PLAN REVIEW DATA

PROJECT CRITERIA – 2007 FLORIDA BUILDING CODE

NEW CONSTRUCTION OF AN OUTDOOR/COVERED FIREARM FIRING RANGE FACILITY THAT INCLUDES FORTY (40) 25 YARD DEEP FIRING LANES. THE RANGE WILL UTILIZE A BULLET CONTAINMENT SYSTEM AND AUTOMATIC TARGET SYSTEM. THE FACILITY WILL ALSO HAVE A CLASSROOM/SUPPORT BUILDING.

FIRING RANGE

CLASSIFICATION BY OCCUPANCY:	UTILITY AND MISCELLANEOUS GROUP U
TYPE OF CONSTRUCTION:	TYPE I B
	UNSPRINKELED

ALLOWABLE HEIGHT AND BUILDING AREA PER FBC CHAPTER 5

GROUP U	CONSTRUCTION TYPE I B	
	ALLOWABLE	PROVIDED
STORIES	5	1
HEIGHT	160'	26'-11"
AREA	35,500 SF	25,437 SF

FIRE-RESISTANCE RATING REQUIREMENTS FOR BLDG ELEMENTS PER FBC CHAP 6

BUILDING ELEMENT	HOURS
STRUCTURAL FRAME	1
BEARING WALLS	
EXTERIOR	3
INTERIOR	2
NONBEARING WALLS	
INTERIOR	0
FLOOR CONSTRUCTION	2
ROOF CONSTRUCTION	1

OCCUPANT LOAD PER FBC CHAP 10

FIRING RANGE FOR TRAINING/DEVELOPMENT OF SHERIFF DEPUTIES

40 LANES / 1 TRAINEE PER LANE = 40 TRAINEES

0.3 INSTRUCTORS PER OCCUPANT = 12 INSTRUCTORS

~~40 TRAINEES + 12 INSTRUCTORS = 52 OCCUPANTS~~

(CONTROL BUILDING INCLUSIVE OF THE 12 INSTRUCTORS = 3 OCCUPANTS) 1

EGRESS REQUIREMENTS PER FBC CHAP 10

EGRESS COMPONENT	REQ/MAX	PROVIDED
STAIR WIDTH	N/A	N/A
OTHER EGRESS COMPONENT WIDTH	0.2"X52=11"	204'-4"
EXIT ACCESS TRAVEL DISTANCE	300'	90'

CLASSROOM/SUPPORT BUILDING

CLASSIFICATION BY OCCUPANCY:	BUSINESS GROUP B
TYPE OF CONSTRUCTION:	TYPE V B
	UNSPRINKELED

ALLOWABLE HEIGHT AND BUILDING AREA PER FBC CHAPTER 5

GROUP B	CONSTRUCTION TYPE V B	
	ALLOWABLE	PROVIDED
STORIES	2	1
HEIGHT	40'	~16'-2 1/2"
AREA	9,000 SF	4,592 SF

FIRE-RESISTANCE RATING REQUIREMENTS FOR BLDG ELEMENTS PER FBC CHAPTER 6

BUILDING ELEMENT	HOURS
STRUCTURAL FRAME	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS	
INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

2

OCCUPANT LOAD PER FBC CHAPTER 10

SEE FLOOR AREA TABLE, SHT A110 FOR DETAIL

98 TOTAL OCCUPANTS

EGRESS REQUIREMENTS PER FBC CHAPTER 10

EGRESS COMPONENT	REQ/MAX	PROVIDED
STAIR WIDTH	N/A	N/A
OTHER EGRESS COMPONENT WIDTH	0.2"X46=92"	256"
MIN EXITS PER OCCUPANT LOAD	2	8
EXIT ACCESS TRAVEL DISTANCE	200'	36'

2

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES PER FBC PLUMBING CHAP 4

CLASSIFICATION: BUSINESS GROUP B (COMBINED OCCUPANCY OF FIRING RANGE + CLASSROOM BLDG = 150 OCCUPANTS)

	REQD	PROVIDED
WATER CLOSETS	5	6
LAVATORIES	3	6
BATHTUBS/SHOWERS	N/A	N/A
DRINKING FOUNTAIN	1	2
SERVICE SINK	0	1

WIND LOAD DATA PER FBC CHAPTER 16

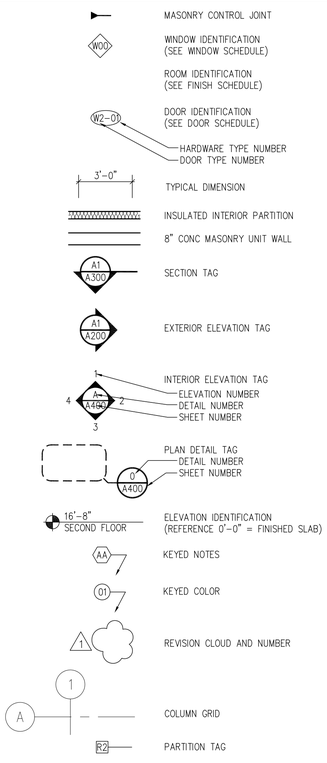
WIND LOAD 3-SECOND GUST = 123 MPH
WIND IMPORTANCE FACTOR = 1.0
WIND EXPOSURE = B / CATEGORY II

GENERAL NOTES

1. ALL WORK LISTED, SHOWN OR IMPLIED ON ANY OF THE CONTRACT DOCUMENTS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR EXCEPT WHERE NOTED. THE CONTRACTOR SHALL CLOSELY COORDINATE WORK WITH THAT OF OTHER SUBCONTRACTORS OR VENDORS TO ASSURE THAT ALL SCHEDULES ARE MET AND ALL WORK IS DONE IN CONFORMANCE WITH THE MANUFACTURERS REQUIREMENTS OF GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE PROJECT.
2. CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL DIMENSIONS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS AND COORDINATION OF ALL WORK TO ENSURE COMPLETE COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. REPORT ANY DISCREPANCIES OR POTENTIAL PROBLEMS TO THE ARCHITECT IN WRITING PRIOR TO PROCEEDING WITH WORK. FAILURE TO DO SO SHALL CONSTITUTE ACCEPTANCE OF EXISTING CONDITIONS. IN THE EVENT THAT THERE ARE DISCREPANCIES OR AMBIGUITIES IN, OR OMISSIONS FROM, THE DRAWINGS OR SPECIFICATIONS, OR SHOULD THERE BE DOUBT AS TO THEIR MEANING AND INTENT, THE ARCHITECT SHALL BE NOTIFIED TO PROVIDE A WRITTEN CLARIFICATION.
3. ALL WORK UNDER THE CONTRACT IS TO BE PERFORMED TO PROVIDE A COMPLETE AND FINISHED PRODUCT, AND SHALL BE WARRANTIED FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST ANY DEFECTS OR DEFICIENCIES.
4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE EXECUTION OF WORK. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY BARRIERS, LIGHTING, COVERINGS, FIRE PROTECTION AND OTHER EQUIPMENT TO PROTECT THE SAFETY OF ALL PERSONS AND THE PROPERTY THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL WORK FROM DAMAGE AND SHALL PROTECT THE ADJACENT PROPERTIES FROM INJURY OR LOSS ARISING IN CONNECTION WITH WORK. EXTREME CARE SHALL BE EXERCISED TO PREVENT DAMAGE TO NEW AND EXISTING EQUIPMENT, STRUCTURES AND SERVICES.
6. THE CONTRACTOR SHALL MAINTAIN THE SITE IN GOOD, CLEAN CONDITION AND SHALL BE RESPONSIBLE FOR CONTINUOUS CLEAN UP OF ALL DEBRIS.
7. PENETRATIONS TO FIRE RATED ASSEMBLIES SHALL BE PROTECTED BY A U.L. APPROVED FIRE-STOP SYSTEM.
8. THE DESIGN, ADEQUACY AND SAFETY OF ERECTING ANY BRACING, SHORING OR TEMPORARY SUPPORTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF FINISH MATERIALS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, PROCEDURES AND SEQUENCES OF THE PROJECT.
9. THE CONTRACTOR SHALL RETAIN A CURRENT AND COMPLETE SET OF THE CONTRACT DOCUMENTS AT THE JOBSITE DURING ALL PHASES OF THE WORK. ALL REVISIONS SHALL BE RECORDED BY THE CONTRACTOR TO ESTABLISH A RECORD SET OF DOCUMENTS FOR THE PROJECT.
10. PROVIDE SOIL TREATMENT FOR TERMITE PROTECTION PER THE 2007 FLORIDA BUILDING CODE SECTION 1816.
11. THE NEW PROJECT ADDRESS ASSIGNED BY THE COUNTY DURING PERMITING IS 11700 34TH STREET NORTH.

1

GRAPHIC SYMBOLS



INDEX OF DRAWINGS

ARCHITECTURAL
A000 INDEX SHEET
A001 SITE PLAN
A100 FIRING RANGE BUILDING FLOOR PLAN
A101 FIRING RANGE BUILDING REFLECTED CEILING PLAN
A110 CLASSROOM BUILDING FLOOR PLAN + CEILING PLAN
A111 CLASSROOM BUILDING ROOF PLAN + TRUSS PLAN
A200 FIRING RANGE BUILDING ELEVATIONS
A210 CLASSROOM BUILDING ELEVATIONS
A300 FIRING RANGE BUILDING SECTIONS
A310 CLASSROOM BUILDING SECTIONS
A311 CLASSROOM BUILDING SECTIONS
A400 ENLARGED VIEWS
A500 DETAILS
A501 DETAILS
A502 DETAILS
A600 SCHEDULES

CIVIL
C1.1 CIVIL SITE DATA
C1.2 CIVIL SITE SPECIFICATIONS
C2.1 DEMOLITION SITE PLAN
C3.1 CIVIL SITE PLAN
C4.1 GRADING & DRAINAGE SITE PLAN
C5.1 UTILITIES SITE PLAN
C6.1 CIVIL SITE DETAILS
C6.2 CIVIL SITE DETAILS
C6.3 CIVIL SITE DETAILS
C6.4 CIVIL SITE DETAILS
C6.5 CIVIL SITE DETAILS
C6.6 CIVIL SITE DETAILS
L1.1 LANDSCAPE SITE PLAN
L1.2 LANDSCAPE NOTES & DETAILS

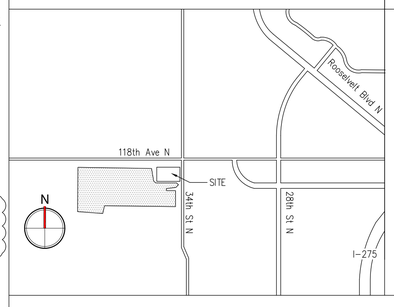
STRUCTURAL
S000 STRUCTURAL SPECIFICATIONS
S001 CLASSROOM BUILDING WIND AND LOAD SCHEDULE
S002 FIRING RANGE BUILDING WIND AND LOAD SCHEDULE
S100 FIRING RANGE BUILDING FOUNDATION PLAN
S101 FIRING RANGE BUILDING ROOF FRAMING PLAN
S110 CLASSROOM BUILDING FOUNDATION PLAN
S111 CLASSROOM BUILDING ROOF FRAMING PLAN
S300 FIRING RANGE BUILDING SECTION
S301 MISC. BUILDING SECTIONS & CLASSROOM WALL DETAILS
S310 CLASSROOM BUILDING SECTION 1
S400 TYPICAL DETAILS
S401 TYPICAL DETAILS
S402 TYPICAL DETAILS

MECHANICAL
M100 FIRING RANGE BUILDING MECHANICAL – FLOOR PLAN
M110 CLASSROOM BUILDING MECHANICAL – FLOOR PLAN
M500 DETAILS – MECHANICAL
M501 DETAILS – MECHANICAL
M600 SCHEDULES – MECHANICAL

PLUMBING
P100 RANGE PLUMBING – FLOOR PLAN
P110 CLASSROOM BUILDING PLUMBING – FLOOR PLAN
P500 NOTES – PLUMBING
P501 DETAILS – PLUMBING
P900 ISOMETRICS – PLUMBING
P910 ISOMETRICS – PLUMBING

ELECTRICAL
E000 ELECTRICAL LEGEND & SCHEDULES
E001 ELECTRICAL SITE PLAN
E100 FIRING RANGE LIGHTING PLAN
E101 FIRING RANGE POWER PLAN
E110 CLASSROOM BUILDING LIGHTING PLAN
E111 CLASSROOM BUILDING POWER PLAN
E201 POWER ONE-LINE DIAGRAM
E202 LIGHTING CONTROL ONE-LINE DIAGRAM AND SCHEDULES
E203 PANEL SCHEDULES

LOCATION MAP



PRODUCT APPROVAL INFORMATION

DOORS	NUMBER	NOTES
INGERSOLL STEEL FLUSH SINGLE:	07-0829.04	
INGERSOLL STEEL FLUSH SINGLE W/ GLAZING:	07-0829.06	
INGERSOLL STEEL FLUSH DOUBLE:	07-0829.04	
CORNELL ROLL-UP INSULATED:	08-1219.05	
CORNELL ROLL-UP UN-INSULATED:	08-0529.04	
WINDOW		
KAWNEER FIXED:	05-0725.06	
ROOFING		
MEMBRANE:	09-0402.15	
MTL PANEL:	FL 11159.2	
WALL PANELS		
KALWALL:	FL-4230-R3	ATTACHMENT METHOD TO BE SUBMITTED AS DELEGATED ENGINEERING AND WILL FOLLOW AS A SEPARATE SUPPLEMENT
KINGSPAN MTL WALL PANEL:	FL 4647	
SOFFIT		
JAMES HARDIE SOFFIT PANEL:	07-0418.04	

4

3 1

ABBREVIATIONS

A/C	AIR CONDITIONING	DIA	DIAMETER	FT	FOOT/FEET	MECH	MECHANICAL	SECT	SECTION	WB	WHITEBOARD
ACT	ACOUSTICAL CEILING TILE	DIM	DIMENSION	FURG	FURRING	MTL	METAL	SHT	SHEET	WD	WOOD
AFF	ABOVE FINISH FLOOR	DN	DOWN	GA	GAUGE	MFR	MANUFACTURER	SIM	SIMILAR	WT	WEIGHT
ALT	ALTERNATE	DWG	DRAWING	GALV	GALVANIZED	MIN	MINIMUM	SLNT	SEALANT		
ALUM	ALUMINUM			GC	GEN CONTRACTOR	MISC	MISCELLANEOUS	SPAN	SPANDREL		
APPROX	APPROXIMATE	EJ	EXPANSION JOINT	GLA	GLASS/GLAZING	MTD	MOUNTED	SPEC	SPECIFICATION		
		EL	ELEVATION	GYP BD	GYPSUM BOARD			SQ	SQUARE		
BLDG	BUILDING	ELEC	ELECTRIC(AL)			NIC	NOT IN CONTRACT	SST	STAINLESS STEEL		
BLKG	BLOCKING	EP	ELECTRICAL PANEL	HCP	HANDICAP(PED)	NTS	NOT TO SCALE	STRUCT	STRUCTURAL		
BOT	BOTTOM	EQ	EQUAL	HDR	HEADER			SUSP	SUSPENDED		
		EQUIP	EQUIPMENT	HDW	HARDWARE	OC	ON CENTER				
CAB	CABINET	EXIST	EXISTING	HM	HOLLOW METAL	OD	OUTSIDE DIAMETER	TEMP	TEMPERED		
CG	CORNER GUARD	EXP	EXPANSION	HORIZ	HORIZONTAL	OPP	OPPOSITE	THK	THICK(NESS)		
CLG	CEILING	EXT	EXTERIOR	HT	HEIGHT	OPNG	OPENING	TYP	TYPICAL		
CLR	CLEAR			HVAC	HEATING VENTILATION						
COL	COLUMN	FE	FIRE EXTINGUISHER		AIR CONDITIONING	PLAM	PLASTIC LAMINATE	UNO	UNLESS NOTED		
CONC	CONCRETE	FEC	FIRE EXTINGUISHER CABINET			PNL	PANEL		OTHERWISE		
CONSTR	CONSTRUCTION	FIN	FINISH	INSUL	INSULATION	PR	PAIR				
CONT	CONTINUOUS	FLR	FLOOR					VERT	VERTICAL		
CORR	CORRIDOR	FD	FLOOR DRAIN	JAN	JANITOR	R	RADIUS	VEST	VESTIBULE		
CTR	CENTER	FLUOR	FLUORESCENT			REF	REFERENCE	VIF	VERIFY IN FIELD		
		FOS	FACE OF STUD	LAM	LAMINATE(D)	REINF	REINFORCE	VNR	VENEER		
DEMO	DEMOLITION	FOC	FACE OF CONCRETE	LAV	LAVATORY	REQD	REQUIRED				
DF	DRINKING FOUNTAIN	FOF	FACE OF FINISH			REV	REVISION	W/	WITH		
				MAX	MAXIMUM			W/O	WITHOUT		
						SC	SOLID CORE				

Pinellas County Sheriff's Office Outdoor Firing Range Facility

11700 34th Street North
Pinellas Park, FL 33762 1



Owner
Pinellas County Sheriff's Office
10750 Ulmerton Road
Largo, FL 33778
(727) 582-6200

Architect
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St. Petersburg, Florida 33710
(727) 381-5220

Civil Engineer
Northside Engineering Services, Inc.
300 S. Belcher Road
Clearwater, FL 33765
(727) 443-2869

Structural Engineer
Fullone Structural Group
204 37th Avenue North, #219
St. Petersburg, FL 33704
(727) 498-7802

Mechanical/ Plumbing/ Engineer
Mechanical Engineering Solutions, Inc.
5421 Beaumont Center Blvd., Ste. 675
Tampa, FL 33634
(813) 885-9600

Electrical Engineer
Hall Engineering Group
14499 N. Dale Mabry Hwy, Suite 179
Tampa, FL 33618
(813) 374-2121

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Construction Documents

Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

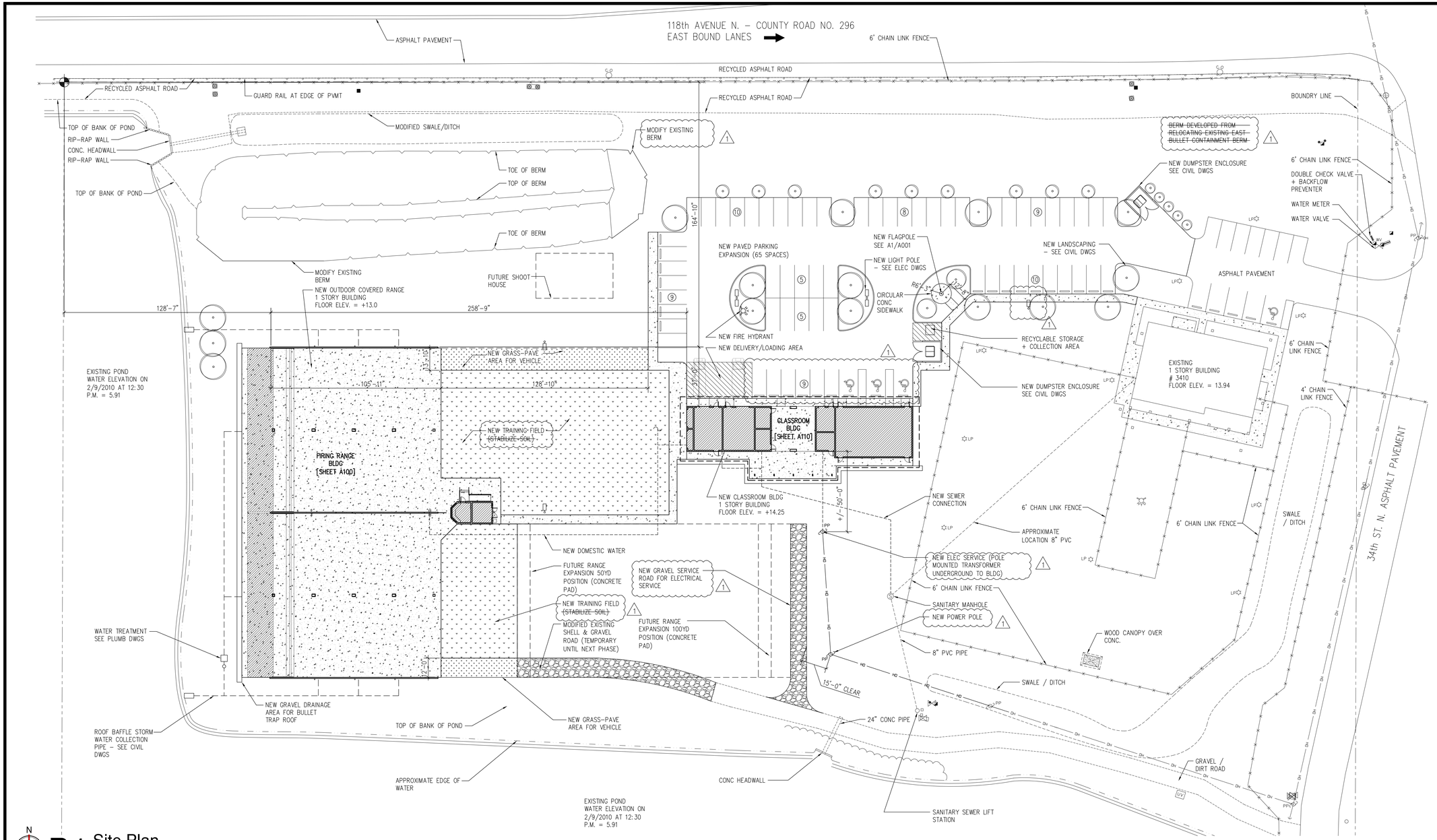
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3
3	06/03/10	ADDENDUM #4
4	08/04/10	VALUE ENGINEERING

Drawn By: JB
Checked By: RB

Index Sheet

A000

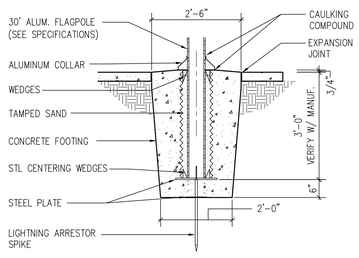
Project: 10002
Date: April 5th, 2010



N

B1 Site Plan

SCALE: 1" = 30'-0"



A1 Flagpole Detail

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

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St. Petersburg, FL 33710
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Construction Documents

Firm Registration	AA-26000510
Steven J. Vinci, AIA	AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

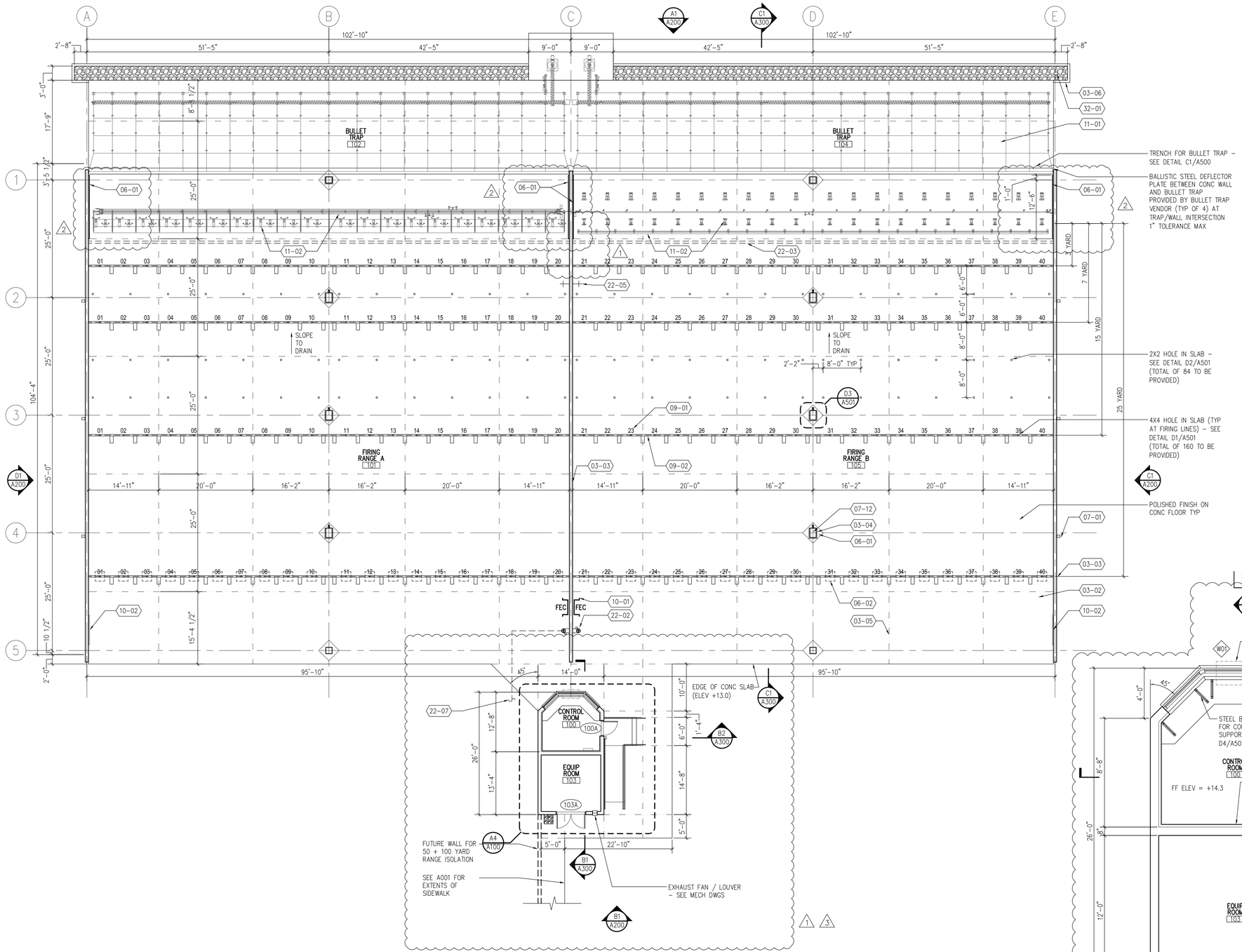
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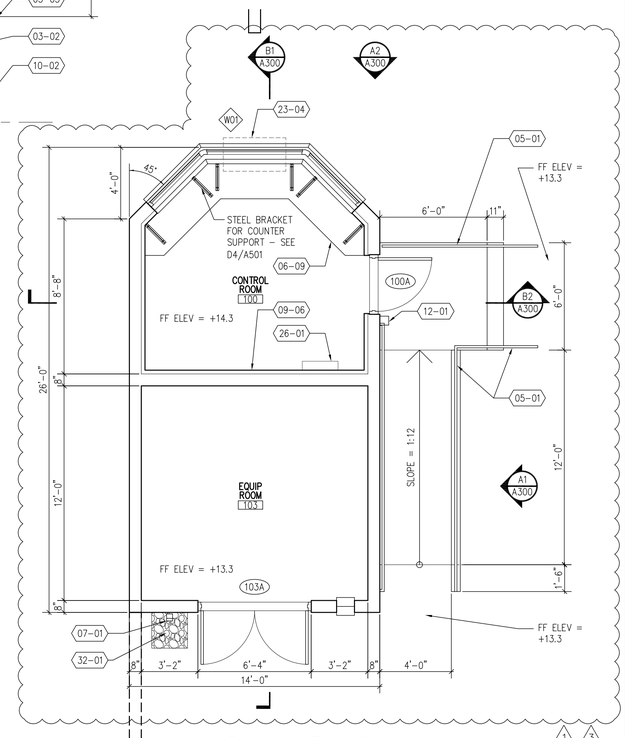
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Checked By: RB

Site Plan

A001

Project: 10002
Date: April 5th, 2010





RANGE BUILDING PLAN KEYED NOTES

03 CONCRETE
- 03-01 CONC SIDEWALK – SEE STRUCT + CIVIL DWGS
- 03-02 CONC SLAB – SEE STRUCT DWGS
- 03-03 CONC WALL – SEE STRUCT DWGS
- 03-04 CONC COLUMN – SEE STRUCT DWGS
- 03-05 CONC CONTROL JOINT – SEE STRUCT DWGS
- 03-06 6" CONC CURB

04 MASONRY
- 04-01 CONC MASONRY UNIT WALL – SEE STRUCT DWGS

05 METALS
- 05-01 GALV 1 1/2" (OD) PIPE + TUBE RAILINGS

06 WOOD, PLASTICS + COMPOSITES
- 06-01 SACRIFICIAL WD CLADDING
- 06-02 WD WEAPON TABLE (MOVABLE) (TOTAL OF 40 TO BE PROVIDED)
- 06-09 PLAM COUNTER

07 THERMAL + MOISTURE PROTECTION
- 07-01 ANODIZED ALUM DOWNSPOUTS – SEE PLUMB + CIVIL FOR UNDERGROUND CONNECTION DETAIL
- 07-02 ANODIZED ALUM CONT GUTTER
- 07-12 ROOF LEADER ENCASED IN COLUMN – SEE PLUMB + STRUCT DWGS

09 FINISHES
- 09-01 1'-0" PAINTED LANE NUMBERS
- 09-02 3 1/4" YELLOW PAINTED FIRING LINES
- 09-03 PORTLAND CEMENT PLASTER (STUCCO)
- 09-06 GYP BD

10 SPECIALTIES
- 10-01 FIRE EXTINGUISHER CABINET
- 10-02 MARKER BOARD – NIC

11 EQUIPMENT
- 11-01 BULLET TRAP – NIC
- 11-02 TARGET SYSTEM – NIC

12 FURNISHINGS
- 12-01 SHOE BRUSH

22 PLUMBING
- 22-02 EMERGENCY EYEWASH – SEE PLUMB DWGS
- 22-03 TRENCH DRAIN – SEE PLUMB DWGS
- 22-05 HOSE BIB IN RECESSED BOX – SEE PLUMB DWGS
- 22-07 DOMESTIC WATER CONNECTION – SEE CIVIL DWGS

23 HVAC
- 23-04 HVAC PACKAGE UNIT – SEE MECH DWGS

26 ELECTRICAL
- 26-01 ELEC PANEL – SEE ELEC DWGS

32 EXTERIOR IMPROVEMENTS
- 32-01 DRAINAGE AREA FILLED W/ #57 STONE

A1 Floor Plan
SCALE: 3/32" = 1'-0"

A4 Control Building
SCALE: 1/4" = 1'-0"

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Construction Documents

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Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

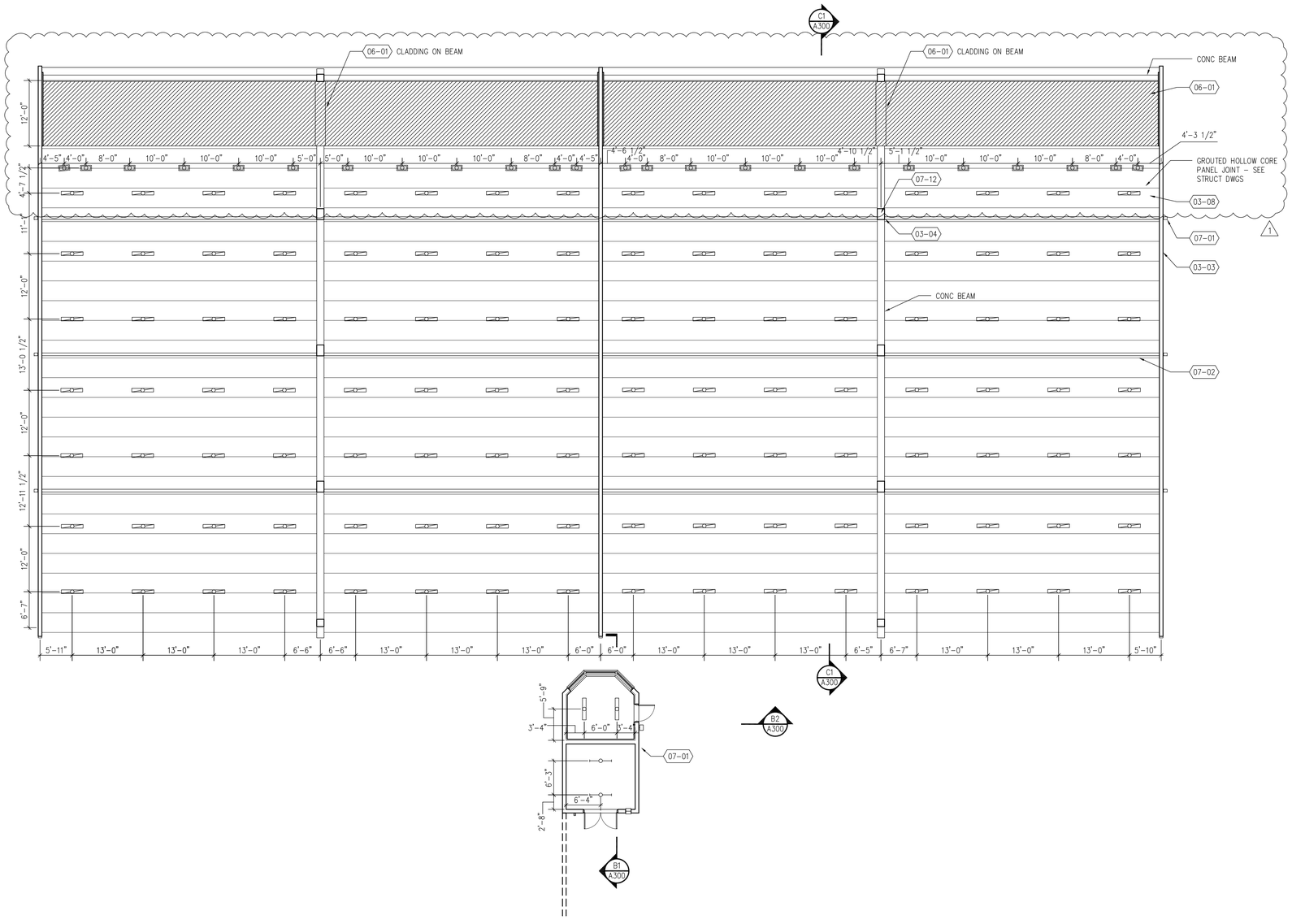
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1	05/10/10	ADDENDUM #1
2	06/03/10	ADDENDUM #4
3	08/04/10	VALUE ENGINEERING

Drawn By: JB
Checked By: RB

Firing Range Building Floor Plan

A100

Project: 10002
Date: April 5th, 2010



C1 Reflected Ceiling Plan

SCALE: 3/32" = 1'-0"

RANGE BUILDING REFLECTED CEILING PLAN KEYED NOTES

03	CONCRETE
03-03	CONC WALL - SEE STRUCT DWGS
03-04	CONC COLUMN - SEE STRUCT DWGS
03-08	PRESTRESSED HOLLOW CORE PRECAST CONC PANEL
04	MASONRY
04-01	CONC MASONRY UNIT WALL - SEE STRUCT DWGS
06	WOOD, PLASTICS + COMPOSITES
06-01	SACRIFICIAL WD CLADDING
07	THERMAL + MOISTURE PROTECTION
07-01	ANODIZED ALUM DOWNSPOUTS - SEE PLUMB + CIVIL FOR UNDERGROUND CONNECTION DETAIL
07-02	ANODIZED ALUM GUTTER
07-12	ROOF LEADER ENCASED IN COLUMN - SEE PLUMB + STRUCT DWGS

CEILING PLAN LEGEND

- SURFACE MOUNTED DIMMABLE INCANDESCENT LIGHTING FIXTURE
- SURFACE MOUNTED METAL HALIDE LIGHTING FIXTURE
- PENDANT STRIP FLUORESCENT LIGHTING FIXTURE
- SURFACE MOUNTED ENCLOSED FLUORESCENT LIGHTING FIXTURE
- WALL PACK LIGHTING FIXTURE

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Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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Pinellas Park, FL 33762

REVISIONS

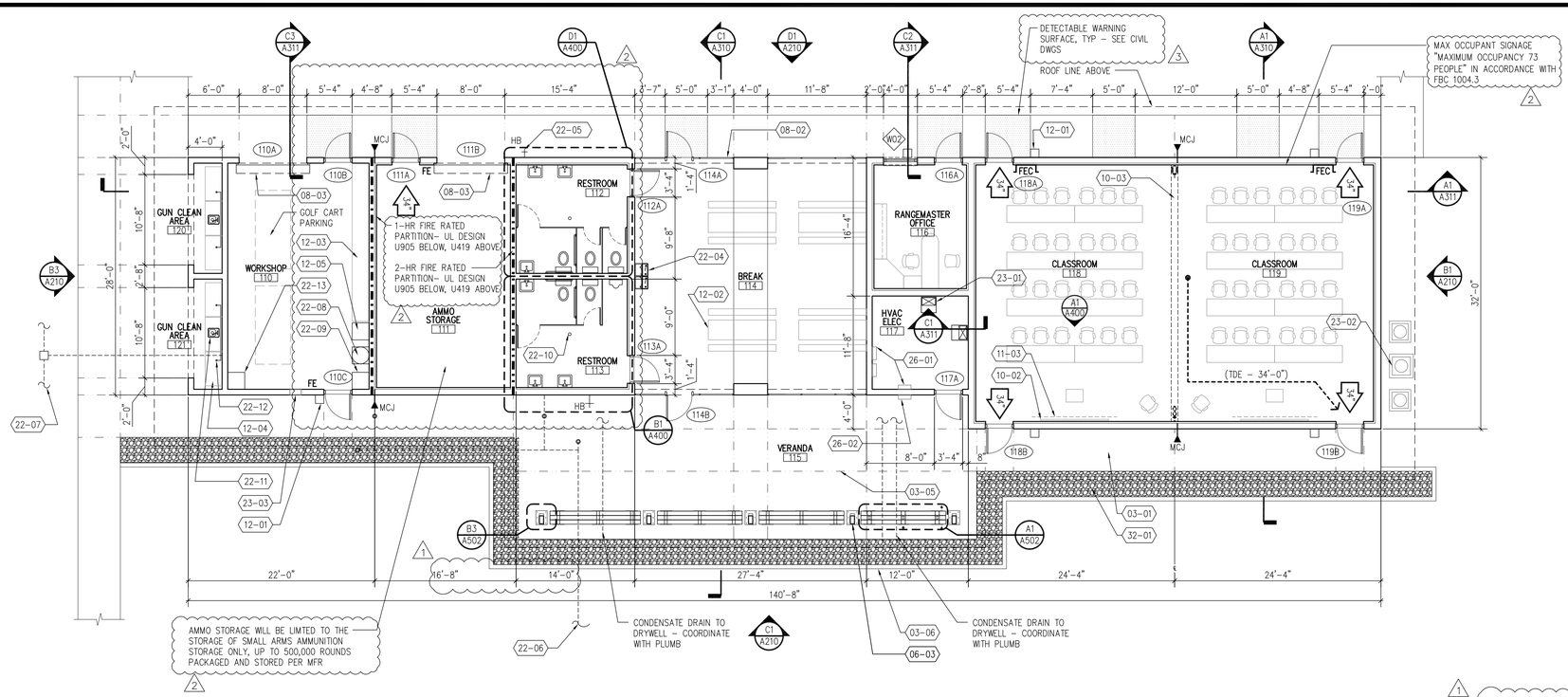
No.	Date	Revision
1	06/03/10	ADDENDUM #4

Drawn By: JB
Checked By: RB

Firing Range Building Reflected Ceiling Plan

A101

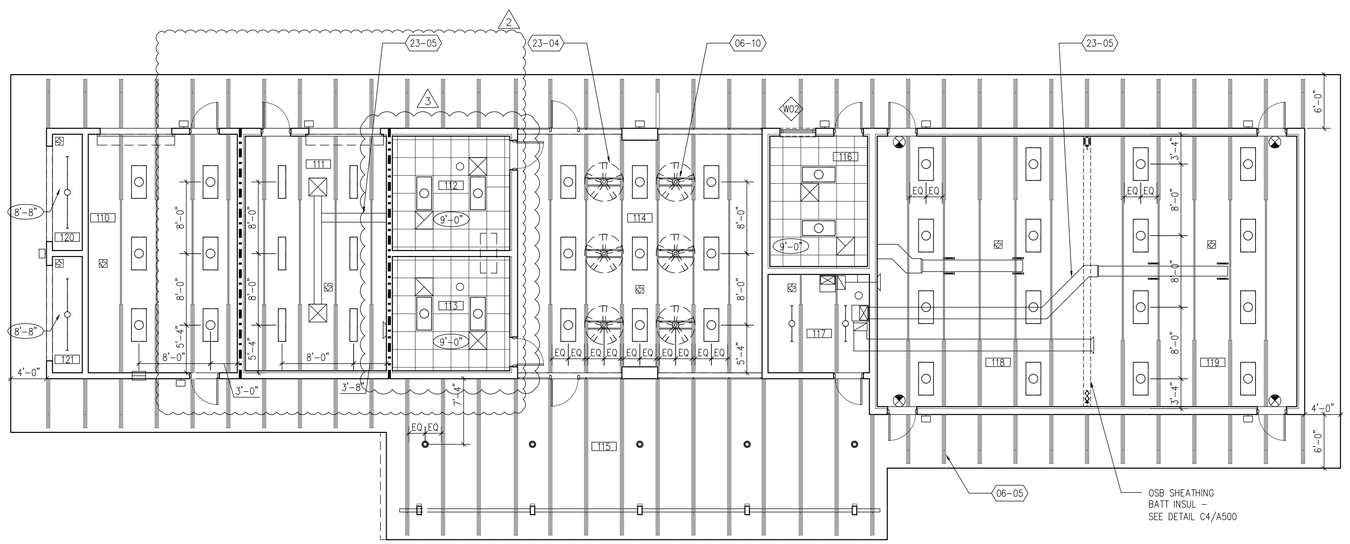
Project: 10002
Date: April 5th, 2010



N

C1 Floor Plan

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



N

A1 Reflected Ceiling Plan

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

CLASSROOM BUILDING FLOOR PLAN KEYED NOTES

03 CONCRETE

03-01 CONC SIDEWALK – SEE STRUCT + CIVIL DWGS
03-02 CONC SLAB – SEE STRUCT DWGS
03-05 CONC CONTROL JOINT – SEE STRUCT DWGS
03-06 6" CONC CURB

06 WOOD, PLASTICS + COMPOSITES

06-03 WD COLUMN – SEE STRUCT DWGS
06-05 PRE-MANUFACTURED WOOD TRUSS
06-10 WD BLOCKING

08 OPENINGS

08-02 INSECT SCREENING
08-03 OVERHEAD COILING DOOR

10 SPECIALTIES

10-01 FIRE EXTINGUISHER CABINET
10-02 MARKER BOARD – NIC
10-03 ACCORDIAN FOLDING PARTITION

11 EQUIPMENT

11-03 PROJECTION SCREEN – NIC

12 FURNISHINGS (1)

12-01 SHOE BRUSH– ORIGINAL SCRUSHER BOOT BRUSH OR EQUAL
12-02 FORNITURE – NIC
12-03 SHELVING – NIC
12-04 STAINLESS STEEL WORKTABLE– 48" WIDE X 24" DEEP, MODEL– ECONOMY WORKBENCH 4" BACKSPLASH BY GLOBAL INDUSTRIAL OR EQUAL (6 TOTAL) (1)
12-05 CHEMICAL WASTE COLLECTION – NIC

22 PLUMBING

22-04 DRINKING FOUNTAIN – SEE PLUMB DWGS
22-05 HOSE BIB
22-06 SANITARY CONNECTION – SEE CIVIL DWGS
22-07 DOMESTIC WATER CONNECTION – SEE CIVIL DWGS
22-08 WATER HEATER – SEE PLUMB DWGS
22-09 SERVICE SINK – SEE PLUMB DWGS
22-10 FLOOR DRAIN – SEE PLUMB DWGS
22-11 STAINLESS STEEL HAND SINK W/ EYEWASH – SEE PLUMB DWGS
22-12 COMPRESSED AIR QUICK DISCONNECT – SEE PLUMB DWGS
22-13 AIR COMPRESSOR – SEE PLUMB DWGS

23 HVAC

23-01 AHU – SEE MECH DWGS
23-02 CONDENSING UNIT – SEE MECH DWGS
23-03 EXHAUST FAN – SEE MECH DWGS
23-04 CEILING FAN – HARBOR BREEZE 52" CALERA WHITE OUTDOOR CEILING FAN OR EQ
23-05 HVAC DUCTWORK – SEE MECH DWGS

26 ELECTRICAL

26-01 ELEC PANEL – SEE ELEC DWGS
26-02 ELEC METER – SEE ELEC DWGS

32 EXTERIOR IMPROVEMENTS

32-01 DRAINAGE AREA FILLED W/ #57 STONE

(1)

FLOOR AREA TABLE

ROOM NAME	ROOM NUMBER	FLOOR AREA (GROSS SF)	FL AREA IN SQ FT PER OCCUPANT	NUMBER OF OCCUPANTS
AMMO STORAGE	111	467	300 GROSS	2
WORKSHOP	110	495	300 GROSS	2
RESTROOM	112	201	100 GROSS	3
RESTROOM	113	201	100 GROSS	3
BREAK	114	766	100 GROSS	8
OFFICE	116	203	100 GROSS	3
HVAC/ELEC	117	152	300 GROSS	1
CLASSROOM	118	726 (NET)	20 NET	37
CLASSROOM	119	726 (NET)	20 NET	37
GUN CLEAN	120	61	100 GROSS	1
GUN CLEAN	121	61	100 GROSS	1
		TOTAL		98

LIFE SAFETY LEGEND

XX" EGRESS CAPACITY
EXIT SIGN
FEC FIRE EXTINGUISHER CABINET
FE BRAKET MOUNTED FIRE EXTINGUISHER
(TDE – XX'–X") TRAVEL DISTANCE TO EXIT

CEILING PLAN LEGEND

SURFACE MOUNTED DOWNLIGHT – SEE ELEC DWGS
FLUORESCENT LIGHTING FIXTURE – SEE ELEC DWGS
2X2 ACOUSTICAL CEILING TILE
ENCLOSED FLUORESCENT LIGHTING FIXTURE – SEE ELEC DWGS
STRIP FLUORESCENT LIGHTING FIXTURE – SEE ELEC DWGS
WALL PACK LIGHTING FIXTURE – SEE ELEC DWGS
CEILNG FAN
HVAC SUPPLY – SEE MECH DWGS
HVAC RETURN – SEE MECH DWGS
EXPOSED CEILING
STUCCO CEILING
9'–0" CEILING HEIGHT AFF

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Construction Documents

Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

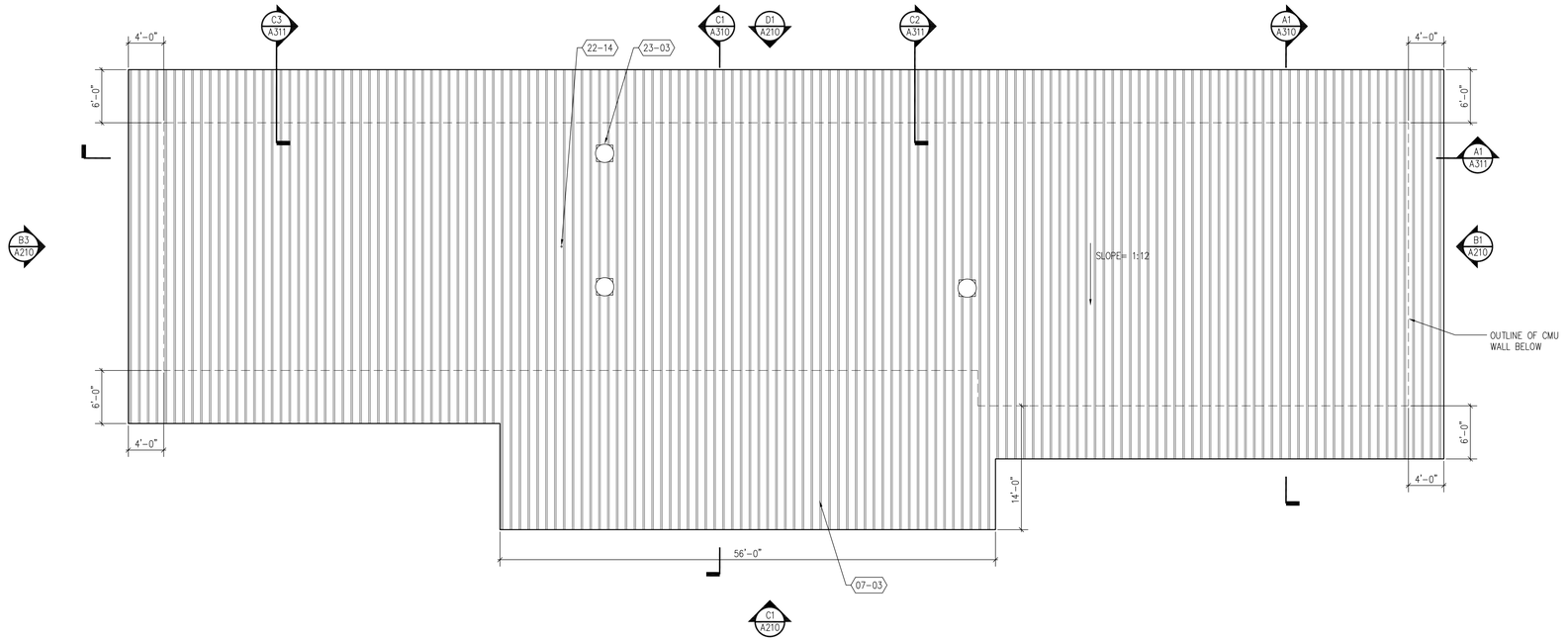
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3
3	08/04/10	VALUE ENGINEERING

Drawn By: KH
Checked By: RB

Classroom Building Floor Plan + Ceiling Plan

A110

Project: 10002
Date: April 5th, 2010



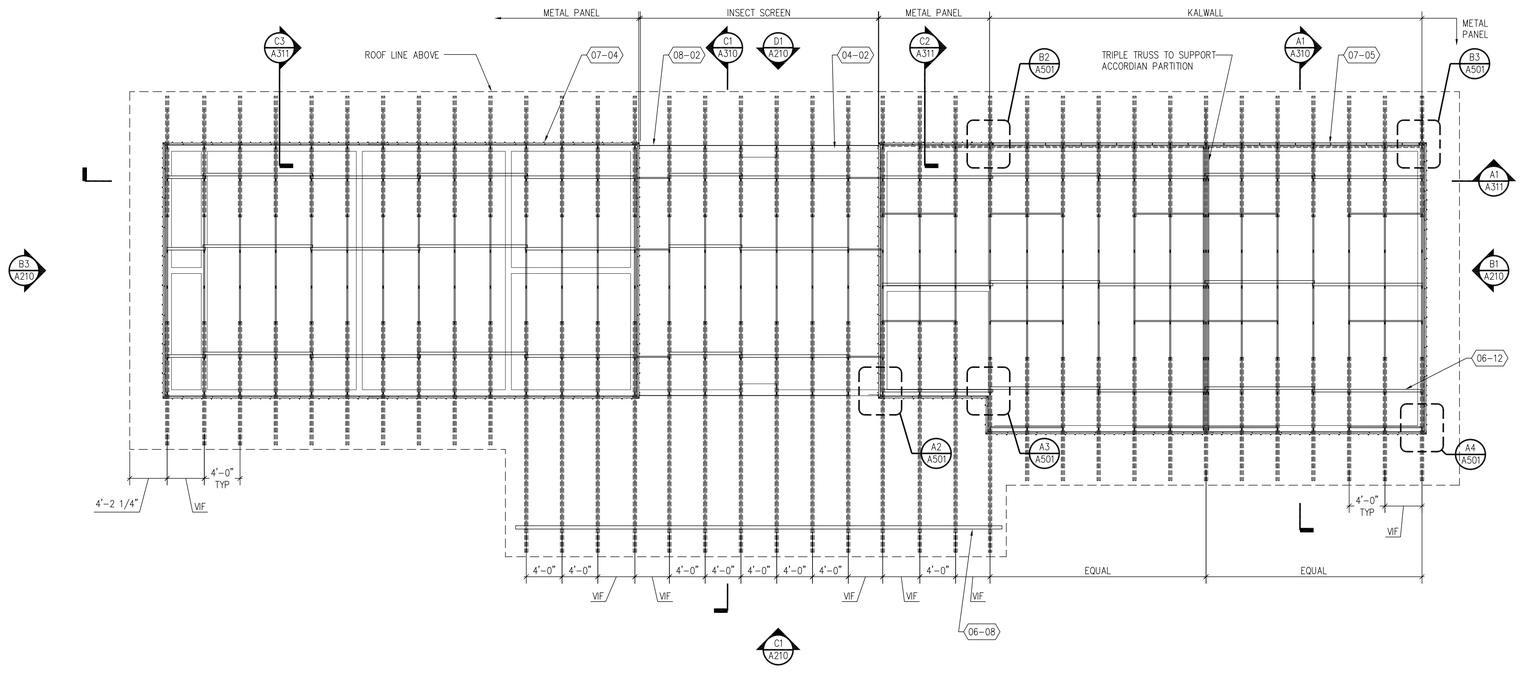
N

C1 Roof Plan

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

CLASSROOM BUILDING ROOF PLAN KEYED NOTES

07	THERMAL + MOISTURE PROTECTION
07-03	MTL ROOF PANELS
22	PLUMBING
22-14	VENT THROUGH ROOF – SEE PLUMB DWGS
23	HVAC
23-03	EXHAUST FAN – SEE MECH DWGS



N

A1 Truss Layout Plan

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

CLASSROOM BUILDING TRUSS PLAN KEYED NOTES

04	MASONRY
04-02	CONC BONDBEAM – SEE STRUCT DWGS
06	WOOD, PLASTICS + COMPOSITES
06-05	PRE-MANUFACTURED WOOD TRUSS
06-08	WOOD BEAM – SEE STRUCT DWGS
06-12	2X WD STRUCT SUPPORT – SEE STRUCT DWGS
07	THERMAL + MOISTURE PROTECTION
07-04	MTL WALL PANELS
07-05	KALWALL PANELS
08	OPENINGS
08-02	INSECT SCREENING

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REVISIONS

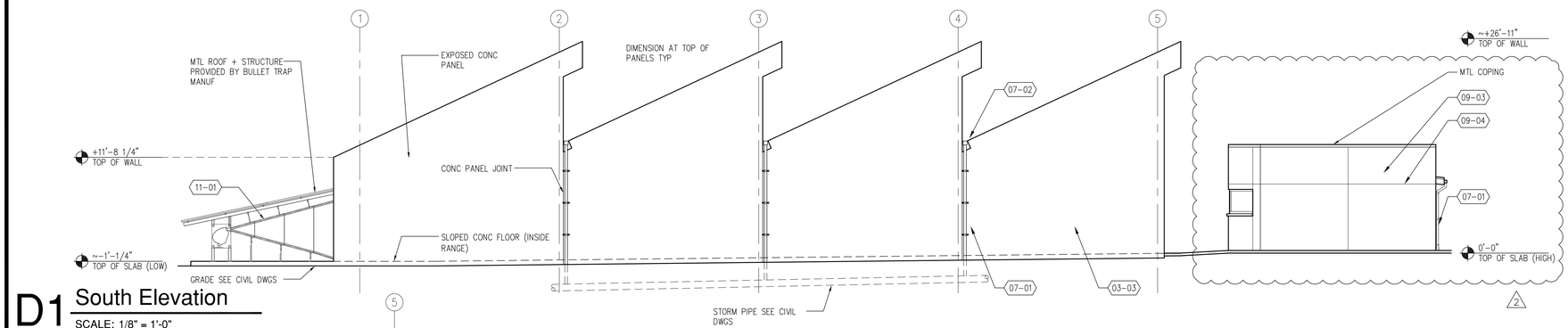
No.	Date	Revision

Drawn By: KH
Checked By: RB

Classroom Building Roof Plan + Truss Plan

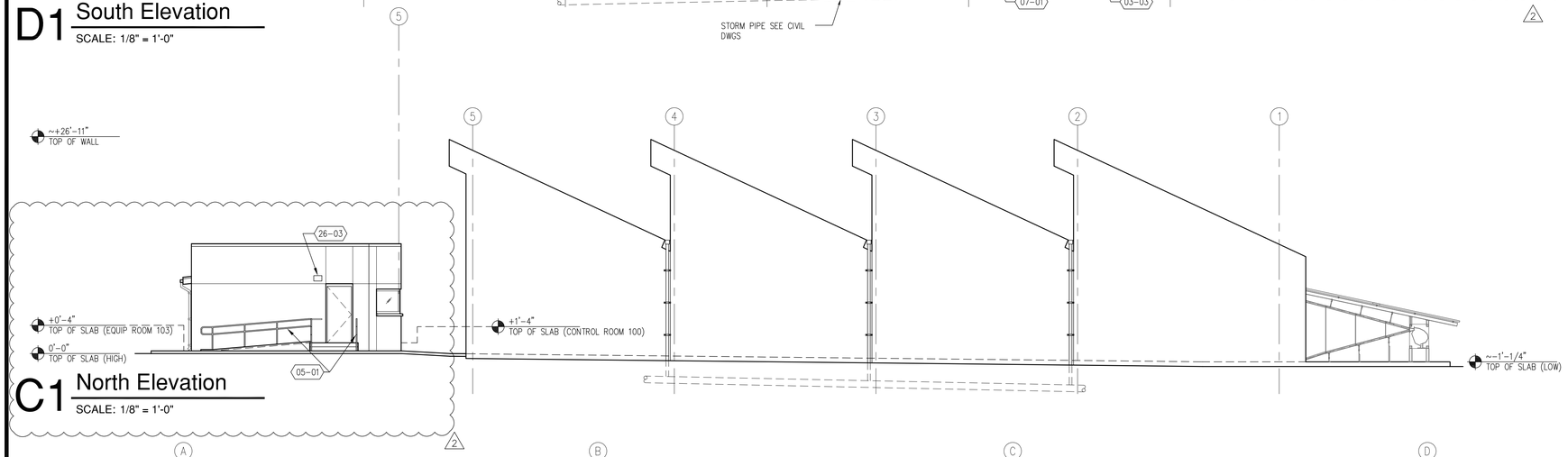
A111

Project: 10002
Date: April 5th, 2010



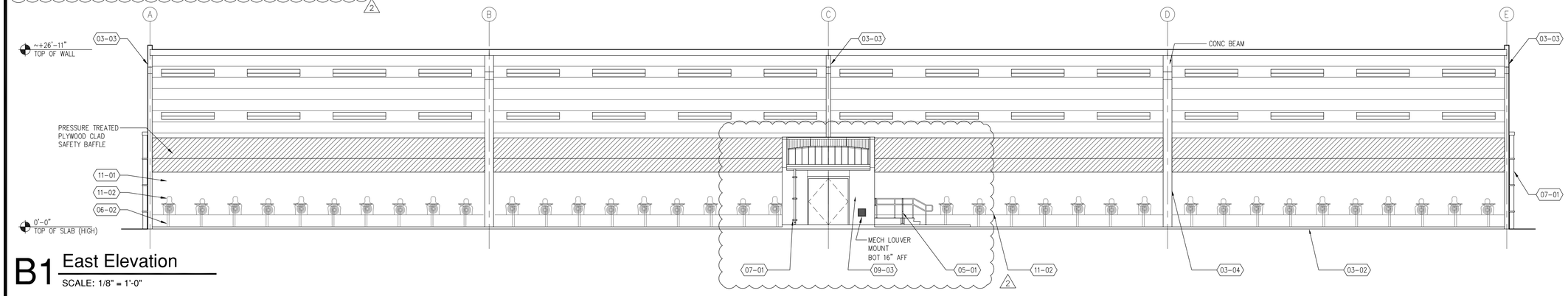
D1 South Elevation

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



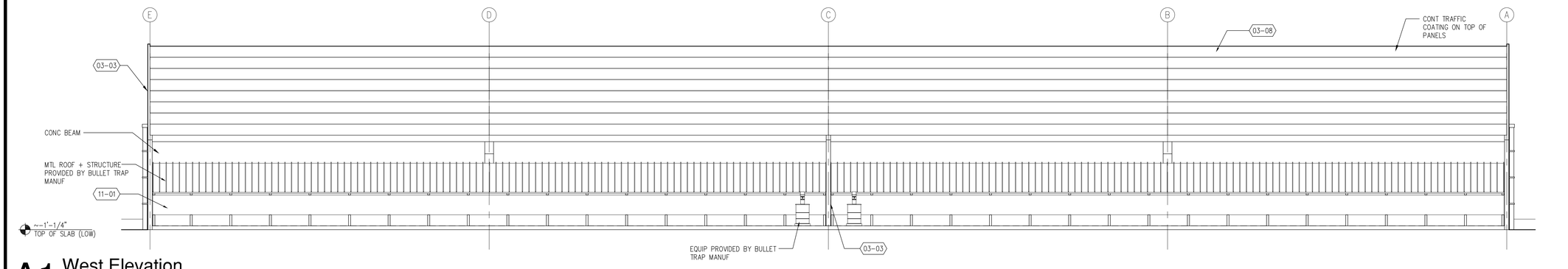
C1 North Elevation

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



B1 East Elevation

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



A1 West Elevation

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

RANGE BUILDING ELEVATIONS KEYED NOTES

03	CONCRETE
03-01	CONC SIDEWALK – SEE STRUCT + CIVIL DWGS
03-02	CONC SLAB – SEE STRUCT DWGS
03-03	CONC WALL – SEE STRUCT DWGS
03-04	CONC COLUMN – SEE STRUCT DWGS
03-06	6" CONC CURB
05	METALS
05-01	GALV 1 1/2" (OD) PIPE + TUBE RAILINGS
06	WOOD, PLASTICS + COMPOSITES
06-01	SACRIFICIAL WD CLADDING
06-02	WD WEAPON TABLE (MOVABLE) (TOTAL OF 40 TO BE PROVIDED)
07	THERMAL + MOISTURE PROTECTION
07-01	ANODIZED ALUM DOWNSPOUTS – SEE PLUMB + CIVIL FOR UNDERGROUND CONNECTION DETAIL
07-02	ANODIZED ALUM GUTTER
07-12	ROOF LEADER ENCASED IN COLUMN – SEE PLUMB + STRUCT DWGS
09	FINISHES
09-01	1'-0" PAINTED LANE NUMBERS
09-02	3 1/4" YELLOW PAINTED FIRING LINES
09-03	PORTLAND CEMENT PLASTER (STUCCO)
09-04	STUCCO CONTROL JOINT
11	EQUIPMENT
11-01	BULLET TRAP – NIC
11-02	TARGET SYSTEM – NIC
26	ELECTRICAL
26-03	WALL MOUNTED LIGHT FIXTURE – SEE ELEC DWGS

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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REVISIONS

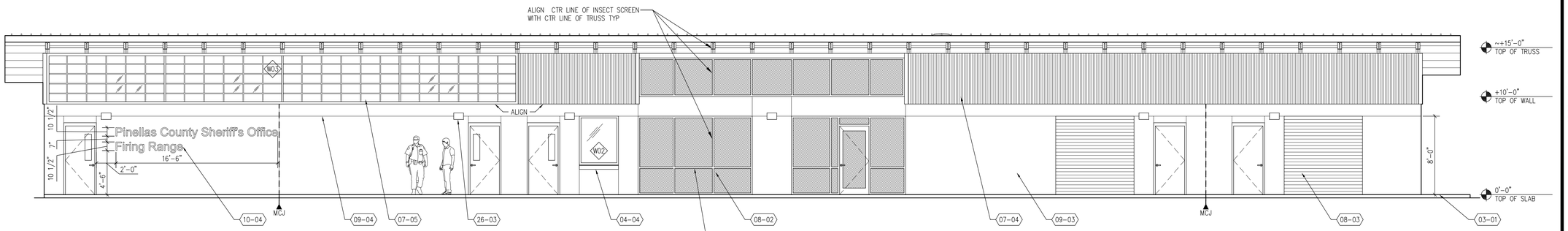
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	08/04/10	VALUE ENGINEERING

Drawn By: JB
Checked By: RB

Firing Range Building Elevations

A200

Project: 10002
Date: April 5th, 2010

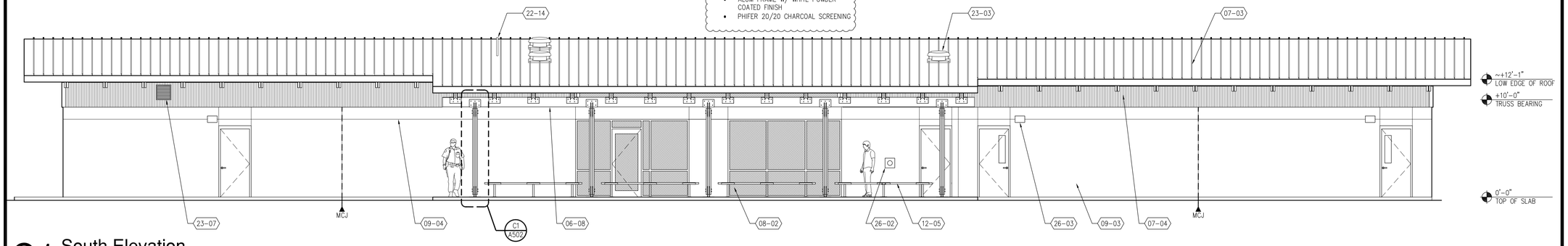


D1 North Elevation

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

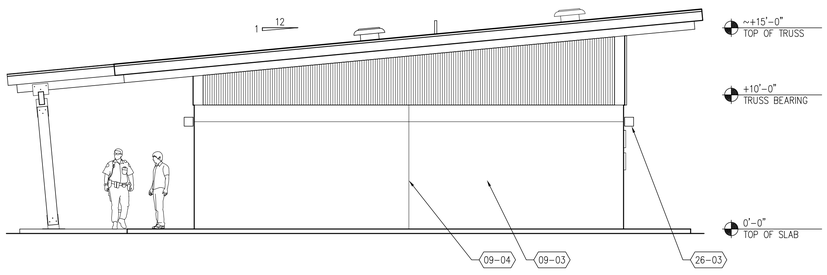
SCREEN ENCLOSURE TO BE SUBMITTED AS DELEGATED ENGINEERING AND WILL FOLLOW AS A SEPARATE SUPPLEMENT. 1

SCREEN ENCLOSURE:
- ALUM FRAME W/ WHITE POWDER COATED FINISH
- PHIFER 20/20 CHARCOAL SCREENING



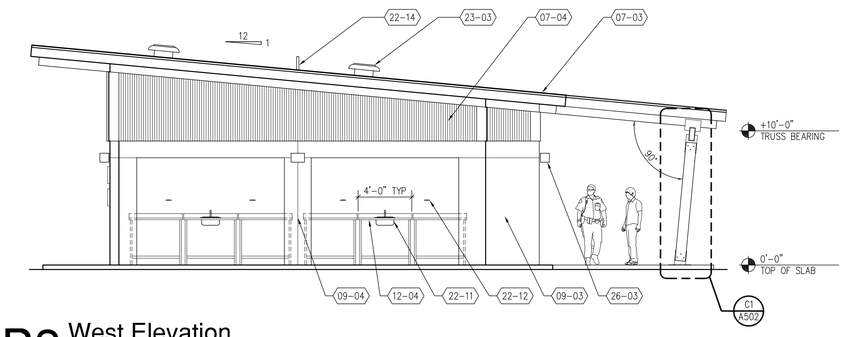
C1 South Elevation

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



B1 East Elevation

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



B3 West Elevation

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

CLASSROOM BUILDING ELEVATION KEYED NOTES

03 CONCRETE
03-01 CONC SIDEWALK – SEE STRUCT + CIVIL DWGS

04 MASONRY
04-04 PRE-CAST CONC SILL

07 THERMAL + MOISTURE PROTECTION
07-03 MTL ROOF PANELS
07-04 MTL WALL PANELS
07-05 KALWALL PANELS

08 OPENINGS
08-02 INSECT SCREENING
08-03 OVERHEAD COILING DOOR

09 FINISHES
09-03 PORTLAND CEMENT PLASTER (STUCCO)
09-04 STUCCO CONTROL JOINT

10 SPECIALTIES
10-04 SIGNAGE – 10 1/2" DIMENSIONAL CHARACTERS – SEE SPECIFICATIONS

12 FURNISHINGS
12-04 STAINLESS STEEL WORKTABLE– 48" WIDE X 24" DEEP, MODEL– ECONOMY WORKBENCH 4" BACKSPLASH BY GLOBAL INDUSTRIAL OR EQUAL, (6 TOTAL) 1
12-05 WOOD + METAL BENCH

22 PLUMBING
22-11 STAINLESS STEEL HAND SINK W/ EYEWASH – SEE PLUMB DWGS
22-12 COMPRESSED AIR QUICK DISCONNECT – SEE PLUMB DWGS
22-14 VENT THROUGH ROOF – SEE PLUMB DWGS

23 HVAC
23-07 MECHANICAL LOUVER – SEE MECH DWGS

26 ELECTRICAL
26-02 ELEC METER – SEE ELEC DWGS
26-03 WALL MOUNTED LIGHT FIXTURE – SEE ELEC DWGS

– ALTERNATE # 02 PROVIDE ALTERNATE COST FOR GROUND FACE ARCHITECTURAL BLOCK IN LIEU OF STANDARD CMU AND PAINTED STUCCO FINISH

– ALTERNATE # 03 PROVIDE ALTERNATE COST FOR IMPACT RESISTANT STOREFRONT GLAZING SYSTEM IN LIEU OF KALWALL WALL SYSTEM

– ALTERNATE # 04 PROVIDE ALTERNATE COST FOR MTL WALL PANELS IN LIEU OF KALWALL AT CLASSROOMS 118 + 119, DEDUCT KALWALL

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Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

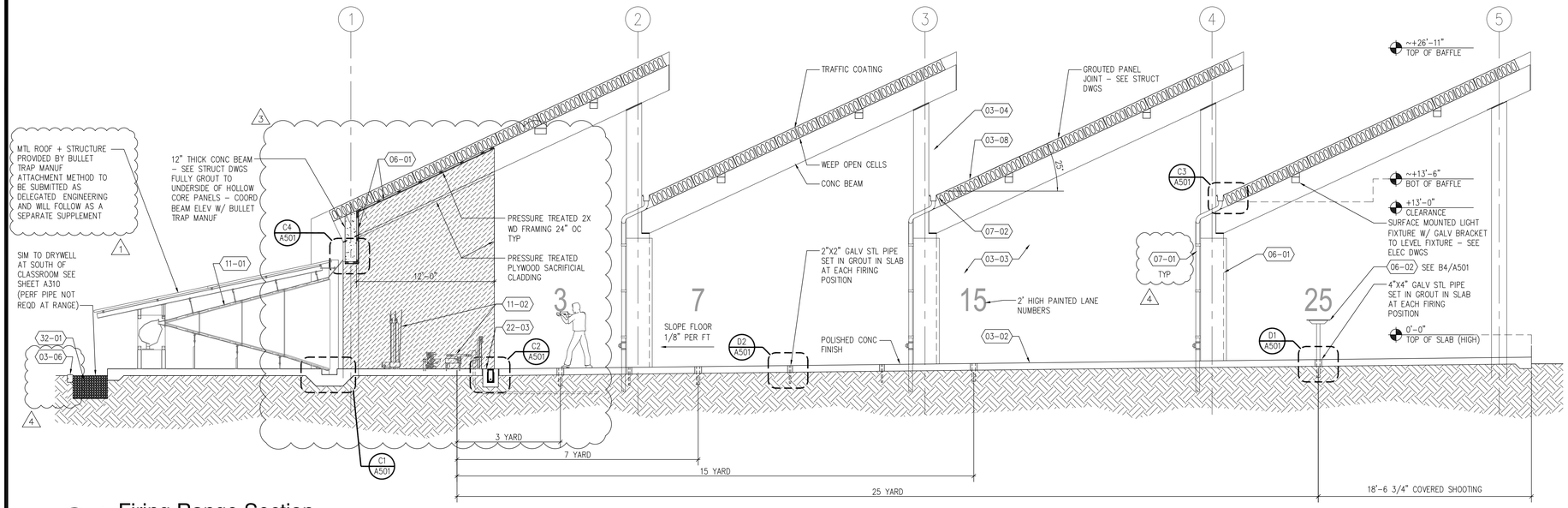
No.	Date	Revision
1	05/10/10	ADDENDUM #2

Drawn By: KH
Checked By: RB

Classroom Building Elevations

A210

Project: 10002
Date: April 5th, 2010

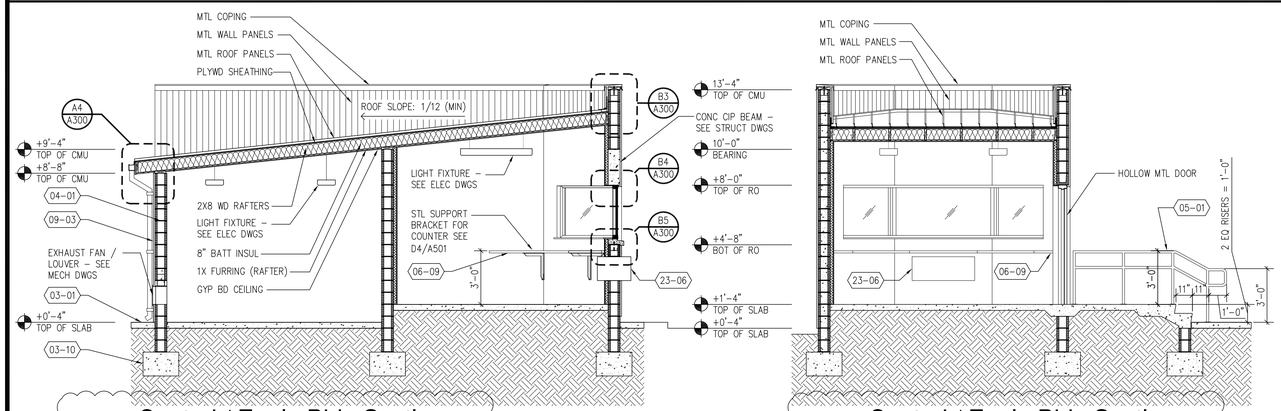


C1 Firing Range Section

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

FIRING RANGE BUILDING SECTION KEYED NOTES

	03	CONCRETE
	03-01	CONC SIDEWALK – SEE STRUCT + CIVIL DWGS
	03-02	CONC SLAB – SEE STRUCT DWGS
	03-03	CONC WALL – SEE STRUCT DWGS
	03-04	CONC COLUMN – SEE STRUCT DWGS
	03-05	CONC CONTROL JOINT – SEE STRUCT DWGS
4	03-06	6" WIDE 8" DEEP CONC BORDER CURB
	03-08	PRESTRESSSED CONC ROOF PANEL – SEE STRUCT DWGS
	03-10	CONC FOUNDATION – SEE STRUCT DWGS
	04	MASONRY
	04-01	CONC MASONRY UNIT WALL – SEE STRUCT DWGS
	04-02	CONC BOND BEAM – SEE STRUCT DWGS
	04-03	PRE-CAST CONC HEADER
	04-04	PRE-CAST CONC SILL
	05	METALS
	05-01	PIPE + TUBE RAILINGS
	05-03	2" Z-FURRING CHANNEL
	06	WOOD, PLASTICS + COMPOSITES
	06-01	SACRIFICIAL WD CLADDING
	06-02	WD WEAPON TABLE
	06-07	CONTINUOUS BLOCKING
	06-08	2"X8" PT TOP PLATE
	06-09	PLAM COUNTER
	06-10	WD BLOCKING
	07	THERMAL + MOISTURE PROTECTION
	07-01	MTL DOWNSPOUTS – SEE PLUMB + CIVIL FOR CONNECTION DETAIL
	07-02	MTL GUTTER
	07-06	POLYISOCYANURATE RIGID BD THERMAL INSUL
	07-07	MTL FLASHING
	07-08	MTL DRIP EDGE
	07-09	BITUMINOUS DAMPPROOFING
	07-10	VAPOR RETARDER
	07-15	CONT CAULK
	07-17	WATER PROOFING MEMBRANE
	08	OPENINGS
	08-01	IMPACT GLAZING
	09	FINISHES
	09-01	1'-0" PAINTED LANE NUMBERS
	09-02	3 1/4" YELLOW PAINTED FIRING LINES
	09-03	PORTLAND CEMENT PLASTER (STUCCO)
	09-04	STUCCO CONTROL JOINT
	09-05	NON-STRUCT MTL FRAMING
	09-06	5/8" GYP BD
	11	EQUIPMENT
	11-01	BULLET TRAP – NIC
	11-02	TARGET SYSTEM – NIC
	22	PLUMBING
	22-03	TRENCH DRAIN
	23	HVAC
	23-06	HVAC PACKAGE UNIT – SEE MECH DWGS
	26	ELECTRICAL
	26-01	ELEC PANEL – SEE ELEC DWGS
	32	EXTERIOR IMPROVEMENTS
	32-01	DRAINAGE AREA FILLED W/ #57 STONE
	32-02	GEOTEXTILE FABRIC

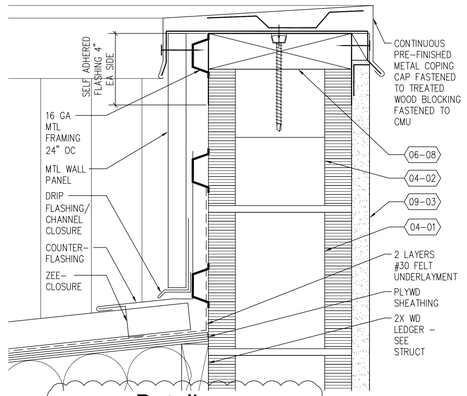


B1 Control / Equip Bldg Section

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

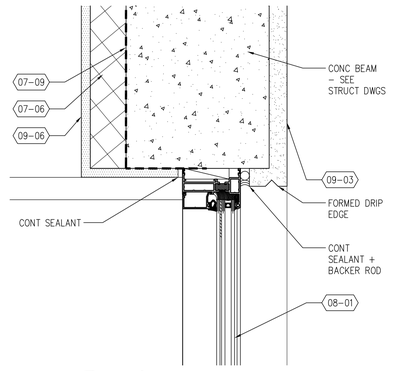
B2 Control / Equip Bldg Section

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



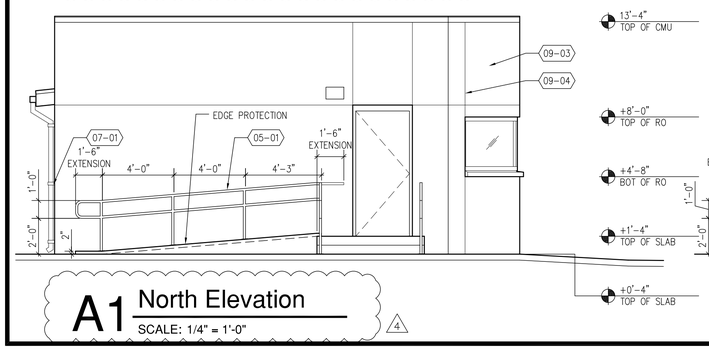
B3 Detail

SCALE: 3" = 1'-0"



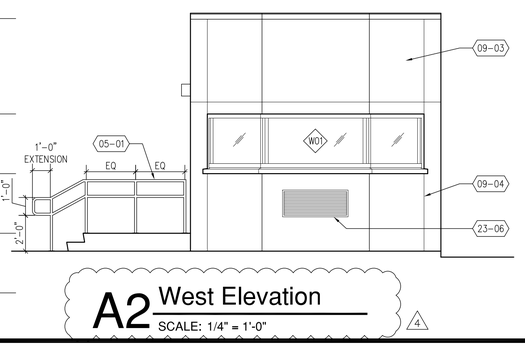
B4 Detail

SCALE: 3" = 1'-0"



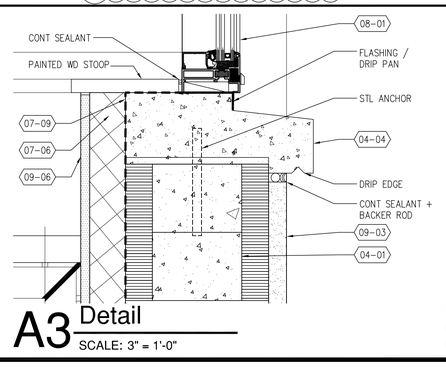
A1 North Elevation

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



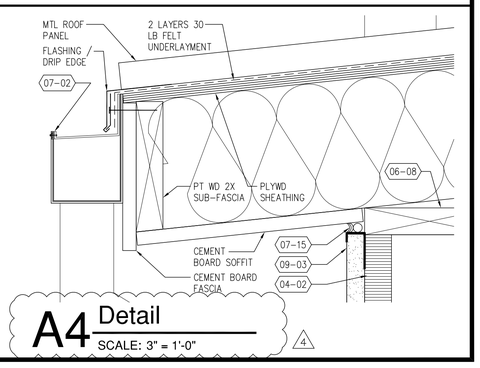
A2 West Elevation

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



A3 Detail

SCALE: 3" = 1'-0"



A4 Detail

SCALE: 3" = 1'-0"

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Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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REVISIONS

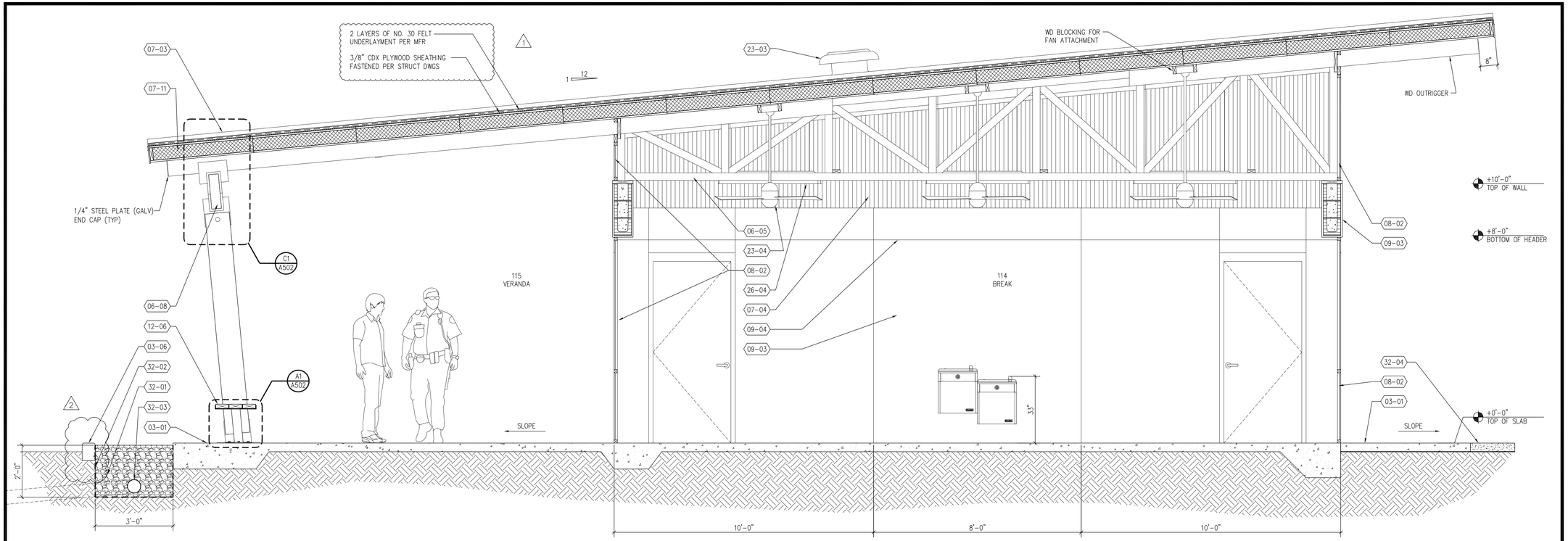
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3
3	06/03/10	ADDENDUM #4
4	08/04/10	VALUE ENGINEERING

Drawn By: JB
Checked By: RB

Firing Range Building Sections

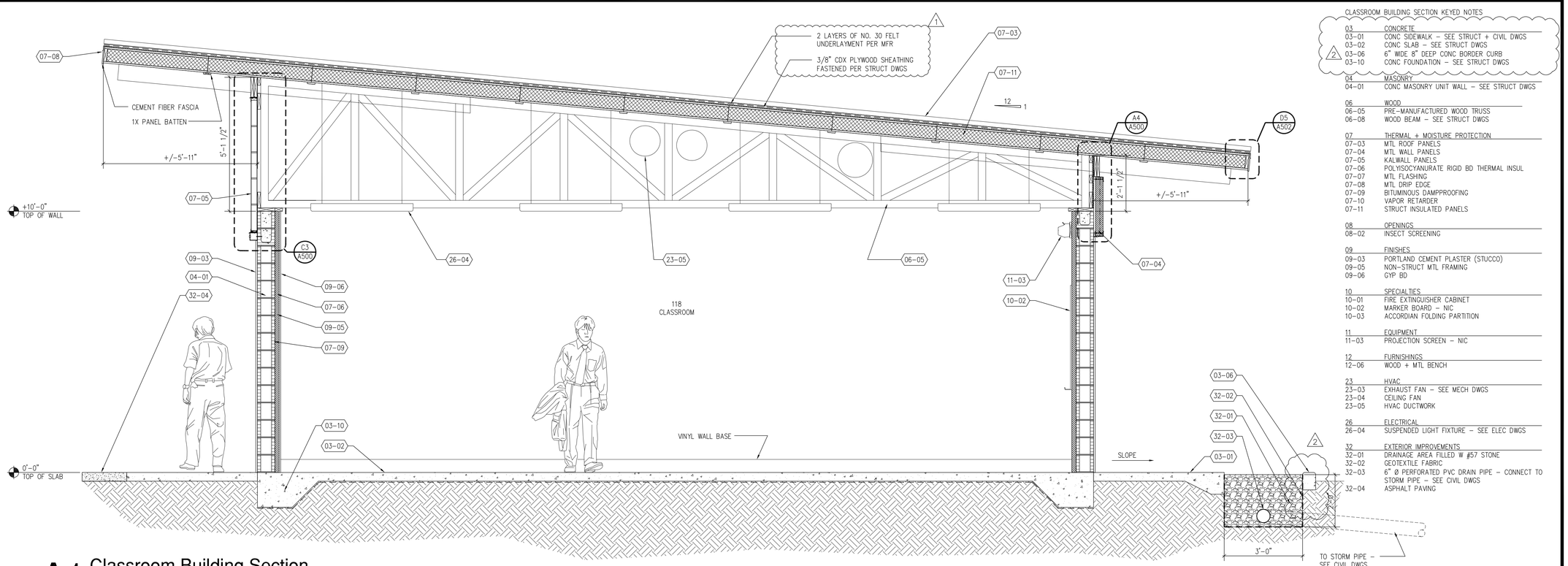
A300

Project: 10002
Date: April 5th, 2010



C1 Classroom Section

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



A1 Classroom Building Section

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

CLASSROOM BUILDING SECTION KEYED NOTES

03		CONCRETE
03-01		CONC SIDEWALK - SEE STRUCT + CIVIL DWGS
03-02		CONC SLAB - SEE STRUCT DWGS
2	03-06	6" WIDE 8" DEEP CONC BORDER CURB
	03-10	CONC FOUNDATION - SEE STRUCT DWGS
04		MASONRY
04-01		CONC MASONRY UNIT WALL - SEE STRUCT DWGS
06		WOOD
06-05		PRE-MANUFACTURED WOOD TRUSS
06-08		WOOD BEAM - SEE STRUCT DWGS
07		THERMAL + MOISTURE PROTECTION
07-03		MTL ROOF PANELS
07-04		MTL WALL PANELS
07-05		KALWALL PANELS
07-06		POLYISOCYANURATE RIGID BD THERMAL INSUL
07-07		MTL FLASHING
07-08		MTL DRIP EDGE
07-09		BITUMINOUS DAMPPROOFING
07-10		VAPOR RETARDER
07-11		STRUCT INSULATED PANELS
08		OPENINGS
08-02		INSECT SCREENING
09		FINISHES
09-03		PORTLAND CEMENT PLASTER (STUCCO)
09-05		NON-STRUCT MTL FRAMING
09-06		GYP BD
10		SPECIALTIES
10-01		FIRE EXTINGUISHER CABINET
10-02		MARKER BOARD - NIC
10-03		ACCORDIAN FOLDING PARTITION
11		EQUIPMENT
11-03		PROJECTION SCREEN - NIC
12		FURNISHINGS
12-06		WOOD + MTL BENCH
23		HVAC
23-03		EXHAUST FAN - SEE MECH DWGS
23-04		CEILING FAN
23-05		HVAC DUCTWORK
26		ELECTRICAL
26-04		SUSPENDED LIGHT FIXTURE - SEE ELEC DWGS
32		EXTERIOR IMPROVEMENTS
32-01		DRAINAGE AREA FILLED W #57 STONE
32-02		GEOTEXTILE FABRIC
32-03		6" Ø PERFORATED PVC DRAIN PIPE - CONNECT TO STORM PIPE - SEE CIVIL DWGS
32-04		ASPHALT PAVING

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Pinellas Park, FL 33762

REVISIONS

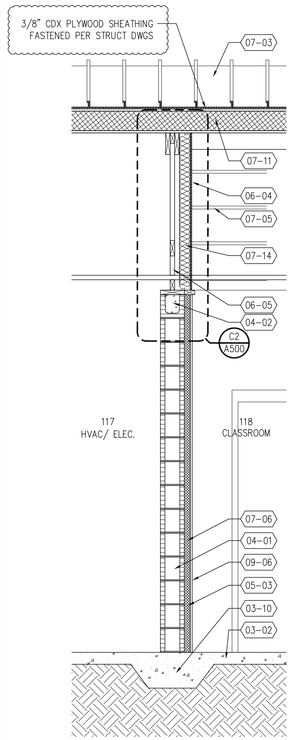
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	08/04/10	VALUE ENGINEERING

Drawn By: KH
Checked By: RB

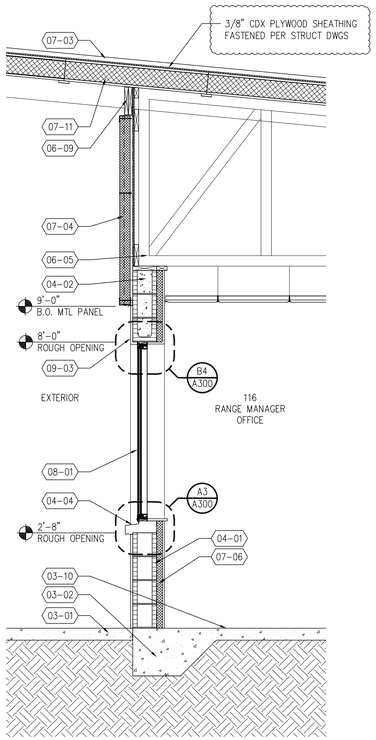
Classroom Building Sections

A310

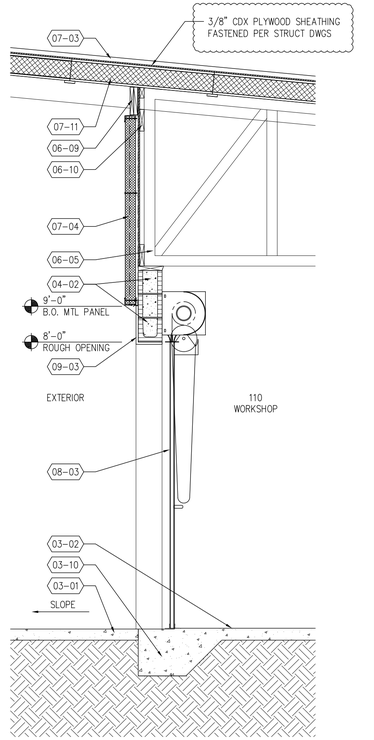
Project: 10002
Date: April 5th, 2010



C1 Wall Section
SCALE: 1/2" = 1'-0"



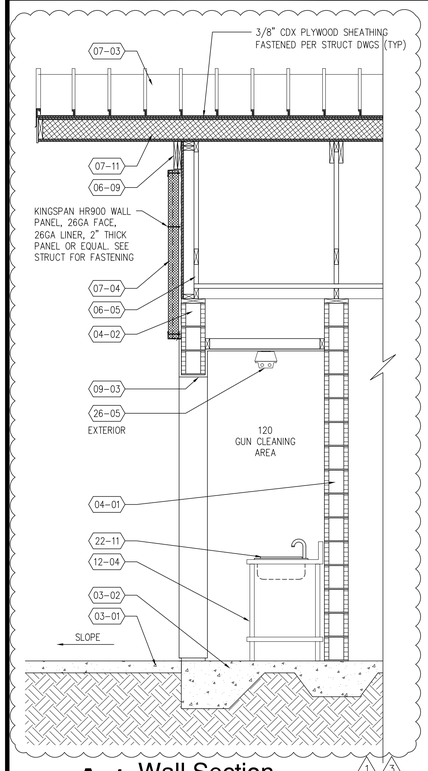
C2 Wall Section
SCALE: 1/2" = 1'-0"



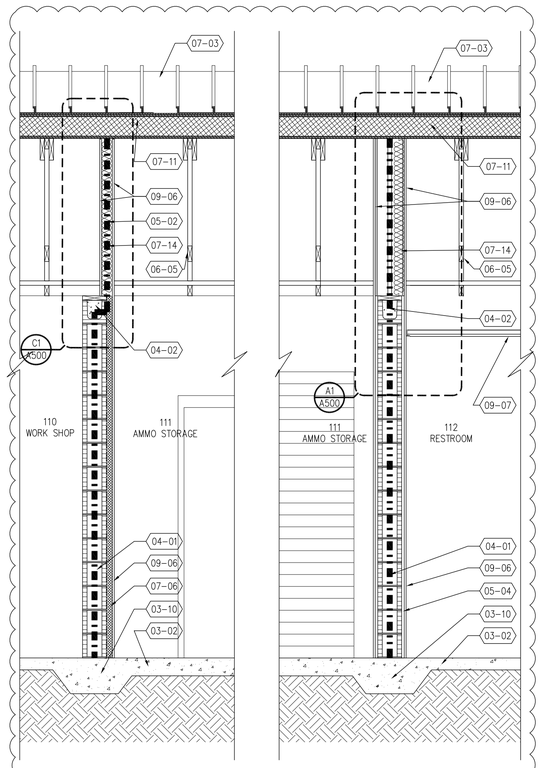
C3 Wall Section
SCALE: 1/2" = 1'-0"

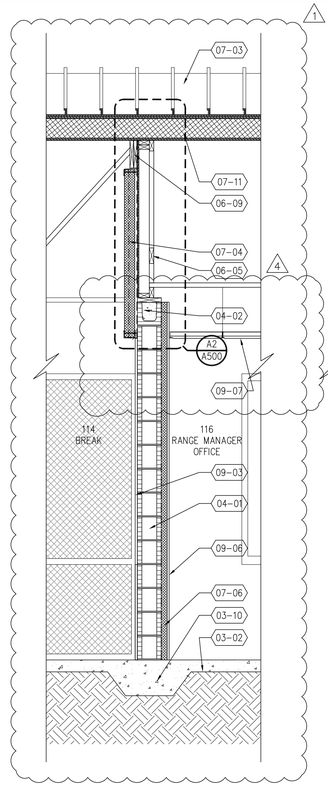
MASTER LIST OF KEYED NOTES

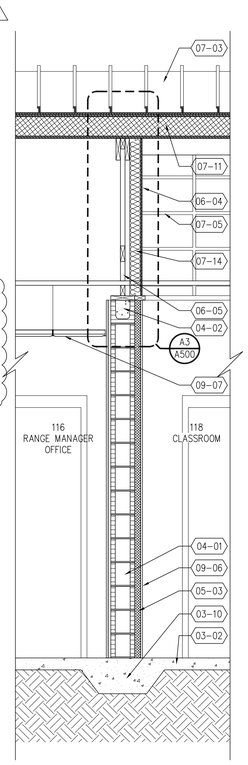
03	CONCRETE	
03-01	CONC SIDEWALK – SEE STRUCT + CIVIL DWGS	
03-02	CONC SLAB – SEE STRUCT DWGS	
03-06	6" WIDE CONC CURB	
03-10	CONC FOUNDATION – SEE STRUCT DWGS	
04	MASONRY	
04-01	CONC MASONRY UNIT WALL – SEE STRUCT DWGS	
04-02	CONC BONDBEAM – SEE STRUCT DWGS	
04-03	PRE-CAST CONC HEADER	
04-04	PRE-CAST CONC SILL	
05	METALS	
05-02	3 5/8" MTL STUD	
05-03	2" Z-FURRING CHANNEL	
05-04	MTL FURRING CHANNEL	
05-05	1/4" SCREW WITH WASHER PER MFR	
05-06	PANEL CAP PER MFR	
06	WOOD, PLASTICS + COMPOSITES	
06-03	WD COLUMN – SEE STRUCT DWGS	
06-04	1/2" OSB SHEATHING	
06-05	PRE-MANUFACTURED WOOD TRUSS	
06-06	DOUBLE 2X HEADER – SEE MANF INSTALLATON DETAILS	
06-07	CONTINUOUS BLOCKING	
06-08	2X8 PT TOP PLATE	
06-09	2X10 WD TRIM	
06-10	WD BLOCKING	
06-11	2X4 WD TRIM	
06-12	2X WD STRUCT SUPPORT – SEE STRUCT DWGS	
06-13	1X4 WD TRIM	
06-14	1X8 HARDIE BOARD	
07	THERMAL + MOISTURE PROTECTION	
07-03	MTL ROOF PANELS	
07-04	MTL WALL PANELS	
07-05	KALWALL PANELS	
07-06	POLYISOCYANURATE RIGID BD THERMAL INSUL	
07-07	MTL FLASHING	
07-08	MTL DRIP EDGE	
07-09	BITUMINOUS DAMPPROOFING	
07-10	VAPOR RETARDER	
07-11	STRUCT INSULATED PANELS	
07-12	EXTERIOR MTL WALL CAP TRIM	
07-13	MTL HAT CHANNEL	
07-14	BATT INSULATION	
07-15	CONT CAULK	
07-16	BUTYL SEALANT PER MFR	
07-17	WATER PROOFING MEMBRANE	
07-18	1 1/2 X 1 1/2 ALUM SCREEN ENCLOSURE	
07-19	KALWALL SILL PER MFR	
07-20	KALWALL HEAD PER MFR	
07-21	KALWALL JAMB PER MFR	
08	OPENINGS	
08-01	IMPACT GLAZING	
08-02	INSECT SCREENING	
08-03	OVERHEAD COILING DOOR	
09	FINISHES	
09-03	PORTLAND CEMENT PLASTER (STUCCO)	
09-04	STUCCO CONTROL JOINT	
09-05	NON-STRUCT MTL FRAMING	
09-06	5/8" GYP BD	
09-07	2X4 ACOUSTICAL CEILING TILE	
10	SPECIALTIES	
10-03	ACCORDIAN FOLDING PARTITION	
12	FURNISHINGS	
12-04	STAINLESS STEEL WORK TABLE	
22	PLUMBING	
22-09	SERVICE SINK – SEE PLUMB DWGS	
22-11	STAINLESS STEEL HAND SINK W/ EYEWASH – SEE PLUMB DWGS	
22-12	COMPRESSED AIR QUICK DISCONNECT – SEE PLUMB DWGS	
22-13	AIR COMPRESSOR – SEE PLUMB DWGS	
22-14	VENT THROUGH ROOF – SEE PLUMB DWGS	
23	HVAC	
23-02	CONDENSING UNIT – SEE MECH DWGS	

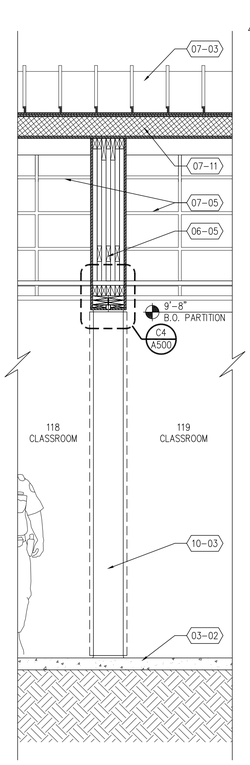


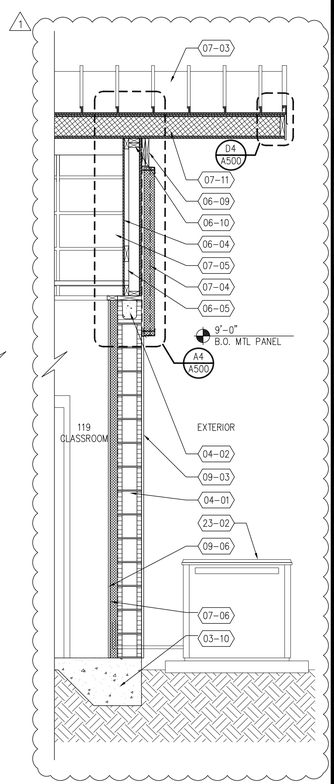
A1 Wall Section
SCALE: 1/2" = 1'-0"











ARC3 architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
(727) 381-5220
(727) 381-0052 fax

Construction Documents

Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

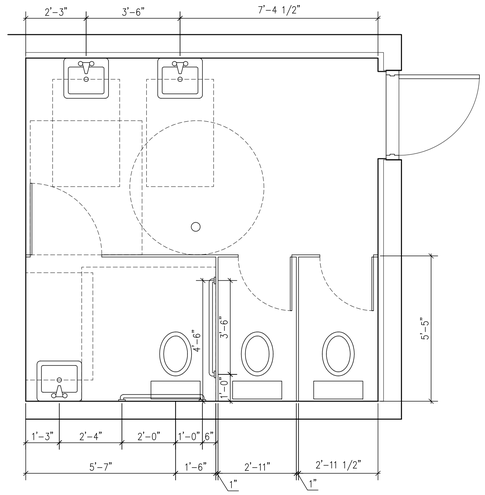
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3
3	06/03/10	ADDENDUM #4
4	08/04/10	VALUE ENGINEERING

Drawn By: PER
Checked By: RB

Classroom Building Sections

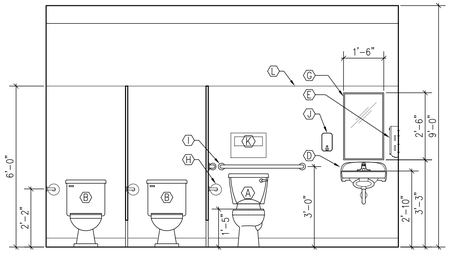
A311

Project: 10002
Date: April 5th, 2010

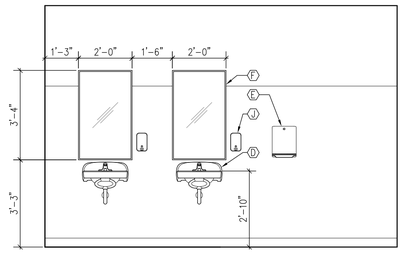


D1 Women's Restroom 112 Enlarged Plan

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

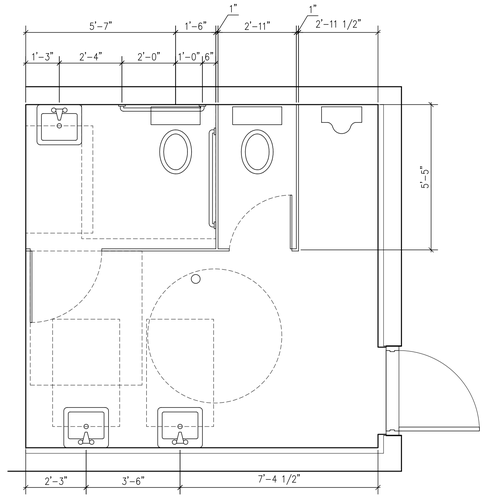


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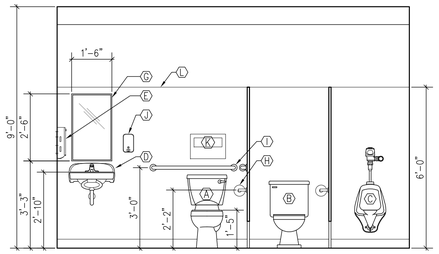
2

	ITEM	MODEL #	MOUNTING LOCATION
A	ADA TOILET, FLOOR MOUNTED	SEE PLMB SCHD	TOP OF SEAT = 1'-5" TO 1'-7" AFF
B	TOILET, FLOOR MOUNTED	SEE PLMB SCHD	
C	URINAL, WALL MOUNTED	SEE PLMB SCHD	
D	LAVATORY, WALL MOUNTED	SEE PLMB SCHD	
E	PAPER TOWEL DISPENSER	BOBRICK B-3699	TOP OF UNIT = 4'-6" A.F.F., U.N.O.
F	MIRROR 24"X40"	BOBRICK B-166	BOTTOM OF MIRROR = 3'-3" A.F.F.
G	MIRROR 18"X30"		BOTTOM OF MIRROR = 3'-3" A.F.F.
H	TOILET TISSUE DISPENSER	BOBRICK B-2890	CENTERLINE = 2'-2" A.F.F.
I	GRAB BAR	BOBRICK B-6806	CENTERLINE = 3'-0" A.F.F.
J	SOAP DISPENSER	BOBRICK B-2111	TOP OF UNIT = 4'-3" A.F.F.
K	SEAT-COVER DISPENSER	BOBRICK B-221	TOP OF UNIT = 4'-3" A.F.F.
L	CERAMIC TILE, EPOXY GROUT	SEE SPECIFICATIONS	TOP OF TILE = 6'-0" A.F.F.
M	TOILET PARTITION	SEE SPECIFICATIONS	FLOOR MOUNTED
N	URINAL SCREEN	SEE SPECIFICATIONS	BOTTOM OF SCREEN = 18" A.F.F.
09	FLUORESCENT FIXTURE	SEE ELECTRICAL	
09	BASE	SEE FINISH SCHD	

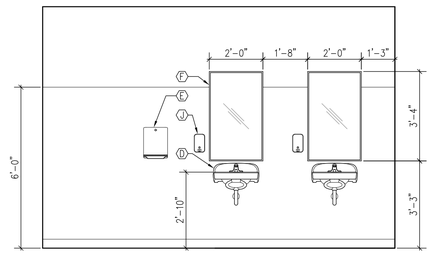


B1 Men's Restroom 113 Enlarged Plan

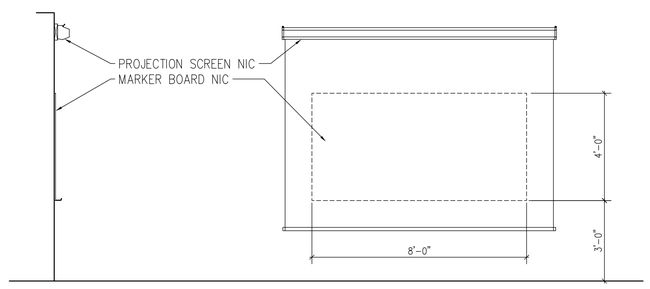
SCALE: 3/8" = 1'-0"



1



2



A1 Projection Screen/Marker Board

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

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REVISIONS

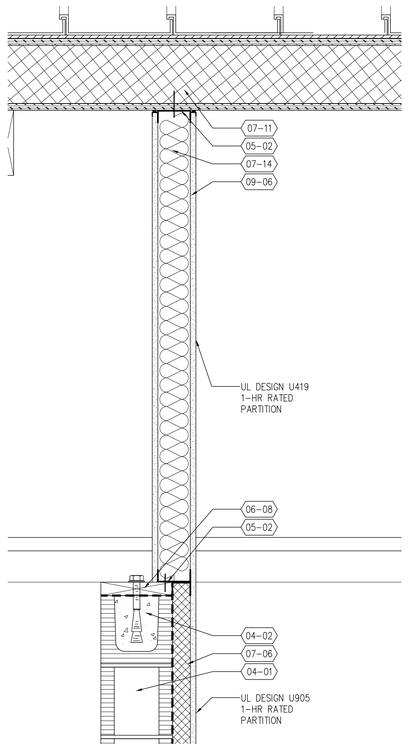
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3

Drawn By: KH
Checked By: RB

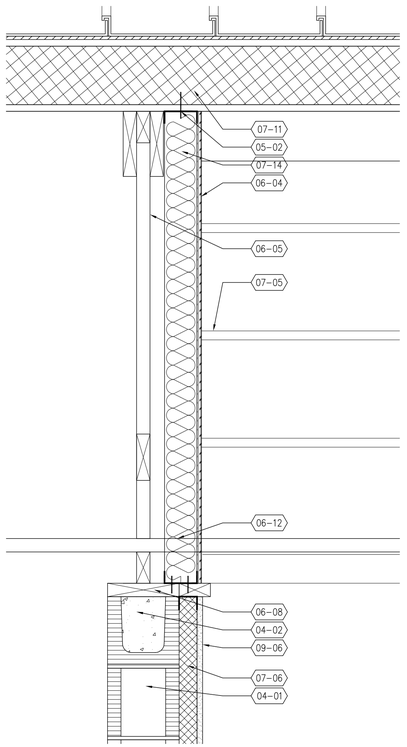
Enlarged Views

A400

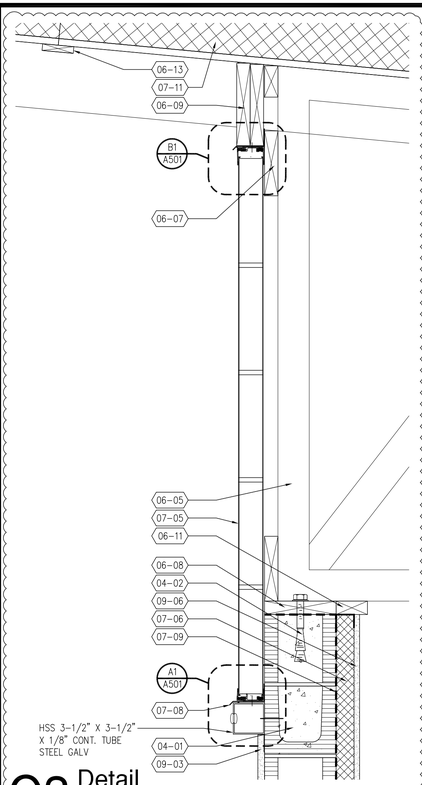
Project: 10002
Date: April 5th, 2010



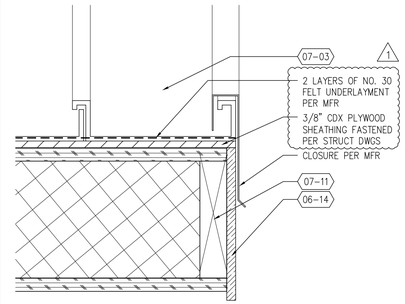
C1 Detail
SCALE: 1 1/2" = 1'-0"



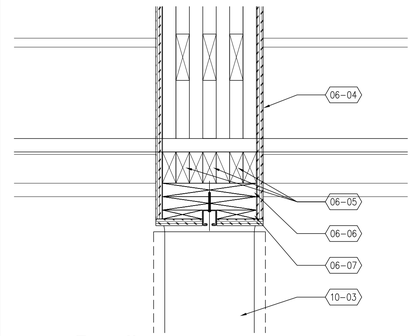
C2 Detail
SCALE: 1 1/2" = 1'-0"



C3 Detail
SCALE: 1 1/2" = 1'-0"
1 3



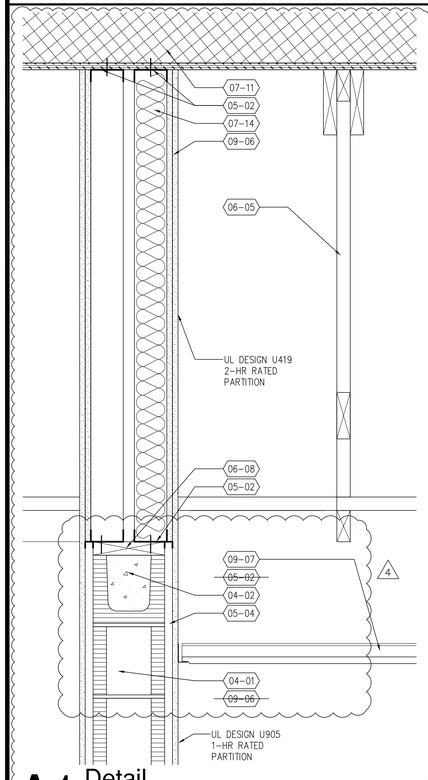
D4 Detail
SCALE: 3" = 1'-0"



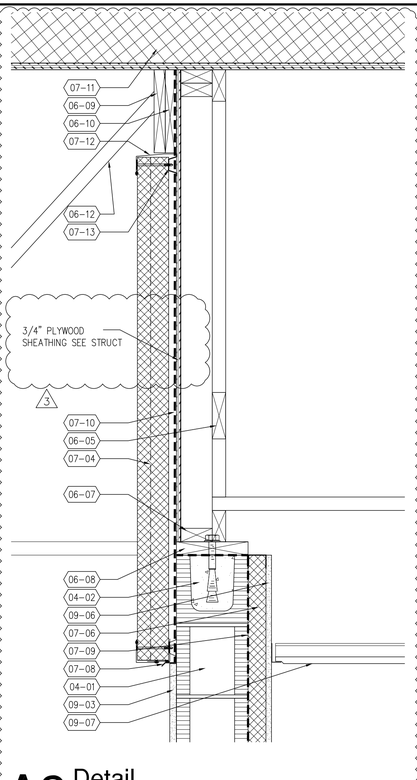
C4 Detail
SCALE: 1 1/2" = 1'-0"

KEYED NOTES

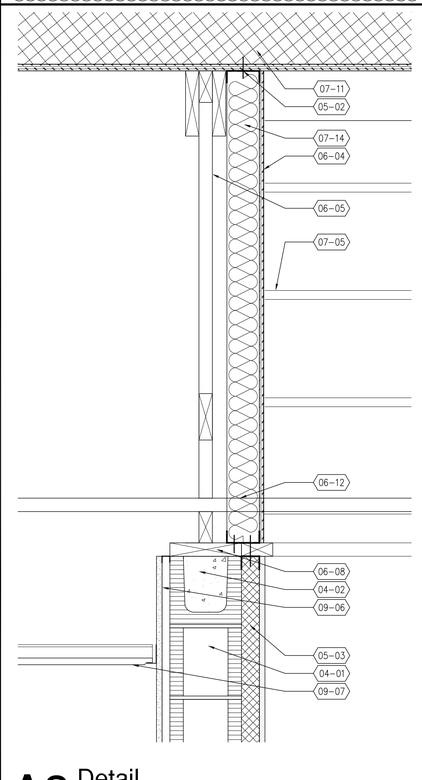
04	MASONRY
04-01	CONC MASONRY UNIT WALL – SEE STRUCT DWGS
04-02	CONC BONDBEAM – SEE STRUCT DWGS
05	METALS
05-02	3 5/8" MTL STUD
05-03	2" Z-FURRING CHANNEL
05-04	MTL FURRING CHANNEL
05-05	1/4" SCREW WITH WASHER PER MFR
05-06	PANEL CAP PER MFR
05-07	OUTSIDE CORNER CLOSURE PER MFR
05-08	INSIDE CORNER CLOSURE PER MFR
06	WOOD, PLASTICS + COMPOSITES
06-03	WD COLUMN – SEE STRUCT DWGS
06-04	1/2" OSB SHEATHING
06-05	PRE-MANUFACTURED WOOD TRUSS
06-06	DOUBLE 2X HEADER – SEE MANF INSTALLATON DETAILS
06-07	CONTINUOUS BLOCKING
06-08	2X8 PT TOP PLATE
06-09	2X10 WD TRIM
06-10	WD BLOCKING
06-11	2X4 WD TRIM
06-12	2X WD STRUCT SUPPORT – SEE STRUCT DWGS
06-13	1X4 WD TRIM
06-14	1X8 HARDIE BOARD
06-15	WD SHIM
07	THERMAL + MOISTURE PROTECTION
07-03	MTL ROOF PANELS
07-04	MTL WALL PANELS (FASTENED PER FL PRODUCT APPROVAL)
07-05	KALWALL PANELS
07-06	POLYISOCYANURATE RIGID BD THERMAL INSUL 2
07-07	MTL FLASHING
07-08	MTL DRIP EDGE
07-09	BITUMINOUS DAMPPROOFING
07-10	VAPOR RETARDER
07-11	STRUCT INSULATED PANELS
07-12	EXTERIOR MTL WALL CAP TRIM
07-13	MTL HAT CHANNEL
07-14	BATT INSULATION
07-15	CONT SEALANT
07-16	BUTYL SEALANT PER MFR
07-17	WATER PROOFING MEMBRANE
07-18	1⅜" X 1¼" ALUM SCREEN ENCLOSURE
07-19	KALWALL SILL PER MFR
07-20	KALWALL HEAD PER MFR
07-21	KALWALL JAMB PER MFR
07-22	BACKER ROD + SEALANT
08	OPENINGS
08-01	IMPACT GLAZING
08-02	INSECT SCREENING
08-03	OVERHEAD COILING DOOR
09	FINISHES
09-03	PORTLAND CEMENT PLASTER (STUCCO)
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09-05	NON-STRUCT MTL FRAMING
09-06	5/8" GYP BD
09-07	2X4 ACOUSTICAL CEILING TILE
09-08	J-BEAD
10	SPECIALTIES
10-03	ACCORDIAN FOLDING PARTITION
26	ELECTRICAL
26-01	ELEC PANEL – SEE ELEC DWGS
26-03	ELEC METER – SEE ELEC DWGS
26-03	WALL MOUNTED LIGHT FIXTURE – SEE ELEC DWGS
26-04	SUSPENDED LIGHT FIXTURE – SEE ELEC DWGS
26-05	SURFACE MOUNTED LIGHT FIXTURE – SEE ELEC DWGS



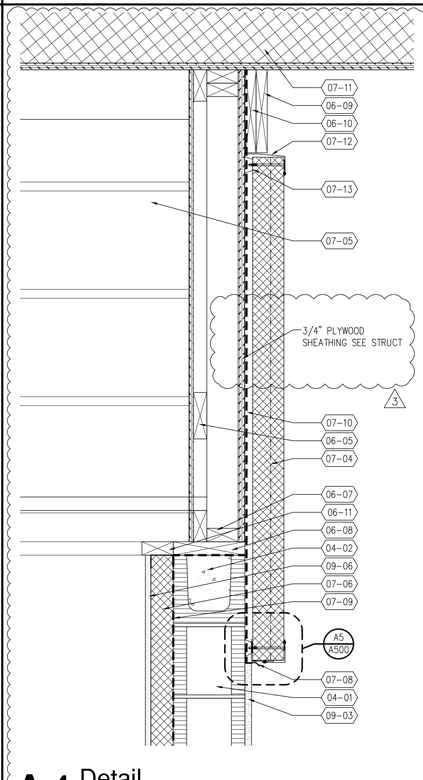
A1 Detail
SCALE: 1 1/2" = 1'-0"
2



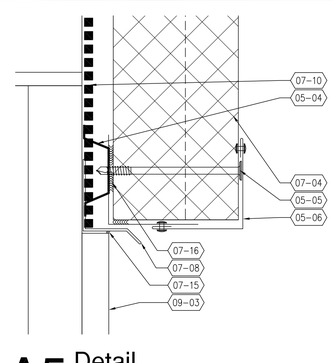
A2 Detail
SCALE: 1 1/2" = 1'-0"
1



A3 Detail
SCALE: 1 1/2" = 1'-0"



A4 Detail
SCALE: 1 1/2" = 1'-0"
1



A5 Detail
SCALE: 6" = 1'-0"

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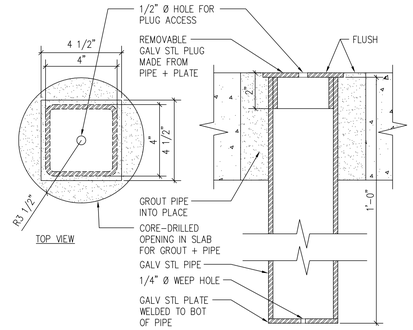
No.	Date	Revision
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Drawn By: PER
Checked By: RB

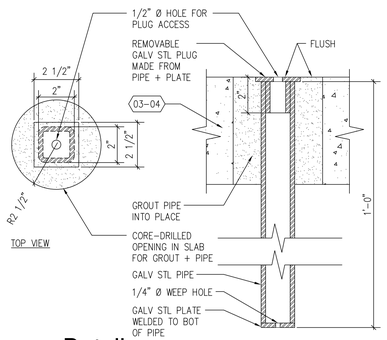
Details

A500

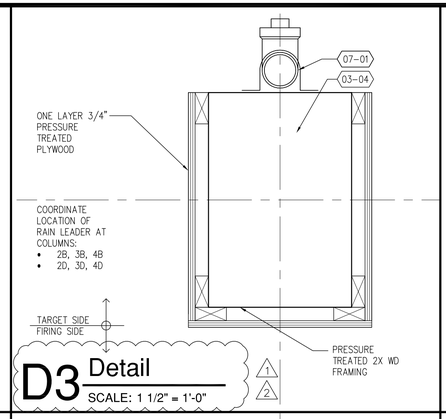
Project: 10002
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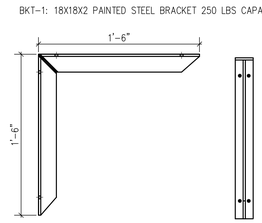
D1 Detail — CROSS SECTION
SCALE: 3" = 1'-0"



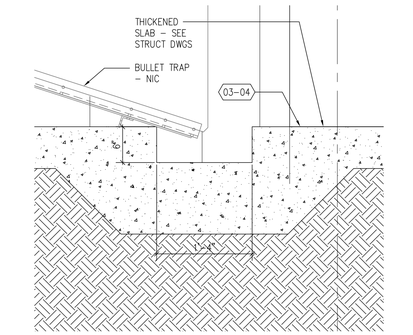
D2 Detail — CROSS SECTION
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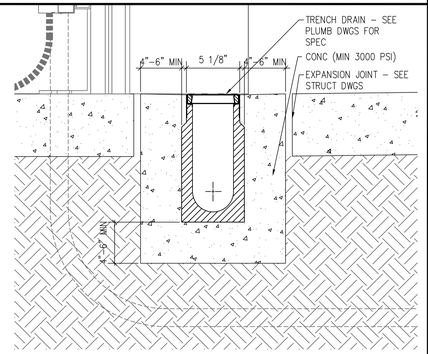
D3 Detail
SCALE: 1 1/2" = 1'-0"



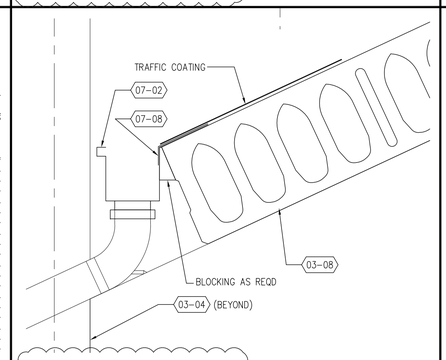
D4 Detail
SCALE: 1 1/2" = 1'-0"



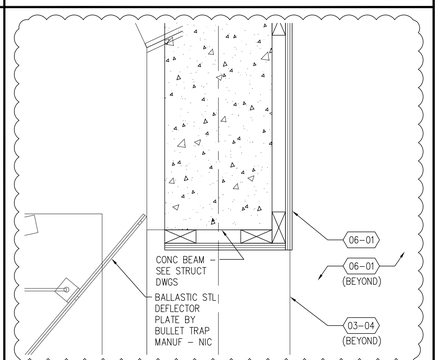
C1 Detail
SCALE: 1 1/2" = 1'-0"



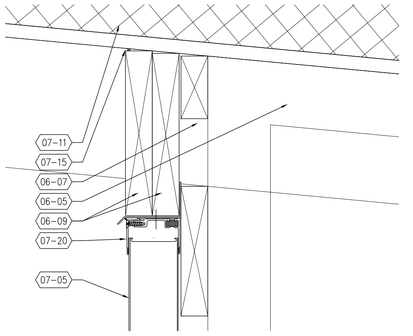
C2 Detail
SCALE: 1 1/2" = 1'-0"



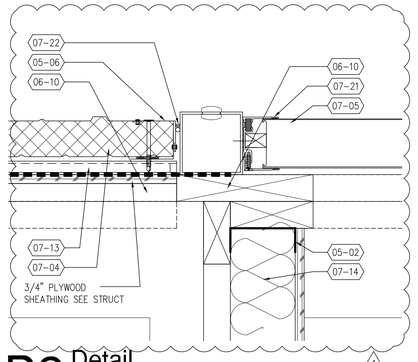
C3 Detail
SCALE: 1 1/2" = 1'-0"



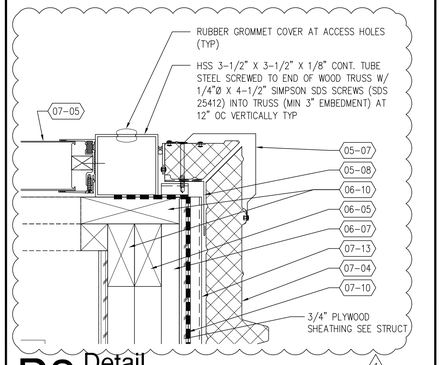
C4 Detail
SCALE: 1 1/2" = 1'-0"



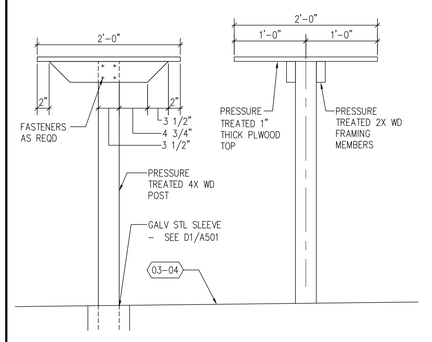
B1 Detail
SCALE: 3" = 1'-0"



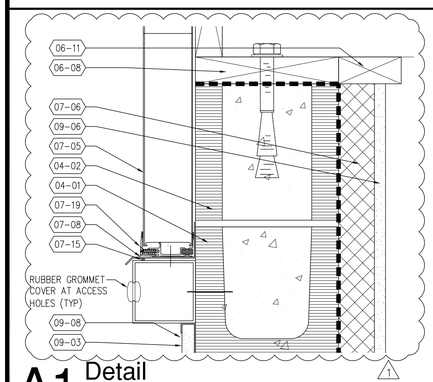
B2 Detail
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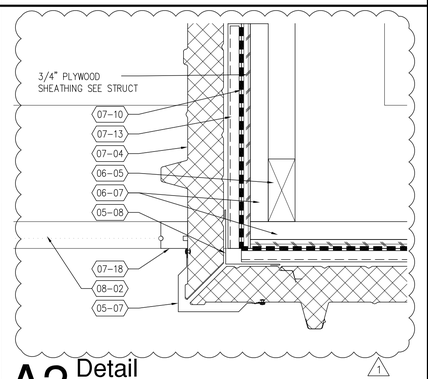
B3 Detail
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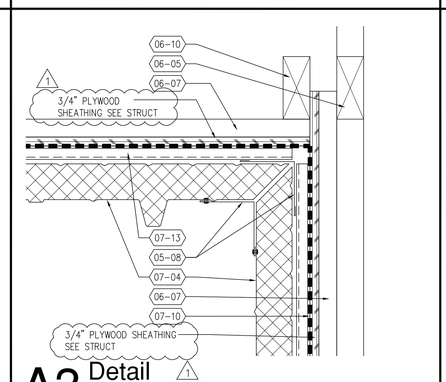
B4 Detail
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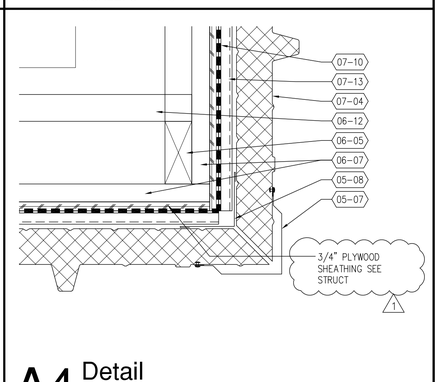
A1 Detail
SCALE: 3" = 1'-0"



A2 Detail
SCALE: 3" = 1'-0"



A3 Detail
SCALE: 3" = 1'-0"



A4 Detail
SCALE: 3" = 1'-0"

KEYED NOTES

03 CONCRETE
03-01 CONC SIDEWALK - SEE STRUCT + CIVIL DWGS
03-02 CONC SLAB - SEE STRUCT DWGS
03-03 CONC WALL - SEE STRUCT DWGS
03-04 CONC COLUMN - SEE STRUCT DWGS
03-05 CONC CONTROL JOINT - SEE STRUCT DWGS
03-06 6" WIDE CONC CURB
03-08 PRESTRESSSED CONC ROOF PANEL - SEE STRUCT DWGS
03-10 CONC FOUNDATION - SEE STRUCT DWGS

04 MASONRY
04-01 CONC MASONRY UNIT WALL - SEE STRUCT DWGS
04-02 CONC BONDBEAM - SEE STRUCT DWGS
04-03 PRE-CAST CONC HEADER
04-04 PRE-CAST CONC SILL

05 METALS
05-01 1 1/2" OD GALV PIPE + TUBE RAIL
05-02 3 5/8" MTL STUD
05-03 2" Z-FURRING CHANNEL
05-04 MTL FURRING CHANNEL
05-05 1/4" SCREW WITH WASHER PER MFR
05-06 PANEL CAP PER MFR
05-07 OUTSIDE CORNER CLOSURE PER MFR
05-08 INSIDE CORNER CLOSURE PER MFR

06 WOOD, PLASTICS + COMPOSITES
06-01 SACRIFICIAL WD CLADDING
06-02 WD WEAPON TABLE
06-03 WD COLUMN - SEE STRUCT DWGS
06-04 1/2" OSB SHEATHING
06-05 PRE-MANUFACTURED WOOD TRUSS
06-06 DOUBLE 2X HEADER - SEE MANF INSTALLATON DETAILS
06-07 CONTINUOUS BLOCKING
06-08 2X8 PT TOP PLATE
06-09 2X10 WD TRIM
06-10 WD BLOCKING
06-11 2X4 WD TRIM
06-12 2X WD STRUCT SUPPORT - SEE STRUCT DWGS
06-13 1X4 WD TRIM
06-14 1X8 HARDIE BOARD
06-15 WD SHIM

07 THERMAL + MOISTURE PROTECTION
07-01 MTL DOWNSPOUTS - SEE PLUMB + CIVIL FOR CONNECTION DETAIL
07-02 MTL GUTTER
07-03 MTL ROOF PANELS
07-04 MTL WALL PANELS
07-05 KALWALL PANELS
07-06 POLYISOCYANURATE RIGID BD THERMAL INSUL
07-07 MTL FLASHING
07-08 MTL DRIP EDGE
07-09 BITUMINOUS DAMPPROOFING
07-10 VAPOR RETARDER
07-11 STRUCT INSULATED PANELS
07-12 EXTERIOR MTL WALL CAP TRIM
07-13 MTL HAT CHANNEL
07-14 BATT INSULATION
07-15 CONT SEALANT
07-16 BUTYL SEALANT PER MFR
07-17 WATER PROOFING MEMBRANE
07-18 1 1/2" X 1 1/2" ALUM SCREEN ENCLOSURE
07-19 KALWALL SILL PER MFR
07-20 KALWALL HEAD PER MFR
07-21 KALWALL JAMB PER MFR
07-22 BACKER ROD + SEALANT

08 OPENINGS
08-01 IMPACT GLAZING
08-02 INSECT SCREENING
08-03 OVERHEAD COILING DOOR

09 FINISHES
09-01 1'-0" PAINTED LANE NUMBERS
09-02 3 1/4" YELLOW PAINTED FIRING LINES
09-03 PORTLAND CEMENT PLASTER (STUCCO)
09-04 STUCCO CONTROL JOINT
09-05 NON-STRUCT MTL FRAMING
09-06 5/8" GYP BD
09-07 2X4 ACOUSTICAL CEILING TILE
09-08 J-BEAD

22 PLUMBING
22-15 ROOF LEADER

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Construction Documents

Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

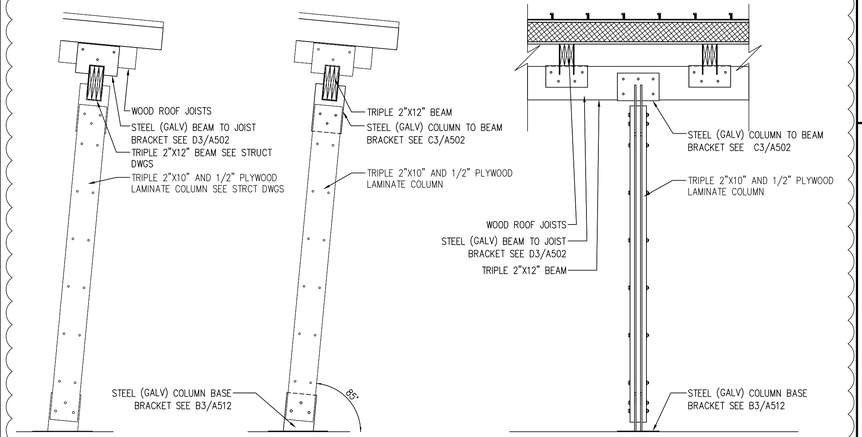
No.	Date	Revision
1	06/03/10	ADDENDUM #4
2	08/04/10	VALUE ENGINEERING

Drawn By: JB/KH/PR
Checked By: RB

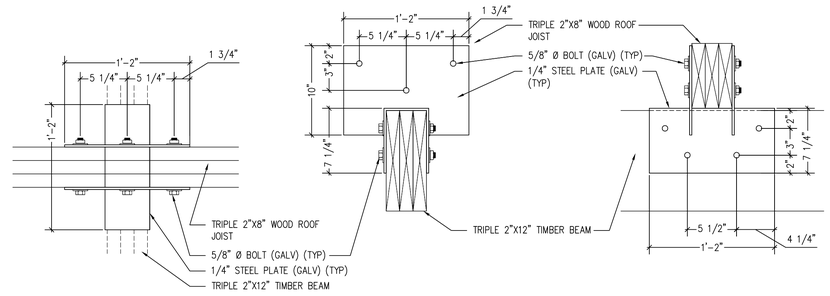
Details

A501

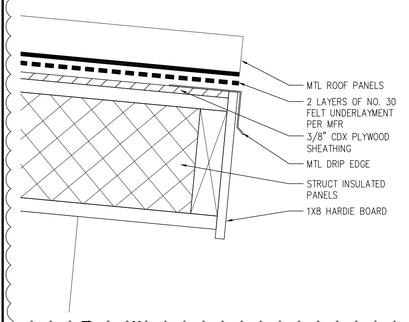
Project: 10002
Date: April 5th, 2010



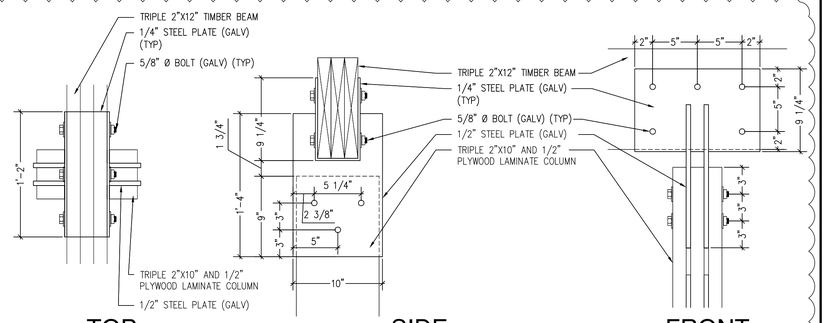
C1 Detail
SCALE: 1/2" = 1'-0"



D3 Detail
SCALE: 1 1/2" = 1'-0"

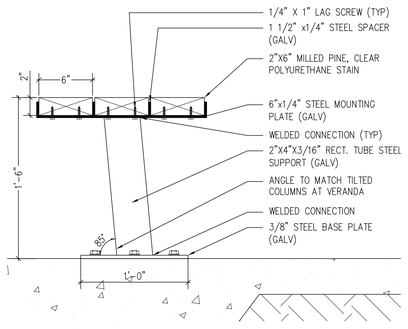


D5 Detail
SCALE: 3" = 1'-0"

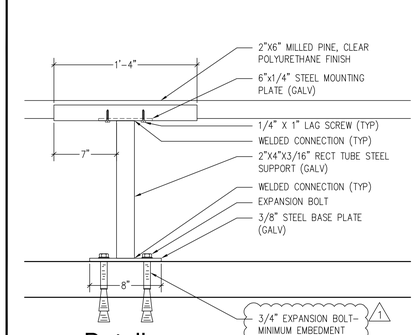


C3 Detail
SCALE: 1 1/2" = 1'-0"

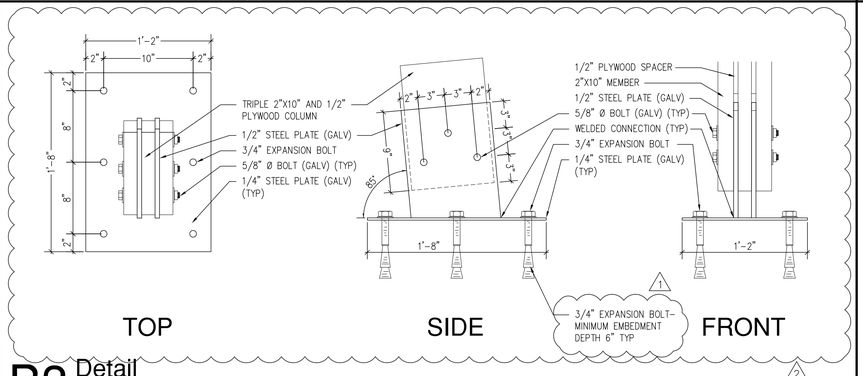
A	GYP BD
B	MTL STUD FRAMING (REF WALL TYPES)
C	HOLLOW MTL FRAME (REF SCHEDULE)
D	DOOR (REF SCHEDULE)
F	MASONRY DOOR FRAME ANCHOR
G	CMU WALL (REF STRUCT)
H	CONT SEALANT
I	DRIP EDGE
J	CONT SEALANT AND BACKER ROD
K	J-BEAD
L	STUCCO FINISH
M	THRESHOLD (REF NOA FOR SPEC)
N	FOUNDATION (REF STRUCT)



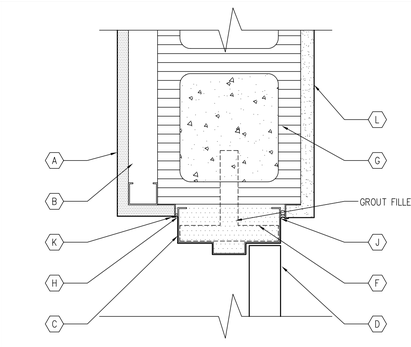
B1 Detail
SCALE: 1 1/2" = 1'-0"



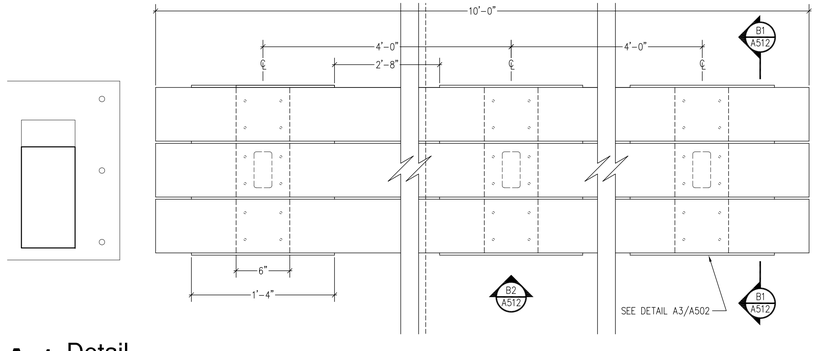
B2 Detail
SCALE: 1 1/2" = 1'-0"



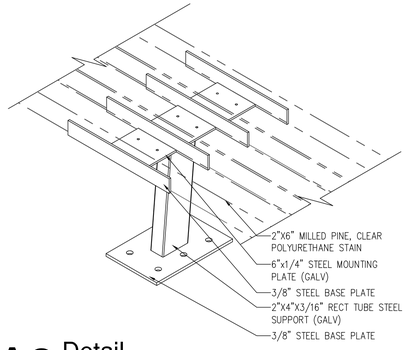
B3 Detail
SCALE: 1 1/2" = 1'-0"



B5 Door Jamb
SCALE: 3" = 1'-0"



A1 Detail
SCALE: 1 1/2" = 1'-0"

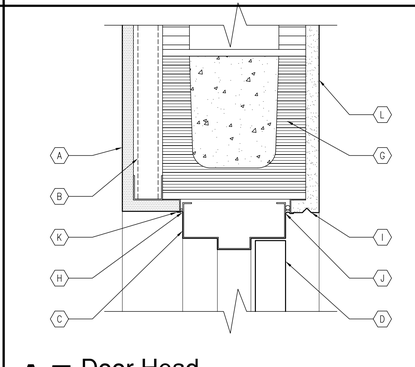


A3 Detail
SCALE: NTS

GENERAL NOTE

1. ALL WELDS ARE TO BE CONTINUOUS, 1/8" FILLETS @ ALL PLATE TO PLATE CONNECTIONS

1



A5 Door Head
SCALE: 3" = 1'-0"

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(727) 381-0052 fax

Construction Documents

Firm Registration AA-26000510
Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4

Drawn By: KH
Checked By: RB

Details

A502

Project: 10002
Date: April 5th, 2010

DOOR SCHEDULE

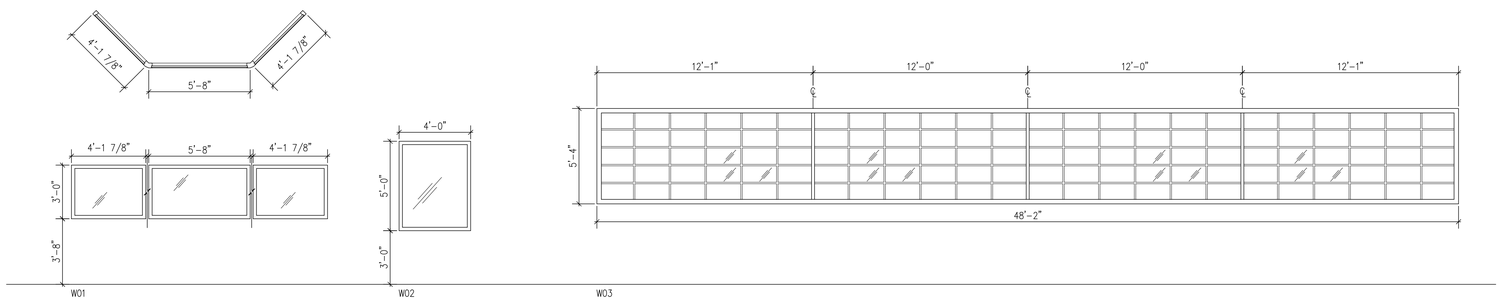
DOOR NO	DOOR						FRAME					REMARKS
	TYPE	SIZE			MATERIAL	GLASS	TYPE	MATERIAL	DETAILS			
		WIDTH	HEIGHT	THICKNESS					JAMB	HEAD	THRESHOLD	
100A	HM1	3'-0"	7'-0"	1 3/4"	MTL	NO	MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
103A	HM4	6'-0"	7'-0"	1 3/4"	MTL	NO	MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT, DOUBLE DOOR
105A	HM1	3'-0"	7'-0"	1 3/4"	MTL	NO	MTL	MTL	---	---	---	NOA, IMPACT-RESISTANT, BULLET PROOF
110A	MC1	8'-0"	8'-0"	PER MANUF	MTL	NO	MTL	PER MANUF	---	---	---	NOA, IMPACT-RESISTANT
110B	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
110C	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
111A	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
111B	MC1	8'-0"	8'-0"	PER MANUF	MTL	NO	MTL	PER MANUF	---	---	---	NOA, IMPACT-RESISTANT, INSULATED
112A	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
113A	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
114A	1	3'-0"	7'-0"	PER MANUF	MTL	NO	MTL	MTL	---	---	---	SCREEN DOOR
114B		3'-0"	7'-0"	PER MANUF	MTL	NO	MTL	MTL	---	---	---	SCREEN DOOR
116A	HM3	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	YES	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT, MAIL SLOT
117A	HM1	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	NO	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
118A	HM2	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	YES	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
118B	HM2	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	YES	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
119A	HM2	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	YES	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT
119B	HM2	3'-0"	7'-0"	1 3/4"	HOLLOW MTL	YES	HOLLOW MTL	MTL	B5/A502	A5/A502	YES	NOA, IMPACT-RESISTANT

GENERAL DOOR/FRAME NOTES

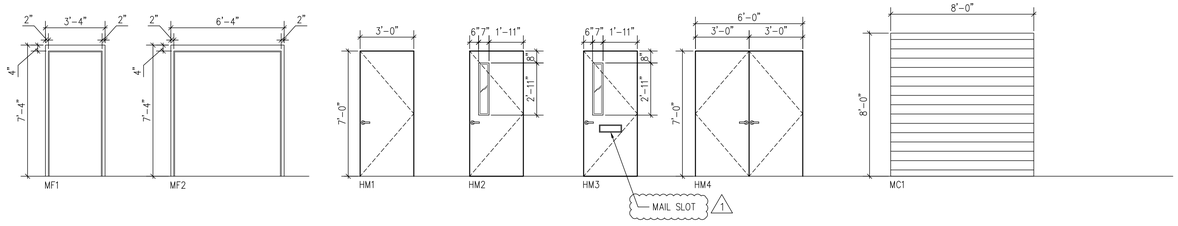
1. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS AND THIS SCHEDULE AND SHALL AT ONCE REPORT IN WRITING TO THE ARCHITECT ANY ERROR, INCONSISTENCY OR OMISSION THAT S/HE MAY DISCOVER.
2. ALL FRAMES SHALL BE CAULKED CONTINUOUSLY TO THE WALL ON BOTH SIDES.
3. WHEREVER THERE IS A CRACK BETWEEN THE BOTTOM OF THE DOOR FRAME AND THE FINISH FLOOR, THE CONTRACTOR SHALL PROVIDE A 'PENCIL-LINE CAULK' TO SEAL (EXCEPT WHERE CARPET HIDES CRACK).
4. DOOR SCHEDULED TO HAVE A FIRE RATING LABEL SHALL HAVE A METAL LABEL PERMANENTLY AFFIXED TO BOTH THE DOOR AND TO THE FRAME (VINYL IS NOT ACCEPTABLE).
5. ALL 20 MINUTE DOORS SHALL HAVE LESS THAN 1296 SQ INCHES OF WIRE GLASS WITH A MAXIMUM VERTICAL HEIGHT OF 54".
6. UNLESS INDICATED OTHERWISE, ALL FLOOR MATERIAL CHANGES SHALL OCCUR AT THE CENTERLINE OF A DOOR.
7. EXTERIOR DOORS SHALL HAVE FLORIDA PRODUCT APPROVAL TO MATCH WIND DESIGN CRITERIA ASSOCIATED WITH BUILDING.

DOOR LEGEND

GLA	GLASS
MTL	METAL
SPAN	SPANDREL
TEMP	TEMPERED
VIS	VISION
WD	WOOD



WINDOW TYPES



DOOR TYPES

FINISH + COLOR SCHEDULE

1

SPACE		FLOOR		BASE		WALLS								CEILING		REMARKS
						NORTH		SOUTH		EAST		WEST				
NUMBER	NAME	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	
100	CONTROL ROOM	CONC	–	VB	–	PNT	TBD	PNT	TBD	PNT	TBD	PNT	TBD	EXP	–	SEALED CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
110	WORKSHOP	CONC	–	VB	–	PNT	TBD	PNT	TBD	PNT	TBD	PNT	TBD	EXP	–	SEALED CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
111	AMMO STORAGE	CONC	–	VB	–	PNT GYP	TBD	PNT GYP	TBD	PNT	TBD	PNT GYP	TBD	EXP	–	SEALED CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
112	RESTROOM	CT	TBD	CTB	TBD	CT	TBD	CT	TBD	CT	TBD	CT	TBD	ACT	–	
113	RESTROOM	CT	TBD	CTB	TBD	CT	TBD	CT	TBD	CT	TBD	CT	TBD	ACT	–	
114	BREAK	CONC	–	–	–	PNT	PNT	PNT	PNT	PNT	PNT	PNT	PNT	EXP	–	BROOMED FINISH ON CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
115	VERANDA	CONC	–	–	–	–	–	–	–	–	–	–	–	EXP	–	BROOMED FINISH ON CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
116	RANGEMASTER OFFICE	VCT	TBD	VB	TBD	PNT GYP	TBD	PNT GYP	TBD	PNT GYP	TBD	PNT GYP	TBD	ACT	–	
117	HVAC ELEC	CONC	–	VB	–	PNT	TBD	PNT	TBD	PNT	TBD	PNT	TBD	EXP	–	SEALED CONC FLR, EXPOSED ORIENTED STRAND BOARD CEILING FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS C
118	CLASSROOM	VCT	TBD	VB	TBD	PNT GYP	TBD	PNT GYP	TBD	–	–	PNT GYP	TBD	EXP	–	KALWALL PANEL FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS B
119	CLASSROOM	VCT	TBD	VB	TBD	PNT GYP	TBD	PNT GYP	TBD	PNT GYP	TBD	–	–	EXP	–	KALWALL PANEL FLAMESPREAD + SMOKED DEVELOPED RATING: CLASS B

FINISH + COLOR NOTES

1. CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS, THE FINISH SCHEDULE AND FINISH PLAN AND REPORT ANY ERRORS, INCONSISTENCY OR OMISSIONS THAT MAY BE DISCOVERED.
2. UNLESS INDICATED OTHERWISE, ALL FLOOR MATERIAL CHANGES SHALL OCCUR AT THE CENTERLINE OF THE DOOR.

MATERIAL LEGEND

ACT	ACOUSTICAL CEILING TILE
CB	CARPET BASE
CPT	CARPET
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
DP	DECORATIVE PANEL
EXP	EXPOSED
EPX	EPOXY
GRT	GROUT
GYP	PAINTED GYPSUM BOARD
PLM	PLASTIC LAMINATE
PNT	PAINT
ETR	EXISTING TO REMAIN
SV	SHEET VINYL
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
WD	WOOD

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Steven J. Vinci, AIA AR-0017036

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2

Drawn By: KH
Checked By: RB

Schedules

A600

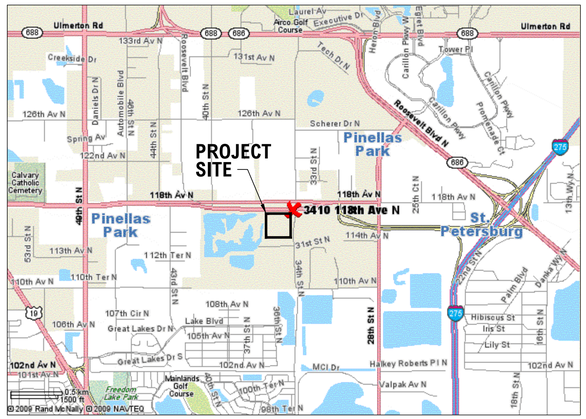
Project: 10002
Date: April 5th, 2010

LEGAL DESCRIPTION:

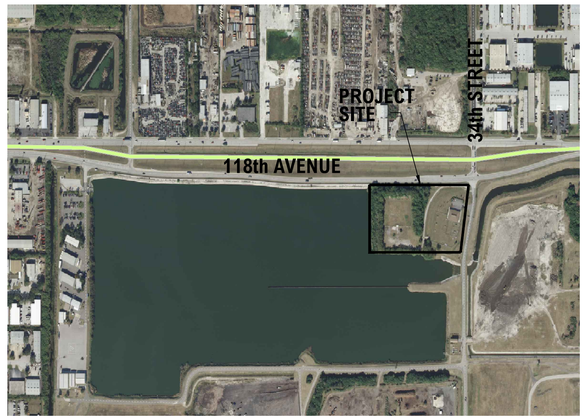
THOSE PARTS OF LOTS 1, 2 AND 16, IN THE NE 1/4 OF SECTION 15, TOWNSHIP 30 SOUTH, RANGE 16 EAST, ACCORDING TO THE MAP OF PINELLAS GROVES SUBDIVISION AS RECORDED IN PLAT BOOK 1, PAGE 55 PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, WHICH LIES WITHIN THE WEST 805 FEET OF THE EAST 855 FEET OF THE SOUTH 560 FEET OF THE NORTH 710 FEET OF SAID SECTION 15, LOCATED AT THE SOUTHWEST CORNER OF 118TH AVENUE AND 34TH STREET NORTH.

CONTAINING APPROXIMATELY 8.783 ACRES MORE OR LESS.

SECTION 15 , TOWNSHIP 30 S, RANGE 16 E
PARCEL I.D.# 15/30/16/00000/110/0100
PINELLAS COUNTY FLORIDA



STREET MAP



AERIAL MAP

NORTH

VERTICAL DATUM INFORMATION:

ELEVATION VALUES SHOWN ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 UTILIZING BENCHMARK: 275 FLHD, ELEVATION 10.11.

FLOOD ZONE INFORMATION:

THE ABOVE DESCRIBED PROPERTY LIES WITHIN FLOOD ZONE 'X' PER FLOOD INSURANCE RATE MAP 12103C0143G MAP REVISED: 09/03/03

SURVEY INFORMATION:

ELAND SURVEYING
300 A SOUTH BELCHER ROAD
CLEARWATER, FLORIDA 33765
OFFICE (727) 734-4266
FAX (727) 734-3228
TOLL FREE 1-800-ESURVEY
CERTIFICATE OF AUTORIZATION
LB NO. 7728

SITE DATA

		EXISTING (E)	PHASE I	PHASE II	REQUIRED
ZONING:		M-1	M-1	M-1	OK
LAND USE:		IL	IL	IL	OK
USAGE:		OUTDOOR SHOOTING RANGE AND K-9 TRAINING FACILITY	COVERED OUTDOOR SHOOTING RANGE, CLASSROOMS AND K-9 TRAINING FACILITY	COVERED OUTDOOR SHOOTING RANGE, CLASSROOMS AND K-9 TRAINING FACILITY	SPECIAL EXCEPTION
LOT AREA:		382,587 S.F. 8.78 ACRES	382,587 S.F. (8.78 ACRES)	382,587 S.F. (8.78 ACRES)	12,000 S.F.(MIN)
BUILDING COVERAGE: (S.F. & % OF GROSS SITE)		3,578 S.F. (0.93%) (K-9 TRAINING BLDG)	BUILDING A: 26,484 S.F. BUILDING B: 1,475 S.F. BUILDING C: 1,894 S.F. NEW BUILDING TOTAL: 29,853 S.F EX. BUILDING: 3,578 S.F. TOTAL: 33,431 S.F. 9%	BUILDING D: 1,344 S.F. BUILDING E: 16,235 S.F. PHASE II BLDGS.:17,579 S.F. EX. BUILDINGS: 33,431 S.F. TOTAL: 51,010 S.F. 13%	50% MAX
GROSS FLOOR AREA (S.F.): F.A.R.:		3,578 S.F. 0.009	33,431 S.F. .087	51,010 S.F. 0.13	.60 MAX
BLDG. SETBACKS:	FRONT:	55'	55'		25'
	SIDE:	150'	150'		10'
	REAR:	N/A	N/A		10'
BLDG. HEIGHT:		---	30'		75'
PAVED VEHICULAR USE AREA: (V.U.A.)		20,460 S.F.	45,760 S.F.		---
IMPERVIOUS SURFACE RATIO: (I.S.R.)		25,960 S.F. (0.07)	84,341 S.F. (0.22)		0.85
OPEN SPACE: (S.F. & % OF GROSS SITE)		356,627 S.F. (93.21%)	298,246 S.F. (77.95%)		15%
PARKING:		12 SPACES	NEW SPACES: 65 EX. SPACES: 12 TOTAL PROVIDED: 77		SEE PARKING CALCULATIONS BELOW

PARKING CALCULATIONS: 1 SPACE PER FIRING LANE
1 SPACE PER 50 S.F. OF CLASSROOM
40 LANES X 1 SPACE = 40 PARKING SPACES
CLASSROOM SPACE: 1,419 S.F. / 50 = 29 PARKING SPACES
TOTAL NEW REQUIRED = 69 PARKING SPACES

LEGEND

EXIST. ELEVATION	× 10.00
EXIST. CONTOUR	10
NEW ELEVATION	+10.00
NEW CONTOUR	10
EXIST. STORM SEWER	
NEW STORM SEWER	
NEW UNDERDRAIN	
EXIST. SAN. SEWER	
NEW SAN. SEWER	
EXIST. WATER SERVICE	
NEW WATER SERVICE	
NEW FIRE SERVICE	
NEW INLET	
NEW SAN. MANHOLE	
NEW CLEAN-OUT(C.O.)	C.O.
NEW BUILDING AREA	
NEW ASPHALT	
NEW CONCRETE	
TEMP. SILT BARRIER	
POINT OF CONNECTION OF NEW UTILITY TO EXIST.	

M	METER
B.F.P.D.	BACKFLOW PREVENTION DEVICE
F.H.A.	FIRE HYDRANT ASSEMBLY
F.D.C.	FIRE DEPARTMENT CONNECTION
T.B.O.	TEMPORARY BLOW-OFF
T.&V.	TAP AND VALVE

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C6.6 CIVIL SITE DETAILS
L1.1 LANDSCAPE SITE PLAN
L1.2 LANDSCAPE NOTES & DETAILS

APPROVAL STAMP

ARC3 architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
(727) 381-5220
(727) 381-0052 fax

Northside Engineering Services, Inc.
CIVIL • LAND PLANNING • DUE DILIGENCE REPORTS
RE-ZONING • LAND USE • ANNEXATION • TRAFFIC
STORMWATER MANAGEMENT • UTILITY DESIGN
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300 SOUTH BELCHER ROAD
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EB #5936

RAM A. GOEL, Ph.D., P.E. #47431
COPIES OF THESE PLANS ARE NOT VALID UNLESS EMBOSSED WITH THE SIGNING ENGINEER'S SEAL

Construction Documents

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision

Drawn By:
Checked By:

CIVIL SITE DATA

C1.1

Project: 10002
Date: April 5th, 2010

GENERAL CONSTRUCTION NOTES

1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN PINELLAS COUNTY LAND DEVELOPMENT, ZONING AND / OR RELATED ORDINANCES.
2. ALL ELEVATIONS ARE REFERENCED FROM N.A.V.D. 1988.
3. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR WILL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CHECK THE PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
5. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES, AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES, IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, IN ADVANCE OF CONSTRUCTION, BY CALLING "SUNSHINE" AT 1-800-432-4770 MINIMUM OF 2 DAYS AND MAXIMUM OF 5 DAYS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT INCLUDED IN THE "SUNSHINE" PROGRAM.
6. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY. SPECIAL PRECAUTIONS MAY BE REQUIRED IN THE VICINITY OF POWER LINES AND OTHER UTILITIES.
7. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION AND THE CONTRACTOR SHALL PAY ANY FINE IMPOSED BY ANY AGENCY.
9. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER; SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS FOR THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
10. AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES, AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTOR PRESENT, MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
11. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AROUND PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
12. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED.
13. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THE WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ALL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
14. ALL DISTURBED AREAS WHICH ARE NOT TO BE SODDED, ARE TO BE SEEDED AND MULCHED TO DOT STANDARDS, AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS, ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER OF RECORD, HAVE BEEN OBTAINED. ANY WASHOUTS, REGRADING, RESEEDING, AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR, AT HIS EXPENSE, UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE, BY THE REGULATORY AGENCY AND ENGINEER OF RECORD.
15. THE CONTRACTOR'S SOILS ENGINEER IS TO SUPPLY THE OWNER'S ENGINEER WITH A PHOTOCOPY OF ALLCOMPACTION TESTS, AND ASPHALT RESULTS. THE SOILS ENGINEER IS TO CERTIFY TO THE ENGINEER OF RECORD, IN WRITING, THAT ALL TESTING REQUIREMENTS, REQUIRED BY THE LOCAL REGULATORY AGENCY, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), FOR THE IMPROVEMENTS, AS REQUIRED BY THE ENGINEERING CONSTRUCTION DRAWINGS, HAVE BEEN SATISFIED.
16. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE.
17. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS FOR CONSTRUCTION SITE SAFETY.
18. ALL SODDING, SEEDING AND MULCHING SHALL INCLUDE WATERING AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
19. ALL PIPE LENGTHS ARE PLUS OR MINUS. PIPE MEASUREMENTS ARE CENTER TO CENTER OF STRUCTURES OR FITTINGS. PIPE MEASUREMENTS FOR MITERED END SECTIONS ARE TO END OF PIPE.
20. EXISTING PAVEMENT SHALL BE SAW-CUT WHERE NEW PAVEMENT IS TO BE ADDED OR EXISTING PAVEMENT TO BE ELIMINATED.
21. ADJUSTMENTS OF INLETS, JUNCTION BOXES, MANHOLE TOPS, WATER VALVES, WATER METERS, ETC., SHALL BE INCLUDED IN THE CONTRACTOR'S BID AND NO CLAIM SHALL BE MADE AGAINST THE OWNER OR ENGINEER FOR THESE ADJUSTMENTS, IF REQUIRED.
22. ALL BACKFILL OVER ANY PIPE (STORM SEWER, SANITARY SEWER, OR WATERLINES) THAT IS INSTALLED UNDER ROADWAYS OR WITHIN THE EMBANKMENT OF THE ROADWAY, SHALL BE COMPACTED IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS, SECTION 125-8.3, LATEST EDITION.
23. THE CONTRACTOR PERFORMING TRENCH EXCAVATION, IN EXCESS OF 5' FEET IN DEPTH, SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) TRENCH EXCAVATION SAFETY STANDARDS, 29 C.F.R., S.1926.650, SUBPART P, INCLUDING ALL SUBSEQUENT REVISIONS OR UPDATES TO THE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DLES).
24. CONTRACTOR TO COORDINATE THE POINTS OF CONNECTIONS OF THE UTILITIES WITH DIFFERENT SUBS. SITE CONTRACTOR TO CONSTRUCT THE UNDERGROUND INFRASTRUCTURES i.e. SANITARY SEWER, STORM SEWER, WATER LINES, FIRE LINES, ETC., TO 5' OUTSIDE OF THE BLDG(S). THE PLUMBING CONTRACTOR IS TO CONNECT AND MEET THE INVERT ELEVATIONS OF THE SAID UTILITIES AND/OR THE WORK PERFORMED WITHIN 5' OF THE BLDG. SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REQUIREMENTS.
25. ALL WORK SHALL BE PERFORMED AND FINISHED IN A WORKMANLIKE MANNER TO COMPLETE SATISFACTION OF THE ARCHITECT/ENGINEER IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
26. DEVIATIONS TO THESE PLANS AND SPECIFICATIONS WITHOUT CONSENT OF THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE. DEVIATIONS SHALL RECEIVE WRITTEN APPROVAL FROM THE ENGINEER.
27. SIGNS, BUFFER WALLS & FENCES ARE SUBJECT TO SEPARATE SUBMITTAL(S) AND PERMITTING. DEVIATIONS SHALL RECEIVE WRITTEN APPROVAL FROM THE ENGINEER.
28. SAFE PEDESTRIAN TRAFFIC TO BE MAINTAINED AT ALL TIMES.
29. ANY SIDEWALK WHICH BECOMES UNDERMINED MUST BE REMOVED AND REPLACED. SIDEWALKS TO BE RECONSTRUCTED WITHIN THREE DAYS AFTER REMOVAL. WHEN EXISTING SIDEWALK IS REMOVED IT IS TO BE REMOVED TO THE NEAREST JOINT. THIS APPLIES TO ALL SIDEWALK.
30. SAW CUT EXISTING EDGE OF PAVEMENT PRIOR TO PLACING ASPHALT.
31. CONSTRUCTION EQUIPMENT IS NOT ALLOWED ON SITE UNTIL THE HABITAT MANAGEMENT AND LANDSCAPE PERMIT IS IN HAND.

CLEARING AND GRUBBING NOTES

1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY'S TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION.
2. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING THE ACTUAL CONSTRUCTION IN ACCORDANCE, WITH THE SOILS TESTING REPORT. COPIES OF THE SOILS REPORT ARE AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY. QUESTIONS REGARDING SITE PREPARATION REQUIREMENTS DESCRIBED IN THE SOILS REPORT ARE TO BE DIRECTED TO THE SOILS TESTING COMPANY.
3. THE CONTRACTOR SHALL CLEAR AND GRUB, ONLY THOSE PORTIONS OF THE SITE, NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
6. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING.
8. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED INTO THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING THE OWNER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.

EROSION AND SILTATION CONTROL NOTES

1. SEDIMENT TRAPPING MEASURES: SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, FILTER FENCES, BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING WATER BODIES, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE AND INSPECTED BY THE ENGINEER BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS.
2. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
3. SEDIMENTATION BASIN: THE CONTRACTOR WILL BE REQUIRED TO PROHIBIT DISCHARGE OF SILT THROUGH THE OUTFALL STRUCTURE DURING CONSTRUCTION OF ANY RETENTION AREA AND WILL BE REQUIRED TO CLEAN OUT THE RETENTION AREA BEFORE INSTALLING ANY PERMANENT SUBDRAIN PIPE. IN ADDITION, PERMANENT RETENTION AREAS MUST BE TOTALLY CLEANED OUT AND OPERATE PROPERLY AT FINAL INSPECTION AND AT THE END OF THE WARRANTY PERIOD.
4. SWALES, DITCHES AND CHANNELS: ALL SWALES, DITCHES AND CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITHIN (3) DAYS OF EXCAVATION. ALL OTHER INTERIOR SWALES, ETC., INCLUDING DETENTION AREAS WILL BE SODDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
5. PROTECTION AND STABILIZATION OF SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILED MATERIAL MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL UNSTABILIZED STOCKPILE REMAIN AFTER THIRTY (30) CALENDAR DAYS.
6. MAINTENANCE: ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
7. REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AS PROVIDED BY CHAPTERS 400-4 & 400-40 F.A.C. CAN RESULT IN A PENALTY NOT TO EXCEED $10,000 PER OFFENSE WITH EACH DATE DURING WHICH SUCH VIOLATION OCCURS CONSTITUTING A OFFENSE.
8. ALL DISTURBED CONDITIONS SHALL BE RESTORED TO NATURAL CONDITIONS OR BETTER.
9. DURING CONSTRUCTION SEDIMENT IS TO REMAIN ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO INITIATING AND DURING ALL PHASES OF LAND CLEARING AND CONSTRUCTION TO PREVENT SOIL EROSION AND SILTATION.
10. ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
11. WHEN CONSTRUCTION IS COMPLETED, THE DRAINAGE DITCHES WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED IN ACCORDANCE WITH THE PLANS.
12. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTIES, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS.

WATER SYSTEM SPECIFICATIONS AND NOTES

1. CONTRACTOR SHALL NOT BEGIN CONSTRUCTION ON ANY PART OF THE WATER SYSTEM UNLESS D.E.P. PERMIT HAS BEEN ISSUED.
2. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
3. ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL AND STATE REGULATORY STANDARDS AND SPECIFICATIONS.
4. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A 21.51 (AWWA C 151) AND SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8 OR A 21.51 AND SHALL BE MORTAR LINED, STANDARD THICKNESS, AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A 21.4 (AWWA C 104-71).
5. ALL FITTINGS LARGER THAN 2" SHALL BE DUCTILE IRON C-153 IN ACCORDANCE WITH AWWA C-110 WITH A PRESSURE RATING OF 350 PSI. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA C-104.
6. ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C-900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241.
7. WATER MAIN PIPING OF LESS THAN 4" SHALL BE PER ASTM D2241-89.
8. ALL FITTINGS 2" AND SMALLER SHALL BE SDR21.
9. ALL GATE VALVES 2" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509.
10. ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF AWWA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND FIRE MARSHALL.
11. THE CONTRACTOR IS TO INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO INSURE ADEQUATE FLUSHING AND DISINFECTION.
12. RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS.
13. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES.
14. THE IRRIGATION SYSTEM SHALL HAVE PURPLE COLOR PIPING AND LABELING ON THE PIPE TO INSURE DIFFERENTIATION FROM POTABLE WATER PIPING.

WATER SYSTEM INSPECTION, TESTING AND CERTIFICATION REQUIREMENTS

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, CONNECTIONS, VALVES AND FIRE HYDRANTS SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY NORTHSIDE ENGINEERING AND COUNTY/CITY INSPECTOR. CONTRACTOR TO NOTIFY NORTHSIDE ENGINEERING SERVICES AND WATER DEPARTMENT INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING INSPECTIONS.
2. AFTER COMPLETION OF INSTALLATION OF NEW WATER MAINS, PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE LOCAL & STATE JURISDICTION'S WATER SYSTEM STANDARDS, SPECIFICATIONS AND CHLORINATION REQUIREMENTS. SAMPLING OF NEW WATER MAINS SHALL CONFORM WITH F.D.E.P. REQUIREMENTS AND RESULTS FORWARDED TO NORTHSIDE ENGINEERING SERVICES WITHIN 3 DAYS.
3. CONTRACTOR SHALL PROVIDE AND FORWARD TO NORTHSIDE ENGINEERING 6 COPIES OF THE CERTIFIED RECORD DRAWINGS PREPARED, SIGNED AND SEALED BY A LAND SURVEYOR. DRAWINGS SHALL SHOW THE EXACT LOCATION OF THE ENTIRE WATER AND FIRE NETWORK SYSTEM WITH THE TOP ELEVATION OF THE PIPES INDICATED IN CREDICAL LOCATIONS. CREDICAL LOCATIONS REFER TO AREAS WHERE WATER LINES CROSS SANITARY AND STORM PIPES, TO INSURE MIN. COVER, HORIZONTAL AND VERTICAL DIMENSIONS ARE MET. CREDICAL ELEVATIONS AND DIMENSIONS MUST MEET OR EXCEED MINIMUM CLEARANCE STANDARDS AS SET BY F.D.E.P., DEVIATION SHALL CONSTITUTE REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
4. NORTHSIDE ENGINEERING WILL SUBMIT FINAL AS-BUILT, CHLORINATION TEST RESULTS ALONG WITH THE CERTIFICATION FORM TO F.D.E.P. TO OBTAIN CLEARANCE TO PLACE WATER SYSTEM INTO SERVICE.
5. CONTRACTOR UNDER NO CIRCUMSTANCES SHALL PLACE THE WATER/FIRE SYSTEM INTO SERVICE UNLESS A LETTER OF CLEARANCE/CERTIFICATION HAS BEEN ISSUED BY F.D.E.P.
6. ANY DEVIATION FROM THE REQUIREMENTS AS STIPULATED HEREWITH COULD RESULT IN FINES AS DETERMINED BY F.D.E.P. WHICH SHALL BE PAID BY THE CONTRACTOR.

SANITARY SEWER SPECIFICATIONS AND NOTES

1. CONTRACTOR SHALL NOT BEGIN CONSTRUCTION OF ANY PORTION OF THE SANITARY SYSTEM UNLESS F.D.E.P. PERMIT HAS BEEN ISSUED.
2. ALL SANITARY SEWER MAINS & LATERALS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
3. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, SDR 35 OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS.
4. ALL SANITARY SEWER WORK SHALL CONFORM WITH LOCAL & STATE REGULATORY STANDARDS, SPECIFICATIONS AND INSPECTIONS.
5. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW LINES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINTS AND NOTIFY NORTHSIDE ENGINEERING OF ANY CONFLICTS OR DISCREPANCIES.
6. PVC PIPE AND FITTINGS SHALL CONFORM TO ASTM SPECIFICATIONS DESIGNATION D-3034-77C, SDR 35. INSTALLATION OF SDR 35 PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ASTM SPECIFICATION SECTION D2321. ALL SANITARY SEWER PIPELINES SHALL BE SOLID GREEN IN COLOR.
7. ALL PVC FORCE MAINS SHALL BE CLASS 2000, SDR 21, COLOR GREEN, WITH A GREEN MAGNETIC TAPE A MINIMUM OF 2" WIDE, PLACED 1 FOOT BELOW THE PROPOSED GRADE. THE PRINTING ON THE MAGNETIC TAPE SHOULD READ "FORCEMAIN".
8. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A21.51 (AWWA C 151). DUCTILE IRON PIPE SHALL RECEIVE INTERIOR AND EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.51.
9. ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCEMAINS THAT REQUIRE D.I.P. ARE TO BE POLYLINED OR EPOXY LINED.
10. ALL SANITARY SEWER MANHOLE COVERS SHALL BE TRAFFIC RATED FOR HS-20 LOADING.

SANITARY SEWER INSPECTION, TESTING AND CERTIFICATION REQUIREMENTS

1. ALL COMPONENTS OF THE SANITARY SEWER SYSTEM INCLUDING FITTINGS, WYE CONNECTIONS, CLEAN-OUTS, MANHOLES SHALL REMAIN UNCOVERED UNTIL PROPERLY INSPECTED, TESTED AND ACCEPTED BY NORTHSIDE ENGINEERING AND THE COUNTY/CITY INSPECTOR.
2. CONTRACTOR SHALL PROVIDE AND FORWARD TO NORTHSIDE ENGINEERING 6 COPIES OF THE CERTIFIED RECORD DRAWINGS PREPARED, SIGNED AND SEALED BY A LAND SURVEYOR. DRAWINGS SHALL SHOW THE EXACT LOCATION OF THE SANITARY SEWER STRUCTURES AND THE ENTIRE SANITARY SEWER SYSTEM. SAID DRAWINGS SHALL ALSO SHOW THE TOP AND INVERT ELEVATION OF THE STRUCTURES AS WELL AS THE INVERT ELEVATION OF THE SANITARY SEWER PIPES IN CRITICAL LOCATIONS. CRITICAL LOCATIONS REFER TO AREAS WHERE SANITARY SEWER LINES CROSS WATER, FIRE AND STORM PIPES. CRITICAL ELEVATIONS AND DIMENSIONS MUST MEET OR EXCEED MINIMUM CLEARANCE STANDARDS AS SET BY F.D.E.P. DEVIATION SHALL CONSTITUTE REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
3. AFTER COMPLETION OF INSTALLATION OF THE NEW SANITARY SEWER STRUCTURES AND PIPES, ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A TELEVISION INSPECTION, PERFORMED BY THE CONTRACTOR. CONTRACTOR TO NOTIFY NORTHSIDE ENGINEERING 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
4. THE CONTRACTOR SHALL PERFORM AN EXFILTRATION TEST ON ALL GRAVITY SEWERS INSTALLED IN ACCORDANCE WITH THE REGULATION AGENCY HAVING JURISDICTION MAXIMUM ALLOWABLE LEAKAGE RATE - 100 GPD PER INCH DIAM. PIPE DIAMETER PER MILE. TEST RESULTS ARE TO BE SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
5. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
6. NORTHSIDE ENGINEERING WILL SUBMIT FINAL AS-BUILT AND EXFILTRATION TESTS WITH THE CERTIFICATION FORM TO F.D.E.P. TO OBTAIN CLEARANCE TO PLACE SANITARY SEWER SYSTEM INTO SERVICE.
7. CONTRACTOR UNDER NO CIRCUMSTANCES SHALL PLACE THE SANITARY SEWER SYSTEM INTO SERVICE UNLESS A LETTER OF CLEARANCE/CERTIFICATION HAS BEEN ISSUED BY F.D.E.P.
8. ANY DEVIATION FROM THE REQUIREMENTS AS STIPULATED HEREWITH COULD RESULT IN FINES AS DETERMINED BY F.D.E.P. WHICH SHALL BE PAID BY THE CONTRACTOR.

WATER/SEWER CLEARANCE REQUIREMENTS

62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS

FOR THE PURPOSE OF THIS SECTION, THE PHASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER, FIRE HYDRANT LEADS, AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPING CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

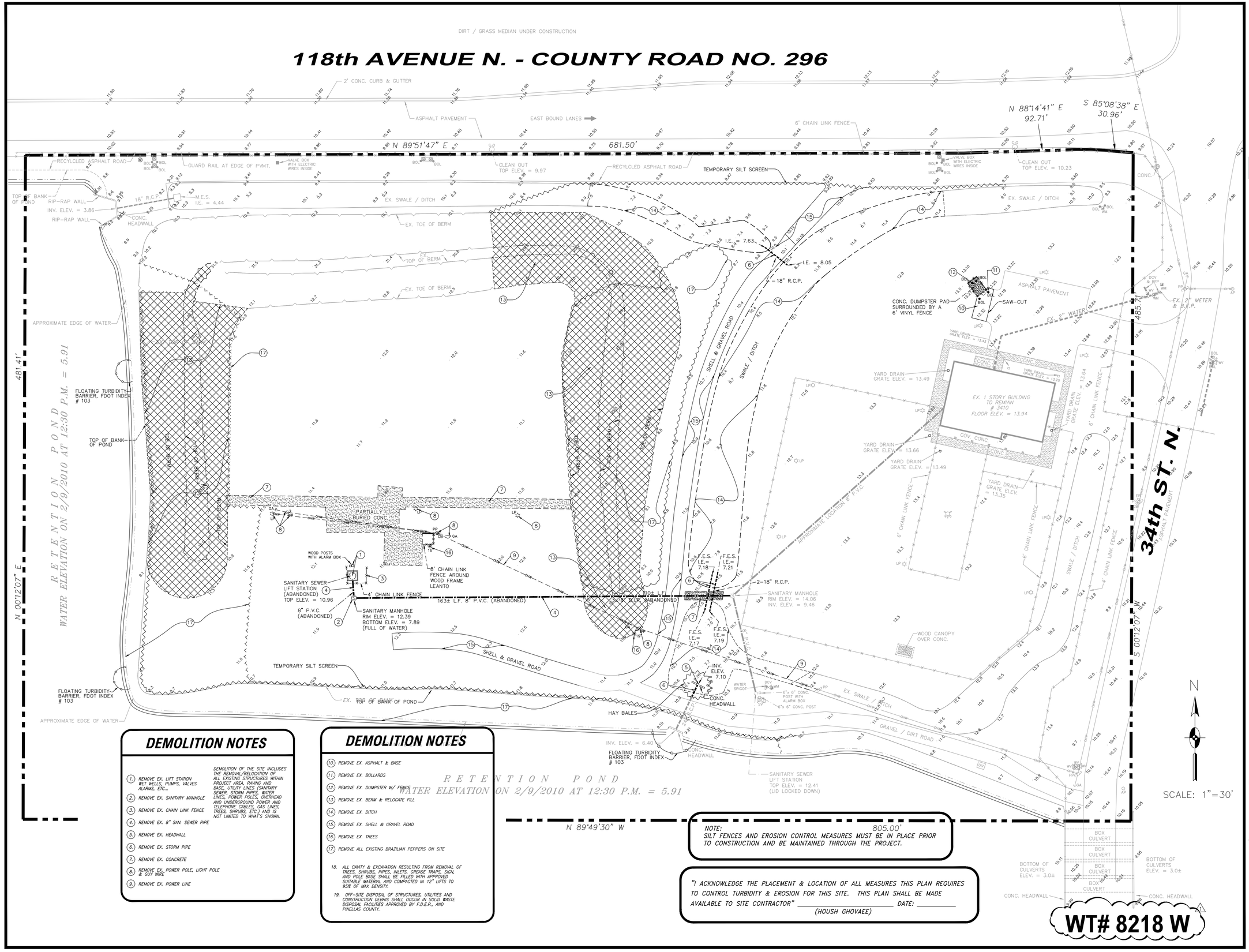
(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY-OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(C) AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORC



DEMOLITION NOTES

DEMOLITION OF THE SITE INCLUDES THE REMOVAL/RELOCATION OF ALL EXISTING STRUCTURES WITHIN PROJECT AREA, PAVING AND BASE, UTILITY LINES (SANITARY SEWER, STORM PIPES, WATER LINES, POWER POLES, OVERHEAD AND UNDERGROUND POWER AND TELEPHONE CABLES, GAS LINES, TREES, SHRUBS, ETC.) AND IS NOT LIMITED TO WHAT'S SHOWN.

1. REMOVE EX. LIFT STATION WET WELLS, PUMPS, VALVES ALARMS, ETC...
2. REMOVE EX. SANITARY MANHOLE
3. REMOVE EX. CHAIN LINK FENCE
4. REMOVE EX. 8" SAN. SEWER PIPE
5. REMOVE EX. HEADWALL
6. REMOVE EX. STORM PIPE
7. REMOVE EX. CONCRETE
8. REMOVE EX. POWER POLE, LIGHT POLE & GUY WIRE
9. REMOVE EX. POWER LINE

DEMOLITION NOTES

10. REMOVE EX. ASPHALT & BASE
11. REMOVE EX. BOLLARDS
12. REMOVE EX. DUMPSTER W/ FENCE
13. REMOVE EX. BERM & RELOCATE FILL
14. REMOVE EX. DITCH
15. REMOVE EX. SHELL & GRAVEL ROAD
16. REMOVE EX. TREES
17. REMOVE ALL EXISTING BRAZILIAN PEPPERS ON SITE

18. ALL CAVITY & EXCAVATION RESULTING FROM REMOVAL OF TREES, SHRUBS, PIPES, INLETS, GREASE TRAPS, SIGN, AND POLE BASE SHALL BE FILLED WITH APPROVED SUITABLE MATERIAL AND COMPACTED IN 12" LIFTS TO 95% OF MAX. DENSITY.
19. OFF-SITE DISPOSAL OF STRUCTURES, UTILITIES AND CONSTRUCTION DEBRIS SHALL OCCUR IN SOLID WASTE DISPOSAL FACILITIES APPROVED BY F.D.E.P., AND PINELLAS COUNTY.

NOTE: SILT FENCES AND EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO CONSTRUCTION AND BE MAINTAINED THROUGH THE PROJECT.

"I ACKNOWLEDGE THE PLACEMENT & LOCATION OF ALL MEASURES THIS PLAN REQUIRES TO CONTROL TURBIDITY & EROSION FOR THIS SITE. THIS PLAN SHALL BE MADE AVAILABLE TO SITE CONTRACTOR" _____ DATE: _____
(HOUSH GHOVAEE)

WT# 8218 W

ARC3
architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
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EB #5936

RAM A. GOEL, Ph.D., P.E. #47431

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Construction Documents

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

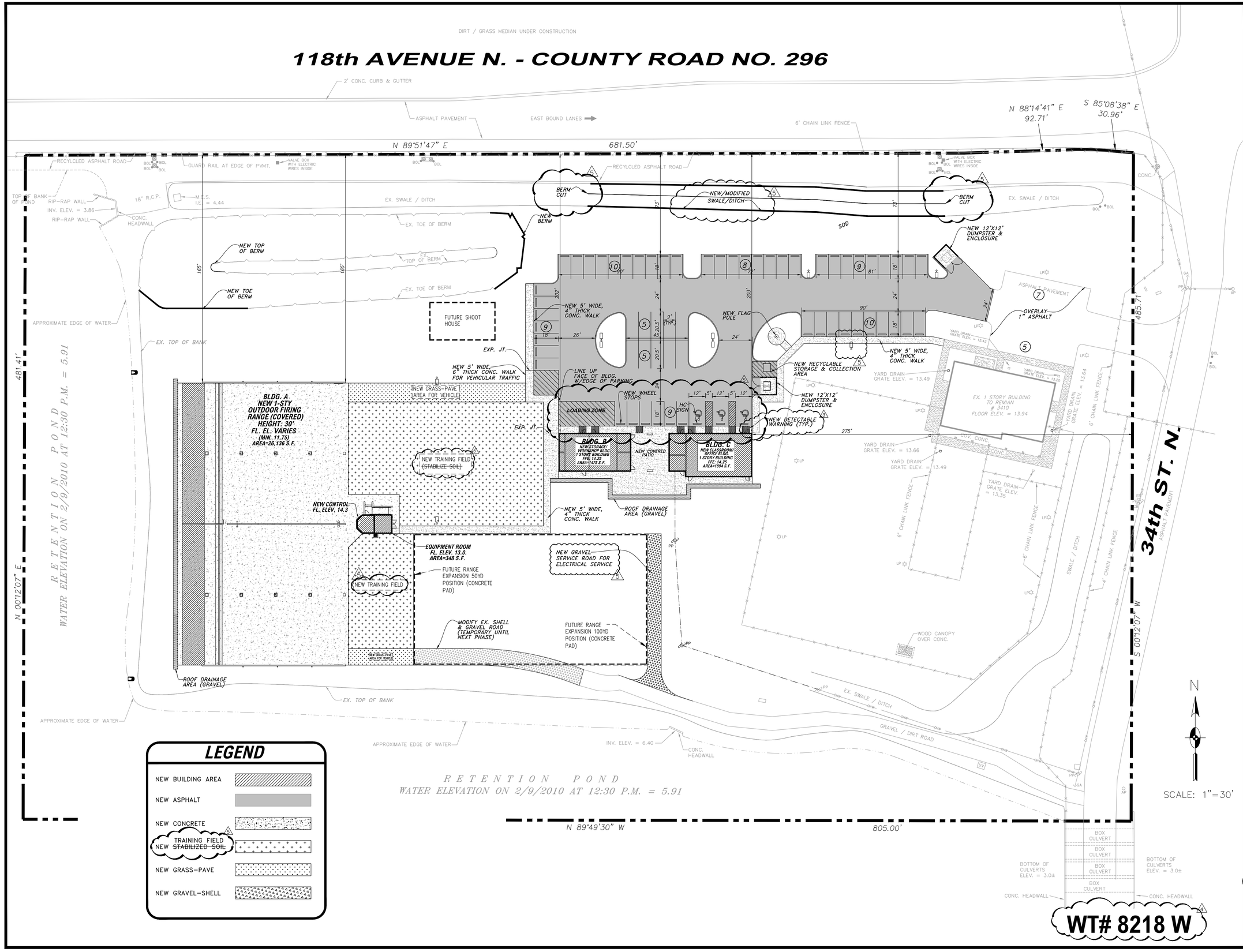
No.	Date	Revision
1	06/01/10	BOA REQUIREMENTS

Drawn By:
Checked By:

DEMOLITION SITE PLAN

C2.1

Project: 10002
Date: April 5th, 2010



ARC3 architecture

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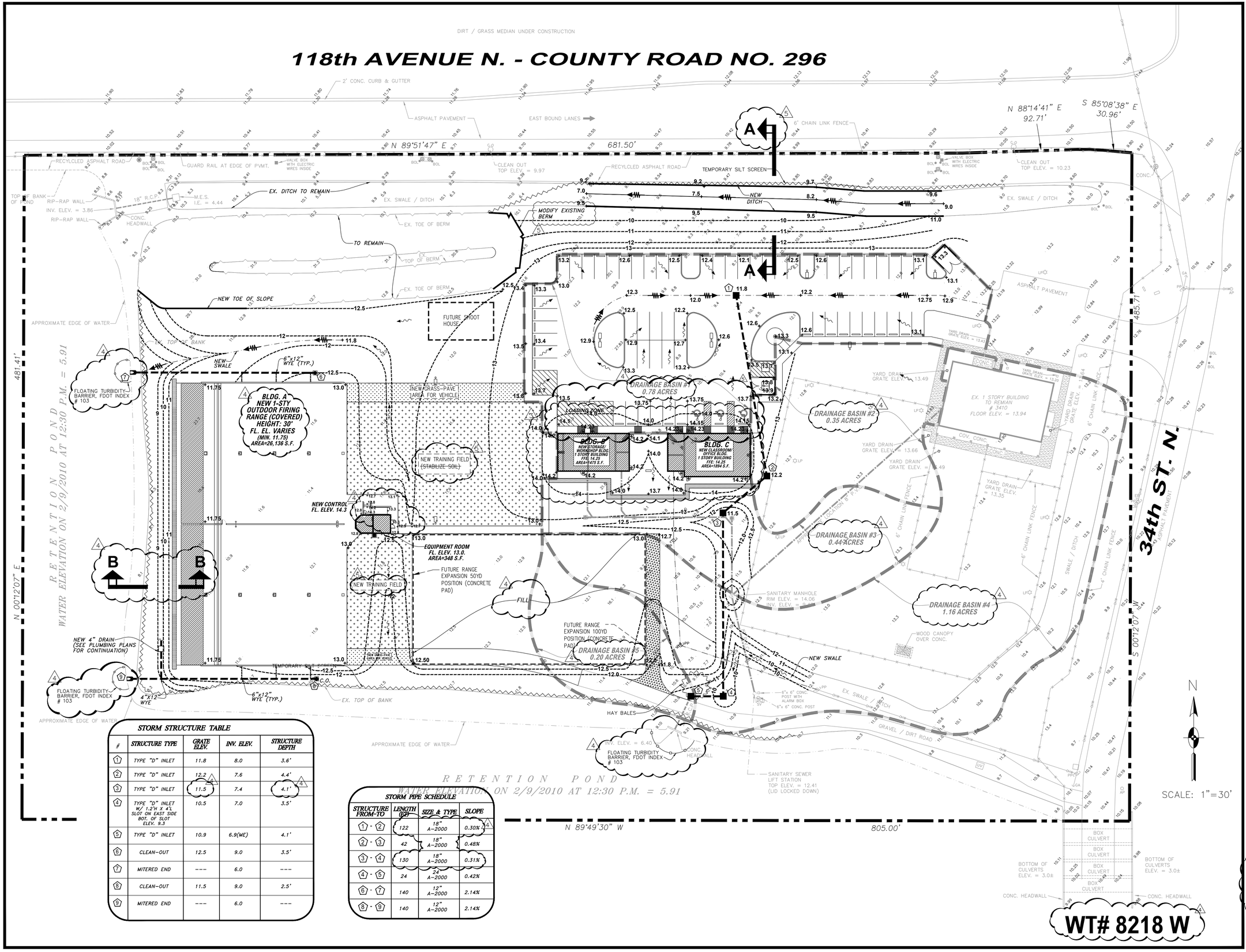
No.	Date	Revision
2	05/10/10	ADDENDUM #2
3	05/17/10	ADDENDUM #3
4	06/01/10	BOA REQUIREMENTS
5	08/04/10	VALUE ENGINEERING

Drawn By:
Checked By:

CIVIL SITE PLAN

C3.1

Project: 10002
Date: April 5th, 2010



STORM STRUCTURE TABLE

#	STRUCTURE TYPE	GRATE ELEV.	INV. ELEV.	STRUCTURE DEPTH
1	TYPE "D" INLET	11.8	8.0	3.6'
2	TYPE "D" INLET	12.2	7.6	4.4'
3	TYPE "D" INLET	11.5	7.4	4.1'
4	TYPE "D" INLET W/ 1.2'H X 4'L SLOT ON EAST SIDE BOT. OF SLOT ELEV. 9.3	10.5	7.0	3.5'
5	TYPE "D" INLET	10.9	6.9(ME)	4.1'
6	CLEAN-OUT	12.5	9.0	3.5'
7	MITERED END	---	6.0	---
8	CLEAN-OUT	11.5	9.0	2.5'
9	MITERED END	---	6.0	---

STORM PIPE SCHEDULE

STRUCTURE FROM-TO	LENGTH (LF)	SIZE & TYPE	SLOPE
1 - 2	122	18" A-2000	0.30%
2 - 3	42	18" A-2000	0.48%
3 - 4	130	18" A-2000	0.31%
4 - 5	24	24" A-2000	0.42%
6 - 7	140	12" A-2000	2.14%
8 - 9	140	12" A-2000	2.14%

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Construction Documents

PCSO FIRING RANGE

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REVISIONS

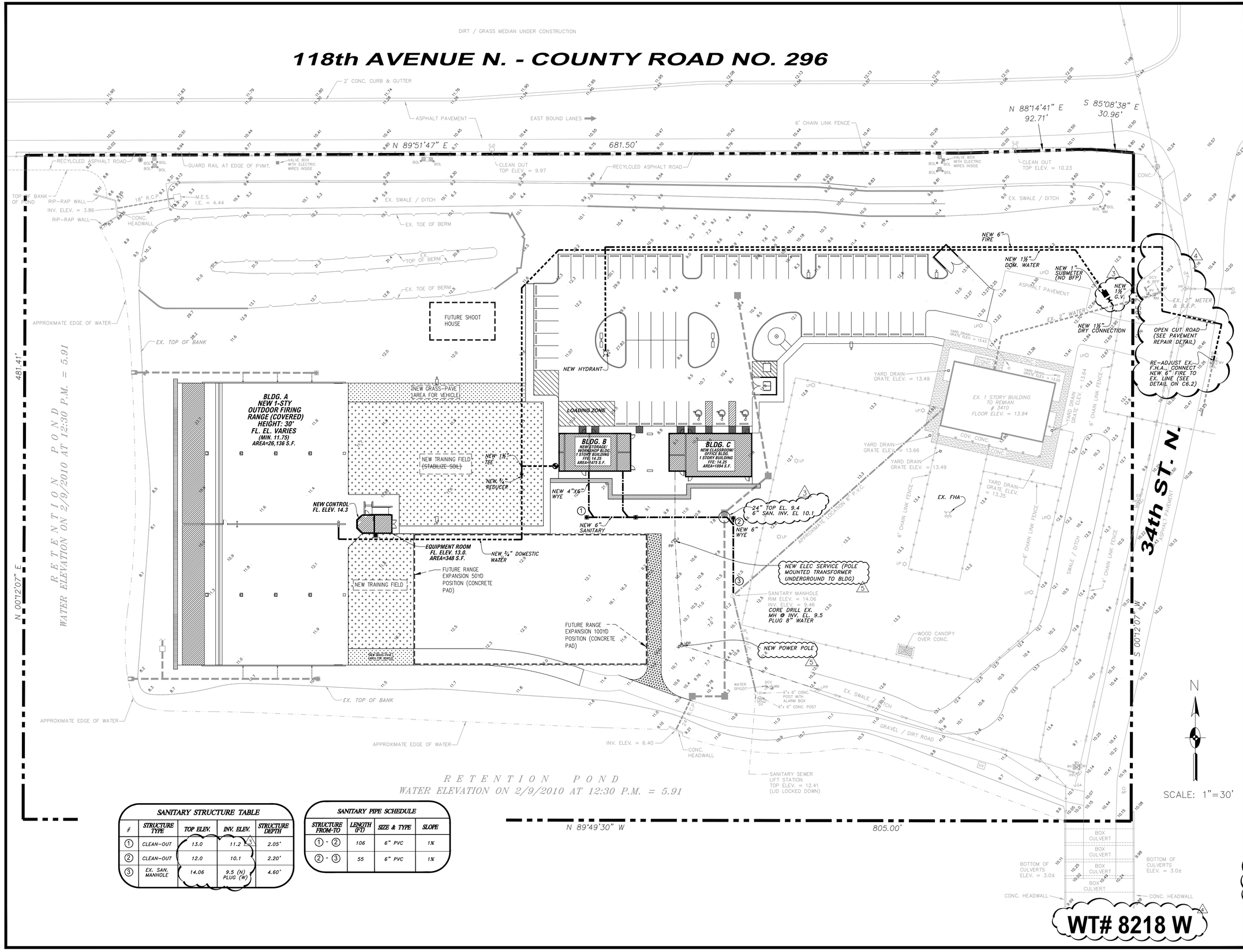
No.	Date	Revision
2	05/10/10	ADDENDUM #2
3	05/11/10	ADDENDUM #3
4	06/01/10	BOA REQUIREMENTS
5	08/04/10	VALUE ENGINEERING

Drawn By:
Checked By:

GRADING & DRAINAGE SITE PLAN

C4.1

Project: 10002
Date: April 5th, 2010



SANITARY STRUCTURE TABLE

#	STRUCTURE TYPE	TOP ELEV.	INV. ELEV.	STRUCTURE DEPTH
①	CLEAN-OUT	13.0	11.2	2.05'
②	CLEAN-OUT	12.0	10.1	2.20'
③	EX. SAN. MANHOLE	14.06	9.5 (N) PLUG (W)	4.60'

SANITARY PIPE SCHEDULE

STRUCTURE FROM-TO	LENGTH (FT)	SIZE & TYPE	SLOPE
① - ②	106	6" PVC	1%
② - ③	55	6" PVC	1%

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Construction Documents

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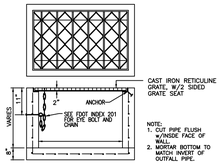
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4	06/01/10	BOA REQUIREMENTS
5	08/04/10	VALUE ENGINEERING

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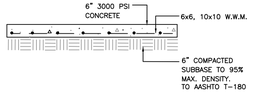
UTILITES SITE PLAN

C5.1

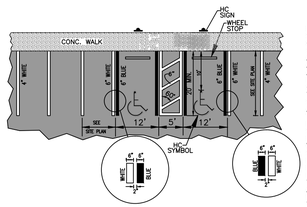
Project: 10002
Date: April 5th, 2010



F.D.O.T. INLET MOD.
N.T.S.

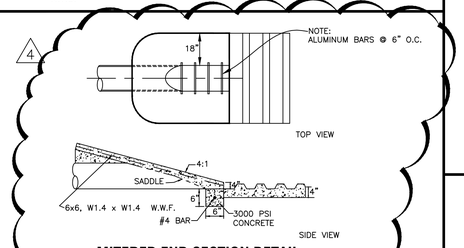


CONCRETE PAVING DETAIL
N.T.S.

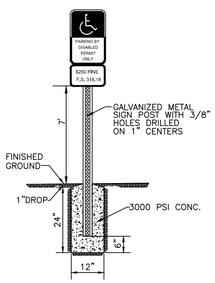


EACH PARKING SPACE SHALL BE CONSPICUOUSLY STRIPED IN BLUE AND WHITE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND THE CAPTION "PARKING BY DISABLED PERMIT ONLY". SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAPPED PARKING SPACES MUST BE SIGNED & MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION AND A.D.A.

HANDICAP PARKING STRIPING DETAIL
N.T.S.



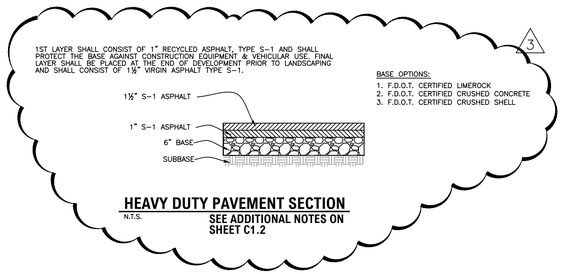
MITERED END SECTION DETAIL
N.T.S.



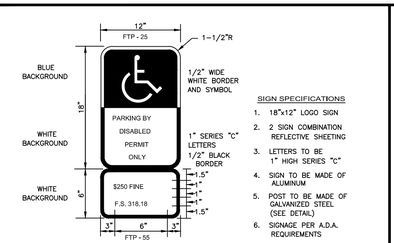
SIGN POST DETAIL
N.T.S.



HANDICAPPED PAVEMENT SYMBOL

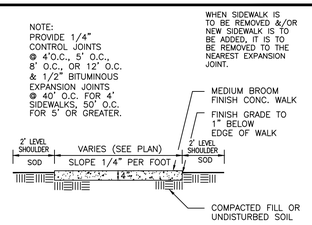


HEAVY DUTY PAVEMENT SECTION
N.T.S.
SEE ADDITIONAL NOTES ON SHEET C1.2

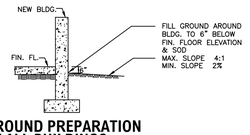


SIGN SPECIFICATIONS
1. 18"x12" LOGO SIGN
2. 2 SIGN COMBINATION REFLECTIVE SHEETING
3. LETTERS TO BE 1" HIGH SERIES "C"
4. SIGN TO BE MADE OF ALUMINUM
5. POST TO BE MADE OF GALVANIZED STEEL (SEE DETAIL)
6. SIGNAGE PER A.D.A. REQUIREMENTS

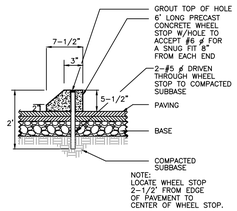
HANDICAP PARKING SIGN DETAIL
N.T.S.



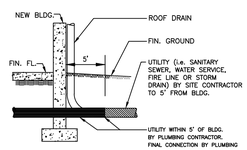
CONCRETE WALK DETAIL
N.T.S.



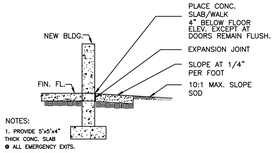
GROUND PREPARATION AT ALL BUILDINGS
N.T.S.



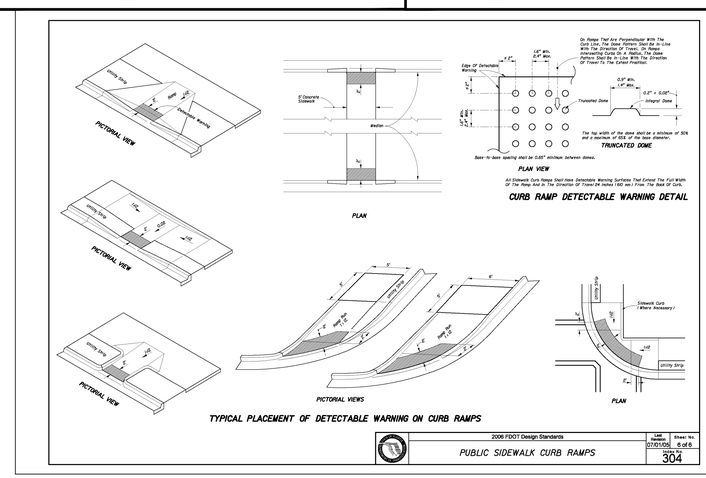
WHEEL STOP DETAIL
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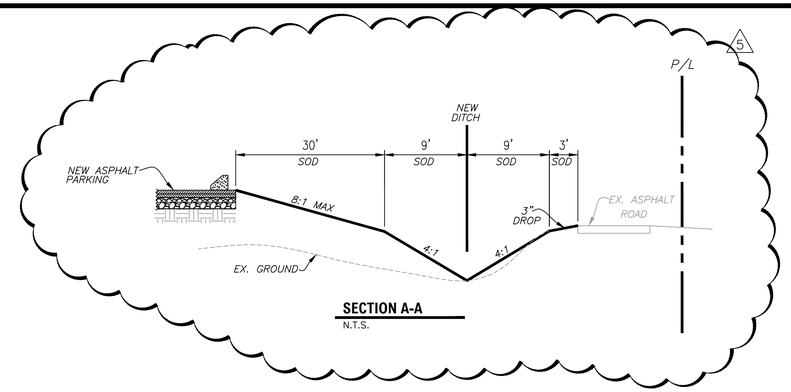


UTILITY CONNECTION AT ALL BUILDINGS
N.T.S.

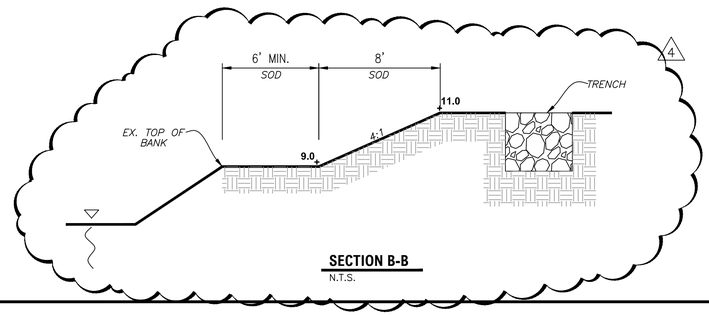


PLACEMENT OF CONCRETE SLAB AT ALL BUILDINGS
N.T.S.

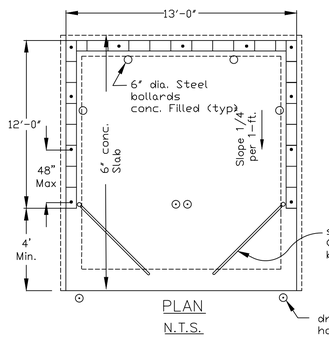




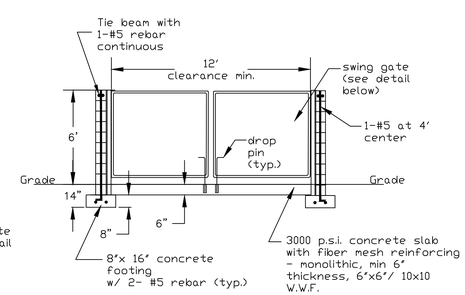
SECTION A-A
N.T.S.



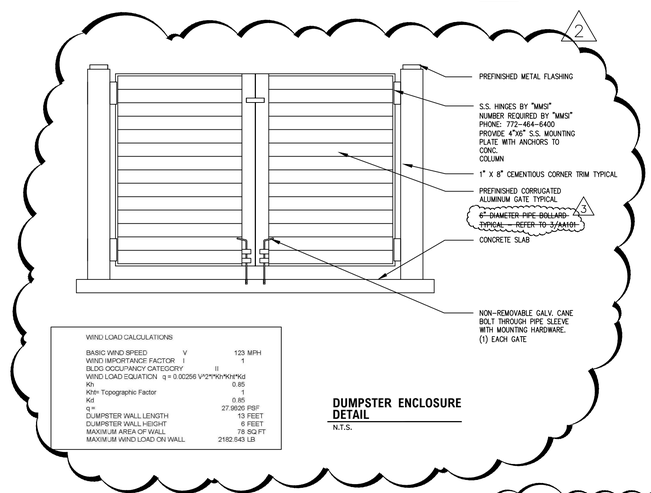
SECTION B-B
N.T.S.



PLAN
N.T.S.



ELEVATION
N.T.S.



DUMPSTER ENCLOSURE DETAIL
N.T.S.

WT# 8218 W

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Northside
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EB #5936

RAM A. GOEL, Ph.D., P.E. #47431

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Construction Documents

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS		
No.	Date	Revision
2	05/10/10	ADDENDUM #2
3	05/17/10	ADDENDUM #3
4	06/01/10	BOA REQUIREMENTS
5	08/04/10	VALUE ENGINEERING

Drawn By:
Checked By:

CIVIL SITE DETAILS

C6.1

Project: 10002
Date: April 5th, 2010

TECHNICAL SPECIFICATION - Grasspave2 with 92% Void Space and Hydrogrow Mixture
CSI Master Format 32 12 43 Flexible Porous Pavement (Section 02795 Porous Pavement)

PART 1 - GENERAL
1.01 General Provisions
A. The Conditions of the Contract and all Sections of Division 1 are hereby made a part of this Section.

1.02 Description of Work
A. Work Included:
1. Provide and install sandy gravel road base as per Geotechnical Engineer's recommendations and/or as shown on drawings, to provide adequate support for project design loads. See 2.02 Materials.
2. Provide Grasspave2 Paving System products including Grasspave2 units, Hydrogrow soil polymer, and installation per the manufacturer's instructions furnished under this section.
3. Provide and install clean sharp sand to fill the Grasspave2 units, when needed.
4. Provide and install grass by using sod or hydroseeding.
B. Related Work:
1. Subgrade preparation under Section 31 20 00 Earth Moving (02200 – Earthwork).
2. Utilities and subsurface drainage - Section 33 40 00 Storm Drainage Utilities (02700 – Subsurface Drainage and Structures), as needed.
3. Irrigation installation - Section 32 80 00 Irrigation (02810 Irrigation), when needed.

1.03 Quality Assurance
A. Follow Section 01 33 23 Shop Drawings, Product Data, and Samples (01340 Shop Drawings, Product Data, and Samples) requirements.
B. Installation: Performed only by skilled workpeople with satisfactory record of performance on landscaping or paving projects of comparable size and quality.

1.04 Submittals
A. Submit manufacturer's product data and installation instructions.
B. Submit a 10" x 10" section of Grasspave2 material for review. Reviewed and accepted samples will be returned to the contractor.
C. Submit material certificates for base course and sand fill materials.

1.05 Delivery, Storage, and Handling
A. Protect Grasspave2 units from damage during delivery and store under tarp to protect from sunlight, when time from delivery to installation exceeds one week. Keep Hydrogrow in a dark and dry location.

1.06 Project Conditions
A. Review installation procedures and coordinate Grasspave2 work with other work affected. Generally, Grasspave2 is installed at the same time as project grass installation, nearly the last site construction activity.
B. All hard surface paving adjacent to Grasspave2 areas, including concrete walks and asphalt paving must be completed prior to installation of Grasspave2.
C. Gradients for grass porous paving surfaces can vary from flat to 20%, depending upon vehicle types to use the surface. Please note that fire lanes, or other emergency vehicles, will generally require a gradient that is less than 6%. If there are any questions regarding existing gradients on this project, please contact the Project Designer, or Invisible Structures, Inc.
D. Cold weather:
1. Do not use frozen materials or materials mixed or coated with ice or frost. Be careful in handling rolls of Grasspave2 in temperatures below 50 degrees F, as product connectors become stiff and can separate, and the individual units will retain the roll curl until warmed to room temperature (aided by placement in sun for 15 to 20 minutes). If cold weather is anticipated, Grasspave2 can be shipped in flat sheets that measure 1-meter (40") square.
2. Do not build on frozen work or wet, saturated or muddy subgrade.
E. Protect partially completed paving against damage from other construction traffic when work is in progress, and until grass root system has matured (about 3 to 4 weeks). Any barricades constructed must still be accessible by emergency and fire equipment during and after installation.
F. Protect adjacent work from damage during Grasspave2 installation.

PART 2 - PRODUCTS
2.01 Availability
A. Manufacturer: (Grasspave2, Hydrogrow) Invisible Structures, Inc., 1600 Jackson Street., Suite 310, Golden, Colorado 80401. Call from USA and Canada 800-233-1510 toll free, International 303-233-8383, Fax 303-233-8282.
B. Local Sales Representative: (Contact Manufacturer)

2.02 Materials
A. Base Course: Sandy gravel material from local sources commonly used for road base construction, passing the following sieve analysis.

Sieve	%Passing
1"	100
3/4"	90-100
3/8"	70-80
#4	55-70
#10	45-55
#40	25-35
#200	3-8

1. Sources of the material can include either "pit run" or "crusher run." Crusher run material will generally require sharp sand to be added to mixture (33% by volume) to ensure long-term porosity. If there is difficulty in finding local sources to meet this sieve analysis, and alternative mixture can be created by mixing 2/3 crushed drainage rock (0.75" dia) with 1/3 concrete or sharp sand (AASHTO M6 or ASTM C-33).
2. Selected materials should be nearly neutral in pH (range from 6.5 to 7.2) to provide adequate root zone development for turf.
3. Alternative materials such as crushed shell, limerock, and/or crushed lava may be considered for base course use, provided they are mixed with sharp sand (33%), and brought to proper compaction.
(Crushed shell and limerock alone can set up like concrete without sand added.)
B. Hydrogrow Mix: A mixture made from several commercial products including: 1) cross-linked polyacrylimide (<0.1%) polymer, which is non-toxic and neutral in pH, and will absorb 150 to 350 times its weight in water from most tap sources; 2) ZeoPro zeolite mineral, amended with small amounts of starter fertilizers, from Zeoponix, Inc.; 3) Isolite porous ceramic, designed to hold large amounts of water without physical degradation or change of size of particle, from Sumitomo Group; 4) and aggromolated Humate, a natural source of nutrients and micronutrients, from Tri-C Enterprises.
C. Grasspave2 Grass Paving Units: Lightweight injection-molded plastic units 0.5x0.5x0.025m (20"x20"x1" high, 2.7 ft2 each) with hollow rings rising from a strong open grid allowing maximum grass root penetration and development. The plastic shall be 100% post-consumer recycled plastic resins, predominately HDPE, with minimum 3% carbon black concentrate added for UV protection. Loading capability is equal to 402 kg/cm2 (5700 psi) when filled with sand, over an appropriate depth of road base. Standard color is black. Unit weight = 510 g (18 oz.), volume = 8% solid. Units may also be shipped in pre-assembled into rolls that vary from 10 square meters (108 sf) to 125 square meters (1345 sf).
D. Sand: Obtain clean sharp sand (washed concrete sand- AASHTO M6 or ASTM C-33) to fill the 25 mm (one inch) high rings and spaces between the rings when seeding or using 13 mm (half inch) thick sod (soil thickness).
E. Grass: Use species resistant to wear by traffic generally a Blue/Rye/Fescue mix used for athletic fields in northern climates, and Zoysia, Fescue, or Bermuda types in southern climates. (Check with local sod and seed suppliers for preferred mixtures.) (Dedicated fire lanes can use same grass species used on surrounding turf.) (Parking applications require greatest wear-resistant species possible, generally available only by seed or sprigging.)
(Choose one of the following paragraphs to suit project requirements.)
1. Sod: Use 13 mm (0.5") thick (soil thickness) rolled sod from a reputable local grower. Species should be wear resistant, free from disease, and in excellent condition. Sod shall be grown in sand or sandy loam soils only. Sod grown in soils of clay, silt, or high organic materials such as peat, will not be accepted.
2. Seed: Use seed materials, of the preferred species for local environmental and projected traffic conditions, from certified sources. Seed shall be provided in containers clearly labeled to show seed name, lot number, net weight, % weed seed content, and guaranteed % of purity and germination. Pure Live Seed types and amount shall be as shown on plans.
F. Mulch: (Needed only for seeding.) Shall be of wood or paper cellulose types of commercial mulch materials often used in conjunction with hydroseeding operations. Mulches of straw, pine needles, etc. will not be acceptable because of their low moisture holding capacity.
G. Fertilizer: A commercial "starter" fertilizer, with Guaranteed Analysis of 17-23-6, or as recommended by local grass supplier, for rapid germination and root development.
H. Grasspave2 Sign: A sign to identify the presence of Grasspave2 paving, stating that special maintenance is required, with the Manufacturer's phone number, and made of durable materials for outdoor exposure shall be provided and installed.
I. Fire lane Signage & Delineation: Fire lanes must be identified regarding their entrance and physical location with the placement of signs, gates, curbs, bollards, etc. Specific signage wording and other details must be coordinated with and approved by local fire authorities.

PART 3 - EXECUTION
3.01 Inspection
(It is recommended that Fire Department inspectors be scheduled to inspect installation of Grasspave2 during preparation of the subbase, installation of the base course, and installation of Grasspave2 units. Most small projects can accommodate these inspections all on the same day. Verify with Fire Department if certificates of inspection are required.)
A. Examine subgrade and base course installed conditions. Do not start Grasspave2 installation until unsatisfactory conditions are corrected. Check for improperly compacted trenches, debris, and improper gradients.
B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance. If existing conditions are found unsatisfactory, contact Project Manager for resolution.

3.02 Preparation
(Ensure that subbase materials are structurally adequate to receive designed base course, wearing course, and designed loads. Generally, excavation into undisturbed normal strength soils will require no additional modification. Fill soils and otherwise structurally weak soils may require modifications, such as geotextiles, geogrids, and/or compaction (not to exceed 90%). Ensure that grading and soil porosity of the subbase will provide adequate subsurface drainage.)
A. Place base course material over prepared subbase to grades shown on plans, in lifts not to exceed 150 mm (6"), compacting each lift separately to 95% Modified Proctor. Leave minimum 25 mm (1") to 35 mm (1.5") for Grasspave2 unit and sand/sod fill to Final Grade.
B. Spread all Hydrogrow mix provided (spreader rate = 4.53 kg per 100 m2 (10 lbs per 1076 ft2) evenly over the surface of the base course with a hand-held, or wheeled, rotary spreader. The Hydrogrow mix should be placed immediately before installing the Grasspave2 units to assure that the polymer does not become wet and expanded when installing the units.

3.03 Installation of Grasspave2 Units
A. Install the Grasspave2 units by placing units with rings facing up, and using pegs and holes provided to maintain proper spacing and interlock the units. Units can be easily shaped with pruning shears or knife. Units placed on curves and slopes shall be anchored to the base course, using 16d Common nails with fender washer, as required to secure units in place. Tops of rings shall be between 6 mm to 13 mm (0.25" to 0.5") below the surface of adjacent hard-surface pavements.
B. Install sand in rings as they are laid in sections by "back-dumping" directly from a dump truck, or from buckets mounted on tractors, which then exit the site by driving over rings already filled with sand. The sand is then spread laterally from the pile using flat bottomed shovels and/or wide "asphalt rakes" to fill the rings. A stiff bristled broom should be used for final "finishing" of the sand. The sand must be "compacted" by using water from hose, irrigation heads, or rainfall, with the finish grade no less than the top of rings and no more than 6 mm (0.25") above top of rings.

3.04 Installation of Grass
(Choose one paragraph below to meet grass installation method desired.)
A. (Preferred method) Hydroseeding/hydro-mulching - A combination of water, seed and fertilizer are homogeneously mixed in a purpose-built, truck-mounted tank. The seed mixture is sprayed onto the site at rates shown on plans and per hydroseeding manufacturer's recommendations. Coverage must be uniform and complete. Following germination of the seed, areas lacking germination larger than 20 cm x 20 cm (8" x 8") must be reseeded immediately. Seeded areas must be fertilized and kept moist during development of the turf plants.
B. Install thin sod directly over sand filled rings, filled no higher than the top of the rings. Sod strips should be placed with very tight joints. Sodded areas must be fertilized and kept moist during root establishment (minimum of 3 weeks). Sodded areas must be protected from any traffic, other than emergency vehicles, for a period of 3 to 4 weeks, or until the root system has penetrated and established well below the Grasspave2 units.
C. Install grass seed at rates per grass type. A light "dusting" of commercial topsoil mix, not to exceed 1/2" (25 mm) can be placed above the rings and seed mix to aid germination rates. Seeded areas must be fertilized and kept moist during development of the turf plants.

3.05 Protection
(Choose one paragraph below to match grass installation method.)
A. Seeded areas must be protected from any traffic, other than emergency vehicles, for a period of 4 to 8 weeks, or until the grass is mature to handle traffic.
B. Sodded areas must be protected from any traffic, other than emergency vehicles, for a period of 3 to 4 weeks, or until the root system has penetrated below the Grasspave2 units.

3.06 Cleaning
A. Remove and replace segments of Grasspave2 units where three or more adjacent rings are broken or damaged, reinstalling as specified, so no evidence of replacement is apparent.
B. Perform cleaning during the installation of work and upon completion of the work. Remove all excess materials, debris, and equipment from site. Repair any damage to adjacent materials and surfaces resulting from installation of this work.

END OF SECTION
If you have any questions regarding this specification, please call Invisible Structures, Inc. 1-800-233-1510, overseas call 303-233-8383.

Version 09/2008

ARC3
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6671 13th Avenue North, Suite 1C
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EB #5936

RAM A. GOEL, Ph.D., P.E. #47431

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Construction Documents

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision

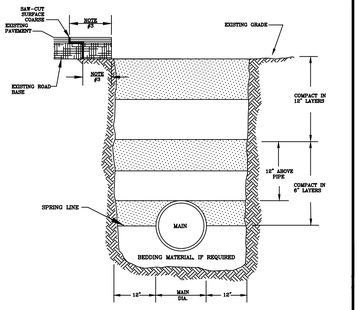
Drawn By:
Checked By:

CIVIL SITE DETAILS

C6.2

Project: 10002
Date: April 5th, 2010

NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. TRENCHING LOCATED UNDER PAVEMENT OR INSIDE THE 5' HORIZONTAL TO 1' VERTICAL SLOPE, DOWNWARD FROM ROADWAY SHOULDER OR THE BACK OF CURB AND, FROM SPRING LINE TO BOTTOM OF SUB-GRADE OR THE FINISHED SURFACE OF THE EMBANKMENT, AS APPROPRIATE, SHALL BE COMPACTED TO A DENSITY OF 100% AS DETERMINED BY AASHTO T-99 METHOD C.
3. TRENCHES LOCATED OUTSIDE OF THE 5' HORIZONTAL TO 1' VERTICAL SLOPE DOWNWARD FROM ROADWAY SHOULDER OR THE BACK OF CURB AND, FROM SPRING LINE TO FINISHED GRADE WILL FAIR OVER THE TRENCHES. BACK FILL SHALL BE COMPACTED TO A DENSITY APPROXIMATELY EQUAL TO THAT SOIL ADJACENT TO THE TRENCH BUT NOT LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD C.
4. REMOVAL AND REPLACEMENT OF PAVEMENT AND ROAD BASE SHALL BE MADE IN ACCORDANCE WITH THE LATEST APPLICABLE LOCAL REGULATIONS.



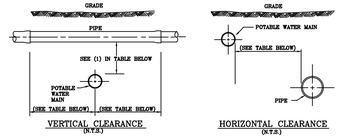
PINELLAS COUNTY
UTILITIES ENGINEERING
TRENCH BACKFILL
DETAIL

DETAIL I.D.: PCU GD 1
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

PINELLAS COUNTY
UTILITIES ENGINEERING
MAIN CLEARANCES
DETAIL

DETAIL I.D.: PCU GD 2
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

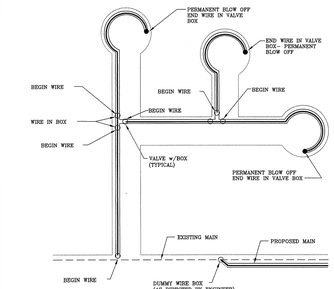
NOTE:
ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.



PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS
VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (3)	3 FT. MINIMUM	12 INCHES IS THE MINIMUM, EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 18 INCHES IS PREFERRED.	(FULL JOINT CENTERED, ALTERNATE 3 FT. MINIMUM FROM ALL JOINTS)
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	10 FT. PREFERRED 6 FT. MINIMUM (3)	12 INCHES IS THE MINIMUM, EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 18 INCHES IS PREFERRED.	(FULL JOINT CENTERED, ALTERNATE 6 FT. MINIMUM FROM ALL JOINTS)
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	–	–

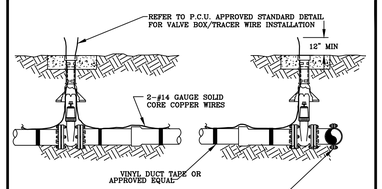
NOTE: (IN ACCORDANCE WITH F.A.C. RULE 62-555.314)
1. POTABLE WATER MAIN SHOULD CROSS ABOVE OTHER PIPE, WHEN POTABLE WATER MAIN MUST CROSS BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. IF STREET IS A SHORT CUL-DE-SAC, LOCATOR WIRE IS TO RUN FROM MAIN VALVE TO BLOW-OFF VALVE BOX.



PINELLAS COUNTY
UTILITIES ENGINEERING
TRACER WIRE LAYOUT
DETAIL

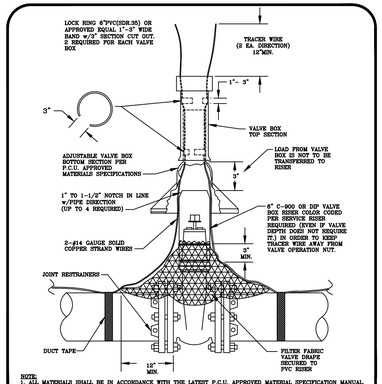
DETAIL I.D.: PCU GD 3
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION:



NOTES
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. USE 2–#14 GAUGE (MINIMUM), SOLID CORE COPPER WIRE WITH COLOR CODED INSULATION PER SERVICE.
3. THERE SHALL BE SUFFICIENT SLACK IN TRACER WIRE TO EXTEND A MIN. OF 12" ABOVE VALVE BOX.
4. WIRE IS TO CONTINUE THROUGH TEES ON MAIN LINE WHERE NO VALVES EXIST.
5. ATTACH WIRE TO TOP CENTER LINE OF MAIN USING DUCT TAPE OR APPROVED EQUAL @ 5'– 0" INTERVALS
6. DUMMY BOXES ARE TO CONSIST OF A TOP SECTION OF A VALVE BOX ASSEMBLY ENCASED IN A CONCRETE VALVE BOX COLLAR PER P.C.U. APPROVED STANDARD DETAIL.

PINELLAS COUNTY
UTILITIES ENGINEERING
TRACER WIRE INSTALLATION
DETAIL

DETAIL I.D.: PCU GD 3a
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07



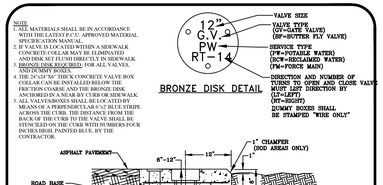
NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. FILTER FABRIC REQUIRED ON VALVES WHEN PIPE LINE HAS 5' OR MORE OF COVER
VALVE KEY EXTENSION REQUIRED ON VALVES WITH OPERATOR NUT OVER 5' DEEP.
COLOR CODED POLY WRAP REQUIRED ON ALL BURIED VALVES AND FITTINGS.

PINELLAS COUNTY
UTILITIES ENGINEERING
VALVE BOX/TRACER WIRE INSTALLATION
DETAIL

DETAIL I.D.: PCU GD 4
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

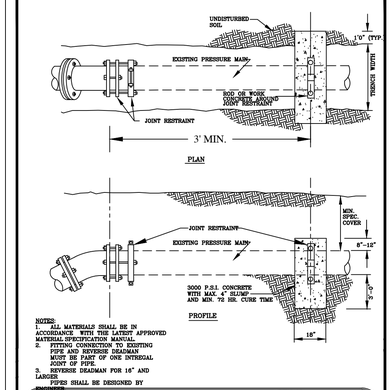
NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. ALL VALVE BOXES SHALL BE LOCATED IN SIDEWALK, CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
3. BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.
4. THE 24"x24"X6" THICK CONCRETE VALVE BOX COLLAR CAN BE INSTALLED BELOW THE FACE OF SIDEWALK TO ELIMINATE THE CONCRETE COLLAR AROUND BRONZE SIDEWALK.
5. ALL VALVE STORAGES SHALL BE LOCATED BY MEANS OF A PERPENDICULAR 6"x2" BLUE STRIPE ACROSS THE CURB. THE DISTANCE FROM THE BACK OF THE CURB TO THE VALVE SHALL BE STENCILED ON THE CURB WITH NUMBERS FOUR INCHES IN HEIGHT PAINTED BLUE, BY THE CONTRACTOR.

BRONZE DISK DETAIL



PINELLAS COUNTY
UTILITIES ENGINEERING
CONCRETE VALVE BOX AND COLLAR
DETAIL

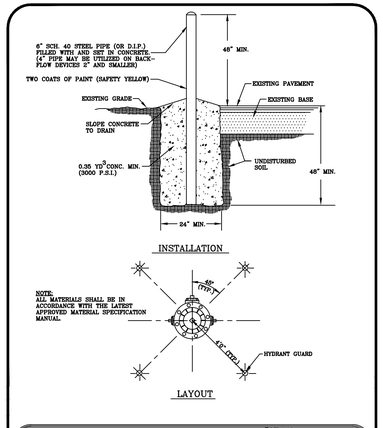
DETAIL I.D.: PCU GD 5
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07



NOTES:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED MATERIAL SPECIFICATION MANUAL.
2. FITTING CONNECTION TO EXISTING PIPE AND REVERSE DEADMAN MUST BE PART OF ONE INTREGAL JOINT OF PIPE.
3. REVERSE DEADMAN FOR 16" AND LARGER PIPES SHALL BE DESIGNED BY ENGINEER.

PINELLAS COUNTY
UTILITIES ENGINEERING
REVERSE DEAD MAN RESTRAINT
DETAIL

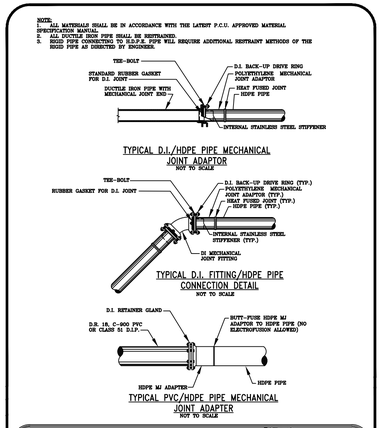
DETAIL I.D.: PCU GD 6
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07



PINELLAS COUNTY
UTILITIES ENGINEERING
BOLLARD DETAIL

DETAIL I.D.: PCU GD 7
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. ALL DUCTILE IRON PIPE SHALL BE RESTRAINED.
3. RIGID PIPE CONNECTING TO H.D.P.E. PIPE WILL REQUIRE ADDITIONAL RESTRAINT METHODS OF THE RIGID PIPE AS DIRECTED BY ENGINEER.



PINELLAS COUNTY
UTILITIES ENGINEERING
FUSIBLE PVC/HDPE PIPE CONNECTIONS

DETAIL I.D.: PCU GD 10
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

PRESSURE MAIN RESTRAINED JOINT

PIPE SIZE	FITTINGS					
	TEE	90°	45°	22½°	11¼°	DEAD END
2"	F	40	17	F	F	40
4"	19	49	20	10	5	49
6"	33	69	28	14	7	69
8"	58	88	37	18	9	88
10"	76	107	44	21	11	107
12"	93	125	52	25	12	125
14"	110	142	59	28	14	142
16"	127	159	66	32	16	159
18"	143	175	73	35	17	175
20"	132	164	68	33	16	164
24"	159	192	79	38	19	192
30"	195	229	95	46	23	229
36"	230	264	109	53	26	264
42"	261	296	123	59	29	296
48"	290	326	135	65	32	326

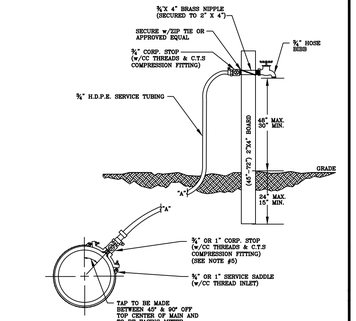
NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. THIS TABLE SHALL BE UTILIZED FOR ALL PRESSURE MAIN INSTALLATIONS. ALL FITTINGS SHALL BE RESTRAINED TO THE LENGTHS INDICATED, AT A MINIMUM.
3. THIS TABLE WAS DEVELOPED USING THE FOLLOWING ASSUMPTIONS:
   - PIPE WITH POLYWRAP
   - SAFETY FACTOR OF 1.5 TO 1
   - TEST PRESSURE OF 150 P.S.I.
   - SOIL TYPE 3 SM
   - TRENCH CLASS B
   - DEPTH OF COVER = 2.5' UP TO 18' AND 3' FOR 20" AND ABOVE
4. FOR THE BRANCH LEG OF A TEE, THE RESTRAINED LENGTH SHALL BE THE SAME AS A DEAD END.
5. ALL BENDS AND VALVES SHALL BE RESTRAINED ON EACH SIDE OF THE FITTING.
6. ALL RESTRAINED PIPE LENGTHS ARE IN FEET.
7. "F" REPRESENTS THE RESTRAINED JOINTS AT THE FITTINGS.

FITTINGS			
REDUCERS			LARGER
LG. SIZE	SM. SIZE	LENGTH	PIPE
4"	2"	17'	24
6"	4"	50'	23
8"	4"	91'	64
	6"	37'	57
10"	4"	123'	87
	6"	83'	66
	8"	51'	38
12"	4"	154'	108
	6"	123'	93
	8"	91'	68
	10"	54'	40
14"	4"	170'	113
	6"	151'	97
	8"	121'	82
	10"	83'	67
	12"	50'	36
16"	4"	186'	134
	6"	170'	118
	8"	154'	94
	10"	116'	67
	12"	86'	67
	14"	50'	36
18"	4"	202'	159
	6"	186'	118
	8"	170'	94
	10"	132'	67
	12"	102'	67
	14"	66'	52
	16"	50'	36
20"	4"	218'	159
	6"	202'	143
	8"	186'	103
	10"	148'	67
	12"	118'	67
	14"	82'	52
	16"	66'	36
	18"	50'	36
24"	4"	250'	159
	6"	234'	143
	8"	218'	103
	10"	180'	67
	12"	150'	67
	14"	114'	52
	16"	98'	36
	18"	82'	36
	20"	66'	36
30"	4"	282'	144
	6"	266'	128
	8"	250'	88
	10"	212'	67
	12"	182'	67
	14"	146'	52
	16"	130'	36
	18"	114'	36
	20"	98'	36
	24"	66'	36
36"	4"	314'	159
	6"	298'	143
	8"	282'	103
	10"	244'	67
	12"	214'	67
	14"	178'	52
	16"	162'	36
	18"	146'	36
	20"	130'	36
	24"	98'	36

PINELLAS COUNTY
UTILITIES ENGINEERING
PRESSURE MAIN RESTRAINED JOINT
DETAIL

DETAIL I.D.: PCU GD 11
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

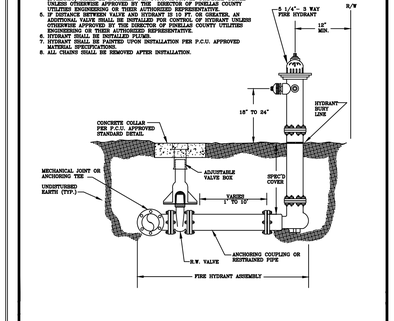
NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. LOCATION OF SAMPLE POINT SHALL NOT BE WITHIN LIMITS OF ROADWAY BUT ROUTED TO ROADWAY SHOULDER (NON–TRAFFIC AREA).
3. ALL FITTINGS AND TUBING SHALL BE BRASS CONNECTIONS, WHERE POSSIBLE.
4. WHEN UTILIZING TEMPORARY SAMPLE POINT AT A SERVICE CONNECTION, THEN A TRACER WIRE IS REQUIRED.
5. SAMPLE POINTS TO BE ABANDONED AFTER USE SHALL BE FITTED WITH A 3" CC x P.I.P. CORP. STOP.
6. REMOVE ALL PIPE AND ABOVE GROUND FITTINGS AND PLUG CORP. STOP WITH 3" PLUG.



PINELLAS COUNTY
UTILITIES ENGINEERING
TEMPORARY SAMPLING POINT
DETAIL

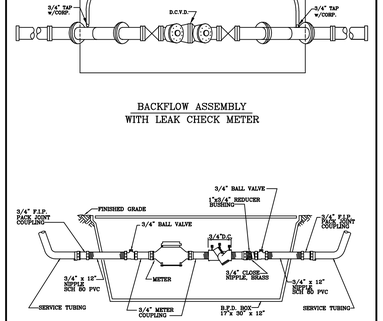
DETAIL I.D.: PCU WD 1
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

NOTES:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. ALL ROUTED FITTINGS SHALL BE POLYETHYLENE WRAPPED, COLOR CODED PER SERVICE.
3. HYDRANT BONNET(S) SHALL HAVE A CONCRETE COLLAR PER P.C.U. APPROVED STANDARD DETAIL.
4. IF FIRE HYDRANT IS INSTALLED WITHIN AN OFF–STREET VEHICULAR AREA, AND IS LOCATED WITHIN 10 FT. OR LESS OF A VEHICULAR USE AREA, GUARD POSTS (BOLLARDS) SHALL BE INSTALLED PER P.C.U. APPROVED STANDARD DETAIL.
5. IF DISTANCE BETWEEN VALVE AND HYDRANT IS 10 FT. OR GREATER, AN ADDITIONAL VALVE SHALL BE INSTALLED FOR CONTROL OF HYDRANT UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF PINELLAS COUNTY UTILITIES ENGINEERING OR THEIR AUTHORIZED REPRESENTATIVE.
6. HYDRANT SHALL BE INSTALLED PLUMB.
7. HYDRANT SHALL BE PAINTED UPON INSTALLATION PER P.C.U. APPROVED MATERIAL SPECIFICATIONS.
8. ALL CHAINS SHALL BE REMOVED AFTER INSTALLATION.

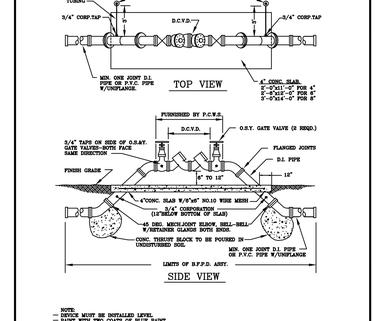


PINELLAS COUNTY
UTILITIES ENGINEERING
FIRE HYDRANT ASSEMBLY
DETAIL

DETAIL I.D.: PCU WD 6
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING:
REVISION: AUGUST/07

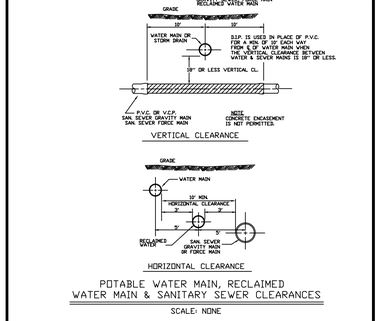


DRAWN BY: AB	STANDARD DETAIL	ENGINEERING DIVISION
APPROVED:	LEAK CHECK ASSEMBLY	PINELLAS COUNTY WATER SYSTEM
DATE: N.T.S.		



NOTE:
– DEVICE MUST BE INSTALLED LEVEL
– PAINT WITH TWO COATS OF BLUE PAINT
– ALL BOLTS, NUTS, WASHERS AND RODS FITTINGS SHALL BE COATED WITH TAR–EPOXY.
– RESTRAIN PER P.C.W.S.SPECIFICATIONS.

DRAWN BY: JS/AB	STANDARD DETAIL	ENGINEERING DIVISION
APPROVED:	DOUBLE CHECK VALVE ASSEMBLY NON–METERED FIRE LINE: 4", 6", & 8"	PINELLAS COUNTY WATER SYSTEM
DATE: SCALE: N.T.S.		



POTABLE WATER MAIN, RECLAIMED WATER MAIN & SANITARY SEWER CLEARANCES

SCALE: NONE

PINELLAS COUNTY
UTILITIES ENGINEERING
EFFLUENT, WATER & SEWER CLEARANCES

NAME: SD5
NAME: RSTDCL
LAST. REV.:

ARC3
architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
(727) 381-5220
(727) 381-0052 fax

Northside
Engineering Services, Inc.
CIVIL ♦ LAND PLANNING ♦ DUE DILIGENCE REPORTS
RE-ZONING ♦ LAND USE ♦ ANNEXATION ♦ TRAFFIC
STORMWATER MANAGEMENT ♦ UTILITY DESIGN
CONSTRUCTION ADMINISTRATION

300 SOUTH BELCHER ROAD
Clearwater, Florida 33765
Tel: (727) 443-2869 Fax: (727) 446-8036
E-MAIL: TECH @ NORTHSIDEENGINEERING.NET
EB #5936

RAM A. GOEL, Ph.D., P.E. #47431

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Construction Documents

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

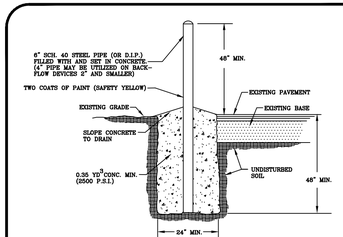
REVISIONS		
No.	Date	Revision

Drawn By:
Checked By:

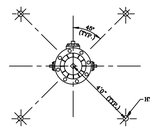
CIVIL SITE DETAILS

C6.3

Project: 10002
Date: April 5th, 2010



INSTALLATION



LAYOUT

PINELLAS COUNTY
UTILITIES ENGINEERING
TYPICAL BALLARD GUARD POST

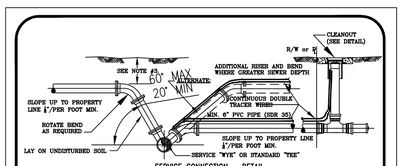
SD-18
APPROVED BY:
DATE: 05/21/01
REVISION:

PIPE SIZE	TYPE FITTING					
	90°	45°	22 1/2°	11 1/4°	DEAD-END	TEE
4"	3	1	1	1	4	1
6"	4	2	1	1	6	1
8"	5	2	1	1	9	2
10"	6	3	1	1	10	3
12"	7	3	2	1	11	5
16"	8	4	2	1	14	8
20"	9	4	2	1	18	11
24"	10	4	2	1	22	13

TABLE APPLIES TO 20 FOOT PIPE LENGTHS @ 150 P.S.I.G. 2 HOUR TEST PRESSURE WITH 30 INCHES OF COVER OVER PIPE. NUMBERS SHOWN IN TABLE ARE THE NUMBER OF JOINTS FOR EACH SIDE OF FITTING.

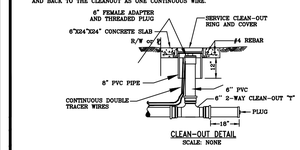
PINELLAS COUNTY
UTILITIES ENGINEERING
PRESSURE MAIN
RESTRAINED JOINT REQUIREMENTS

SD-19
APPROVED BY:
DATE: 05/21/01
REVISION:



SERVICE CONNECTION - DETAIL
SCALE: NONE

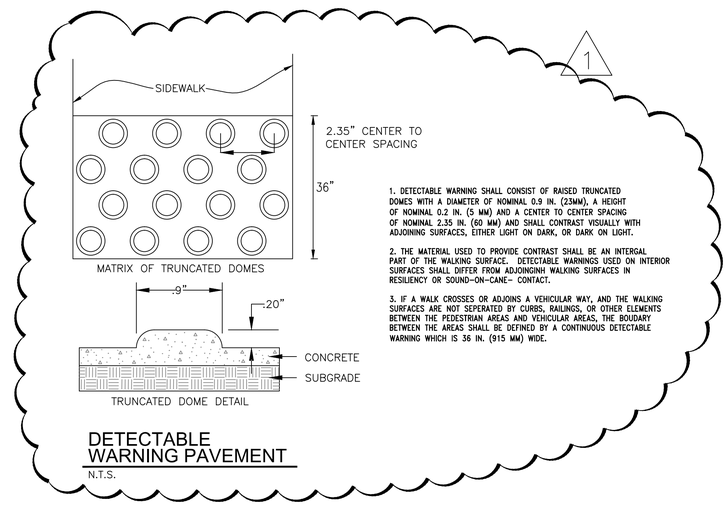
NOTE:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST P.C.U. APPROVED MATERIAL SPECIFICATION MANUAL.
2. SERVICE CONNECTIONS MAY NOT HAVE BEEN SHOWN ON PLAN/PROFILE SHEETS. SERVICE CONNECTION LOCATIONS SHALL BE DETERMINED IN THE FIELD AND CONNECTIONS CONSTRUCTED ACCORDANCE WITH P.C.U. APPROVED THECHNICAL SPECIFICATIONS, MATERIALS MANUAL & THESE DETAILS. FOR NEW DEVELOPMENT, THE SERVICE CONNECTION SHALL BE CONSTRUCTED IN THE CENTER OF THE LOT.
3. MINIMUM DEPTH UNDER ROADWAY 48" MINIMUM DEPTH AT PROPERTY LINE 36" (OR AS REQUIRED FOR SERVICE).
4. SERVICE LINES SHALL BE A MIN. OF 6" TO ALL RESIDENCES.
5. NO DOUBLE WYE UNITS SHALL BE PERMITTED ON SERVICE LINE. ALL RESIDENCES SHALL BE SERVED BY A SINGLE SERVICE.
6. RISERS SHALL BE INSTALLED ON ALL WYES (BOTH PRESENT & FUTURE SERVICES).
7. RISERS SHALL PREFERABLY FOLLOW SLOPE OF BANK TO REQUIRED DEPTH.
8. THE TRACER WIRE SHALL START AT THE CLEANOUT AND RUN ALONG THE SEWER SERVICE TO THE MAIN AND BACK TO THE CLEANOUT AS ONE CONTINUOUS WIRE.



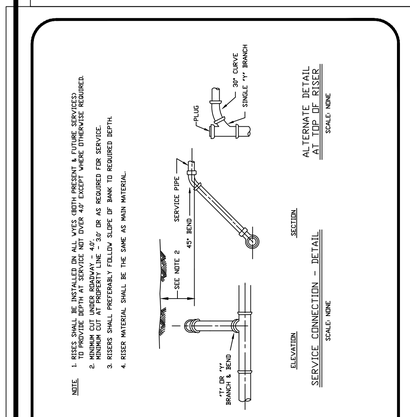
CLEAN-OUT DETAIL
SCALE: NONE

PINELLAS COUNTY
UTILITIES ENGINEERING
SEWER SERVICE CONNECTION AND CLEAN-OUT DETAIL

DETAIL I.D.: PCU SD 4
DATE: JUNE/06
DIRECTOR, PC UTILITIES ENGINEERING
REVISION: AUGUST/07



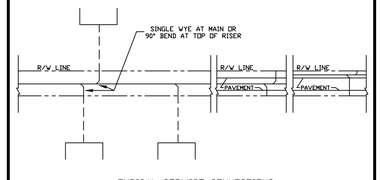
DETECTABLE WARNING PAVEMENT
N.T.S.



NOTE
1. RISERS SHALL BE INSTALLED ON ALL WYES (BOTH PRESENT & FUTURE SERVICES).
2. TO PROVIDE DEPTH AT SERVICE NOT OVER 42" EXCEPT WHERE OTHERWISE REQUIRED.
3. MINIMUM CUT AT PROPERTY LINE = 36" OR AS REQUIRED FOR SERVICE.
4. RISERS SHALL PREFERABLY FOLLOW SLOPE OF BANK TO REQUIRED DEPTH.
4. RISER MATERIAL SHALL BE THE SAME AS MAIN MATERIAL.

PINELLAS COUNTY
UTILITIES ENGINEERING
SEWER SERVICE CONNECTION DETAIL

SD6
NAME: RSTDCONN
LAST. REV.:

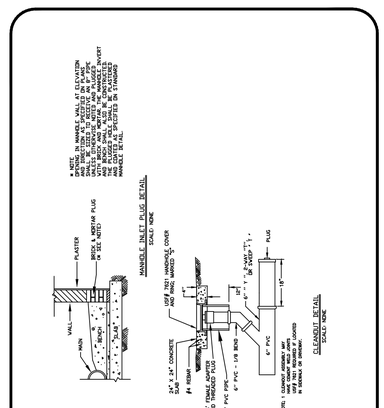


TYPICAL SERVICE CONNECTIONS
SCALE: NONE

NOTE
1. SERVICE CONNECTIONS MAY HAVE NOT BEEN SHOWN ON PROFILE SHEETS. SERVICE CONNECTION LOCATIONS SHALL BE DETERMINED IN THE FIELD AND CONNECTIONS CONSTRUCTED IN ACCORDANCE WITH THESE DETAILS. NEW DEVELOPMENT SERVICE CONNECTION SHALL BE CONSTRUCTED IN THE CENTER OF THE LOT.
2. PLUGS SHALL BE PERMANENT AND SHALL BE PROVIDED WITH FACTORY JOINTS.
3. SERVICE LINE TO BE 4" TO ALL SINGLE RESIDENCES & 6" TO ALL MULTIPLE RESIDENCES, MOTELS & COMMERCIAL BUILDINGS.
4. NO DOUBLE WYE UNITS SHALL BE PERMITTED ON MAIN LINE.

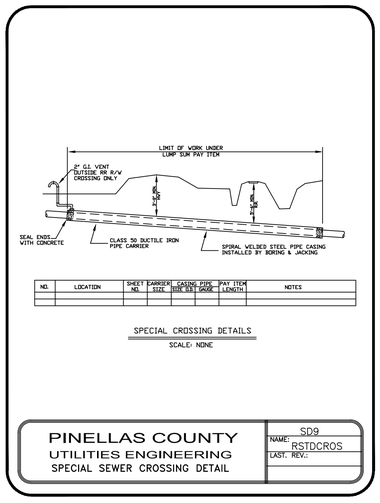
PINELLAS COUNTY
UTILITIES ENGINEERING
TYPICAL SEWER SERVICE CONNECTION

SD7
NAME: RSTDTYPC
LAST. REV.:



PINELLAS COUNTY
UTILITIES ENGINEERING
SEWER INLET PLUG, CLEANOUT & VALVE BOX

SD8
NAME: XXXXXXXX
LAST. REV.:



NO.	LOCATION	SHEET NO.	CARRIER SIZE	CASING PIPE SIZE & GAUGE	PAY ITEM LENGTH	NOTES

SPECIAL CROSSING DETAILS
SCALE: NONE

PINELLAS COUNTY
UTILITIES ENGINEERING
SPECIAL SEWER CROSSING DETAIL

SD9
NAME: RSTDCROS
LAST. REV.:

PINELLAS COUNTY
UTILITIES ENGINEERING
SCHEDULE OF LENGTHS OF RESTRAINED PIPE

SD12
NAME: RSTDRJNT
LAST. REV.: 2/95

TABLE SHOWING MINIMUM LENGTH OF PIPE EACH WAY FROM FITTING OR DEAD-END FOR WHICH RESTRAINT IS REQUIRED. F = RESTRAIN FITTING ONLY

FITTING:	DEAD-END			TEE			90°BEND			45°BEND			22-1/2°BEND			11-1/4°BEND		
PIPE SIZE:	PVC	DI	DI/ POLY	PVC	DI	DI/ POLY	PVC	DI	DI/ POLY	PVC	DI	DI/ POLY	PVC	DI	DI/ POLY	PVC	DI	DI/ POLY
4	39	25	58	F	F	F	14	12	16	6	5	7	3	2	3	1	1	2
6	55	35	81	F	F	F	20	17	23	8	7	9	4	3	4	2	2	2
8	72	46	107	F	F	F	26	22	29	11	9	12	5	4	6	3	2	3
10	86	55	128	F	F	F	31	26	35	13	11	14	6	5	7	3	2	3
12	102	65	150	4	3	6	36	30	41	15	12	17	7	6	8	3	3	4
14	116	74	171	17	11	25	41	34	46	17	14	19	8	7	9	4	3	4
16	131	83	192	21	29	43	46	38	52	19	16	21	9	7	10	4	4	5
18	144	92	213	43	27	64	50	42	57	21	17	23	10	8	11	5	4	5
20	158	101	233	56	36	83	55	46	62	23	19	26	11	9	12	6	4	6
24	185	117	272	81	51	118	63	53	71	26	22	29	12	10	14	6	5	7
30	221	141	326	114	73	168	74	62	83	31	26	34	14	12	16	7	6	8
36	256	163	377	147	93	215	85	71	94	35	29	36	16	14	18	8	7	9

TABLE APPLIES TO PIPE @ 150 P.S.I.G. TEST PRESSURE IN SAND WITH THREE FEET OF COVER OVER PIPE, INSTALLED IN A TYPE 4 TRENCH CONDITION & 1.5 SAFTEY FACTOR.

SCHEDULE OF LENGTHS OF RESTRAINED PIPE

ARC3 architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
(727) 381-5220
(727) 381-0052 fax

Northside Engineering Services, Inc.
CIVIL ♦ LAND PLANNING ♦ DUE DILIGENCE REPORTS
RE-ZONING ♦ LAND USE ♦ ANNEXATION ♦ TRAFFIC
STORMWATER MANAGEMENT ♦ UTILITY DESIGN
CONSTRUCTION ADMINISTRATION

300 SOUTH BELCHER ROAD
Clearwater, Florida 33765
Tel: (727) 443-2869 Fax: (727) 446-8036
E-MAIL: TECH @ NORTHSIDEENGINEERING.NET
EB #5936

RAM A. GOEL, Ph.D., P.E. #47431

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Construction Documents

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/11/10	ADDENDUM #3

Drawn By:
Checked By:

CIVIL SITE DETAILS

C6.4

Project: 10002
Date: April 5th, 2010

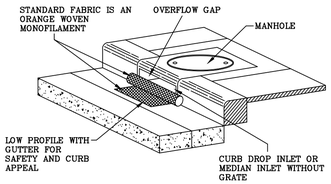
TRUE DAM®

Installation and Maintenance Guidelines

Installation: Place True Dam® on ground with aggregate pouch on street side near the inlet on which it will be installed. Open Velcro access pouch located on the street side edge of the unit. If using optional absorbents, place absorbent sock in pouch and push to back of pouch. Fill pouch with aggregate to a level that will keep the unit in place during a rain event and create a seal between the True Dam® and the surface of the street. Reseal Velcro access. Center the unit against a curb or median inlet opening so that the curb side of the unit creates a seal with the curb and inlet structure. There should be an equal length of the True Dam® overhanging on each side of the opening.

Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.

TRUE DAM®



CURB INLET PROTECTION

N.T.S.

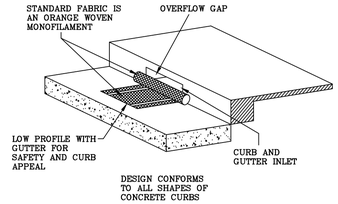
BEAVER DAM®

Installation and Maintenance Guidelines

Installation: The empty Beaver Dam® should be placed over the grate as the grate stands on end. If using optional oil absorbents; place absorbent pillow on pouch, on the bottom (below-grade side) of the unit. Attach absorbent pillow to tether loop. Tuck the enclosure flap inside to completely enclose the grate. Holding the lifting devices (do not rely on lifting devices to support the entire weight of the grate), place the grate into its frame (street side first), then lower back edge with dam into place. The Beaver Dam® should be partially blocking the curb hood when installed properly.

Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. Remove sediment that has accumulated within the containment area of the Beaver Dam® as needed. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.

BEAVER DAM®



CURB INLET PROTECTION

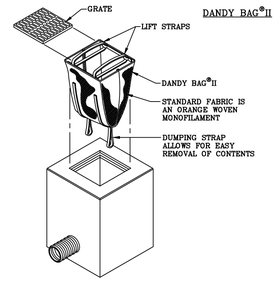
N.T.S.

DANDY BAG®II

Installation and Maintenance Guidelines

Installation: Remove the grate from catch basin. If using optional oil absorbents; place absorbent pillow in unit. Stand the grate on end. Move the top lifting straps out of the way and place the grate into the Dandy Bag II so that the grate is below the top straps and above the lower straps. Holding the lifting devices, insert the grate into the inlet.

Maintenance: Remove all accumulated sediment and debris from vicinity of unit after each storm event. After each storm event and at regular intervals, look into the Dandy Bag II. If the containment area is more than 1/3 full of sediment, the unit must be emptied. To empty unit, lift the unit out of the inlet using the lifting straps and remove the grate. If using optional oil absorbents; replace absorbent when near saturation.



TYPICAL CONSTRUCTION SEQUENCE FOR SILT-SAVER FRAME & FILTER

1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
2. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
3. SLIDE THE FILTER OVER THE FRAME.
4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.

INLET PROTECTION

N.T.S.

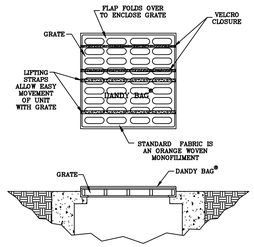
DANDY BAG®

Installation and Maintenance Guidelines

Installation: The empty Dandy Bag® should be placed over the grate as the grate stands on end. If using optional oil absorbents; place absorbent pillow in pouch, on the bottom (below-grade side) of the unit. Attach absorbent pillow to tether loop. Tuck the enclosure flap inside to completely enclose the grate. Holding the lifting devices (do not rely on lifting devices to support the entire weight of the grate), place the grate into its frame.

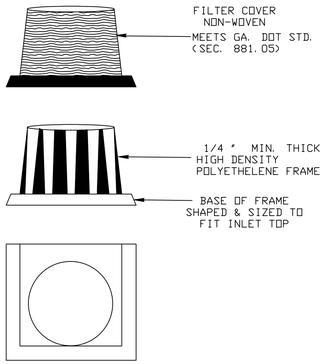
Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. Remove sediment that has accumulated within the containment area of the Dandy Bag® as needed. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.

DANDY BAG®



INLET PROTECTION

N.T.S.



YARD DRAIN PROTECTION

N.T.S.

EROSION CONTROL NOTES:

1. *SEDIMENT TRAPPING MEASURES: SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, FILTER FENCES, BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING WATER BODIES, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE AND INSPECTED BY THE ENGINEER BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS.*
2. *PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.*
3. *SEDIMENTATION BASIN: THE CONTRACTOR WILL BE REQUIRED TO PROHIBIT DISCHARGE OF SILT THROUGH THE OUTFALL STRUCTURE DURING CONSTRUCTION OF ANY RETENTION AREA AND WILL BE REQUIRED TO CLEAN OUT THE RETENTION AREA BEFORE INSTALLING ANY PERMANENT SUBDRAIN PIPE. IN ADDITION, PERMANENT RETENTION AREAS MUST BE TOTALLY CLEANED OUT AND OPERATE PROPERLY AT FINAL INSPECTION AND AT THE END OF THE WARRANTY PERIOD.*
4. *SWALES, DITCHES AND CHANNELS: ALL SWALES, DITCHES AND CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITHIN (3) DAYS OF EXCAVATION. ALL OTHER INTERIOR SWALES, ETC., INCLUDING DETENTION AREAS WILL BE SODDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.*
5. *PROTECTION AND STABILIZATION OF SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILED MATERIAL MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL UNSTABILIZED STOCKPILE REMAIN AFTER THIRTY (30) CALENDAR DAYS.*
6. *MAINTENANCE: ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.*
7. *REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. FAILURE TO INSTALL OR PROPERLY MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS, AS PROVIDED BY CHAPTERS 40D-4 & 40D-40 F.A.C. CAN RESULT IN A PENALTY NOT TO EXCEED $10,000 PER OFFENSE WITH EACH DATE DURING WHICH SUCH VIOLATION OCCURS CONSTITUTING A OFFENSE.*
8. *ALL DISTURBED CONDITIONS SHALL BE RESTORED TO NATURAL CONDITIONS OR BETTER.*
9. *DURING CONSTRUCTION SEDIMENT IS TO REMAIN ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO INITIATING AND DURING ALL PHASES OF LAND CLEARING AND CONSTRUCTION TO PREVENT SOIL EROSION AND SILTATION.*
10. *It is the responsibility of the contractor to control and prevent erosion and the transportation of sediment to surface drains and outfalls. Refer to construction plans, details, specifications and approved permits for details. Sediment deposits shall be removed when they reach six inches on an erosion device.*
11. *During the construction of drainage structures, and other structures requiring excavation, the contractor shall place straw barriers or other approved devices around such structures to prevent erosion and the migration of sediment to points outside the construction area. The straw barriers or other approved devices shall be placed in accordance with requirements of F.D.O.T. Indax No. 102 or as directed by the Engineer.*
12. *Required erosion control measures must remain intact throughout construction. Failure to install or properly maintain required erosion control will result in enforcement action. All erosion control measures, sand, silt, and debris shall be removed from all drainage pipes and structures after construction has been completed and prior to County final walk-through.*
13. *The contractor shall provide and maintain silt/turbidity barriers to control erosion and sediment from taking place outside the project limits. The silt/turbidity barriers shall be placed in accordance with requirements of F.D.O.T. Index No. 102 & 103, or as directed by the Engineer. All damaged or ineffective erosion control devices shall be replaced at no additional cost to the County.*
14. *Erosion control plan – any modifications to this plan must be signed and sealed by a Professional Engineer representing the contractor. These modifications must be approved by the County and the permitting agency. No contract delays will be allowed for such modifications or approvals.*
15. *Outfall protection – Project pipe or ditch discharges into off-site outfalls shall be inspected daily for possible sediment buildup or transport. Outfalls shall be protected through use of erosion control features as necessary to contain any sediment loss to the immediate area of the project. Any sediment buildup or transport off-site shall be the contractor's responsibility to remedy. The contractor shall use appropriate measures as directed by the Project Engineer for outfall protection.*
16. *Straw Barriers (or other approved sediment control devices) – These shall be placed at the base of any slope where a rainfall event could erode a slope and transport sediments off-site. Straw Barriers shall be double staked in accordance with F.D.O.T. Index No. 102. If erosion deposits reach the top elevation of existing straw barriers, then sediments should be removed. Any damaged or ineffective straw barriers are to be replaced with new ones. The location and installation of straw barriers shall be as directed by the Project Engineer.*
17. *Back of sidewalk inlets or median inlets – These shall be protected from sediment intake until project is complete. Elevation of ground outside inlet top shall not be higher than inlet top. Straw Barriers or other approved sediment control devices shall be installed around inlet top. A second row of straw barriers or other approved sediment control devices shall be placed around inlet approximately 4' outside first row. Between rows there shall be a depression to act as a sediment basin. Completed inlets in paved areas shall also be protected with a single line of straw barriers or other approved sediment control devices to prevent sediment intake from other areas.*
18. *Curb inlets – These inlets shall be protected from sediment intake until the project is complete. Straw Barriers or other approved devices shall be placed around the perimeter of the edge of the inlet opening.*
19. *Stockpiled materials shall be protected by cover, straw barriers or other approved sediment control devices.*
20. *All erosion control measures and conditions of adjacent properties shall be inspected weekly or after every by the contractor and the County's inspector. Deficiencies shall be noted and corrected, at no additional cost to the County, within 24 hours of notification.*
21. *All disturbed areas shall be stabilized within 14 days after ½" rain event disturbance.*
22. *Sediment trapping measures: Sediment basins and traps, perimeter berms, filter fences, berms, sediment barriers, vegetative buffers and other measures intended to trap sediment and/or prevent the transport of sediment into waters of the state or neighboring properties shall be installed, constructed or, in the case of vegetative buffers, protected from disturbance, as a first step in the land alteration process.*
23. *Contractor is responsible for obtaining the necessary dewatering permits from the local water management district or other regulatory agency.*
24. *A dewatering plan must be submitted and approved by the Engineer prior to discharge.*
25. *Where pumps are to be used to remove turbid water from the construction area, the water shall be treated to reduce turbidity to state water quality standards prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate vegetated areas (other than upland preservation areas and wetland buffers), sediments basins, or areas confined by an appropriate enclosure such as turbidity barriers, and kept confined until its turbidity level meets state water quality standards.*
26. *If wind erosion becomes significant during construction, the contractor shall stabilize the affected area using sprinkling, irrigation, or other acceptable methods.*
27. *There is to be no discharge (i.e. pumping, sheet flow, swale, ditch, etc.) into existing ditches or canals without the use of settling ponds. If the contractor desires to discharge into existing ditches or canals a settling pond plan prepared by the contractor must be submitted to and approved by the Engineer of Record and local regulatory agency prior to construction.*
28. *Soil tracking prevention devices shall be provided and maintained per F.D.O.T. Index No. 106.*
29. *All erosion & sediment controls shall be installed and maintained in accordance with the "FDOT DESIGN STANDARDS", and Section 104 of the "Pinellas County Public Works Standard Technical Specifications for Roadway and Related Construction", latest editions.*

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Construction Documents

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

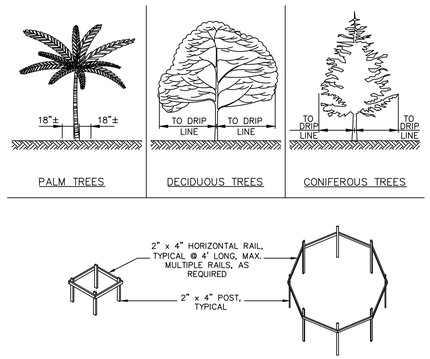
No.	Date	Revision

Drawn By:
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CIVIL SITE DETAILS

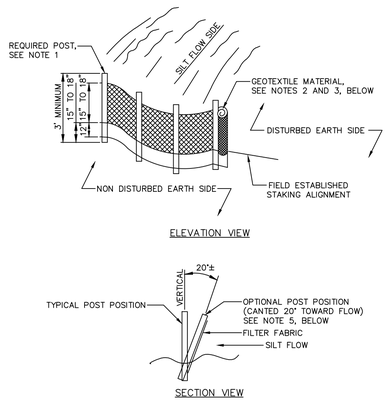
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Project: 10002
Date: April 5th, 2010



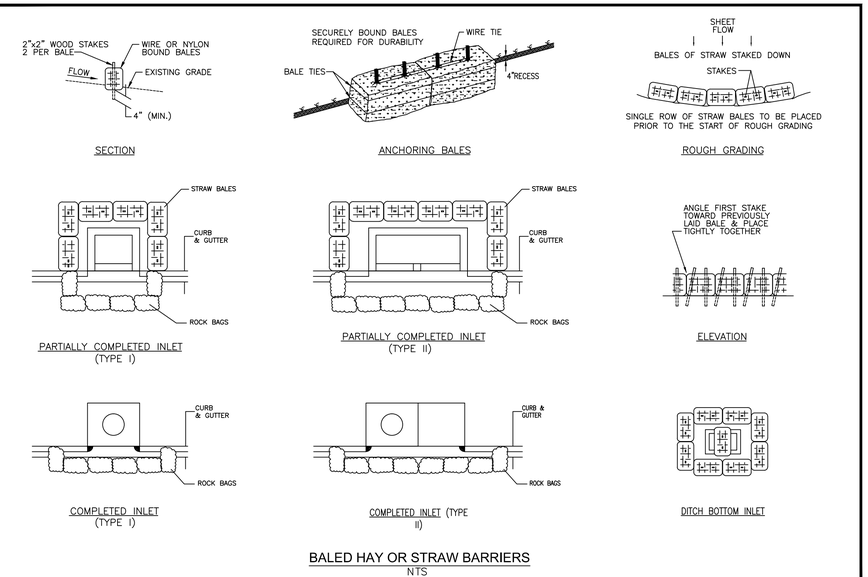
NOTES:
1. NO TRUCKS OR HEAVY EQUIPMENT ALLOWED WITHIN BARRIERS, ONLY HAND LABOR ALLOWED.
2. NO CONSTRUCTION MATERIALS, SOILS DEPOSITS, OR SOLVENTS SHALL BE ALLOWED WITHIN BARRIERS.
3. BARRIERS ARE TO IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITIES WITH-IN TREE AREA.
4. BARRIERS ARE TO STAY IN PLACE UNTIL ALL PAVING, CONSTRUCTION, AND HEAVY EQUIPMENT IS REMOVED FROM THE AREA.

TREE PROTECTION BARRIERS DETAIL
NTS

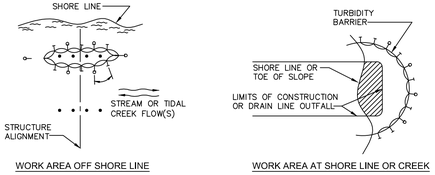


NOTES:
1. POST: 2" x 2" WOOD, P.T. OR 2-1/2" ø STEEL AT 6'-0" CENTERS MAXIMUM.
2. GEOTEXTILE; GRAB TENSILE AT 90 LBS, TRAPEZOIDAL TEAR AT 35 LBS., MULLEN BURST AT 180 PSI.
3. GEOTEXTILE MATERIAL SHALL BE BURIED IN THE GROUND A MINIMUM OF 12" AND BACK FILLED.
4. ALSO SEE FDOT INDEX 199, "GEOTEXTILE CRITERIA", EROSION CLASS.
5. OPTIONAL POST POSITION REQUIRED WHEN SLOPE IS GREATER THAN 1:2.

STAKED SILT BARRIER DETAIL
NTS



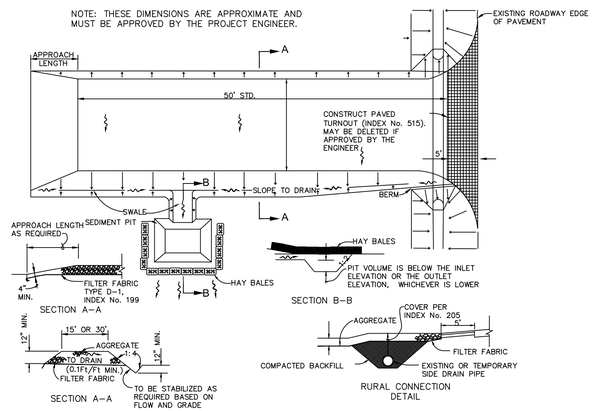
BALED HAY OR STRAW BARRIERS
NTS



LEGEND
- DREDGE OR FILL AREA
- MOORING BUOY W/ ANCHOR
- BARRIER MOVEMENT DUE
- TO CURRENT ACTION
- PILE LOCATIONS
- WAVE ACTION

NOTES:
1. CURTAIN TO REACH THE BOTTOM UP TO DEPTHS OF 10', 2 PANELS ARE TO BE USED FOR DEPTHS GREATER THAN 10' UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY ARE CALLED FOR IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. COMPONENTS OF TYPES I AND TYPES II MAY BE SIMILAR OR IDENTICAL TO PROPIERTARY DESIGNS. ANY INFRINGEMENT OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND/OR TYPE II SHALL BE AS APPROVED BY THE ENGINEER.
3. TURBIDITY BARRIERS SHALL BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
4. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
5. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VERY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
6. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION ACTIVITIES.
7. FOR ADDITIONAL INFORMATION, SEE SECTION 104 OF THE STANDARD FDOT SPECIFICATIONS.

FLOATING TURBIDITY BARRIER DETAIL
NTS



SOIL TRACKING PREVENTION DEVICE TYPE A
NTS

SOIL TRACKING PREVENTION DEVICE NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the Engineer for points of egress from unstabilized areas of the project to public roads where off site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed through a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The contractor may propose an alternative technique to minimize off site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregated shall be described in section 901 excluding 901-2.3. Aggregates shall be FDOT side #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are not suitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15'x50'=100 ft.³ 30'x50'=200 ft.³
   as an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, hay bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.2% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the side drain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent offset tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward through the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD: including but not limited to excavation, grading, temporary pipe (including M.E.S. when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Hay bales shall be paid for under the contract unit price for Hay or Straw Baled, EA. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, L.F.
10. The nominal size of a standard STPD is 15'X50' unless otherwise shown in the plans. If the volume of entering and exiting vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

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Construction Documents

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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REVISIONS

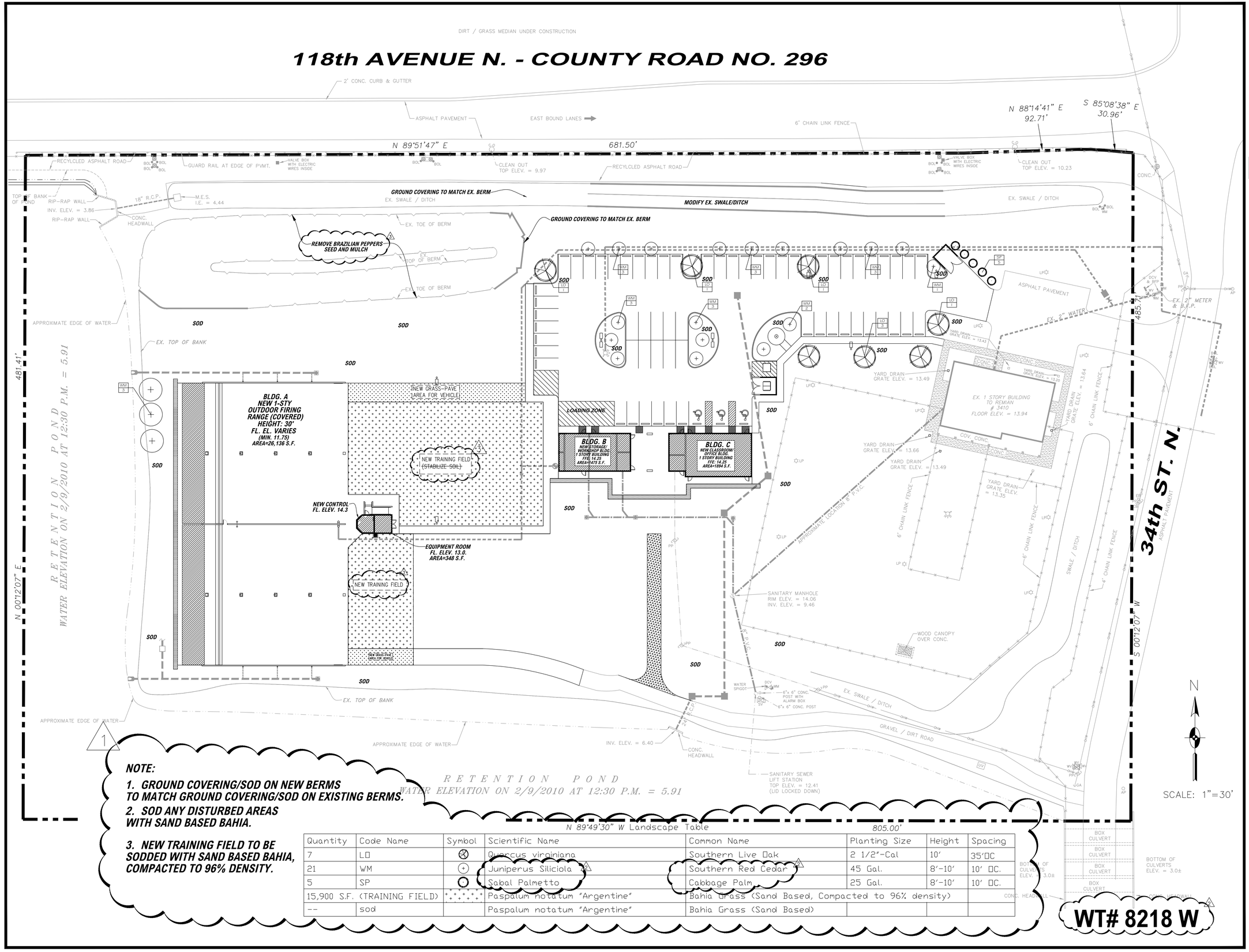
No.	Date	Revision

Drawn By:
Checked By:

CIVIL SITE DETAILS

C6.6

Project: 10002
Date: April 5th, 2010



NOTE:

1. **GROUND COVERING/SOD ON NEW BERMS TO MATCH GROUND COVERING/SOD ON EXISTING BERMS.**
2. **SOD ANY DISTURBED AREAS WITH SAND BASED BAHIA.**
3. **NEW TRAINING FIELD TO BE SODDED WITH SAND BASED BAHIA, COMPACTED TO 96% DENSITY.**

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Height	Spacing
7	LO	⊗	Quercus virginiana	Southern Live Oak	2 1/2"-Cal	10'	35' OC
21	WM	+	Juniperus Siliciola	Southern Red Cedar	45 Gal.	8'-10'	10' OC.
5	SP	○	Sabal Palmetto	Cabbage Palm	25 Gal.	8'-10'	10' OC.
15,900 S.F. (TRAINING FIELD)			Paspalum notatum "Argentine"	Bahia Grass (Sand Based, Compacted to 96% density)			
--	sod		Paspalum notatum "Argentine"	Bahia Grass (Sand Based)			

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Construction Documents

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/01/10	BOA REQUIREMENTS
3	08/04/10	VALUE ENGINEERING

Drawn By:
Checked By:

LANDSCAPE SITE PLAN

L1.1

Project: 10002
Date: April 5th, 2010

HABITAT MANAGEMENT AND LANDSCAPING PERMITS:

1. ALL EXOTIC SPECIES, I.E., BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIUS), PUNK TREES (MELALEUCA QUINQUENERVIA), AND CHINESE TALLOW (SAPIUM SEBIFERUM) MUST BE REMOVED AS A CONDITION OF SITE DEVELOPMENT. WHERE NECESSARY DUE TO THEIR PROXIMITY TO PROTECTED PLANT MATERIAL, HAND REMOVAL WILL BE REQUIRED. SHOULD THIS REMOVAL BE TO A DEGREE THAT A POTENTIAL FOR EROSION IS CREATED, THE AREA MUST BE RESTABILIZED WITH SUITABLE MATERIAL.

TREE PROTECTION AND PRESERVATION:

TREE BARRICADES AND EROSION CONTROL MEASURE REQUIREMENTS:
1. TREE BARRICADES AND/OR SILT SCREENS OR HAYBALES SHALL BE REQUIRED ALONG THE EDGES OF VEGETATED AREAS TO BE PROTECTED PRIOR TO THE ISSUANCE OF HABITAT MANAGEMENT AND LANDSCAPE PERMITS. THE LOCATION OR EROSION CONTROL MEASURES ARE SHOWN ON THE CONSTRUCTION DRAWINGS.

2. ALL DESIRABLE TREES MUST BE RETAINED WHEREVER POSSIBLE. IT WILL BE REQUIRED THAT PROPOSED IMPROVEMENTS (i.e. BUILDINGS, WALKWAYS, DRIVEWAYS, POND BANKS, DRAINAGE SYSTEMS, ETC.) BE ADJUSTED TO RETAIN DESIRABLE TREES. GRADE CHANGES MUST BE SENSITIVE TO TREES REMAINING. IN GENERAL, NO GRADE CHANGES SHOULD OCCUR WITHIN THE CANOPY DRIP LINE OF PINE TREES AND 2/3 THE CANOPY DRIP LINE OF HARDWOOD TREES TO BE SAVED.

3. REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION. THE PROTECTION STANDARDS SHALL BE SUBJECT TO THE RULES AND REGULATIONS OF PASCO COUNTY, AS MAY BE AMENDED FROM TIME TO TIME, IN ACCORDANCE WITH THE MEMORANDUM OF UNDERSTANDING BETWEEN PASCO COUNTY.
ALL ASSOCIATED PERMITS AND APPROVALS SHALL BE OBTAINED FROM PASCO COUNTY.

LANDSCAPING

1. EACH LANDSCAPING AND REPLANT TREE MUST BE PLANTED WITHIN A MINIMUM FIVE (5) FOOT BY TEN (10) FOOT OPEN SPACE PLANTER WITH SUITABLE GROUND COVER. LANDSCAPE TREES MUST BE PLANTED IN SAME VICINITY AS VEHICULAR USE AREAS IN ORDER TO BREAK THE MONOTONY OF UNBROKEN EXPANSES OF PAVING. TREES MUST NOT BE PLANTED WITHIN MAINTENANCE EASEMENTS.

2. THE USE OF XERISCAPE DESIGN MUST BE UTILIZED FOR THE REQUIRED LANDSCAPE DESIGN. THE DESIGN DEMONSTRATES THE USE OF A LOW VOLUME IRRIGATION SYSTEM, ORGANIC MULCHES, DROUGHT AND COLD TOLERANT PLANT MATERIAL, ZONING OF PLANT MATERIAL BY WATER REQUIREMENTS, SOIL AMENDMENTS (IF NECESSARY) AND THE

3. NEW LANDSCAPING MUST BE PROTECTED FROM VEHICULAR MOVEMENT BY WHEEL STOPS, RAILROAD TIES, OR OTHER SUITABLE BARRIER, WHERE POSSIBLE, THE AREA BETWEEN THE BARRIER AND LANDSCAPE MATERIAL SHOULD REMAIN AS GREENSPACE.

4. LARGE TREE SPECIES PROPOSED FOR INSTALLATION MUST BE A MINIMUM OF 20 FEET AWAY FROM BUILDINGS, SIGNS, FENCES, LIGHT POLES, UTILITY LINES AND ANY OTHER OBSTRUCTIONS THAT MAY

5. TREES PROPOSED FOR INSTALLATION MUST NOT BE IN CONFLICT WITH PROPOSED OR EXISTING UTILITY LINES OR STRUCTURES, EASEMENTS OR OTHER AREAS WHICH MAY REQUIRE EXCAVATION IN THE EVENT OF SYSTEM FAILURE. THESE FEATURES SUCH AS THE WATER LINES MUST REMAIN OUTSIDE THE 5' X 10' PLANTER AREA.

6. SOILS WITHIN PLANTER BEDS MUST BE SUITABLE FOR PROPOSED PLANTED MATERIAL WITH REGARDS TO pH, SOIL TEXTURE, SOIL STRUCTURE, AND SEASONAL HIGH WATER TABLE.

7. ALL LANDSCAPE MATERIAL MUST BE FLORIDA GRADE #1 OR BETTER. SELECTED FROM CITY OF SAFETY HARBOR SPECIES LIST.

8. ALL TREES SHALL BE AT LEAST 6' HIGH, 1-1/2" DHB
ALL SHRUBS SHALL HAVE A MINIMUM HEIGHT OF 24" AND MINIMUM 12" SPREAD WITH A THREE GALLON POT SIZE UPON PLANTING.

9. REQUIRED HEDGES SHALL BE MINIMUM OF 24" HIGH AT THE TIME PLANTING, PLACED AT 3' O.C., AND MAINTAINED AT 36" IN HEIGHT.

10. WHERE LANDSCAPE OR REPLANT TREES ARE PROPOSED TO BE PLANTED IN THE PERIMETER BUFFER, THE BUFFER MUST BE A MINIMUM OF 5' WIDE.

11. TREES PLANTED UNDER OVERHEAD OBSTRUCTIONS (i.e. POWER LINES) MUST BE CHOSEN FROM A SPECIES ON THE PINELLAS COUNTY APPROVED SPECIES LIST THAT IS COMPATIBLE WITH THE SPATIAL/HEIGHT RESTRICTION.

12. ALL EXISTING AND NEWLY PLANTED TREES AND SHRUBS SHALL BE MULCHED WITH 3" ORGANIC MATTER WITHIN A 2 FT.RADIUS AROUND TRUNK OF THE TREE.

IRRIGATION NOTES

1. SHALLOW WELLS, OPEN SURFACE WATER BODIES, OR RECLAIMED WATER MUST BE USED AS A SOURCE OF IRRIGATION WATER. THE DISTRIBUTION SYSTEM FOR IRRIGATION MUST NOT BE CONNECTED TO COUNTY OR MUNICIPAL WATER SOURCES, UNLESS IT CAN BE DEMONSTRATED THAT THESE SOURCES ARE NOT AVAILABLE.

2. IRRIGATION SYSTEMS MUST UTILIZE LOW VOLUME DESIGNS SUCH AS LOW TRAJECTORY HEADS OR SOAKER HOSES TO PROVIDE DIRECT APPLICATION AND LOW EVAPORATION. SYSTEMS THAT OVERSPRAY AREAS THAT DO NOT REQUIRE IRRIGATION, SUCH AS PAVED AREAS WILL NOT BE ACCEPTABLE. HIGH IRRIGATION NEED AREAS MUST NOT OVERSPRAY LOW NEED AREAS.

3. HIGH WATER DEMAND LANDSCAPE AREAS SUCH AS TURF MUST BE SERVED BY A SEPARATE IRRIGATION ZONE THAN LOW WATER NEED PLANTER BEDS, OR MULCHED AREAS WITH TREES. IN NO CASE, SHALL ANY PLANTED VEGETATION AREA BE MORE THAN 50' FROM A WATER SUPPLY, PER LOCAL CODES.

4. AUTOMATIC IRRIGATION SYSTEMS MUST BE OPERATED BY AN IRRIGATION SYSTEMS MUST BE OPERATED BY AN IRRIGATION CONTROLLER CAPABLE OF DIFFERENTIATING BETWEEN THE SCHEDULES OF HIGH AND LOW WATER DEMAND AREAS. CONTROLLERS MUST HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM ABLE TO BE SET TO COMPLY WITH LOCAL OR WATER MANAGEMENT DISTRICT IMPOSED RESTRICTIONS.

5. AUTOMATIC IRRIGATION SYSTEMS MUST BE EQUIPPED WITH RAIN SENSOR DEVICE OR SWITCH WHICH WILL OVERRIDE THE IRRIGATION CYCLE OF THE SPRINKLER SYSTEM WHEN ADEQUATE RAINFALL HAS OCCURRED.

IRRIGATION NOTES (CONTINUED)

THE IRRIGATION CONTRACTOR SHALL PROVIDE AN UNDERGROUND IRRIGATION SYSTEM TO COVER 100% OF ALL ON SITE PLANTING AREA. THIS SYSTEM SHALL CONTAIN BUT NOT LIMITED TO THE FOLLOWING:

1. UNDERGROUND PIPING, SHALL BE PVC SCHEDULE 40 OR BETTER.
2. SEVEN (7) DAY PROGRAMMABLE TIME CLOCK TO ACTIVATE ZONES.
3. SPRINKLER HEADS COMPATIBLE WITH THE TYPE OF PLANTING.
4. ELECTRIC VALVES.
5. GAUGE 14 UF COPPER WIRE.
6. FIBERGLASS OR PLASTIC ZONE VALVE BOXES.

WHERE PIPING IS UNDER DRIVEWAY AND CONCRETE WALKS, THE PIPES SHALL BE INSTALLED IN SCHEDULE 40 SLEEVES 18" BELOW GRADE.

MATERIALS SUPPLIED SHALL BE EQUAL TO THOSE MANUFACTURED BY RAIN BIRD OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT A SYSTEM LAY-OUT ALONG WITH CATALOG SHEETS OF ALL COMPONENTS IN THE SYSTEM TO THE OWNER FOR APPROVAL PRIOR TO INSTALLATION.

THE ENTIRE SYSTEM SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE ARCHITECT/ ENGINEER.

ANY AND ALL USE OF HOSE BIBBS IN ASSOCIATION WITH NON-POTABLE WATER SUPPLIES SHALL BE IN FULL COMPLIANCE WITH SBCCI STANDARD PLUMBING CODE, CHAPTER VI CRITERIA REFERENCE COLOR CODING OF ABOVE GRADE RISER PIPING AND LABEL/TAGGING OF OUTLETS AS NON-POTABLE WATER SUPPLY.

ANY BUILDING TO BE DEMOLISHED IS SUBJECT TO NOTIFICATION TO THE AIR TOXICS SECTION OF THE COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT PRIOR TO ANY DEMOLITION OF BUILDINGS.

XERISCAPING

1. ORGANIC MULCHES AND/OR DROUGHT TOLERANT GROUNDCOVERS WITHIN PROPOSED LANDSCAPE PLANTER BEDS.

2. DROUGHT AND COLD TOLERANT PLANT MATERIAL.

3. GROUPING OR ZONING PLANT MATERIAL BASE ON SIMILAR WATER REQUIREMENTS AND THE LOCATION OF PROPOSED IRRIGATION WATERING SYSTEMS.

4. THE USE OF SOIL TESTING TO IDENTIFY SOIL CONDITIONS NECESSARY FOR THE CONTINUED SURVIVAL OF PROPOSED LANDSCAPING.

5. ORGANIC SOIL AMENDMENTS (SUCH AS TOP SOILS, MANURE'S, PEAT AND COMPOSTED MATERIALS) MIXED EXISTING SOILS WITHIN LANDCAPING PLANTER BEDS TO DEPTHS CONSISTENT WITH THE ROOT DEPTH OF PROPOSED PLANTED MATERIAL (USE ONLY IF EXISTING SOIL CONDITIONS WARRANT THESE AMENDMENTS).

6. THE PRESERVATION AND INCORPORATION OF EXISTING PLANT COMMUNITIES ON SITE INTO THE LANDSCAPE PLAN.

7. THE MINIMAL USE OF TURF GRASSES WHICH REQUIRE FREQUENT IRRIGATION.

8. LOW-MAINTENANCE DESIGN.

TREE & SHRUB PLANTING DETAILS

1. THE ROOT MASS FORM OF EACH TREE PROPOSED FOR INSTALLATION SHALL BE BALLED OR BURLAPPED, BARE ROOT TREES ARE NOT ACCEPTABLE. ALL NONBIODEGRADABLE WRAPPINGS WILL BE REMOVED AND BURLAP WILL BE FOLDED DOWN TO ENHANCE WATER ABSORPTION. IF WIRE BASKETS ARE USED IN CONJUNCTION WITH BALLED AND BURLAPPED TREES THE FIRST FEW ROWS OF EACH BASKET WILL BE REMOVED AT THE TIME OF INSTALLATION.

2. SUPPORTING APPARATUS SHALL BE REMOVED AFTER 1 COMPLETE GROWING SEASON. ALSO THE FLEXIBLE ATTACHMENTS SHALL BE USED WHERE SUPPORT WIRES ARE WRAPPED AROUND TREE TRUNKS/STEMS TO PREVENT CAMBIAL DAMAGE.

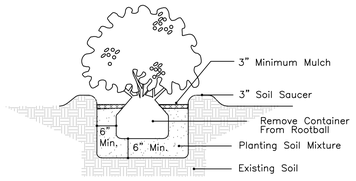
3. PLANTING HOLES ASSOCIATED WITH PROPOSED TREES MUST SLOPED (NOT COMPACTED) AND A MINIMUM OF 18-24 INCHES WIDER THAN THE DIAMETER OF THE ROOT BALL. TREES SHALL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE. TREES SHOULD BE INSTALLED 3 - 5 INCHES ABOVE GRADE ON SITES CONTAINING CLAY. A 2 - 3 INCH LAYER OF ORGANIC MULCH MUST ALSO BE PLACED OVER THE ENTIRE SURFACE BE PLACED OVER THE ENTIRE SURFACE OF EACH PLANTING HOLE. TO PREVENT FUNGAL INFECTION MULCH SHOULD BE PULLED BACK A FEW INCHES FROM THE BASE OF EACH TREE.

4. IF ON SITE SOIL CONDITIONS ARE SUCH THAT SOIL AMENDMENTS WILL BE NECESSARY, THE PLANTING MUST INCLUDE SOIL MIXTURE THROUGHOUT THE ENTIRE SECTION OF EACH PLANTER AREA TO A DEPTH CONSISTENT WITH THE ROOT DEVELOPMENT OF PROPOSED PLANT MATERIAL.

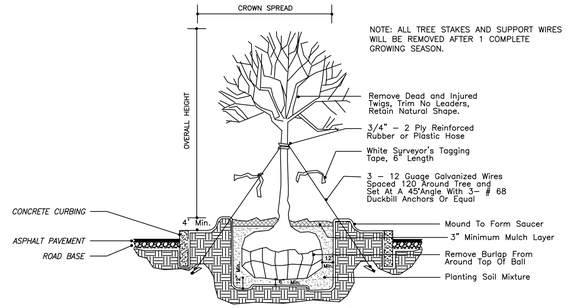
5. PLANTERS ADJACENT TO OR WITHIN VEHICULAR USE AREAS MUST BE CONSTRUCTED SUCH THAT LIMEROCK, ASPHALT, CONCRETE OR ANY OTHER OBSTRUCTIONS DO NOT EXTEND UNDER THE SURFACE INTO THE PLANTING AREAS.

6. THE PRACTICE OF TREE TRUNK WRAPPING AND THE APPLICATION OF PAINTS/TAR ONTO PRUNED TREE BRANCHES IS NOT RECOMMENDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURAL.

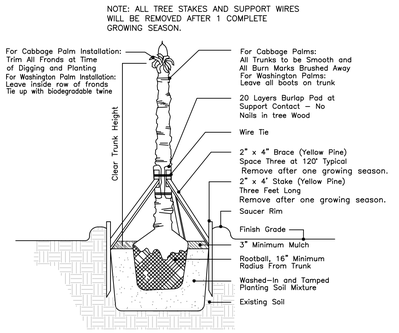
7. PLEASE NOTE THAT THE USE OF FERTILIZERS DURING PLANT INSTALLATION IS NOT APPROVED. SCIENTIFIC EVIDENCE INDICATES THAT FERTILIZATION (SPECIFICALLY, THE APPLICATION OF NITROGEN) OF TREES/SHRUBS WITHIN THE FIRST GROWING SEASON INHIBITS ROOT GROWTH. THE LANDSCAPE BUFFER STRIP MUST BE CONSTRUCTED SUITABLE FOR PLANT MATERIAL INSTALLATION.



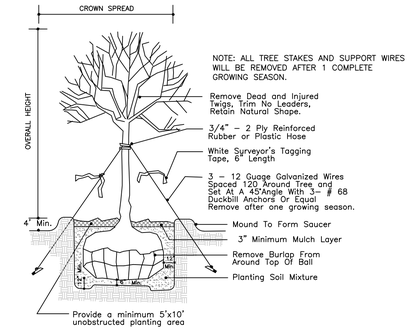
SHRUB PLANTING DETAIL
N.T.S.



TREE STAKING & PLANTING DETAIL
ADJACENT TO OR WITHIN V.U.A.
N.T.S.

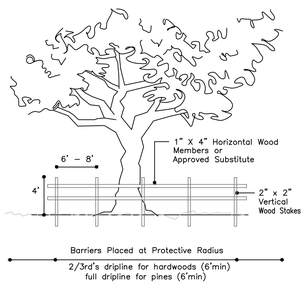


PALM STAKING & PLANTING DETAIL
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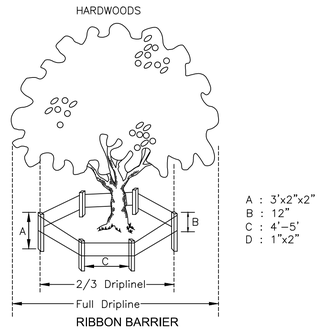


TREE STAKING & PLANTING DETAIL
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TREE BARRICADE DETAILS

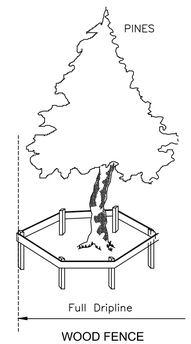


TREE BARRICADE DETAIL
N.T.S.



RIBBON BARRIER

PROTECTIVE BARRIER DETAIL
N.T.S.



WOOD FENCE

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COPIES OF THESE PLANS ARE NOT VALID UNLESS EMBOSSED WITH THE SIGNING ENGINEER'S SEAL

Construction Documents

PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision

Drawn By:
Checked By:

LANDSCAPE NOTES & DETAILS

L1.2

Project: 10002
Date: April 5th, 2010

STRUCTURAL SPECIFICATIONS

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND ENGINEERS.
2. DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE BUILDING IS COMPLETED.
4. ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:

   A. THE FLORIDA BUILDING CODE, 2007 EDITION WITH 2009 REVISIONS.
   B. ACI STANDARD 318-05 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
   C. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-05/ASCE 5-05).
   D. AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" NINTH EDITION.
   A. AMERICAN FOREST AND PAPER ASSOCIATION, NATIONAL DESIGN SPECIFICATION 2005 EDITION.

5. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO PERFORMING WORK. IN CASE OF CONFLICT THE MOST STRINGENT CONDITION SHALL APPLY.
5. ALL DIMENSIONS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND WITH EQUIPMENT MANUFACTURER (I.E. WINDOW, DOOR, AIR HANDLER, ETC.). CONTRACTOR MUST OBTAIN AN ARCHITECTURAL DIRECTIVE IN CASE OF ANY CONFLICT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.

CONCRETE AND REINFORCING:

1. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI-318".
2. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS INDICATED BELOW:

CONCRETE STRENGTH	MAX WATER CEMENT RATIO	TYPE AGGREGATE	LOCATION USED
5000 PSI	0.42	STONE	CONCRETE U.N.O.
4000 PSI	0.45	STONE	FOUNDATIONS
3000 PSI	0.52	STONE	SLAB ON GRADE

3. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE. PRIOR TO POURING CONCRETE. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A-706.
4. ALL WELDED WIRE FABRIC (W.W.F.) IN FLAT SHEETS ONLY AND SHALL CONFORM TO ASTM A-185.
5. UNLESS NOTED, ALL BARS MARKED CONTINUOUS SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS.
6. CONCRETE COVER FOR REINFORCING BARS SHOWN IN TYPICAL DETAILS.
7. UNLESS NOTED, TEMPERATURE REINFORCING (ASTM A-615-60) TO BE 0.0018 X CONCRETE AREA.
8. PROVIDE #4 @ 12" O.C., WITH STANDARD HOOK, TOP BARS IN ALL SLABS AT DISCONTINUOUS ENDS UNLESS OTHERWISE NOTED ON PLANS. LENGTH OF BARS 1/4 OF SPAN, MINIMUM 3'-0". UNLESS OTHERWISE NOTED PROVIDE #4 @ 12" O.C IN ALL CANTILEVERS. BAR LENGTH SHALL BE CANTILEVER SPAN PLUS 10'-0" PLUS STANDARD HOOK AT CANTILEVER ENDS.
9. WHERE PIPE SLEEVES (UP TO 2" IN DIAMETER) PASS THROUGH CONCRETE BEAMS, PROVIDE ADDITIONAL STIRRUP EACH SIDE OF SLEEVE, SLEEVES FOR PIPES 2" IN DIAMETER OR LARGER MUST BE STEEL OR CAST IRON, AND THE LOCATION MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
10. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED JUST BEFORE PLACING NEW CONCRETE IN ACCORDANCE WITH THE BUILDING CODE.
11. FOR CHAMFER OF EXPOSED CORNERS OF BEAMS AND/OR COLUMNS, SEE ARCHITECTURAL DRAWINGS.
12. CONTRACTOR SHALL COORDINATE PLACEMENT OF, OR BOX OUT FOR, ALL PIPE SLEEVES, OPENINGS, ETC, REQUIRED FOR VARIOUS TRADES.
13. CONTRACTOR SHALL COORDINATE AND NOTIFY OTHER TRADES IN SUFFICIENT TIME TO ALLOW THEM TO SET ANCHORS, INSERTS, BOLTS, HANGERS, ETC., AS REQUIRED FOR THEIR USE.
14. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF FLASHING REGULATES, FASCIA DETAILS, ETC.
15. UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUGGIES, CHUTES, CONVEYORS, TREMIE PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.
16. SLUMPS OF OVER 4 INCHES WILL NOT BE PERMITTED UNLESS THE HRWR ADMIXTURE (SUPER PLASTICIZER) IS USED. MAXIMUM SLUMP IS THEN 8 INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
17. NO ADMIXTURE SHALL BE USED IN CONCRETE EXCEPT WITH THE PERMISSION OF THE ENGINEERS AND AFTER LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER.
18. WATER REDUCING ADMIXTURE SHALL CONFORM TO THE ASTM C-494, TYPE A, AND SHALL BE USED IN ALL CONCRETE.
19. AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. AIR CONTENT OF CONCRETE SHALL BE USED AS FOLLOWS:

    A. FOR CONCRETE EXPOSED TO SOIL AND/OR WEATHER, 5%.
    B. FOR INTERIOR WALLS, COLUMNS, AND SLABS, 3%.

20. FLY ASH - ASTMC618, TYPE C OR TYPE F SHOULD BE USED BUT NOT TO EXCEED 20%.
21. ALL EXPOSED CONCRETE SLABS SHALL RECEIVE A CURING COMPOUND. THE CURING COMPOUND SHALL CONFORM TO ASTM C309 AND SHALL HAVE 30% SOLIDS MINIMUM. WATER/BLANKET CURING AS PER ACI RECOMMENDATION MAY BE USED AS ALTERNATE.

FOUNDATION NOTES:

1. SITE SOIL FOR THIS PROJECT HAS BEEN INVESTIGATED BY THE FIRM OF "GULF COAST TESTING LABORATORY" AND FOUND, AS PRESENTED IN THEIR REPORT DATED MARCH, 2010, SUITABLE TO SUPPORT 2000 PSF SPREAD FOOTINGS. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ABOVE STATED CRITERIA.
2. FILL AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATION AS CONTAINED IN THEIR REPORT STATED IN ITEM 1.
3. ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTERLINES UNLESS OTHERWISE NOTED.
4. BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT, AFTER SLABS ON GROUND ARE IN PLACE AND CONCRETE HAS SET. NO TRUCKS, BULLDOZERS, ETC. SHALL BE ALLOWED CLOSER THAN 6'-0" TO ANY FOUNDATION WALL. ANY WALL 3'-0" OR HIGHER MUST BE BRACED DURING THE CONSTRUCTION PROCESS.
5. NO FOUNDATIONS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPES EXTENDED FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF FOOTINGS SHALL NOT BE LESS THAN 1'-0" BELOW EXISTING GRADE (U.N.O.).
6. FOR FOUNDATIONS SIZE AND REINFORCING SEE SCHEDULE.
7. ELEVATOR PIT DIMENSIONS = VERIFY WITH ELEVATOR MANUFACTURERS APPROVED SHOP DRAWINGS.
8. WATER PROOFING MATERIALS SHALL BE PROVIDED ON ALL SIDES AND BOTTOM OF ELEVATOR CORE AND ESCALATOR PIT.
9. CONTRACTOR SHALL TREAT SOIL BENEATH BUILDING FOR TERMITES.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST A.I.S.C. SPECIFICATIONS.
2. STRUCTURAL STEEL SHALL CONFORM TO:

WIDE FLANGE (WF)	ASTM A992 (50 KSI)
SHAPES (L,T,C,PL)	ASTM A36
STRUCTURAL TUBE (HSS)	ASTM A500 (46 KSI)
STEEL PIPE (HSS)	ASTM A500 (42 KSI)
ANCHOR BOLTS	ASTM A36 U.N.O. IN PLANS, OR SECTIONS.
FRAMING BOLTS	ASTM A325 OR A490
SHEAR STUDS	ASTM A108
WELDING ELECTRODES	E70XX

3. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325 AND SHALL BE PROVIDED WITH HARDENED WASHERS UNDER THE TURNED ELEMENT (NUT OR BOLT HEAD).
4. INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
5. SHOP CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM. ALL CONNECTIONS SHALL CONFORM TO THE TYPICAL CONNECTION DETAILS SHOWN ON THE PLANS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
6. ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS, SLIP-CRITICAL (FRICTION) TYPE.
7. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE, ANS01.1, ALL WELDING SHALL BE PERFORMED USING E70XX U.N.O.
8. CUTS, HOLES, COPINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AS REQUIRED BY THE ENGINEER.
9. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER.
10. ALL STEEL MEMBERS EXPOSED TO WEATHER (SUCH AS LINTELS, DOOR JAMBS, ETC.) SHALL BE GALVANIZED.
11. FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS.
12. ANY STEEL MEMBERS REQUIRED BY THE ELECTRICAL OR MECHANICAL TRADES FOR THE SUPPORT OF THEIR EQUIPMENT, WHICH ARE NOT SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS, SHALL BE PROVIDED BY THE TRADE REQUIRING SUCH SUPPORT.
13. SEE SPECIFICATIONS FOR PAINTING OR POWDER COATING OF STRUCTURAL STEEL, AS REQUIRED BY ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. ALL FABRICATION AND ERECTION MARKS SHALL BE COVERED DURING FIELD TOUCH-UP PAINTING.
14. ALL CONNECTIONS TO BE DOUBLE ANGLE FRAMED BEAM CONNECTION PER AISC UNLESS NOTED OTHERWISE. ALL BOLTS TO BE 3/4" MINIMUM DIAMETER UNLESS NOTED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. WELDS ARE TO BE EQUAL IN STRENGTH TO BOLTS.
15. DESIGN CONNECTIONS FOR THE MAXIMUM SHEAR (V IN KIPS) LISTED IN THE TABLES FOR "ALLOWABLE UNIFORM LOADS IN KIPS FOR BEAMS LATERALLY SUPPORTED" AT THE BOTTOM OF EACH PAGE IN THE "PROPERTIES AND REACTION VALUES", PART 2 OF THE LATEST EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION".
16. WHEN STEEL MEMBERS ARE WELDED TO EMBED PLATES IN CONCRETE, WELDING PROCESS SHOULD BE PERFORMED IN SUCH WAY THAT EMBED PLATE DOES NOT OVERHEAT AND EXPAND. SUCH EXPANSION WILL CRACK THE CONCRETE SURROUNDING THE EMBED PLATE AND MAY WEAKEN THE STRUCTURAL CAPACITY OF THE CONNECTION. WE RECOMMEND TO PROVIDE SEVERAL SINGLE PASSES TO BUILT UP THE WELD SIZE REQUIRE WITH COOLING OFF PERIODS TO AVOID THE EMBED PLATE EXPANSION. UNDER NO CIRCUMSTANCES PROVIDE MORE THAN 6" OF 1/4" WELD WITHOUT ALLOWING A COOLING OFF PERIOD.

WOOD FRAMING NOTES:

1. ALL WOOD FRAMING SHALL BE IN COMPLIANCE WITH THE LATEST NDS EDITION FOR WOOD CONSTRUCTION. DIMENSIONED LUMBER SHALL BE DRESSED S4S, AND SHALL BEAR THE GRADE STAMP OF THE MANUFACTURER'S ASSOCIATION.
2. ALL LUMBER SHALL BE SOUND, SEASONED, AND FREE FROM WRAP.
3. ALL FRAMING LUMBER SHALL BE SOUTHERN YELLOW PINE #2 OR BETTER.
4. INTERIOR NON-LOAD BEARING WALLS SHALL BE UTILITY GRADE OR BETTER.
5. MINIMUM OF 3-PLY STUD COLUMNS TO BE INSTALLED AT BEAM OR GIRDER TRUSS BEARING LOCATIONS UNLESS NOTED OTHERWISE.
6. INSTALL BLOCKING IN ALL WALL STUDS OVER 8'-0" AT MID-HEIGHT, AND SHEATHING JOINT. BRACE GABLE END AT 4'-0" O.C. AS SHOWN IN THE DRAWINGS.
7. ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED OR OF NATURAL DURABLE WOOD.
8. PRESSURE TREATED LUMBER SHALL BE IMPREGNATED WITH AN APPROVED TREATMENT IN ACCORDANCE WITH F.S. 11-W-571 AND BARE THE AMERICAN WOOD PRESERVES INSTITUTE EQUALITY MARK LP-2.
9. SHEATHING SHALL BE APA EXTERIOR GRADE RATED, AND INSTALLED WITH PLY-CLIPS AT 24" O.C. SEE NAILING SCHEDULE FOR SHEATHING CONNECTION.
10. FLOOR SHEATHING SHALL BE A MINIMUM OF 5/8" TONGUE AND GROOVE TYPE SUPPORTED AT 24" O.C. MAX, UNLESS NOTED OTHERWISE IN PLAN.
11. ALL NAILING AND BOLTING SHALL COMPLY WITH AMERICAN INSTITUTE OF TIMBER CONSTRUCTION REQUIREMENTS. ALL NAILS EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED.
12. ALL CONNECTION HARDWARE SHALL BE GALVANIZED AND SUPPLIED BY SIMPSON STRONG TIE OR APPROVED EQUAL. SUBMIT CUT SHEETS FOR ALL CONNECTION HARDWARE TO ENGINEER FOR APPROVAL. ALL NAIL HOLES SHALL BE FILLED OR AS REQUIRED BY THE MANUFACTURER TO ACHIEVE LOAD CAPACITY.
13. BRACING: TEMPORARY BRACING OF THE ROOF SYSTEM SHALL BE INSTALLED PER HIB-91 RECOMMENDATIONS AND SHALL BE UTILIZED AS THE PERMANENT BRACING FOR THE ROOF SYSTEM, UNLESS NOTED OTHERWISE.
14. ALL WOOD FRAMING SHALL BE IN COMPLIANCE WITH THE LATEST NDS EDITION FOR WOOD CONSTRUCTION.

SHOP DRAWINGS:

1. NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
2. ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS DETAILER.
3. DETAILER SHALL CHECK ALL ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
4. ALL SHOP DRAWINGS SHALL BE SUBMITTED WITH A MINIMUM OF 3 AND A MAXIMUM OF FIVE PRINTS ONLY. DISTRIBUTION AS PER ARCHITECT INSTRUCTIONS.
5. PROVIDE SUFFICIENT SPACE ON SHOP DRAWINGS NEAR TITLE BOX (ABOUT 40 SQUARE INCHES) FOR STAMPS AND ENGINEERS COMMENTS.
6. THE SHOP DRAWINGS SHALL BEAR INITIALS OF DETAILER'S CHECKER AND CONTRACTOR PRIOR TO SUBMISSION.
7. COMPLETED ERECTION PLANS SHALL BE SUBMITTED PRIOR TO OR IN CONJUNCTION WITH DETAIL DRAWINGS. BUT IN NO CASE SHALL DETAIL DRAWINGS BE SUBMITTED PRIOR TO ERECTION PLANS.
8. DETAILER SHALL SUBMIT AN INDEX OF THE DETAIL DRAWINGS WITH EACH SHOP DRAWING SUBMITTAL.
9. SHOP DRAWINGS NOT COMPLYING WITH ALL THE ABOVE ITEMS SHALL BE RETURNED FOR CORRECTIONS WITHOUT PROCESSING.
10. RESUBMITTED SHOP DRAWINGS SHALL HAVE THE FOLLOWING CHANGES INCORPORATED: FIRST RESUBMISSION TO HAVE LETTER "A" ADDED TO DRAWING

    A. NUMBER AND ANY CHANGES MARKED ON THE DRAWING 1 MARKED 1 AT EACH ITEM CHANGED. ALL ITEMS TO BE NOTED IN REVISION BOX.
    B. SUBSEQUENT RESUBMISSION SHALL BEAR CHANGES "B" AND 2 AND 3 ETC. AS IN 11A.

11. CONTRACTOR SHALL HAVE SHOP DRAWINGS WHICH HAVE BEEN SATISFACTORILY REVIEWED BY THE ARCHITECT AND/OR ENGINEER AND CONFIRMED BY THE CONTRACTOR BEFORE PROCEEDING WITH ANY WORK.
12. DETAILER SHALL USE THE SAME COLUMN NUMBERS IN HIS DETAILS AS THOSE SHOWN ON CONTRACT DRAWINGS.
13. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOULD BE SUBMITTED TO FSG WITH A MINIMUM TIME TO BE REVIEWED OF 10 WORKING DAYS. IN CASE OF A LARGE SUBMITTAL OR MORE THAN ONE SUBMITTAL FOR THE SAME PROJECT, AN ADDITIONAL WORKING DAY IS REQUIRED FOR EVERY 5 DRAWINGS/SHEETS OVER 30 DRAWINGS/SHEETS. THE TIME INDICATED ABOVE IS FOR FSG REVIEW ONLY, CONTRACTOR MUST INCLUDE ENOUGH TIME FOR DELIVERY, ARCHITECTURAL REVIEW, AND OWNERS REVIEW AND WORK THIS TIME IN THE PROJECT SCHEDULE AS NEEDED.
14. THERE SHALL BE NO DEVIATION FROM THESE CONSTRUCTION DOCUMENTS. IF ANY CHANGES ARE PROPOSED BY THE CONTRACTOR OR THE PROVIDER OF THE SHOP DRAWINGS, THEY SHOULD BE CLEARLY INDICATED, SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY FLORIDA PROFESSIONAL ENGINEER MUST BE PROVIDED. ANY CHANGES WITHOUT PROPER DOCUMENTATION INDICATED ABOVE WILL RESULT IN SOME REVISIONS BY THE ENGINEER OF RECORD AND/OR ARCHITECT. THE COST FOR THESE REVISIONS INCLUDING ENGINEER AND ARCHITECTURAL FEES SHALL BE PAID BY THE CONTRACTOR.

PRECAST CONCRETE FRAMING NOTES

1. TYPICAL FRAMING SHALL CONSIST OF 12" PRECAST, PRE STRESSED HOLLOW CORE SLABS SUPPORTED ON REINFORCED CONCRETE/CMU WALLS AND POURED IN PLACE CONCRETE BEAMS.
2. SEE DRAWING S300 FOR DETAILS AND SECTIONS.
3. FOR ROOF DRAIN LOCATION, SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. R.D. SHALL BE INDICATED ON SHOP DRAWINGS AND THEIR LOCATION APPROVED BY STRUCTURAL ENGINEER.
4. PRECAST SCHEDULE:

   MINIMUM 28 DAYS
   STRENGTH (PSI) COARSE AGGREGATE
   PLANK.....5,000.....STONE

5. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL REINFORCING BARS TO BE WELDED SHALL BE DEFORMED BARS CONFORMING TO ASTM A706, GRADE 60. WELDING OF REBARS SHALL BE IN ACCORDANCE WITH AWS D12.1 "REINFORCING STEEL WELDING CODE". ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE PRIOR TO POURING CONCRETE.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRECAST COMPONENTS FOR REVIEW BY THE STRUCTURAL ENGINEER BEFORE PRODUCTION. DRAWINGS SHALL BE SIGNED AND SEALED BY FLORIDA P.E.
7. THE CONTRACTOR SHALL CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS TO VERIFY SIZES AND LOCATIONS OF ALL OPENINGS, REVEAL, DRIPS, BLACKOUTS, INSERTS, ETC. CAST INTO PRECAST MEMBERS.
8. THE ERECTION WORK AND STRUCTURAL STABILITY DURING THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

MASONRY:

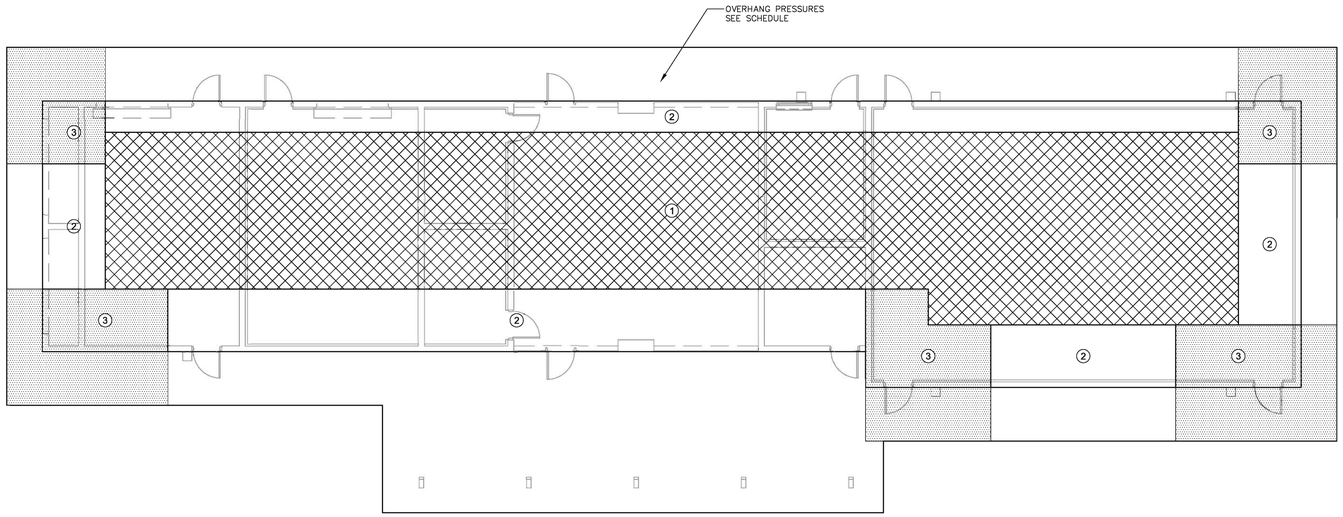
1. DESIGN AND CONSTRUCTION SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/02 ASCE 5-02). AND SPECIFICATIONS FOR MASONRY STRUCTURES ACI 530.1-02 / ASCE 6-02.
2. MINIMUM NET COMPRESSIVE STRENGTH OF BLOCK ASSEMBLY SHALL BE 1500 P.S.I. (f'm) MORTAR FOR MASONRY SHALL BE TYPE "S" OR "M".
3. FOR ALL EXTERIOR AND INTERIOR BEARING, BED JOINTS ARE TO COVER 100% OF THE MASONRY SURFACES AND ALL HEAD JOINTS ARE TO COVER 100% OF THE PROJECTED AREA OF THE FACE SHELLS.
4. FILL ALL CELLS AS REQUIRED WITH 3000 P.S.I. GROUT. SLUMP SHALL BE 8 TO 11 INCHES. SUBMIT DESIGN MIX FOR APPROVAL.
5. MINIMUM HORIZONTAL REINFORCING SHALL BE 9 GAGE HOT DIP GALVANIZED TRUSS OR LADDER TYPE JOINT REINFORCING AT 16" O.C., PROVIDE MANUFACTURE "T" AND "L" SHAPES FOR INTERSECTIONS AND CORNERS, (MINIMUM LAP 8").
6. MINIMUM VERTICAL REINFORCING SHALL BE 1-#5 @ 48" OR 1-#4 @ 32" O.C., (U.N.O.).
7. PROVIDE ADDITIONAL VERTICAL REINFORCING BAR AT EVERY CORNER, INTERSECTION, CONTROL JOINT, AND OPENING EDGES (U.N.O.).
8. MINIMUM SPLICE FOR VERTICAL REINFORCING IS SHOWN IN DETAIL 4-023, SPLICE FOR HORIZONTAL TRUSS TYPE REINFORCING = 12".
9. WALLS ARE DESIGNED TO BE BRACED BY FLOOR OR ROOF MEMBERS, CONTRACTOR SHALL PROVIDE TEMPORARY BRACING DURING CONSTRUCTION.
10. ALL CELLS BELOW FIRST FLOOR FINISHED ELEVATION MUST BE FULLY GROUT FILLED.
11. ALL KNOCK OUT BLOCK HORIZONTAL BARS SHALL HAVE CORNER BARS AT ALL CORNERS AND WALL INTERSECTIONS. SIZE AND NUMBER OF CORNER BARS SHALL BE SAME AS HORIZONTAL BARS.
12. ALL INTERSECTING WALLS AND CORNER WALLS SHALL BE LAID IN AN OVERLAPPING MASONRY BONDING PATTERN, WITH ALTERNATE UNITS HAVING A BEARING OF NOT LESS THAN 3 INCHES ON UNIT BELOW.

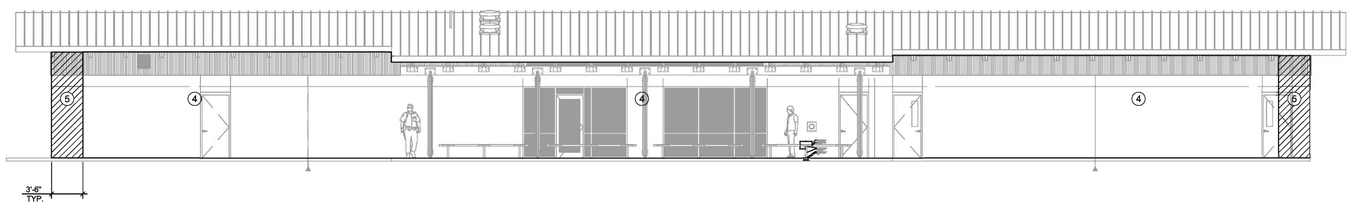
STRUCTURAL INSULATED PANELS

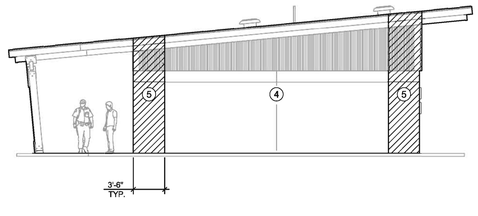
1. STRUCTURAL PERFORMANCE: PROVIDE SIPS CAPABLE OF WITHSTANDING DESIGN LOADS INCLUDING DEAD LOAD, LIVE LOADS, WIND LOADS AND SEISMIC LOADS. DESIGN LOADS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2007 WITH 2009 REVISIONS.
2. PRODUCT DATA: SIP MANUFACTURER'S PRODUCT LITERATURE INCLUDING STRUCTURAL PROPERTIES AND INSTALLATION INSTRUCTIONS.
3. SHOP DRAWINGS: SHOW FULLY DIMENSIONED FABRICATION AND INSTALLATION DETAILS FOR SIPS. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER.
4. EVALUATION REPORT FROM ICC-ES OR CANADIAN CONSTRUCTION MATERIALS CENTRE.
5. SIP MANUFACTURER SHALL BE A MEMBER OF THE STRUCTURAL INSULATED PANEL ASSOCIATION (SIPA).
6. STRUCTURAL DESIGN: A PROFESSIONAL ENGINEER SHALL PERFORM A STRUCTURAL ANALYSIS AND DESIGN OF THE SIP ASSEMBLIES IN ACCORDANCE WITH THE DESIGN LOADS.
7. INSTALLATION CONTRACTOR MUST HAVE EXPERIENCE ON PROJECTS OF SIMILAR SIZE AND SCOPE. LEAD INSTALLER / SUPERVISOR SHALL HAVE A MINIMUM OF 3 YEARS EXPERIENCE INSTALLING SIPS OR HAVE COMPLETED A CERTIFYING CURRICULUM AT A DEDICATED SIP TRAINING PROGRAM SUCH AS THOSE PROVIDED BY THE UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA OR EQUIVALENT.
8. SIPS SHALL BE KEPT DRY AND PROTECTED WITH WATERPROOF COVERING DURING TRANSPORTATION AND STORAGE.
9. EXERCISE CARE TO PREVENT CRUSHING OF SIP EDGES WITH CARGO HOLD DOWN STRAPS DURING TRANSPORTATION.
10. CAREFULLY LOAD AND UNLOAD SIPS FROM TRUCKS TO PREVENT DAMAGE TO THE PANELS.
11. STORE SIPS ELEVATED OFF OF THE GROUND ON SLEEPERS.
12. TAKE CARE IN HANDLING SIPS TO PREVENT DELAMINATION. DO NOT LIFT PANELS BY THE TOP SKIN.
13. TIME DELIVERY AND INSTALLATION OF SIPS TO AVOID EXTENDED ON-SITE STORAGE AND TO AVOID DELAYING PROGRESS OF OTHER TRADES WHOSE WORK MUST FOLLOW THE INSTALLATION OF SIPS.
14. ORIENTED STRAND BOARD (OSB): 7/16" THICK MINIMUM.
15. CORE: [EXPANDED POLYSTYRENE (EPS) SHALL COMPLY WITH ASTM C578 AND SHALL HAVE A MINIMUM DENSITY OF 0.9. PCF.] [POLYURETHANE FOAM CORE] [EXTRUDED POLYSTYRENE (XPS) SHALL COMPLY WITH ASTM C578 AND SHALL HAVE A MINIMUM DENSITY OF 1.3 PCF]
16. ADHESIVE: ASTM D2559
17. GRADE AND SPECIES: VISUALLY GRADED DIMENSION LUMBER NO. 2 OR BETTER OF ANY OF THE FOLLOWING SPECIES:
    A. SPRUCE-PINE-FIR; NLGA
    B. HEM-FIR (NORTH); WCLIB OR WWPA
    C. DOUGLAS FIR – LARCH; WCLIB OR WWPA
    D. SOUTHERN PINE; SPIB
18. LUMBER SHALL BE KILN DRIED TO NOT MORE THAN 19% MOISTURE CONTENT
19. LUMBER SHALL BE CLEARLY MARKED WITH GRADE STAMP OF GRADING AGENCY.
20. ENGINEERED WOOD PRODUCTS SHALL BE USED WHERE REQUIRED FOR STRUCTURAL ADEQUACY.
    A. LAMINATED VENEER LUMBER (LVL)
    B. PARALLEL STRAND LUMBER (LSL)
    C. LAMINATED STRAND LUMBER (LSL)
21. FASTENERS
    A. COMMON NAILS: ASTM F1667.
    B. PANEL SCREWS: SCREWS WITH PANCAKE HEAD, MINIMAL THREAD DIAMETER 0.255 INCHES, MINIMUM SHANK DIAMETER 0.190 INCHES AND A MINIMUM HEAD DIAMETER 0.625 INCHES.
22. FABRICATION
    A. CUT SIPS TO ACCURATE LENGTHS, ANGLES, AND SIZES TO PRODUCE CLOSE FITTING JOINTS.
    B. REMOVE FOAM AS REQUIRED TO ACCOMMODATE WOOD BLOCKING AND SPLINES.
    C. PROVIDE ELECTRICAL WIRING CHASES IN FOAM CORE WHERE REQUIRED.
23. PREPARATION
    A. EXAMINE FOUNDATIONS, SILLS, FRAMING AND OTHER SURFACES TO RECEIVE SIPS AND VERIFY THAT CONDITIONS ARE SUITABLE FOR THE INSTALLATION OF SIPS. REPORT ANY UNSATISFACTORY CONDITIONS TO THE CONTRACTOR. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
24. INSTALLATION
    A. HOIST SIPS IN PLACE BY LIFTING EQUIPMENT SUITED TO SIZE OF PANELS. EXERCISE CARE TO PREVENT DAMAGE TO SIPS.
    B. INSTALL SIPS PLUMB, SQUARE AND TRUE TO LINE.
    C. FILL ALL PANEL JOINTS WITH EXPANDING URETHANE FOAM OR SEAL BY OTHER APPROVED METHOD..
    D. REPAIR OR REPLACE ALL DAMAGED SIPS.
    E. REMOVE DEBRIS FROM PROJECT SITE AND LEGALLY DISPOSE OF DEBRIS.

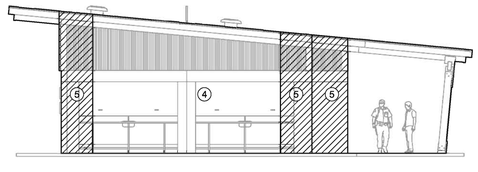
PRE-ENGINEERED WOOD PRODUCTS:

1. THIS SECTION DEFINES PRE-ENGINEERED, PRE-FABRICATED METAL PLATE CONNECTED WOOD ROOF TRUSSES AS "WOOD TRUSSES".
2. WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" 2005 EDITION, PUBLISHED BY THE AMERICAN FOREST & PAPER ASSOCIATION & THE AMERICAN WOOD COUNCIL; "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION", TPI 1-03, PUBLISHED BY THE TRUSS PLATE INSTITUTE AND THE APPLICABLE BUILDING CODE LISTED IN THE GENERAL NOTES SECTION OF THE SPECIFICATIONS.
3. THE WOOD TRUSS MANUFACTURE MUST PARTICIPATE IN A CODE APPROVED THIRD PARTY QUALITY ASSURANCE PROGRAM SUCH AS THE TRUSS PLATE INSTITUTE "S "QUALITY CONTROL INSPECTION PROGRAM" OR EQUIVALENT.
4. WOOD TRUSS MEMBERS AND CONNECTIONS SHALL BE DESIGNED FOR ALL LOADS SHOWN ON THE CONCENTRATED LOADS, PLUS WIND LOADS IN ACCORDANCE WITH APPLICABLE BUILDING CODE.
   4.1. MINIMUM SUPERIMPOSED DEAD LOADS:
      1. TOP CHORD 15 PSF
      2. BOTTOM CHORD 10 PSF
   4.2. MINIMUM NET UPLIFT: REFER TO WIND LOAD DESIGN PRESSURES ON S101.
5. DURATION OF LOAD FACTORS:
   ROOF DL+LL+WL = 1.0 DEAD LOAD + 0.75 LIVE LOAD + 0.75 WIND LOAD
   ROOF DL+LL = 1.0 DEAD LOAD + 1.0 LIVE LOAD
   FLOOR DL+LL = 1.0 DEAD LOAD + 1.0 LIVE LOAD
6. TRUSS DESIGN DRAWINGS SHALL INCLUDE, AT A MINIMUM, THE INFORMATION SPECIFIED BELOW:
   6.1. SLOPE OR DEPTH, SPAN AND SPACING;
   6.2. LOCATION OF JOINTS;
   6.3. REQUIRED BEARING WIDTHS;
   6.4. DESIGN LOADS AS APPLICABLE;
   6.5. TOP CHORD LIVE LOAD;
   6.6. TOP CHORD DEAD LOAD;
   6.7. BOTTOM CHORD LIVE LOAD;
   6.8. BOTTOM CHORD DEAD LOAD;
   6.9. CONCENTRATED LOADS AND THEIR POINTS OF APPLICATION AS APPLICABLE;
   6.10. CONTROLLING WIND LOADS AS APPLICABLE;
   6.11. ADJUSTMENTS TO LUMBER AND METAL CONNEC









ROOF PRESSURE DIAGRAM

ZONE	NET UPLIFT SCHEDULE COMPONENTS AND CLADDING — EFFECTIVE WIND AREA 10 SF	50 SF	100 SF	500 SF
1	+12/-28 PSF	+11/-27 PSF	+10/-26 PSF	+10/-25 PSF
2	+12/-46 PSF	+11/-41 PSF	+10/-35 PSF	+10/-30 PSF
3	+12/-69 PSF	+11/-58 PSF	+10/-42 PSF	+10/-30 PSF

ALL VALUES ARE IN POUNDS PER SQUARE FOOT (PSF)

ROOF OVERHANG PRESSURE DIAGRAM

ZONE	NET UPLIFT SCHEDULE COMPONENTS AND CLADDING — EFFECTIVE WIND AREA 10 SF	50 SF	100 SF	500 SF
2	±26 PSF	±26 PSF	±25 PSF	±25 PSF
3	±43 PSF	±34 PSF	±25 PSF	±25 PSF

ALL VALUES ARE IN POUNDS PER SQUARE FOOT (PSF)

WALL PRESSURE DIAGRAM

ZONE	DESIGN WIND PRESSURE FOR WALLS, DOORS & WINDOWS COMPONENTS AND CLADDING — EFFECTIVE WIND AREA 10 SF	50 SF	100 SF	500 SF
4	+28/-30 PSF	+26/-29 PSF	+25/-27 PSF	+24/-26 PSF
5	+28/-37 PSF	+26/-35 PSF	+25/-31 PSF	+24/-29 PSF

NOTE: ALL EXTERIOR DOORS & WINDOWS ASSEMBLIES SHALL SATISFY THE REQUIREMENTS IN FLORIDA BUILDING CODE 2007 WITH 2009 REVISIONS, SECTION 1707.4. ALL CONNECTIONS TO BUILDING STRUCTURE SHALL HAVE THE CAPACITY TO WITHSTAND THE PRESSURES INDICATED IN THIS SCHEDULE.

LOAD SCHEDULE:

ROOF: DEAD LOAD

STRUCTURAL INSULATED ROOF PANELS	=	10 PSF
WOOD TRUSSES	=	4
MECH/ELEC/PLUMB/SPRINK	=	5
CEILING	=	2
MISC.	=	4
		25 PSF
LIVE LOAD	=	20 PSF
		50 PSF

WIND DESIGN DATA:

CODE: 2007 FLORIDA BUILDING CODE W/ 2009 REVISIONS

EXPOSURE B
CATEGORY II

IMPORTANCE FACTOR	=	1.0
BASIC WIND SPEED	=	123 MPH
INTERNAL PRESSURE COEFFICIENT PARTIALLY ENCLOSED BLDG.	=	+/-0 .55

NOTE:

BUILDING SHOULD HAVE IMPACT RESISTANT GLAZING OR SHUTTERS.

WINDOWS ARE IMPACT RESISTANT AS PER REQUIREMENTS OF FBC 2007

ARC3 architecture
6671 13th Avenue North, Suite 1C
St. Petersburg, FL 33710
(727) 381-5220
(727) 381-0052 fax

FULLONE STRUCTURAL GROUP
204 37TH AVENUE NORTH, #219
ST. PETE, FLORIDA 33704
PHONE/FAX: (727) 498-7802
MOBILE: (813) 841-9451
EB: # 28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

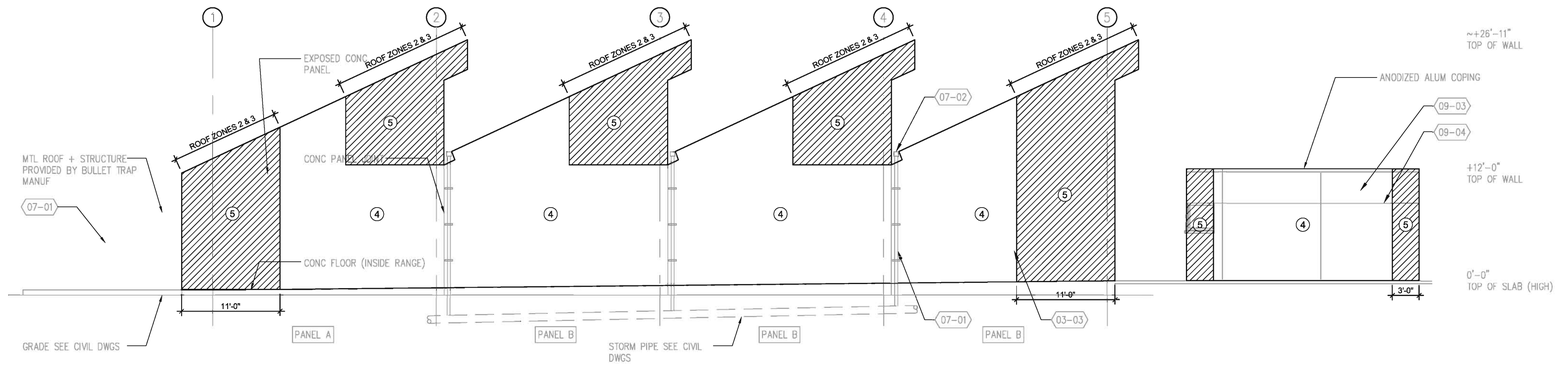
No.	Date	Revision

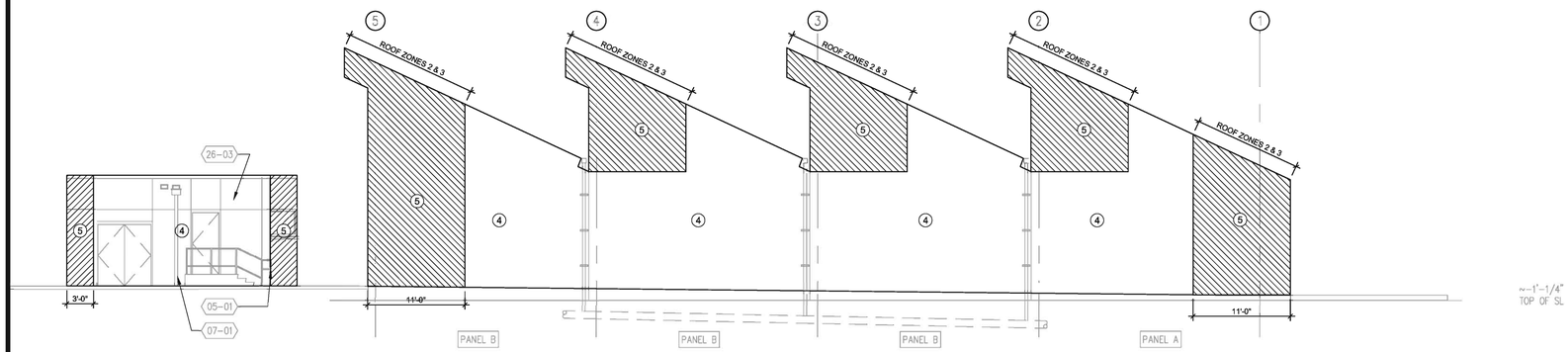
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Checked By:

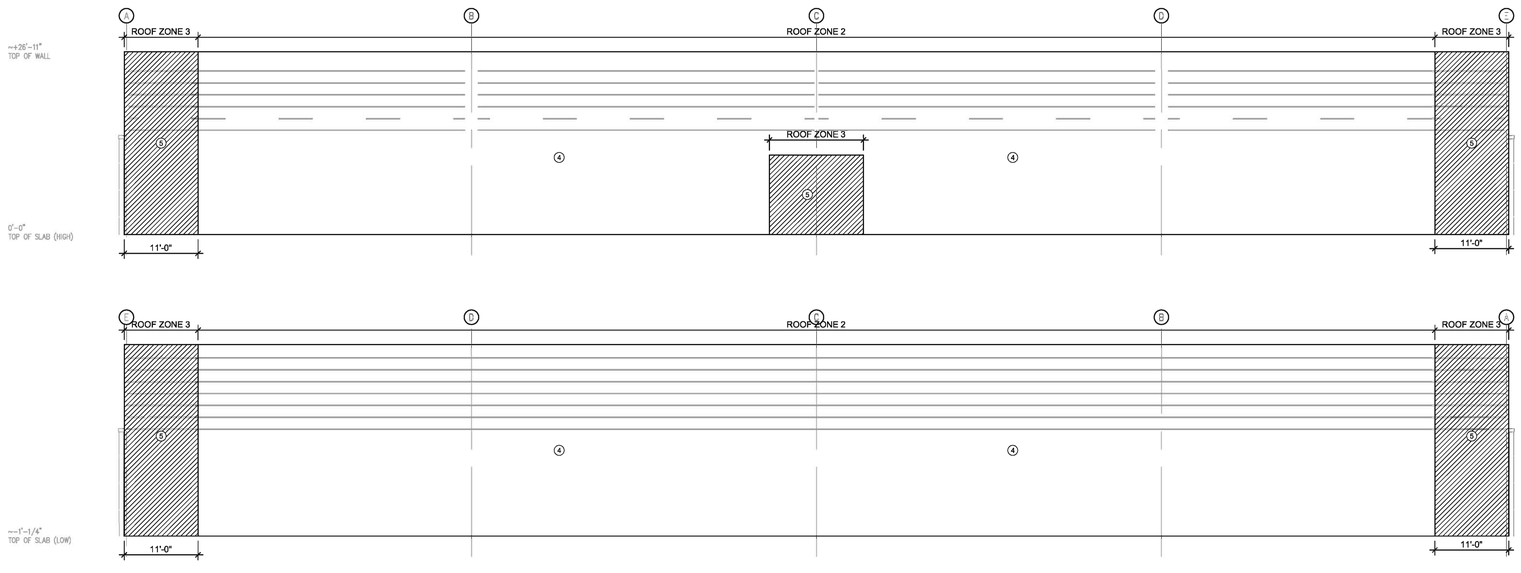
Classroom Building Wind and Load Schedule

S001

Project: 10002
Date: April 5th, 2010







ROOF PRESSURE DIAGRAM

	NET UPLIFT SCHEDULE COMPONENTS AND CLADDING			
	EFFECTIVE WIND AREA			
ZONE	10 SF	50 SF	100 SF	500 SF
①	+12/-28 PSF	+11/-27 PSF	+10/-26 PSF	+10/-25 PSF
②	+12/-46 PSF	+11/-41 PSF	+10/-35 PSF	+10/-30 PSF
③	+12/-69 PSF	+11/-58 PSF	+10/-42 PSF	+10/-30 PSF

ALL VALUES ARE IN POUNDS PER SQUARE FOOT (PSF)

ROOF OVERHANG PRESSURE DIAGRAM

	NET UPLIFT SCHEDULE COMPONENTS AND CLADDING			
	EFFECTIVE WIND AREA			
ZONE	10 SF	50 SF	100 SF	500 SF
②	±26 PSF	±26 PSF	±25 PSF	±25 PSF
③	±43 PSF	±34 PSF	±25 PSF	±25 PSF

ALL VALUES ARE IN POUNDS PER SQUARE FOOT (PSF)

WALL PRESSURE DIAGRAM

	DESIGN WIND PRESSURE FOR WALLS, DOORS & WINDOWS COMPONENTS AND CLADDING			
	EFFECTIVE WIND AREA			
ZONE	10 SF	50 SF	100 SF	500 SF
④	+28/-30 PSF	+26/-29 PSF	+25/-27 PSF	+24/-26 PSF
⑤	+28/-37 PSF	+26/-35 PSF	+25/-31 PSF	+24/-29 PSF

NOTE: ALL EXTERIOR DOORS & WINDOWS ASSEMBLIES SHALL SATISFY THE REQUIREMENTS IN FLORIDA BUILDING CODE 2007 WITH 2009 REVISIONS, SECTION 1707.4. ALL CONNECTIONS TO BUILDING STRUCTURE SHALL HAVE THE CAPACITY TO WITHSTAND THE PRESSURES INDICATED IN THIS SCHEDULE.

LOAD SCHEDULE:

ROOF: DEAD LOAD

12" PRE-STRESSED/PRE-CAST HOLLOW-CORE PLANKS	=	86 PSF
MECH/ELEC/PLUMB/SPRINK	=	5
MISC.	=	4
		95 PSF

ROOF: LIVE LOAD = 20 PSF

115 PSF

WIND DESIGN DATA:

CODE: 2007 FLORIDA BUILDING CODE W/ 2009 REVISIONS

EXPOSURE B		
CATEGORY II		
IMPORTANCE FACTOR	=	1.0
BASIC WIND SPEED	=	123 MPH
INTERNAL PRESSURE COEFFICIENT PARTIALLY ENCLOSED BLDG.	=	+/-0 .55

NOTE:

BUILDING SHOULD HAVE IMPACT RESISTANT GLAZING OR SHUTTERS.

WINDOWS ARE IMPACT RESISTANT AS PER REQUIREMENTS OF FBC 2007

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EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

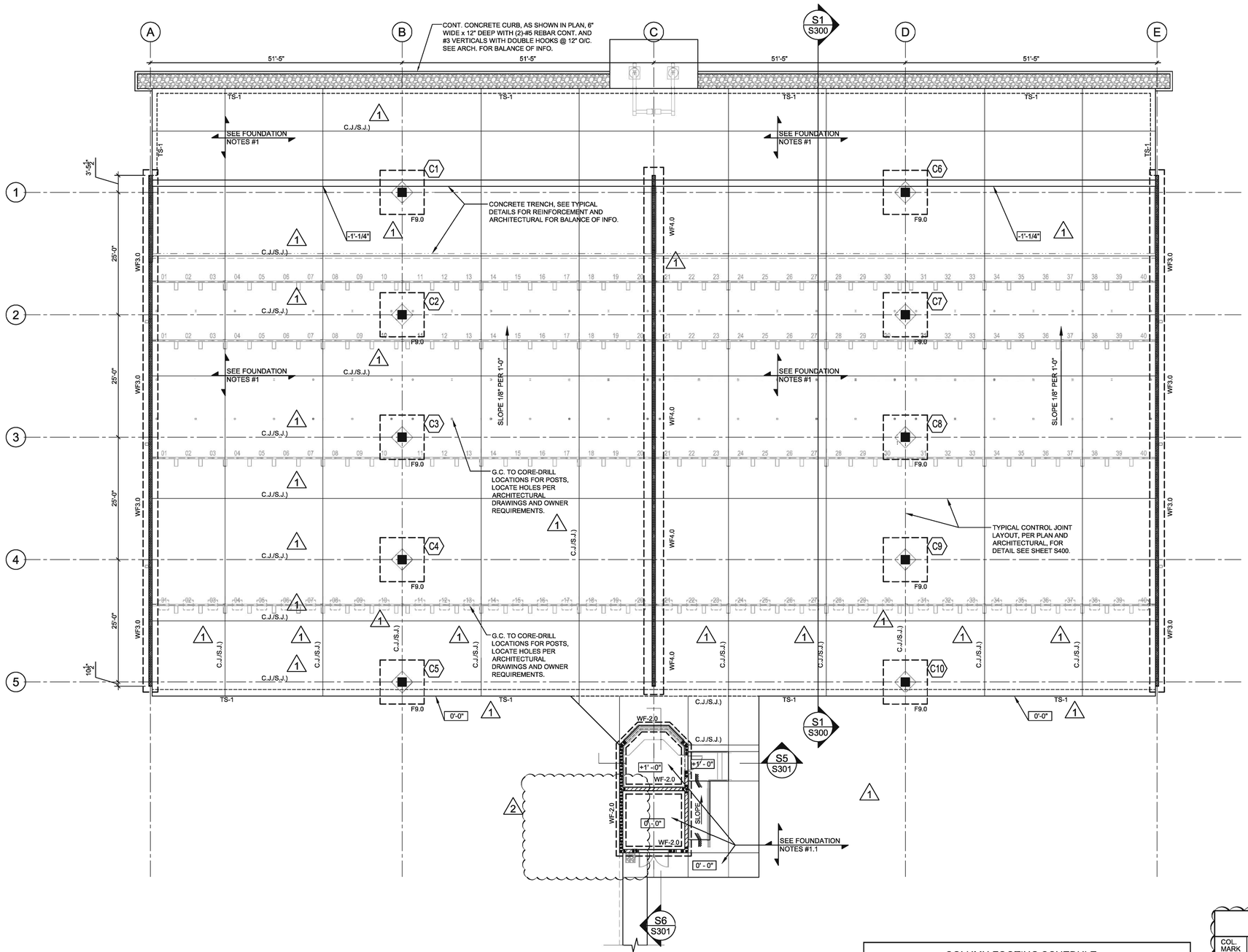
No.	Date	Revision

Drawn By:
Checked By:

Firing Range Building Wind and Load Schedule

S002

Project: 10002
Date: April 5th, 2010



S1 Firing Range Foundation Plan

SCALE: 3/32" = 1'

FOUNDATION PLAN NOTES:

1. NEW SLAB ON GRADE TO BE 7" THICK CONCRETE OVER COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT. REINFORCE WITH (2) LAYERS OF 6x6xW2.9xW2.9 W.W.F. (FLAT SHEETS) PLACE 1-1/2" AND 5-1/2" FROM BOTTOM FACE OF SLAB. SUPPORT WELDED WIRE FABRIC WITH APPROPRIATE SLAB BOLSTER OR APPROVED EQUAL @ 3'-0"(±) O.C. BOTHWAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
   - 1.1. NEW SLAB ON GRADE TO BE 4" THICK CONCRETE OVER COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT. REINFORCE WITH (1) LAYERS OF 6x6xW2.9xW2.9 W.W.F. (FLAT SHEETS) PLACE 2" FROM BOTTOM FACE OF SLAB. SUPPORT WELDED WIRE FABRIC WITH APPROPRIATE SLAB BOLSTER OR APPROVED EQUAL @ 3'-0"(±) O.C. BOTHWAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
2. TOP OF SLAB ELEVATION SHOWN THUS ['- "] ON PLAN EQUALS REFERENCE EL., FOR ACTUAL EL., SEE CIVIL DWG'S.
3. FOR TYPICAL FOUNDATION PLAN DETAILS, SEE DRAWING S400.
4. FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S000.
5. FOR FOOTING SIZE AND REINFORCING SEE SCHEDULE ON THIS DWG.
6. ( ) DENOTES TOP OF FOOTING ELEVATION.
7. TOP OF FOOTING: ELEVATION @ INT. = (-1'-4") TYPICAL U.N.O. ELEVATION @ EXT. = (-1'-4") TYPICAL U.N.O.
8. FOR FLOOR SLAB DEPRESSION LOCATIONS AND LIMITS NOT SHOWN ON PLAN SEE ARCHITECTURAL DRAWINGS.
9. FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DWG'S.
10. TYPICAL WALL REINFORCING SCHEDULE:

2

A. ▨ THIS HATCH REPRESENTS NEW PRECAST CONCRETE WALL PANELS, SEE SIGNED AND SEALED PRE-CAST SHOP DRAWING FOR BALANCE OF INFO.

CMU WALLS

B. 8" CMU EXTERIOR WALL REINFORCE WITH (1)-#5 @ 48" O.C. VERT.
C. PROVIDE ADDITIONAL (1)-#5 VERTICAL EACH SIDE OF ALL WALL OPENINGS AND INTERSECTIONS.
D. ■ SYMBOL REPRESENTS LOCATION OF ADDITIONAL FILLED CELL WITH #5 REBAR FROM FOUNDATION TO TOP OF CMU WALL
E. ▨ HATCH REPRESENTS 8" CMU BEARING WALL

2

11. COLUMN DESIGNATION SHOWN THUS ⬡ ON PLAN. FOR SIZE AND REINFORCING SEE SIGNED AND SEALED PRECAST SHOP DRAWINGS

T/COLUMN ELEVATION
C1 — COLUMN TYPE
CARRIED COLUMN

12. COORDINATE LOCATION OF CONTROL JOINTS (SAWCUTS & TOOLED JOINTS) AT WALKWAY SLABS WITH ARCHITECTURAL DWG'S. CONTROL JOINTS AT EXPOSED TO WEATHER WALKWAYS SHALL BE TOOLED JOINTS.

COLUMN FOOTING SCHEDULE

MARK	SIZE	THICKNESS	TOP & BOTT. REINF. * EA. WAY U.N.O.	REMARKS
F9.0	9'-0" X 9'-0"	1'-10"	9-#7	

1

WALL FOOTING & THICKENED SLAB SCHEDULE

MARK	SIZE	THICKNESS	CONTINUOUS BOTTOM REINF.	TRANSVERSE STIRRUP REINF.
WF-2.0	2'-0" X CONT.	1' - 4"	3 - #5	#3 @ 24"
WF-3.0	3'-0" X CONT.	1' - 6"	4 - #5	#3 @ 16"
WF-4.0	4'-0" X CONT.	2' - 0"	4 - #6	#4 @ 12"
TS-1	1'-0" X CONT.	1' - 0"	2 - #5	
TS-2	2'-0" X CONT.	1' - 6"	2 - #5	
TS-3	2'-4" X CONT.	1' - 6"	2 - #5	

2

CONCRETE COLUMN SCHEDULE

COL. MARK	COLUMN SIZE	REINFORCING	REMARKS
C1	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C2	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C3	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C4	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C5	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C6	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C7	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C8	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C9	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	
C10	PRECAST	SEE SIGNED & SEALED SHOP DRAWINGS	

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JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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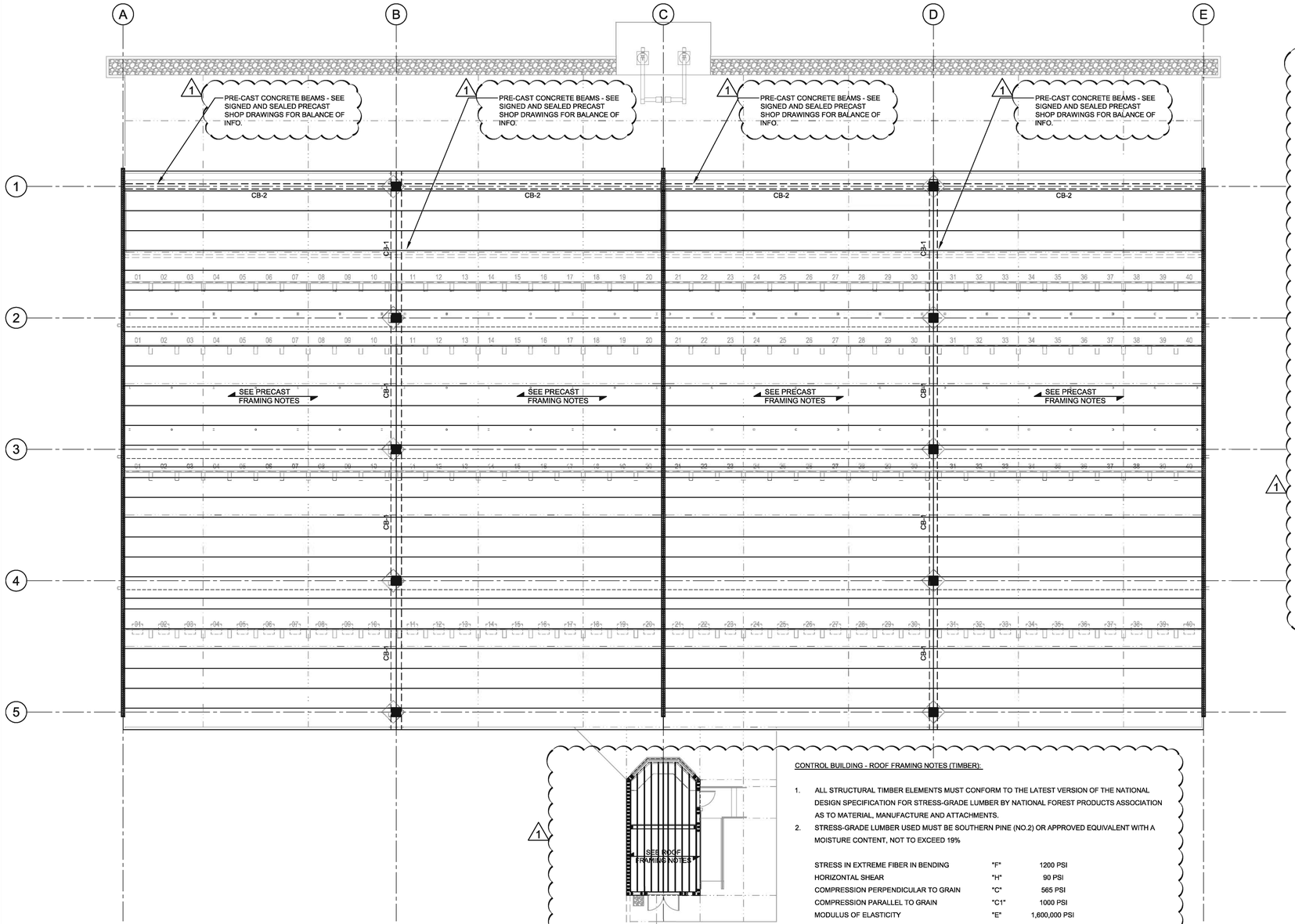
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	08/04/10	VALUE ENGINEERING

Firing Range Building Foundation Plan

S100

Project: 10002
Date: April 5th, 2010



PRE-CAST CONCRETE FRAMING NOTES:

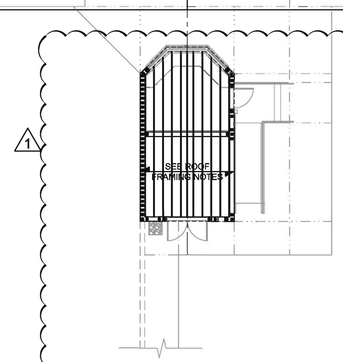
1. TYPICAL FRAMING SHALL CONSIST OF COMPOSITE PRECAST, PRE STRESSED 12" OR 15" HOLLOW-CORE SLABS (DESIGNED BY PRE-CAST ENGINEER) SUPPORTED ON CONCRETE WALLS, CONCRETE FORM AND POURED IN PLACE BEAMS.
2. SEE DRAWING S303 FOR HOLLOWCORE DETAILS AND SECTIONS.
3. PRECAST SCHEDULE:

	MINIMUM 28-DAY COMP. STRENGTH	STRENGTH (PSI)	COARSE AGGREGATE
H.C. PLANK		5,000	STONE

4. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL REINFORCING BARS TO BE WELDED SHALL BE DEFORMED BARS CONFORMING TO ASTM A706, GRADE 60. WELDING OF REBAR SHALL BE IN ACCORDANCE WITH AWS D12.1 "REINFORCING STEEL WELDING CODE". ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE PRIOR TO POURING CONCRETE.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRECAST COMPONENTS FOR REVIEW BY THE STRUCTURAL ENGINEER BEFORE PRODUCTION. DRAWINGS SHALL BE SIGNED AND SEALED BY FLORIDA REGISTERED PROFESSIONAL ENGINEER.
6. THE CONTRACTOR SHALL CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL PLANS TO VERIFY SIZES AND LOCATIONS OF ALL OPENINGS, REVEAL, DRIPS, BLACKOUTS, INSERTS, ETC. CAST INTO PRECAST MEMBERS.
7. THE ERECTION WORK AND STRUCTURAL STABILITY DURING THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. FOR TOP OF SLAB ELEVATION AND ROOF SLOPE SEE SIGNED AND SEALED PRE-CAST ENGINEER SHOP DRAWINGS.
9. FOR CONCRETE PRE-CAST WALL REINFORCING, SEE SIGNED AND SEALED PRE-CAST ENGINEER SHOP DRAWINGS.

1

10. (1) - #3 HOOKED REBAR TO BE GROUTED IN EACH PLANK JOINT AT ENDS OF HOLLOW CORE SPANS. 4' / 8"
11. (1) - #3 x 4'-0" STRAIGHT REBAR TO BE GROUTED IN EACH PLANK JOINT AT CONTINUOUS END JOINTS OF HOLLOW CORE SPANS. 4'
12. REPRESENTS DIRECTION OF HOLLOW-CORE PLANK SPAN.



CONTROL BUILDING - ROOF FRAMING NOTES (TIMBER):

1. ALL STRUCTURAL TIMBER ELEMENTS MUST CONFORM TO THE LATEST VERSION OF THE NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER BY NATIONAL FOREST PRODUCTS ASSOCIATION AS TO MATERIAL, MANUFACTURE AND ATTACHMENTS.
2. STRESS-GRADE LUMBER USED MUST BE SOUTHERN PINE (NO.2) OR APPROVED EQUIVALENT WITH A MOISTURE CONTENT, NOT TO EXCEED 19%

STRESS IN EXTREME FIBER IN BENDING	"F"	1200 PSI
HORIZONTAL SHEAR	"H"	90 PSI
COMPRESSION PERPENDICULAR TO GRAIN	"C"	565 PSI
COMPRESSION PARALLEL TO GRAIN	"C1"	1000 PSI
MODULUS OF ELASTICITY	"E"	1,600,000 PSI

3. PLYWOOD ROOF DECK MUST BE PLY-FORM CLASS 1, 3/4 THICK. ALL PLYWOOD SHALL BE CONTINUOUS OVER FOUR OR MORE BEAMS (3-SPAN CONDITION), AND SHALL BE INSTALLED WITH FACE GRAIN OF PLYWOOD PERPENDICULAR TO SUPPORTING MEMBERS AND WITH THE END JOINTS STAGGERED. NAILING SHALL BE MADE WITH 10D RING SHANK GALVANIZED NAILS, SPACED AT 6" O.C. AT PANEL EDGED AND INTERMEDIATE SUPPORTS.
4. ALL TIMBER CONSTRUCTION WORK MUST CONFORM TO THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2007 WITH 2009 SUPPLEMENT.

S1 Firing Range Roof Framing Plan

SCALE: 3/32" = 1'

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Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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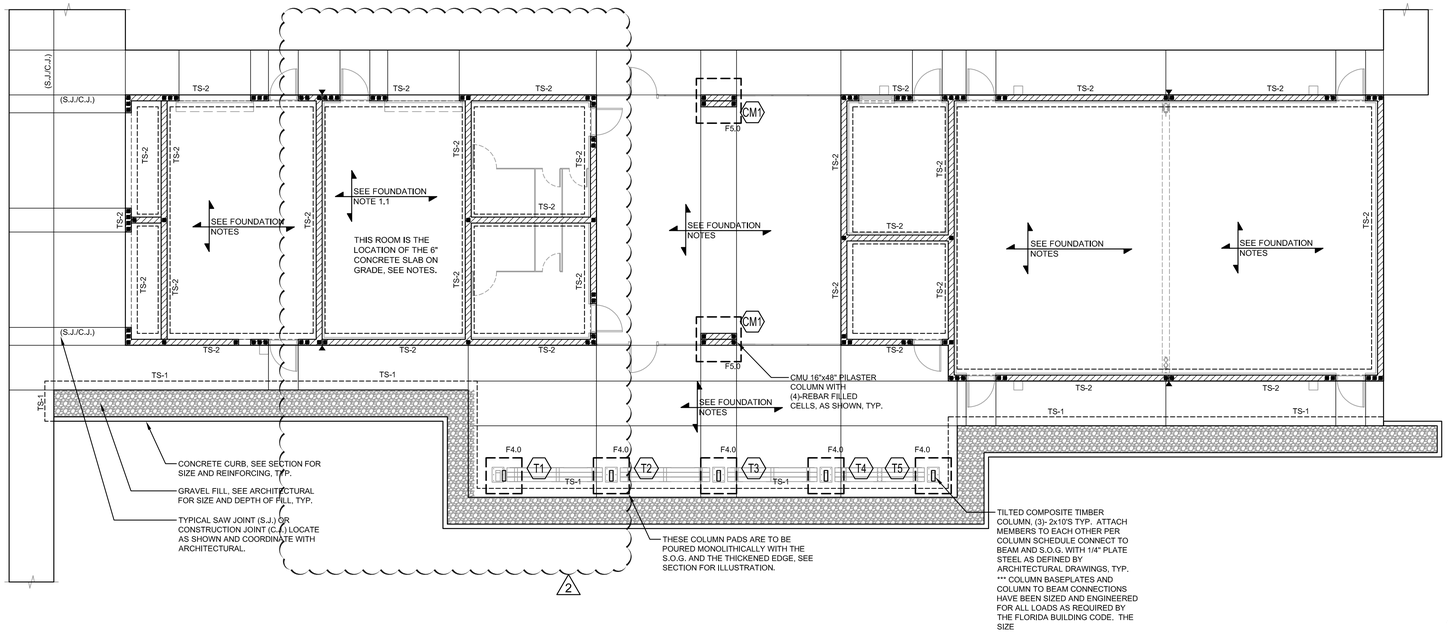
REVISIONS

No.	Date	Revision
1	08/04/10	VALUE ENGINEERING

Firing Range Building Roof Framing Plan

S101

Project: 10002
Date: April 5th, 2010



N

S1 Classroom Building Foundation Plan

SCALE: 1/8" = 1'

1

TIMBER COLUMN SCHEDULE

COL. MARK	COLUMN SIZE	REINFORCING	REMARKS
T1	(3)-2x10	SCREW MEBERS TOGETHER WITH (2)-SIMPSON WSNTL3S SCREWS @ 12" O/C VERTICALLY	PROVIDE 1/2 PLYWOOD FILLER IN BETWEEN MEMBERS
T2	(3)-2x10	SCREW MEBERS TOGETHER WITH (2)-SIMPSON WSNTL3S SCREWS @ 12" O/C VERTICALLY	PROVIDE 1/2 PLYWOOD FILLER IN BETWEEN MEMBERS
T3	(3)-2x10	SCREW MEBERS TOGETHER WITH (2)-SIMPSON WSNTL3S SCREWS @ 12" O/C VERTICALLY	PROVIDE 1/2 PLYWOOD FILLER IN BETWEEN MEMBERS
T4	(3)-2x10	SCREW MEBERS TOGETHER WITH (2)-SIMPSON WSNTL3S SCREWS @ 12" O/C VERTICALLY	PROVIDE 1/2 PLYWOOD FILLER IN BETWEEN MEMBERS
T5	(3)-2x10	SCREW MEBERS TOGETHER WITH (2)-SIMPSON WSNTL3S SCREWS @ 12" O/C VERTICALLY	PROVIDE 1/2 PLYWOOD FILLER IN BETWEEN MEMBERS

1

THICKENED SLAB FOOTING SCHEDULE

MARK	SIZE	THICKNESS	CONTINUOUS LONGITUDINAL REINF.	TRANSVERSE BOTTOM REINF.
TS-1	1'-0" X CONT.	1'-0"	(2)-#5 BOT / (1)-#5 TOP	N/A
TS-2	1'-4" X CONT.	1'-4"	(2)-#5 BOT / (1)-#5 TOP	#3 REBAR @ 24" O/C
F4.0	4'-0" x 4'-0"	1'-4"	(3)-#5 TOP & BOTTOM	(3)-#5 TOP & BOTTOM
F5.0	5'-0" x 5'-0"	1'-4"	(4)-#5 TOP & BOTTOM	(4)-#5 TOP & BOTTOM

FOUNDATION PLAN NOTES:

1. SLAB ON GRADE TO BE 4" THICK CONCRETE OVER VAPOR BARRIER CONFORMING TO ASTM E-1745 ON COMPACTED SUB-BASE AS PER GEOTECHNICAL ENGINEERS REPORT. REINFORCE SLAB WITH 6x6xW1.4xW1.4 W.W.F. (FLAT SHEETS) CENTERED IN SLAB (OR APPROVED FIBERMESH EQUIVALENT - AT OWNERS DISCRETION). SUPPORT WELDED WIRE FABRIC WITH 2" SLAB BOLSTERS OR APPROVED EQUAL AT 3'-0"(±) O.C. IN BOTH DIRECTIONS. USE OF CONCRETE BRICK IS NOT ALLOWED IN SLAB ON GRADE.
   1.1. SLAB ON GRADE TO BE 6" THICK CONCRETE OVER VAPOR BARRIER CONFORMING TO ASTM E-1745 ON COMPACTED SUB-BASE AS PER GEOTECHNICAL ENGINEERS REPORT. REINFORCE SLAB WITH 6x6xW2.9xW2.9 W.W.F. (FLAT SHEETS) PLACED 1-1/2" AND 4-1/2" FROM THE BOTTOM OF THE SLAB. SUPPORT WELDED WIRE FABRIC WITH SPECIFIED SLAB BOLSTERS OR APPROVED EQUAL AT 3'-0"(±) O.C. IN BOTH DIRECTIONS. USE OF CONCRETE BRICK IS NOT ALLOWED IN SLAB ON GRADE.
2. TOP OF SLAB ELEVATION SHOWN THUS [' - "] ON PLAN AND IS EQUIVALENT TO THE REFERENCE ELEVATION ILLUSTRATED ON THE CIVIL ENGINEERS CONSTRUCTION DOCUMENTS. G.C. IS RESPONSIBLE TO COORDINATE THIS ELEVATION BETWEEN THE CIVIL AND ARCHITECTURAL DRAWINGS.
3. FOR TYPICAL FOUNDATION PLAN DETAILS, SEE DRAWING S400.
4. FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S000.
5. FOR FOOTING SIZE AND REINFORCING SEE SCHEDULE ON THIS SHEET.
7. TOP OF FOOTING: ELEVATION @ INTERIOR = (0' - 0") TYPICAL U.N.O.
   ELEVATION @ EXTERIOR = (0' - 0") TYPICAL U.N.O.
8. FOR FLOOR SLAB DEPRESSION LOCATIONS, SLOPE TO DRAINS AND LIMITS NOT SHOWN ON PLAN SEE ARCHITECTURAL DRAWINGS.
9. FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWING'S.
10. TYPICAL WALL REINFORCING SCHEDULE:
    A. 8" CMU EXTERIOR WALL REINFORCE WITH (1)-#5 @ 48" O.C. VERT.
    B. PROVIDE ADDITIONAL (1)-#5 VERTICAL EACH SIDE OF ALL WALL OPENINGS AND INTERSECTIONS.
    C. ■ SYMBOL REPRESENTS LOCATION OF ADDITIONAL FILLED CELL WITH #5 REBAR FROM FOUNDATION TO TOP OF CMU WALL.
    D. HATCH REPRESENTS 8" CMU BEARING WALL.
11. COORDINATE LOCATION OF CONTROL JOINTS (SAWCUTS (S.J.) & TOOLED JOINTS) AT WALKWAY SLABS WITH ARCHITECTURAL DRAWING'S. CONTROL JOINTS AT EXPOSED TO WEATHER WALKWAYS SHALL BE TOOLED JOINTS (U.N.O. ON ARCHITECTURAL DRAWINGS).
12. ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN WITH DOWELS TO MATCH. ALL CELLS AT REINFORCEMENT LOCATION SHALL BE FILLED WITH GROUT. PROVIDE INSPECTION/CLEANOUT HOLE AT BASE WHEN POUR HEIGHT IS GREATER THAN 5 FEET.
13. MASONRY CONTROL JOINT SHOWN THUS MCJ ON PLAN. MAXIMUM SPACING OF JOINTS = 30'-0", COORDINATE LOCATION WITH THE ARCH. BUILDING ELEVATIONS.
14. GENERAL CONTRACTOR TO COORDINATE LOCATION OF ALL WALL PENETRATIONS REQUIRED FOR MECHANICAL EQUIPMENT AND PROVIDE A PRECAST LINTEL AT ALL OPENINGS REFER TO TYPICAL DETAILS ON SHEET S401.
15. PRE-CAST LINTEL REQUIREMENTS, ADDED TO THIS DRAWINGS, ARE PLACED ON THE FOUNDATION FOR CLARITY PURPOSES ONLY. LINTELS ARE TYPICAL OVER THE DOOR AND WINDOW OPENINGS AS SHOWN IN PLAN. SEE TYPICAL DETAILS FOR BALANCE OF INFO AND REINFORCING REQUIREMENTS.

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Construction Documents

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SIGNATURE DATE

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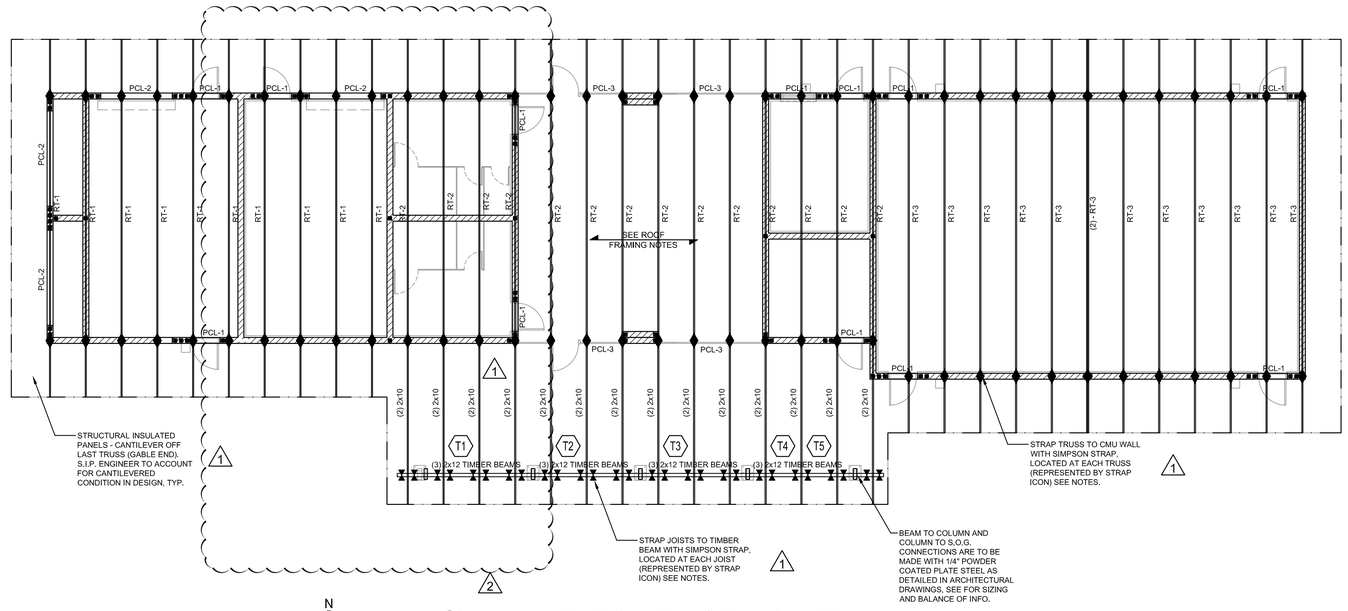
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3

Classroom Building Foundation Plan

S110

Project: 10002
Date: April 5th, 2010



S1 Classroom Building Roof Framing Plan

SCALE: 1/8" = 1'

1

ROOF FRAMING NOTES:

1. ROOF FRAMING SHALL BE STRUCTURAL INSULATED PANELS, CONSISTING OF A MINIMUM 3/4" PLYWOOD BOTTOM CHORD AND A MINIMUM 3/4" PLYWOOD + 3/8" CSX PLYWOOD TOP CHORD WITH MINIMUM SPANNING OVER PRE-ENG/PRE-FAB WOOD TRUSSES SPACED AT 48" OC. REFER TO THE ARCHITECTURAL DRAWINGS FOR ROOF FINISH. THE S.I.P. PANEL DESIGN IS DELEGATED TO THE PANEL SPECIALITY ENGINEER. THE S.I.P. ENGINEER IS TO BE A FLORIDA REGISTERED PROFESSIONAL ENGINEER WHO MUST PROVIDE SIGNED AND SEALED STRUCTURAL CALCULATIONS AND DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW. THE DELEGATED S.I.P. ENGINEER IS ALSO RESPONSIBLE TO PROVIDE ALL ENGINEERING FOR FASTENERS TO PRE-ENGINEER ROOF TRUSSES. ALL PRODUCTS ARE TO BE DESIGNED TO RESIST ALL DEAD, LIVE AND WIND LOADS SHOWN IN THESE CONSTRUCTION DOCUMENTS.
2. UNLESS OTHERWISE NOTED, FASTEN ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2007 EDITION WITH 2009 REVISIONS.
3. ALL SIMPSON HURRICANE TIE ELEMENTS TO BE HOT-DIPPED GALVANIZED.
4. TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER, FOR REVIEW AND APPROVAL.
5. FOR GENERAL STRUCTURAL NOTES SEE DRAWING S000.
6. FOR TYPICAL DETAILS AND TRUSS DIAGRAMS SEE DRAWINGS S400 THRU S402.
7. ALL PRE-ENGINEERED TRUSS CONNECTIONS TO STRUCTURE SHOWN ARE SUBJECT TO CHANGE UPON RECEIPT OF SHOP DRAWINGS AND CALCULATIONS WHERE UPLIFT FORCES FOR INDIVIDUAL TRUSSES ARE REQUIRED TO BE INDICATED.
8. CONNECTION OF VALLEY SET TRUSS TO EACH CARRYING TRUSS SHALL BE PROVIDED BY TRUSS MANUFACTURER.

1

ROOF FRAMING NOTES: (CONT.)

9. ANY SIMPSON HANGER MAY HAVE A SLOPED SEAT AS REQUIRED TO MAINTAIN ROOF SLOPE SPECIFIED BY ARCHITECT.
10. ◆ - AT THESE LOCATIONS SHOWN IN PLAN G.C. IS TO PROVIDE (1) SIMPSON DETAL20 HURRICANE STRAP WITH MOISTURE (INSTALLED DIAGONALLY AS REQUIRED BY SIMPSON) TO A MINIMUM SINGLE BOND BEAM LOCATED AT TOP OF CMU WALL.
11. ⧗ - AT THESE LOCATIONS SHOWN IN PLAN G.C. IS TO PROVIDE (1) SIMPSON H8 HURRICANE STRAP WITH MOISTURE BARRIER FROM EACH OF TWO TIMBER JOISTS TO TIMBER BEAM SHOWN IN PLAN, TYP.

1

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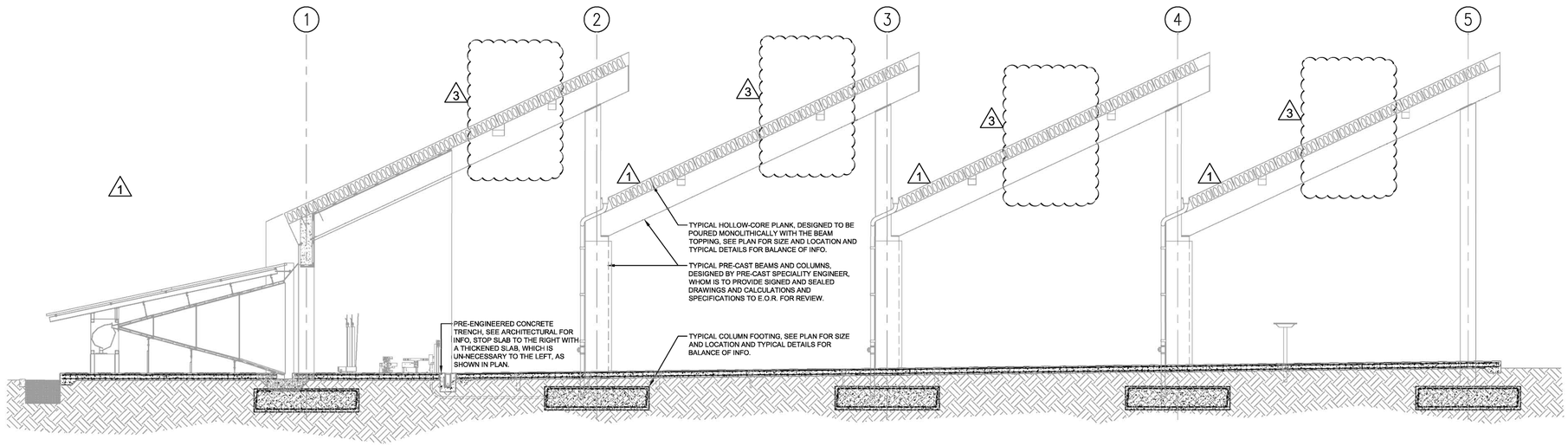
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	05/17/10	ADDENDUM #3

Classroom Building Roof Framing Plan

S111

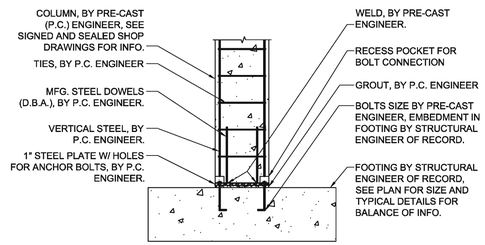
Project: 10002
Date: April 5th, 2010



S1 Firing Range Building Section

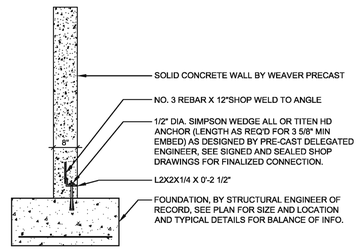
SCALE: 3/16" = 1'

THIS IS A PRELIMINARY WALL TO FOOTING DESIGN, AS DETERMINED BY PRE-CAST ENGINEER, A FINAL DESIGN IS TO BE PROVIDED BY THE DELEGATED PRE-CAST ENGINEER ON THE SIGNED, SEALED AND APPROVED SHOP DRAWINGS. CURRENTLY THIS CONNECTION OCCURS @ 4'-0" O/C



S2 Detail of Pre-Cast Concrete Column Connection to Footing

SCALE: N.T.S.



S3 Detail of Pre-Cast Wall Connection to Footing

SCALE: N.T.S.

FOR ALL PRE-CAST CONNECTION DETAILS SEE SIGNED, SEALED & APPROVED STRUCTURAL PRE-CAST DRAWINGS FOR INFO. THESE DRAWINGS ARE REQUIRED BY THE PRE-CAST DELEGATED ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION AND/OR FABRICATION.

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11700 34th Street North
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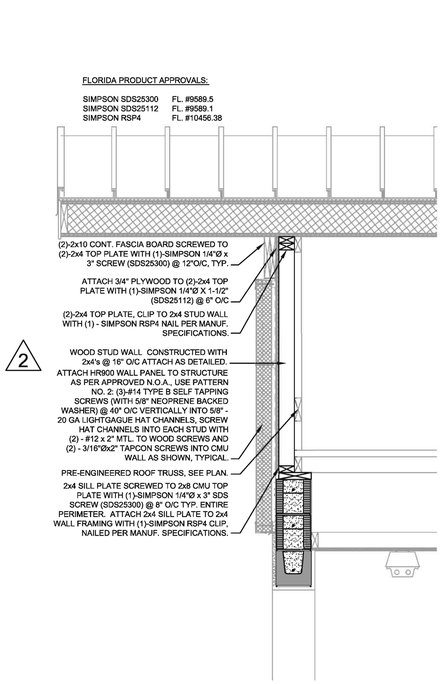
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4
3	08/04/10	VALUE ENGINEERING

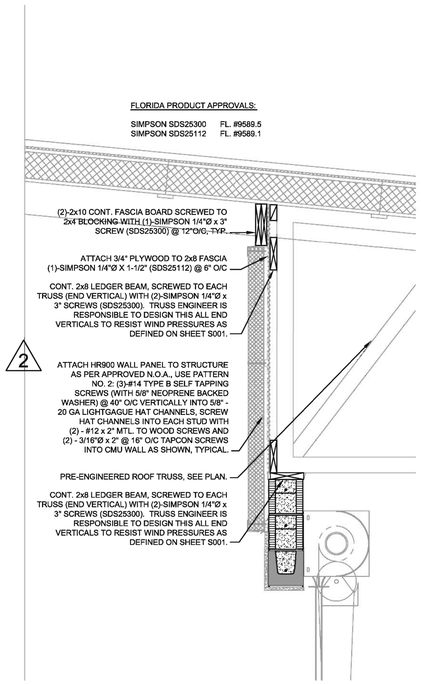
Firing Range Building Section

S300

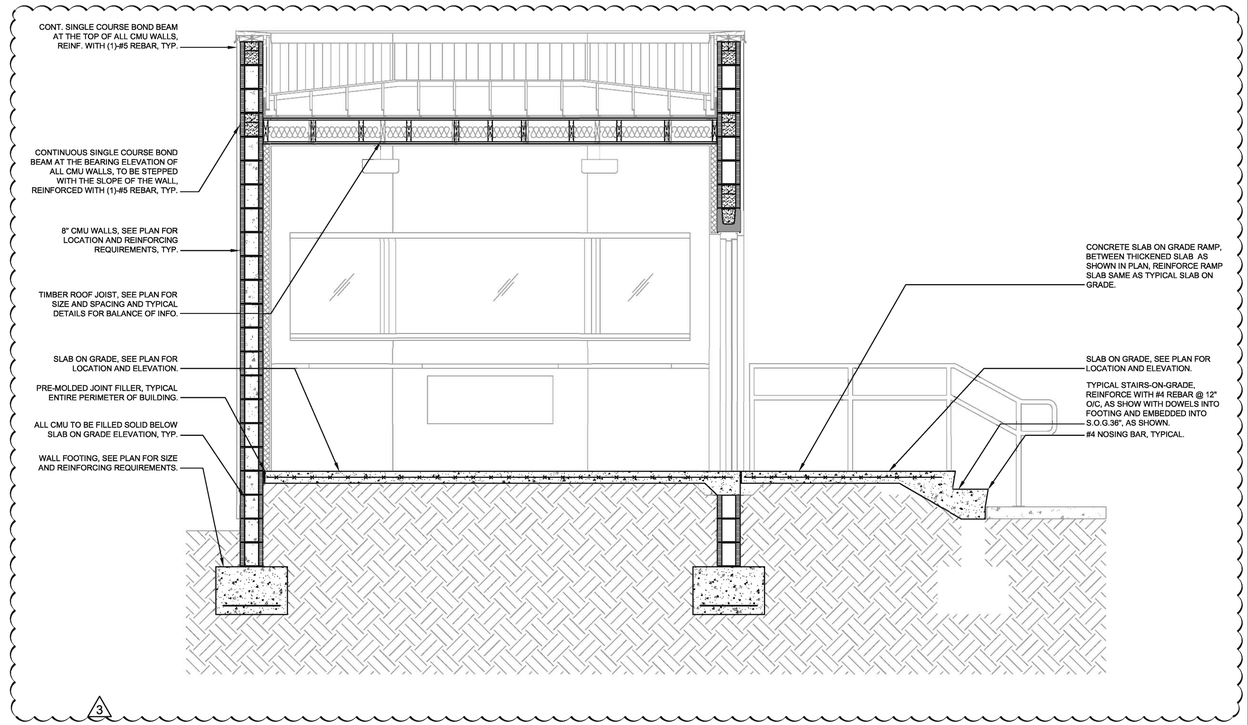
Project: 10002
Date: April 5th, 2010



S8 Wall Detail Parallel to Trusses
SCALE: 3/4" = 1'



S9 Wall Detail Perpendicular to Trusses
SCALE: 3/4" = 1'

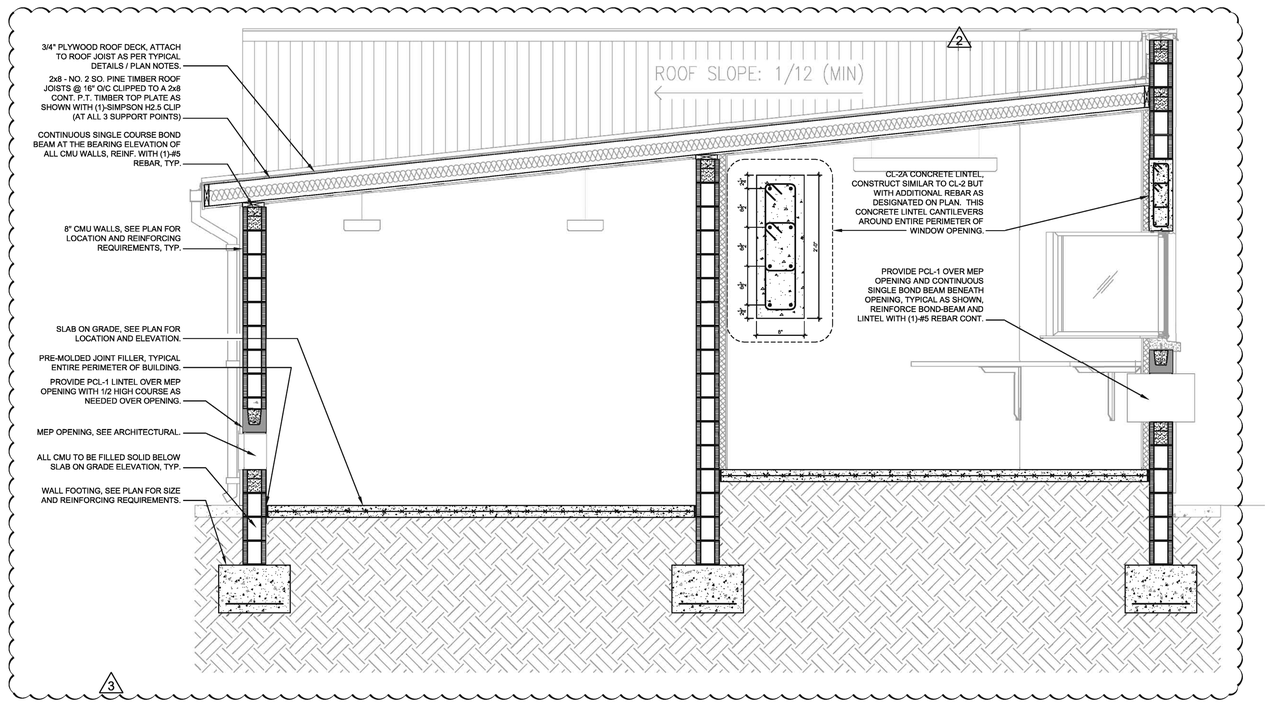


S5 Control Room Building Section
SCALE: 1/2" = 1'

FOR BAFFLE SYSTEM ATTACHMENT, SEE SIGNED AND SEALED & APPROVED STRUCTURE PRECAST DRAWINGS

3 2

S7 Conventional Framed Baffle System
SCALE: 1/2" = 1'



S6 Control Room Building Section
SCALE: 1/2" = 1'

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MOBILE: (813) 841-9451
EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

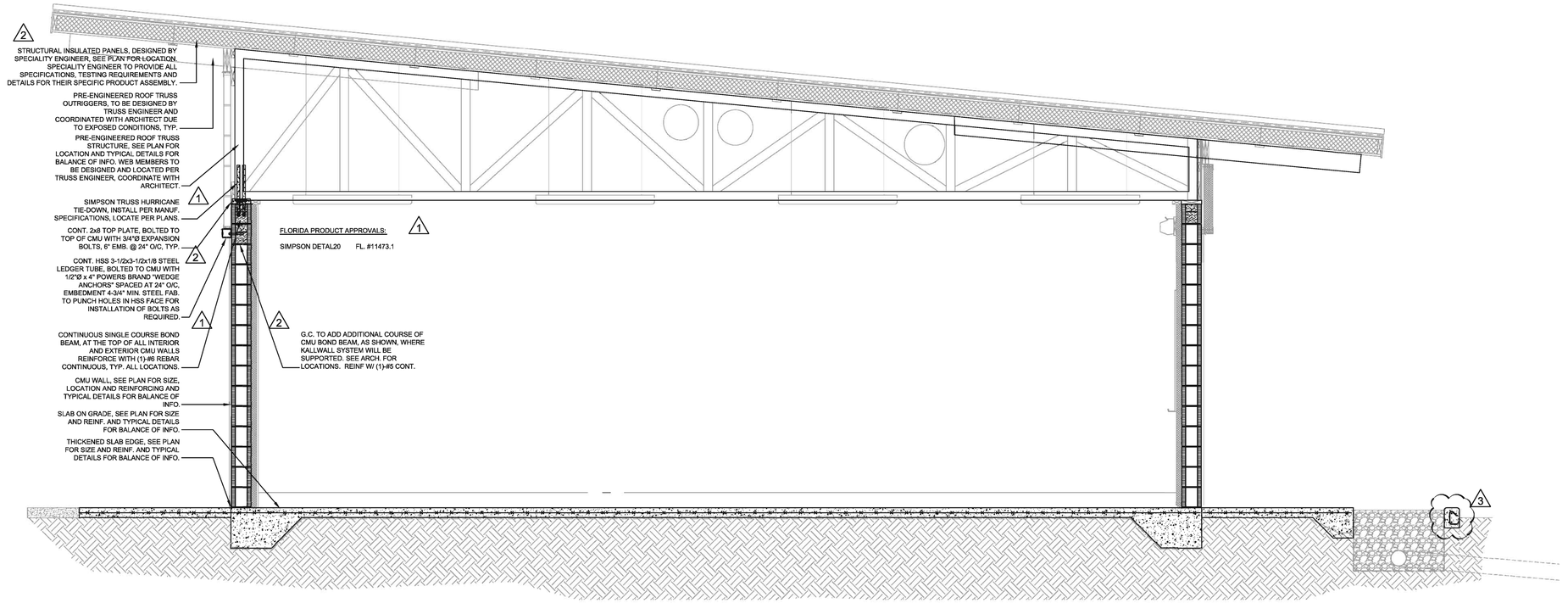
No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4
3	08/04/10	VALUE ENGINEERING

1

Misc. Building Sections & Classroom Wall Details

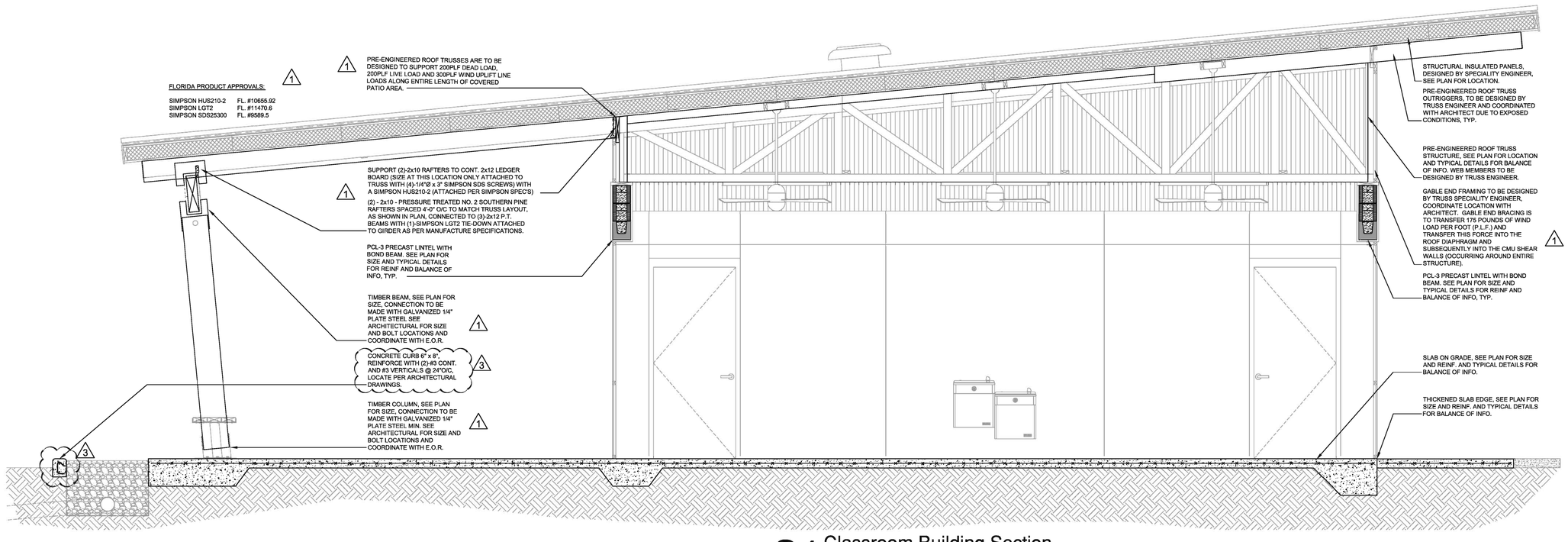
S301

Project: 10002
Date: April 5th, 2010



S3 Classroom Building Section

SCALE: 1/2" = 1'



S4 Classroom Building Section

SCALE: 1/2" = 1'

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EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

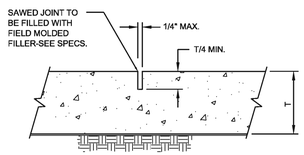
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4
3	08/04/10	VALUE ENGINEERING

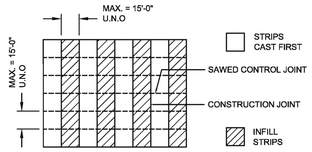
Classroom Building Section

S310

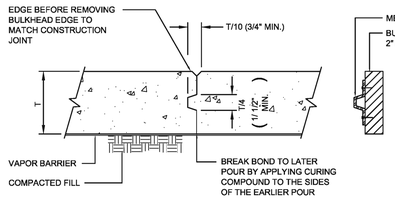
Project: 10002
Date: April 5th, 2010



SAWED CONTROL JOINT DETAIL



SLAB PLACEMENT SEQUENCE

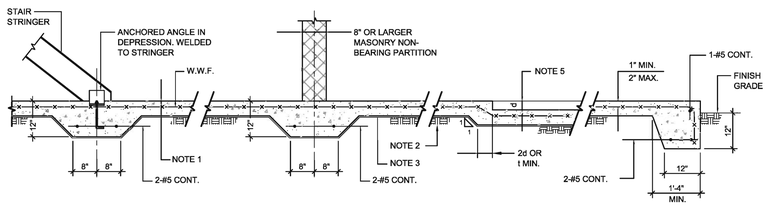


BULKHEAD DETAILS FOR CONSTRUCTION JOINT

NOTES:

1. CONCRETE FOR SLAB ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AS INDICATED ON THE "CONCRETE AND REINFORCING" NOTES.
2. SUPERPLASTICIZER SHALL BE USED IN SLAB ON GRADE CONCRETE - SEE SPECIFICATIONS.
3. SLAB ON GRADE CONCRETE MIX SHALL HAVE A WATER-CEMENT RATIO AS INDICATED IN SPECS AND OR NOTES.
4. CONSTRUCTION JOINTS SHALL BE LOCATED A MINIMUM OF 5'-0" AWAY FROM ANY OTHER JOINTS TO WHICH THEY ARE PARALLEL.
5. SAW CUTTING SHALL BE DONE WITH A POWER SAW WITH A MASONRY CUTTING BLADE. CUTTING SHALL BE DONE AS SOON AS CONCRETE HARDENS ENOUGH SO THAT THE BLADE DOES NOT DISLODGE THE AGGREGATES.
6. WHERE SAWCUT IS DISCONTINUED AT A TRANSVERSE JOINT, STOP CUT 2" SHORT.
7. SLAB REINFORING NOT SHOWN FOR CLARITY.

TYPICAL SLAB ON GRADE JOINT DETAILS

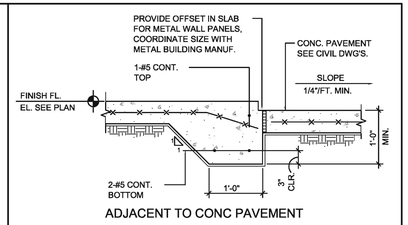


AT STAIR | HAUNCH AT PARTITION (NO JOINT) | AT DEPRESSION | EXTERIOR PLATFORM

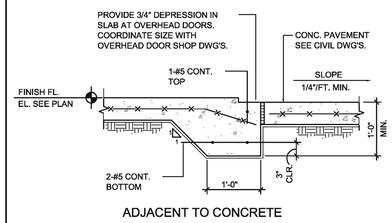
UNLESS NOTED ON PLANS:

1. SEE FOUNDATION NOTES FOR SLAB THICKNESS AND REINFORCING.
2. SLABS SHALL BEAR ON COMPACTED FILL.
3. COMPACTED FILL SHALL BE COVERED WITH VAPOR BARRIER. SEE SPECS.
4. UNDER MACHINE EQUIPMENT DEEPEN SLAB TO 8" AND ADD TWO LAYERS OF WELDED WIRE FABRIC BOTTOM, U.N.O
5. FOR DEPRESSIONS - SEE ARCHITECTURAL DRAWINGS.
6. AT CONSTRUCTION JOINTS USE WOOD FORMS WITH SHEAR KEYS.
7. STOP WIRE MESH AT CONSTRUCTION JOINTS. CUT EVERY OTHER WIRE AT SAWCUT JOINT.
8. WHERE SLAB IS DOWELD INTO WALL, FIRST SLAB CONSTRUCTION JOINT TO BE NOT MORE THAN 15 FEET FROM WALL.
9. FOR EXPANSION JOINT LOCATION SEE PLAN. FOR DETAILS SEE ARCHITECTURAL DRAWINGS.

TYPICAL SLAB ON GRADE DETAILS

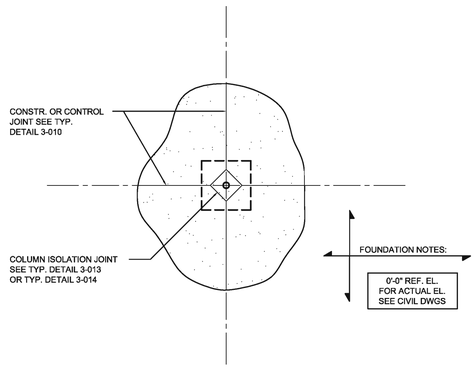


ADJACENT TO CONC PAVEMENT



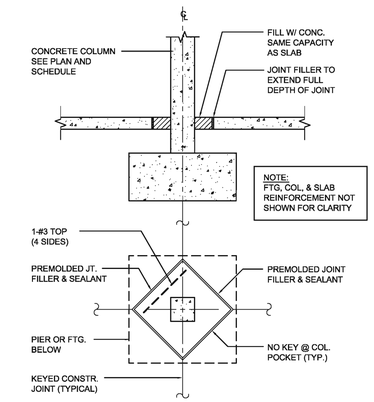
ADJACENT TO CONCRETE

TYP SLAB ON GRADE EDGE



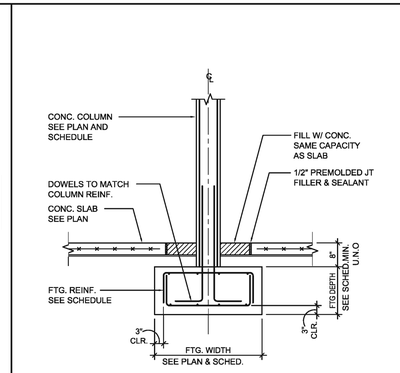
CONCRETE SLAB JOINT DETAIL

NO SCALE



TYPICAL CONCRETE COLUMN ISOLATION JOINT DETAIL

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

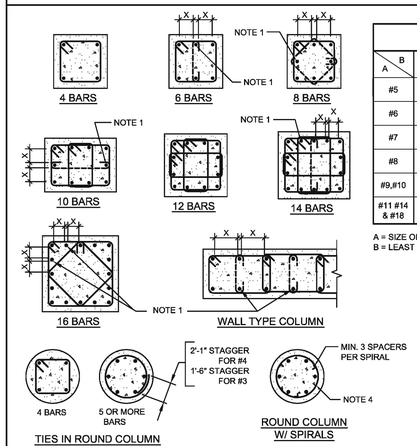


TYPICAL CONCRETE COLUMN FOOTING W/O PIER

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

THE MINIMUM CLEAR COVER FOR REINFORCEMENT BARS SHALL BE ONE BAR DIAMETER OR THE VALUES TABULATED BELOW, WHICHEVER IS THE GREATER.		
SLABS (LT.WT. CONC. OR STONE CONC.)		1"
GIRDERS AND BEAMS (TO STIRRUPS)		1 1/2"
JOISTS (STONE OR LT.WT.) BOTTOM BARS		1 1/4"
TIED COLUMNS AND PIERS		
SURFACE EXPOSED TO EARTH AND WEATHER	(TO TIES)	2"
OTHER SURFACES	(TO TIES)	1 1/2"
FOUNDATION ELEMENTS		
FORMED SURFACES		2"
SURFACES PLACED AGAINST EARTH		3"
WALLS		
SURFACES EXPOSED TO EARTH		2"
SURFACES EXPOSED TO WEATHER		1 1/2"
OTHER SURFACES		1"

TYPICAL CONCRETE COVER FOR REINFORCING BARS



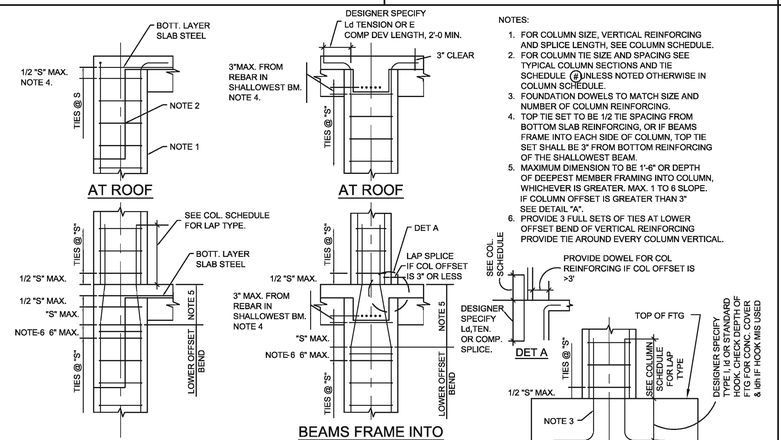
SIZE AND SPACING OF COLUMN TIES									
A \ B	8"	10"	12"	14"	16"	18"	20"	22"	24"OR MORE
#5	#3@8	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10
#6	#3@8	#3@10	#3@12	#3@12	#3@12	#3@12	#3@12	#3@12	#3@12
#7	#3@8	#3@10	#3@12	#3@14	#3@14	#3@14	#3@14	#3@14	#3@14
#8	#3@8	#3@10	#3@12	#3@14	#3@16	#3@16	#3@16	#3@16	#3@16
#9,#10	#3@8	#3@10	#3@12	#3@14	#3@16	#3@18	#3@18	#3@18	#3@18
#11 #14 & #18	#4@8	#4@10	#4@12	#4@14	#4@16	#4@18	#4@20	#4@22	#4@22

A = SIZE OF VERTICAL REINFORCING
B = LEAST DIMENSION OF COLUMN

NOTES:

1. THESE BARS MUST BE TIED AS SHOWN BY DASHED LINES WHEN "X" DISTANCE IS OVER 6 INCHES AND NEED NOT BE TIED WHEN "X" IS 6" OR LESS.
2. MINIMUM CLEAR COVER 1 1/2" TO TIES (2" FOR EXPOSED CONDITION).
3. FOR VERTICAL COLUMN REINFORCING, SEE PLAN AND COLUMN SCHEDULE.
4. FOR SPIRAL SEE COLUMN SCHEDULE.

TYPICAL COLUMN SECTIONS & TIE SCHEDULE



TYPICAL CONCRETE TIED COLUMN DETAIL

NOTES:

1. FOR COLUMN SIZE, VERTICAL REINFORCING AND SPLICE LENGTH, SEE COLUMN SCHEDULE.
2. FOR COLUMN TIE SIZE AND SPACING SEE TYPICAL COLUMN SECTIONS AND TIE SCHEDULE #2 UNLESS NOTED OTHERWISE IN COLUMN SCHEDULE.
3. FOUNDATION DOWELS TO MATCH SIZE AND NUMBER OF COLUMN REINFORCING.
4. TOP TIE SET TO BE 1/2 TIE SPACING FROM BOTTOM SLAB REINFORCING, OR IF BEAMS FRAME INTO EACH SIDE OF COLUMN, TOP TIE SET SHALL BE 3" FROM BOTTOM REINFORCING OF THE SHALLOWEST BEAM.
5. MAXIMUM DIMENSION TO BE 1'-6" OR DEPTH OF DEEPEST MEMBER FRAMING INTO COLUMN, WHICHEVER IS GREATER. MAX. 1 TO 6 SLOPE. IF COLUMN OFFSET IS GREATER THAN 3" SEE DETAIL "A".
6. PROVIDE 3 FULL SETS OF TIES AT LOWER OFFSET BEND OF VERTICAL REINFORCING PROVIDE TIE AROUND EVERY COLUMN VERTICAL.

NOTE:

IN CASE OF CONFLICT BETWEEN INFORMATION SHOWN ON THIS DRAWING, SECTION DRAWINGS OR ARCHITECTURAL DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE ARCHITECT AND ENGINEER OF SUCH CONFLICT IN ORDER TO RECIEVE A CLARIFICATION BEFORE PROCEEDING TO WORK. DIMENSIONS, SIZES AND REINFORCEMENT OF STRUCTURAL ELEMENTS SHOWN IN THIS DRAWING ARE MINIMUM TO BE USED UNLESS NOTED OTHERWISE (U.N.O.) IN PLANS.

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MOBILE: (813) 841-9451
EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS		
No.	Date	Revision

Drawn By:
Checked By:

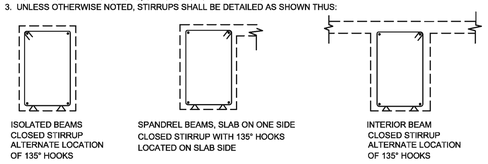
Typical Details

S400

Project: 10002
Date: April 5th, 2010

BEAM DIAGRAM NOTES:

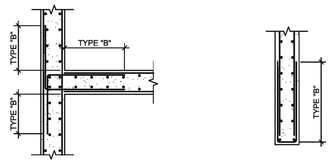
1. FOR TYPICAL DETAILS AND GENERAL NOTES, SEE SHEET S400 THRU S402 AND S000 (1)
2. FOR TYPICAL BEAM SECTIONS, SEE SECTIONS AND DETAIL SHEETS.
3. UNLESS OTHERWISE NOTED, STIRRUPS SHALL BE DETAILED AS SHOWN THUS:



4. PROVIDE MINIMUM 2 - 1 1/2" BEAM BOLSTERS PLACED LONGITUDINALLY BELOW STIRRUPS TO ENSURE PROPER CLEARANCE.
5. ALL CONTINOUS TOP BARS SHALL BE SPLICED AT MIDSPAN AND ALL CONTINOUS BOTTOM BARS SHALL BE SPLICED AT SUPPORTS, TYPICAL UNLESS OTHERWISE NOTED.
6. ALL TOP AND BOTTOM SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE UNLESS OTHERWISE NOTED
7. EE = EACH END, LE= LEFT END, RE= RIGHT END, EF = EACH FACE
8. LOCATE ONE LONGITUDINAL BAR ON EACH CORNER OF STIRRUPS. IF NEEDED ADD A #7 LONGITUDINAL
9. PROVIDE #4 @ 16" ADDITIONAL STIRRUPS THROUGHOUT ENTIRE LENGTH OF ROOF DRAINS, WHERE THEY RUN INSIDE THE BEAMS.
10. PROVIDE 2 #5 CONT. AND EQUALLY SPACED ON EACH FACE OF 36" DEEP BEAMS. USE CLASS B TENSION LAP SPLICE AND HOOK AT THE ENDS U.N.O.

BEAM DIAGRAM NOTES

NTS



INTERSECTING WALLS

ENDS

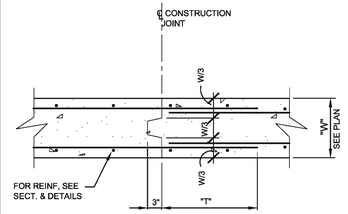
CORNERS

NOTES:

1. SPLICE HORIZONTAL BARS AS SHOWN.
2. SEE REINFORCING DEVELOPMENT LENGTH AND LAP SPLICE DETAIL FOR LAP LENGTHS.

TYPICAL CONCRETE WALL REINF. DETAIL

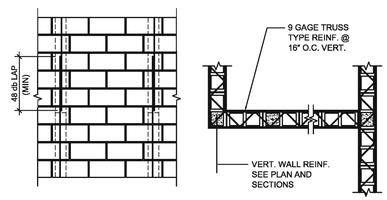
SCALE: 1/2" = 1'-0"



NOTE:

ADD #4 X 4'-0" LG @ 12" HORIZ WHERE NO HORIZ REINF OCCURS.

TYPICAL VERTICAL CONSTRUCTION JOINT DETAIL IN CONCRETE WALLS



ELEVATION PLAN

NOTES:

1. PROVIDE INSPECTION PORT AT BOTTOM OF LIFT. IF GROUT LIFT IS GREATER THAN 4'-0".

TYPICAL MASONRY WALL DETAIL

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

f'c = 3000 PSI, NORMAL WEIGHT

BAR SIZE	LAP CLASS	TENSION LAP SPLICES: LAP LENGTH PER SPACING AND COVER CASE — CASE 1 TOP BARS	CASE 1 OTHER BARS	CASE 2 TOP BARS	CASE 2 OTHER BARS	COMPRESSION LAP SPLICES
#3	B	28	22	42	32	14
#4	B	37	29	56	43	17
#5	B	47	36	70	54	21
#6	B	56	43	84	64	27
#7	B	81	63	122	94	30
#8	B	93	62	139	107	34
#9	B	105	62	157	121	38
#10	B	118	91	177	136	44
#11	B	131	101	196	151	49

NOTES:

CASE 1

BEAMS AND COLUMNS:
CONCRETE COVER >/= TO BAR DIAMETER, C-C BAR SPACING >/= TO 2X BAR DIAMETER AND WITH STIRRUPS OR TIES THROUGHOUT TENSION LAP SPLICE LENGTH NOT LESS THAN THE CODE MINIMUM.

OTHER MEMBERS:
CONCRETE COVER >/= TO THE BAR DIAMETER AND C-C BAR SPACING >/= TO 3X BAR DIAMETER.

CASE 2

BEAMS AND COLUMNS:
CONCRETE COVER < BAR DIAMETER AND C-C BAR SPACING < 2X BAR DIAMETER.

OTHER MEMBERS:
CONCRETE COVER < BAR DIAMETER OR C-C BAR SPACING < 3X BAR DIAMETER.

LAP CLASS "B" IS TO BE USED UNLESS OTHERWISE SPECIFIED IN THESE CONTRACT DOCUMENTS.

*

TENSION AND COMPRESSION LAP SPLICES WITH F'c = 3000 PSI

f'c = 4000 PSI, NORMAL WEIGHT

BAR SIZE	LAP CLASS	TENSION LAP SPLICES: LAP LENGTH PER SPACING AND COVER CASE — CASE 1 TOP BARS	CASE 1 OTHER BARS	CASE 2 TOP BARS	CASE 2 OTHER BARS	COMPRESSION LAP SPLICES
#3	B	24	19	36	28	14
#4	B	32	25	48	37	17
#5	B	40	31	60	47	21
#6	B	48	37	72	56	27
#7	B	70	54	106	81	30
#8	B	80	62	121	93	34
#9	B	91	70	136	105	38
#10	B	102	79	153	118	44
#11	B	113	87	170	131	49

NOTES:

CASE 1

BEAMS AND COLUMNS:
CONCRETE COVER >/= TO BAR DIAMETER, C-C BAR SPACING >/= TO 2X BAR DIAMETER AND WITH STIRRUPS OR TIES THROUGHOUT TENSION LAP SPLICE LENGTH NOT LESS THAN THE CODE MINIMUM.

OTHER MEMBERS:
CONCRETE COVER >/= TO THE BAR DIAMETER AND C-C BAR SPACING >/= TO 3X BAR DIAMETER.

CASE 2

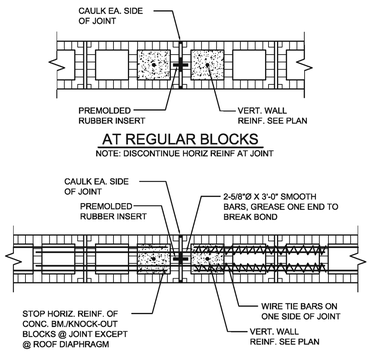
BEAMS AND COLUMNS:
CONCRETE COVER < BAR DIAMETER AND C-C BAR SPACING < 2X BAR DIAMETER.

OTHER MEMBERS:
CONCRETE COVER < BAR DIAMETER OR C-C BAR SPACING < 3X BAR DIAMETER.

LAP CLASS "B" IS TO BE USED UNLESS OTHERWISE SPECIFIED IN THESE CONTRACT DOCUMENTS.

*

TENSION AND COMPRESSION LAP SPLICES WITH F'c = 4000 PSI



AT REGULAR BLOCKS
NOTE: DISCONTINUE HORIZ REINF AT JOINT

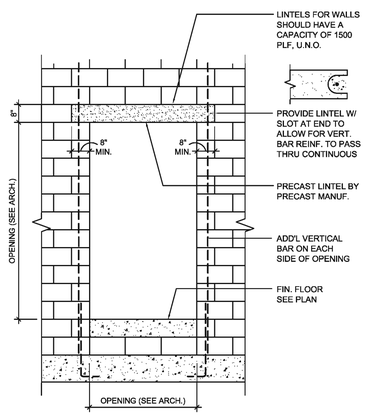
AT CONC. BM'S/KNOCK-OUT BLOCKS
NOTE: DISCONTINUE HORIZ REINF AT JOINT

MASONRY CONTROL JOINT

SCALE: 1" = 1'-0"

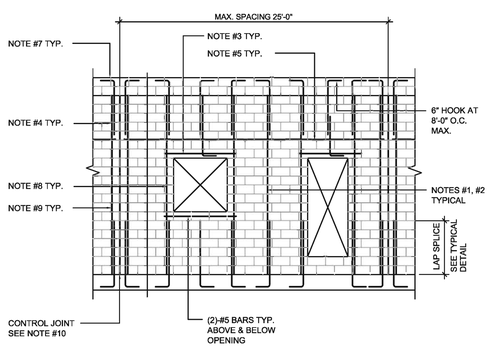
NOTE:

1. MAXIMUM SPACING OF CONTROL JOINT EQUALS 25'-0" OR THREE TIMES WALL HEIGHT (WHICH EVER IS SMALLER)



TYPICAL LINTEL OVER OPENING

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



CMU WALL REINFORCING LAYOUT

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

NOTES:

1. VERTICAL WALL REINFORCING SHALL ALIGN WITH VERTICAL FOUNDATION DOWELS. DOWELS SHALL BE PLACED AS SHOWN ON DETAILS WITH STANDARD ACI HOOK DIRECTLY ON TOP OF BOTTOM LAYER OF FOOTING REINFORCING. REFER CMU WALL REINFORCING SCHEDULE ON PLAN FOR SIZE AND SPACING.
2. TYPICAL VERTICAL WALL REINFORCING TO BE PLACED AS SHOWN ON DETAILS. GROUT CELLS FULL THAT CONTAIN REINFORCEMENT.
3. REFER CMU LINTEL SCHEDULE FOR SIZE, LOCATION AND QUANTITY OF LINTEL REINFORCEMENT.
4. VERTICAL REINFORCING BARS MAY BE SPLICED IN 6'-0" TO 8'-0" LENGTHS.
5. HORIZONTAL WALL REINFORCING SHALL BE TRUSS TYPE AT 16" O.C. ABOVE GRADE AND 8" O.C. BELOW GRADE UNLESS OTHERWISE NOTED ON PLANS AND DETAILS. DISCONTINUE AT CONTROL JOINTS.
6. CONTRACTOR SHALL USE THE LOW LIFT METHOD OF GROUTED MASONRY CONSTRUCTION UNLESS CLEAN OUTS ARE PROVIDED AT EACH VERTICAL REINFORCING BAR.
7. REFER TO PLANS AND DETAILS FOR SIZE AND LOCATION OF BOND BEAMS AND QUANTITY OF REINFORCING. LAP REINFORCING 24" MINIMUM. DISCONTINUE BOND BEAMS AT CONTROL JOINTS.
8. REFER LINTEL SCHEDULE NOTES FOR VERTICAL BARS ADJACENT TO OPENING.
9. PROVIDE VERTICAL WALL REINFORCING IN FIRST CELL NEXT TO CONTROL JOINTS/CORNERS/OPENINGS. TYPICAL.
10. VERTICAL CONTROL JOINTS SHALL TERMINATE AT TOP OF FOOTING.
11. PROVIDE CORNER BARS TO MATCH TYPE AND QUANTITY OF HORIZONTAL WALL REINFORCING, TYPICAL.

LAP SPLICE SCHEDULE FOR SINGLE REINFORCED 8" CMU		
BAR SIZE	LAP SPLICE	REMARKS
#3	19	
#4	25	
#5	31	
#6	57	
#7	79	
#8	112	
#9	148	

NOTES:

1. LENGTH OF SPLICES ARE BASED ON FLORIDA BUILDING CODE 2004.
2. LAP SPLICES INDICATED ARE IN INCHES.
3. THIS SCHEDULE IS FOR 8" CONCRETE MASONRY UNITS (CMU) ONLY.
4. SEE DETAIL FOR LAP SPLICE SCHEDULE FOR DOUBLE REINFORCED 8" CMU.

LAP SPLICE SCHEDULE SINGLE REINFORCED 8" CMU

NOTE:

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MOBILE: (813) 841-9451
EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

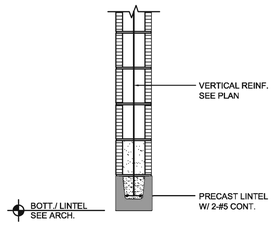
Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS		
No.	Date	Revision
1	05/10/10	ADDENDUM #2

Typical Details

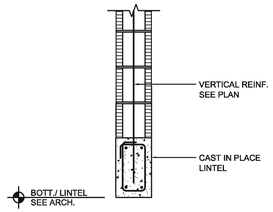
S401

Project: 10002
Date: April 5th, 2010



TYP. PRECAST LINTEL SECTION

SCALE: 3/4" = 1'-0"



TYP. CAST IN PLACE LINTEL

SCALE: 3/4" = 1'-0"

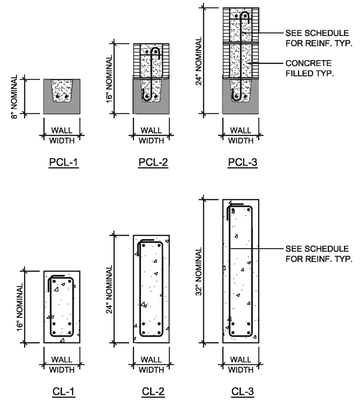
CMU LINTEL SCHEDULE

WALL THICKNESS	LINTEL DEPTH	BOTTOM REINFORCING	TOP REINFORCING	STIRRUPS & SPACING	NOTES
PCL-1	8"	(2) - #5	(2) - #5	-	
PCL-2	16"	(2) - #5	(2) - #5	-	
PCL-3	24"	(2) - #5	(2) - #5	-	
CL-1	16"	(2) - #6	(2) - #6	#3 @ 6" O/C	
CL-2	24"	(2) - #6	(2) - #6	#3 @ 6" O/C	
CL-3	32"	(2) - #6	(2) - #6	#3 @ 6" O/C	

NOTES:

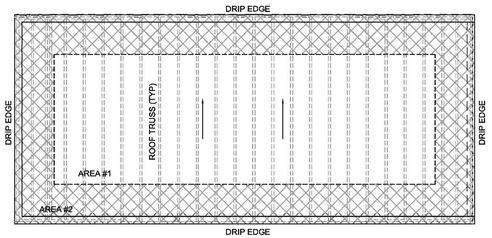
1. PRECAST CONCRETE LINTELS CAN BE INSTALLED AT ALL OPENINGS PER SCHEDULE. CAST IN PLACE CONCRETE LINTELS SHALL BE PLACED WHERE SHOWN ON PLANS. SUBSTITUTED UPON APPROVAL BY ENGINEER.
2. GROUTED LINTEL (THROUGH) BLOCKS SHALL EXTEND A MINIMUM OF 8" BEYOND FACE OF OPENING EACH SIDE UNLESS NOTED OTHERWISE. THE FIRST TWO VERTICAL CELLS EACH OF THE OPENING SHALL BE GROUTED AND CONTAIN 2-#5 VERTICAL EACH FACE.

   NOTE: THE FIRST CELL EACH SIDE OF THE OPENING SHALL BE GROUTED TO LINTEL LEVEL. SECOND CELL SHALL BE GROUTED TO ROOF LEVEL.
3. SEE SPECIFIC DETAIL FOR BRICK LEDGE SUPPORT ANGLE OF LOOSE LINTEL SCHEDULE.
4. CONSTRUCTION/CONTROL JOINT SHALL NOT BE LOCATED WITHIN WIDTH OF OPENING, NOR SHALL IT BE LOCATED WITHIN 24" OF THE OPENING ON EITHER SIDE.
5. CONCRETE LINTEL BEARING EACH SIDE OF LINTEL TO BE EQUAL TO DEPTH OF LINTEL, TYPICAL UNLESS NOTED OTHERWISE.



TYPICAL PRECAST/C.I.P. LINTEL DETAIL

SCALE: 3/4" = 1'-0"



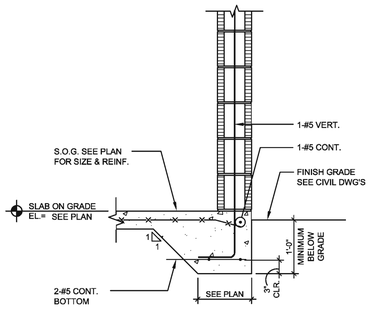
AREA #1 — 8d COMMON NAILS @ 6" OC INTO RAFTERS, EAVE AND RAKE BORADS.

AREA #2 — 8d RINK SHANK OR 10d COMMON NAILS @ 4" O.C. INTO RAFTERS, EAVE AND RAKE BOARDS IN AREA SHOWN HATCHED.

1. SEE S001 STRUCTURAL NOTES FOR SHEATHING SPECIFICATIONS AND DRAWING S002 FOR WIND DESIGN DATA.
2. END JOINTS OF THE ROOF SHEATING SHALL BE STAGGERED AND OCCUR OVER FRAMING MEMBER.
3. IF A PNEUMATIC NAILER WITH FASTENER SIZE LESS THAN .131"Ø X 2 1/2" IS USED, THE CONTRACTOR MUST CONTACT THE ENGINEER OF RECORD FOR AN EQUIVALENT NAIL SPACING.

SINGLE SLOPE ROOF SHEATHING - NAILING SCHEDULE

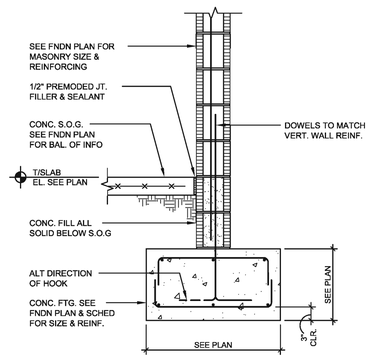
NO SCALE



NOTE:
SEE ARCHITECTURAL DRAWINGS FOR WALL DETAILS AND LOCATION.

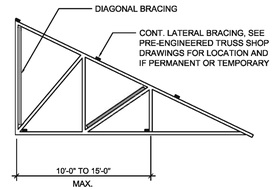
TYPICAL THICKENED SLAB HAUNCH AT CLASSROOM MASONRY WALLS

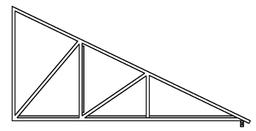
SCALE: 3/4" = 1'-0"

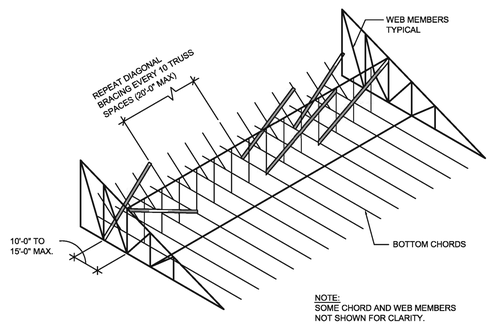


PARTICAL CMU WALL SECTION AT FIRING RANGE CONTROL ROOM

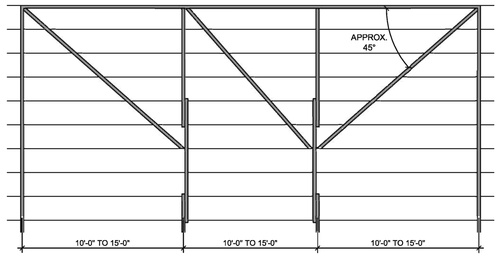
SCALE: 3/4" = 1'-0"





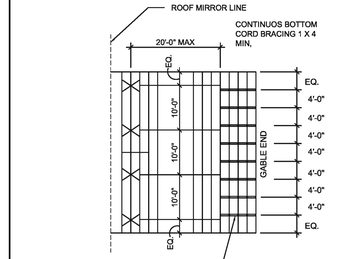


NOTE:
SOME CHORD AND WEB MEMBERS NOT SHOWN FOR CLARITY.



NOTE:
TRUSS ENGINEER MUST COORDINATE LOCATION OF ALL REQUIRED BRACING WITH ARCHITECT DUE TO THE EXPOSED ROOF CONDITION (NO CEILING). SOME MODIFICATION AND COORDINATION WILL BE REQUIRED AND MUST BE INCLUDED IN BUDGET NUMBERS.

1 GABLE END TRUSS BRACING IS TO BE ENGINEERED TO BRACE THE CMU WALL AND RESIST 175PLF OF LATERAL WIND LOAD AS A LINE LOAD APPLIED ALONG THE TOP OF THE CMU WALL. THIS BRACING IS TO BE DESIGNED TO TRANSFER THIS WIND LOAD FROM THE WALL INTO THE ROOF DIAPHRAGM AND THEN FROM THE ROOF DIAPHRAGM INTO THE CMU SHEAR WALLS AROUND THE ENTIRE BUILDING.



NOTES:

1. SEE TRUSS MANUFACTURER'S TRUSS ENGINEERING CUT SHEETS FORM ANY ADDITIONAL PERMANENT BRACING/S REQUIRED.
2. "T" BRACING MAY BE USED IN PLACE OF PERMANENT BRACING PROVIDED IT EXTENDS OVER AT LEAST 90% OF THE WEB.

REQUIRED MINIMUN PERMANENT TRUSS BRACING PLAN

NO SCALE

NOTE:

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EB: #28152 PROJECT#: 1001-015

Construction Documents

JOSEPH P. FULLONE, P.E.
FLORIDA LICENSE #67563

SIGNATURE DATE

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

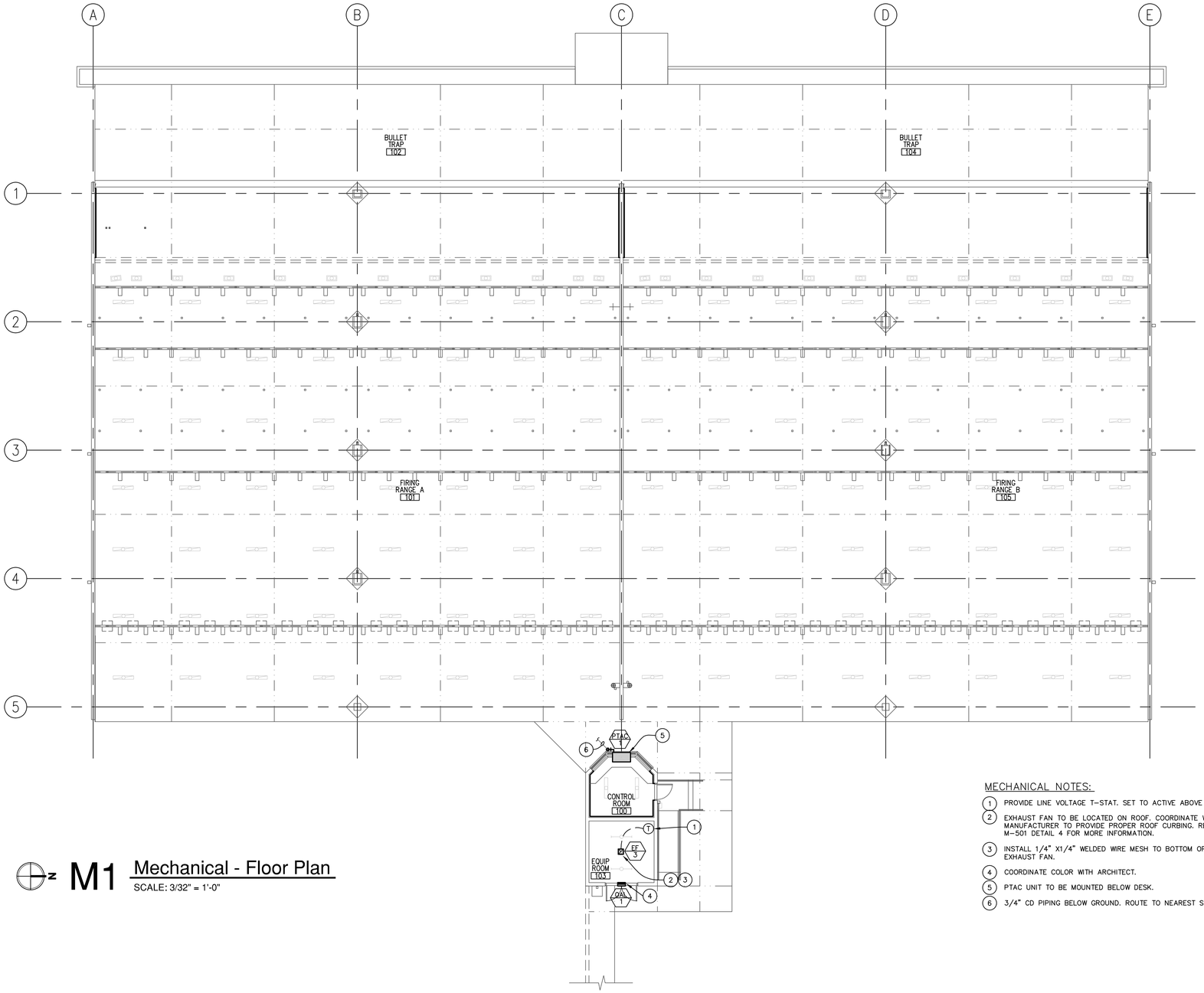
REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2

Typical Details

S402

Project: 10002
Date: April 5th, 2010



N M1 Mechanical - Floor Plan

SCALE: 3/32" = 1'-0"

MECHANICAL NOTES:

1. PROVIDE LINE VOLTAGE T-STAT. SET TO ACTIVE ABOVE 85°F.
2. EXHAUST FAN TO BE LOCATED ON ROOF. COORDINATE WITH MANUFACTURER TO PROVIDE PROPER ROOF CURBING. REFER TO SHEET M-501 DETAIL 4 FOR MORE INFORMATION.
3. INSTALL 1/4" X1/4" WELDED WIRE MESH TO BOTTOM OPENING OF EXHAUST FAN.
4. COORDINATE COLOR WITH ARCHITECT.
5. PTAC UNIT TO BE MOUNTED BELOW DESK.
6. 3/4" CD PIPING BELOW GROUND. ROUTE TO NEAREST STORM DRAIN.

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Construction Documents

Certificate # 8304
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Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

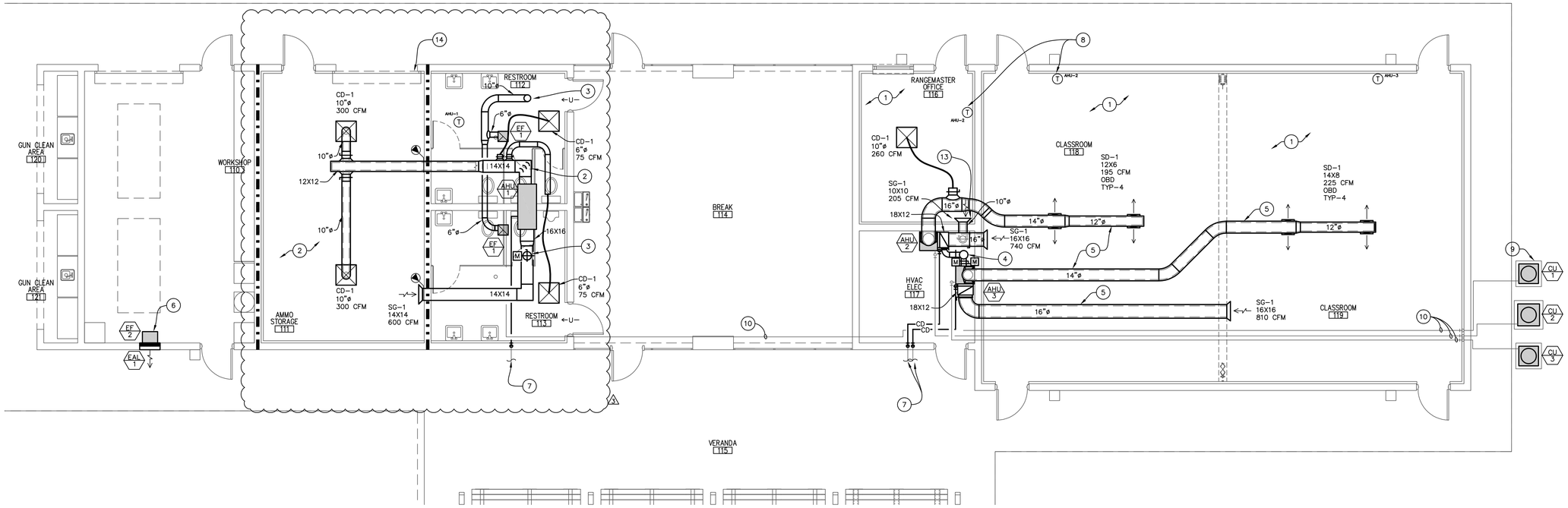
No.	Date	Revision

Drawn By: DM FP
Checked By: MEA MEA

Firing Range Building
Mechanical - Floor Plan

M100

Project: 10002
Date: April 5th, 2010



N

M1 Mechanical - Floor Plan

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



MECHANICAL NOTES:

1. SPIRAL DUCTING TO BE USED IN THIS AREA.
2. CONVENTIONAL METAL DUCTING TO BE USED IN THIS AREA.
3. 8"ø UP TO ROOF HOOD.
4. 10"ø UP TO ROOF HOOD.
5. CONTRACTOR TO COORDINATE DUCT ROUTING WITH TRUSS MANUFACTURER. DUCT SHALL BE COATED WITH PAINT GRIP AND PAINTED PER ARCHITECT.
6. INTERLOCK TO SHUT-DOWN WHEN GARAGE DOOR IS CLOSED. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
7. ROUTE 3/4" CONDENSATE PIPING BELOW GRADE TO DRY WELL. COORDINATED WITH ARCHITECT FOR EXACT LOCATION.
8. PROVIDE AVERAGING T-STATS.
9. PROVIDE 4" EQUIPMENT PAD. TYPICAL OF ALL.
10. COORDINATE REFRIGERANT PIPE ROUTING WITH ARCHITECT. ROUTE TIGHT TO STRUCTURE. PROVIDE PIPE SUPPORTS EVERY 4'-0" AND JACKETING WITHIN THE INTERIOR SPACE OF BUILDING. PAINT TO MATCH SURROUNDING AREA.
11. COORDINATED EXACT LOCATION WITH ARCHITECT. PROVIDE ALL REQUIRED HURRICANE STRAPPING. REFER TO SHEET M501 DETAIL 1, 2 & 3 FOR MORE INFORMATION.
12. CONTRACTOR SHALL COORDINATE ALL INTAKE/EXHAUST/RELIEF LOCATIONS TO INSURE AT LEAST 10'-0" DISTANCE BETWEEN ANY INTAKES, VENTILATION EXHAUST AND PLUMBING VENTS.
13. TOP OF RETURN GRILLE SHALL BE 4" BELOW CEILING.
14. INSULATED GARAGE DOOR.

N

M2 Mechanical - Roof Plan

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

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Mark E. Awmiller, P.E. 53973

Construction Documents

Certificate # 8304
Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

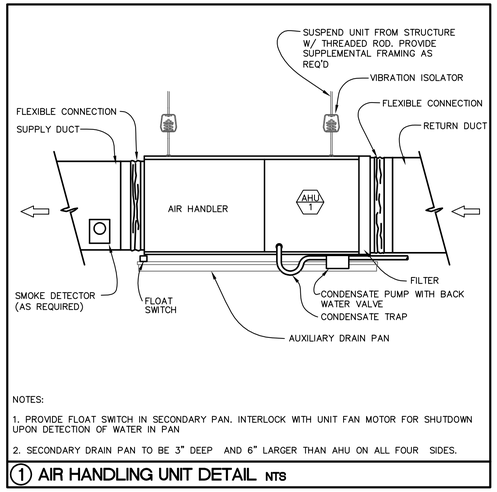
No.	Date	Revision
1	05/17/10	ADDENDUM #3

Drawn By: DM FP
Checked By: MEA MEA

Classroom Building Mechanical - Floor Plan

M110

Project: 10002
Date: April 5th, 2010

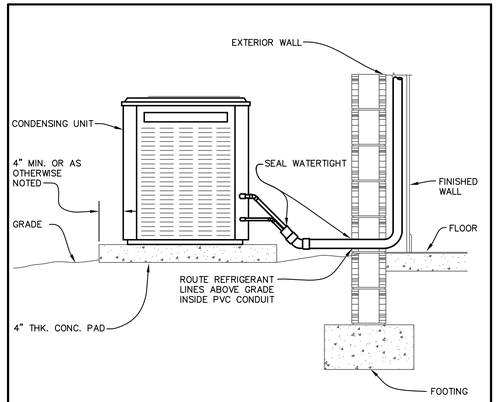


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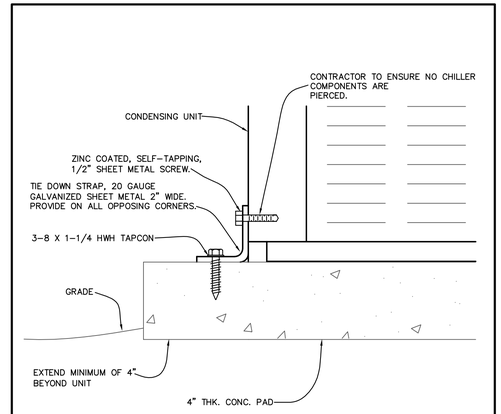
1. PROVIDE FLOAT SWITCH IN SECONDARY PAN. INTERLOCK WITH UNIT FAN MOTOR FOR SHUTDOWN UPON DETECTION OF WATER IN PAN

2. SECONDARY DRAIN PAN TO BE 3" DEEP AND 6" LARGER THAN AHU ON ALL FOUR SIDES.

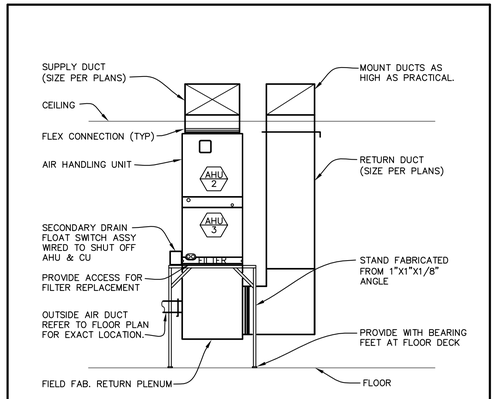
① AIR HANDLING UNIT DETAIL NTS



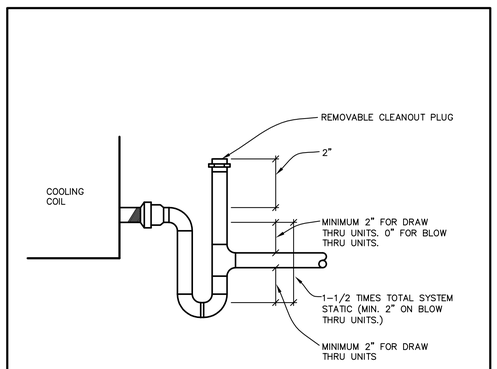
④ TYPICAL CONDENSING UNIT DETAIL NTS



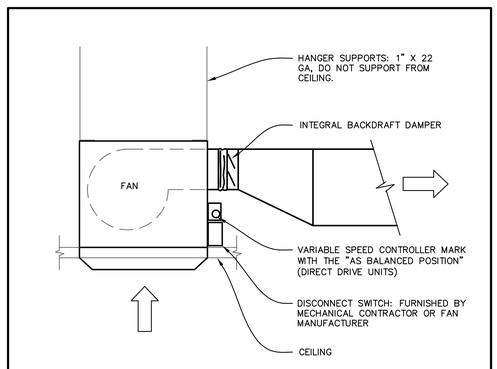
⑦ CONDENSING UNIT ANCHORAGE DETAIL NTS



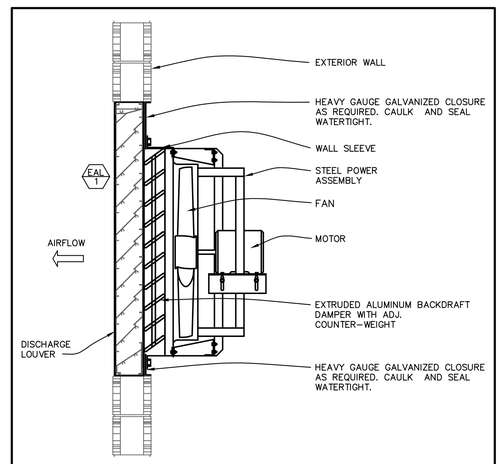
⑩ AHU MOUNTING DETAIL NTS



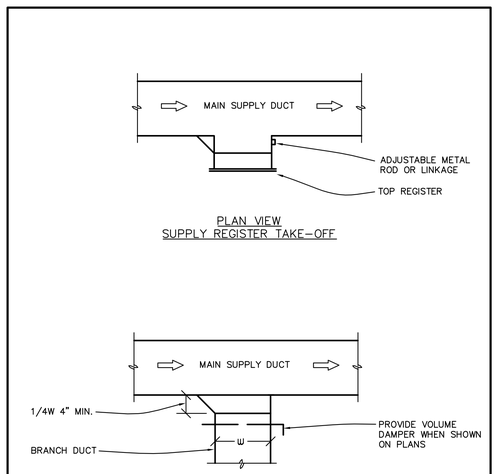
② COOLING COIL DRAIN TRAP DETAIL NTS



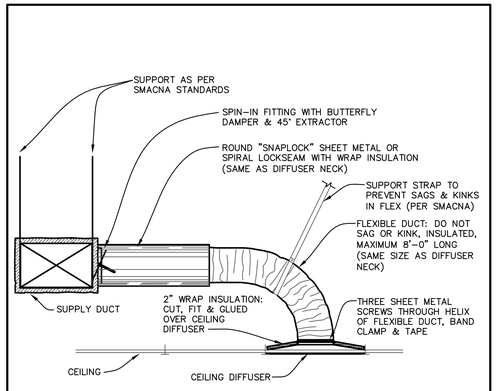
⑤ CEILING FAN DETAIL NTS



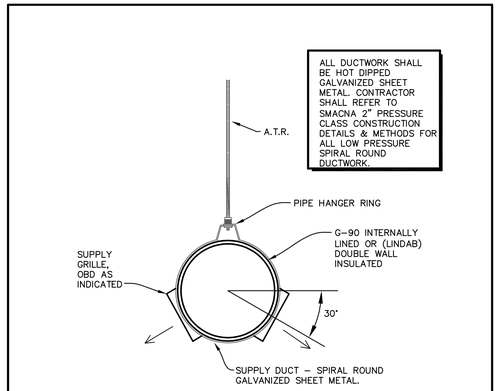
⑧ WALL MOUNTED EXHAUST FAN DETAIL NTS



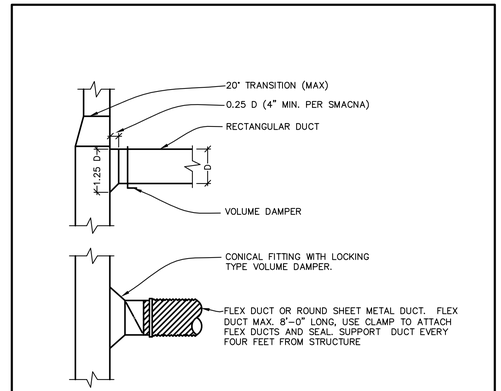
⑪ SUPPLY DUCT TAKE-OFFS NTS



③ CEILING DIFFUSER RUNOUT DETAIL NTS



⑥ SPIRAL DUCT MOUNTING DETAIL NTS



⑨ DUCT DETAILS NTS

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Construction Documents

Certificate # 8304
Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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REVISIONS

No.	Date	Revision

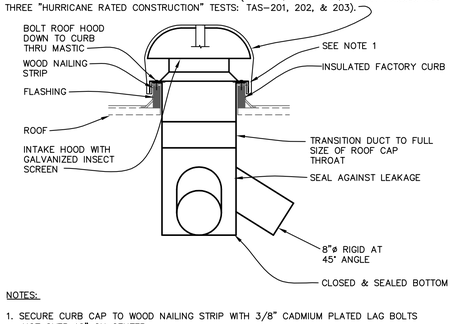
Drawn By: DM FP
Checked By: MEA MEA

Details - Mechanical

M500

Project: 10002
Date: April 5th, 2010

PROVIDE 2" WIDE 20 GAUGE TIE DOWN STRAP WHICH IS ATTACHED WITH A 2" LONG 3/8" CADMIUM PLATED LAG BOLT, IN THE CENTER OF ONE FACE OF THE ROOF CURB AND IS TO BE RAN CONTINUOUSLY OVER EXHAUST FAN TO OPPOSITE FACE OF ROOF CURB AND IS TO BE ATTACHED AS PREVIOUSLY DESCRIBED. PROVIDE A SECONDARY TIE DOWN STRAP AS DESCRIBED PREVIOUSLY, ORIENTATED 90° TO PRIMARY TIE DOWN STRAP FORMING A CRISSCROSS PATTERN OVER THE TOP AND SIDES OF THE EXHAUST FAN (NOT REQUIRED IF EQUIPMENT PASSES ALL THREE "HURRICANE RATED CONSTRUCTION" TESTS: TAS-201, 202, & 203).

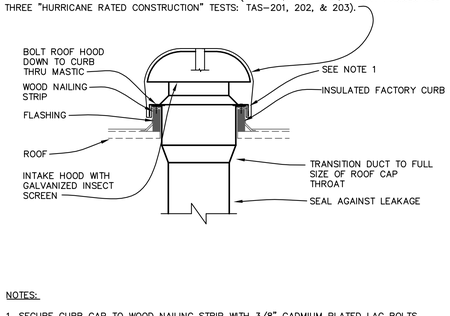


NOTES:

1. SECURE CURB CAP TO WOOD NAILING STRIP WITH 3/8" CADMIUM PLATED LAG BOLTS NOT OVER 12" ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK AND BAR JOIST ROOF).
3. SIZE OF DUCT THROUGH ROOF SHALL NOT BE LARGER THAN CURB SUPPLIED WITH ROOF CAP.

① MULTIPLE INTAKE DETAIL NTS

PROVIDE 2" WIDE 20 GAUGE TIE DOWN STRAP WHICH IS ATTACHED WITH A 2" LONG 3/8" CADMIUM PLATED LAG BOLT, IN THE CENTER OF ONE FACE OF THE ROOF CURB AND IS TO BE RAN CONTINUOUSLY OVER EXHAUST FAN TO OPPOSITE FACE OF ROOF CURB AND IS TO BE ATTACHED AS PREVIOUSLY DESCRIBED. PROVIDE A SECONDARY TIE DOWN STRAP AS DESCRIBED PREVIOUSLY, ORIENTATED 90° TO PRIMARY TIE DOWN STRAP FORMING A CRISSCROSS PATTERN OVER THE TOP AND SIDES OF THE EXHAUST FAN (NOT REQUIRED IF EQUIPMENT PASSES ALL THREE "HURRICANE RATED CONSTRUCTION" TESTS: TAS-201, 202, & 203).

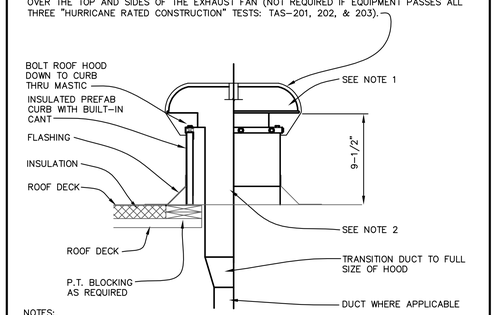


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2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK AND BAR JOIST ROOF).
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② SINGLE INTAKE DETAIL NTS

PROVIDE 2" WIDE 20 GAUGE TIE DOWN STRAP WHICH IS ATTACHED WITH A 2" LONG 3/8" CADMIUM PLATED LAG BOLT, IN THE CENTER OF ONE FACE OF THE ROOF CURB AND IS TO BE RAN CONTINUOUSLY OVER EXHAUST FAN TO OPPOSITE FACE OF ROOF CURB AND IS TO BE ATTACHED AS PREVIOUSLY DESCRIBED. PROVIDE A SECONDARY TIE DOWN STRAP AS DESCRIBED PREVIOUSLY, ORIENTATED 90° TO PRIMARY TIE DOWN STRAP FORMING A CRISSCROSS PATTERN OVER THE TOP AND SIDES OF THE EXHAUST FAN (NOT REQUIRED IF EQUIPMENT PASSES ALL THREE "HURRICANE RATED CONSTRUCTION" TESTS: TAS-201, 202, & 203).

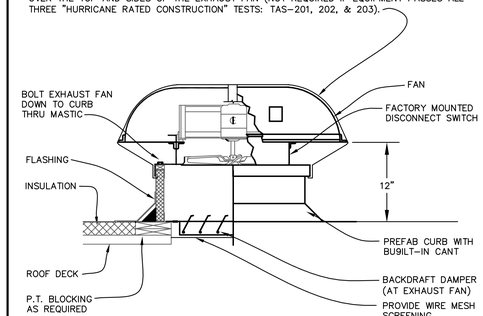


NOTES:

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2. SIZE OF DUCT THROUGH ROOF SHALL NOT BE LARGER THAN CURB SUPPLIED WITH INTAKE HOOD.

③ EXHAUST ROOF HOOD NTS

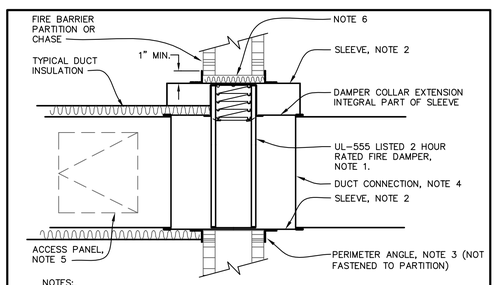
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NOTES:

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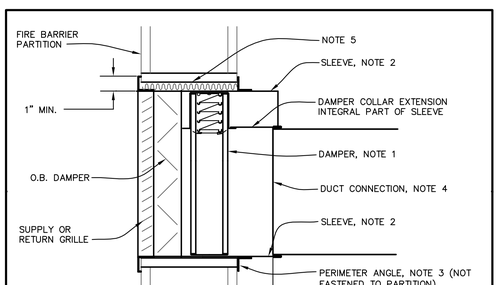
④ ROOF MOUNTED PROPELLER EXHAUST FAN NTS



NOTES:

1 A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAUGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR, NOT OUTSIDE THE PARTITION. FIRE DAMPER RATING SHALL BE AT LEAST 3/4 OF THE RATING PARTITION OR FLOOR. REFER TO ARCH. DRAWINGS FOR WALL RATINGS.
2 GALVANIZED SLEEVE: GAUGE NOT LESS THAN CONNECTING DUCT OR DAMPER FRAME. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3 PERIMETER ANGLES: GALVANIZED STEEL, NOT LESS THAN 1 1\2" x 1 1\2" 14 GAUGE, TO PROVIDE 1 INCH MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4 BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA LPDS, FIG. 2-13. SEAL JOINTS.
5 ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
6 PROVIDE 1\2" INCH CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.

⑤ FIRE DAMPER DETAIL NTS



NOTES:

1. 2 HOUR U.L. 555 CLASSIFIED CURTAIN TYPE FIRE DAMPER.
2. GLAVANIZED STEEL SLEEVE: GAUGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3. PERIMETER ANGLES: GALVANIZED STEEL, NOT LESS THAN 1-1/2" X 1-1/2" 14 GAUGE, TO PROVIDE 1 INCH MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4. BREAKAWAY DUCT CONNECTION: PER SMACNA STANDARDS AND UL LISTING OF DAMPER.
5. PROVIDE 1/2" INCH CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.

⑥ FIRE DAMPER DETAIL NTS

△3

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MES MECHANICAL ENGINEERING SOLUTIONS, INC.
5421 Beaumont Center Blvd., Suite 675, Tampa, Fl 33634
Ph.: 813.885-9600 Fax: 813.884-0046
Certificate #8304 Project # 2010514
Mark E. Awmiller, P.E. 53973

Construction Documents

Certificate # 8304
Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
△3	05/17/10	ADDENDUM #3

Drawn By: DM FP
Checked By: MEA MEA

Details - Mechanical

M501

Project: 10002
Date: April 5th, 2010

SPLIT SYSTEM AIR CONDITIONING SCHEDULE

**MARK	MANUFACTURER	MODEL #	*AIR HANDLER										CONDENSING UNIT		POWER			REMARKS
			EAT DB/WB	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	HEATER		SUPPLY FAN					OUTDOOR TEMPERATURE	SEER	MCA	MOCP	VOLTS/ø	
						KW/STEPS	VOLTS/ø	SUPPLY CFM	OSA CFM	ESP	HP	VOLTS/ø						
AHU-1	TRANE	4TEE3F31	78.1/64.8	26.3	19.4	7.2/1	208/3	750	150	.5	1/2	208/1	95	13.0	37.0	40	208/3	1-6,7
CU-1	TRANE	4TTB3024													12	20	208/1	
AHU-2	TRANE	4TEE3F37	76.5/63.5	31.9	24.0	7.2/1	208/3	1040	95	.5	1/2	208/1	95	13.0	37.0	40	208/3	1-6,7,8
CU-2	TRANE	4TTA3036													15	25	208/3	
AHU-3	TRANE	4TEE3F31	76.6/63.3	28.7	21.6	7.2/1	208/3	900	90	.5	1/2	208/1	95	13.0	37.0	40	208/3	1-6,7
CU-3	TRANE	4TTA3030													10	15	208/3	

CONTRACTOR MUST BE A CARRIER FACTOR CERTIFIED INSTALLER.
CONTRACTOR TO PROVIDE SINGLE OCCUPANCY TIMER. SET TO ACTIVE DURING BUSINESS HOURS.
*ELECTRIC HEATERS SHALL COME WITH SINGLE POINT CONNECTION KITS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR PROPER WIRING OF AHU'S. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF EQUIPMENT.
**DESIGN CONDITIONS: AMB. TEMP. 95°F/77°F; AMB. WINTER TEMP. - 40°F; INDOOR COOLING - 75°F, OUTDOOR - 68°F
YORK AND LENNOX ARE APPROVED ALTERNATIVES.
NOTES:
1. DISCONNECT PROVIDED BY DIVISION 16
2. CONTRACTOR. PROVIDE WITH 7-DAY, 24 HOUR PROGRAMMABLE THERMOSTAT (HONEYWELL VISION PRO 8000) WITH HUMIDITY CONTROL AND THE APPROPRIATE NUMBER OF COOLING AND HEATING STAGES.
3. PROVIDE WITH 1" PLEATED FILTERS, 30% MINIMUM EFF. REPLACE WITH NEW AND SPARE FILTERS AT PROJECT COMPLETION.
4. PROVIDE MOTORIZED OUTSIDE AIR DAMPER. INTERLOCK TO OPEN WITH COOLING COMPRESSOR ACTIVATION.
5. SUPPLY AIR FANS TO OPERATE CONTINUOUSLY DURING BUSINESS HOURS. PROVIDE APPROPRIATE TIME CLOCK.
6. PROVIDE COOLING COIL FREEZE PROTECTION AND CRANK CASE HEATER KIT.
7. PROVIDE COORDINATE WITH MANUFACTURER FOR PROPER SIZING OF REFRIGERANT PIPING.
8. PROVIDE WITH AVERAGING THERMOSTATS.

PTAC UNITS (HEAT PUMPS)

*MARK	MANUFACTURER	MODEL #	SERVES	SUPPLY CFM	OSA CFM	CAPACITY		HEATER	**EER	MCA/FUSE (AMPS)	VOLTS/ø	REMARKS
						COOL (MBH)	REV. CYCLE	KW				
PTAC-1	FREDRICH	PDH12K	SEE PLANS	320	10	11500	10600	2.0	12.1	14.1/15	208/1	1,2,3,4,5,6

* DESIGN OUTDOOR CONDITIONS: SUMMER 95°F/77°F - WINTER 40°F

** AT ARI CONDITIONS.

NOTES:
1. PROVIDE INSULATED WALL SLEEVE.
2. PROVIDE NON-BAFFLED ARCHTECTUAL OUTDOOR GRILLE (COLOR & FINISH BY ARCHITECT).
3. PROVIDE WITH DRAIN KIT.
4. COORDINATE WITH MANUFACTURER FOR PROPER ELECTRICAL CONNECTION.
5. PTAC TO BE MOUNTED WITHIN 1 IN OF EXTERIOR WALL COORDINATE WITH INSTALLATION MANUAL FOR MINIMUM WALL PROTRUSION.
6. PROVIDE MANUFACTURER SPECIFIC SUBBASE ASSEMBLY AND ALL REQUIRED ACCESSORIES.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	CFM	E.S.P.	HP (WATTS)	VOLTS/ø	BACK DRAFT DAMPER	DRIVE	REMARKS
EF-1	COOK	GC-160	CEILING	150	0.5"	(113)	115/1	YES	DIRECT	1
EF-2	GREENHECK	SE-12-432-D	WALL PROP	1000	0.375"	1/8	115/1	YES	DIRECT	2
EF-3	GREENHECK	G-060-D	ROOF EXHAUST	140	0.2"	1/60	115/1	NO	DIRECT	3

NOTES:
1. INTERLOCK WITH LIGHT SWITCH.
2. TO BE INDEPENDENTLY SWITCHED. INTERLOCK WITH GARAGE DOOR TO SHUT-DOWN WHEN DOOR IS CLOSED. PROVIDE WITH INTERNAL BACK DRAFT DAMPER.
3. CONNECT TO LINE VOLTAGE T-STAT TO ACTIVATE ABOVE 85°F. COORDINATE WITH MANUFACTURER FOR PROPER ROOF CURB.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

*MARK	MANUFACTURER	MODEL #	DESCRIPTION	FRAME	FINISH	MATERIAL	DAMPER	REMARKS
CD-1	TITUS	TMS-AA	LOUVERED 24"X24" FACE W/ROUND NECK	SURFACE / LAY-IN	WHITE	ALUMINUM	AS INDICATED	1,2,4
SD-1	TITUS	301RL	SIDEWALL DIFFUSER: DOUBLE DEFLECTION: 3" SPACING	SURFACE	WHITE	ALUMINUM	AS INDICATED	1,3,4
SG-1	TITUS	350RL	SIDEWALL GRILLE: 3" SPACING: 35° DEFLECTION	SURFACE	WHITE	ALUMINUM	AS INDICATED	1,3,4
EG-1	TITUS	350RL	LOUVERED 24"X24" FACE: 35° DEFLECTION	SURFACE / LAY-IN	WHITE	ALUMINUM	AS INDICATED	1,2,4

* TRM MOUNTING FRAME SHALL BE USED FOR GRILLED/DIFFUSERS MOUNTED IN GYP. BOARD CEILINGS.
NOTES:
1. PAINT PER ARCHITECT.
2. NECK SIZE AS LISTED. FLEX SIZE SHALL MATCH NECK SIZE. PROVIDE FULL FACE LAY-IN MATCHING GRID DIMENSIONS.
3. GRILLE FACE SIZE AS LISTED. DUCTWORK SHALL BE FULL FACE.
4. DAMPERS SHALL BE INSTALLED IN DUCTWORK FOR ALL DIFFUSERS/GRILLES UNLESS OTHERWISE INDICATED.

ROOF HOOD SCHEDULE

MARK	MANUFACTURER	MODEL #	THROAT AREA (SQ. FT.)	APPLICATION	ROOF AREA (SQ. FT.)	REMARKS
RH-1	COOK	PR-12	1.08	INTAKE	2.77	1,2,3,4
RH-2	COOK	PR-12	1.08	EXHAUST	2.77	1,2,3

NOTES:
1. PROVIDE WITH RCC-18 ROOF CURB.
2. PROVIDE WITH HURRICANE RATED TIE DOWN STRAPS.
3. COORDINATE COLOR AND LOCATION WITH ARCHITECT.
4. PROVIDE WITH FINE BIRD SCREEN.

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL #	TYPE	LXH	FREE AREA (FT^2)	DRAINABLE	REMARKS
OAL-1	RUSKIN	ELF6375DXD	INTAKE	12X12	.31	YES	1, 2
EAL-1	RUSKIN	ELF6375DXD	EXHAUST	24X24	1.89	YES	1, 2

NOTES:
1. PROVIDE WITH KYNAR FINISH. COORDINATE WITH ARCHITECT ON FINAL PAINT COLOR.
2. PROVIDE WITH BIRD SCREEN.

MECHANICAL LEGEND

- NEW SUPPLY
- NEW RETURN OR TRANSFER
- NEW EXHAUST
- MOTORIZED DAMPER
- EQUIPMENT MARK
- MANUAL BALANCING DAMPER
- NEW T-STAT
- NEW SPIN-IN W/DAMPER
- NEW DOUBLE DUCT
- INTERNALLY INSULATED DOUBLE WALL DUCTING
- NEW FLEX-DUCT
- FIRE DAMPER
- POINT OF NEW CONNECTION
- DRAWING NOTE
- PIPE DOWN
- PIPE UP
- CD CONDENSATE DRAIN
- U DOOR UNDERCUT

MECHANICAL NOTES:

IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.

ALL CONSTRUCTION WORK SHALL ALSO MEET THE FOLLOWING BUILDING CODE REQUIREMENTS:

* Florida Building Code 2007 with 2009 supplements (with ALL APPROPRIATE AMENDMENTS/SUPPLEMENTS)
* FBC Mechanical Code 2007 with 2009 supplements (with ALL APPROPRIATE AMENDMENTS/SUPPLEMENTS)
* FBC Plumbing Code 2007 with 2009 supplements (with ALL APPROPRIATE AMENDMENTS/SUPPLEMENTS)

ALL WALL MOUNTED THERMOSTATS AND/OR TEMPERATURE SENSORS SHALL BE INSTALLED AT AN ELEVATION OF 48" ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF THE WALL MOUNTED THERMOSTAT SHALL BE COORDINATED WITH OTHER TRADES FOR A NEAT APPEARANCE. FINAL LOCATION OF THERMOSTAT SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OR REPRESENTATIVE IN THE FIELD.

ALL SUPPLY AIR DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PAINT INSIDE EACH RETURN GRILLE'S PLENUM AND DUCT CONNECTION FLAT BLACK TO CONCEAL CONNECTION. COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES AND FIRE SPRINKLER HEADS. PRIOR TO INSTALLATION, THE CONTRACTOR IS TO REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR ACTUAL FINAL LOCATIONS OF AIR DEVICES.

CONTRACTOR SHALL PROVIDE A COPY OF THE TEST AND BALANCE REPORT BY AN AABC OR NEBB CERTIFIED AGENCY. THIS REPORT MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL INSPECTION. THE CONTRACTOR MUST ALSO PROVIDE ALL REPORTS REQUIRED BY THE SPECIFICATION. OUTDOOR TEMPERATURE (DB); OUTSIDE AIR (DB/WB & CFM); SUPPLY AIR AT UNIT DISCHARGE (DB/WB & CFM); RETURN AIR {MIXED} (DB/WB & CFM); LEAVING COIL (DB/WB); DIFFUSER/GRILLE (DB/WB); EQUIPMENT (EWT/LWT); EQUIPMENT (EAT/LAT); EQUIPMENT (GPM); EQUIPMENT (PRESSURES).

ALL DUCTWORK MUST BE INSTALLED 6" AWAY FROM ANY FIRE RATED WALL TO FACILITATE INSPECTION.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRADES INSTALLATION SCHEDULES. FIXED WORK SUCH AS DUCTWORK AND PLUMBING SHALL BE INSTALLED PRIOR TO ANY TRADE WORK THAT CAN BE EASILY RELOCATED OR OFFSET SUCH AS ELECTRICAL CONDUITS, SMALL WATER LINES ETC.

PENETRATIONS THROUGH SMOKE OR FIRE-RATED ASSEMBLIES: PENETRATIONS FOR PIPES, CONDUITS OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING SHALL BE SEALED TO THE PENETRATING MEMBER IN AN APPROVED MANNER WHICH MAINTAINS THE REQUIRED FIRE RESISTANCE RATING OF THE ASSEMBLY AS FOLLOWS:

WHERE HOLES FOR PENETRATIONS ARE FORMED CIRCULAR OR CORE-BORED, THE PENETRATION SHALL BE PROTECTED WITH FIRE-SEAL BRAND SMOKE AND FIRE STOP FITTINGS MFG. BY O-Z GEDLEY, LINK SEAL BRAND BY THUNDER LINE OR AN EQUAL APPROVED BY ENGINEER.

WHERE HOLES FOR PENETRATIONS ARE IRREGULAR (NON-CIRCULAR) IN SHAPE, THE PENETRATION SHALL BE PROTECTED WITH DOW CORNING 3-6548, SILICONE RTV FOAM, 3M FIRE BARRIER PENETRATION SEAL SYSTEM OR AN EQUAL APPROVED BY THE ENGINEER.

INTENT OF THESE NOTES AND MECHANICAL NOTES ON DRAWINGS IS TO CLARIFY THE SCOPE OF WORK AND ALERT CONTRACTOR OF EXISTING CONDITIONS. CONTRACTOR TO VISIT SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS AND COORDINATE WITH ELECTRICAL, PLUMBING AND FIRE PROTECTION SUBCONTRACTOR BEFORE ANY CONSTRUCTION WORK.

FLEXIBLE AND RIGID ROUND DUCT TAKE-OFFS FOR DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 14'-0".

UNLESS OTHERWISE NOTED, INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO BOTTOM OF STRUCTURE. COORDINATE DUCT ELEVATION WITH RAIN LEADERS, WATER PIPING, SANITARY DRAINS AND MAJOR ELECTRICAL CONDUITS.

CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND/SUPPORT MECHANICAL EQUIPMENT AND MATERIALS.

CONTRACTOR SHALL INSTALL MOTORIZED OUTSIDE AIR DAMPERS FOR ALL AIR HANDLING EQUIPMENT. AIR HANDLING UNITS SHALL HAVE AN EQUIVALENT OR BETTER OF RUSKIN "CD504" DAMPER WHICH SHALL MODULATED PER 24V ACTUATOR MECHANICALLY WIRED. ALL DAMPERS SHALL SHUT UPON UNIT SHUTDOWN.

PROVIDE A TRAP IN ALL CONDENSATE PIPING LOCATED AT THE AIR HANDLING EQUIPMENT. INSULATE ALL CONDENSATE LINES WITH 1/2" THICK CLOSED CELL FOAM INSULATION. ALL PIPING EXPOSED TO EXTERNAL ELEMENTS SHALL BE JACKETED WITH UV STABILIZED PVC OR ALUMINUM SHEETING.

PROVIDE A 4" HIGH CONCRETE HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT, UNLESS OTHERWISE NOTED. PADS SHALL BE 4" LARGER THAN THE EQUIPMENT ON ALL SIDES.

UNLESS OTHERWISE NOTED, ALL UNDERGROUND PIPING SHALL HAVE A MINIMUM OF 3'-0" OF COVER.

AIR HANDLING EQUIPMENT WARRANTIES SHALL BE EQUAL TO OR EXCEED WARRANTY OF SCHEDULED EQUIPMENT. UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL NOTIFY THE OWNER, ARCHITECT OR AUTHORIZED REPRESENTATIVE OF ANY DAMAGE TO THE EXISTING INSTALLATION BEFORE PROCEEDING WITH THE WORK.

PROVIDE ADDITIONAL DUCTWORK AND PIPING SUPPORTS ON BOTH SIDES AND WITHIN 18" OF FIRE RATED WALL. DUCTWORK OR PIPING SHALL NOT BE SUPPORTED FROM ANY FIRE RATED WALL.

FOR DUCTWORK PENETRATING ONE HOUR FIRE RATED WALL, THE ENTIRE DUCT SYSTEM, TO BE CONSTRUCTED PER SMACNA STANDARDS WITH A MINIMUM OF 26 GA. STEEL DUCT AND SHALL CONTINUE IN THE HORIZONTAL DIRECTION WITHOUT ANY GRILLE OR OPENING FOR NOT LESS THAN 5'-0" FROM THE WALL AND DUCT SHALL NOT EXCEED SQUARE INCH REQUIREMENTS OF LOCAL CODE, OTHERWISE A FIRE DAMPER SHALL BE PROVIDED.

DOUBLE WALLED TURNING VANES SHALL BE PROVIDED IN ALL RECTANGULAR SUPPLY DUCT ELBOWS WITH ANGLES BETWEEN 45 DEGREES AND 90 DEGREES PER FIG. 2-5 OF THE SMACNA MANUAL.

DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS (FREE AREA).

CONTRACTOR SHALL COORDINATE ALL INTAKE/EXHAUST LOCATIONS TO INSURE AT LEAST A 10' DISTANCE BETWEEN ANY INTAKES AND VENTILATION EXHAUSTS, PLUMBING VENTS, RELIEF, ETC...

ALL HVAC EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS UNLESS INDICATED OTHERWISE.

MECHANICAL CONTRACTOR SHALL SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING SHALL BE TYPE "L" COPPER WITH BRAZED JOINTS. APPLY ¾" CLOSED CELL INSULATION ON COMPRESSOR SUCTION LINE. ALL PIPING EXPOSED TO EXTERNAL ELEMENTS SHALL BE JACKETED WITH UV STABILIZED PVC OR ALUMINUM SHEETING. PRE-CHARGED LINES AND SOLDER ON SHORT 90'S ARE NOT ACCEPTABLE. CONTRACTOR SHALL USE SWEEPING 90'S AT EVERY BEND WITH EXCEPTION OF EQUIPMENT CONNECTIONS.

CONTRACTOR SHALL PROVIDE A PERMANENT/PROFESSIONAL LABEL FOR EACH PIECE OF EQUIPMENT, ASSOCIATED THERMOSTAT(S) AND/OR SENSOR(S).

DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.

METAL DUCTWORK SHALL BE CONNECTED TO AIR HANDLING EQUIPMENT WITH FLEXIBLE DUCT CONNECTORS EQUAL TO DURO DYNE "SUPER METAL-FAB" WITH EXCELON FABRIC; "GRIP LOC" SEAM; 24 GAUGE METAL TABS. INSULATION SHALL BE INSTALLED OVER METAL TABS AS TO NOT CAUSE FRICTION ON FABRIC.

ALL NONE EXPOSED DUCTWORK SHALL BE EXTERNALLY INSULATED SHEET METAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. DUCT INSULATION TO BE 2.0" THICK FOIL BACK WRAP, K=2.0 BTUH-IN./SF. HR° 1.50#/CF AS MANUFACTURED BY SCHULLER. JOINTS TO BE STAPLED AND TAPED WITH PRESSURE SENSITIVE TAPE AS MANUFACTURED BY COMPAC INDUSTRIES MODEL #120 (FLAME SPREAD = 5, SMOKE DEVELOPED = 10) OTHER ACCEPTABLE MANUFACTURERS ARE OWENS CORNING AND KNAUF.

EXPOSED DUCTWORK SHALL BE INTERNALLY INSULATED SHEETMETAL WITH 1.5" THICK DUCT BOARD (EQUAL TO JOHNS MANVILLE BONDED WITH THERMO SETTING RESIN ON AIR STREAM SIDE WITH AN ANTI-MICROBIAL COATING) AND CONFORM WITH UL STANDARDS FOR SAFETY AIR DUCT, NO. 181, 1967 ESTABLISHED FOR CLASS 1 AIR DUCTS. FACING SHALL BE FSK ALUMINUM FOIL. WHERE INTERNAL AND EXTERNAL INSULATION MEET, THE OVERLAP SHALL BE A MINIMUM OF 24". DUCT SIZES ON CONSTRUCTION DOCUMENTS ARE INTERNAL FREE AREA DIMENSIONS. CONTRACTOR SHALL INCREASE DUCT SIZE TO ACCOMMODATE FOR INTERNAL INSULATION. REFER TO FLOOR PLAN FOR EXACT LOCATION.

EXPOSED DUCTWORK, INTERNALLY LINED SPIRAL ROUND SHEET METAL SHALL BE USED. INTERNAL INSULATION SHALL BE EQUAL TO JOHNS MANVILLE SPIRACOUSTIC PLUS AND SHALL BE A MINIMUM OF 1.5" THICK WITH A 4.0 LB/CF DENSITY AND ANTI-MICROBIAL COATING. CONFORM WITH UL STANDARDS FOR SAFETY AIR DUCT, NO. 181, 1967 ESTABLISHED FOR CLASS 1 AIR DUCTS. DUCT SHALL BE PAINT GRIP AND PAINT PER ARCHITECT. UNLESS OTHERWISE NOTED. REFER TO FLOOR PLAN FOR EXACT LOCATION.

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Certificate #8304 Project # 2010514
Mark E. Awmiller, P.E. 53973

Construction Documents

Certificate # 8304
Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

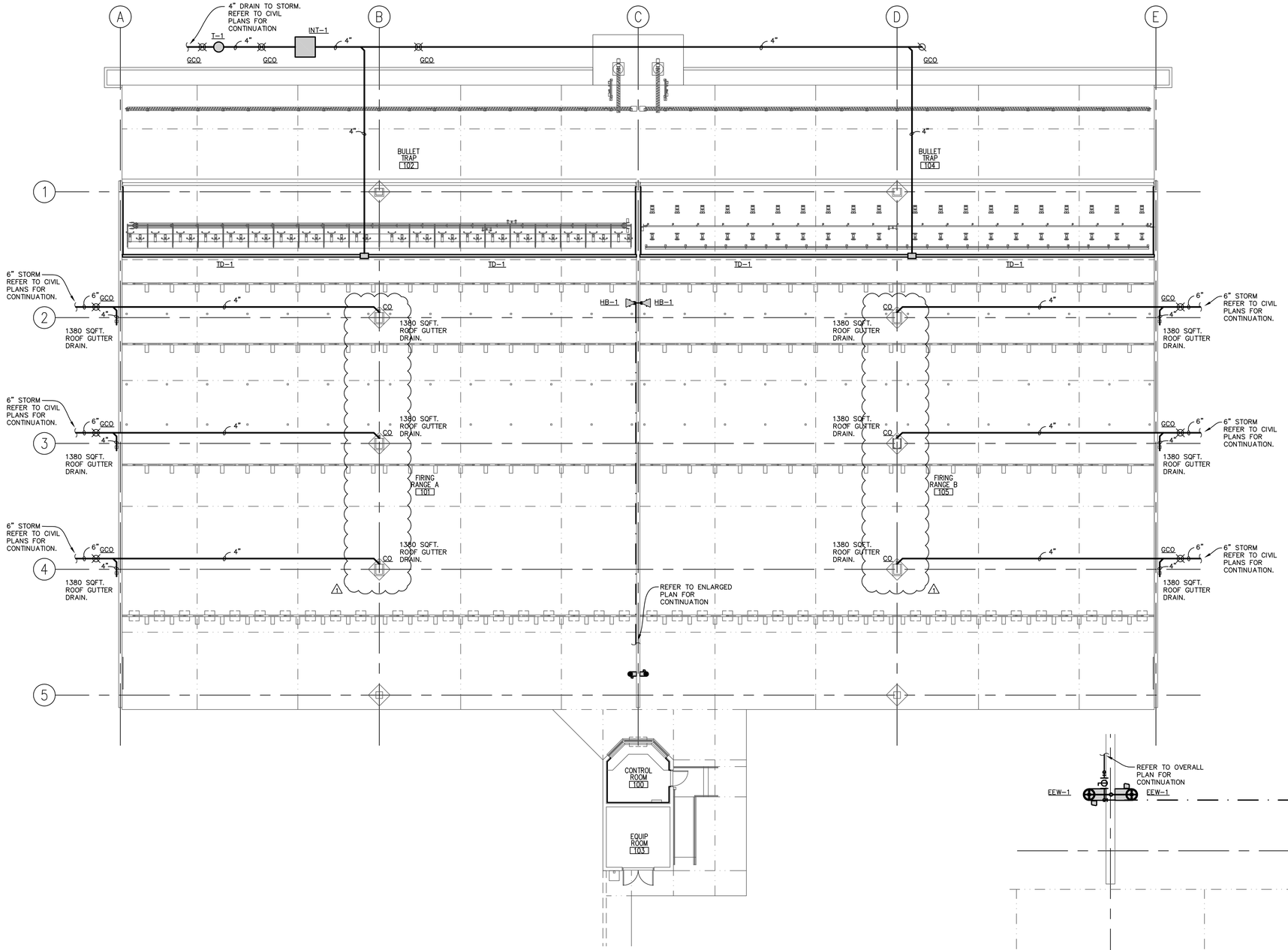
No.	Date	Revision
1	05/17/10	ADDENDUM #3

Drawn By: DM FP
Checked By: MEA MEA

Schedules - Mechanical

M600

Project: 10002
Date: April 5th, 2010



1 Plumbing - Floor Plan
SCALE: 3/32" = 1'-0"

2 Plumbing - Enlarged Floor Plan
SCALE: 1/4" = 1'-0"

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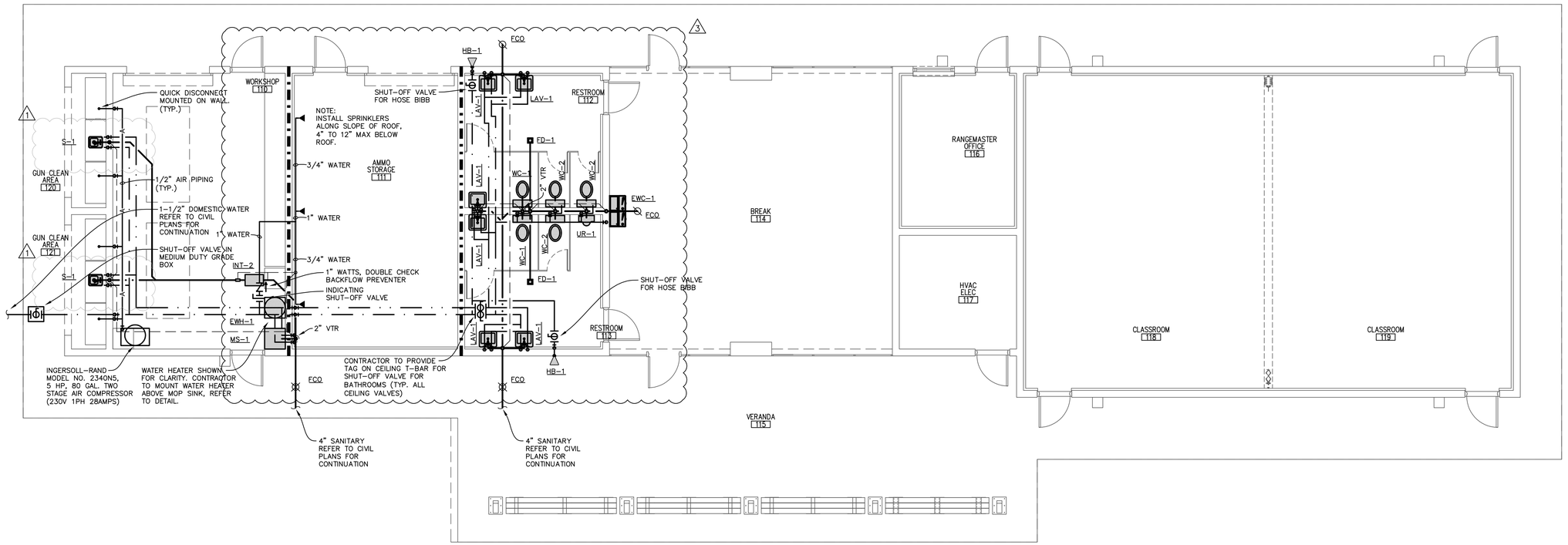
No.	Date	Revision
1	08/04/10	VALUE ENGINEERING

Drawn By: DM FP
Checked By: MEA MEA

Range
Plumbing - Floor Plan

P100

Project: 10002
Date: April 5th, 2010



SYM	NAME	METAL	TEMP	DESCRIPTION
◀	VIKING VK606 SIDEWALL	BRASS	155	EXTENDED COVERAGE, QUICK RESPONSE

NOTE: SPRINKLER PIPING SHALL BE TYPE "L" RIGID COPPER WITH WROUGHT COPPER FITTINGS. ALL JOINTS SHALL BE MADE WITH 95-5 SOLDER OR EQUAL.

3

N

1 Plumbing - Floor Plan

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

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PCSO FIRING RANGE

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Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #1
3	05/17/10	ADDENDUM #3

Drawn By: DM FP
Checked By: MEA MEA

Classroom Building Plumbing - Floor Plan

P110

Project: 10002
Date: April 5th, 2010

FIXTURE SPECIFICATIONS:

WC-1 WATER CLOSET, BARRIER FREE – AMERICAN STANDARD, CADET RIGHT HEIGHT NO. 2467.016, FLOOR MOUNTED, FLOOR OUTLET, 16.5" HIGH, TANK TYPE, ELONGATED BOWL PRESSURE-ASSISTED SIPHON JET FLUSH ACTION, CLOSE COUPLED FLUSHOMETER TANK, VITREOUS CHINA, 1.6 GPF, EVERCLEAN SURFACE. CENTOCO NO. 1500STSCCSS OPEN FRONT SEAT LESS COVER, STAINLESS STEEL CHECK HINGE. 1/2"CW, 4" SAN.

WC-2 WATER CLOSET – AMERICAN STANDARD, CADET NO. 2462.016, FLOOR MOUNTED, FLOOR OUTLET, 15" HIGH, TANK TYPE, ELONGATED BOWL PRESSURE-ASSISTED SIPHON JET FLUSH ACTION, CLOSE COUPLED FLUSHOMETER TANK, VITREOUS CHINA, 1.6 GPF, EVERCLEAN SURFACE. CENTOCO NO. 1500STSCCSS OPEN FRONT SEAT LESS COVER, STAINLESS STEEL CHECK HINGE. 1/2"CW, 4" SAN.

UR-1 URINAL, WALL HUNG – AMERICAN STANDARD WASHBROOK NO. 6501.010, WASHOUT FLUSH ACTION, VITREOUS CHINA, 3/4" TOP SPUD, 1.0 GPF. SLOAN ROYAL FLUSH VALVE NO. 186-1. ZURN FLOOR CARRIER Z-1218. MOUNT AT 24" AFF TO TOP OF FRONT RIM. FOR BARRIER FREE MOUNT AT 15-1/4" AFF TO TOP OF FRONT OF RIM. 3/4" CW, 3" SAN.

LAV-1 LAVATORY, BARRIER FREE – AMERICAN STANDARD LUCERENE NO. 0355.012, 20X18" VITREOUS CHINA, WALL HUNG, 4" CENTERS. PROVIDE FLOOR CARRIER WITH CONCEALED ARMS. TWO-LEVER FAUCET – HC – DELTA NO. 2529-HDF, CHROME FAUCET, TWO-LEVER HANDLE, 1/2 GPM FLOW RESTRICTOR, GRID DRAIN ASSEMBLY. TOP OF FRONT RIM MOUNTED 34" FROM FINISHED FLOOR. PROVIDE STOPS, SUPPLIES, TRAP, ETC., TO MAKE A COMPLETE INSTALLATION. INSULATE TRAP AND SUPPLIES WITH TRUEBRO NO. 103 LAV GUARD. 1/2" CW, 1/2" HW, 1-1/4" SAN.

S-1 SINK – ELKAY, LUSTERTONE NO. LR1517, 15X17" STAINLESS STEEL SINGLE COMPARTMENT SINK, SELF RIMMING, 7-5/8" DEEP, 2 FAUCET HOLES, STRAINER NO. LK18 GRID DRAIN. WRIST BLADE FAUCET – ELKAY MODEL LK406GN08T4, 4" WRISTBLADE HANDLES WITH 8" RIGID GOOSNECK SPOUT, AERATOR, DRAIN BASKET AND STRAINER. PROVIDE STOPS, SUPPLIES, TRAP, ETC., TO COMPLETE INSTALLATION. 1/2" CW, 1/2" HW, 1-1/2" SAN. PROVIDE WITH EYE FACE WASH, BRADLEY S-19-465 EFW, EYE/FACE WASH UNIT. COUNTER TOP-MOUNTED W/ DUAL SPRAY HEAD. UNDER COUNTER 8' HOSE. COLORED YELLOW FOR HIGH VISIBILITY, PERFORATED SPRAY HEADS ARE ABS PLASTIC FOR A SOFT FLOW FLOODING LARGE AREAS AS WELL AS EYES ONLY. 1/2" CW.

FD-1 FLOOR DRAIN – ZURN Z-415B-P WITH TYPE "B" ADJUSTABLE STRAINER TOP WITH SQUARE HEEL PROOF OPENINGS AND SECURED GRATE. DURA COATED CAST IRON BODY WITH TRAP PRIMER CONNECTION. SIZE TO PIPE SIZE.

TP-1 TRAP PRIMER – ZURN NO. Z1021, WATER SAVER TRAP PRIMER, LOCATE UNDER SINK, LAVATORY, EWC AS SHOWN ON PLAN.

FCO FLOOR CLEAN OUT – ZURN NO. C02450-PV, POLISHED BRONZE ACCESS COVER, PVC BODY, PROVIDE WITH CARPET MARKER FOR CARPETED SURFACES. MATCH TO PIPE SIZE.

WCO WALL CLEAN OUT – ZURN NO. C02411/C02530-SS7, SMOOTH STAINLESS STEEL ACCESS COVER, PVC PLUG AND BODY. SIZE TO PIPE SIZE.

GCO GRADE CLEANOUT ON GRADE- ZURN NO. ZARB-1470, BRONZE PLUG, TOP TO BE FLUSH WITH GRADE. SIZE TO PIPE SIZE.

EWC-1 ELECTRIC WATER COOLER – TWO-LEVEL – ELKAY EZSTL8C, WALL MOUNTED, PUSH BARS ON THE FRONT AND BOTH SIDES, STAINLESS STEEL BASINS. 1/5 HP, 8.0 GPM, 325 WATTS, 3.7 FLA. MOUNT ONE AT 38-3/8" ORIFICE HEIGHT AND ONE AT 32-7/8" ORIFICE HEIGHT. PROVIDE FLOOR CARRIER STOP, SUPPLY TRAP, ETC., TO MAKE COMPLETE INSTALLATION. 1/2" CW, 1-1/2" SAN.

MS-1 MOP SINK – MUSTEE, DURASTONE NO. 63M, 24X24X10" ONE PIECE CONSTRUCTION, INTEGRALLY MOLDED CENTER DRAIN WITH SEAL. MUSTEE NO. 63.600A SERVICE SINK FAUCET WITH VACUUM BREAKER. PROVIDE WITH HOSE AND HOSE HOOK, MOP BRACKET, AND WALL GUARDS. 1/2" CW, 1/2" HW, 3" SAN.

HB-1 HOSE BIBB, – WOODFORD NO. B24, WALL MOUNTED IN BRASS BOX WITH LOCKING COVER, REMOVABLE TEE KEY, BRASS CONSTRUCTION, CHROME PLATED WITH MODEL 34HF VACUUM BREAKER. 1/2" CW.

WHA WATER HAMMER ARRESTOR – ZURN SHOCKTROL, Z-1700. INSTALL AT HIGH END OF EACH BRANCH THAT CONTAINS QUICK-CLOSING OR FLUSH VALVES.

EWH-1 WATER HEATER – STATE – LIGHT COMMERCIAL, NO. PCE 20 10MSA, 20 GALLON , 4.5KW SINGLE ELEMENT, 208 VOLT. HEAT TRAPS, EXPANSION TANK AND CODE APPROVED DRAIN PAN. SEE DETAIL. 1" CW, 1" HW, 3/4" T&P, 1" DRAIN PAN DRAIN PIPING.

EEW-1 EMERGENCY EYE WASH, BARRIER FREE – BRADLEY MODEL NO. S19-220BF, EYE WASH WITH STAINLESS STEEL BOWL WITH WRAPAROUND SKIRT, WALL MOUNTED, HAND CONTROL. 1/2" CW 1-1/4" SAN.

TD-1 TRENCH DRAIN –ACO, K100S, GENERAL PURPOSE, 4" INTERNAL WIDTH, POLYMER CONCRETE CHANNEL, 0.6% PRE-SLOPE, CLASS "C" DUCTILE IRON SLOTTED GRATE, 4" SIDE DRAIN OUTLET. PROVIDED WITH GRATE DRAIN NO. 455, STAINLESS STEEL SLOTTED. PROVIDE WITH 600 SERIES CATCH BASIN AS REQUIRED.

INT-1 INTERCEPTOR, J.R. SMITH, NO. 8811-50, 50 GPM FLOW, 4" INLET/OUTLET. SOLID HEAVY DUTY DIAMOND PLATE COVER. 4" SAN. MOUNT FLUSH WITH GRADE.

INT-2 OIL INTERCEPTOR, J.R. SMITH, NO. 8511-10, 10 GPM FLOW, 2" INLET/OUTLET. NON-SLIP DIAMOND PLATE COVER. 2" SAN. MOUNT FLUSH WITH GRADE.

T-1 ORION, NEUTRALIZATION TANK STYLE 7, 100 GAL., FIBERGLASS REINFORCED, 4" INLET AND OUTLET, FILL WITH LIMESTONE CHIPS TO CONTROL PH BALANCE OF WATER.

MATERIAL SPECIFICATIONS:

1. DOMESTIC HOT AND COLD WATER PIPING SHALL BE TYPE "L" RIGID COPPER WITH WROUGHT COPPER FITTINGS. BELOW GROUND SHALL BE TYPE "K" SOFT COPPER WITH NO JOINTS PERMITTED BELOW GROUND. ALL JOINTS SHALL BE MADE WITH 95-5 SOLDER OR EQUAL. CONTRACTOR TO PROVIDE DEDUCT ALT BID FOR DOMESTIC HOT AND COLD WATER PIPING TO BE SCH 40 CPVC WITH SOLVENT WELDED FITTINGS ABOVE AND BELOW GROUND.
2. SANITARY WASTE AND VENT PIPING SHALL BE DWV SCHEDULE 40 PVC ABOVE AND BELOW GRADE.
3. INSULATION SHALL BE FLEXIBLE UNICELLULAR-SELF-SEAL ARMAFLEX 2000 3/4" THICK FOR HOT WATER PIPING UP TO 2" SIZE – PROVIDE SHEET METAL SADDLES AT EACH HANGER.
4. AIR PIPING SHALL BE BLUE ALUMINUM TUBE WITH ALL-METAL CONSTRUCTION, MODULAR PUSH-CONNECT FITTING SYSTEM. (INFINITY PIPING SYSTEM BY APPLIED SYSTEM TECHNOLOGIES)
5. STORM PIPING SHALL BE DWV SCHEDULE 40 PVC ABOVE AND BELOW GRADE.

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION
———	W	WASTE PIPING
— — — — —	V	VENT PIPING
——— · ———	CW	COLD WATER PIPING
——— · · ———	HW	HOT WATER PIPING
———| WCO	WCO	WALL CLEAN OUT
OR	VTR	VENT THRU ROOF
OR	FCO	FLOOR CLEAN OUT
OR	GCO	GRADE CLEAN OUT
		POINT OF NEW CONNECTION
		HOSE BIBB
		BALL VALVE

PLUMBING SPECIFICATIONS:

ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, AND LOCAL CODES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE 2007 FLORIDA PLUMBING CODE.

REVIEW PLANS OF ALL TRADES PRIOR TO BIDDING AND INSTALLATION TO INCLUDE ALL PLUMBING FOR COMPLETE SYSTEMS SHOWN ON THE PLANS AND AS REQUIRED.

COORDINATE WITH OTHER TRADES TO PREVENT INTERFERENCE WITH HVAC DUCTS, STRUCTURE, ELECTRICAL LIGHTING AND OTHER PIPING IN THE CEILING SPACE. VENT PIPING AND WATER PIPING SHALL BE HELD EITHER ABOVE OR BELOW HVAC DUCTWORK AS COORDINATED WITH THE HVAC CONTRACTOR.

ALL CHANGES SHALL BE REVIEWED BY THE ARCHITECT.

COORDINATE WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING-IN PLUMBING FIXTURES AND EQUIPMENT SUPPLIES.

THE PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL ALL PLUMBING FIXTURES, UNLESS NOTED OTHERWISE.

VERIFY MOUNTING HEIGHT AND WATER CONNECTION SIZES TO ALL PLUMBING FIXTURES PRIOR TO ROUGH-IN. FURNISH CUT-OUT TEMPLATES, FOR PLUMBING FIXTURES TO BE INSTALLED IN MILLWORK, TO THE GENERAL EQUIPMENT.

MAKE PROPER HOT AND COLD WATER, WASTE AND VENT PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL FITTINGS AND CONNECTIONS ARE NOT SHOWN.

VERIFY LOCATION OF EXISTING WATER SERVICE AND THE LOCATION/INVERTS OF SANITARY PIPING PRIOR TO INSTALLATION.

ALL PLUMBING VENTS IN EXTERIOR WALLS SHALL BE OFF SET A MINIMUM OF 3'-0" BEFORE ROOF PENETRATION.

PROVIDE TRAP PRIMERS FOR FLOOR DRAINS, FROM THE NEAREST LAVATORY, AS SHOWN ON THE PLAN AND AS REQUIRED BY LOCAL CODE. PRIMERS SHALL BE LOCATED IN A SERVICEABLE LOCATION AND INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS.

IT IS NOT THE INTENT OF THESE DRAWINGS TO COVER ALL WORK AND MATERIAL. ANY EQUIPMENT, PLUMBING FIXTURE, TRIM HARDWARE AND/OR DEVICES USUALLY UTILIZED IN THE CLASS OF WORK, THOUGH NOT SPECIFICALLY MENTIONED OR SHOWN ON THESE DRAWINGS, BUT WHICH MAY BE NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK (AS DETERMINED BY THE ARCHITECT) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS PART OF HIS TOTAL WORK.

THE EQUIPMENT ROUGH-IN ITEMS AND THEIR DIMENSIONED LOCATIONS FOR ALL CONNECTIONS ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. IN SOME INSTANCES THE OWNER OR SUPPLIER MAY MAKE SUBSTITUTIONS OR THE EQUIPMENT ITEMS MAY VERY FROM WHAT IS SHOWN. THEREFORE, THESE ITEMS AND DIMENSIONS SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER, OWNER AND/OR EQUIPMENT ROUGH-IN DRAWING. FAILURE OF THE APPROPRIATE CONTRACTOR TO VERIFY ROUGH-INS OR THEIR LOCATIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION AND/OR ADDITIONAL ROUGH-INS DIRECTLY UPON THE CONTRACTOR.

CONTRACTOR SHALL SUPPLY TO THE ARCHITECT THE REQUIRED COPIES OF SHOP DRAWINGS FOR APPROVAL SO THE QUALITY OF INTENDED MATERIALS OR EQUIPMENT CAN BE REVIEWED BEFORE INSTALLATION. THERE WILL BE NO DRAW UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER.

DO NOT SCALE THIS DRAWING. REFER TO ARCHITECTURAL FLOOR PLAN FOR BUILDING DIMENSIONS.

THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT NECESSARILY SHOW ALL ELBOWS, OFFSETS, UNION, VALVES AND FITTINGS REQUIRED TO COMPLETE THE INSTALLATION OF THE WORK. THE SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED. IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.

VERIFY SERVICE POINTS AND METERING LOCATIONS FOR PROJECT WITH LOCAL UTILITIES AND/OR LANDLORD (DOMESTIC WATER, SANITARY SEWER, GAS, ETC.)

THE CONTRACTOR SHALL COOPERATE FULLY AMONG THE TRADES.

ALL ROOF PENETRATIONS FOR PLUMBING PIPING SHALL BE MADE IN ACCORDANCE WITH ROOF SYSTEM MANUFACTURER'S GUIDELINES. COORDINATE WITH ARCHITECTURAL DETAIL AND/OR LANDLORD FOR ROOF SYSTEM USED.

PLUMBING CONTRACTOR SHALL VERIFY WITH THE LOCAL HEALTH DEPARTMENT AND/OR WATER COMPANY AS TO THE METER AND VALVING ARRANGEMENTS OF THE DOMESTIC WATER SERVICE LINE WHICH ENTERS THE BUILDING. SHOULD A BACKFLOW PREVENTER ASSEMBLY AND/OR PRESSURE REDUCING VALVE ASSEMBLY BE REQUIRED, THE PLUMBER SHALL FURNISH AND INSTALL SAME PER LOCAL AND STATE REQUIREMENTS. THE BACKFLOW ASSEMBLY SHALL BE A "WATTS" SERIES #909, OR APPROVED EQUAL MEETING ASSE STANDARDS 1013,1015, AND 1020. IF BACKFLOW PREVENTER IS REQUIRED, PROVIDE PROPERLY SIZED THERMAL EXPANSION TANK IN SUPPLY PIPING OF WATER HEATER. IF WATER PRESSURE IS 65 PSI OR ABOVE, THE PRESSURE REDUCING VALVE ASSEMBLY SHALL BE A "WATTS" SERIES #U5 SET AT 50 POUNDS. DELIVERY PRESSURE UNLESS OTHERWISE NOTED.

THE POTABLE WATER SUPPLY SHALL BE PROTECTED AGAINST BACKFLOW AND SIPHONAGE BOTH NATURAL AND INDUCED. ALL EQUIPMENT CONNECTED TO THE POTABLE WATER SYSTEM BEING CAPABLE OF POLLUTING OR CONTAMINATING THE POTABLE WATER DISTRIBUTION SYSTEM OR ANY PART THEREOF BY MEANS OF A REVERSAL OF FLOW, PRESSURE DROP, PRESSURE LOSS, INDUCED VACUUM OR BY INJECTION BECAUSE OF ANY PRIMARY OR AUXILIARY PUMPING SYSTEM CONNECTED THERE TO MUST BE ISOLATED AND CONTAINED BY MEANS OF APPROVED BACKFLOW DEVICES, CHECK VALVES, AIR GAPS OR VACUUM BREAKERS. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL THESE DEVICES PER LOCAL CODE REQUIREMENTS.

THE WATER PIPING SYSTEM SHALL BE FLUSHED AND STERILIZED IN ACCORDANCE WITH LOCAL REGULATIONS.

THE HOT AND COLD WATER SUPPLY BRANCHES FOR ALL EQUIPMENT HAVING QUICK CLOSING VALVES OF ANY TYPE SHALL HAVE WATER HAMMER ARRESTOR INSTALLED AT THE HIGH POINT ON THE END OF EACH BRANCH.

FURNISH AND INSTALL SHUTOFF OR BALL VALVE AND DIELECTRIC UNIONS ON ALL EQUIPMENT HOT AND COLD WATER LINES. PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. COORDINATE WITH EQUIPMENT SUPPLIER FOR EXACT REQUIREMENTS.

VERIFY MOUNTING HEIGHTS OF ALL BARRIER FREE FIXTURES WITH ARCHITECTURAL PLANS.

PROVIDE CHROME PLATED ESCUTCHEONS AT ALL WALL PENETRATIONS.

PLUMBING CONTRACTOR SHALL INSTALL 4" SOIL AND WASTE PIPING WITH MINIMUM SLOPE OF 1/8" PER FOOT UNLESS OTHERWISE REQUIRED.

HOLD TOP OF FLOOR DRAINS FLUSH WITH FINISHED FLOOR. SEE ARCHITECTURAL SHEETS FOR FLOOR SLOPES AND PROPER FINISHED FLOOR ELEVATION.

ALL VENT PIPE TO BE COMPATIBLE WITH STRUCTURE, MECHANICAL EQUIPMENT AND DUCTWORK, ELECTRICAL EQUIPMENT AND LIGHTING. ALL V.T.R.'S SHALL BE EXTENDED TO A MINIMUM OF 2" ABOVE PARAPET HEIGHT AND MAINTAINED 10'-0" MINIMUM FROM ALL OUTSIDE AIR INTAKES.

MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF NATIONALLY RECOGNIZED TESTING ORGANIZATIONS SUCH AS UL, ASTM, ASSE, AWWE, AGA AND NFPA AS WELL AS THE MOST CURRENT VERSION OF THE STATE AND LOCAL CODES.

ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE. REPLACE ANY AND ALL CONTRACTOR SUPPLIED DEFECTIVE DEVICES, ITEMS OR SYSTEMS AT CONTRACTOR'S OWN EXPENSE BEFORE COMPLETION OF PROJECT.

WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OR NATURE OF WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE ENGINEER.

ALL EQUIPMENT, FIXTURES AND MATERIALS SHALL BE NEW AND UNUSED, AND INSTALLED IN STRICT CONFORMANCE TO MANUFACTURERS RECOMMENDATIONS (U.O.N.). PROVIDE COMPLETE WITH ALL TRIM, STOPS, HANGERS, CARRIERS, SUPPORTS, ETC. INCLUDING PROVISIONS FOR BARRIER FREE USE, IF REQUIRED. WHERE FIXTURES ARE ACCESSIBLE THEY MUST COMPLY WITH ALL FEDERAL A.D.A. REGULATIONS.

CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED OR FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURERS GUARANTEE IS FURNISHED AND ALL WORK IN CONNECTION WITH THE INSTALLATION OF MANUFACTURERS GUARANTEED EQUIPMENT. THE CONTRACTOR'S GUARANTEE SHALL LAST ONE YEAR FROM THE FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF ANY KIND.

ALL FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHTGRASPING.

ALL BARRIER FREE WATER CLOSET CONTROLS SHALL BE LOCATED ON UNIT TOWARDS WIDE SIDE OF STALL. VERIFY IF RIGHT OR LEFT SIDE LOCATION.

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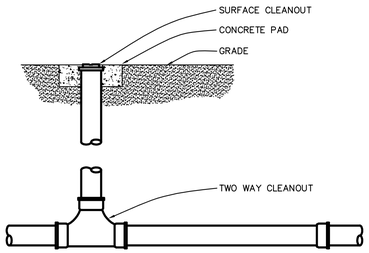
No.	Date	Revision

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Checked By: MEA MEA

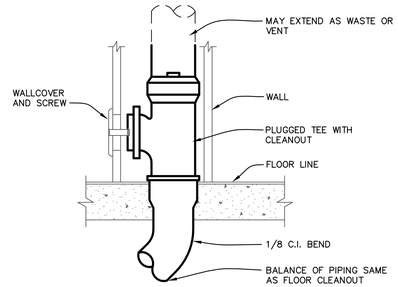
Notes - Plumbing

P500

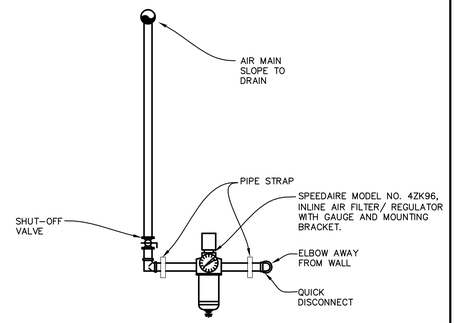
Project: 10002
Date: April 5th, 2010



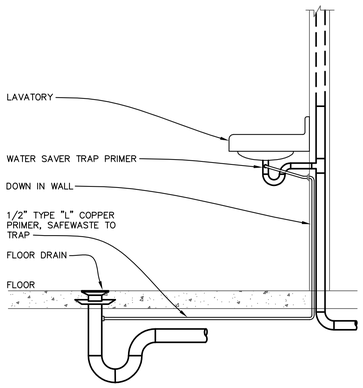
① 2-WAY GRADE CLEANOUT DETAIL NTS



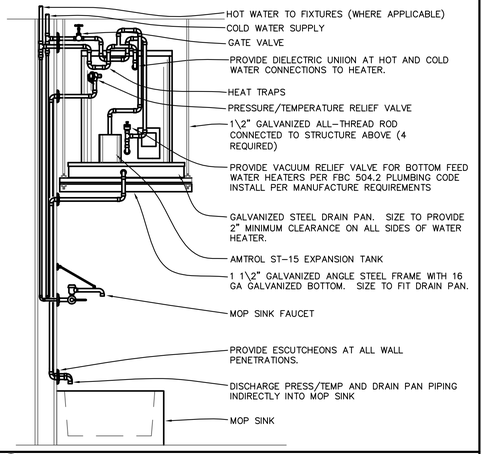
② WALL CLEANOUT DETAIL NTS



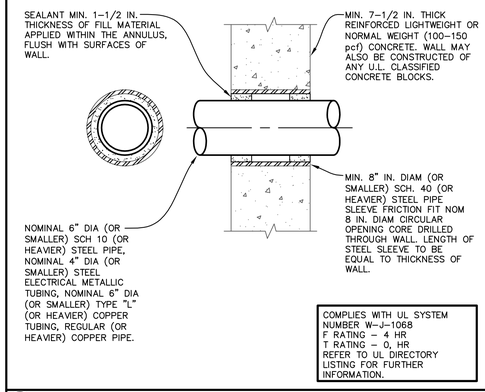
③ COMPRESSED AIR CONNECTION DETAIL NTS



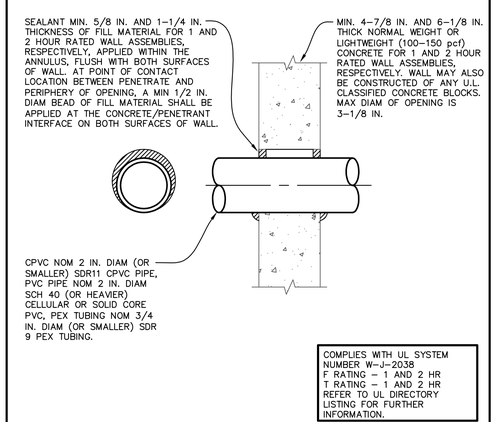
④ LAVATORY TRAP PRIMER NTS



⑤ WATER HEATER DETAIL NTS



⑥ METAL PIPE THRU RATED PARTITION DETAIL NTS



⑦ NON-METAL PIPE THRU RATED PARTITION DETAIL NTS

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MES MECHANICAL ENGINEERING SOLUTIONS, INC.
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Ph. 813.885-9600 Fax 813.884-0040
Certificate #8304 Project # 2010514
Mark E. Awmiller, P.E. 53973

Construction Documents

Certificate # 8304
Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
3410 118th Avenue North
Pinellas Park, FL 33762

REVISIONS

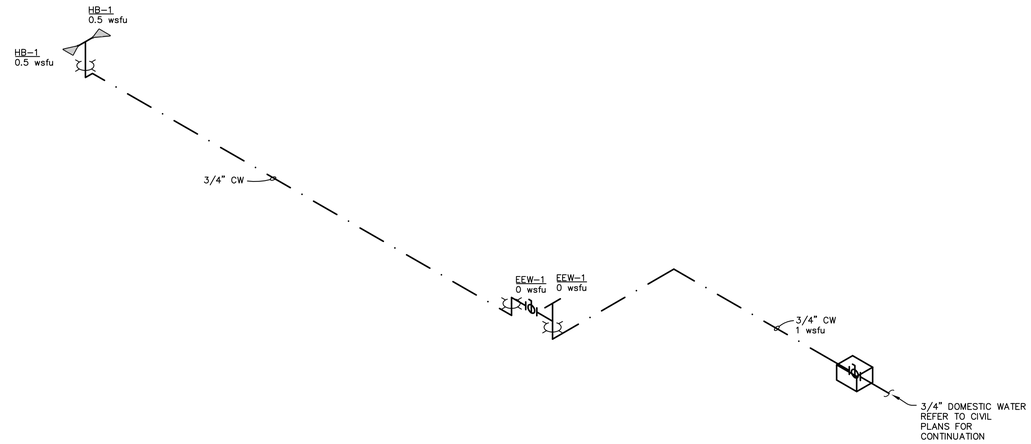
No.	Date	Revision

Drawn By: DM FP
Checked By: MEA MEA

Details - Plumbing

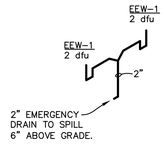
P501

Project: 10002
Date: April 5th, 2010



NOTE: ALL COLD WATER AND ALL HOT WATER PIPING SHALL BE 1/2" UNLESS NOTED OTHERWISE

2 Domestic Water Isometric
NOT TO SCALE



1 Waste and Vent Isometric
NOT TO SCALE

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Signature Date

PCSO FIRING RANGE

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REVISIONS

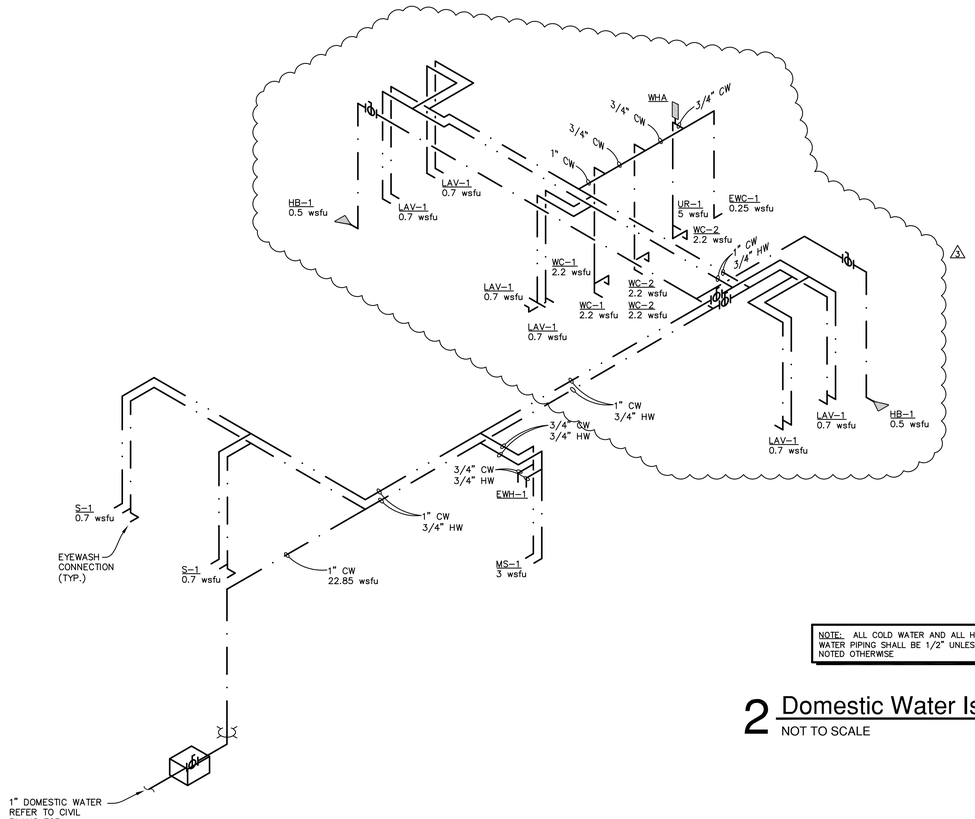
No.	Date	Revision

Drawn By:	DM	FP
Checked By:	MEA	MEA

Isometrics - Plumbing

P900

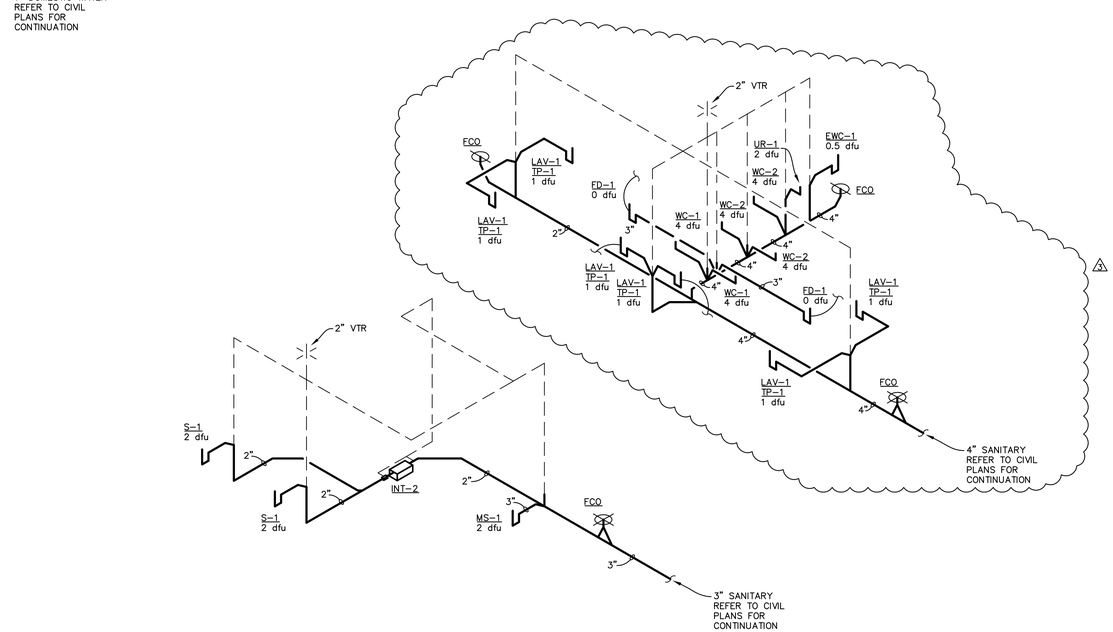
Project: 10002
Date: April 5th, 2010



NOTE: ALL COLD WATER AND ALL HOT WATER PIPING SHALL BE 1/2" UNLESS NOTED OTHERWISE

2 Domestic Water Isometric

NOT TO SCALE



NOTE: ALL WASTE PIPING SHALL BE 4" AND ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

1 Waste and Vent Isometric

NOT TO SCALE

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Mark E. Awmiller, P.E. 53973

Signature Date

PCSO FIRING RANGE

Outdoor Firing Range

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REVISIONS

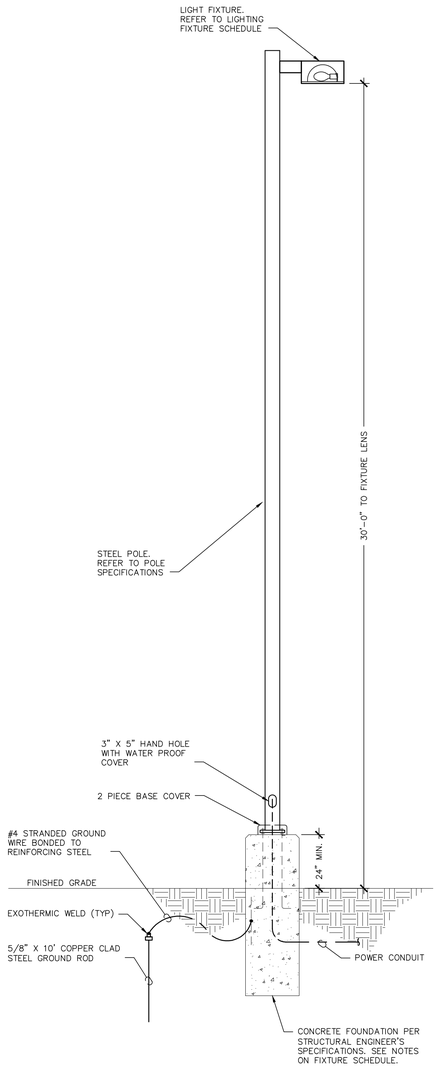
No.	Date	Revision
3	05/17/10	ADDENDUM #3

Drawn By:	DM	FP
Checked By:	MEA	MEA

Isometrics - Plumbing

P910

Project: 10002
Date: April 5th, 2010



1 POLE BASE DETAIL
SCALE: NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP(S)	VOLTS	MOUNTING	REMARKS
A	COLUMBIA LIGHTING	PM24-2-32-RA-PC2-EPU-GLR	(2) 32W T8	120	SUSPENDED AT 10'-0"	PARABOLIC 2X4
A1	COLUMBIA LIGHTING	PM24-2-32-RA-PC2-EPU-EL-GLR	(2) 32W T8	120	SUSPENDED AT 10'-0"	PARABOLIC 2X4 WITH EMERGENCY BATTERY BACK-UP
B	COLUMBIA LIGHTING	PM24-232-RAA12-EU-GLR	(2) 32W T8	120	SUSPENDED AT 10'-0"	LENSED TROFFER 2X4
B1	COLUMBIA LIGHTING	PM24-232-RAA12-EU-EL-GLR	(2) 32W T8	120	SUSPENDED AT 10'-0"	LENSED TROFFER 2X4 WITH EMERGENCY BATTERY BACK-UP
B2	COLUMBIA LIGHTING	PM24-332-RAA12-EPU-GLR	(3) 32W T8	120	CEILING	LENSED TROFFER 2X4
C	HUBBELL LIGHTING	HL-HFX-265-30-2-FB-WL	(2) 32W T8	120	SUSPENDED AT 10'-0"	EXPLOSION RATED 4' FLUORESCENT STRIP
E4	COLUMBIA LIGHTING	CS4-232-EU-GLR-PAF-CSWG4	(2) 32W T8	120	SUSPENDED AT 8'-6"	4' FLUORESCENT STRIP
F	HUBBELL LIGHTING	LLC-64F 8-XX-2BOC120	(2) 26W CFL	120	WALL @ 8' TO CENTER OF J-BOX	EXTERIOR WALL PACK WITH EMERGENCY BATTERY BACK-UP.
G	VANTAGE LIGHTING	VP107SHF2-26-E-1-XX-S35SCL	(2) 26W DTT CFL	120	SURFACE	DAMP LOCATION RATED SURFACE MOUNTED FIXTURE
H	COLUMBIA LIGHTING	WC-4-232-EU-GLR	(2) 32W T8	120	SUSPENDED AT 8'-6"	4' FLUORESCENT WRAPAROUND
J	COLUMBIA LIGHTING	XFSW4-432-CP-M4R-EPHLU-GLR, HUBK MOUNTING KIT	(4) 32W T8	120	SEE DETAIL.	4' WET LOCATION LISTED ENCLOSED FLUORESCENT FIXTURE
K	HUBBELL LIGHTING	Q-500-X	(1) 500W QUARTZ LAMP INCLUDED W/FIXTURE	120	SUSPENDED AT 13'-0"	1. WET LOCATION LISTED FLOOD LIGHT 2. SUBMIT CONDUIT AND SUPPORT DETAIL FOR REVIEW AND COMMENT.
L	COLUMBIA LIGHTING	LU-8-232-E120-DR-GLR	(4) 32W T8	120	SUSPENDED AT 10'-0"	8' FLUORESCENT STRIP WITH ACRYLIC COVER
LL1	SPALDING LIGHTING	NK2-A-P40-H4-F-Q-XX ARM-S-6-S-XX	(1) 400W MH	208	POLE MOUNTED	TYPE IV POLE MOUNT FIXTURE. 30' SQUARE STEEL POLE. COLOR TO MATCH EXISTING SITE FIXTURES
LL2	SPALDING LIGHTING	NK2-A-P40-H4-F-Q-XX ARM-S-6-S-XX 2-SA-D180-XX	(1) 400W MH	208	POLE MOUNTED	TYPE IV POLE MOUNT FIXTURE. 2 FIXTURE HEADS @ 180°. 30' SQUARE STEEL POLE. COLOR TO MATCH EXISTING SITE FIXTURES
LL3	KIM LIGHTING	6220D-70PMH120-XX	(1) 70W MH	120	GROUND	GROUND MOUNTED FLAG POLE LIGHT
M	HUNTER	52" FIVE BLADE, OUTDOOR HUNTER FAN MODEL 28601	N/A	120	CEILING	CEILING FAN, TIGHT TO CEILING.
X	LIGHTGUARD	DX-L-N-1-R-N-SC	W/ FIXTURE	120	CEILING	A/C D/C EXIT SIGN

NOTES:

1. FLUORESCENT LAMPS SHALL BE 4100 K CORRELATED COLOR TEMPERATURE AND MIN 85 COLOR RENDERING INDEX UON.
2. OPTIONAL MANUFACTURERS: COOPER, LITHONIA.
3. FIXTURES WITH BALLASTS SHALL INCLUDE IN-LINE FUSES.
3. PROVIDE ALL ACCESSORIES TO INCLUDE BUT NOT LIMITED TO CHAINS, HANGERS, SUPPORTS, HARDWARE, ETC. FOR COMPLETE FIXTURE INSTALLATION.
4. SITE LIGHTING FIXTURES, POLES, ARMS, FASTENERS, FOUNDATIONS, ETC; THE ENTIRE ASSEMBLY SHALL MEET WIND LOADING REQUIREMENTS OF FLORIDA BUILDING CODE, LATEST EDITION. LIGHT FIXTURE VENDOR SHALL HIRE AND SUBMIT FOR REVIEW AND COMMENT FLORIDA STRUCTURAL PROFESSIONAL ENGINEER DESIGNED ASSEMBLY. SHOW ALL CALCULATIONS AND DESIGN/CALCULATIONS SHALL BE SIGNED AND SEALED.
5. THE SAME FLORIDA STRUCTURAL PROFESSIONAL ENGINEER FROM NOTE #4 SHALL DESIGN SITE POLE CONCRETE FOUNDATIONS AND ANCHOR BOLT ASSEMBLIES. SHOW ALL CALCULATIONS. DESIGNS/CALCULATIONS SHALL BE SIGNED AND SEALED AND SUBMITTED WITH #4 ABOVE.
6. COORDINATE WITH ARCHITECT LIGHT FIXTURE FINISHES/COLORS.
7. LIGHTING SUBSTITUTION:
   ANY LIGHTING FIXTURES OTHER THAN THOSE LISTED ON THE LIGHTING FIXTURE SCHEDULE BY NAME AND CATALOG NUMBER SHALL MEET THE FOLLOWING REQUIREMENTS IN ORDER TO BE CONSIDERED. SUBMIT AFTER CONTRACT AWARD; NO PRE-CONTRACT SUBMITTALS WILL BE ACCEPTED. INCLUDE THE FOLLOWING IN THE SUBMITTAL.

   1. (5) SETS OF ORIGINAL COLOR FACTORY CATALOG SUBMITTALS.
   2. (5) SETS OF POINT TO POINT LIGHTING CALCULATIONS FOR FIRING RANGE, PARKING LOT, AND TRAINING FIELD AREAS.
   3. A DISC CONTAINING THE IES PHOTOMETRIC FILE FOR EACH FIXTURE TYPE.
   4. IF FIXTURES ARE SUBMITTED FOR REVIEW FOR "VALUE ENGINEERING", THE ELECTRICAL CONTRACTOR SUBMITTING THE FIXTURES SHALL PAY THE ARCHITECT'S AND ENGINEER'S HOURLY FEES TO REVIEW THE SUBMITTALS. PAYMENTS SHALL BE IN ADVANCE.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING/REMARKS
	FLUORESCENT LIGHTING FIXTURE	CEILING LAY-IN OR RECESSED
	ENCLOSED FLUORESCENT LIGHTING FIXTURE	CEILING SURFACE OR SUSPENDED
	STRIP FLUORESCENT LIGHTING FIXTURE	CEILING SURFACE OR SUSPENDED
	WALLPACK LIGHTING FIXTURE	WALL SURFACE
	SURFACE LIGHTING FIXTURE	CEILING SURFACE OR PENDANT
	TARGET FLOOD LIGHT	CEILING SURFACE OR SUSPENDED
	EXIT SIGN FIXTURE: FACE(S) AND DIRECTIONAL ARROW(S) AS INDICATED	WALL SURFACE
	SITE LIGHT FIXTURE	TWO HEADED POLE MOUNTED
	SITE LIGHT FIXTURE	SINGLE HEAD POLE MOUNTED
	FLAG POLE LIGHTING FIXTURE	GROUND

FIXTURE SYSTEM: TYPICAL ALL FIXTURE TYPES
NORMAL POWER: SWITCHED | NORMAL POWER: DUAL SWITCHED | EMERGENCY POWER: SWITCHED | EMERGENCY POWER: UNSWITCHED

?$	TOGGLE SWITCH: SINGLE POLE, 20 A, 120/277 VAC OR AS DENOTED BY SUBSCRIPT	TOP 48" AFF, UON
?OS	OCCUPANCY SENSOR: DENOTED BY SUBSCRIPT, REFER TO OCCUPANCY SCHEDULE	TOP 96" AFF, UON
?OS	OCCUPANCY SENSOR: DENOTED BY SUBSCRIPT, REFER TO OCCUPANCY SCHEDULE	CEILING FLUSH

SUBSCRIPTS:

a,b	RESPECTIVE FIXTURE/LAMP CONTROL	IR	PASSIVE INFRARED	MC	MOMENTARY CONTACT
2	DOUBLE POLE	K	KEY OPERATED	P	PILOT LIGHT
3	THREE WAY	L	INTERNALLY ILLUMINATED	T	TIME DELAY (10 MIN)
4	FOUR WAY	LV	LOW VOLTAGE	UT	ULTRASONIC
D	DIMMER	M	MOTOR/HP RATED WITH THERMAL OVERLOAD	XP	EXPLOSION PROOF

	DUPLEX RECEPTACLE: 20 A, 125 VAC	TOP 20" AFF, UON
	DUPLEX RECEPTACLE: 20 A, 125 VAC	COUNTER HEIGHT UON
	QUAD RECEPTACLE: 20 A, 125 VAC	TOP 20" AFF, UON
	QUAD RECEPTACLE: 20 A, 125 VAC	COUNTER HEIGHT UON
	SPECIAL PURPOSE RECEPTACLE: RATING AS NOTED	TOP 20" AFF, UON
	DUPLEX RECEPTACLE: 20 A, 125 VAC	CEILING FLUSH
	VOICE/DATA OUTLET	TOP 20" AFF, UON
	VOICE/DATA OUTLET	CEILING FLUSH
	CABLE TV OUTLET	TOP 20" AFF, UON
	TELECOM/CATV BOARD	AS NOTED OR REQUIRED
	CEILING FAN	CEILING MOUNTED
	SITE PAD MOUNTED TRANSFORMER	AS NOTED OR REQUIRED
	TERMINAL OR EXPANSION CABINET AS NOTED	AS NOTED OR REQUIRED
	JUNCTION BOX W/BLANK COVER UON	CEILING FLUSH UON OR REQUIRED
	JUNCTION BOX W/BLANK COVER UON	WALL SURFACE UON OR REQUIRED
	BRANCH CIRCUIT PANELBOARD: 240VAC UON	REFER TO PANEL SCHEDULE
	DISCONNECT SWITCH: NON-FUSIBLE	AS NOTED OR REQUIRED

SYMBOL	DESCRIPTION	MOUNTING/REMARKS
	ELECTRIC COMPANY METER	AS REQUIRED BY LOCAL AHJ
	DISTRIBUTION PANELBOARD	REFER TO PANEL SCHEDULE
	DISCONNECT SWITCH: NON-FUSIBLE	AS NOTED OR REQUIRED
	DISCONNECT SWITCH: FUSIBLE	AS NOTED OR REQUIRED
	COMBINATION DISCONNECT SWITCH/MAGNETIC STARTER: NON-FUSIBLE	AS NOTED OR REQUIRED
	COMBINATION DISCONNECT SWITCH/MAGNETIC STARTER: FUSIBLE	AS NOTED OR REQUIRED
	GROUNDING BAR	AS NOTED OR REQUIRED
HP	ELECTRIC MOTOR: HP AS NOTED	AS NOTED
	MECHANICAL/PLUMBING EQUIPMENT OR AS NOTED: COORDINATE DESIGNATIONS WITH MECH./PLUM. DRAWINGS	REFER TO MECHANICAL/PLUMBING DRAWINGS
?	LIGHTING FIXTURE TYPE DESIGNATOR	REFER TO LIGHTING FIXTURE SCHEDULE
#/#	KEYED NOTES DESIGNATOR	REFER TO LIKE-NUMBERED NOTES
	BRANCH CIRCUIT HOME RUN TO PANELBOARD AS NOTED	WIRES INDICATED AS FOLLOWS: TWO WIRES: * *PROVIDE MINIMUM 2#12 AND 1#12 EG IN MIN 1/2" C FOR ALL POWER AND LIGHTING RACEWAYS UON OR SPECIFIED
	CONDUIT RUN CONCEALED	
	CONDUIT RUN UNDER FLOOR OR UNDERGROUND	
	CONDUIT RUN EXPOSED	
	FLEXIBLE CONDUIT CONNECTION 1/2" MIN UON	
	CAPPED CONDUIT	
	CONDUIT TURNING UP	

ABBREVIATIONS:

A	AMPS	GEN	GENERATOR	NO	NORMALLY OPEN
AFF	ABOVE FINISHED FLOOR	GFCI	GROUND-FAULT CIRCUIT INTERRUPTER	PNL	PANELBOARD
AFG	ABOVE FINISHED GRADE	HP	HORSEPOWER	PH	PHASE
ATS	AUTOMATIC TRANSFER SWITCH	HZ	HERTZ	Φ	PHASE
AWG	AMERICAN WIRE GAUGE	IG	ISOLATED GROUND	RECPT	RECEPTACLE(S)
BFG	BELOW FINISHED GRADE	JB	JUNCTION BOX	RPM	REVOLUTIONS PER MINUTE
BKR	BREAKER	KVA	KILOVOLT AMPERE(S)	SF	SQUARE FEET
C	CONDUIT	KW	KILOWATT(S)	TYP	TYPICAL
CB	CIRCUIT BREAKER	LTG	LIGHTING	U	UNKNOWN CIRCUIT
CKT	CIRCUIT	MAX	MAXIMUM	UGND	UNDERGROUND
DP	DISTRIBUTION PANELBOARD	MCB	MAIN CIRCUIT BREAKER	UON	UNLESS OTHERWISE NOTED
DS	DISCONNECT SWITCH	MDP	MAIN DISTRIBUTION PANELBOARD	V	VOLTS
EC	ELECTRICAL CONTRACTOR	MIN	MINIMUM	VA	VOLT AMPERE(S)
EF	EXHAUST FAN	MLO	MAIN LUGS ONLY	VFD	VARIABLE FREQUENCY DRIVE
EG	EQUIPMENT GROUND	MTD	MOUNTED	W/	WITH
ELEC	ELECTRICAL OR ELECTRIC	N/A	NOT APPLICABLE	W/O	WITHOUT
EXIST	EXISTING	NC	NORMALLY CLOSED	WP	WEATHERPROOF
GND	GROUND	NEUT	NEUTRAL	XFMR	TRANSFORMER
GC	GENERAL CONTRACTOR			XP	EXPLOSION RATED

NOTES:

1. ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL BE CONNECTED UNSWITCHED UON
2. "COUNTER HEIGHT" MOUNTING SHALL BE TOP 10" ABOVE COUNTER SURFACE, MAX TOP 48" AFF
3. EXTEND 3/4" CONDUIT W/PULL STRING TO ACCESSIBLE LOCATION MIN 2" ABOVE CEILING.
4. EXTEND 3/4" CONDUIT W/PULL STRING TO ACCESSIBLE LOCATION MIN 2" ABOVE CEILING.

OBJECT STATUS:
EXISTING OBJECT OR CONSTRUCTION TO REMAIN:
EXISTING OBJECT OR CONSTRUCTION TO BE DEMOLISHED/REMOVED:
NEW OBJECT OR CONSTRUCTION TO BE PROVIDED:

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Electrical Engineering Design
14499 N. Dale Mabry Hwy
Suite 179
Tampa, FL, USA 33618-2042
Tel: 1.813.374.2121
FL. C.O.A. #: 27620

Construction Documents

Firm Registration C.O.A. #27620
Keith W. Hall, P.E. FL. #55024

Signature Date

THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF THESE PLANS AND SPECIFICATIONS COMPLY WITH THE NATIONAL ELECTRICAL CODE, 2008 EDITION.
THIS DRAWING AND DESIGN IS VALID FOR 12 MONTHS AFTER IT IS SIGNED AND SEALED.

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	08/04/10	VALUE ENGINEERING

Drawn By: CG
Checked By: KH

Electrical Legend & Schedules

E000

Project: 10002
Date: April 5th, 2010

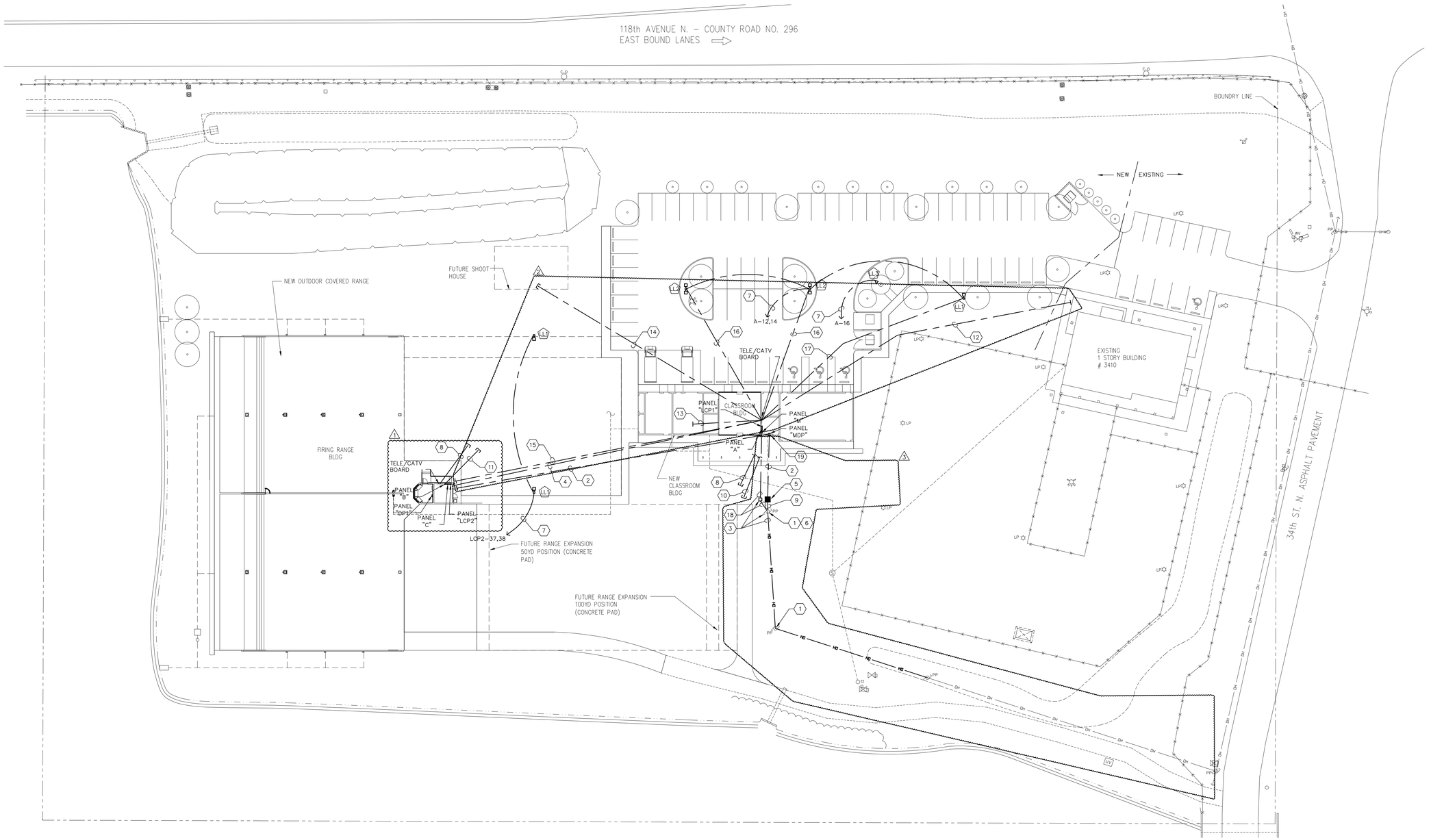
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DRAWING GENERAL NOTES

A. COORDINATE WITH CIVIL SITE UTILITY DRAWINGS FOR ADDITIONAL INFORMATION.
B. SITE CONDUITS SHALL BE MIN 36" BFG UON.
C. SEE POWER ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
D. PROGRESS ENERGY CONTACT: PATTI SHARPE (TEL): 727-593-6941.

DRAWING NOTES

1. NEW UTILITY POLE. COORDINATE LOCATION AND REQUIREMENTS WITH PROGRESS ENERGY.
2. UNDERGROUND CONDUITS AND FEEDERS. SEE POWER ONE-LINE DIAGRAM FOR DETAILS.
3. TELEPHONE/CATV CABLES ROUTED OVERHEAD ON PROGRESS ENERGY POWER POLES. RUN TELEPHONE/CATV CABLES DOWN POLE THEN UNDERGROUND TO PULLBOX PER TELEPHONE/CATV CO. REQUIREMENTS. COORDINATE ROUTING AND TERMINATION POINT WITH PROGRESS ENERGY AND TELEPHONE/CATV CO.
4. (2) 1 1/2" C. WITH PULL STRINGS. STUB UP ONE END UNDER TELEPHONE/CATV BOARD IN ELECTRICAL ROOM 117 AND THE OTHER UNDER TELEPHONE BOARD IN CONTROL TOWER.
5. PEDESTAL PROVIDED BY PROGRESS ENERGY AT OWNER'S EXPENSE.
6. PROGRESS ENERGY TO PROVIDE NEW POLE MOUNTED TRANSFORMERS. REFER TO POWER ONE-LINE DIAGRAM FOR MORE INFORMATION.
7. 2 #10 + #10 EG - 3/4" C. (ENTIRE CIRCUIT).
8. (2) 2" C. FOR FUTURE LOW VOLTAGE, STUB-UP UNDER TELEPHONE BOARD. STUB-OUT 5'-0" FROM BUILDING, CAP AND IDENTIFY.
9. UNDERGROUND CONDUIT AND CONDUCTORS. BY PROGRESS ENERGY.
10. (2) 2" C. FOR FUTURE POWER, STUB-UP UNDER PANEL 'MDP'. STUB-OUT 5'-0" FROM BUILDING, CAP AND IDENTIFY.
11. (2) 2" C. FOR FUTURE POWER, STUB-UP UNDER PANEL 'B'. STUB-OUT 5'-0" FROM BUILDING, CAP AND IDENTIFY.
12. (1) 2" C. WITH PULL STRING FROM TELEPHONE/CATV BOARD TO CANINE BUILDING IDF ROOM. COORDINATE EXACT STUB-UP LOCATION WITH LOW VOLTAGE SYSTEM SUPPLIER/INSTALLER.
13. (1) 2" C. WITH PULL STRING FROM TELEPHONE/CATV BOARD TO AMMO STORAGE ROOM 111. COORDINATE EXACT STUB-UP LOCATION WITH LOW VOLTAGE SYSTEM SUPPLIER/INSTALLER.
14. (1) 2" C. WITH PULL STRING FROM TELEPHONE/CATV BOARD TO LOCATION OF FUTURE SHOOT HOUSE. COORDINATE EXACT STUB-UP LOCATION WITH LOW VOLTAGE SYSTEM SUPPLIER/INSTALLER AND OWNER.
15. (1) 2" C. WITH PULL STRING. STUB UP ONE END UNDER TELEPHONE/CATV BOARD IN ELECTRICAL ROOM 117 AND THE OTHER UNDER TELEPHONE BOARD IN CONTROL TOWER.
16. (1) 3/4" C. FROM TELEPHONE/CATV BOARD FOR FUTURE SECURITY CAMERA TO BE MOUNTED ON LIGHT POLE. RUN CONDUIT UP POLE AND TERMINATE IN A 4" SQUARE WEATHERPROOF JUNCTION BOX MOUNTED MINIMUM 12', MAXIMUM 16' AFG. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER.
17. (1) 1" C. FROM TELEPHONE/CATV BOARD UNDERGROUND THEN TRANSITION TO (1) 3/4" C. AT POLE FOR FUTURE SECURITY CAMERA TO BE MOUNTED ON LIGHT POLE. RUN CONDUIT UP POLE AND TERMINATE INTO A 4" SQUARE WEATHERPROOF JUNCTION BOX MOUNTED MINIMUM 12', MAXIMUM 16' AFG. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER.
18. (2) 4" C. WITH PULL STRING FOR TELEPHONE SERVICE AND (2) 4" C. WITH PULL STRING FOR CATV SERVICE. STUB UP UNDER TELEPHONE/CATV BOARD IN ELECTRICAL ROOM 117.
19. METER LOCATION.



1 Electrical Site Plan
SCALE: 1/32" = 1'-0"

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Signature Date

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4
3	08/04/10	VALUE ENGINEERING

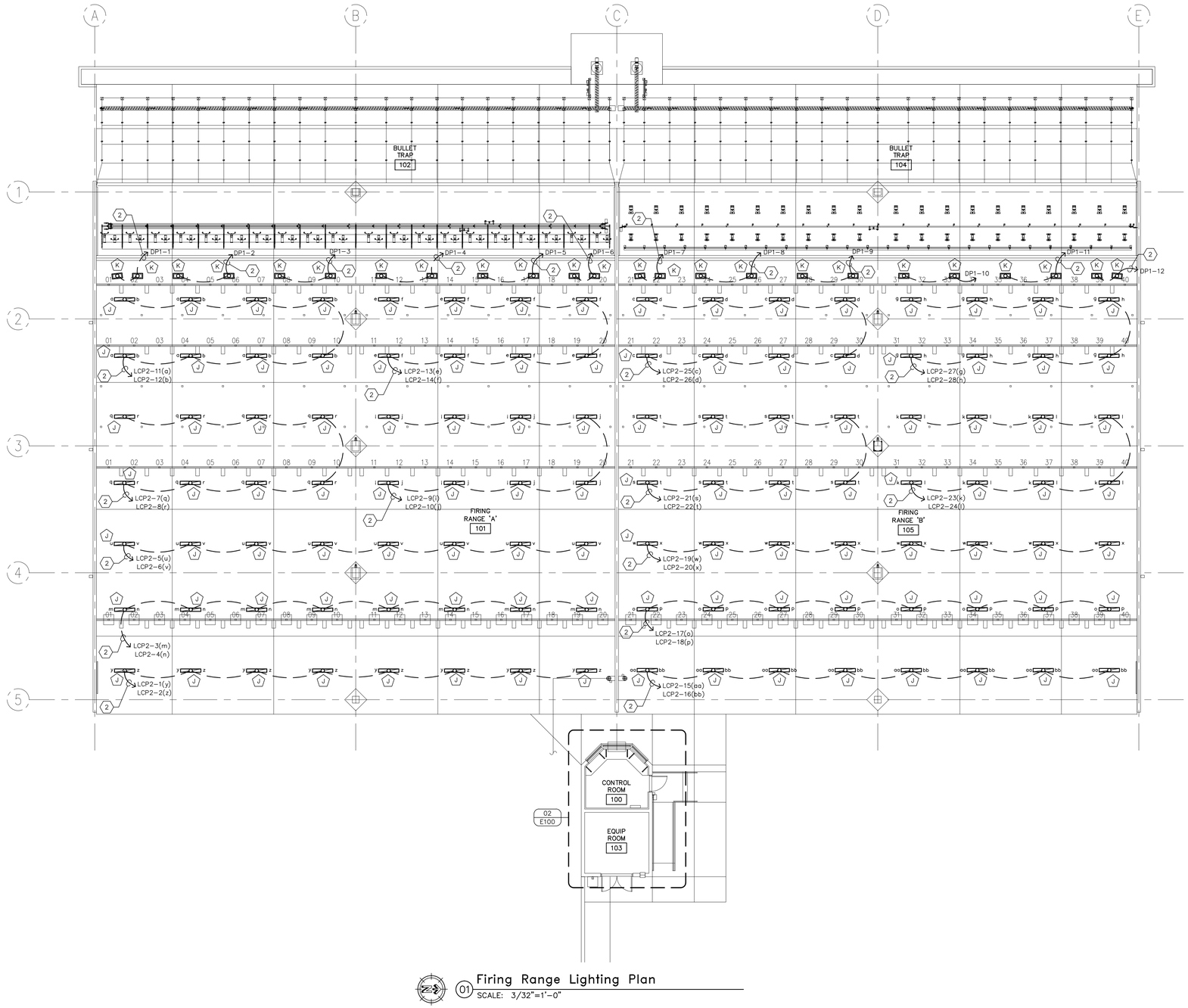
Drawn By: AE
Checked By: KH

Electrical Site Plan

E001

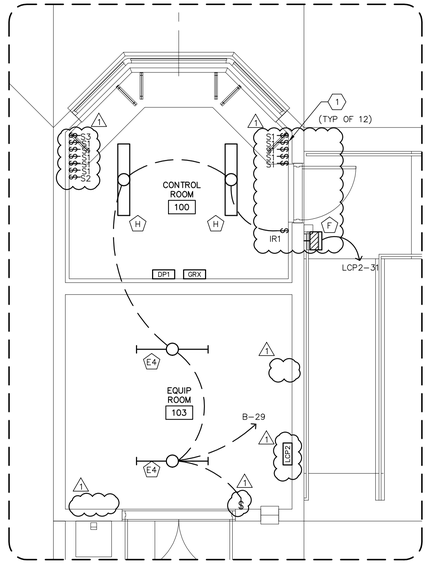
Project: 10002
Date: April 5th, 2010

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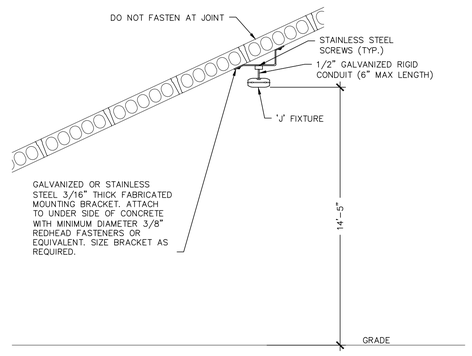


01 Firing Range Lighting Plan
SCALE: 3/32"=1'-0"

#	DRAWING NOTES
1.	LOW VOLTAGE CONTROL UNIT. REFER TO LIGHTING CONTROL ONE-LINE DIAGRAM AND SCHEDULES SHEET FOR DETAILS. COORDINATE EXACT LOCATION WITH OWNER/ARCH. PRIOR TO ROUGH-IN.
2.	LIGHT FIXTURE CONDUCTORS SHALL BE MINIMUM #10 AWG TO ACCOMMODATE FOR VOLTAGE DROP.



02 Control Room 100 & Equip Room 103 Expanded Lighting Plan
SCALE: 1/4" = 1'-0"



03 'J' FIXTURE MOUNTING DETAIL
SCALE: NOT TO SCALE

'J' FIXTURE MOUNTING DETAIL GENERAL NOTES
A. SUBMIT SHOP DRAWING DESIGN FOR REVIEW AND COMMENT PRIOR TO FABRICATION OF BRACKET.

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Construction Documents

Firm Registration C.O.A. #27620
Keith W. Hall, P.E. FL. #55024

Signature Date

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PCSO FIRING RANGE
Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2

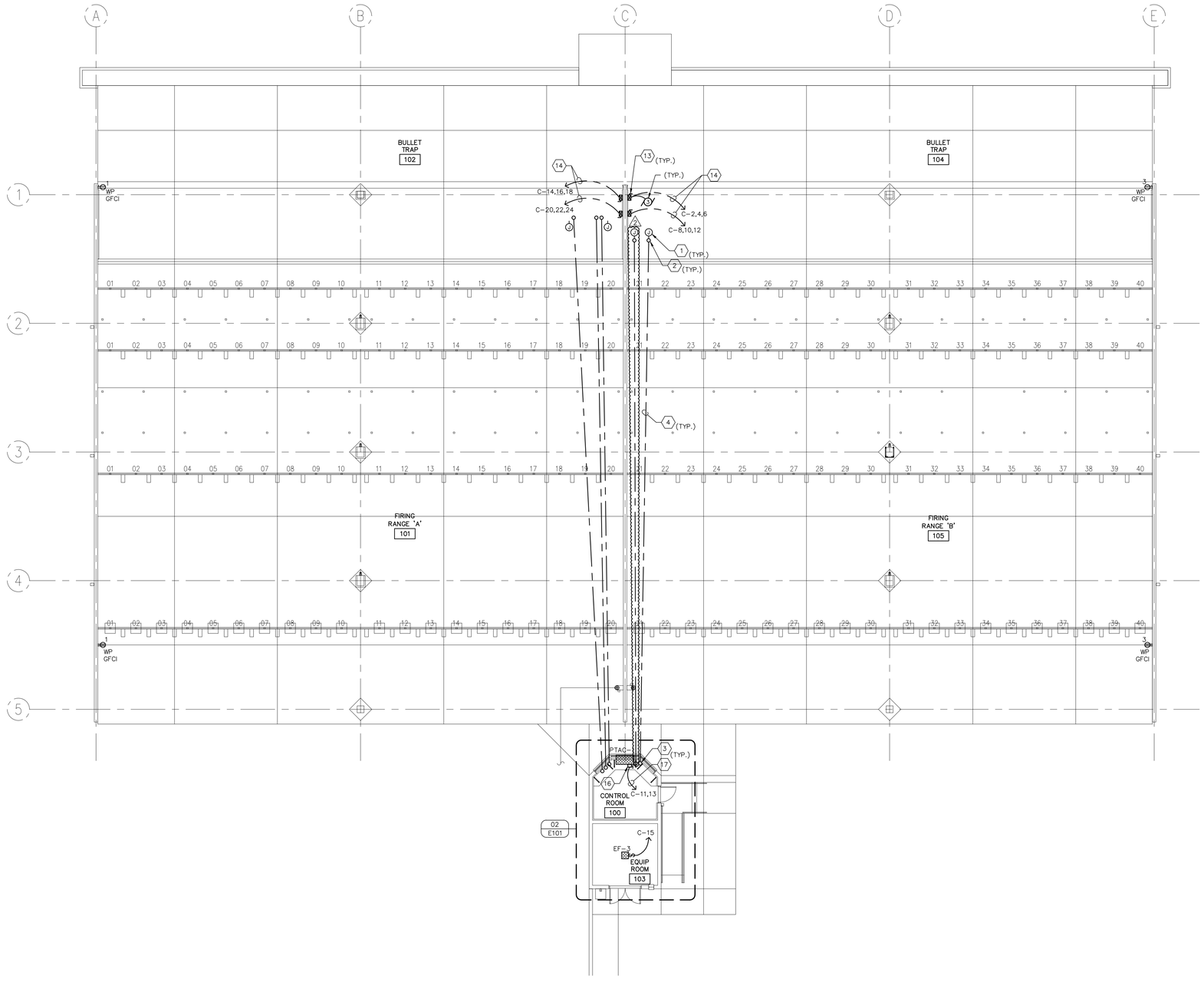
Drawn By: AE
Checked By: KH

Firing Range Lighting Plan

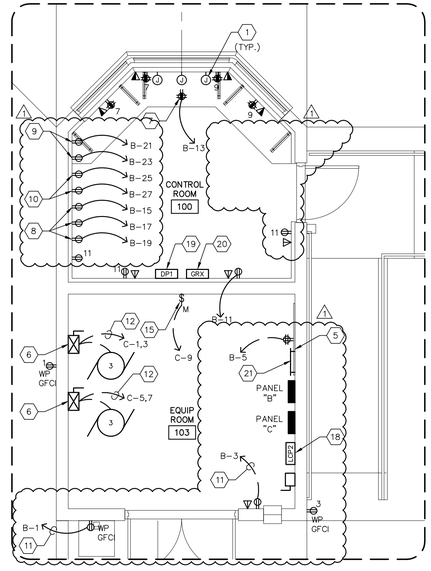
E100

Project: 10002
Date: April 5th, 2010

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01 Firing Range Power Plan
SCALE: 3/32" = 1'-0"



02 Control Room 100 & Equip Room 103 Expanded Power Plan
SCALE: 1/4" = 1'-0"

DRAWING NOTES

1. 10"x8"x4" JUNCTION BOX. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
2. CONDUIT STUB-UP. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
3. STUB UP CONDUIT INTO 10"x8"x4" JUNCTION BOX. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
4. 2" CONDUIT WITH PULL STRING. PROVIDE WIRE AS REQUIRED BY TARGET EQUIPMENT MANUFACTURER.
5. 3/4" MARINE GRADE PLYWOOD BACKBOARD. EXTEND TO 6' AFF. PAINT BOTH SIDES GRAY WITH FIRE RETARDANT PAINT (2 COATS).
6. 240 V., 2-POLE, NEMA SIZE 2 COMBINATION STARTER/DISCONNECT FOR COMPRESSOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER/INSTALLER.
7. DEDICATED RECEPTACLE FOR TARGET COMPUTER CONTROLS. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
8. DEDICATED RECEPTACLE FOR TARGET TRACK RUNNER. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
9. DEDICATED RECEPTACLE FOR TARGET CONTROLS. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
10. DEDICATED RECEPTACLE FOR TARGET ACTUATORS. COORDINATE EXACT LOCATION WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
11. 2 #10 AND 1 #10 E.G. - 3/4" C.
12. 2 #6 AND 1 #8 E.G. - 3/4" C.
13. 240 V., 3-POLE, NEMA SIZE 0, NEMA 3R COMBINATION STARTER/DISCONNECT FOR AUGER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
14. 3 #10 AND 1 #10 E.G. - 3/4" C. (ENITRE CIRCUIT).
15. 20 A., 120 V., 1-POLE, MOTOR RATED TOGGLE SWITCH FOR DRYER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH TARGET EQUIPMENT SUPPLIER/INSTALLER.
16. 30 A., 240 V., 3-POLE (USE 2-POLES), HD DISCONNECT SWITCH FOR PTAC UNIT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER/INSTALLER.
17. 2 #12 AND 1 #12 E.G. - 3/4" C.
18. LIGHTING CONTROL SWITCHING PANEL. REFER TO LIGHTING CONTROL ONE-LINE DIAGRAM AND SCHEDULES SHEET FOR DETAILS.
19. LIGHTING CONTROL DIMMING PANEL. REFER TO LIGHTING CONTROL ONE-LINE DIAGRAM AND SCHEDULES SHEET FOR DETAILS.
20. DIMMING PANEL CONTROL UNIT. REFER TO LIGHTING CONTROL ONE-LINE DIAGRAM AND SCHEDULES SHEET FOR DETAILS.
21. 18" X 3" COPPER GROUND BAR MOUNTED ON INSULATED STAND-OFFS.

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Construction Documents

Firm Registration C.O.A. #27620
Keith W. Hall, P.E. FL. #55024

Signature Date

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	06/03/10	ADDENDUM #4

Drawn By: CG
Checked By: KH

Firing Range Power Plan

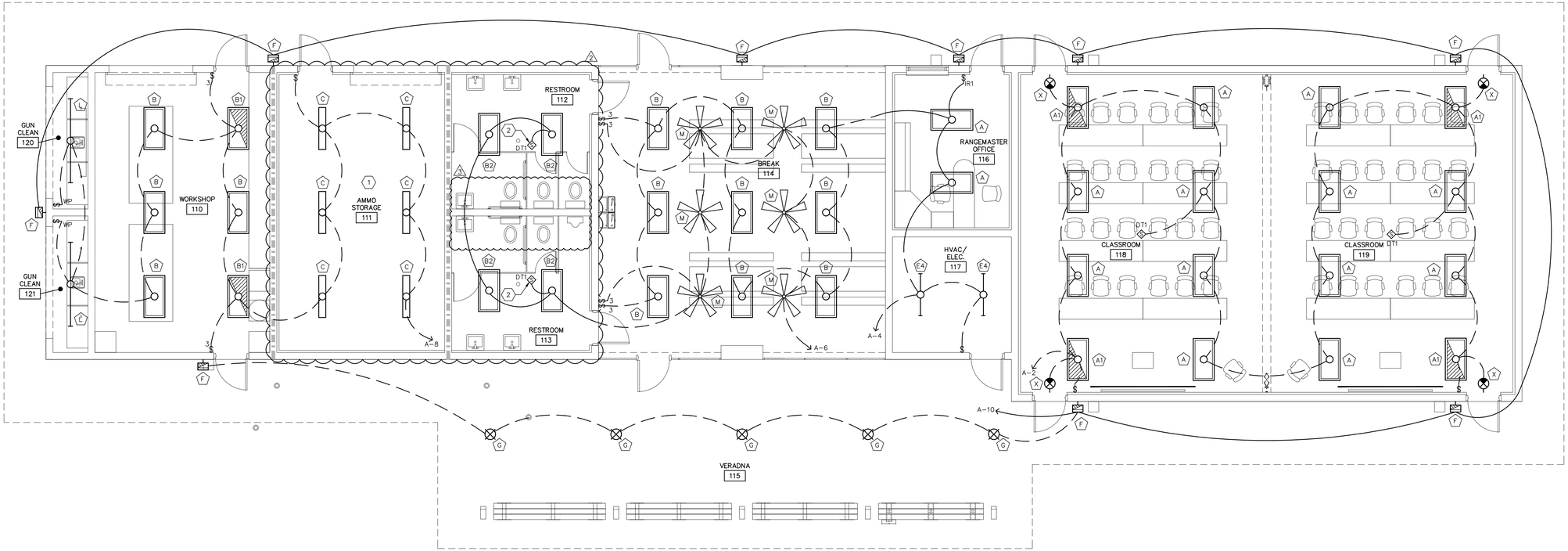
E101

Project: 10002
Date: April 5th, 2010

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DRAWING NOTES

1. ALL FIXTURES, OUTLETS, AND DEVICES IN THIS ROOM SHALL BE EXPLOSION PROOF, CLASS 1, DIV. 2 RATED.
2. PROVIDE OCCUPANCY SENSOR WITH AN ADDITIONAL RELAY FOR CONTROL OF EXHAUST FAN EF-1.



01 Classroom Building Lighting Plan
SCALE: 3/16"=1'-0"

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
2	05/17/10	ADDENDUM #3
3	08/04/10	VALUE ENGINEERING

Drawn By: AE
Checked By: KH

Classroom Building Lighting Plan

E110

Project: 10002
Date: April 5th, 2010

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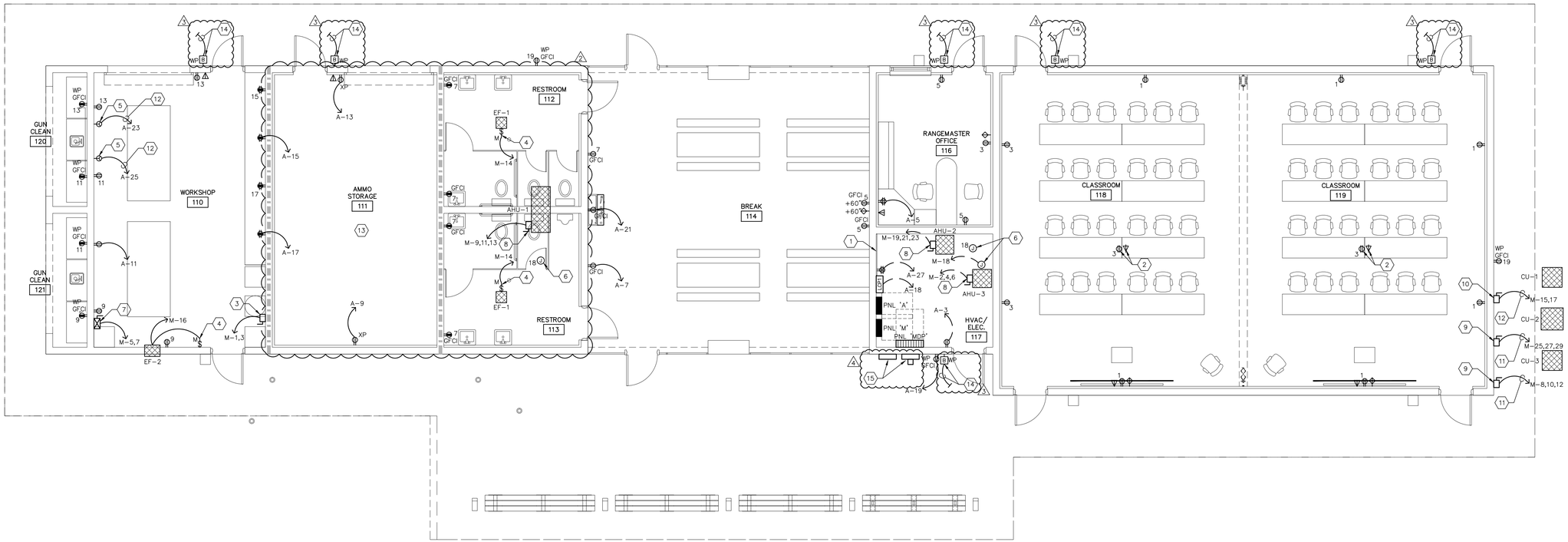
DRAWING GENERAL NOTES

A. COORDINATE EXACT LOCATION AND REQUIREMENTS OF ALL EQUIPMENT CONNECTIONS WITH EQUIPMENT SUPPLIER/INSTALLER.

B. ALL EXTERIOR DISCONNECT SWITCHES SHALL BE NEMA 3R RATED.

DRAWING NOTES

1. 3/4" MARINE GRADE PLYWOOD BACKBOARD. EXTEND TO 8' AFF. PAINT BOTH SIDES GRAY WITH FIRE RETARDANT PAINT (2 COATS).
2. POWER AND DATA OUTLETS FOR PROJECTOR. MOUNT TO TRUSS. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.
3. 30 A, 240 V, 3-POLE (USE 2-POLES) HEAVY DUTY DISCONNECT SWITCH WITH 2 #10 + #10 EG - 3/4" C AND FLEXIBLE CONNECTION TO ELECTRIC WATER HEATER.
4. 20 A, 120 V, 1-POLE, MOTOR RATED TOGGLE SWITCH FOR EXHAUST FAN.
5. 30 A, 125 V, SINGLE RECEPTACLE FOR ELECTRIC UTILITY CART CHARGER. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
6. J-BOX FOR 120 V CONNECTION TO MOTORIZED DAMPER. CONTROL BY DIVISION 23.
7. 240 V, 2-POLE, NEMA SIZE 2 COMBINATION STARTER/DISCONNECT WITH 2 #6 + #8 EG - 3/4" C AND FLEXIBLE CONNECTION TO AIR COMPRESSOR.
8. 60 A, 240 V, 3-POLE, HEAVY DUTY DISCONNECT SWITCH WITH 3 #8 + #10 EG - 1" C AND FLEXIBLE CONNECTION TO AIR HANDLER UNIT.
9. 30 A, 240 V, 3-POLE, NEMA 3R, HEAVY DUTY DISCONNECT SWITCH FOR CONDENSING UNIT.
10. 30 A, 240 V, 3-POLE (USE 2-POLES), NEMA 3R, HEAVY DUTY DISCONNECT SWITCH FOR CONDENSING UNIT.
11. 3 #12 + #12 EG - 3/4" C.
12. 2 #10 + #10 EG - 3/4" C.
13. ALL DEVICES, OUTLETS, JUNCTION BOXES, ETC. IN THIS ROOM SHALL BE EXPOSION PROOF, CLASS 1, DIV. 2 RATED.
14. SINGLE GANG FLUSH MOUNTED WEATHERPROOF OUTLET BOX FOR CARD READER BY OTHERS. PROVIDE 3/4" C. TERMINATE ABOVE CEILING; WHERE NO CEILING, TERMINATE AT THE TOP OF THE INTERIOR WALL.
15. CT CABINET AND METER SOCKET PER PROGRESS ENERGY'S SPECIFICATIONS.



01 Classroom Building Power Plan
SCALE: 3/16" = 1'-0"

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
2	05/17/10	ADDENDUM #3
3	06/03/10	ADDENDUM #4
4	08/04/10	VALUE ENGINEERING

Drawn By: CG
Checked By: KH

Classroom Building Power Plan

E111

Project: 10002
Date: April 5th, 2010

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LOAD SUMMARY

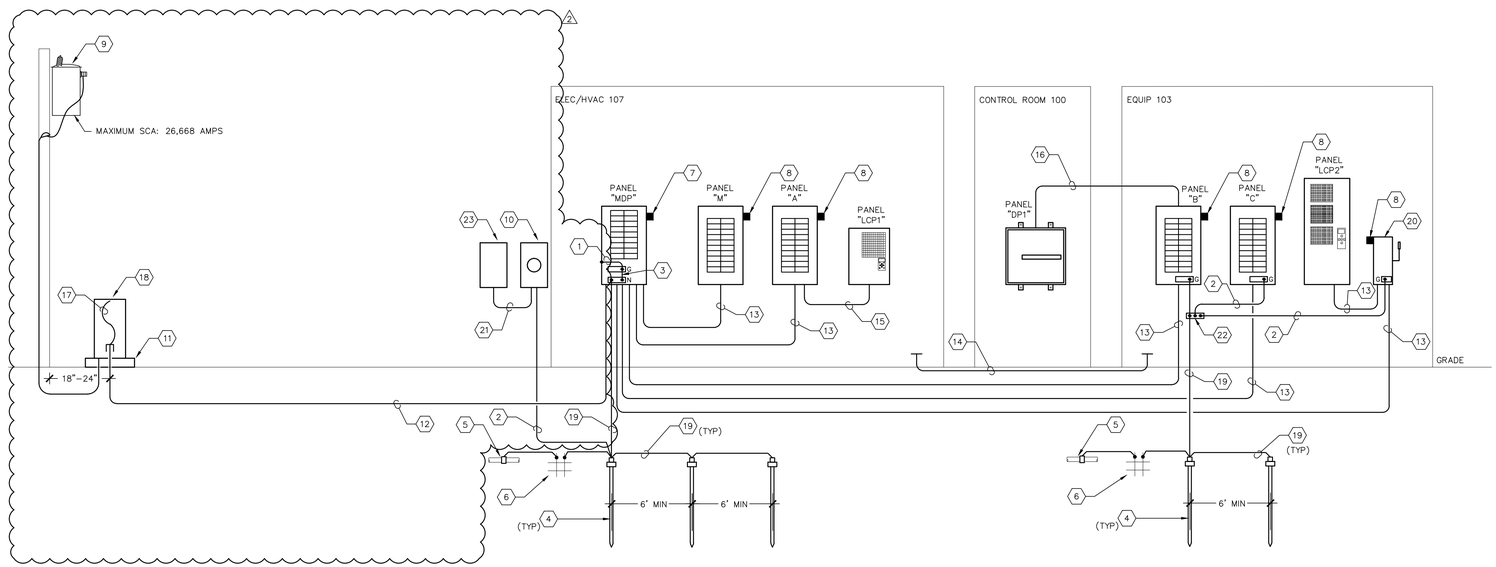
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LIGHTING (125%)	65.658
RECEPTACLE (FIRST 10 KVA @ 100%, BALANCE @ 50%)	11.390
EQUIPMENT	88.698
TOTAL	165.746

DRAWING NOTES

1. LINE SIDE EQUIPMENT BONDING JUMPER, #1/0.
2. #4 AWG GROUND.
3. NEUTRAL SHALL BE BONDED TO GROUND BUS BAR.
4. 3/4" X 10' COPPER CLAD GROUND ROD.
5. COLD WATER PIPE.
6. STRUCTURAL STEEL.
7. SURGE PROTECTION DEVICE. LEA INTERNATIONAL MODEL #SP200, 208Y/120 V OR ENGINEER APPROVED EQUIVALENT.
8. SURGE PROTECTION DEVICE. LEA INTERNATIONAL MODEL #SP100, 208Y/120 V OR ENGINEER APPROVED EQUIVALENT.
9. (2) NEW POLE MOUNTED UTILITY TRANSFORMERS WITH 208Y/120 V, 3ϕ, 4-WIRE SECONDARY.
10. METER SOCKET PER PROGRESS ENERGY'S SPECIFICATIONS.
11. CONCRETE PAD PER PROGRESS ENERGY'S SPECIFICATIONS.
12. 2 RUNS OF 4 #500 kcmil – 4"C. + 1 spare 4" C.
13. 4 #2/0 + #4 EG – 2 1/2" C.
14. PROVIDE (1) SPARE 2" C WITH PULL STRING. STUB-UP 6" AFF IN ELEC/HVAC 107 AND EQUIP 103.
15. LIGHTING BRANCH CIRCUITS (TYPICAL). REFER TO LIGHTING CONTROL PANEL "LCP1" SCHEDULE ON LIGHTING CONTROL ONE LINE DIAGRAM AND SCHEDULES SHEET FOR DETAILS.
16. 4 #3 + #8 EG – 1 1/2" C. (1)
17. REFER TO PLANS FOR PROGRESS ENERGY TERMINATIONS.
18. PEDESTAL PROVIDED BY PROGRESS ENERGY AT OWNER'S EXPENSE. (2)
19. #2/0 GROUNDING ELECTRODE CONDUCTOR.
20. 200 A., 3-POLE WITH NEUTRAL DISCONNECT SWITCH.
21. 1 1/2" C. WITH PULLSTRING FOR PROGRESS ENERGY.
22. GROUND BAR, SEE E101.
23. CT CABINET PER PROGRESS ENERGY'S SPECIFICATIONS. (2)

DRAWING GENERAL NOTES

A. GROUNDING ELECTRODE SHALL CONSIST OF BUILDING FOUNDATION REBAR AND DRIVEN GROUND RODS.
B. REBAR AND GROUND ROD CONNECTIONS SHALL BE BY THE EXOTHERMIC PROCESS.
C. OTHER NON-CURRENT CARRYING EQUIPMENT OR SYSTEMS REQUIRING AN EQUIPMENT GROUNDING CONDUCTOR SHALL INCLUDE BUT NOT BE LIMITED TO: TV & TELEPHONE SYSTEM, SECURITY SYSTEM.



01 Power One-Line Diagram
SCALE: No Scale

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PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
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REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2
2	08/04/10	VALUE ENGINEERING

Drawn By: AE
Checked By: KH

Power One-Line Diagram

E201

Project: 10002
Date: April 5th, 2010

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RANGE A LIGHTING CONTROL MATRIX

CIRCUIT	LOW	HIGH	OFF
EAST ZONE SCENES			
LCP2-1	ON	ON	OFF
LCP2-2	OFF	ON	OFF
LCP2-3	ON	ON	OFF
LCP2-4	OFF	ON	OFF
LCP2-5	ON	ON	OFF
LCP2-6	OFF	ON	OFF
SOUTH ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-7	ON	ON	OFF
LCP2-8	OFF	ON	OFF
NORTH ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-9	ON	ON	OFF
LCP2-10	OFF	ON	OFF
SOUTH WEST ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-11	ON	ON	OFF
LCP2-12	OFF	ON	OFF
NORTH WEST ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-13	ON	ON	OFF
LCP2-14	OFF	ON	OFF

RANGE B LIGHTING CONTROL MATRIX

CIRCUIT	LOW	HIGH	OFF
EAST ZONE SCENES			
LCP2-15	ON	ON	OFF
LCP2-16	OFF	ON	OFF
LCP2-17	ON	ON	OFF
LCP2-18	OFF	ON	OFF
LCP2-19	ON	ON	OFF
LCP2-20	OFF	ON	OFF
SOUTH ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-21	ON	ON	OFF
LCP2-22	OFF	ON	OFF
NORTH ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-23	ON	ON	OFF
LCP2-24	OFF	ON	OFF
SOUTH WEST ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-25	ON	ON	OFF
LCP2-26	OFF	ON	OFF
NORTH WEST ZONE SCENES			
CIRCUIT	LOW	HIGH	OFF
LCP2-27	ON	ON	OFF
LCP2-28	OFF	ON	OFF

TARGET LIGHTING CONTROL MATRIX

ZONE	CIRCUIT CONTROLLED
RANGE A	
SOUTH	DP1-1, DP1-2, DP1-3, DP1-4, DP1-5, DP1-6
NORTH	DP1-7, DP1-8, DP1-9, DP1-10, DP1-11, DP1-12
RANGE B	
ZONE	CIRCUIT CONTROLLED
SOUTH	DP1-13, DP1-14, DP1-15, DP1-16, DP1-17, DP1-18
NORTH	DP1-19, DP1-20, DP1-21, DP1-22, DP1-23, DP1-24

LIGHTING CONTROL PANEL 'LCP1' SCHEDULE

CIRCUIT #	DESCRIPTION
A-10	PHOTCELL ON/TIME CLOCK OFF
A-12	PHOTCELL ON/TIME CLOCK OFF
A-14	PHOTCELL ON/TIME CLOCK OFF
A-16	PHOTCELL ON/TIME CLOCK OFF
SPARE	-
SPARE	-
SPARE	-
SPARE	-

GENERAL NOTES:
A. BRANCH BREAKERS RATED AT 10K AIC, MAX FEED = 250 A.
B. TIME CLOCK SHALL TURN OFF ALL CIRCUITS AFTER HOURS (TIME TBD BY OWNER).

NOTES:
1. CIRCUITS SHALL BE TURNED ON VIA PHOTOCELL.
2. REFER TO LIGHTING CONTROL MATRICES THIS SHEET.

LIGHTING CONTROL PANEL "LCP2" SCHEDULE

CIRCUIT	CIRCUIT DESCRIPTION	VOLTAGE	LOAD (VA)	BRKR SIZE	PHASE
1	RANGE A LIGHTING (EAST) (1),(2)	120	1152	20A-1P	A
2	RANGE A LIGHTING (EAST) (2)	120	1152	20A-1P	B
3	RANGE A LIGHTING (EAST) (1),(2)	120	1152	20A-1P	C
4	RANGE A LIGHTING (EAST) (2)	120	1152	20A-1P	A
5	RANGE A LIGHTING (EAST) (1),(2)	120	1152	20A-1P	B
6	RANGE A LIGHTING (EAST) (2)	120	1152	20A-1P	C
7	RANGE A LIGHTING (SOUTH) (1),(2)	120	1152	20A-1P	A
8	RANGE A LIGHTING (SOUTH) (2)	120	1152	20A-1P	B
9	RANGE A LIGHTING (NORTH) (1),(2)	120	1152	20A-1P	C
10	RANGE A LIGHTING (NORTH) (2)	120	1152	20A-1P	A
11	RANGE A LIGHTING (SOUTH WEST) (1),(2)	120	1152	20A-1P	B
12	RANGE A LIGHTING (SOUTH WEST) (2)	120	1152	20A-1P	C
13	RANGE A LIGHTING (NORTH WEST) (1),(2)	120	1152	20A-1P	A
14	RANGE A LIGHTING (NORTH WEST) (2)	120	1152	20A-1P	B
15	RANGE B LIGHTING (EAST) (1),(2)	120	1152	20A-1P	C
16	RANGE B LIGHTING (EAST) (2)	120	1152	20A-1P	A
17	RANGE B LIGHTING (EAST) (1),(2)	120	1152	20A-1P	B
18	RANGE B LIGHTING (EAST) (2)	120	1152	20A-1P	C
19	RANGE B LIGHTING (EAST) (1),(2)	120	1152	20A-1P	A
20	RANGE B LIGHTING (EAST) (2)	120	1152	20A-1P	B
21	RANGE B LIGHTING (SOUTH) (1),(2)	120	1152	20A-1P	C
22	RANGE B LIGHTING (SOUTH) (2)	120	1152	20A-1P	A
23	RANGE B LIGHTING (NORTH) (1),(2)	120	1152	20A-1P	B
24	RANGE B LIGHTING (NORTH) (2)	120	1152	20A-1P	C
25	RANGE B LIGHTING (SOUTH WEST) (1),(2)	120	1152	20A-1P	A
26	RANGE B LIGHTING (SOUTH WEST) (2)	120	1152	20A-1P	B
27	RANGE B LIGHTING (NORTH WEST) (1),(2)	120	1152	20A-1P	C
28	RANGE B LIGHTING (NORTH WEST) (2)	120	1152	20A-1P	A
29	TRAINING FIELD LIGHTING (1)	208	458	20A-2P	B
30	⊥	⊥	458	⊥	C
31	CONTROL ROOM EXTERIOR BLDG. LIGHTING (1)	120	58	20A-1P	A
32	SPARE	120	0	20A-1P	B
33	SPARE	120	0	20A-1P	C
34	SPARE	120	0	20A-1P	A
35	SPARE	120	0	20A-1P	B
36	SPARE	120	0	20A-1P	C

TOTAL LOADS (VA): PHASE 'A'=11578 / PHASE 'B'=10826 / PHASE 'C'=10826
CONNECTED LOAD (VA): 33230 DEMAND LOAD (VA): 41538

GENERAL NOTES:
A. BRANCH BREAKERS RATED AT 10K AIC, MAX FEED = 250 A.
B. TIME CLOCK SHALL TURN OFF ALL CIRCUITS AFTER HOURS (TIME TBD BY OWNER).

NOTES:
1. CIRCUITS SHALL BE TURNED ON VIA PHOTOCELL.
2. REFER TO LIGHTING CONTROL MATRICES THIS SHEET.

LIGHTING CONTROL PANEL "DP1" SCHEDULE

CIRCUIT	CIRCUIT DESCRIPTION	VOLTAGE	LOAD (VA)	BRKR SIZE	PHASE
1	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	A
2	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	B
3	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	C
4	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	A
5	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	B
6	RANGE A TARGET LIGHTING (1)	120	1000	20A-1P	C
7	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	A
8	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	B
9	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	C
10	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	A
11	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	B
12	RANGE B TARGET LIGHTING (1)	120	1000	20A-1P	C

TOTAL LOADS (VA): PHASE 'A'=4000 / PHASE 'B'=4000 / PHASE 'C'=4000
CONNECTED LOAD (VA): 12000 DEMAND LOAD (VA): 15000

GENERAL NOTES:
A. BRANCH BREAKERS RATED AT 10K AIC, MAX FEED = 175 A.
B. PANEL SHALL BE PROVIDED WITH TIME CLOCK. TIME CLOCK SHALL TURN OFF ALL CIRCUITS AFTER HOURS (TIME TBD BY OWNER).

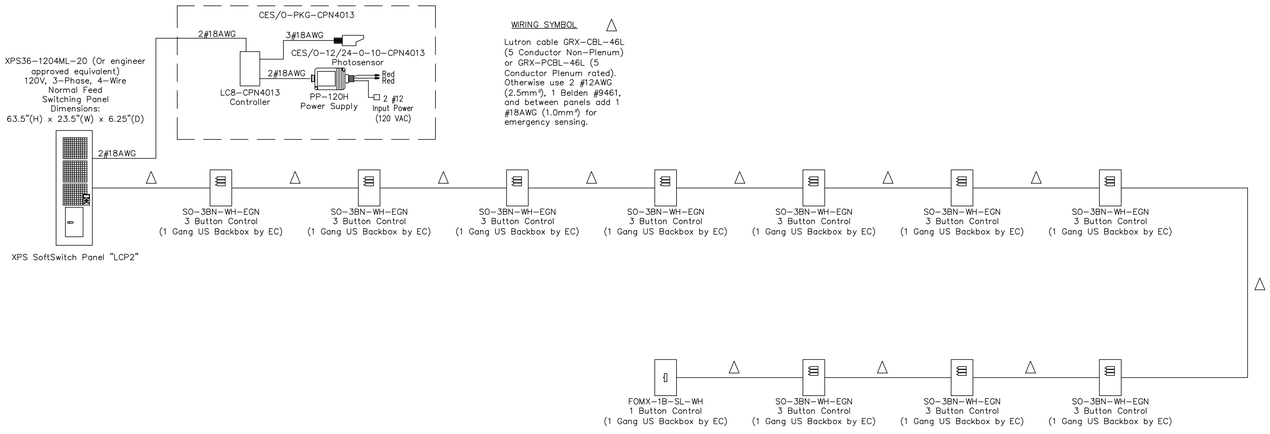
NOTES:
1. REFER TO TARGET LIGHTING CONTROL MATRIX THIS SHEET.

OCCUPANCY SENSOR SCHEDULE

TYPE	MANUFACTURER/MODEL (LUTRON)	SENSING TECHNOLOGY	MIN. COVERAGE ANGLE (DEG)	MIN. COVERAGE AREA (SF)	REMARKS
DT1	LOS-CDT-2000	DUAL TECHNOLOGY	360	2000	CEILING MOUNTED
IR1	LOS-SIR-HD	PASSIVE INFRARED	180	1000	WALL SWITCH - SINGLE RELAY

NOTES:

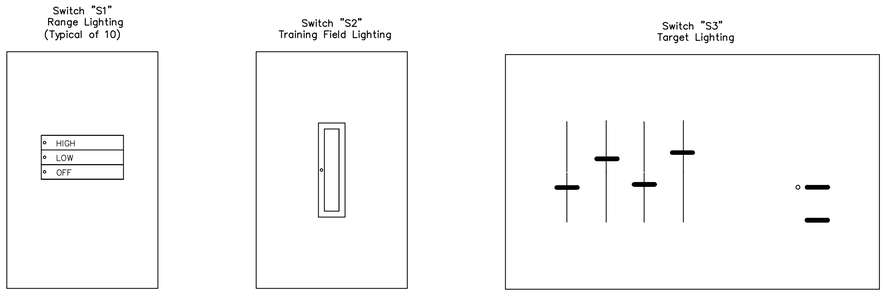
1.	OCCUPANCY SENSORS SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2.	PROVIDE 120V AC RATED CONTACTS FOR CONTROL OF LIGHTING CIRCUITS INDICATED ON PLANS.
3.	PROVIDE A SEPARATE POWER PACK FOR EACH LIGHTING CIRCUIT CONTROLLED, FOR LOW VOLTAGE CEILING AND WALL MOUNTED SENSORS AS REQUIRED BY MANUFACTURER (LINE VOLTAGE SENSORS DO NOT REQUIRE POWER PACKS). POWER PACKS SHALL CONTAIN POWER SUPPLY FOR SENSOR, AND RELAY FOR LINE VOLTAGE LIGHTING CIRCUIT. POWER PACKS SHALL BE INSTALLED IN A JUNCTION BOX LOCATED ABOVE AN ACCESSABLE CEILING, NEAR ASSOCIATED SENSOR.
4.	SENSORS SHALL BE AIMED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5.	SET OCCUPANCY SENSOR ADJUSTABLE SETTINGS TO THE SATISFACTION OF ARCHITECT/OWNER.
6.	SHOP DRAWINGS SHALL BE SUBMITTED FOR EACH OCCUPANCY SENSOR TYPE TO BE INSTALLED, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. PROVIDE DESCRIPTIVE LITERATURE FOR ALL SENSORS AND COMPONENTS (SUCH AS POWER PACKS) REQUIRED FOR A COMPLETE INSTALLATION. LITERATURE SHALL BE MARKED TO SPECIFICALLY IDENTIFY THE MODEL NUMBERS, OPTIONS, SELECTIONS, COLORS, ETC.
7.	OPTIONAL MANUFACTURERS: LEVITON, WATTSTOPPER



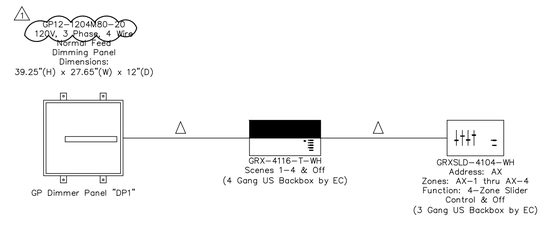
WIRING SYMBOL △

Lutron cable GRX-CBL-46L (5 Conductor Non-Plenum) or GRX-PCBL-46L (5 Conductor Plenum rated). Otherwise use 2 #12AWG (2.5mm²), 1 Belden #9461, and between panels add 1 #18AWG (1.0mm²) for emergency sensing.

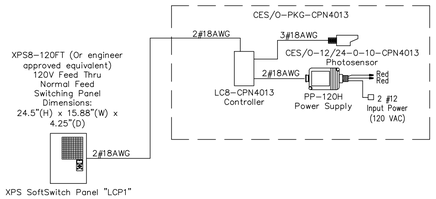
04 Firing Range & Training Field Lighting Control One-Line Diagram
SCALE: None



03 Control Unit Details
SCALE: None



02 Firing Range Target Lighting Control One-Line Diagram
SCALE: None



01 Exterior Building and Site Lighting Control One-Line Diagram
SCALE: None

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FL. C.O.A. #: 27620

Construction Documents

Firm Registration C.O.A. #27620
Keith W. Hall, P.E. FL. #55024

Signature Date

THE BEST OF THE ENGINEER'S KNOWLEDGE AND BELIEF THESE PLANS AND SPECIFICATIONS COMPLY WITH THE NATIONAL ELECTRICAL CODE, 2008 EDITION.
THIS DRAWING AND DESIGN IS VALID FOR 12 MONTHS AFTER IT IS SIGNED AND SEALED.

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2

Drawn By: AE
Checked By: KH

Lighting Control One Line Diagram And Schedules

E202

Project: 10002
Date: April 5th, 2010

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PANELBOARD 'MDP' SCHEDULE

RATED VOLTAGE: 208Y/120 VOLTS, 3ø, 4W		RATED AMPS: 800	BREAKER: BOLT-ON	MOUNTING: SURFACE / TOP AT 6'-6" AFF	
CABINET: 800 A. MLO (2)	FULL NEUTRAL BUS	GROUND BUS	HINGED DOOR	KEYED DOOR LATCH	CABINET FEED: BOTTOM
MANUFACTURER: SQUARE "D" CO. / G.E. / CUTLER-HAMMER			BREAKER SHORT CIRCUIT ISC INTERRUPTION RATING: 25,000 AMPS SYMM.		

AREA/EQUIPMENT SERVED	BREAKER POLE	BREAKER AMPS	VA/PHASE A	VA/PHASE B	VA/PHASE C	CIRC. NO.	CIRC. NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	BREAKER AMPS	BREAKER POLE	AREA/EQUIPMENT SERVED
PANEL "M"	3	175	17490			1	2	12782			175	3	PANEL "C"
⊥	⊥	⊥		15855		3	4		9959		⊥	⊥	⊥
					16654	5	6			9433			
PANEL "A"	3	175	8909			7	8	11520			175	3	PANEL "LCP2"
				5318		9	10		10826				
⊥	⊥	⊥			6797	11	12			10826	⊥	⊥	⊥
PANEL "B"	3	175	9760			13	14	–			--	–	–
				9760		15	16		–		--	–	–
⊥	⊥	⊥			8392	17	18			–	--	–	–
–	--	--	–			19	20	–			--	–	–
–	--	--		–		21	22		–		--	–	–
–	--	--			–	23	24			–	--	–	–
–	--	--	–			25	26	–			--	–	–
–	--	--		–		27	28		–		--	–	–
–	--	--			–	29	30			–	--	–	–
–	--	--	–			31	32	–			--	–	–
–	--	--		–		33	34		–		--	–	–
–	--	--			–	35	36			–	--	–	–
–	--	--	–			37	38	–			30	3	SPD
–	--	--		–		39	40		–		⊥	⊥	⊥
–	--	--			–	41	42			–			

TOTAL LOADS (VA): PHASE 'A'= 60461 / PHASE 'B'= 51718 / PHASE 'C'= 52102	CONNECTED LOAD (VA): 164339	DEMAND LOAD (VA): 165746

NOTES:
(1) HVAC SYSTEM IS STRAIGHT COOL. HEATING AND COOLING LOADS ARE NOT SIMULTANEOUS.
(2) SERVICE ENTRANCE RATED PANELBOARD.

PANELBOARD 'M' SCHEDULE

RATED VOLTAGE: 208Y/120 VOLTS, 3ø, 4W		RATED AMPS: 225	BREAKER: BOLT-ON	MOUNTING: SURFACE / TOP AT 6'-6" AFF	
CABINET: 225 A MLO	FULL NEUTRAL BUS	GROUND BUS	HINGED DOOR	KEYED DOOR LATCH	CABINET FEED: BOTTOM
MANUFACTURER: SQUARE "D" CO. / G.E. / CUTLER-HAMMER			BREAKER SHORT CIRCUIT ISC INTERRUPTION RATING: 25,000 AMPS SYMM.		

AREA/EQUIPMENT SERVED	BREAKER POLE	BREAKER AMPS	VA/PHASE A	VA/PHASE B	VA/PHASE C	CIRC. NO.	CIRC. NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	BREAKER AMPS	BREAKER POLE	AREA/EQUIPMENT SERVED
EWH-1	2	30	2250			1	2	3074			35	3	AHU-3
⊥	⊥	⊥		2250		3	4		3074		⊥	⊥	⊥
COMPRESSOR (5 HP)	2	70			3349	5	6			3074			
⊥	⊥	⊥	3349			7	8	1076			20	3	CU-3
AHU-1	3	35		3074		9	10		1076				
					3074	11	12			1076	⊥	⊥	⊥
⊥	⊥	⊥	3074			13	14	200			20	1	EF-1
CU-1	2	25		1464		15	16		450		20	1	EF-2
⊥	⊥	⊥			1464	17	18			150	20	1	MOTORIZED DAMPERS
AHU-2	3	35	3074			19	20	–			20	1	SPARE
				3074		21	22		–		20	1	SPARE
⊥	⊥	⊥			3074	23	24			–	20	1	SPARE
CU-2	3	20	1393			25	26	–			20	1	SPARE
				1393		27	28		–		20	1	SPARE
⊥	⊥	⊥			1393	29	30			–	20	1	SPARE
–	--	--	–			31	32	–			--	–	–
–	--	--		–		33	34		–		--	–	–
–	--	--			–	35	36			–	--	–	–
–	--	--	–			37	38	–			30	3	SPD
–	--	--		–		39	40		–		⊥	⊥	⊥
–	--	--			–	41	42			–			

TOTAL LOADS (VA): PHASE 'A'= 17490 / PHASE 'B'= 15855 / PHASE 'C'= 16654	CONNECTED LOAD (VA): 49999	DEMAND LOAD (VA): 39664

NOTES:
(1) HVAC SYSTEM IS STRAIGHT COOL. HEATING AND COOLING LOADS ARE NOT SIMULTANEOUS.

PANELBOARD 'A' SCHEDULE

RATED VOLTAGE: 208Y/120 VOLTS, 3ø, 4W		RATED AMPS: 225	BREAKER: BOLT-ON	MOUNTING: SURFACE / TOP AT 6'-6" AFF	
CABINET: 225 A MLO	FULL NEUTRAL BUS	GROUND BUS	HINGED DOOR	KEYED DOOR LATCH	CABINET FEED: BOTTOM
MANUFACTURER: SQUARE "D" CO. / G.E. / CUTLER-HAMMER			BREAKER SHORT CIRCUIT ISC INTERRUPTION RATING: 25,000 AMPS SYMM.		

AREA/EQUIPMENT SERVED	BREAKER POLE	BREAKER AMPS	VA/PHASE A	VA/PHASE B	VA/PHASE C	CIRC. NO.	CIRC. NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	BREAKER AMPS	BREAKER POLE	AREA/EQUIPMENT SERVED
RECEP	1	20	1080			1	2	1152			20	1	LIGHTING
RECEP	1	20		1080		3	4		936		20	1	LIGHTING
RECEP	1	20			1080	5	6			792	20	1	LIGHTING & FANS
RECEP	1	20	1080			7	8	1152			20	1	LIGHTING
RECEP	1	20		720		9	10		812		20	1	EXTERIOR BUILDING LIGHTING
RECEP	1	20			720	11	12			1145	20	2	SITE LIGHTING
RECEP	1	20	720			13	14	1145			⊥	⊥	⊥
RECEP	1	20		720		15	16		90		20	1	FLAG POLE LIGHTING
RECEP	1	20			720	17	18			300	20	1	PANEL "LCP1"
EXTERIOR RECEP	1	20	540			19	20	–			20	1	SPARE
WATER COOLER	1	20		600		21	22		–		20	1	SPARE
UTILITY CART CHARGER	1	25			2040	23	24			–	20	1	SPARE
UTILITY CART CHARGER	1	25	2040			25	26	–			20	1	SPARE
TELE/CATV BOARD	1	20		360		27	28		–		20	1	SPARE
–	--	--			–	29	30			–	20	1	SPARE
–	--	--	–			31	32	–			--	–	–
–	--	--		–		33	34		–		--	–	–
–	--	--			–	35	36			–	--	–	–
–	--	--	–			37	38	–			30	3	SPD
–	--	--		–		39	40		–		⊥	⊥	⊥
–	--	--			–	41	42			–			

TOTAL LOADS (VA): PHASE 'A'= 8909 / PHASE 'B'= 5318 / PHASE 'C'= 6797	CONNECTED LOAD (VA): 21024	DEMAND LOAD (VA): 22740

PANELBOARD 'B' SCHEDULE

RATED VOLTAGE: 208Y/120 VOLTS, 3ø, 4W		RATED AMPS: 225	BREAKER: BOLT-ON	MOUNTING: SURFACE / TOP AT 6'-6" AFF	
CABINET: 175 A MCB	FULL NEUTRAL BUS	GROUND BUS	HINGED DOOR	KEYED DOOR LATCH	CABINET FEED: BOTTOM
MANUFACTURER: SQUARE "D" CO. / G.E. / CUTLER-HAMMER			BREAKER SHORT CIRCUIT ISC INTERRUPTION RATING: 10,000 AMPS SYMM.		

AREA/EQUIPMENT SERVED	BREAKER POLE	BREAKER AMPS	VA/PHASE A	VA/PHASE B	VA/PHASE C	CIRC. NO.	CIRC. NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	BREAKER AMPS	BREAKER POLE	AREA/EQUIPMENT SERVED
RECEP	1	20	720			1	2	4000			80	3	PANEL "DP1"
RECEP	1	20		720		3	4		4000				
TELE/CATV BOARD	1	20			360	5	6			4000	⊥	⊥	⊥
RECEP	1	20	720			7	8	–			20	1	SPARE
RECEP	1	20		720		9	10		–		20	1	SPARE
RECEP	1	20			720	11	12			–	20	1	SPARE
COMPUTER CONTROLS	1	20	1440			13	14	–			20	1	SPARE
TRACK RUNNER	1	20		1440		15	16		–		20	1	SPARE
TRACK RUNNER	1	20			1440	17	18			–	20	1	SPARE
TRACK RUNNER	1	20	1440			19	20	–			--	–	–
TARGET CONTROLS	1	20		1440		21	22		–		--	–	–
TARGET CONTROLS	1	20			1440	23	24			–	--	–	–
ACTUATORS	1	20	1440			25	26	–			--	–	–
ACTUATORS	1	20		1440		27	28		–		--	–	–
LIGHTING – CONTROL/EQUIP. ROOM	1	20			432	29	30			–	--	–	–
–	--	--	–			31	32	–			--	–	–
–	--	--		–		33	34		–		--	–	–
–	--	--			–	35	36			–	--	–	–
–	--	--	–			37	38	–			30	3	SPD
–	--	--		–		39	40		–		⊥	⊥	⊥
–	--	--			–	41	42			–			

TOTAL LOADS (VA): PHASE 'A'= 9760 / PHASE 'B'= 9760 / PHASE 'C'= 8392	CONNECTED LOAD (VA): 27912	DEMAND LOAD (VA): 31020

PANELBOARD 'C' SCHEDULE

RATED VOLTAGE: 208Y/120 VOLTS, 3ø, 4W		RATED AMPS: 225	BREAKER: BOLT-ON	MOUNTING: SURFACE / TOP AT 6'-6" AFF	
CABINET: 175 A MCB	FULL NEUTRAL BUS	GROUND BUS	HINGED DOOR	KEYED DOOR LATCH	CABINET FEED: BOTTOM
MANUFACTURER: SQUARE "D" CO. / G.E. / CUTLER-HAMMER			BREAKER SHORT CIRCUIT ISC INTERRUPTION RATING: 10,000 AMPS SYMM.		

AREA/EQUIPMENT SERVED	BREAKER POLE	BREAKER AMPS	VA/PHASE A	VA/PHASE B	VA/PHASE C	CIRC. NO.	CIRC. NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	BREAKER AMPS	BREAKER POLE	AREA/EQUIPMENT SERVED
COMPRESSOR (5 HP)	2	70	3349			1	2	1321			25	3	AUGER
⊥	⊥	⊥		3349		3	4		1321		⊥	⊥	⊥
COMPRESSOR (5 HP)	2	70			3349	5	6			1321			
⊥	⊥	⊥	3349			7	8	1321			25	3	AUGER
DRYER (1/2 HP)	1	20		1176		9	10		1321				
PTAC-1	2	15			800	11	12			1321	⊥	⊥	⊥
⊥	⊥	⊥	800			13	14	1321			25	3	AUGER
EF-3	1	20		150		15	16		1321				
SPARE	1	20			–	17	18			1321	⊥	⊥	⊥
SPARE	1	20	–			19	20	1321			25	3	AUGER
SPARE	1	20		–		21	22		1321				
SPARE	1	20			–	23	24			1321	⊥	⊥	⊥
SPARE	1	20	–			25	26	–			--	–	–
–	--	--		–		27	28		–		--	–	–
–	--	--			–	29	30			–	--	–	–
–	--	--	–			31	32	–			--	–	–
–	--	--		–		33	34		–		--	–	–
–	--	--			–	35	36			–	--	–	–
–	--	--	–			37	38	–			30	3	SPD
–	--	--		–		39	40		–		⊥	⊥	⊥
–	--	--			–	41	42			–			

TOTAL LOADS (VA): PHASE 'A'= 12782 / PHASE 'B'= 9959 / PHASE 'C'= 9433	CONNECTED LOAD (VA): 32174	DEMAND LOAD (VA): 32174

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Construction Documents

Firm Registration C.O.A. #27620
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- THIS DRAWING AND DESIGN IS VALID FOR 12 MONTHS AFTER IT IS SIGNED AND SEALED.

PCSO FIRING RANGE

Outdoor Firing Range

Project Location:
11700 34th Street North
Pinellas Park, FL 33762

REVISIONS

No.	Date	Revision
1	05/10/10	ADDENDUM #2

Drawn By: AE
Checked By: KH

Panel Schedules

E203

Project: 10002
Date: April 5th, 2010

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