Specifications

CONCRETE MATERIALS:

Portland Cement: ASTM C 150, Type I-II LA.

Aggregates: ASTM C 33, crushed stone or gravel.

Water: Clean, drinkable.

RELATED MATERIALS:

Moisture-Retaining Cover: One of the following, ASTM C171:

Waterproof Paper.
Polyethylene Sheeting: AASHO M 171.
Polyethylene-coated burlap.

Continuous Wetting: By fog spray or waterdams at perimeter.

Joint Fillers: ASTM D 1751.

Chemical Hardeners:

"Armortop" by Anti-Hydro Company
"Perma-Lith" by W. R. Meadows, Inc.
"Lapidolith" by Sonneborn

FORM MATERIALS:

Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.

Exposed Concrete Surfaces: Suitable material to suit project conditions.

REINFORCING MATERIALS:

Deformed Reinforcing Bars: ASTM A 615, Grade 40, unless otherwise indicated.

Welded Wire Fabric: ASTM A 185, flat sheets only.

Accessories, Supports, Spacers: Steel, ACI Manual of Standard Practice.

FORMING AND PLACING CONCRETE:

Ready Mix Concrete: Comply with the requirements of ASTM C 94, and as herein specified.

Addition of water to the batch will not be permitted.

During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C 94 may be required.

When the air temperature is between 85 deg. F and 90 deg. F reduce the mixing and delivery time from 1-1/2 hours to 75 minutes, and when the air temperature is above 90 deg. F reduce the mixing and delivery time to 60 minutes.

Formwork: Construct so that concrete members and structures are of correct size, shape, alignment, elevation and position. Entire exterior face of turned down footings shall be formed.

Provide openings in formwork to accommodate work of other trades. Accurately place and securely support items built into forms.

Clean and adjust forms prior to concrete placement. Apply form release agents or wet forms, as required. Retighten forms during concrete placement if required to eliminate mortar leaks.

Reinforcement: Position, support and secure reinforcement against displacement. Locate and support with metal chairs, runners, bolsters, spacers and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

Install welded wire fabric in as long lengths as practicable, lapping at least one mesh.

Construction Joints: Place construction joints at the end of all pours and at locations where placement operations are stopped for a period of more than 1/2 hour, except when such pours terminate at expansion joints. Standard metal keyway section forms may be used. Continue reinforcement across construction joints.

Expansion and Isolation Joints: Provide premolded joint filler for expansion joints, and isolation joints abutting curbs, catch basins, manholes, inlets, structures, walks, and other fixed objects.

Locate expansion joints as shown on drawings. Extend joint fillers full depth of joint, and not less than 1/2" or more than 1" below the finished concrete surface. Furnish in one-piece lengths, wherever possible. Where more than one length is required, lace or clip joint filler sections together. Protect the top edge of the joint filler during concrete placement.

Contraction (weakened-plane) Joints: Provide contraction (weakened-plane) joints as detailed on the Drawings.

INSTALLATION OF EMBEDDED ITEMS:

General: Set and build into the work bolts, anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of the items to be imbedded.

Edge Forms and Screed Strips for Slabs: Set edge forms or bulk heads and intermediate screed strips for slabs to obtain the required elevations in the finished slab surface. Provide and secure units sufficiently strong to support the types of screeds required. Align the concrete surface to the elevation of the screed strips by the use of strike-off templates or accepted compacting-type screeds.

CONCRETE PLACEMENT:

General: Comply with ACI 304, and as herein specified.

Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness within the section. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation due to rehandling or flowing.

Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into forms.

Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement and curing.

Cold Weather Placing: Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures in compliance with ACI 306 and as herein specified.

When air temperature has fallen to or is expected to fall below 40 deg. F, uniformly heat all water and aggregates before mixing as required to obtain a concrete mixture temperature of not less than 50 deg. F, and not more than 80 deg. F at point of placement.

Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

Do not use calcium chloride, salt and other materials containing antifreeze agents or chemical accelerators, unless accepted in approved mix designs.

Hot Weather Placing: When hot weather conditions exist that would seriously impair the quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg. F. Mixing water may be chilled, or chopped ice may be used to control the concrete temperature provided the water equivalent of the ice is calculated to the total amount of mixing water.

Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that the steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

Wet forms thoroughly before placing concrete.

Do not use retarding admixtures unless accepted in approved mix designs.

FINISH OF FORMED SURFACES:

Standard Rough Form Finish: For formed concrete surface not exposed-to-view, all defective areas repaired and patched with fins and other projections exceeding 1/4" in height rubbed down or chipped off.

Standard Smooth Finish: For formed concrete surfaces exposed-to-view, or that are to be covered with a coating material applied directly to the concrete, such as waterproofing, dampproofing, painting or other similar systems. Fill tie holes and honeycomb, remove fins. While concrete is green, rub surfaces with carborundum bricks and water to smooth unblemished surface. If conditions prevent early rubbing, neat cement grout may be used during the rubbing process.

CONCRETE FINISHING:

Float Finish: Apply float finish to monolithic slab surfaces that are to receive trowel finish and other finishes as hereinafter specified.

After screeding and consolidating concrete slabs, do not work surface until ready for floating. Begin floating when surface water has disappeared or when concrete has stiffened sufficiently to permit operation of power-driven floats, or both. Consolidate surface with power-driven floats, or by hand-floating if area is small or inaccessible to power units. Floors shall be level and the surface tolerance shall be a maximum of 1/8" in 10'. Where drains occur, slope to drain. Rough areas and high spots shall be ground to level plane. Slopes to drains shall occur over the entire area of enclosed areas. No "dishes" or pocketed drain slopes will be allowed. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

Trowel Finish: Apply trowel finish to monolithic slab surfaces that are to be exposed-to-view, unless otherwise shown, and slab surfaces that are to be covered with resilient flooring, paint or other thin film finish coating system.

Broom Finish: Except where decorative aggregate finish is called for, apply broom finish on all exterior walks, slabs, skirts, ramps and platforms.

Immediately after trowel finishing, slightly roughen concrete surface by brooming perpendicular to main traffic route. Coordinate required final finish with the Architect before application.

Chemical-Herderer Finish: Apply two coats chemical-hardener finish to interior concrete floors where shown on drawings or in schedules. Apply liquid chemical-hardener after complete curing and drying of the concrete surface. Evenly apply each coat, and allow 24 hours for drying between coats.

After final coat of chemical-hardener solution is applied and cried, remove surplus hardener by scrubbing and mopping with water.

CONCRETE CUSING AND PROTECTION:

Provide moisture curing by the following methods:

Continuous water-fog spray.

Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4" lap over adjacent absorptive covers.

Provide Moisture-Cover Curing as Follows: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3" and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

Curing Formed Surfaces: Cure formed concrete surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

Curing Unformed Surfaces: Initially cure unformed surfaces, such as slabs, floor topping, and other flat surfaces by moist curing.

Final cure unformed surfaces, unless otherwise specified, by methods specified above, as applicable.

Final cure concrete surfaces to receive liquid floor hardener or finish flooring by use of moisture-retaining cover, unless otherwise directed.

BUILT-UP BITUMINOUS ROOFING

GENERAL:

Work Included:

Multi-ply asphalt/glass fiber roofing membrane, compliance with base and cant flashings,

Aggregate surfacing.

QUALITY ASSURANCE:

Provide major materials from a single source manufacturer, which has produced product for not less than three years.

Provide built-up roofing system which has been evaluated by Factory Mutual for fire spread, wind up-lift and hail damage; and are listed in their approval guide for Class I construction, with a Class I-90 wind up-lift rating. Materials listed by Underwriters Laboratories for use in Class A coverings.

Provide quality control personnel to supervise the installation at all times.

REFERENCE STANDARDS:

ASTM D 6178: Asphalt-Impregnated Glass Fiber Mat (Felt).

ASTM D 312: Asphalt for use in constructing built-up roof coverings.

ASTM D 1863: Mineral aggregate for use on built-up roofs.

FS SS-C-153: Cement, Bituminous, Plastic-type 1.

SUBMITTALS:

Submit manufacturer's product data, installation instructions and general recommendations for each principal product.

ENVIRONMENTAL REQUIREMENTS:

Do not apply roofing during inclement weather or when air temperature is below 40 deg. F (5 deg. C).

Do not apply roofing membrane to damp, frozen or unsuitable deck surface.

HOT-MOP APPLICATION:

Apply glass fibered felt base sheet over insulation with approved fasteners.

Heat bitumen in accordance with manufacturer's instructions. Minimum temperature at point of application 350 deg. F (177 deg. C).

Apply three layers of felt smooth, free from air pockets, wrinkles, fishmouths, lap joints or tears. Extend felts up vertical surfaces to two inches minimum above cant strips. Mop and seal two additional plies of felt around roof penetrations.

Use Modified bitumen flashings installed in accordance with manufacturer's directions.

Flood coat surface with 60 lbs. asphalt and broadcast 400 lbs. aggregate per square.

CLEANING:

Remove bituminous markings from finished surfaces. In areas where finished surfaces are soiled by asphalt or any other source of soiling caused by work of this Section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.

PRODUCTS:

Sheet Materials:

Asphalt Saturated Glasmat: ASTM D 2178, Type IV.

Bituminous Materials:

Asphalt Bitumen: ASTM D 312, Type IV.

Plastic Cement: FS SS-C-153, cutback asphalt type.

FLASHINGS:

Flashings: Modified bitumen membrane, minimum tensile strength of 200 lb/in at 0 deg. F.

AGGREGATE SURFACING:

ASTM D 1863; sound, hard roofers pea gravel.

ACCESSORIES:

Cants: Asphalt impregnated cellulose fiber, preformed to 45 degree angle.

Roofing Nails: Galvanized or non-ferrous type, size as required to suit application.

Cricket Board: Perlite rigid insulation prefapered to 1/2" per foot slope, see Section 07220.

EXECUTION:

Inspection:

Verify surface is clean and smooth, free of depressions, waves or projections, properly sloped to drains.

Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set, cant strips and nailing strips are in place.

Verify surfaces are dry and free of snow or ice.

Montgomery Wading Pool Renovation

CLASS II CONSTRUCTION

PRELIMINARY
NOT FOR CONSTRUCTION

DATE: 12-24-90

Vicinity Map

no.	date	revision

dekker & associates p.c.
architecture • planning • engineering • interior & graphic design • facilities programming
6501 Americas Parkway N.E. Suite 675 Albuquerque New Mexico 87110
Telephone 505 888-3111

Montgomery Wading Pool Renov.
Parks & Recreation Dept.
City of Albuquerque
Specifications

STATE OF NEW MEXICO
DALE R. DEKKER 4089
REGISTERED ARCHITECT

job no. 90003.09
drn. by T.S.S.
ckd. by M.V.Y.
issued 12-20-90

SP-1
sheet 1 of 5

Specifications (con't)

SWIMMING POOL PLASTER

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Swimming pool plaster finish.

1.02 SUBMITTALS:

A. Samples Prepare 12" square panel at the site showing color and texture for pool plaster. Finished plaster work shall match the approved sample panel.

B. Certificates: Submit certificates attesting that the materials furnished meet the requirements specified herein.

1.03 PRODUCT DELIVERY AND STORAGE:

A. Deliver manufactured materials to site in manufacturers' original unbroken packages or containers bearing manufacturers' name and brand labels. Keep cementitious materials dry until ready to be used and stored off the ground, under cover, and away from damp surfaces.

1.04 JOB CONDITIONS:

A. Apply plaster in exterior swimming pool only when ambient temperature is above 40°F and below 90°F, and protect applied plaster from rapid drying by sun or wind until curing is completed or pool is filled with water.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Portland Cement: ASTM C150, Type white portland cement.

B. Hydrated Lime: ASTM C206, Type S.

C. Sand for Pool Plaster Finish Coat: White marble dust uniformly graded within following limits, all passing the No. 30 sieve:

Percentage Retained (by Weight Plus or Minus 2%) on Each Sieve

Sieve Size	Minimum	Maximum
No. 30	0	0
No. 50	25	50
No. 100	75	90
No. 200	90	100

D. Water: Clean , fresh, from domestic potable source.

2.02 PROPORTIONS AND MIXING:

A. Materials are specified on a volume basis and shall be measured in approved containers, which will insure that the specified proportions will be controlled and accurately maintained during the progress of the work. Measuring materials with shovels ("shovel count") is not permitted.

B. White Marble Pool Plaster Finish Coat: Mix finish in proportion of one part by volume of white portland cement to not more than two parts by volume of sand (specified white marble dust).

C. Mixing: Perform mixing in approved mechanical mixers of the type in which quantity of water can be controlled accurately and uniformly. While mixer is in continuous operation, charge approximately 90% of estimated quantity of water, half of sand, all cement, and the other one-half of the sand into mixer in that sequence and mix thoroughly with remainder of water until mixture is uniform in color and consistency. Avoid excess mixing to prevent hasty solution of cement resulting in accelerated set. Discard plaster which has begun to set before it is used; retempering is not allowed. Do not use any caked or lumpy materials. Completely empty mixer and mixing boxes after each batch is mixed, and keep free of old plaster.

PART 3 - EXECUTION

3.01 PREPARATION OF SURFACE:

A. Clean base surfaces of projections, dust, loose particles, grease, bond breakers, and a foreign matter; rake sufficiently rough to provide a strong mechanical bond. Do not apply plaster directly to the surfaces of masonry or concrete that are coated with any membrane-forming curing compound or similar agent until compound or agent is completely removed by sandblasting. Wet cementitious base surfaces with a fine fog water spray to produce a uniformly moist condition, and check screed, pool equipment, and accessories for correct alignment before plastering is started. Do not apply plaster to base surfaces containing frost. Install temporary coverings as required to protect adjoining surfaces from straining or damage by plastering operations.

3.02 APPLICATION OF POOL FINISH PLASTER:

A. General: Apply finish plaster to minimum 1/2" thickness at any location. Apply finish plaster by hand or machine. If plastering machine is used, control fluidity of plaster to have a slump not exceeding 2-1/2" when tested using a 2" x 4" x 6" high slump cone. Do not add additional water to the mix subsequent to determining water content to meet this slump. Perform slump test according to the following procedure:

1. Place cone on level, dry, non-absorptive base plate.
2. While holding cone firmly against base plate, fill cone with plaster taken directly from hose or nozzle of plastering machine, tamping with a metal rod during filling to release all air bubbles.
3. Screed off plaster level with top of cone. Remove cone by lifting it straight up with a slow and smooth motion.
4. Place cone in a vertical position adjacent to freed plaster sample using care not to jiggle base plate.
5. Lay straightedge across top of cone being careful not to vibrate cone; measure slump in inches from bottom edge of straightedge to the top of slumped plaster sample.

B. Workmanship: Apply finish plaster in two coats by "double-back" method with second coat applied as soon as first coat is tarped and initially floated. Apply plaster with sufficient pressure to provide a good bond on bases. Work plaster to screeds at intervals of from 5 feet to 8 feet, or closer as required on curved surfaces. Finish plaster to tolerance of -0" and +1/8" in thickness and to 1/8" in 8 feet on straight surfaces. Apply sooth trowel finish without waves, cracks, trowel marks, ridges, pits, crazing, discoloration, projections, or other imperfections. Form plaster carefully around curves and angles, well up to screeds. Take special care to prevent sagging and consequent dropping of applications. Produce surfaces free of visible junction marks in finish coat where one day's work adjoins another.

C. Curing: Cure plaster with fine fog water spray applied to finish coat as frequently as required to prevent dry-out plaster. Keep plaster damp until pool is filled. Prevent damage or straining of plaster by troweling or curing.

D. Patching, Pointing, and Cleaning Up: Upon completion, cut out and patch loose, cracked, damaged, or defective plaster; patches matching existing plaster in texture, color, and finish, flush with adjoining plaster. Perform pointing and patching of surfaces and plaster work abutting or adjoining any other finish work in a neat workmanlike manner. Remove plaster droppings or spatterings from all surfaces. Leave plaster surfaces in clean, unblemished condition ready for pool filling. Remove protective coverings from adjoining surfaces. Remove rubbish and debris from the site.

CERAMIC TILE

PART 1 GENERAL

1.01 WORK INCLUDED

A. Glazed ceramic wall tile, with cementitious grouted joints.

PART 2 PRODUCTS

2.01 MATERIALS AND COMPONENTS

A. Ceramic Wall Tile: Equal to Summitville 6" x 6". "Olympic Blue" and certified by the manufacturer for use in exterior swimming pools, and shall be frost proof. Tile shall conform to ANSI A137.1.

B. Thinset Wall System: Latex-Portland cement mortar equal to L & M Surco "New and Improved Floor Mix" and conforming to ANSI A118.4.

C. Grout: Cementitious dry cure type; manufactured by L & M Surco Mfg., Inc.

PART 3 EXECUTION

3.01 INSTALLATION

A. Ambient temperature shall be between 40 deg. and 90 deg. for a period at least three days prior to commencing tile installation and throughout duration of installation and curing period.

B. Install ceramic wall tile in accordance with Tile Council of America, Method P601-87, Swimming Pools.

C. Ensure tile joints are uniform width, subject to normal variance in tolerance allowed in tile size. Ensure joints are watertight, without voids, cracks, excess mortar or grout.

D. Sound tile after setting. Remove and replace hollow sounding units.

E. Allow tile to set for a minimum of 72 hours prior to grouting.

F. Do not refill pool for a minimum of 1 week following grouting.

G. Completed installation to be free of broken, damaged or faulty tile.

REINFORCED UNIT MASONRY

Standards: Comply with recommendations of Brick Institute of America (BIA), and National Concrete Masonry Association (NCMA).

Concrete Masonry Units (CMU): ASTM C 90, Grade N-I.

Provide "lightweight" units (min. 105 pcf) except where "normal weight" units (max. 125 pcf) are indicated.

Portland Cement: ASTM C 150, Type I or II; natural color.

Masonry Cement: ASTM C 91.

Lime: Hydrated lime, ASTM C 207, Type S.

Sand for Mortar: ASTM C 144, or finer if needed for joint sizes less than 1/4".

Water: Clean and potable.

Horizontal Joint Reinforcing: Truss or ladder design, minimum 9-gage welded steel wire, 0.8 oz. hot-dip zinc coating (after fabrication) for exterior walls, width 1-1/2" to 2" less than wall thickness.

Mortar for Unit Masonry: ASTM C 270, Proportion Specification for types of mortar required. 1800 psi compressive strength at 28 days.

Use Type N mortar for exterior above-grade loadbearing and non-loadbearing walls; for interior loadbearing walls and for other applications where another type is not indicated.

Reinforcement: Deformed bars of grade indicated complying with ASTM A 615, except as otherwise indicated.

Grade 40 for bars No. 3 to No. 6.

Grout: ASTM C 476. 2000 psi compressive strength at 28 days.

Installation, General: Comply with applicable requirements of the following:

ANSI/NBS A 74 (A41.2) "Building Code Requirements for Reinforced Masonry".

Place reinforcement accurately at spacing shown, secured against displacement, and spliced by lapping, unless otherwise indicated, at locations shown. Fill all cells containing reinforcing solid with grout, and elsewhere as indicated on drawings.

Provide temporary formwork and shores as required for support of reinforced masonry elements.

Bond intersecting walls with masonry units or provide anchors spaced 1'-4".

Hold uniform joint sizes as indicated, or if not indicated, hold joint sizes to suit modular size of masonry units.

Cut joints flush and tool slightly concave, unless otherwise indicated.

Reinforce horizontal joints with continuous masonry wire reinforcing, spaced 16" vertically. Do not bridge control and expansion joints in the wall system.

Provide control and expansion joints at locations shown, and keep clean of mortar droppings.

Build other work into the masonry work as shown, fitting masonry units around other work, and grouting for secure anchorage.

Protect newly laid masonry from exposure to precipitation, excessive drying, freezing, soiling, backfill and other harmful elements.

Dry-Brush masonry work at end of each day's work.

Install (lay) masonry units in the bond pattern indicated, or if none is indicated, in running bond.

Cut exposed masonry units, where necessary, with a power saw. Avoid the use (by proper layout) of less-than-half-size units.

Do not wet concrete masonry units.

ALBUQUERQUE ENVIRONMENTAL HEALTH & ENERGY DEPARTMENT
SWIMMING POOL SPECIFICATION FORM

Project Name: Montgomery Wading Pool Renovation Address: 5201 Palo Duro SE
Owner's Name: City of Albuquerque Pool Contractor: City of Albuquerque

POOL CONSTRUCTION

1. New ____ Alteration ____ Renovation X Pool Class ____
2. Capacity (gallons) 2300 Below ground ____ X Above ground ____
3. a. Length at longest point 13'-0" ; at shortest point ____
   b. Width at widest point 13'-6" ; at narrowest point ____
   c. Depth at deepest point 1'-8" ; at shallowest point ____
   d. Slope of pool bottom to 5' depth (no more than 1" in 12") ____
4. Pool finish Plaster ; Pool color white
5. Number of sets of steps (including ladders) 2 ; Handrails provided Yes
6. Width of pool runway (minimum 4') 8 min. 2 ; Slope of runway (1/4" - 3/8") Exist slope

POOL PLUMBING

1. Type of piping Pvc/copper ; Size of piping 1-1/2" 2" 3"
2. Number of main drains (minimum of 1) 2 ; Anti-vortex covers provided yes
3. Number of skimmers (minimum 2 per A.B.G pools or, 1 skimmer per 500 sq. ft.) 2
4. Flow rate through each skimmer (minimum 30 gpm/skimmer) 50gpm
5. Are equalizer lines and self-regulating weir devices provided no
6. Depth below water level of equalizer lines (minimum 12") ____
7. Number of return inlets (minimum of 1/16,000 gal.) 4
   Depth of inlets (minimum 12") 12" ; Are inlets adjustable yes
8. Fill line air gap (minimum 6") 6" ; Location of fill line BT pool
   Is backflow preventer provided no
9. Backwash air gap (minimum 8") 8" ;
10. Type waste interceptor (if less than 30,000 gal., only one compartment) sand trap
11. Size of sewer line 4" ; Is vacuum cleaning system provided no
12. Heating equipment
    a. Manufacturer Teledyne ; Model # AP-500 ; btu's 500,000
13. Are deck drains provided (exist.) ; Are drains air-gapped (6") to interceptor yes (exist.)

FILTRATION

1. Filter type and make (If cut sheet provided go to #4) Sand; Swimquip HRP-30
2. Filter area 9 sf ; Filter rate 20.4 gpm/sf ; Backwash rate 100 gpm
3. Pump rating and horsepower 100 gpm, 30 ft. hd
4. Turnover rate 6 hrs ; Backflow preventer provided Yes
5. Disinfectant equipment (NSF approved) Yes
6. If chlorine gas used, is room ventilated to outside Separate building
7. Type test kits provided Hyver 2000

GENERAL

1. Ventilation (indoor pools must have 4-8 air changes/hour) N/A
2. Electrical and lighting
   a. Are electrical outlets protected as per NEC (GFCI, etc.) N/A
   b. Underwater lighting illumination (15 ft. candles minimum) N/A
   c. General lighting illumination (30 ft. candles minimum) N/A
3. Fencing
   a. Height and type (4' min/max height, no spacing over 4") 4' Chain link
   b. Number of entry ways 1
   c. Are entry ways equipped with self-closing, positive self-latching devices and lockable Yes

SAFETY FEATURES

1. Are two ring buoys with safety lines provided (U.S. Coast Guard approved, 18" diam.) N/A
2. Is an approved lifeline provided (1/2" line with floats) N/A
3. Is a 12" metal pole provided N/A
4. Is a First Aid kit provided (American Red Cross 24 unit kit) yes
5. Do the diving board and diving area meet safety regulations N/A
6. Will appropriate signs be displayed (Occupancy load, Red Cross Resuscitation Chart, No Lifeguard On Duty, Children Under 12 Accompanied by An Adult) Yes
7. Size, color and location of depth markings (must be minimum 4" high, contrasting color and located on deck and pool wall) N/A

Date ____ Signed ____

GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION."
2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR THE LOCATION OF EXISTING UTILITIES.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES AND POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES AT ALL TIMES.
5. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
6. THE CONTRACTOR MUST SUBMIT A CONSTRUCTION SIGNING AND BARRICADING PLAN TO TRAFFIC ENGINEERING TO RECEIVE A BARRICADING PERMIT PRIOR TO CONSTRUCTION.
7. ALL DIMENSIONS AND RADII OF CURB AND CURB RETURNS ARE SHOWN TO FACE OF CURB UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS OUTSIDE OF THE RIGHT-OF-WAY AS DETERMINED BY THE ENGINEER. SEEDING SHALL BE IN ACCORDANCE WITH CITY OF ALBUQUERQUE SPECIFICATIONS AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
9. WHERE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
10. RESTRIPING OF ROADWAY SHALL BE THE RESPONSIBILITY OF THE CITY OF ALBUQUERQUE AND SHALL NOT BE INCLUDED IN THIS CONTRACT.
11. BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
12. FACT COAT REQUIREMENTS SHALL BE DETERMINED BY THE CITY ENGINEER.
13. SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
14. IF CURB IS DEPRESSED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
15. ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
16. JOINT DEFLECTION SHALL NOT BE ALLOWED AT PIPE JOINTS. A WATER VALVE SHUTOFF PLAN SHOULD BE APPROVED BY THE WATER SYSTEMS DIVISION (823-4200), AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK THAT MAY AFFECT EXISTING WATERLINES.
17. THE CONTRACTOR SHALL COORDINATE THE VALVE SHUTOFF PLAN WITH THE WATER SYSTEMS DIVISION (823-4200) TWO (2) WORKING DAYS PRIOR TO INITIATING ANY WORK THAT MAY AFFECT THE EXISTING WATER UTILITIES. THE FIRE MARSHAL SHALL ALSO BE NOTIFIED OF THE HYDRANTS TO BE AFFECTED, THEIR LOCATION, AND LENGTH OF TIME THE SHUTDOWN WILL LAST.

no.	date	revision

dekker & associates p.c.
architecture ◆ planning ◆ engineering ◆ interior & graphic design ◆ facilities programming
6501 Americas Parkway N.E. Suite 675 Albuquerque New Mexico 87110 Telephone 505 888-3111

Montgomery Wading Pool Renov.
Parks & Recreation Dept.
City of Albuquerque
Specifications

STATE OF NEW MEXICO — DAVID R. DEKKER 10054 — REGISTERED ARCHITECT

job no.
drn. by
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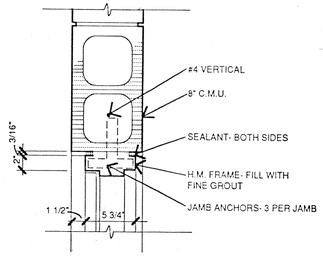
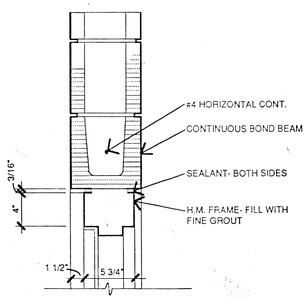
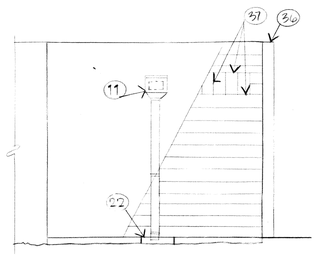


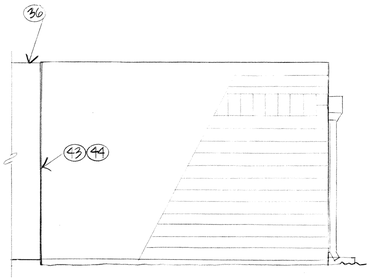
9 Jamb
1 1/2" = 1' - 0"



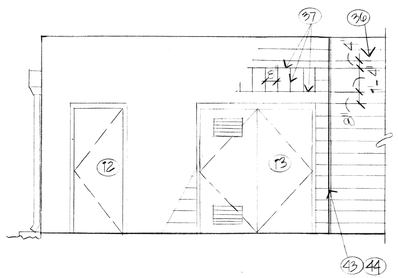
8 Head
1 1/2" = 1' - 0"



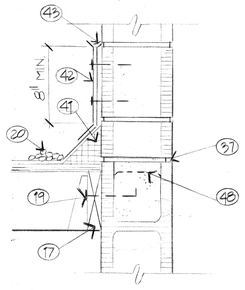
7 East Elevation
1/4" = 1'-0"



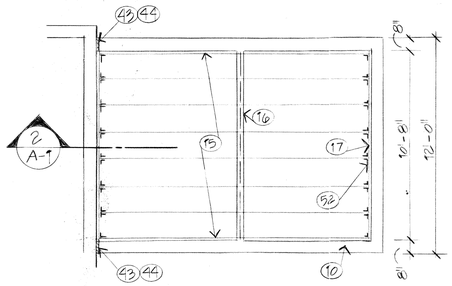
6 South Elevation
1/4" = 1'-0"



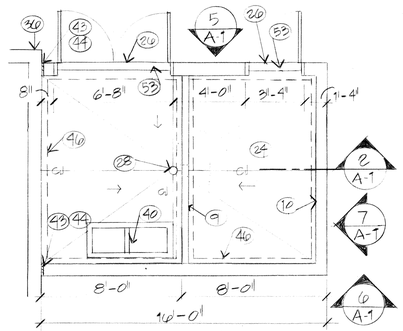
5 North Elevation
1/4" = 1'-0"



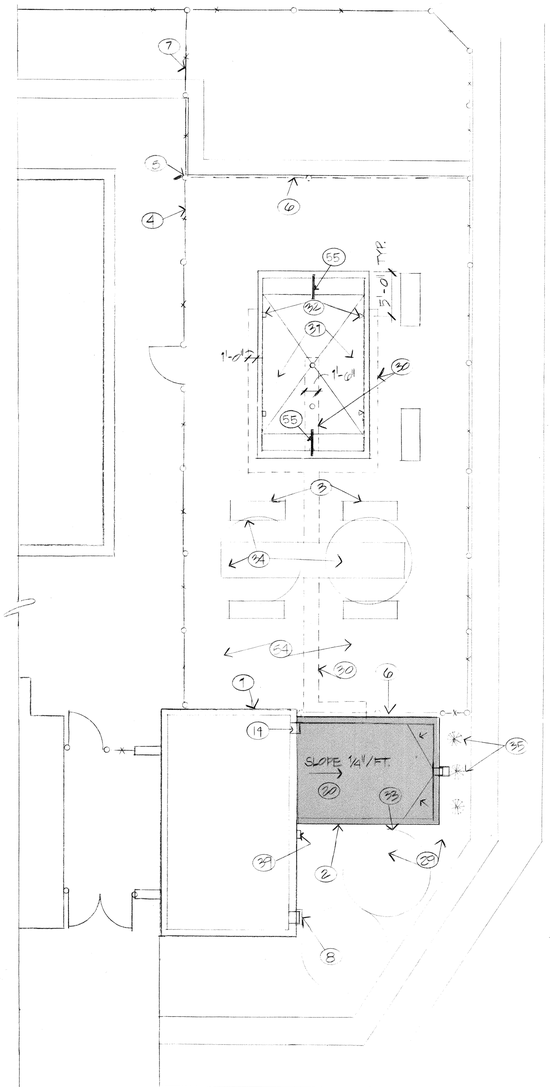
10 Roof Detail
1 1/2" = 1'-0"



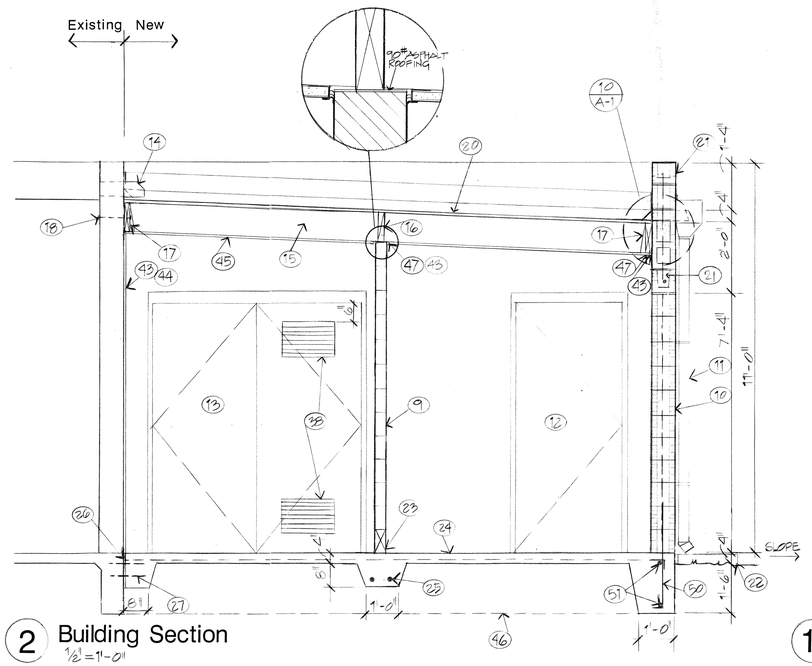
4 Roof/Framing Plan
1/4" = 1'-0"



3 Floor/Foundation Plan
1/4" = 1'-0"



1 Site/Roof Plan
1/8" = 1'-0"



2 Building Section
1/2" = 1'-0"

Keyed Notes

1. Existing mechanical building.
2. New mechanical/storage building.
3. Existing planter and benches to remain.
4. Existing fence to remain.
5. Cut down steel post to 4' - 0". Install post cap.
6. Remove fence and line posts flush with concrete. Grout remaining voids in deck.
7. Install new 4' - 0" high chain link fence and line posts to match existing.
8. Add leader head, drain leader and splash block to existing building. Route drain leader around existing electrical panels.
9. 4" x 8" x 16" C.M.U. partition with "ladder" type horizontal reinforcing every 3rd course.
10. 8" C.M.U. with "ladder" type horizontal reinforcing @ 16" o.c. and #3 bar vertical @ 32" o.c. Apply block filler and paint (interior and exterior). Coursing to match existing.
11. 24 ga. drain leader and leader head. Affix to building at 3rd points. Paint to match bldg.
12. 3' - 0" x 7' - 0" painted H.M. door and frame.
13. PR 3' - 0" x 7' - 0" painted H.M. door and frame.
14. Existing scupper to remain. Flash into new roofing.
15. 2 x 10 @ 16" o.c.
16. 2 x 10 blocking.
17. 2 x 10 ledger.
18. 1/2" diameter thru-bolt @ 16" o.c. with 2 " diameter x 1/8" thick steel washer each side.
19. 1/2" diameter A.B. at 16" o.c. into grouted cells.
20. 3-ply gravel surfaced built-up roof on 3/4" perlite board over 1/2" C.D.X. plywood.
21. Bond beam with #4 bar horizontal continuous.
22. 12" x 18" precast concrete splashblock.
23. 4" x 8" "leave out" in wall.
24. 4" concrete slab with W1.4 x w1.4 WWF and chemical hardener admixture. Slope to drain 1/8"/ft. Smooth trowel finish. Apply concrete sealer after curing.
25. #3 bar horizontal continuous
26. 1/2" expansion joint
27. (2) #4 bars @ 32" o.c. Dowel into existing footing min. 4"
28. Floor drain.
29. Relocate existing shrubs as shown and modify irrigation system to accommodate new building. Slope finish grade away from building to drainage channel.
30. Sawcut and remove concrete to install new piping. Replace with 3000 psi concrete over compacted sub grade.
31. After modifications, replaster wading pool. **(CLASS I)**
32. Remove ceramic tile as required for installation of skimmers and inlets. Replace with tile to match existing.
33. Trim back existing tree branches as required.
34. Existing trees, benches, planters to remain. Protect during demolition and build back.
35. relocated shrubs Re-route irrigation system to provide coverage.
36. Existing building beyond.
37. Rake joints 1/2". (Match detail of existing building)
38. 12" x 18" painted steel louver panel.
39. Relocated gas meter.
40. Backwash pit. Refer to mechanical for detail.
41. 4" fiber cant strip.
42. 24 ga. galvanized metal flashing. Affix to wall @ 16" o.c.
43. Sealant.
44. 3/8" Neopreme expansion filler.
45. 5/8" Type "x" gypsum board. Tape, texture, and paint.
46. Line of footing.
47. "J" bead.
48. Sawcut end web and grout full w/ anchor bolt in place. Typical at 32" o.c. (east wall only)
49. (Not Used)
50. #3 dowel @ 32" o.c.
51. #4 bar horizontal continuous. Lap at corners min. 18".
52. Joist hangers. Simpson LUP-210 or equal.
53. Set threshold in bed of sealant.
54. Existing concrete deck. Protect during demolition and buildback.
55. Install 2" o.d. removeable stainless steel handrail. (Richardson Industries or equal.)

DOOR HARDWARE

Single 3'-0"x7'-0"

Lockset: Yale 8705 mortise
Butts: Soss 1-1/2 pr. Full mortise w/n.r. pins
Threshold: Trimco 1502 A5

Pair 3'-0"x 7'-0"

Lockset: Yale 8705 mortise
Butts: Soss 3 pr. Full mortise w/n.r. pins
Threshold: Trimco 1502 A5
Flushbolts: Trimco 3915 x 2

All finishes US32D (Satin stainless)

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Montgomery Wading Pool Renov.
Parks & Recreation Dept.
City of Albuquerque

Plans and Details

STATE OF NEW MEXICO — DALE R. DEKKER — REGISTERED ARCHITECT

job no. 90003.09
drn. by TSS
ckd. by MVY
issued 12/21/90

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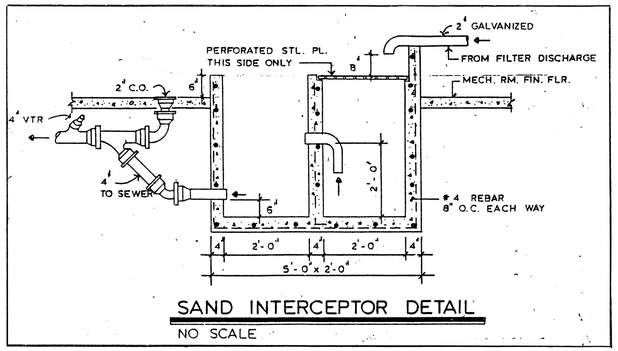
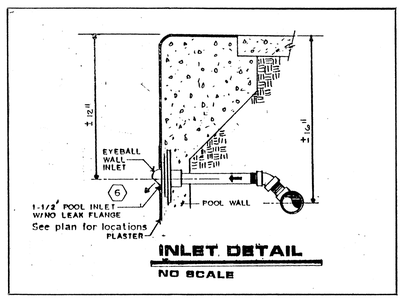
EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION
(1)	BOILER: NATURAL GAS FIRED, AGA APPROVED WITH 100% SAFETY CUT-OFF AND ORIFICED FOR OPERATION AT 5500 FT. ELEVATION. PROVIDE COMPLETE WITH CONTROL MODULE, ON-OFF SWITCH, TEMPERATURE DIAL, STAINLESS STEEL BURNERS, INSULATED COMBUSTION CHAMBER, GLASS-LINED HEADERS, GALVANIZED JACKET, RELIEF VALVE AND RATED FOR 75 PSI WORKING PRESSURE. 500,000 BTUH SEA LEVEL INPUT, 400,000 BTUH OUTPUT. TELEDYNE LAARS MODEL AP-500 OR APPROVED EQUAL.
(2)	SAND FILTERS: 2-PIECE FIBERGLASS TANK, 30" DIAMETER WITH DRAIN. PVC PIPE CONNECTIONS. 6 POSITION MULTIPORT VALVE. MANUAL EXTERNAL AIR RELIEF VALVE, 0-60 PSI PRESSURE GAUGE. .45-.55 MM QUARTZ SILICA SAND WITH FLOW RATE OF 15-20 GPM PER SQ.FT. FILTER AREA. PROVIDE WITH SIGHT GLASS AND VALVE CONNECTOR AND 500 LBS. OF SILICA SAND. SWIM QUIP MODEL HRP-30 OR APPROVED EQUAL.
(3)	PUMP: CAST IRON PUMP BODY WITH BRONZE IMPELLER AND WEAR RING. PROVIDE WITH HAIR AND LINT STRAINER. 100 GPM AT 70 FT. HEAD. 3 H.P. 230V-1PH STA-RITE MODEL CCMH1 OR APPROVED EQUAL.
(4)	CHLORINATOR: PROVIDE COMPLETE WITH CHLORINE CONTROL VALVE, CHLORINATOR VALVE, FLOW INDICATOR AND CHECK VALVE. RAINBOW LIFEGUARD MODEL 310 IN-LINE OR APPROVED EQUAL.
(5)	SKIMMERS: INTEGRAL WEIR STOP, COVER PLATE OF HIGH IMPACT PLASTIC, REMOVABLE STRAINER BASKET, REMOVABLE FLOAT VALVE ASSEMBLY AND TRIMMER VALVE PLATE. STA-RITE MODEL U-3 OR APPROVED EQUAL.
(6)	INLETS: VARIABLE ORIFICE "EYEBALL" TYPE WITH CYCOLAC BODY, DIRECTIONAL BALL NOZZLE, SOLVENT WELD CONNECTION, WINTERIZING PLUG. STA-RITE MODEL 8429 1-1/2" OR APPROVED EQUAL.
(7)	DRAIN: ABS PLASTIC BODY, 2" SIDE OUTLET, 8" DIAMETER ANTI-VORTEX PLATE, MIN. 8.7 SQ.IN. OPEN AREA. STA-RITE MODEL 7017-0093 OR APPROVED EQUAL.



SAND INTERCEPTOR DETAIL
NO SCALE



INLET DETAIL
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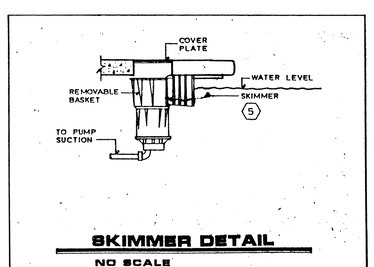

SKIMMER DETAIL
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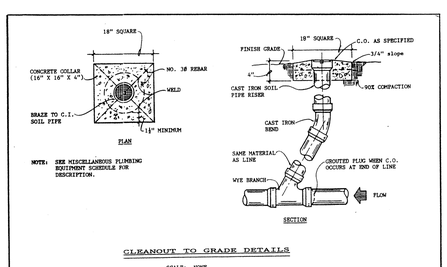
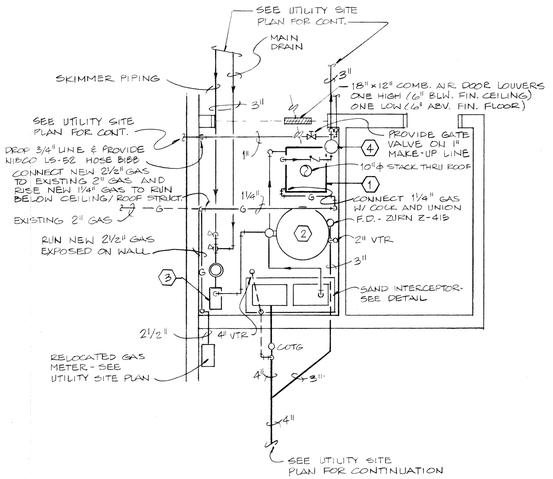
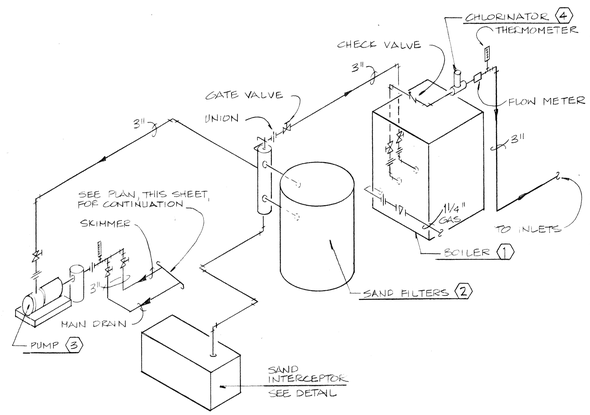


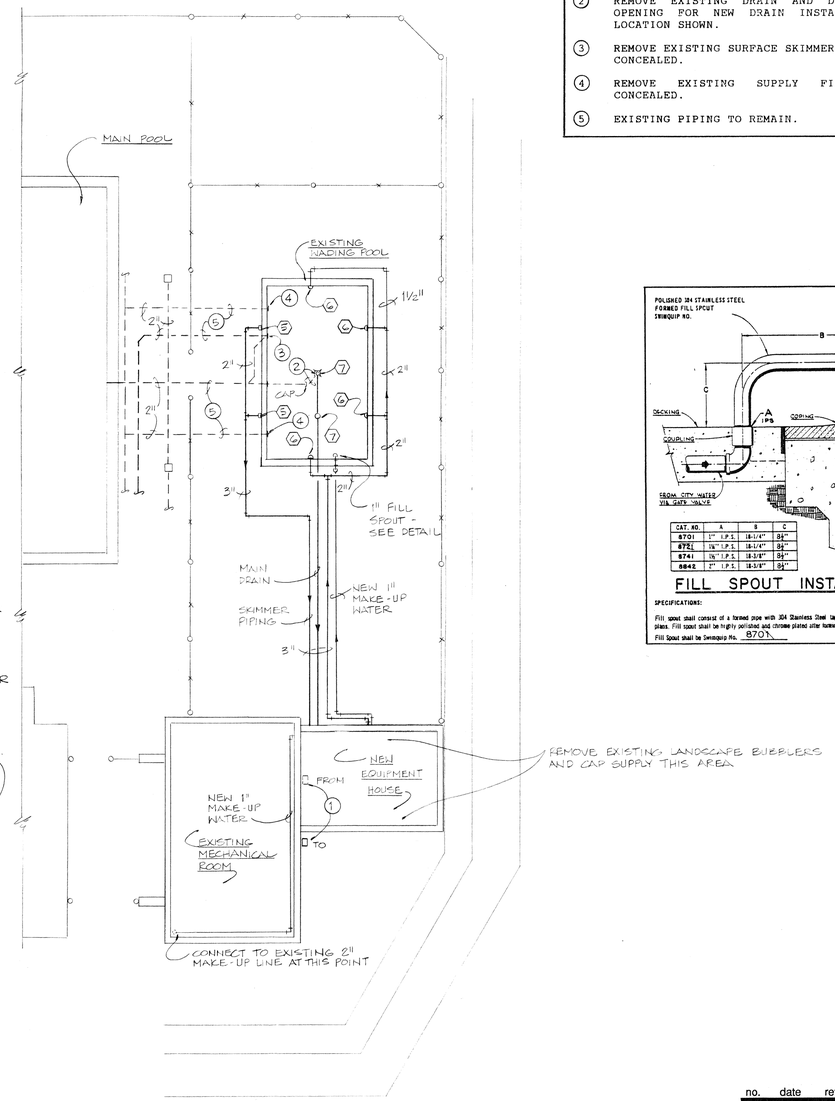
CLEANOUT TO GRADE DETAILS
SCALE: NONE



ENLARGED EQUIPMENT BUILDING PLAN
SCALE: 1/4"=1'-0"



POOL EQUIPMENT PIPING ISOMETRIC
NO SCALE



SITE UTILITY PLAN
SCALE: 1/8"=1'-0"

KEYED NOTES:

1. VERIFY CAPACITY OF EXISTING GAS METER - NEW TOTAL CONNECTED LOAD = 1715 CFH. RELOCATE EXISTING GAS METER IF POSSIBLE. PROVIDE NEW METER AND GPR IF NECESSARY. WORK SHALL BE DONE UNDER THIS CONTRACT BY THE GAS COMPANY OF NEW MEXICO.
2. REMOVE EXISTING DRAIN AND DRAIN PIPING. RETAIN DRAIN OPENING FOR NEW DRAIN INSTALLATION. CAP DRAIN LINE AT LOCATION SHOWN.
3. REMOVE EXISTING SURFACE SKIMMER FITTING AND CAP DRAIN LINE CONCEALED.
4. REMOVE EXISTING SUPPLY FITTING AND CAP SUPPLY LINE CONCEALED.
5. EXISTING PIPING TO REMAIN.

CAT. NO.	A	B	C
8701	1" I.P.S.	18-1/4"	24"
8721	1¼" I.P.S.	18-1/4"	24"
8741	1½" I.P.S.	18-3/8"	24"
8842	2" I.P.S.	18-3/8"	24"

FILL SPOUT INSTALLATION

SPECIFICATIONS:
Fill spout shall consist of a formed pipe with 304 Stainless Steel tapered male N.P.T. connection as shown in the plans. Fill spout shall be highly polished and chrome plated after forming.
Fill Spout shall be Swimquip No. 870X

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Montgomery Wading Pool Renov.

Parks & Recreation Dept.
City of Albuquerque

Mechanical Plan

RAUL PARRA NEW MEXICO 7108 REGISTERED PROFESSIONAL ENGINEER

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drn. by	
ckd. by	
issued	12/21/90

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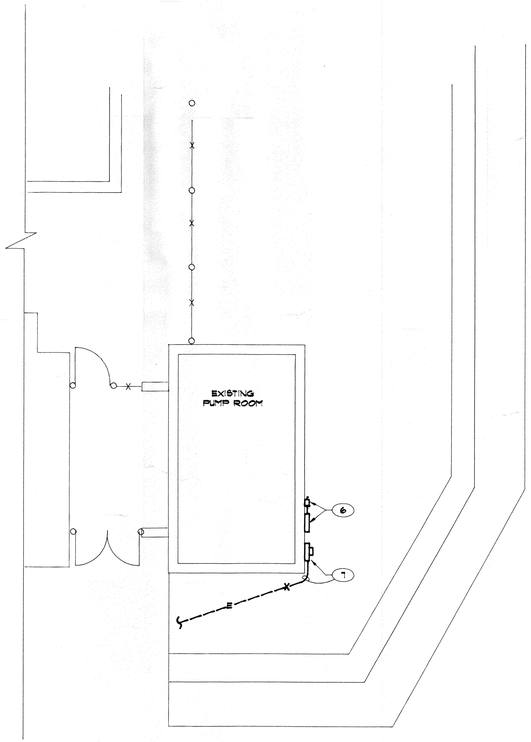
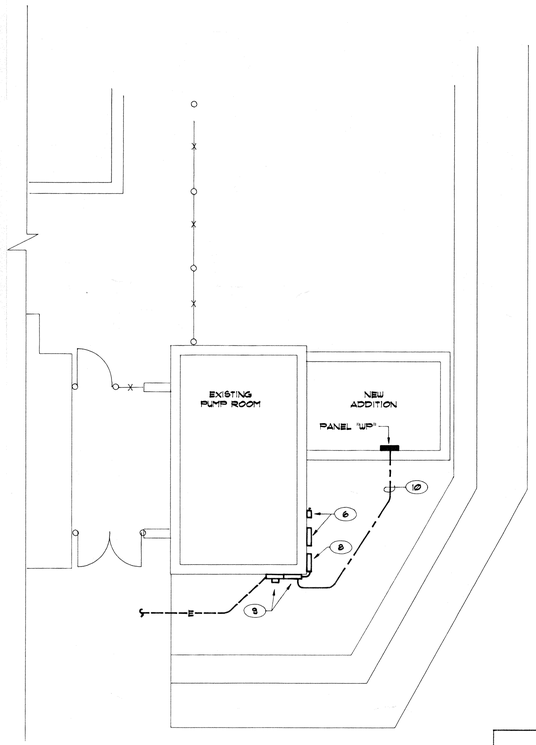


SITE ELECTRICAL PLAN – REMOVALS
1/8"=1'-0"



SITE ELECTRICAL PLAN – NEW WORK
1/8"=1'-0"

SPECIFICATIONS

A. REQUIREMENTS: FURNISH ALL LABOR, MATERIALS, SERVICE EQUIPMENT AND APPLIANCES REQUIRED TO COMPLETE THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CONTRACT DRAWINGS.

B. REGULATORY AGENCIES AND STANDARDS: INSTALLATION, MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF THE NATIONAL ELECTRIC CODE (NEC), THE NATIONAL ELECTRIC SAFETY CODE (NESC), AND THE TERMS AND CONDITIONS OF THE ELECTRIC UTILITY AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION PERTAINING TO THE WORK REQUIRED. ALL MATERIALS, APPLICANCES, EQUIPMENT OR DEVICES SHALL CONFORM TO APPLICABLE STANDARDS OF UNDERWRITER'S LABORATORIES, INC. (U.L.)

C. MATERIALS: ALL MATERIALS AND EQUIPMENT SHALL BE THE PRODUCT OF THE SAME MANUFACTURER AND SHALL BE NEW.

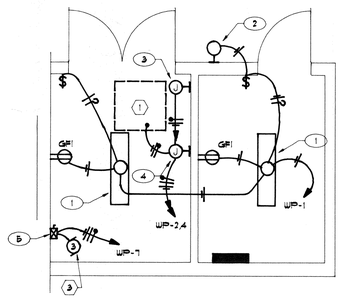
D. EXECUTION: FABRICATION, ERECTION, AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER BY QUALIFIED PERSONNEL EXPERIENCED IN SUCH WORK AND SHALL PROCEED IN AN ORDERLY MANNER SO AS NOT TO HOLD UP THE PROGRESS OF THE PROJECT.

KEYED NOTES

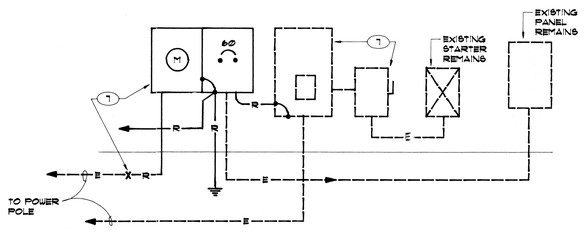
1. 4', 2 LAMPS FLUORESCENT UTILITY STRIP FIXTURE, 120 VOLT WITH WIREGUARD. FURNISH WITH 2-F40/CW/RS/WM LAMPS.
2. FAIL SAFE #HVV-505-120-9205 AND 50 WATT/HPS LAMP. MOUNT ON WALL UP +10' - 0". FURNISH FIXTURE WITH PHOTOELECTRIC DUSK TO DAWN CONTROL.
3. J-BOX FOR CONNECTION TO CHLORINATOR. VERIFY EXACT REQUIREMENTS.
4. J-BOX FOR CONNECTION TO BOILER. CONNECT ALL CONTROLS PER MANUFACTURES RECOMMENDATIONS.
5. COMBINATION DISCONNECT/STARTER, 30 AMP, 2 POLE, +SN, 250 VOLT, FUSIBLE, NEMA SIZE 1, 120 VOLT COIL, NEMA 1 ENCLOSURE, WITH H-O-A SWITCH IN COVER FUSE AT 125% MOTOR FLA WITH BUSS FUSETRONS.
6. EXISTING THREE PHASE METER AND DISCONNECT SWITCH TO REMAIN.
7. REMOVE EXISTING SINGLE PHASE METER ENCLOSURE/MAIN CIRCUIT BREAKER. INTERCEPT EXISTING 2"C., WITH 3 #2 AT POINT INDICATED AND EXTEND NEW CONDUIT WITH EXISTING CONDUCTORS INTO NEW METER ENCLOSURE PER KEYED NOTE #9.
8. INSTALL 12" X 12" X 4" NEMA 3R J-BOX WITH LOCKABLE CLASP ON EXISTING 2"C. EXTEND NEW 2"C., 3 #2 THHN +1 #8 FROM NEW MOTOR AND SPLICE NEW AND EXISTING CONDUCTORS.
9. NEW 100 AMP, 2P + SN, 250 VOLT COMBINATION METER AND 4 CIRCUIT PANEL. PER PNM DRAWING #DS-19-11.3. PROVIDE 2-60 AMP, 2 POLE CIRCUIT BREAKERS ONE (1) FOR THE EXISTING PANEL AND ONE (1) FOR NEW PANEL "WP".
10. 1 1/4"C. 3 #6 THHN +1 #8 GROUND.
11. 1/2"C., 1 #6 BSD GROUND TO GROUND ROD AND MAIN COLD WATER PIPE PER NEC ART. #250. EXTEND 1/2"C., 1 #6 BSD TO THREE PHASE SERVICE AND BOND AS REQUIRED.

PANEL SCHEDULE

PANEL DESCRIPTION	CCT.NO.	CCT.BKR.	WIRE SIZE	LOAD
PANEL "WP",120/240 VOLT 1ø, 3W, 100 AMP, M.L.O., SURFACE MOUNT.	1-6	20/1	#12	LIGHTS, RECEPT, SPARES
	7	40/2	#10	PUMP (3)
	8,10,11, 12	1P	---	SPACE ONLY

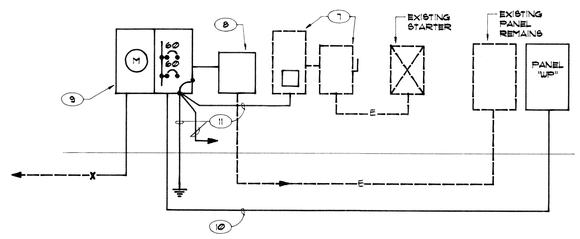


ELECTRICAL PLAN
1/4"=1'-0"



POWER RISER DIAGRAM – DEMOLITION
NTS

NOTE: DASHED CONDUITS AND EQUIPMENT ARE EXISTING TO REMAIN UNLESS OTHERWISE INDICATED



POWER RISER DIAGRAM – NEW WORK
NTS

NOTE: DASHED CONDUITS AND EQUIPMENT ARE EXISTING

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Montgomery Wading Pool Renov.
Parks & Recreation Dept.
City of Albuquerque

Electrical Plan

12-19-90

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sheet E-1
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