OHIO BUILDING CODE PLAN REVIEW RECORD

CITY OF CENTERVILLE

Centerville Washington Township Park District
221 N. Main Street

PLANS REVIEWED BY : PHILIP WERTZ 11/25/05 (2 hrs.), 12/14/05 (1 hr.), 12/29/05 (1 hr.)

USE GROUP : A-3
TYPE OF CONSTRUCTION : VB
BUILDING AREA : Activity Center - 2335 sq. ft.
ALLOWABLE AREA : 6000 sq. ft.
BUILDING HEIGHT : 1 story
ALLOWABLE HEIGHT : 1 story - 40'
OCCUPANT LOAD : Activity Center - 8 plus 77 under picnic shelter
FIRE PROTECTION : none

The construction documents have been reviewed in accordance with the 2005 Ohio Building Code (O.B.C.) Section 106.3. The following numerically listed items are not in compliance with the O.B.C. or are not addressed on the construction documents. **Items in bold text shall be corrected on or added to the construction documents to be in compliance with the O.B.C.** Other items listed shall be in accordance with the noted code section to be in compliance with the O.B.C.

1. Information on the construction documents shall be in accordance with Section 106.1.1. Provide construction documents for the pre-engineered structure prior to erection in accordance with Section 106.1.1(6).
2. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. - Section 1008.1.8
3. Door operating devices required to be accessible shall not require tight grasping or pinching or the twisting of the wrist to operate in accordance with Section 1008.1.8.1.
4. The base in toilet rooms shall be in accordance with Section 1210.1 and a minimum 6 inches in height.

The construction documents comply with the O.B.C. as noted for the workm shown therein.

APPROVED AS NOTED

Doug Isaacs

DATE 1-4-06

25409

OHIO BUILDING CODE PLAN REVIEW RECORD

CITY OF CENTERVILLE

Centerville Washington Township Park District
221 N. Main Street

PLANS REVIEWED BY : PHILIP WERTZ 11/25/05 (2 hrs.), 12/14/05 (1 hr.)

USE GROUP : A-3
TYPE OF CONSTRUCTION : VB
BUILDING AREA : Activity Center - 2335 sq. ft.
ALLOWABLE AREA : 6000 sq. ft.
BUILDING HEIGHT : 1 story
ALLOWABLE HEIGHT : 1 story - 40'
OCCUPANT LOAD : Activity Center - 8 plus 77 under picnic shelter
FIRE PROTECTION : none

The construction documents have been reviewed in accordance with the 2005 Ohio Building Code (O.B.C.) Section 106.3. The following numerically listed items are not in compliance with the O.B.C. or are not addressed on the construction documents. **Items in bold text shall be corrected on or added to the construction documents to be in compliance with the O.B.C.** Other items listed shall be in accordance with the noted code section to be in compliance with the O.B.C.

1. **Information on the construction documents shall be in accordance with Section 106.1.1. Provide construction documents for the structural work in accordance with Section 106.1.1(6).**
2. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. - Section 1008.1.8
3. Door operating devices required to be accessible shall not require tight grasping or pinching or the twisting of the wrist to operate in accordance with Section 1008.1.8.1.
4. Attic spaces shall be ventilated in accordance with Section 1203.2.
5. Provide a minimum 20 inch by 30 inch access opening to each attic space in accordance with Section 1209.2.
6. The base in toilet rooms shall be in accordance with Section 1210.1 and a minimum 6 inches in height.
7. The construction documents shall show the size, section and relative locations of all structural members, with floor levels, column centers and

offsets fully dimensioned. - Section 1603.1. **No structural framing information is provided for the Activities Center.**

8. Electric components, equipment and systems shall be designed and installed in accordance with the provisions of N.F.P.A. 70. - Section 2701.1. **The grounding Electrode System shall be in accordance with Art. 250.50.**
9. All mechanical equipment, appliances and systems shall be constructed, installed and maintained in accordance with the Ohio Mechanical Code. - Section 2801.1. Where appliances are located on a roof having a slope of 3:12 or greater shall be provided with a platform in accordance with Section 306.6. **Provide details for required platforms.**

The construction documents do not comply with the O.B.C.

OHIO BUILDING CODE PLAN REVIEW RECORD

CITY OF CENTERVILLE

Centerville Washington Township Park District
221 N. Main Street

PLANS REVIEWED BY : PHILIP WERTZ 11/25/05 (2 hrs.)

USE GROUP : A-3
TYPE OF CONSTRUCTION : VB
BUILDING AREA : Activity Center - 2335 sq. ft.; Nature Nook - 1946 sq. ft.
ALLOWABLE AREA : 6000 sq. ft.
BUILDING HEIGHT : 1 story
ALLOWABLE HEIGHT : 1 story - 40'
OCCUPANT LOAD : **Indicate on the construction documents.**
FIRE PROTECTION : none

The construction documents have been reviewed in accordance with the 2005 Ohio Building Code (O.B.C.) Section 106.3. The following numerically listed items are not in compliance with the O.B.C. or are not addressed on the construction documents. **Items in bold text shall be corrected on or added to the construction documents to be in compliance with the O.B.C.** Other items listed shall be in accordance with the noted code section to be in compliance with the O.B.C.

1. **Information on the construction documents shall be in accordance with Section 106.1.1.**
2. **Every room or space that is an assembly occupancy shall be posted in accordance with Section 1004.3.**
3. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. - Section 1008.1.8
4. Door operating devices required to be accessible shall not require tight grasping or pinching or the twisting of the wrist to operate in accordance with Section 1008.1.8.1.
5. Provide panic and fire exit hardware on each door in a means of egress from Use Groups A or E with an occupant load of 100 or more and in Use group H-1, H-2, H-3 or H-5 in accordance with Section 1008.1.9.
6. Stair riser heights shall be 7 inches maximum and 4 inches minimum. Stair tread depths shall be 11 inches minimum in accordance with Section 1009.3. **The first riser on the stairway is dimensioned at 7 ½ inches.**

7. The profile of stairway treads shall be in compliance with Section 1009.3.2. Stairway risers shall be solid in accordance with Section 1009.3.2. **Stair risers shall be solid (see exception).**
8. Exterior stairways shall be protected to prevent the accumulation of snow or ice in accordance with Section 1009.5.2.
9. Buildings and structures, temporary or permanent, including their associated sites and facilities, shall be accessible to persons with physical disabilities. - Sections 1103.1 and 1103.2.1 **Provide signage adjacent to toilet room doors in accordance with ADAAG 4.1.3(16). Horizontal grab bar placement shall be in accordance with ADAAG 4.17.6.**
10. Buildings shall be provided with natural or mechanical ventilation in accordance with Section 1203.1.
11. **Attic spaces shall be ventilated in accordance with Section 1203.2.**
12. **Provide a minimum 20 inch by 30 inch access opening to each attic space in accordance with Section 1209.2.**
13. **Access shall be provided to spaces containing mechanical appliances in accordance with Section 1209.3.**
14. **The base in toilet rooms shall be in accordance with Section 1210.1 and a minimum 6 inches in height.**
15. **Provide an approved interior noncorrodible vapor retarder on exterior walls.- Section 1403.3**
16. The construction documents shall show the size, section and relative locations of all structural members, with floor levels, column centers and offsets fully dimensioned. - Section 1603.1. **No structural framing information is provided for the Activities Center.**
17. The structural design loads shall be indicated on the construction documents in accordance with Section 1603.1. **No structural information is provided for the Activities Center. No structural loading information is provided for the Nature Nook exterior deck, stairs or ramp.**
18. **Protection of wood against decay and termites shall be provided in accordance with Section 2304.11.**
19. Wall sill plates shall be anchored to the foundation walls in accordance with Section 2308.6.
20. Provide safety glazing in accordance with Section 2406.1 in locations specified in Section 2406.2. **Indicate locations on the construction documents.**
21. Electric components, equipment and systems shall be designed and installed in accordance with the provisions of N.F.P.A. 70. - Section 2701.1. **The grounding Electrode System shall be in accordance with Art. 250.50.**
22. All mechanical equipment, appliances and systems shall be constructed, installed and maintained in accordance with the Ohio Mechanical Code. - Section 2801.1. Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate required for determined in accordance with Table 403.3. - Section 403.3. **Indicate on the construction documents the required and the provided outdoor airflow for each space.**

The construction documents do not comply with the O.B.C.

In regard to Ohio Building Code requirements, this correction notice is an Adjudication Order pursuant to Section 112.5. You have the right to appeal this order. To file an appeal, you must submit a written appeal accompanied with a copy of this Adjudication Order within 30 days of your receipt of this order. Your appeal must be submitted to Michael Cromartie, Secretary, Dayton Board Of Appeals, The One-Stop Center, 371 West Second Street, Dayton, Ohio 45402. Upon receipt of your appeal, a hearing will be scheduled. You have the right to counsel, present arguments or contentions orally or in writing, and present evidence and examine witnesses appearing for or against you.

TO: Bob Feldman Customer

FROM: Division of Fire Safety <-> Unified Fire Code

DATE: November 21, 2005

SUBJECT: 221 N. Main Street

REFERENCE: Proposed New Building and associated items

In reviewing the drawings for this in order to ascertain compliance with the applicable criterion of the Unified Fire Code, I suggest the following:

1. A key box of a type approved by the fire official is recommended for emergency rapid entry of the fire department

2. Before final occupancy, the appropriate assigned street address, as designated by the applicable jurisdiction, i.e., *the City of Centerville Department of Planning, the Montgomery County Planning Commission*, shall be conspicuously displayed in accordance with the subsequent specification (O.F.C. 505.1).

3. The address for buildings shall be placed in a manner to insure prompt identification of said buildings from the nearest fronting road or parking area, depending upon the location and placement of each particular building. Such addresses shall be clearly visible and kept free and clear of any obstructions hindering reasonable visibility from the nearest fronting road or parking area. The numbers shall be in standard Arabic form of a size at least four (4) inches high with a minimum stoke width of 0.5 inch, or larger if necessary to be visible from the nearest fronting road, parking area or fire lane, and in a color distinguishable from its background (O.F.C. 505.1).

4. A hard surface roadway capable of providing emergency vehicle access and support at all times for firefighting purposes shall be provided during construction or alteration. (O.F.C. 1410.1).

5. Fire department access shall be provided and maintained to all buildings undergoing construction or alteration and construction materials shall not block any firefighting access required by the code official to the building, fire department connection, fire hydrants, etc. (U.F.C. F-315.3, U.F.C F-315.4 and O.F.C. 504.1).

6. Fire Extinguishers
   a. Before final occupancy, at least two [2] fire extinguishers with a minimum 2-A classification shall be installed and maintained in locations that are both visible and immediately available to the occupants (O.F.C. 906.1).
   b. Fire Extinguishers having a gross weight of less than 40 lb shall be installed so that the top is no more than five feet (5') above the floor and the clearance between the bottom of the floor and the extinguisher shall be no less than four inches (4"). (NFPA 10)

      NOTE: The Fire Department must approve the fire extinguisher locations, which is normally done during our final inspection.

7. ALL means of egress doors shall be readily openable from the side from which egress is to be made without the use of a key; any type controlled release device; special knowledge or effort at all times. Locks, latches and door handles shall not require tight grasping, tight pinching or twisting of the wrist to operate. (O.F.C 1008.1.8)

8. ALL elements of the means of egress shall be maintained ready for immediate utilization, and free of all obstructions (O.F.C. 1027.3)

Prepared by,

Craig Rauch

Craig Rauch, Inspector
937-433-3083
crauch@washingtontwp.org

Brandstetter Carroll Inc.
ARCHITECTS ENGINEERS PLANNERS

2360 CHAUVIN DRIVE, LEXINGTON, KENTUCKY 40517
859.268.1933 VOICE 859.268.3341 FAX

RECEIVED
DEC 28 2005
BUILDING INSPECTION
CITY OF CENTERVILLE

December 22, 2005

Phillip Wertz, Plan Reviewer
City of Centerville Inspection Department
100 West Spring Valley Road
Centerville, OH 45458

RE: Activity Center Shelter Sprayground
Centerville, Ohio
Project No. 05033

Dear Mr. Wertz:

Outlined below, please find a response to your review letter of December 14, 2005. For your convenience, our responses are numbered in the same manner as your original letter and responses are typed in bold. As discussed in our conversation of December 21 your items 1, 7, 8 and 9 deal specifically with information to be contained in the construction documents. The remaining items are included and shall be installed in accordance with the referenced section as clarified in the previous response letter.

Item 1. Information on the construction documents shall be in accordance with Section 106.1.1. Provide construction documents for the structural work in accordance with Section 106.1.1(6).

Item 7. The construction documents shall show the size, section and relative location of all structural members, with floor levels, column centers and off-sets fully dimensioned. Section 1603.1. No structural framing information is provided for the activity center.

As discussed in our phone conversation, the activity center framing for the picnic shelter is a pre-engineered structure. Shop Drawings, signed and sealed by an Engineer licensed in the State of Ohio will be submitted for record and review when received from the contractor. A statement of this has been added to Sheet A302 and I have also included a copy of Project Manual Specification Section 02875 Shelter for your reference as well.

Item 8. Electric components, equipment and systems shall be designed and installed in accordance with the provisions of NFPA 70-Section 2701.1. The grounding and electrode system shall be in accordance with Article 250.50.

Please reference attached Drawing Sheet E202, single line diagram. The additional provisions for the grounding electrode system stating that the water service, foundation reinforcing and grounding rods are to be in accordance with Article 250.50 of the NEC has been added.

Item 9. All mechanical equipment, appliances and systems shall be constructed, installed and maintained in accordance with the Ohio Mechanical Code Section 2801.1. Where appliances are located on a roof having a slope of 3:12 or greater shall be provided with a platform in accordance with Section 306.6. Provide details for required platforms.

Please reference the attached product information for the proposed roof exhaust system. Please note maintenance and access to the system can be serviced from inside the building eliminating the need for roof access and the requested platform. Access will be in compliance with Section 306.6 of the referenced code.

I trust the above information answers your questions as it relates to this project. Please feel free to contact me directly should you have questions or require any additional information.

Respectfully Submitted,

J. Kenneth Donnelly, AIA

JKD/slp

C: Bob Feldmann, Centerville-Washington Park District
Mike Carroll, Tony Hardin, Ian Beattie - Brandstetter Carroll Inc.

SECTION 02875 - SHELTERS

PART 1. GENERAL

1.1 SECTION INCLUDES

A. Prefabricated metal shelter.

1.2 RELATED SECTIONS

A. Earthwork, Section 02200.

B. Cast-In-Place Concrete, Section 03300.

1.3 REFERENCES

A. American Institute of Steel Construction (AISC)

B. American Iron and Steel Institute (AISI) Specifications for Cold Formed Members.

C. American Society of Testing of Materials (ASTM)

D. American Welding Society (AWS)

E. Steel Structures Painting Council (SSPC-SP2) as outlined in AISC 6.5

1.4 SYSTEM DESCRIPTION

A. Design Method: per current Ohio Building Code. Note: Manufacturer to use three-dimensional structural analysis to determine member load and forces.

B. The pre-engineered package shall be shipped as a pre-cut and pre-fabricated package that shall include the structural frame members, roof material, fasteners, and trim as well as the installation instructions.

1.5 SUBMITTALS

A. Submit [6] sets shop drawings and 2 sets structural calculations signed and sealed by a Professional Engineer licensed in the State of Ohio.

B. Structural calculations shall show the following code information: Ohio Building Code, Current edition, 20 psf snow or live load, 90 mph wind speed, seismic category B.

1.6 QUALITY ASSURANCE:

A. Provide evidence of commitment of quality craftsmanship as demonstrated by the following:

B. Supplier Qualifications:

1. The product shall be designed and produced at a facility owned and directly supervised by the supplier. The product shall be shipped from a single source.
2. The supplier shall have been making pre-manufactured shelters for a minimum of five years and shall list three similar projects in the territory.
3. Membership in American Institute of Steel Construction.

4. Membership in American Welding Society.
5. Full time on-staff licensed engineer.
6. Full time on-staff quality control manager.
7. Published quality assurance manual.
8. Full time on-staff AWS certified welding inspectors.
9. Continued certification by an independent inspection agency.

C. Certifications

1. Welder certificates and AWS welding inspector certificates.

1.7 DELIVERY AND STORAGE:

A. Unload materials with necessary equipment (no hand unloading), store covered out of weather, and keep out of direct sun.

1.8 WARRANTY

A. Supply manufacturer's standard five-year warranty.

PART 2 – PRODUCTS

	Quantity	Name/Model Number	Manufacturer
2.1	(1)	Hip Shelter Model 26'x80'	Icon

2.2 MANUFACTURERS

A. POLIGON, a Division of W.H. Porter, Inc., Holland, Michigan, (616) 399-1963. Contact M.G. Walsh Company, Johnstown, OH at [(800)487-5555] for further information.

B. Unit Structures, Kyle Heminger, (317) 878-9717.

C. Icon Shelter Systems, (800) 762-7936, David Williams

D. Litchfield, (800) 251-5578, Tammy Patton

E. RCP Shelters, (772) 288-3600

F. Substitutions must be approved a minimum of ten (10) days prior to bid. All approved manufacturers shall be notified in writing before the bid date and shall not be allowed to bid without written notification.

2.3 MATERIALS FOR STRUCTURES

A. Structural framing: structural steel tube minimum ASTM A500 grade B or cold-formed box sections minimum ASTM A570 grade 55. "I" beams, tapered columns, open channels, or wood products shall not be accepted.

B. Compression ring: structural channel or welded plate minimum ASTM A36.

C. Fasteners: ASTM A325 high strength bolts and A563 high strength nuts, ASTM A36 anchor bolts, self-drilling screws, rivets.

D. Metal roofing: 24-gauge galvanized steel finished with Kynar 500 paint system. Supply metal roof to cover entire structure.

E. Roof/Deck – 2 inch (nominal) #2 grade and better, single tongue and groove with V-joint bottom face, kiln-dried Southern Pine.

2.4 FABRICATION

A. All base plates, stiffener plates, U-clips, and end plates shall be factory welded into place and bolt connection holes shall be factory cut.

B. Welded connections shall be made by certified welders in accordance with AWS Specifications and be supervised by an AWS certified welding inspector.

C. Factory frame finish: 'E' coated and powder coated per the following procedure: The steel shall be shot blasted to near white condition, then subjected to an 8 stage Zinc Phosphate cleaning process followed by a Cationic Epoxy Electro coat applied with 0.7-1.0 mil thickness A finish coating of TGIC polyester powder coat is applied, 3 – 5 mils in thickness, and a clear topcoat of UV resistant Super Durable Polyester TGIC is added for a total film thickness of 8-12 mils. Cured to accomplish heat fusion. All material shall be inspected to insure 100% coating, intercoat adhesion, proper cure, film thickness and impact resistance. Color to be selected from the manufacturer's standard color chart: Surrey Beige Note: Due to size constraints, 'E' coat may not be applied to trellis buildings, large cupolas, large weldments, and some large structures.

PART 3. EXECUTION

3.1 Install according to manufacturer's installation instructions and these specifications.

3.2 When unloading, pad forks and use other precautions to protect powder coat finish. (Do not use chains or buckets to move materials.) Field handle carefully to avoid scratching powder coat finish. Before installing roof deck, clean steel and touch up scratches and chips in powder coat finish using touch up paint from manufacturer.

PART 4. GLUED LAMINATED TIMBER

4.1 CODE AND REFERENCE STANDARDS

A. AITC Timber Construction Manual, latest edition. "National Design: Specifications For Stress-Grade Lumber And Its Fastenings." American Wood Preservers Association AITC standards reference this sheet.

4.2 DESCRIPTION OF WORK

A. Glued-Laminated Timber is hereby defined to include wood members fabricated from 1" or 2" nominal thickness lumber glued face-to-face with the grain of all laminates approximately parallel longitudinally.

4.3 QUALITY ASSURANCE

A. Standards: To comply with the "Structural Glued-Laminated Timber" ANSI/AITC Al90.1-latest edition.

B. Manufacturer: Provide factory-glued timber units, produced by an AITC licensed firm; qualified to issue the AITC "Quality Inspected " Mark. Factory mark each piece of glued-laminated timber with AITC Quality Inspected Mark. Place AITC Mark on timber surfaces that will not be exposed in completed work.

4.4 SUBMITTALS

A. Product Data: Submit certification, indicating glued-laminated timbers comply with requirements of ANSI/AITC AI90.1-latest edition.

B. Shop Drawings: Submit shop drawings showing full dimensions of each member. Indicate species and stress grade of lumber, type of glue, and other variables in required work. Furnish four (4) sets of shop drawings for approval by the buyers approving agency. The contractor shall verify dimensions and be responsible for coordinating same.

4.5 MATERIALS

A. Lumber: Comply with ANSI/AITC A190.1 and applicable lumber association standards cited therein for grades required to achieve glued-laminated timber requirements for allowable stress appearance, fabrication limitations and species.

B. Preservative Treatment: Pressure treat lumber prior to gluing with Pentachlorophenol in mineral spirits in accordance with AITC 109 "Standard for Preservative Treatment of Structural Glued-Laminated Timber."

C. Lumber Species: Southern Pine

D. Adhesive: Adhesives shall be wet-use (waterproof) complying with ANSI/AITC AI90.1.

4.6 TIMBER DESIGN

A. General: Provide sizes and shapes shown on plans. Final cross sections will be based on manufacturer's standard widths and depths. Manufacturer to provide design values (stresses) to fulfill structural demand in accordance with applicable provisions of AITC 117 "Design, Standard Specifications for Structural Glued- Laminated Timber of Softwood Species."

B. Camber: Except as otherwise indicated, fabricate horizontal load bearing members with a camber.

C. Steel Connections: Provide fabricated steel connections to join laminated to laminated, and laminated to supports exclusive of items embedded in concrete or welded to structural steel or connected to stud walls.

1. Steel work to conform to A.I.S.C. Specifications. B. Steel shall conform to ASTM A-36.

2. Bolts shall conform to ASTM A-307.

3. Shop paint fabricated steel with one coat of rust inhibitive primer.
   a. Bolts are not shop painted with primer.

4.7 APPEARANCE GRADE

A. Provide Grade timbers complying with AITC 110.

B. AITC Premium provides a smooth surface of free of knotholes or voids.

4.8 FINISH

A. Factory applied penetrating sealer or factory finished with (1) coat of Unit's standard color selection stain. Contractor to submit samples of colors to Architect.

4.9 FACTORY APPLIED PROTECTION

A. Immediately after end-cutting each member to final length, apply a saturation coat of end sealer to ends and other cross-cut sections.

4.10 PRODUCT HANDLING

A. Schedule delivery and installation of glue-laminated wood members to avoid extended on-site storage. Comply with AITC 111-"Recommended Practice for Protection of Structural Glued-Laminated Timber during Transit, Storage and Erection."

B. Keep laminated wood members as dry as possible during all phases of construction. If jobsite storage is necessary, place members on blocking away from ponding water and cover with a waterproof covering which will not allow ultraviolet ray penetration.

C. Time of removal of factory wrapping is optional, but it must be emphasized that factory applied wrapping provides additional protection from damage in handling and in-transit only. If further utilization of the wrap is desired for protection after shipment, the members should be inspected and provided with additional protection as necessary. If it is impractical to replace wrapping, ALL of it should be removed. Do not leave members partially exposed due to potential sun bleaching. Do not allow moisture to accumulate inside wrapping.

4.11 INSTALLATION

A. General:

1. The anchor bolt settings and/or bearing elevations must be held within 1/8" of the dimensions shown on the shop drawings.

2. All members must be adequately braced until the complete structural system (all pertinent construction materials) has been installed.

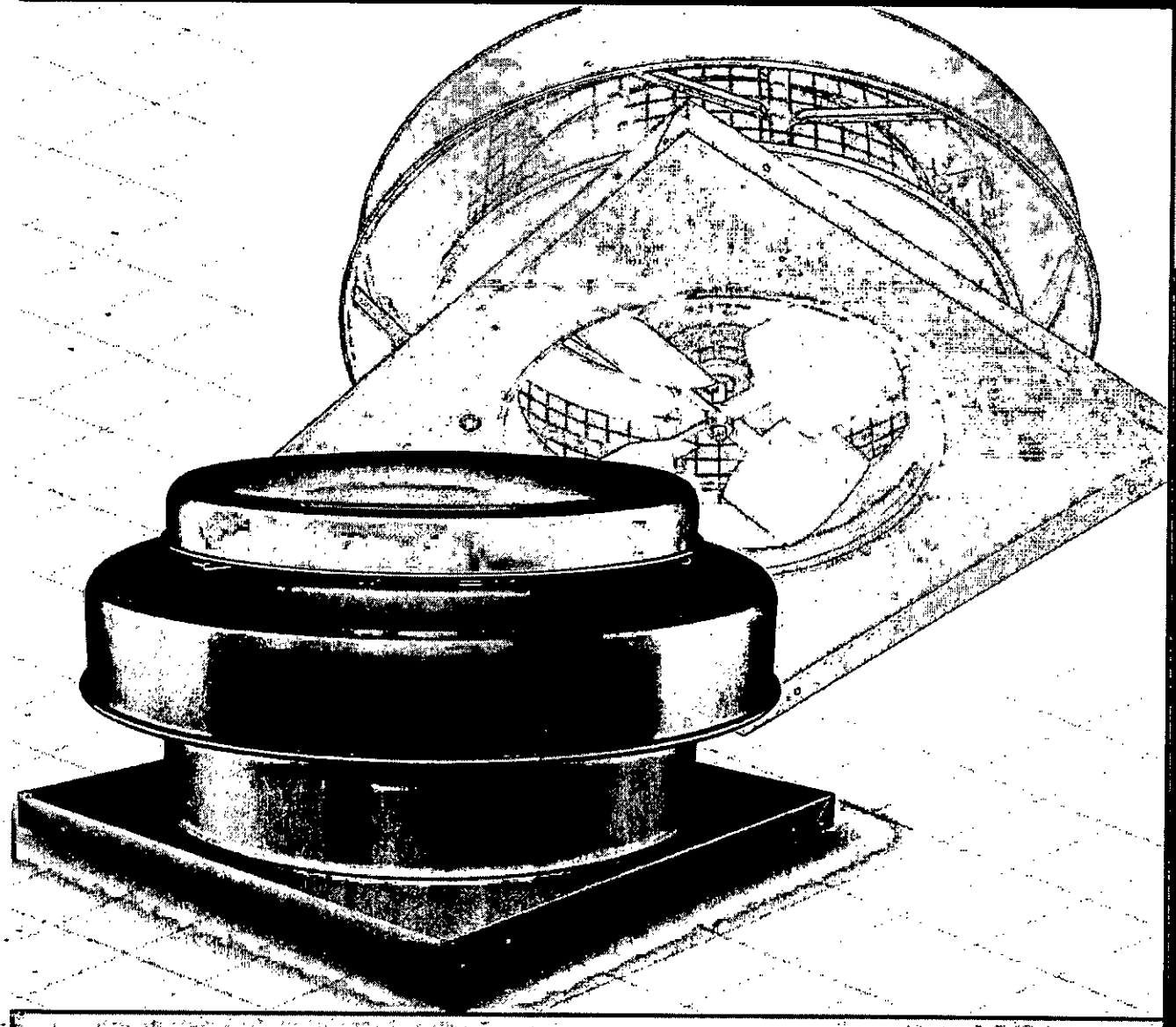
3. Correction of minor misfits and a reasonable amount of cutting, reaming, redrilling or alignment with drift pins will be considered a legitimate expense of erection.

END OF SECTION

Propeller Hooded Roof Fans

Series A - Models AE and AS

Exhaust and Supply Fans



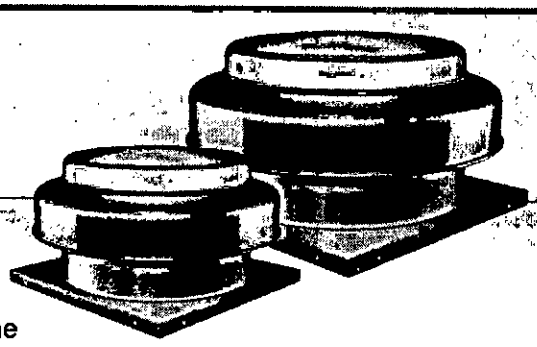
BUILDING VALUE IN AIR.

GREENHECK

Building Value in Air.

September 2005

Model AE and AS
Propeller Fans



Greenheck's Models AE (Axial Exhaust) and AS (Axial Supply) spun aluminum direct drive fans are designed for economy and reliability solutions in low pressure/low volume applications. Typical applications include general commercial clean air ventilation.

- Performance capabilities up to 6,000 cfm (10,200 m³/hr) and up to 1.0 in. wg (250 Pa) of static pressure.
- Seven fan sizes are available from 10 in. to 24 in. propeller diameter.
- UL Listed for electrical.
- Performance as cataloged is assured. All fan sizes are tested in an AMCA Accredited Laboratory, and all models are licensed to bear the AMCA sound and air performance seals.
- Greenheck subjects these products to extensive life testing, assuring you that the fans will provide years of reliable performance.

c UL us LISTED — Models AE and AS are listed for electrical (UL/cUL 705) File no. E40001

Greenheck Fan Corporation certifies that the Models AE and AS fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. The certified ratings for Models AS and AE are shown on pages 4 thru 7.

Model Number Code

The Model number system is designed to completely identify the fan. The model number is determined by the ventilation type, fan size and performance selected from pages 4 through 7. A detailed explanation of of the model number is shown.

A E - 20 - 4 30 - B 5

- **A E** — Ventilation Type: Axial, Exhaust, Supply
- **20** — Fan Size
- **4** — # of Blades
- **30** — Blade Pitch
- **B** — Motor RPM: A = 1750, B = 1140
- **5** — Motor HP: 8 = 1/8, 6 = 1/6, 4 = 1/4, 3 = 1/3, 5 = 1/2, 7 = 3/4, 10 = 1, 15 = 1 1/2

Typical Installation

Models AE and AS fans are designed to meet the needs of general clean air applications. Tests were conducted to assure safe, rugged and reliable operation.

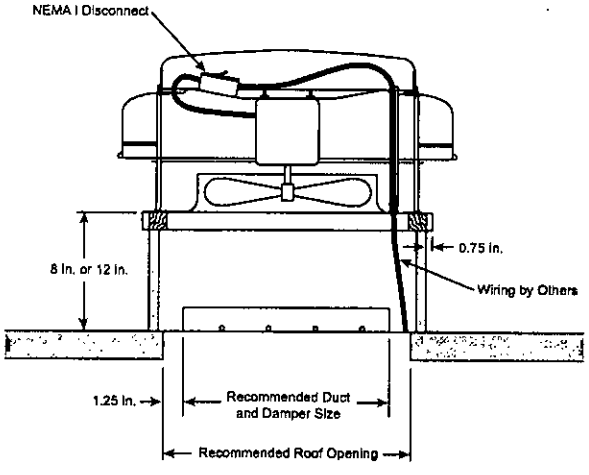
Due to the varying air streams encountered in commercial ventilation, system designers must be aware of national, state, and local codes and guidelines governing these installations. Local code authorities should be consulted before proceeding with any ventilation project.

Internal conduit chase provides means for electrical service connection through fan housing.

When roofing materials extend to the top of the curb, roof curbs should be 1½ inches (3/4 inches on a side) less than the unit curb cap to allow for roofing and flashing.

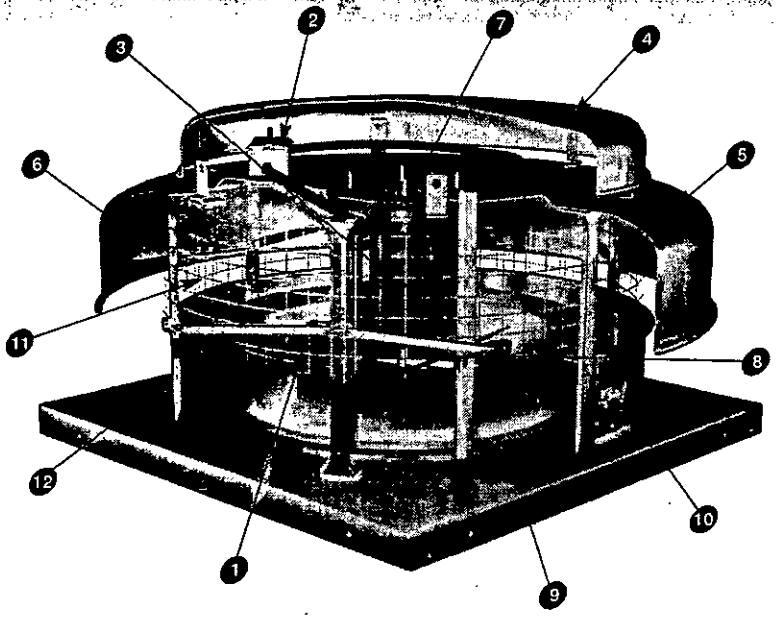
For recommended damper size and roof opening dimensions, refer to the dimensional data pages.

Installation must include a means for inspecting, cleaning and servicing the fan.



Standard Construction Features

GREENHECK
Building Value in Air.



1. PROPELLER – Fabricated aluminum propeller with steeply pitched blade designed for low rpm, which generates low sound levels. Each propeller is statically and dynamically balanced for long life and quiet operation.
2. SWITCH – NEMA 1 switch is factory mounted and wiring is provided from the motor as standard (other switches are available). All wiring and electrical components comply with the National Electric Codes (NEC) and are either UL listed or recognized.
3. MOTOR – Carefully matched to the fan load and is mounted in the airstream. All motors are compatible with speed controller except "A" speed motors on the size 20.
4. MOTOR COVER – Constructed of aluminum and attached with stainless steel hardware for easy removal and access to motor.
5. FAN SHROUD – One piece, heavy gauge aluminum with a rolled bead for extra strength.
6. SHROUD BRACES – Adds structural integrity to the shroud.
7. VIBRATION ISOLATION – Vibration isolators support the motor and propeller for long life and quiet operation.
8. INTERNAL CONDUIT CHASE – A large diameter conduit for installing electrical wiring through the curb cap into the motor compartment.
9. CURB CAP – Curb cap and integral deep spun venturi inlet are constructed of aluminum to prevent corrosion. Curb cap has 5/16 in. *(8 mm)* prepunched mounting holes to ensure correct attachment to the roof.
10. NAME PLATE – Permanent stamped aluminum plate for exact model and serial number identification.
11. GALVANIZED BIRDSCREEN – 1/2 inch square galvanized rigid wire mesh protects the fan's discharge from birds or small objects.
12. LOWER WINDBAND – Heavy gauge aluminum with formed edges for added strength and weather resistance.

Options and Accessories

ROOF CURBS – Prefabricated roof curbs reduce installation time and costs by ensuring compatibility between the fan, the curb, and roof opening.

A wide variety of roof curbs are available, including: flanged, pitched, and sound-absorbing.

CURB EXTENSION – Extensions raise the fan discharge above the roof line and provide an accessible mounting location for dampers.

ALUMINUM BIRDSCREEN – 1/2 inch square aluminum wire mesh protects the fan's discharge from birds or small objects.

SPEED CONTROLLERS – Available for providing an economical means of system balancing with direct drive fans.

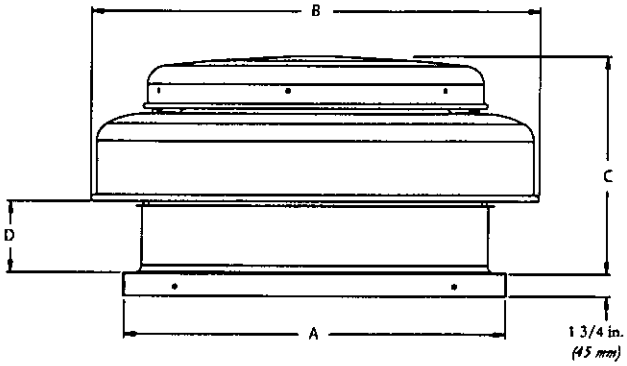
DAMPERS – Designed to prevent outside air from entering back into the building when fan is off. Includes: gravity and motorized dampers. Removable damper sizes are shown on each performance data page.

COATINGS – Wide variety of coatings and colors are available.

Greenheck coatings and resistance charts can be found in the coatings bulletin.

DISCONNECT SWITCHES – A wide selection of Nema rated switches are available for positive electrical shutoff and safety, including: dust-tight, rainproof, and corrosion-resistant. Switches may be internally or externally mounted.

AE - Axial Exhaust Dimensions

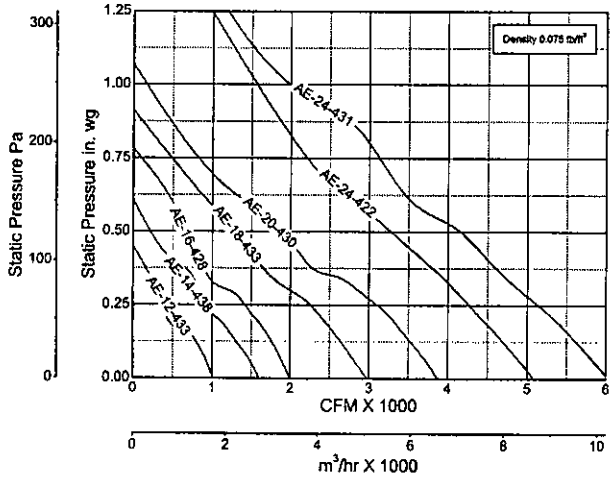


Dimensional Data	Model AE Size						
	10	12	14	16	18	20	24
A - Curb Cap	19 *(483)*	22 *(559)*	22 *(559)*	26 *(660)*	30 *(762)*	34 *(863)*	34 *(863)*
B	24⅝ *(625)*	28¾ *(727)*	28¾ *(727)*	35¼ *(895)*	35¼ *(895)*	42 *(1067)*	42 *(1067)*
C	15½ *(394)*	16½ *(419)*	16½ *(419)*	17¼ *(438)*	17¼ *(438)*	17½ *(445)*	17½ *(445)*
D	5¼ *(140)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*
Damper Size	12 x 12 *(305 x 305)*	12 x 12 *(305 x 305)*	14 x 14 *(356 x 356)*	16 x 16 *(406 x 406)*	18 x 18 *(457 x 457)*	24 x 24 *(610 x 610)*	24 x 24 *(610 x 610)*
Roof Opening	14½ x 14½ *(368 x 368)*	14½ x 14½ *(368 x 368)*	16½ x 16½ *(419 x 419)*	18½ x 18½ *(470 x 470)*	20½x 20½ *(521 x 521)*	26½ x 26½ *(673 x 673)*	26½ x 26½ *(673 x 673)*
Shroud Thickness	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.063 *(2)*	0.063 *(2)*	0.063 *(2)*	0.063 *(2)*
Motor Cover Thickness	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*
Unit Weight lbs *(kg)*	34 *(15)*	44 *(20)*	51 *(23)*	63 *(29)*	70 *(32)*	97 *(44)*	89 *(40)*

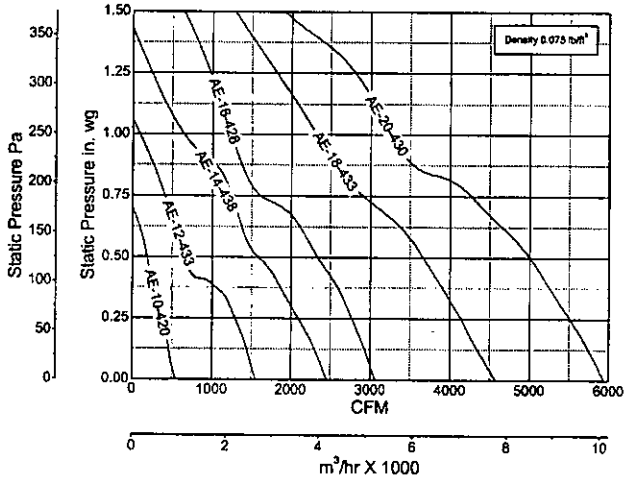
All dimensions in inches *(millimeters)*.

AE - Axial Exhaust Performance Charts

1140 RPM



1750 RPM



 Performance certified is for Model AE exhaust for installation type A: Free Inlet, Free outlet. Performance ratings include the effects of a birdscreen in the airstream.

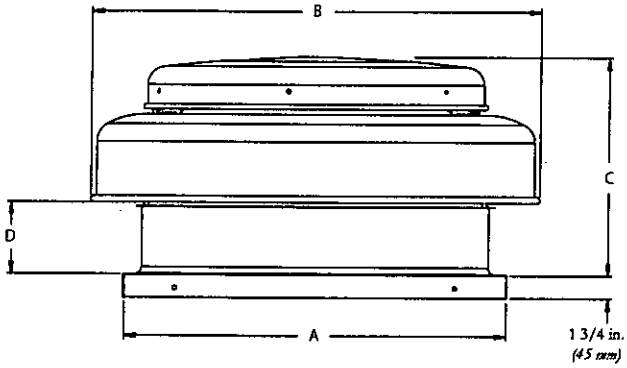
AE - Axial Exhaust Performance

Model Number	HP (Size)	Fan RPM		CFM / Static Pressure in Inches WG									
				0	0.10	0.125	0.20	0.25	0.375	0.50	0.625	0.75	1.0
AE-10-420-A8	1/8	1750	CFM	550	475	465	409	347	255	189			
			BHP	0.025	0.03	0.031	0.035	0.038	0.044	0.05			
			Sones	9.6	10.4	10.5	11.9	13.2	12.0	16.8			
AE-12-433-B6	1/6	1140	CFM	1014	853	803	458	376	144				
			BHP	0.03	0.036	0.037	0.039	0.044	0.052				
			Sones	5.1	5.1	5.1	7.0	7.4	8.6				
AE-12- 433-A4	1/4	1750	CFM	1556	1460	1437	1355	1291	1055	672	538	386	
			BHP	0.107	0.112	0.115	0.125	0.131	0.135	0.146	0.165	0.176	
			Sones	9.0	8.9	8.8	8.9	8.9	10.5	14.5	15.0	15.7	
AE-14- 438-B6	1/6	1140	CFM	1601	1381	1311	1092	925	626	273			
			BHP	0.093	0.1	0.102	0.098	0.1	0.111	0.119			
			Sones	8.2	7.6	7.5	8.0	8.4	9.6	10.7			
AE-14-438-A5	1/2	1750	CFM	2457	2332	2298	2186	2093	1875	1603	1381	1244	716
			BHP	0.337	0.342	0.345	0.357	0.365	0.369	0.355	0.369	0.393	0.41
			Sones	16.8	16.4	16.3	16.2	16.2	16.1	19.2	19.5	18.4	22
AE-16- 428-B6	1/6	1140	CFM	1999	1817	1764	1563	1418	904	682			
			BHP	0.092	0.103	0.108	0.119	0.124	0.127	0.14			
			Sones	10.5	9.2	9.0	8.6	8.4	12.2	11.6			
AE-16- 428-A5	1/2	1750	CFM	3068	2958	2928	2834	2771	2590	2339	2112	1686	1257
			BHP	0.334	0.348	0.352	0.367	0.377	0.413	0.435	0.452	0.448	0.478
			Sones	17.9	17.2	17.1	16.4	16.1	15.7	15.5	15.2	25	21
AE-18- 433-B3	1/3	1140	CFM	2982	2713	2645	2423	2264	1669	1276	881	499	
			BHP	0.249	0.266	0.27	0.28	0.286	0.285	0.298	0.319	0.346	
			Sones	11.7	11.2	11.1	11.2	11.4	14.8	14.4	15.0	17.1	
AE-18- 433-A10	1	1750	CFM	4578	4395	4349	4224	4141	3908	3660	3357	2935	2327
			BHP	0.902	0.924	0.93	0.953	0.968	0.995	1.02	1.041	1.039	1.045
			Sones	28	28	28	29	29	29	28	28	29	31
AE-20- 430-B5	1/2	1140	CFM	3871	3606	3531	3300	3100	2301	1925	1313		
			BHP	0.258	0.282	0.289	0.305	0.318	0.331	0.361	0.378		
			Sones	11.3	10.9	10.9	11.2	11.7	13.7	16.8	15.7		
AE-20- 430-A15	1½	1750	CFM	5943	5785	5745	5605	5507	5260	5007	4650	4246	3295
			BHP	0.932	0.967	0.975	1.006	1.027	1.075	1.113	1.169	1.211	1.238
			Sones	23	22	22	22	23	23	25	24	25	35
AE-24- 422-B5	1/2	1140	CFM	5091	4782	4703	4452	4277	3813	3279	2700	2252	
			BHP	0.521	0.541	0.546	0.563	0.577	0.6	0.625	0.625	0.641	
			Sones	17.2	14.2	13.9	13.7	13.6	13.4	17.0	21	21	
AE-24- 431-B10	1	1140	CFM	6042	5714	5626	5361	5137	4619	4146	3476	3136	2028
			BHP	1.003	1.024	1.028	1.039	1.053	1.087	1.098	1.073	1.119	1.167
			Sones	19.8	20	21	20	20	20	21	24	24	24

Performance certified is for Model AE exhaust for Installation type A: Free inlet, Free outlet. Performance ratings include the effects of a birdscreen in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels.

AS - Axial Supply Dimensions

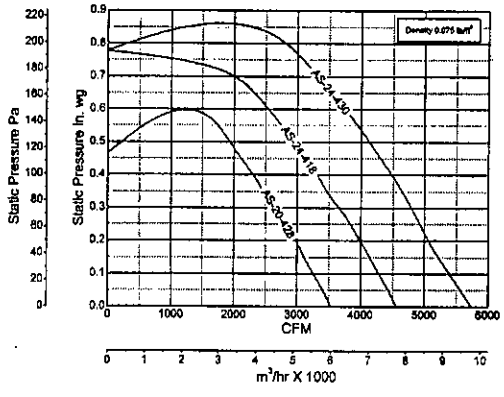


Dimensional Data	Model AS Size						
	10	12	14	16	18	20	24
A *Curb Cap*	19 *(483)*	22 *(559)*	22 *(559)*	26 *(660)*	30 *(762)*	34 *(863)*	34 *(863)*
B	24⅝ *(625)*	28⅝ *(727)*	28⅝ *(727)*	35¼ *(895)*	35¼ *(895)*	42 *(1067)*	42 *(1067)*
C	15½ *(394)*	16½ *(419)*	16½ *(419)*	17¼ *(438)*	17¼ *(438)*	17½ *(445)*	17½ *(445)*
D	5½ *(140)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*	6¼ *(159)*
Damper Size	12 x 12 *(305 x 305)*	12 x 12 *(305 x 305)*	14 x 14 *(356 x 356)*	16 x 16 *(406 x 406)*	18 x 18 *(457 x 457)*	24 x 24 *(610 x 610)*	24 x 24 *(610 x 610)*
Roof Opening	14½ x 14½ *(368 x 368)*	14½ x 14½ *(368 x 368)*	16½ x 16½ *(419 x 419)*	18½ x 18½ *(470 x 470)*	20½x 20½ *(521 x 521)*	26½ x 26½ *(673 x 673)*	26½ x 26½ *(673 x 673)*
Shroud Thickness	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.063 *(2)*	0.063 *(2)*	0.063 *(2)*	0.063 *(2)*
Motor Cover Thickness	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*	0.050 *(1)*
Unit Weight lbs *(kg)*	34 *(15)*	44 *(20)*	51 *(23)*	63 *(29)*	70 *(32)*	97 *(44)*	89 *(40)*

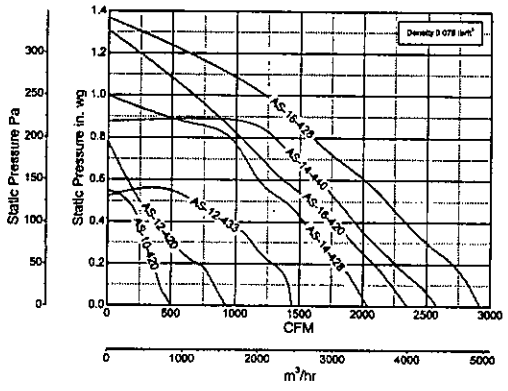
All dimensions in inches *(millimeters)*.

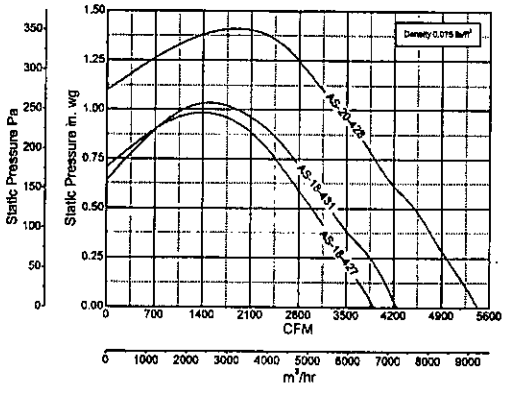
AS - Axial Supply Performance Charts

1140 RPM



1750 RPM





Performance certified is for Model AS supply for installation type A: Free inlet, Free outlet. Performance ratings include the effects of a birdscreen in the airstream.

AS - Axial Supply Performance

Model Number	HP (Size)	Fan RPM		CFM / Static Pressure in Inches WG									
				0	0.10	0.125	0.20	0.25	0.375	0.50	0.625	0.75	1.0
AS-10-420-A8	1/8	1750	CFM	503	413	401	366	343	280	188			
			BHP	0.022	0.029	0.03	0.033	0.035	0.043	0.052			
			Sones	7.9	9.1	9.2	9.8	10.2	10.2	10.7			
AS-12-420-A4	1/4	1750	CFM	929	835	813	708	595	415				
			BHP	0.037	0.046	0.047	0.054	0.058	0.068				
			Sones	9.6	8.9	8.9	11.4	14.3	12.6				
AS-12-433-A4	1/4	1750	CFM	1444	1412	1400	1294	1203	953	641			
			BHP	0.093	0.1	0.105	0.107	0.123	0.135	0.148			
			Sones	11.4	11.5	11.6	11.8	12.2	15.1	15.8			
AS-14-428-A4	1/4	1750	CFM	2041	1940	1912	1827	1742	1567	1380	1155	1018	
			BHP	0.127	0.142	0.145	0.155	0.172	0.195	0.209	0.228	0.245	
			Sones	16.1	15.8	15.7	15.8	15.9	15.9	18.4	18.9	17.3	
AS-14-440-A5	1/2	1750	CFM	2586	2442	2395	2261	2176	1971	1799	1588	1380	
			BHP	0.32	0.329	0.331	0.338	0.346	0.375	0.415	0.436	0.459	
			Sones	20	19.9	19.8	19.9	19.9	19.8	21	21	19.9	
AS-16-420-A5	1/2	1750	CFM	2353	2229	2195	2093	2008	1819	1597	1330	1121	
			BHP	0.177	0.192	0.195	0.206	0.221	0.236	0.25	0.268	0.286	
			Sones	20	19.7	19.5	19.6	19.6	19.5	21	22	21	
AS-16-428-A7	3/4	1750	CFM	2920	2826	2802	2693	2602	2376	2188	1965	1693	1200
			BHP	0.311	0.331	0.336	0.349	0.356	0.379	0.428	0.436	0.466	0.517
			Sones	21	21	21	20	20	19.9	19.7	21	25	23
AS-18-427-A7	3/4	1750	CFM	3906	3739	3690	3543	3454	3228	2990	2725	2454	
			BHP	0.545	0.592	0.603	0.636	0.647	0.676	0.703	0.731	0.756	
			Sones	30	29	28	28	27	28	28	28	28	
AS-18-431-A10	1	1750	CFM	4247	4110	4076	3938	3846	3526	3259	2998	2724	
			BHP	0.725	0.763	0.773	0.789	0.8	0.888	0.916	0.943	0.972	
			Sones	31	30	30	30	30	29	29	28	28	
AS-20-428-B5	1/2	1140	CFM	3488	3202	3125	2911	2715	2315	1847			
			BHP	0.212	0.228	0.232	0.256	0.274	0.305	0.332			
			Sones	16.7	17.5	17.7	18.1	18.4	17.1	18.9			
AS-20-428-A15	1½	1750	CFM	5355	5181	5137	4987	4886	4648	4408	4073	3830	3272
			BHP	0.767	0.79	0.795	0.814	0.827	0.879	0.94	1.012	1.056	1.142
			Sones	29	31	32	33	34	34	34	33	33	33
AS-24-418-B5	1/2	1140	CFM	4569	4289	4215	3992	3841	3392	2958	2422		
			BHP	0.369	0.392	0.399	0.415	0.422	0.453	0.474	0.497		
			Sones	24	23	23	23	23	22	22	19.4		
AS-24-430-B10	1	1140	CFM	5742	5401	5315	5066	4929	4556	4131	3650	3066	
			BHP	0.855	0.884	0.892	0.915	0.932	0.973	1.012	1.05	1.091	
			Sones	29	25	25	24	24	25	26	27	29	

Performance certified is for Model AS supply for installation type A: Free inlet, Free outlet. Performance ratings include the effects of a birdscreen in the airstream.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation type A: Free inlet fan sone levels.

Typical Specifications

Direct drive axial roof exhaust fans shall be provided as follows.

The fan propeller shall be constructed of aluminum with a swept, steeply pitched blade. A standard set screw shall lock the propeller to the motor shaft. Propellers shall be statically and dynamically balanced. The fan housing shall be constructed of heavy gauge aluminum with a rigid internal support structure and a birdscreen.

Motors shall be permanently lubricated, heavy-duty type, carefully matched to the fan load and furnished at the specified RPM, voltage, phase, and enclosure. Motors shall be readily accessible for maintenance.

A disconnect switch shall be factory-installed and wired from the fan motor to a junction box within the motor compartment. A conduit chase shall be provided through the curb cap to the motor compartment for ease of electrical wiring.

All fans shall bear the AMCA Certified Ratings Seals for sound and air performance.

Each fan shall bear a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number for future identification.

Fans shall be Model AS and AE as manufactured by Greenheck, Schofield, Wisconsin.

Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time. And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

GREENHECK
Building Value in Air.

P.O. Box 410 • Schofield, WI 54476-0410 • Phone (715) 359-6171 • greenheck.com

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Brandstetter Carroll Inc.
ARCHITECTS ENGINEERS PLANNERS

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859.268.1933 VOICE 859.268.3341 FAX

December 5, 2005

Philip Wertz, Plan Reviewer
City of Centerville – Inspection Department
100 West Spring Valley Road
Centerville, Ohio 45458

Re: Case No. 114020-000-0
Activity Center Shelter/Sprayground
& Grant Nature Nook
Centerville, Ohio
Architect's Project No. 05033

Dear Mr. Wertz:

Outlined below please find our response to your review letter dated November 25, 2005. For your convenience our responses are numbered in the same manner as your original letter and are bold. To clarify our response, The Activity Center/Shelter building located at 221 North Main Street was submitted for review and approval through The City of Centerville jurisdiction. The Nature Nook project located at 6588 McEwen Road has been submitted to Montgomery County for review and approval through their jurisdiction. The documents originally submitted for review contained both projects because they were bid as one project. To avoid any additional confusion, this re-submittal only contains drawings sheets associated with The Activity Center/Shelter Building located at 221 North Main Street and our response only pertains to comments for this project.

1. Information on the construction documents shall be in accordance with Section 106.1.1.

   Occupancy load information has been added to the cover sheet in accordance to 1004.3. Documents contain the requested building information. Please reference drawing sheets; C-101- Activity Center Layout Plan, A-103- Activity Center Floor Plan, A-203- Elevations and A-302- Wall Sections. Structural information has been added to sheet A-302.

2. Every room or space that is an assembly occupancy shall be posted in accordance with Section 1004.3.

   Applies to the Nature Nook.

3. Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort- Section 1008.1.8.

Egress door hardware will be provided in compliance with section 1008.1.8.

4. Door operating devices required to be accessible shall not require tight grasping or pinching or the twisting of the wrist to operate in accordance with Section 1008.1.8.1.

Accessible lever control hardware will be provided in compliance with section 1008.1.8.1.

5. Provide panic and fire exit hardware on each door in a means of egress from Use Groups A or E with an occupant load of 100 or more and in Use Group H-1, H-2, H-3 or H-5 in accordance with Section 1008.1.9.

Applies to the Nature Nook.

6. Stair riser height shall be 7 inches maximum and 4 inches minimum. Stair tread depths shall be 11 inches minimum in accordance with Section 1009.3. The first riser on the stairway is dimensioned at 7 ½ inches.

Applies to the Nature Nook.

7. The profile of stairway treads shall be in compliance with Section 1009.3.2. Stairway risers shall be solid in accordance with Section 1009.3.2. Stair risers shall be solid (see exception).

Applies to the Nature Nook.

8. Exterior stairways shall be protected to prevent the accumulation of snow or ice in accordance with Section 1009.5.2.

Applies to the Nature Nook.

9. Buildings and structures, temporary or permanent, including their associated sites and facilities, shall be accessible to persons with physical disabilities. – Sections 1103.1 and 1103.2.1 Provide signage adjacent to toilet room doors in accordance with ADAAG 4.1.3(16). Horizontal grab bar placement shall be in accordance with ADAAG 4.17.6.

Buildings are fully accessible; signage provided at toilets and grab bar placement shall comply with ADAAG Guidelines. Please reference typical mounting locations on sheets A-101 & A-103. ADA signage is provided as part of Project Manual Section 10426-Graphics. (Attached)

10. Buildings shall be provided with natural or mechanical ventilation in accordance with Section 1203.1.

Please reference drawing sheets A-203 for location of roof exhaust & detail D5/A-501 for mechanical ventilation one line diagram.

11. Attic spaces shall be ventilated in accordance with Section 1203.2.

Applies to the Nature Nook.

12. Provide a minimum 20 inch by 30 inch access opening to each attic space in accordance with Section 1209.2.

Janitor storage & filter pump rooms have exposed structure without enclosed ceilings, attic area does not exist.

13. Access shall be provided to spaces containing mechanical appliances in accordance with Section 1209.3.

Applies to the Nature Nook.

14. The base in toilet rooms shall be in accordance with Section 1210.1 and a minimum 6 inches in height.

Base finish is rubber base with painted CMU walls. 6" high material will be provided, refer to schedule on sheet A-601.

15. Provide an approved interior noncorrodible vapor retarder on exterior walls. – Section 1403.3.

Applies to the Nature Nook.

16. The construction documents shall show the size, section and relative locations of all structural members, with floor levels, column centers and offsets fully dimensioned. – Section 1603.1. No structural framing information is provided for the Activities Center.

The Activity Center Shelter frame is a pre-engineered package. Signed sealed shop drawing will be submitted by the manuffacturer. Frame locations are noted by column center lines. Sheet A-103 and Details Sheet A-501.

17. The structural design loads shall be indicated on the construction documents in accordance with Section 1603.1. No structural information is provided for the Activities Center. No structural loading information is provided for the Nature Nook exterior deck, stairs or ramp.

Structural design information has been added to sheet A-302.

18. Protection of wood against decay and termites shall be provided in accordance with Section 2304.11.

Applies to the Nature Nook.

19. Wall sill plates shall be anchored to the foundation walls in accordance with Section 2308.6.

Applies to the Nature Nook.

20. Provide safety glazing accordance with Section 2406.1 in locations specified in Section 2406.2. Indicate locations on the construction documents.

Applies to the Nature Nook.

21. Electric components, equipment and systems shall be designed and installed in accordance with the provisions of N.F.P.A. 70. – Section 2701.1. The grounding Electrode System shall be in accordance with Art. 250.50.

Please reference general notes D & I sheet E-102. Grounding system has been added, reference sheet E-202.

22. All mechanical equipment, appliances and systems shall be constructed, installed and maintained in accordance with the Ohio Mechanical Code. – Section 2801.1. Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate required for determined in accordance with Table 403.3 – Section 403.3. Indicate on the construction documents the required and the provided outdoor airflow for each space.

Please reference drawing A-501 detail D5 shows CFM exhaust from each space in compliance with table 403.3. Outside air is drawn in through door louvers to properly ventilate the space.

I trust the above information answers your questions as it relates the project. Please feel free to contact me directly if you have any questions, or need additional information as it pertains to this submittal.

Respectfully Submitted,

J. Kenneth Donnelly, AIA

c: Robert Feldmann, Centerville-Washington Park District
Larry Brandstetter, Mike Carroll, Wesley Shears, Brandstetter Carroll Inc.
File 05033-1C

SECTION 10426 - GRAPHICS

PART 1 GENERAL

1.1 SCOPE

A. Installation of all interior door plaques.

B. Installation of building plaques.

C. Provide associated materials required for installation.

1.2 SUBMITTALS

A. Submit four copies of shop drawings.

B. Submit actual samples of interior plaques.

PART 2 PRODUCTS

2.1 DOOR PLAQUES:

A. Door plaques to be Model No. 200, Type "A" series with Braille lettering by Andco, 8 inches X 8 inches X 1/8 inch with 1" radius corners. Signs required listed below:

Restrooms (ADA Requirements) (1) men, (1) women,

(3) unisex at restrooms

B. 8" x 8" signs with two lines of text to be determined. Room numbers, text and locations verified with architect. Provide one sign at each interior door opening.

C. Acceptable Manufacturers

1. ASI Sign Systems

2. Diskey Sign Corporation

3. Super Sine

4. Modulex

5. Architect Approved Equal

2.2 HANDICAPPED PARKING SIGNS

A. Sign shall contain international handicap symbol and words "Reserved Parking", as shown on the drawings.

B. Sign shall meet current ADAAG and ANSI A117.1 accessibility codes.

C. Post shall be nominal 2" inches square black vinyl coated galvanized steel set in concrete.

D. Paint back of sign black.

PART 3 EXECUTION

3.1 INSTALLATION

1. Install signs square and plumb.

2. Mount door plaques adjacent to strike side of door at 54" A.F.F.

3. Provide multiple signs with quantity in parenthesis.

END OF SECTION

Activity Center Shelter/Spraygrou
& Grant Nature No

Design Criteria / Code Data

Building Data – Code Compliance OBC, 2005 EDITION

Activity Center/Sprayground:

Use Group: A3

Construction Type: 5B

Allowable Area: 6,000 S.F.

Building Area: 2,335 S.F.

Building Perimeter: 222.66 L.F.

Building Height: 13'-10"

Occupant Load:
- Storage & Pump Room: 504 s.f. / 300 = 2
- Restroom (Actual): = 6
- Total Occupants = 8

3

Nature Nook Building:

Use Group: A3

Construction Type: 5B

Allowable Area: 6,000 S.F.

Building Area: 1,940 S.F.

Building Perimeter: 196 L.F.

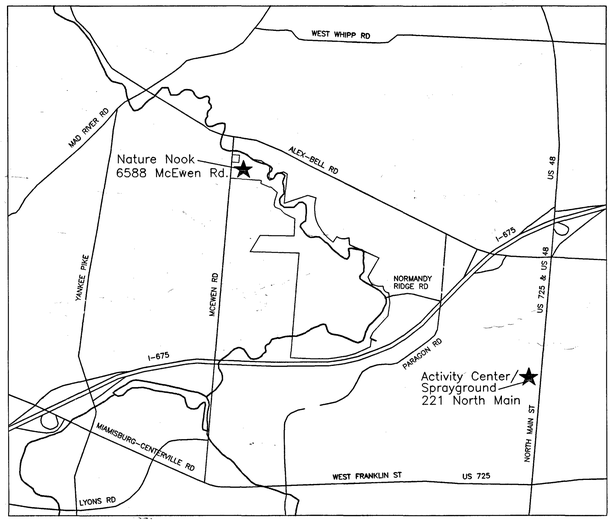
Building Height: 18'-4"

Occupant Load:
- Assembly Area: 859 s.f. / 15 = 60
- Storage Area: 795 s.f./ 300 = 1
- Restroom (Actual): = 4
- Total Occupants = 65
- Maximum Occupants = 99

3

A.D.A. ACCESSIBILITY REQUIREMENTS MET IN ALL AREAS OF BUILDINGS AND SITE, INCLUDING CLEARANCES, MOUNTING HEIGHTS, TURNING RADIUS, FIXTURE REQUIREMENTS, SURFACES AND EQUAL ACCESS.

Vicinity Map



Index to Drawings

Cente
O

PLANNING COMMISSION
APPROVED
✓ As Submitted
With Conditions
Signature
1-5-06
Date

August 18, 2

Constructi
Documents

NOTICE

THIS SET OF DRAWINGS MUST BE KEPT ON THE JOB OR NO INSPECTION WILL BE MADE

Project No. 05033

RECEIVED
DEC 28 2005
BUILDING INSPECTION
CITY OF CENTERVILLE

25409

CITY OF CENTERVILLE APPROVED SET

Brandstetter Carroll Inc.
ARCHITECTS ENGINEERS PLANNERS
LEXINGTON/CINCINNATI

3 Plan Review 12-1-05

05033
Project No.

Drawn By

Checked By

08/18/05
Date

Revisions

STATE OF OHIO
MICHAEL E. CARROLL
6423
REGISTERED ARCHITECT

Brandstetter Carroll Inc.
ARCHITECTS ENGINEERS PLANNERS
2360 Chauvin Drive, Lexington, Kentucky 40517 (859) 269-1933
424 East Fourth Street, Cincinnati, Ohio 45202 (513) 651-4224

Grant Nature Nook - Activity Center Shelter/Sprayground
Centerville - Washington Park District
221 North Main Street
Centerville, Ohio 45459

Activity Center - Existing Conditions

C-100

SWINGS

SANDBOX

CONCRETE

GRAVEL

UE

UE

FF EL. 927.25

X = 17995970.07
Y = 7194895.52

X = 17995940.32
Y = 7194886.75
R = 65'-2"

X = 17995904.84
Y = 7194877.38

X = 17995929.97
Y = 7194882.60

X = 17995899.10
Y = 7194867.62

X = 17995855.73
Y = 7194858.94

X = 17995911.83
Y = 7194864.51
R = 12'-8"

X = 17995864.86
Y = 7194843.71
R = 10'-0"

X = 17995939.93
Y = 7194829.71
R = 28'-0"

X = 17995854.08
Y = 7194803.44

X = 17995925.55
Y = 7194809.39
R = 21'-11"

X = 17995893.49
Y = 7194793.63
R = 6'-0"

X = 17995832.85
Y = 7194767.20

X = 17995893.51
Y = 7194767.90
R = 14'-0"

X = 17995884.89
Y = 7194763.39
R = 9'-0"

X = 17995928.99
Y = 7194765.23
R = 16'-10"

X = 17995934.17
Y = 7194742.62
R = 23'-0"

X = 17995949.38
Y = 7194741.17
R = 7'-10"

X = 17995971.57
Y = 7194740.71
R = 8'-5"

X = 17995988.53
Y = 7194858.06
R = 4'-10"

X = 17995995.14
Y = 7194851.52

X = 17995988.93
Y = 7194811.12
R = 12'-8"

X = 17996001.08
Y = 7194803.79
R = 30'-0"

X = 17996011.88
Y = 7194831.83
R = 8'-0"

X = 17995999.95
Y = 7194799.10
R = 29'-0"

X = 17996035.12
Y = 7194824.92
R = 16'-2"

X = 17996040.59
Y = 7194821.24
R = 19'-4"

X = 17996049.52
Y = 7194806.73
R = 19'-0"

X = 17996056.43
Y = 7194796.19
R = 9'-2"

X = 17996053.07
Y = 7194772.90
R = 14'-0"

X = 17996001.40
Y = 7194785.35
R = 19'-0"

X = 17995980.90
Y = 7194783.35
R = 33'-0"

X = 17996027.24
Y = 7194777.33
R = 12'-0"

X = 17996022.15
Y = 7194772.18
R = 75'-8"

EJ

12" STORM

12" STORM

6" STORM

6" STORM

12" STORM

6" STORM

6" STORM

PARKING LOT
(ASPHALT)

EXISTING PARKING LOT

GRASS

PARKING LOT
(ASPHALT)

ASPHALT

TV

General Notes

1. BASE SURVEY PROVIDED BY OWNER, AND PREPARED BY:
   BRANDSTETTER CARROLL INC.
   424 EAST FOURTH STREET
   CINCINNATI, OH 45202

2. ANY AREAS DAMAGED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER AND LANDSCAPE ARCHITECT.

Coded Notes

1. SPRAYGROUND
2. SHELTER BUILDING
3. FUTURE PLAYGROUND STRYCTURE BY OWNER, REFER TO C-102 GRADING PLAN FOR EXTENT OF GRADING REQUIRED IN THIS CONTRACT.
4. CONCRETE WINGED HEADWALL
5. CATCH BASIN RIM AND GRATE
6. CONCRETE WALKWAY C5/C-501
7. CONCRETE SIDEWALK EDGE TREATMANT C4/C-501
8. END OF CONCRETE WALK FOR THIS CONTRACT
9. EXISTING SIDEWALK
10. DRINKING FOUNTAIN SEE D4/C-501
11. DRINKING FOUNTAIN WASTE WATER PIT D4/C-501
12. CONCRETE SIDEWALK
13. SURGE, MANIFOLD PIT

Plan
1"=20'

05033
Project No.
CGC/PJF
Drawn By
PDH
Checked By
08/18/05
Date

Revisions

STATE OF OHIO
MICHAEL E. CARROLL
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Brandstetter Carroll Inc.
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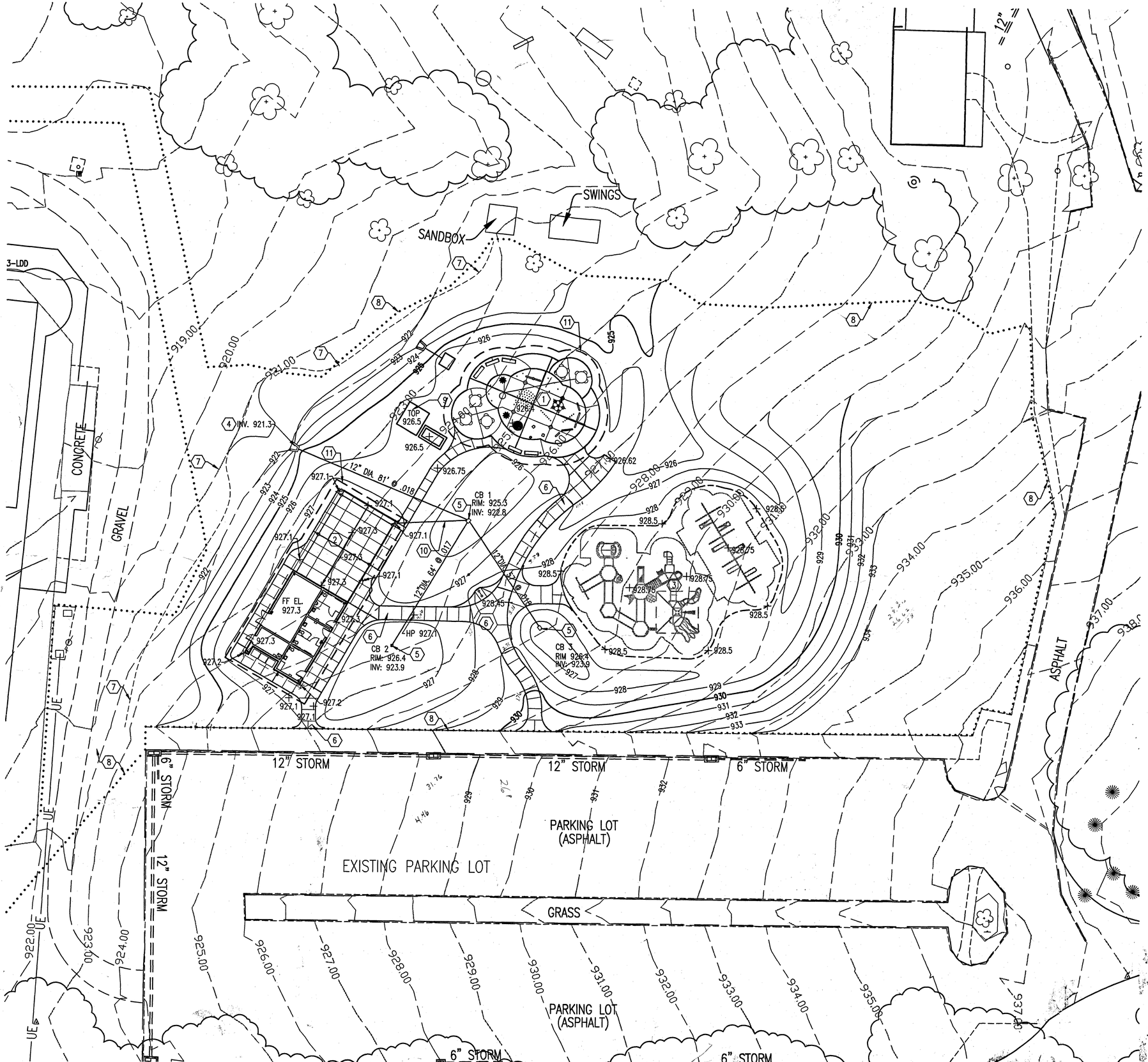
Grant Nature Nook - Activity Center Shelter/Sprayground
Centerville - Washington Park District
221 North Main Street
Centerville, Ohio 45459

Activity Center Layout Plan

C-101



Plan
1"=20'

General Notes

1. BASE SURVEY PROVIDED BY OWNER, AND PREPARED BY:
   BRANDSTETTER CARROLL INC.
   424 EAST FOURTH STREET
   CINCINNATI, OH 45202
2. ALL TREES TO REMAIN ARE TO HAVE PROTECTIVE FENCING. FENCING SHALL BE NO CLOSER TO THE TRUNKS THAN THE DRIP LINE OF THE CANOPY.
3. CONTRACTOR IS RESPONSIBLE FOE ALL GRADING AND SEEDING TO THE LIMITS INDICATED INCLUDING ALL DISTURBED AREA ASSOCIATED WITH THE INSTALLION OF ALL UTILITIES. ANY AREAS DAMAGED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER AND LANDSCAPE ARCHITECT.

Coded Notes

1. SPRAYGROUND SEE CP-101 FOR ADDITIONAL GRADE INFORMATION.
2. SHELTER BUILDING
3. BOTH THE ACCESS SIDEWALK, SAFETY SURFACE AND BASE FOR THE PLAYGROUND SHALL BE INSTALLED BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND FINISHING THE SUBGRADE ONLY WITHIN THE CONFINES OF THE PLAYGROUND. SUBGRADE SURFACE IS MINUS .83' FROM ELEVATIONS INDICATED.
4. CONCRETE WINGED HEADWALL A1/C-501
5. CATCH BASIN RIM AND GRATE A3/C-501
6. CONCRETE WALKWAY
7. EROSION CONTROL FENCING
8. AREA OF DISTURBANCE
9. SURGE MANIFOLD PIT
10. 6" DIA. DOWNSPOUT DRAIN TO BASIN
11. PER GEOTECHNICAL REPORT, REMOVE WEAK SOILS TO A DEPTH OF AT LEAST 3.5' AND PROOF ROLL. REPLACE WITH CONTROLLED FILL PER SPECIFICATIONS, TO SUBGRADE SPECIFICATIONS.

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Centerville, Ohio 45459

Activity Center Grading, Drainage, and Erosion Control Plan

C-102

General Notes

1. DUE TO THE NATURE OF THE WORK, THE CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS, UTILITY LOCATIONS AND ELEVATIONS, ETC. AND SHALL REPORT ALL DIFFERING CONDITIONS TO THE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.

2. PROTECT AND MAINTAIN CONDUITS, DRAINS, SEWERS, PIPES, AND WIRES THAT ARE TO REMAIN.

3. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED PER THE SPECIFICATIONS. FILL RUTS WITH TOPSOIL AND INSURE GRADE IS SMOOTH AND CONSISTENT.

4. ANY AREAS DAMAGED OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER AND ARCHITECT.

5. EROSION CONTROL BLANKET ON ALL SLOPES 4:1 OR GREATER.

NITARY

6" STORM

18" STORM

12" SANITARY

PROVIDE NEW VALVE BOX WITH 2" SHUTOFF VALVE AND DRAIN DOWN VALVE FOR WINTERIZING SYSTEM.

DISTURBED LIMITS

PROVIDED 1 1/2" METER SET PER MONTGOMERY COUNTY SANITARY ENGINEERING DEPARTMENT. BACKFLOW PREVENTER LOCATED INSIDE SHELTER BUILDING REFER TO SHEET P-101.

CONNECT 2" WATER LINE TO 12" WATER MAIN PER MONTGOMERY COUNTY SANITARY ENGINEERING DEPARTMENT.

LOCATE 1" SUPPLY TO EXISTING WATER FOUNTAIN DISCONNECT REMOVE AND PLUG TAP AS PER MONTGOMERY COUNTY SANITARY ENGINEERING DEPARTMENT.

SWIN

1" SERVICE LINE TO EXISTING WATER FOUNTAIN. PROVIDE SHUTOFF VALVE AND VALVE BOX.

EXISTING 1" SUPPLY FROM 12"MAIN TO BE DISCONNECTED & ABANDONED

SANDBOX

CONCRETE

1" WATER LINE TO DRINKING FOUNTAIN

SEE SHEET CP-102 FOR SPRAYGROUND PIPING

DISTURBED LIMITS

INFIELD

2" WATER LINE TO BUILDING.

CONCRETE

GRAVEL

2" WATER LINE AND YARD HYDRANT. COORDINATE LOCATION WITH OWNER

STM

1" WATER LINE TO DRINKING FOUNTAIN AND DECK HYDRANTS

DRINKING FOUNTAIN WATER METER PIT

UG

UE

CONNECT UNDERGROUND POWER TO EXISTING TRANSFORMER

1" WATER LINE TO DRINKING FOUNTAIN AND DECK HYDRANTS

6" STORM

12" STORM

12" STORM

6" STORM

6" SDR 35 PVC SANITARY SEWER LATERAL I.E. 920.00

BACK FLOW PREVENTER INSIDE SHELTER BUILDING PER MONTGOMERY COUNTY SANITARY ENGINEERING DEPARTMENT REFER TO SHEET P-101

PARKING LOT (ASPHALT)

12" STORM

GRASS

INFIELD

DISTURBED LIMITS

12" SANITARY

24" STORM

I.E. 913.5

C.O.

C.O.

I.E. 910.5

I.E. 916.5

24" STORM

24" STORM

24" STORM

18" STORM

PARKING LOT (ASPHALT)

6" STORM

6" STORM

TV

12" STORM

18" STORM

12" STORM

18" STORM

12" STORM

CONNECT 6" SANITARY LATERAL TO EXITING 12" SANITARY LINE FIELD VERIFY INVERT.

CAUTION! ELEVATION OF EXISTING WATERLINE UNKNOWN SANITARY SECTION TAP IS ± 7' DEEP, WATER LINE EXPECTED DEPTH – 3' - 5'.

8" SANITARY

Plan

Scale : 1"=30'

05033
Project No.

-
Drawn By

-
Checked By

08/18/05
Date

Revisions

1 Montgomery County Sanitary Engineer Dept. Review 12-1-05

STATE OF OHIO
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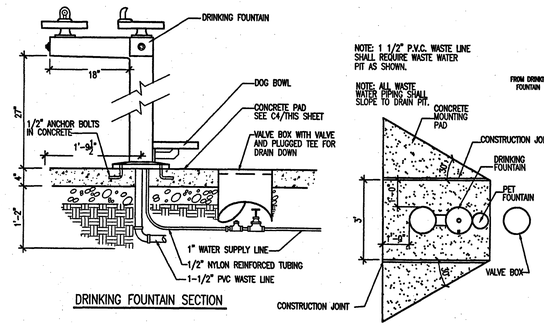
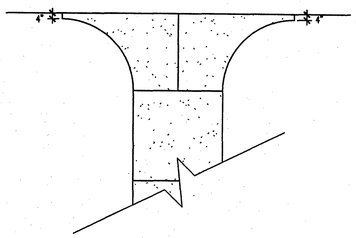
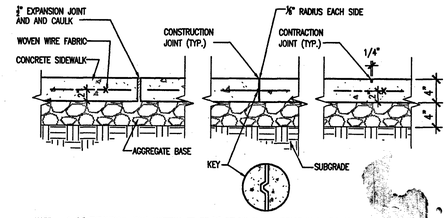
Activity Center Site Utilities

C-103



D4 **Drinking Fountain w/ Drain**
Scale: 3/4"=1'-0"

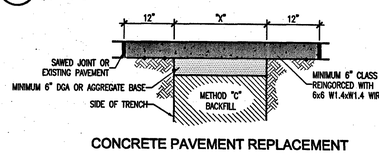




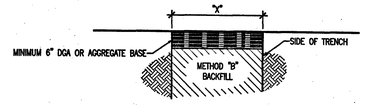
NOTE: 1. ½" EXPANSION JOINT MATERIAL TO BE ½" BELOW SLAB SURFACE WHEN ZIP STRIP IS REMOVED.
2. JOINT MATERIAL SHALL BE FULL DEPTH OF PAVEMENT. CAULK VOID FULL AND FLUSH W/ SURFACE.
3. CONTRACTION JOINT TO BE ¼" THE DEPTH OF CONCRETE.

C4 **Sidewalk Edge Connection Detail**
1/4" = 1'-0"

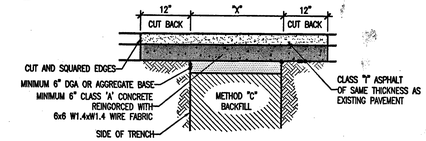
C5 **Concrete Walk w/ Expansion, Control, and Sawcut Joints**
Scale: 1" = 1'-0"



CONCRETE PAVEMENT REPLACEMENT



GRAVEL SURFACE REPLACEMENT

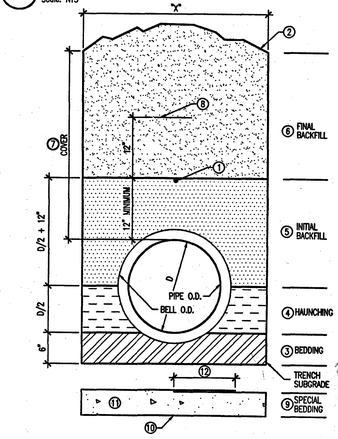


BITUMINOUS PAVEMENT REPLACEMENT

Pipe Size	"X" Unsupported Trench	"X" Trench Box
< 4"	12"	N.A.
4" – 12"	30"	42"
14" – 18"	36"	48"
20" – 24"	42"	52
26" – 36"	54"	68"
54"	78"	84"

TRENCH WIDTH TABLE

D4 **Pavement Replacement Methods**
Scale: NTS



1. TRACE WIRE – NO. 12 COPPER TRACE WIRE REQUIRED FOR ALL PLASTIC PIPE. EXTEND TO INSIDE OF VALVE BOXES, PUMP STATIONS, ETC.
2. SURFACE REPLACEMENT – FOR CONSTRUCTION IN EXISTING STREETS AND ROADS SEE PAVEMENT REPLACEMENT DETAILS. FOR CONSTRUCTION IN ADVANCE OF NEW ROADWAY CONSTRUCTION LAST LIFT OF BACKFILL SHALL BE 6" DENSE GRADED AGGREGATE. FOR OPEN AREAS, HEAP SLIGHTLY AND SEED IN ACCORDANCE WITH SPECIFICATIONS.
3. BEDDING – NO. 9 CRUSHED STONE
4. HAUNCHING – DUCTILE IRON AND CORRUGATED METAL PIPES SELECT FINE SOIL FREE OF STONES LARGER THAN 3/4" IN DIAMETER (HAND TAMPED). PLASTIC PIPES NO. 9 CRUSHED STONE OR SAND FOR PIPE BEDDING (ODOT 703.06). NO ALTERNATE
5. INITIAL BACKFILL– DUCTILE IRON AND CORRUGATED METAL PIPES SELECT FINE SOIL FREE OF STONES LARGER THAN 3/4" IN DIAMETER (HAND TAMPED). PLASTIC PIPES NO. 9 CRUSHED STONE OR SAND FOR PIPE BEDDING (ODOT 703.06). NO ALTERNATE
6. FINAL BACKFILL – SEE PAVEMENT REPLACEMENT DETAIL FOR APPROPRIATE METHOD
   METHOD 'A' – BACKFILL PLACED IN 24" LIFTS, AND MECHANICALLY COMPACTED. TRENCH MAY BE LEFT (OPEN AREAS) HEAPED UNTIL SEEDING.
   METHOD 'B' – BACKFILL PLACED IN 6" LIFTS, AND MECHANICALLY COMPACTED TO 95% OF ASTM D-698 (GRAVELED AREAS) FINAL 6" OF BACKFILL TO BE DGA OR AGGREGATE BASE
   METHOD 'C' – BACKFILL PLACED IN 6" LIFTS, AND MECHANICALLY COMPACTED TO 100% OF ASTM D-698 (PAVED AREAS) FINAL 6" OF BACKFILL TO BE DGA OR AGGREGATE BASE
   ALTERNATE METHOD 'C' – FINAL BACKFILL SHALL BE NO. 9 CRUSHED STONE.
7. COVER – 30" MINIMUM COVER FOR WATER MAINS, WATER SERVICE LINES AND SANITARY SEWERS 24" MINIMUM COVER FOR STORM SEWERS,TELEPHONE CONDUIT AND ELECTRICAL CONDUIT.
8. MARKING TAPE – "CAUTION BURIED --------" (-------- INDICATE TYPE OF CONDUIT)

Special Pipe Bedding Detail

9. SOFT, MUCKY SUBGRADE SHALL BE OVEREXCAVATED TO THE DEPTH DESIGNATED BY THE ENGINEER.
10. INSTALL GEOTEXTILE TYPE III.
11. INSTALL BEDDING STONE TO DEPTH OF OVEREXCAVATION.
12. CLOSE GEOTEXTILE ENVELOPE WITH ONE (1) FOOT OF OVERLAP.
13. ORDER – SPECIAL PIPE BEDDING SHALL ONLY BE INSTALLED ON WRITTEN ORDER OF THE ENGINEER.

A4 **Bedding and Backfill Detail**
Scale: NTS

NOTES

GRATE: The design shall meet the requirements of CMS 711.14. Grate openings and dimensions shall not differ from those shown unless otherwise shown in the plans.

WALLS: Cast-in-place walls have a nominal thickness of 8". Precast walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without damage.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

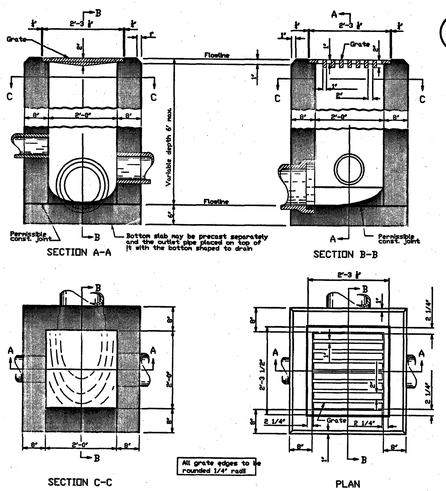
LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate.

MINIMUM DEPTH: The minimum depth shall be the O.D. of the outlet pipe plus 4".

OPENINGS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

The following text shall be cast into the top of the grate
"DUMP NO WASTE"
and
"DRAINS TO WATERWAY"
Text shall be printed in bold, capital letters with a minimum height of 1/2". "WATERWAY" may be substituted with "STREAM","RIVER","LAKE", etc. Actual placement and logo may vary per manufacturer.

CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.



A3 **Drop Box Inlet**
Scale: 3/4" = 1'-0"

A1 **Sloped and Flared Headwall 12" to 27"**
3/8" = 1'-0"

05033
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PJF/CGC
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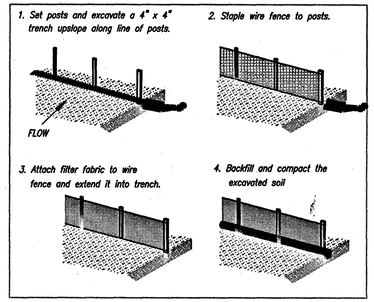
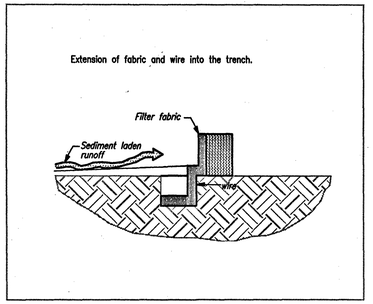
Activity Center Site Details

C-501



POSTED SILT FENCE CONSTRUCTION



SECTION THROUGH TRENCH

SILT FENCE PLACEMENT NOTES:

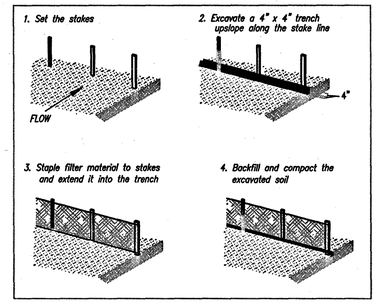
I. SHEET (OVERLAND) FLOW APPLICATIONS ONLY

1. THE HEIGHT OF THE SILT FENCE SHALL NOT BE LESS THAN THIRTY-SIX (36) INCHES.
2. BURLAP OR STANDARD STRENGTH FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL TO AVOID JOINTS. A SIX (6) INCH LAP IS REQUIRED AT A POST FOR ALL NECESSARY JOINTS.
3. STAKES FOR SILT FENCES SHALL BE TWO INCH BY TWO INCH (2" X 2") WOOD OR 1.33 LBS./LIN. FT. STEEL WITH A MINIMUM LENGTH OF FIVE (5) FEET.
4. MAXIMUM POST SPACING SHALL BE TEN (10) FEET WHEN WIRE SUPPORT FENCE IS USED AND A MAXIMUM OF SIX (6) FEET WHEN NO WIRE SUPPORT IS USED.
5. CONSTRUCT A FOUR INCH BY FOUR INCH (4" X 4") TRENCH ALONG THE LINE OF THE STAKES AND UPSLOPE FROM THE BARRIER.
6. WHEN STANDARD STRENGTH FABRIC IS USED, WITH STANDARD POST SPACING, A WIRE SUPPORT FENCE SHALL BE USED AND MUST BE EXTENDED INTO THE TRENCH A MINIMUM OF TWO (2) INCHES.
7. WHEN EXTRA STRENGTH FABRIC IS USED IN CONJUNCTION WITH CLOSER POST SPACING THE FABRIC CAN BE STAPLED DIRECTLY TO THE POSTS WITH EIGHT (8) INCHES OF FABRIC EXTENDING INTO THE TRENCH.
8. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.

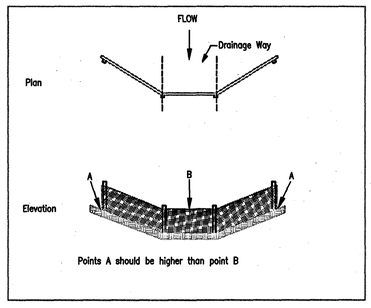
II. MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN EVENT.
2. SEDIMENT REMOVAL SHALL OCCUR WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE SILT FENCE.
3. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

SILT FENCE PLACEMENT
N.T.S.



STAKED FILTER BARRIER CONSTRUCTION



PLACEMENT OF STAKED FILTER BARRIER IN DRAINAGE WAY

FILTER BARRIER PLACEMENT NOTES:

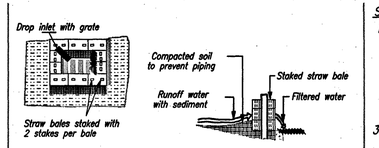
I. SHEET (OVERLAND) AND CHANNEL FLOW APPLICATIONS

1. THE HEIGHT OF THE FILTER BARRIER SHALL BE AT LEAST FIFTEEN (15) INCHES AND NO GREATER THAN EIGHTEEN (18) INCHES.
2. BURLAP OR STANDARD STRENGTH FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL TO AVOID JOINTS.
3. STAKES FOR FILTER BARRIERS SHALL BE AT A MINIMUM OF ONE INCH BY TWO INCH (1" X 2") WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF THREE (3) FEET.
4. MAXIMUM STAKE SPACING SHALL BE THREE (3) FEET.
5. CONSTRUCT A FOUR INCH BY FOUR INCH (4" X 4") TRENCH ALONG THE LINE OF THE STAKES AND UPSLOPE FROM THE BARRIER.
6. THE FILTER MATERIAL IS EXTENDED INTO THE TRENCH.
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
8. IF A FILTER BARRIER IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE. PLACEMENT OF FILTER BARRIER SHALL FOLLOW THE CONTOUR.

II. MAINTENANCE

1. FILTER BARRIERS SHALL BE INSPECTED AFTER EACH RAIN EVENT.
2. SEDIMENT REMOVAL SHALL OCCUR WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
3. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

FILTER BARRIER PLACEMENT
N.T.S.



This method of inlet protection is applicable where the inlet drains a relatively flat area (slopes no greater than five (5) percent) where sheet or overland flows (not exceeding 0.5 cfs) are typical.

STRAW BALE DROP INLET SEDIMENT FILTER

STORM DRAIN (STRAW BALE) INLET PROTECTION NOTES:

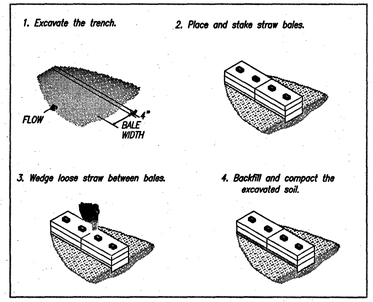
I. CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE EITHER WIRE BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
2. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
3. THE INLET PROTECTION SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET THE WIDTH OF A BALE TO A MINIMUM DEPTH OF FOUR (4) INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE STRAW BALES.
4. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN COMPLETELY THROUGH THE BALE AND PENATRATING THE SOIL BY A MINIMUM OF SIX (6) INCHES.
5. LOOSE STRAW SHALL BE WEDGED BETWEEN BALES TO PREVENT RUNOFF FROM ENTERING BETWEEN BALES.

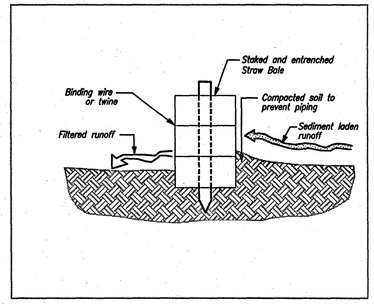
II. MAINTENANCE

1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

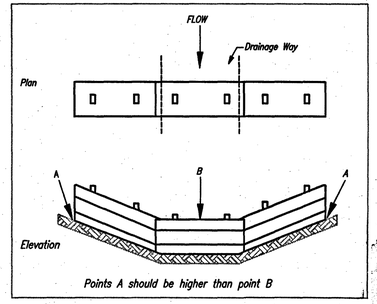
STORM DRAIN INLET PROTECTION
N.T.S.



CONSTRUCTION OF A STRAW BALE BARRIER



CROSS SECTION OF PROPERLY INSTALLED STRAW BALE



PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY

STRAW BALE PLACEMENT NOTES:

I. SHEET (OVERLAND) FLOW APPLICATIONS

1. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTH ON THE CONTOUR, WITH BOTH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
2. ALL BALES SHALL BE EITHER WIRE BOUND OR STRING TIED. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES PREVENT DETERIORATION OF THE BINDINGS.
3. THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF ONE BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF FOUR (4) INCHES. AFTER THE BALES ARE STAKED AND CHINKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO FOUR (4) INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
4. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES OR STEEL BARS DRIVEN COMPLETELY THROUGH THE BALE AND PENETRATING THE SOIL BY A MINIMUM OF SIX (6) INCHES.
5. THE GAPS BETWEEN THE BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH LOOSE STRAW TO PREVENT RUNOFF LEAKAGE BETWEEN THE BALES.

II. CHANNEL FLOW APPLICATIONS

1. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
2. SEE STEPS 2. THROUGH 5. FOR SHEET FLOW APPLICATIONS.
3. THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE. (SEE DETAIL ENTITLED "PLACEMENT OF STRAW BARRIER IN DRAINAGE WAY")

III. MAINTENANCE

1. INSPECTIONS SHALL BE MONTHLY AT A MINIMUM AND AFTER EACH RAIN EVENT.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS, AND THE UNDERCUTTING OF BARRIERS BY RUNOFF.
3. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION HAS REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

STRAW BALE PLACEMENT

05033
Project No.
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Checked By
08/18/05
Date

Revisions

STATE OF OHIO
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REGISTERED

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Grant Nature Nook - Activity Center Shelter/Sprayground
Centerville - Washington Park District
221 North Main Street
Centerville, Ohio 45459

Erosion Control Details

C-502

Sprayground Plan

1/4"=1'-0"

NORTH

05033
Project No.

—
Drawn By

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Checked By

08/18/05
Date

Revisions

2 Addendum #1(Re-Bid) 10-3-05

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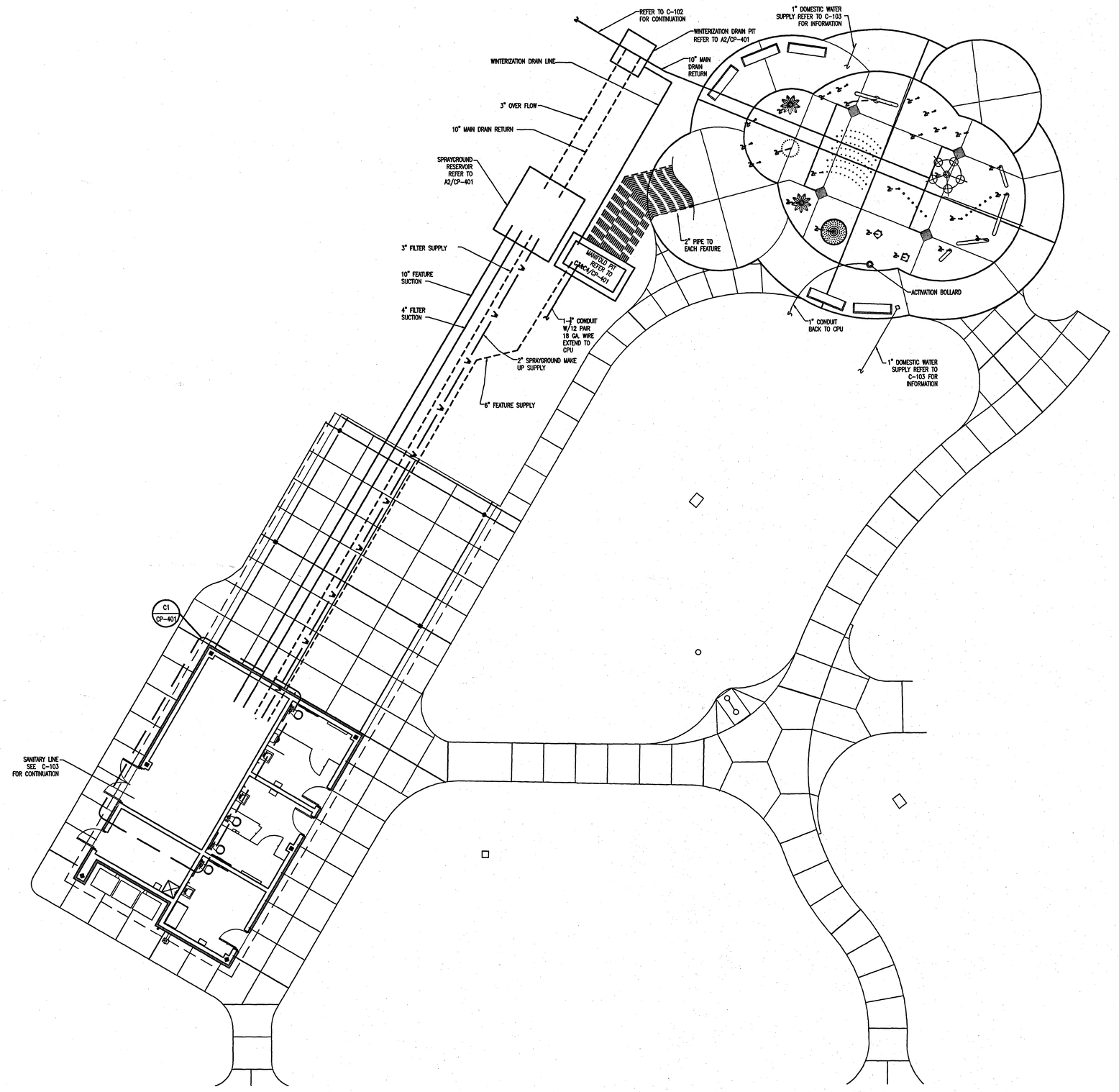
Centerville, Ohio 45459

Sprayground Plan

CP-101



Sprayground Piping and Utilities Plan

1/8"=1'-0"

General Notes

1. REFER TO RISER DIAGRAMS FOR TYPICAL FILTER SYSTEM LAYOUTS – SHEET CP-401.
2. CONTRACTOR TO PROVIDE ALL REQUIREMENTS OF WINTERIZATION DRAIN DOWN BOXES. REFER TO P-101.
3. REFER TO CP-401 FOR SPRAYGROUND FILTER ROOM PIPING.
4. REFER TO SHEET CP-101 FOR SPRAYGROUND PLAY FEATURE LAYOUT.
5. MANUAL VALVES LOCATED WITHIN SPRAYGROUND RESERVOIR TO EXTEND UP THROUGH TOP OF SURGE TANK FOR ACCESSIBILITY.
6. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BONDING AND GROUNDING ALL NEW EQUIPMENT IN STRICT COMPLIANCE WITH ARTICLE 250 AND 680 OF THE N.E.C. AND THE LOCAL AUTHORITY HAVING JURISDICTION. REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO PUMPS, FILTERS, PLAY FEATURES, FILTRATION EQUIPMENT, WATER HEATERS, LIGHT POLES, AND FENCING.

Legend

- SUPPLY LINE-SCHEDULE 80 PVC
- SUCTION/DRAIN LINE-SCHEDULE 80 PVC
- SPRAYGROUND MAKEUP WATER LINE

05033
Project No.

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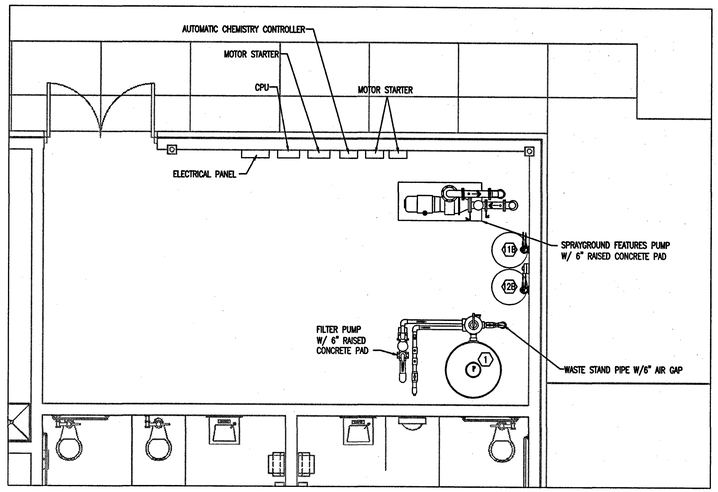
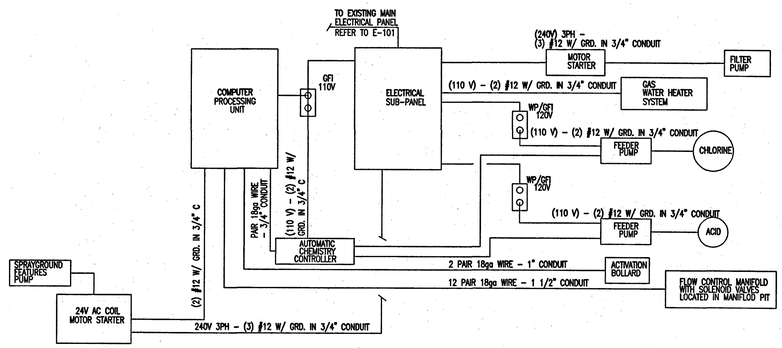
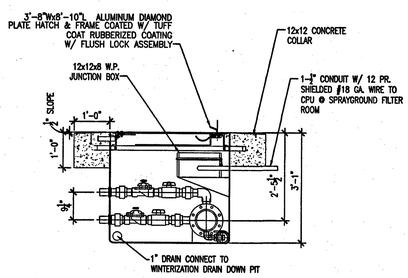
Sprayground Piping and Utilities Plan

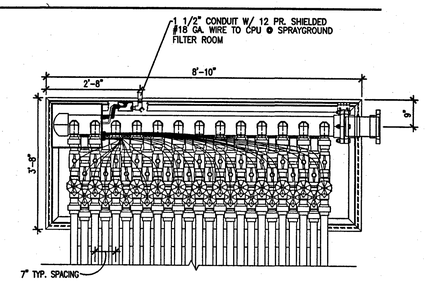
CP-102



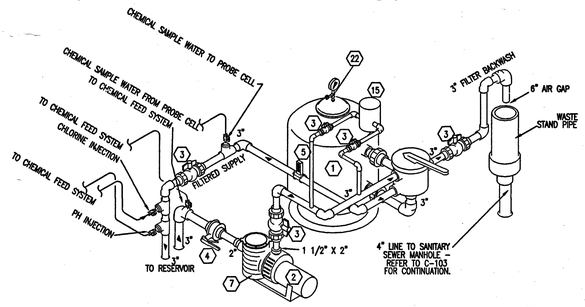


D3 One-Line Diagram
N.T.S.

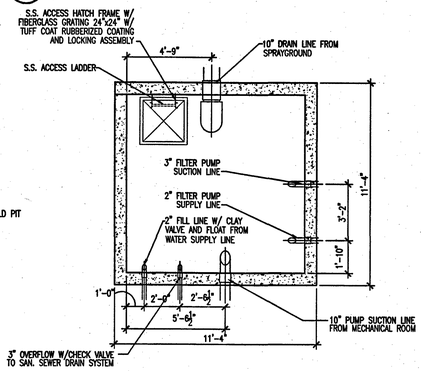




C1 Sprayground Filter Room Equipment Plan
1/4" = 1'-0"

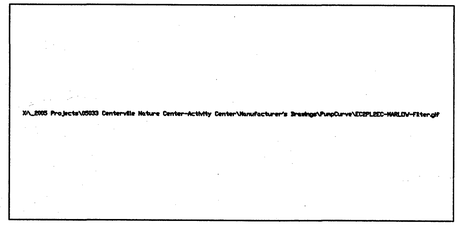


C3 Sprayground Manifold Pit Section
1/2" = 1'-0"

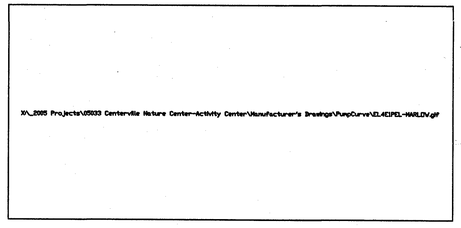


C4 Sprayground Manifold Detail
1/2"=1'-0"

SPRAYGROUND MECHANICAL DATA		
Surge Tank Size Total Volume Static Volume		10'-0"WX10'-0"LX6-0"D=600 CU. FT. 10'-0"WX10'-0"LX4'-0"D=400 CU. FT.
Surge Tank Static Water Volume		2992 GALS.
Filter Type		SAND FILTER
Manufacturer		NEPTUNE BENSON
Model No.		CRFFG 36" DIAMETER
No. of Tanks		1
S.F. Filter Area		7.07
Filter Rate		15
Pump	Hp.	5
	RPM	3450
	GPM	99.7
	TDH	70'
	Voltage	240 V
	Phase	3 PHASE
	Manuf.	MARLOW
	Model No.	2PL2EC
	Impeller Size	4.875"
	Hair/Lint Strainer	INCLUDE WITH PUMP
Turnover Rate		30 MIN.
Chlorinator Type		HYPOCHLORINATOR
Manufacturer		LMI
Model No.		B131460SI
Capacity		25.1 GPD
ACID PUMP Manufacturer		LMI
Manufacturer Model No.		161-468SI
Automatic Chemical Controller Manufacturer		STRANTROL
Model No.		SYSTEM 3



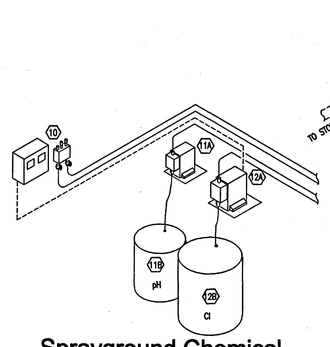
FILTRATION PUMP



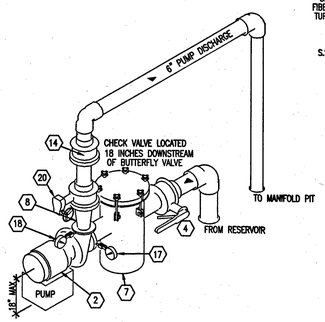
SPRAYGROUND FEATURES PUMP

AQUATIC EQUIPMENT DATA		
Equipment Name		SprayGround Features
G.P.M.		747
Pump	Hp.	25 HP
	RPM	1750
	TDH	70'
	Voltage	240 V
	Phase	3 PHASE
	Manuf.	MARLOW
	Model No.	4E1PEL
	Impeller Size	11.125"
	Hair/Lint Strainer	INCLUDE WITH PUMP

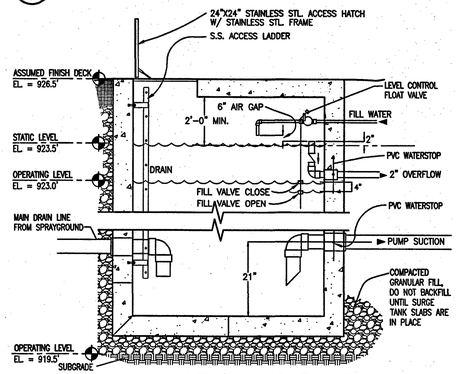
B1 Sprayground Filter Equipment Isometric
N.T.S.



B2 Sprayground Features Pump Isometric
N.T.S.

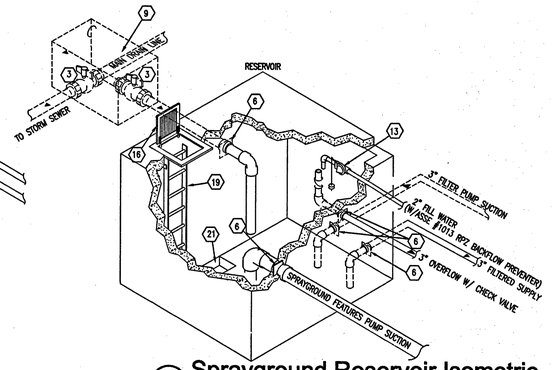


B3 Sprayground Reservoir Detail
1/4" = 1'-0"



A1 Sprayground Chemical Feed System Isometric
N.T.S.

A2 Sprayground Reservoir Isometric
N.T.S.



A3 Sprayground Resevoir Section
3/4"=1'-0"

General Notes

1. REFER TO SHEET CP-102 FOR CONTINUATION OF SPRAYGROUND PIPING..
2. CONTRACTOR TO PROVIDE AND VERIFY ALL REQUIREMENTS AND LOCATIONS OF WINTERIZATION DRAIN DOWN BOXES.
3. ALL PIPING SHALL MAINTAIN MIN. ¼" PER FOOT SLOPE FOR POSITIVE DRAINAGE.
4. SUPPLY ALL PIPING, VALVES, & CONNECTIONS AS RECOMMENDED BY THE MANUFACTURER AND REQUIRED BY LOCAL AND STATE CODES.
5. MAINTAIN STRAIGHT LENGTH OF PIPE ON SUCTION SIDE OF PUMP EQUAL TO 5 TIMES THE PIPE DIAMETER.
6. ALL SPRAYGROUND PIPING SHALL BE SCHEDULE 80 P.V.C.
7. MANUAL VALVES LOCATED WITHIN SPRAYGROUND RESERVOIR TO EXTEND UP THROUGH TOP OF SURGE TANK FOR ACCESSIBILITY.
8. REFER TO SHEET CP-101 FOR SPRAYGROUND PLAY FEATURE LAYOUT.
9. PROVIDE 6" HOUSE KEEPING PAD FOR ALL PUMP MOTORS.
10. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BONDING AND GROUNDING ALL NEW EQUIPMENT IN STRICT COMPLIANCE WITH ARTICLE 250 AND 680 OF THE N.E.C. AND THE LOCAL AUTHORITY HAVING JURISDICTION. REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO PUMPS, FILTERS, PLAY FEATURES, FILTRATION EQUIPMENT, WATER HEATERS, LIGHT POLES, AND FENCING.

Coded Notes

1	48" DIA. HIGH RATE SAND FILTER WITH 2" MULTIPORT VALVE
2	SELF PRIMING PUMP. REFER TO EQUIPMENT DATA INFO SHEET CP-401.
3	BALL VALVE
4	BUTTERFLY VALVE
5	FLOW METER
6	WATERSTOP
7	HAIR AND LINT STRAINER
8	S.S. CONCENTRIC REDUCER W/ GASKETS, PUMP DISCHARGE
9	WINTERIZATION DRAIN DOWN PIT--REFER TO A1/A-501
10	AUTOMATIC CHEMISTRY CONTROLLER
11A	CHEMICAL FEED PUMP, 20 G.P.D. (pH) ADJUSTABLE
11B	CLOSED TOP SOLUTION TANK, 30 GALLON. (pH SOLUTION) FILLED BY CONTRACTOR.
12A	CHEMICAL FEED PUMP, 50 G.P.D. (CL) ADJUSTABLE
12B	CLOSED TOP SOLUTION TANK, 55 GALLON. (LIQUID CHLORINE) FILLED BY CONTRACTOR.
13	LEVEL CONTROL FLOAT VALVE, NON MODULATING
14	CHECK VALVE W/ BRONZE DISC
15	GATE VALVE
16	24"X24" S.S. ACCESS HATCH AND S.S. FRAME W/ TUFF COAT RUBBERIZED COATING AND FLUSH LOCK ASSEMBLY
17	COMBINATION PRESSURE/VACUUM GAUGE, -30"-0-60 PSI, 4 1/2" DIAL
18	PRESSURE GAUGE, 0-100 PSI
19	STAINLESS STEEL ACCESS LADDER
20	GEAR OPERATED BUTTERFLY VALVE
21	RECESSED SUMP PIT FOR DRAIN DOWN, SLOPE FLOOR TO PIT
22	MANUAL AIR VENT

05033
Project No.

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Revisions

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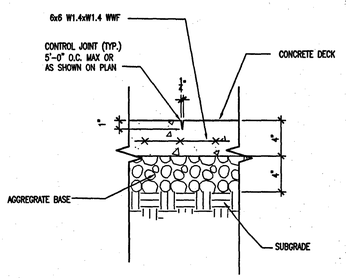
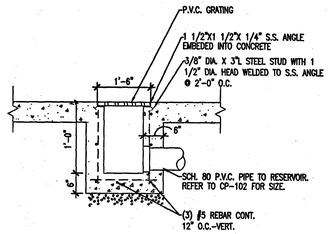
Filter Room Piping Plan, Equipment Data & Pump Curves

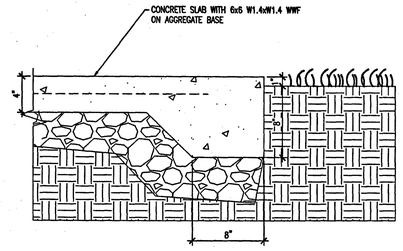
CP-401



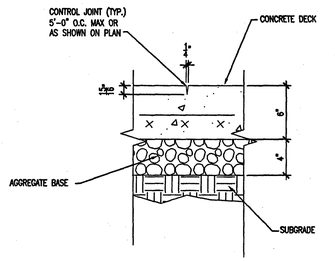
D3 **4" Concrete Deck w/Control Joint**
1-1/2" = 1'-0"



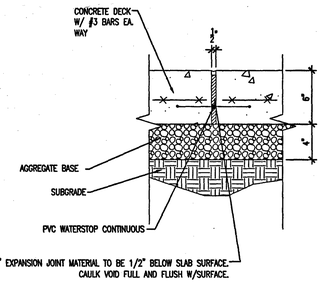
D4 **Spray Ground Drain Detail**
1/2" = 1'-0"



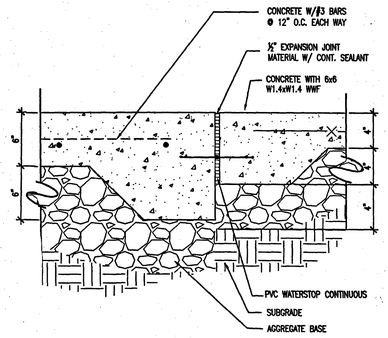
D5 **Typical Edge of Deck**
1 1/2"=1'-0"



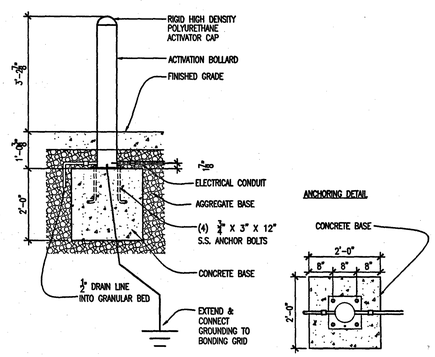
C5 **6" Concrete Deck w/Control Joint**
1-1/2" = 1'-0"



B5 **6" Concrete Deck w/ Expansion Joint Section**
1-1/2" = 1'-0"



A4 **6" Concrete Deck to 4" Concrete Deck**
1 1/2"=1'-0"



A5 **Activation Bollard**
1/2" = 1'-0"

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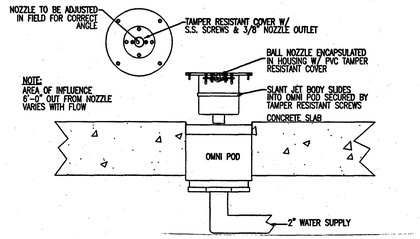
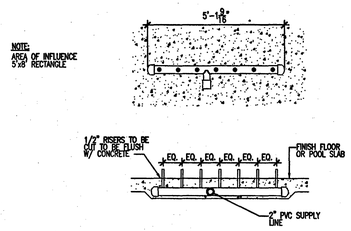
Sprayground Details

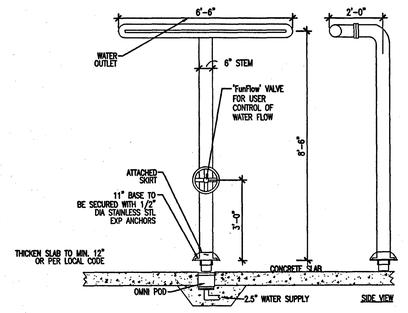
CP-501



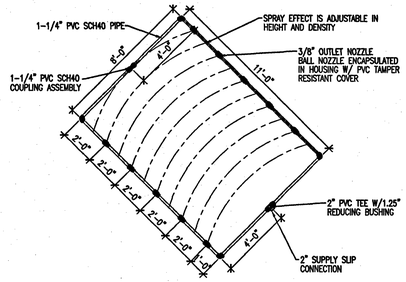
D3 Slant Jets
1 1/2"=1'-0"



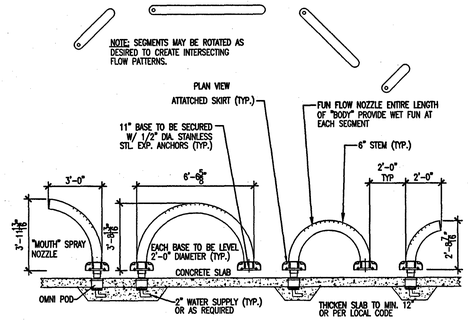
D4 Pop Jets
3/8" = 1'-0"



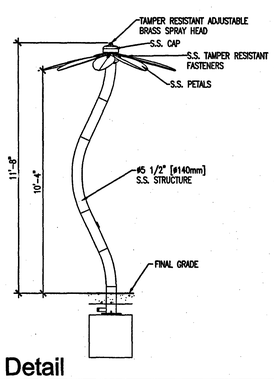
D5 T- Series Sheetflo
3/8" = 1'-0"



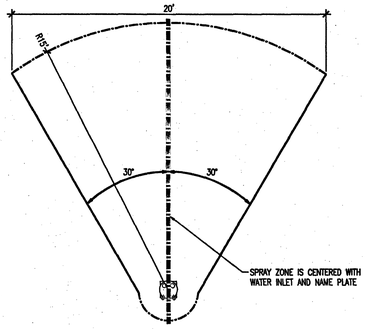
C4 Shower Tunnel
1/4"=1'-0"



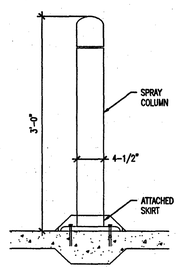
C5 Silly Serpent
1/4"=1'-0"



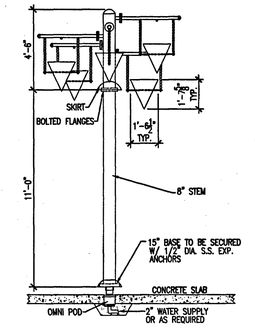
B2 Flower Detail
N.T.S.



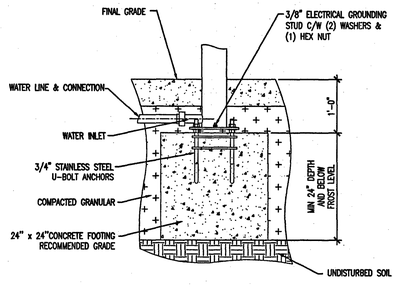
B3 Frog Cannon Spray Detail
1"=1'-0"



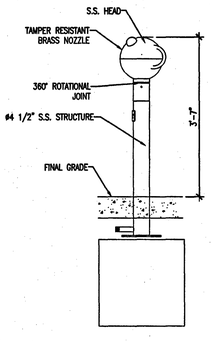
B4 Mushroom Maze Detail
1" = 1'-0"



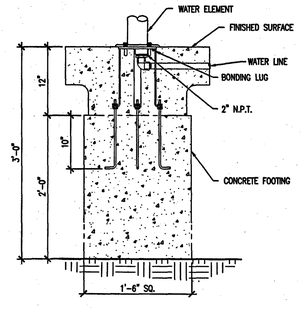
B5 Tumble Buckets
1/4" = 1'-0"



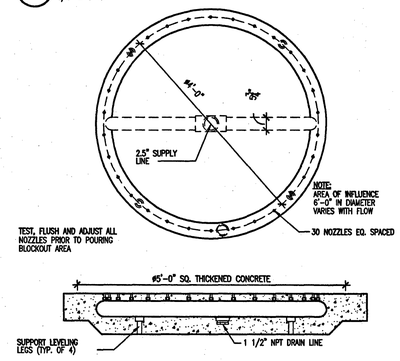
A2 Anchor Detail
1"=1'-0"



A3 Frog Cannon Detail
N.T.S.



A4 Mushroom Maze Anchor Detail
1" = 1'-0"



A5 Circle Time
3/8"=1'-0"

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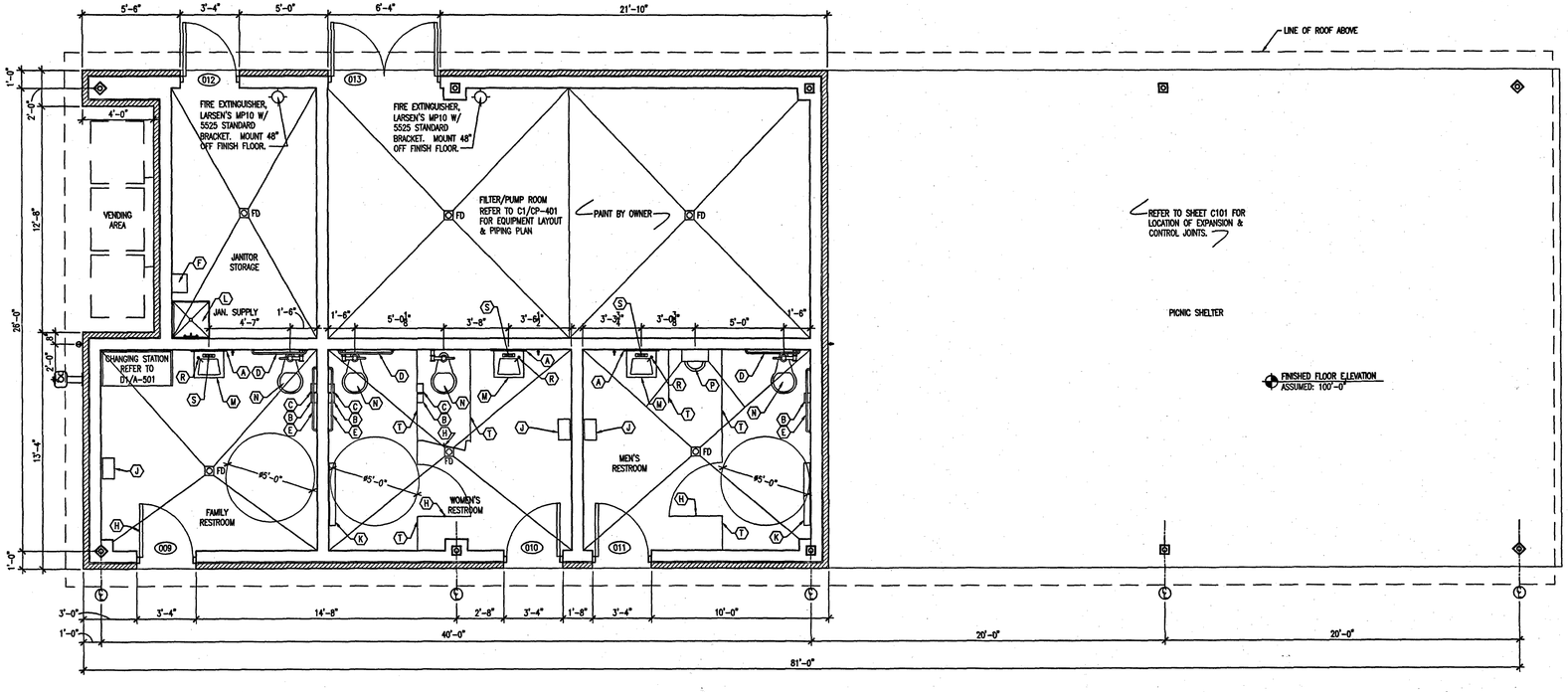
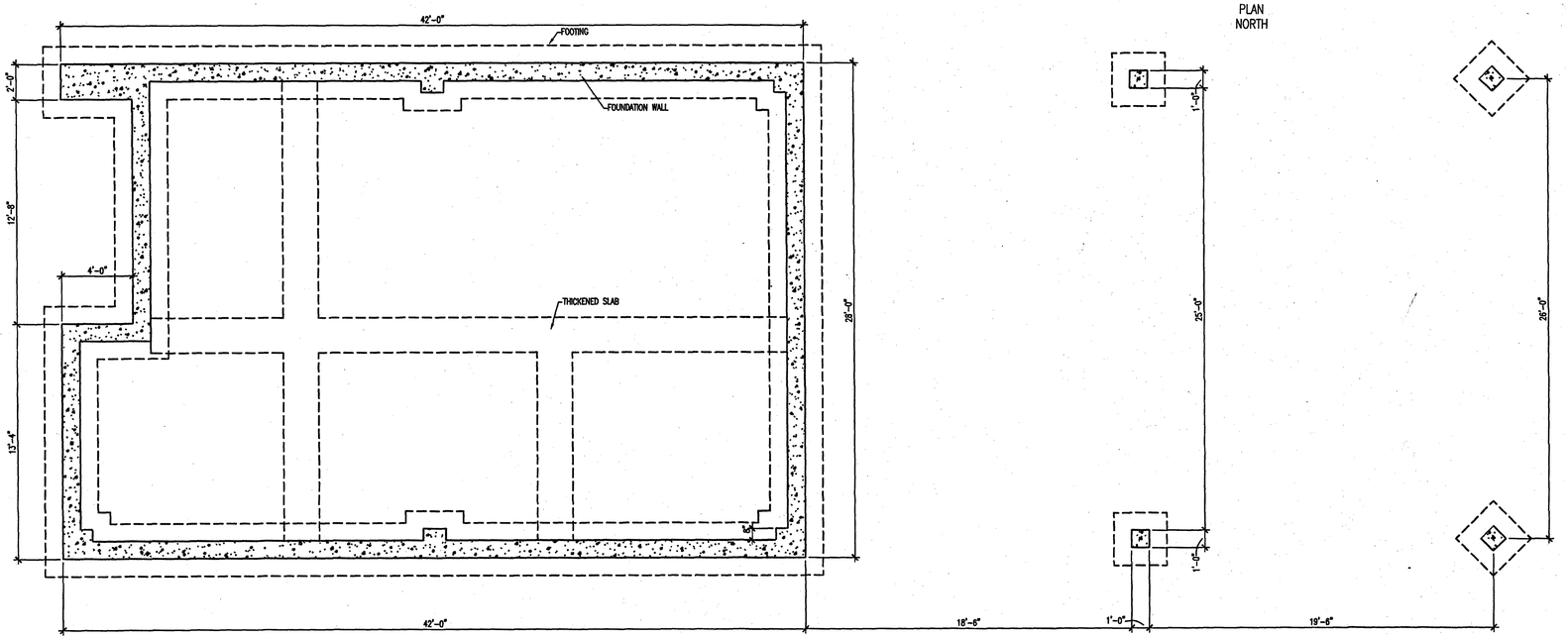
Sprayground Equipment Details

CP-502



Activity Center Shelter Floor Plan

1/4"=1'-0"



Activity Center Shelter Foundation Plan

1/4"=1'-0"

General Notes

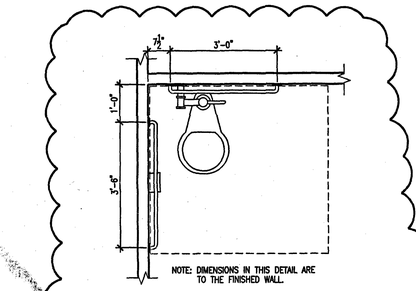
1. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL DIMENSIONS ARE TO FACE OF STUDS OR CENTERLINE OF STRUCTURAL MEMBERS UNLESS OTHERWISE INDICATED.
3. REFER TO ENLARGED PLANS AND/OR DEATILS FOR ADDITIONAL INFORMATION.
4. MECHANICAL AND ELECTRICAL ITEMS ARE SHOWN FOR THE SOLE PURPOSE OF INDICATING THEIR RESPECTIVE LOCATIONS. REFER TO MECHANICAL AND ELECTRICAL DRAWING FOR SIZE, TYPE, AND OTHER REQUIREMETNS PERTAINING SPECIFICALLY TO THESE ITEMS.
5. ALL INTERIOR MASONRY WALLS & PARTITIONS TO BE 8" CMU, 9'-4" HIGH WITH HORIZONTAL REINFORCEMENT @ 16" O.C. & VERTICAL REINFORCEMENT @ 4'-0" O.C. AND BOND BEAMS W/ #5 BARS CONTINUOUS UNLESS OTHERWISE NOTED. 1
6. REFER TO ROOM FINISH SCHEDULE AND/OR FINISH DRAWINGS FOR EXTENT OF FINISH MATERIALS.
7. ALL INTERIOR CMU CORNERS TO BE BULL NOSED INCLUDING DOOR JAMBS.
8. ALL FLOORS TO SLOPE TO DRAINS FROM FLOOR PERIMETER, ¼" PER FOOT.
9. REFER TO COLUMN DETAILS FOR WALL & FURRING AROUND COLUMNS.
10. REFER TO A-106 FOR WINDOW AND DOOR SCHEDULES.

TOILET ACCESSORIES SCHEDULE

MARK (X)	EQUIPMENT	MODEL NO. (MFR. BOBRICK, U.N.O.)	MOUNTING HEIGHT
A	FRAMED MIRROR (18"x36")	B-290-1836	MOUNT 40" A.F.F. TO BOTTOM
B	SURFACE MTD. DBL. ROLL TOILET TISSUE HOLDER	B-2892	MOUNT 19" A.F.F. TO CENTER & 36" MAX. FROM BACK WALL TO FRONT EDGE
C	RECESSED STAINLESS STL. SAN. NAPKIN DISPOSAL UNIT	B-4354	MOUNT 30" A.F.F. TO TOP
D	STAINLESS STEEL GRAB BAR (36")	B-5806.99x36	MOUNT 36" A.F.F. TO CENTERLINE
E	STAINLESS STEEL GRAB BAR (42")	B-5806.99x42	MOUNT 36" A.F.F. TO CENTERLINE
F	ROLL TOWEL DISPENSER	B-2860	MOUNT 70" A.F.F. TO TOP OF UNIT
G	NOT USED		
H	ROBE HOOK	B-670	MOUNT 48" A.F.F. TO CENTER
J	WARM AIR HAND DRYER	B-705	MOUNT 40" A.F.F.
K	BABY CHANGING STATION	B-2230	MOUNT 34" A.F.F. TO CHANGING SURFACE
L	MOP RACK W/ SHELF (30")	B-224X30	
M	WALL-HUNG LAVATORY	AS-0195.073	AMERICAN STANDARD, MOUNT 31" A.F.F. TO TOP
N	WALL-HUNG ELONGATED FLUSH VALVE TOILET	AS-2512.010	AMERICAN STANDARD, MOUNT 15" A.F.F. TO TOP
P	URINAL	AS-6400.014	AMERICAN STANDARD, MOUNT 38" A.F.F. TO TOP
R	SOAP DISPENSER	B-822	
S	SINGLE CONTROL METERING FAUCET	AS-1340.000	AMERICAN STANDARD.
T	TOILET PARTITION		

GENERAL: -PROVIDE SOLID BLOCKING FOR MOUNTING OF ACCESSORIES, COUNTERS, TOILET PARTITIONS, ETC.

-ALL ITEMS SHALL BE LOCATED HORIZONTALLY AND MOUNTED TO SPECIFIC POINTS ABOVE FINISHED FLOOR IN ACCORDANCE WITH ADA.



Typical Grab Bar Location Detail

1/2"=1'-0" 3

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Date

Revisions
1 Addendum #1 9-2-05
3 Plan Review 12-1-05

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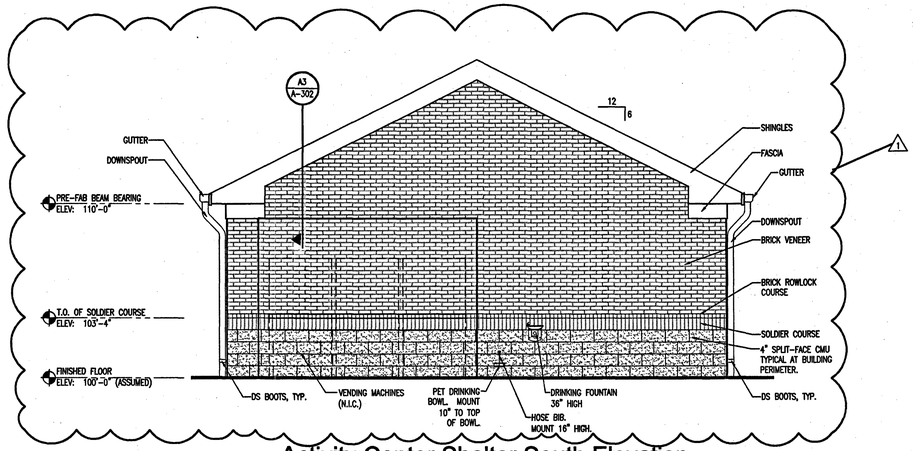
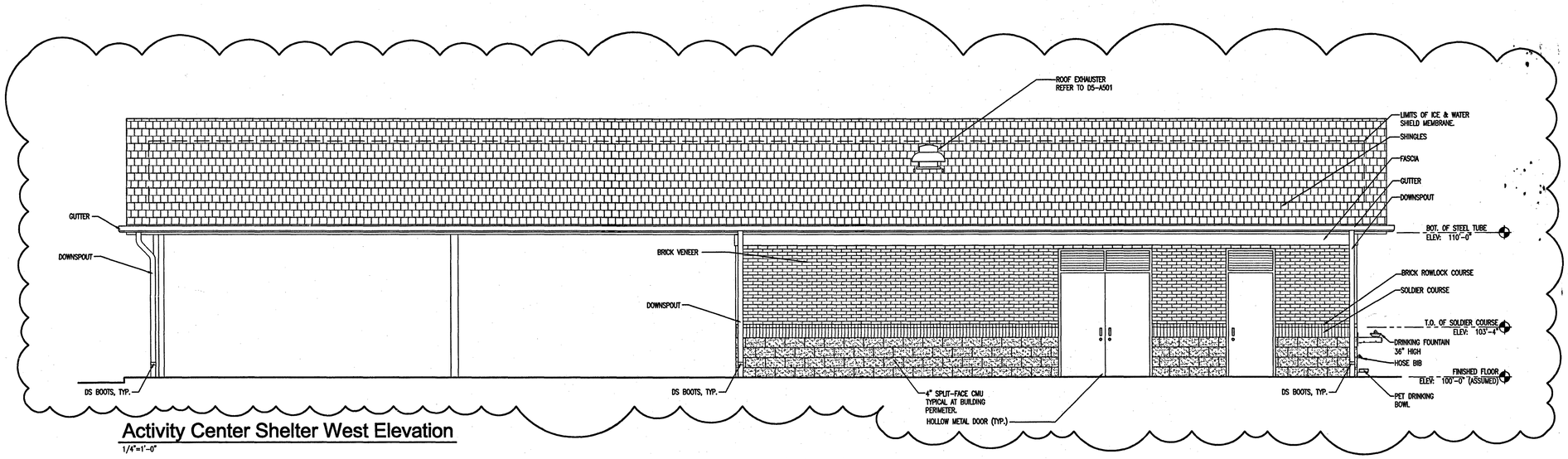
Activity Center Shelter Floor & Foundation Plan

A-103



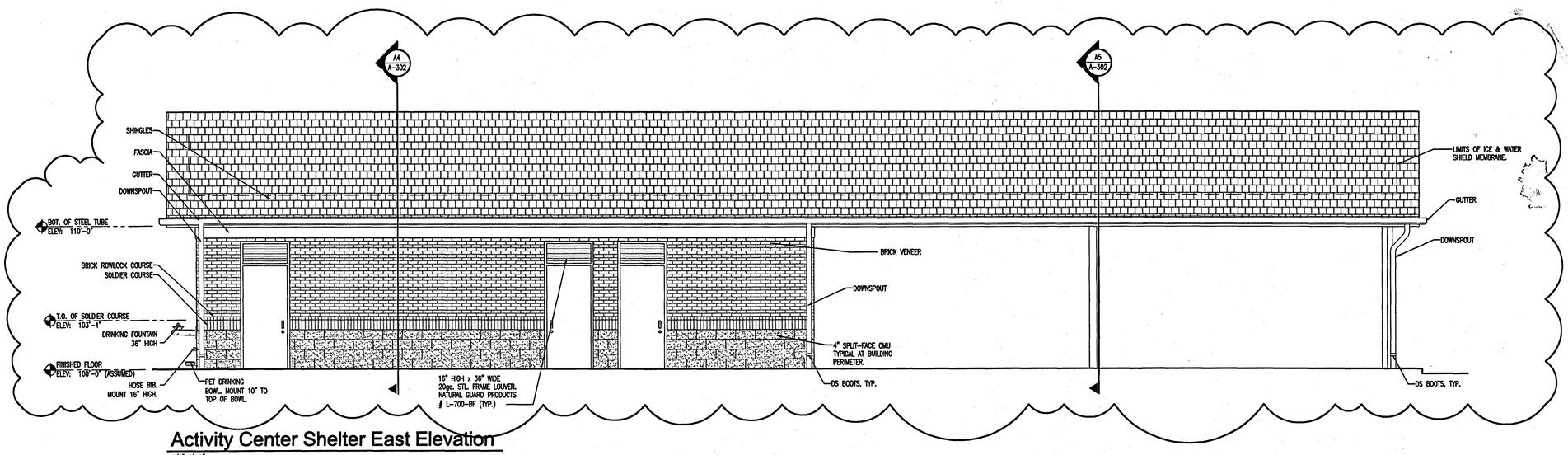
Activity Center Shelter South Elevation

1/4"=1'-0"



Activity Center Shelter West Elevation

1/4"=1'-0"



Activity Center Shelter East Elevation

1/4"=1'-0"

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Revisions

1 ADDENDUM #1 (RE-BID) 10-3-05

STATE OF OHIO
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Activity Center Shelter Elevations

A-203

Design Loads for Nature Nook & Activity Center

GENERAL NOTES

A. CONTRACTOR NOTES
1. THE CONTRACT DRAWINGS REPRESENT THE DESIRED RESULT OF CONSTRUCTION. THE METHODS OF CONSTRUCTION & THE RISKS INVOLVED DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF THE BUILDING AT ALL STAGES OF CONSTRUCTION.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER BEFORE COMMENCING ANY WORK.
3. THE CONTRACTOR'S PROPOSED SUBSTITUTIONS SHALL BE APPROVED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING ANY PERTINENT WORK.
4. CONTRACTOR & ALL SUBCONTRACTORS SHALL COORDINATE ALL DRAWINGS DURING BIDDING & SHALL REPORT ANY DISCREPANCIES. IF DISCREPANCIES ARE FOUND DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MEANS (MATERIAL & LABOR) TO RESOLVE THE DISCREPANCIES.

B. DESIGN CRITERIA
THE STRUCTURE HAS BEEN DESIGNED ACCORDING TO THE 2005 EDITION OF THE OHIO BUILDING CODE AND FOR SPECIFIC LOADS AS LISTED BELOW.

1. ROOF LIVE LOADS
   a) LIVE LOAD = 20 P.S.F.
   b) GROUND SNOW LOAD Pg = 25 P.S.F.
   c) SNOW EXPOSURE FACTOR Ce = 1.0
   d) SNOW IMPORTANCE FACTOR I = 1.1
   e) THIS STRUCTURE HAS BEEN DESIGNED BASED ON THE LIVE LOAD AS GOVERNING FACTOR EXCEPT WHERE SNOW DRIFT GOVERNS. SEE THE ROOF FRAMING PLAN FOR THESE LOCATIONS.
   f) MECHANICAL EQUIPMENT LOADS AND LOCATIONS USED FOR DESIGN ARE AS INDICATED ON THE STRUCTURAL DRAWINGS. ACTUAL EQUIPMENT LOADS AND LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR AND SHALL BE INDICATED ON THE STRUCTURAL SHOP DRAWINGS SUBMITTED FOR APPROVAL.

3. LATERAL LOADS (WIND)
   a) BASIC WIND SPEED = 90 M.P.H.
   b) WIND LOAD IMPORTANCE FACTOR Iw = 1.0
   c) WIND EXPOSURE = B
   d) BUILDING CATEGORY = II - (ASCE 7-98 TABLE 1-1)
   e) THE APPLICATE INTERNAL PRESSURE COEFFICIENT = +/- 0.18
   f) COMPONENTS AND CLADDING WIND PRESSURE (TO BE USED FOR THE DESIGN OF EXTERIOR COMPONENT AND CLADDING MATERIALS NOT SPECIFICALLY DESIGNED BY THE REGISTERED DESIGN PROFESSIONAL):
   WALL END ZONES = 14.4 P.S.F.
   WALL INTERIOR ZONES = 11.5 P.S.F.
   ROOF CORNER ZONES = 23.1 P.S.F.
   ROOF END ZONES = 9.9 P.S.F.
   ROOF INTERIOR ZONES = 7.9 P.S.F.

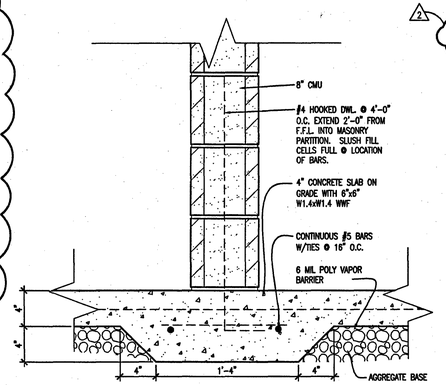
4. LATERAL LOADS (EARTHQUAKE)
   1) EARTHQUAKE SPECTRAL RESPONSE ACCELERATION @ SHORT PERIODS Ss= 0.167g
   2) EARTHQUAKE SPECTRAL SRPONSE ACCELERATION @ 1 - SECOND PERIODS S = 0.33g 1
   3) SEISMIC USE GROUP = I
   4) SITE CLASS = D
   5) SEISMIC DESIGN CATEGORY = B
   6) BASE SEISMIC FORCE RESISTING SYSTEM
   7) RESPONSE MODIFICATION FACTOR R = 5.5
   8) DEFLECTION AMPLIFICATION FACTOR Cd = 4.5
   9) SEISMIC BASE SHEAR V = 3.34 KIPS (TO BE VERIFIED)
   10) ANALYSIS EQUIVALENT LATERAL FORCE PROCEDURE (ELFP)

C. CAST IN PLACE CONCRETE
1. CONCRETE FOR FOOTINGS SHALL DEVELOP 3000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS. ALL OTHER CONCRETE SHALL DEVELOP 4000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
2. REINFORCING BARS SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A615, Fy = 60 K.S.I. REINFORCING BARS INDICATED TO BE WELDED SHALL CONFORM TO ASTM A706. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
3. SPLICES IN CONTINUOUS VERTICAL OR HORIZONTAL REINFORCING BARS SHALL BE PER ACI 318-89 OR (40) BAR DIAMETERS LAP SPLICE, WHICHEVER IS GREATER, UNLESS NOTED OTHERWISE, AND SHALL BE EITHER CONTINUOUS OR SPLICED WITH DOWELS AT CORNERS.
4. CLEARANCES BETWEEN REINFORCING BARS AND CONCRETE SURFACES SHALL BE AS FOLLOWS: (2)

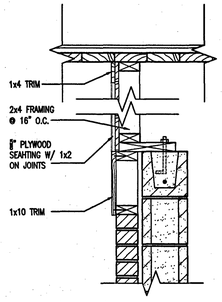
	COVER (INCHES)
a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
b) CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS	2
#5 BAR AND SMALLER	1 1/2
c) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS: #11 BAR AND SMALLER	3/4
BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES AND STIRRUPS	1 1/2

D. NOTES FOR WOOD TRUSSES
1. WOOD TRUSSES SHALL BE DESIGNED BY THE SUPPLIER TO SUPPORT THEIR SELF WEIGHT, PLUS THE SUPERIMPOSED LOADS LISTED.
   a) TOP CHORD SUPERIMPOSED LOADS
      1) DEAD LOAD = 16 P.S.F.
      2) LIVE LOAD = 16 P.S.F.
   b) BOTTOM CHORD SUPERIMPOSED LOADS
      1) DEAD LOAD = 10 P.S.F.
      2) LIVE LOAD = 10 P.S.F.
2. TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE TEMPORARY AND FINAL BRACING FOR STABILITY OF TRUSSES DURING AND AFTER ERECTION. BOTTOM CHORD BRACING SHALL BE SUFFICIENT TO TRANSMIT LATERAL LOADS INDICATED IN NOTE B.3 PERPENDICULAR TO THE PLANE OF THE TRUSS. INDICATE SIZE & LOCATION OF BRACING ON SHOP DRAWINGS.
3. TRUSS TOP & BOTTOM CHORD SHALL BE DESIGNED FOR COMPRESSION LOAD BOTH IN THE PLANE OF THE TRUSS & PERPENDICULAR TO THE PLANE OF THE TRUSS DUE TO WIND/EARTHQUAKE LOAD ACTING ON EXTERIOR WALL. TRUSS MANUFACTURER SHALL DETERMINE FORCES DUE TO WIND LOAD AND EARTHQUAKE LOAD IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2005 OHIO BUILDING CODE.
4. TRUSS SEAT SHALL BE DESIGNED TO TRANSFER ROOF DIAPHRAGM SHEAR CAPACITY TO THE C.M.U. WALL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF WOOD TRUSSES PRIOR TO FABRICATION. INDICATE SPECIES AND
5. STRESS GRADE OF LUMBER TO BE USED AND DETAILS OF METAL CONNECTORS TO BE USED AT ALL JOINTS. SHOW PITCH, SPAN AND LOCATION OF TRUSSES. PROVIDE LARGE SCALE DETAILS OF TYPICAL CONNECTIONS AND ANCHORAGES.
6. CONTRACTOR SHALL PROVIDE TRUSS MANUFACTURER'S DESIGN AND ENGINEERING DATA FOR THE REQUIRED TRUSSES INCLUDING STRESS DIAGRAMS AND SEAL OF A LICENSED PROFESSIONAL ENGINEER, REGISTERED TO PRACTICE IN THE STATE OF OHIO.

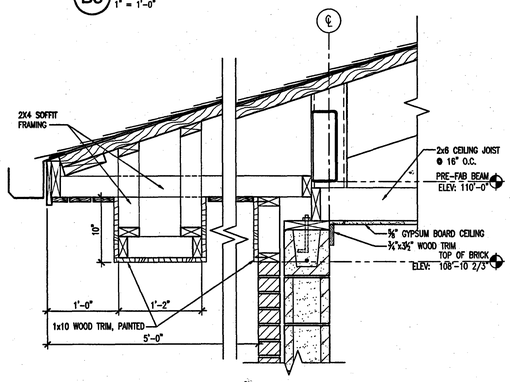
E. FRAMING LUMBER
1. ALL LUMBER SHALL BE GRADED IN ACCORDANCE WITH N.F.P.A. STANDARDS.
2. STUDS SHALL BE S.Y.P. OR APPROVED EQUAL STUD GRADE @ 19% M.C. w/ ALLOWABLE SINGLE MEMBER BENDING STRESS, Fb, OF 865 P.S.I. P.S.I. AND A MODULUS ELASTICITY OF 1,400,000 P.S.I.
3. WOOD HEAD & WOOD PLATE ON FRAME SHALL BE NO. 2 DENSE S.Y.P. AT 19% w/ ALLOWABLE SINGLE MEMBER BENDING STRESS, Fb, OF 1,400 P.S.I. AND A MODULUS OF ELASTICITY, E, OF 1,700,000 P.S.I.
4. WOOD CONNECTORS SHOWN ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE CONNECTORS AS MANUFACTURED BY THE SIMPSON CO. OR APPROVED EQUAL.
5. ALL PLYWOOD & DRYWALL PANEL EDGES SHALL BE SUPPORTED WITH MIN. 2"x6" BLOCKING TYP.



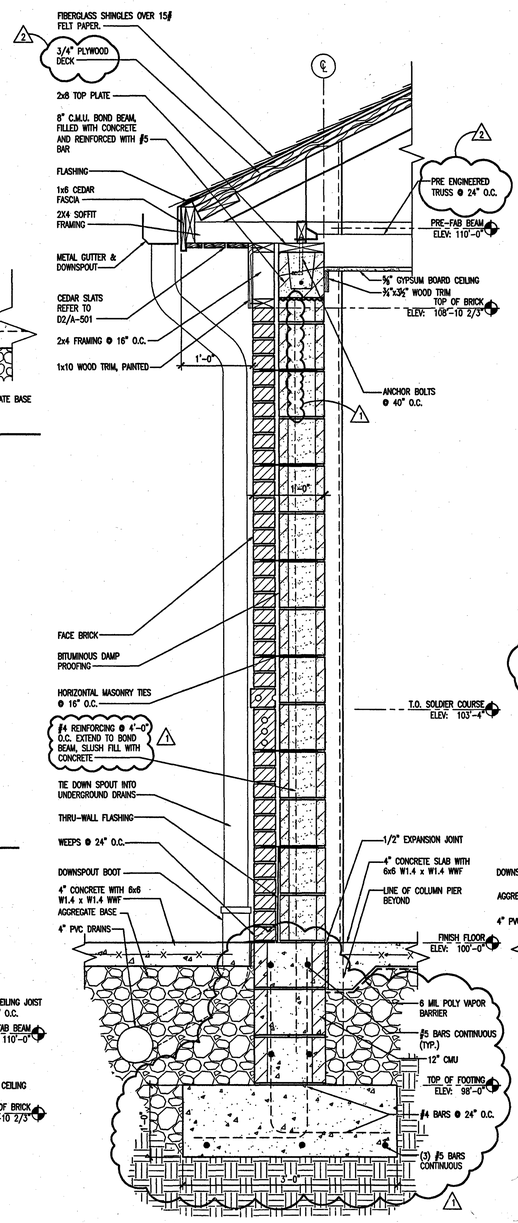
C3 Thickened Slab
1 1/2"=1'-0"



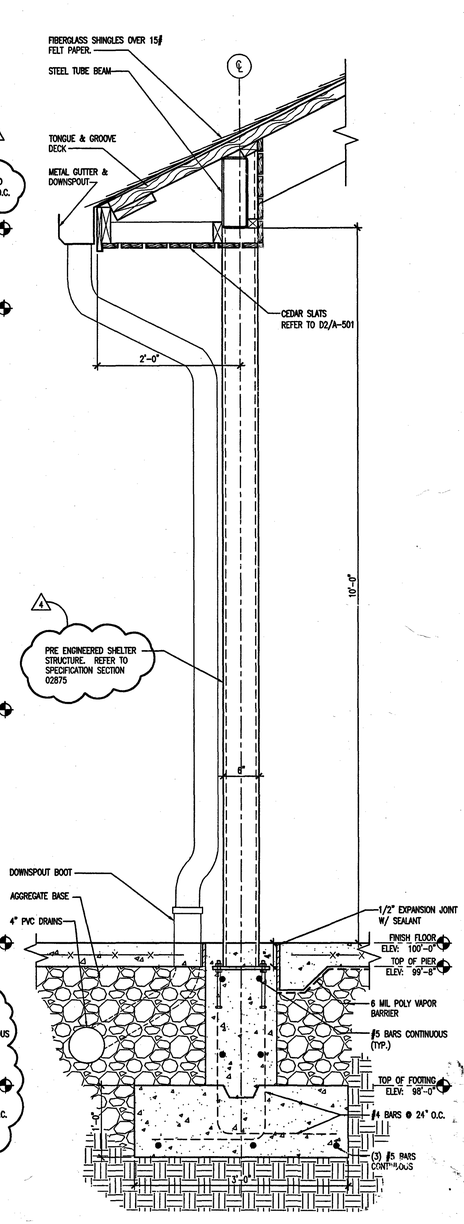
B3 Shelter Section
1" = 1'-0"



A3 Shelter Vending Section
1" = 1'-0"



A4 Shelter Wall Section
1" = 1'-0"



A5 Shelter Column Section
1" = 1'-0"

05033
Project No.
—
Drawn By
—
Checked By
08/18/05
Date

Revisions
1 Addendum #1 9-2-05
3 Plan Review 12-1-05
4 Plan Review 12-14-05
2 Addendum #2 (Re-bid) 10-3-05

STATE OF OHIO
MICHAEL E. CARROLL
6423
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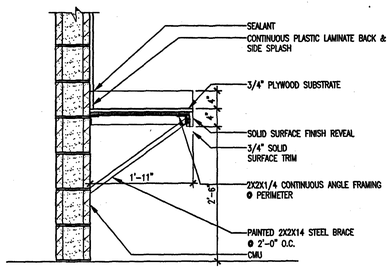
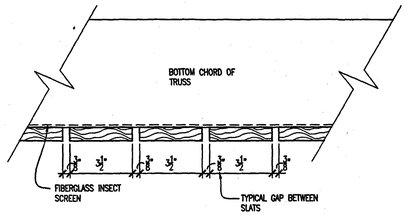
Grant Nature Nook - Activity Center Shelter/Spraygound
Centerville - Washington Park District
221 North Main Street
Centerville, Ohio 45459

Activity Center Shelter Wall Sections

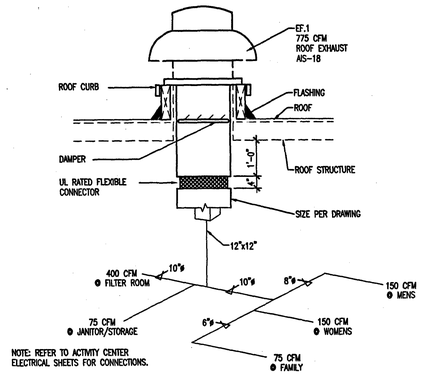
A-302



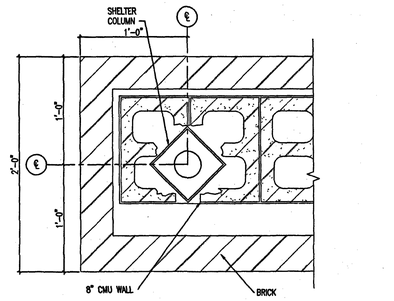
D1 Diaper Changing Station
3/4" = 1'-0"



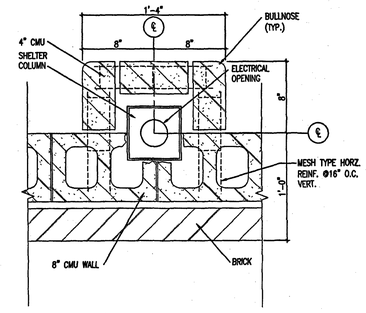
D2 Cedar Slat Detail
3" = 1'-0"



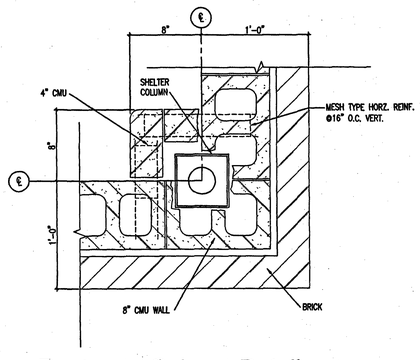
D5 Central Exhaust System Detail
N.T.S.



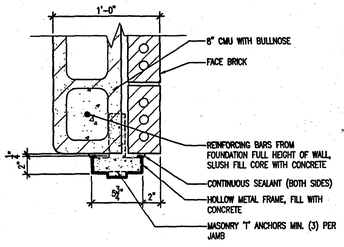
C2 Vending Area Column Detail
1-1/2" = 1'-0"



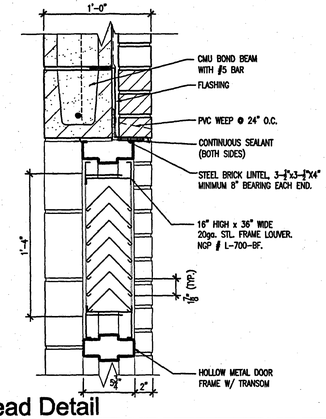
B2 Filter Room Column Detail
1-1/2" = 1'-0"



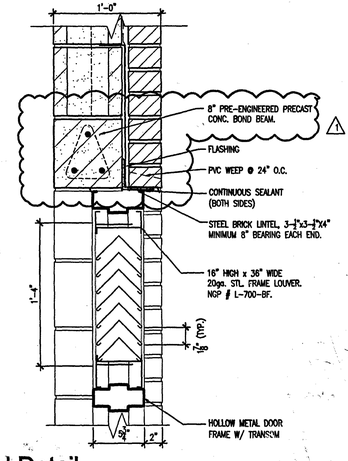
A2 Restroom Column Detail
1-1/2" = 1'-0"



A3 Jamb Detail
1-1/2" = 1'-0"



B4 Head Detail
1-1/2" = 1'-0"



A5 Head Detail
1-1/2" = 1'-0"

05033
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Revisions
1 Addendum #1 9-2-05

STATE OF OHIO
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6423
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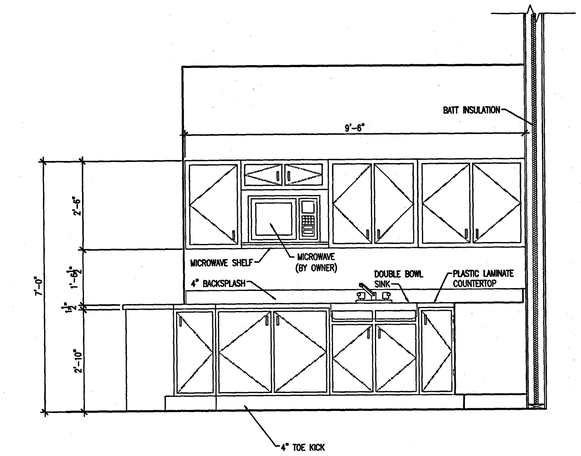
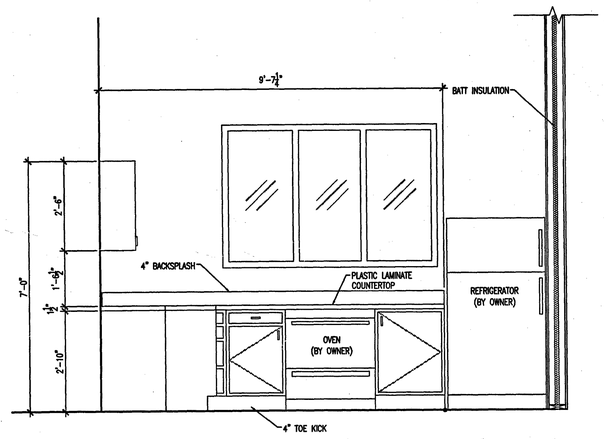
Grant Nature Nook - Activity Center & Playground
Centerville - Washington Park Districts
221 North Main Street
Centerville, Ohio 45459

Activity Center Details

A-501



C1 Kitchen Elevation
1/2" = 1'-0"



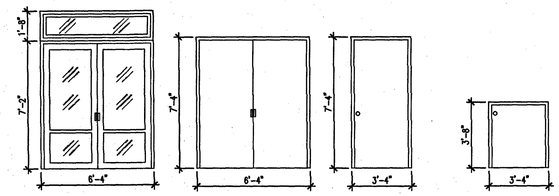
B1 Kitchen Elevation
1/2" = 1'-0"

Room Finish Schedule

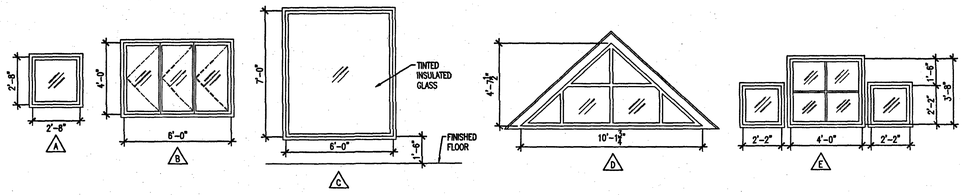
Room Number	Room Name	Floor					Base			Walls		Ceiling		Remarks
		CARPET	VINYL COMPOSITION TILE	CEMENTITIOUS TOPPING	SEALED CONCRETE	WOOD FLOOR	RUBBER	CERAMIC TILE	WOOD BASE	GYPSUM BOARD-PAINTED	CMU-PAINTED	PLYWOOD-PAINTED	PAINTED GYPSUM BOARD	
		1	2	3	4	5	1	2	3	1	2	1	2	*Note: All finishes selected by Owner.
Nature Nook														
Assembly Area				3					3	1			2	
Storage Interior					4		1			1			2	
Restroom Interior				3			1			1			2	
Storage Exterior					4		1			1			2	
Restroom Exterior					4		1			1			2	
Mechanical Room						5								Walls unpainted gyp. Ceiling exposed.

Door & Frame Schedule

	Door			Frame	Details			Notes
Door	Size	Type	Material	Material	Head	Jamb	Hardware Set	
Nature Nook								Remarks
001	PR 3'-0"x7'-0"x1-3/4"	A	WD	WD	C4/A-501	B5/A-501		
002	PR 3'-0"x7'-0"x1-3/4"	A	WD	WD	C4/A-501	B5/A-501		
003	PR 3'-0"x7'-0"x1-3/4"	A	WD	WD	C4/A-501	B5/A-501		
004	3'-0"x7'-0"x1-3/4"	C	WD	WD	C3/A-501	B3/A-501		
004A	3'-0"x3'-6"x1-3/4"	F	WD	WD	C3/A-501	B3/A-501		
005	PR 3'-0"x7'-0"x1-3/4"	B	WD	WD	C3/A-501	B3/A-501		
006	PR 3'-0"x7'-0"x1-3/4"	B	WD	WD	C4/A-501	B5/A-501		
007	3'-0"x7'-0"x1-3/4"	B	WD	WD	C4/A-501	B5/A-501		



B4 Door Types
1/4" = 1'-0"



A4 Window Types
1/4" = 1'-0"

05033
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08/18/05
Date

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221 North Main Street
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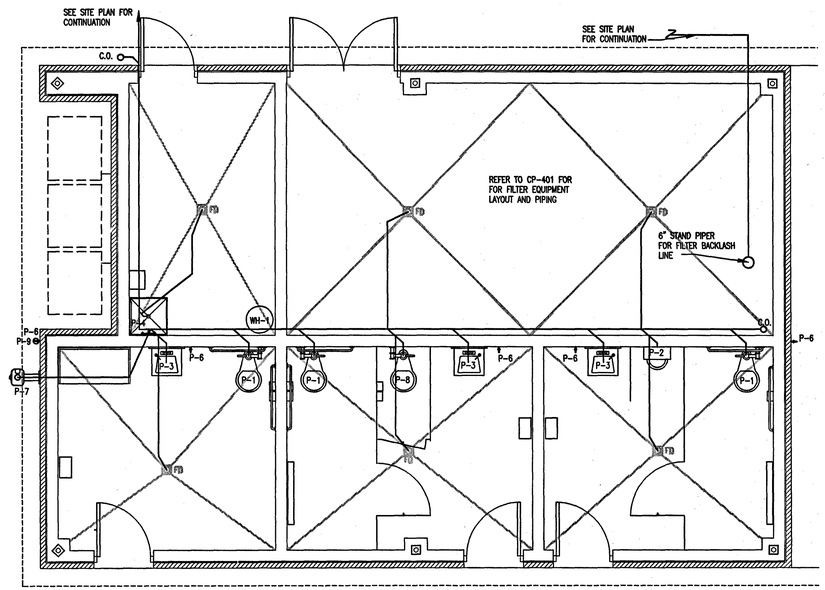
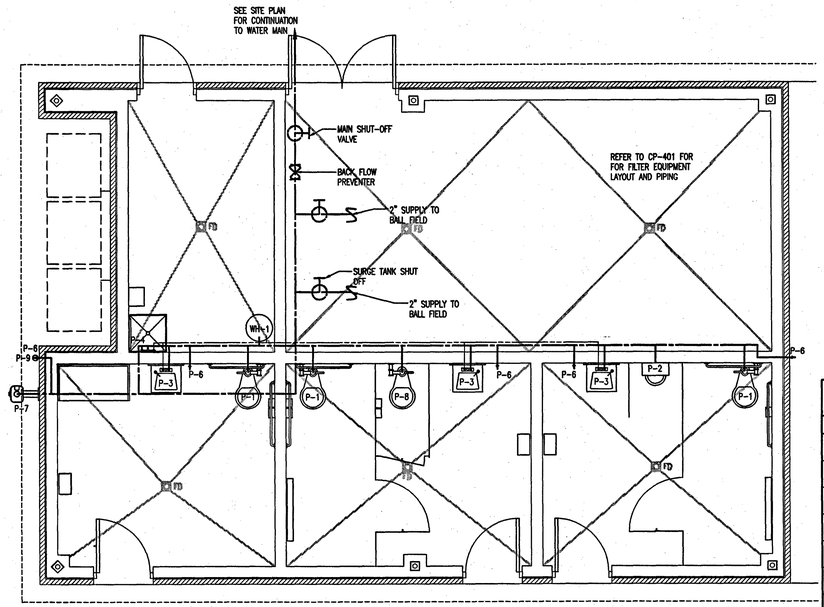
Nature Nook Schedules

A-601



Activity Center Shelter Waste Plumbing Plan

1/4"=1'-0"



Activity Center Shelter Plumbing Plan

1/4"=1'-0"

General Notes

1. CONTRACTOR TO BE RESPONSIBLE FOR ALL FINAL DIMENSIONS.
2. CONTRACTOR SHALL NOT CUT ANY BUILDING STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
3. CONTRACTOR TO COORDINATE WORK SCHEDULE WITH OTHER TRADES AND OWNER.
4. CONTRACTOR TO COORDINATE ALL NEW WORK SO AS NOT TO DAMAGE ANY NEW EQUIPMENT.
5. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO INSTALLING SAME.
6. CONTRACTOR TO COORDINATE ALL PIPING, ELECTRICAL CONDUIT, DUCTWORK, ROOF OPENINGS, AND EQUIPMENT PLACEMENT AND OTHER WORK WITHIN ALL TRADES.
7. SEE SOIL, WASTE & VENT RISER FOR WASTE AND VENT PIPING.
8. ALL PIPING SHALL BE INSTALLED CONCEALED IN PUBLIC & OWNER AREAS, HOWEVER EXPOSED IN PIPE CHASE AND FILTER. JANITOR STORAGE OF ACTIVITY CENTER.
9. INSTALL BACKFLOW PREVENTER PER LOCAL HEALTH DEPARTMENT REQUIREMENTS AND LOCAL WATER COMPANY SPECIFICATIONS, VERIFY WATER PRESSURE REQUIREMENTS BEFORE BID. PROVIDE REDUCED PRESSURE AS REQUIRED.
10. CLEANOUT IN ASSEMBLY AREA TO HAVE BRASS COVER.

Trap Primer Note:

PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS AS REQUIRED BY PLUMBING CODE AND PER PLUMBING INSPECTOR HAVING JURISDICTION.

Weatherization Note:

PROVIDE NECESSARY DRAIN DOWN VALVES AND ACCESSIBLE SHUTOFF VALVES TO FIXTURES IN ORDER TO WINTERIZE SYSTEM. SLOPE ALL HOT & COLD WATER PIPING TO THESE VALVES.

Piping Insulation Note:

ALL WATER PIPING LOCATED ABOVE CEILING AND EXTERIOR WALLS SHALL BE INSULATED.

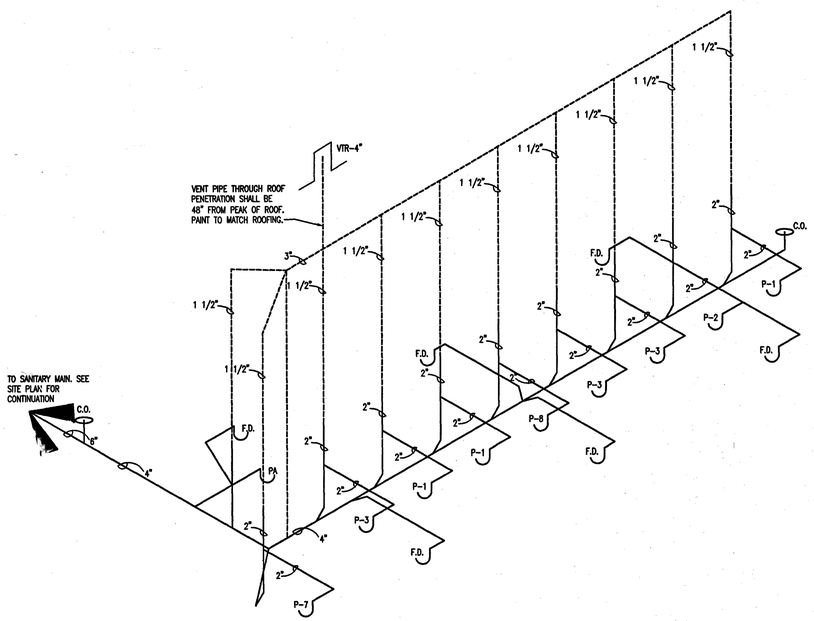
PLUMBING FIXTURES SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NUMBER	COLOR	ACCESSORIES
P-1	WATER CLOSET (RIM @ 18" A.F.F.)	AMERICAN STANDARD	2512.00	WHITE	SEAT-OLSONITE #95 FLUSH VALVE- SLOAN /OPTIMA #186-1.0-SMO
P-2	URINAL (LIP @ F.F.)	AMERICAN STANDARD	6400.014 TOP SPUD	WHITE	FLUSH VALVE- SLOAN /OPTIMA #186-1.0-SMO
P-3	SINK	AMERICAN STANDARD	7401.172H	WHITE	FAUCET- CHROME AS # 6055.205 MIXING VALVE
P-4	UTILITY SINK	E.L. MUSTEE	62M	WHITE	SERVICE SINK FAUCET PN. 63.600A*, WALL GUARDS PN. 67.2424
P-5	DOUBLE BOWL SINK	KITCHEN AID	KST950MLL	SILK	FAUCET- CHROME AS # 7271 DRAIN KITS, FLOW CONTROL, WHIRLPOOL 1/2 H.P. DISPOSAL #SC2000XE
P-6	HOSE BIB	WOODFORD	B65		FROST PROOF 3/4" SPS COLD W/ VACUM BREAKER & LOOSE KEY STOP
P-7	DRINKING FOUNTAIN	MURDOCK	M53		
P-8	WATER CLOSET (RIM @ 15" A.F.F.)	AMERICAN STANDARD	2512.010	WHITE	SEAT-OLSONITE #95 FLUSH VALVE- SLOAN /OPTIMA #186-1.0-SMO
P-9	PET BOWL	MURDOCK			
P-10	ICE MAKER OUTLET BOX	OATEY	6"x6"	WHITE	ANGLE SUPPLY VALVE DEARBORN BRASS # 2407CW-1
DH-1	DECK HYDRANT	ZURN	Z-1361-CL	GALV. STEEL	GROUND HYDRANT, NON FREEZE ENC- ASED, CYLINDER LOCK
WH-1	WATER HEATER	WHIRLPOOL	E2F40LD045V		

Legend

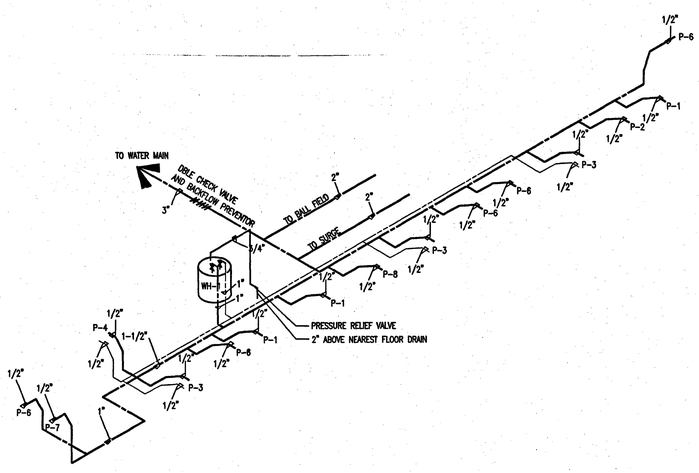
HOT WATER

COLD WATER



Activity Center Shelter Plumbing Waste Riser

N.T.S.



Activity Center Shelter Plumbing Water Riser

N.T.S.

05033
Project No.

Drawn By

Checked By

08/18/05
Date

Revisions

STATE OF OHIO
MICHAEL E CARROLL
6423
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Activity Center Plumbing & Waste Riser Plan

P-101

Electrical A Schedule

VOLTS/PHASE/WIRE 208/120/3/		PANEL SIZE & TYPE		MAIN SIZE & TYPE		CABINET		MIN SCC	FED FROM	NOTES

CIRCUIT NO.	TRIP AMPS	NO. POLES	AREA SERVED	PHASE LOAD VA A	B	C	AREA SERVED	NO. POLES	TRIP AMPS	CIRCUIT NO
A-1	20	1	INDOOR LIGHTS	700						
				1000			VENDING OUTLET	1	20	A-2
A-3	20	1	OUTDOOR LIGHTS		360					
					1000		VENDING OUTLET	1	20	A-4
A-5	20	1	OUTLETS			360				
						1000	VENDING OUTLET	1	20	A-6
A-7	20	1	EXHAUST FAN	200						
				500			CHEM. FEED PUMP	1	20	A-8
A-9	20	1	OUTLET		360					
					500		CHEM. FEED PUMP	1	20	A-10
A-11,13	20	2	CEILING MOUNTED HEATER			750				
						1000	HAND DRYER	1	20	A-12
	20			750						
				1000			HAND DRYER	1	20	A-14
A-15,17	20	2	CEILING MOUNTED HEATER		750					
					1000		HAND DRYER	1	20	A-16
	20					750				
							EMPTY			
A-19,21	20	2	CEILING MOUNTED HEATER	750						
				360			SHELTER RECEPTALCES	1	20	A-20
	20				750					
					360		SHELTER RECEPTALCES	1	20	A-22
A-23,25	20	2	UH-1			835				
						2790	UH-2	2	40	A-24,26
	20			835						
				2790					40	
A-27	20	1	RESTROOM GFI		540					
					360		SHELTER RECEPTALCES	1	20	A-28
			EMPTY							
						2250	WATER HEATER	2	30	A-30,32
31,33,35	30	3	PUMP	6217						
				2250					30	
	30				6217					
							EMPTY			
	30					6217				
							EMPTY			
37,39,41	20	3	PUMP	1243						
							EMPTY			
	20				1243					
							EMPTY			
	20					1243				
							EMPTY			
			CONNECTED LOAD	18595	13430	17195	= 49220			

LOAD CATEGORY	CONNECTED LOAD VA	DEMAND FACTOR	ESTIMATED LOAD VA
Motor	29880	100%	29880
Receptacles	6340	100%	6340
Lighting - Other	950	100%	950
HVAC	7550	100%	7550
Heating Equipment	4500	100%	4500
TOTAL	49220	100%	49220

Conduit and Feeder Schedule

4 WIRE FEEDERS		3 WIRE FEEDERS	
4A	(4)–250 KCMIL & 1–No. 4 in 2–1/2" EMT.	3A	(3)–250 KCMIL & 1–No. 4 in 2–1/2" EMT.
4B	(4)–No. 4/0 THHN & 1–No. 4 in 2–1/2" EMT.	3B	(3)–No. 4/0 THHN & 1–No. 4 in 2–1/2" EMT.
4C	(4)–No. 3/0 THHN in 2" PVC	3C	(3)–No. 3/0 THHN & 1–No. 6 in 2" EMT.
4D	(4)–No. 2/0 THHN & 1–No. 6 in 2" EMT.	3D	(3)–No. 2/0 THHN & 1–No. 6 in 2" EMT.
4E	(4)–No. 1/0 THHN & 1–No. 6 in 2" EMT.	3E	(3)–No. 1/0 THHN & 1–No. 6 in 2" EMT.
4F	(4)–No. 2 THHN & 1–No. 6 in 1–1/2" EMT.	3F	(3)–No. 2 THHN & 1–No. 6 in 1–1/2" EMT.
4G	(4)–No. 4 THHN & 1–No. 8 in 1–1/4" EMT.	3G	(3)–No. 4 THHN & 1–No. 6 in 1–1/2" EMT.
4H	(4)–No. 6 THHN & 1–No. 8 in 1–1/4" EMT.	3H	(3)–No. 6 THHN & 1–No. 6 in 1–1/4" EMT.
4I	(4)–No. 8 THHN & 1–No. 10 in 1–1/4" EMT.	3I	(3)–No. 8 THHN & 1–No. 10 in 1–1/4" EMT.
4J	(4)–No. 3/0 THHN & 1–No. 6 in 2" EMT.	3J	(3)–No. 3/0 THHN & 1–No. 6 in 2" EMT.

LEGEND

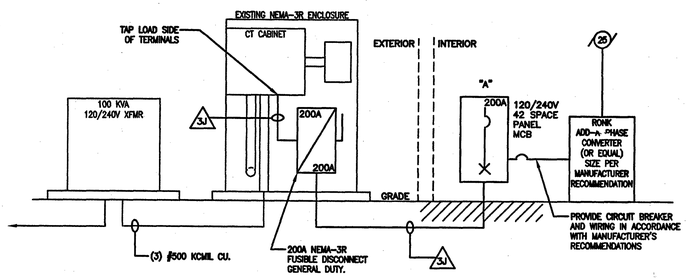
	2' X 4' FLUORESCENT LIGHT FIXTURE
	FLUORESCENT LIGHT FIXTURE
	BATTERY OPERATED EMERGENCY LIGHT FIXTURE– NEW OR RELOCATED EXISTING
	INCANDESCENT LIGHT FIXTURE – CEILING MOUNTED–NEW OR RELOCATED EXISTING
	INCANDESCENT LIGHT FIXTURE – WALL MOUNTED–NEW OR RELOCATED EXISTING
S	SWITCH – SINGLE POLE
S2	SWITCH – TWO POLE
S3	SWITCH – THREE WAY
S 4W	SWITCH – FOUR WAY
S DIM	SWITCH – DIMMER – 1000 W UNLESS OTHERWISE NOTED
	EXIT SIGN – CEILING MOUNTED–NEW OR RELOCATED EXISTING
	EXIT SIGN – WALL MOUNTED–NEW OR RELOCATED
	GROUNDING TYPE DUPLEX CONVENIENCE OUTLET
	GROUNDING TYPE QUADRUPEX CONVENIENCE OUTLET
	GFCI DUPLEX RECEPTACLE
	WP GFCI DUPLEX RECEPTACLE
	SPECIAL PURPOSE OUTLET WITH RATIOS NOTED ON PLANS
	FLOOR MOUNTED OUTLET
	TELEPHONE OUTLET
F	FAX TELEPHONE OUTLET
	TELEPHONE OUTLET – FLOOR MOUNTED
	DATA OUTLET – FLOOR MOUNTED
SD	FIRE ALARM – SMOKE AND FIRE DETECTOR
F	FIRE ALARM – MANUAL PULL STATION
	FIRE ALARM – HORN
	FIRE ALARM – HORN AND STROBE LIGHT
(M)	SINGLE PHASE MOTOR – HORSEPOWER MARKED
(2)	THREE PHASE MOTOR – HORSEPOWER MARKED
	COMBINATION STARTER
	DISCONNECT SWITCH
EP-1	ELECTRIC PANEL – PANEL NO. 1
(P1-1,2)	CIRCUIT No 1 & 2 TO ELECTRIC PANEL No 1
	EXISTING ELECTRIC PANEL
	JUNCTION BOX
	CONDUIT – CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT – CONCEALED IN FLOOR
	CONDUIT – EXPOSED
	CONDUIT STUBBED UP
	CONDUIT STUBBED DOWN
	CONDUIT WITH NUMBER OF WIRES MARKED
	SLANTED LINE INDICATES GROUND WIRE
	HOMERUN – NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS
N.T.S.	NOT TO SCALE
A.F.F.	ABOVE FINISHED FLOOR

SHELTER BUILDING FIXTURE SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL NO.	VOLTAGE	REQUIRED LAMPS NUM.	TYPE	MOUNTING	REMARKS
A	VAPOR–TITE SURFACE MOUNTED FLUORESCENT FIXTURE	METALUX	VT2–2–232–DR–120–EB61–WL	120	2	—	SURFACE	
B	1X4 RECESSED FLUORESCENT WITH DRYWALL FLANGE 2–LAMP	METALUX	2GR5–232A–120–UNV–EB61–DF–14W	120	2	F32T8	RECESSED	
D	100W METAL HALIDE WALL MOUNT CUT–OFF	LUMARK	MHIT–10	120	1	100W MVR	SURFACE	
E	Z–PAK OUTDOOR LIGHT METAL HALIDE	LUMARK	MHFZ17	120	1	175W MH	WALL	
F	8' STRIP TANDEM FLUORESCENT	METALUX	8T–SS232–120V–EB61	120	4	4–F32T8	SURFACE	
X1	EMERGENCY EGRESS UNIT – 1–1/2 HR BATTERY BACKUP	SURELITE	CC–2	–	2	—	WALL	

SINGLE-LINE

- CIRCUIT BREAKER
- FUSE
- UTILITY METER
- FUSIBLE DISCONNECT Y= RATING
- PANELBOARD, MAIN LUG ONLY WITH FEED THROUGH LUGS Y= RATING, X= NAME
- PANELBOARD, MAIN LUGS ONLY, Y= MAIN LUGS RATING
- PANELBOARD, MAIN CIRCUIT BREAKER, Y = MCB RATING
- MOTOR, Z=HP RATING, 1 PHASE
- MOTOR, Z=HP RATING, 3 PHASE



2 Single-Line Diagram
Scale : NTS

05033
Project No.
JPS/LSA
Drawn By
LSA
Checked By
07/29/05
Date

Revisions
07-06-05 Check Set
07-29-05 Permit Set
08-09-05 Construction

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424 East Fourth Street, Cincinnati, Ohio 45202 (513) 651-4224

Centerville Sprayground
Centerville - Washington Park District
221 N. Main Street
Centerville, Ohio 45459

ACTIVITY CENTER SHELTER SCHEDULES AND SINGLE-LINE

E-202

Electrical A Schedule

VOLTS/PHASE/WIRE 208/120/3/	PANEL SIZE & TYPE	MAIN SIZE & TYPE	CABINET	MIN SCC	FED FROM	NOTES

CIRCUIT NO.	TRIP AMPS	NO. POLES	AREA SERVED	PHASE LOAD VA A	B	C	AREA SERVED	NO. POLES	TRIP AMPS	CIRCUIT NO
A-1	20	1	INDOOR LIGHTS	700						
				1000			VENDING OUTLET	1	20	A-2
A-3	20	1	OUTDOOR LIGHTS		350					
					1000		VENDING OUTLET	1	20	A-4
A-5	20	1	OUTLETS			360				
						1000	VENDING OUTLET	1	20	A-6
A-7	20	1	EXHAUST FAN	200						
				500			CHEM. FEED PUMP	1	20	A-8
A-9	20	1	OUTLET		360					
					500		CHEM. FEED PUMP	1	20	A-10
A-11,13	20	2	CEILING MOUNTED HEATER			750				
						1000	HAND DRYER	1	20	A-12
	20			750						
				1000			HAND DRYER	1	20	A-14
A-15,17	20	2	CEILING MOUNTED HEATER		750					
					1000		HAND DRYER	1	20	A-16
	20					750	EMPTY			
A-19,21	20	2	CEILING MOUNTED HEATER	750						
				360			SHELTER RECEPTALCES	1	20	A-20
	20				750					
					360		SHELTER RECEPTALCES	1	20	A-22
A-23,25	20	2	UH-1			835				
						2790	UH-2	2	40	A-24,26
	20			835						
				2790					40	
A-27	20	1	RESTROOM GFI		540					
					360		SHELTER RECEPTALCES	1	20	A-28
			EMPTY							
						2250	WATER HEATER	2	30	A-30,32
31,33,35	30	3	PUMP	6217						
				2250					30	
	30				6217					
						6217	EMPTY			
	30						EMPTY			
37,39,41	20	3	PUMP	1243						
							EMPTY			
	20				1243					
							EMPTY			
	20					1243				
							EMPTY			
			CONNECTED LOAD	18595	13430	17195	= 49220			

LOAD CATEGORY	CONNECTED LOAD VA	DEMAND FACTOR	ESTIMATED LOAD VA
Motor	29880	100%	29880
Receptacles	6340	100%	6340
Lighting - Other	950	100%	950
HVAC	7550	100%	7550
Heating Equipment	4500	100%	4500
TOTAL	49220	100%	49220

Conduit and Feeder Schedule

4 WIRE FEEDERS		3 WIRE FEEDERS	
4A	(4)–250 KCMIL & 1–No. 4 in 2–1/2" EMT.	3A	(3)–250 KCMIL & 1–No. 4 in 2–1/2" EMT.
4B	(4)–No. 4/0 THHN & 1–No. 4 in 2–1/2" EMT.	3B	(3)–No. 4/0 THHN & 1–No. 4 in 2–1/2" EMT.
4C	(4)–No. 3/0 THHN in 2" PVC	3C	(3)–No. 3/0 THHN & 1–No. 6 in 2" EMT.
4D	(4)–No. 2/0 THHN & 1–No. 6 in 2" EMT.	3D	(3)–No. 2/0 THHN & 1–No. 6 in 2" EMT.
4E	(4)–No. 1/0 THHN & 1–No. 6 in 2" EMT.	3E	(3)–No. 1/0 THHN & 1–No. 6 in 2" EMT.
4F	(4)–No. 2 THHN & 1–No. 6 in 1–1/2" EMT.	3F	(3)–No. 2 THHN & 1–No. 6 in 1–1/2" EMT.
4G	(4)–No. 4 THHN & 1–No. 8 in 1–1/4" EMT.	3G	(3)–No. 4 THHN & 1–No. 6 in 1–1/2" EMT.
4H	(4)–No. 6 THHN & 1–No. 8 in 1–1/4" EMT.	3H	(3)–No. 6 THHN & 1–No. 6 in 1–1/4" EMT.
4I	(4)–No. 8 THHN & 1–No. 10 in 1–1/4" EMT.	3I	(3)–No. 8 THHN & 1–No. 10 in 1–1/4" EMT.
4J	(4)–No. 3/0 THHN & 1–No. 6 in 2" EMT.	3J	(3)–No. 3/0 THHN & 1–No. 6 in 2" EMT.

LEGEND

	2' X 4' FLUORESCENT LIGHT FIXTURE
	FLUORESCENT LIGHT FIXTURE
	BATTERY OPERATED EMERGENCY LIGHT FIXTURE– NEW OR RELOCATED EXISTING
	INCANDESCENT LIGHT FIXTURE – CEILING MOUNTED–NEW OR RELOCATED EXISTING
	INCANDESCENT LIGHT FIXTURE – WALL MOUNTED–NEW OR RELOCATED EXISTING
S	SWITCH – SINGLE POLE
S2	SWITCH – TWO POLE
S3	SWITCH – THREE WAY
S 4W	SWITCH – FOUR WAY
S DIM	SWITCH – DIMMER – 1000 W UNLESS OTHERWISE NOTED
	EXIT SIGN – CEILING MOUNTED–NEW OR RELOCATED EXISTING
	EXIT SIGN – WALL MOUNTED–NEW OR RELOCATED
	GROUNDING TYPE DUPLEX CONVENIENCE OUTLET
	GROUNDING TYPE QUADRUPEX CONVENIENCE OUTLET
	GFCI DUPLEX RECEPTACLE
	WP GFCI DUPLEX RECEPTACLE
	SPECIAL PURPOSE OUTLET WITH RATIOS NOTED ON PLANS
	FLOOR MOUNTED OUTLET
	TELEPHONE OUTLET
F	FAX TELEPHONE OUTLET
	TELEPHONE OUTLET – FLOOR MOUNTED
	DATA OUTLET – FLOOR MOUNTED
SD	FIRE ALARM – SMOKE AND FIRE DETECTOR
F	FIRE ALARM – MANUAL PULL STATION
	FIRE ALARM – HORN
	FIRE ALARM – HORN AND STROBE LIGHT
1/4	SINGLE PHASE MOTOR – HORSEPOWER MARKED
2	THREE PHASE MOTOR – HORSEPOWER MARKED
	COMBINATION STARTER
	DISCONNECT SWITCH
EP-1	ELECTRIC PANEL -- PANEL NO. 1
(P1-1,2)	CIRCUIT No 1 & 2 TO ELECTRIC PANEL No 1
	EXISTING ELECTRIC PANEL
	JUNCTION BOX
	CONDUIT – CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT – CONCEALED IN FLOOR
	CONDUIT – EXPOSED
	CONDUIT STUBBED UP
	CONDUIT STUBBED DOWN
	CONDUIT WITH NUMBER OF WIRES MARKED
	SLANTED LINE INDICATES GROUND WIRE
	HOMERUN – NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS
N.T.S.	NOT TO SCALE
A.F.F.	ABOVE FINISHED FLOOR

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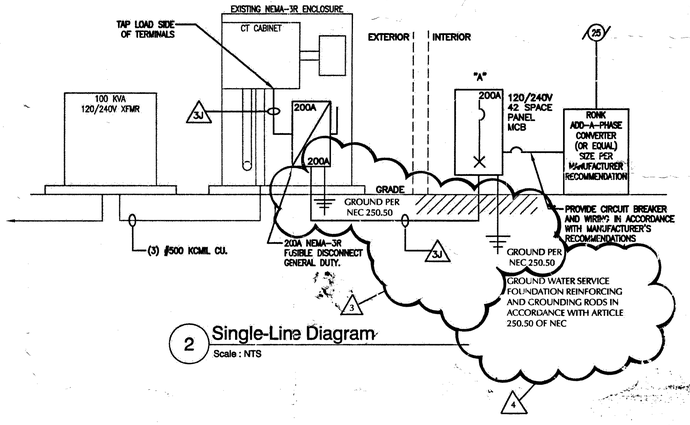

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2 Plan Review, 12-14-05

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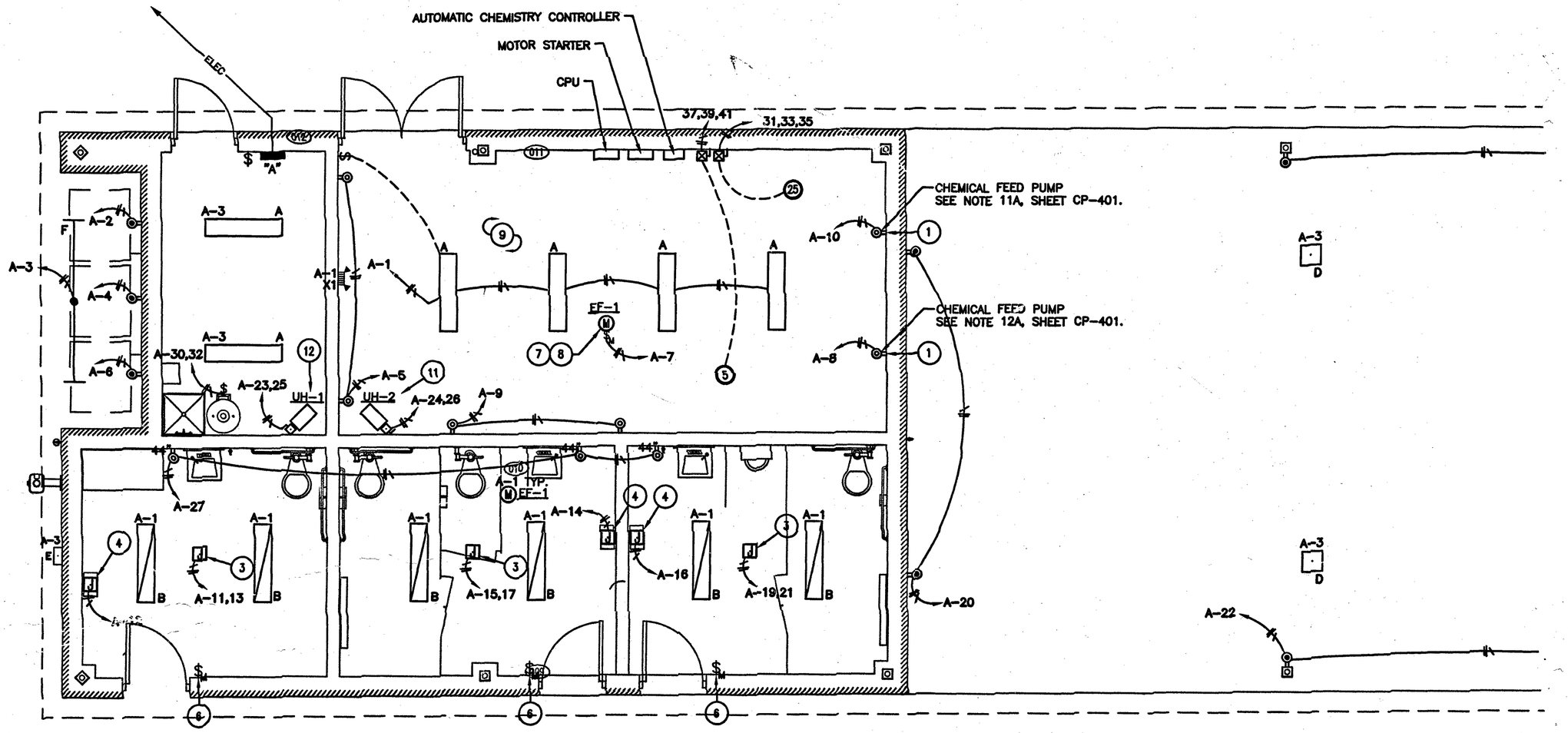

1 Lighting and Power Plan

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