GENERAL NOTES ELECTRICAL

GENERAL NOTES APPLY TO ALL ELECTRICAL DRAWINGS.

1. DO NOT SCALE FROM THESE DRAWINGS.
2. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. THE DIVISION 26 CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
4. ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTIVE CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTIVE CEILING PLANS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS.
5. RECEPTACLES IN MECHANICAL ROOM, ELECTRICAL ROOMS, STORAGE ROOMS AND CUSTODIAL/JANITOR CLOSETS TO BE MOUNTED 48" A.F.F. AND SHALL BE G.F.I. TYPE.
6. ALL EXTERIOR WIRING DEVICES TO BE WEATHERPROOF AND SHALL BE G.F.I. TYPE.
7. CONDUIT RUNS SHOWN ARE DIAGRAMMATIC IN NATURE. DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NEC AND FOR COORDINATION WITH OTHER DISCIPLINES.
8. ALL H.I.D. AND FLUORESCENT LIGHT FIXTURES SHALL BE FURNISHED WITH INTEGRAL FUSING.
9. PROVIDE 2#12AWG + 1#12AWG EQUIPMENT GROUND COPPER IN 3/4" CONDUIT FOR ALL 120V BRANCH CIRCUITS LESS THAN 75 FEET. SEE DRAWINGS FOR OTHER CONDUCTOR IN CONDUIT SIZES DUE TO THE LENGTH OF THE PROJECT SCOPE.
10. ALL FREE-WIRED CABLING SHALL BE PLENUM-RATED UNLESS OTHERWISE NOTED.
11. ALL ELECTRICAL DEVICES AND ASSOCIATED COVERPLATES SHALL BE WHITE UNLESS OTHERWISE NOTED.
12. ALL EXTERIOR, EXPOSED CONDUIT RUNS SHALL BE INSTALLED IN SUCH A MANNER AS TO REDUCE THEIR VISIBILITY FROM THE BUS PATRONS. THE ELECTRICAL CONTRACTOR SHALL SUBMIT DETAILS OF ALL EXPOSED CONDUIT INSTALLED IN WRITING TO THE ARCHITECT PRIOR TO ROUGH-IN. THE ARCHITECT AND ENGINEER WILL REVIEW THESE DETAILS AND ISSUE IN WRITING COMMENTS AND FURTHER DETAILS AS NECESSARY. INCLUDE THESE COSTS IN THE BID.
13. ALL EXTERIOR CONDUIT SHALL BE THREADED METALLIC CONDUIT WITH THREADED FITTINGS.

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE	MCA	MINIMUM CIRCUIT AMPS
1PH	SINGLE-PHASE	MCB	MAIN CIRCUIT BREAKER
3PH	THREE-PHASE	MDP	MAIN DISTRIBUTION PANEL
A OR AMP	AMPERE	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AFG	ABOVE FINISHED GRADE	MOCP	MAXIMUM OVER CURRENT PROTECTION
AIC	AMPERE INTERRUPTING CAPACITY	NEC	NATIONAL ELECTRICAL CODE
AMP	AMPERE	[N]	NEW
AWG	AMERICAN WIRE GAUGE	[NL]	NEW LOCATION OF EXISTING
CB	CIRCUIT BREAKER	PH	PHASE
CKT	CIRCUIT	PNL	PANEL
CLG	CEILING (TYPICALLY CEILING MOUNTED)	[R]	EXISTING TO BE REMOVED
CM	CONSTRUCTION MANAGER	[RL]	EXISTING TO BE RELOCATED
CU	COPPER	[RP]	EXISTING TO BE REPLACED
EQPT	EQUIPMENT	RMC	RIGID METAL CONDUIT
EMT	ELECTRICAL METALLIC TUBING	SPD	SURGE PROTECTION DEVICE
[E]	EXISTING TO REMAIN	TBD	TO BE DETERMINED
FA	FIRE ALARM	TYP	TYPICAL
FACP	FIRE ALARM CONTROL PANEL	UON OR UNO	UNLESS OTHERWISE NOTED
FLA	FULL LOAD AMPS	UPS	UNINTERRUPTIBLE POWER SUPPLY
G OR GRD	GROUND	V	VOLTS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	VA	VOLT AMPERE
HP	HORSE POWER	VFD	VARIABLE FREQUENCY DRIVE
J-BOX	JUNCTION BOX	WG	WIRE GUARD(S)
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF, FULLY GASKETED ALUMINUM BACKBOX WITH IMC RACEWAY AND THREADED FITTINGS. PROVIDE COMPONENTS WITH U.L. WET LABEL.
kW	KILOWATT		
kWh	KILOWATT HOUR		
LC	LOAD CENTER		
LED	LIGHT EMITTING DIODE		
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	XFMR	TRANSFORMER

ADDITIONAL SUBMITTALS/SHOP DRAWING LIST

REQUIRED	SUBMITTALS REQUIRED OTHER THAN WHAT HAS BEEN SPECIFIED:
YES	SUBSURFACE CONDUIT PLAN
YES	IN GRADE PULL BOXES AND HANDHOLES
YES	PROVIDE OCCUPANCY SENSOR WIRING DIAGRAMS IN .DWG FILE FORMAT AT THE TIME OF SHOP DRAWING REVIEW
YES	LED DRIVER LOCATIONS AND CABLING CONFIGURATIONS
YES	CANOPY CONDUIT ROUTING DETAILS

NOTE: NOT ALL SYMBOLS SHOWN ON LEGEND ARE USED ON FLOOR PLANS.

ELECTRICAL LEGEND

COMMUNICATIONS

NOTES: ALL DEVICES TO BE WHITE IN COLOR. THE FOLLOWING ABBREVIATIONS APPLY TO COMMUNICATIONS OUTLETS WHERE INDICATED:
'H' INDICATES HORIZONTALLY MOUNTED OUTLET.
'WP' INDICATES WEATHERPROOF BACKBOX, IMC RACEWAY WITH THREADED FITTINGS AND UL WET LABEL "IN-USE" COVER. PROVIDE INTERMATIC DIE-CAST WP1010MC SERIES WEATHERPROOF COVER.

TV — TELEVISION OUTLET, RECESS MOUNT 18"AFF TO CENTER OF BACKBOX U.N.O.. PROVIDE 2-GANG BACKBOX WITH SINGLE GANG OPENING AND (1) 3/4" CONDUIT WITH BUSHINGS INTO AN ACCESSIBLE CEILING SPACE. PROVIDE RG-6 CABLE TO CATV DEMARC. COVERPLATES AND TERMINATIONS BY OWNER.

COMMUNICATIONS OUTLET WITH TELEPHONE AND DATA SERVICES, RECESS MOUNT 18" AFF. PROVIDE 2-GANG BACKBOX WITH 2-GANG OPENING AND (2) 3/4" CONDUITS WITH BUSHINGS INTO AN ACCESSIBLE CEILING SPACE. WIRING, COVERPLATES AND TERMINATIONS BY OWNER.

COMMUNICATIONS OUTLET WITH TELEPHONE AND DATA SERVICES, RECESS MOUNT ABOVE COUNTER, CASEWORK, ETC. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND/OR EXISTING CONDITIONS PRIOR TO ROUGH-IN. PROVIDE 2-GANG BACKBOX WITH 2-GANG OPENING AND (2) 3/4" CONDUITS WITH BUSHINGS INTO AN ACCESSIBLE CEILING SPACE. WIRING, COVERPLATES AND TERMINATIONS BY OWNER.

COMM — COMMUNICATIONS EQUIPMENT BACKBOARD. PROVIDE 4'x8', 3/4" THICK PLYWOOD BACKBOARD(S) SEALED WITH THREE COATS OF FIRE RETARDANT PAINT U.N.O. PROVIDE GROUND BUS.

POWER DISTRIBUTION - REFER TO THE RISER DIAGRAM AND SPECIFICATIONS

PNL — PANELBOARD, REFER TO THE "PANELBOARD SCHEDULE"

FEEDER, BRANCH CIRCUIT OR SWITCH LEG CONCEALED IN WALL, CEILING OR FLOOR

BRANCH CIRCUIT SERVING BOTH LIGHTING FIXTURES AND/OR WIRING DEVICES, ETC. FIXTURES ARE SWITCHED, DIMMED, ETC AS INDICATED. RECEPTACLES ARE SERVED BY UN-SWITCHED PHASE CONDUCTOR OF BRANCH CIRCUIT INDICATED (I.E. FIXTURES AND RECEPTACLES ARE ON SAME CIRCUIT, BUT FIXTURES ARE SWITCHED AND RECEPTACLES ARE UN-SWITCHED).

BRANCH CIRCUITRY (UNSWITCHED) IN BETWEEN SWITCHED LIGHTING FIXTURES, WIRING DEVICES, ETC.

HOMERUN TO PANELBOARD WITH CIRCUIT(S) INDICATED. PROVIDE 2#12 CU, 1#12 CU GROUND IN 3/4" CONDUIT U.N.O. ON DRAWINGS AND/OR IN SPECIFICATIONS

HOMERUN TO PANELBOARD WITH DIRECT ELECTRICAL CONNECTION TO EQUIPMENT.

SERVICE GROUND — SERVICE GROUND. PROVIDE, IN A TRIANGULAR PATTERN, A MINIMUM OF (3) 5/8"DIA, 10 FOOT LONG COPPER-CLAD STEEL GROUND RODS LOCATED AT LEAST 10 FEET APART. ALL CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. PROVIDE NON-METALLIC TEST WELL AND COVER OVER EACH ROD WHEN ASSEMBLY IS LOCATED IN LANDSCAPE AREA (PREFERRED AREA). PROVIDE CONCRETE WELL WITH METAL TRAFFIC COVER OVER EACH ROD WHEN ASSEMBLY IS LOCATED IN HARD SURFACE AREAS, SUCH AS CONCRETE, ASPHALT, ETC. GROUND TO FOUNDATION STEEL AND METAL FRAME OF BUILDING.

EC / EC-# — EQUIPMENT CONNECTION. DESIGNATION INDICATES EQUIPMENT NAME. REFER TO THE "EQUIPMENT CONNECTION SCHEDULE" FOR REQUIRED ELECTRICAL SERVICE

SERVICE DISCONNECT SWITCH. PROVIDE HEAVY DUTY, NON-FUSED, NEMA-1 SWITCH U.N.O.. REFER TO PLANS AND SCHEDULES FOR ADDITIONAL REQUIREMENTS. PROVIDE NEMA-3R WEATHERPROOF ENCLOSURE, IMC RACEWAY WITH THREADED FITTINGS, ETC FOR DAMP AND WET LOCATIONS.

(#) — INDICATES FEEDER SIZE ON ELECTRICAL RISER DIAGRAM. REFER TO THE "FEEDER SCHEDULE"

WIRING DEVICES - REFER TO THE SPECIFICATIONS

NOTE: ALL DEVICES SHALL BE WHITE IN COLOR. RECEPTACLES SHALL BE VERTICALLY MOUNTED WITH THE GROUND PIN HOLE LOCATED AT THE "TWELVE O'CLOCK" (TOP OF DEVICE) POSITION U.N.O.

NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO WIRING DEVICES WHERE INDICATED:
'EWC' INDICATES DEVICE MOUNTED BEHIND ELECTRIC WATER COOLER ENCLOSURE. COORDINATE DEVICE LOCATION WITH PLUMBING CONTRACTOR AND APPROVED PLUMBING SHOP DRAWINGS PRIOR TO ROUGH-IN.
'H' INDICATES HORIZONTALLY MOUNTED WIRING DEVICE.
'IG' INDICATES ISOLATED GROUND TYPE WIRING DEVICE.
'SP' INDICATES SURGE PROTECTION TYPE WIRING DEVICE. PROVIDE DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT. PROVIDE SPECIFICATION GRADE 20A EAGLE No. IG1210-BLUE WITH REPLACEABLE MODULE No. 1209.
'WP' INDICATES WEATHERPROOF FULLY GASKETED CAST ALUMINUM BACKBOX, IMC RACEWAY WITH THREADED FITTINGS AND UL WET LABELED "IN-USE" COVER. PROVIDE INTERMATIC DIE-CAST WP1010MC SERIES WEATHERPROOF COVER.

SIMPLEX RECEPTACLE, 20 AMP, HEAVY DUTY, RECESS MOUNT 18"AFF TO CENTER OF BACKBOX U.N.O.

1 — DUPLEX RECEPTACLE, 20 AMP, HEAVY DUTY, RECESS MOUNT 18"AFF TO CENTER OF BACKBOX U.N.O.
NUMBER (i.e. 1) INDICATES BRANCH CIRCUIT NUMBER

DUPLEX RECEPTACLE, 20 AMP, HEAVY DUTY, RECESS MOUNT ABOVE COUNTER, CASEWORK, ETC. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND/OR EXISTING CONDITIONS PRIOR TO ROUGH-IN

DOUBLE DUPLEX RECEPTACLE WITH COMMON COVER PLATE, 20 AMP, HEAVY DUTY, RECESS MOUNT 18"AFF TO CENTER OF BACKBOX U.N.O.

DOUBLE DUPLEX RECEPTACLE WITH COMMON COVER PLATE, 20 AMP, HEAVY DUTY, RECESS MOUNT ABOVE COUNTER, CASEWORK, ETC. WHEN REQUIRED BY THE CASEWORK, PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT WITH FITTINGS. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND/OR EXISTING CONDITIONS PRIOR TO ROUGH-IN.

GFCI TYPE DUPLEX RECEPTACLE, 20 AMP, HEAVY DUTY, RECESS MOUNT 18"AFF TO CENTER OF BACKBOX U.N.O.

GFCI TYPE DUPLEX RECEPTACLE, 20 AMP, HEAVY DUTY, RECESS MOUNT ABOVE SINK, COUNTER, CASEWORK, ETC. WHEN REQUIRED BY THE CASEWORK, PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT WITH FITTINGS. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND/OR EXISTING CONDITIONS PRIOR TO ROUGH-IN.

SECURITY SYSTEM

C — ROUGH-IN FOR SECURITY SYSTEM DOOR/WINDOW CONTACT. COORDINATE EXACT LOCATION WITH ARCHITECT AND ARCHITECTURAL DOOR/WINDOW SCHEDULES AND SPECIFICATIONS PRIOR TO BID. PROVIDE (1) 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE U.N.O. CONTACT AND WIRING PROVIDED BY OTHERS.

EL — ROUGH-IN FOR SECURITY SYSTEM ELECTRIC LOCK. COORDINATE EXACT LOCATION WITH ARCHITECT AND ARCHITECTURAL DOOR/HARDWARE SCHEDULES AND SPECIFICATIONS PRIOR TO BID. PROVIDE (2) 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE U.N.O. ELECTRIC LOCK AND WIRING PROVIDED BY OTHERS.

CR — ROUGH-IN FOR SECURITY SYSTEM CARD READER MOUNTED 48"AFF TO CENTER OF BACKBOX. PROVIDE RECESS MOUNTED, SINGLE GANG BACKBOX AND (1) 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE U.N.O.. PROVIDE BUILDING STANDARD BLANK COVERPLATE OVER BACKBOX. IN DAMP OR WET LOCATIONS PROVIDE WEATHERPROOF FULLY GASKETED CAST ALUMINUM BACKBOX AND IMC RACEWAY WITH THREADED FITTINGS. CARD READER AND WIRING PROVIDED BY OTHERS.

KP — ROUGH-IN FOR SECURITY SYSTEM KEY PAD MOUNTED 60"AFF TO CENTER OF BACKBOX. PROVIDE RECESS MOUNTED, SINGLE GANG BACKBOX AND (1) 3/4" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE U.N.O.. PROVIDE BUILDING STANDARD BLANK COVERPLATE OVER BACKBOX. KEY PAD AND WIRING PROVIDED BY OTHERS.

SC — ROUGH-IN FOR SECURITY SYSTEM CAMERA. COORDINATE LOCATION WITH OWNER, GENERAL CONTRACTOR AND ARCHITECT PRIOR TO BID. PROVIDE RECESS MOUNTED, SINGLE GANG BACKBOX AND (1) 1" CONDUIT WITH BUSHINGS AND PULL STRING STUBBED INTO ACCESSIBLE CEILING SPACE U.N.O.. PROVIDE BUILDING STANDARD BLANK COVERPLATE OVER BACKBOX. IN EXPOSED DAMP OR WET LOCATIONS PROVIDE WEATHERPROOF FULLY GASKETED CAST ALUMINUM BACKBOX AND IMC RACEWAY WITH THREADED FITTINGS. IN CONCEALED LOCATIONS (TYPICALLY BELOW GRADE AND CONCEALED IN CONCRETE OR STEEL COLUMNS), PROVIDE SCHEDULE 40 PVC CONDUIT WITH LONG SWEEP ELLS AND PULL STRING. CAMERA AND WIRING PROVIDED BY OTHERS.

LIGHTING FIXTURES - REFER TO THE LIGHTING FIXTURE SCHEDULE

NOTE: THE FOLLOWING ABBREVIATIONS APPLY TO LIGHTING FIXTURES WHERE INDICATED:
'NL' INDICATES NIGHT LIGHT
UPPER CASE LETTER (i.e. 'A') INDICATES FIXTURE TYPE.
NUMBER (i.e. 1) INDICATES BRANCH CIRCUIT NUMBER.
LOWER CASE LETTER (i.e. 'a') INDICATES SWITCH CONTROLLING FIXTURE.

A1a — FLUORESCENT LIGHTING FIXTURE, DIRECT/INDIRECT, 2'x2', CEILING MOUNTED

OPEN DOWNLIGHTING FIXTURE, CEILING MOUNTED

LIGHTING FIXTURE, WALL MOUNT ABOVE DOOR

LIGHTING FIXTURE, UPLIGHTING FOR ROOF ACCENT

LED LINEAR LIGHT BAR, 4FT IN LENGTH, OUTDOOR MOUNTED

LIGHTING FIXTURE(S) AND POLE ASSEMBLY. PROVIDE FIXTURE(S), POLE, ALL REQUIRED MOUNTING BRACKETS, SHIELDS, COMPONENTS, HARDWARE, ETC. AND CONCRETE BASE (IF REQUIRED). REFER TO THE STREETLIGHTING POLE BASE DETAIL.

SINGLE FACE EXIT SIGN WITH BATTERY PACK, CEILING MOUNT 7'-6"AFF OR 6" BELOW CEILING TO TOP OF BACKBOX, WHICHEVER IS LOWER U.N.O.. CONNECT TO UNSWITCHED PHASE CONDUCTOR OF GENERAL LIGHTING CIRCUIT USED IN SPACE WHERE FIXTURE IS SHOWN OR TO CIRCUIT INDICATED

DOUBLE FACE EXIT SIGN WITH BATTERY PACK, CEILING MOUNT 7'-6"AFF OR 6" BELOW CEILING TO TOP OF BACKBOX, WHICHEVER IS LOWER U.N.O.. CONNECT TO UNSWITCHED PHASE CONDUCTOR OF GENERAL LIGHTING CIRCUIT USED IN SPACE WHERE FIXTURE IS SHOWN OR TO CIRCUIT INDICATED

DUAL HEAD EMERGENCY LIGHTING FIXTURE WITH BATTERY PACK, WALL MOUNT 7'-6"AFF OR 6" BELOW CEILING TO TOP OF BACKBOX, WHICHEVER IS LOWER U.N.O.. CONNECT TO UNSWITCHED PHASE CONDUCTOR OF GENERAL LIGHTING CIRCUIT USED IN SPACE WHERE FIXTURE IS SHOWN OR TO CIRCUIT INDICATED

PC — PHOTOCELL, PROVIDE LIGHTING CONTROL PANEL'S PREFERRED CONTROL. PROVIDE ALL REQUIRED MOUNTING BRACKETS, COMPONENTS, HARDWARE, ETC. FACE PHOTOCELL NORTH. PROVIDE #12AWG WIRING (OR WIRING AS REQUIRED BY MANUFACTURER) TO LIGHTING CONTROL PANEL.

SWITCHES - REFER TO THE SPECIFICATIONS (FINAL COLOR SELECTION BY ARCHITECT)

$ — SINGLE POLE TOGGLE SWITCH, 20 AMP, 277V, HEAVY DUTY, RECESS MOUNT 48"AFF TO CENTER OF BACKBOX.
LOWER CASE LETTER (i.e. 'a') INDICATES THE FIXTURE(S) CONTROLLED BY THE SWITCH.
'3' INDICATES THREE-WAY SWITCH
'4' INDICATES FOUR-WAY SWITCH
'K' INDICATES KEY SWITCH. PROVIDE OWNER WITH (2) KEYS PER SWITCH
'LT' INDICATES LIGHTED TOGGLE SWITCH ILLUMINATED IN "OFF" POSITION. PROVIDE SINGLE POLE 20A, 120/277V EAGLE No. 2221LTV
'MMS' INDICATES MANUAL MOTOR STARTER WITH SINGLE POLE, GUARD/LOCK- OFF, RED PILOT LIGHT AND THERMAL OVERLOAD IN NEMA-1 ENCLOSURE
'MRS' INDICATES MOTOR RATED SWITCH WITH SINGLE POLE AND GUARD/ LOCK-OFF IN NEMA-1 ENCLOSURE
'WP' INDICATES WEATHERPROOF BACKBOX, IMC RACEWAY WITH THREADED FITTINGS AND FULLY GASKETED UL WET LABEL COVER.

Ts (5) — PROVIDE COMMERCIAL GRADE OCCUPANCY SENSOR FOR LIGHTING CONTROL. SEE LIGHTING CONTROL SCHEDULE FOR DEVICE DETAILS. BASIS OF DESIGN IS WATTSTOPPER. PROVIDE SENSORS THAT ARE WHITE IN COLOR.

MISCELLANEOUS

A — DETAIL INDICATOR. REFER TO REFERENCED DETAIL

#/# — NOTE INDICATOR. REFER TO THE "KEY NOTES" WHERE INDICATED

EF — EXHAUST FAN

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

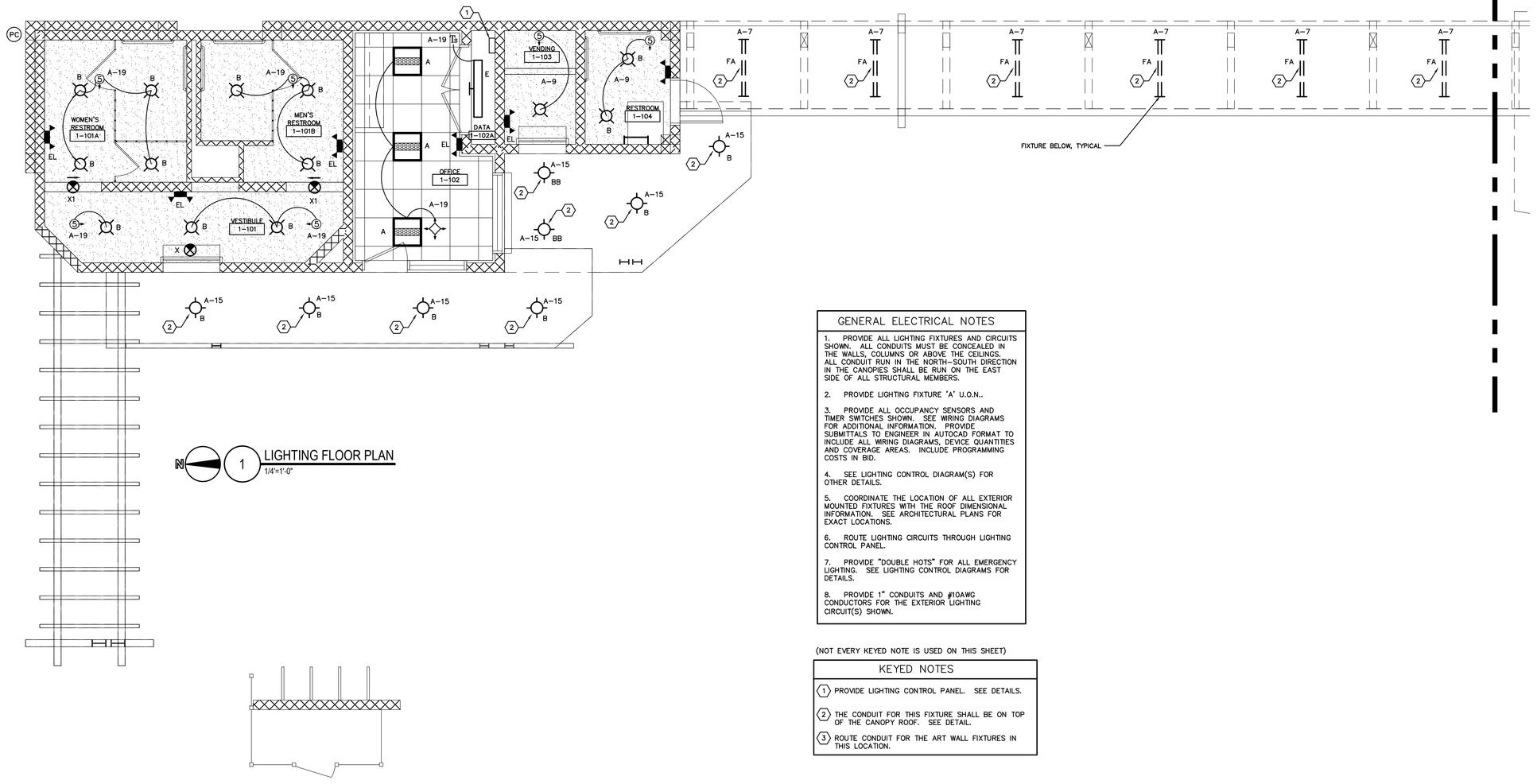
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL LEGEND

E001

100% CONSTRUCTION DOCUMENTS



1 LIGHTING FLOOR PLAN
1/4"=1'-0"

GENERAL ELECTRICAL NOTES

1. PROVIDE ALL LIGHTING FIXTURES AND CIRCUITS SHOWN. ALL CONDUITS MUST BE CONCEALED IN THE WALLS, COLUMNS OR ABOVE THE CEILINGS. ALL CONDUIT RUN IN THE NORTH-SOUTH DIRECTION IN THE CANOPIES SHALL BE RUN ON THE EAST SIDE OF ALL STRUCTURAL MEMBERS.

2. PROVIDE LIGHTING FIXTURE 'A' U.O.N..

3. PROVIDE ALL OCCUPANCY SENSORS AND TIMER SWITCHES SHOWN. SEE WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. PROVIDE SUBMITTALS TO ENGINEER IN AUTOCAD FORMAT TO INCLUDE ALL WIRING DIAGRAMS, DEVICE QUANTITIES AND COVERAGE AREAS. INCLUDE PROGRAMMING COSTS IN BID.

4. SEE LIGHTING CONTROL DIAGRAM(S) FOR OTHER DETAILS.

5. COORDINATE THE LOCATION OF ALL EXTERIOR MOUNTED FIXTURES WITH THE ROOF DIMENSIONAL INFORMATION. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS.

6. ROUTE LIGHTING CIRCUITS THROUGH LIGHTING CONTROL PANEL.

7. PROVIDE "DOUBLE HOTS" FOR ALL EMERGENCY LIGHTING. SEE LIGHTING CONTROL DIAGRAMS FOR DETAILS.

8. PROVIDE 1" CONDUITS AND #10AWG CONDUCTORS FOR THE EXTERIOR LIGHTING CIRCUIT(S) SHOWN.

(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE LIGHTING CONTROL PANEL. SEE DETAILS.
2. THE CONDUIT FOR THIS FIXTURE SHALL BE ON TOP OF THE CANOPY ROOF. SEE DETAIL.
3. ROUTE CONDUIT FOR THE ART WALL FIXTURES IN THIS LOCATION.

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

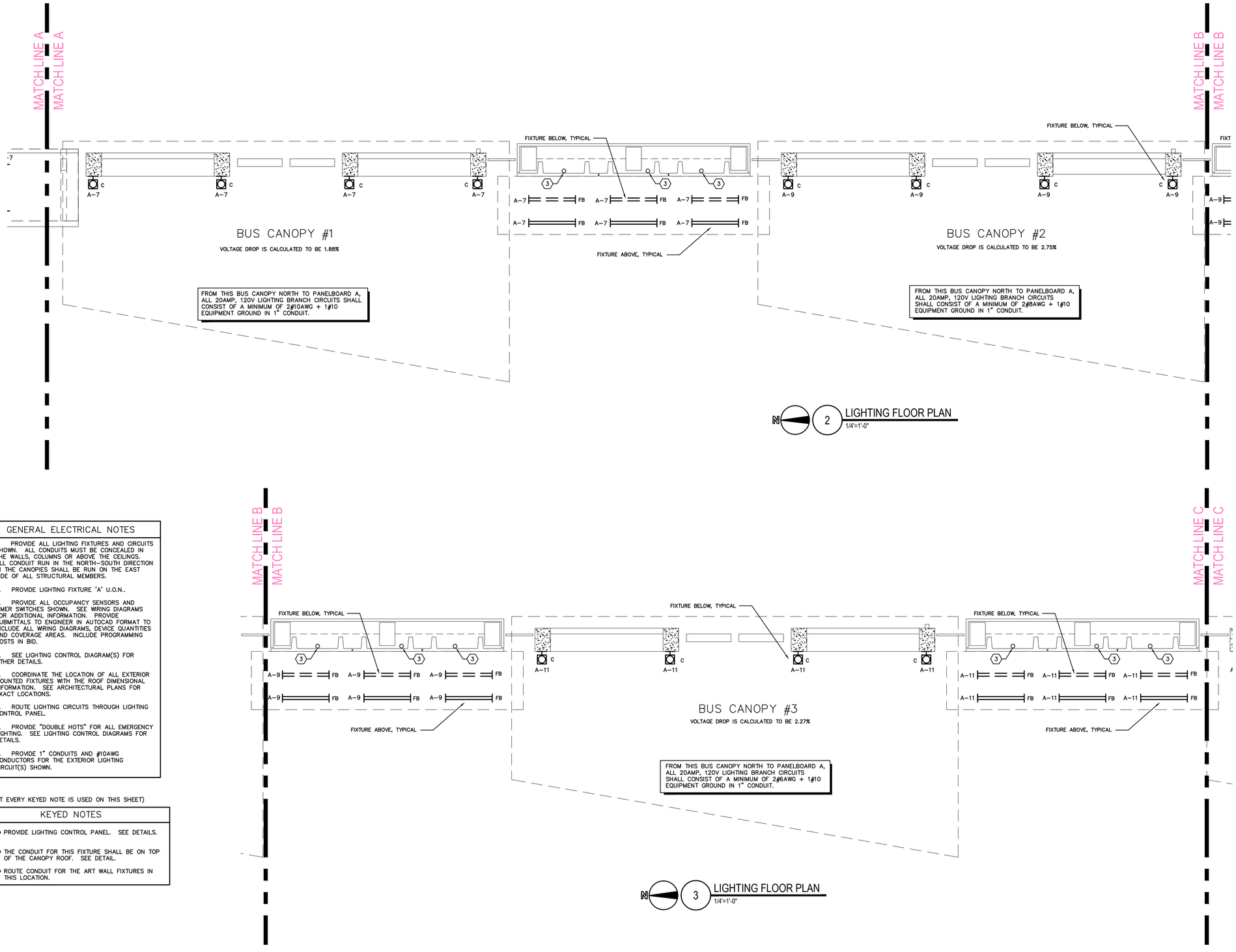
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

LIGHTING PLANS

E101

100% CONSTRUCTION DOCUMENTS



2 LIGHTING FLOOR PLAN
1/4"=1'-0"

3 LIGHTING FLOOR PLAN
1/4"=1'-0"

GENERAL ELECTRICAL NOTES

1. PROVIDE ALL LIGHTING FIXTURES AND CIRCUITS SHOWN. ALL CONDUITS MUST BE CONCEALED IN THE WALLS, COLUMNS OR ABOVE THE CEILINGS. ALL CONDUIT RUN IN THE NORTH–SOUTH DIRECTION IN THE CANOPIES SHALL BE RUN ON THE EAST SIDE OF ALL STRUCTURAL MEMBERS.
2. PROVIDE LIGHTING FIXTURE 'A' U.O.N..
3. PROVIDE ALL OCCUPANCY SENSORS AND TIMER SWITCHES SHOWN. SEE WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. PROVIDE SUBMITTALS TO ENGINEER IN AUTOCAD FORMAT TO INCLUDE ALL WIRING DIAGRAMS, DEVICE QUANTITIES AND COVERAGE AREAS. INCLUDE PROGRAMMING COSTS IN BID.
4. SEE LIGHTING CONTROL DIAGRAM(S) FOR OTHER DETAILS.
5. COORDINATE THE LOCATION OF ALL EXTERIOR MOUNTED FIXTURES WITH THE ROOF DIMENSIONAL INFORMATION. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS.
6. ROUTE LIGHTING CIRCUITS THROUGH LIGHTING CONTROL PANEL.
7. PROVIDE "DOUBLE HOTS" FOR ALL EMERGENCY LIGHTING. SEE LIGHTING CONTROL DIAGRAMS FOR DETAILS.
8. PROVIDE 1" CONDUITS AND #10AWG CONDUCTORS FOR THE EXTERIOR LIGHTING CIRCUIT(S) SHOWN.

(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE LIGHTING CONTROL PANEL. SEE DETAILS.
2. THE CONDUIT FOR THIS FIXTURE SHALL BE ON TOP OF THE CANOPY ROOF. SEE DETAIL.
3. ROUTE CONDUIT FOR THE ART WALL FIXTURES IN THIS LOCATION.

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

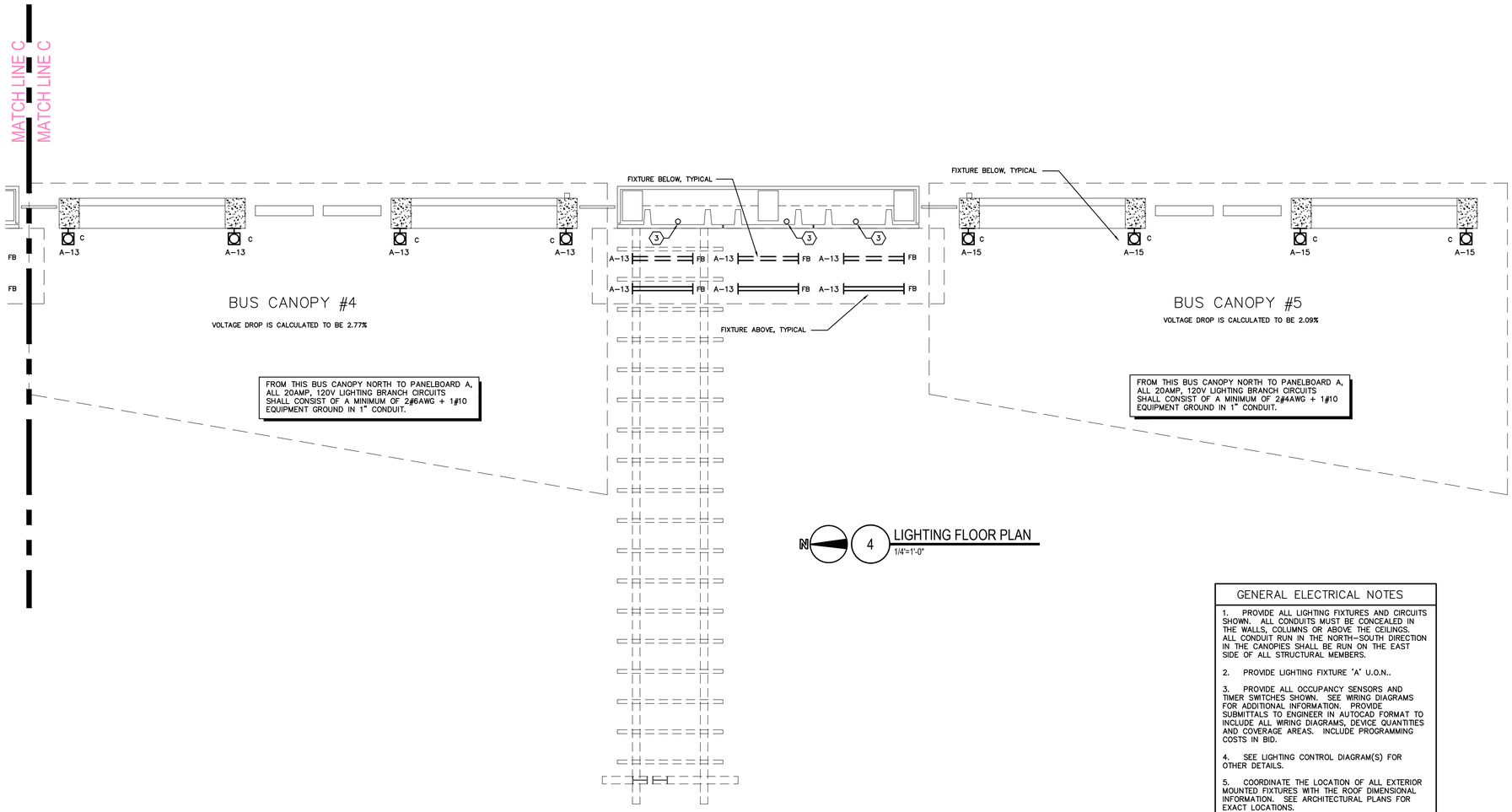
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

LIGHTING PLANS

E101A

100% CONSTRUCTION DOCUMENTS



N 4 LIGHTING FLOOR PLAN
1/4"=1'-0"

GENERAL ELECTRICAL NOTES

1. PROVIDE ALL LIGHTING FIXTURES AND CIRCUITS SHOWN. ALL CONDUITS MUST BE CONCEALED IN THE WALLS, COLUMNS OR ABOVE THE CEILINGS. ALL CONDUIT RUN IN THE NORTH–SOUTH DIRECTION IN THE CANOPIES SHALL BE RUN ON THE EAST SIDE OF ALL STRUCTURAL MEMBERS.
2. PROVIDE LIGHTING FIXTURE 'A' U.O.N..
3. PROVIDE ALL OCCUPANCY SENSORS AND TIMER SWITCHES SHOWN. SEE WIRING DIAGRAMS FOR ADDITIONAL INFORMATION. PROVIDE SUBMITTALS TO ENGINEER IN AUTOCAD FORMAT TO INCLUDE ALL WIRING DIAGRAMS, DEVICE QUANTITIES AND COVERAGE AREAS. INCLUDE PROGRAMMING COSTS IN BID.
4. SEE LIGHTING CONTROL DIAGRAM(S) FOR OTHER DETAILS.
5. COORDINATE THE LOCATION OF ALL EXTERIOR MOUNTED FIXTURES WITH THE ROOF DIMENSIONAL INFORMATION. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS.
6. ROUTE LIGHTING CIRCUITS THROUGH LIGHTING CONTROL PANEL.
7. PROVIDE "DOUBLE HOTS" FOR ALL EMERGENCY LIGHTING. SEE LIGHTING CONTROL DIAGRAMS FOR DETAILS.
8. PROVIDE 1" CONDUITS AND #10AWG CONDUCTORS FOR THE EXTERIOR LIGHTING CIRCUIT(S) SHOWN.

(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE LIGHTING CONTROL PANEL. SEE DETAILS.
2. THE CONDUIT FOR THIS FIXTURE SHALL BE ON TOP OF THE CANOPY ROOF. SEE DETAIL.
3. ROUTE CONDUIT FOR THE ART WALL FIXTURES IN THIS LOCATION.

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

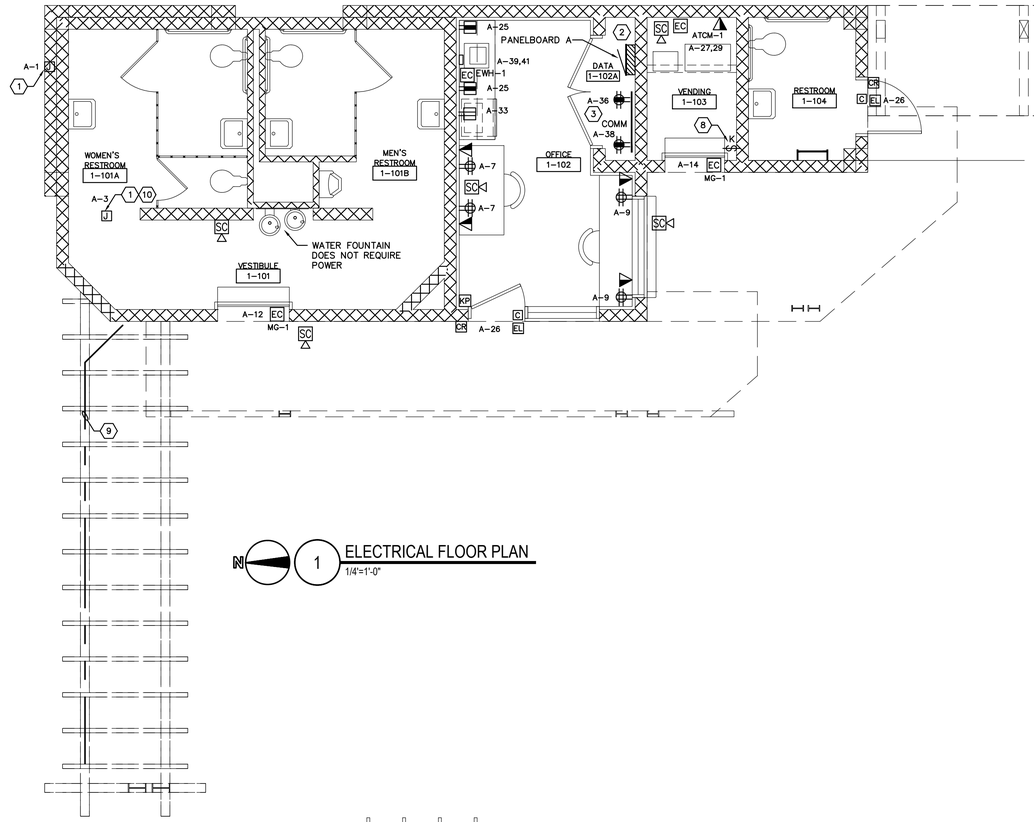
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

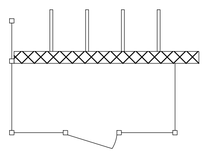
LIGHTING PLANS

E101B

100% CONSTRUCTION DOCUMENTS



N 1 ELECTRICAL FLOOR PLAN
1/4"=1'-0"



(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE 20AMP, 120V BRANCH CIRCUIT TO JUNCTION BOX FOR EXTERIOR BUILDING SIGNAGE.
2. SEE ELECTRICAL SITE PLAN AND ELECTRICAL RISER(S) FOR MAIN ELECTRIC SERVICE DETAILS.
3. SEE ELECTRICAL SITE PLAN FOR COMMUNICATIONS CONDUIT DETAILS.
4. PROVIDE 1" CONDUIT IN COLUMN FOR LIGHTING.
5. PROVIDE 1" CONDUIT IN COLUMN FOR COMMUNICATIONS (SECURITY CAMERA, ETC.)
6. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR ADVERTISEMENT SIGNAGE. ROUTE 1" CONDUIT ON EAST SIDE OF WALL AND THEN PROVIDE CAST IN PLACE BOX. PROVIDE 1" CONDUIT SLEEVE THROUGH WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A CDR SYSTEMS 6" BY 8" (MINIMUM SIZE) POLYMER CONCRETE STRAIGHT WALL BOX, ANSI TIER 8 LOADING, CATALOG SERIES B13060606A WITH CATALOG SERIES COVER C30060801A.
7. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR SIGNAGE. ROUTE 1" CONDUIT UP THE WEB OF THE COLUMN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A SIMILAR BOX TO THE ONE MENTIONED IN KEYED NOTE 6.
8. PROVIDE KEYED SWITCH FOR EXHAUST FAN CONTROL. SEE ROOF PLAN AND SCHEDULES FOR ADDITIONAL INFORMATION.
9. EXTEND BRANCH CIRCUIT WITH THREADED METALLIC CONDUIT, LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AND FITTINGS TO THE NEW LED SIGNAGE (BY SIGN SUPPLIER) ON THE OVERHEAD TRELLIS. THE DIVISION 26 CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH SIGN SUPPLIER PRIOR TO BID. PROVIDE NEMA 3R DISCONNECT IF REQUIRED BY AHJ. ROUTE CONDUIT IN FLANGE OF BEAM SO IT WILL REMAIN HIDDEN FROM VIEW.
10. SEE ELEVATION FOR THE LOCATION OF THIS JUNCTION BOX. ALL CONDUIT FROM THIS BOX WILL BE ABOVE THE CANOPY AND INSIDE THE FLANGE OF THE BEAM.

GENERAL ELECTRICAL NOTES

1. PROVIDE MACHINE ENGRAVED DEVICE COVERPLATES ON ALL DEVICES WITH THE PANEL AND CIRCUIT NUMBER PRIOR TO SUBSTANTIAL COMPLETION. INCLUDE DETAILS IN SUBMITTALS. COVERPLATES SHALL NOT BE LABELED IN THE FIELD.
2. PROVIDE ALL POWER AND SPECIAL COMPONENTS/CIRCUITS SHOWN. ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILINGS.
3. ALL REFERENCED IN GROUND BOXES SHALL HAVE A SKID RESISTANT COVER, TWO EACH STAINLESS STEEL BOLTS, AND THE LID SHALL BE LABELED "POWER" OR "COMMUNICATIONS" DEPENDING ON THE SERVICES ENTERING AND EXITING. DUE TO THE PROXIMITY OF THE PROPERTY LINE, THE ELECTRICAL CONTRACTOR SHALL CONFIRM WITH THE GENERAL CONTRACTOR ALL BOXES (AS WELL AS ALL ELECTRICAL ITEMS) ARE INSTALLED WITHIN THE RIGHT-OF-WAY AND NOT ON PRIVATE PROPERTY.

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

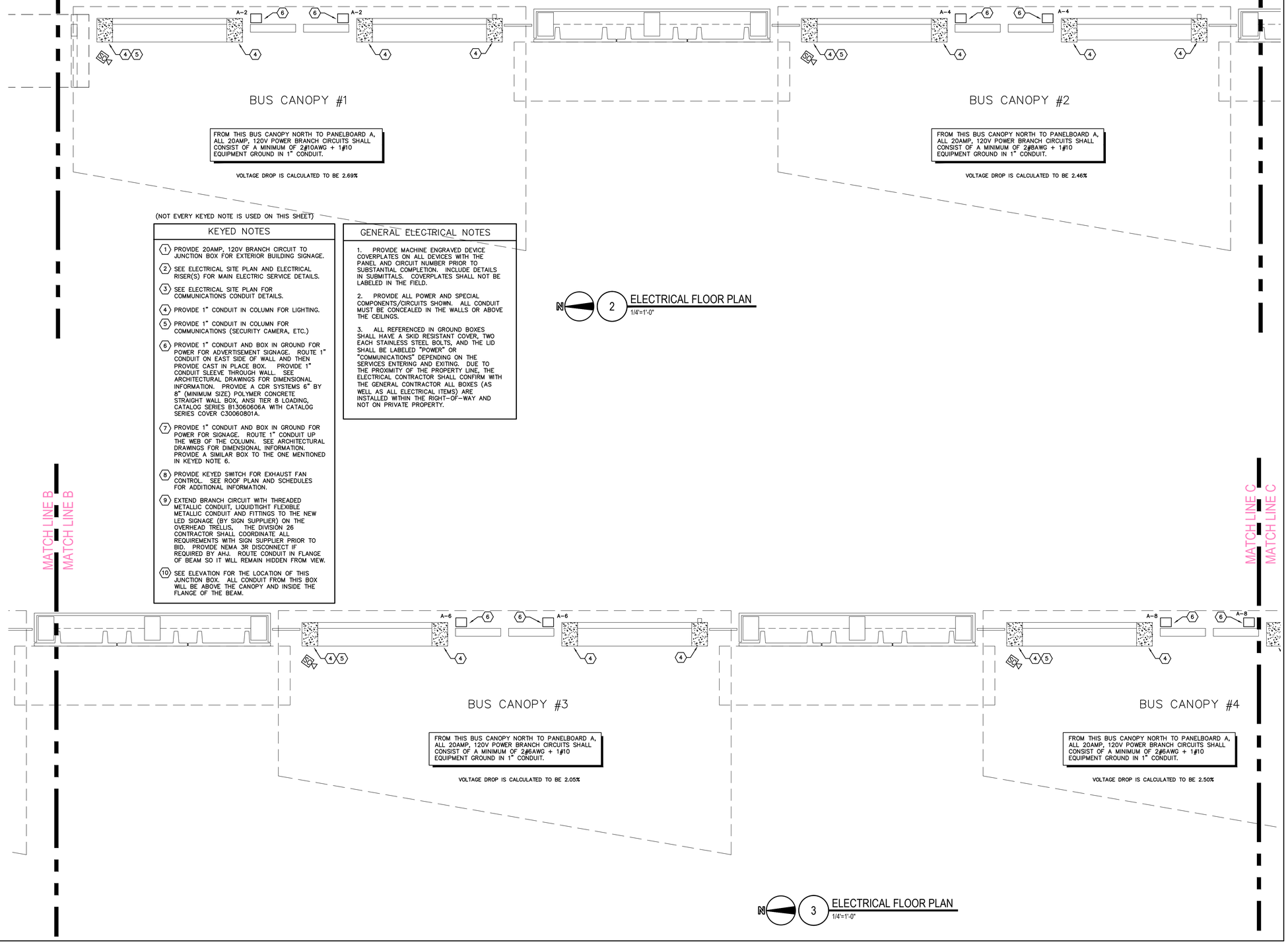
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL FLOOR PLANS

E102

100% CONSTRUCTION DOCUMENTS



(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE 20AMP, 120V BRANCH CIRCUIT TO JUNCTION BOX FOR EXTERIOR BUILDING SIGNAGE.
2. SEE ELECTRICAL SITE PLAN AND ELECTRICAL RISER(S) FOR MAIN ELECTRIC SERVICE DETAILS.
3. SEE ELECTRICAL SITE PLAN FOR COMMUNICATIONS CONDUIT DETAILS.
4. PROVIDE 1" CONDUIT IN COLUMN FOR LIGHTING.
5. PROVIDE 1" CONDUIT IN COLUMN FOR COMMUNICATIONS (SECURITY CAMERA, ETC.)
6. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR ADVERTISEMENT SIGNAGE. ROUTE 1" CONDUIT ON EAST SIDE OF WALL AND THEN PROVIDE CAST IN PLACE BOX. PROVIDE 1" CONDUIT SLEEVE THROUGH WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A CDR SYSTEMS 6" BY 8" (MINIMUM SIZE) POLYMER CONCRETE STRAIGHT WALL BOX, ANSI TIER 8 LOADING, CATALOG SERIES B13060606A WITH CATALOG SERIES COVER C30060801A.
7. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR SIGNAGE. ROUTE 1" CONDUIT UP THE WEB OF THE COLUMN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A SIMILAR BOX TO THE ONE MENTIONED IN KEYED NOTE 6.
8. PROVIDE KEYED SWITCH FOR EXHAUST FAN CONTROL. SEE ROOF PLAN AND SCHEDULES FOR ADDITIONAL INFORMATION.
9. EXTEND BRANCH CIRCUIT WITH THREADED METALLIC CONDUIT, LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AND FITTINGS TO THE NEW LED SIGNAGE (BY SIGN SUPPLIER) ON THE OVERHEAD TRELLIS. THE DIVISION 26 CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH SIGN SUPPLIER PRIOR TO BID. PROVIDE NEMA 3R DISCONNECT IF REQUIRED BY AHJ. ROUTE CONDUIT IN FLANGE OF BEAM SO IT WILL REMAIN HIDDEN FROM VIEW.
10. SEE ELEVATION FOR THE LOCATION OF THIS JUNCTION BOX. ALL CONDUIT FROM THIS BOX WILL BE ABOVE THE CANOPY AND INSIDE THE FLANGE OF THE BEAM.

GENERAL ELECTRICAL NOTES

1. PROVIDE MACHINE ENGRAVED DEVICE COVERPLATES ON ALL DEVICES WITH THE PANEL AND CIRCUIT NUMBER PRIOR TO SUBSTANTIAL COMPLETION. INCLUDE DETAILS IN SUBMITTALS. COVERPLATES SHALL NOT BE LABELED IN THE FIELD.
2. PROVIDE ALL POWER AND SPECIAL COMPONENTS/CIRCUITS SHOWN. ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILINGS.
3. ALL REFERENCED IN GROUND BOXES SHALL HAVE A SKID RESISTANT COVER, TWO EACH STAINLESS STEEL BOLTS, AND THE LID SHALL BE LABELED "POWER" OR "COMMUNICATIONS" DEPENDING ON THE SERVICES ENTERING AND EXITING. DUE TO THE PROXIMITY OF THE PROPERTY LINE, THE ELECTRICAL CONTRACTOR SHALL CONFIRM WITH THE GENERAL CONTRACTOR ALL BOXES (AS WELL AS ALL ELECTRICAL ITEMS) ARE INSTALLED WITHIN THE RIGHT-OF-WAY AND NOT ON PRIVATE PROPERTY.

N 2 ELECTRICAL FLOOR PLAN
1/4"=1'-0"

N 3 ELECTRICAL FLOOR PLAN
1/4"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

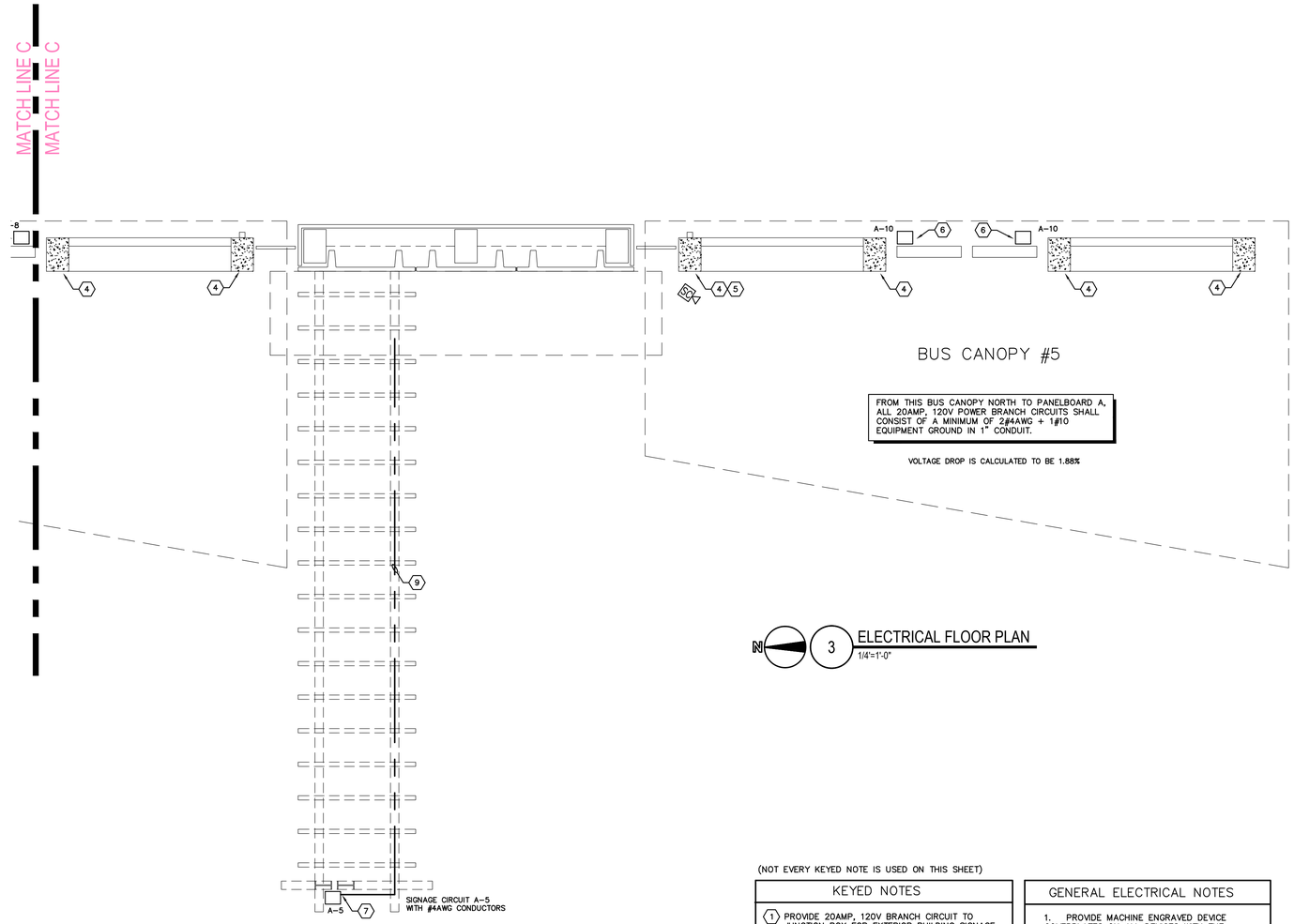
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL FLOOR PLANS

E102A

100% CONSTRUCTION DOCUMENTS



N 3 ELECTRICAL FLOOR PLAN
1/4"=1'-0"

(NOT EVERY KEYED NOTE IS USED ON THIS SHEET)

KEYED NOTES

1. PROVIDE 20AMP, 120V BRANCH CIRCUIT TO JUNCTION BOX FOR EXTERIOR BUILDING SIGNAGE.
2. SEE ELECTRICAL SITE PLAN AND ELECTRICAL RISER(S) FOR MAIN ELECTRIC SERVICE DETAILS.
3. SEE ELECTRICAL SITE PLAN FOR COMMUNICATIONS CONDUIT DETAILS.
4. PROVIDE 1" CONDUIT IN COLUMN FOR LIGHTING.
5. PROVIDE 1" CONDUIT IN COLUMN FOR COMMUNICATIONS (SECURITY CAMERA, ETC.)
6. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR ADVERTISEMENT SIGNAGE. ROUTE 1" CONDUIT ON EAST SIDE OF WALL AND THEN PROVIDE CAST IN PLACE BOX. PROVIDE 1" CONDUIT SLEEVE THROUGH WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A CDR SYSTEMS 6" BY 8" (MINIMUM SIZE) POLYMER CONCRETE STRAIGHT WALL BOX, ANSI TIER 8 LOADING, CATALOG SERIES B13060606A WITH CATALOG SERIES COVER C30060801A.
7. PROVIDE 1" CONDUIT AND BOX IN GROUND FOR POWER FOR SIGNAGE. ROUTE 1" CONDUIT UP THE WEB OF THE COLUMN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION. PROVIDE A SIMILAR BOX TO THE ONE MENTIONED IN KEYED NOTE 6.
8. PROVIDE KEYED SWITCH FOR EXHAUST FAN CONTROL. SEE ROOF PLAN AND SCHEDULES FOR ADDITIONAL INFORMATION.
9. EXTEND BRANCH CIRCUIT WITH THREADED METALLIC CONDUIT, LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AND FITTINGS TO THE NEW LED SIGNAGE (BY SIGN SUPPLIER) ON THE OVERHEAD TRELLIS. THE DIVISION 26 CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS WITH SIGN SUPPLIER PRIOR TO BID. PROVIDE NEMA 3R DISCONNECT IF REQUIRED BY AHJ. ROUTE CONDUIT IN FLANGE OF BEAM SO IT WILL REMAIN HIDDEN FROM VIEW.
10. SEE ELEVATION FOR THE LOCATION OF THIS JUNCTION BOX. ALL CONDUIT FROM THIS BOX WILL BE ABOVE THE CANOPY AND INSIDE THE FLANGE OF THE BEAM.

GENERAL ELECTRICAL NOTES

1. PROVIDE MACHINE ENGRAVED DEVICE COVERPLATES ON ALL DEVICES WITH THE PANEL AND CIRCUIT NUMBER PRIOR TO SUBSTANTIAL COMPLETION. INCLUDE DETAILS IN SUBMITTALS. COVERPLATES SHALL NOT BE LABELED IN THE FIELD.
2. PROVIDE ALL POWER AND SPECIAL COMPONENTS/CIRCUITS SHOWN. ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILINGS.
3. ALL REFERENCED IN GROUND BOXES SHALL HAVE A SKID RESISTANT COVER, TWO EACH STAINLESS STEEL BOLTS, AND THE LID SHALL BE LABELED "POWER" OR "COMMUNICATIONS" DEPENDING ON THE SERVICES ENTERING AND EXITING. DUE TO THE PROXIMITY OF THE PROPERTY LINE, THE ELECTRICAL CONTRACTOR SHALL CONFIRM WITH THE GENERAL CONTRACTOR ALL BOXES (AS WELL AS ALL ELECTRICAL ITEMS) ARE INSTALLED WITHIN THE RIGHT-OF-WAY AND NOT ON PRIVATE PROPERTY.

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL FLOOR PLANS

E102B

100% CONSTRUCTION DOCUMENTS

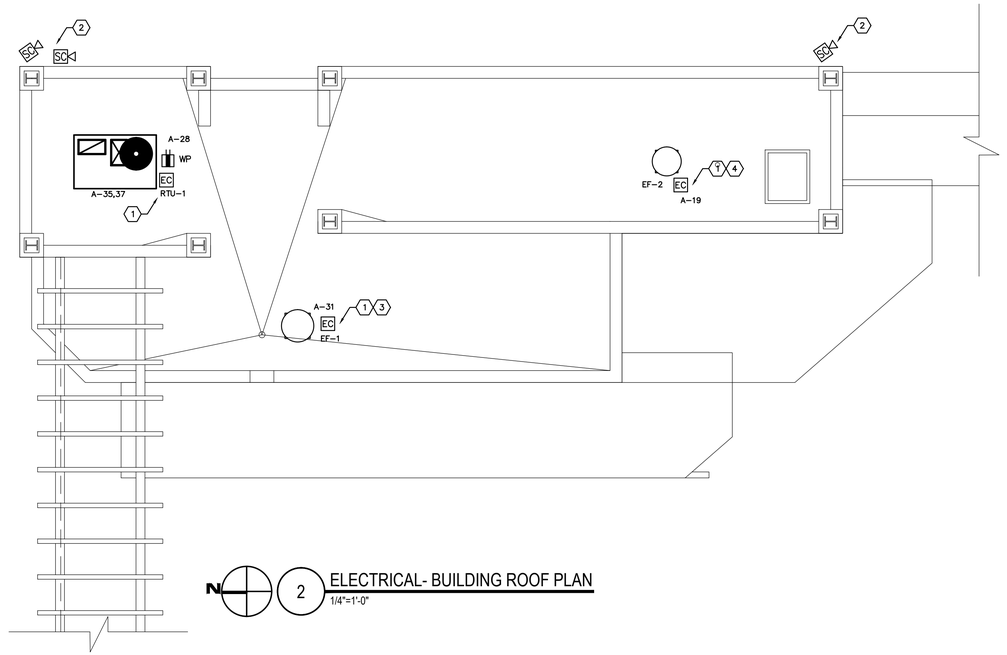
GENERAL ELECTRICAL NOTES

1. PROVIDE ALL POWER AND SPECIAL COMPONENTS/CIRCUITS SHOWN. ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILINGS.

2. ROUTE CONDUIT ON CANOPY ROOFS AS MUCH AS POSSIBLE FOR POWER, LIGHTING AND SPECIAL SYSTEMS.

KEYED NOTES

1. SEE ROOF MOUNTED DISCONNECT DETAIL.
2. PROVIDE SECURITY CAMERA ROUGH INS.
3. ROUTE BRANCH CIRCUIT THROUGH LIGHTING CONTROL PANEL FOR CONTROL.
4. ROUTE BRANCH CIRCUIT THROUGH WALL MOUNTED KEYED SWITCH IN VENDING ROOM.



N 2 ELECTRICAL- BUILDING ROOF PLAN
1/4"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE

677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

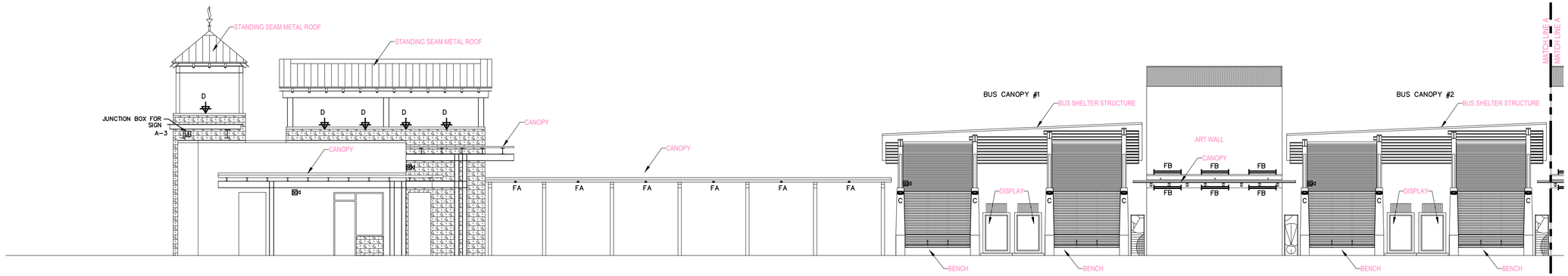
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

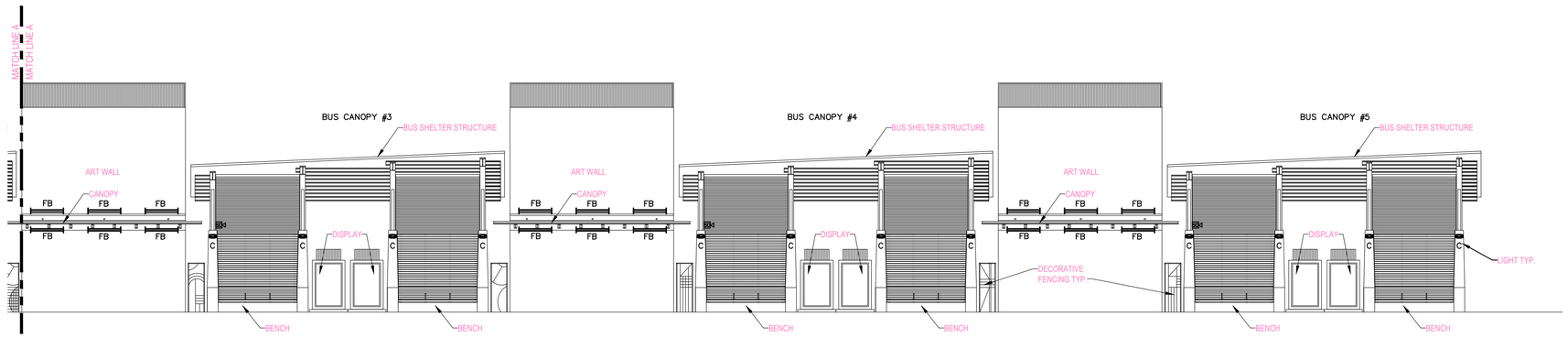
ELECTRICAL ROOF PLANS

E103

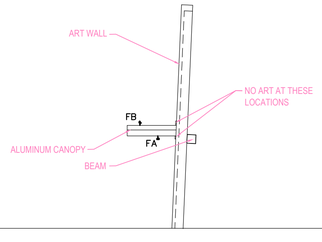
100% CONSTRUCTION DOCUMENTS



1 WEST ELEVATION
1/8"=1'-0"

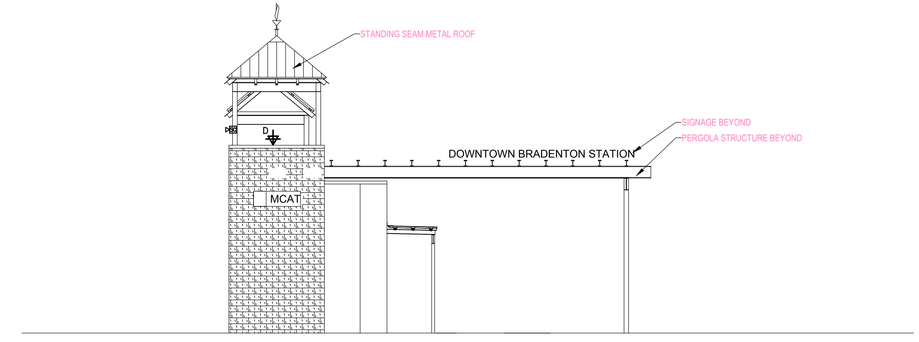


2 WEST ELEVATION
1/8"=1'-0"



THE CONDUIT FOR THE ART WALL WILL ENTER FROM THE GROUND INTO THE VOIDS OF STRUCTURAL TEES AND BE INSTALLED PARALLEL TO THE COLUMNS (NOT EXPOSED). THERE WILL BE TWO PARALLEL RUNS. ONE RUN WILL SERVE THE TWO FIXTURES ON THE NORTH SIZE OF THE ART WALL AND THE OTHER RUN WILL SERVE THE TWO FIXTURES ON THE SOUTH SIDE OF THE ART WALL. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL AND OTHER DETAILS. SEE ALSO PLAN VIEW.

3 TYPICAL ART WALL ELEVATION
1/8"=1'-0"



4 NORTH ELEVATION
1/8"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE
---
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

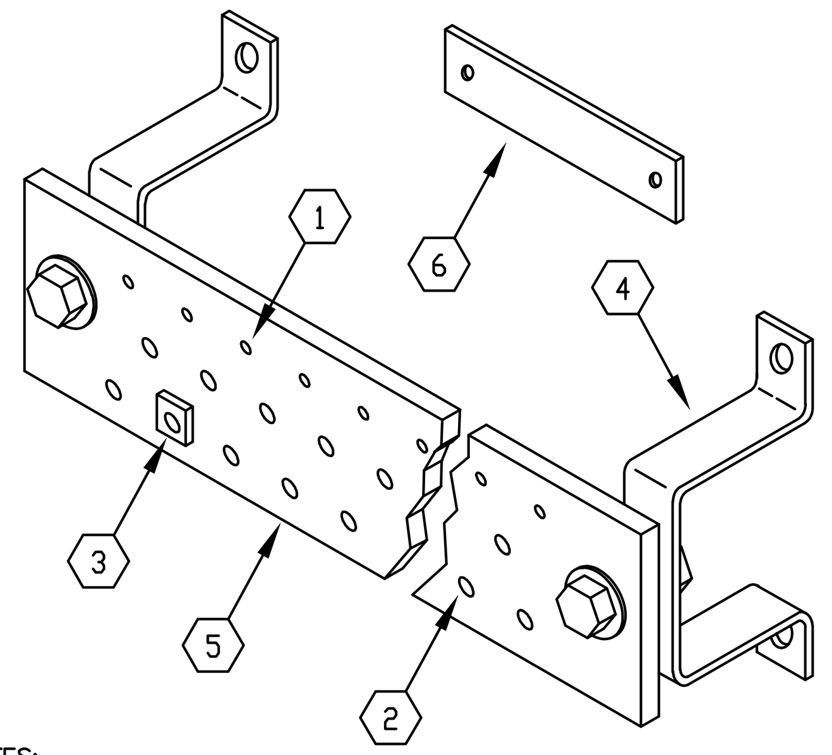
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

LIGHTING AND SYSTEMS ELEVATIONS

E201

100% CONSTRUCTION DOCUMENTS

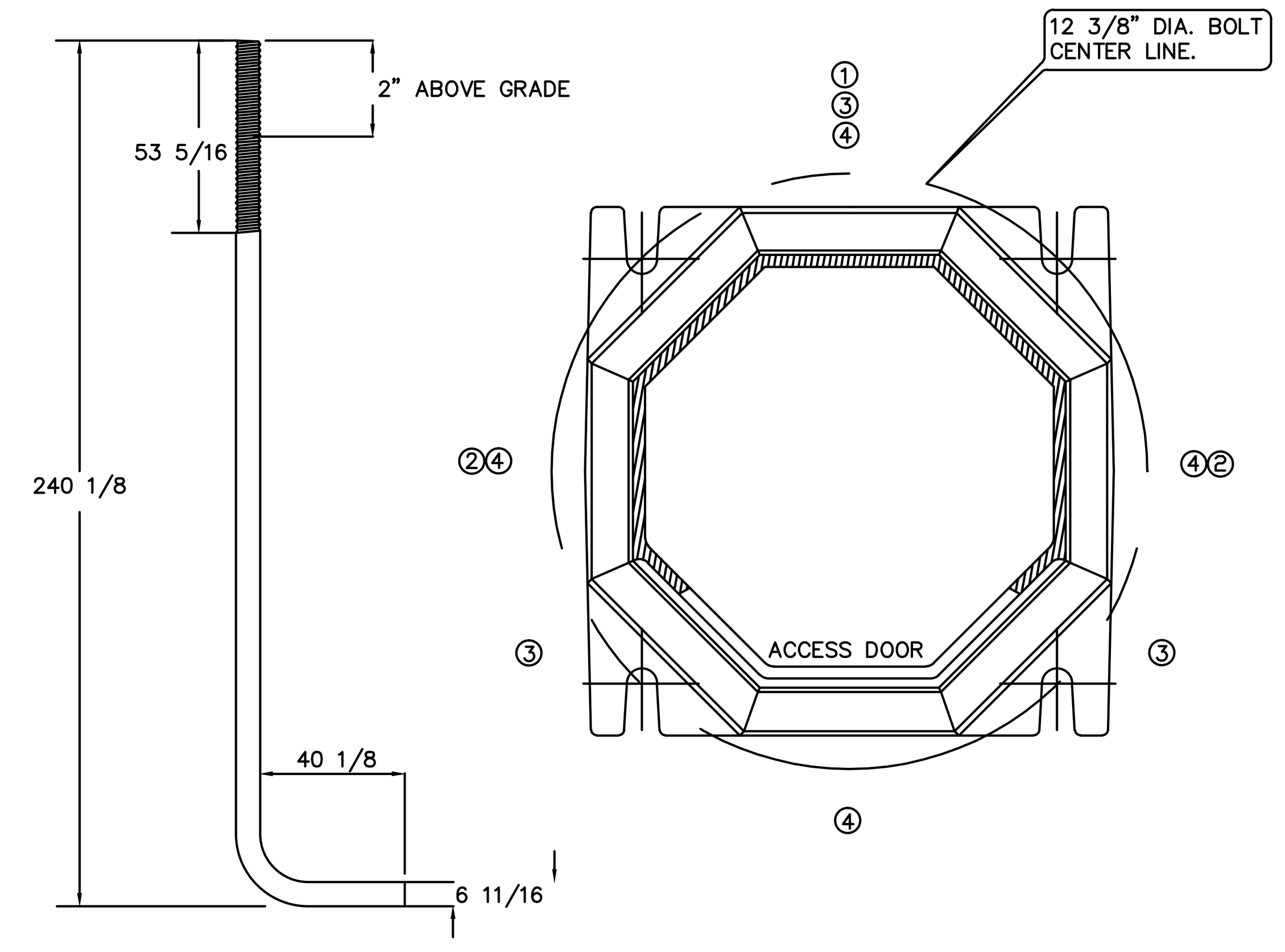


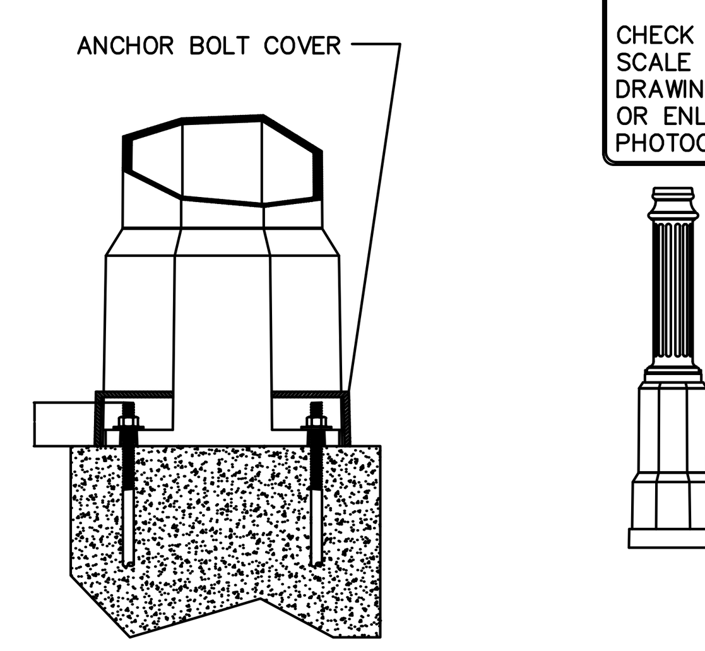
GENERAL NOTES:
A. ALL SYSTEM COMPONENTS SHOWN ARE NEW U.N.O..
B. PROVIDE (DEFINED AS "FURNISH AND INSTALL") ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR A COMPLETE AND PROPERLY CONNECTED GROUNDING SYSTEM.
C. PROVIDE SOLID COPPER OR BRONZE HARDWARE (BOLTS, NUTS WASHERS, ETC). PROVIDE TIN PLATED COMPONENTS WHERE DISSIMILAR METALS ARE CONNECTED TOGETHER.
D. PROVIDE LENGTH OF BUS BAR AS REQUIRED TO MAINTAIN CORRECT SPACING BETWEEN LUGS. MINIMUM LENGTH OF BUS BAR SHALL BE 12 INCHES.

(#) DETAIL NOTES:
1. TAP 6/32 (TYPICAL FOR TOP ROW).
2. TAP 9/32 (TYPICAL).
3. PROVIDE COPPER CABLE CLAMP FOR EACH CABLE CONNECTION. PROVIDE TIN PLATED COMPONENTS WHERE DISSIMILAR METALS ARE CONNECTED TOGETHER.
4. PROVIDE STAND-OFF BRACKET
5. PROVIDE 1/4" THICK COPPER BUS BAR COPPER (MINIMUM).
6. PROVIDE ENGRAVED, PLASTIC LAMINATE NAMEPLATE 6" ABOVE GROUND BUS. NAMEPLATE SHALL STATE IN 1/2"H LETTERS "EQUIPMENT GROUND" OR WORDING AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. NAMEPLATE SHALL BE MECHANICALLY FASTENED TO EQUIPMENT, BACKBOARD, ETC.
7. PROVIDE No. 4 COPPER GROUND WIRE IN 3/4" PVC CONDUIT BETWEEN ALL CONTROL PANELS, TERMINAL CABINETS, BACKBOARDS, EQUIPMENT, ETC. EXTEND TO BUILDING MAIN SERVICE GROUNDING SYSTEM IN ORDER TO PROVIDE A SINGLE POINT GROUNDING SYSTEM. ALL CONCEALED, BURIED OR INACCESSIBLE CONNECTIONS SHALL BE EXOTHERMICALLY WELDED.

TYPICAL GROUND BUS BAR DETAIL

NO SCALE 6





FULL SIZE INSTALLATION TEMPLATE FOR 3700P 3700T 3700FP 3700TFP POLES AND 3700 BOLLARD

NOTE:
CHECK ALL DIMENSIONS FOR FULL SCALE IF USED AS TEMPLATE. THIS DRAWING MAY HAVE BEEN REDUCED OR ENLARGED DURING PHOTOCOPYING

① 1 ARM UNIT.
② 2 ARM UNITS.
③ 3 ARM UNITS.
④ 4 ARM UNITS.

ANCHOR BOLT INSTALLATION PATTERN.
RIGHT BOLT PATTERN
WRONG BOLT PATTERN
STREET
ACCESS DOOR
SIDEWALK

TYPICAL HARDWARE REQUIRED PER BASE
4 ANCHOR BOLTS
4 NUTS
4 WASHERS
3 WASHERS FOR LEVELING IF NEEDED.

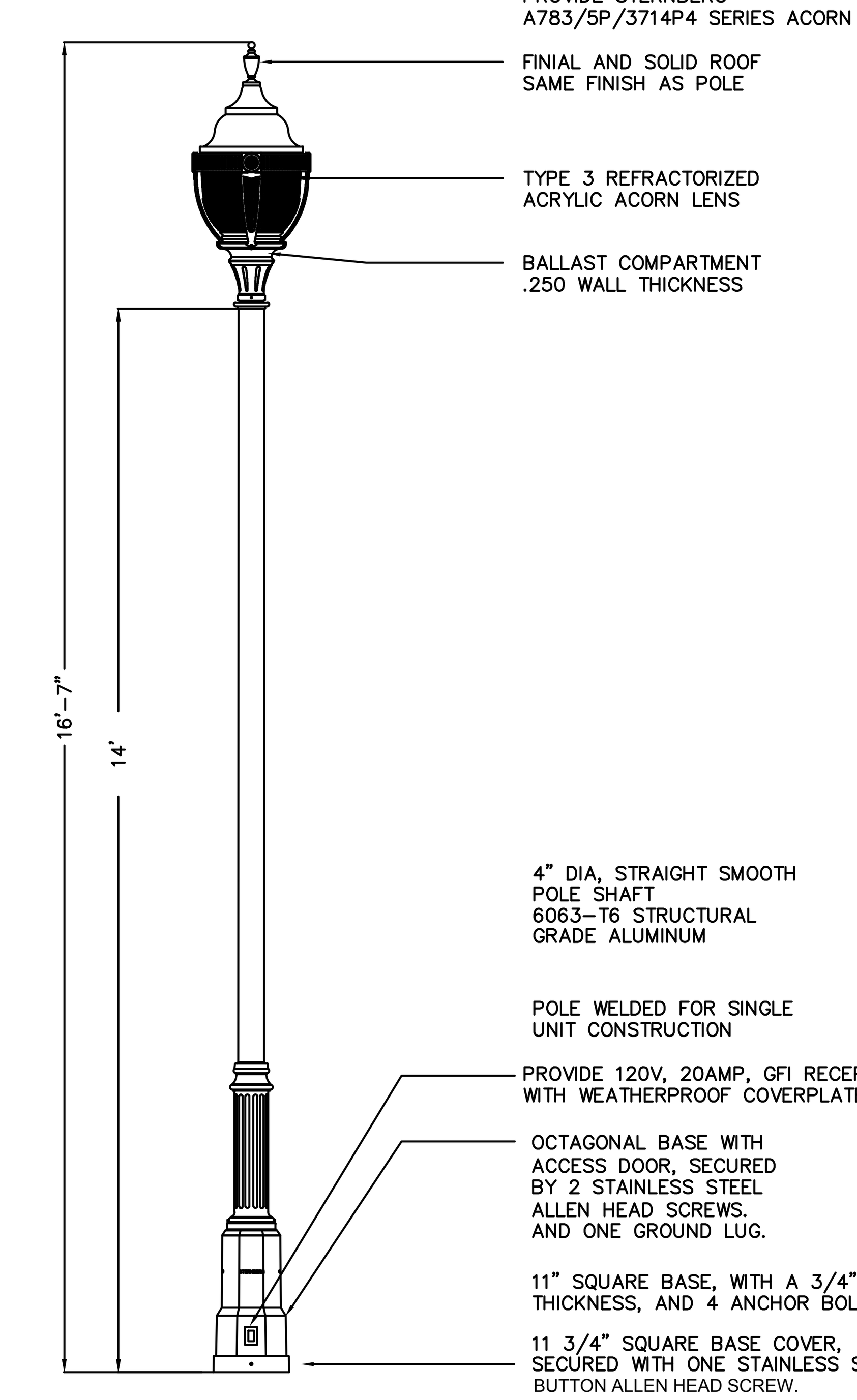
BANNER ARMS ARE USUALLY ALIGNED WITH TWO ANCHOR BOLTS. IT IS BEST TO CONSULT THE FACTORY FOR A FULL SIZE TEMPLATE, FOR EXACT SPECIFICATIONS ON THE JOB.

1/2"DIA. X 18" LONG BOLTS WITH 4" ± 1/2" OF THREAD AND 3" ± 1/4" HOOK.

NOTE: SEE STRUCTURAL ENGINEERING DRAWINGS FOR FINAL CONSTRUCTION DETAILS

CONCRETE COLLARS AT COLUMNS AND UTILITY POLES DETAIL

NO SCALE 3

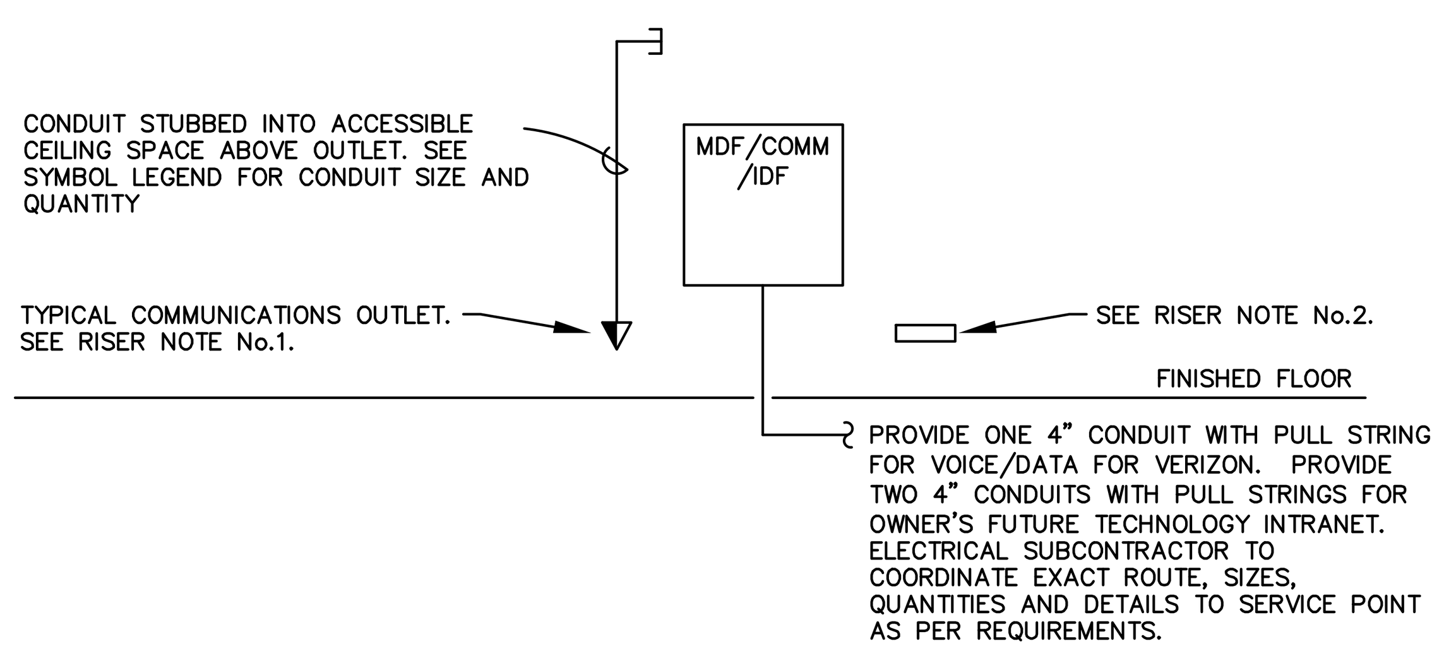


NOTE: SEE STRUCTURAL ENGINEERING DRAWINGS FOR FINAL CONSTRUCTION DETAILS

SOCKET TYPE: MEDIUM
WATTAGE: 100
LIGHT SOURCE: HPS
VOLTAGE: 240, MULTI-TAP BALLAST
FINISH: BLACK

LIGHT POLE DETAIL

NO SCALE 1

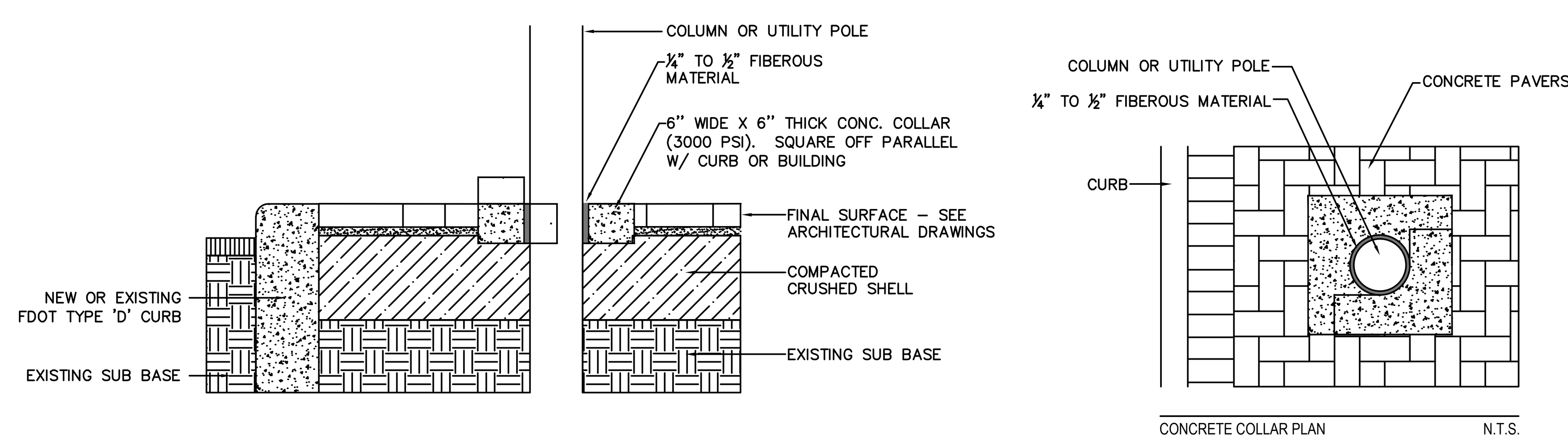


GENERAL NOTES:
A. PROVIDE (DEFINED AS "FURNISH AND INSTALL") ALL LABOR AND MATERIALS REQUIRED TO CREATE A RACEWAY SYSTEM FOR WIRING AND COMPONENTS PROVIDED BY OTHERS.
B. PROVIDE BACKBOX, COVERPLATE AND CONDUIT IN SIZE AND QUANTITY FOR EACH OUTLET AS INDICATED ON THE ELECTRICAL SYMBOL LEGEND.
C. PENETRATIONS THROUGH FIRE RATED SURFACES SHALL BE MADE WITH U.L. APPROVED METHODS.

RISER NOTES:
1. TYPICAL OUTLET. SEE FLOOR PLANS AND SPECIFICATIONS FOR QUANTITY, TYPE AND LOCATION OF OUTLETS.
2. PROVIDE GROUND BUS AT COMM BACKBOARD. SEE DETAIL.

COMMUNICATIONS RACEWAY RISER DIAGRAM

NO SCALE 7

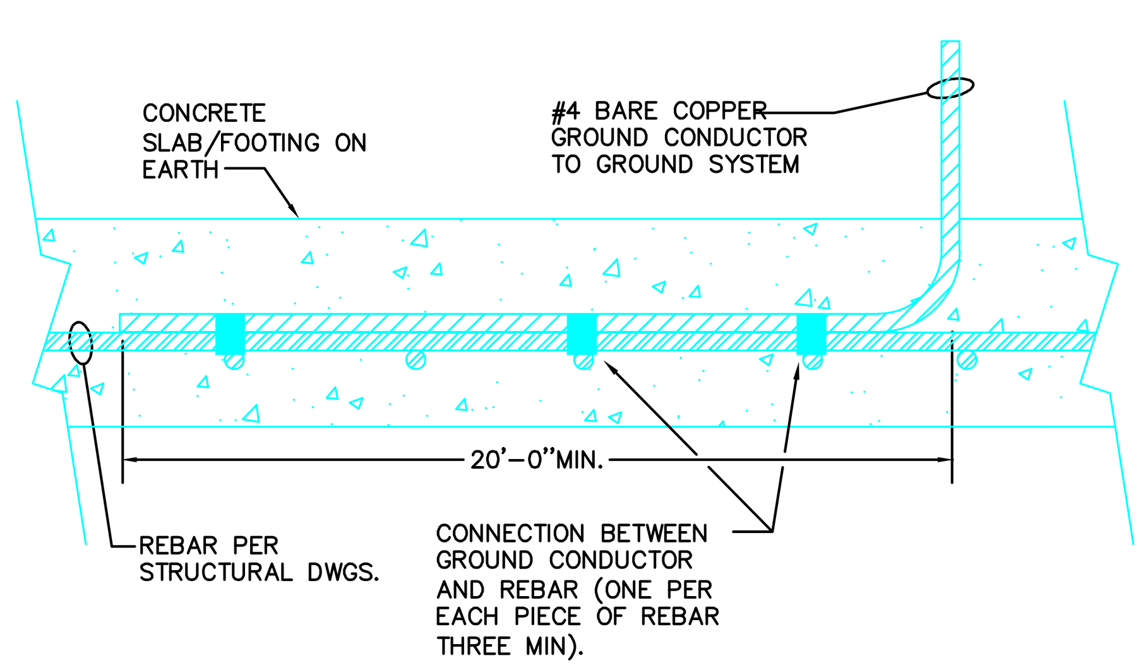


CONCRETE COLLAR PLAN N.T.S.

NOTE: SEE STRUCTURAL ENGINEERING DRAWINGS FOR FINAL CONSTRUCTION DETAILS

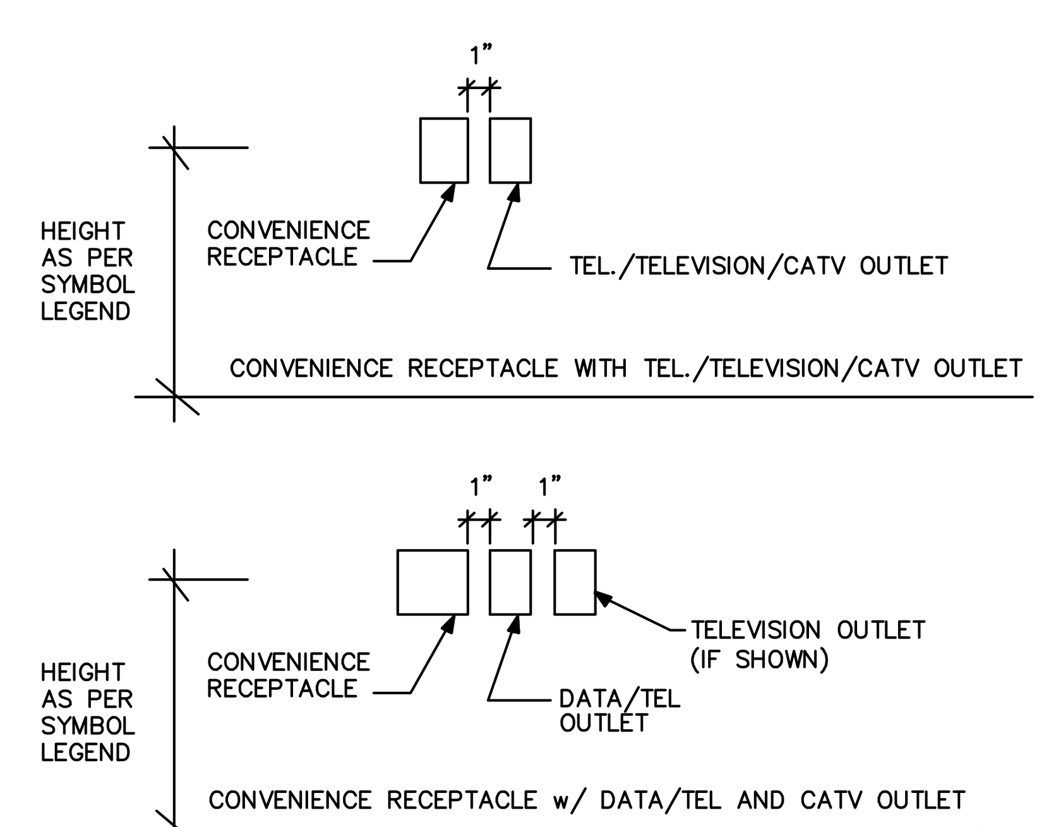
CONCRETE COLLARS AT COLUMNS AND UTILITY POLES DETAIL

NO SCALE 4



TYPICAL CONCRETE ENCASED ELECTRODE DETAIL

NO SCALE 8

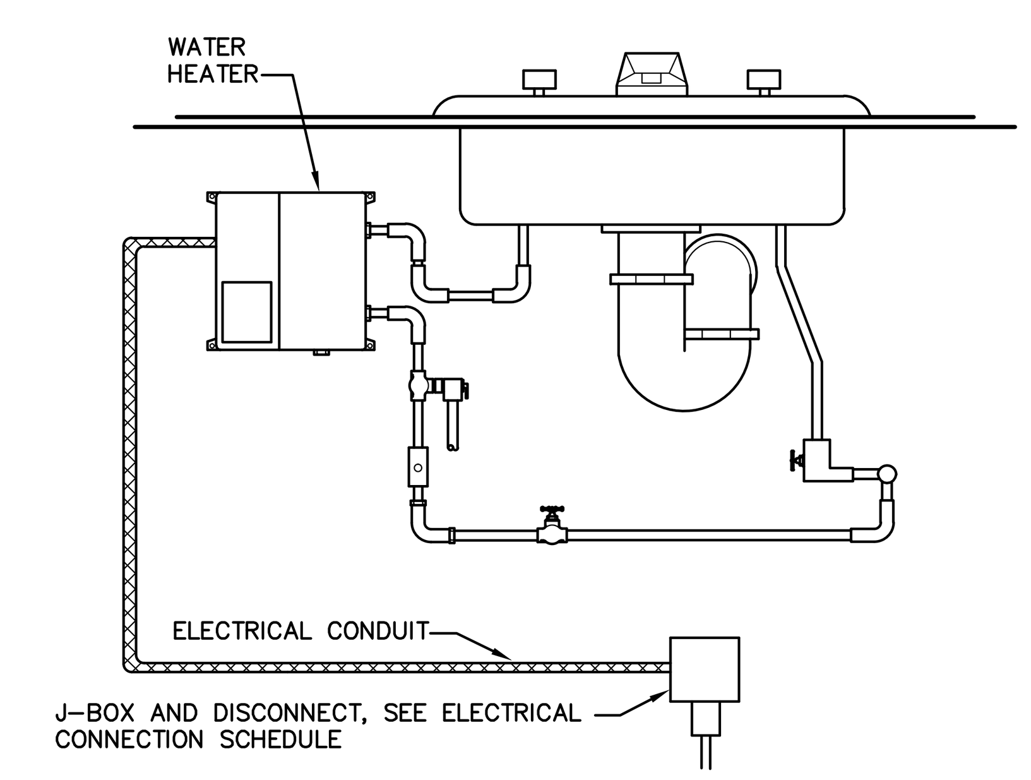


OTHER GROUPINGS WILL BE SIMILAR WITH 1" BETWEEN DEVICES.

SPACING MAY BE REVISED FOR CMU (BLOCK) CONSTRUCTION.

TYPICAL DEVICE GROUPINGS

NO SCALE 5



POINT-OF-USE WATER HEATER DETAIL

NO SCALE 2

SCHENKELSHULTZ
ARCHITECTURE
----
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

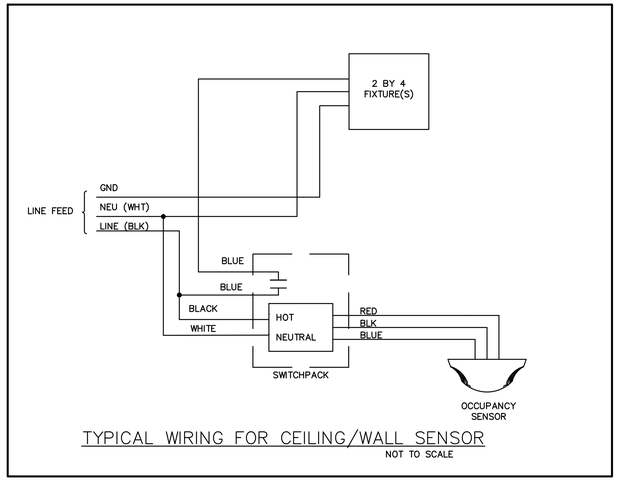
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL DETAILS

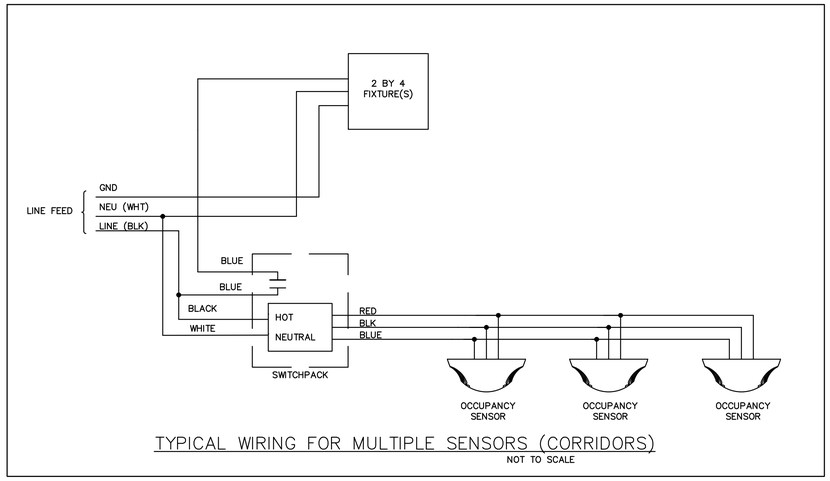
E501

100% CONSTRUCTION DOCUMENTS



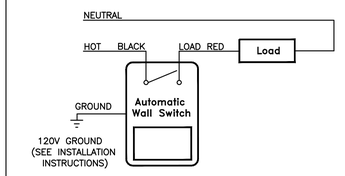
TYPICAL WIRING FOR CEILING/WALL SENSOR

NOT TO SCALE



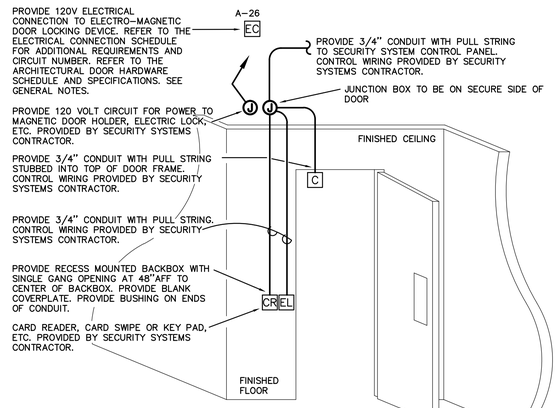
TYPICAL WIRING FOR MULTIPLE SENSORS (CORRIDORS)

NOT TO SCALE



TYPICAL WIRING FOR SWITCH TS-100

NOT TO SCALE

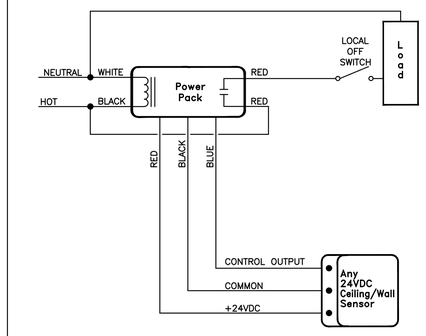


GENERAL NOTES:

A. DOOR CONTROL SYSTEM SHALL AUTOMATICALLY RELEASE DOOR UPON LOSS OF POWER OR AS DIRECTED BY OWNER. COORDINATE WITH OWNER PRIOR TO BID.

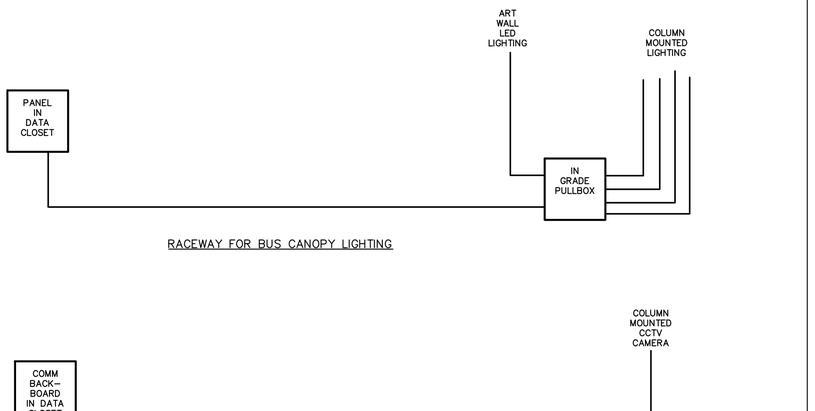
B. COORDINATE WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE AND SPECIFICATIONS PRIOR TO BID.

ACCESS CONTROL SYSTEM DETAILS — NO SCALE — 1



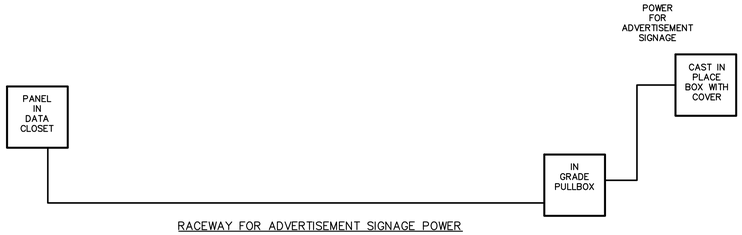
TYPICAL WIRING FOR SWITCH CI-200

NOT TO SCALE



RACEWAY FOR BUS CANOPY LIGHTING

RACEWAY FOR SECURITY CAMERA COMMUNICATIONS



RACEWAY FOR ADVERTISEMENT SIGNAGE POWER

GENERAL NOTES:

A. ALL SPECIAL SYSTEMS COMPONENTS SHOWN ARE NEW UNLESS NOTED OTHERWISE (U.N.O.).

B. PROVIDE LONG SWEEP ELLS FOR ALL CONDUITS SHOWN.

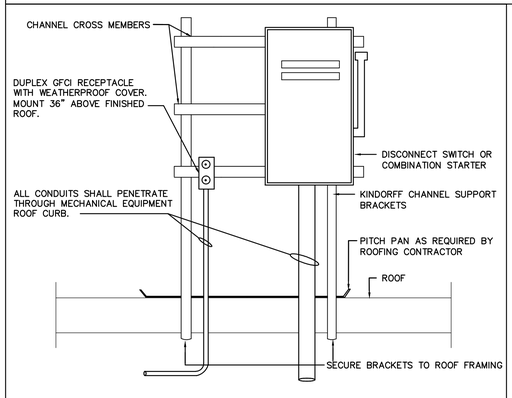
C. PROVIDE (DEFINED AS "FURNISH AND INSTALL") ALL LABOR AND MATERIALS REQUIRED TO CREATE A RACEWAY SYSTEM FOR WIRING AND COMPONENTS.

D. IN GRADE BOXES ARE SIZED FOR REFERENCE ONLY. THE DIVISION 26 AND DIVISION 27 CONTRACTORS SHALL PROVIDE THE MINIMUM BOX SIZE CALCULATED FOR EACH RACEWAY SYSTEM.

E. DUE TO THE EXTENT OF THE STRUCTURAL FOOTINGS FOR THIS PROJECT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LOCATIONS WITH THE GENERAL CONTRACTOR AND ARCHITECT PRIOR TO ROUGH IN.

F. SEE OTHER DRAWINGS FOR RACEWAY SIZES.

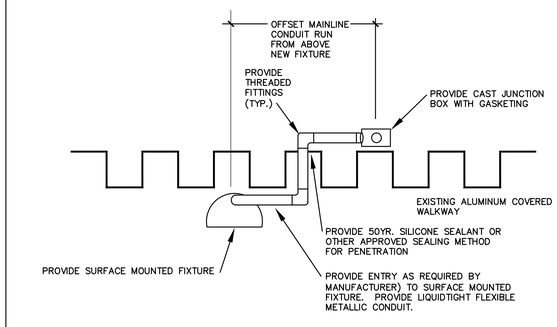
SIMPLIFIED RACEWAY DIAGRAMS — NO SCALE — 3



NOTES:

1. COORDINATE INSTALLATION WITH ROOFING CONTRACTOR, SO AS NOT TO VIOLATE ROOFING WARRANTY.
2. MINIMIZE PROFILE TO THE GREATEST EXTENT POSSIBLE.

ROOF MOUNTED DISCONNECT SWITCH — NO SCALE — 2



NOTE: FIXTURE TO BE ORDERED WITH (1) 3/4" NPT SURFACE ADAPTER OPENING

SURFACE MOUNTED FIXTURE & CANOPY DETAIL — NO SCALE — 4

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL DETAILS

E502

100% CONSTRUCTION DOCUMENTS

PANEL A

PANEL: SQUARE-D or SIEMENS — **240/120 V, 1 PHASE, 3 WIRE** — **NEUTRAL BUS AMPACITY: 100%**
ENCLOSURE: NEMA-1 — **MAINS: 200AMP MAIN CIRCUIT BREAKER** — **GROUND BUS AMPACITY: 50%**
MOUNTING: SURFACE — **AIC RATING: 22K**

CKT #	CIRCUIT IDENTIFICATION	LINE 1 VA	LINE 2 VA	DEMAND %	DEMAND VA	BREAKER AMPS	BREAKER POLES	BREAKER POLES	BREAKER AMPS	DEMAND VA	DEMAND %	LINE 2 VA	LINE 1 VA	CIRCUIT IDENTIFICATION	CKT #
1	SIGNAGE	1000	---	1.25	1250	20	1	1	20	360	1.00	---	360	ADVERTISEMENT POWER	2
3	SIGNAGE	---	1000	1.25	1250	20	1	1	20	360	1.00	360	---	ADVERTISEMENT POWER	4
5	SIGNAGE	1000	---	1.25	1250	20	1	1	20	360	1.00	---	360	ADVERTISEMENT POWER	6
7	LIGHTING	---	1294	1.25	1618	20	1	1	20	360	1.00	360	---	ADVERTISEMENT POWER	8
9	LIGHTING	1074	---	1.25	1343	20	1	1	20	360	1.00	---	360	ADVERTISEMENT POWER	10
11	LIGHTING	---	1074	1.25	1343	20	1	1	20	660	1.25	528	---	MOTORIZED GATE	12
13	LIGHTING	1074	---	1.25	1343	20	1	1	20	528	1.00	---	528	MOTORIZED GATE	14
15	LIGHTING	---	1394	1.25	1743	20	1	1	20	0	1.00	0	---	SPARE	16
17	LIGHTING	428	---	1.25	535	20	1	1	20	0	1.00	---	0	SPARE	18
19	LIGHTING	---	638	1.25	798	20	1	1	20	0	1.00	0	---	SPARE	20
21	STREETLIGHTS	345	---	1.25	431	20	2	1	20	0	1.00	---	0	SPARE	22
23	⇩	---	345	1.25	431	---	---	1	20	200	1.00	200	---	EF-2	24
25	COUNTER RECEPTACLES	1500	---	1.00	1500	20	1	1	20	100	1.00	---	100	ELECTRIC STRIKES	26
27	ATC MACHINE	---	1400	1.00	1400	20	2	1	20	180	1.00	180	---	ROOF RECEPTACLE	28
29	⇩	1400	---	1.00	1400	---	---	1	20	360	1.00	---	360	STREETLIGHT RECEPS	30
31	EF-1	---	120	1.00	120	20	1	1	20	360	1.00	360	---	STREETLIGHT RECEPS	32
33	REFRIGERATOR	800	---	1.00	800	20	1	1	20	360	1.00	---	360	STREETLIGHT RECEPS	34
35	RTU-1	---	3240	1.00	3240	30	2	1	20	360	1.00	360	---	COMM BACKBOARD	36
37	⇩	3240	---	1.00	3240	---	---	1	20	360	1.00	---	360	COMM BACKBOARD	38
39	EWH-1	---	3750	1.00	3750	40	2	2	30	0	1.00	0	---	SPD	40
41	⇩	3750	---	1.00	3750	---	---	---	---	0	1.00	---	0	⇩	42
	TOTALS:	15611	14255		32533					5268		2348	2788	:TOTALS	

CONNECTED VA LINE 1: 18399 — **CONNECTED AMPERES: 146** — **35002 :TOTAL CONNECTED VA**
CONNECTED VA LINE 2: 16603 — **DEMAND AMPERES: 158** — **37801 :TOTAL DEMAND VA**

VOLTAGE DROP CALCULATIONS FROM:		FPL HANDHOLE			TO: PANEL A		
NUMBER OF SETS	WIRE SIZE	LENGTH	Z / 100 FT	Z / 100 CKT FT	TOTAL Z	VOLT DROP	% V.D.	FEEDER SIZED TO HAVE A
2	SET(S) OF	250 CU	400 FEET	0.0140	0.0070	0.0280	4.410	1.84%	VOLT. DROP LESS THAN: 2%

COPPER WIRE SIZE	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0			
1-PH Z PER 100 FT	0.340	0.220	0.140	0.090	0.060	0.048	0.040	0.032	0.026	0.022	0.019	0.016			

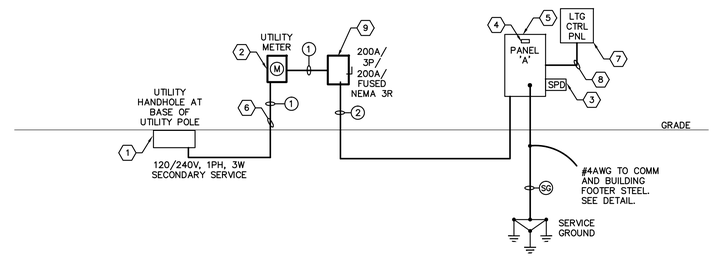
COPPER WIRE SIZE	250	300	350	400	500	600	750	1000							
1-PH Z PER 100 FT	0.014	0.013	0.012	0.011	0.010	0.009	0.009	0.008							

FAULT CURRENT CALCULATIONS FROM:		FPL TRANSFORMER		TO: PANEL A
NUMBER OF SETS	WIRE SIZE	LENGTH	C	TOTAL C
2	SET(S) OF	250 CU	400 FEET	16483	32966

COPPER WIRE SIZE	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0			
C FACTOR	617	981	1557	2425	3806	4774	5907	7293	8925	10755	12844	15082			

COPPER WIRE SIZE	250	300	350	400	500	600	750	1000							
C FACTOR	16483	18177	19704	20566	22185	22965	24137	25278							

TRANSFORMER KVA	100	
VOLTAGE L-L	240	
VOLTAGE L-N	120	
TRANSFORMER %Z	1.0	
TRANSFORMER FLC	417	CALCULATIONS ARE PERFORMED USING THE POINT-TO-POINT METHOD.
MULTIPLIER	100	
SHORT CIRCUIT @ UTIL	41667	
F FACTOR	2.11	
MULTIPLIER	0.32	
SHORT CIRCUIT CURRENT	13413	SINGLE PHASE
MOTOR CONTRIBUTION	150	
SHORT CIRCUIT CURRENT	13563	TOTAL



A ELECTRICAL RISER DIAGRAM
NOT TO SCALE

KEY NOTES: (#)

1. UTILITY COMPANY SERVICE POINT. SEE SITE PLAN FOR PROPOSED LOCATION. CONTRACTOR SHALL PROVIDE UNDERGROUND SECONDARY SERVICE LATERAL FROM UTILITY HANDHOLE TO SERVICE ENTRANCE EQUIPMENT IN ACCORDANCE WITH THE N.E.C. AND ALL UTILITY COMPANY REQUIREMENTS. PROVIDE LARGER HANDHOLE IF REQUIRED BY UTILITY OR LOCAL AHJ. COORDINATE UTILITY CONNECTION POINT LOCATION AND ALL CONTRACTOR PROVIDED REQUIREMENTS WITH UTILITY COMPANY PRIOR TO BID.

2. PROVIDE 200AMP UTILITY COMPLIANT METER BASE ON CONCRETE METER BANJO ACCORDING TO UTILITY COMPANY GUIDELINES. SEE SITE PLAN FOR PROPOSED LOCATION. MODIFY LOCATION AS REQUIRED TO COMPLY WITH UTILITY COMPANY REQUIREMENTS.

3. PROVIDE 100kA (MINIMUM) SURGE PROTECTION DEVICE (SPD) CLOSE NIPPLED TO EQUIPMENT. PROVIDE LEA DEVICE SP100–120/240. PROVIDE No.10 SOLID INSULATED COPPER CONDUCTORS IN 3/4" CONDUIT BETWEEN "SPD" AND EQUIPMENT. DO NOT EXTEND MANUFACTURERS WIRE LEADS. KEEP LEAD LENGTHS AS SHORT AS POSSIBLE. BRAID ALL LEADS TOGETHER AND BIND WITH TIE WRAPS ON 3" CENTERS (MAX.). COORDINATE QUANTITY OF REQUIRED CONDUCTORS WITH MANUFACTURERS INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS.

4. PROVIDE ENGRAVED, PLASTIC LAMINATE NAMEPLATE ON ALL PANELBOARDS, CONTROL PANELS, TERMINAL CABINETS, DISCONNECT SWITCHES, EQUIPMENT, ETC. NAMEPLATE SHALL STATE EQUIPMENT NAME AS INDICATED ON THIS DRAWING, AS REQUIRED TO COMPLY WITH OWNERS STANDARD NAMING CONVENTION OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

5. PROVIDE PANELBOARD.

6. PROVIDE IMC CONDUIT WITH THREADED FITTINGS AND BONDING BUSHINGS FOR ALL CONDUIT ABOVE GRADE (TYPICAL).

7. PROVIDE LIGHTING CONTROL PANEL: GREENGATE LITEKEEPER 16 WITH 16 RELAYS. INCLUDE FACTORY STARTUP IN BID PRICE. SEE DETAILS FOR OTHER REQUIREMENTS.

8. ROUTE LOADS AND LIGHTING CIRCUITS THROUGH LIGHTING CONTROL PANEL (TYPICAL) AS DESIGNED.

9. PROVIDE SERVICE ENTRANCE RATED DISCONNECT, 200A/2P/200A, FUSED DISCONNECT, NEMA 3R.

GENERAL NOTES:

A. ALL POWER DISTRIBUTION COMPONENTS SHOWN ARE NEW UNLESS NOTED OTHERWISE (U.N.O.).

B. PROVIDE (DEFINED AS "FURNISH AND INSTALL") ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CREATE A COMPLETE AND PROPERLY OPERATING ELECTRICAL DISTRIBUTION SYSTEM.

C. FLOOR PLANS, RISER DIAGRAM AND SPECIFICATIONS REQUIRE A NEW CODE COMPLIANT POWER DISTRIBUTION SYSTEM.

D. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT TO FORM A CONTINUOUS GROUNDING PATH. CONDUIT SHALL NOT BE USED IN PLACE OF A GROUND CONDUCTOR.

E. PROVIDE INSULATED PLASTIC BUSHINGS ON ENDS OF ALL CONDUIT.

F. REFER TO PANELBOARD SCHEDULE(S) FOR ADDITIONAL ELECTRICAL REQUIREMENTS.

G. PROVIDE LUGGING AT ALL ELECTRICAL GEAR TO MATCH CONDUCTOR SIZING, ETC. SHOWN ON RISER.

FEEDER SCHEDULE

NOTE: NOT ALL FEEDERS LISTED ON SCHEDULE MAY BE USED ON RISER DIAGRAM.

(#) FEEDER NUMBER	MIN. FEEDER AMPACITY REQUIRED	FEEDER AMPACITY PROVIDED	NUMBER OF SETS	NUMBER AND SIZE OF PHASE CONDUCTORS PER SET	NUMBER AND SIZE OF NEUTRAL CONDUCTORS PER SET	NUMBER AND SIZE OF GROUND CONDUCTORS PER SET	CONDUIT SIZE PER SET	SEE SCHEDULE NOTES
M	–	–	–	PROVIDE NEW WIRING PER UTILITY CO. REQUIREMENTS	–	–	–	2
SG	–	–	1	SERVICE GROUND	–	1#3/0	3/4"	1
1	200 AMPS COPPER	510 AMPS COPPER	2 RUNS OF:	2#250	1#250	...	2-1/2"	–

GENERAL NOTES:
A. FEEDER AMPACITY AND CONDUIT FILL BASED ON 167 DEGREE FAHRENHEIT TYPE THHW, THW, THWN, OR XHHW INSULATED CONDUCTORS RATED AT 600V UNLESS NOTED OTHERWISE.

B. FEEDERS HAVE BEEN SIZED FOR VOLTAGE DROP AND SPECIFIC DISTANCES. PROVIDE NEW FEEDERS AT THEIR INDICATED LOCATIONS ONLY.

C. ALL FLOOR, WALL AND ROOF PENETRATIONS MADE FOR NEW ELECTRICAL WORK SHALL MAINTAIN THE INTEGRITY AND FIRESTOP RATING OF THE SURFACE PENETRATED. ALL PENETRATIONS SHALL USE A U.L. APPROVED METHOD OR SYSTEM.

D. PROVIDE UNDERGROUND FEEDERS WITH A WARNING RIBBON PLACED IN TRENCH AT 12 INCHES ABOVE THE UNDERGROUND INSTALLATION. BURY UNDERGROUND FEEDERS, CIRCUITS, ETC. 30 INCHES BELOW FINISHED GRADE TO TOP OF CONDUIT. WHEN IN CONFLICT WITH STRUCTURAL FOUNDATIONS, IT IS RECOMMENDED THE SERVICE FEEDER BE INSTALLED UNDER THE LOWEST POINT OF THE FOUNDATION BY 12 INCHES.

G. ALL FEEDERS SHALL BE SIZED FOR A MAXIMUM 2% VOLTAGE DROP AT DESIGN LOAD AS PER THE 2007 FBC SUBCHAPTER 13–413.1.ABC.1.1.

SCHEDULE NOTES: (APPLICABLE WHERE REFERENCED)
1. GROUND TO BUILDING FOUNDATION STEEL AND METAL FRAME OF BUILDING. ALL CONCEALED, BURIED OR INACCESSIBLE CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. SEE ELECTRICAL SYMBOL LEGEND AND DETAILS FOR ADDITIONAL REQUIREMENTS.

2. PROVIDE WEATHERPROOF ELECTRICAL SERVICE TO EQUIPMENT, INCLUDING, BUT NOT LIMITED TO CONDUIT, FITTINGS, DISCONNECT, ETC.

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

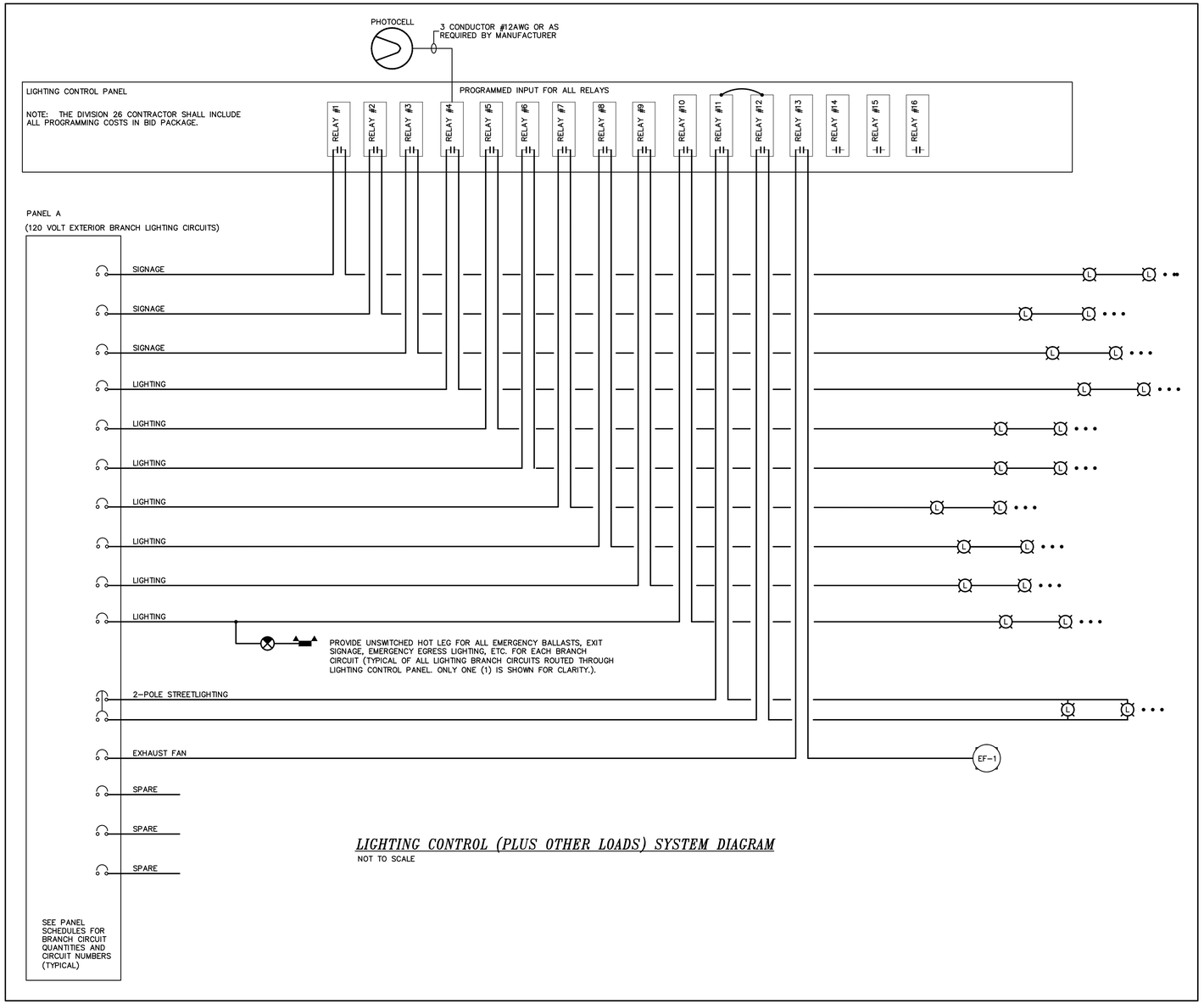
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL RISER

E503

100% CONSTRUCTION DOCUMENTS



LIGHTING CONTROL (PLUS OTHER LOADS) SYSTEM DIAGRAM

NOT TO SCALE

LIGHTING FIXTURE SCHEDULE – MANATEE COUNTY DOWNTOWN BRADENTON TRANSIT STATION

FIXTURE TYPE	FIXTURE DESCRIPTION	MANUFACTURER/ CATALOG NUMBER	VOLTS	LAMP INFORMATION		TOTAL INPUT WATTS	SEE SCHEDULE NOTE
				QTY	TYPE		
A	2X2 FLUORESCENT RECESSED FIXTURE WITH ELECTRONIC BALLAST	CONVERJ CJ22A-2T8-GX-UNV-IC-W-GLR	120	2	17W T8-4100K	30W	–
B	9 INCH DIAMETER FLUORESCENT DOWNLIGHT WITH HORIZONTAL LAMP AND ELECTRONIC BALLAST	ZUMTOBEL PANOS DECO CH91H32CFT8C-S1-F-0D9429-SA-9	120	1	32W TTT	36W	–
BB	9 INCH DIAMETER FLUORESCENT DOWNLIGHT WITH HORIZONTAL LAMP AND ELECTRONIC BALLAST	ZUMTOBEL PANOS DECO CH91H32CFT8C-S1-F-0D9429-SA-9	120	1	26W TTT	30W	–
C	MINI INDIRECT CEILING WASH, 150W CMH LAMP, ADJUSTABLE LAMP HOUSING 15± DEGREES, COLUMN MOUNTED FIXTURE WITH DOWNLIGHT APERTURE, WET LOCATION LISTED	REBELLE ARCHITECTURAL LIGHTING 6000-150H-120-DL-WL-COLOR	120	1	150W CMH	172W	3,9
D	DIE-CAST ALUMINUM ADJUSTABLE METAL HALIDE FLOOD LIGHT, WET LOCATION LISTED	NANO PYROS 1/39W/CMH/T4.5/G8.5-120-277 V-GREY-WIDE FLOOD	120	1	39W CMH	45W	1,3,7
E	4' LONG FLUORESCENT STRIP FIXTURE WITH ELECTRONIC BALLAST	NULITE SEW-232T8-120-PRS-WG-SYM	120	2	32W T8-4100K	65W	–
FA	LINEAR WALL WASH LED LIGHTING WITH COMPACT, HEAVY DUTY ALUMINUM HOUSING AND IP66 RATING	EMERGE LED LIGHTING WG-48-INPUT-CF-3E-30-17WF-42K-CABLES	24V DC	–	LED BAR	68W	1,3,4,6
FB	LINEAR WALL WASH LED LIGHTING WITH COMPACT, HEAVY DUTY ALUMINUM HOUSING AND IP66 RATING	EMERGE LED LIGHTING WG-48-60-INPUT-CF-3E-17WF-35K-CABLES	24V DC	–	LED BAR	68W	1,3,4,6,8
G	DETAILED, DECORATIVE ACORN STYLED FIXTURE, CAST ALUMINUM FITTER, DECORATIVE CAST ALUMINUM CAGE, CAST BALLAST HOUSING ASSEMBLY AND ACRYLIC CLEAR LENS. CITY OF BRADENTON STREETLIGHTING STANDARD.	STERNBERG – SEE FIXTURE AND DECORATIVE POST/POLE DETAILS		1	100W HPS	115W	3,5
EL	WET LOCATION ARCHITECTURAL EMERGENCY LIGHTING FIXTURE WITH BATTERY PACK	WEATHERLITE WL6-COLOR-NLGN-CT	120	–	FACTORY INSTALLED LAMPS	20W	3
X,X1	HIGH IMPACT SINGLE FACE EXIT SIGN WITH DEEP PREMIUM GREEN LETTERS AND BATTERY PACK	KENALL MEDTU SERIES WITH COLD WEATHER STARTING BALLAST	120	–	FACTORY INSTALLED LAMPS	4.0W	1,2,3

GENERAL NOTES:

A. FIXTURES PROPOSED AS EQUIVALENT TO SPECIFIED FIXTURES SHALL BE JUDGED ON EFFICIENCY, PERFORMANCE AND CONSTRUCTION, NOT FIXTURE CONSTRUCTION ALONE. SPECIFIED FIXTURES ARE PREFERRED. HOWEVER, NO SUBSTITUTIONS ARE PERMITTED ON THE STREETLIGHT STANDARD AND POLE BECAUSE IT IS THE CITY OF BRADENTON STREETLIGHTING STANDARD.

B. FIXTURES SPECIFIED WITH GLASS LENSES OR DIFFUSERS (TYPICALLY FIXTURES WITH H.I.D. LAMPS) SHALL BE PROVIDED WITH GLASS LENSES OR DIFFUSERS. POLYCARBONATE, ACRYLIC, LEXAN, ETC ARE NOT ACCEPTABLE.

C. LIGHTING FIXTURE SUBMITTAL CUT SHEETS SHALL INCLUDE INFORMATION ON HOW THE FIXTURE CATALOG NUMBER IS COMPILED AND SHALL INCLUDE CUT SHEETS OF ALL OPTIONAL COMPONENTS, SUCH AS DRY WALL FRAME-IN-KITS, REMOTE BATTERY PACKS WITH TEST KITS, INPUT WATTS, BALLAST FACTOR, ETC.

D. LIGHTING FIXTURES SHALL BE SUPPORTED PER NEC ARTICLE 410. FIXTURES MOUNTED IN SUSPENDED CEILINGS SHALL BE ATTACHED OR CLIPPED TO THE SUSPENDED CEILING PER N.E.C. SECTION 410.16(C).

E. PROVIDE PROGRAMMED START ELECTRONIC BALLAST(S) FOR ALL FLUORESCENT LIGHTING FIXTURES CONTROLLED BY OCCUPANCY SENSORS.

F. PROVIDE FLUORESCENT AND H.I.D. FIXTURES MOUNTED OUTSIDE BUILDING WITH A COLD WEATHER BALLAST REGARDLESS OF FIXTURE CATALOG NUMBER NOMENCLATURE.

G. PROVIDE FLUORESCENT AND H.I.D. FIXTURES WITH INLINE FUSE(S) LOCATED ON LINE SIDE OF FIXTURE BALLAST REGARDLESS OF FIXTURE CATALOG NUMBER. FUSES FOR POLE MOUNTED LIGHTING FIXTURES SHALL BE LOCATED IN HAND HOLE AT BASE OF POLE.

H. ALL FLUORESCENT LAMPS SHALL BE OF THE LOW MERCURY TYPE, SUCH THAT THE AVERAGE MERCURY CONTENT IS LESS THAN 70 PICOGRAMS OF MERCURY PER LUMEN-HOUR OF LIFE.

I. THE ONLY LIGHTING FIXTURE MANUFACTURERS (AND THEIR ASSOCIATED DOWNSTREAM PRODUCT LINES) APPROVED FOR THIS PROJECT INCLUDE LITHONIA, DAY-BRITE, COOPER AND HUBBELL LIGHTING.

J. PROVIDE CUSTOM COLORS FOR THE FIXTURES NOTED. EXACT CUSTOM COLOR WILL BE DETERMINED AT THE TIME OF SHOP DRAWING REVIEW AND WILL BE PROVIDED BY THE ARCHITECT IN WRITING TO THE ELECTRICAL CONTRACTOR.

K. THE LED LIGHT BARS SPECIFIED ABOVE MUST HAVE AN OUTPUT OF AT LEAST 850 LUMENS PER FOOT AT COOL WHITE TEMPERATURES AND AT LEAST 600 LUMENS PER FOOT AT WARM WHITE TEMPERATURES.

L. THE EXTERIOR, LED LINEAR BAR FIXTURES AND THE UPLIGHTING CANOPY FIXTURES MOUNTED ON THE STRUCTURE HAVE MULTIPLE BEAM CONFIGURATIONS AND THE ABILITY TO ADJUST THE FIXTURE UP TO 360 DEGREES. IT IT ANTICIPATED THESE FIXTURES WILL NEED TO BE FIELD ADJUSTED PRIOR TO SUBSTANTIAL COMPLETION. THE ELECTRICAL CONTRACTOR SHALL INCLUDE UP TO THREE FIELD ADJUSTMENTS ON PREMIUM TIME ON SITE WITH ARCHITECT, ENGINEER AND OWNER'S REPRESENTATIVE. THE MANUFACTURER'S REPRESENTATIVE IS ALSO REQUIRED TO BE ON SITE DURING PREMIUM TIME. INCLUDE THESE COSTS IN BID.

SCHEDULE NOTES: (APPLICABLE WHERE REFERENCED)

1. ARCHITECT AND ENGINEER WILL CONFIRM WALL OR CEILING MOUNT AT SHOP DRAWING REVIEW AND PRIOR TO PLACING ORDER.
2. CONTRACTOR SHALL COORDINATE DIRECTION OF ARROW(S) ON FACE OF EXIT SIGN(S) PRIOR TO ORDERING SIGNS. SEE LIGHTING FLOOR PLANS FOR QUANTITY AND DIRECTION OF ARROW(S).
3. VERIFY FIXTURE COLOR AND OPTIONS WITH ARCHITECT/GENERAL CONTRACTOR PRIOR TO PLACING FINAL ORDER.
4. DRIVER LOCATION SHALL BE APPROVED BY ARCHITECT AND ENGINEER AT THE TIME OF SHOP DRAWING REVIEW. ALL DRIVERS AND ASSOCIATED COMPONENTS SHALL BE INSTALLED IN OUTDOOR, COMPLETELY WEATHERPROOF ENCLOSURES AND ACCESSIBLE BY THE OWNER FOR FUTURE MAINTENANCE.
5. PROVIDE DECORATIVE POST, ONE-PIECE ALUMINUM CONSTRUCTION WITH CAST ALUMINUM FLUTED BASE. THE BASE SHALL BE DESIGNED WITH FLUTES AND BE MADE OF HEAVY WALL, 356 ALLOY CAST ALUMINUM. THE SHAFT SHALL BE DOUBLE CIRCUMFERENTIALLY WELDED INTERNALLY AND EXTERNALLY TO THE BASE FOR ADDED STRENGTH. THE CAST TAPERED FLUTED SHAFT SHALL BE MADE OF HEAVY WALL 319 ALLOY CAST ALUMINUM. PROVIDE A FACTORY FINISH, BLACK IN COLOR. FINAL COLOR TO BE PROVIDED BY OWNER AND ARCHITECT UPON SHOP DRAWING REVIEW. REFER TO DETAIL FOR ADDITIONAL POLE REQUIREMENTS.
6. PROVIDE THE STRUT AND/OR STEEL MOUNTING CHANNELS AND HARDWARE REQUIRED TO INSTALL FIXTURE.
7. FIXTURE SHALL NOT BE SEEN IN ELEVATION (EVEN THOUGH THE ELECTRICAL ELEVATION DRAWINGS SHOWN THEM FOR CLARITY). INSTALL FIXTURES BELOW THE TOP OF THE CMU PARAPET WALLS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
8. UPPER FIXTURES ARE POINTING UP AND TILTED 45 DEGREE TOWARDS THE WALL; LOWER FIXTURES ARE POINTING DOWN AND TILTED 20 DEGREE TOWARDS THE WALL.
9. FIXTURE WIDTH CANNOT BE WIDER THAN COLUMN WIDTH.

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

LIGHTING SCHEDULES

E601

100% CONSTRUCTION DOCUMENTS

OCCUPANCY SENSOR LEGEND AND SCHEDULE – MANATEE COUNTY DOWNTOWN BRADENTON TRANSIT STATION

TYPE	DESCRIPTION	MANUFACTURER/ CATALOG NUMBER	SEE SCHEDULE NOTES
P	FULL–FEATURED SWITCH PACK, UL 2043 PLENUM–RATED, 20AMP RATED AT 277V, ZERO CROSSING CIRCUITRY, LED STATUS LIGHT,	WATTSTOPPER BZ–150 SERIES	1
DT–300	CEILING MOUNTED, DUAL TECHNOLOGY OCCUPANCY SENSOR, 24V, UP TO 360 DEGREES AND 1000 FEET OF DETECTION AND ADJUSTABLE "LIGHTS OFF" TIME SELECTION	WATTSTOPPER DT–300 SERIES	1,2
TS TS–400	WALL MOUNTED, DIGITAL TIME SWITCH, 120V AND ADJUSTABLE "LIGHTS OFF" TIME SELECTION. SET TO 2 HOURS U.O.N.	WATTSTOPPER TS–400 SERIES	1,2
W–500A	CEILING MOUNTED, ULTRASONIC OCCUPANCY SENSOR, 24V, UP TO 360 DEGREES AND 500 SQUARE FEET OF DETECTION AND ADJUSTABLE "LIGHTS OFF" TIME SELECTION	WATTSTOPPER W–500A SERIES	1,2

GENERAL NOTES:
A. ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.

B. ULTRASONIC CEILING MOUNTED SENSORS REQUIRE THEY BE LOCATED NO CLOSER THAN SIX FEET TO HVAC SUPPLY/ RETURN REGISTERS.

C. THE DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR THE FINAL PROPER SENSITIVITY AND TIME DELAY SETTINGS, VERIFICATION OF MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT. IF NO DIRECTION IS GIVEN AND UNLESS OTHERWISE DIRECTED BY THE OWNER/TENANT, SET THE SENSITIVITY TO MAXIMUM AND THE TIME DELAY TO 30 MINUTES FOR EACH SENSOR.

D. PROVIDE A COMPLETE SUBMITTAL PACKAGE TO THE ENGINEER INCLUDING .DWG FILES FOR WIRING DIAGRAMS.

E. PROVIDE ACCESS DOOR OR PANELS TO POWER PACKS ABOVE GYPBOARD CEILINGS.

F. PROVIDE A CIRCULAR ORANGE (DOT) STICKER ON THE GRID OR ACCESS DOOR TO MARK THE LOCATION(S) OF THE POWER PACK(S) FOR FUTURE OWNER/TENANT MAINTENANCE.

SCHEDULE NOTES (APPLICABLE WHERE REFERENCED):
1. THE DIVISION 26 CONTRACTOR IS RESPONSIBLE FOR THE FINAL FIELD VERIFICATION OF THE REQUIRED NUMBER OF POWER PACKS. THE DIVISION 26 CONTRACTOR SHOULD PROVIDE:
A. PROVIDE ONE POWER PACK PER SENSOR FOR EACH SPACE/AREA THAT IS TO BE CONTROLLED.
B. IF REQUIRED, PROVIDE ADDITIONAL POWER PACKS WHERE THE MAXIMUM NUMBER OF SENSORS THAT CAN BE WIRED IN PARALLEL TO A SINGLE POWER PACK IS DEPENDENT ON SENSOR MODEL (SEE INDIVIDUAL DATA SHEETS FOR mA CONSUMPTION).
2. DEVICE SHOULD BE WHITE IN COLOR – FINAL COLOR SELECTION BY ARCHITECT.

EC EQUIPMENT CONNECTION SCHEDULE

EQUIP. NAME	EQUIPMENT DESCRIPTION	EQUIP. LOAD	VOLT/ PHASE	EQUIPMENT LOCATION	DISCONNECT SWITCH SIZE AND TYPE	PANEL & CIRCUIT #	WIRE AND CONDUIT INFORMATION	SEE SCHEDULE NOTES
RTU–1	ROOF TOP UNIT	27 MCA	240/1	ROOF	60A 2–POLE NEMA 3R	SEE ROOF PLAN	3#8, 1#10 GND IN 3/4"C.	1,2,3
EF–1	EXHAUST FAN	1/15HP	120/1	ROOF	MOTOR RATED SWITCH	SEE ROOF PLAN	2#12, 1#12 GND IN 3/4"C.	2,3
EF–2	EXHAUST FAN	.01 HP	120/1	ROOF	MOTOR RATED SWITCH	SEE ROOF PLAN	2#12, 1#12 GND IN 3/4"C.	2,3
EWH–1	ELECTRIC WATER HEATER	7.5KW	240/1	UNDER SINK	60A 2–POLE	SEE FLOOR PLANS	3#8, 1#10 GND IN 3/4"C.	4,5
ATCM–1	AUTOMATIC TICKET AND CHANGE MACHINE	2800W	240/1	VENDING	30A/2–POLE	SEE FLOOR PLANS	3#10, 1#10 GND IN 3/4" C.	1
MG–1	MOTORIZED GATE	1/6HP	120/1	STATION	30A/2–POLE NEMA 3R	SEE FLOOR PLANS	2#12, 1#12 GND IN 3/4"C.	2,6

GENERAL NOTES:
A. PROVIDE INTERCONNECTION OF ALL EQUIPMENT OPERATING COMPONENTS REQUIRING ELECTRICAL CONNECTION, SUCH AS MOTOR STARTERS, VARIABLE SPEED DRIVES, DISCONNECT SWITCHES, EQUIPMENT CONTROLLERS, ETC. AS REQUIRED BY ALL TRADES.

B. DISCONNECT SWITCHES FOR 208/240V EQUIPMENT SHALL BE RATED 240V. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, NON–FUSED, NEMA–1 UNLESS NOTED OTHERWISE. FUSED SWITCHES SHALL BE PROVIDED WITH DUAL–ELEMENT FUSES SIZED PER THE EQUIPMENT MANUFACTURERS RECOMMENDATION.

C. PROVIDE ELECTRICAL SERVICE TO SCHEDULED EQUIPMENT. RECOORDINATE EXACT SERVICE SIZE (I.E. CIRCUIT BREAKER, FEEDER, DISCONNECT SWITCH, ETC.) WITH APPROVED EQUIPMENT SHOP DRAWINGS PRIOR TO ROUGH–IN. MODIFY ELECTRICAL SERVICE AS REQUIRED TO SERVE APPROVED EQUIPMENT.

D. PROVIDE ENGRAVED, PLASTIC LAMINATE NAMEPLATE ON ALL PANELBOARDS, CONTROL PANELS, TERMINAL CABINETS, DISCONNECT SWITCHES, EQUIPMENT, ETC.

E. SEE PLANS FOR QUANTITIES OF EACH PIECE OF EQUIPMENT REQUIRING AN ELECTRICAL CONNECTION.

SCHEDULE NOTES: (APPLICABLE WHERE REFERENCED)
1. PROVIDE ELECTRICAL SERVICE AND ALL ELECTRICAL CONNECTIONS TO LINE SIDE OF DISCONNECT SWITCH (E.G. SINGLE POINT ELECTRICAL CONNECTION). PROVIDE SERVICE DISCONNECT SWITCH AND ALL INTERCONNECTIONS BETWEEN EQUIPMENT, DISCONNECT AND PANELBOARD. REFER TO EQUIPMENT CONNECTION SCHEDULE GENERAL NOTE 'A'.

2. PROVIDE WEATHERPROOF ELECTRICAL SERVICE TO EQUIPMENT, INCLUDING, BUT NOT LIMITED TO CONDUIT, BACKBOX, FITTINGS, ETC.

3. EXHAUST FAN CONTROLLED BY LIGHTING CONTROL PANEL RELAY. ROUTE BRANCH CIRCUIT THROUGH RELAY PANEL. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH–IN.

4. PROVIDE COOPER B–LINE GALVANIZED STEEL STRUT RACK AND ALL ASSOCIATED HARDWARE REQUIRED TO LOCATE SERVICE DISCONNECT SWITCH ADJACENT TO UNIT.

5. PROVIDE LIQUIDTIGHT, FLEXIBLE METALLIC CONDUIT TO DISCONNECT. MINIMIZE INSTALLATION AS MUCH AS POSSIBLE. PROVIDE T–HANDLE DISCONNECT TO ASSIST IN SIZE REDUCTION IF DESIRED.

6. PROVIDE JUNCTION BOX IN CEILING AND CONDUIT AS REQUIRED BY THE MOTORIZED GATE SUPPLIER FOR POWER, CONTROLS, CONTACTORS, KEYED SWITCHES, ETC. THE GATES ARE INTENDED TO BE CONTROLLED FROM OFFICE 1–101, EXACT LOCATION TBD AND ARE NOT SHOWN ON THE PLANS.

BRANCH CIRCUIT CONDUCTORS IN CONDUIT SCHEDULE

CB	POLE	WIRE SIZE (BASED UPON TYPE THW)	CONDUIT	PHASE
15/20A	1	2–#12, 1–#12 EQUIPMENT GROUND	3/4"	1ø 2W
15/20A	2	2–#12, 1–#12 EQUIPMENT GROUND	3/4"	1ø 2W
15/20A	3	3–#12, 1–#12 EQUIPMENT GROUND	3/4"	3ø 3W
25A	1	2–#10, 1–#10 EQUIPMENT GROUND	3/4"	1ø 2W
25A	2	2–#10, 1–#10 EQUIPMENT GROUND	3/4"	1ø 2W
25A	3	3–#10, 1–#10 EQUIPMENT GROUND	3/4"	3ø 3W
30A	1	2–#10, 1–#10 EQUIPMENT GROUND	3/4"	1ø 2W
30A	2	2–#10, 1–#10 EQUIPMENT GROUND	3/4"	1ø 2W
30A	3	3–#10, 1–#10 EQUIPMENT GROUND	3/4"	3ø 3W
30A	3	3–#10, 1–#10 N., 1–#10 EQUIPMENT GROUND	3/4"	3ø 4W
35A	3	3–#8, 1–#10 EQUIPMENT GROUND	1"	3ø 3W
35A	3	3–#8, 1–#8 N., 1–#10 EQUIPMENT GROUND	1"	3ø 4W
40A	2	2–#8, 1–#10 EQUIPMENT GROUND	1"	1ø 2W
40A	3	3–#8, 1–#10 EQUIPMENT GROUND	1"	3ø 3W
40A	3	3–#8, 1–#8 N., 1–#10 EQUIPMENT GROUND	1"	3ø 4W
45A	2	2–#8, 1–#10 EQUIPMENT GROUND	1"	1ø 2W
45A	3	3–#8, 1–#10 EQUIPMENT GROUND	1"	3ø 3W
45A	3	3–#8, 1–#8 N., 1–#10 EQUIPMENT GROUND	1"	3ø 4W
50A	2	2–#8, 1–#10 EQUIPMENT GROUND	1"	1ø 2W
50A	3	3–#8, 1–#10 EQUIPMENT GROUND	1"	3ø 3W
50A	3	3–#8, 1–#8 N., 1–#10 EQUIPMENT GROUND	1"	3ø 4W
60A	2	2–#6, 1–#10 EQUIPMENT GROUND	1"	1ø 2W
60A	3	3–#6, 1–#10 EQUIPMENT GROUND	1"	3ø 3W
60A	3	3–#6, 1–#6 N., 1–#10 EQUIPMENT GROUND	1–1/4"	3ø 4W
70A	2	2–#4, 1–#8 EQUIPMENT GROUND	1"	1ø 2W
70A	3	3–#4, 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 3W
70A	3	3–#4, 1–#4 N., 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 4W
80A	2	2–#4, 1–#8 EQUIPMENT GROUND	1"	1ø 2W
80A	3	3–#4, 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 3W
80A	3	3–#4, 1–#4 N., 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 4W
90A	2	2–#3, 1–#8 EQUIPMENT GROUND	1"	1ø 2W
90A	2	2–#3, 1–#8 EQUIPMENT GROUND	1"	1ø 2W
90A	3	3–#3, 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 3W
90A	3	3–#3, 1–#4 N., 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 4W
100A	2	2–#3, 1–#8 EQUIPMENT GROUND	1–1/4"	1ø 2W
100A	3	3–#3, 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 3W
100A	3	3–#3, 1–#3 N., 1–#8 EQUIPMENT GROUND	1–1/4"	3ø 4W
150A	2	2–#1/0, 1–#6 EQUIPMENT GROUND	1–1/2"	1ø 2W

GENERAL NOTES:
A. INCREASE WIRE ONE SIZE FOR SINGLE PHASE BRANCH CIRCUITS GREATER THAN 75 FEET IN CIRCUIT LENGTH.

B. INCREASE WIRE ONE SIZE FOR THREE PHASE BRANCH CIRCUITS GREATER THAN 165 FEET IN CIRCUIT LENGTH.

C. PROVIDE 600V INSULATED COPPER CONDUCTORS FOR ALL WIRE SHOWN IN THIS SCHEDULE.

D. PROVIDE ADDITIONAL NEUTRAL CONDUCTOR FOR BRANCH CIRCUIT WHEN A BUCK OR BOOST TRANSFORMER IS REQUIRED OR HAS BEEN SPECIFIED.

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Brodenton FL 34211
Tel: 941–748–1319 Fax: 941–748–1349
www.me3–engr.com sidney@me3–engr.com
Designed: B.P.Z. ME3 Job No: 10–0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27562

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL SCHEDULES

E602

100% CONSTRUCTION DOCUMENTS

GENERAL NOTES:

1. PROVIDE ALL POWER EQUIPMENT, LIGHTING FIXTURES AND SPECIAL SYSTEMS. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE AND WORKING SYSTEM FOR THE OWNER.

2. SEE LIGHTING CONTROL PANEL DIAGRAM FOR DETAILS REGARDING LIGHTING CONTROL FOR ALL STREETLIGHTING CIRCUITS.

3. WHEN REQUIRED, INSTALL BASE OF POLES NO CLOSER THAN THREE FEET FROM CAR BUMPER BLOCKS (TYPICAL).

4. THE OWNER WILL PAY FOR ALL COSTS FOR THE NEW, PERMANENT ELECTRIC SERVICE AND THE ELECTRICAL CONTRACTOR IS TO EXCLUDE THESE COSTS FROM THE BID. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE COSTS AND FOR THE ARRANGEMENT OF TEMPORARY ELECTRIC POWER FOR CONSTRUCTION (IF NEEDED).

SITE PLAN KEY NOTES: (#)

KEY NOTES APPLY TO THIS DRAWING ONLY.

1. PROPOSED LOCATION OF NEW UTILITY COMPANY METER, CURRENT TRANSFORMERS, ETC. COORDINATE EXACT LOCATION WITH OWNER AND UTILITY COMPANY PRIOR TO BID. MODIFY LOCATION AS REQUIRED TO COMPLY WITH UTILITY COMPANY REQUIREMENTS. REFER TO THE "ELECTRICAL RISER DIAGRAM" FOR ADDITIONAL REQUIREMENTS.

2. PROPOSED ROUTING OF NEW UNDERGROUND SECONDARY SERVICE LATERAL FROM UTILITY COMPANY HAND HOLE/TRANSFORMER(S). COORDINATE EXACT ROUTING WITH GENERAL CONTRACTOR, OTHER TRADES AND EXISTING CONDITIONS PRIOR TO ROUGH-IN. REFER TO THE "ELECTRICAL RISER DIAGRAM" FOR ADDITIONAL REQUIREMENTS.

3. PROVIDE TWO 4" CONDUITS WITH PULL STRINGS FOR OWNER'S TECHNOLOGY REQUIREMENTS. REFER TO THE COMMUNICATIONS RISER DIAGRAM FOR ADDITIONAL ELECTRICAL REQUIREMENTS.

4. PROVIDE CONDUIT AND WIRE TO STREETLIGHTING FIXTURES. PROVIDE 2#8AWG + 1#10AWG EQUIPMENT GROUND COPPER IN 1" CONDUIT U.O.N.. SEE POLE BASE DETAIL FOR FURTHER INFORMATION.

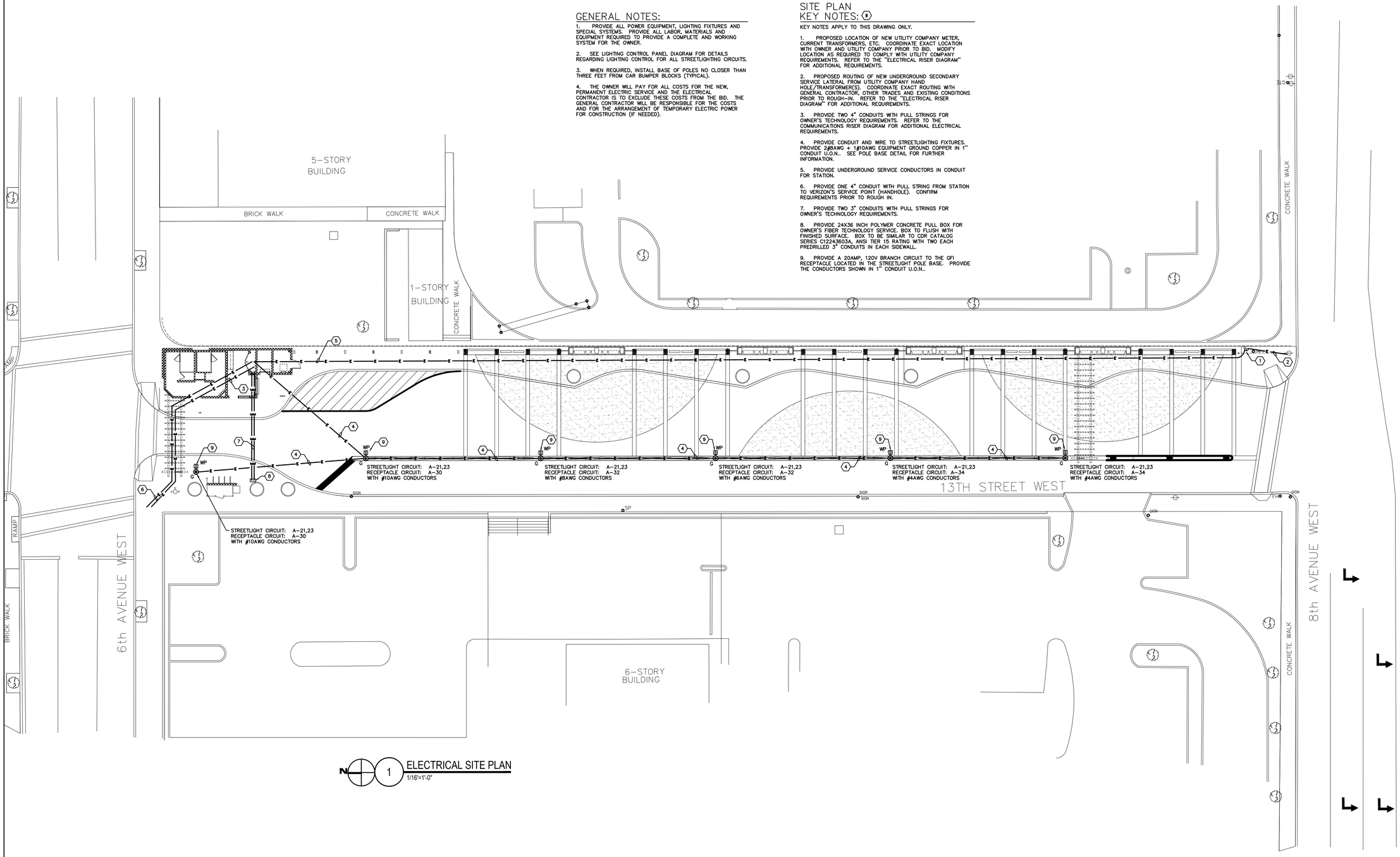
5. PROVIDE UNDERGROUND SERVICE CONDUCTORS IN CONDUIT FOR STATION.

6. PROVIDE ONE 4" CONDUIT WITH PULL STRING FROM STATION TO VERIZON'S SERVICE POINT (HANDHOLE). CONFIRM REQUIREMENTS PRIOR TO ROUGH IN.

7. PROVIDE TWO 3" CONDUITS WITH PULL STRINGS FOR OWNER'S TECHNOLOGY REQUIREMENTS.

8. PROVIDE 24X36 INCH POLYMER CONCRETE PULL BOX FOR OWNER'S FIBER TECHNOLOGY SERVICE. BOX TO FLUSH WITH FINISHED SURFACE. BOX TO BE SIMILAR TO CDR CATALOG SERIES C12243603A, ANSI TIER 15 RATING WITH TWO EACH PREDRILLED 3" CONDUITS IN EACH SIDEWALL.

9. PROVIDE A 20AMP, 120V BRANCH CIRCUIT TO THE GFI RECEPTACLE LOCATED IN THE STREETLIGHT POLE BASE. PROVIDE THE CONDUCTORS SHOWN IN 1" CONDUIT U.O.N..



N 1 ELECTRICAL SITE PLAN
1/16"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL SITE PLAN

ES101

100% CONSTRUCTION DOCUMENTS

GENERAL NOTES:

1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE AND WORKING SYSTEM FOR THE OWNER.

2. SEE ELECTRICAL PLANS FOR CIRCUIT NUMBERS, SOME BOX LOCATIONS, DEVICE LOCATIONS, ETC.

SITE PLAN KEY NOTES: ⓚ

KEY NOTES APPLY TO THIS DRAWING ONLY.

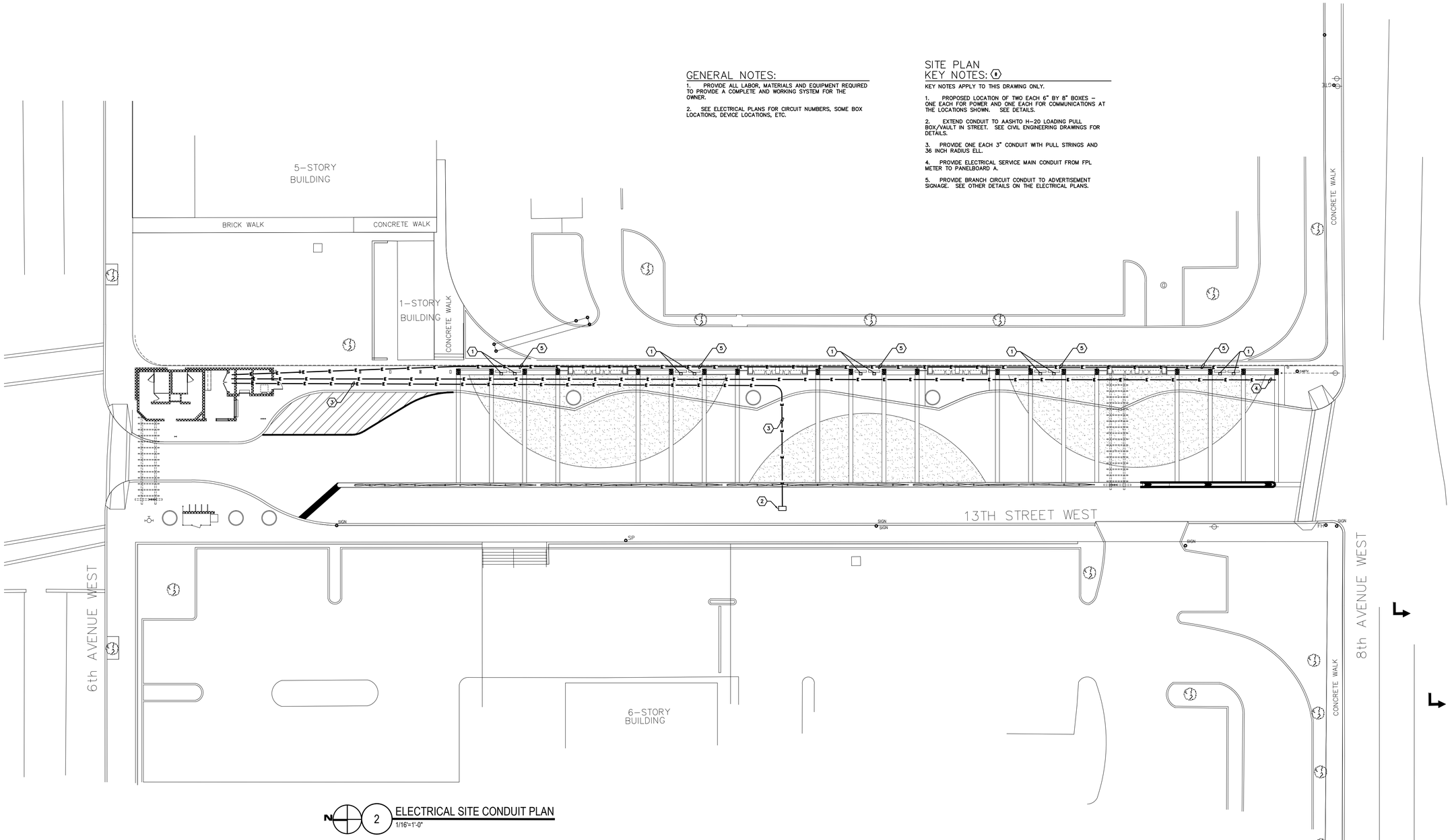
1. PROPOSED LOCATION OF TWO EACH 6" BY 8" BOXES – ONE EACH FOR POWER AND ONE EACH FOR COMMUNICATIONS AT THE LOCATIONS SHOWN. SEE DETAILS.

2. EXTEND CONDUIT TO AASHTO H-20 LOADING PULL BOX/VAULT IN STREET. SEE CIVIL ENGINEERING DRAWINGS FOR DETAILS.

3. PROVIDE ONE EACH 3" CONDUIT WITH PULL STRINGS AND 36 INCH RADIUS ELL.

4. PROVIDE ELECTRICAL SERVICE MAIN CONDUIT FROM FPL METER TO PANELBOARD A.

5. PROVIDE BRANCH CIRCUIT CONDUIT TO ADVERTISEMENT SIGNAGE. SEE OTHER DETAILS ON THE ELECTRICAL PLANS.



2 ELECTRICAL SITE CONDUIT PLAN
1/16"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE

677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: B.P.Z. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: B.P.Z. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

BRYAN P. ZAPF, P.E.
FL# 46141

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

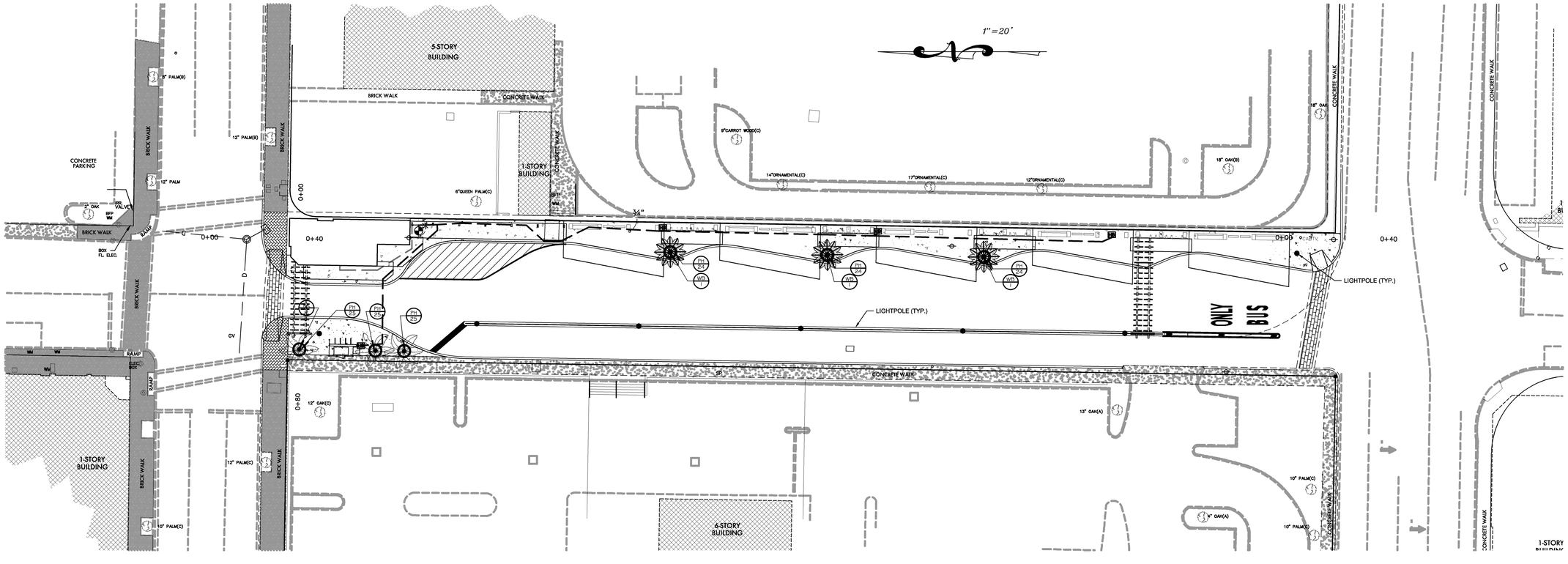
revisions:

drawn: BPZ
checked: STP
date: 11.12.2010
comm. no.: 0920818

ELECTRICAL SITE CONDUIT PLAN

ES102

100% CONSTRUCTION DOCUMENTS



LANDSCAPE PLAN

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE
	RR	3	Roystonea regia / Royal Palm Matched sizes, In 60" dia., 24" ht. conc. planters	B & B	N/A	13` GW
	WB	3	Wodyetia bifurcata / Foxtail Palm Matched sizes in 60" dia., 24" ht. planters	B & B	N/A	13` GW
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL NAME / COMMON NAME**	**CONT**		
	PH	147	Petunia x hybrida / Common Garden Petunia Mixed colors, annuals	1 gal@ 10" oc		

LANDSCAPE NOTES:

1. In the event of variation between quantities shown of the plant list and the plans, the plans shall control. Improvisations made by the Landscape Contractor shall be no cause for additional costs to the owner. Sod, mulch, and topsoil quantity takeoffs shall be the responsibility of the contractor.
2. No substitutions shall be made without the written consent of the Owner or Landscape Architect.
3. Fertilizer shall be applied to all new planting areas at a rate of 1 1/4 lbs. actual nitrogen, 1 1/4 lbs. actual phosphorus, and 1 1/4 lbs. actual potash per 1,000 sq. ft. of planting area. The fertilizer shall also contain all minor trace elements suitable for the area where it is to be used.
4. Unit prices for all plant material shall be provided to the Landscape Architect or Owner upon request.
5. Topsoil material, when called for on the plans, shall be free of sticks, stones larger than 1" dia., plants, or any other debris which would be toxic or otherwise harmful to plant growth. Topsoil should be fertile, friable, and of a naturally loamy character.
6. The Landscape Contractor shall take all necessary precautions to protect all existing structures on the site and shall be held responsible for any damage cause by his operations.
7. It shall be the Landscape Contractor's financial responsibility to prevent plants and trees from falling or being blown over, and to replace all plants which are damaged at no additional cost to the owner for sustained winds of less than 65 MPH.
8. Maintenance shall begin after each plant has been installed and shall continue until final acceptance by the Landscape Architect. Maintenance shall include pruning, mulching, weeding, replacement of sick or dead plants, watering (including cost of equipment such as a water-truck) and any other care which is needed for the proper growth of the plant material.
9. Excess waste material shall be removed daily from the site.
10. All plant materials used shall conform to the standards for Florida No. 1 or better as described in "Grades and Standards for Nursery Plants", State of Florida, Department of Agriculture and Consumer Services, Division of Plant Industry, 2nd edition, Feb 1998 or equal thereto as approved by the Landscape Architect.
11. All shrub beds and hedges shall be top-dressed with 2" of Grade 'B' Pine Bark Nugget mulch unless otherwise stated on the plans or plant schedule. Mulch shall be pulled back 4" from palm trunks.
12. It shall be the responsibility of the Landscape Contractor to coordinate activities with other contractors on the job site.
13. All plant materials shall be fully guaranteed for a period of one (1) year following final acceptance by the owner.
14. All landscape materials installed within the public right of way shall be installed to meet all State and Local codes and regulations.
15. Contractor shall install an automatic irrigation system which provides 100% coverage of all landscaped areas. Irrigation controller shall be in ticket office.
16. All B & B or Field Grown material (except palms) shall be obtained from "Roots Plus" certified nurseries.
17. All trimming of existing trees shall be conducted or overseen by a certified arborist.
18. Contractor shall contact sunshine state one call of florida system at 1-800-432-4770 for the location of underground utilities/facilities. Contractor shall verify the exact locations of said facilities prior to excavation and shall assume any and all liability for damages which may occur due to the contractor's failure to locate and preserve said facilities.

Petersen Mfg.Co., Inc.

PMC

GENERAL SPECIFICATIONS:

MANUFACTURER'S QUALIFICATIONS

Petersen Mfg. maintains at all times a quality control program as herein outlines so as to insure that all precast meets all requirements as specified under physical requirements. All precast shall be manufactured by skilled workmen who have at least five years experience in similar work and supervised by foremen certified by the ACI (American Concrete Institute).

MANUFACTURING

All precast work shall be true to dimensions and have clean, accurate arrises and details faithfully executed. Reinforcing steel shall conform to ASTM 615 for rebar, and deformations shall conform to ASTM-M-0305. All precast shall have a minimum compressive strength of 5,000 psi at 28 days of age when tested by means of 6 x 12 cylinder molds from the materials. There shall be a maximum of 4-6% air entrainment for all precast according to ASTM standards.

REINFORCEMENT

All concrete products have reinforcement characteristics such as rebar or fiberglass.

MOLDS

The forms for the precast units shall be constructed of metal or fiberglass, and designed to withstand casting pressures without distortion. All anchors, inserts, bolts, etc., will be placed and secured in the forms as required for the attachment and handling of the units. These shall be clamped or secured so as to hold them in position during fabrication.

PHYSICAL CHARACTERISTICS

All exposed surfaces are treated to remove the surface matrix and expose the aggregate produced by chemical retardent - not sand blasting. All precast shall have water-repellent sealer treatment applied in strict accordance with manufacturer's specifications. All tolerances shall be within 1/8" of specified dimensions, designed for structural analysis and calculation.

COLOR

Color to be uniform throughout as approved by owner or specifier in accordance with manufacturer's recommendation.

MATERIALS

Portland Cement: ASTM C150 Type I or III
All aggregate to meet ASTM C33 Specifications

REQUIRED MATERIALS FOR APPROVAL

A. Shop drawings with dimensions, general construction component parts, anchoring details and installation instructions.
B. Samples upon request of architect.
C. Complete data on manufacturer's specifications and technical information.

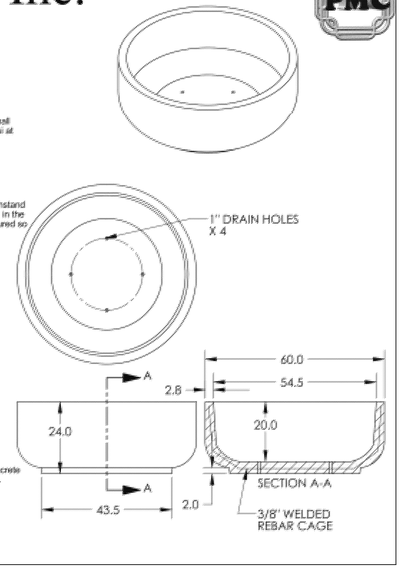
WARRANTY:

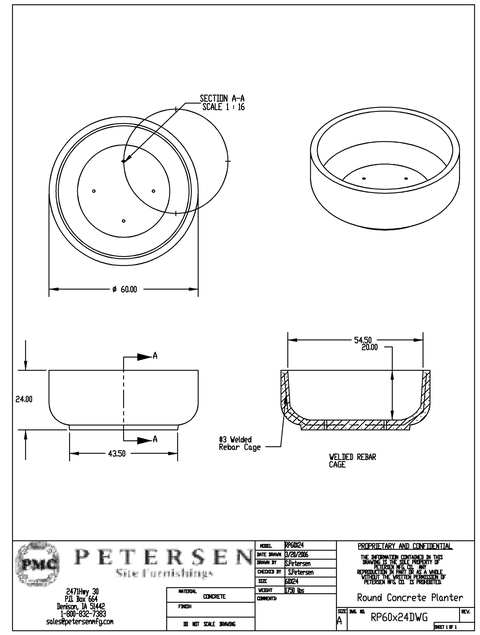
Petersen Mfg. Company, Inc., provides a two-year limited warranty on all Petersen precast concrete products. Plastic, metal, and wood products are warranted for one year from date of purchase.

APPROVED MANUFACTURER:

Petersen Concrete Leisure Products
Division of Petersen Mfg. Co., Inc.
2471 Hwy 30 P.O. Box 864 Denison, IA 51442
712-263-2442

Model:RP60X24
Weight:1735 lbs





PETERSEN
Site Furnishings
2471Hwy 30
P.O. Box 864
Denison, IA 51442
1-888-832-7383
sales@petersenmfg.com

MODEL	RP60X24
DATE DRAWN	3/25/2006
DRAWN BY	SPetersen
CHECKED BY	SPetersen
SIZE	60X24
WEIGHT	1735 lbs
MATERIAL	CONCRETE
FINISH	
CONCRETE	
IS NOT SCALE DRAWING	

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PETERSEN MFG. CO., INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PETERSEN MFG. CO., IS PROHIBITED.

Round Concrete Planter

SHEET NO. OF | REV.
A | RP60x24DWG

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ROBERT C. GAUSE
LANDSCAPE ARCHITECT #000942
SIGNATURE

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, Fl 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

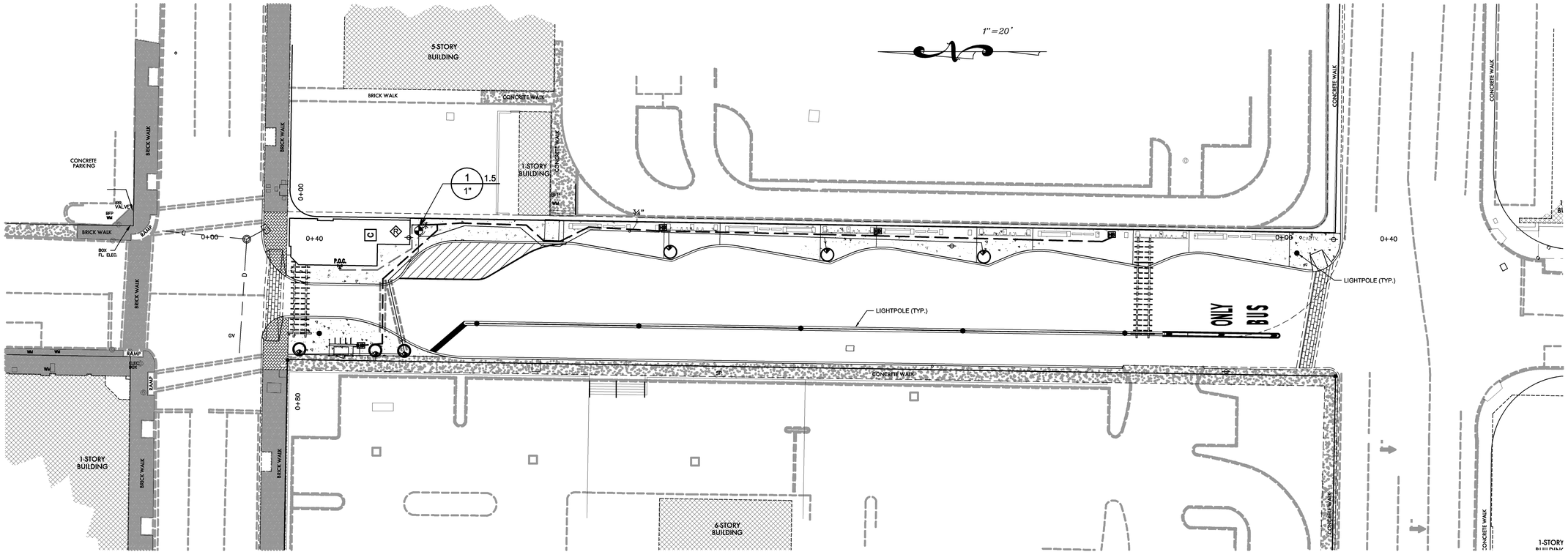
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34205

drawn: RCG
checked: RCG
date: 11.12.2010
comm. no.: 0920818

LANDSCAPE PLAN

L101

100% CONSTRUCTION DOCUMENTS



iRRIGATION PLAN

IRRIGATION NOTES:

GENERAL:
Use of the colon following a subject heading implies the words "shall be" and has a mandatory connotation.
Materials or equipment of equal quality may be substituted for those shown if approved by the Landscape Architect.

MATERIAL:
Contractor agrees to furnish all materials and labor necessary to provide an operational irrigation system providing 100% coverage of all landscape areas.
- VALVE BOXES: 10" w/ cover
- WIRE: 14 ga. suitable for direct burial (larger as needed)
- WIRE SPLICES: 3M DBRSK Water proof splice kit
- PAINT: All exposed PVC black
- SLEEVES: Schedule 40 PVC
- PUMP: As specified
- FITTINGS: Schedule 40 PVC

CONSTRUCTION:
Comply with all State and Local codes. Use good irrigation practices.

WIRE:
Place wire under water main. Where more than one wire is placed in trench, tape wires together at 10' intervals and bottom of main at 10' intervals. Use an expansion curl within 3' of each wire connection and 100' of wire length by wrapping 5 turns of wire around a 12" pipe then withdrawing pipe. All connections must be waterproof.

EXCAVATION:
Dig trenches straight and remove all debris. Depth suitable for top of pipe as follows:
- Laterals - 7"
- Mains - 12"
- Sleeves - 18"

Pipe trench work shall be coordinated with landscape and other contractors to avoid interference with tree, shrub and other site improvements such as concrete placement..

JOINTS:
Remove all burrs from cut pipe, wipe clean, use cleaner on both pipe and fittings then apply glue to both, twist and ram tight. Hold until glue has set.

VALVE BOXES:
Install top of box level with finish grade.

ELECTRICAL:
Contractor shall provide concrete banjos and meter boxes along with all other necessary electrical controls for proper operation of wells and controllers. All electrical controls shall be "hard wired" in galv. electrical conduit. The owner/ general contractor shall be responsible for providing power to the meter boxes.

SURGE PROTECTORS:
Surge protectors shall be installed on 2-wire systems approximately every 500 lf. of wire in accordance with manufacturers recommendations.

RE-USE EFFLUENT MARKINGS:
All pipe and components shall be properly colored for re-use if applicable.

HEADS:
Contractor to locate heads to suit field and landscape conditions. Place top of heads 1" above final grade. Install all heads plumb and rotate to most effectively cover turf and landscape. Flush before installing nozzles. Heads located along vehicular traffic ways shall be attached with 12" of flexible pipe.

CONTROLLER:
Location to be determined by owner.

DECODERS:
Contractor to install decoders at valves in accordance with manufacturers recommendations on two wire systems.

DRIPLINE
To be covered by mulch layer following inspection by Landscape Architect. "Spaghetti Pipe" shall be utilized as necessary to provide irrigation to root zones of individual plants.

BACKFILLING:
Do not backfill until leak test by contractor and general inspection by owner's representative has been performed. Backfill may be excavated material, but must be free of rocks or stones over 1" in diameter, debris or any sharp objects.

OPERATION TESTING:
Contractor shall instruct the owner on the system operation and shall run the system in the owner's presence to assure that it is functioning properly and that all heads are in correct adjustment.

GUARANTEE:
Unconditionally for a year after date of acceptance, except for reason of accidental damage/abuse. Necessary corrections to be made by contractor without delay at no expense to owner. Guarantee shall be extended to cover extended warranties on individual irrigation components (i.e.. valves, controllers and heads) where applicable.

PERMITS:
Obtained by contractor at his expense.

CLEAN UP:
Maintain site clean from pipe clippings, debris and unwanted material at the end of the day.

SOURCE:
Irrigation source shall be potable as noted in schedule.

CRITICAL ANALYSIS

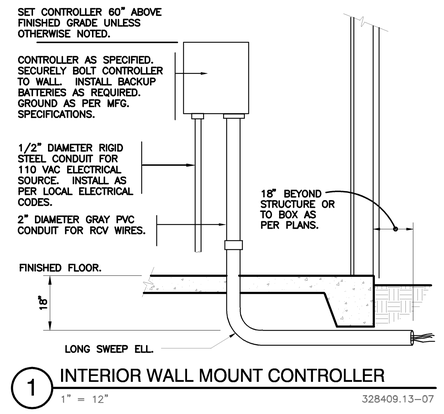
Generated:	2010-06-23 13:59
P.O.C. NUMBER:01	
Water Source Information:	Potable water meter
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available:	37.50 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	60.00 psi
Elevation Change:	5.00 ft
Service Line Size:	1 1/4"
Length of Service Line:	20.00 ft
Pressure Available:	57.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	13.30 gpm
Flow Available at POC:	37.50 gpm
Residual Flow Available:	24.20 gpm
Pressure Req. at Critical Station:	39.16 psi
Loss for Fittings:	0.00 psi
Loss for Main Line:	0.03 psi
Loss for POC to Valve Elevation:	0.43 psi
Loss for Backflow:	0.00 psi
Loss for Water Meter:	1.03 psi
Critical Station Pressure at POC:	40.65 psi
Pressure Available:	57.00 psi
Residual Pressure Available:	16.35 psi

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
05 10 20	Rain Bird XBT-6 Six multi-outlet drip emitter/bubbler Multi-outlet pressure compensating drip emitter/bubbler with 1/2" FPT inlet. 05=0.5GPH, 10=1.0GPH, 20=2.0GPH at each emitter outlet.	6

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Imtrol 100P with OMR-100 Electric Remote Control Valve, globe/angle configuration, with 5-100psi pressure regulator	1
HB	Hose Bibb WOODFORD MODEL Y95, FLUSH MOUNT IN SIDEWALK	4
C	Hunter PCC-300i Electromechanical Controller, 3 stations, indoor model.	1
R	Hunter Solar-Sync Solar, rain freeze sensor with outdoor interface, connects to Hunter PRO-C and ICC controllers, install on roof.	1
P.O.C. #1	3/4" stubout on east side of building 3/4" water stubout from building on east side.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21 Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size.	327 l.f.
	Irrigation Mainline: PVC Schedule 40	371 l.f.
	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	45 l.f.

Valve Callout
#1 #2 #3
- #1 Valve Number
- #2 Valve GPM
- #3 Valve Size



1 INTERIOR WALL MOUNT CONTROLLER
1" = 12" 328409.13-07

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ROBERT C. GAUSE
LANDSCAPE ARCHITECT #000942
SIGNATURE

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, Fl 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34205

drawn: RCG
checked: RCG
date: 11.12.2010
comm. no.: 0920818

IRRIGATION PLAN

L102

100% CONSTRUCTION DOCUMENTS

EXISTING CONDITIONS

1. **GENERAL**

1.1 The Contractor should visit the site and acquaint himself with all existing conditions. Prior to bidding, bidders may make their own subsurface investigations to satisfy themselves as to site and subsurface conditions.

1.2 Before commencing work, Contractor shall verify all conditions at the job. Report any necessary corrections immediately to the Owner's representative. Do not proceed until corrections (if any are required) are made. Commencing work implies Contractor's acceptance of job conditions.

2. **EXISTING TREES**

2.1 Trees which exist on the site and are designated to remain, shall be protected from damage during site construction. Contractor shall be financially responsible for repair, if possible, or replacement of damaged plants with others of equal size, type, and quantity as necessary to satisfy reviewing agencies and Owner.

3. **MASS GRADING AND FILLING**

3.1 General site grading, filling and establishment of the rough grade 2" below proposed finished grade shall be accomplished by the General Contractor prior to commencement of work under this contract (if applicable).

3.2 The Landscape Contractor shall not begin work in any area until the rough/finished grade has been inspected and approved by the Owner and/or the Landscape Architect.

3.3 **SOIL TESTING**

Results of any soil tests made prior to the beginning of grading are available for use by the Contractor.

4. **LANDSCAPE PLANTING**

4.1 **SCOPE**

Work consists of supplying all labor and materials as needed, import and spread topsoil, finish grading and preparation of areas for sodding and planting, the planting of grass, sod, shrubs and trees, maintenance and all related items as shown on the drawings and in accordance with these specifications.

Coordination with other contractors under parts of the project is required.

Contractor shall be responsible for all inspections of plant material that may be required by State or Federal authorities and securing of Certificates as required.

All plant lists and all material quantities are furnished for the Contractor's convenience only. Contractor shall verify all quantities required for completion of the work and shall be responsible for the supply and installation of all plants and materials indicated on drawings and specifications.

4.2 **SCHEDULING OF WORK**

The work shall be so coordinated with other contractors as to prevent any conflicts as to scheduling with others. Coordination of work with others is required with but not limited to the following:

4.2.1 Coordination between the Landscape Contractor and the Irrigation Contractor to assure availability of water and proper location of irrigation equipment in relation to plants.

4.2.2 Coordination with General and Paving Contractors in regard to completion of structures, paving and curbing, walls, earthwork and site rough grading.

4.2.3 Coordination with Lighting Contractor in regard to location and adjustment of landscape lighting.

4.3 **PERSONNEL**

All planting shall be performed by personnel familiar with accepted planting procedures and under the supervision of a qualified planting foreman.

4.4 **PROTECTION OF UTILITIES AND BUILDING**

Prior to the preparation of planting areas or plant pits, the Contractor shall ascertain the location of all electrical cables, all utility lines, oil tanks and supply lines, so that proper precautions may be taken not to disturb or damage any subsurface improvements. In the event any are uncovered, the Contractor shall promptly notify the Landscape Architect, who shall arrange to relocate the plant material, if possible. The Contractor shall be responsible for any damage to utilities and structures and shall properly maintain the protection of same. The Contractor shall take all necessary precautions to avoid damage to the buildings or other structures while installing planting. The use of equipment within five feet of the building to move plants or materials shall be approved by the Landscape Architect prior to its use. The Contractor shall be responsible for damage to buildings or other structures by his operations.

4.5 **CLEAN UP**

The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work, he shall remove all his waste material and rubbish from and about the project as well as all his tools, construction equipment, machinery and surplus materials, and shall clean all grass surfaces and leave the work "broom clean" or its equivalent. If the Contractor fails to clean up, the Owner may do so and the cost thereof shall be charged to the Contractor and deducted from his final payment.

4.6 **PLANTING GENERAL**

4.6.1 Site Preparation

Upon completion of rough grading by others and results of soil tests, unless deemed unnecessary by Landscape Architect, the entire planting area of site shall be thoroughly disced to the top three inches of existing soil. The soil surface shall be smoothed out and the area completely watered down.

4.6.2 Topsoil

The topsoil used for work under this section shall be cleaned of stones, sticks, plants and other foreign materials before used to prepare planting soil.

Topsoil shall be a natural, fertile, friable loamy sand soil without admixture of subsoil and shall be clean and reasonably free of clay lumps, stones, stumps, roots or similar substances two or more inches in diameter, debris, or other objects which might be a hindrance to planting operation.

Topsoil shall be subject to approval of the Landscape Architect.

Soil shall be Ph value between 6.0 and 7.5 after the admixtures have been added.

4.6.3 Commercial Fertilizers

Fertilizer shall be commercial grade formula 6-6-6. 50% of the nitrogen shall be acid forming derived from natural organics and all potash shall be derived from sulphate forms. Fertilizers shall be a complete product complying with State and Federal laws. Fertilizers shall be in unopened containers which shall bear the manufacturer' s guaranteed statement of analysis, or a manufacturer's certificate of compliance covering analysis. Copies of the Guaranteed Statement of Analysis shall be furnished to the Landscape Architect prior to commencement of work. The following minor elements shall be included: 0.2% ZnO, 0.25% CuO, 4.0% MgO, 2.0% Fe2O3, 0.5% MnO, 0.1% B2O3

Chlorine shall constitute less than 2% of the ingredients.

4.6.4 Plant Material

The words "Plant Materials" or "Plants" refer to and include trees, shrubs, groundcover, grass, or herbaceous materials.

Plant species shall conform to those indicated on the drawings and in the specifications in accordance with Standardized Plant Names, latest edition.

Plants shall be sound, healthy, vigorous, free from plant diseases, insect pests, or their eggs, and shall have healthy normal root systems. Plants shall be nursery grown stock material in containers or freshly dug, balled and burlapped plants. Sabal palms are not required to be B & B, but shall have a root ball meeting required standards.

Plants shall not be pruned prior to delivery except as authorized by the Landscape Architect.

All plants shall have been transplanted or root pruned at least once in the twelve (12) months previous to contract date. Root bound container plants will not be accepted.

Immediately upon selection and approval by Landscape Architect, all major trees shall be completely root pruned at the nursery site and held in that condition for a period of 45 - 60 days. Plants shall not be further dug or transported without approval of Landscape Architect. If standard nursery practice dictates the stripping of foliage of certain species, removal of not more than one-half of foliage shall be conducted at time of root pruning. With the exception of palms, collected plants shall not be used unless authorized in writing by the Landscape Architect.

All plant material not otherwise specified as being Florida Fancy or Specimen shall be Florida No. 1 or better quality graded in accordance with Grades and Standards for Nursery Plants published by the State of Florida, Department of Agriculture. Plants judged to be not in accordance with said standards will be rejected. Caliper measurement, height measurement, height relation to caliper, spread, bare root and ball dimensions, number of canes, types of vines, and groundcovers, etc. shall conform to the applicable standards given in USA Standard For Nursery Stock 260.1, sponsored by the "American Association of Nurserymen, Inc."

Substitutions in plant species or sizes shall be made only after written authorization by the Landscape Architect. Any materials and/or work may be rejected if, in the opinion of the Landscape Architect, such work does not meet the requirements of the Specifications. All rejected materials shall be promptly removed from the site by the Contractor at his expense.

Specimen means an exceptional heavy, symmetrical, tightly knit plant, so trained or favored in its development that its appearance is unquestionably and outstandingly superior in form, number of branches, compactness and symmetry.

Plants used where symmetry is required shall be matched as nearly as possible. The Landscape Architect will inspect these plants in the nursery for tentative approval when matched plants are essential for aesthetic effects.

All plants so indicated on plant list shall be field selected by Landscape Architect at the nursery. When such plants have been located by Contractor, the Landscape Architect shall be notified and the required nursery inspections shall be scheduled.

All plant varieties specified as "patented", "registered", or "trade marked", shall have appropriate identification tag attached to each plant. Tags shall not be removed until inspected and approved by the Landscape Architect.
For any plant variety so indicated on plant list, Contractor shall submit one sample of the plant to the Landscape Architect for approval prior to transporting the total of such plants to the site.

4.7 **PLANTING, GRASS**

4.7.1 Sod

Sod shall be as specified on the plans (if applicable).

All sod shall be of firm texture having a compacted growth and good root development. Sod shall contain no weeds or objectionable vegetation, and be free from fungus, vermin, and diseases. Before being cut and lifted, sod shall be mowed three times with the final mowing not more than a week before cutting into uniform dimensions. Certification as to type of grass and other requirements shall be made and submitted to the Landscape Architect.

4.8 **PLANTING SOIL**

4.8.1 General Site Plantings

Soil used for backfilling around all trees, shrubs and palms shall be as shown on the planting details.

Planting soil backfill mixture shall be prepared using 2/3 approved topsoil from on or off of the site and 1/3 approved Florida Peat. To this mixture add 10 pounds of 6-6-6 fertilizer and 8 oz. of super-absorbent per cubic yard. Thoroughly mix all parts prior to placing in plant pits.

Contractor shall be responsible for adjusting nutrient levels and relative acidity in individual planting areas to properly meet growing requirements of specific plant types. All planting areas are subject to future soil testing to insure that proper cultural conditions have been provided.

4.8.2 All planting soil mixtures required for plant installations shall be considered to be a part of each plant, and the cost thereof shall be included in the unit installed price of individual plants.

4.9 **MISCELLANEOUS MATERIALS**

4.9.1 Mulch

Mulch for tree wells and planting beds shall be pine straw installed as noted in the plant schedule.

4.9.2 Peat Moss

Peat moss shall be imported Sphagnum peat or an approved equal.(if applicable.

4.9.3 Florida Peat

Peat shall be Florida peat specifically pulverized and processed for horticultural use and subject to approval of the Landscape Architect.

4.9.4 Guy Wires

Guys shall be as noted in planting details.

4.9.5 Guy Hoses

Hose for protection of trees from damage by guy wires shall be rubber garden hose in good condition or equal.

4.9.6 Soil Amendments/Lime

Soil amendments shall be approved for horticultural use prior to applying or mixing with soil mixes.

4.10 **SHIPMENT AND DELIVERY**

4.10.1 Contractor shall notify Owner/Landscape Architect, in advance, when plant material is to be delivered.

4.10.2 Plant material shall be protected from weather, adequately packed to prevent breakage and drying out during transit.

4.10.3 Plants shall not be planted on the job until they have been inspected at receiving site, and approved by Owners representative or Landscape Architect.

Legible tags will be attached to at least one plant of each species. Packages, boxes, or bunches of plants will be identified with a similar tag attached. Plants which do not meet specifications for quality herein stated, or plants that show improper handling, or arrive on site in an unsatisfactory condition shall be rejected. Rejected plants shall immediately be removed, disposed of by Contractor, and approved nursery stock of like variety, size, age shall be replaced by him without additional compensation.

4.10.4 Final acceptance of plant material will be given only after material is planted and after meeting requirements prescribed herein.

4.11 **GUYING AND STAKING**

4.11.1 It shall be the Contractor's responsibility to prevent all plants and trees from falling or being blown over, to restraighten and replant all plants which lean or fall and to replace all plants which are damaged.

The Contractor shall promptly guy or stake or otherwise insure proper support to all plant materials in the event winds may exceed 40 miles per hour. Plants blown over by sustained high winds of up to 65 miles per hour shall not be cause for additional expense to the Owner, but shall be the responsibility of the Contractor. Any such damaged plants shall be replaced by the Contractor at no additional expense to the Owner. Contractor shall not be responsible for damage due to sustained winds in excess of 65 miles per hour (i.e. Tropical storm).

4.11.2 When guying and staking are provided by the Contractor, it shall be in accordance with local standard acceptable nursery practice, and as specified in Contract Documents and plans.

4.12 **PLANTING OF LAWN AREA**

4.12.1 Sodding

Under this section of these specifications, the Contractor shall perform the preparation of the areas to be sodded as hereinafter specified.

The Contractor shall smooth out all areas to establish an even grade for sod planting all areas.

Topsoil shall be evenly worked to a depth of 4" taking care to remove all rocks or other foreign material 1" or greater in all areas to be sodded.

Surface shall be rolled with a hand roller weighing not more than 100 pounds per foot of width. During the rolling, all depressions caused by settlement or rolling shall be filled with additional topsoil and the surface shall be regraded and rolled until presenting a smooth and even finish. All weeds shall be removed from topsoil prior to sodding.
Treatment of weeds with a herbicide shall not constitute removal unless performed 7 days prior to sodding and in accordance with manufacturer's instructions.

Water to a depth of 6" before planting. Sod panels shall be laid tightly together so as to make a solid lawn area. Immediately following sod laying the lawn areas shall be rolled with a lawn roller customarily used for such purposes and then thoroughly watered immediately. During delivery, prior to, and during the planting of the lawn area, the sod panels shall at all times be protected from excessive exposure of the roots to the sun. All sod shall be staked during construction and planting so as not to be damaged by sweating or excessive heat and moisture.

a) Top of sod shall be even with all abutting curbs and walks after placing and rolling.

b) Sod shall be thoroughly watered to prevent fertilizer from burning sod and to insure good healthy growth of grass.

4.12.2 Sodding of Sports Fields

Under this section of these specifications, the Contractor shall perform the preparation of the sport field areas to be sodded with certified Bermuda 419.

The Contractor shall apply a two inch layer of loamy sand topsoil to establish final grade. Topsoil shall be fumigated with "vapam" two weeks prior to sodding to eliminate weeds and other undesirable contaminants.

Remove all rock and other foreign material 1" or greater in any dimension from the topsoil to a depth of 4" prior to installing the required 2" layer of topsoil.

Sod shall be placed, rolled, fertilized, and watered in accordance with Section 4.12.1 above.

4.12.3 Survival

Satisfactory survival of sod will be evidenced when the grass produces new leaf growth.

4.12.4 Sport Field Clay

Clay for ball fields shall be supplied and installed by Manatee County Parks and Recreation.

4.13 **PLANTING OF TREES AND SHRUBS**

4.13.1 Except as otherwise specified, the Contractor's work shall conform to accepted horticultural practices as used in the trade.

4.13.2 Plants shall be protected upon arrival at the site by being thoroughly watered and properly maintained until planted. Plants shall not remain unprotected for a period exceeding 24 hours. At all times workmanlike methods customarily in good horticultural practice shall be exercised.

4.13.3 Before digging of holes or beds, the location and/or arrangement of the planting shall be staked by the Contractor and approved by the Landscape Architect except where otherwise stated on the contract drawings.

4.13.4 The existence and location of underground utilities, if shown on the plans, are not guaranteed and shall be investigated and verified in the field by the Contractor before starting work. Excavation in the vicinity of existing structures and utilities shall be carefully done. The Contractor shall be held responsible for any damage to, and for maintenance and protection of, existing utilities and structures.

4.13.5 All tree pits shall be excavated to sizes and depth in accordance with the USDA Standard For Nursery Stock 260.1 unless shown otherwise on the drawings and backfilled with the prepared planting soil mixture as specified under Section 4.8 of these specifications. The Contractor shall test fill all tree pits with water before planting to assure proper drainage percolation is available. Pits which are found not to be adequately draining shall be excavated to a depth sufficient for drainage and backfilled with coarse sand. No allowances will be made for plants lost due to improper drainage.

4.13.6 All shrub, groundcover beds and landscape islands shall be excavated or amended as a unified area to a depth of 6" and backfilled with specified planting soil mixture. Individual plant pits will not be acceptable in bedded areas.

4.13.7 The plants shall be set on prepared planting soil backfill brought to a height permitting planting at the same depth the plants grew in the nursery. Upright plants shall be kept in a vertical position. All plants shall be handled by earth ball only. Handling by the plant itself will be cause for rejection of such plants.

4.13.8 After placing the plant in the pit, the backfill shall be watered and firmly tamped to insure backfill mixture in and about all the roots. All tamping shall be such that no plants will settle lower than the depth above specified.

4.13.9 After filling half way on the earth ball, the burlap and any wire or rope, if applicable, shall be loosened and laid back off the top of the ball, or if too bulky cut away and removed, after which the balance of the pit shall be backfilled and tamped.

4.13.10 All plants shall be thoroughly watered at the time of planting and kept adequately watered until time of acceptance. The Contractor shall provide the means where water lines are not available.

4.13.11 Mulch shall be placed between and around specified trees and all shrubs within 24 hours after any planting and shall be indicated or noted on drawings. For individual plants, the mulch shall be spread to cover the saucer area. When in place, the mulch is to be watered thoroughly. All weeds shall be removed from the planting area prior to installation of mulch. Treatment of weeds with a herbicide shall not constitute removal.

4.13.12 Pruning shall be done at the time of planting and with due regard to the natural form and growth characteristics of each species. Method and amount of pruning shall be determined by the Landscape Architect. Trees with pruned terminal leaders will not be accepted.

4.13.13 On trees, after filling half-way on the earth ball, a minimum three (3) ounces of superabsorbent per 2" caliper shall be added to all tree pits around the earth ball and watered in. The contractor shall excavate a maximum of five (5) separate trees at the request of the Landscape Architect for the purpose of verification of use of superabsorbent and other soil amendments. If visible evidence of proper use of the amendments are not found, the contractor shall immediately excavate to a depth of 12" around all trees already in place, add the proper amounts of Terra-Sorb AG superabsorbent and other amendments and water them in thoroughly prior to backfilling. There will be no exceptions. If a follow-up inspection reveals no evidence that the soil amendments have been installed, the contractor may be fined up to $25.00 per tree installed.

4.13.14 During the course of planting, excess and waste materials shall be removed daily. All reasonable precautions shall be taken to avoid damage to all structures and plants. When planting in an area that has been completed, the area shall be thoroughly cleaned up.

4.14 **MAINTENANCE PRIOR TO INSPECTION FOR ACCEPTANCE**

4.14.1 Maintenance shall begin immediately after each portion of seeding and sodding is executed and each plant is planted and shall continue in accordance with the following requirements.

a) Sodded And Seeded Areas

The Contractor shall be held responsible for maintenance of sodding and seeded area, including watering, weeding, mowing, and replanting as necessary to establish a uniform stand of the specified grasses and until acceptance. After the grass has started, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be replanted, repeatedly if necessary, until all sodded areas are covered with satisfactory growth of grass and seeded areas show healthy, vigorous growth.

b) Shrub, Groundcover & Annual Beds

Plant maintenance shall include thorough watering, pruning, weeding, cultivating, mulching, tightening and repairing of guys, replacement of sick or dead plants, resetting plants to proper grades or upright position, and restoration of the planting saucer, and all other care needed for proper growth of the plants. If planting is done after lawn preparation, proper protection of lawn areas shall be provided and any damage resulting from planting operations repaired promptly.

c) Spraying And Dusting

During the maintenance period and until the issuance of certificate of final acceptance, the Contractor shall do all seasonal spraying and/or dusting of trees & shrubs. The materials and methods shall be in accordance with highest standard nursery practices and as recommended by the County Agent.

d) Protection

Newly installed planting areas and trees shall be protected against accidental trespass and damage. If any plants become damaged or injured they shall be treated or replaced as directed. No work shall be done within or over planting areas or adjacent to plants without proper safeguards and protection.

e) Damage resulting from erosion, gullies, washouts, or other causes, shall be repaired by filling with topsoil, tamping, refertilizing, reseeding and/or resodding by the Contractor at his expense if such damage occurs prior to final acceptance by the Landscape Architect.

4.15 **INSPECTION FOR ACCEPTANCE**

4.15.1 Upon completion of all planting, an inspection for acceptance of work will be held. The Contractor shall notify the Landscape Architect for scheduling of the inspection ten (10) days prior to the anticipated inspection date. The Landscape Architect will decide if work is ready for inspection and will establish the time and date of inspection and notify all concerned parties to be present.

4.15.2 At the time of the acceptance inspection, if the materials are in whole or substantially acceptable a written notice will be given by the Landscape Architect to the Contractor that the final maintenance period and the guarantee period begins from the date of inspection.

4.16 **MAINTENANCE AFTER INSPECTION FOR ACCEPTANCE**

4.16.1 The Contractor shall maintain all grass areas and plant materials for a period of thirty (30) calendar days from the date of acceptance.

4.16.2 All maintenance outlined under Paragraph 4.14 above shall be performed during this period.

4.16.3 Prior to the expiration of the maintenance period, Contractor shall furnish to the Owner a schedule of all operations recommended for future maintenance of the site.

4.16.4 Inspection of the landscape work to determine completion of contract work, exclusive of the possible replacement of plants, will be made by the Landscape Architect at the conclusion of the 30 day maintenance period upon written notice requesting such inspection submitted by the Contractor at least 10 days prior to the anticipated date.

4.16.5 Acceptance

After inspection, the Contractor will be notified in writing by the Landscape Architect of acceptance of all work of this section exclusive of the possible replacement of plants subject to guarantee or, if there are any deficiencies of the requirements for the completion of the work. Lawn maintenance or other work remaining to be done shall be subject to reinspection before acceptance.

4.16.6 In case of substantial number of plants are sickly or dead at the time of inspection, acceptance will not be granted and the Contractor's responsibility for maintenance of all the plants shall be extended until replacements are made. Replacements shall conform in all respects to the specifications for new plants and shall be planted in the same manner.

4.17 **PLANT GUARANTEE AND REPLACEMENT**

4.17.1 Guarantee

Plants shall be guaranteed for a period of one (1) year after the date of inspection for acceptance under Paragraph 4.15 above, and shall be alive and in satisfactory growth at the end of the guarantee period.

4.17.2 Replacement

Until the end of the guarantee period, inspection may be made by the Landscape Architect. Any plant required under this contract that is dead or not in satisfactory growth, as determined by the Landscape Architect, shall be removed from the site; these and any p

SCHENKELSHULTZ
□ □ □ ARCHITECTURE □ □ □
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3600
schenkelshultz.com
SS Lic No - AA-C000937

ROBERT C. GAUSE
LANDSCAPE ARCHITECT #000942

SIGNATURE

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, Fl 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34205

drawn: RCG
checked: RCG
date: 11.12.2010
comm. no.: 0920818

LANDSCAPE SPECIFICATIONS

L103

100% CONSTRUCTION DOCUMENTS

SECTION 3 - TECHNICAL SPECIFICATIONS

IRRIGATION

1. **CONDITIONS:**

1.1 The Contractor shall be responsible for adjusting head location, type, size and any other system components to comply with the requirements of landscaping as actually installed. Such adjustments shall be made at no cost to the Owner except for, when authorized in writing, such adjustments will be compensated at unit prices indicated in the proposal.

1.2 The Contractor shall be responsible for constructing the system in complete accordance with all local codes, ordinances, and laws. Any modifications made to conform with said codes, laws, and ordinances shall be completed at the Contractor's expense with no additional compensation allowed.

2. **SAFETY PROVISIONS:**

2.1 It shall be the responsibility of the Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work. It shall be the Contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety and Health Act (O.S.H.A.).

3. **EXISTING UTILITIES:**

3.1 Temporary support, adequate protection and maintenance of all underground and surface utilities, structures, drains, sewers and other obstructions encountered in the progress of the work shall be furnished by the Contractor solely at his expense.

3.2 Where the grade or alignment of the pipe is obstructed by existing utility structures such as conduit, ducts, pipe branch connections to sewer mains, main drains, water services, etc., the obstruction shall be permanently supported, relocated, removed, or reconstructed by the Contractor in cooperation with the Owner of such utility. No deviation from the required line or grade shall be made without the written direction of the Landscape Architect.

3.3 Thrust blocking shall be installed for all pipe line fittings, bends and valves installed with compression "Ring-Tite" joints. The minimum thrust block area shall be one (1) square foot in the thrust-absorbing direction, with the minimum total volume of blocking to be one (1) cubic foot of 2,000 p.s.i. concrete. Thrust blocking shall also be utilized for all main line bends or other bends or fittings where prudent.

4. **PIPE INSTALLATION:**

4.1 In all cases, the installation of the irrigation system piping shall strictly conform to the manufacturer's recommendations.

4.1.1 Excavation shall be unclassified and shall include all materials whatsoever encountered in the excavation of trenches for pipe installation. The trench shall be of sufficient width and depth for installation of the pipe as indicated herein. The Contractor shall cause minimum disturbance to all existing conditions wherever possible; the Contractor shall bore under existing pavement and sidewalks rather than cut and restore. No pavement shall be cut without the Owner's written permission.

4.1.2 Pipe shall be delivered and stored on the jobsite with suitable protection against any damage to pipe and fittings.

4.1.3 The pipe and fittings shall be carefully inspected before installation in the trench. All rocks and unsuitable bearing material shall be made in strict accordance with the manufacturer's recommendations.

a. Compression Joints: The bell end shall be dry and shall have the proper compression ring installed without lubricant and in the proper position. The spigot end shall be clean and lubricated with the recommended lubricant. The spigot end shall then be pushed 'home' as indicated when the manufacturer's reference mark is flush with the end of the bell. The completed joint will then be carefully laid in the trench.

b. Solvent welded joints shall be made only on clean, dry, square cut, smooth pipe sections. The fitting shall be 'dry' tested for proper size before solvent is applied. The assembly shall proceed in strict accordance with recommended procedures furnished by the manufacturer.

4.1.4 Pipe trench depths shall be as follows:

Main lines - 12" - 18"
Laterals - 7" - 12"

4.2 Gate Valves 2-1/2" or less in size shall be as specified on the plans.

4.3 Vacuum Breakers shall be as required by local codes.

4.4 Automatic solenoid control valves shall be as specified on the plans. The valve shall have a slow closing feature, and manual bleed with pet cock for manual operation installed. All valves shall have a manual flow control adjustment.

- -

4.5 All automatic control valves shall be installed as shown on the detail for such valves and per manufacturer's specification. Once installed and wired to the controller, the Contractor shall adjust the flow controller on each valve to provide the proper flow rate and pressure on the downstream side of each valve. The control valve for mist sprinkler head sections shall be adjusted to provide approximately 30 p.s.i. dynamic pressure downstream with all heads operating. The solenoid control valve for rotary spray head sections shall be adjusted to provide approximately 30 p.s.i. dynamic pressure downstream with all heads operating.

5. **SPRINKLER HEADS:**

5.1 All sprinkler heads shall be furnished, installed, and operated in accordance with the plans and these Specifications. Installation shall comply with details set out herein. The Contractor shall guarantee all sprinklers and components for not less than one (1) year from installation warranting against all defects in normal material or workmanship.

5.2 The Contractor shall be responsible for the exact location of all sprinkler heads, acknowledging that the plans are schematic in nature. The Contractor shall accordingly place all sprinkler heads, adjust all nozzles, spray patterns and make whatever other adjustments that may be required to give the landscaped areas full, complete and proper coverage and distributions. The Contractor shall make all such adjustments and additions solely at his expense.

5.2.1 Pop-up Spray heads shall be as shown on the plans. Nozzle shall automatically rise 4" for operation, and shall self-retract. Construction shall be entirely of non-corroding materials, and shall be suitable for operations

5.2.2 Controllers shall be contained in lockable cabinets and located on structures as directed by Architect.

5.3 Control wiring shall be as specified by controller manufacturer. The wiring shall be installed in accordance with these plans and the manufacturer's recommendations.

5.4 All controllers shall include a provision for system override by automatic moisture sensing devices.

5.5 All valve programming shall exactly follow the valve sequence as indicated on the plans. No deviation shall be made without the Landscape Architect's approval. Initial station tuning shall be in accordance with the Landscape Architect's instructions.

- -

6. **OTHER IRRIGATION EQUIPMENT:**

6.1 The Contractor shall furnish and install all other irrigation equipment called for herein and on the plans in complete accordance with these specifications and details shown on the plans.

6.2 Valves, including remote control valves, manual control valves, gate valves, globe valves and pressure reducing valves shall be installed in a valve access box.

6.3 At the end of the test period, the piping system shall be "blown-off" at the point most distant from the test pump.

6.4 The acceptance of a piping section because of its passing pressure and leakage tests in no way relieves the Contractor of his responsibility for the piping. At any time during the construction or the warranty period, the Landscape Architect or Owner may order subsequent tests. Such tests and any repairs required shall be solely at the expense of the Contractor.

6.4.1 As an exception to the above testing requirements, all constant pressure main lines upstream from automatic control valves including pump station shall be pressure tested at 125 p.s.i. and shall be allowed leakage as follows:

$$\text{Allowable Leakage} = L = \frac{ND\sqrt{P}}{3700}$$

Where L= Gallons per hour
N= Number of joints in test main
D= Pipe diameter (nominal)
P= Average test pressure

6.5 Periodic inspections shall be scheduled by the Contractor as the work progresses. At such time the Landscape Architect shall inspect all work for complete conformance with these specifications. The Landscape Architect shall make any additional inspections that he may deem necessary.

6.6 Generally, inspections should be requested by the Contractor whenever any subsurface system is complete and ready for backfill, so that the Engineer may inspect completely that system without causing excavation of the system, which would be solely the expense of the Contractor.

6.7 Periodic inspections shall include the examination of sprinkler location placement and the conformance of such placement to the actual in-place landscaping requirements. Any relocation required will be ordered by the Landscape Architect and carried out by the Contractor at no additional costs.

7. **AS-BUILT DRAWINGS:**

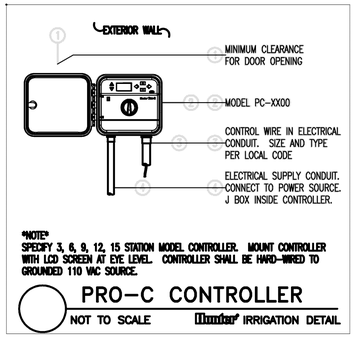
7.1 During the course of irrigation installation, Contractor shall prepare a reproducible set of as-built drawings for the entire system.

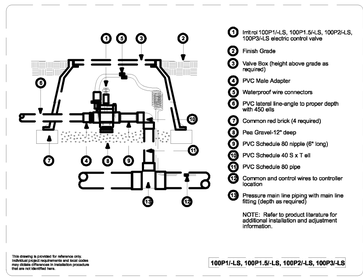
7.2 Said drawings shall be kept updated to show the accurate locations of all underground piping, valves, etc. that have been installed.

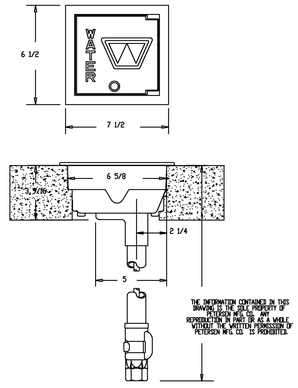
7.3 Upon completion of construction, the Contractor shall furnish the completed original drawings and one set of prints to the Owner, and one set of prints to the Landscape Architect.

8. **WARRANTY PERIOD:**

8.1 The entire irrigation system shall be fully guaranteed for parts and labor by the irrigation contractor for a period of one year following final acceptance by the owner or Landscape Architect. This warranty shall be extended to cover individual irrigation components which have longer manufacturer's warranties.







SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ROBERT C. GAUSE
LANDSCAPE ARCHITECT #000942

SIGNATURE

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, Fl 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

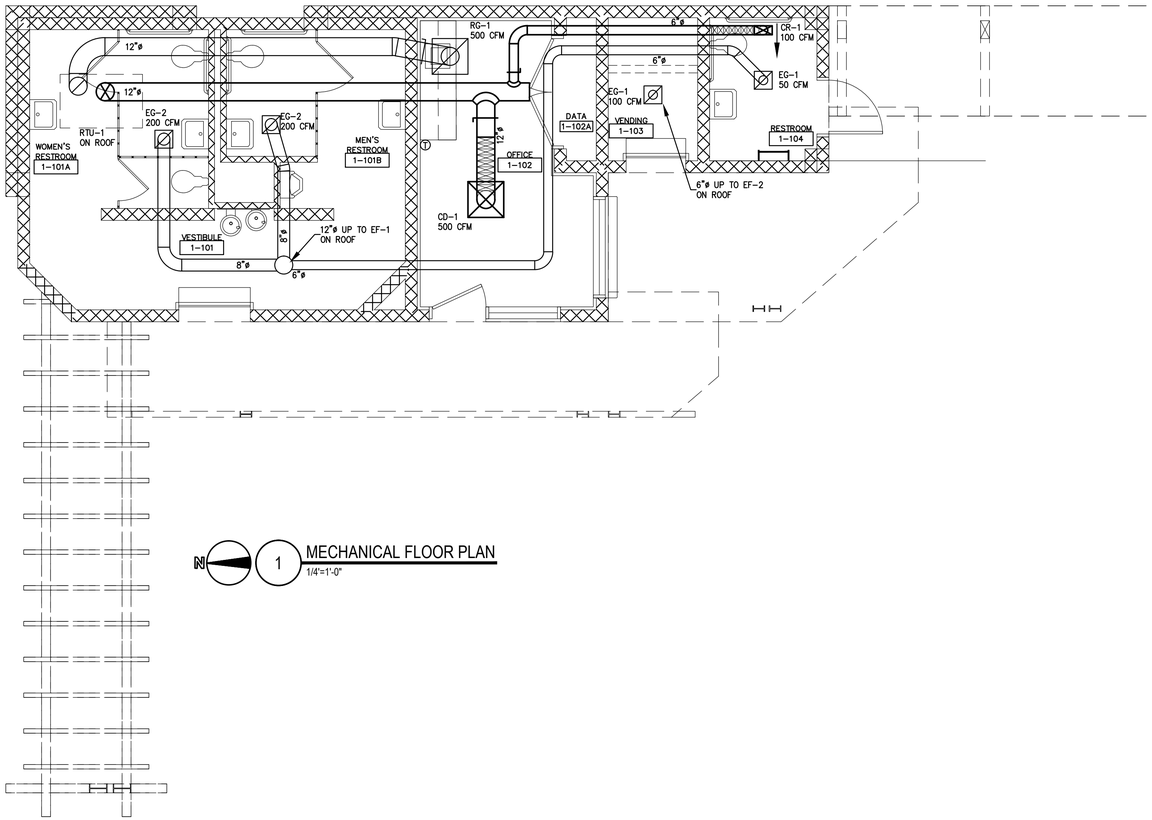
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34205

drawn: RCG
checked: RCG
date: 11.12.2010
comm. no.: 0920818

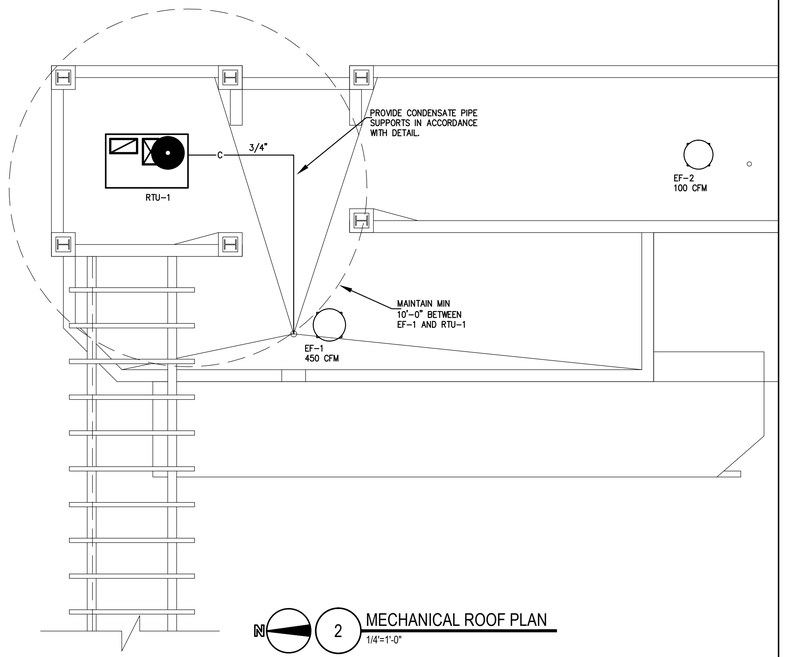
LANDSCAPE AND IRRIGATION SPECIFICATION

L104

100% CONSTRUCTION DOCUMENTS



1 MECHANICAL FLOOR PLAN
1/4"=1'-0"



2 MECHANICAL ROOF PLAN
1/4"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE

677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: S.T.P. ME3 Job No: 10-0183
Checked: K.C.C. Date: 11/12/2010
Drawn: S.T.P. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

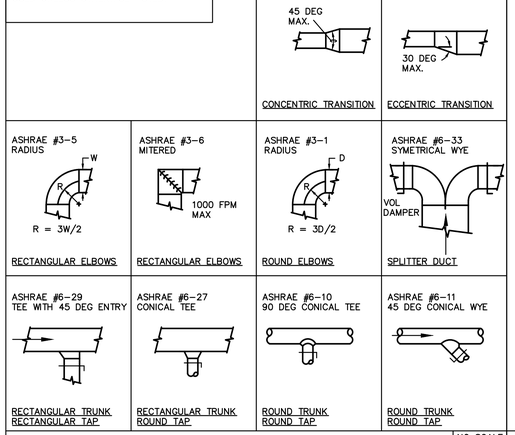
drawn: STP
checked: KCC
date: 11.12.2010
comm. no.: 0920818

MECHANICAL
FLOOR & ROOF
PLANS

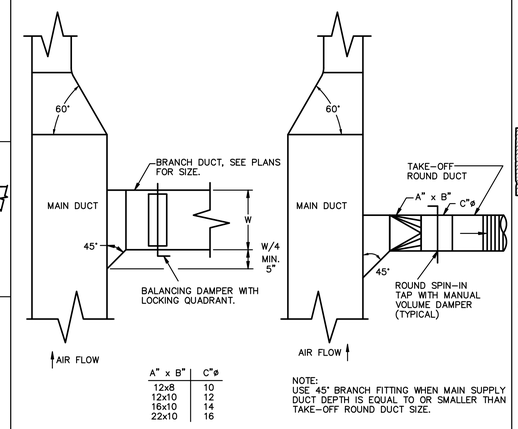
M101

100% CONSTRUCTION DOCUMENTS

NOTES:
1. THESE DUCT FITTINGS SHALL BE USED UNLESS OTHERWISE NOTED.



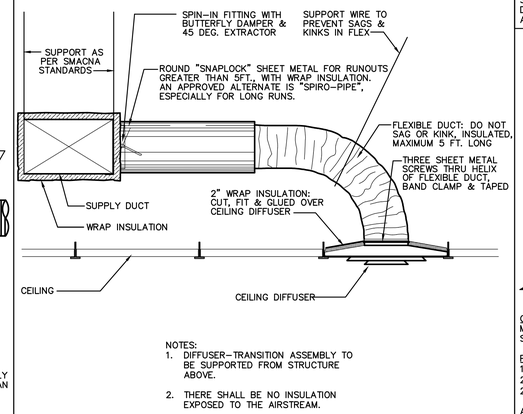
ACCEPTABLE DUCT FITTINGS — NO SCALE — 1



A" x B"	C"ø
12x8	10
12x10	12
16x10	14
22x10	16

NOTE:
USE 45° BRANCH FITTING WHEN MAIN SUPPLY DUCT DEPTH IS EQUAL TO OR SMALLER THAN TAKE-OFF ROUND DUCT SIZE.

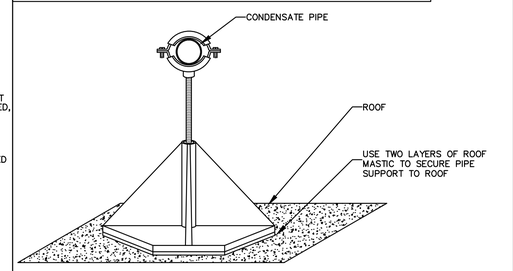
DUCT TAKEOFF DETAIL — NO SCALE — 2



NOTES:
1. DIFFUSER-TRANSITION ASSEMBLY TO BE SUPPORTED FROM STRUCTURE ABOVE.
2. THERE SHALL BE NO INSULATION EXPOSED TO THE AIRSTREAM.

CEILING DIFFUSER RUNOUT DETAIL — NO SCALE — 3

NOTES:
CONDENSATE PIPING – PROVIDE SINGLE POST ADJUSTABLE SUPPORT WITH STAINLESS STEEL PIPE CLAMP CONTAINING A UV TREATED RUBBER CUSHION FOR SEPARATION OF DISSIMILAR METALS AND VIBRATION DAMPENING. USING THE ADJUSTMENT FEATURE THE ASSEMBLIES SHOULD BE SET TO ALLOW FOR GRAVITY FLOW TO DESIGNATED DRAIN.



CONDENSATE PIPING SUPPORTS
MAPA MODEL MS-1
SPACING FOR MS-1 CONDENSATE SUPPORT

PIPE SIZE	COPPER	PVC
1 1/2" & SMALLER	5'-0"	4'-0"
2"	8'-0"	4'-0"
2" & LARGER	10'-0"	4'-0"

ADDITIONAL SUPPORT REQUIRED AT ALL CHANGE IN DIRECTION.

CONDENSATE PIPE SINGLE POST SUPPORT — NO SCALE — 4

NOTES:
1. DETAIL SHOWS GENERAL INSTALLATION METHODS. REFER TO MANUFACTURERS REQUIREMENTS.
2. CUT INLET AND EXHAUST TUBES TO MANUFACTURERS REQUIREMENTS.
3. DUCT DETECTOR FURNISHED BY FIRE ALARM CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR, AND WIRED BY FIRE ALARM CONTRACTOR.

DUCT MOUNTED SMOKE DETECTOR — NO SCALE — 5

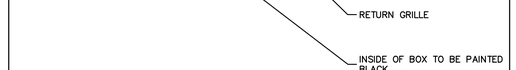
TOTAL TRAP HEIGHT (W)=X+H+1.5XD

X=1/2H
H=AT LEAST 1" PLUS CASING STATIC PRESSURE
D=PIPE DIAMETER

* TRAP SPLITS IF (W) IS TOO SHORT
* PAN WON'T DRAIN IF H IS TOO SHORT

CONDENSATE DRAIN PIPING DETAIL — NO SCALE — 6

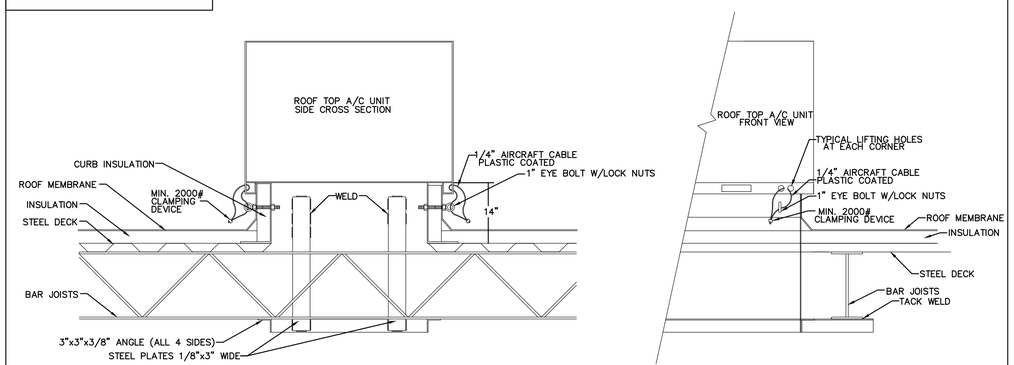
NOTES:
1. THERE SHALL BE NO INSULATION EXPOSED TO THE AIRSTREAM.
2. DUFFUSER ASSEMBLY TO BE SUPPORTED FROM STRUCTURE ABOVE.



LAY-IN RETURN GRILLE — NO SCALE — 7

ROOF EXHAUST FAN — NO SCALE — 8

NOTES:
1. COMPLETE SYSTEM TO WITHSTAND 130 MILE PER HOUR WINDS.



ROOFTOP UNIT FASTENING DETAIL — NO SCALE — 9

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com

Designed: S.T.P. ME3 Job No: 10-0183
Checked: K.C.C. Date: 11/12/2010
Drawn: S.T.P. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

drawn: STP
checked: KCC
date: 11.12.2010
comm. no.: 0920818

MECHANICAL DETAILS

M501

100% CONSTRUCTION DOCUMENTS

PACKAGED ROOFTOP UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	TOTAL CAPACITY	SENSIBLE CAPACITY	TOTAL AIR	OUTSIDE AIR	ENTERING AIR DB/WB	LEAVING AIR DB/WB	EXT. STATIC PRESSURE	FAN	ELECTRIC HEAT	OUTDOOR TEMP	MCA / MOCP	POWER	MIN SEER/EER	WEIGHT
			BTUH	BTUH	CFM	CFM	DEG. F	DEG. F	IN. H20	RPM / HP	208 / 240	DEG. F.	AMPS	V/HZ/PH		LBS
RTU-1	TRANE	4TCC3018A1000	16.99	12.39	600	100	76.9/64.80	58.0/55.0	0.25	825 / 1/8	3.76 KW / 5.0 KW	95	27/30	208-230/60/1	13.00/---	500

RTU NOTES:
1. PROVIDE 130 MPH HURRICANE TIE DOWNS FOR RTU.
2. ALL RTU'S TO BE PROVIDED WITH ROOF CURBS.
3. ALL RTU'S TO HAVE FACTORY MOUNTED ELECTRIC HEAT.

EXHAUST FAN SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	CFM	S.P. (IN. W.C.)	RPM	MAX SONES	hp	ELECTRICAL MOTOR VOLTZ/PH./HZ.	LOCATION	NOTES
EF-1	EXHAUST	GREENHECK	G-090-D	450	0.25	1550	5.2	1/15	115/1/60	ROOF	1, 2, 3
EF-2	EXHAUST	GREENHECK	G-060-D	100	0.125	1171	2.1	0.01	115/1/60	ROOF	1, 2, 4

EXHAUST FAN NOTES:
1. PROVIDE AND INSTALL SPEED CONTROL.
2. PROVIDE AND INSTALL ROOF CURB AND TIE DOWNS FOR 130MPH WIND SPEEDS
3. EF-1 WILL BE CONTROLLED BY LIGHTING CONTROL PANEL.
4. EF-2 TO HAVE KEYED SWITCH ON WALL. COORDINATE WITH ELECTRICAL CONTRACTOR.

AIR BALANCE SCHEDULE

ZONE	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST	PRESSURE
RTU-1	600	100	500	50	+50

INDOOR AIR QUALITY SCHEDULE - ASHRAE 62.1-2004

AHU	SERVICE	(A) # OF PEOPLE	OUTDOOR AIR PER PERSON	(B) OCC. CFM	(C) AREA SQFT	OUTDOOR AIR PER SQFT	(D) AREA CFM	(E) REQ CFM (B+D)	(F) DESIGN CFM
RTU-1	OFFICE	2	5	10	165	0.06	9.9	19.9	100
	RESTROOM	0	0	0	48	0	0	0	0
TOTAL O/A									100

IAQ DESIGN DOCUMENTATION NOTES:
1) THE VENTILATION RATE PROCEDURE DESCRIBED IN ASHRAE STANDARD 62.1-2007-6.2 HAS BEEN USED TO DETERMINE THE AMOUNT OF OUTSIDE AIR FOR THIS PROJECT.
2) BUILDING ALTERATIONS OR CHANGE-OF-USE: VENTILATION SYSTEM DESIGN, OPERATION, AND MAINTENANCE SHALL BE REEVALUATED WHEN CHANGES IN BUILDING USE OR OCCUPANCY CATEGORY, SIGNIFICANT BUILDING ALTERATIONS, SIGNIFICANT CHANGES IN OCCUPANT DENSITY, OR OTHER CHANGES INCONSISTENT WITH SYSTEM DESIGN ASSUMPTIONS ARE MADE.
3) THIS DESIGN IS BASED ON THE OUTDOOR AIR QUALITY BEING ACCEPTABLE FOR VENTILATION.
4) THIS DESIGN IS BASED ON NO SMOKING BEING ALLOWED IN ANY PORTIONS OF THE BUILDING.
5) RESTROOM VENTILATION REQUIREMENTS ARE MET VIA TRANSFER AIR AND MECHANICAL EXHAUST WITH NO RECIRCULATION OF RESTROOM SUPPLY AIR PER ASHRAE 62.1-2007-6.2.8.

PEOPLE OUTDOOR AIR RATE IS PER ASHRAE 62.1-2007, TABLE 6-1. AREA OUTDOOR AIR RATE IS PER ASHRAE 62.1-2004, TABLE 6-1
** - REQ. CFM. = (OCC. CFM + AREA CFM)

AIR FIXTURE SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	NECK SIZE	MODULE SIZE	CFM	THROW FT	T. VEL	NC	PATTERN	MATERIAL
CD-1	SUPPLY	PRICE	SPD AS-12"-24"x24"-3P-VCR7-B12	12"	24x24	500	12	700	20	4-WAY	ALUMINUM
CR-1	SUPPLY	PRICE	610DAL-7x4-F-L-A-B12	--	7x4	100	8	700	15	1-WAY	ALUMINUM
RG-1	RETURN	PRICE	80FF-12x12-3P-TB-B12	12x12	24x24	500	--	600	20	--	ALUMINUM
EG-1	EXHAUST	PRICE	630DAL-7x4-F-L-A-B12	7x4	7x4	50	--	350	19	--	ALUMINUM
EG-2	EXHAUST	PRICE	96D-8x8-L-A-B12	8x8	8x8	100-200	--	500	19	--	ALUMINUM

NOTES:

1. BORDER TYPES SHALL BE COMPATIBLE WITH ARCHITECTURAL CEILING TYPE FOR THE ROOM IN WHICH THE AIR DEVICE IS LOCATED.
2. SEE THE FLOOR PLANS FOR LOCATION OF EACH DEVICE.
3. ALL AIR DEVICES SHALL BE TESTED IN ACCORDANCE WITH ASHRAE 70-91.
4. ALL THROW VALUES ARE ISOTHERMAL, AND MEASURED IN FEET.
5. ALL PRESSURES ARE IN INCHES, w.g.
6. FLOWRATE FOR CONTINUOS LINEAR DEVICES IS IN CFM/FT.
7. PROVIDE TRANSITION BOOTS AS REQUIRED.
8. ALL SUPPLY AIR DEVICES SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS.
9. ALL SUPPLY DIFFUSERS ARE 4 WAY UNLESS OTHERWISE NOTED ON THE FLOOR PLANS.

MECHANICAL LEGEND

ABBREVIATIONS

AC	AIR CONDITIONING
AHU	AIR HANDLING UNIT
AMB	AMBIENT
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
DEG	DEGREE
EA	EXHAUST AIR
EF	EXHAUST FAN
HP	HORSE POWER
HTR	HEATER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
OA	OUTSIDE AIR
RA	RETURN AIR
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SP	STATIC PRESSURE
TYP	TYPICAL
UC	UNDERCUT
VD	VOLUME DAMPER

DRAWING SYMBOLS

- UP / DN - SUPPLY DUCT (UP & DOWN)
- UP / DN - EXHAUST DUCT (UP & DOWN)
- UP / DN - RETURN AIR DUCT (UP & DOWN)
- SUPPLY CEILING DIFFUSERS
- RETURN CEILING GRILLE
- RETURN CEILING GRILLE
- 10x8 - NEW DUCT - WIDTH X DEPTH
- FLEXIBLE DUCTWORK (INSULATED)
- DUCT SIZE TRANSITION (CONCENTRIC)
- DUCT SIZE TRANSITION (ECCENTRIC)
- DUCT TRANSITION (RECTANGULAR TO ROUND)
- MANUAL VOLUME DAMPER
- SD - SMOKE DAMPER
- C - CONDENSATE
- T - THERMOSTAT
- H - HUMIDISTAT
- TS - TEMPERATURE SENSOR

NOTE: THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

GENERAL NOTES

1. HVAC WORK CONSISTS OF PROVIDING AND INSTALLING AIR CONDITIONING SYSTEMS FOR A COMPLETE OPERATING SYSTEM AND AS INDICATED ON THE DRAWINGS. ALL WORK SHALL COMPLY WITH APPLICABLE CODES IN SPECIFICATIONS. IT IS THE INTENTION OF THE CONTRACT DRAWINGS AND SPECIFICATIONS TO CALL FOR COMPLETE, FINISHED WORK, TESTED, AND READY FOR OPERATION.
2. TEST AND BALANCE SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS AS SUBCONTRACTOR TO THE HVAC CONTRACTOR. THE TEST AND BALANCE CONTRACTOR SHALL BE A MEMBER OF EITHER AABC OR NEBB.
3. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE "FREE AREA" DIMENSIONS.
4. PROVIDE SPIN-IN FITTINGS AT ALL FLEXIBLE DUCT RUNOUTS TO DIFFUSERS.
5. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 7'-0".
6. ALL PIPING SUBJECT TO THERMAL EXPANSION AND/OR CONTRACTION THAT PENETRATES A SMOKE, FIRE, OR FIRE/SMOKE WALL, PARTITION, OR FLOOR SLAB SHALL BE SUITABLY SLEEVED AND FIRE SAFED.
7. PROVIDE IDENTIFICATION OF THE LOCATION OF ALL BALANCING DAMPERS. IDENTIFICATION TAGS SHALL BE AFFIXED TO THE WALLS OR CEILINGS AND SHALL BE VISIBLE FROM THE OCCUPIED SPACE.
8. ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
9. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL NECESSARY, MISCELLANEOUS ANGLES, CHANNELS, RODS, UNISTRUT, ETC., AS MAY BE NECESSARY TO ADEQUATELY SUPPORT THE MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT IN A MANNER APPROVED BY THE ARCHITECT THAT WILL NOT OVERLOAD THE BUILDING STRUCTURE SYSTEM.
11. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES, PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING FIRE STOP MATERIAL. FIRE STOP SEALANTS SHALL BE UL LISTED. APPLY FIRE STOP AS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ITS LISTING TO MEET OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH IT IS INSTALLED.
12. ALL INSULATION SHALL BE FIRE RATED IN ACCORDANCE WITH ASHRAE 90A 50/25 SMOKE DEVELOPMENT AND FLAME SPREAD REQUIREMENTS. INSULATION "R" VALUES SHALL COMPLY WITH THE FLORIDA ENERGY CODE.
13. MOUNT THERMOSTATS AND TEMPERATURE SENSORS WHERE INDICATED ON PLANS, AT 48" CL. A.F.F. UNLESS NOTED OTHERWISE. SEE INTERIOR DRAWINGS AND MECHANICAL DRAWINGS FOR LOCATION WHERE THERE IS A CONFLICT OF LOCATIONS BETWEEN THE DRAWINGS. NOTIFY THE ARCHITECT IMMEDIATELY.
14. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLS, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
15. COORDINATE THE TYPE AND LOCATION OF ALL DIFFUSERS, GRILLS, REGISTERS, ACCESS DOORS, ETC., WITH THE ARCHITECTURAL REFLECTED CEILING PLAN(S).
16. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT.
17. PROVIDE DRAIN P-TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
18. ALL ROOF ATTACHED EQUIPMENT AND APPURTENANCES INCLUDED IN THE SCOPE OF THIS PROJECT ARE REQUIRED TO BE SECURED TO THE UNDERLYING BUILDING STRUCTURE. THE FASTENING SYSTEMS SHALL BE DESIGNED TO WITHSTAND A 130 MPH WIND LOAD. ALL ROOF MOUNTED EQUIPMENT SHALL BE MOUNTED ON FACTORY FABRICATED ROOF CURBS AND SHALL BE PROVIDED WITH VIBRATION ISOLATION AS RECOMMENDED BY THE MANUFACTURER. WATERTIGHT SEAL SHALL BE PROVIDED BY AN APPROVED ROOFING CONTRACTOR.
19. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE MECHANICAL SYSTEMS BE PROVIDED WITH ALL NECESSARY EQUIPMENT. APPURTENANCES, AND CONTROLS, COORDINATE WITH ALL OTHER DISCIPLINES. ALL PARAMETERS INDICATED IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH. ANY ITEMS AND LABOR REQUIRED FOR COMPLETE MECHANICAL SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE CONTRACT. THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL COORDINATE WITH OTHER TRADES WHILE PREPARING THE MECHANICAL SHOP DRAWINGS.
20. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
21. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
22. CONTRACTOR SHALL COORDINATE ALL DUCTWORK, PIPING AND PLUMBING WITH STRUCTURAL AND ELECTRICAL SYSTEMS INCLUDING ROOF/FLOOR PENETRATIONS AND SHALL PROVIDE AND INSTALL ALL NECESSARY OFFSETS OR FITTINGS REQUIRED TO AVOID CONFLICTS AND MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.
23. PROVIDE BALANCING DAMPER IN EACH SUPPLY AND RETURN BRANCH CONNECTION.

CONTROLS SCHEDULE

T - THERMOSTAT - HONEYWELL T7350 (WHITE) WITH OVERRIDE BUTTON AND LOCK BOX.

NOTES:
1. LOCATE THERMOSTATS WITH SUBBASES AS SHOWN ON PLAN.

SEQUENCE OF OPERATIONS

ALL ROOFTOP UNITS (RTU)

ROOFTOP UNIT SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. UNIT OPERATION SHALL BE CONTROLLED BY A WALL MOUNTED THERMOSTAT WITH AUTOCHANGEOVER TO HEAT MODE. A HONEYWELL T7350 7-DAY PROGRAMMABLE THERMOSTAT SHALL BE USED. THERMOSTATS SHALL BE SET TO HAVE FAN "ON" AND FAN "OFF" POSITIONS ONLY (AUTO FAN OPERATION SHALL BE DISABLED). THERMOSTATS SHALL TURN THE FAN "OFF" WHEN THE HEATING/COOLING SWITCH IS PLACED IN THE "OFF" POSITION. THERMOSTATS SHALL MAINTAIN SPACE TEMPERATURE AT 75F (ADJUSTABLE).

THE HUMIDISTAT SHALL BE SET TO MAINTAIN 60% RELATIVE HUMIDITY. IF THE HUMIDITY SENSES HUMIDITY LEVELS ABOVE 60% THE HUMIDISTAT SHALL PLACE THE RTU IN FULL COOL MODE. THE THERMOSTAT SHALL OVERRIDE THE HUMIDISTAT IF SPACE TEMPERATURE RISES ABOVE THE SET POINT AND SHALL PLACE THE RTU IN COOL ONLY MODE.

EXHAUST FANS

EF-1 SHALL RUN 24/7.

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: S.T.P. ME3 Job No: 10-0183
Checked: K.C.C. Date: 11/12/2010
Drawn: S.T.P. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

drawn: STP
checked: KCC
date: 11.12.2010
comm. no.: 0920818

MECHANICAL SCHEDULES

M601

100% CONSTRUCTION DOCUMENTS

GENERAL PLUMBING NOTES

1. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION AND THESE SPECIFICATIONS AND DRAWINGS ARE PART OF THIS CONTRACT.
2. ALL APPLICABLE CODES, LAWS, AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIAL WHICH VIOLATES ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH A VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.

   APPLICABLE CODES INCLUDE:
   FLORIDA BUILDING CODE – 2007
   FLORIDA PLUMBING CODE – 2007
3. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. PIPE ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF PIPE TO AVOID OBSTRUCTIONS. COORDINATION WITH UTILITY SERVICES, INCLUDING THOSE OF OTHER TRADES IS REQUIRED. MAINTAIN HEADROOM AND SPACE CONDITIONS.
4. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
5. THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES, AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.
6. THE LOCATIONS OF THE UTILITY SERVICES ARE BELIEVED TO BE AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS OF THESE SERVICES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING ANY WORK.
7. SEAL OPENINGS THROUGH PARTITIONS, WALLS, AND FLOORS WITH A U.L. LISTED FIRESTOPPING ASSEMBLY MATCHED TO THE RATING OF THE PENETRATED ELEMENT.
8. PROVIDE ALL NECESSARY FLASHING AND COUNTERFLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPING AND EQUIPMENT. PROVIDE EQUIPMENT CURBS AS REQUIRED.
9. MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
10. THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED, AND IN A MANNER SATISFACTORY TO THE OWNER. THE WORK SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE OWNER.
11. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS. ALL MATERIAL AND EQUIPMENT ON SITE SHALL BE PROPERLY STORED SUCH THAT IT IS PROTECTED FROM DAMAGE AND EXPOSURE TO THE OUTSIDE ELEMENTS.
12. INSURANCE: PROVIDE IN ACCORDANCE WITH BUILDING REQUIREMENTS AND POLICY SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR THE OWNER AND ENGINEER.
13. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL, AND SUBMITTED ALL THE NECESSARY CLOSE-OUT DOCUMENTS.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	FIXTURE MANUFACTURER	CATALOG NO.	TRIM MANUFACTURER	CATALOG NO.	REMARKS	NOTE
P-1	WATER CLOSET-STANDARD HEIGHT-FLOOR MOUNT-SENSOR FLUSH VALVE	KOHLER	K-4406	HYDROTEK	HB8-128 SENSOR FLUSH VALVE (BATTERY POWERED)	FLOOR MOUNT WHITE VITREOUS CHINA TOILET, TOP SPUD, 10" ROUGH-IN. ELONGATED BOWL WITH KOHLER K-4731-C WHITE PLASTIC OPEN FRONT SEAT WITH CHECK HINGE. 1.28 GPF.	–
P-1H	WATER CLOSET-ADA-FLOOR MOUNT-SENSOR FLUSH VALVE	KOHLER	K-4405	HYDROTEK	HB8-128 SENSOR FLUSH VALVE (BATTERY POWERED)	FLOOR MOUNT WHITE VITREOUS CHINA TOILET, TOP SPUD, 10" ROUGH-IN, ADA. ELONGATED BOWL WITH KOHLER K-4731-C WHITE PLASTIC OPEN FRONT SEAT WITH CHECK HINGE. 1.28 GPF.	4
P-2	LAVATORY-WALL HUNG-STANDARD HEIGHT	KOHLER	K-2007	HYDROTEK	HB-5000EM SENSOR FAUCET (BATTERY POWERED)	WALL HUNG VITREOUS CHINA LAVATORY. SINGLE FAUCET HOLE, PROVIDE CONCEALED ARM CARRIER AND GRID STRAINER. COLD WATER SUPPLY ONLY.	1,2
P-2H	LAVATORY-WALL HUNG-ADA-SENSOR FAUCET	KOHLER	K-2007	HYDROTEK	HB-5000EM SENSOR FAUCET (BATTERY POWERED)	WALL HUNG VITREOUS CHINA LAVATORY. SINGLE FAUCET HOLE, PROVIDE CONCEALED ARM CARRIER AND GRID STRAINER. COLD WATER SUPPLY ONLY. MOUNTED AT ADA HEIGHT.	1,2,3,4
P-3	URINAL-WALL HUNG-ADA-SENSOR FLUSH VALVE	KOHLER	K-4960-ET	HYDROTEK	HB-8000C-B1 SENSOR FLUSH VALVE (BATTERY POWERED)	WALL MOUNT VITREOUS CHINA URINAL, 0.5 GPF, PROVIDE WALL CARRIER.	4
P-4	ONE COMPARTMENT SINK	ELKAY	BLR-15	ELKAY	LK-20888	ELKAY LK-36 STRAINER, ZURN Z-88702-9 PTRAP, ZURN ZH-8820-LR STOPS	–
P-5	HIGH-LOW DRINKING FOUNTAIN	HAWS	1011MS	–	–	BARRIER FREE, STAINLESS STEEL, ENHANCED VANDAL RESISTANT, BI-LEVEL, WALL MOUNTED. PROVIDE MODEL MTGFR.DF2 MOUNTING FRAME.	–
WH-1	WALL HYDRANT	ZURN	Z1333-34EL	–	–	3/4" BACK COLD WATER CONNECTION WITH VACUUM BREAK	–
WCO	WALL CLEANOUT	ZURN	C02490/C02530-SS7-VP	–	–	VANDAL PROOF SCREW	
FCO	FLOOR CLEANOUT	ZURN	C02450-PV	–	–		
FD-1	EQUIPMENT FLOOR DRAIN	ZURN	Z415B	–	–	IN AHU ROOMS LOCATE WITHIN 3'-0" OF AHU CONDENSATE DISCHARGE CONNECTION TO AHU. DO NOT LOCATE IN WALKING PATTERN IN ROOM.	
RD-1	ROOF DRAIN	ZURN	Z100-DP-NH-EA				

PLUMBING NOTES:
1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND DIAGRAMS.
2. PLUMBING FIXTURES/EQUIPMENT SUBSTITUTIONS ALLOWED ONLY THROUGH APPROVAL OF ENGINEER.
3. PLUMBING FIXTURE SUPPORTS MAYBE ZURN, WATTS, JOSAM, WADE, SMITH OR EQUAL.
4. PROVIDE ZURN "HD" OR EQUAL STOPS ON ALL NON-FLUSH VALVE FIXTURES.
5. PROVIDE PVC TRAPS ON ALL FIXTURES CONCEALED FROM VIEW REQUIRING P-TRAPS, THIN WALL "MASTER P-TRAP" OR SIMILAR PVC TRAPS ARE NOT APPROVED.
6. PROVIDE ZURN Z8860 STAINLESS STEEL GRADED SUPPLIES ON LAVATORY SUPPLIES.
7. THE CONTRACTOR'S SHALL TAKE SPECIAL ATTENTION TO PROTECTION OF PLUMBING FIXTURES AND TRIM FROM ALL CONSTRUCTION RELATED DAMAGE THROUGHOUT THE ENTIRE COURSE OF CONSTRUCTION. ANY AND ALL REPAIRS, IF ANY, SHALL BE MADE AND DAMAGED UNITS SHALL BE LIKE NEW OR REPLACED WITH NEW.

PLUMBING LEGEND

DESCRIPTION	LINETYPE
COLD WATER	
HOT WATER	
HOT WATER RETURN	
RAIN WATER SUPPLY	
SANITARY BELOW GRADE	SAN
EXISTING BELOW GRADE SANITARY	SAN (E)
SANITARY VENT	
RAIN LEADER	RL
COMPRESSED AIR OUTLET	CA
BALANCING VALVE	
BALL VALVE	
CHECK VALVE	
SOLENOID VALVE	
VALVE IN VALVE BOX	
PRESSURE REDUCING VALVE	
UNION	
STRAINER	
PIPE UP	
PIPE DOWN	
TEE UP	
TEE DOWN	
AREA DRAIN AND TYPE	4" AD-1
FLOOR DRAIN AND TYPE	4" FD-A
FLOOR CLEANOUT	
CLEANOUT PLUG	
EXTERIOR CLEANOUT AND TYPE	3" ECO
CAP	
SHOCK ARRESTOR AND PDI SIZE	PDI-A
P-TRAP	
HOSE BIBB	HB
YARD HYDRANT	WH
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR	
CONNECTION POINT OF NEW TO EXISTING	

FLORIDA BUILDING CODE 2007 – PLUMBING FIXTURE UNIT SCHEDULE

QUANTITY	DESCRIPTION	WATER DEMAND EACH FIXTURE UNIT (F.U.) COLD	WATER DEMAND EACH FIXTURE UNIT (F.U.) HOT	WATER DEMAND EACH FIXTURE UNIT (F.U.) COMBINED	WATER DEMAND TOTAL FIXTURE UNITS COLD	WATER DEMAND TOTAL FIXTURE UNITS HOT	WATER DEMAND TOTAL FIXTURE UNITS COMBINED	TOTAL GPM	SANITARY FIXTURE UNIT (F.U.) EACH	SANITARY FIXTURE UNIT (F.U.) TOTAL
1	DRINKING FOUNTAIN	0.25	–	0.25	0.25	–	0.25	–	0.50	0.50
5	FLOOR DRAINS	–	–	–	–	–	–	–	2.00	10.00
0	KITCHEN SINK, DOMESTIC	1.00	1.00	1.40	0.00	0.00	0.00	–	2.00	0.00
0	KITCHEN SINK, COMMERCIAL	3.00	3.00	4.00	0.00	0.00	0.00	–	2.00	0.00
0	KITCHEN SINK, DOMESTIC WITH FOOD WASTE GRINDER AND/OR DISHWASHER	1.00	1.00	1.40	0.00	0.00	0.00	–	2.00	0.00
0	LAVATORY, PRIVATE	0.50	0.50	0.70	0.00	0.00	0.00	–	1.00	0.00
5	LAVATORY, PUBLIC	1.50	1.50	2.00	7.50	–	7.50	–	1.00	5.00
0	SERVICE SINK	2.25	2.25	3.00	0.00	0.00	0.00	–	2.00	0.00
1	SINK	1.00	1.00	1.40	1.00	–	1.00	–	2.00	2.00
1	URINAL, PUBLIC 3/4" FLUSH VALVE	5.00	–	5.00	5.00	–	5.00	–	2.00	2.00
0	WATER CLOSET, PRIVATE FLUSH VALVE	6.00	–	6.00	0.00	0.00	0.00	–	4.00	0.00
0	WATER CLOSET, PRIVATE FLUSH TANK	2.20	–	2.20	0.00	0.00	0.00	–	3.00	0.00
4	WATER CLOSET. PUBLIC FLUSH VALVE (1.6 gpf or less)	10.00	–	10.00	40.00	–	40.00	–	4.00	16.00
0	WATER CLOSET, PUBLIC FLUSH TANK	5.00	–	5.00	0.00	0.00	0.00	–	4.00	0.00
0	WATER CLOSET, PUBLIC OR PRIVATE FLUSHOMETER TANK	2.00	–	2.00	0.00	0.00	0.00	–	4.00	0.00
				TOTAL:	53.75	0.00	53.75	51.50	–	35.50

NOTES:
1) TOTAL OF 51.50 GPM DEMAND BASED ON SYSTEM PREDOMINANTLY FOR FLUSH VALVES
2) SYSTEM WILL REQUIRE 1.5" WATER MAIN.
3) RECOMMENDED 1.5" METER SIZE PER FBC TABLE 603.1.
4) SYSTEM WILL REQUIRE 3" MINIMUM BUILDING DRAIN.

ELECTRIC WATER HEATER SCHEDULE

EQUIPMENT NO.	MANUFACTURER	MODEL NO.	SERVICE	EFF (%)	ENTERING WATER TEMP (°F)	TEMP RISE AT 1.5 GPM (°F)	RECOVERY RATE (GPH)	STORAGE CAPACITY (GAL)	TANK DIMENSIONS HEIGHT (INCHES)	TANK DIMENSIONS DIAMETER (INCHES)	ELECTRICAL HEATING ELEMENTS WATTAGE	ELECTRICAL HEATING ELEMENTS QUANTITY	ELECTRICAL VOLTS/PH/HZ	REMARKS
EWH-1	EEMAX	EX75SL	OFFICE SINK	0.99	70	34	–	0	10.75 X 5.25 X 2.78	–	7500	1	240/1/60	5

REMARKS:
1. TANKLESS WATER HEATER, SINGLE LAV OPTION, BOTTOM PLUMBING CONNECTIONS, MOUNT BELOW COUNTERTOP.

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE	IE	INVERT ELEVATION
ADA	AMERICANS WITH DISABILITIES ACT		
AD	AREA DRAIN	MAX	MAXIMUM
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
BTUH	BRITISH THERMAL UNITS PER HOUR	NEC	NATIONAL ELECTRICAL CODE
BWV	BACK WATER VALVE	NIC	NOT IN CONTRACT
		NTS	NOT TO SCALE
CD	CONDENSATE DRAIN		
CO	CLEAN OUT	PDI	PLUMBING & DRAINAGE INSTITUTE
CONN	CONNECTION	PSIG	POUNDS PER SQUARE INCH GAUGE
CONT	CONTINUOUS	POC	POINT OF CONNECTION
CW	COLD WATER		
		SPECS	SPECIFICATIONS
DIA	DIAMETER	SAN	SANITARY SEWER
DN	DOWN	S.F.	SQUARE FEET
DWG	DRAWING		
		T & P	TEMPERATURE & PRESSURE
ECO	EXTERIOR CLEANOUT	TBD	TO BE DETERMINED
		TEMP	TEMPERATURE
F	DEGREES FAHRENHEIT	TP	TRAP PRIMER
FCO	FLOOR CLEANOUT	TYP	TYPICAL
FD	FLOOR DRAIN		
FT	FEET	UL	UNDERWRITER'S LABORATORIES, INC.
FBC	FLORIDA BUILDING CODE		
FPC	FLORIDA PLUMBING CODE	UNO	UNLESS NOTED OTHERWISE
GAL	GALLONS	VTR	VENT THRU ROOF
GPM	GALLONS PER MINUTE	V	VENT
HB	HOSE BIBB	W/	WITH
HP	HORSE POWER	WCO	WALL CLEAN OUT
HW	HOT WATER	WH	WALL HYDRANT
HWR	HOT WATER RETURN		

PLUMBING DRAWING LIST

DRAWING NO.	DRAWING TITLE
P001	PLUMBING LEGEND & SCHEDULES
P101	PLUMBING FLOOR PLAN
P501	PLUMBING DETAILS

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: K.C.C. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: K.C.C. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

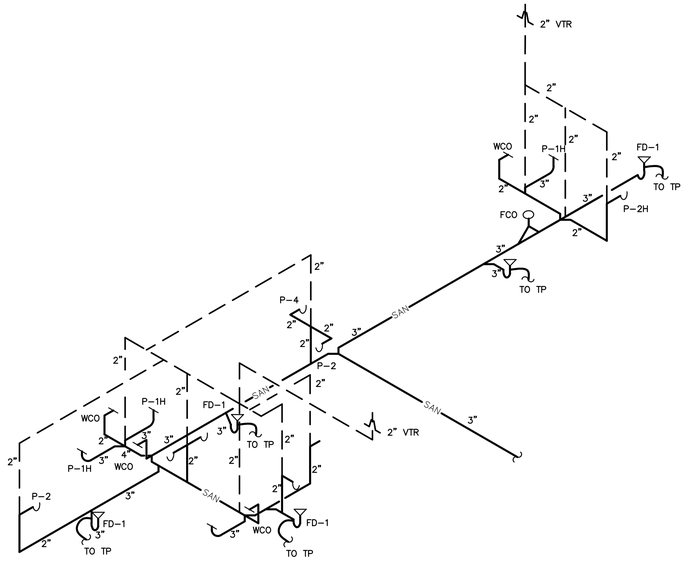
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

drawn: KCC
checked: STP
date: 11.12.2010
comm. no.: 0920818

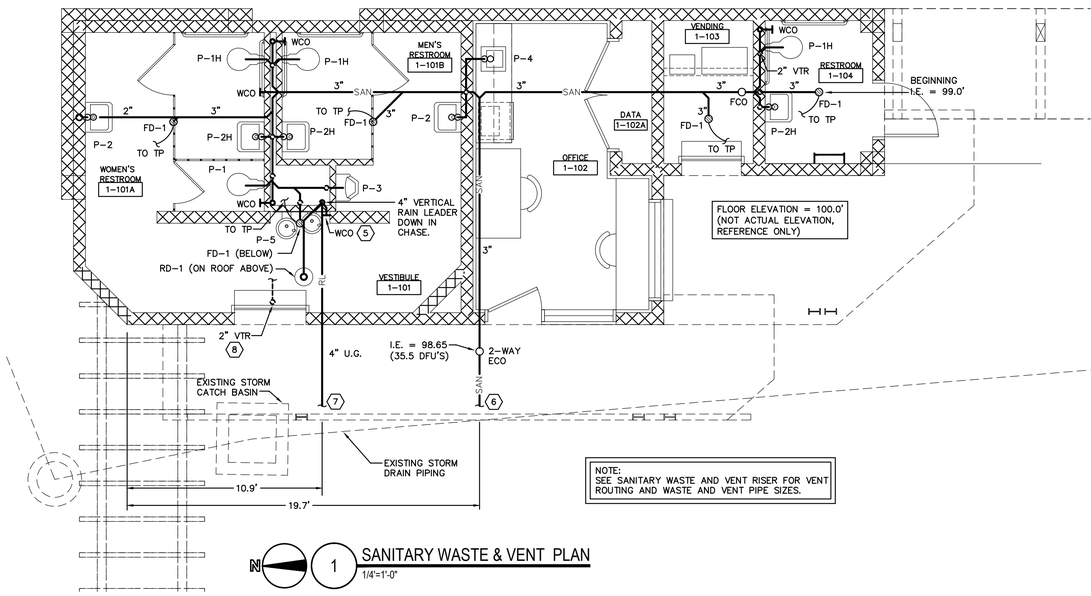
PLUMBING LEGEND & SCHEDULES

P001

100% CONSTRUCTION DOCUMENTS



3 SANITARY WASTE AND VENT RISER
1/4"=1'-0"



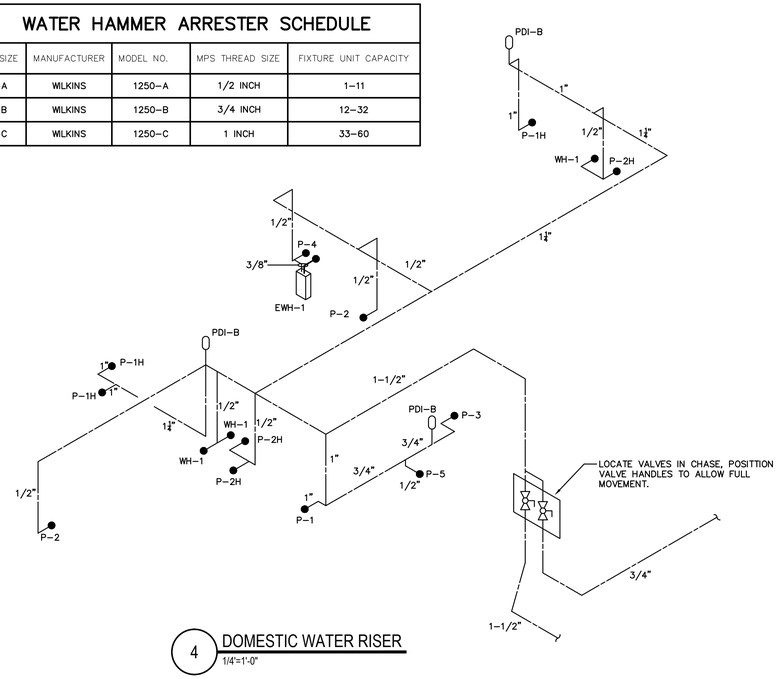
N 1 SANITARY WASTE & VENT PLAN
1/4"=1'-0"

PLUMBING KEYED NOTES

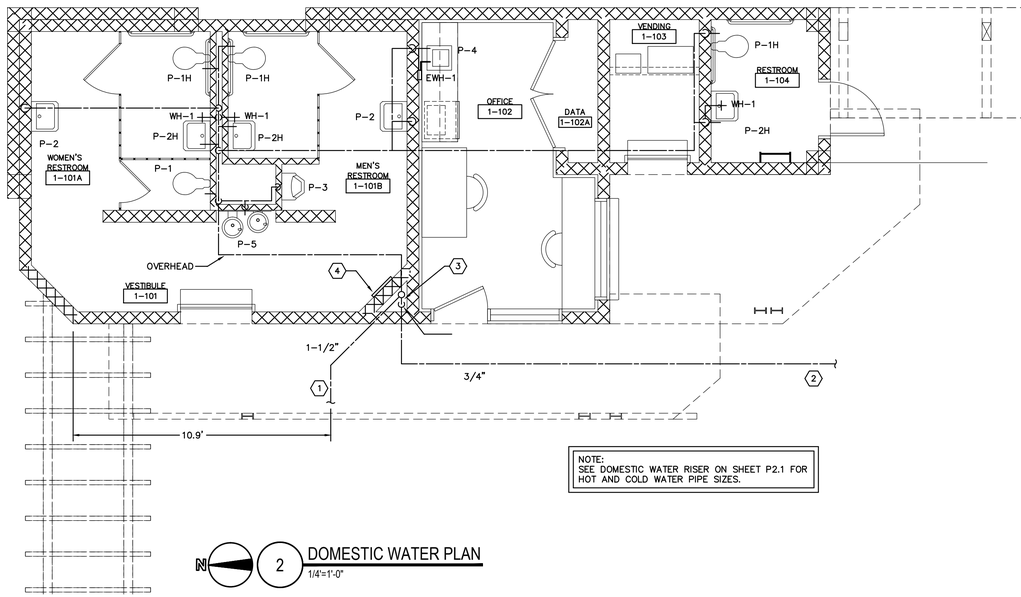
1. NEW 1-1/2" DOMESTIC WATER SERVICE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
2. PROVIDE 3/4" COLD WATER DOMESTIC FEED FOR LANDSCAPING HOSE BIBBS. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
3. 1-1/2" DOMESTIC WATER RISER AND 3/4" COLD WATER FEED TO LANDSCAPING HOSE BIBBS IN CHASE. PROVIDE BALL VALVES AT 42" AFF. POSITION BALL VALVES FOR ACCESS THROUGH ACCESS PANEL LOCATED IN VESTIBULE 1-101.
4. PROVIDE 16X16 TYPE 316 STAINLESS STEEL ACCESS DOOR WITH BRUSHED FINISH. ACCESS DOOR SHALL BE EQUAL TO WILLIAMS BROTHERS MODEL UAD 200 WITH WB 151 KEY CODE CYLINDER LOCKS WITH TWO KEYS. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR AND ARCHITECTURAL PLANS.
5. PROVIDE WALL CLEANOUT WITH CHROME COVER PLATE AT BASE OF RAIN LEADER STACK.
6. 3" SANITARY BUILDING DRAIN. COORDINATE WITH CIVIL DRAWINGS FOR EXACT TIE-IN POINT. VERIFY INVERTS AND COORDINATE WITH G.C. AND STRUCTURAL PLANS TO AVOID FOOTERS AND FOUNDATIONS.
7. 4" RAIN LEADER. COORDINATE WITH CIVIL DRAWINGS FOR EXACT TIE-IN POINT. VERIFY INVERTS AND COORDINATE WITH G.C. AND STRUCTURAL PLANS TO AVOID FOOTERS AND FOUNDATIONS.
8. 2" VTR. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR TO BE MINIMUM OF 10 FEET FROM THE OUTSIDE AIR INTAKE OF RTU-1. TIE INTO PLUMBING VENT SYSTEM. REFER TO SANITARY WASTE AND VENT RISER.

WATER HAMMER ARRESTER SCHEDULE

PDI SIZE	MANUFACTURER	MODEL NO.	MPS THREAD SIZE	FIXTURE UNIT CAPACITY
PDI-A	WILKINS	1250-A	1/2 INCH	1-11
PDI-B	WILKINS	1250-B	3/4 INCH	12-32
PDI-C	WILKINS	1250-C	1 INCH	33-60



4 DOMESTIC WATER RISER
1/4"=1'-0"



N 2 DOMESTIC WATER PLAN
1/4"=1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: K.C.C. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: K.C.C. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

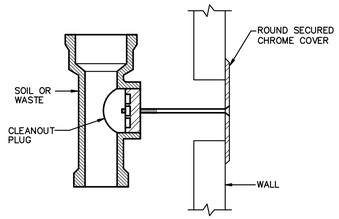
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

drawn: KCC
checked: STP
date: 11.12.2010
comm. no.: 0920818

PLUMBING FLOOR PLANS

P101

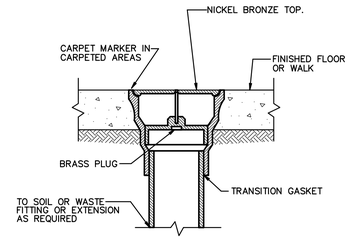
100% CONSTRUCTION DOCUMENTS



WALL CLEANOUT DETAIL

NO SCALE

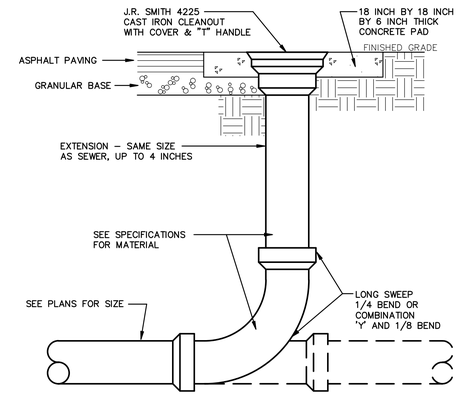
1



FLOOR CLEANOUT DETAIL

NO SCALE

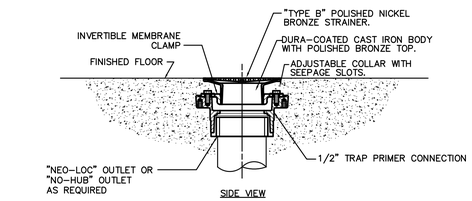
2



EXTERIOR CLEANOUT DETAIL

NO SCALE

3

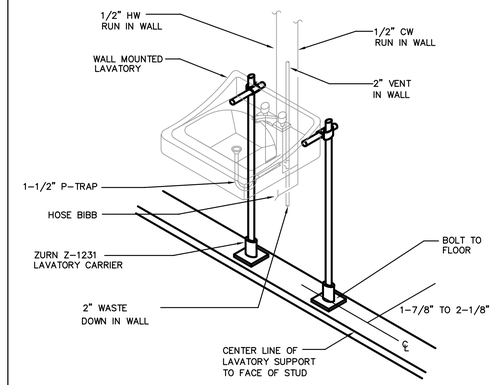


FLOOR DRAIN SHALL BE A ZURN ZB415B-P OR EQUAL.

FLOOR DRAIN DETAIL – FD"A"

NO SCALE

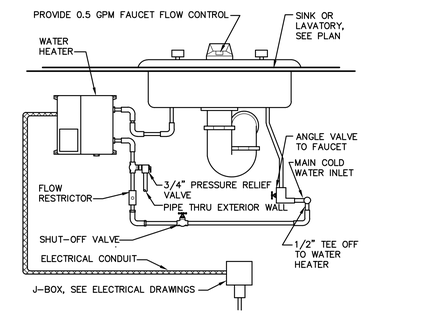
4



LAVATORY DETAIL

NO SCALE

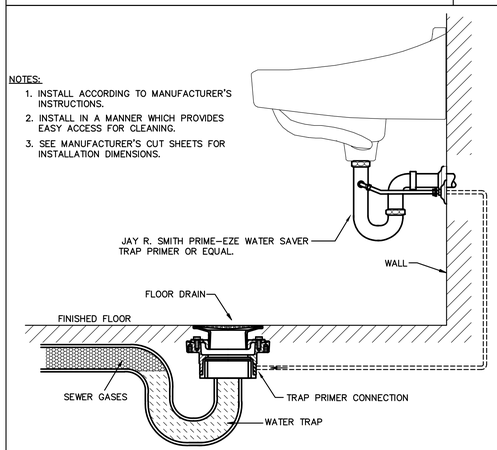
5



POINT-OF-USE WATER HEATER DETAIL

NO SCALE

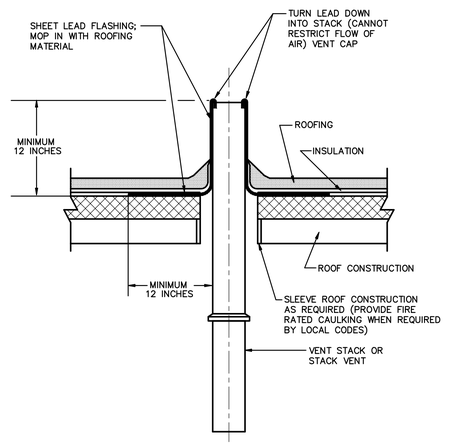
6



TRAP PRIMER DETAIL

NO SCALE

7

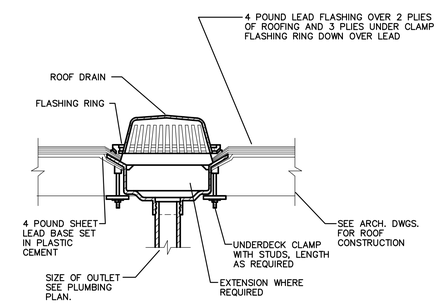


VENT THROUGH ROOF DETAIL

NO SCALE

8

NOTES:
1. PIPING AND FITTINGS SHALL BE STANDARD WEIGHT CAST IRON, OR SCHEDULE 40 BLACK STEEL (WELD FITTINGS).
2. SEE SPECIFICATIONS FOR INSULATION MATERIALS FOR ROOF DRAIN & OVERFLOW PIPING.



ROOF DRAIN DETAIL

NO SCALE

9

SCHENKELSHULTZ
ARCHITECTURE

677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

ME3
CONSULTING ENGINEERS, LLC
11065 Gatewood Drive, Suite 104
Bradenton FL 34211
Tel: 941-748-1319 Fax: 941-748-1349
www.me3-engr.com sidney@me3-engr.com
Designed: K.C.C. ME3 Job No: 10-0183
Checked: S.T.P. Date: 11/12/2010
Drawn: K.C.C. C.O.A. 27552

TO THE BEST OF MY KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH ALL APPLICABLE BUILDING CODES.

KAY C. CLEM, P.E.
FL# 53270

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, Fl 34205

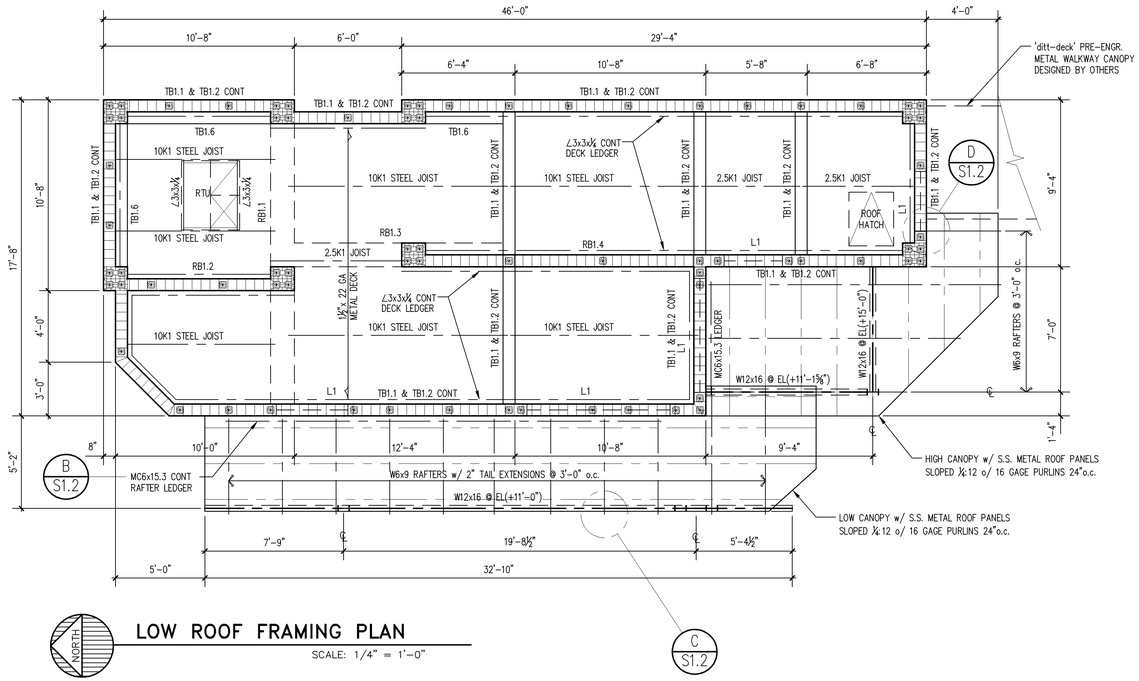
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, Fl 34208

drawn: KCC
checked: STP
date: 11.12.2010
comm. no.: 0920818

PLUMBING DETAILS

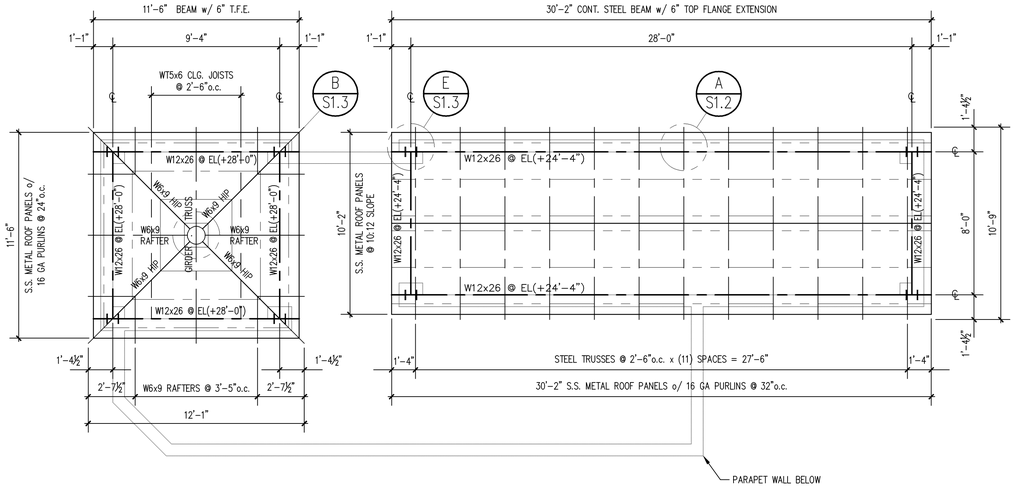
P501

100% CONSTRUCTION DOCUMENTS



LOW ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

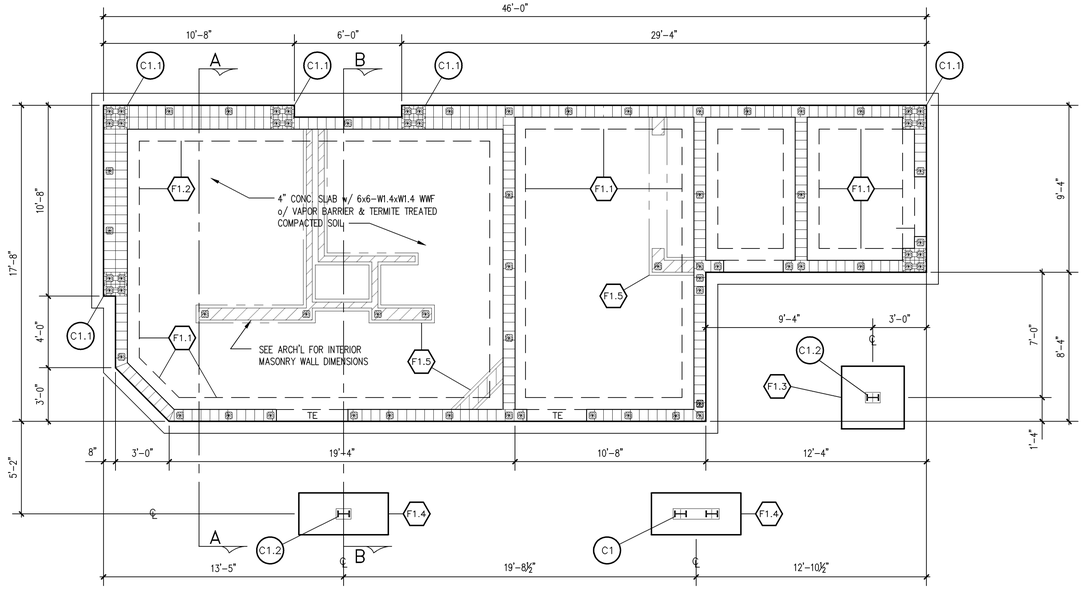


UPPER ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

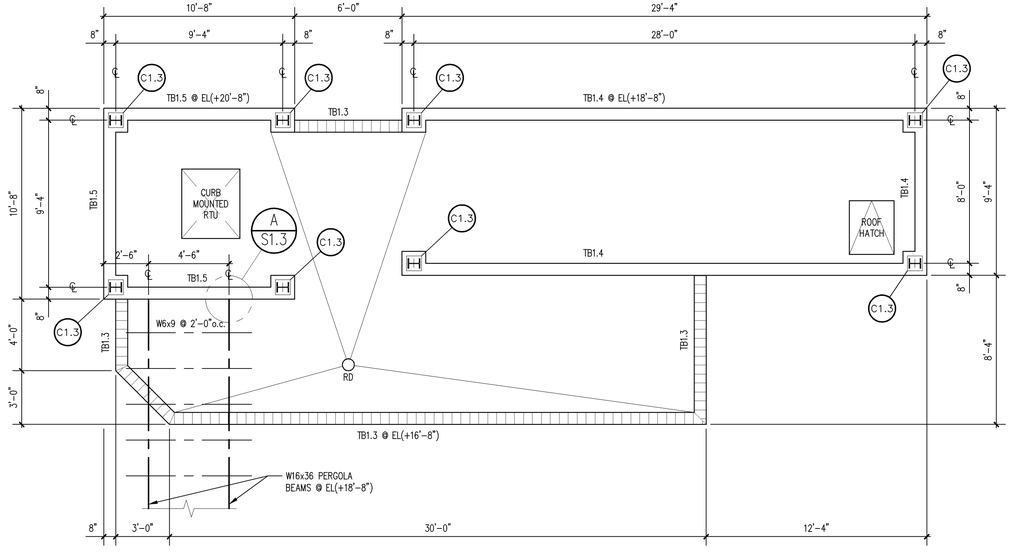
PLAN NOTES:

1. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISHES AND RECESSES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION.
2. ALL ELEVATIONS SHOWN THUS EL(+0'-0") ARE REFERENCED FROM THE GROUND FLOOR SLAB.
3. TOP OF FOOTINGS SHALL BE AT EL(-1'-0") UNLESS NOTED OTHERWISE.
4. CENTERLINE OF COLUMNS AND WALLS SHALL COINCIDE WITH FOUNDATION CENTERLINES U.N.O.
5. ⊞ INDICATES GROUT FILLED CELL w/ (1) #5 VERTICAL REBAR @ 40"o.c. TYPICAL U.N.O.
6. SINGLE-PLY MEMBRANE ROOF SYSTEM SHALL BE INSTALLED w/ 1" MINIMUM RIGID INSULATION o/ 1½"x22 GA. TYPE 'F' GALV. METAL DECK w/ ⅝" PUDDLE WELDS & WELDING WASHERS @ 36/4 PATTERN & (2) #10 SCREWS @ SIDELAPS.
7. STANDING SEAM METAL ROOF PANELS SHALL BE INSTALLED o/ 16 GA. GALV. METAL PURLINS @ 3'-0" o.c. MAX. w/ (2) ¼"ø SELF-DRILLING SCREWS @ EA SUPPORT.
8. REFER TO SHEET S-5.1 FOR STRUCTURAL NOTES, SCHEDULES & ADDITIONAL INFORMATION.



FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



ROOF PARAPET PLAN

SCALE: 1/4" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

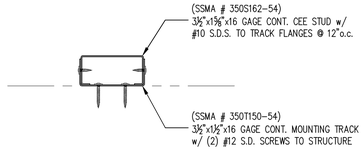
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

BUILDING STRUCTURE

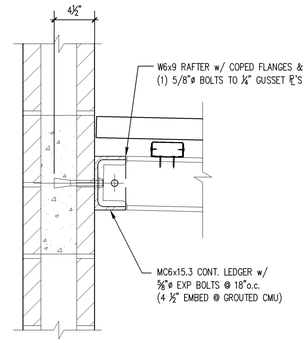
S-1.1

100% CONSTRUCTION DOCUMENTS



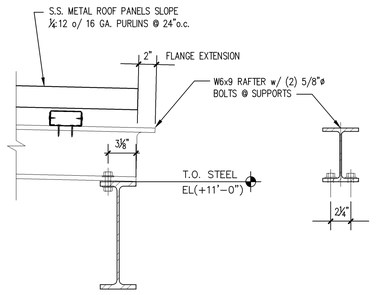
A S1.2 **PURLIN DETAIL**

SCALE: 3" = 1'-0"



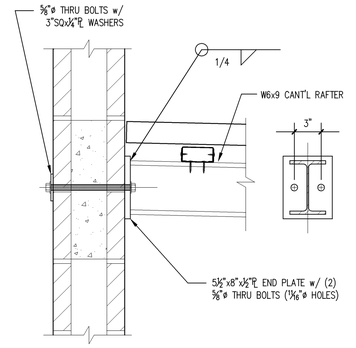
B S1.2 **RAFTER LEDGER DETAIL**

SCALE: 1 1/2" = 1'-0"



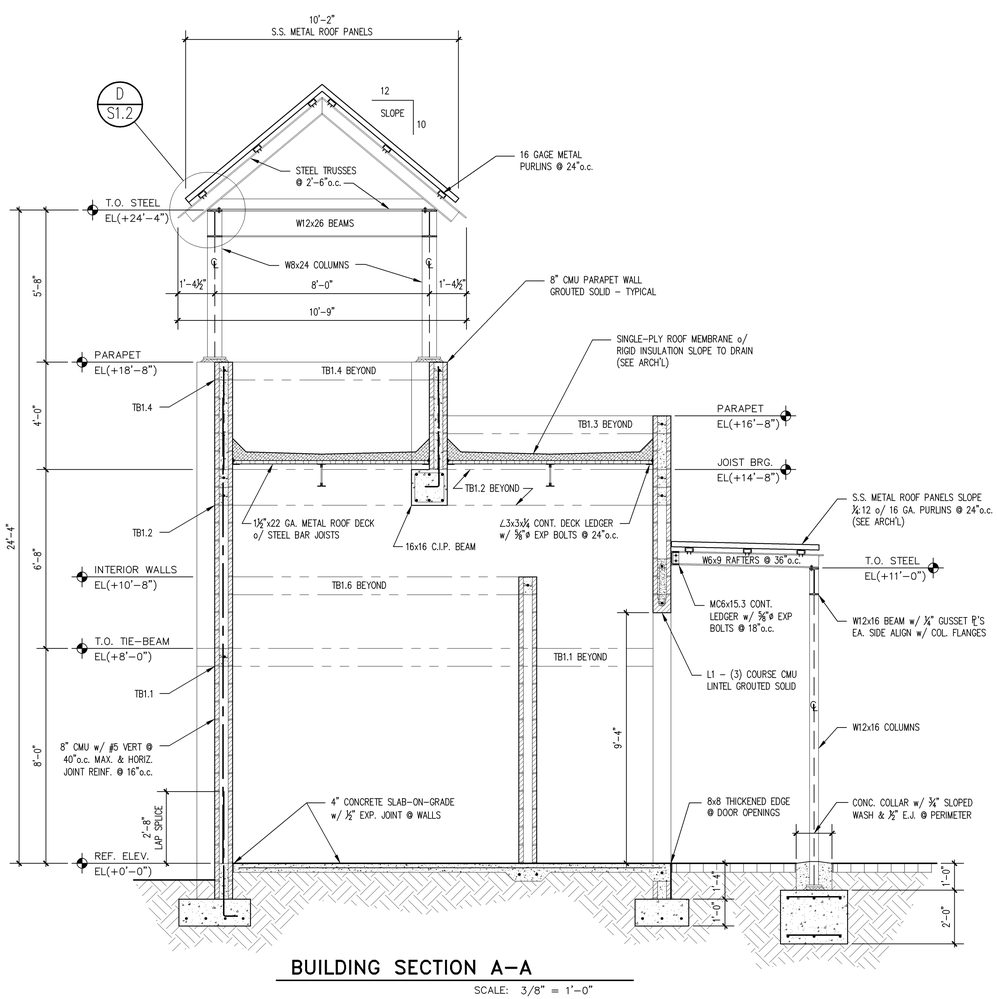
C S1.2 **RAFTER / BEAM CONN.**

SCALE: 1 1/2" = 1'-0"



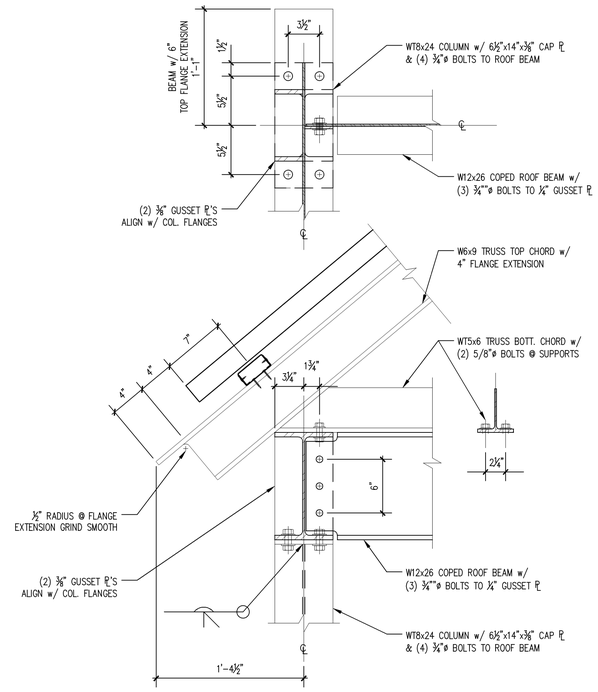
D S1.2 **RAFTER BRACKET CONN.**

SCALE: 1 1/2" = 1'-0"



BUILDING SECTION A-A

SCALE: 3/8" = 1'-0"



E S1.2 **TRUSS / BEAM CONNECTION**

SCALE: 1 1/2" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

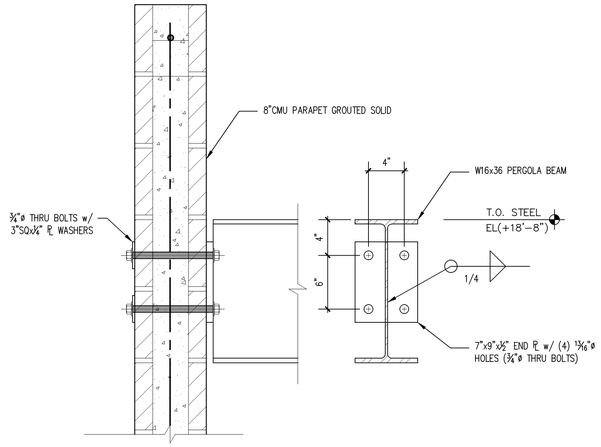
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

BUILDING STRUCTURE

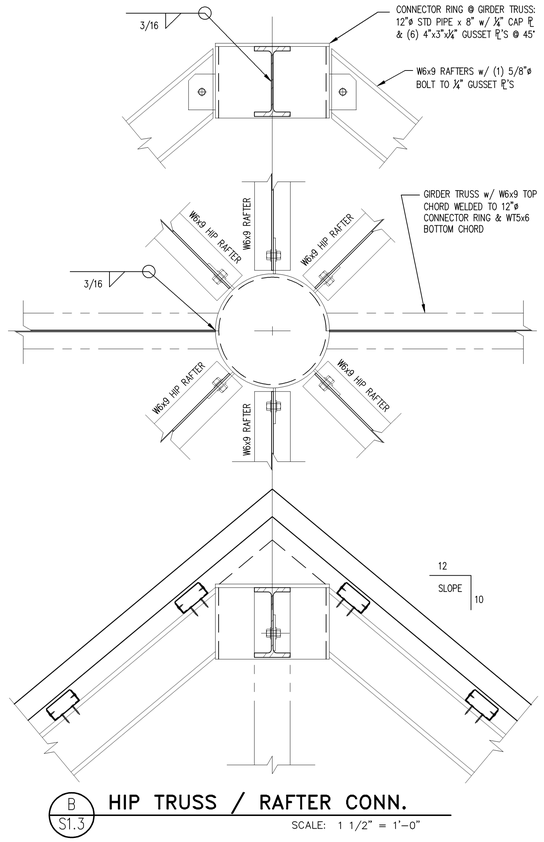
S-1.2

100% CONSTRUCTION DOCUMENTS



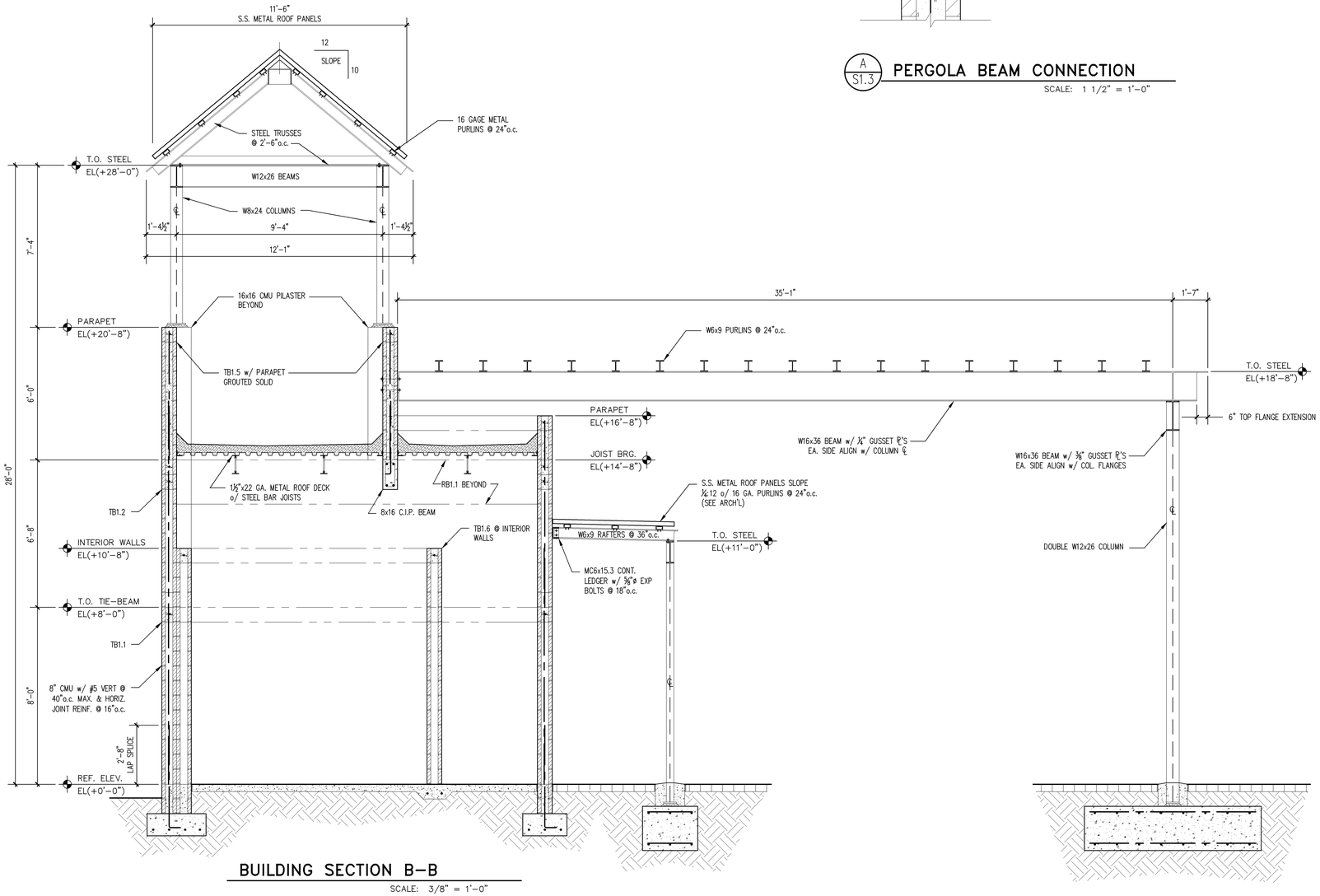
A S1.3 **PERGOLA BEAM CONNECTION**

SCALE: 1 1/2" = 1'-0"



B S1.3 **HIP TRUSS / RAFTER CONN.**

SCALE: 1 1/2" = 1'-0"



BUILDING SECTION B-B

SCALE: 3/8" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

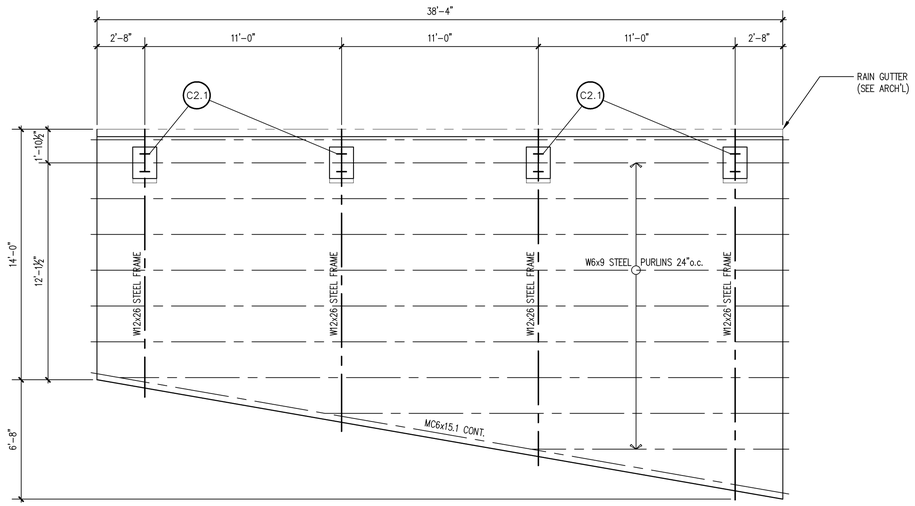
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

BUILDING STRUCTURE

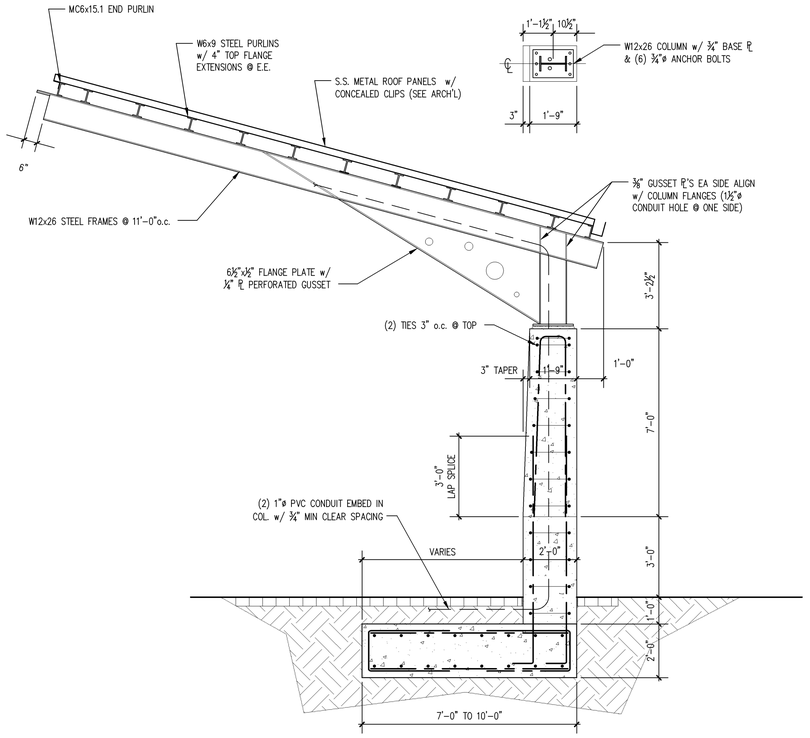
S-1.3

100% CONSTRUCTION DOCUMENTS



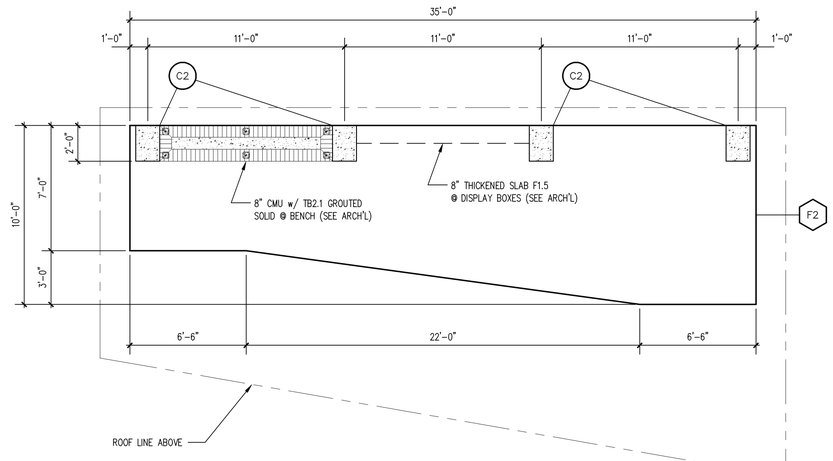
BUS SHELTER ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"



BUS SHELTER SECTION A–A

SCALE: 3/8" = 1'-0"

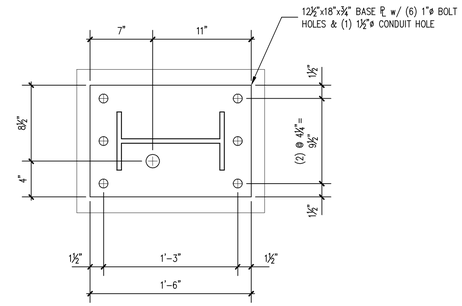


BUS SHELTER FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISHES AND RECESSES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION.
2. ALL ELEVATIONS SHOWN THUS EL(+0'-0") ARE REFERENCED FROM THE GROUND FLOOR SLAB.
3. TOP OF FOOTINGS SHALL BE AT EL(–1'-0") UNLESS NOTED OTHERWISE.
4. CENTERLINE OF COLUMNS AND WALLS SHALL COINCIDE WITH FOUNDATION CENTERLINES U.N.O.
5. ⊞ INDICATES GROUT FILLED CELL w/ (1) #5 VERTICAL REBAR @ 40"o.c. TYPICAL U.N.O.
6. ALL EXPOSED CONCRETE SHALL HAVE HAND RUBBED FINISH U.N.O. (SEE ARCH'L)
7. STANDING SEAM METAL ROOF PANELS SHALL BE INSTALLED o/ STEEL PURLINS @ 2'-0" o.c. w/ (2) ¼"ø SELF-DRILLING SCREWS @ EA SUPPORT.
8. REFER TO SHEET S–5.1 FOR STRUCTURAL NOTES, SCHEDULES & ADDITIONAL INFORMATION.



A S2.1

COLUMN BASE PLATE DETAIL

SCALE: 1 1/2" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

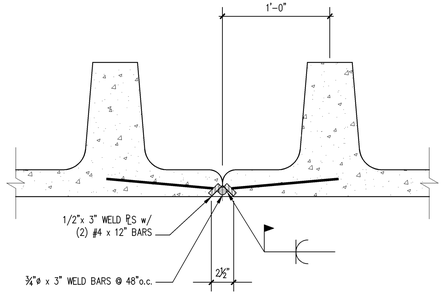
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

BUS SHELTER STRUCTURE

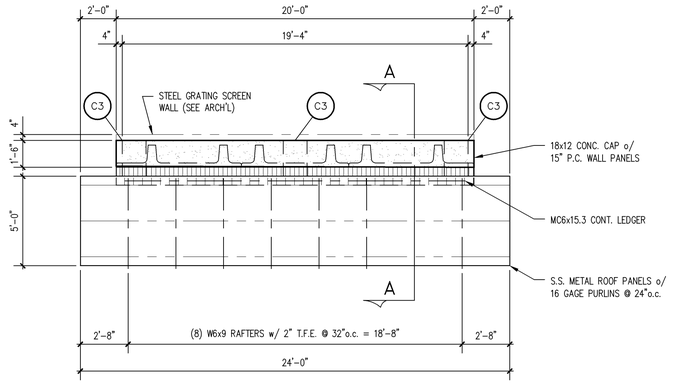
S-2.1

100% CONSTRUCTION DOCUMENTS



A S3.1 **DBL TEE FLANGE CONNECTION**

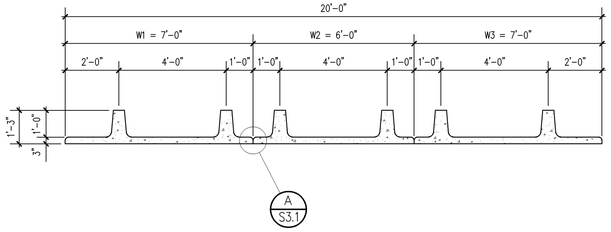
SCALE: 1 1/2" = 1'-0"



NORTH

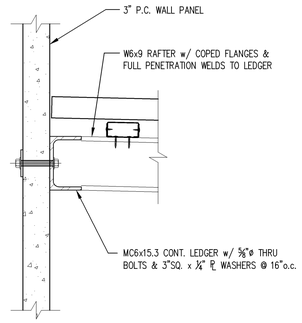
ART WALL FRAMING PLAN

SCALE: 1/4" = 1'-0"



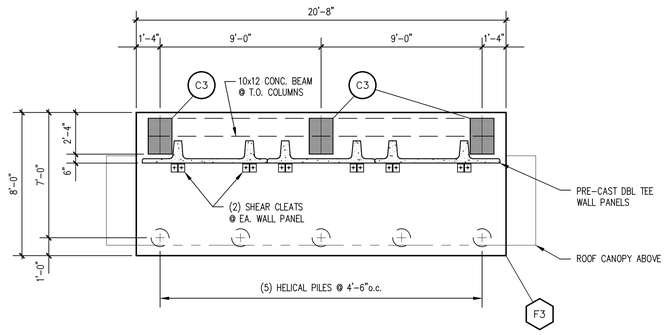
B S3.1 **15" DBL TEE WALL PANELS**

SCALE: 3/16" = 1'-0"



C S3.1 **RAFTER / LEDGER CONN.**

SCALE: 1 1/2" = 1'-0"



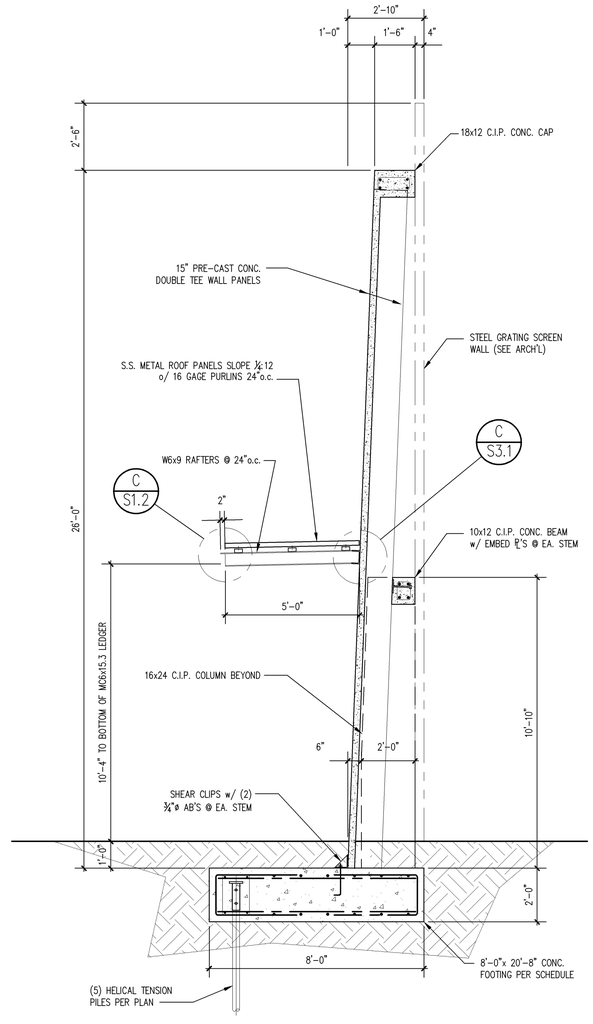
NORTH

ART WALL FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISHES AND RECESSES WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION.
2. ALL ELEVATIONS SHOWN THUS EL(+0'-0") ARE REFERENCED FROM THE GROUND FLOOR SLAB.
3. TOP OF FOOTINGS SHALL BE AT EL(-1'-0") UNLESS NOTED OTHERWISE.
4. HELICAL PILE DESIGN BY SPECIALTY ENGINEER FOR 17 KIP ALLOWABLE TENSILE CAPACITY.
5. P.C. WALL PANEL DESIGN BY SPECIALTY ENGINEER FOR +/- 50 FT-KIP ULTIMATE BENDING MOMENT CAPACITY.
6. ALL EXPOSED CONCRETE SHALL HAVE HAND RUBBED FINISH U.N.O. (SEE ARCH'L)
7. STANDING SEAM METAL ROOF PANELS SHALL BE INSTALLED o/ STEEL PURLINS @ 2'-0" o.c. w/ (2) ¼"ø SELF-DRILLING SCREWS @ EA SUPPORT.
8. REFER TO SHEET S-5.1 FOR STRUCTURAL NOTES, SCHEDULES & ADDITIONAL INFORMATION.



ART WALL SECTION A-A

SCALE: 3/8" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

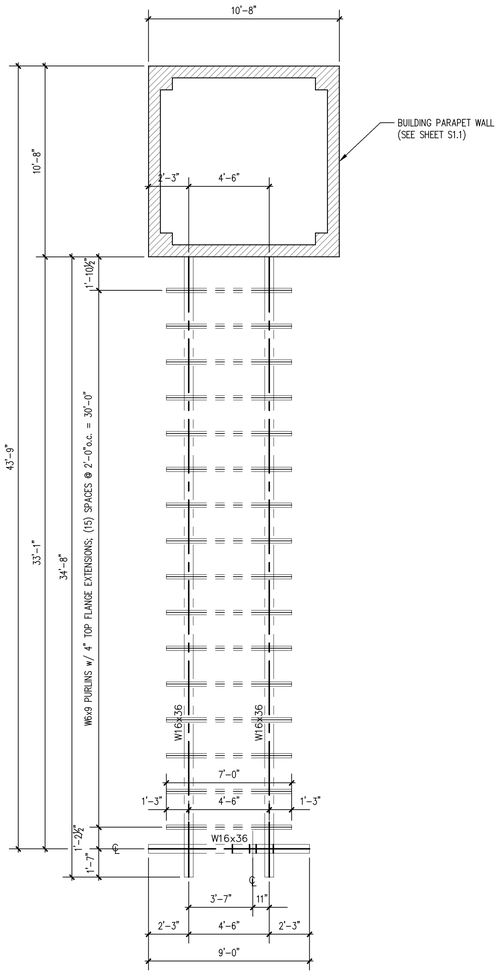
Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

ART WALL STRUCTURE

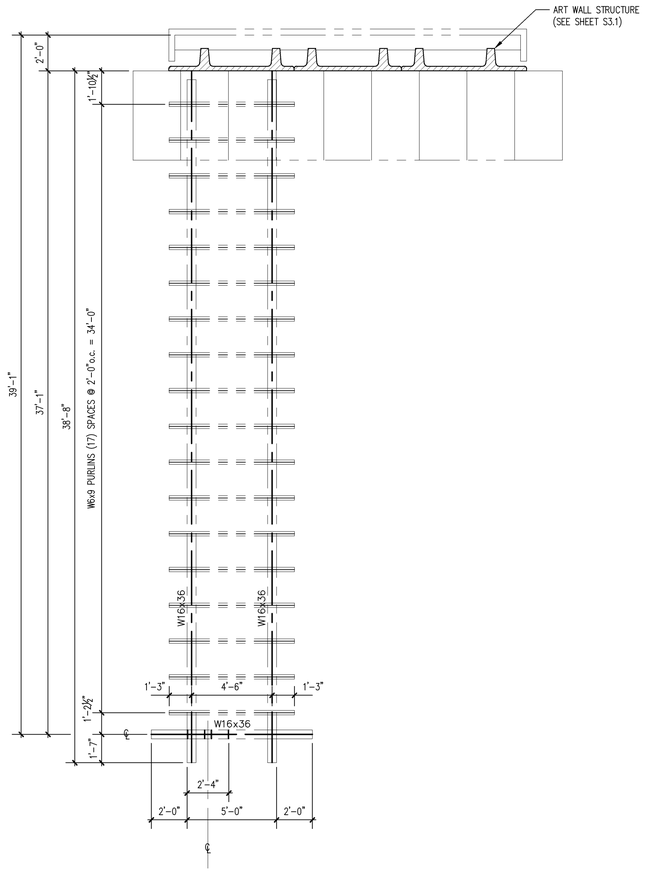
S-3.1

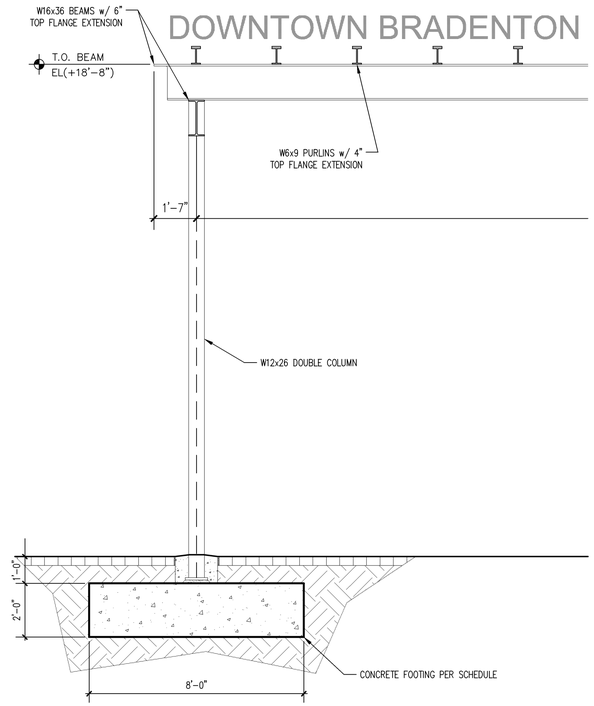
100% CONSTRUCTION DOCUMENTS



PERGOLA FRAMING PLAN

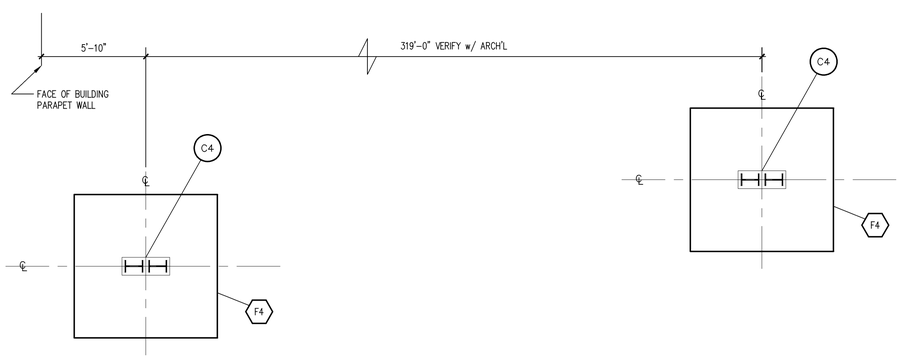
SCALE: 1/4" = 1'-0"





PERGOLA SECTION

SCALE: 3/8" = 1'-0"



PERGOLA FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

PERGOLA STRUCTURES

S-4.1

100% CONSTRUCTION DOCUMENTS

STRUCTURAL NOTES

GENERAL NOTES:
STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS.

DESIGN LOADS:
STRUCTURAL SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE & 2009 SUPPEMENTS UTILIZING SUPERIMPOSED LOADS AS FOLLOWS:
ROOF:
LIVE LOAD – 20 psf.
DEAD LOAD – 15 psf (4 psf AVAILABLE TO RESIST UPLIFT).
MECHANICAL – 10 psf.
WIND:
130 MPH BASIC WIND SPEED (ASCE 7-05).
EXPOSURE "B", IMPORTANCE FACTOR (I) = 1.0
BUILDING CLASSIFICATION "ENCLOSED" GCp=+/- 0.18 ; "OPEN" GCp=+/- 0.0

SHOP DRAWING REVIEW:
SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. IN ALL INSTANCES THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.
ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW WILL BE RETURNED UNCHECKED.

FOUNDATIONS:
FOUNDATION DESIGN IS BASED ON 2,000 psf ALLOWABLE SOIL BEARING PRESSURE. REFER TO THE FOLLOWING SOILS REPORT FOR COMPLETE GEOTECHNICAL RECOMMENDATIONS, SITE PREPARATION REQUIREMENTS, AND FOUNDATION INSTALLATION PROCEDURES.
Report by: ARDAMAN & ASSOCIATES, INC. ; File No. 10-7234 dated July 2, 2010
TITLED: Geotechnical Exploration for "13th Street Bus Transfer Station," 13th Street West, Bradenton, Manatee County, Florida

CONCRETE:
SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW:
3000 psi FOR FOUNDATIONS AND SLABS ON GRADE.
4000 psi FOR ALL OTHER STRUCTURAL CONCRETE.
SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD TESTS AND STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318 FOR REVIEW PRIOR TO USE. EACH MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION AND INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC.
CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ALL STANDARDS AND SPECIFICATIONS. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

CONCRETE TESTING:
AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:
ASTM C143 – "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE" WITH A MAXIMUM SLUMP OF 6 INCHES.
ASTM C39 – "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY.
REQUIRED CYLINDER QUANTITIES AND TEST AGE SHALL BE AS FOLLOWS:
(1) AT 7 DAYS, (2) AT 28 DAYS, AND (1) ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER AS REQUIRED. IF THE REQUIRED 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(s) MAY BE DISCARDED.

FORMWORK AND SHORING:
NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.

MASONRY WALLS:
MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 1900 psi ON THE NET AREA (f'm = 1500 psi). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270. GROUT SHALL BE 2000 psi MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476. UNLESS NOTED OTHERWISE, WALLS SHALL BE EIGHT INCH REINFORCED MASONRY WALL CONSTRUCTION WITH #5 VERTICAL REINFORCING BARS IN GROUT FILLED CELLS AT 48 INCHES O.C., CORNERS, ENDS OF WALLS, AND EACH SIDE OF ALL OPENINGS. PROVIDE ACI STANDARD HOOKS FOR FOOTING DOWELS AND TERMINATION OF ALL VERTICAL REINFORCING. LAP SPLICES SHALL BE 48 BAR DIAMETERS. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR ENGINEER APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES.

TIE BEAMS:
BEAMS WITH THE PREFIX "TB" SHALL BE OF POURED AFTER THE BLOCK WALLS BELOW ARE IN PLACE. REINFORCING SHALL BE CONTINUOUS THROUGH TIE BEAMS WITH MINIMUM LAP SPLICES OF 48 BAR DIAMETERS AND BENT BARS AT CORNERS. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE TO AREA REQUIRED, IN ACCORDANCE WITH ACI 530.1, SECTION 4.3.3.3 (SOLID METAL OR FELT CAVITY CAPS ARE PROHIBITED).

LINTELS:
MASONRY OPENINGS LESS THAN 6 FEET SHALL BE SPANNED WITH 8"x8" PRECAST CONCRETE LINTELS WITH 1#5 REINFORCING BAR. ALL PRECAST LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END.

REINFORCING STEEL:
SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION. WELDED WIRE FABRIC: TO CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.

CHEMICAL ANCHORS:
SHALL BE AN EQUAL TWO PART STRUCTURAL EPOXY, SUCH AS RAMSET "EPCON", RAWL "POWER-FAST", SIMPSON STRONG-TIE "SET", OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

PENETRATIONS:
NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

STRUCTURAL STEEL:
SHALL CONFORM TO ASTM A36 or A992 & THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS NOTED OTHERWISE. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZING IS INDICATED ON THE DRAWINGS.
STRUCTURAL TUBING SHALL CONFORM TO ASTM A-500, GRADE B, Fy=46 ksi.
STRUCTURAL PIPE SHALL CONFORM TO ASTM A-53 GRADE B, TYPE E OR S, Fy=35 ksi
ALL BOLTED CONNECTIONS SHALL CONSIST OF MINIMUM 3/4 INCH DIAMETER ASTM A-325 HIGH STRENGTH BOLTS. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE REACTIONS SHOWN ON THE PLANS. IF NOT SHOWN, THE FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS TO SUPPORT AN END REACTION OF W/2 KIPS FROM THE TABLES IN PART 2 "ALLOWABLE UNIFORM LOADS IN KIPS FOR BEAMS LATERALLY SUPPORTED" OF THE MANUAL OF STEEL CONSTRUCTION (9TH EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. ANCHOR BOLTS SHALL CONFORM TO ASTM A-307 OR A-36 (THREADED ROD).

MACHINE AND LAG BOLTS:
SHALL BE A-307 HOT DIPPED GALVANIZED WITH GALVANIZED WASHERS.

SHEAR STUD CONNECTORS:
SHEAR STUD CONNECTORS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE", SECTION 7 – STUD WELDING. STUDS SHALL BE TYPE 'B', HEADED STUDS HAVING A MINIMUM TENSILE STRENGTH OF 60,000 psi., AND SHALL BE OF LENGTH AND DIAMETER SHOWN ON STRUCTURAL DRAWINGS.

STEEL JOISTS & JOIST GIRDERS:
SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR JOIST GIRDERS AS PUBLISHED BY THE STEEL JOIST INSTITUTE (SJI). GIRDERS SHALL BE OF THE DEPTH AND SPACING SHOWN ON THE STRUCTURAL DRAWINGS, AND UNLESS OTHERWISE NOTED, GIRDERS SHALL BE DESIGNED AS SIMPLY SUPPORTED PRIMARY MEMBERS PROPORTIONED SUCH THAT THEY MAY BE ERECTED WITHOUT BRIDGING. GIRDER PANEL POINTS SHALL BE ALIGNED WITH SECONDARY MEMBERS.
CONCRETE SUPPORTS: UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS, GIRDERS SHALL BEAR ON 5/8"x 7"x 1'-0" STEEL BEARING PLATES WITH A MINIMUM OF FOUR 1/2" DIAMETER x 6" LONG SHEAR STUD CONNECTORS. BEARING PLATES SHALL BE CAST INTEGRALLY WITH THE CONCRETE SUPPORTING MEMBER. MINIMUM JOIST GIRDER BEARING SHALL BE 6" WITH A MINIMUM OF (2) 3/16"x 2" FILLET WELDS TO BEARING PLATE.
STEEL SUPPORTS: UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS, GIRDERS MAY BE DIRECTLY CONNECTED TO STEEL GIRDERS HAVING A FLANGE THICKNESS GREATER THAN 3/8". THE CONNECTION SHALL BE DESIGNED TO RESIST ALL UPLIFT AND SHEAR LOADS; HOWEVER, A MINIMUM OF TWO 3/4" DIAMETER HIGH STRENGTH BOLTS SHALL BE UTILIZED.

SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW BY THE S STRUCTURAL ENGINEER PRIOR TO FABRICATION. SHOP DRAWING SUBMITTAL SHALL INCLUDE LAYOUT, COMPONENT DESIGNATION, BRIDGING, AND PERTINENT SECTIONS AND DETAILS. SUBMITTALS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

LIGHT GAUGE METAL FRAMING:
STEEL STUDS, LINTELS, AND RUNNER TRACK MEMBERS SHALL BE OF TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS CONFORMING TO ASTM A-446 GRADE C (MINIMUM YIELD POINT 40,000 psi) WITH HOT DIPPED GALVANIZED COATING CONFORMING TO ASTM A525 (CLASS G90). GALVANIZED STEEL RUNNER TRACK SHALL BE FORMED WITH MATERIAL MEETING REQUIREMENTS OF ASTM A-446 GRADE A (MINIMUM YIELD POINT 33,000 psi) WITH HOT DIPPED GALVANIZED COATING CONFORMING ASTM A-525 (CLASS G-90).
ASSEMBLY: ALL FRAMING MEMBERS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO FIT SQUARELY AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN PLACE UNTIL PROPERLY JOINED. JOINING OF STRUCTURAL MEMBERS SHALL BE MADE WITH SELF DRILLING SCREWS OR WELDING. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED. ATTACHMENT OF COLLATERAL MATERIALS TO STEEL MEMBERS SHALL BE MADE WITH SELF DRILLING SCREWS OR HARDENED SCREW SHANK NAILS. METAL LATH MAY ALSO BE CONNECTED TO STEEL BY STAPLES OR OTHER FASTENERS, IF APPROVED BY LOCAL BUILDING CODE.
INSTALLATION: STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH FIRM ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACK.

WOOD FRAMING:
STRUCTURAL WOOD COMPONENTS SHALL BE SOUTHERN PINE WITH MINIMUM ALLOWABLE FIBER STRESSES AS FOLLOWS:
SHEAR Fv=90 psi.
BENDING Fb = 1,200 psi.
ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESSURE TREATED IN ACCORDANCE WITH AITC-109. MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE. PLYWOOD ROOF SHEATHING IS DESIGNED AS DIAPHRAGMS AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF THE FLORIDA BUILDING CODE AND FASTENED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF TABLE 2304.9.1 UNLESS NOTED OTHERWISE.

L1 – (3) COURSE CMU
LINTEL GROUTED SOLID

FOOTING SCHEDULE

MARK	SIZE (WxD)	REINFORCING	REMARKS
F1.1	2'-0" x 12" CONT.	(3) #5 CONT. BOTT	TOP OF STEMWALL FOOTING LOCATED 1'-4" BELOW FLOOR SLAB
F1.2	2'-8" x 12" CONT.	(3) #5 CONT. BOTT	TOP OF STEMWALL FOOTING LOCATED 1'-4" BELOW FLOOR SLAB
F1.3	3'-6" SQ. x 24"	(4) #5 EA. WAY TOP & BOTT	
F1.4	2'-4" x 5'-0" x 24"	(4) #5 EA. WAY TOP & BOTT	
F1.5	1'-0" x 8" CONT.	(2) #5	THICKENED SLAB POURED MONOLITHIC w/ 4" FLOOR SLAB
TE	8" x 8" CONT.	(1) #5	THICKENED SLAB EDGE POURED MONOLITHIC w/ 4" FLOOR SLAB
F2	35'-0"x 7'/10' x 24"	#5 @ 12"o.c. EA. WAY TOP & BOTTOM	MATCH TOP & BOTT STEEL w/ #5 HAIRPINS 12"o.c. @ COLUMN SIDE
F3	20'-8"x 8'-0" x 24"	#5 @ 12"o.c. EA. WAY TOP & BOTTOM	MATCH TOP & BOTT STEEL w/ #5 HAIRPINS 12"o.c. @ LONG SIDES
F4	8'-0"x 8'-0" x 24"	#5 @ 12"o.c. EA. WAY TOP & BOTTOM	

NOTE:
TOP OF ALL FOOTINGS SHALL BE LOCATED 12" BELOW FINISHED GRADE UNLESS NOTED OTHERWISE

COLUMN SCHEDULE

MARK	SIZE	REINFORCING / BASE PLATE	TIES	REMARKS
C1	(2) W8x13	9"x36"x5/8" PL w/ (8) 5/8"ø x 16"x3" ANCHOR BOLTS	#3 @ 12"o.c.	DBL COLUMN SPACED 1'-9"
C1.1	16x16 CMU	(4) #6 VERTICAL	#2 @ 8"o.c.	8x16 CMU w/ FILLED CELLS
C1.2	W8x13	9"x14"x1/2" PL w/ (4) 5/8"ø x 16"x3" ANCHOR BOLTS	–	
C1.3	W8x24	10"x10"x3/8" PL w/ (4) 3/4"ø x 30"x3" ANCHOR BOLTS	–	
C2	16x24 C.I.P.	(8) #7 VERTICAL (3 Ea. Face)	(2) #3 @ 12"o.c.	C.I.P. CONC. w/ 3" TAPER @ TOP WEST SIDE PER DETAIL
C2.1	W12x26	10"x30"x3/4" PL w/ (8) 3/4"ø x 30"x3" ANCHOR BOLTS	–	RIGID FRAME COLUMN
C3	16x24 C.I.P.	(8) #7 VERTICAL (3 Ea. Face)	(2) #3 @ 12"o.c.	C.I.P. CONC. w/ 3" TAPER @ TOP WEST SIDE PER DETAIL
C4	(2) W12x26	10"x30"x3/4" PL w/ (8) 3/4"ø x 30"x3" ANCHOR BOLTS	–	DBL COLUMN SPACED 1'-4"

BEAM SCHEDULE

MARK	T.O. BEAM	SIZE (WxH)	REINFORCING	STIRRUPS	REMARKS
TB1.1	8'-8"	8"x8"	(1) #5 CONT.	–	CMU KNOCK-OUT BLOCK
TB1.2	14'-8"	8"x16"	(1) #5 CONT. TOP & BOTT	–	TWO 8" COURSE CMU KNOCK-OUT BLOCK
TB1.3	16'-8"	8"x8"	(1) #5 CONT.	–	CMU KNOCK-OUT BLOCK
TB1.4	18'-8"	8"x8"	(1) #5 CONT.	–	CMU KNOCK-OUT BLOCK
TB1.5	20'-8"	8"x8"	(1) #5 CONT.	–	CMU KNOCK-OUT BLOCK
TB1.6	10'-8"	8"x8"	(1) #5 CONT.	–	CMU KNOCK-OUT BLOCK
RB1.1	14'-8"	16"x16"	(2) #6 TOP HOOK E.E. & (4) #6 BOTT	#3 @ 6"o.c.	C.I.P. CONCRETE
RB1.2	14'-8"	8"x16"	(2) #5 CONT. TOP & BOTT	#3 @ 6"o.c.	C.I.P. CONCRETE
RB1.3	14'-8"	16"x16"	(2) #6 TOP & (3) #6 BOTT	#3 @ 6"o.c.	C.I.P. CONCRETE
RB1.4	14'-8"	8"x16"	(2) #5 CONT. TOP & BOTT	#3 @ 6"o.c.	C.I.P. CONCRETE
L1	VARIES	8"x24"	(1) #5 CONT. TOP & BOTT	#3 @ 8"o.c.	(2) COURSE 8" CMU K.O. BLOCK o/ 8" U-BLOCK
TB2.1	1'-3"	8"x8"	(1) #5 CONT.	–	8" CMU CHAIR BLOCK @ TOP OF BENCH STEMWALLS
TB3.1	9'-10"	10"x12"	(2) #6 CONT. TOP & BOTT	#3 @ 6"o.c.	C.I.P. CONCRETE w/ 2" CLEAR COVER
TB3.2	25'-0"	18"x12"	(2) #5 CONT. TOP & BOTT	#3 @ 12"o.c.	C.I.P. CONCRETE w/ 2" CLEAR COVER

COMPONENT & CLADDING DESIGN PRESSURES for OPEN STRUCTURES

Element Tributary Area (sq ft)	ROOF				WALLS	
	Zone 1	Zone 2	Overhang Zone 2	Overhang Zone 3	Zone 4	Zone 5
10	+7.7/-25.7	+7.7/-46.3	-43.8	-72.0	+25.7/-23.2	+25.7/-54.1
20	+7.0/-25.0	+7.0/-41.2	-43.0	-57.0	+24.5/-27.0	+24.5/-33.5
50	+5.9/-23.9	+5.9/-33.5	-42.0	-36.0	+22.7/-25.2	+22.7/-29.6
100	+5.1/-23.2	+5.1/-28.3	-41.2	-20.6	+21.1/-23.7	+21.1/-27.0

NOTES: Basic Wind Speed = 130 mph, I = 1.0, Exposure = B, Enclosure Classification = Open.
Zone 1 = Roof areas not designated as zone 2/3.
Zone 2 = Roof areas within 6 feet of building corner walls not including the overhangs.
Zone 3 = Roof areas within 6 feet of building corners not including the overhangs.
Zone 4 = Wall areas not designated as zone 5.

COMPONENT & CLADDING DESIGN PRESSURES for ENCLOSED BUILDING

Element Tributary Area (sq ft)	ROOF				WALLS	
	Zone 1	Zone 2	Overhang Zone 2	Overhang Zone 3	Zone 4	Zone 5
10	+12.4/-30.4	+12.4/-51.0	-43.8	-72.0	+30.4/-27.8	+30.4/-58.7
20	+11.6/-29.6	+11.6/-45.8	-43.0	-57.0	+29.1/-31.7	+29.1/-38.1
50	+10.6/-28.6	+10.6/-38.1	-42.0	-36.0	+27.3/-29.9	+27.3/-34.2
100	+9.8/-27.8	+9.81/-32.9	-41.2	-20.6	+25.7/-28.3	+25.7/-31.7

NOTES: Basic Wind Speed = 130 mph, I = 1.0, Exposure = B, Enclosure Classification = Enclosed.
Zone 1 = Roof areas not designated as zone 2/3.
Zone 2 = Roof areas within 6 feet of building corner walls not including the overhangs.
Zone 3 = Roof areas within 6 feet of building corners not including the overhangs.
Zone 4 = Wall areas not designated as zone 5.

SCHENKELSHULTZ
ARCHITECTURE
677 North Washington Blvd.
Sarasota, Fl 34235
voice 941.952.5875
fax 941.957.3630
schenkelshultz.com
SS Lic No - AA-C000937

Glenn W. Warburton, P.E.
FLORIDA LICENSE NO. #46023

ZNS ENGINEERING
201 5th Avenue Drive East
Bradenton, FL 34208
voice 941.748.8080
fax 941.748.3316
email zns@znseng.com

Downtown Bradenton Transit Station

601 13th Street West
Bradenton, FL 34205

Manatee County Government
1112 Manatee Ave West
8th Floor
Bradenton, FL 34205

drawn: GWW
checked: -
date: 11.12.2010
ZNS file no.: 00-42278

STRUCTURAL NOTES SCHEDULES

S-5.1

100% CONSTRUCTION DOCUMENTS