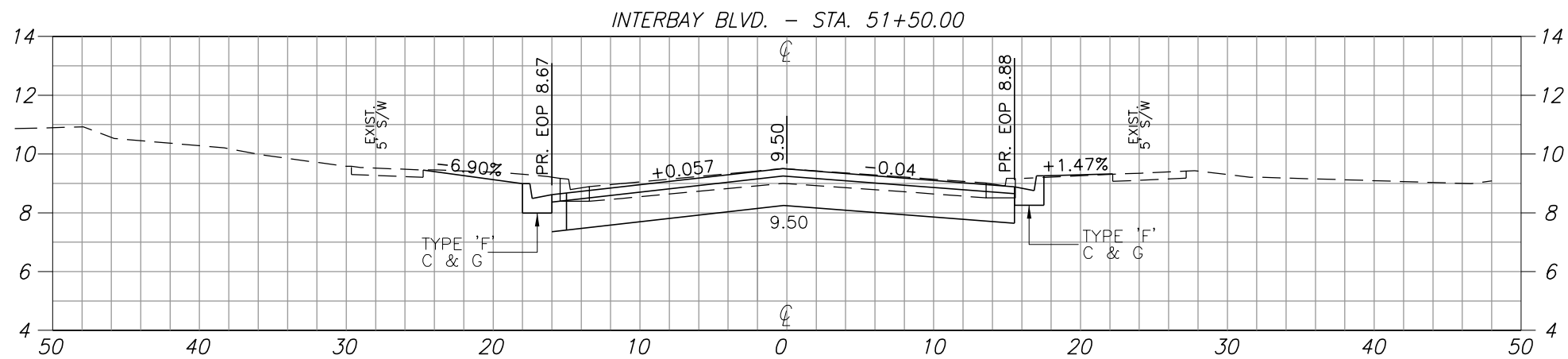
No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (10)

SHEET  
36  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:09:02 AM



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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
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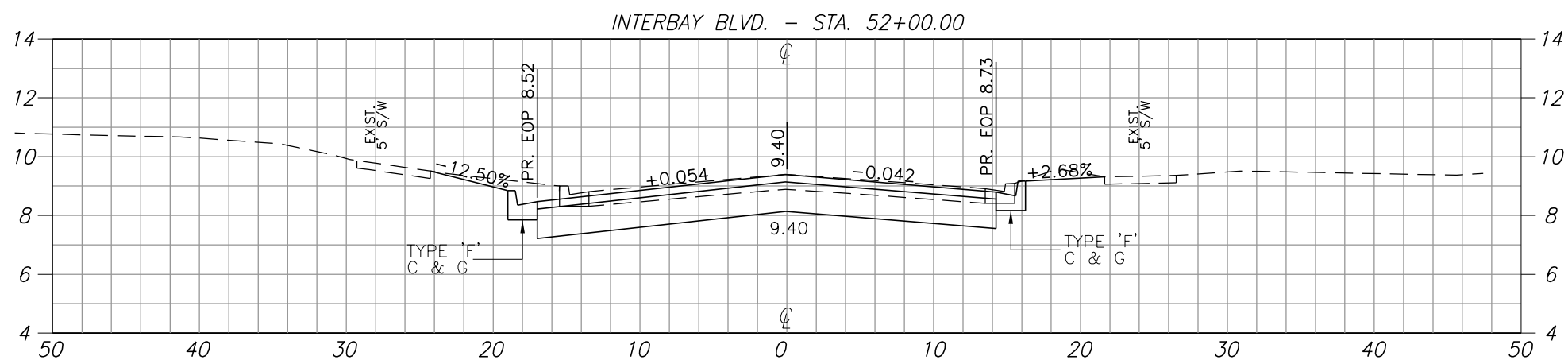
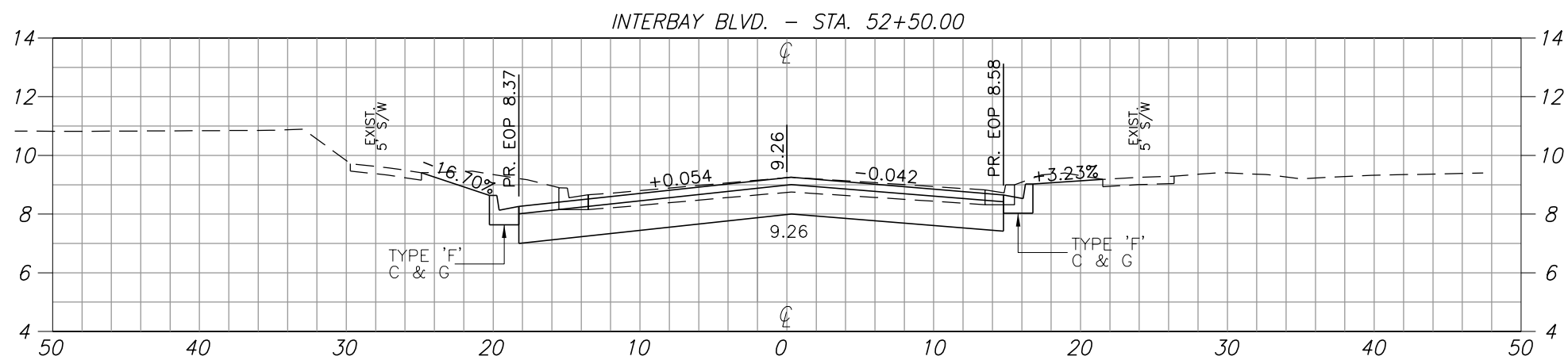
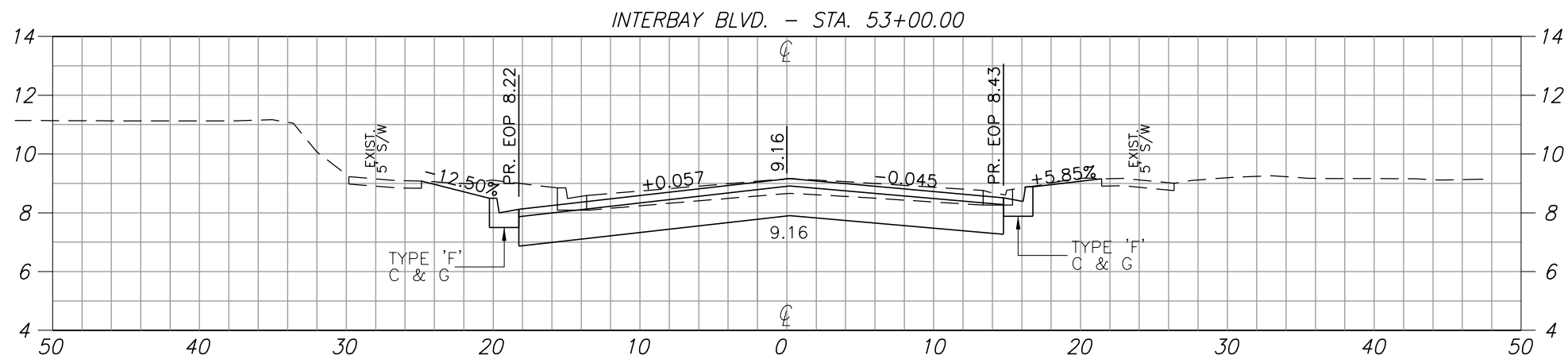
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (11)

SHEET  
37  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:09:11 AM



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BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
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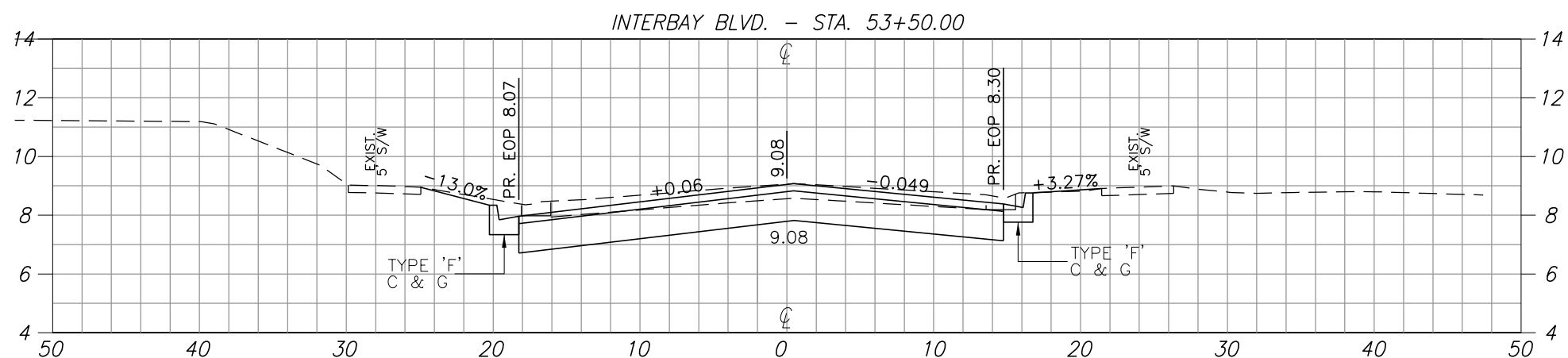
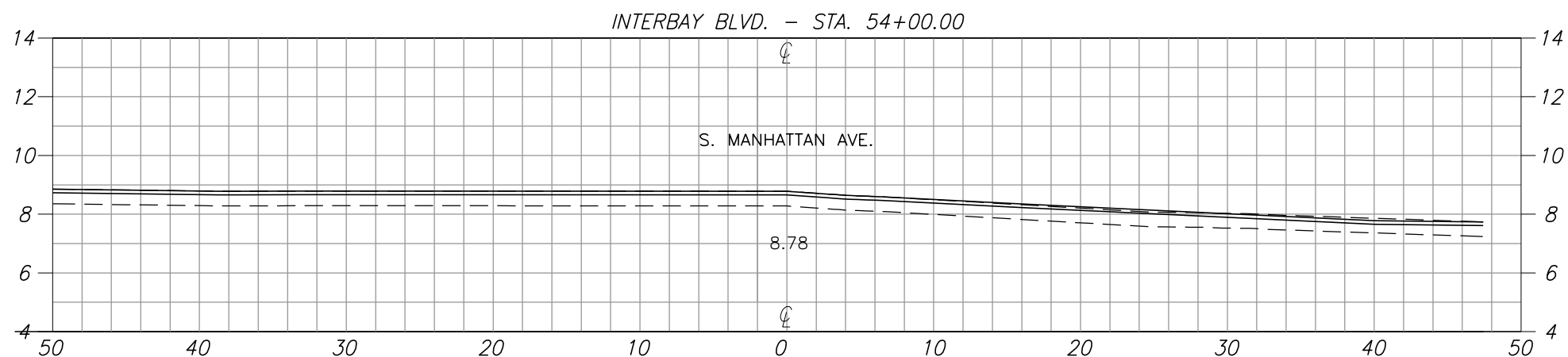
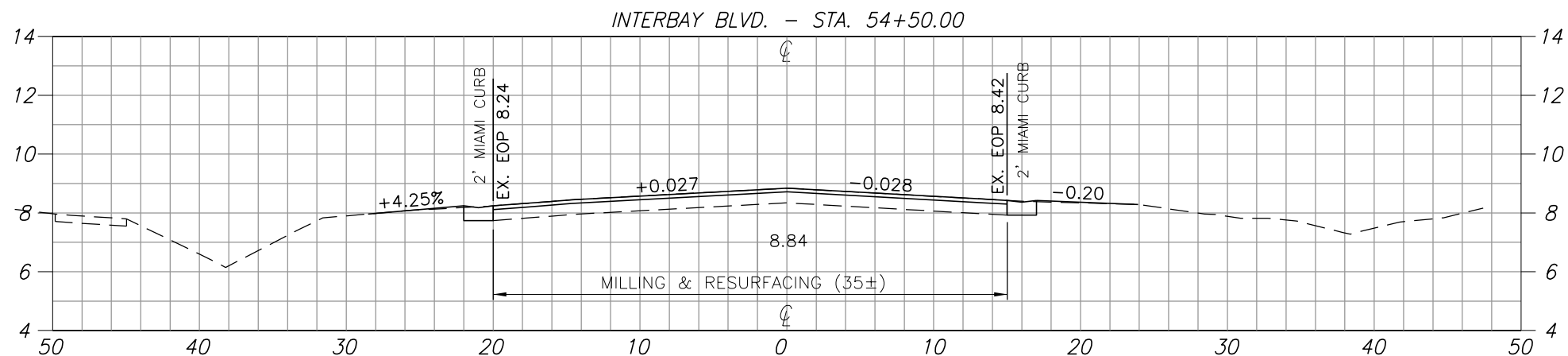
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (12)

SHEET  
38  
OF 42



SCALE:  
1"=10' HORZ.  
1"=5' VERT.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\27-41\_RDXSRD01.dgn  
DATE: 6/27/2021 PLOT TIME: 3:09:21 AM



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BALA PADMANABHAN, P.E. #37332  
BALA CONSULTING SERVICES, LLC  
18527 BITTERN AVE., LUTZ, FL 33558  
T: (813) 962-4697 E: balapadman@balacs.net  
CERTIFICATE OF AUTHORIZATION NO: 31398

No.	DATE	REVISIONS
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DES: RL  
DRN: RL  
CKD: BP  
DATE: 6/22/21

CITY of TAMPA  
MOBILITY DEPARTMENT  
C.I.P. No. 1000980

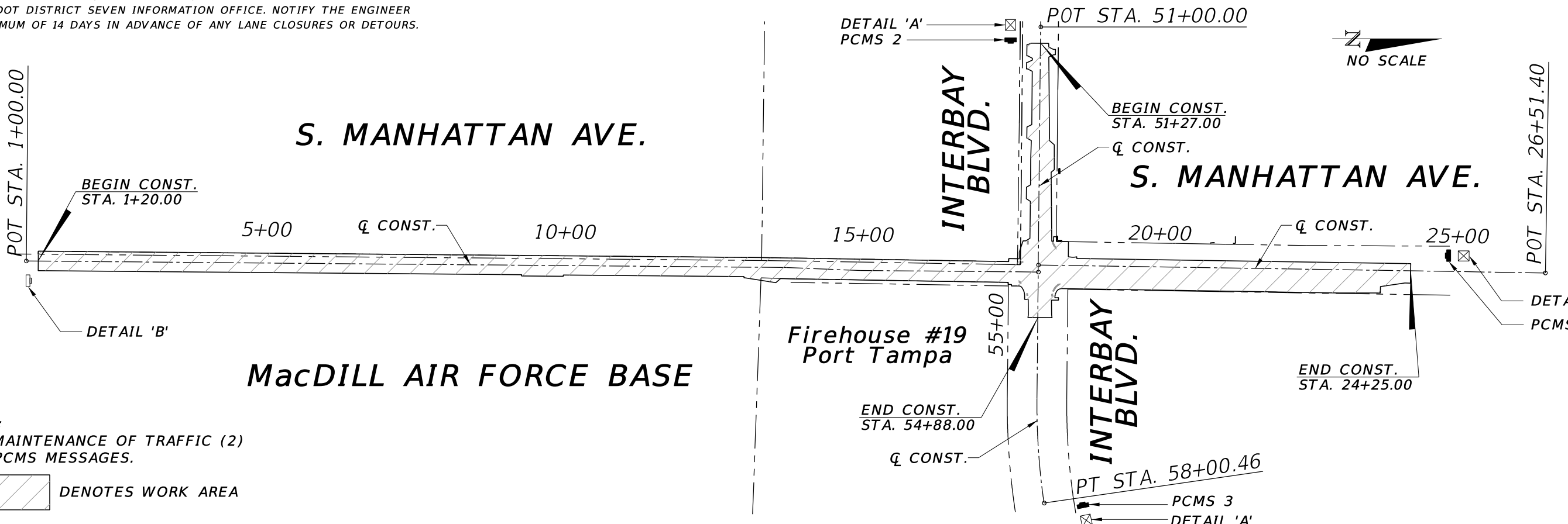
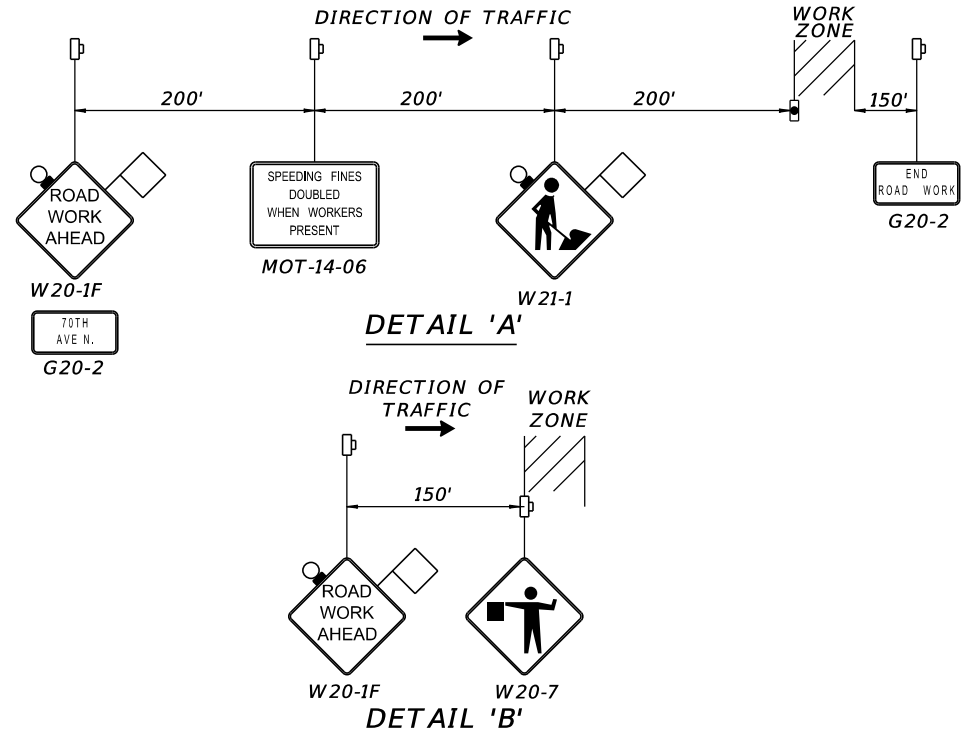
S. MANHATTAN AVE. and INTERBAY BLVD.  
ROADWAY and INTERSECTION IMPROVEMENT PROJECT  
ROADWAY CROSS SECTIONS (13)

SHEET  
39  
OF 42

**TRAFFIC CONTROL NOTES**

- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH FY 2020-21 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, 102-600 SERIES. IT IS ANTICIPATED THAT INDICES 600, 601, 602, 603, 604 AND 605 MAY BE USED ON THIS PROJECT.
- ALL EXISTING WARNING AND REGULATORY SIGNS SHALL BE MAINTAINED AT ALL TIMES. SIGNS SHALL BE RELOCATED, REMOVED OR COVERED AS APPROVED BY THE CITY AND THE ENGINEER.
- THE EXACT LOCATION OF ALL TRAFFIC CONTROL SIGNS AND BARRICADES SHALL BE DETERMINED IN THE FIELD, VERIFIED THAT SIGHT DISTANCE IS NOT OBSTRUCTED, AND APPROVED BY THE CITY AND THE ENGINEER.
- NO LANE CLOSURES ARE PERMITTED BETWEEN THE HOURS OF 6:30 AM TO 6:00 PM (PEAK HOURS). LANE CLOSURE MAY ONLY BE UTILIZED DURING ACTIVE WORK PERIODS.
- THE CONTRACTOR IS REQUIRED TO SUBMIT A WRITTEN PLAN, WHICH DETAILS EACH ACTIVITY INVOLVED IN THE LANE CLOSURE. THE PLAN SHALL INCLUDE BACK-UP PLANS FOR ACTIVITIES CRITICAL TO RE-OPENING THE LANES TO TRAFFIC.
- THE BACK-UP PLAN SHALL INCLUDE THE ACTIVITIES OF ALL SUB-CONTRACTOR'S OPERATIONS, AS WELL AS THE PRIME CONTRACTORS. NO LANE CLOSURE WILL BE ALLOWED WITHOUT A PLAN TO ACHIEVE RE-OPENING. A DISCUSSION A DISCUSSION OF LANE CLOSURE OPERATIONS SHALL BE MADE PART OF ALL PRE-CONSTRUCTION CONFERENCES.
- CONFLICTING EXISTING PAVEMENT MARKINGS SHALL BE REMOVED. COST FOR REMOVAL AND REPLACEMENT OF MARKINGS IS INCLUDED IN THE BID PRICE FOR MAINTENANCE OF TRAFFIC, 102-1.
- ALL LANE CLOSURES SHALL BE REPORTED 48 HOURS IN ADVANCE TO THE LOCAL EMERGENCY AGENCIES, THE ENGINEER, CITY OF TAMPA PROJECT MANAGER AND FDOT DISTRICT SEVEN INFORMATION OFFICE. NOTIFY THE ENGINEER A MINIMUM OF 14 DAYS IN ADVANCE OF ANY LANE CLOSURES OR DETOURS.

- AT THE DISCRETION OF THE ENGINEER, IF LANE CLOSING CAUSES EXTENDED CONGESTION, THE CONTRACTOR WILL BE DIRECTED TO RE-OPEN THE CLOSED LANE(S) UNTIL SUCH TIME AS TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.
- AT THE END OF EACH DAY THE RIGHT-OF-WAY (INCLUDING ALL TRAVEL LANES) SHALL BE RESTORED FOR SAFE VEHICULAR TRAFFIC. NO DROP-OFF CONDITIONS ARE ALLOWED TO REMAIN. NO MATERIALS, EQUIPMENT, ETC SHALL BE STORED WITHIN THE RIGHT-OF-WAY WHILE THE WORK ZONE IS INACTIVE.
- THE POSTED SPEED LIMIT FOR ACTIVE WORK ZONES SHALL MATCH THE EXISTING POSTED SPEED LIMIT.
- THE CONTRACTOR SHALL MAINTAIN EXISTING PEDESTRIAN ACCESS BY SEQUENCING CONSTRUCTION AND PROVIDING TEMPORARY WALKWAYS AND/OR DETOURING PEDESTRIANS BY UTILIZING INDEX 102-660.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AND COORDINATE TIMING OF ANY CLOSURES WITH THE ENGINEER, IN CONJUNCTION WITH THE CITY AND FDOT.
- THE CONTRACTOR HAS THE OPTION TO SUBMIT AN ALTERNATIVE TRAFFIC CONTROL PLAN THAT MEETS THE APPROVAL OF THE CITY AND CERTIFIED BY A REGISTERED FLORIDA PROFESSIONAL ENGINEER WITH AN ADVANCE MAINTENANCE OF TRAFFIC CERTIFICATION AT NO ADDITIONAL COST TO THE CITY.
- TRAFFIC CONTROL OFFICERS SHALL BE UTILIZED FOR TRAFFIC CONTROL THROUGH SIGNALIZED INTERSECTIONS, WHEN SIGNALS ARE NOT IN USE, AND SHALL BE PAID FOR UNDER PAY ITEM 102-14, TRAFFIC CONTROL OFFICER.
- THE CONTRACTOR SHALL CONTACT THE PROPERTY OWNER 96 HOURS PRIOR TO CLEARING AND GRUBBING EXISTING SPRINKLER SYSTEMS, SIGNS OR LANDSCAPING TO BE REMOVED WITHIN THE PROJECT LIMITS.



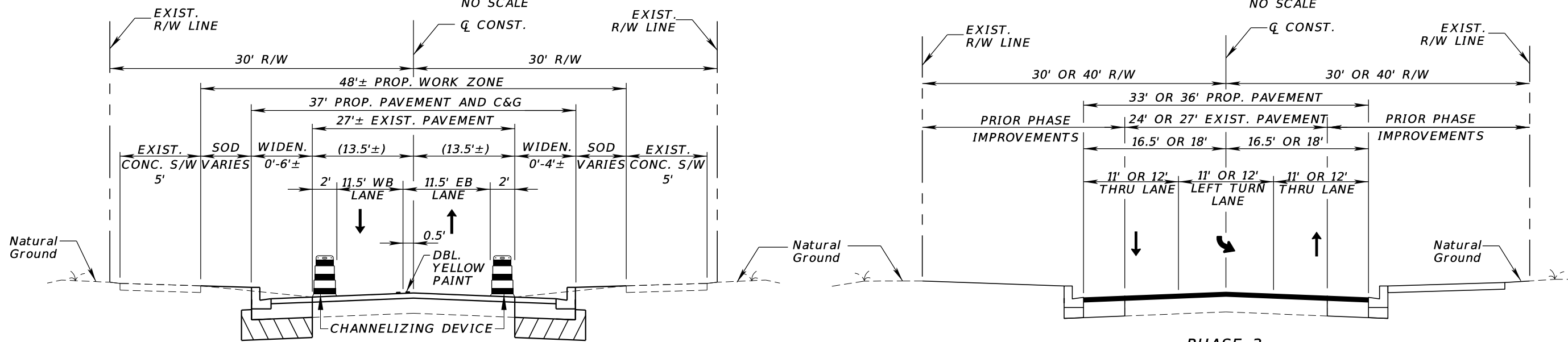
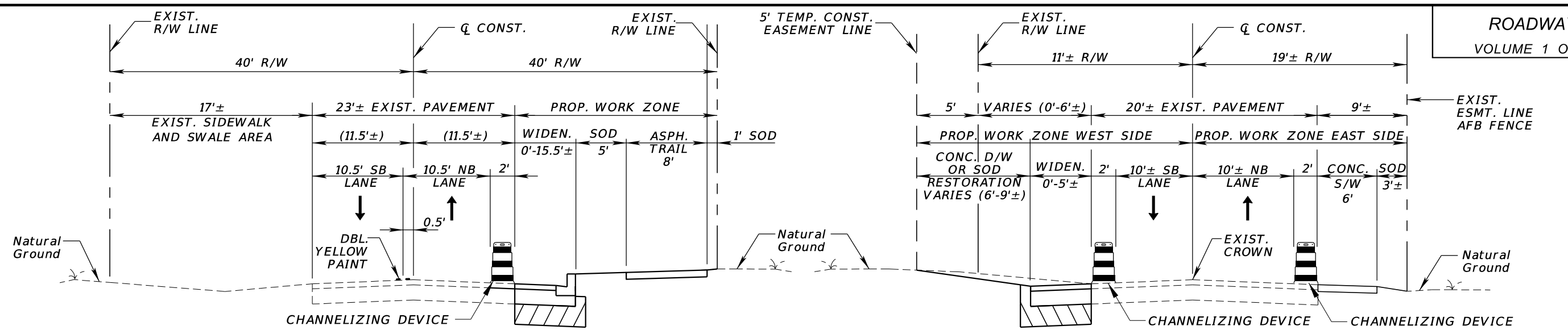
NOTE:  
SEE MAINTENANCE OF TRAFFIC (2)  
FOR PCMS MESSAGES.

DENOTES WORK AREA

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\40\_MOTR001.dwg  
DATE: 6/27/2021 PLOT TIME: 2:41:34 AM

	APPROVED BY:	No.	DATE	REVISIONS	DES: RL	CITY of TAMPA MOBILITY DEPARTMENT C.I.P. No. 1000980	S. MANHATTAN AVE. and INTERBAY BLVD. ROADWAY and INTERSECTION IMPROVEMENT PROJECT MAINTENANCE OF TRAFFIC (I) GENERAL NOTES & WORK AREA ADVANCE WARNING	SHEET <b>40</b> OF 42
	BALA PADMANABHAN, P.E. #37332	3			DRN: RL			
	BALA CONSULTING SERVICES, LLC	2			CKD: BP			
	18527 BITTERN AVE., LUTZ, FL 33558	1			DATE: 6/22/21			

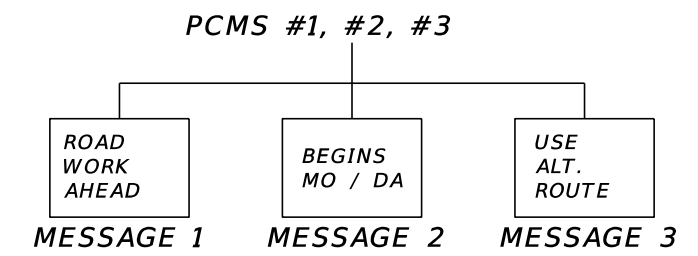




**SEQUENCING OF CONSTRUCTION:**  
PCMS SIGNS SHALL BE INSTALLED 2 WEEKS PRIOR TO BEGINNING OF CONSTRUCTION.

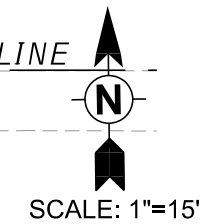
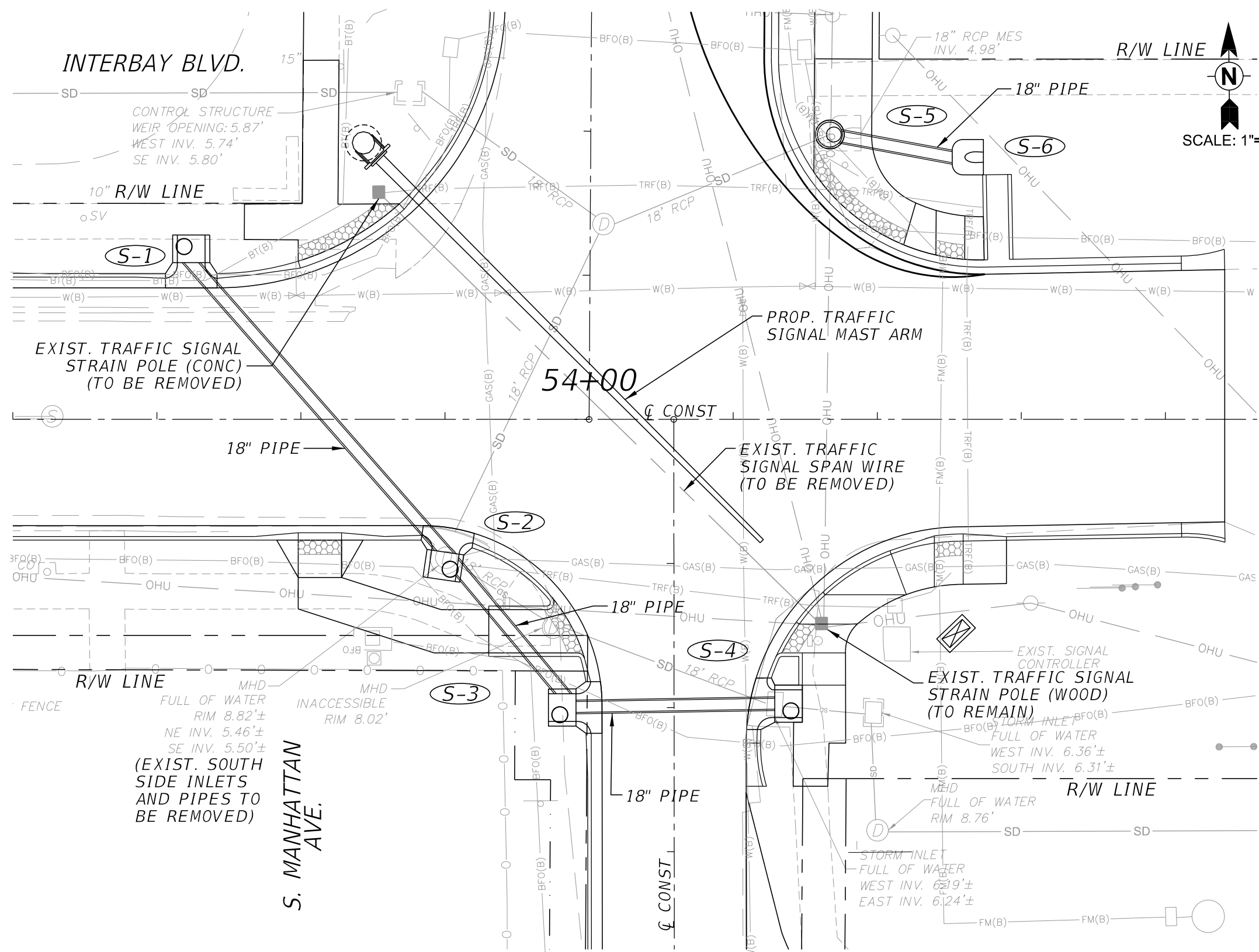
- PHASE 1A, 1B & 2:**
1. PLACE ALL ADVANCE WARNING SIGNAGE, TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS, UTILIZING THE FDOT ASSOCIATED STANDARD PLANS INDICES.
  2. CONSTRUCT PROPOSED DRAINAGE IMPROVEMENTS, REQUIRED UTILITY ADJUSTMENTS, CURB AND GUTTER, PAVEMENT WIDENING, CONC. SIDEWALK AND FINAL SURFACE RESTORATION.
  3. USE FLAGMEN OPERATIONS AS NECESSARY FOR THE CONSTRUCTION OF S. MANHATTAN AVE. SOUTH OF INTERBAY BLVD.

- PHASE 3:**
1. MILLING & PLACEMENT OF SURFACE COURSE (TO BE PERFORMED DURING NIGHT TIME OPERATIONS BETWEEN 10:00 PM AND 6:00 AM).
  2. PLACE SIGNING & PAVEMENT MARKINGS.
  3. COORDINATE WITH ENGINEER AND CITY PROJECT MANAGER FOR INSTALLATION AND PHASING OF PROPOSED MAST ARM TRAFFIC SIGNAL AND REMOVAL OF EXIST. SIGNAL STRAIN POLE.



FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\41\_MOTRD02.dwg  
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PLOT TIME: 2:43:44 AM

	APPROVED BY:	No.	DATE	REVISIONS	DES: RL	<p align="center">CITY of TAMPA MOBILITY DEPARTMENT C.I.P. No. 1000980</p>	<p align="center">S. MANHATTAN AVE. and INTERBAY BLVD. ROADWAY and INTERSECTION IMPROVEMENT PROJECT</p> <p align="center">MAINTENANCE OF TRAFFIC (2) TYPICAL SECTIONS AND PHASING NOTES</p>	<p align="right">SHEET <b>41</b> OF 42</p>
	BALA PADMANABHAN, P.E. #37332	3			DRN: RL			
	BALA CONSULTING SERVICES, LLC	2			CKD: BP			
	18527 BITTERN AVE., LUTZ, FL 33558 T: (813) 962-4697 E: balapadman@balacs.net CERTIFICATE OF AUTHORIZATION NO: 31398	1			DATE: 6/22/21			



- DRAINAGE STRUCTURES**
- S-1** TYPE 1 INLET (MOD.)  
STA. 53+44.77 (23.66 LT)  
EOP EL. 8.07  
TOP EL. 8.45  
SE INV. EL. 5.56
  - S-2** REMOVE EXIST. INLET  
TYPE 1 INLET (MOD.)  
STA. 53+79.77 (20.50 RT)  
EOP EL. 8.20  
TOP EL. 8.58  
NW & NE INV. EL. 5.46  
SE INV. EL. 5.50
  - S-3** TYPE 1 INLET (MOD.)  
STA. 17+60.50 (15.50 LT)  
EOP EL. 7.52  
TOP EL. 7.90  
NW INV. EL. 5.60  
E INV. EL. 5.70
  - S-4** REMOVE EXIST. INLET  
TYPE 1 INLET (MOD.)  
STA. 17+60.50 (15.50 RT)  
EOP EL. 7.54  
TOP EL. 7.92  
W INV. EL. 5.80  
E INV. EL. 6.24
  - S-5** REMOVE EXIST. 18" MES  
MANHOLE TYPE P-7  
STA. 18+39.74 (33.18 RT)  
TOP EL. 8.10  
W INV. EL. 5.50  
E INV. EL. 5.50
  - S-6** 18" M.E.S.  
STA. 18+36.70 (51.95 RT)  
INV. EL. 5.40

- NOTES:**
1. REMOVE EXIST. STORM PIPE BETWEEN PROP. INLETS S-2, S-3 AND S-4.
  2. PROP. DRAINAGE STRUCTURES AND PIPE ARE TO BE INSTALLED AT THE LOCATIONS OF THE EXIST. INLETS AND PIPE PER PLANS. UTILITY ADJUSTMENTS ARE TO BE EXPECTED TO INCLUDE COORDINATION WITH UTILITY OWNERS, TEMPORARY SHORING, AND FIELD ADJUSTMENTS.

FILE PATH: C:\Projects\City of Tampa\Manhattan Ave\Cadd\Roadway\42\_UTADRD01.dwg  
DATE: 6/27/2021 PLOT TIME: 3:06:01 AM

	APPROVED BY:		No.	DATE	REVISIONS			CITY of TAMPA MOBILITY DEPARTMENT C.I.P. No. 1000980	S. MANHATTAN AVE. and INTERBAY BLVD. ROADWAY and INTERSECTION IMPROVEMENT PROJECT UTILITY ADJUSTMENTS MANHATTAN-INTERBAY INTERSECTION	SHEET <span style="font-size: 2em; font-weight: bold;">42</span> OF 42	
	BALA PADMANABHAN, P.E. #37332	3				DES: RL					
	BALA CONSULTING SERVICES, LLC	2				DRN: RL					
	18527 BITTERN AVE., LUTZ, FL 33558	1				CKD: BP					
T: (813) 962-4697 E: balapadman@balacs.net						DATE: 6/22/21					
CERTIFICATE OF AUTHORIZATION NO: 31398											