LINE NO.	ITEM NO.	DESCRIPTION	EST. QTY	U/M
		ROAD WORK		
1.	101-1	MOBILIZATION	1.00	LS
2.	102-1	MAINTENANCE OF TRAFFIC	1.00	LS
3.	104-10-3	SEDIMENT BARRIER (INCL'S SILT FENCE AND SYNTHETIC BALES)	6,000	LF
4.	104-11	FLOATING TURBIDITY BARRIER	90	LF
5.	110-1-1	CLEARING & GRUBBING	5	AC
6.	110-4	REMOVAL OF EXISTING CONC. PAVEMENT (EXIST. SIDEWALK & CONC. DRIVES)	360	SY
7.	110-7-1	MAILBOX, F&I SINGLE	7	EA
8.	120-1	REGULAR EXCAVATION (PINE ST. EXIST. BASE AND SUB-BASE TO BE REMOVED)	300	CY
9.	120-1	REGULAR EXCAVATION (INCLUDES PONDS)	4,731	CY
10.	120-5	EMBANKMENT (EXISTING PINE STREET)	300	CY
11.	120-6	EMBANKMENT (REGULAR)	2,400	CY
12.	285-706	6" OF OPTIONAL BASE GROUP 4	1,361	SY
13.	285-709	10" OF OPTIONAL BASE GROUP 9	6203	SY
14.	327-70-1	MILLING EXIST ASPH PAVT, 1 " AVG DEPTH	5,352	SY
15.	MC-334	2" TYPE S-I ASPHALT	735	TN
16.	MC-337	1" TYPE S-III ASPHALT	669	TN
17.	MC-001	12" TYPE B STABILIZATION (LBR 60)	6,563	SY
18.	MC-002	6" OF STABILIZED SUB-BASE-NEW PINE ST. (LBR 60)	1,453	SY
19.	MC-003	GRATE INLET MC 201.1 202.4	4	EA
20.	MC-004	THROAT INLET MC STD. 202.1,202.3,202.4	1	EA
21.	MC-005	JUNCTION BOX. BLOCK BOX -MC STD. 202.1, 202.4,203.1	1	EA
22.	MC-006	INLETS (CURB) -MC STD. 202.1, 202.2,202.3,202.4,203.2	5	EA
23.	MC-007	INLETS (CURB) -MC STD. 202.1, 202.2,202.4,203.2	2	EA
24.	MC-008	JUNCTION BOX. BLOCK BOX- MC STD. 202.1, 202.5,203.1	4	EA
25.	MC-009	GRATE INLET-PROP. CONCRT. BLOCK BOX -MC STD. 202.1, 202.5	8	EA
26.	0400-1-2	ENDWALL 15" PIPE	1	CY
27.	0425 -1563	INLETS, DT BOT, TYPE F, J BOTTOM <10'	1	EA
28.	0425- 2 91	MANHOLE, J-8, <10'	1	EA
29.	0425-1529	INLETS, DT BOT, TYPE C, MODIFY	1	EA
30.	430-173-101	PIPE STORM SEWER CULV (RCP)(15")	17.00	LF
31.	430-173-101	PIPE STORM SEWER CULV (RCP)(18")	837.00	LF
32.	430-174-201	PIPE STORM SEWER CULV (ERCP) (12"X18")	278.00	LF
33.	430-174-102	PIPE STORM SEWER CULV (ERCP) (30")	1,478.00	LF
34.	430-982-125	MITERED END SECTION-RCP- ROUND/18"	2.00	EA
35.	430-984-623	MITERED END SECTION- RCP ROUND 12"X 18"	4.00	EA
36.	515-1-2	PEDESTRIAN BICYCLE RAILING, ALUMINUM ONLY 42" TYPE 1	91.00	LF
37.	520-1-10	TYPE F CURB & GUTTER	1,000	LF
38.	520-3	VALLEY GUTTER, CONCRETE	207	LF
39.	522-1	SIDEWALK CONCRETE 4"	1,034	SY
40.	522-2	SIDEWALK CONCRETE 6" THICK (DRIVEWAYS)	660	SY
41.	522-3	BUS BOARDING PAD-CONCRETE	30	SY
42.	522-4	BUS SHELTER PAD-CONCRETE	30	SY
43.	530-3-3	RIP RAP-RUBBLE, BANK AND SHORE	3	TN
44.	536-1-2	GUARDRAIL	19	LF
45.	570-1-2	PERFORMANCE TURF (BAHIA SOD)	5,592.15	SY
46.	MC-011	MIAMI CURB&GUTTER	153	LF
		PROPOSED 6" WATERLINE RELOCATION FOR ROAD PROJECT		
47.	MC-012	6" DI WATERLINE (CL 350) DIRECT BURY	265	LF
48.	MC-013	6" X 24" TAPPING SLEEVE WITH VALVE	1	EA
49.	MC-014	DI FITTINGS	250	LB
50.	MC-015	RELOCATE WATER SERVICE(SINGLE, LONG)	6	LF
51.	MC-016	RELOCATE WATER SERVICE(SINGLE, SHORT)	8	LF
52.	MC-017	RELOCATE 2" HDPE WATERLINE (C 906) DR 9	30	LF
53.	MC-018	ADJUST VALVE BOX	7	EA
54.	MC-019	RELOCATE/ADJUST METER BOX	3	EA
55.	MC-020	REMOVE FIRE HYDRANT ASSEMBLY	1	EA
56.	MC-021	FIRE HYDRANT ASSEMBLY	1	EA
57.	MC-022	REMOVE 6" WATERLINE	260	LF
58.	MC-023	6" HDPE FORCE MAIN AND BYPASS (C 906) DR 11	270	LF
59.	MC-024	RELOCATE 6" PVC SEWER SERVICE LATERALS	150	LF
60.	MC-025	ADJUST MANHOLE LID & COVER	8	EA
61.	MC-026	CONNECT TO EXISTING WATERLINE	1	EA
62.	MC-027	ARV IN MANHOLE (SANITARY)	1	EA
63.	MC-028	6" GATE VALVE W/BOX	1	EA
64.	MC-029	RELOCATE LIFT STATION ELECT. PANEL & SERVICE	1	LS
65.	555-1-1	DIRECTIONAL BORE (LESS THAN 6")	128	LF
66.	630-1-12	CONDUIT (F & I) (UNDERGROUND)	442	LF
67.	632-7-1	CABLE, SIGNAL (F&I)	1	PI
68.	635-1-11	PULL & JUNCTION BOXES (F&I) (PULL BOX)	12	EA
69.	639-1-22	ELECTRICAL POWER SERVICE (UNDERGROUND)	1	AS
70.	639-2-1	ELECTRICAL SERVICE WIRE (F&I)	415	LF
71.	641-2-12	PRESTRESSED CONCRETE POLE (F&I) (TYPE P-11 SRV. POLE.)	1	EA
72.	646-1-11	SIGNAL POLE, PEDESTAL (F&I)	6	EA
73.	649-31-202	MAST ARM (F&I) (WS -130) (SING. ARM) (W/O LUM.) (40')	1	EA
74.	649-31-213	MAST ARM (F&I)(WS -130)(DBL. ARM) (W/O LUM.)(36-70.5')	1	EA
75.	650-1-311	TRAFFIC SIGNAL (F&I) (3 SECT) (1 WAY) (STANDARD)	6	AS
76.	650-1-511	TRAFFIC SIGNAL (F&I) (5 SECT) (1 WAY) (STANDARD)	2	AS
77.	653-191	PEDESTRIAN SIGNAL (F&I) (LED-COUNTDOWN) (1 WAY)	6	AS
78.	653-192	PEDESTRIAN SIGNAL (F&I) (LED-COUNTDOWN) (2 WAY)	1	AS
79.	663-74-15	VEHICLE DETECTOR ASSEMBLIES (F&I) (VIDEO)	4	EA
80.	665-13	PEDESTRIAN DETECTOR (F&I) (DETECTOR WITH SIGN ONLY)	7	EA
81.	670-5-300	TRAFFIC CONTROLLER ASSEMBLY (INSTALL)	1	AS
82.	670-5-400	TRAFFIC CONTROLLER ASSEMBLY (MODIFY) REPLACE EXIST CONTROLLER WITH NAZTEC 980 ATC CONTROLLER	1	AS
83.	685-106	SYSTEM AUX (F&I) (UNINTERRUPTIBLE POWER SOURCE)	1	EA
84.	690-10	TRAFFIC SIGNAL HEAD ASSEMBLY, REMOVAL	8	EA
85.	690-20	SIGNAL PEDESTRIAN ASSEMBLY, REMOVE	4	EA
86.	690-34-1	POLE REMOVAL -DEEP (DIRECT BURIAL)	2	EA
87.	690-60	DETECTOR VEHICLE ASSEMBLY, REMOVE	6	EA
88.	690-80	SPAN WIRE ASSEMBLY REMOVE	1	EA
89.	690-90	REMOVE CONDUIT & CABLING	1	PI
90.	690-100	SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE	1	PI
91.	699-1-1	INTERNALLY ILLUMINATED SIGN (F&I)	4	EA
92.	783-1-421	ITS FO CABLE (RELOCATE) (UNDERGROUND) (2 TO 12)	20	LF
93.	783-4-112	ITS CONDUIT (F&I) (UNDERGROUND)	20	LF
94.	783-5-5	ITS PULL BOX FOR FIBER OPTIC CABLE, ADJUST AND MODIFY	1	EA
		SIGNING AND PAVEMENT MARKING		
95.	700-20-11	SINGLE POST SIGN (F&I) (< 12 SF)	4	AS
96.	700-20-12	SINGLE POST SIGN (F&I) (12-20 SF)	2	AS
97.	700-20-60	SINGLE POST SIGN (REMOVE)	7	AS
98.	700-48-48	SIGN PANEL RELOCATE, 15 OR LESS	2	EA
99.	706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	424	EA
100.	711-11-111	THERMOPLASTIC (STD., WHITE, SOLID, 6")	1.014	NM
101.	711-11-122	THERMOPLASTIC (STD., WHITE, SOLID, 8")	107	LF
102.	711-11-123	THERMOPLASTIC (STD.,WHITE, SOLID, 12")	443	LF
103.	711-11-125	THERMOPLASTIC (STD., WHITE, SOLID, 24")	124	LF
104.	711-11-151	THERMOPLASTIC (STD., WHITE, 2'-4' SKIP & 6'-10' SKIP, 6")	76	LF
105.	711-11-160	THERMOPLASTIC (STD., WHITE, MESSAGE) (ONLY)	3	EA
106.	711-11-170	THERMOPLASTIC (STD., WHITE, ARROWS)	23	EA
107.	711-11-211	THERMOPLASTIC (STD., YELLOW, SOLID, 6")	1.054	NM
108.	711-11-224	THERMOPLASTIC (STD., YELLOW, SOLID, 18")	516	LF
109.	711-11-231	THERMOPLASTIC (STD., YELLOW, 10'-30' SKIP, 6")	0.125	GM
		55' PEDESTRIAN BRIDGE		
110.	120-1	REGULAR EXCAVATION (PEDESTRIAN BRIDGE)	29.00	CY
111.	0400-4-5	CONCRETE CLASS IV 5500 PSI -FOUNDATION	14.00	CY
112.	0415-1-5	REINFORCING STEEL-SUBSTRUCTURE -FOUNDATION	1,124.00	LB
113.	0530-1	RIPRAP, SAND CEMENT 4"	10.00	CY
114.	MC-030	ALUMINUM BRIDGE	1.00	EA

⚠ ADDENDUM I

1)LINE ITEM NUMBER 46 TYPE AB CURB & GUTTER HAS BEEN REMOVED FROM THE QUANTITY SHEET.

2)LINE ITEM NUMBERS FROM 12 TO 85 HAVE BEEN CHANGED.

CHRISTOPHER LEE MOWBRAY ★ LICENSE ★ No. 46777 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

MANATEE COUNTY, FLORIDA
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

MANATEE COUNTY FLORIDA

1022 26th Avenue East
Bradenton, FL 34208

15th ST EAST @ 51st AVE EAST AND PINE ST RELOCATION

QUANTITY SHEET

ADDENDUM I

NO.	BY	DATE	REVISION DESCRIPTION
1	AM	7/8/2013	⚠ ADDENDUM I

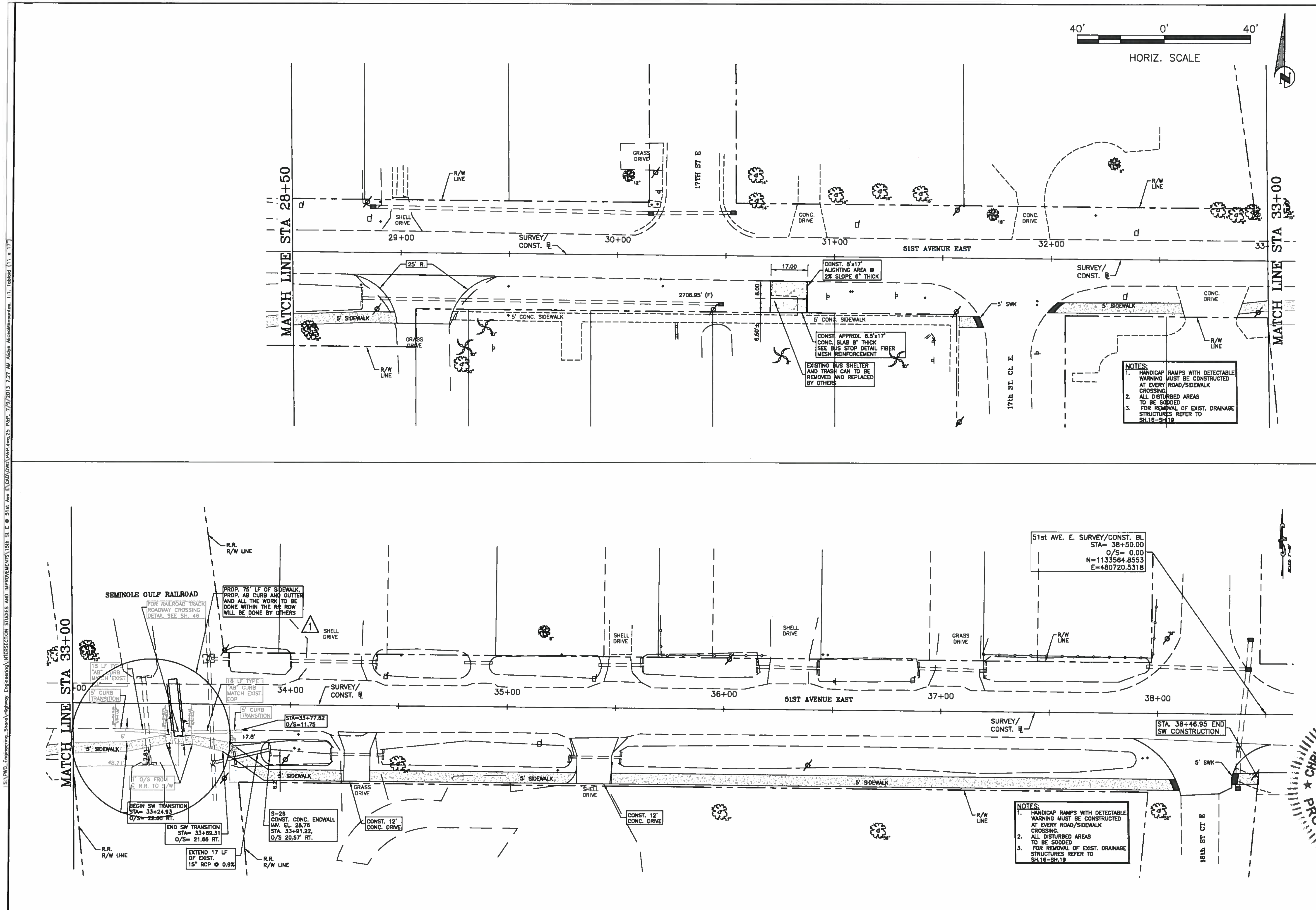
PROJECT #	232-6029960
SURVEY #	5303
SEC./TWN./RGE	7/35S/18E
SCALE	N.T.S.

	BY	DATE
SURVEYED	------	00/00/00
DESIGNED	AAM	08/10
DRAWN	TMF	05/12
CHECKED	AAM	05/12

C. MOWBRAY P.E.
FLORIDA P.E. # 46777
7/9/13
Signature & Date

SHEET 12

S:\PWD_Engineering_Shore\Highway_Engineering\INTERSECTION STUDIES AND IMPROVEMENTS\15th St E @ 51st Ave E\CAD\DWG\QNR.dwg,12 QTY., 7/8/2013 9:13 AM, Aldyra Alicea\Monarchs, 1:1, Tabloid (11 x 17")



MANATEE COUNTY, FLORIDA
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

MANATEE COUNTY FLORIDA
1022 26th Avenue East
Bradenton, FL 34208

15th ST EAST @ 51st AVE EAST AND PINE ST RELOCATION

PLAN 51ST AVE. EAST

ADDENDUM I

NO.	REVISION DESCRIPTION	BY	DATE
1	ADDENDUM I	AM	7/8/2013

PROJECT No. 6029960

SURVEYED	------	00/00/00
DESIGNED	AAM	8/10
DRAWN	HF	8/10
CHECKED	AAM	

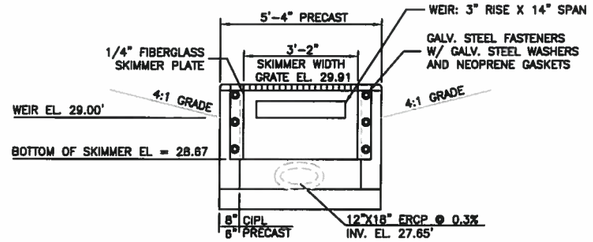
CHRISTOPHER LEE MOWBRAY, P.E. FLORIDA P.E. #46777

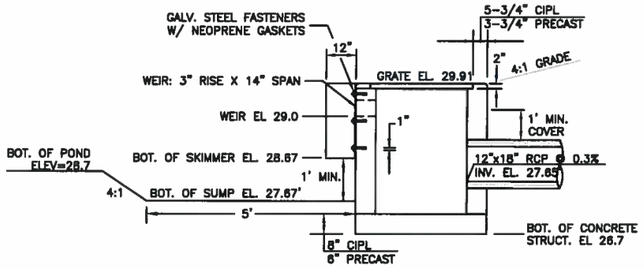
No. 46777 STATE OF FLORIDA PROFESSIONAL ENGINEER

7/9/13

Signature & Date

SHEET 25

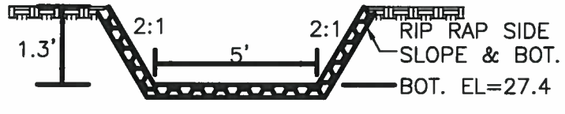




5'-6" x 4'-0" CONC. BLOCK BOX PER MANATEE CO. 202.1/202.4

PROPOSED CONTROL STRUCTURE & SUMP
DETAIL FOR DRY POND-PINE STREET

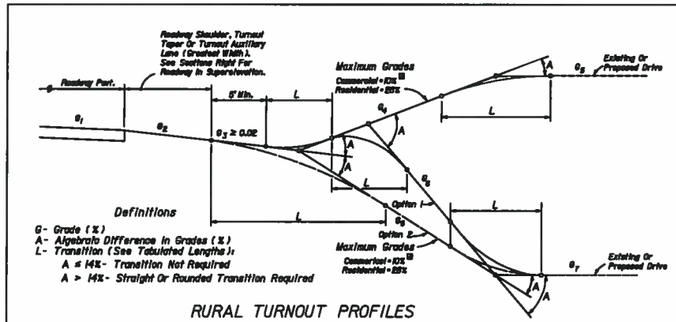
N.T.S.



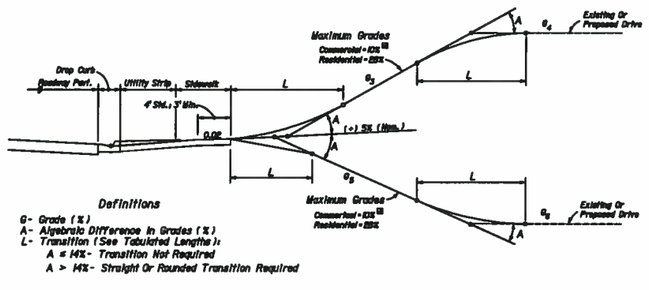
SUMP DETAIL

N.T.S.

⚠1 PROPOSED TRACK ROADWAY CROSSING DETAIL AT EXISTING R.R.-51th AVE. E. AND PROPOSED 4' SIDEWALK AT EXISTING R.R. CROSSING GATE @ 51th AVE. E. DETAILS HAVE BEEN REMOVED FROM THE PLANS.



RURAL TURNOUT PROFILES



URBAN TURNOUT PROFILES

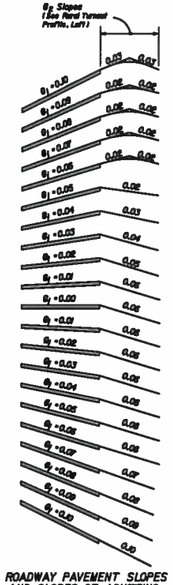
■ When restoring or reconstructing existing commercial turnout connections on new construction and reconstruction projects, the maximum 10% commercial grade may be exceeded provided this does not create any adverse roadway operational or safety impacts. This shall be approved by the District Design Engineer and be supported by documented site specific findings.

LENGTHS (L) (FT.)

A	CRESTS				SAGS			
	STRAIGHT		ROUNDED		STRAIGHT		ROUNDED	
	Desirable	Minimum	Desirable	Minimum	Desirable	Minimum	Desirable	Minimum
6-13%	3	0	5	0	3	0	5	0
14%	3	0	10	0	3	0	10	0
15%	3	2.5	10	3	5	3	10	5
16%	5	3	10	4	6	4	10	6
17%	9	3.5	10	5	8	5	10	7
18%	6	4	10	6	9	6	10	8
19%	7	4.5	10	7	11	7	12	9
20%	8	5	11	8	12	8	13	10
21%	9	5.5	12	9	13	8.5	14	11
22%	10	6	13	10	14	9	15	12
23%	10	6.5	14	10.5	14	9.5	15	12.5
24%	11	7	15	11	15	10	17	13
25%	12	7.5	15	11.5	15	10.5	18	13.5
26%	12	8	16	12	17	11	18	14
27%	13	8.5	17	12.5	17	11.5	19	14.5
28%	14	9	17	13	18	12	20	15
29%	NA	NA	22	14	NA	NA	21	17
30-31%	NA	NA	23	15	NA	NA	22	18
32-33%	NA	NA	24	16	NA	NA	23	20
34-36%	NA	NA	26	17	NA	NA	25	21
37-38%	NA	NA	27	18	NA	NA	26	22
39-41%	NA	NA	29	19	NA	NA	28	24
42-43%	NA	NA	30	20	NA	NA	29	25
44-46%	NA	NA	32	21	NA	NA	31	26
47-48%	NA	NA	33	22	NA	NA	32	27
49-51%	NA	NA	34	23	NA	NA	34	28
52-54%	NA	NA	36	24	NA	NA	35	30
55-58%	NA	NA	37	25	NA	NA	36	31

Rounded: Either circular, parabolic or spline curvature. The plans or the Engineer may specify a particular type of curvature.
Desirable: Desirable absolute lengths. Minimum: Absolute minimum lengths. } Greater lengths than minimum and desirable are recommended where practical for flatter and smoother profile.

RECOMMENDED TURNOUT PROFILE TRANSITION LENGTHS (L) (FT)



ROADWAY PAVEMENT SLOPES AND SLOPES OF ABUTTING RURAL TURNOUT SURFACES (G_s)

SUPERELEVATION SECTIONS

STORMWATER RUNOFF AND PROFILE OPTION NOTES

1. Turnouts shall neither cause water to flow on or across the roadway pavement, nor cause water ponding or erosion within the State right of way. On all rural turnouts the transition (L) except the roadway shall be sloped or crowned to direct stormwater runoff to the roadside ditch. Inlets, flumes or other appropriate runoff control devices shall be constructed where runoff volumes are sufficient to cause erosion of the shoulder. Similar runoff control devices shall be constructed as necessary to properly direct and control the stormwater runoff on urban turnouts.

2. The Option 1 profile is intended for locations where roadway, turnout taper and auxiliary lane stormwater runoff volumes are relatively large. The Option 2 profile is intended for locations where runoff volumes are relatively small and/or where there is no roadside ditch.

TURNOUT PROFILES

TURNOUTS

Sheet No. 6 of 6

Index No. 515

MANATEE COUNTY, FLORIDA
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES

1022 26th Avenue East
Bradenton, FL 34208

15th ST EAST @ 51st AVE EAST AND PINE ST RELOCATION

GENERAL DETAIL ADDENDUM I

NO.	REVISION DESCRIPTION	BY	DATE
1	⚠ ADDENDUM I	AM	7/9/2013

PROJECT #	323-6029980
SURVEY #	5303
SEC./TWN./RGE	7/35S/18E
SCALE	N.T.S.

	BY	DATE
SURVEYED		00/00/00
DESIGNED	AAM	07/11/11
DRAWN	SMF	05/04/12
CHECKED	AAM	06/20/2013

CHRISTOPHER LEE MOWERY, P.E.
LICENSE NO. 46777
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FLORIDA P.E. # 46777
CHRISTOPHER LEE MOWERY, P.E.
STATE OF FLORIDA
Signature Date

SHEET 46

S:\PWD_Engineering_Share\Highway_Engineering\INTERSECTION STUDIES AND IMPROVEMENTS\15th St E @ 51st Ave E\CAD\DWG\DET-GEN.dwg, 46 DET (ADDENDUM), 7/9/2013 7:25 AM Aloya AcreMonsanto, 11: Tabloid (11 x 17)