ATTACHMENT 1

Campground Permit Booth Design Drawings and Specifications

CAMPGROUND PERMIT BOOTH

ILLINOIS BEACH STATE PARK

38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

ROOM FINISH SCHEDULE

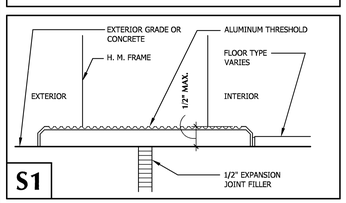
MK.	ROOM	FLOOR					BASE			WALL			CEILING			REMARKS
		SEALED STAINED CONCRETE	EXPOSED CONSTRUCTION	EXISTING			2x6 CEDAR BASEBOARD P-2		NONE	VERTICAL T & G CEDAR PANELING - P-3		EXPOSED CONSTRUCTION	PAINTED C-GWB P-1		EXPOSED CONSTRUCTION	
101	PUBLIC AREA	•					•			•			•			
102	COUNTER AREA	•					•			•			•			
103	BACK ROOM	•					•			•			•			

NOTES:
1. ALL FLOORING TO BE NON SLIP.
2. ALL FINISHES ARE TO HAVE 25 MAX FLAME SPREAD RATING & 50 MAX SMOKE DEVELOPMENT RATING.

FINISH LEGEND

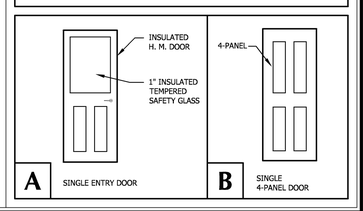
MARK	DESCRIPTION	MANUFACTURER	NOTES	COLOR
P-1	PAINTED C-GWB, CEILING, SEMI-GLOSS	SHERWIN WILLIAMS, BENJAMIN MOORE, OR VALSPAR	1 PRIMER COAT 2 COAT OF PAINT	WHITE
P-2	PAINTED BASE TRIM	SHERWIN WILLIAMS, BENJAMIN MOORE, OR VALSPAR	1 PRIMER COAT 2 COAT OF PAINT	SELECTED BY IDNR
P-3	PAINTED CEDAR VERTICAL T & G PANELING	SHERWIN WILLIAMS, BENJAMIN MOORE, OR VALSPAR	1 PRIMER COAT 2 COAT OF PAINT	SELECTED BY IDNR

SILL DETAIL



S1

DOOR TYPES



A SINGLE ENTRY DOOR

B SINGLE 4-PANEL DOOR

DOOR SCHEDULE

MK.	DOOR TYPE	DOOR SIZE	DOOR THK.	DOOR MAT'L.	FRAME JAMB	FRAME HEAD	FRAME SILL	FRAME MAT'L.	HDWR.	FIRE	REMARKS
101A	A	3'-0" x 7'-0"	1 3/4"	H.M.	2	1	S1	HM	1		NOTE 1
103A	B	3'-0" x 7'-0"	1 3/4"	H.M.	2	1	S1	HM	2		NOTE 1

NOTES:

1. DOORS AND FRAMES TO BE PAINTED. DOORS AND FRAME TO BE GALVANIZED, A60. DOOR FACES TO BE 18Ga. AND FRAMES TO BE 16 Ga. WELDED.

2. PROVIDE DETECTABLE WARNING (KNURLED HARDWARE) AT ALL DOORS TO HAZARDOUS AREAS INCLUDING BUT NOT LIMITED TO JANITOR CLOSET, MECHANICAL & ELECTRICAL ROOMS, IN ACCORDANCE WITH ANSI 4.27.3.

3. DOOR HARDWARE SHALL BE MADE TO OPEN WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER DEVICES SHALL BE AT A MIN. HEIGHT OF 34" AND A MAX. OF 48" ABOVE FINISHED FLOOR. THE OPERATING DEVICE SHALL BE CAPABLE OF OPERATION WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

4. FORCE TO OPEN EXTERIOR DOORS NOT TO EXCEED 8.5 LB/F.

5. DOORS TO BE KEYED TO SITE MASTER PLAN. CHANGEABLE CORE. (COORDINATE WITH IDNR SITE MANAGER)

HARDWARE SCHEDULE

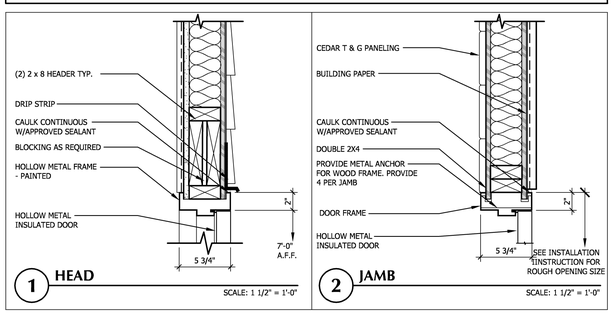
HDW SET 1	1 1/2	PAIR BUTTS
	1	LEVER LOCKSET - ENTERANCE FUNCTION
	3	SILENCERS
	1	SET WEATHERSTRIPPING
	1	CLOSER - SURFACE MOUNTED
	1	THRESHOLD
HDW SET 2	1 1/2	PAIR BUTTS
	1	LEVER LOCKSET - STORAGE FUNCTION
	3	SILENCERS
	1	SET WEATHERSTRIPPING
	1	CLOSER - SURFACE MOUNTED
	1	THRESHOLD

MANUFACTURER & FINISHES

ITEM	MFR.	MODEL	ALTERNATE MANUFACTURERS
HINGES	HAGAR	BB1199, 4.5"x4.5"	STANLEY, BALDWIN
LOCKSET	SCHLAGE	D-SERIES W/ LEVER - VERIFY MATCHES EXISTING KEY SYSTEM.	BEST, CORBIN
CLOSER	LCN	4040 SERIES SURFACE MOUNTED	YALE, CORBIN
THRESHOLD	ZERO	544A, ALUMINUM	REESE, PEMCO
BUMPER	ROCKWOOD	404, SATIN	HAGER, McKINNEY

FINISH: ALL HARDWARE TO HAVE 626 FINISH.

DOOR DETAILS



BUILDING STATISTICS

CODES:
2009 INTERNATIONAL BUILDING CODE
2008 ILLINOIS PLUMBING CODE
2009 INTERNATIONAL MECHANICAL CODE
2011 NATIONAL ELECTRICAL CODE
2009 INTERNATIONAL FIRE PREVENTION CODE
1997 ILLINOIS ACCESSIBILITY CODE

BUILDING USE GROUP : B, BUSINESS

CONSTRUCTION TYPE : 5B

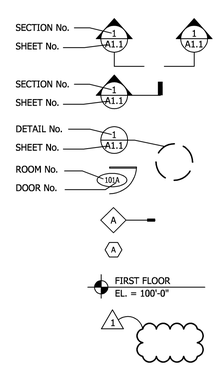
FIRE SPRINKLER: NO

BUILDING AREA: 432 S.F.

ROOF LOAD: 30 psf LL (SNOW)
10 psf LL (MIN.) STORAGE
20 psf LL
10 psf DL

WIND LOAD: 90 mph / EXPOSURE D

SYMBOLS



SITE ACCESSIBILITY NOTE

ENTRANCES ARE ACCESSIBLE. APPROACH TO BUILDING IS TO BE ACCESSIBLE PER ILLINOIS ACCESSIBILITY CODE. PROVIDE AN ACCESSIBLE APPROACH FROM THE HANDICAP PARKING STALL AS SHOWN ON PLANS.

DRAWING INDEX

T1.1 TITLE SHEET, BUILDING STATISTICS, SYMBOLS, DRAWING INDEX AND STATEMENT OF COMPLIANCE
DOOR AND ROOM FINISH SCHEDULE & DETAILS

ARCHITECTURAL
C1.1 ARCHETECTURAL SITE PLAN W/ TOILET ENCLOSURE PLAN & DETAILS
A1.1 EXTERIOR ELEVATIONS
A2.1 FLOOR PLAN, AND EXTERIOR ELEVATIONS

A6.1 WALL SECTIONS
A9.1 SPECIFICATIONS
A9.2 SPECIFICATIONS

STRUCTURAL
S1.1 FOUNDATION PLAN & DETAILS

MECHANICAL
M3.1 FOUNDATION PLAN & DETAILS

ELECTRICAL
E2.1 FOUNDATION PLAN & DETAILS

COMPLIANCE STATEMENT

I HAVE PREPARED, OR CAUSED TO BE PREPARED UNDER MY DIRECT SUPERVISION, THE ATTACHED PLANS AND SPECIFICATIONS AND STATE THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF AND TO THE EXTENT OF MY CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH THE ENVIRONMENTAL BARRIERS ACT [410 ILCS 25] AND THE ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400), EFFECTIVE APRIL 24, 1997.

SIGNED: _____
ARCHITECT/ENGINEER

ILLINOIS REGISTRATION NO.: _____

DATE: _____

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature 1-25-2013 Date
Expires 11/30/14

ILLINOIS PROFESSIONAL DESIGN FIRM REGISTRATION NO. 184-002823

CAMPGROUND PERMIT BOOTH
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

REVIEW	
FINAL REVIEW	10/30/2012
ISSUED FOR PERMIT/BID	11/7/2012
REVISED	12/3/2012
	12/6/2012

DDCA architects
3321 South State Route 31
Prairie Grove, Illinois 60012
P. 815.464.8444
Direct Design Ltd.
Carroll Associates
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

TITLE SHEET

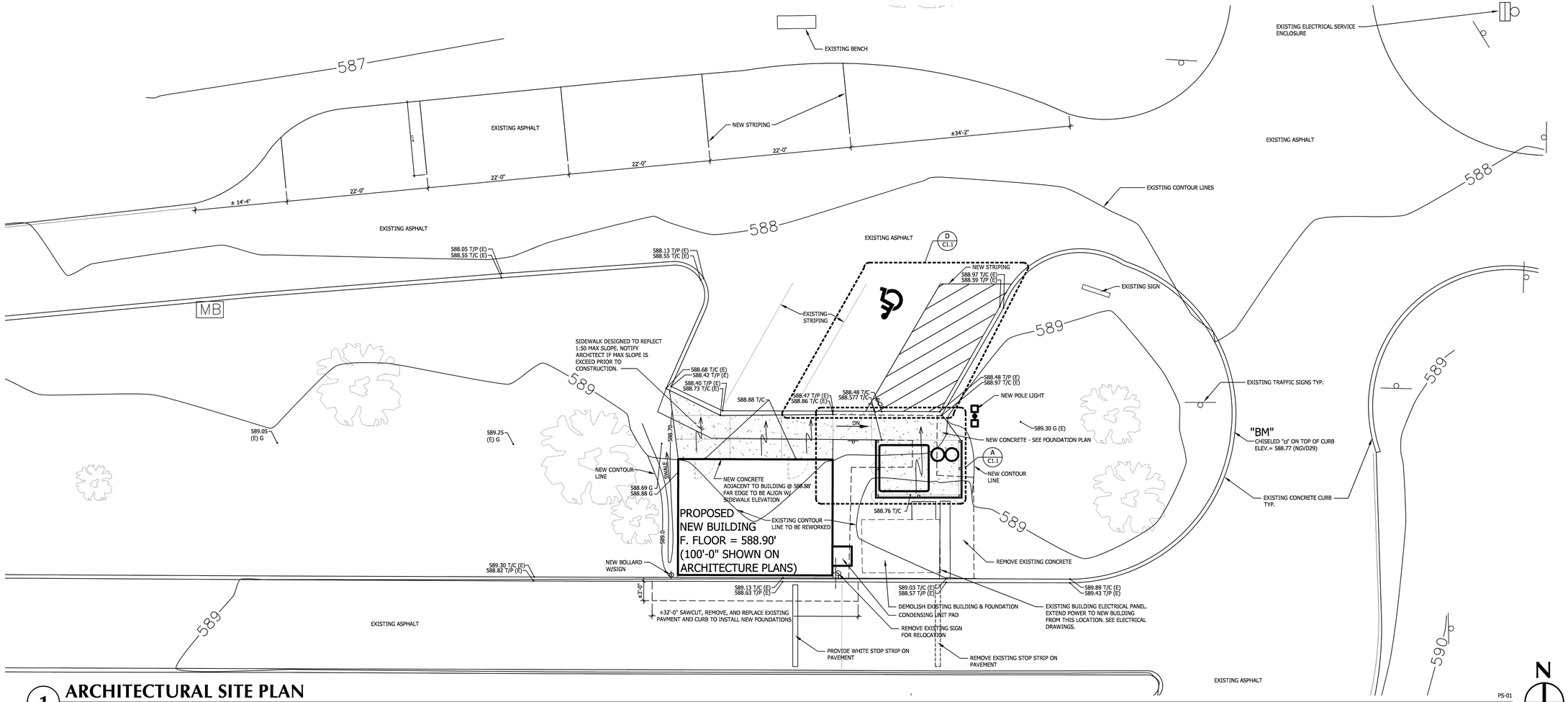
T1.1

© COPYRIGHT 2012

CAMPGROUND PERMIT BOOTH

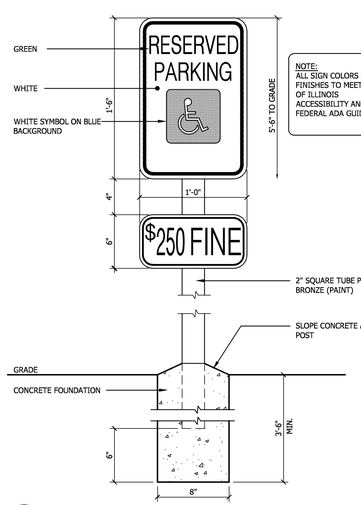
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

PRELIMINARY	9/27/2012
FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
REVISED	12/6/2012



1 ARCHITECTURAL SITE PLAN

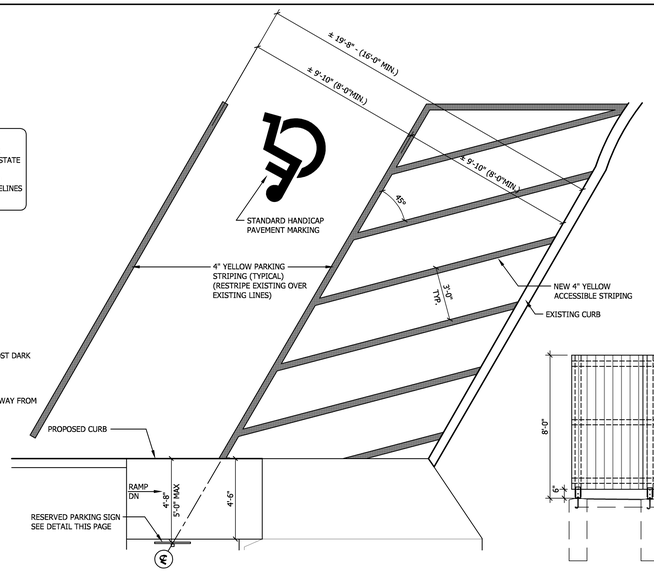
PS-01
SCALE: 1/8" = 1'-0"



NOTE:
ALL SIGN COLORS & FINISHES TO MEET STATE OF ILLINOIS ACCESSIBILITY AND FEDERAL ADA GUIDELINES

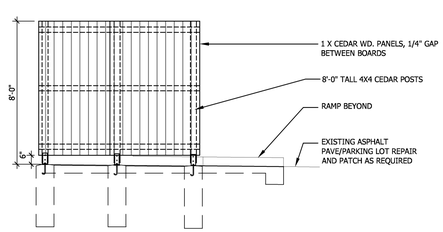
E HANDICAP SIGN

DE-01
SCALE: 1 1/2" = 1'-0"



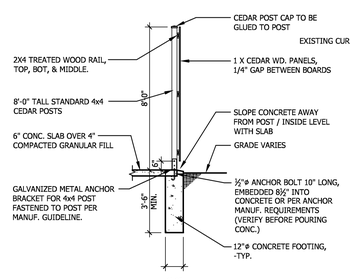
D TYPICAL HANDICAP STALL DETAIL

PF-01
SCALE: 1/4" = 1'-0"



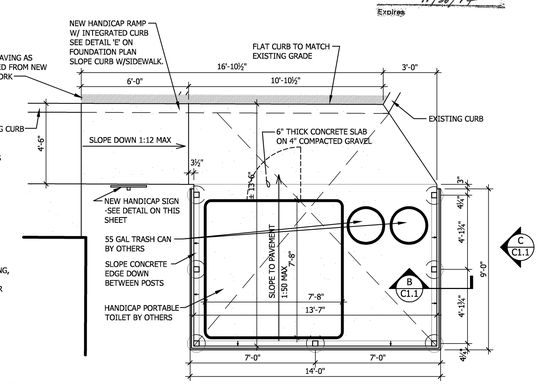
C PORTABLE TOILET ENCLOSURE ELEVATION

DE-08
SCALE: 1/4" = 1'-0"



B FENCE SECTION

DE-08
SCALE: 1/4" = 1'-0"



A PORTABLE TOILET ENCLOSURE PLAN

DE-08
SCALE: 1/4" = 1'-0"

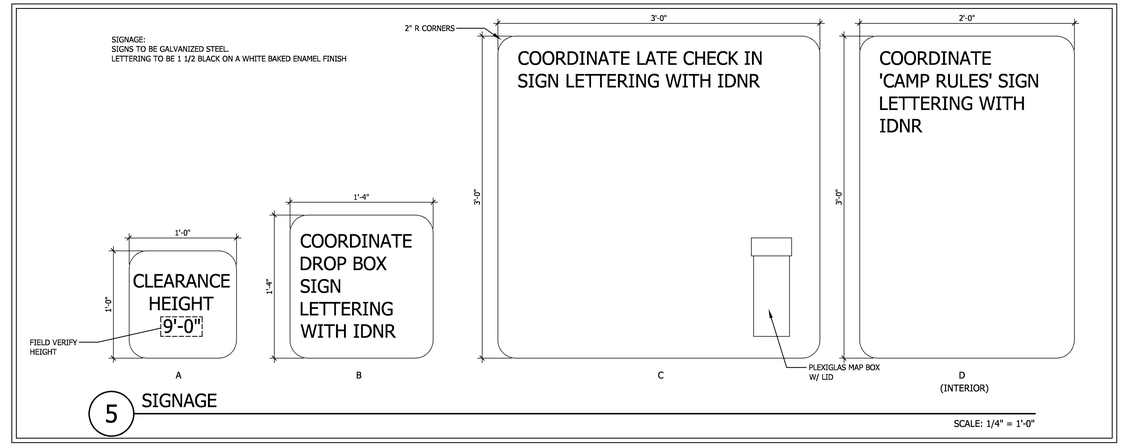
STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT
Signature 1-25-2013 Date
Expires 11/30/14

DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60012
P: 815.444.8444
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	
ARCHITECTURAL SITE PLAN	

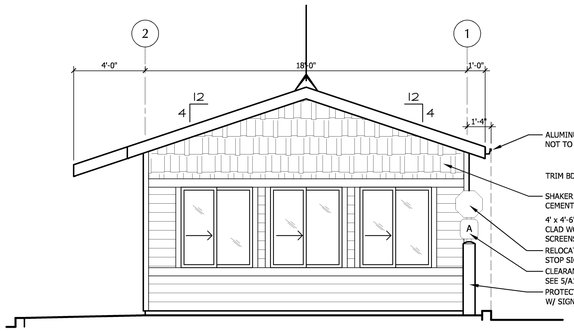
C1.1

© COPYRIGHT 2012



5 SIGNAGE

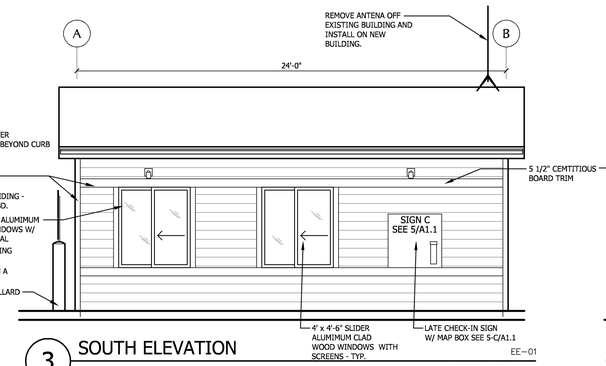
SCALE: 1/4" = 1'-0"



4 WEST ELEVATION

EE-01

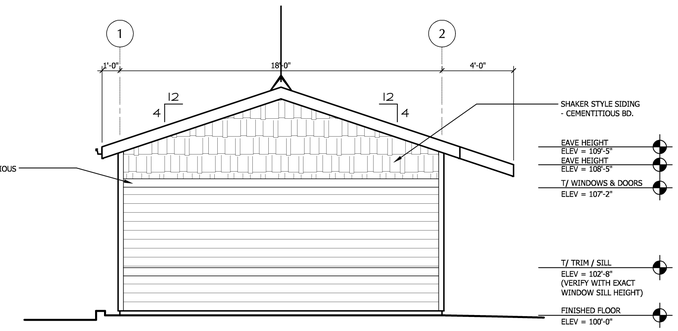
SCALE: 1/4" = 1'-0"



3 SOUTH ELEVATION

EE-01

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



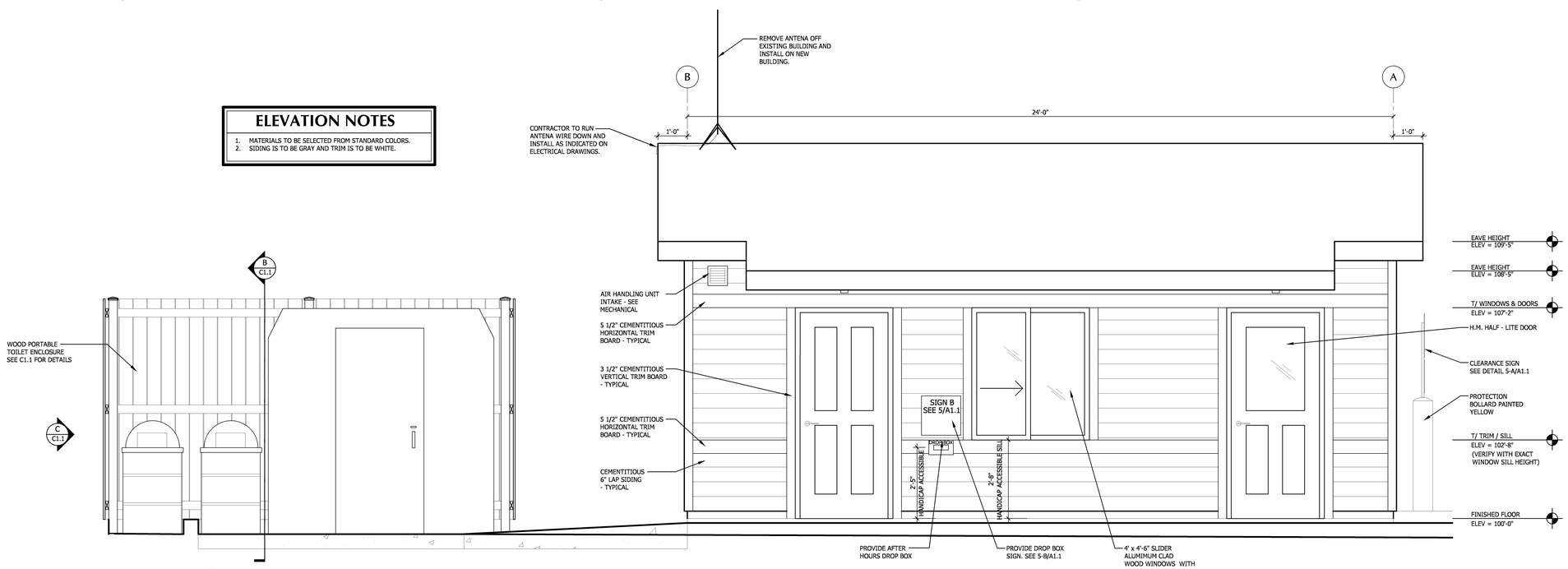
2 EAST ELEVATION

EE-01

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

ELEVATION NOTES

1. MATERIALS TO BE SELECTED FROM STANDARD COLORS.
2. SIDING IS TO BE GRAY AND TRIM IS TO BE WHITE.



1 NORTH ELEVATION

EE-01

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

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature 1-25-2013 Date

Expires 11/30/14

CAMPGROUND PERMIT BOOTH

DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

PRELIMINARY	9/27/2012
FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
NO CHANGES	12/6/2012

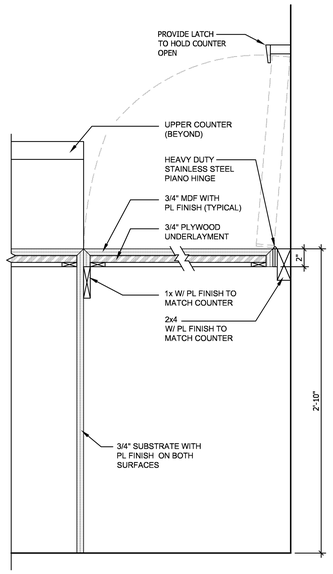
DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60012
P 815.444.8442
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	

EXTERIOR ELEVATIONS

A1.1

© COPYRIGHT 2012

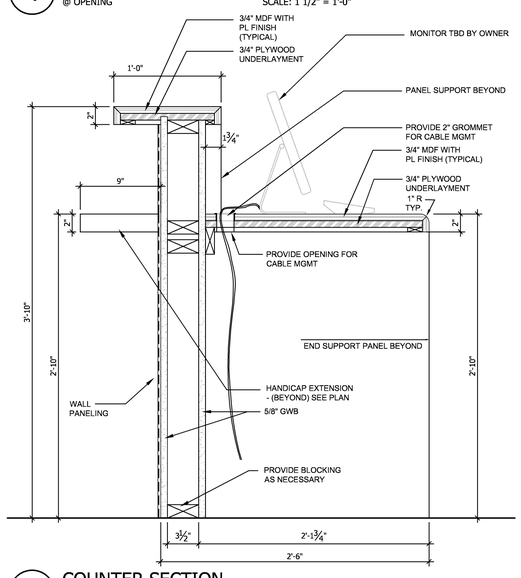


4 COUNTER SECTION

SW-01

@ OPENING

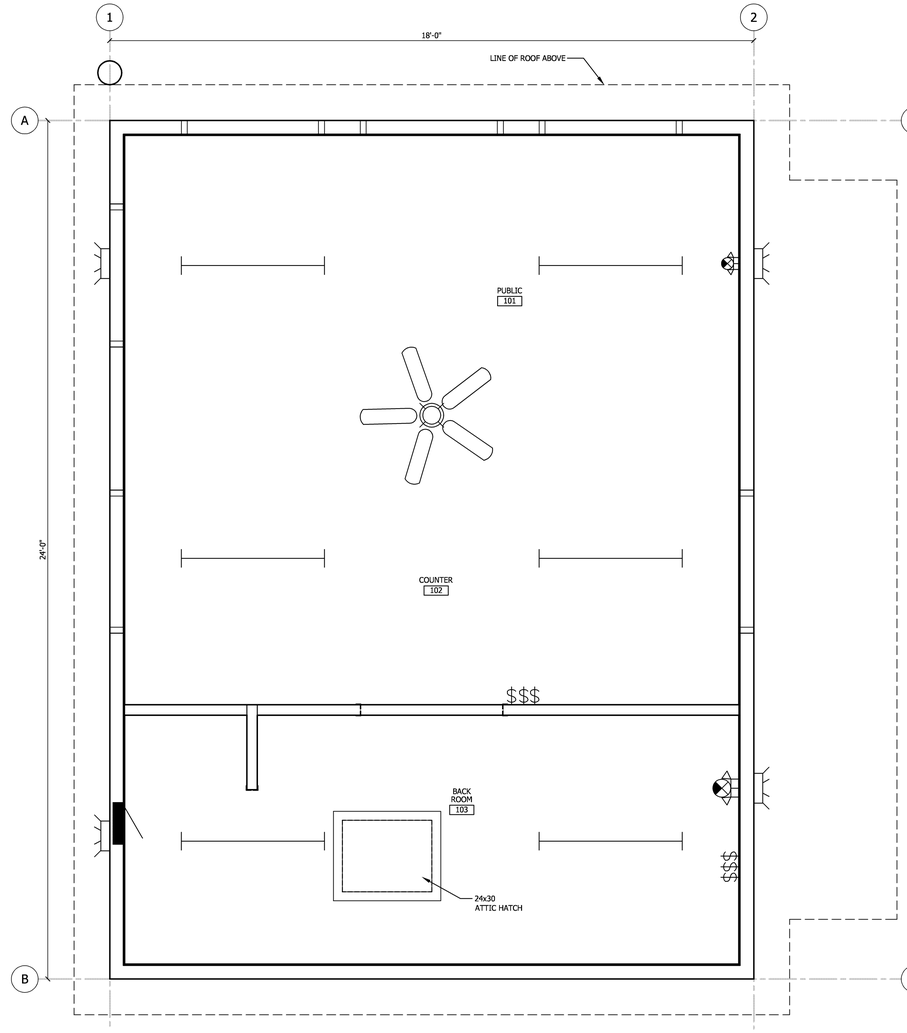
SCALE: 1 1/2" = 1'-0"



3 COUNTER SECTION

SW-01

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



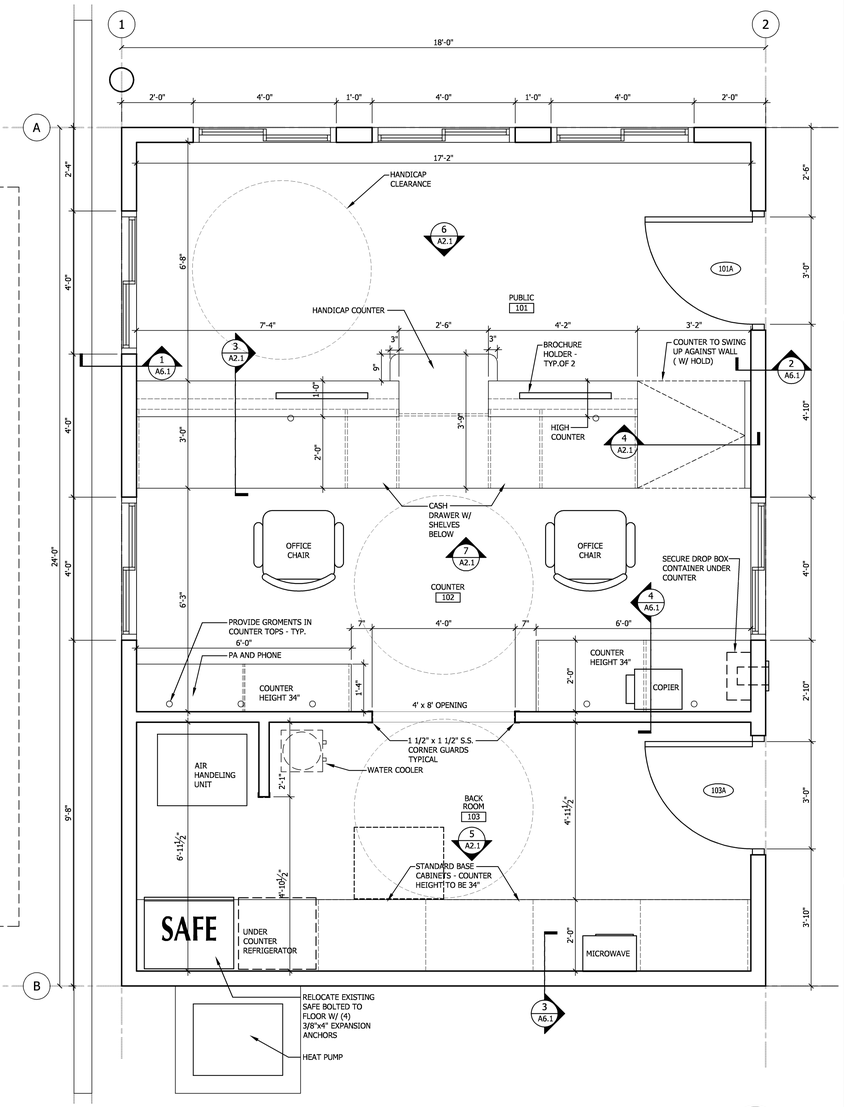
2 REFLECTED CEILING PLAN

PF-01

DESCRIPTION

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

N



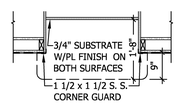
1 FLOOR PLAN

PF-01

DESCRIPTION

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

N



8 COUNTER PLAN DETAIL

SW-01

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

PLAN NOTES

1. COUNTER TOPS ARE TO BE 34" FOR HANDICAP ACCESSIBILITY.

EQUIPMENT SCHEDULE

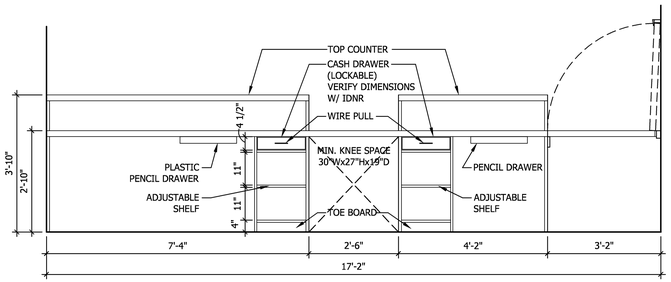
THE FOLLOWING ITEMS ARE TO BE PURCHASED AND INSTALLED AS PART OF THE CONTRACT. ANY PARTS OR MANUALS SHALL BE TURNED OVER TO IDNR.

ITEM	QUANTITY	DESCRIPTION
BROCHURE HOLDER	2	WOOD/CLEAR POLYCARBONATE BROCHURE HOLDER W/ (2) 8 1/2 x 11 HOLDERS & (4) 4 x 9 HOLDERS.

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature 1-25-2013 Date

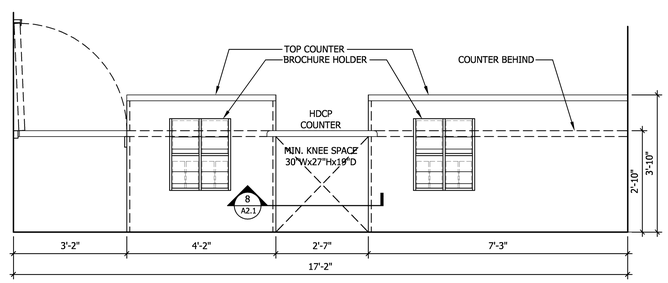
Expires 11/30/14



7 BACK COUNTER ELEVATIONS

SW-01

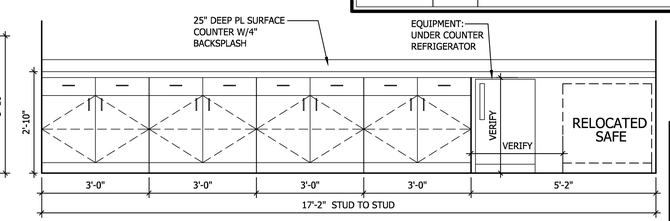
SCALE: 1/2" = 1'-0"



6 SERVICE COUNTER ELEVATIONS

SW-01

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



5 BACK COUNTER ELEVATIONS

SW-01

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

LEGEND

NEW PARTITION WALL

WINDOW ASSEMBLY REFER TO A8.1

NEW DOOR

CAMPGROUND PERMIT BOOTH

DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

PRELIMINARY	9/27/2012
FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
NO CHANGES	12/6/2012

DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Pleasant Grove, Illinois 60255
P 815.444.9442
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

FLOOR PLAN & REFLECTED CEILING PLAN

A2.1

© COPYRIGHT 2012

WALL SECTION LEGEND

ICE AND WATER SHIELD
PROVIDE FROM EAVE TO 24 INCHES INSIDE EXTERIOR STUD WALL

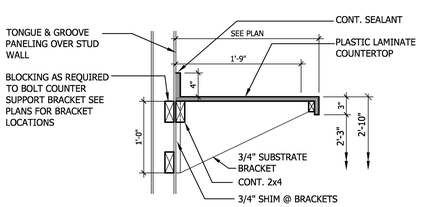
CEILING CONSTRUCTION:
INSTALL 48" LONG BAFFLES BETWEEN TRUSSES TO MAINTAIN 1" MINIMUM AIRSPACE BELOW ROOF SHEATHING; R-38 INSULATION CONSISTING OF ±12" COMBINED BLOWN-IN AND BATT OVER 6MIL VAPOR BARRIER AND 5/8" DRYWALL

EAVE CONSTRUCTION:
ALUMINUM GUTTER & DOWNSPOUTS, 1x8 CEDAR FASCIA ON 2X8 FASCIA SUB-BOARD, PAINTED CEMENTITIOUS SOFFIT - VENTED, VENTS EQUALLY SPACED ALONG SOFFIT PERIMETER TO SATISFY VENT REQUIREMENTS

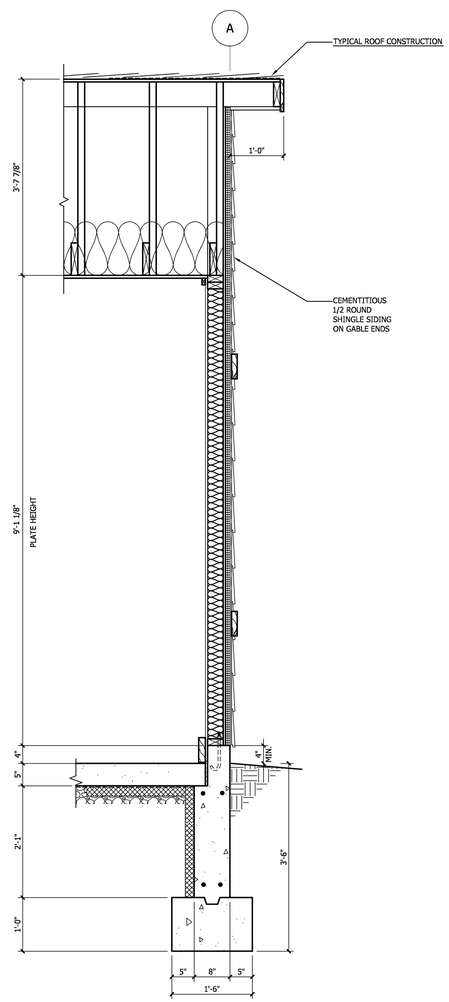
FOUNDATION WALL CONSTRUCTION: CONCRETE FOUNDATION WALL W/ (2) #5 BARS TOP & BOTTOM AT CORNERS: #5 BENT BARS @ 18" O.C. VERT. (MIN 24" LEGS)
DAMPROOFING; CONCRETE FOOTING W/ 2x4 KEY

INTERIOR WALL CONSTRUCTION:
2X4 WOOD STUD (U.N.O.) @ 16" O.C.

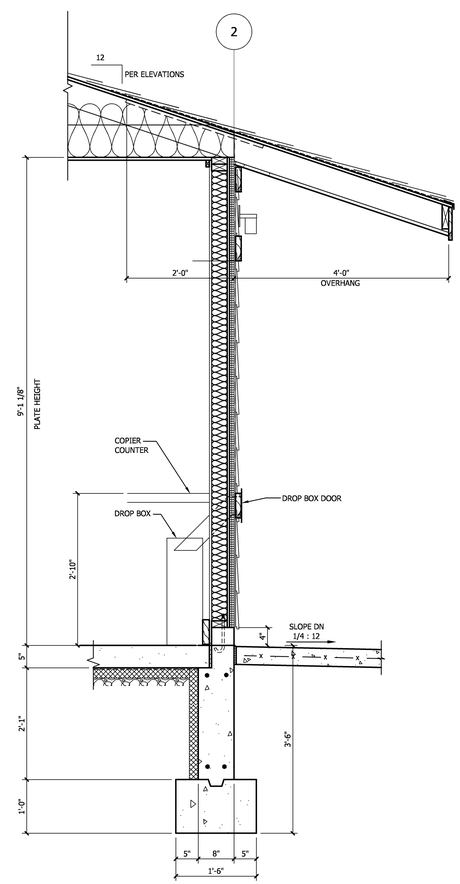
SILL CONSTRUCTION:
2x6 SILL PLATE - PRESSURE PRESERVATIVE TREATED (WOLMANIZED) SILL SEALER INSULATION; FASTENED W/1/2"Ø X10" ANCHOR BOLTS @ 6'-0" O.C TO EXTEND A MINIMUM OF 7" INTO CONCRETE, (2) BOLTS MINIMUM PER PLATE MAXIMUM OF 1'-0" FROM CORNERS FASTEN W/ NUTS & WASHERS. PROVIDE SEALANT ON BOTH SIDES OF SILL PLATE



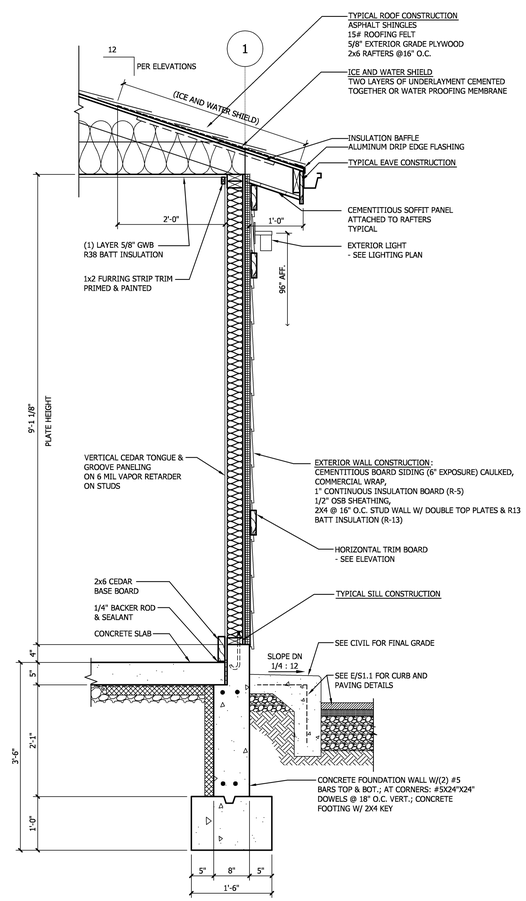
4 COUNTER SECTION PF-01
SCALE: 1" = 1'-0"



3 GABLE WALL SECTION PF-01
SCALE: 3/4" = 1'-0"



2 OVERHANG WALL SECTION PF-01
SCALE: 3/4" = 1'-0"



1 TYPICAL WALL SECTION PF-01
SCALE: 3/4" = 1'-0"

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT
Signature 1-25-2013 Date
Expires 11/30/14

CAMPGROUND PERMIT BOOTH
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
NO CHANGES	12/6/2012

DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60012
P 815-444-8444
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	
SECTIONS	

A6.1

© COPYRIGHT 2012

DIVISION 1: GENERAL DATA

1. GENERAL REQUIREMENTS

A. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES AND ORDINANCES AND ALL AUTHORITIES HAVING JURISDICTION.

B. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH WORK AND NOTIFY THE ARCHITECT AT ONCE OF ANY DISCREPANCIES PRIOR O COMMENCING WORK.

C. DO NOT SCALE DRAWINGS FOR DIMENSIONS - NOTIFY ARCHITECT IF QUESTIONS ARISE.

D. HVAC DRAWINGS, ELECTRICAL OUTLETS, SWITCHES AND LIGHT LOCATIONS, ROUTING OF ALL MECHANICAL AND ELECTRICAL WORK RESPONSIBILITY IS TO BE COORDINATED BY THE GENERAL CONTRACTOR. NO MECHANICAL, OR ELECTRICAL INFORMATION IS TO BE SCALED FROM THE DRAWINGS.

E. ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

F. ALL SUBMITTALS SHALL BE REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION TO THE ARCHITECT. SUBMIT PRODUCT LITERATURE & SAMPLES AS INDICATED IN APPROPRIATE SECTIONS. SUBMIT SHOP DRAWINGS (3 PRINTS) TO THE ARCHITECT FOR REVIEW OF THE FOLLOWING ITEMS:

*DOORS
*DOOR HARDWARE

11. MATERIALS AND WORKMANSHIP

A. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL WORKMANLIKE MANNER AND IN ACCORDANCE WITH EACH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

B. EACH CONTRACTOR SHALL INCLUDE LABOR, MATERIALS, TOOLS, EQUIPMENT, ETC. FOR THE COMPLETE CONSTRUCTION OF WORK INDICATED IN THE DRAWINGS AND SPECIFICATIONS.

C. MATERIAL AS SPECIFIED ON DRAWINGS SHALL BE USED. SUBSTITUTIONS OF MATERIALS WILL NOT BE ALLOWED WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER AND COPIED TO THE ARCHITECT.

D. EACH SUB-CONTRACTOR SHALL AMEND AND MAKE GOOD AT HIS OWN COST, ANY DEFECTS OR OTHER FAULTS IN HIS WORKMANSHIP AND/OR MATERIAL.

E. EACH CONTRACTOR IS TO CLEAN DEBRIS INSIDE AND OUTSIDE OF THE BUILDING SITE WHICH HAS BEEN CAUSED BY HIS WORK ON A WEEKLY BASIS, MINIMUM.

F. ALL MATERIAL SHALL BE 100% FREE OF ASBESTOS.

111. SAFETY AND HYGIENE

A. CONTRACTOR SHALL, AT ALL TIMES, KEEP THE JOB SITE SECURED AND SAFE FOR CARRYING OUT CONSTRUCTION RELATED WORKS.

B. CONTRACTOR SHALL SECURE THE SITE BY INSTALLING A 6'-0" HIGH CONTUNUOUS CHAIN LINK FENCE ANCHORED SUFFICIENTLY TO THE GROUND TO RESIST WIND LOADS OF 30 POUNDS PER SQUARE FOOT. WITHOUT DEFLECTION OF MORE THAN 3" BETWEEN TOP AND BOTTOM FENCE. THE FENCE SHALL NOT CONTAIN ANY ADVERTISMENT. ACCESS OPENINGS IN SUCH FENCING SHALL BE PROTECTED BY GATES.

C. CONTRACTOR SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISTICTION INCLUDING HIGHWAY AUTHORITY OF ANY REQUIREMENT REGARGING BOTH ACCESS LOCATION TO SITE AND DURATION OF CONSTRUCTION ACTIVITY ALLOWED FOR ANY LENGTH OF TIME.

D. ANY ACTIVITY NOT RELATED TO CONSTRUCTION CONTRACT SHALL NOT TAKE PLACE WITHIN THE DEFINED JOB-SITE PERIMETER.

E. ALL CONTRACTORS SHALL COMPLY WITH OSHA STANDARDS.

F. CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND MAINTIAN TOILET FACILITIES FOR USE OF JOBSITE WORKERS AT ALL TIMES.

DIVISION 2: SITEWORK AND DEMOLITION

1. SITEWORK

A. CLEAR SITE AS REQUIRED OF EXISTING GROWTH AND VEGETATION, REMOVING ALL DEBRIS FROM SITE. STOCK PILE TOP SOIL ON SITE, IF SITE PERMITS.

B. EXCAVATE TO ELEVATIONS, DIMENSIONS AS REQUIRED TO ERECT FOOTINGS, FLOORS, WALLS, ETC. PLUS SUFFICIENT SPACE TO PERMIT ERECTION AND REMOVAL OF ALL FORMS. LEAVE OPEN UNTIL INSPECTED AND APPROVED BY THE BUILDING INSPECTOR.

C. COMPACTED FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 9" LOAD THICKNESS AND BE OF AN APPROVED GRANULAR MATERIAL COMPACTED TO A MINIMUM 95% DRY DENSITY PER ASTM D 1557. COMPACTION OF BACKFILL SHALL BE EXECUTED IN A MANNER WHICH WILL AVOID DAMAGE TO FOUNDATION WALLS.

D. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR APPROVED COMPACTED FILL, EITHER OF WHICH MUST HAVE A SAFE BEARING CAPACITY OF 3000 PSF. NOTIFY ARCHITECT IF SOIL OF THIS STRENGTH IS NOT FOUND AT FOOTING DESIGN ELEVATION.

E. FINAL GRADE ENTIRE SITE WITH TOP SOIL IN STOCK PILE. PROVIDE ADDITIONAL TOP SOIL AND FILL AS REQUIRED BY SITE ENGINEERING PLANS TO REACH DESIGN GRADES.

F. ANY HAZARDOUS MATERIALS INCURRED DURING EXCAVATION SHALL BE REMOVED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE APPROPRIATE GOVERNING AGENCIES. COSTS FOR ANY SUCH REMOVAL WILL BE THE RESPONSIBILITY OF THE OWNER.

G. THE EXCAVATOR SHALL COORDINATE THE SERVICES OF A TESTING SERVICE TO VERIFY PROPER DESIGN BEARING AT EXCAVATIONS. LAB SHALL BE INDEPENDENT FROM FIRM THAT PREPARED SOIL BEARING REPORT.

11. FENCING

A. PORTABLE TOILET ENCLOSURE; SHALL BE CONSTRUCTED OF CEADAR POSTS AND SIDING. SEE DRAWINGS

111. PAVEMENT MARKINGS

A DEFINITIONS

PAVEMENT MARKING: A PAVEMENT MARKING IS A TRANSVERSE MARKING SUCH AS (1) A STOP LINE; OR (2) A WORD, SYMBOL, SHOULDER, OR PARKING STALL.

B QUALITY CONTROL AND ASSURANCE

WITHIN 14 DAYS OF APPLYING A TRAFFIC STRIPE OR A PAVEMENT MARKING, THE RETROREFLECTIVITY OF THE TRAFFIC STRIPE OR THE PAVEMENT MARKING MUST BE A MINIMUM OF 250 MILLICANDELAS PER SQUARE METER PER LUX FOR WHITE, AND 150 MILLICANDELAS PER SQUARE METER PER LUX FOR YELLOW. TEST THE RETROREFLECTIVITY UNDER ASTM E 1710.

C CONTROL OF ALIGNMENT AND LAYOUT

PERFORM ALL WORK NECESSARY TO ESTABLISH SATISFACTORY ALIGNMENT FOR TRAFFIC STRIPES AND ALL LAYOUT WORK REQUIRED FOR PAVEMENT MARKINGS WITH ANY DEVICE OR METHOD THAT WILL NOT DAMAGE THE PAVEMENT OR CONFLICT WITH OTHER TRAFFIC CONTROL DEVICES.

D TOLERANCES AND APPEARANCE

1. A COMPLETED TRAFFIC STRIPE MUST:
1.1. HAVE CLEAN, WELL-DEFINED EDGES WITHOUT RUNNING OR DEFORMATION
1.2. BE UNIFORM
1.3. BE STRAIGHT ON TANGENT ALIGNMENT AND ON A TRUE ARC ON CURVED ALIGNMENT

2. THE WIDTH OF A COMPLETED TRAFFIC STRIPE MUST NOT DEVIATE FROM THE WIDTH SHOWN BY MORE THAN 1/4 INCH ON A TANGENT ALIGNMENT AND 1/2 INCH ON A CURVED ALIGNMENT.
3. THE LENGTH OF THE GAPS AND INDIVIDUAL STRIPES:
1.1. THAT FORM A BROKEN TRAFFIC STRIPE MUST NOT DEVIATE BY MORE THAN 2 INCHES FROM THE LENGTHS SHOWN
1.2. MUST BE UNIFORM THROUGHOUT THE ENTIRE LENGTH OF EACH BROKEN TRAFFIC STRIPE SO THAT A NORMAL STRIPING MACHINE WILL BE ABLE TO REPEAT THE PATTERN AND SUPERIMPOSE SUCCESSIVE COATS ON THE APPLIED TRAFFIC STRIPE

2. A COMPLETED PAVEMENT MARKING MUST COMPLY WITH THE DIMENSIONS SHOWN AND HAVE WELL-DEFINED EDGES WITHOUT RUNNING OR DEFORMATION.
3. A COMPLETED THERMOPLASTIC TRAFFIC STRIPE OR THERMOPLASTIC PAVEMENT MARKING MUST BE FREE OF RUNS, BUBBLES, CRATERS, DRAG MARKS, STRETCH MARKS, AND DEBRIS.

E CONSTRUCTION

1. USE MECHANICAL WIRE BRUSHING TO REMOVE DIRT, CONTAMINANTS, AND LOOSE MATERIAL FROM THE PAVEMENT SURFACE THAT IS TO RECEIVE THE TRAFFIC STRIPE OR PAVEMENT MARKING.
2. USE ABRASIVE BLAST CLEANING TO REMOVE LAITANCE AND CURING COMPOUND FROM THE SURFACE OF NEW CONCRETE PAVEMENT THAT IS TO RECEIVE THE TRAFFIC STRIPE OR PAVEMENT MARKING.
3. APPLY THERMOPLASTIC FOR A PAVEMENT MARKING WITH A STENCIL OR A PREFORMED MARKING.
4. IMMEDIATELY REMOVE DRIPS, OVERSPRAY, IMPROPER MARKINGS, PAINT, AND THERMOPLASTIC TRACKED BY TRAFFIC, USING AN AUTHORIZED METHOD.
5. APPLY A TRAFFIC STRIPE OR A PAVEMENT MARKING TO A DRY SURFACE DURING A PERIOD OF FAVORABLE WEATHER WHEN THE PAVEMENT SURFACE IS ABOVE 50 DEGREES F.
6. THE GLASS BEADS MUST BE EMBEDDED IN THE COAT OF PAINT OR THERMOPLASTIC TO A DEPTH OF 1/2 THEIR DIAMETERS.
7. THE QUANTITY OF APPLIED GLASS BEADS TO DETERMINE THE APPLICATION RATE IS MEASURED BY STABBING THE GLASS BEAD TANK WITH A CALIBRATED ROD.
8. APPLY THE MANUFACTURER'S RECOMMENDED PRIMER TO ALL ASPHALTIC SURFACES BEFORE APPLYING THE THERMOPLASTIC TO ASPHALTIC SURFACES OVER 6 MONTHS OLD AND TO ALL PORTLAND CEMENT CONCRETE SURFACES. APPLY THE PRIMER IMMEDIATELY BEFORE AND CONCURRENTLY WITH THE APPLICATION OF THE THERMOPLASTIC. APPLY THE PRIMER AT THE MANUFACTURER'S RECOMMENDED APPLICATION RATE. DO NOT THIN THE PRIMER.
9. USE PREHEATERS WITH MIXERS HAVING 360 DEGREE ROTATION TO PREHEAT THE THERMOPLASTIC MATERIAL.
10. APPLY THE THERMOPLASTIC IN A SINGLE UNIFORM LAYER BY SPRAY OR EXTRUSION METHODS.
11. COMPLETELY COAT AND FILL VOIDS IN THE PAVEMENT SURFACE WITH THE THERMOPLASTIC.
12. PARKING STRIPES TO BE YELLOW; OTHERS TO BE WHITE PER IDOT.

1. EXTRUDED THERMOPLASTIC

A. WHEN APPLYING EXTRUDED THERMOPLASTIC TO A PAVEMENT SURFACE, THE THERMOPLASTIC MUST BE FROM 400 TO 425 DEGREES F. IF THE MANUFACTURER REQUIRES A DIFFERENT APPLICATION TEMPERATURE, APPLY THE THERMOPLASTIC AT THE MANUFACTURER'S REQUIRED TEMPERATURE.

B. APPLY EXTRUDED THERMOPLASTIC FOR A TRAFFIC STRIPE AT A RATE OF AT LEAST 0.20 POUNDS PER LINEAR FOOT OF 4-INCH WIDE SOLID STRIPE. THE APPLIED THERMOPLASTIC TRAFFIC STRIPE MUST BE AT LEAST 0.060 INCH THICK.

C. AN APPLIED THERMOPLASTIC PAVEMENT MARKING MUST BE FROM 0.100 TO 0.150 INCH THICK.

APPLY GLASS BEADS TO THE SURFACE OF THE MOLTEN THERMOPLASTIC AT A RATE OF AT LEAST 8 POUNDS PER 100 SQUARE FEET.

2. SPRAYABLE THERMOPLASTIC

A. APPLY SPRAYABLE THERMOPLASTIC UNDER STATE SPECIFICATION PTH-02SPRAY AT A TEMPERATURE FROM 350 TO 400 DEGREES F.

B. APPLY SPRAYABLE THERMOPLASTIC AT A RATE OF AT LEAST 0.13 POUNDS PER LINEAR FOOT OF 4-INCH WIDE SOLID STRIPE.

C. THE APPLIED SPRAYABLE THERMOPLASTIC MATERIAL MUST BE AT LEAST 0.040 INCH THICK.

F SUBMITTALS

SUBMIT A COPY OF THE TRANSPORTATION LABORATORY'S APPROVAL LETTER FOR THE THERMOPLASTIC YOU WILL USE FOR TRAFFIC STRIPES AND PAVEMENT MARKINGS.

DIVISION 3: CONCRETE

1. POURED IN PLACE CONCRETE

A. ALL CONCRETE SHALL COMPLY WITH THE CURRENT ACI 318. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ASTM C150. ALL CONCRETE SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MINIMUM. (U.O.N.) SEE II. D. BELOW

B. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE ARCHITECT AND SUBCONTRACTOR FOR THE PLACING OF ALL SLEEVES IN CONCRETE WALLS FOR TELEPHONE, PLUMBING, ELECTRICAL, AND MECHANICAL TRADES, ETC.

C. PROVIDE PRE-PLACEMENT INSPECTION BEFORE PLACING CONCRETE. INSPECT AND COMPLETE THE FORMWORK INSTALLATION, REINFORCING STEEL, AND ITEMS TO BE EMBEDDED OR CAST-IN. THOROUGHLY WET WOOD FORMS IMMEDIATELY BEFORE PLACING CONCRETE, AS REQUIRED WHERE FORM COATINGS ARE NOT USED. COORDINATE THE INSTALLATION OF JOINT MATERIALS WITH PLACEMENT OF FORMS AND REINFORCING STEEL.

D. ALL FOOTINGS SHALL EXTEND A MINIMUM OF 3'-6" BELOW TOP OF FINISH GRADE.

E. POUR ALL CONCRETE WING WALLS MONOLITHICALLY WITH FOUNDATION WALLS (IF APPLICABLE).

F. THE CONCRETE CONTRACTOR SHALL INSTALL FOUNDATION REINFORCING STEEL, ANCHOR BOLTS, ETC. IN CONFORMANCE WITH THE SIZES AND SHAPES INDICATED ON THE DRAWINGS AND AS MAY BE REQUIRED BY THE NATURE OF THE WORK. ALL REINFORCING STEEL SHALL BE FREE FROM LOOSE RUST, OIL, PAINT OR OTHER COATINGS WHICH WOULD REDUCE BONDING CAPABILITIES BETWEEN CONCRETE AND STEEL.

G. ALL REBAR TO BE DEFORMED, GRADE 60, UNLESS NOTED OTHERWISE.

H. REBARS AND SLAB REINFORCING WELDED WIREMESH SHALL BE ACURATELY PLACED AND BE SUPPORTED BY METAL CHAIRS BEFORE CONCRETE IS PLACED. REINFORCING SHALL BE SECURED AGAINST DISPLACEMENT WITHIN TOLERANCES PERMITTED IN IBC SECTION 1907.2

I. INTERIOR CONCRETE FLOORS TO REMAIN EXPOSED AND EQUIPMENT PADS, SHALL BE SEALED AND MADE DUSTPROOF BY AN APPLICATION OF TWO COATS OF CONCRETE SEALER. THE SECOND COAT SHALL BE APPLIED AFTER COMPLETION OF CONSTRUCTION. NO CONCRETE CURING COMPOUND SHALL BE APPLIED AT AREAS THAT ARE TO RECEIVE CONCRETE SEALER.

J. CONCRETE SLABS SHALL HAVE A TOLERANCE OF 1/4" IN 10'- 0".

K. PROVIDE TROWELED CONTROL JOINTS IN THE SLAB AS INDICATED IN THE DRAWINGS. (25' SQUARE PATTERN MIN., IF NOT SHOWN)

11. TESTING

A. THE CONCRETE CONTRACTOR SHALL SCHEDULE WITH AN INDEPENDENT TESTING AGENCY, CONCRETE CYLINDER COMPRESSION TESTS FOR POURED IN PLACE CONCRETE. ALL TESTS SHALL BE PERFORMED BY THE TESTING AGENCY IN ACCORDANCE WITH ASTM C31-69 AND ASTM C39-81 AND WILL BE PAID FOR BY THE CONTRACTOR. MAKE ONE TEST FOR EVERY TRUCKLOAD OF CONCRETE. EACH TEST SHALL CONSIST OF THREE (3) CYLINDERS AND ARE TO BE TESTED AFTER 7, 14, AND 28 DAYS CURING TIME.

111. CONCRETE DESIGN MIXES

A. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL EMPLOY A TECHNICAL AGENCY FAMILIAR WITH LOCAL CONSTRUCTION CONDITIONS AND MATERIALS TO DESIGN CONCRETE MIXES.

B. MIX DESIGNS SHALL BE FORMULATED WITH AMPLE LEAD TIME TO ALLOW TESTING AND VERIFICATION OF THE DESIGN AS SPECIFIED.

C. CONCRETE MIX DESIGNS SHALL BE MADE ON THE BASIS OF "LABORATORY TRIAL BATCHES" OR OF "FIELD EXPERIENCE" WITH THE MATERIAL TO BE EMPLOYED, FOR EACH TYPE OF CONCRETE REQUIRED, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

D. THE DESIGN MIXES SHALL BE OBTAINED FROM THE FOLLOWING:

MIX TYPE	USE	MINIMUM(PSI)	MAX. AGG SIZE	SLUMP	AIR ENT
1	INTERIOR FL. SLAB ON GRADE	3000	1"	3"-4"	OPTIONAL
2	FOOTINGS	3000	1-½"	3"-4"	NO
3	EXTERIOR	4000	1"	3"-4"	6% MIN.

E. THE CONCRETE CONTRACTOR SHALL MAINTAIN A RECORD AT THE JOB SITE SHOWING DATE, TIME AND PLACE OF EACH POUR OF CONCRETE, TOGETHER WITH READY-MIX DELIVERY TICKETS CERTIFYING CONTENTS OFTHE POUR. UPON COMPLETION OF THE WORK, PROVIDE ALL RECORDS TO THE OWNER.

1V. VAPOR BARRIER

A. FOLLOWING LEVELING AND TAMPING OF GRANULAR BASE FOR SLAB ON GRADE, PLACE 6 MIL VAPOR BARRIER SHEETING WITH LONGEST DIMENSION PARALLEL WITH DIRECTION OF POUR.

B. LAP JOINTS 6 INCHES AND SEAL JOINTS WITH MANUFACTURERS' RECOMMENDED PRESSURE-SENSITIVE TAPE.

DIVISION 4: MASONRY

NOT USED

DIVISION 5: METALS

NOT USED

DIVISION 6: ROUGH CARPENTRY

1. GENERAL

A. STRUCTURAL LUMBER:

1. FURNISH SEASONED DIMENSION LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT AT THE TIME OF DRESSING.

2. SPECIES: DOUGLAS FIR OR HEM-FIR, OR SOUTHERN PINE, OR SPRUCE-PINE-FIR.

3. STRUCTURAL FRAMING: NO. 2 GRADE; STUD FRAMING: STUD GRADE; LIGHT FRAMING: STANDARD AND BETTER GRADE.

B. PLYWOOD/OSB:

1. SHEATHING AND SUBFLOORING: APA RATED SHEATHING, EXPOSURE 1.

2. UNDERLAYMENT: APA UNDERLAYMENT, EXPOSURE 1.

C. PRESSURE PRESERVATIVE TREATMENT:

1. NAILERS, BLOCKING, CANTS, SHIM STOCK, AND SIMILAR CONCEALED MEMBERS USED IN CONTACT WITH EXTERIOR MASONRY AND CONCRETE AND IN CONJUNCTION WITH ROOFING AND COPING.

2. WOOD ITEMS INDICATED ON THE DRAWINGS TO BE PRESERVATIVE TREATED.

D. FURNISH "FR-S" LUMBER WHERE INDICATED, COMPLYING WITH AWPA STANDARDS FOR PRESSURE IMPREGNATION WITH FIRE-RETARDANT CHEMICALS TO ACHIEVE A FLAME SPREAD RATING OF 25 OR LESS IN ACCORDANCE WITH ASTM E84.

E. FASTENERS AND ANCHORING:

1. FASTENER TYPE, SIZE STYLE GRADE AND CLASS SHALL COMPLY WITH NDS DESIGN GUIDE.
2. ITEMS SHALL BE GALVANIZED FOR EXTERIOR LOCATIONS, HIGH HUMIDITY LOCATIONS, AND FOR USE WITH TREATED WOOD.
3. METAL HANGER AND FRAMING ANCHORS: SIZE AND TYPE FOR INTENDED USE, GALVANIZED FINISH, MANUFACTURER'S RECOMMENDED FASTENERS.

2. EXECUTION

A. WOOD FRAMING: INSTALL IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE AFPA "MANUAL FOR WOOD FRAME CONSTRUCTION", UNLESS OTHERWISE INDICATED.

B. PLYWOOD: INSTALL IN ACCORDANCE WITH APA DESIGN/CONSTRUCTION GUIDE, RESIDENTIAL AND COMMERCIAL.

C. NAILER AND BLOCKING: ATTACH TO SUBSTRATE AS REQUIRED TO SUPPORT APPLIED LOADING.

11. LAMINATE SURFACES

A. LAMINATES SHALL BE ADHERED WITH SEMI-RIGID OR NON-PIGMENTED CONTACT ADHESIVES. SUBSTRATE TO BE MEDIUM DENSITY FIBER BOARD OR A 45# DENSITY PARTICLE BOARD, TYPE I, GRADE B, CLASS 2. ACCEPTABLE MANUFACTURERS ARE AS FOLLOWS:

1. FORMICA
2. WILSONART
3. PIONITE

1. SOLID SURFACING

A. NON-POROUS HOMOGENEOUS BLEND SOLID POLYMER. ACCEPTABLE MANUFACTURES ARE AS FOLLOWS:

1.	CORIAN	1-800-4CORIAN
2.	FORMICA	1-800-FORMICA
3.	SWANSTONE	(314) 231-8148
4.	AVONITE	1-800-866-8324

1V. SUBMITTALS

A. SUBMIT PRODUCT LITERATURE FOR THE FOLLOWING; PLYWOOD, LAMINATED SURFACES, AND SOLID SURFACES.

B. SUBMIT SAMPLES FOR THE FOLLOWING; LAMINATE SURFACES AND SOLID SURFACES.

DIVISION 7: THERMAL AND MOISTURE PROT.

1. INSULATION

A. BATT INSULATION, R-15, WITHIN 2x4 WOOD STUDS WALL AND ROOF FRAMING MEMBERS. INSULATION SHALL HAVE ALUMINUM FOIL VAPOR RETARDER ON ONE SIDE AND SHALL BE INSTALLED WITH FOIL FACING THE INTERIOR OF THE BUILDING.

B. 1" POLYISOCYANURATE RIGID INSULATION ON EXTERIOR WALL.

C. FOUNDATION WALL: 2" POLYISOCYANURATE RIGID INSULATION, R-10, ON INSIDE FACE OF FOUNDATION WALL AND BELOW CONCRETE SLAB UPTO 2'-0" FROM FACE OF FOUNDATION WALL WHEN INDICATED ON DRAWINGS.

11. SEALANTS

A. ALL EXTERIOR PERIMETER CAULKING SHALL BE WATER AND WEATHER TIGHT. ELASTIC CAULKING COMPOUND AT THESE LOCATIONS SHALL BE NON-STAINING ONE-PART SILICONE.

B. ALL EXTERIOR BUILDING CONTROL JOINTS, EXPANSION JOINTS, AND STONE JOINT CAULKING SHALL BE NON-STAINING, ONE-PART SILICONE.

C. CONSULT WITH MANUFACTURER TO VERIFY REQUIRED PRIMER APPLICATIONS AT VARIOUS MATERIALS.

D. COLORS SHALL BE AS SELECTED FROM MANUFACTURER'S STANDARD COLOR CHART BY ARCHITECT.

E. MANUFACTURERS:
1. DOW CORNING 795 & 790
2. DAP
3. 3M

111. DAMPROOFING

A. PERFORM WORK IN ACCORDANCE WITH NRC WATERPROOFING MANUAL.

B. MAINTAIN AMBIENT TEMPERATURE ABOVE 40° F FOR 24 HOURS BEFORE AND DURING APPLICATION UNTIL MEMBRANE HAS CURED.

C. APPLIED TWO COATS OF ASPHALT DAMPPROOFING.

1V. ASPHALT SHINGLES

PART 1 _ GENERAL

1.1 SECTION INCLUDES

A. THE FURNISHING AND INSTALLATION OF ASPHALT SHINGLE ROOFING WITH SHEET METAL FLASHING AND TRIM IN CONJUNCTION WITH ROOFING AS SHOWN ON THE DRAWINGS, SPECIFIED HEREIN OR REQUIRED FOR A COMPLETE INSTALLATION.

1.2 RELATED SECTIONS

A. ROUGH CARPENTRY: PLYWOOD ROOF SHEATHING
B. FLASHING AND SHEET METAL
C. CAULKING EXCEPT AS HEREIN SPECIFIED.

1.3 SUBMITTALS

A. PRODUCT DATA: AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED, COMPILE (AND STORE COPY AT SITE):

1. MANUFACTURER'S SPECIFICATIONS AND OTHER DATE NEEDED TO PROVE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
2. MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, WHICH WILL BECOME THE BASIS FOR ACCEPTING OR REJECTING ACTUAL INSTALLATION PROCEDURES USED ON THE WORK.

B. SUBMIT COLOR CHARTS SHOWING COLORS AVAILABLE FROM THE PROPOSED MANUFACTURER IN THE SPECIFIED PRODUCTS, WHERE APPLICABLE.

C. CERTIFICATE OF COMPLIANCE: PROVIDE CERTIFICATE OF COMPLIANCE FROM AN INDEPENDENT LABORATORY INDICATING THAT THE ASPHALT FIBER GLASS SHINGLES MADE IN NORMAL PRODUCTION MEET OR EXCEED THE REQUIREMENTS OF THE FOLLOWING:
1. ASTM E 108/UL 790 CLASS A FIRE RESISTANCE.
2. ASTM D 3161/UL 997 WIND RESISTANCE.
3. ASTM D 3462.

PART 2 _ PRODUCTS

2.1 MANUFACTURERS

A. ACCEPTABLE MANUFACTURERS:
1. CERTAINTEED CORPORATION, VALLEY FORGE, PA. TEL: (800) 233-8990
2. GAF, WAYNE NJ. TEL: (800) 766-3411
3. OWINGS CORNING, TOLEDO, OH, TEL: (800) 438-7465

2.2 ASPHALT FIBER GLASS SHINGLES

A. BASIS OF DESIGN: CERTAINTEED, TIMBERLINE HD.

B. CONFORMING TO ASTM D 3018 TYPE I - SELF-SEALING; UL CERTIFICATION OF ASTM D 3462, ASTM D 3161-99/UL997 WIND RESISTANCE, AND UL CLASS A FIRE RESISTANCE; GLASS FIBER MAT BASE; CERAMICALLY COLORED/UV RESISTANT MINERAL SURFACE GRANULES ACROSS ENTIRE FACE OF SHINGLE, ALGAE-RESISTANT; THREE-TAB TYPE WITH RANDOM LAMINATED TABS AND RANDOM SHADOW LINE.
1. WEIGHT: 300 POUNDS PER SQUARE (100 SQUARE FEET) (14.6 KG/SQ M).

2. COLOR: AS SELECTED FROM MANUFACTURERS STANDARD COLORS.

2.3 SHEET MATERIALS

A. WATERPROOFING UNDERLAYMENT MEMBRANE: PROVIDE SELF-ADHERING RUBBERIZED ASPHALT MEMBRANE SHINGLE UNDERLAYMENT HAVING INTERNAL REINFORCEMENT, AND "SPLIT" BACK PLASTIC RELEASE FILM; PROVIDE MATERIAL WITH WARRANTY EQUAL IN DURATION TO THAT OF SHINGLES BEING APPLIED.

2.4 OTHER MATERIALS

A. NAILS: STANDARD ROUND WIRE TYPE ROOFING NAILS, CORROSION RESISTANT; HOT DIPPED ZINC COATED STEEL, ALUMINUM, OR CHROMATED STEEL; MINIMUM 3/8 INCH (9.5 MM) HEAD DIAMETER; MINIMUM 11 OR 12 GAGE (2.5 MM) SHANK DIAMETER; SHANK TO BE OF SUFFICIENT LENGTH TO PENETRATE THROUGH ROOF SHEATHING OR 3/4 INCH (19 MM) INTO SOLID WOOD, PLYWOOD, OR NON-VENEER WOOD DECKING.
B. ROOFING FELT: 15LB. ASPHALT IMPREGNATED ROOFING FELT.
C. ASPHALT ROOFING CEMENT: ASTM D 4586, TYPE I OR II.
D. ROOFING MATERIALS SHALL BE IN STRICT CONFORMANCE TO REQUIREMENTS OF ROOFING SYSTEMS BY MANUFACTURER(S) NOTED ABOVE.
E. SHEET FLASHING: ASTM A 361/A 361M; 26 GAGE (0.45 MM) STEEL WITH MINIMUM G115/Z350 GALVANIZED COATING.
F. BITUMINOUS PAINT: ACID AND ALKALI RESISTANT TYPE; BLACK COLOR.

PART 3 _ EXECUTION

3.1 ENVIRONMENTAL REQUIREMENTS

A. TAKE SPECIAL CARE WHEN APPLYING WATERPROOFING UNDERLAYMENT AND SHINGLES WHEN AMBIENT OR WIND CHILL TEMPERATURE IS BELOW 45 DEGREES F (7 DEGREES C). TACK MEMBRANE IN PLACE IF IT DOES NOT ADHERE IMMEDIATELY TO THE DECK.

3.2 ROOF DECK PREPARATION

A. BROOM CLEAN DECK SURFACES UNDER EAVE PROTECTION AND UNDERLAYMENT PRIOR TO THEIR APPLICATION.

B. SURFACES TO WHICH ROOFING IS TO BE APPLIED SHALL BE EVEN, SMOOTH, SOUND, CLEAN, DRY AND FREE FROM DEFECTS.

3.3 INSTALLATION - GENERAL

A. INSTALL ROOFING AND FLASHINGS IN STRICT ACCORDANCE WITH THE ROOFING MATERIALS MANUFACTURER'S REQUIREMENTS, SMACNA MANUAL.

B. CUTTING, FITTING AND DRILLING OF ROOFING TO ACCOMMODATE THE WORK OF OTHER TRADES IS PART OF THE WORK UNDER THIS SECTION.

C. FLASHING ITEMS NOT SPECIFICALLY MENTIONED IN THIS SECTION SHALL BE AS SHOWN AND AS REQUIRED TO PROVIDE A WATERTIGHT INSTALLATION.

D. PROVIDE ACCESSORIES ESSENTIAL TO THE COMPLETENESS OF THE SHEET METAL INSTALLATION. ACCESSORIES AND FASTENINGS SHALL BE OF THE COMPOSITION THAT WILL NOT SUPPORT GALVANIC ACTION IN THE INSTALLATION.

3.4 INSTALLATION - EAVE ICE DAM PROTECTION

A. PLACE EAVE EDGE AND GABLE EDGE METAL FLASHING TIGHT WITH FASCIA BOARDS. WEATHER-LAP JOINTS 2 INCHES (50 MM). SECURE FLANGE WITH NAILS SPACED 8 INCHES (200 MM) ON CENTER.
B. EXTEND WATERPROOFING UNDERLAYMENT MINIMUM 24 INCHES (610 MM) UP SLOPE BEYOND INTERIOR FACE OF EXTERIOR WALL.

3.5 INSTALLATION - VALLEY PROTECTION

A. FOR "CLOSED-CUT," "WOVEN," AND "OPEN" VALLEYS FIRST PLACE ONE PLY OF SHINGLE MINIMUM 36 INCHES (910 MM) WIDE, CENTERED OVER VALLEYS. LAP JOINTS MINIMUM 6 INCHES (152 MM). FOLLOW INSTRUCTIONS OF SHINGLE AND WATERPROOFING MEMBRANE MANUFACTURER.

3.6 INSTALLATION - METAL FLASHING

A. WEATHER-LAP JOINTS MINIMUM 2 INCHES (50 MM).

B. SEAL WORK PROJECTING THROUGH OR MOUNTED ON ROOFING WITH ASPHALT ROOFING CEMENT AND MAKE WEATHER-TIGHT.

3.7 INSTALLATION - ASPHALT SHINGLES

A. INSTALL SHINGLES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR PRODUCT TYPE AND APPLICATION SPECIFIED.

3.8 FLASHING FABRICATION

A. FORM FLASHING TO PROFILES INDICATED ON DRAWINGS, AND TO PROTECT ROOFING MATERIALS FROM PHYSICAL DAMAGE AND SHED WATER.

B. FORM SECTIONS SQUARE AND ACCURATE TO PROFILE, IN MAXIMUM POSSIBLE LENGTHS, FREE FROM DISTORTION OR DEFECTS DETRIMENTAL TO APPEARANCE OR PERFORMANCE.

3.9 WARRANTY

A. MANUFACTURER'S WARRANTY: FURNISH SHINGLE MANUFACTURER'S WARRANTY FOR PRODUCT(S) OF THIS SECTION AS FOLLOWS: WARRANTY PERIOD: 25 YEARS, PRORATED.

END OF SECTION

V. CEMENTIOUS SIDING

PART 1 - GENERAL

1.1 SECTION INCLUDES
A. FACTORY-FINISHED FIBER CEMENT LAP SIDING, PANELS, SINGLE, TRIM, FASCIA AND ACCESSORIES.
B. WEATHER RESISTANT BARRIER.

1.2 RELATED SECTIONS
A. SECTION 00700, SECTION 00800 AND DIVISION 1.
B. SECTION 06 1000 - CARPENTRY
C. SECTION 07 2100 - INSULATION

1.3 REFERENCES
A. ASTM C1186 - STANDARD SPECIFICATION FOR FLAT FIBER-CEMENT SHEETS
B. ASTM D3359 - STANDARD TEST METHOD FOR MEASURING ADHESION BY TAPE TEST, TOOL AND TAPE.
C. ASTM E136 - STANDARD TEST METHOD FOR BEHAVIOR OF MATERIALS IN A VERTICAL TUBE FURNACE AT 750 DEGREES C.

1.4 SUBMITTALS
A. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
1. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
3. INSTALLATION METHODS.
B. SHOP DRAWINGS: PROVIDE DETAILED DRAWINGS OF ATYPICAL NON-STANDARD APPLICATIONS OF CEMENTITIOUS SIDING MATERIALS WHICH ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS AND SPECIFICATIONS PROVIDED BY THE MANUFACTURER.
C. SELECTION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, TWO COMPLETE SETS OF COLOR CHIPS REPRESENTING MANUFACTURER'S FULL RANGE OF AVAILABLE COLORS AND PATTERNS.
D. VERIFICATION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, TWO SAMPLES, MINIMUM SIZE 4 BY 6 INCHES (100 BY 150 MM), REPRESENTING ACTUAL PRODUCT, COLOR, AND PATTERNS.

1.5 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS: MINIMUM OF 10 YEARS EXPERIENCE WITH INSTALLATION OF SIMILAR PRODUCTS.

1.6 DELIVERY, STORAGE, AND HANDLING
A. STORE PRODUCTS IN MANUFACTURER'S UNOPENED PACKAGING UNTIL READY FOR INSTALLATION.
B. STORE SIDING ON EDGE OR LAY FLAT ON A SMOOTH LEVEL SURFACE. PROTECT EDGES AND CORNERS FROM CHIPPING. STORE SHEETS UNDER COVER AND KEEP DRY PRIOR TO INSTALLING.
C. STORE AND DISPOSE OF SOLVENT-BASED MATERIALS, AND MATERIALS USED WITH SOLVENT-BASED MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.

1.7 PROJECT CONDITIONS
A. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN LIMITS RECOMMENDED BY MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE MANUFACTURER'S ABSOLUTE LIMITS.

1.8 WARRANTY
A. PRODUCT WARRANTY: LIMITED, NON-PRO-RATED PRODUCT WARRANTY.
1. LAP SIDING FOR 30 YEARS.
2. SOFFIT PANELS FOR 30 YEARS.
B. PRODUCT WARRANTY: LIMITED, PRODUCT WARRANTY.
1. TRIM BOARDS FOR 15 YEARS.
C. FINISH WARRANTY: LIMITED PRODUCT WARRANTY AGAINST MANUFACTURING FINISH DEFECTS.
1. WHEN USED FOR ITS INTENDED PURPOSE, PROPERLY INSTALLED AND MAINTAINED ACCORDING TO MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS, FOR A PERIOD OF 15 YEARS FROM THE DATE OF PURCHASE: WILL NOT PEEL; WILL NOT CRACK; AND WILL NOT CHIP. FINISH WARRANTY INCLUDES THE COVERAGE FOR LABOR AND MATERIAL.

PART 2 PRODUCTS

2.1 MANUFACTURERS
A. ACCEPTABLE MANUFACTURERS:
1. JAMES HARDIE BUILDING PRODUCTS, MISSION VIEJO, CA 92691; TEL: 866-274-3464.
2. CERTAINTEED, VALLEY FORGE PA, TEL: 800-233-8990.
3. LAKE STATES LUMBER, CARSON CA, TEL: 800-451-2003

2.2 SIDING
A. EXTERIOR: SHAKER SIDING, LAP SIDING, TRIM AND SOFFIT PANELS REQUIREMENT FOR MATERIALS.
1. LAP SIDING TYPE: LAP SIDING WITH A SLOPED TOP, BEVELED DRIP EDGE AND NAILING LINE CEDAR FINISH, 6 1/4 INCHES WITH 5 INCH EXPOSURE.

B. SIDING STANDARDS:
1. FIBER-CEMENT SIDING - COMPLIES WITH ASTM C 1186 TYPE A GRADE II.
2. FIBER-CEMENT SIDING - COMPLIES WITH ASTM E 136 AS A NONCOMBUSTIBLE MATERIAL.
3. FIBER-CEMENT SIDING - COMPLIES WITH ASTM E 84 FLAME SPREAD INDEX = 0, SMOKE DEVELOPED INDEX = 5.
4. NATIONAL EVALUATION REPORT NO. NER 405 (BOCA, ICBO, SBCCI, IBC, IRC).
5. US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT MATERIALS RELEASE 1263D.

2.3 FINISHES
A. FACTORY PRIMER: PROVIDE FACTORY APPLIED UNIVERSAL PRIMER.

2.4 WEATHER RESISTANT BARRIER
A. WEATHER RESISTANT BARRIER MANUFACTURED FROM WOVEN POLYOLEFIN MEETING ICC-ES-AC 38 REQUIREMENTS. PROVIDE WEATHER RESISTANT WEATHER BARRIER TO ALL EXTERIOR WALLS.
B. FOLLOW MANUFACTURERS INSTRUCTIONS FOR SEALING JOINTS AND FLASHING.
C. ACCEPTABLE MANUFACTURERS:
1. TYVEX - HOUSE WRAP, DUPONT
2. TYPAR - HOUSEWRAP, FIBERWEB INC.
3. TRUWRAP, OWINGS CORNING.

PART 3 EXECUTION

3.1 EXAMINATION
A. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED.
B. IF FRAMING PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

3.2 PREPARATION
A. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION.
B. PREPARE SURFACES USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
C. INSTALL A WATER-RESISTIVE BARRIER IS REQUIRED IN ACCORDANCE WITH LOCAL BUILDING CODE REQUIREMENTS.
D. USE BARRIER MANUFACTURERS SEAM TAPE AT ALL JOINT AND LAPS.

3.3 INSTALLATION
A. INSTALL MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
B. STARTING: INSTALL A MINIMUM 1/4 INCH (6 MM) THICK STARTER STRIP MADE FROM SAME SIDING MATERIAL AT THE BOTTOM COURSE OF THE WALL. APPLY PLANKS HORIZONTALLY WITH MINIMUM 1-1/4 INCHES (32 MM) WIDE LAPS AT THE TOP. THE BOTTOM EDGE OF THE FIRST PLANK OVERLAPS THE STARTER STRIP.
C. ALLOW MINIMUM VERTICAL CLEARANCE BETWEEN THE EDGE OF SIDING AND ANY OTHER MATERIAL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
D. ALIGN VERTICAL JOINTS OF THE PLANKS OVER FRAMING MEMBERS.
E. MAINTAIN CLEARANCE BETWEEN SIDING AND ADJACENT FINISHED GRADE.
F. LOCATE SPLICES AT LEAST ONE STUD CAVITY AWAY FROM WINDOW AND DOOR OPENINGS.
G. WIND RESISTANCE: WHERE A SPECIFIED LEVEL OF WIND RESISTANCE IS REQUIRED LAP SIDING IS INSTALLED TO FRAMING MEMBERS AND SECURED WITH FASTENERS DESCRIBED IN TABLE NO. 2 IN NATIONAL EVALUATION SERVICE REPORT NO. NER-405.

3.4 INSTALLATION - TRIM BOARDS
A. INSTALL MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL FLASHING AROUND ALL WALL OPENINGS.
B. FASTEN THROUGH TRIM INTO STRUCTURAL FRAMING OR CODE COMPLYING SHEATHING. FASTENERS MUST PENETRATE MINIMUM 3/4 INCH (19 MM) OR FULL THICKNESS OF SHEATHING. ADDITIONAL FASTENERS MAY BE REQUIRED TO ENSURE ADEQUATE SECURITY.
C. PLACE FASTENERS NO CLOSER THAN 3/4 INCH (19 MM) AND NO FURTHER THAN 2 INCHES (51 MM) FROM SIDE EDGE OF TRIM BOARD AND NO CLOSER THAN 1 INCH (25 MM) FROM END. FASTEN MAXIMUM 16 INCHES (406 MM) ON CENTER.
D. MAINTAIN CLEARANCE BETWEEN TRIM AND ADJACENT FINISHED GRADE.
E. TRIM INSIDE CORNER WITH A SINGLE BOARD TRIM BOTH SIDES OF CORNER.
F. OUTSIDE CORNER BOARD ATTACH TRIM ON BOTH SIDES OF CORNER WITH 16 GAGE CORROSION RESISTANT FINISH NAIL 1/2 INCH (13 MM) FROM EDGE SPACED 16 INCHES (406 MM) APART, WEATHER CUT EACH END SPACED MINIMUM 12 INCHES (305 MM) APART.

G. ALLOW 1/8 INCH GAP BETWEEN TRIM AND SIDING.
H. SHIM FRIEZE BOARD AS REQUIRED TO ALIGN WITH CORNER TRIM.
I. FASTEN THROUGH OVERLAPPING BOARDS. DO NOT NAIL BETWEEN LAP JOINTS.
J. OVERLAY SIDING WITH SINGLE BOARD OF OUTSIDE CORNER BOARD THEN ALIGN SECOND CORNER BOARD TO OUTSIDE EDGE OF FIRST CORNER BOARD. DO NOT FASTEN TRIM BOARDS TO TRIM BOARDS.
K. SHIM FRIEZE BOARD AS REQUIRED TO ALIGN WITH CORNER TRIM.
L. INSTALL FASCIA BOARDS TO RAFTER TAILS OR TO SUB FASCIA.

3.5 FINISHING
A. FINISH FACTORY PRIMED SIDING WITH A MINIMUM OF ONE COAT OF HIGH QUALITY 100 PERCENT ACRYLIC OR LATEX OR OIL BASED EXTERIOR GRADE PAINT WITHIN 180 DAYS OF INSTALLATION. FOLLOW PAINT MANUFACTURER'S WRITTEN PRODUCT RECOMMENDATION AND WRITTEN APPLICATION INSTRUCTIONS.

3.6 PROTECTION
A. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.
B. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

DIVISION 8: DOORS AND WINDOWS

1. STEEL DOORS AND FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES
A. FLUSH STEEL DOORS.
B. STEEL FRAMES.

1.2 RELATED SECTIONS
A. SECTION 08710 - DOOR HARDWARE.
B. SECTION 08800 - GLAZING.
C. SECTION 09900 - PAINTS AND COATINGS.

1.3 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: MEMBER OF THE STEEL DOOR INSTITUTE.
B. INSTALLER: MINIMUM FIVE YEARS DOCUMENTED EXPERIENCE INSTALLING PRODUCTS SPECIFIED THIS SECTION.

1.4 DELIVERY, STORAGE, AND HANDLING
A. HANDLE, STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH THE MANUFACTURERS PRINTED INSTRUCTIONS AND ANSI/SDI A250.10 AND NAAMM/HMMA 840.

1.5 COORDINATION
A. COORDINATE WORK WITH OTHER DIRECTLY AFFECTED SECTIONS INVOLVING MANUFACTURE OR FABRICATION OF INTERNAL CUTOUTS AND REINFORCEMENT FOR DOOR HARDWARE, ELECTRIC DEVICES AND RECESSED ITEMS.
B. COORDINATE WORK WITH FRAME OPENING CONSTRUCTION, DOOR AND HARDWARE INSTALLATION.

PART 2 PRODUCTS

2.1 MANUFACTURERS
A. ACCEPTABLE MANUFACTURERS:
1. STEELCRAFT, DIV. OF INGERSOLL RAND, CARMEL, IN TEL: 877-671-7011.
2. REPUBLIC, MCKENZIE, TN, TEL: 800-733-3667
3. CECO, DIV. ASSA ALBOY, MILAN TN, 888264-7474
B. PROVIDE ALL STEEL DOORS AND FRAMES FROM A SINGLE MANUFACTURER.

2.2 DOORS
A. GENERAL: CONSTRUCT EXTERIOR/INTERIOR DOORS TO THE FOLLOWING DESIGNS AND GAGES:
1. EXTERIOR DOORS: ZINC-IRON ALLOY-COATED GALVANNEALED STEEL, ASTM A 653, CLASS A60:
a. THICKNESS:
1) 18 GAGE (1 MM).
b. INCLUDE GALVANNEALED COMPONENTS AND INTERNAL REINFORCEMENTS WITH GALVANNEALED DOORS.
c. CLOSE TOPS OF EXTERIOR SWING-OUT DOORS TO ELIMINATE MOISTURE PENETRATION. GALVANNEALED STEEL TOP CAPS ARE PERMITTED.
2. INCLUDE GALVANNEALED COMPONENTS AND INTERNAL REINFORCEMENTS.
3. PRIME FINISH DOORS: CLEAN, PHOSPHATIZE AND FACTORY PRIME PAINTED DOORS INDICATED ON DOOR SCHEDULE AS HM.

4. GLASS MOLDINGS AND STOPS:

a. FABRICATE FROM 24 GAGE (0.5 MM) STEEL CONFORMING TO:
1) INTERIOR OPENINGS ÅSTM DESIGNATION A 366 COLD ROLLED STEEL.
2) EXTERIOR OPENINGS ASTM DESIGNATION A 924 ZINC-IRON ALLOY-COATED GALVANNEALED STEEL WITH A ZINC COATING OF 0.06 OUNCES PER SQUARE FOOT (A60) FOR EXTERIOR OPENINGS.
b. INSTALL TRIM INTO THE DOOR AS A FOUR SIDED WELDED ASSEMBLY WITH MITERED, REINFORCED AND WELDED CORNERS.
c. TRIM: IDENTICAL ON BOTH SIDES OF THE DOOR.
d. EXPOSED FASTENERS ARE NOT PERMITTED.
e. LABELED AND NON-LABELED DOORS: USE THE SAME TRIM.
f. ACCEPTABLE MOUNTING METHODS:
1) FIT INTO A FORMED AREA OF THE DOOR FACE, NOT EXTENDING BEYOND THE DOOR FACE, AND INTERLOCKING INTO THE RECESSED AREA
2) CAP THE CUTOUT NOT EXTEND MORE THAN 1/16 INCH (1.6 MM) FROM THE DOOR FACE.

5. HARDWARE REINFORCEMENTS:

a. HINGE REINFORCEMENTS FOR FULL MORTISE HINGES: MINIMUM 7 GAGE (4.7 MM).
b. LOCK REINFORCEMENTS: MINIMUM 16 GAGE (1.3 MM).
c. CLOSER REINFORCEMENTS: MINIMUM 14 GAGE (1.7 MM) STEEL, 20-INCH (508 MM) LONG.
d. GALVANNEALED DOORS: INCLUDE GALVANNEALED HARDWARE REINFORCEMENTS.
e. PROJECTION WELDED HINGE AND LOCK REINFORCEMENTS TO THE EDGE OF THE DOOR.
f. PROVIDED ADEQUATE REINFORCEMENTS FOR OTHER HARDWARE AS REQUIRED.

CAMPGROUND PERMIT BOOTH
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
REVISED	12/6/2012

3321 South State Route 31
Prairie Grove, Illinois 60012
P.815.444.8444

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT
Signature 1-25-2013 Date
11/30/14
Expires

DDCA architects
Direct Design Ltd.
Carroll Associates
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

SPECIFICATIONS

A9.1

© COPYRIGHT 2012

DIVISION 8: DOORS AND WINDOWS (CONT'D)

B. FULL FLUSH DOORS:
1. PERFORMANCE:
   1) PHYSICAL PERFORMANCE: 5 MILLION CYCLES PER ANSI A250.4.
   2) THERMAL PERFORMANCE (GASKETED), ÅSTM C1363.
      a) POLYURETHANE CORE, 0.498 U-FACTOR.
2. DOOR THICKNESS: 1-3/4 INCHES (45 MM).
3. VERTICAL EDGE SEAMS: PROVIDE DOORS WITH CONTINUOUS VERTICAL MECHANICAL INTER-LOCKING JOINTS AT LOCK AND HINGE EDGES. FINISH EDGES AS FOLLOWS:
   1) WELDED VERTICAL EDGES (W): CONTINUOUS VERTICAL MECHANICAL INTERLOCKING JOINTS; EDGE SEAMS WELDED, EPOXY FILLED, AND GROUND SMOOTH.
4. BEVEL HINGE AND LOCK DOOR EDGES 1/8 INCH (3 MM) IN 2 INCHES (50 MM). SQUARE EDGES ON HINGE AND/OR LOCK STILES ARE NOT ACCEPTABLE.
5. REINFORCE TOP AND BOTTOM OF DOORS WITH GALVANNEALED 14 GAGE (1.7 MM), WELDED TO BOTH PANELS.
6. GLAZING BEAD: FORMED STEEL SHEET OR SNAP-IN DEZIGNER TRIM.

2.3 DOOR FRAMES

A. GENERAL: CONSTRUCT EXTERIOR/INTERIOR METAL DOOR FRAMES TO THE FOLLOWING DESIGNS AND GAGES;
1. EXTERIOR FRAMES: ZINC-IRON ALLOY-COATED GALVANNEALED STEEL, ASTM A 653, CLASS A60:
   1)THICKNESS:16 GAGE (1.3 MM).

B. FLUSH STEEL FRAMES: PHYSICAL PERFORMANCE: 5 MILLION CYCLES PER ANSI A250.4
1. CONSTRUCTION: WELDED FRAME.
2. PROVIDE FOLLOWING REINFORCEMENT AND ACCESSORIES:
   a. HINGE PREPARATION FOR 4-1/2 INCHES (114 MM) HIGH, STANDARD WEIGHT, OR HEAVY WEIGHT, FULL MORTISE HINGES; WITH PLASTER GUARD.
   b. HINGE PREPARATION FOR 5 INCH (127 MM) HIGH, UNIVERSAL STANDARD WEIGHT, OR HEAVY WEIGHT, FULL MORTISE HINGES; WITH PLASTER GUARD.
   c. STRIKE PREPARATION (SINGLE DOORS) FOR 4-7/8 INCH (123 MM) UNIVERSAL STRIKE; WITH PLASTER GUARD.
   d. SILENCERS. PREPARE INTERIOR DOOR FRAMES TO RECEIVE INSERTED TYPE DOOR SILENCERS, 3 PER STRIKE JAMB ON SINGLE DOORS, AND 2 PER HEAD FOR PAIR OF DOORS. STICK-ON SILENCERS ARE NOT PERMITTED.
3. FINISH: FACTORY PRIME FINISH IN ACCORDANCE WITH ANSI A 250.10.

2.4 ACCESSORLES
A. ANCHORS: MANUFACTURER'S STANDARD FRAMING ANCHORS, SPECIFIED IN MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS FOR PROJECT CONDITIONS.
B. PLASTER GUARDS: SAME MATERIAL AS DOOR FRAME, MINIMUM 24 GAGE (0.5 MM) MINIMUM; PROVIDE FOR ALL STRIKE BOXES.
C. GLAZING: SPECIFIED IN SECTION 08800.

2.5 FLNLSHES
A. CHEMICAL TREATMENT: TREAT STEEL SURFACES TO PROMOTE PAINT ADHESION.
B. FACTORY PRIME FINISH: MEET REQUIREMENTS OF ANSI A 250.10.

PART 3 EXECUTION

3.1 EXAMINATION
A. VERIFY THAT PROJECT CONDITIONS ARE ACCEPTABLE BEFORE BEGINNING INSTALLATION OF FRAMES.
   1. VERIFY THAT COMPLETED OPENINGS TO RECEIVE FRAMES ARE OF CORRECT SIZE AND THICKNESS.

B. DO NOT BEGIN INSTALLATION UNTIL CONDITIONS HAVE BEEN PROPERLY PREPARED.
C. CORRECT UNACCEPTABLE CONDITIONS BEFORE PROCEEDING WITH INSTALLATION.

3.2 INSTALLATION
A. INSTALL DOORS AND FRAMES IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND WITH STEEL DOOR INSTITUTE'S RECOMMENDED ERECTION INSTRUCTIONS FOR STEEL FRAMES ANSI A250.11 AND NAAMM/HMMA 840.
B. SET FRAMES ACCURATELY IN POSITION; PLUMB, ALIGN AND BRACE UNTIL PERMANENT ANCHORS ARE SET.
C. GLAZE AND SEAL EXTERIOR TRANSOM, SIDELIGHT AND WINDOW FRAMES IN ACCORDANCE WITH HMMA-820 TN03.
D. APPLY HARDWARE IN ACCORDANCE WITH HARDWARE MANUFACTURERS' INSTRUCTIONS AND SECTION 08710 OF THESE SPECIFICATIONS. INSTALL HARDWARE WITH ONLY FACTORY-PROVIDED FASTENERS. INSTALL SILENCERS. ADJUST DOOR INSTALLATION TO PROVIDE UNIFORM CLEARANCE AT HEAD AND JAMBS, TO ACHIEVE MAXIMUM OPERATIONAL EFFECTIVENESS AND APPEARANCE.

3.3 ADJUST AND CLEAN
A. ADJUST DOORS FOR PROPER OPERATION, FREE FROM BINDING OR OTHER DEFECTS.
B. PRIME COAT TOUCH-UP: IMMEDIATELY AFTER ERECTION, SAND SMOOTH RUSTED OR DAMAGED AREAS OF PRIME COAT, AND APPLY TOUCH-UP OF COMPATIBLE AIR-DRYING PRIMER.

11. DOOR HARDWARE

A. PRIOR TO INSTALLING ANY DOOR HARDWARE, THE GENERAL CONTRACTOR AND HARDWARE SUPPLIER/INSTALLER SHALL PREPARE A KEYING SCHEDULE FOR THE OWNER'S REVIEW. (3 KEYS FOR EACH DOOR SHALL BE PROVIDED).
B. DOORS ARE TO BE KEYED TO SITE MASTER PLAN (MULTI-LOCK MANUFACTURER) COORDINATE WITH SITE MANAGER.
C. SEE HARDWARE SCHEDULE FOR MANUFACTURERS.

111. EXTERIOR GLAZING

A. FRAMES SHALL BE MANUFACTURER'S STANDARD, THERMALLY BROKEN FRAMES DESIGNED TO PERMIT GLAZING FROM THE OUTSIDE. FINISH SHALL BE 70% KYNAR 500 FLUOROPOLYMER COATING, COLOR TO BE SELECTED BY ARCHITECT FROM STANDARD COLOR CHART.

B. FRAMING SHALL BE PROVIDED WITH REINFORCING MEMBERS TO RESIST ALL CODE REQUIRED DESIGN LOADS.

C. PROVIDE EXTRUDED VINYL WEATHERSTRIPPING AND NEOPRENE CHANNELS, WEDGE STRIPS AND SETTING BLOCKS AS REQUIRED.

D. GLASS SHALL BE 1" THICK (TINTED), INSULATED UNITS TEMPERED.

1V. FIBERGLASS SLIDING WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. FIBERGLASS SLIDING WINDOWS.

1.2 RELATED SECTIONS

A. SECTION 07920 - JOINT SEALANTS: SEALANTS AND CAULKING.

1.3 REFERENCES

A .AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
   a. AAMA 613 - VOLUNTARY PERFORMANCE REQUIREMENTS AND TEST PROCEDURES FOR ORGANIC COATINGS ON PLASTIC PROFILES.

B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
   a. ASTM E 283 - RATE OF AIR LEAKAGE THROUGH EXTERIOR WINDOWS, CURTAIN WALLS AND DOORS UNDER SPECIFIED PRESSURE DIFFERENCE ACROSS THE SPECIMEN.
   b. ASTM E 547 - WATER PENETRATION OF EXTERIOR WINDOWS, CURTAIN WALLS AND DOORS BY CYCLIC STATIC AIR PRESSURE DIFFERENTIAL.

C. WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA):
   a. ANSI/AAMA/NWWDA 101/I.S.2 - VOLUNTARY SPECIFICATIONS FOR ALUMINUM, VINYL (PVC) AND WOOD WINDOWS AND GLASS DOORS.

1.4 PERFORMANCE REQUIREMENTS

A. WINDOW AIR LEAKAGE, ASTM E 283: WINDOW AIR LEAKAGE WHEN TESTED AT 1.57 PSF (25 MPH) SHALL BE 0.25 CFM/FT2 OF FRAME OR LESS.

B. WINDOW WATER PENETRATION, ASTM E 547: NO WATER PENETRATION THROUGH WINDOW WHEN TESTED UNDER STATIC PRESSURE OF 4.5 PSF (42 MPH) AFTER 4 CYCLES OF 5 MINUTES EACH, WITH WATER BEING APPLIED AT A RATE OF 5 GALLONS PER HOUR PER SQUARE FOOT.

1.5 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA, INCLUDING INSTALLATION INSTRUCTIONS.

B. SHOP DRAWINGS: SUBMIT MANUFACTURER'S SHOP DRAWINGS, INDICATING DIMENSIONS, CONSTRUCTION, COMPONENT CONNECTIONS AND LOCATIONS, ANCHORAGE METHODS AND LOCATIONS, HARDWARE LOCATIONS, AND INSTALLATION DETAILS.

1.7 DELIVERY, STORAGE, AND HANDLING

A. DELIVERY: DELIVER MATERIALS TO SITE UNDAMAGED IN MANUFACTURER'S OR SALES BRANCH'S ORIGINAL, UNOPENED CONTAINERS AND PACKAGING, WITH LABELS CLEARLY IDENTIFYING MANUFACTURER AND PRODUCT NAME. INCLUDE INSTALLATION INSTRUCTIONS.

B. STORAGE:
   1. STORE MATERIALS OFF GROUND AND UNDER COVER.
   2. PROTECT MATERIALS FROM WEATHER, DIRECT SUNLIGHT, AND CONSTRUCTION ACTIVITIES.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. IMPERVIA SERIES - PELLA CORPORATION, PELLA, IOWA 50219. (800) 54-PELLA.
B. 400 SERIES - ANDERSON WINDOWS, BAYPORT MN, (800) 426-4261
C. INTEGRITY SERIES - MARVIN WINDOWS, WARROD MN, (888) 537-7828

DIVISION 8: DOORS AND WINDOWS (CONT'D)

2.2 FIBERGLASS SLIDING WINDOWS

A. SLIDING WINDOWS:
   1. FACTORY-ASSEMBLED WINDOW WITH SASH INSTALLED IN FRAME.
   2. FRAME AND SASH MATERIAL: MULTI-LAYER, PULTRUDED-FIBERGLASS MATERIAL, REINFORCED WITH INTERLOCKING MAT.

B. FRAME:
   1. TYPE: NEW CONSTRUCTION FRAME
   2. OVERALL FRAME DEPTH: 3 INCHES.
   3. NOMINAL WALL THICKNESS OF FIBERGLASS MEMBERS: 0.050 INCH TO 0.070 INCH.
   4. FRAME CORNERS:
      a. MITERED.
      b. JOINED AND BONDED WITH THERMOSET POLYURETHANE ADHESIVE, NYLON CORNER LOCK, AND MECHANICALLY FASTENED.
   5. SILL: FITTED WITH WEEP VALVE ASSEMBLIES.

C. SASH:
   1. VENT SASH: REMOVABLE FOR CLEANING EXTERIOR GLASS.
   2. SASH CORNERS:
      a. MITERED.
      b. BONDED AND SEALED WITH INJECTED THERMOSET POLYURETHANE ADHESIVE.

D. GLAZING:
   1. INSULATED GLAZING UNIT WITH CLEAR GLASS.

E. WEATHER STRIPPING:
   1. VENT SASH: DUAL WEATHER-STRIPPED AROUND PERIMETER WITH FIN-TYPE, DUAL-PILE, WEATHER STRIPPING.

2.3 OPTIONS

A. INSECT SCREENS:
   1. COMPLIANCE: ASTM D 3656 AND SMA 1201.
   2. SCREEN CLOTH: HALF-SIZE WITH BLACK, VINYL-COATED, 18/16 MESH, FIBERGLASS SCREEN CLOTH SET IN ALUMINUM FRAME FITTED TO OUTSIDE OF WINDOW.
   3. COMPLETE WITH NECESSARY HARDWARE.
   4. SCREEN FRAME FINISH: BAKED ENAMEL.
   5. COLOR: MATCH WINDOW EXTERIOR.

2.4 HARDWARE

A. ROLLERS:
   1. VENTS: EQUIP WITH 2 NYLON ROLLER HOUSINGS CONTAINING 2 ACETAL ROLLERS EACH.
   2. ROLLERS: REMOVABLE FOR CLEANING AND MAINTENANCE.

B. LOCK:
   1. TYPE: SELF-ALIGNING, CAM-ACTION LOCK.
   2. WINDOWS 37 INCHES HIGH OR GREATER: 2 LOCKS.
   3. STANDARD FINISH: MATCH WINDOW INTERIOR.

2.5 TOLERANCES

A. WINDOWS SHALL ACCOMMODATE THE FOLLOWING OPENING TOLERANCES:
   1. HORIZONTAL DIMENSIONS BETWEEN HIGH AND LOW POINTS: PLUS 1/4 INCH, MINUS 0 INCH.
   2. WIDTH DIMENSIONS: PLUS 1/4 INCH, MINUS 0 INCH.

2.6 FINISH

A. EXTERIOR AND INTERIOR FINISH: FACTORY-APPLIED POWDER-COAT PAINT, COMPLY WITH AAMA 613.
   1. COLOR: WHITE.

2.7 INSTALLATION ACCESSORIES

A. FLASHING/SEALANT TAPE:
   1. ALUMINUM-FOIL-BACKED BUTYL WINDOW AND DOOR FLASHING TAPE.
   2. MAXIMUM TOTAL THICKNESS: 0.013 INCH.
   3. UV RESISTANT.
   4. VERIFY SEALANT COMPATIBILITY WITH SEALANT MANUFACTURER.

2.8 SOURCE QUALITY CONTROL

A. FACTORY TESTING: FACTORY TEST INDIVIDUAL STANDARD OPERABLE WINDOWS FOR AIR INFILTRATION IN ACCORDANCE WITH ASTM E 283, TO ENSURE COMPLIANCE WITH THIS SPECIFICATION.

PART 3 EXECUTION

3.1 EXAMINATION

A. EXAMINE AREAS TO RECEIVE WINDOWS. NOTIFY ARCHITECT OF CONDITIONS THAT WOULD ADVERSELY AFFECT INSTALLATION OR SUBSEQUENT USE. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.2 INSTALLATION

A. INSTALL WINDOWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. INSTALL WINDOWS TO BE WEATHER-TIGHT AND FREELY OPERATING.
C. MAINTAIN ALIGNMENT WITH ADJACENT WORK.
D. SECURE ASSEMBLY TO FRAMED OPENINGS, PLUMB AND SQUARE, WITHOUT DISTORTION.
E. PLACE FLASHING SEALANT TAPE AROUND WINDOW EXTERIOR PERIMETER TO MAINTAIN CONTINUITY OF BUILDING THERMAL AND AIR BARRIER.
F. SEAL WINDOW TO EXTERIOR WALL CLADDING WITH SEALANT AND RELATED BACKING MATERIALS AT PERIMETER OF ASSEMBLY.

3.3 CLEANING

A. CLEAN WINDOW FRAMES AND GLASS AND REMOVE LABELS AND VISIBLE MARKINGS.

V. SUBMITTALS

V. SUBMIT PRODUCT LITERATURE AND SHOP DRAWINGS FOR THE FOLLOWING; HOLLOW METAL DOORS AND FRAMES, WOOD DOORS, ALUMINUM CURTAIN WALL SYSTEMS, INTERIOR AND EXTERIOR GLAZING AND ALL RELATED HARDWARE.

DIVISION 9: FINISHES

1. GYPSUM WALLBOARD AND ACCESSORIES

A. PROVIDE TAPERED WALLBOARD WITH METAL CORNER BEADS OF SIZES INDICATED ON DRAWINGS. MACHINE TAPE ALL JOINTS. WALLBOARD SHALL BE ATTACHED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. PATCH ALL FASTENER HEADS AND LEAVE SURFACE FREE OF WAVES, PITS, AND BUCKLES. ALL EXPOSED SHALL HAVE 'J' MOLDING.

B. PROVIDE STUD SIZES AS INDICATED ON DRAWINGS OF GAUGE REQUIRED FOR APPLICATION.

C. ALL GWB SHALL BE 5/8" TYPE 'X'.

D. MANUFACTURERS;
   1. U.S. GYPSUM
   2. GEORGIA-PACIFIC GYPSUM
   3. CERTAIN TEED

11. PAINT

A. "PAINT" AS USED HEREIN MEANS ALL COATING SYSTEMS INCLUDING PRIMERS, FILLERS, STAINS AND PAINTS.

B. ALL PAINT COLORS SHALL BE AS SELECTED BY OWNER.

C. GYPSUM WALL BOARD WALLS TO RECEIVE ONE (1) PRIME COAT PLUS ONE (1) TOP COAT OF EGG SHELL LATEX PAINT.

D. INTERIOR METAL DOOR FRAMES TO RECEIVE ONE (1) COAT ENAMEL UNDERCOATING AND ONE (1) COAT ENAMEL PAINT.

E. WOOD FENCING AND TRIM SHALL BE STAINED TO PROVIDE FINISH AS SELECTED BY OWNER. PROVIDE ONE (1) COAT STAIN, TWO (2) COATS CLEAR SATIN FINISH.

F. APPLY ALL PAINT AND STAIN FINISHES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

G. TOUCH UP AND RESTORE ANY FINISHES THAT BECOME MARRED OR DAMAGED DURING CONSTRUCTION.

H. MANUFACTURERES:
   1. BENJAMIN MOORE
   2. SHERWIN WILLIAMS
   3. PITTSBURGH PAINTS

111. CEDAR TONGUE & GROOVE PANELING

PART 1 GENERAL

1.1 SECTION INCLUDES
A. CEDAR TONGUE & GROOVE PANELING.

1.2 RELATED SECTIONS
A. SECTION 06100 - ROUGH CARPENTRY.

1.3 REFERENCES
A. NLGA - NATIONAL LUMBER GRADES AUTHORITY "GRADING STANDARDS".

1.4 SUBMITTALS
A. DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
   1. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
   2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
   3. INSTALLATION METHODS.
B. SELECTION SAMPLES: FOR EACH FINISHED PRODUCT SPECIFIED, TWO COMPLETE SETS OF COLOR CHIPS REPRESENTING MANUFACTURER'S FULL RANGE OF AVAILABLE MATERIALS AND FINISHED APPEARANCE.

1.5 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE A MEMBER OF THE WESTERN RED CEDAR LUMBER ASSOCIATION CAPABLE OF PROVIDING ALL WESTERN RED CEDAR SIDING MATERIALS SPECIFIED IN THIS SECTION.
B. INSTALLER QUALIFICATIONS:
   1. INSTALLER SHALL HAVE FIVE (5) YEARS EXPERIENCE INSTALLING CEDAR TRIM ON THE TYPE AND SIZE OF PROJECT SPECIFIED BY THIS SECTION.
   2. INSTALLER SHALL BE LICENSED, REGISTERED OR OTHERWISE APPROVED BY THE LOCAL JURISDICTION TO INSTALL CEDAR SIDING.
C. INSTALLATION: PRODUCTS SHALL BE INSTALLED ACCORDING TO WESTERN RED CEDAR LUMBER ASSOCIATION INSTALLATION GUIDELINES AND ADHERE TO LOCAL BUILDING CODES.

1.6 DELIVERY, STORAGE, AND HANDLING
A. INSPECT THE MATERIALS UPON DELIVERY TO ASSURE THAT SPECIFIED PRODUCTS HAVE BEEN RECEIVED.
B. STORE MATERIALS IN SAFE AREA, AWAY FROM CONSTRUCTION TRAFFIC; STORE UNDER COVER AND OFF GROUND, PROTECTED FROM MOISTURE.

1.7 PROJECT CONDITIONS
A. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN LIMITS RECOMMENDED BY MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE MANUFACTURER'S ABSOLUTE LIMITS.

PART 2 PRODUCTS

2.1 CEDAR PANEL SIDING
A. WOOD PANELING: 4'X8' PLYWOOD SIDING WITH CEDAR FACE VENEER AND PLYWOOD CORE MEETING THE FOLLOWING REQUIREMENTS
   1. PATTERN T-111, GROOVED 8" O.C.
   2. THICKNESS: 15/32"
   3. MOISTURE CONTENT: KILN-DRIED.
   4. FINISH: SANDED, SMOOTH, READY FOR PAINTING.
B. ACCEPTABLE MANUFACTURERS:
   1. GEORGIA PACIFIC, ATLANTA GA TEL: 800-284-5347
   2. WEYERHAUSER, LOCAL OFFICE: NAPERVILLE IL, TEL: 630-778-7070.
   3. J. GIBSON McILVAIN COMPANY: 800-638-9100

2.3 FASTENERS
A. NAILS:
   1. MATERIAL: HOT-DIPPED GALVANIZED PER ASTM 153.
   2. TYPE: SPLITLESS SIDING NAILS
   3. TYPE: TEXTURED HEAD
   4. LENGTH: MUST BE SUFFICIENT TO PENETRATE SOLID WOOD A MINIMUM OF 1 1/4"

DIVISION 10: SPECIALTIES

(NOT USED)

DIVISION 11: EQUIPMENT

I. DROP SAFE

A. 24" LOCKED CHEST , STAINLESS STEEL HEAD, DELIVERY CHUTE W/ ANTI-FISH TEETH, LOCK AND KEYS. SIGNS: "DROP BOX" AND "LIFT TO DEPOSIT"
B. MANUFACTURERS:
   1. AMERICAN SECURITY CABINETS, ST. CLOUD, MN (320)253-3044 OR EQUAL
   2. INTERBANK EQUIPMENT - 1-866-286-4400
   3. PERMA-VAULT - 1-800-662-3360

DIVISION 12: FURNISHING

1. MISCELLANEOUS CASEWORK

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:
   1. FABRICATED CUSTOM CABINETS AND FIXTURES.
   2. COUNTERTOPS.
   3. CABINET HARDWARE.

1.2 REFERENCES

A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI):
   1. ANSI A135.4 - BASIC HARDBOARD.
   2. ANSI A208.1 - MAT FORMED WOOD PARTICLEBOARD.

B. ARCHITECTURAL WOODWORK INSTITUTE (AWI):
   1. AWI AWQS - ARCHITECTURAL WOODWORK QUALITY STANDARDS, 6TH EDITION VERSION 1.0.

C. NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION (NEMA):
   1. NEMA LD3 - HIGH PRESSURE DECORATIVE LAMINATES.

1.3 SUBMITTALS

A. SECTION 01330 - SUBMITTAL PROCEDURES: PROCEDURES FOR SUBMITTALS.
   1. PRODUCT DATA: DATA FOR HARDWARE AND ACCESSORIES INDICATING MATERIAL, TYPE, FUNCTION, ATTACHMENT AND FINISH.
   2. SHOP DRAWINGS:
      a. INDICATE EACH MATERIAL USED, WOOD SPECIES, COMPONENT PROFILES, SECTIONS, AND ELEVATIONS, ASSEMBLY METHODS, JOINT DETAILS, FASTENING METHODS, ACCESSORY LISTINGS, HARDWARE LOCATION, AND SCHEDULE OF FINISHES IN CONFORMANCE WITH REQUIREMENTS OF AWI AWQS.
      b. INDICATE COMPOSITION OF EACH MATERIAL AND COMPLIANCE WITH REFERENCED STANDARDS.
      c. PRESENT DRAWINGS IN RELATED AND DIMENSIONAL POSITIONS; SECTION DETAILS DRAWN AT MINIMUM 1-1/2 INCH SCALE.
   3. SAMPLES: TWO 2 INCH X 3 INCH SAMPLES OF EACH PLASTIC LAMINATE FINISH AND COLOR.
   4. ASSURANCE/CONTROL SUBMITTALS:
      a. QUALIFICATION DOCUMENTATION: CUSTOM CABINETWORK AND FIXTURE MANUFACTURER AND INSTALLER DOCUMENTATION OF EXPERIENCE INDICATING COMPLIANCE WITH SPECIFIED QUALIFICATION REQUIREMENTS.

1.4 QUALITY ASSURANCE

A. PERFORM WORK IN ACCORDANCE WITH AWI AWQS CUSTOM QUALITY.
   1. AFFIX THE AWI QUALITY GRADE STAMP TO EACH UNIT OF CUSTOM CABINET AND FIXTURE WORK. THE AWI QUALITY GRADE STAMP SHALL DISPLAY CUSTOM GRADE AS SPECIFIED FOR EACH SECTION OF WORK.

B. QUALIFICATIONS:
   1. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING STORE FIXTURES SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS DOCUMENTED EXPERIENCE. MEMBER IN GOOD STANDING OF THE ARCHITECTURAL WOODWORK INSTITUTE.
   2. INSTALLER: COMPANY SPECIALIZING IN PERFORMING WORK OF THIS SECTION WITH MINIMUM 5 YEARS DOCUMENTED EXPERIENCE.

1.5 DELIVERY, STORAGE, AND HANDLING

A. PACKAGE FIXTURES IN WATERTIGHT CONTAINER FOR TRANSPORTATION TO PROJECT SITE TO PREVENT DAMAGE AND FOR STORAGE OUTSIDE BUILDING, IF REQUIRED.

B. PROTECT FIXTURES FROM DAMAGE AND EXCESSIVE OR INADEQUATE RELATIVE HUMIDITY.

C. MAINTAIN RELATIVE HUMIDITY BETWEEN 25 PERCENT AND 55 PERCENT.

PART 2 - PRODUCTS

2.1 WOOD MATERIALS

A. SOFTWOOD LUMBER: PS 20; GRADED IN ACCORDANCE WITH AWI CUSTOM; AVERAGE MOISTURE CONTENT OF 6 PERCENT.

B. HARDWOOD LUMBER: NHLA; GRADED IN ACCORDANCE WITH AWI CUSTOM; AVERAGE MOISTURE CONTENT OF 6 PERCENT.

2.2 PANEL MATERIALS

A. SOFTWOOD PLYWOOD: PS 1; GRADED IN ACCORDANCE WITH AWI, CORE MATERIALS OF PARTICLEBOARD.

B. HARDWOOD PLYWOOD: PS 51; GRADED IN ACCORDANCE WITH AWI, CORE MATERIALS OF PARTICLEBOARD, TYPE OF GLUE RECOMMENDED FOR APPLICATION.

C. WOOD PARTICLEBOARD: PS1; AWI STANDARD, COMPOSED OF WOOD CHIPS, MEDIUM DENSITY, MADE WITH WATER RESISTANT ADHESIVE; OF GRADE TO SUIT APPLICATION; SANDED FACES.

D. HARDBOARD: ANSI A135.4; PRESSED WOOD FIBER WITH RESIN BINDER, TEMPERED GRADE, SMOOTH TWO SIDES

2.3 PLASTIC LAMINATE MATERIALS

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH PROJECT REQUIREMENTS PROVIDE PLASTIC LAMINATES OF ONE OF THE FOLLOWING:
   1. FORMICA CORPORATION.
   2. MICARTA CORPORATION.
   3. NEVAMAR CORPORATION.
   4. WILSONART INTERNATIONAL.
   5. PIONITE.

B. HIGH-PRESSURE DECORATIVE LAMINATE: NEMA LD3, GP-50 GENERAL PURPOSE .050 INCH.

C. LOW PRESSURE LAMINATE: MELAMINE THERMOSET DECORATIVE OVERLAY.

2.4 ACCESSORIES

A. ADHESIVE: TYPE RECOMMENDED BY AWI TO SUIT APPLICATION.

B. PLASTIC EDGE TRIM: EXTRUDED FLAT SHAPED; SMOOTH FINISH; SELF LOCKING SERRATED TONGUE; OF WIDTH TO MATCH COMPONENT THICKNESS.

C. FASTENERS: SIZE AND TYPE TO SUIT APPLICATION.

D. BOLTS, NUTS, WASHERS, LAGS, PINS, AND SCREWS: OF SIZE AND TYPE TO SUIT APPLICATION.

E. CONCEALED JOINT FASTENERS: THREADED STEEL.

F. GROMMETS: 2" DIAMETER, PLASTIC COUNTERTOP GROMMET WITH REMOVABLE CAP.
G. COUNTERS, SHELVES, HARDWARE, FITTINGS, AND FIXTURES.

2.5 HARDWARE

A. PULLS: WIRE PULLS, 5 INCHES LONG, EPCO MC402-5-BRC OR EQUAL
B. DRAWER GLIDES: BALL BEARING TYPE WITH 3/4 EXTENSION AND 75 LB. RATING, BLUM KV1300 SERIES OR EQUAL.
C. HINGES: FULLY CONCEALED HINGES WITH SELF CLOSING FEATURE AND 110 DEGREE OPENING, BLUM 110 SOFT CLOSE OR EQUAL.

2.6 FABRICATION

A. FABRICATE CABINETS AND FIXTURES TO AWI AWQS, SECTION 400 - ARCHITECTURAL CABINETS, CUSTOM GRADE STANDARDS.

B. SHOP ASSEMBLE CASEWORK FOR DELIVERY TO SITE IN UNITS EASILY HANDLED AND TO PERMIT PASSAGE THROUGH BUILDING OPENINGS.

C. FIT SHELVES, DOORS, AND EXPOSED EDGES WITH MATCHING PLASTIC EDGING. USE ONE PIECE FOR FULL LENGTH ONLY.

D. CAP EXPOSED PLASTIC LAMINATE FINISH EDGES WITH MATERIAL OF SAME FINISH AND PATTERN.

E. DOOR AND DRAWER FRONTS: FLUSH OVERLAY UNLESS INDICATED OTHERWISE ON DRAWINGS.

F. WHEN NECESSARY TO CUT AND FIT ON SITE, PROVIDE MATERIALS WITH AMPLE ALLOWANCE FOR CUTTING. PROVIDE TRIM FOR SCRIBING AND SITE CUTTING.

G. APPLY PLASTIC LAMINATE FINISH IN FULL UNINTERRUPTED SHEETS CONSISTENT WITH MANUFACTURED SIZES. FIT CORNERS AND JOINTS HAIRLINE; SECURE WITH CONCEALED FASTENERS.

H. PROVIDE CUTOUTS FOR INSERTS, APPLIANCES, OUTLET BOXES, FIXTURES AND FITTINGS. VERIFY LOCATIONS OF CUTOUTS FROM ON-SITE DIMENSIONS. PRIME PAINT CUT EDGES.

PART 3 - EXECUTION

3.1 EXAMINATION

A. VERIFICATION OF CONDITIONS: VERIFY THAT FIELD MEASUREMENTS, SURFACES, SUBSTRATES AND CONDITIONS ARE AS REQUIRED, AND READY TO RECEIVE WORK.
   1. VERIFY CUSTOM CABINET AND FIXTURE DIMENSIONS BY FIELD DIMENSIONS.

B. REPORT IN WRITING PREVAILING CONDITIONS THAT WILL ADVERSELY AFFECT SATISFACTORY EXECUTION OF THE WORK OF THIS SECTION. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 INSTALLATION

A. INSTALL CUSTOM FABRICATED CABINETS AND FIXTURES IN CONFORMANCE WITH AWI AWQS, SECTION 1700 - INSTALLATION OF WOODWORK.

B. SET AND SECURE FIXTURES IN PLACE; RIGID, PLUMB, AND LEVEL AT LOCATIONS INDICATED ON DRAWINGS.
   1. ATTACH TO FLOOR OR WALLS WITH FASTENERS AS INDICATED ON DRAWINGS.

C. USE FIXTURE ATTACHMENTS IN CONCEALED LOCATIONS FOR WALL MOUNTED COMPONENTS.

D. CAREFULLY SCRIBE FIXTURES ABUTTING OTHER COMPONENTS, WITH MAXIMUM GAPS OF 1/32 INCH. DO NOT USE ADDITIONAL OVERLAY TRIM FOR THIS PURPOSE.

E. SECURE FIXTURES TO FLOOR USING APPROPRIATE ANGLES AND ANCHORAGES.

F. COUNTERSINK ANCHORAGE DEVICES AT EXPOSED LOCATIONS. CONCEAL WITH SOLID WOOD PLUGS OF SPECIES TO MATCH SURROUNDING WOOD; FINISH FLUSH WITH SURROUNDING SURFACES.

3.3 CONSTRUCTION

A. INTERFACE WITH OTHER WORK:
   1. COORDINATE INSTALLATION SEQUENCE OF FIXTURES WITH TRADES PROVIDING DATA AND COMMUNICATION CONNECTIONS TO FIXTURES.

B. SITE TOLERANCES:
   1. MAXIMUM VARIATION FROM TRUE POSITION: 1/16 INCH.
   2. MAXIMUM OFFSET FROM TRUE ALIGNMENT WITH ABUTTING MATERIALS: 1/32 INCH.

3.4 ADJUSTING

A. ADJUST MOVING OR OPERATING PARTS TO FUNCTION SMOOTHLY AND CORRECTLY.

3.5 CLEANING AND PROTECTION

A. CLEAN CASEWORK, COUNTERS, SHELVES, HARDWARE, FITTINGS, AND FIXTURES.

DIVISION 13: SPECIAL CONSTRUCTION

(NOT USED)

DIVISION 14: CONVEYING SYSTEMS

(NOT USED)

DIVISION 15: PLUMBING

(NOT USED)

DIVISION 16: MECHANICAL

(SEE MECHANICAL SHEETS)

DIVISION 17: ELECTRICAL

(SEE ELECTRICAL SHEETS)

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature 1-25-2013 Date
11/30/14 Expires

CAMPGROUND PERMIT BOOTH
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
REVISED	12/6/2012

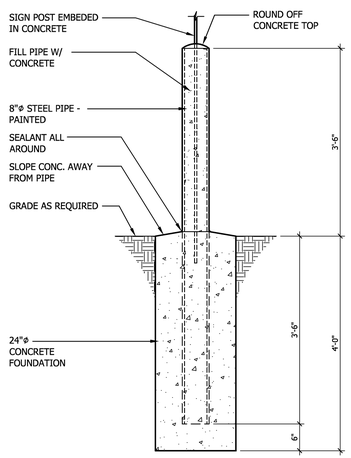
DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60012
P.815.444.8444
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

SPECIFICATIONS

A9.2

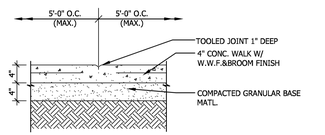
© COPYRIGHT 2012



D BOLLARD DETAIL

DE-02FND

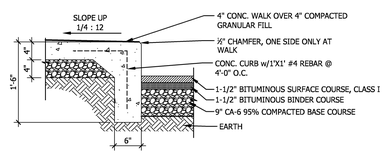
SCALE: 3/4" = 1'-0"



F CONTROL JOINT - SIDEWALK

DE-02FND

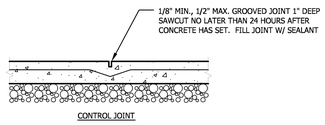
SCALE: 3/4" = 1'-0"



E CONCRETE SIDEWALK CURB

DE-02FND

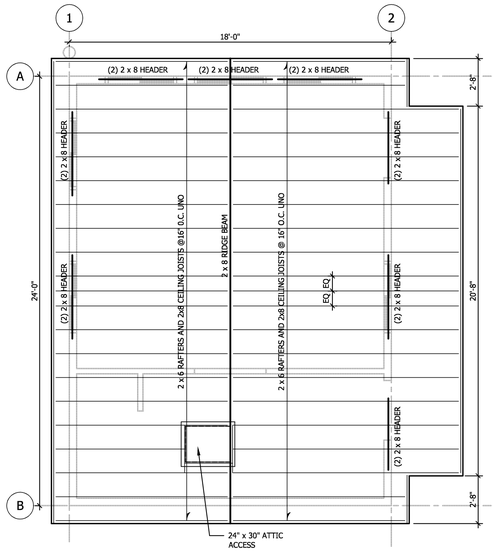
SCALE: 3/4" = 1'-0"



C SLAB JOINT DETAIL

DE-02FND

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

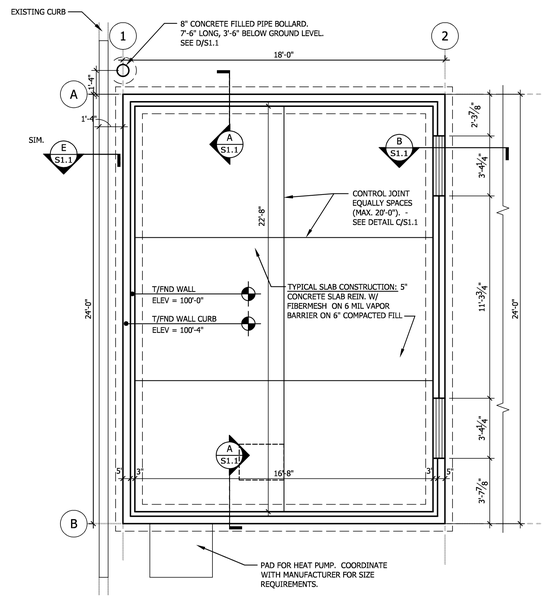


2 ROOF FRAMING PLAN

PF-01

SCALE: ¼" = 1'-0"

N

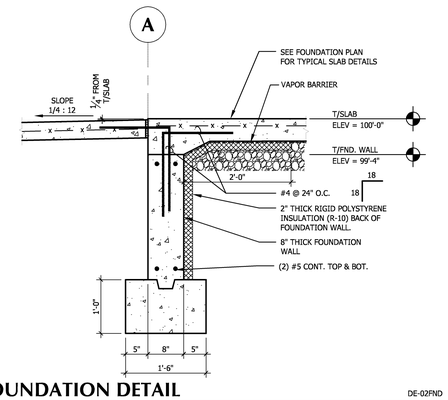


1 FOUNDATION PLAN

PF-01

SCALE: ¼" = 1'-0"

N

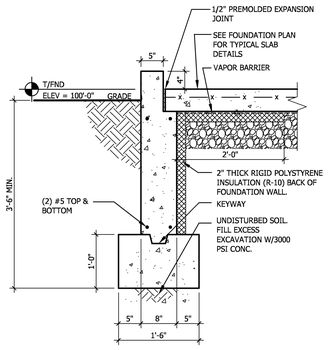


B FOUNDATION DETAIL

@ DOOR

DE-02FND

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



A FOUNDATION DETAIL

DE-01

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

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature Date 1-25-2013

Expires 11/30/14

EXCAVATION, CONCRETE AND REINFORCING NOTES

1. ALL FOUNDATION EXCAVATIONS SHALL BE TESTED TO VERIFY MINIMUM BEARING OF 3000 psf.
2. ALL SLAB-ON-GRADE AREAS SHALL BE PROOF ROLLED WITH THE HEAVIEST AVAILABLE EQUIPMENT (MINIMUM 25 TONS).
3. ALL SOFT SPOTS ENCOUNTERED SHALL BE REMOVED AND REPLACED TO FINISHED GRADE WITH APPROVED FILL MATERIAL.
4. FILL MATERIAL FOR ALL SLAB AREAS ARE TO BE PLACED IN LAYERS NOT EXCEEDING 9" AND COMPACTED TO A MINIMUM DENSITY OF 95% OF ASTM D155T MAXIMUM DENSITY.
5. ALL FOOTINGS SHALL BE POURED INTO AN EARTH FORMED TRENCH FOR THEIR FULL DEPTH. PLACE BACKFILL EQUALLY ON BOTH SIDES OF FOUNDATION WALLS.
6. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI STANDARD 318, LATEST EDITION.
7. ALL CONCRETE SHALL BE ULTIMATE STRENGTH TYPE NORMAL WEIGHT CONCRETE AND SHALL DEVELOP 3,000 psi COMPRESSIVE STRENGTH AT 28 DAYS.
8. SLUMP TESTS SHALL BE MADE FOR EACH 150 CUBIC YARDS OF CONCRETE. THE MAXIMUM SLUMP SHALL BE 3" FOR SLABS AND 4" FOR WALLS.
9. REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A615 GRADE 60. CORNER BARS SHALL BE PROVIDED AT ALL WALL CORNERS EQUAL TO THE HORIZONTAL WALL REINFORCING.
10. NO SLABS OR WALLS SHALL HAVE JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT CENTER OF SPAN WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS, UNLESS OTHERWISE SHOWN OR APPROVED.
11. FIBERMESH SHALL CONFORM TO ASTM SPECIFICATION C 94/C 94M, C 116/C 116M, AND ASTM C 1550. SEE DRAWINGS FOR TYPE OF FIBERMESH. MEASURING, MIXING, TRANPORTING AND PLACING CONCRETE PERACI 304 GUIDE.
12. NO ALUMINUM OF ANY TYPE SHALL BE ALLOWED IN THE CONCRETE WORK, UNLESS COATED TO PREVENT ALUMINUM/CONCRETE REACTION.
13. ELECTRICAL CONDUIT EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE THIRD THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER.
14. THE CONCRETE CONTRACTOR SHALL PROVIDE A DUPLICATE COPY OF ALL READY MIX CONCRETE DELIVERY TICKETS TO THE GENERAL CONTRACTOR.
15. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHETECT.
16. BACKFILL ALL INTERIOR WALLS WITH GRANULAR MATERIAL (CA-6).
17. EXTERIOR WALLS NOT ADJACENT TO PAVED AREAS SHALL BE BACKFILLED WITH SUITABLE CLAY BACKFILL.
18. EXTERIOR WALLS ADJACENT TO WALKS, DRIVES, SHALL BE BACKFILLED WITH GRANULAR MATERIAL (CA-6).
19. TOP OF FOUNDATION AT 100'-0" UNLESS NOTED OTHERWISE

CAMPGROUND PERMIT BOOTH

DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

REVIEW	
FINAL REVIEW	10/30/2012
ISSUED FOR PERMIT/BID	11/7/2012
NO CHANGES	12/3/2012
	12/6/2012

DDCA architects
3321 South State Route 31
Prairie Grove, Illinois 60012
P 815-444-8844
F 815-444-8844
www.DDCAarchitects.com

Direct Design Ltd.
Carroll Associates

PROJECT NO.	112139
PROJECT MGR.	

FOUNDATION PLAN

S1.1

© COPYRIGHT 2012

MECHANICAL SPECIFICATIONS

GENERAL CONDITIONS AND GENERAL NOTES INDICATED WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS SHALL GOVERN WHERE APPLICABLE.

WORK INDICATED ON DRAWINGS SHALL BE CONSIDERED NEW AND IN-CONTRACT UNLESS NOTED OTHERWISE.

COMPLETELY OPERATIONAL HEATING, VENTILATING, AIR CONDITIONING AND EXHAUST SYSTEMS READY FOR USE AS ITEMIZED BUT NOT LIMITED TO AS FOLLOWS:

DEMOLITION, REMOVAL, AND ALTERATIONS OF EXISTING SYSTEMS AND EQUIPMENT AS REQUIRED THOUGH NOT SPECIFICALLY INDICATED ACCOMMODATING PROPOSED WORK.

AIR HANDLING UNIT AND HEAT PUMP UNIT.
DUCTWORK AND AIR DEVICES.
THERMAL INSULATION.
CONTROLS, SENSORS, CONTROL WIRING, AND INTERLOCKS.

RELATED WORK BY OTHER TRADES

ELECTRIC POWER WIRING.

RELATED WORK BY OTHERS

TELECOMMUNICATIONS.

MECHANICAL INSTALLATION NOTES

WORK SHALL BE PERFORMED IN ACCORDANCE WITH CODES AND AUTHORITIES HAVING JURISDICTION, INCLUDING ADA GUIDELINES AND ENERGY COMPLIANCE.

WORK AND INSTALLATIONS SHALL BE PERFORMED IN FIRST-CLASS NEAT WORKMANLIKE MANNER. REMOVE DEBRIS ON REGULAR BASIS AND CLEAN EQUIPMENT DURING PROJECT COMPLETION.

APPLY, PROCURE, AND PAY FOR REQUIRED PERMITS AND INSPECTIONS.

FIELD VERIFY PROJECT CONSTRUCTION CONDITIONS AND PROJECT SITE CONDITIONS PRIOR TO SUBMITTING BID.

THIS TRADE SHALL DO ITS OWN CUTTING AND PATCHING, TRENCHING AND BACKFILLING. PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE FILLED WITH FIRESTOP PRODUCT. SUBMIT FIRESTOP PRODUCT MATERIAL SPECIFICATIONS TO LOCAL AUTHORITIES HAVING JURISDICTION.

CONFER WITH THE OTHER TRADES IN COORDINATION OF THIS WORK FOR REQUIRED CLEARANCES, CHASES, RECESSES AND OPENINGS.

PROPOSAL PRICE SHALL INCLUDE SPECIFIED MATERIALS ONLY. SHOULD CONTRACTOR WISH TO SUBSTITUTE MATERIALS, EQUIPMENT OR MANUFACTURERS, IT SHALL BE DONE BY STATING EACH SUBSTITUTION AND ITS PRICE ADJUSTMENT.

DRAWINGS SHALL BE FOR BIDDING ONLY. ROUGH-IN AND FINAL CONNECTION SHALL BE MADE FROM APPROVED EQUIPMENT DRAWINGS ONLY.

GUARANTEE WORK AND EQUIPMENT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE OF OCCUPANCY. ANY REPAIRS OR REPLACEMENT DURING THIS PERIOD SHALL BE MADE WITHOUT COST TO OWNER.

REFRIGERATION PIPING SHALL BE DEHYDRATED AND CAPPED ACR COPPER WITH WROUGHT COPPER FITTINGS. JOINTS SHALL BE MADE WITH SILFOS, EXCEPT AT VALVES AND OTHER EQUIPMENT DAMAGED BY HIGH TEMPERATURES WHERE 95-5 SOLDER SHALL BE INSTALLED.

INSULATE SUPPLY, RETURN, AND OUTSIDE AIR INTAKE DUCTS. DUCTS INSIDE BUILDING SHALL HAVE EXTERNAL WRAP WITH 1-1/2" BLANKET TYPE FIBERGLASS INSULATION WITH FACTORY APPLIED FIBERGLASS REINFORCED ALUMINUM FOIL FACING AND THERMAL VALUE OF R-5 OR GREATER AT 75 DEG F (CONDITIONED SPACES). DUCTS OUTSIDE BUILDING SHALL HAVE EXTERIOR RIGID FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR-RETARDENT FACING, PROVIDING THERMAL VALUE R-8 OR GREATER AT 0 DEG F (UNCONDITIONED SPACES). INSULATION SHALL BE WRAPPED TIGHT WITH JOINTS ABUTTED AND SEALED AND BE SECURED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. INSULATION SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25 AND SMOKE DEVELOPED RATING NOT TO EXCEED 50, PER ASTM B-84.

DUCTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS SET FORTH IN SMACNA MANUAL. DUCTS SHALL BE SEALED TO PRESSURE CLASS A, WITH MECHANICAL JOINTS AND ADHESIVE SEALANT. FIRE DAMPERS SHALL BE TYPE B UNLESS NOTED OTHERWISE ON DRAWINGS.

FLEXIBLE RUNOUTS SHALL NOT EXCEED 5'-0" AND SHALL BE INSULATED WITH VAPOR BARRIER. NO PVC SHALL BE PERMITTED.

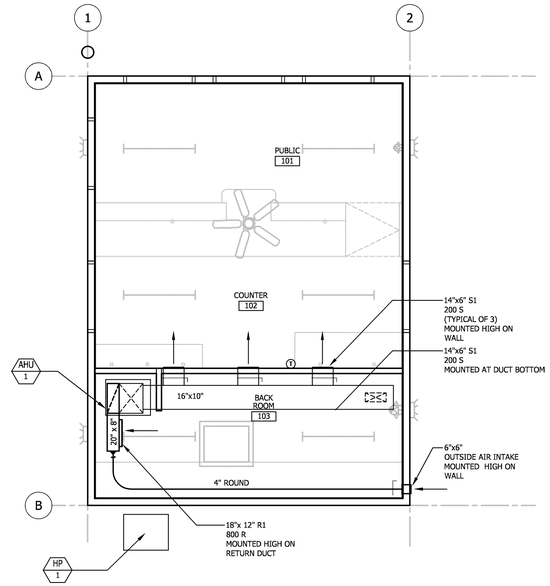
PROVIDE MANUALLY OPERATED VOLUME CONTROL AND/OR SPLITTER DAMPERS IN DUCT BRANCHES FOR PROPER BALANCING OF AIR HANDLING SYSTEM.

CONTROL DAMPERS SHALL BE GALVANIZED STEEL LOW LEAKAGE TYPE WITH OPENING SIZES AS INDICATED. PROVIDE MANUAL OPERATORS OR MOTORIZED ACTUATORS AS INDICATED OR REQUIRED.

AIR DEVICES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.

AIR TEST AND BALANCE REPORT FOR SUPPLY, RETURN, OUTDOOR AIR INTAKE, AND EXHAUST SYSTEMS TO QUANTITIES INDICATED, WITHIN 10% TOLERANCE. SUBMIT THREE (3) REPORTS FROM INDEPENDENT TESTING AGENCY STATING EACH SYSTEM COMPLIANCE AND APPROVAL AUTHORIZATION.

SUBMIT SIX (6) COPIES OF FOLLOWING ITEMS FOR SHOP DRAWING REVIEW:
AIR HANDLING UNITS AND HEAT PUMP UNIT.
DUCTWORK AND AIR DEVICES.
LOUVERS, VENTILATORS, AND DAMPERS.
THERMAL INSULATION.
CONTROLS, SENSORS, CONTROL WIRING, AND INTERLOCKS.

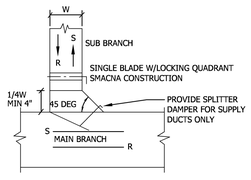


1 MECHANICAL PLAN

PF-01

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

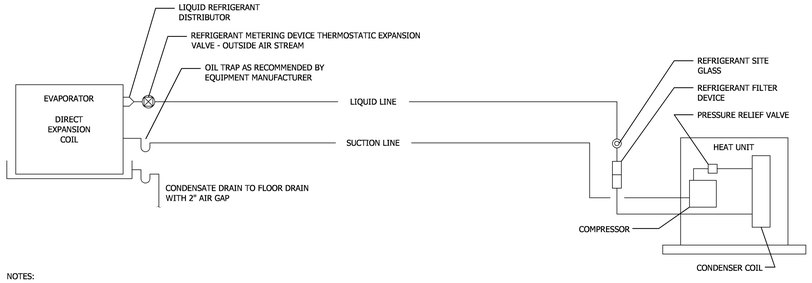
N



NOTE:
FOR SUPPLY OR RETURN/EXHAUST BRANCHES OR REGISTER/GRILLE TAKE-OFFS.

LOW PRESSURE DUCT TAKE OFF

NOT TO SCALE



NOTES:
1. INSULATE REFRIGERANT SUCTION PIPING AND CONDENSATE DRAIN WITH 1/2" THICK "IMCO-LOCK" OR EQUIVALENT ELASTOMERIC INSULATION. OUTER JACKET OF INSULATION SHALL BE RATED NOT TO EXCEED FLAME SPREAD OF 25 AND SMOKE DEVELOPED 50, PER ASTM E-84.
2. INSTALL PRESSURE RELIEF VALVE ON HIGH PRESSURE SIDE OF SYSTEM, UPSTREAM OF ANY INTERVENING VALVES.
3. REFRIGERANT PIPING SHALL BE TYPE "K" COPPER WITH WROUGHT FITTINGS AND BRAZED CONNECTIONS/JOINTS.
4. CONDENSATE DRAIN SHALL BE SCHEDULE 40 PVC.
5. EQUIPMENT SHALL BE FACTORY WIRED IN ACCORDANCE WITH ELECTRICAL CODE.
6. EXPANSION VALVE, REFRIGERANT PIPING DEVICES, AND CONNECTIONS ARE NOT PERMITTED TO BE INSTALLED IN AIR STREAM.

REFRIGERANT PIPING SCHEMATIC

NOT TO SCALE

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT

Signature 1-25-2013 Date
Expires 11/30/14

AIR DEVICE SCHEDULE

TAG	STYLE	FRAME	DAMPER	NOTES
S1	ADJUSTABLE DIFFUSER	SURFACE	OBD	1, 2, 3
R1	DEFLECTION GRILLE	SURFACE	-	1, 2, 3

NOTES:
1. COLOR TO MATCH WALL OF AREA SERVED.
2. REFERENCE ARCHITECTURAL DRAWINGS FOR AIR DEVICE MOUNTING
3. COORDINATION.
PROVIDE DRYWALL CEILING TRIM FRAMING.

AIR HANDLING UNIT / HEAT PUMP SCHEDULE

TAG	DESCRIPTION	AIR RATE (CFM)	OAI (CFM)	ESP (WC)	ELECTRIC HEATER	VOLTAGE PHASE	MCA MOCP	WEIGHT (LBS)	HEAT PUMP UNIT	COOLING (TONS)	VOLTAGE PHASE	MCA MOCP	WEIGHT (LBS)	S/EER	REFG	NOTES
AHU-1 / HP-1	AIR HANDLING UNIT WITH INTEGRAL ELECTRIC HEAT AND HEAT PUMP UNIT	800	80	0.6"	8 KW	240 1	38 50	150	EXTERIOR GRADE	2	240 1	12 20	250	13.0	R410A	1,2,3,4,5,6

NOTES:
1. PROVIDE CASED EVAPORATOR COIL WITH GASKETED SEALED FURNACE UNIT CONNECTION AND THREADED CONDENSATE DRAIN PIPING.
2. PROVIDE INTEGRAL ELECTRIC HEATER WITH CONNECTIONS.
3. PROVIDE RETURN AIR FILTER SLEEVING WITH 2" DISPOSABLE AIR FILTER, MINIMUM MERV 8.
4. PROVIDE FURNACE UNIT VIBRATION-ISOLATION MOUNTING PADS.
5. PROVIDE CONDENSING UNIT MOUNTING PAD AND COMPACTED GRAVEL BASE. VERIFY EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
6. PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT CONTROL.

MECHANICAL SYMBOLS

FD	FIRE DAMPER
OAI	OUTDOOR AIR INTAKE
S	SUPPLY AIR
R	RETURN AIR
E	EXHAUST AIR
RTU	ROOFTOP UNIT
EF	EXHAUST FAN
UNO	UNLESS NOTED OTHERWISE
— G —	GAS PIPING
	SUPPLY OPENING
	RETURN/EXHAUST OPENING
	BALL VALVE
	BUTTERFLY VALVE
	UNION
T	THERMOSTAT
	CIRCUIT SETTER

CAMPGROUND PERMIT BOOTH

DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

ME REVIEW	11/05/2012
FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
NO CHANGES	12/6/2012

DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60950
P 815-444-8444
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

MECHANICAL
PLAN & DETAILS

M3.1

© COPYRIGHT 2012

ELECTRICAL SPECIFICATIONS

GENERAL CONDITIONS AND GENERAL NOTES INDICATED WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS SHALL GOVERN WHERE APPLICABLE.

WORK INDICATED ON DRAWINGS SHALL BE CONSIDERED NEW AND IN-CONTRACT UNLESS NOTED OTHERWISE.

COMPLETELY OPERATIONAL ELECTRICAL SYSTEMS READY FOR USE AS ITEMIZED BUT NOT LIMITED TO AS FOLLOWS:

DEMOLITION, REMOVAL, AND ALTERATIONS OF EXISTING SYSTEMS AND EQUIPMENT AS REQUIRED THOUGH NOT SPECIFICALLY INDICATED ACCOMMODATING PROPOSED WORK.

INCOMING SECONDARY ELECTRIC SERVICES INCLUDING PROVISIONS FOR METERING AND SERVICE SWITCHES.

PANELS, BREAKERS, CONDUIT, WIRING, AND BRANCH CIRCUITS CONNECTING EACH EQUIPMENT, FIXTURE, DEVICE AND EQUIPMENT.

LIGHTING FIXTURES AND LAMPS.

CONCRETE FIXTURE BASES.

EMPTY CONDUIT SYSTEM FOR TELEPHONE/DATA COMMUNICATIONS.

RELATED WORK BY OTHER TRADES

TELEPHONE AND DATA WIRING, DEVICES, AND TERMINATIONS.

RELATED WORK BY OTHERS

TELECOMMUNICATIONS.

ELECTRIC INSTALLATION NOTES

WORK SHALL BE PERFORMED IN ACCORDANCE WITH CODES AND AUTHORITIES HAVING JURISDICTION, INCLUDING ADA GUIDELINES AND ENERGY COMPLIANCE.

WORK AND INSTALLATIONS SHALL BE PERFORMED IN FIRST-CLASS NEAT WORKMANLIKE MANNER. REMOVE DEBRIS ON REGULAR BASIS AND CLEAN EQUIPMENT DURING PROJECT COMPLETION.

APPLY, PROCURE, AND PAY FOR REQUIRED PERMITS AND INSPECTIONS.

FIELD VERIFY PROJECT CONSTRUCTION CONDITIONS AND PROJECT SITE CONDITIONS PRIOR TO SUBMITTING BID.

THIS TRADE SHALL DO ITS OWN CUTTING AND PATCHING, TRENCHING AND BACKFILLING. PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE FILLED WITH FIRESTOP PRODUCT. SUBMIT FIRESTOP PRODUCT MATERIAL SPECIFICATIONS TO LOCAL AUTHORITIES HAVING JURISDICTION.

CONFER WITH OTHER TRADES IN COORDINATION OF THIS WORK FOR REQUIRED CLEARANCES, CHASES, RECESSES AND OPENINGS.

PROPOSAL PRICE SHALL INCLUDE SPECIFIED MATERIALS ONLY. SHOULD CONTRACTOR WISH TO SUBSTITUTE MATERIALS, EQUIPMENT OR MANUFACTURERS, IT SHALL BE DONE BY STATING EACH SUBSTITUTION AND ITS PRICE ADJUSTMENT.

DRAWINGS SHALL BE FOR BIDDING ONLY. ROUGH-IN AND FINAL CONNECTION SHALL BE MADE FROM APPROVED EQUIPMENT DRAWINGS ONLY.

SIZE AND TYPE OF EQUIPMENT BRANCH OVERCURRENT PROTECTIVE DEVICE(S) SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER. FIELD VERIFY EACH REQUIRED DEVICE PRIOR TO INSTALLATION.

GUARANTEE WORK AND EQUIPMENT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE OF OCCUPANCY. ANY REPAIRS OR REPLACEMENT DURING THIS PERIOD SHALL BE MADE WITHOUT COST TO OWNER.

WIRE SHALL HAVE 600 VOLT INSULATION, NOT LESS THAN #12 EXCEPT FOR CONTROLS, BE SOLID COPPER TYPE THHN OR THWN FOR #10 AND SMALLER, AND BE STRANDED COPPER TYPE THHN OR THWN FOR WIRE #10 AND LARGER.

CONDUIT IN GROUND FOR EXTERIOR FIXTURES AND EQUIPMENT MAY BE PVC (IF PERMITTED BY LOCAL AUTHORITIES). CONDUIT EXPOSED TO WEATHER, IN SLABS ON GRADE, AND WHERE REQUIRED BY CODE SHALL BE RIGID GALVANIZED STEEL WITH WATERPROOF FITTINGS AND APPROVED COMPOUND. CONDUIT ELSEWHERE SHALL BE EMT WITH COMPRESSION OR SET SCREW FITTINGS.

DEVICES AND PLATES IN FINISHED AREAS SHALL BE SELECTED BY ARCHITECT. DEVICES IN UNFINISHED AREAS SHALL BE WHITE WITH GALVANIZED PLATES.

DEVICES SHALL BE, UNLESS NOTED OTHERWISE ON DRAWINGS:
LEVITON 5521I (SWITCHES), LEVITON 5800I (RECEPTACLES), LEVITON 6899I (GFI RECEPTACLES), LEVITON 5362IG (ORANGE IG RECEPTACLES).

MOUNTING HEIGHTS SHALL BE, UNLESS NOTED OTHERWISE ON DRAWINGS:
SWITCHES AT 4'-0" ABOVE FINISHED FLOOR (3'-6 " ADA), RECEPTACLES AT 1'-6" ABOVE FINISHED FLOOR (INDOOR) INCLUDING COMMUNICATION RECEPTACLES, 2'-0" ABOVE FINISHED FLOOR (OUTDOOR), AND 4" ABOVE COUNTERTOP BACKSPLASH.

IDENTIFY DISCONNECTS, STARTERS, PANELS, SWITCHBOARDS, DIMMERS, AND SWITCHES WITH 3/4" HIGH WHITE-FACED MICARTA WITH 1/4" BLACK LETTERS. DIMMERS AND SWITCHES IN GROUPS OF 2 OR LESS DO NOT REQUIRE IDENTIFICATION.

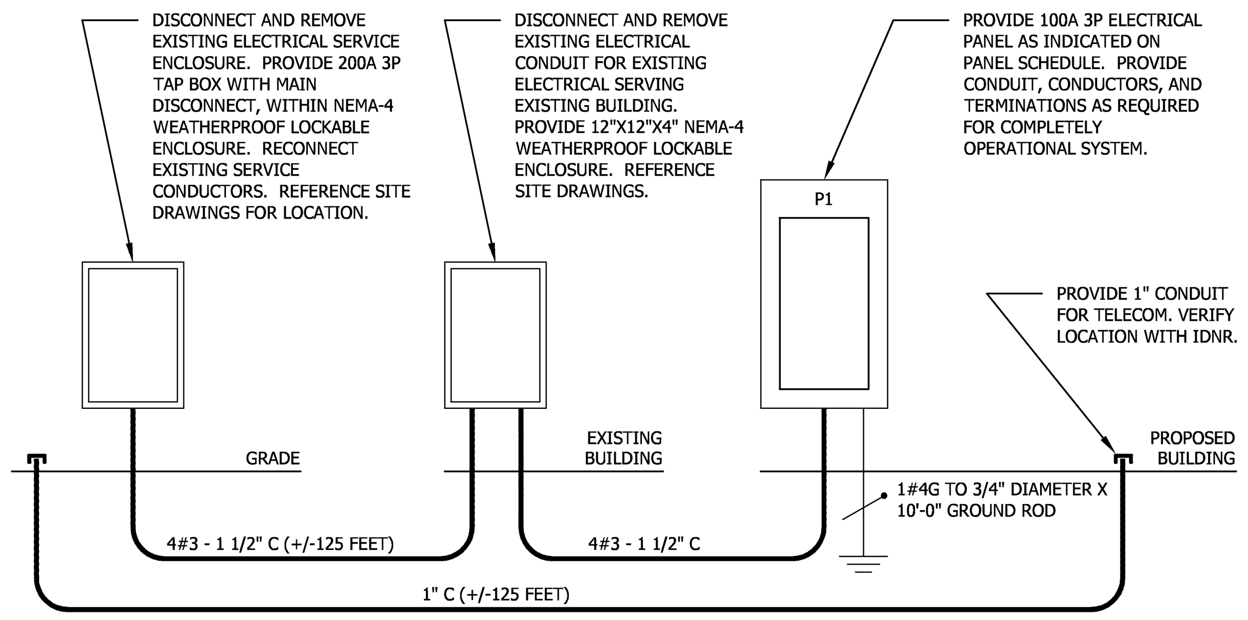
BRANCH PANELS SHALL HAVE COPPER BUS WITH BOLT-ON TYPE BREAKERS. PROVIDE ACCURATE AND TYPE-PRINTED PANEL SCHEDULE FOR EACH PANEL.

ELECTRICAL EQUIPMENT SHALL HAVE MINIMUM OF 10,000 AMP INTERRUPTING CAPACITY UNLESS NOTED OTHERWISE ON DRAWINGS, OR THE EQUIPMENT MANUFACTURER SUPPLIES DETAILED MINIMUM AIC CALCULATIONS JUSTIFYING RATINGS OF EQUIPMENT PROVIDED.

COMMUNICATION OUTLETS SHALL BE INSTALLED WITH 4" BOX AND SINGLE GANG COVER, AND 3/4" CONDUIT ROUTED INTO ACCESSIBLE SPACE.

EXTERIOR EQUIPMENT SHALL BE NEMA 3R AND WEATHERPROOF LIQUIDTIGHT FLEXIBLE METAL CONDUIT CONNECTIONS.

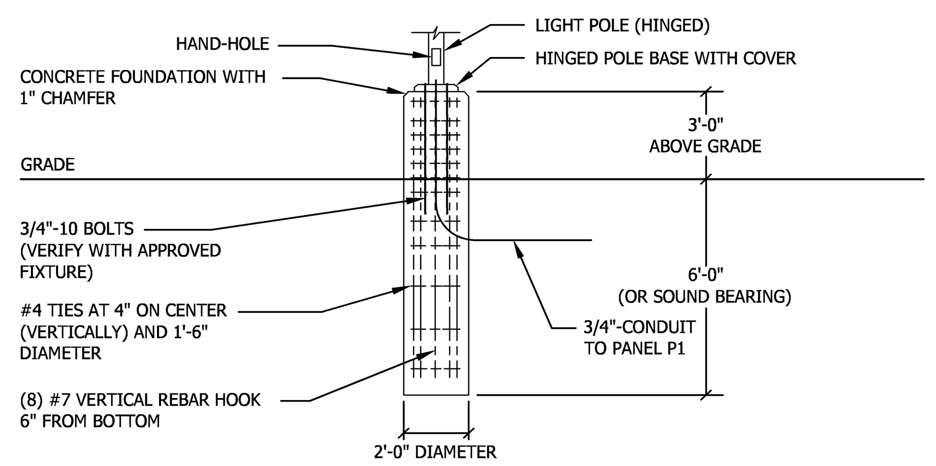
SUBMIT SIX (6) COPIES OF FOLLOWING ITEMS FOR SHOP DRAWING REVIEW:
LIGHTING FIXTURES.
PANELS AND BREAKERS.



NOTES:
1. WORK SHALL COMPLY WITH ELECTRIC CODE AND LOCAL CODES. COORDINATE EXACT CODE REQUIREMENTS AND LOCAL AMENDMENTS WITH LOCAL INSPECTORS PRIOR TO ANY INSTALLATION.
2. THE CONTRACTOR SHALL VISIT THE PROJECT DURING THE BID PERIOD, ATTEND ALL PRE-BID CONFERENCES AND BECOME FAMILIAR WITH THE ENTIRE SCOPE OF WORK. CONTRACTOR'S BID PROPOSAL SHALL BE BASED IN PART BY HIS OBSERVANCE OF ALL EXISTING CONDITIONS. NO CHANGE ORDERS SHALL BE ACCEPTED FOR FAILURE TO VISIT THE SITE PRIOR TO SUBMITTING THE BID.
3. GROUND IN ACCORDANCE WITH ELECTRIC CODE AND LOCAL CODES.

ELECTRICAL RISER

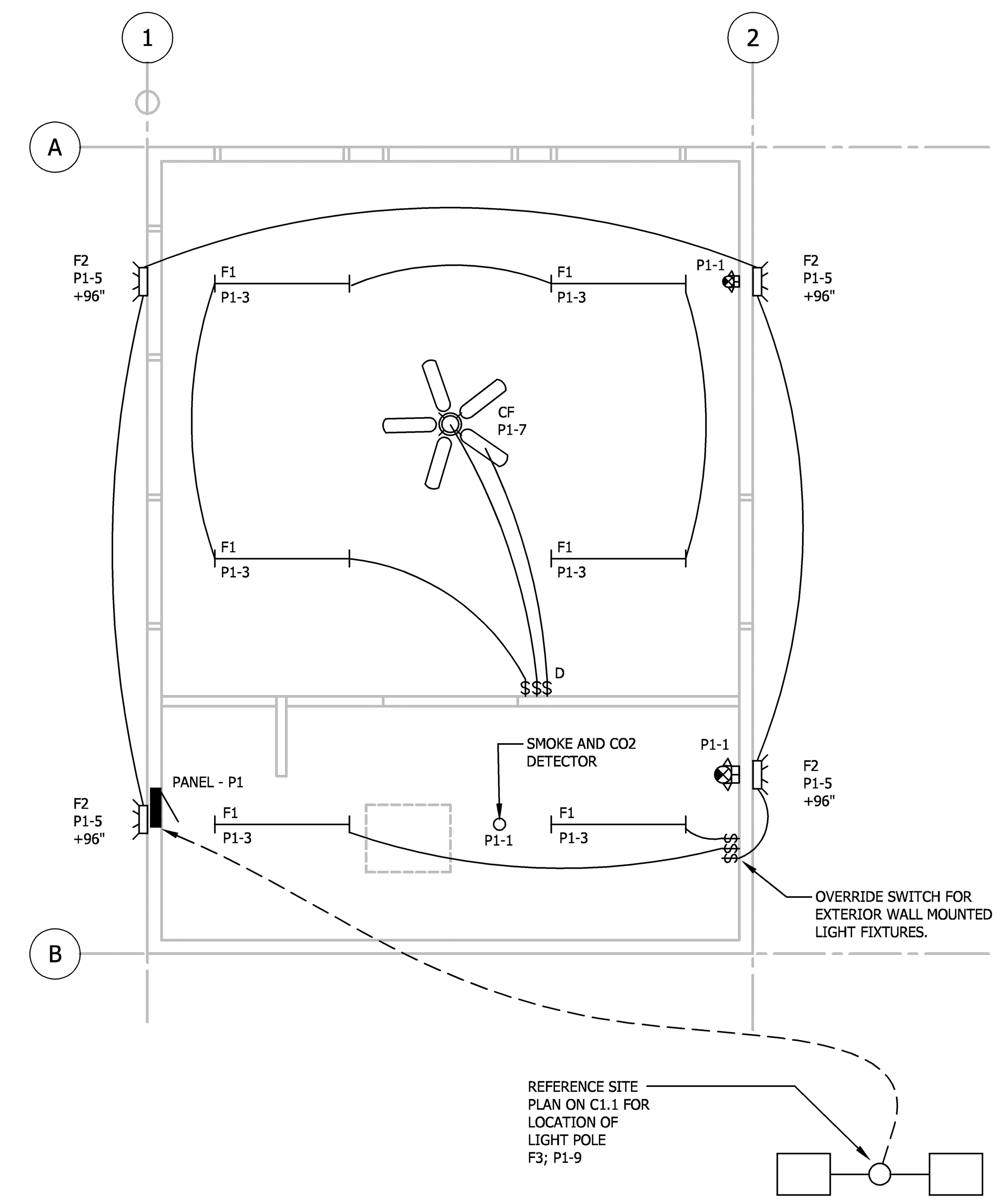
NOT TO SCALE



NOTES:
1. PROVIDE 1#6 CU GROUND CONDUCTOR FROM GROUND STUD ON POLE TO 3/4" DIAMETER x 10'-0" COPPERWELD BOND DRIVEN GROUND ROD ADJACENT TO POLE.
2. PROVIDE GROUNDING CONDUCTOR TO BRANCH CIRCUIT PANEL AND BOND.
3. VERIFY LOCATION WITH SITE PLAN AND UTILITIES, PRIOR TO INSTALLATION.

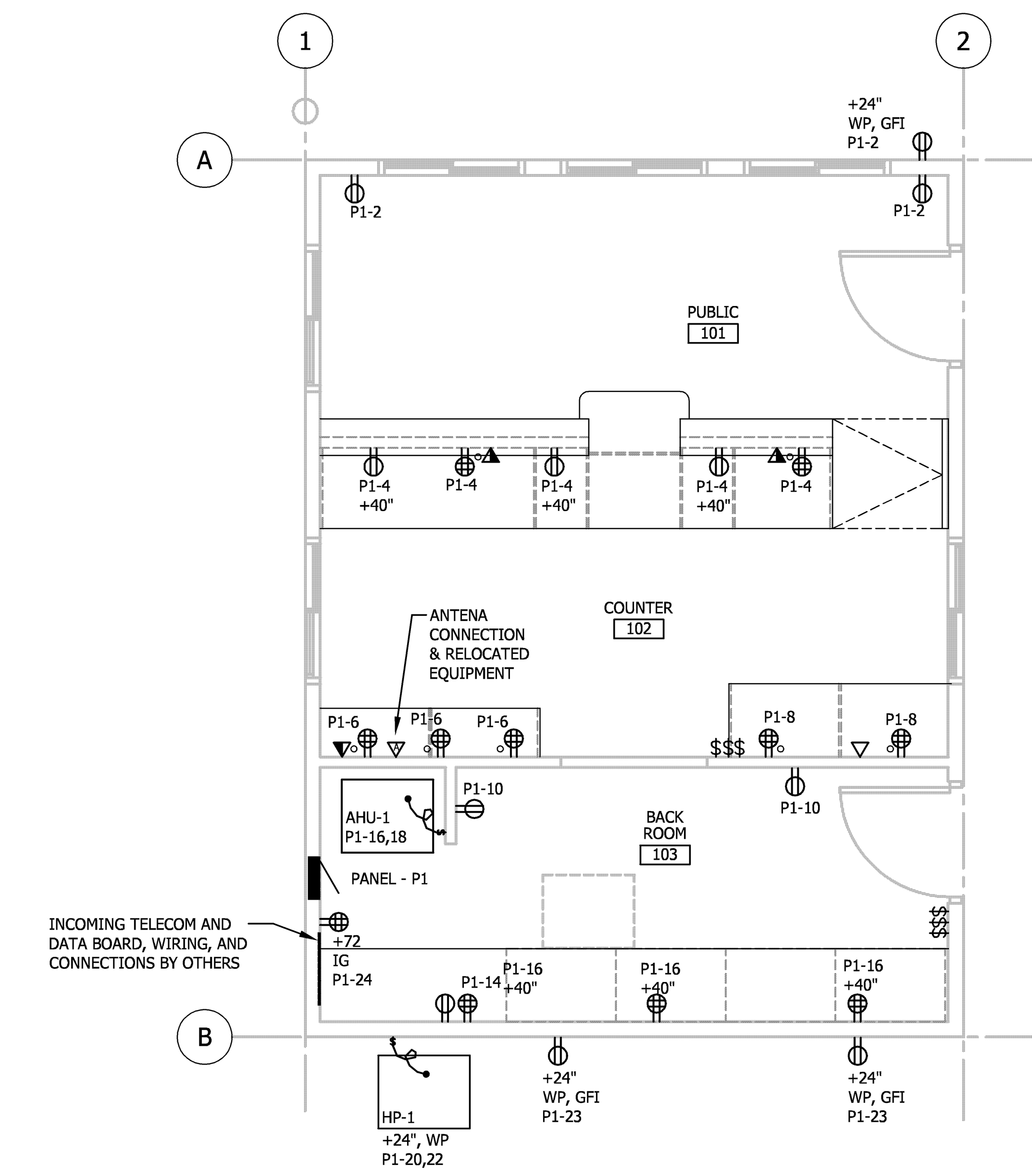
LIGHTING FIXTURE CONCRETE BASE DETAIL

NOT TO SCALE



2 LIGHTING PLAN

PF-01 SCALE: 1/4" = 1'-0" N



1 POWER PLAN

PF-01 SCALE: 1/4" = 1'-0" N

LIGHTING FIXTURE SCHEDULE

TAG	DESCRIPTION	TYPE	LAMP	VA'S	VOLTAGE	NOTES
F1	48" SURFACE MOUNTED ACRYLIC WRAP	SURFACE	(2) 32W T8	70	120	4, 5
F2	WALL MOUNTED FULL CUT-OFF	WALL	100W INCAND	100	120	5, 10
F3	POLE MOUNTED FULL CUT-OFF	POLE	(6) 21W LED	130	120	6, 7, 11
CF	48" CEILING FAN/LIGHT, 5 BLADE, WHITE	SURFACE	13W CFL	110	120	8, 9
(exit symbol)	COMBO EXIT/BATTERY UNIT	EXIT/BATT	LED/INCAND	10	120	1, 2, 3, SELF-POWERED

NOTES:
1. PROVIDE FACES, MOUNTING, AND ARROWS AS REQUIRED. PROVIDE AT LEAST 90 MINUTES OF EMERGENCY POWER.
2. PROVIDE MOUNTING AND AT LEAST (2) LAMP HEADS. PROVIDE AT LEAST 90 MINUTES OF EMERGENCY POWER.
3. CONNECT TO LIGHTING CIRCUIT OF ROOM SERVED AHEAD OF LOCAL CONTROL DEVICE UNLESS NOTED OTHERWISE.
4. T8 FLUORESCENT LAMPS SHALL HAVE MINIMUM 2800 INITIAL LAMP LUMENS/48", AND COLOR TEMPERATURE OF 3000K WITH MINIMUM COLOR RENDERING INDEX OF 82. BALLASTS SHALL BE ELECTRONIC WITH THD LESS THAN 20% AND PF GREATER THAN 95%.
5. VERIFY MOUNTING HEIGHT WITH ARCHITECTURAL PLANS PRIOR TO INSTALLATION.
6. PROVIDE SQUARE STEEL STRAIGHT POLE WITH HANDHOLE, MOUNTING BASE FLANGE, AND HARDWARE.
7. PROVIDE TWO (2) LIGHTING FIXTURE HEADS WITH SUPPORT ARM MOUNT AND HARDWARE.
8. PROVIDE MOUNTING BRACKET BETWEEN CEILING JOISTS TO SUPPORT CEILING FAN.
9. SWITCH FAN AND LIGHT SEPARATELY, PROVIDE FAN SPEED CONTROL DIMMER.
10. PROVIDE YELLOW-COLOR (BUG LIGHT) LAMP.
11. POLE TO HAVE A HINGED BASE. ORIENT HINGED BASE TO ALLOW POLE SWING DOWN TO GROUND AWAY FROM TREES AND BUILDINGS FOR LIGHT REPLACEMENT.

PANEL SCHEDULE — TAG P1

LOAD	NOTES	VA	P	A	CCT	CCT	A	P	VA	LOAD	NOTES
EXIT SIGNS	2,4	20	1	20	1	2	20	1	360	FRONT RECEPTS	
INTERIOR LIGHTS		420	1	20	3	4	20	1	720	ISLAND COUNTER RECEPTS	
EXTERIOR WALL LIGHTS	7	510	1	20	5	6	20	1	360	CENTER COUNTER RECEPTS	
CEILING FAN		100	1	20	7	8	20	1	720	CENTER COUNTER RECEPTS	
EXTERIOR POLE LIGHT	7	240	1	20	9	10	20	1	360	BACKROOM RECEPTS	
SPARE		-	1	20	11	12	20	1	540	BACKROOM COUNTER RECEPTS	
SPARE		-	1	20	13	14	20	1	540	BACKROOM COUNTER RECEPTS	
SPARE		-	1	20	15	16		2	7950	AIR HANDLING UNIT	5,6
SPARE		-	1	20	17	18	50				
SPARE		-	1	20	19	20		2	2880	HEAT PUMP	5,6
SPARE		-	1	20	21	22	20				
EXTERIOR RECEPTACLES		360	1	20	23	24	20	1	360	TELECOM RECEPT	2,3,4

TOTAL LOAD 16,340 VA BALANCED LOAD 44 A

VOLTAGE 120/208 V 3 PH 4 W MAIN 100A MCB

NOTES:
* BALANCED LOAD = 125% OF LIGHTING + 100% OF HVAC + 65% OF APPLIANCES.
1. PROVIDE GROUND BUS.
2. PROVIDE LOCKING DEVICE ON CIRCUIT BREAKER.
3. PROVIDE ISOLATED GROUND CONDUCTOR.
4. PROVIDE SEPARATE NEUTRAL CONDUCTOR.
5. PROVIDE HACR CIRCUIT BREAKER.
6. VERIFY REQUIREMENTS WITH APPROVED EQUIPMENT SPECIFICATIONS.
7. PROVIDE PHOTOCELL AND CONTACTORS NECESSARY WITH CONNECTIONS FOR EXTERIOR LIGHTING.

ELECTRICAL SYMBOLS LIST

AFF	ABOVE FINISHED FLOOR
CCT	CIRCUIT
CR	CONVENIENCE RECEPTACLE
G	GROUND (GREEN)
GFI	GROUND FAULT INTERRUPT
IG	ISOLATED GROUND (ORANGE)
L	LIGHTING
MCB	MAIN CIRCUIT BREAKER
OS	OCCUPANCY SENSOR - NOTE B
R	RECEPTACLE
UNO	UNLESS NOTED OTHERWISE
WP	WEATHER PROOF
(symbol)	RECEPTACLE - DUPLEX
(symbol)	RECEPTACLE - QUAD
▽	WALL MOUNTED DATA OUTLET - NOTE A
(symbol)	WALL MOUNTED ANTENA OUTLET - CONNECT TO RELOCATED ANTENA
▼	WALL MOUNTED DATA/TELEPHONE OUTLET - NOTE A
⊗	EXIT
$	SINGLE-POLE SWITCH, K=KEY, T=THERMAL, P=PILOT
$[D]	DIMMER SWITCH
(symbol)	BRANCH PANELBOARD

NOTE A: PROVIDE 4" BOX, 1-GANG COVER, AND (1) 3/4" CONDUIT FOR DATA AND (1) 3/4" CONDUIT FOR TELEPHONE OUTLET, AND TERMINATE 6" ABOVE ACCESSIBLE CEILING SPACE.

NOTE B: PROVIDE WATTSTOPPER OCCUPANCY SENSOR WS-200 (WALL MOUNT) / CI-300 (CEILING MOUNT) WITH INTEGRAL MANUAL OVERRIDE SWITCH AND 15 MINUTE OFF FOR UNOCCUPIED MODE.

STATE OF ILLINOIS
JOHN F. SWIERK
001-012383
LICENSED ARCHITECT
Signature Date 1-25-2013
Expires 11/30/14

CAMPGROUND PERMIT BOOTH
DNR FILE # 2-12-012
ILLINOIS BEACH STATE PARK
38303 N. ILLINOIS BEACH STATE PARK
ZION, ILLINOIS

ME REVIEW	11/05/2012
FINAL REVIEW	11/7/2012
ISSUED FOR PERMIT/BID	12/3/2012
NO CHANGES	12/6/2012

DDCA architects
Direct Design Ltd.
Carroll Associates
3321 South State Route 31
Prairie Grove, Illinois 60012
P.815.444.8444
www.DDCAarchitects.com

PROJECT NO.	112139
PROJECT MGR.	DRH

POWER AND LIGHTING PLAN

E2.1

© COPYRIGHT 2012