02780	UNIT PAVERS
02780.A5	Concrete Pavers
02821	CHAIN-LINK FENCES AND GATES
02821.A1	Chain-Link Fence
02821.B1	Single Swing Gate
02821.B2	Double Swing Gate
02821.B5	Single Horizontal Slide Gate
03300	CAST-IN-PLACE CONCRETE
03300.A1	Concrete Slab-on-Grade
03300.A5	Concrete Slab
03300.D1	Concrete Footing
03300.E2	Concrete Wall
03300.F1	Concrete Curb
03300.F2	Concrete Equipment Base
03300.H1	Reinforcing Bars
04720	CAST STONE
04720.A9	Cast stone monument
04810	UNIT MASONRY ASSEMBLIES
04810.A1	Concrete Masonry Unit
04810.E1	Face Brick
04901	CLAY MASONRY RESTORATION AND CLEANING
04901.A1	Face Brick
04901.E1	Clean Brickwork
04901.F1	Remove Paint
04901.H1	Repoint Masonry
04901.H2	Repoint Brick
05521	PIPE AND TUBE RAILINGS
05521.A2	Aluminum Tube Railing
05521.B2	Stainless-Steel Tube Railing
07210	BUILDING INSULATION
07210.A1	Extruded-Polystyrene Board Insulation:
09220	PORTLAND CEMENT PLASTER
09220.A1	Portland Cement Plaster
09260	GYPSUM BOARD ASSEMBLIES
09260.B1	Steel Studs
09511	ACOUSTICAL PANEL CEILINGS
09511.A1	Suspended Acoustical Panel Ceiling System
09511.A2	Suspended Gypsum Based Panel Ceiling System
09545	METAL CEILINGS
09545.A1	Suspended Metal Ceiling System
09651	RESILIENT TILE FLOORING
09651.A5	Vinyl Composition Tile
09651.B1	Wall Base
09651.C1	Stair Tread
09651.C3	Stair Stringer
09651.E1	Cap for cove carpet
09651.E7	Reducer strip for resilient flooring
09651.E8	Tile and carpet joiner
09671	RESINOUS FLOORING
09671.A1	Resinous Flooring
09680	CARPET
09680.A1	Carpet - CPT-1
09912	PAINTING
09912.A4	Paint, Low-Luster Acrylic-Enamel Finish
09912.A5	Paint, Semigloss Acrylic-Enamel Finish
09912.C1	Textured Coating
09912.D1	Epoxy Emulsion Coating
10350	FLAGPOLES
10350.A1	Aluminum flagpoles.
10505	METAL LOCKERS
10505.B3	Athletic Lockers, Double tier.
10505.C1	Locker benches.
10520	FIRE-PROTECTION SPECIALTIES
10520.A1	Portable Fire Extinguishers
10520.K1	Fire Extinguisher Cabinet
10670	EDUCATIONAL SPECIALTIES
10670.D2	Ceiling Mount TV Bracket
10801	TOILET AND BATH ACCESSORIES
10801.A1	Toilet Tissue (Roll) Dispenser
10801.E2	Liquid-Soap Dispenser
10801.F1	Grab Bar
10801.G6	Sanitary Napkin Disposal Unit, Recessed
10801.G7	Sanitary Napkin Disposal Unit, Partition-Mounted, Dual-Access
10801.J1	Mirror Unit
10801.N7	Warm-Air Dryer, Surface mounted, Electronic-sensor Operation
10801.P2	Diaper-Changing Station, surface mounted
10801.O1	Underlavatory Guard
10801.R2	Mop and Broom Holder with Utility Shelf
13110	SWIMMING POOLS
13110.A2	Pool Interior Finish
13110.D2	Recessed Lane Line & Rope Anchors
13110.E4	Main Drain Box
13110.L1	Lifeguard Chairs
13110.L2	S.S. Ladder
13110.M1	Splash Pad Water Feature

0.000	DEMOLITION
0.014	remove existing railings and curbs, typical
0.015	remove existing pool depth markers, typical
0.016	remove existing lifeguard stands, typical
0.017	remove existing flagpole
0.018	remove existing drain to slab level
0.019	remove existing ballister
0.021	fill existing trench to match existing floor
0.022	remove existing light fixture
0.031	remove curb to exist pool deck level
0.032	line of pool deck slab above
0.034	remove existing concrete sidewalk, typical
0.035	remove existing curb to slab level
0.036	patch cracks and imperfections on underside existing pool deck slab
0.043	remove existing masonry as required for new opening
0.044	remove existing concrete louver
0.046	remove mortar from perimeter joints
0.052	remove existing downspout and scupper
0.053	remove existing steel plate
0.054	remove existing handrail
0.074	remove existing expansion joint sealant, typical
0.081	remove existing door and frame
0.094	remove existing raised floor
0.121	existing curbing, sandblast and epoxy coat, paint to match new
0.122	top of existing concrete curb
0.131	existing concrete slab to remain
0.132	existing concrete poles to remain
0.133	existing trench to remain
0.134	existing concrete pair to remain
0.135	existing pool deck slab to remain
0.137	existing concrete railing to remain
0.138	existing precast parapet cap
0.139	existing ballusters to remain
0.141	existing masonry to remain
0.141	existing masonry to remain
0.141	existing masonry to remain
0.143	existing brick wall
0.203	remove existing curb
0.208	remove existing sign
0.213	remove existing chain link fence
0.284	existing fence to remain
0.353	existing concrete structure to remain
0.704	remove existing light fixture and metal pole
0.758	existing concrete light pole to remain
1.000	ARCHITECTURAL
1.012	wall
1.027	exposed structure
1.031	pool depth markers
1.032	roof drain
1.033	extend flashing beyond clamping ring
1.034	2 x 12 roof joist
1.035	extend field piles 6" min. above head of cant
1.036	seal top of flashing with a 3-course of vertical grade roof cement and reinforcement fabric
1.063	expansion joint
1.078	entire pool deck to be pavers
1.106	refrigerator (n.i.c.)
2.000	SITEWORK
2.013	concrete sidewalk
2.021	tooled edge
2.057	concrete apron
2.102	tooled control joint
2.104	expansion joint material
2.157	repair existing gap in fence
4.000	PLUMBING
4.061	roof drain
4.205	mop sink (floor mounted)
4.255	prefabricated shower
4.301	electric water cooler
4.354	water fountain
7.000	ELECTRICAL
7.121	pole light fixture
7.123	globe light fixture

A1 KEYNOTE LEGEND

DRAWING IDENTIFICATION

A9 | FLOOR PLAN - First Floor | 1/8" = 1'-0"

DRAWING NUMBER
DRAWING NAME
DRAWING SCALE

NORTH ARROW

North True North

TRUE NORTH AND REFERENCE NORTH

SECTION CUT INDICATION

2 A602

VIEW DIRECTION
DRAWING NUMBER
SHEET NUMBER WHERE THE DRAWING IS LOCATED

ELEVATION INDICATION

24 A602

VIEW DIRECTION
DRAWING NUMBER
SHEET NUMBER WHERE THE DRAWING IS LOCATED

SECTION / ELEVATION INDICATION

2 A602

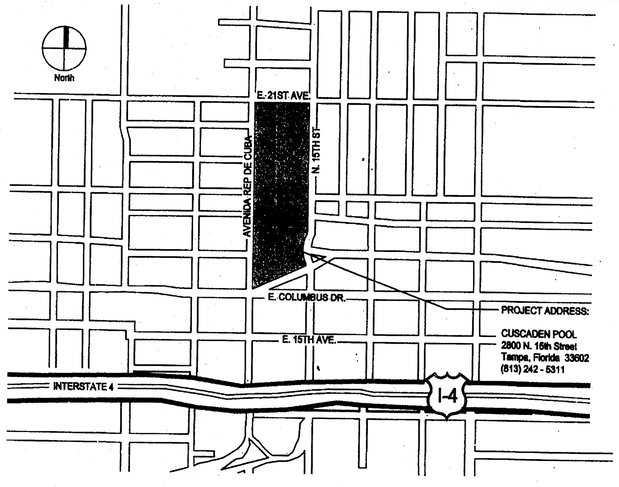
DRAWING TAGS

09550.B1	KEYNOTE
0.041	GENERAL NOTE
X	FF&E EQUIPMENT
X W1 SF1	WINDOW / STOREFRONT SYMBOL
132	DOOR SYMBOL
X	REVISION SYMBOL
X	PARTITION TAG

ROOM INFORMATION KEY

ROOM NUMBER — 101 | CLASSROOM — ROOM NAME
10'-0" — CEILING HEIGHT
A/A/A/A — FINISHES (FLOOR/BASE/WALL/CEILING)
100(100) — ACTUAL SQUARE FOOTAGE / PROGRAMMED SQUARE FOOTAGE

F8 ARCHITECTURAL DRAWING SYMBOLS



A8 VICINITY MAP

NO SCALE

COVER

GENERAL INFORMATION
G100 GENERAL INFORMATION SHEET

CIVIL
C1 GENERAL NOTES & SPECIFICATIONS
C2 SITE PLAN
SHT 1 OF 1 C3 PAVING, GRADING & DRAINAGE PLAN — NETTLES WILLARD AS-BUILT SURVEY
C4 UTILITY PLAN
C5 CIVIL DETAILS
C6 UTILITY DETAILS

LANDSCAPE
L1 LANDSCAPE PLAN
~~L2 LANDSCAPE SCHEDULES & DETAILS~~
~~L3 LANDSCAPE SPECIFICATIONS~~
L2 ~~L4~~ IRRIGATION PLAN / SUNRISE SHEET INDEX
L3 ~~L5~~ IRRIGATION SCHEDULES & DETAILS
~~L6 IRRIGATION SPECIFICATIONS~~

STRUCTURAL
S101 FOUNDATION PLAN
S201 TOP DECK PLAN
S301 FRAMING PLAN AND TOP DECK PLAN
S401 TYPICAL DETAILS, GENERAL NOTES, AND SECTIONS
S501 WALL ELEVATIONS/DETAILS
S502 WALL ELEVATION

ARCHITECTURAL
D101 DEMO PLAN - FIRST FLOOR
D102 DEMO PLAN - SECOND FLOOR POOL DECK
A100 SITE PLAN
A101 FLOOR PLAN - First Floor
A101.1 DIMENSION FLOOR PLAN - First Floor
A102.1 A102 FLOOR PLAN - Second Floor Pool Deck — DIM. FL. PLAN - 2ND FL.
A103 ROOF PLAN
A201 ELEVATIONS - East & West
A202 ELEVATIONS - North & South
A301 BUILDING SECTIONS
A302 SECTIONS
A303 SECTIONS
~~A401 DETAILS~~
A501 ENLARGED PLANS
A502 ENLARGED SPLASH PAD PLAN, SECTIONS, AND DETAILS
A503 A501 REFLECTED CEILING PLANS — ENLARGED PLANS & DETAILS
A601 WINDOW & DOOR LOUVER DETAILS

SPECIAL CONSTRUCTION — DSH PERMIT PLANS (13 SHEETS)
Q101 PLUMBING LAYOUT
Q103 Q301 POOL SECTIONS — DETAILS
Q401 HEADPIECE SECTION AND DETAILS
Q402 POOL DETAILS
Q701 ENLARGED POOL EQUIPMENT ROOM PLANS
Q702 PLUMBING LAYOUT FOR SPLASH PAD
Q703 — DETAILS

CODE COMPLIANCE
CC101 CODE COMPLIANCE PLAN - First Floor
CC102 CODE COMPLIANCE PLAN - Pool Deck

MECHANICAL
M001 LEGEND
M201 FIRST FLOOR
M202 SECOND FLOOR POOL DECK
M301 DETAILS
M302 DETAILS
M401 SCHEDULES
M501 CONTROLS

ELECTRICAL
E001 LEGEND
E101 SITE PLAN
E201 FIRST FLOOR LIGHTING
E202 SECOND FLOOR POOL DECK LIGHTING
E301 FIRST FLOOR POWER PLAN
SHTS (1 OF 3) E302 SECOND FLOOR POOL DECK POWER PLAN — SAI / FIRE ALARM
or 2 OF 3 E401 FIRST FLOOR ELECTRIC SYSTEMS
or 3 OF 3 E402 SECOND FLOOR POOL DECK ELECTRIC SYSTEMS
E501 DETAILS
E601 SINGLE LINE DIAGRAM & PANEL SCHEDULES
E701 PANEL SCHEDULES

PLUMBING
P001 LEGEND
P200 UNDERGROUND PLAN
P201 FIRST FLOOR
P202 SECOND FLOOR POOL DECK
P301 ENLARGED PLANS
P401 RISERS
P501 DETAILS
P601 FIXTURE SCHEDULE

A13 DRAWING INDEX

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

GENERAL INFORMATION SHEET

RECORD DWG.
DATE 8/26/05

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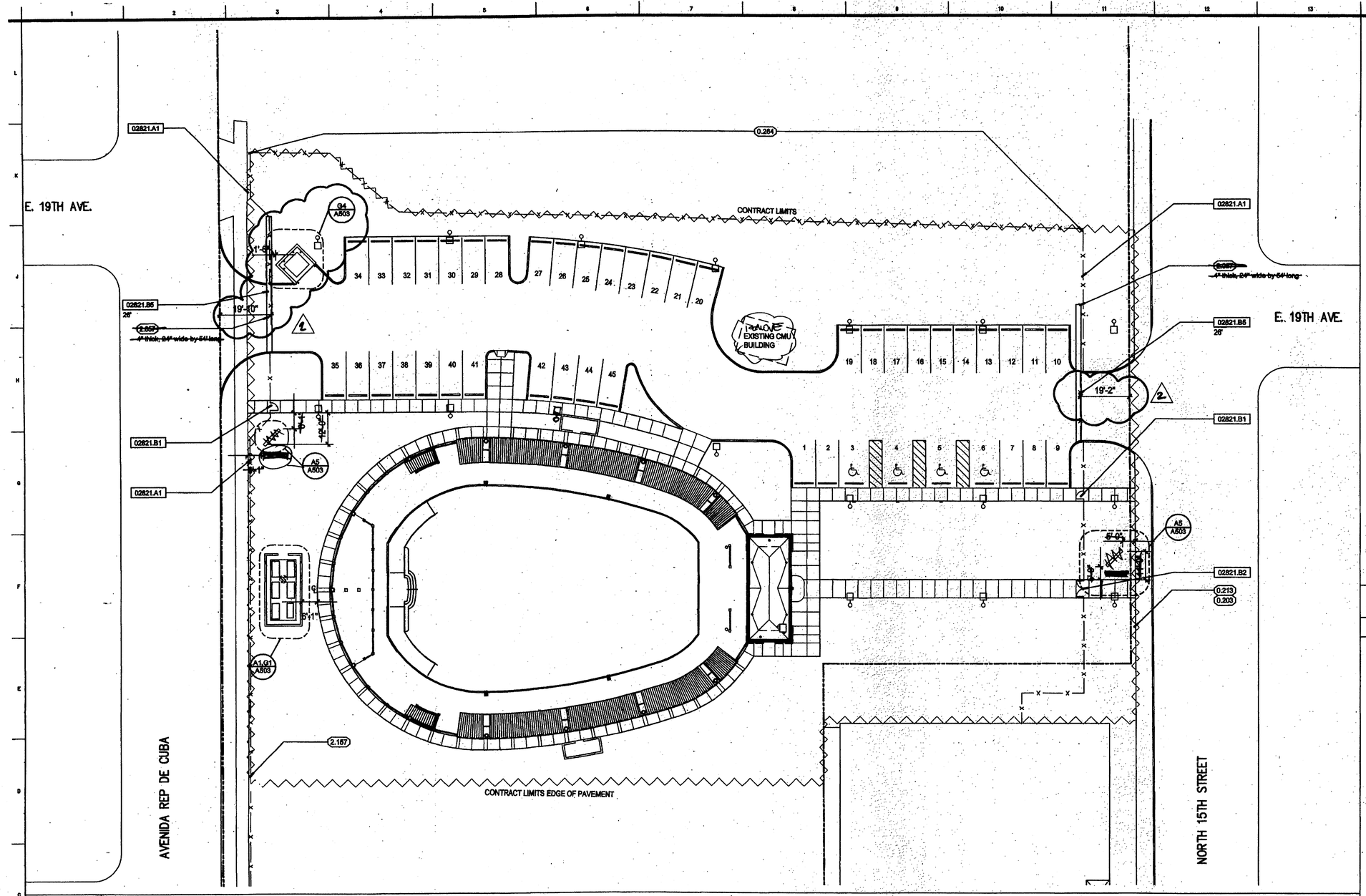
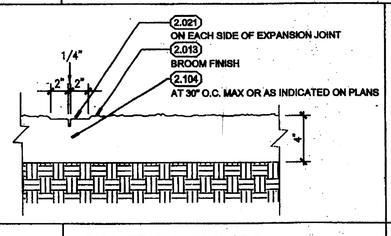


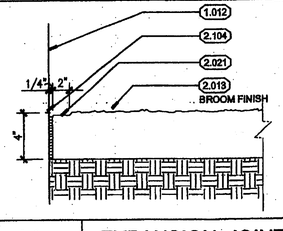
C1 | SITE PLAN

1" = 20'-0"



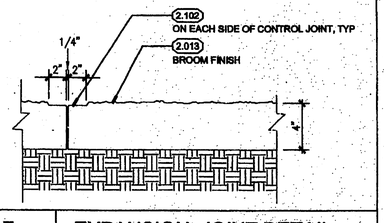
A1 | CONTROL JOINT DETAIL

1 1/2" = 1'-0"



A4 | EXPANSION JOINT DETAIL

1 1/2" = 1'-0"



A7 | EXPANSION JOINT DETAIL

1 1/2" = 1'-0"

KEYNOTES

02821	CHAIN-LINK FENCES AND GATES
02821.A1	Chain-Link Fence
02821.B1	Single Swing Gate
02821.B2	Double Swing Gate
02821.B5	Single Horizontal Slide Gate

GENERAL NOTES

0.000	DEMOLITION
0.203	remove existing curb
0.213	remove existing chain link fence
0.264	existing fence to remain
1.000	ARCHITECTURAL
1.012	wall
2.000	SITEWORK
2.013	concrete sidewalk
2.021	tooled edge
2.057	concrete apron
2.102	tooled control joint
2.104	expansion joint material
2.157	repair existing gap in fence

F14 | KEYNOTES

A14 | LEGENDS / NOTES

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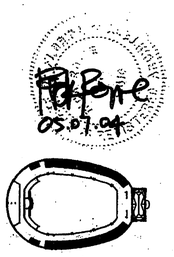

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CITY OF TAMPA
306 East Jackson Street
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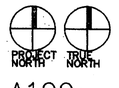
Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
REVISION 2	05.07.04

SITE PLAN

RECORD DWG.
DATE 8/26/05



A100

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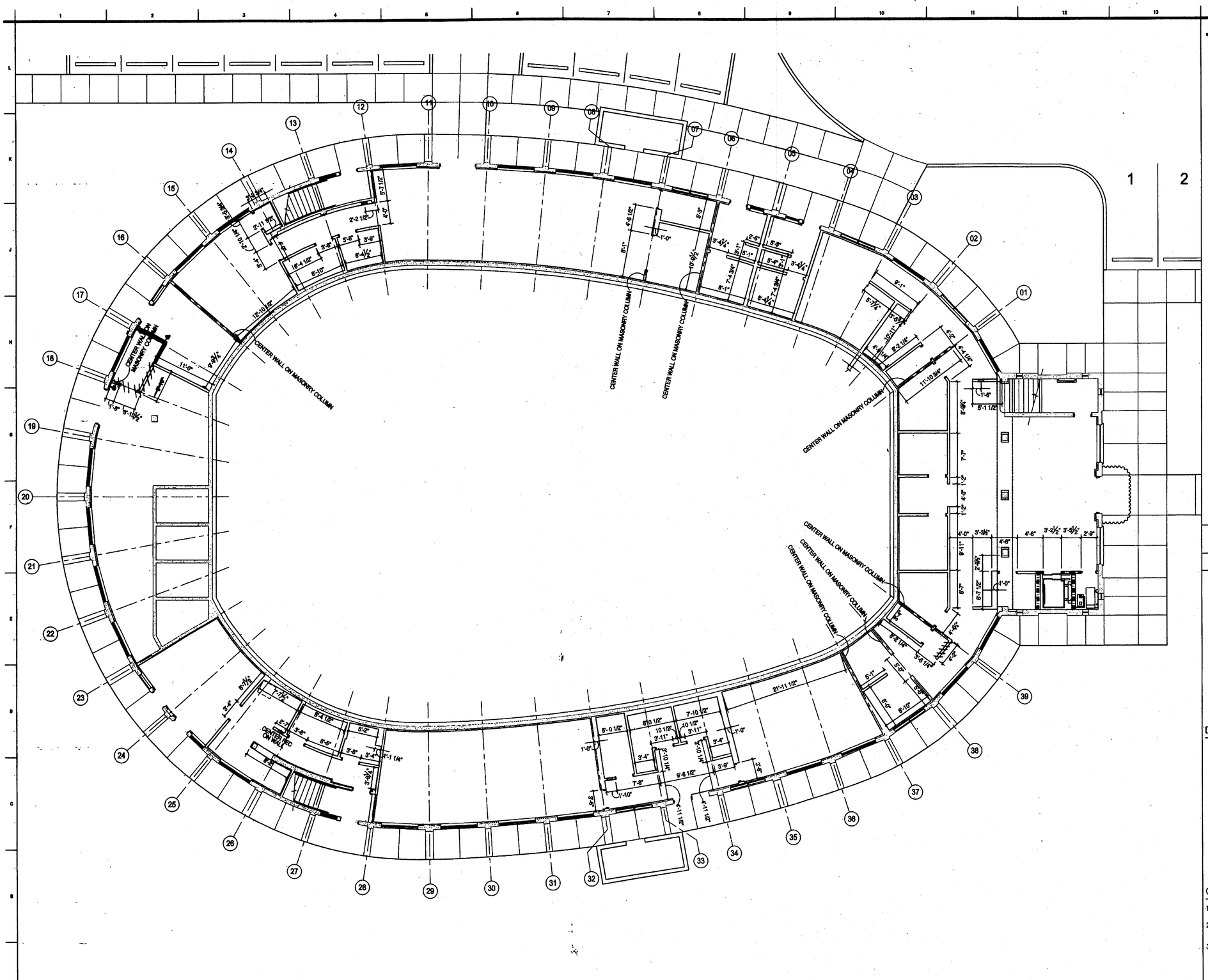

INSTANCES OF ALL NOTES ARE TYPICAL

F14	KEYNOTES

DIMENSION PLAN LEGEND

- MASONRY WALL PARTITION
- MTL STUD PARTITION
- EXISTING MASONRY WALL TO REMAIN
- CONSTRUCTION ABOVE OR BELOW

GENERAL NOTES

1. Refer to Architectural Floor Plans for locations of all new openings.
2. Dimensions of new partitions are to the finished face unless noted otherwise.
3. All elevation indications reference control point 0'-0".

A14	LEGEND / NOTES

A1	DIMENSION FLOOR PLAN - First Floor
1/8"=1'-0"	

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

DIMENSION FLOOR PLAN
First Floor

RECORD DWG.
DATE 8/26/05

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

0 4' 8' 20'

PROJECT NORTH
TRUE NORTH

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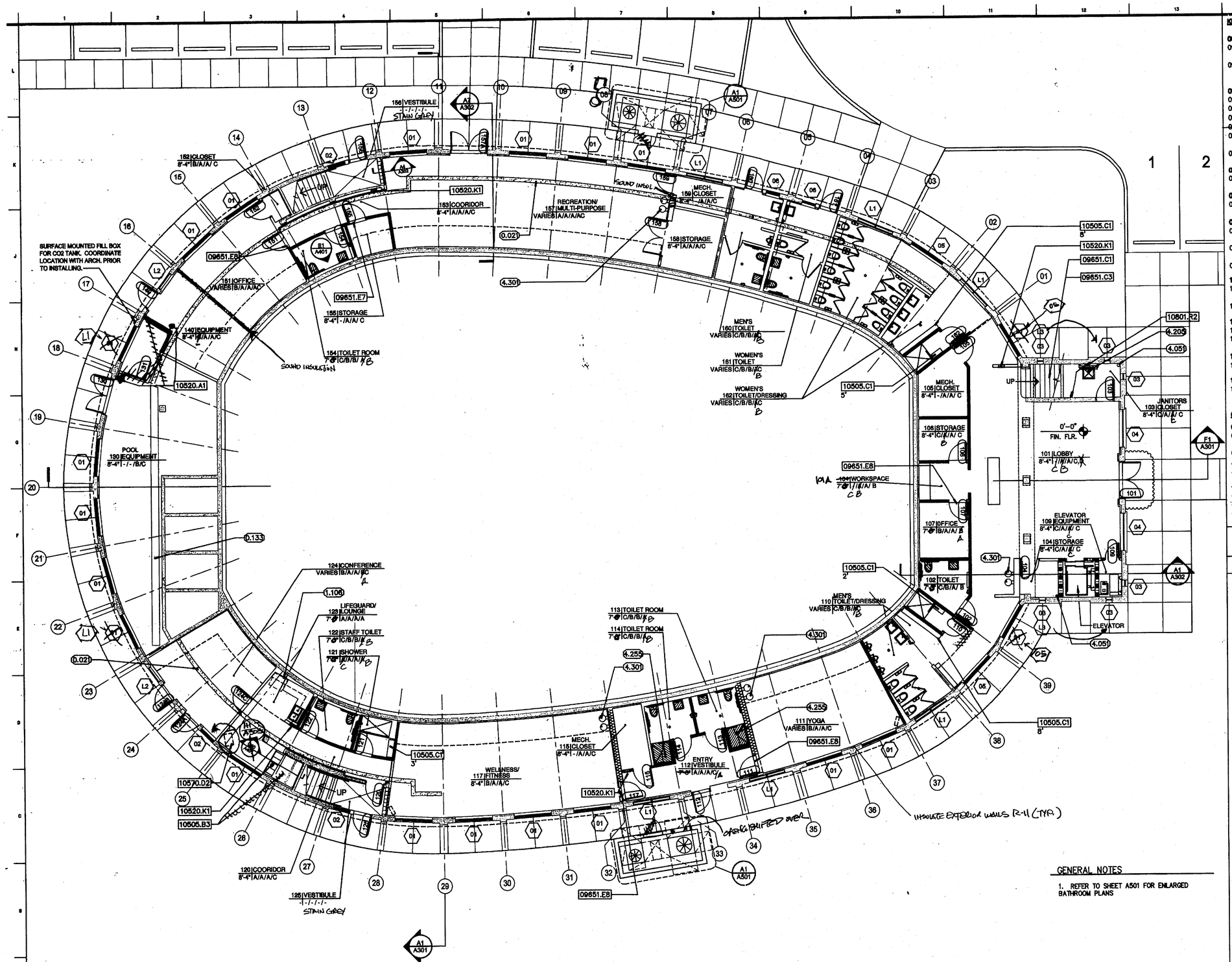
A101.1



GENERAL NOTES

1. REFER TO SHEET A501 FOR ENLARGED BATHROOM PLANS

KEYNOTES

09511	**ACOUSTICAL PANEL CEILINGS**
09511.A1	Suspended Acoustical Panel Ceiling System
09511.A2	Suspended Gypsum Based Panel Ceiling System
09651	**RESILIENT TILE FLOORING**
09651.B1	Wall Base
09651.C1	Stair Tread
09651.C3	Stair Stringer
~~09651.E1~~	~~Cap for cove carpet~~
09651.E7	Reducer strip for resilient flooring
09651.E8	Tile and carpet joiner
09671	**RESINOUS FLOORING**
09671.A1	Resinous Flooring
09680	**CARPET**
09680.A1	Carpet – CPT–1
09912	**PAINTING**
09912.A4	Paint, Low–Luster Acrylic–Enamel Finish.
09912.A5	Paint, Semigloss Acrylic–Enamel Finish
09912.D1	Epoxy Emulsion Coating
10505	**METAL LOCKERS**
10505.B3	Athletic Lockers, Double tier.
10505.C1	Locker benches.
10520	**FIRE–PROTECTION SPECIALTIES**
10520.A1	Portable Fire Extinguishers
10520.K1	Fire Extinguisher Cabinet
10570	**EDUCATIONAL SPECIALTIES**
10570.D2	Ceiling Mount TV Bracket
10801	**TOILET AND BATH ACCESSORIES**
10801.R2	Mop and Broom Holder with Utility Shelf

GENERAL NOTES

0.000	**DEMOLITION**
0.021	fill existing trench to match existing floor
0.133	existing trench to remain
1.000	**ARCHITECTURAL**
1.106	refrigerator (n.i.c.)
4.000	**PLUMBING**
4.051	roof drain
4.205	mop sink (floor mounted)
4.255	prefabricated shower
4.301	electric water cooler

F14 KEYNOTES

ROOM FINISH LEGEND

Floor		
A	09651.E1	VCT
B	09680.A1	Carpet
C	09671.A1	Resinous Flooring
Base		
A	09651.B1	Resilient Wall Base
B	09671.A1	Resinous Flooring
Walls		
A	09912.A5	Paint on Gypsum Board
B	09912.D1	Epoxy Emulsion Coating on Gypsum Board
C	09912.A4	Paint on Existing Concrete
Ceiling		
A	09511.A1	Suspended Acoustical Panel System
B	09511.A2	Suspended Gypsum Board Panel
C	09912.A4	Paint on Existing Concrete

DRAWING LEGEND

- HANDICAPPED ACCESSIBLE PLUMBING FIXTURE OR SHOWER STALL
- MTL STUD PARTITION
- MTL STUD PARTITION WITH BATT INSULATION
- EXISTING CONCRETE OR MASONRY WALL TO REMAIN
- CMU MASONRY WALL
- CONSTRUCTION ABOVE OR BELOW

ROOM INFORMATION KEY

ROOM NUMBER — ROOM NAME

100 LOBBY

9'-0" A / A / A / A

CEILING HEIGHT — FINISHES (FLOOR/BASE/WALL/CEILING)

A14 LEGEND / NOTES

A1 FLOOR PLAN - First Floor

1/8"=1'-0"

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

FLOOR PLAN
First Floor

RECORD DWG.
DATE 8/28/05

1/8" = 1'-0"

0 4 8 16 FT

PROJECT NORTH — TRUE NORTH

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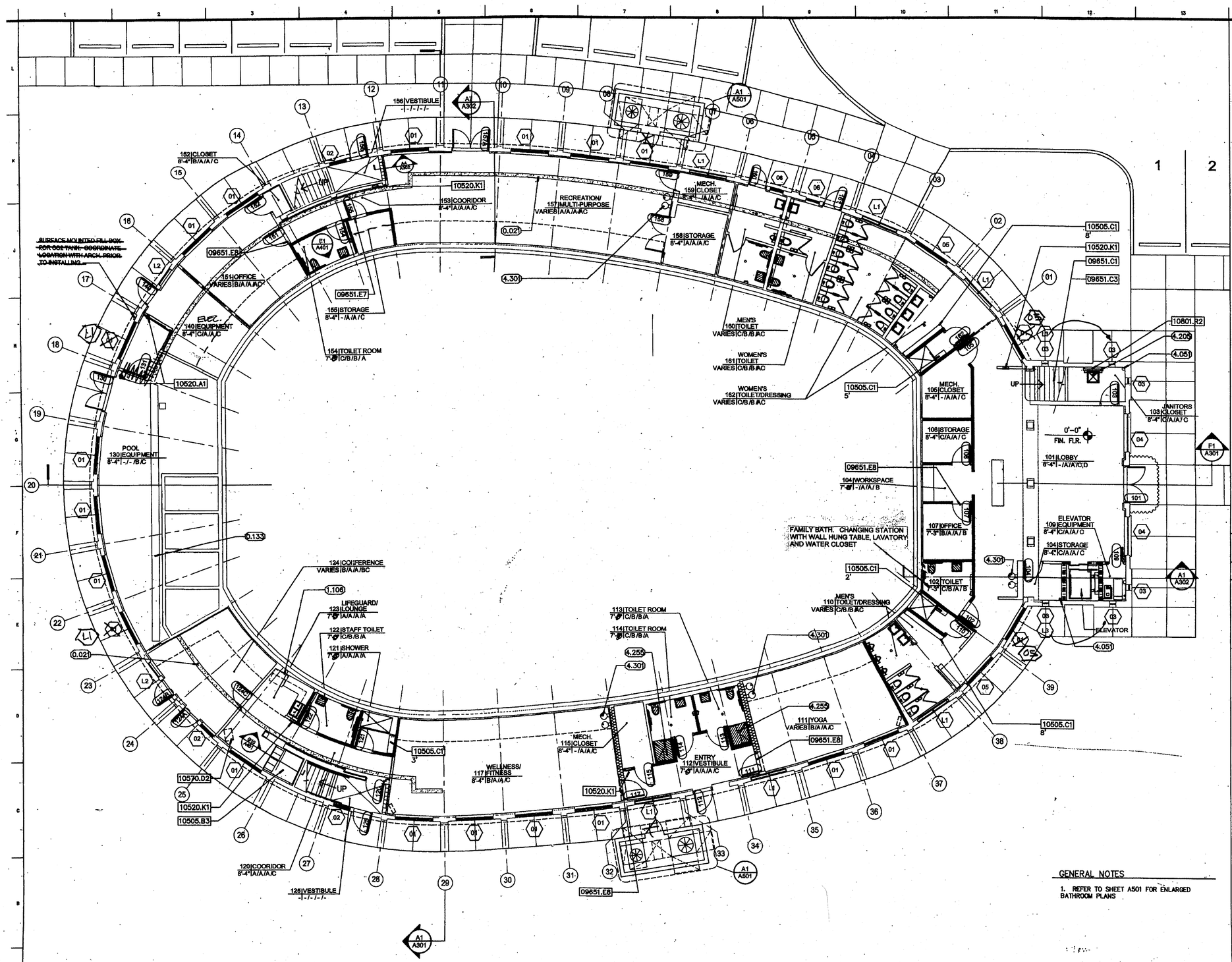
A101



GENERAL NOTES

1. REFER TO SHEET A501 FOR ENLARGED BATHROOM PLANS

KEYNOTES

09511	**ACOUSTICAL PANEL CEILINGS**
09511.A1	Suspended Acoustical Panel Ceiling System
09511.A2	Suspended Gypsum Based Panel Ceiling System
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09651.C1	Stair Tread
09651.C3	Stair Stringer
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09651.E7	Reducer strip for resilient flooring
09651.E8	Tile and carpet joiner
09671	**RESINOUS FLOORING**
09671.A1	Resinous Flooring
09680	**CARPET**
09680.A1	Carpet – CPT-1
09912	**PAINTING**
09912.A4	Paint, Low-Luster Acrylic-Enamel Finish
09912.A5	Paint, Semigloss Acrylic-Enamel Finish
09912.D1	Epoxy Emulsion Coating
10505	**METAL LOCKERS**
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10505.C1	Locker benches.
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10520.A1	Portable Fire Extinguishers
10520.K1	Fire Extinguisher Cabinet
10570	**EDUCATIONAL SPECIALTIES**
10570.D2	Ceiling Mount TV Bracket
10801	**TOILET AND BATH ACCESSORIES**
10801.R2	Mop and Broom Holder with Utility Shelf

GENERAL NOTES

0.000	**DEMOLITION**
0.021	fill existing trench to match existing floor
0.133	existing trench to remain
1.000	**ARCHITECTURAL**
1.106	refrigerator (n.i.c.)
4.000	**PLUMBING**
4.051	roof drain
4.205	mop sink (floor mounted)
4.255	prefabricated shower
4.301	electric water cooler

F14 | KEYNOTES

ROOM FINISH LEGEND

Floor		
A	09651.E1	VCT
B	09680.A1	Carpet
C	09671.A1	Resinous Flooring
Base		
A	09651.B1	Resilient Wall Base
B	09671.A1	Resinous Flooring
Walls		
A	09912.A5	Paint on Gypsum Board
B	09912.D1	Epoxy Emulsion Coating on Gypsum Board
C	09912.A4	Paint on Existing Concrete
Ceiling		
A	09511.A1	Suspended Acoustical Panel System
B	09511.A2	Suspended Gypsum Board Panel
C	09912.A4	Paint on Existing Concrete

DRAWING LEGEND

- HANDICAPPED ACCESSIBLE PLUMBING FIXTURE OR SHOWER STALL
- MTL STUD PARTITION
- MTL STUD PARTITION WITH BATT INSULATION
- EXISTING CONCRETE OR MASONRY WALL TO REMAIN
- CMU MASONRY WALL
- CONSTRUCTION ABOVE OR BELOW

ROOM INFORMATION KEY

ROOM NUMBER → 100 | LOBBY ← ROOM NAME

9'-0" | A / A / A / A

CEILING HEIGHT → ← FINISHES (FLOOR/BASE/WALL/CEILING)

A14 | LEGEND / NOTES

A1 | FLOOR PLAN – First Floor

1/8"=1'-0"

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Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #0008161
Post Office Box 8574
Tampa, FL 33674 813/920-9192

11-8-04

RWRowe 08.05.04

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
DOH PERMIT SUBMITTAL	07.12.04

FLOOR PLAN
First Floor

RECORD DWG.
DATE 8/26/05

1/8" = 1'-0"

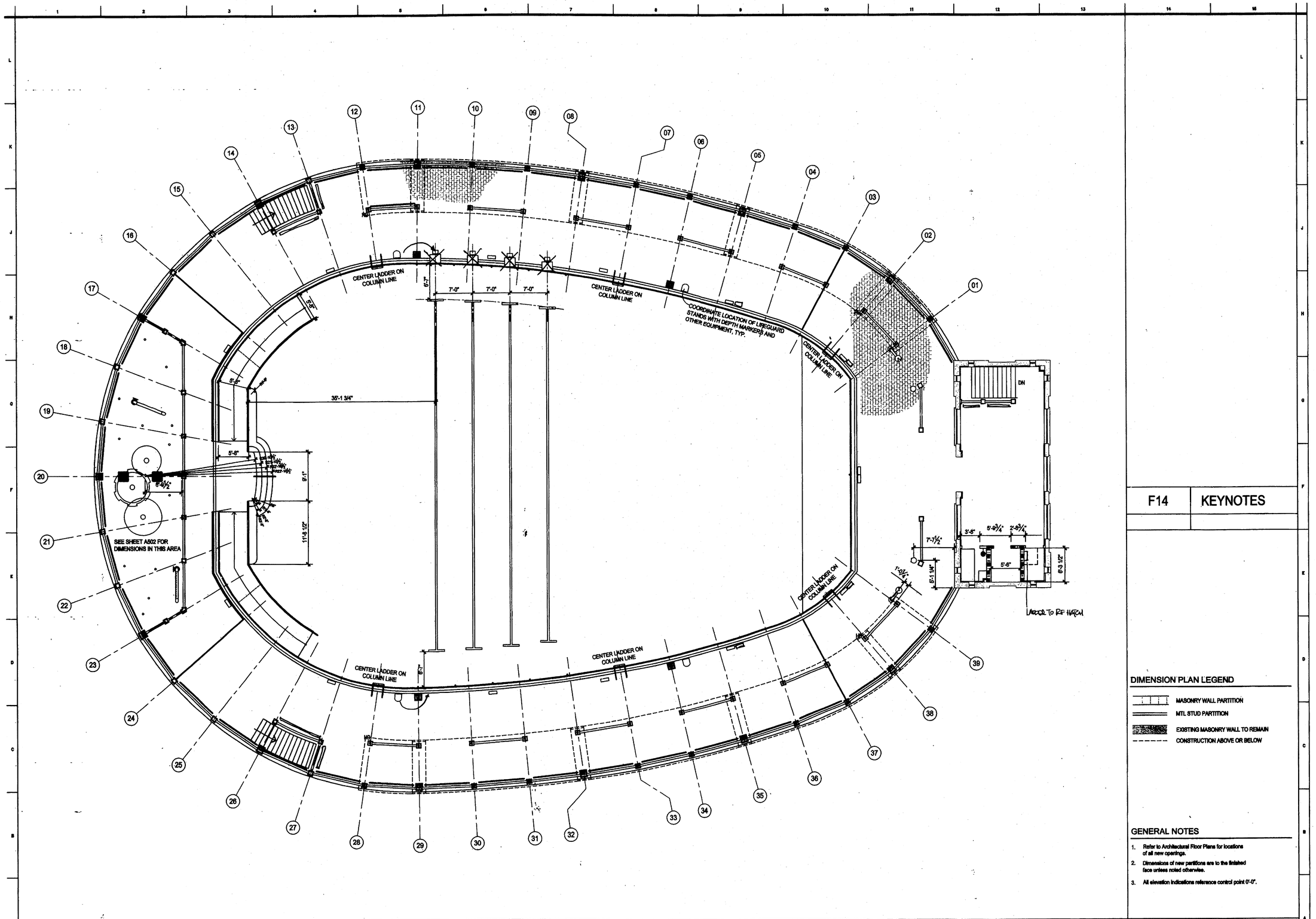
0 4 8 16 FT

PROJECT NORTH TRUE NORTH

A101

217
009

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT



F14	KEYNOTES

DIMENSION PLAN LEGEND

- MASONRY WALL PARTITION
- MTL STUD PARTITION
- EXISTING MASONRY WALL TO REMAIN
- CONSTRUCTION ABOVE OR BELOW

GENERAL NOTES

1. Refer to Architectural Floor Plans for locations of all new openings.
2. Dimensions of new partitions are to the finished face unless noted otherwise.
3. All elevation indications reference control point 0'-0".

A1	FLOOR PLAN - Second Floor Pool Deck
1/8"=1'-0"	

A14	LEGEND / NOTES

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

DIMENSION PLAN
Second FLoor
Pool Deck

RECORD DWG.
DATE 8/26/05

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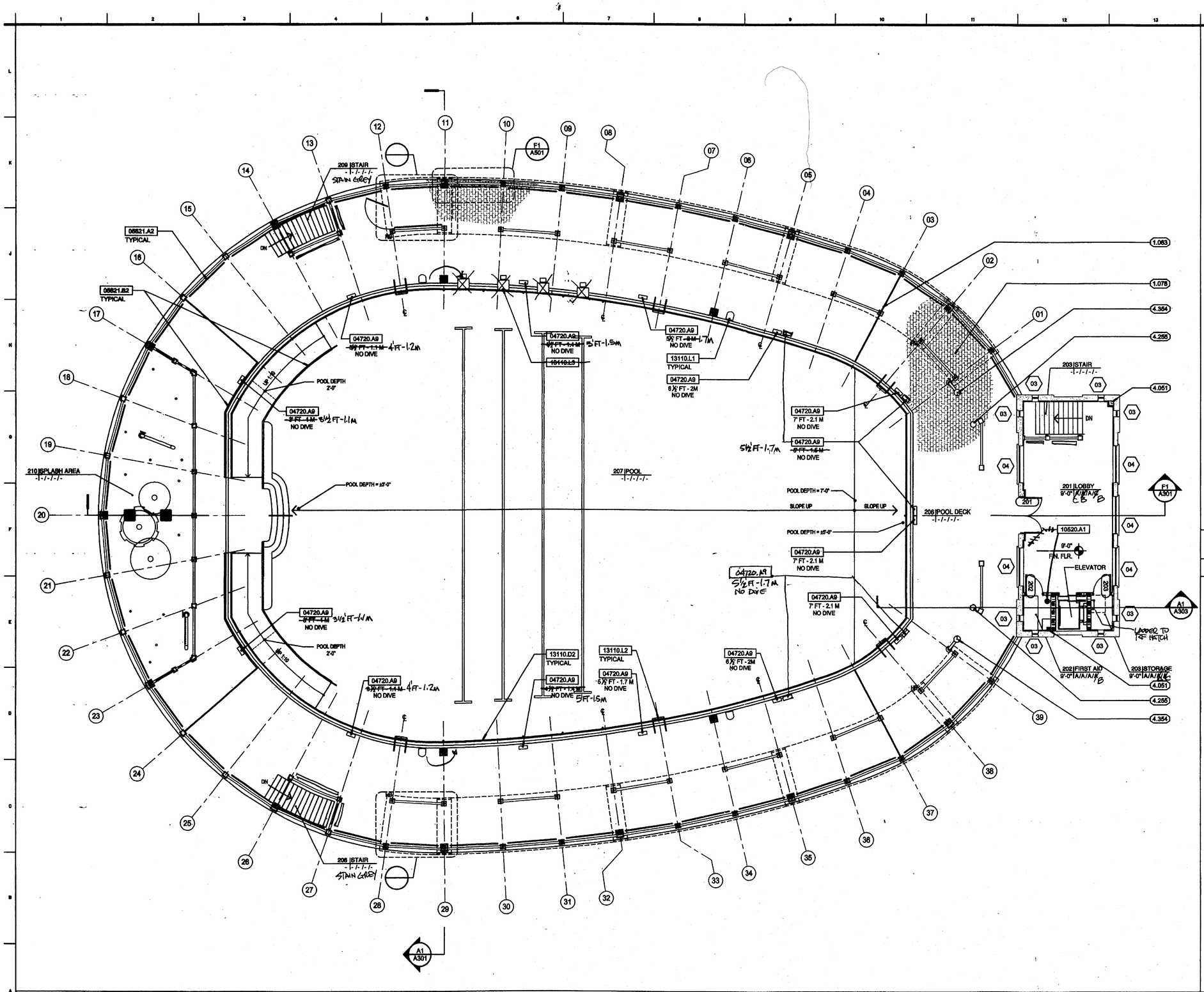

A1	FLOOR PLAN - Second Floor Pool Deck
1/8"=1'-0"	

KEYNOTES

04720	CAST STONE
04720.A9	Cast stone monument
05521	PIPE AND TUBE RAILINGS
05521.A2	Aluminum Tube Railing
05521.B2	Stainless-Steel Tube Railing
09511	ACOUSTICAL PANEL CEILINGS
09511.A1	Suspended Acoustical Panel Ceiling System
09511.A2	Suspended Gypsum Based Panel Ceiling System
09651	RESILIENT TILE FLOORING
09651.B1	Wall Base
09651.E1	Cap for cove carpet
09671	RESINOUS FLOORING
09671.A1	Resinous Flooring
09680	CARPET
09680.A1	Carpet - CPT-1
09912	PAINTING
09912.A4	Paint, Low-Luster Acrylic-Enamel Finish
09912.A5	Paint, Semigloss Acrylic-Enamel Finish
09912.D1	Epoxy Emulsion Coating
10520	FIRE-PROTECTION SPECIALTIES
10520.A1	Portable Fire Extinguishers
13110	SWIMMING POOLS
13110.D2	Recessed Lane Line & Rope Anchors
13110.L1	Lifeguard Chairs
13110.L2	S.S. Ladder

GENERAL NOTES

1.000	ARCHITECTURAL
1.063	expansion joint
1.078	entire pool deck to be pavers
4.000	PLUMBING
4.051	roof drain
4.255	prefabricated shower
4.354	water fountain

F14	KEYNOTES

ROOM FINISH LEGEND

Floor		
A	09651.E1	VCT
B	09680.A1	Carpet
C	09671.A1	Resinous Flooring
Base		
A	09651.B1	Resilient Wall Base
B	09671.A1	Resinous Flooring
Walls		
A	09912.A5	Paint on Gypsum Board
B	09912.D1	Epoxy Emulsion Coating on Gypsum Board
C	09912.A4	Paint on Existing Concrete
Ceiling		
A	09511.A1	Suspended Acoustical Panel System
B	09511.A2	Suspended Gypsum Board Panel
C	09912.A4	Paint on Existing Concrete

DRAWING LEGEND

- HANDICAPPED ACCESSIBLE PLUMBING FIXTURE OR SHOWER STALL
- MTL STUD PARTITION
- MTL STUD PARTITION WITH BATT INSULATION
- EXISTING CONCRETE OR MASONRY WALL TO REMAIN
- CMU MASONRY WALL
- CONSTRUCTION ABOVE OR BELOW

ROOM INFORMATION KEY

ROOM NUMBER — ROOM NAME

100 | LOBBY

9'-0" | A / A / A / A

CEILING HEIGHT — FINISHES (FLOOR/BASE/WALL/CEILING)

A14	LEGEND / NOTES

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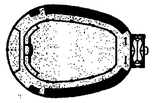

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FLOOR PLAN
Second FLoor
Pool Deck

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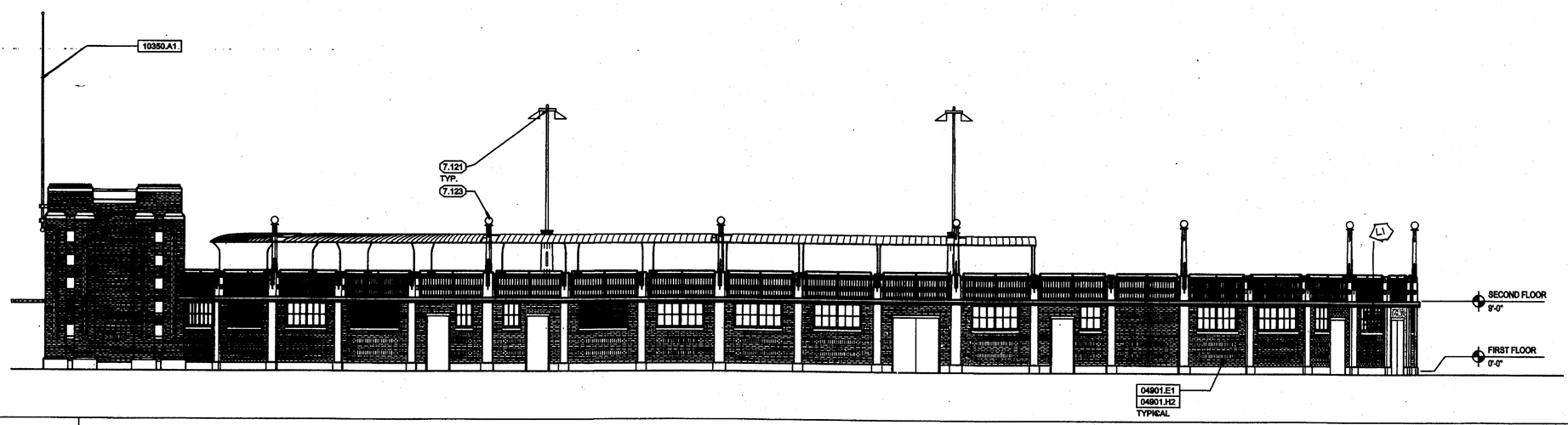
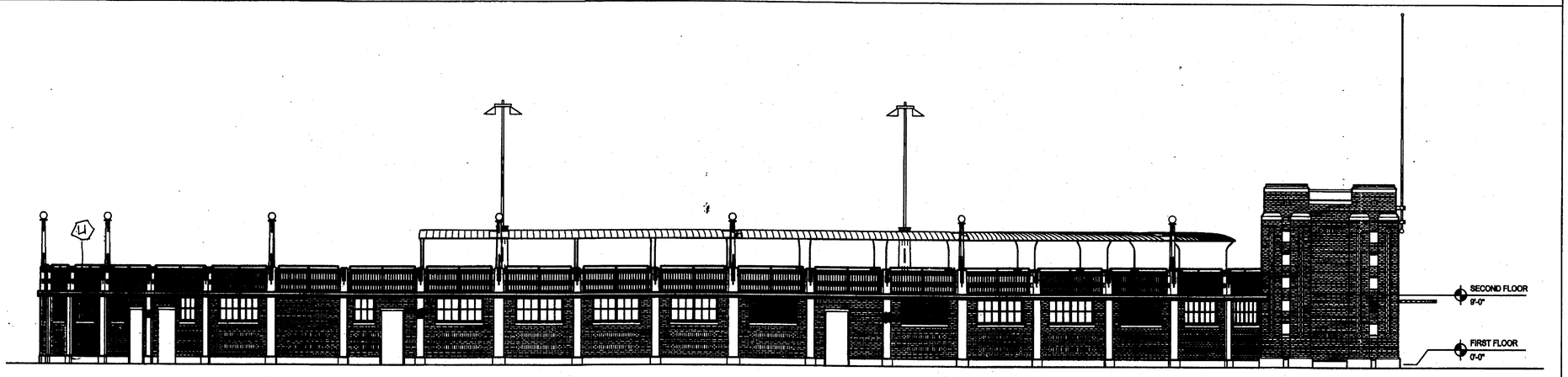


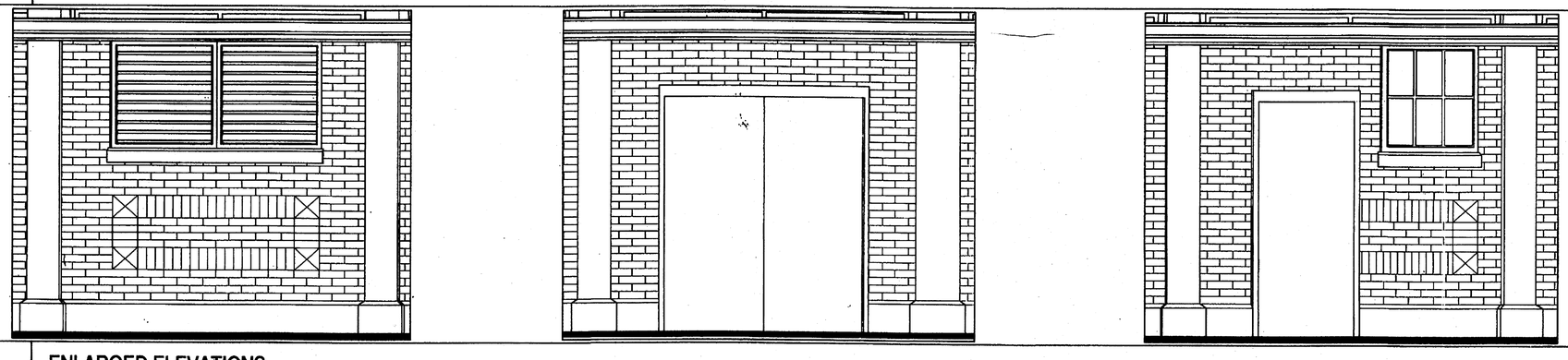
H1 NORTH ELEVATION

1/8" = 1'-0"



D1 SOUTH ELEVATION

1/8"=1'-0"



A1 ENLARGED ELEVATIONS

1/2"=1'-0"

(TYPICAL BAY ELEVATIONS)

KEYNOTES

04901	CLAY MASONRY RESTORATION AND CLEANING
04901.E1	Clean Brickwork
04901.H2	Repoint Brick
10350	FLAGPOLES
10350.A1	Aluminum flagpoles.

GENERAL NOTES

7.000	ELECTRICAL
7.121	pole light fixture
7.123	globe light fixture

A14 LEGEND / NOTES

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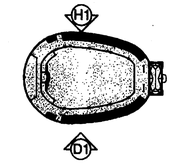

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ELEVATIONS
North & South

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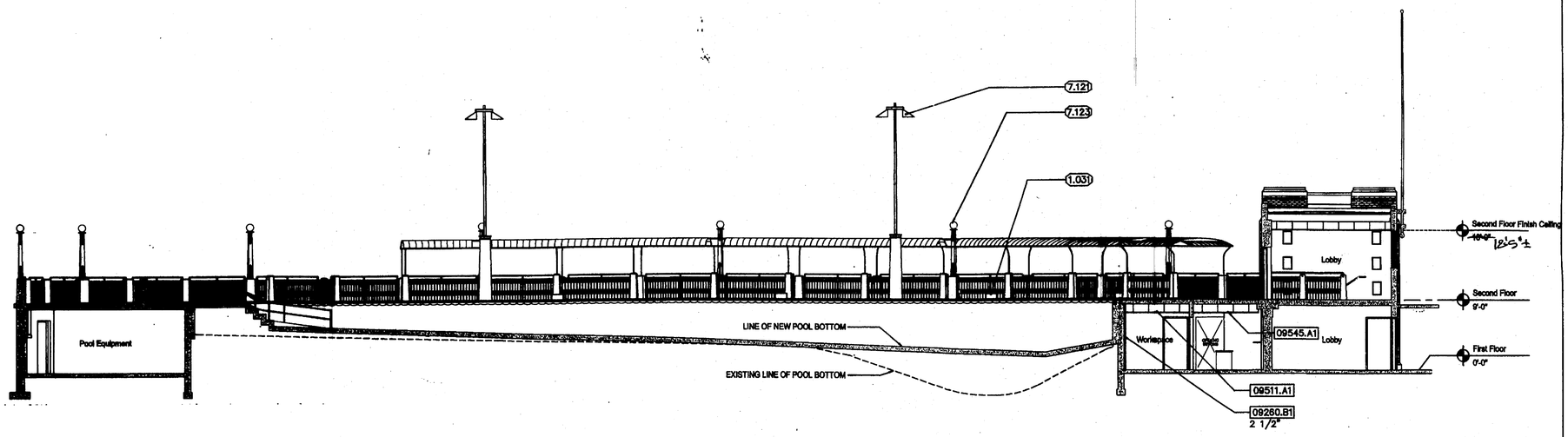
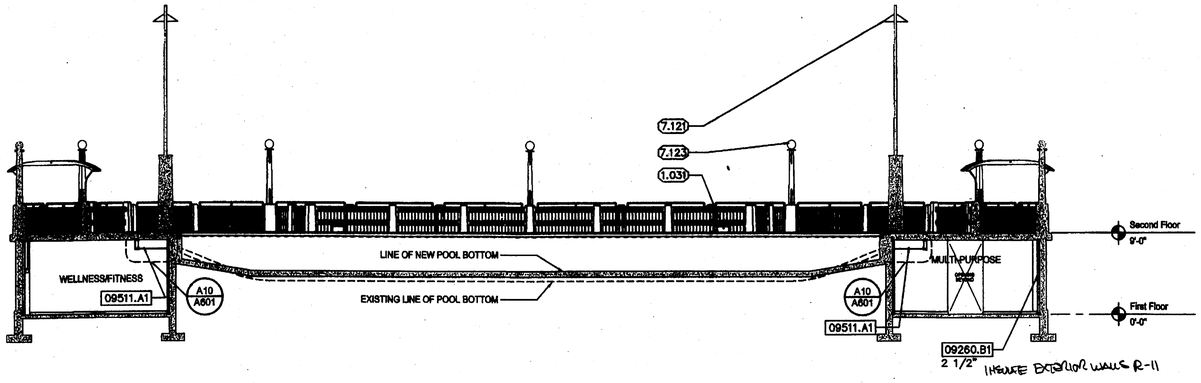


F1	BUILDING SECTION
1/8" = 1'-0"	



A5	BUILDING SECTION
1/8" = 1'-0"	

KEYNOTES

09260	GYPSUM BOARD ASSEMBLIES
09260.B1	Steel Studs
09511	ACOUSTICAL PANEL CEILINGS
09511.A1	Suspended Acoustical Panel Ceiling System
09545	METAL CEILINGS
09545.A1	Suspended Metal Ceiling System

GENERAL NOTES

1.000	ARCHITECTURAL
1.031	pool depth markers
7.000	ELECTRICAL
7.121	pole light fixture
7.123	globe light fixture

A14	LEGEND / NOTES

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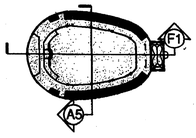

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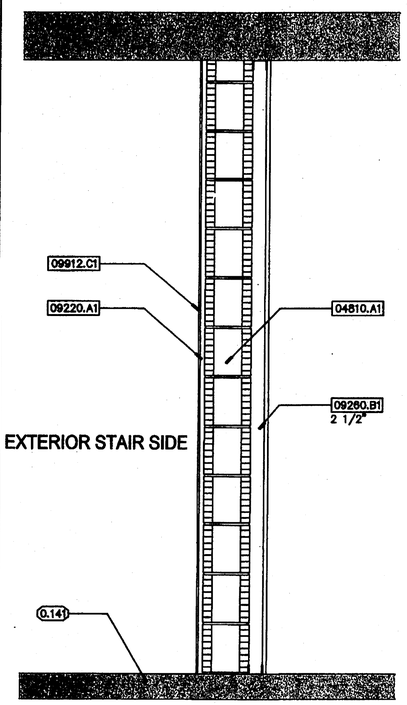
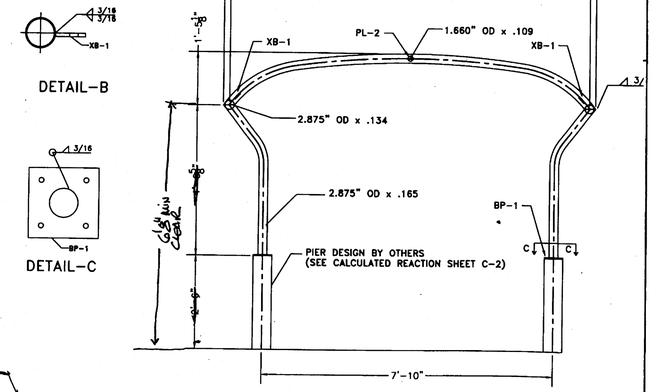


A4 WALL SECTION

1" = 1'-0"



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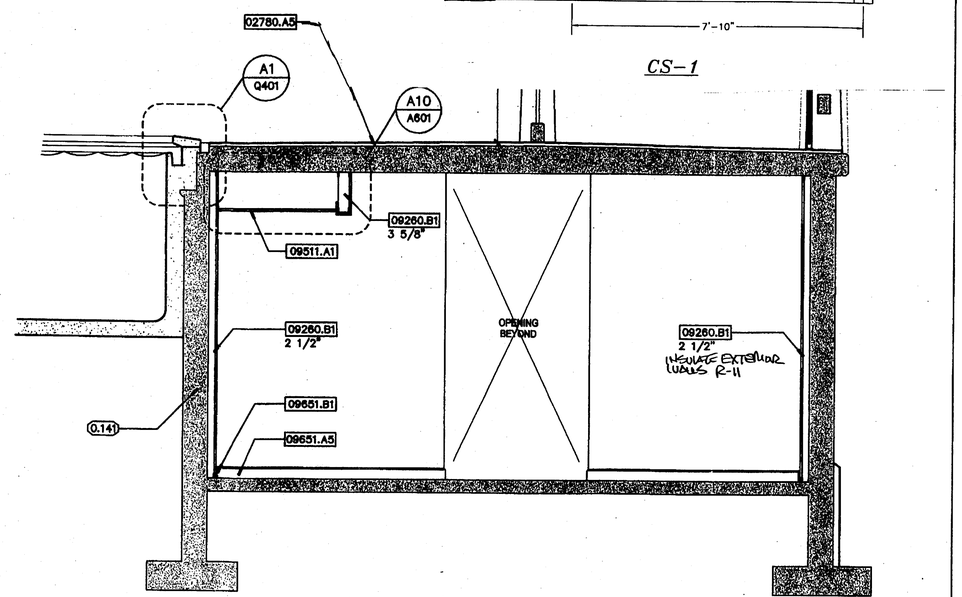

A7 BUILDING SECTION

1/2" = 1'-0"

KEYNOTES:

02780	UNIT PAVERS
02780.A5	Concrete Pavers
04810	UNIT MASONRY ASSEMBLIES
04810.A1	Concrete Masonry Unit
09220	PORTLAND CEMENT PLASTER
09220.A1	Portland Cement Plaster
09260	GYPSUM BOARD ASSEMBLIES
09260.B1	Steel Studs
09511	ACOUSTICAL PANEL CEILINGS
09511.A1	Suspended Acoustical Panel Ceiling System
09651	RESILIENT TILE FLOORING
09651.A5	Vinyl Composition Tile
09651.B1	Wall Base
09912	PAINTING
09912.C1	Textured Coating

GENERAL NOTES:

0.000	DEMOLITION
0.141	existing masonry to remain

DRAWING LEGEND

- NEW WALL CONSTRUCTION
- EXISTING MASONRY WALL TO REMAIN

A14 LEGEND / NOTES

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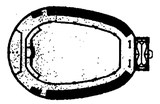

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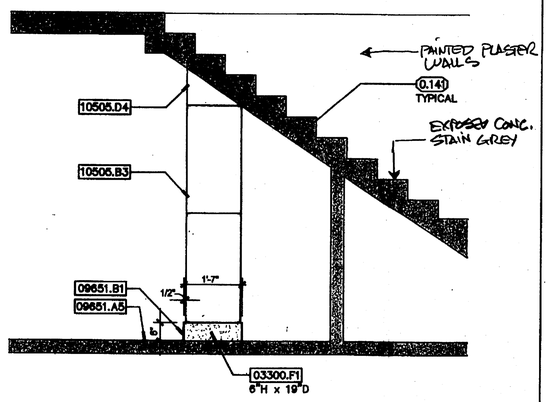
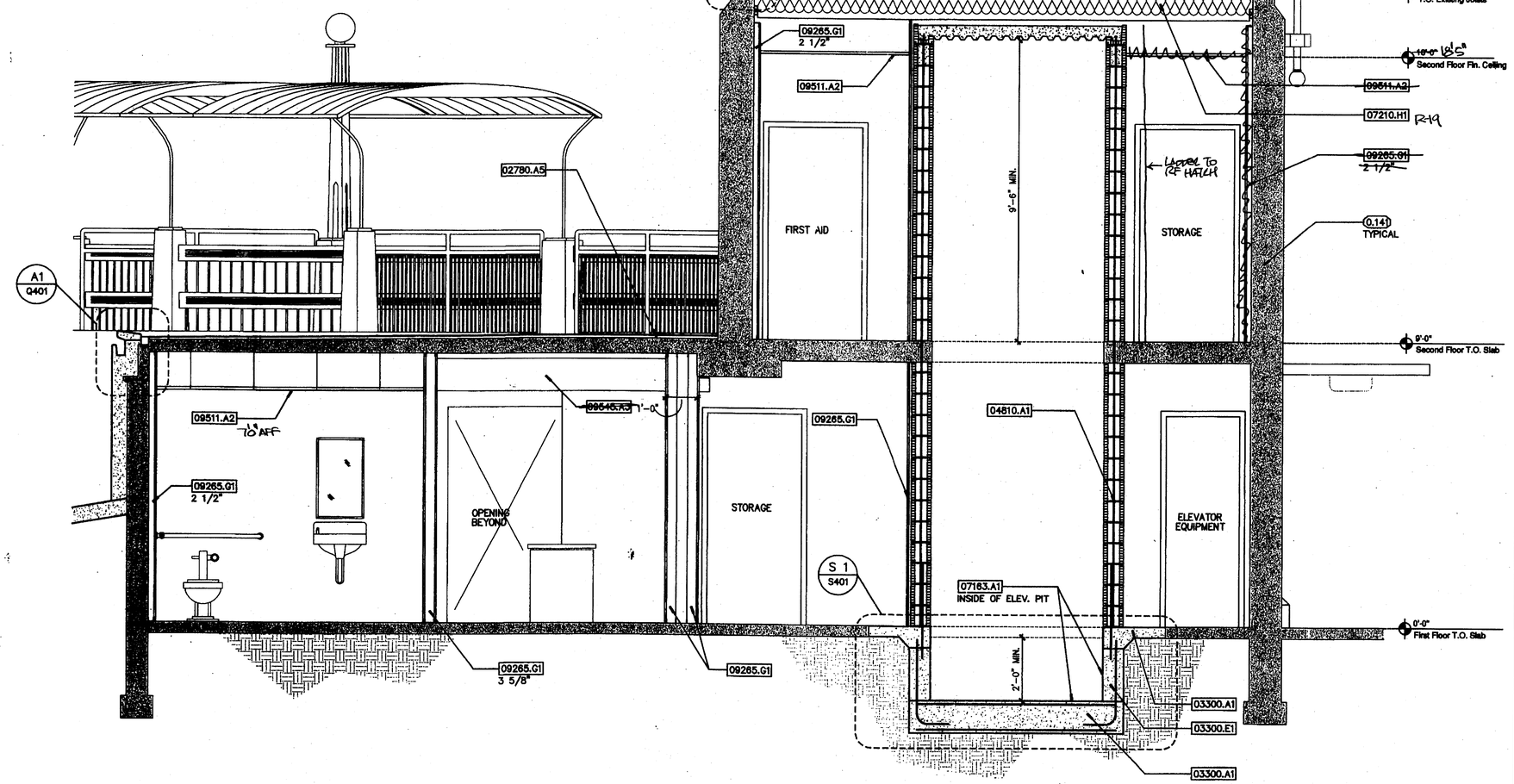


H1 PARTIAL SECTION THRU LOCKERS

1/2"=1'-0"



A1 PARTIAL BUILDING SECTION

1/2"=1'-0"

KEYNOTES:

02780	**UNIT PAVERS**
02780.A5	Concrete Pavers
03300	**CAST-IN-PLACE CONCRETE**
03300.A1	Concrete Slab-on-Grade
03300.E1	Concrete Foundation Wall
03300.F1	Concrete Curb
04810	**UNIT MASONRY ASSEMBLIES**
04810.A1	Concrete Masonry Unit
06105	**MISCELLANEOUS CARPENTRY**
06105.E3	Plywood Roof Sheathing
07163	**METAL OXIDE WATERPROOFING**
07163.A1	Metal Oxide Waterproofing
07210	**BUILDING INSULATION**
07210.H1	Unfaced Mineral-Fiber Blanket Insulation R-19
07512	**BUILT-UP COAL-TAR ROOFING**
07512.E2	Tapered Insulation
07552	**SBS-MODIFIED BITUMINOUS MEMBRANE ROOFING**
07552.A1	Modified Bituminous Membrane Roofing
09265	**GYPSUM BOARD SHAFT-WALL ASSEMBLIES**
09265.G1	Metal Stud
09511	**ACOUSTICAL PANEL CEILINGS**
09511.A2	Suspended Gypsum Based Panel Ceiling System
09545	**METAL CEILINGS**
~~09545.A3~~	~~End Gap~~
09651	**RESILIENT TILE FLOORING**
09651.A5	Vinyl Composition Tile
09651.B1	Wall Base
10505	**METAL LOCKERS**
10505.B3	Athletic Lockers, Double tier.
10505.D4	Filler Panel

GENERAL NOTES:

0.000	**DEMOLITION**
0.141	existing masonry to remain

A14 LEGEND / NOTES

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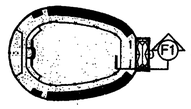

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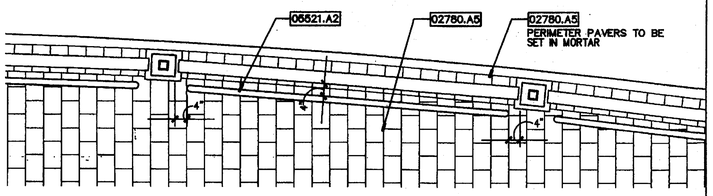
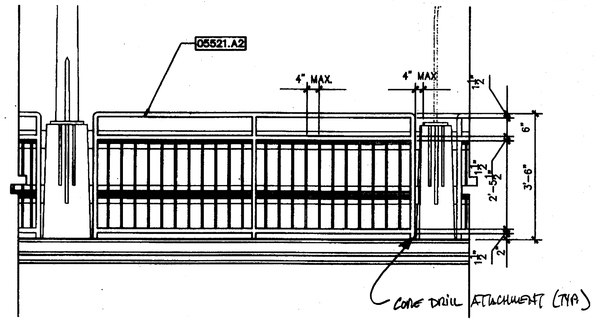


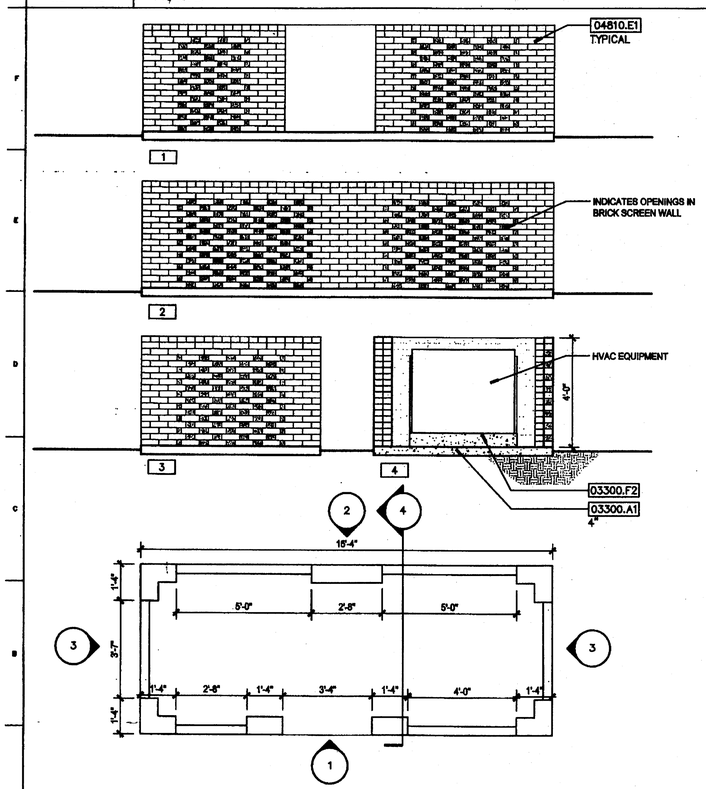
K1 INTERIOR POOL DECK RAILING PLAN

1/2" = 1'-0" TYPICAL



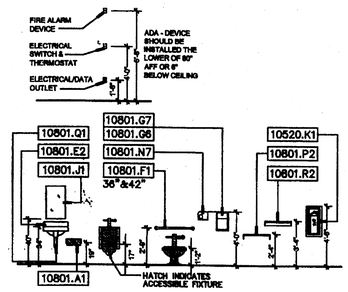
G1 INTERIOR POOL DECK RAILING ELEVATION

1/2" = 1'-0" TYPICAL



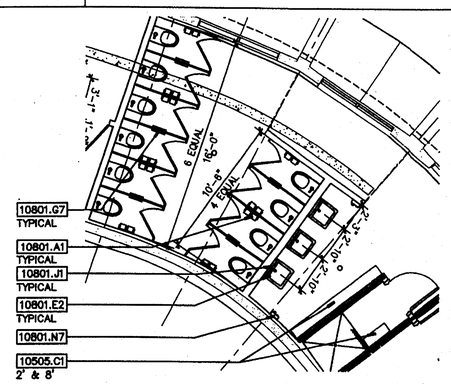
A1 ENLARGED EQUIPMENT SCREEN

3/8" = 1'-0"



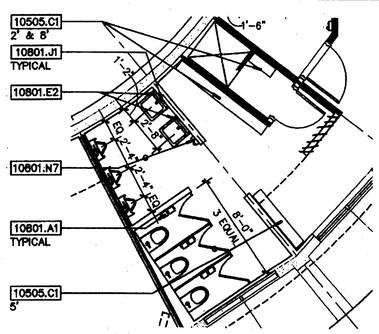
H10 TYPICAL MOUNTING HEIGHTS

3/16" = 1'-0"



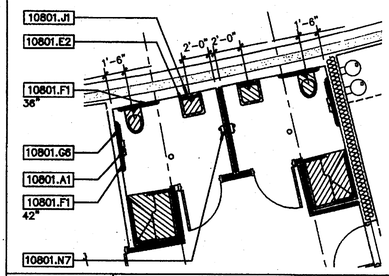
E10 ENLARGED TOILET ROOM 162

3/16" = 1'-0"



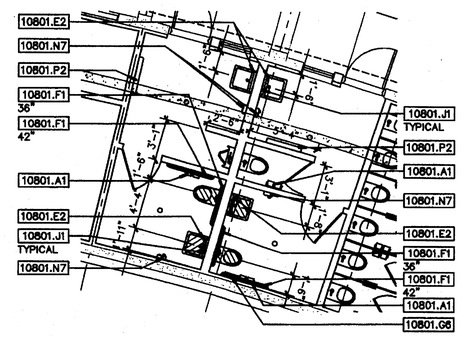
A10 ENLARGED TOILET ROOM 110

3/16" = 1'-0"



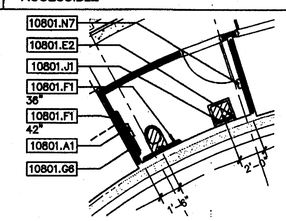
J6 ENLARGED TOILET ROOM PLAN 113 & 114

3/16" = 1'-0" ACCESSIBLE



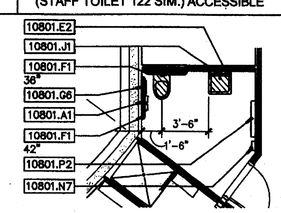
F6 ENLARGED TOILET ROOM PLAN 160 & 161

3/16" = 1'-0" ACCESSIBLE



D6 ENLARGED TOILET ROOM 154

3/16" = 1'-0" (STAFF TOILET 122 SIM.) ACCESSIBLE



A6 ENLARGED TOILET ROOM 102

3/16" = 1'-0" ACCESSIBLE

KEYNOTES

02780	**UNIT PAVERS**
02780.A5	Concrete Pavers
03300	**CAST-IN-PLACE CONCRETE**
03300.A1	Concrete Slab-on-Grade
03300.F2	Concrete Equipment Base
04810	**UNIT MASONRY ASSEMBLIES**
04810.E1	Face Brick
05521	**PIPE AND TUBE RAILINGS**
05521.A2	Aluminum Tube Railing
10505	**METAL LOCKERS**
10505.C1	Locker benches.
10520	**FIRE-PROTECTION SPECIALTIES**
10520.K1	Fire Extinguisher Cabinet
10801	**TOILET AND BATH ACCESSORIES**
10801.A1	Toilet Tissue (Roll) Dispenser
10801.E2	Liquid-Soap Dispenser
10801.F1	Grab Bar
10801.G6	Sanitary Napkin Disposal Unit, Recessed
10801.G7	Sanitary Napkin Disposal Unit, Partition-Mounted, Dual-Access
10801.J1	Mirror Unit
10801.N7	Warm-Air Dryer, Surface mounted, Electronic-sensor Operation
10801.P2	Diaper-Changing Station, surface mounted
10801.Q1	Underlavatory Guard
10801.R2	Mop and Broom Holder with Utility Shelf

F14 KEYNOTES

A14 LEGEND / NOTES

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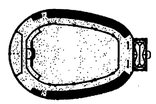

CUSCADEN POOL RENOVATION

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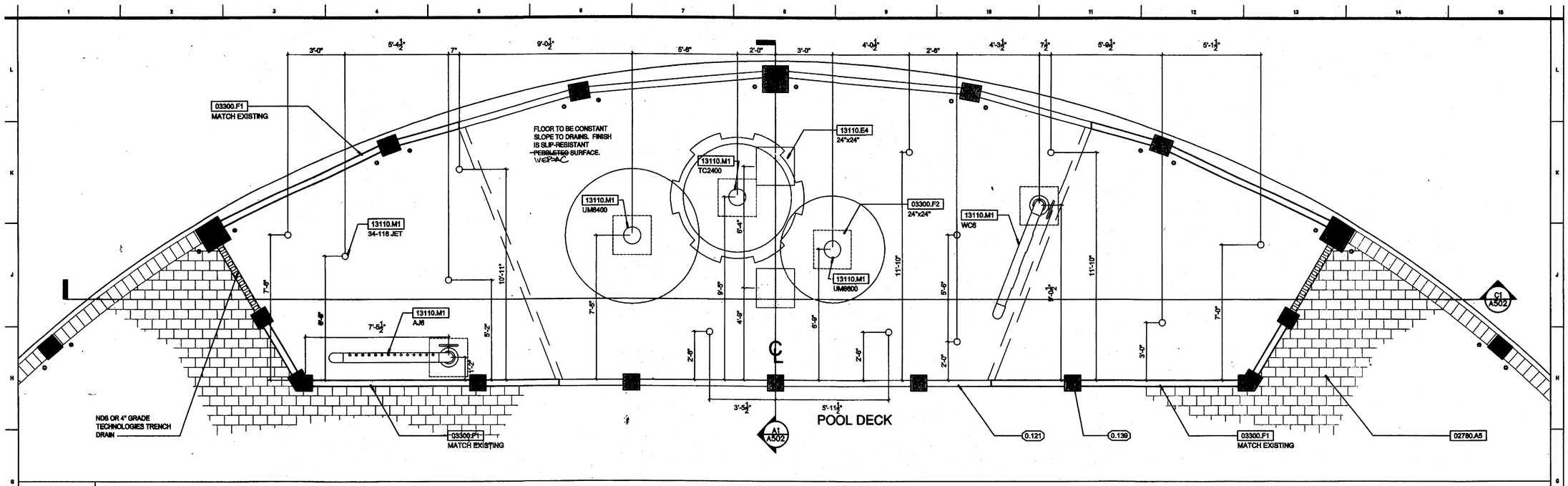
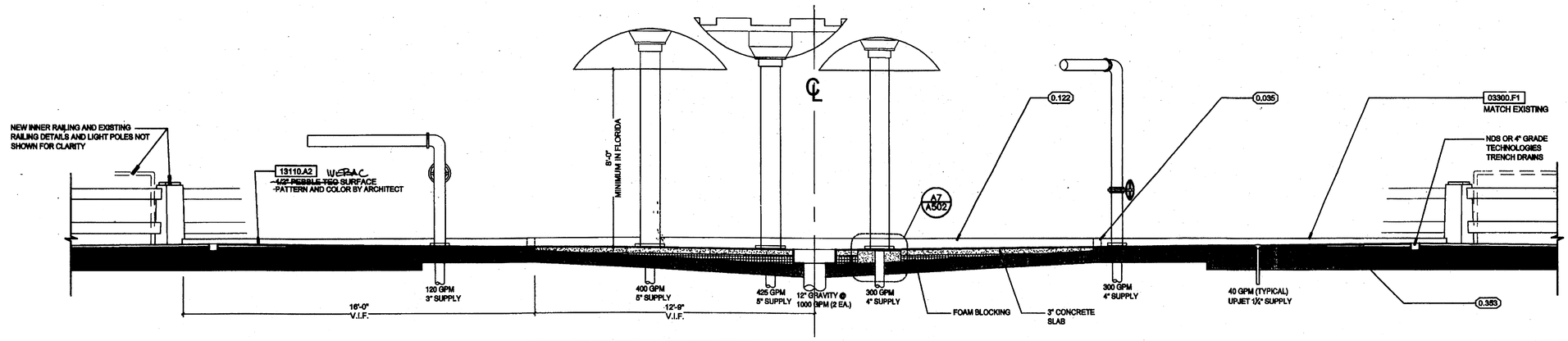


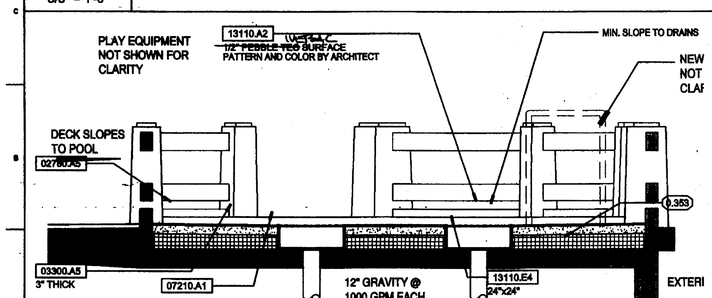
G1 ENLARGED SPLASH PAD PLAN

3/8" = 1'-0"



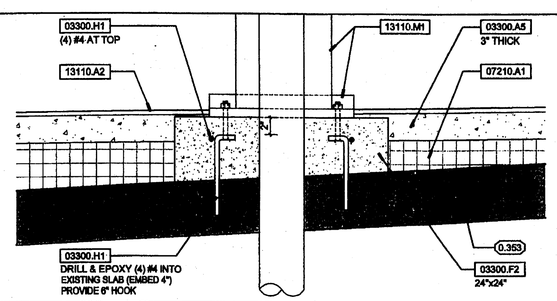
C1 SPLASH PAD SECTION

3/8" = 1'-0"



A1 SPLASH PAD SECTION

3/8" = 1'-0"



A7 EQUIPMENT PAD DETAIL

1 1/2" = 1'-0"

EQUIPMENT LIST & DEMANDS

1 EA.	TC2400	TEECUP	425 GPM
1 EA.	UM6600	UMBRELLA (SMALL)	300 GPM
1 EA.	UM8400	UMBRELLA	400 GPM
1 EA.	WC6	WATER CURTAIN	300 GPM
1 EA.	AJ6	ARCH JET	120 GPM
12 EA.	34-118	RECREONICS JET	40 GPM (8 ONLY SIMULTANEOUSLY)

TOTAL WATER DEMAND 1865 GPM

7% EXCESS CAPACITY INCLUDED 2000 GALS AVAILABLE SUPPLY

KEYNOTES

02780	UNIT PAVERS
02780.A5	Concrete Pavers
03300	CAST-IN-PLACE CONCRETE
03300.A5	Concrete Slab
03300.F1	Concrete Curb
03300.F2	Concrete Equipment Base
03300.H1	Reinforcing Bars
07210	BUILDING INSULATION
07210.A1	Extruded-Polystyrene Board Insulation:
13110	SWIMMING POOLS
13110.A2	Pool Interior Finish
13110.E4	Main Drain Box
13110.M1	Splash Pad Water Feature

GENERAL NOTES

0.000	DEMOLITION
0.035	remove existing curb to slab level
0.121	existing curbing. sandblast and epoxy coat, paint to match new
0.122	top of existing concrete curb
0.139	existing balusters to remain
0.353	existing concrete structure to remain

A14 KEYNOTES

NO SCALE

ROWE ARCHITECTS
INCORPORATED
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Fax: 813.221.9154
813.221.8771
AAC002172

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

ENLARGED SPLASH PAD PLAN, SECTIONS, AND DETAILS

RECORD DWG.
DATE 8/26/05

RECEIVED
FEB 23 2004
CONST. TECH. GROUP, INC.

A502

2/7
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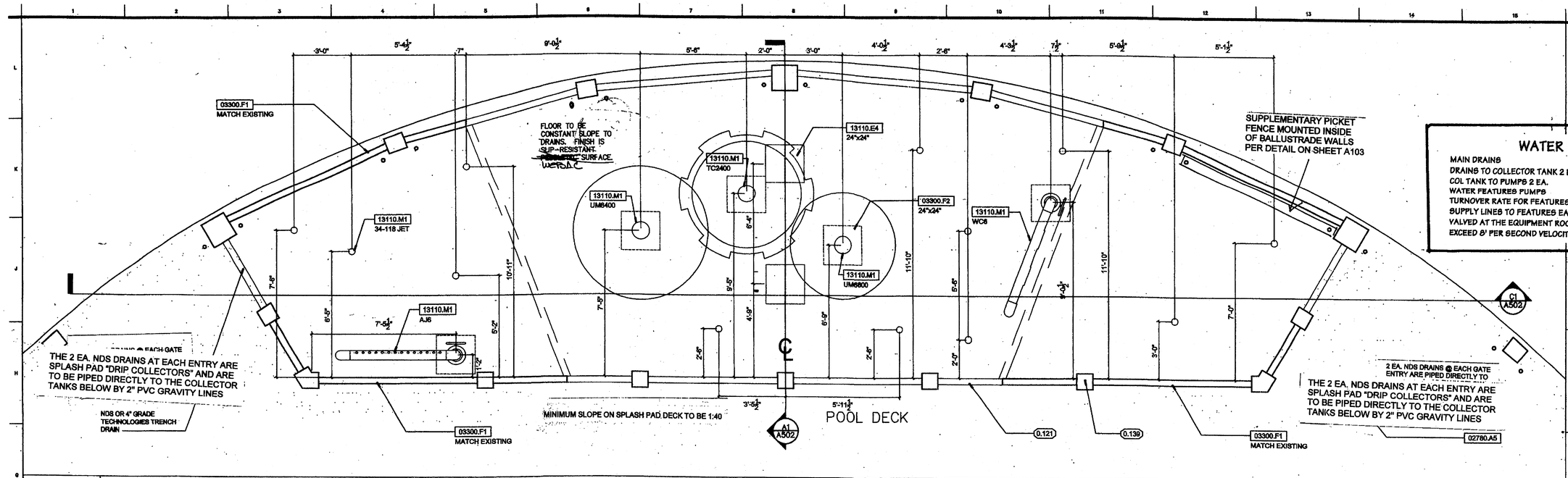

G1 | ENLARGED SPLASH PAD PLAN

3/8" = 1'-0"

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WATER FEATURES

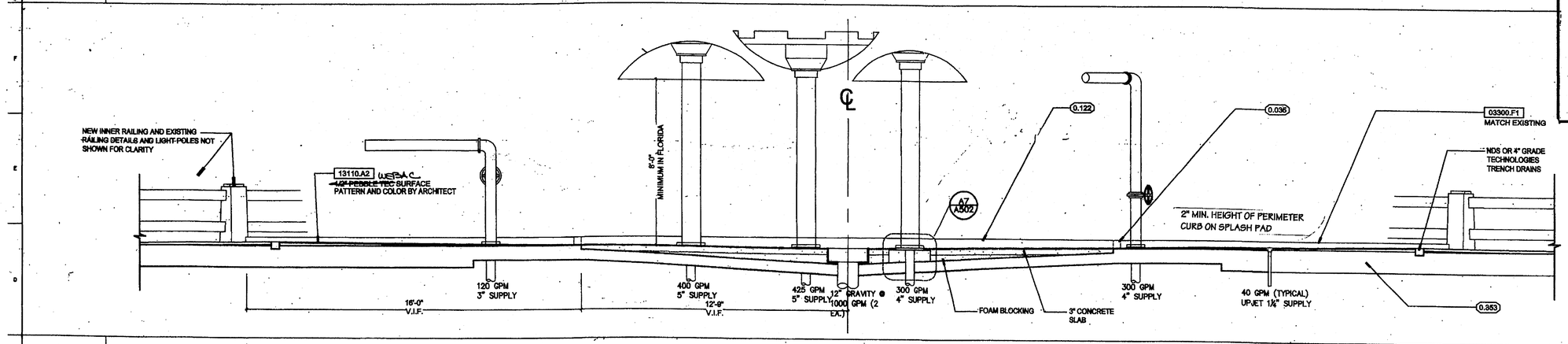
MAIN DRAINS	2 EA 24" X 24" AND
DRAINS TO COLLECTOR TANK 2 EA.	12"
COL TANK TO PUMPS 2 EA.	10"
WATER FEATURES PUMPS	2 EA. 15 HP
TURNOVER RATE FOR FEATURES	1865 GPM

SUPPLY LINES TO FEATURES EACH FEATURE INDIVIDUALLY VALVED AT THE EQUIPMENT ROOM. SUPPLY PIPING NOT TO EXCEED 8' PER SECOND VELOCITY.

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #0008161
Post Office Box 8374
Tampa, FL 33674 813/920-9192

11-4-04

08.05.04

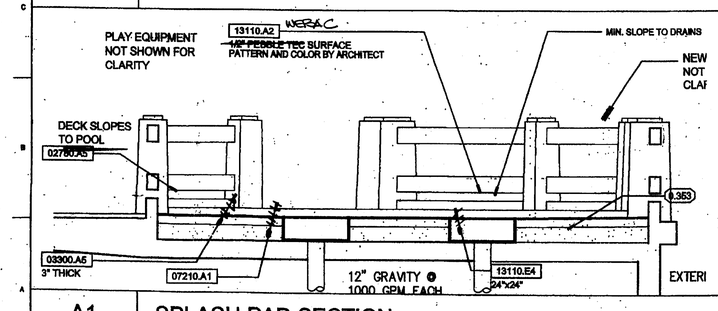


C1 | SPLASH PAD SECTION

3/8" = 1'-0"

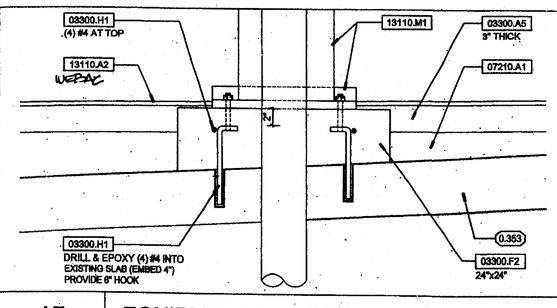
SPLASH PAD DATA

PERIMETER	PROX. 137'
SURFACE AREA	PROX. 705 SQ. FT.
COLLECTOR TANK CAPACITIES 2 @ 1000	2,000 GALS.
TURNOVER RATE	67 GPM
TURNOVER TIME	30 MIN.
FILTER	30" HI-RATE SAND
FILTER RATE	15.7 GPM PER SQ.FT. FILT. AREA
CIRCULATING PUMP	2 HP
HYPOCHLORINATION	STRANTROL SYSTEM 3
PH CONTROL	CO_2



A1 | SPLASH PAD SECTION

3/8" = 1'-0"



A7 | EQUIPMENT PAD DETAIL

1 1/2" = 1'-0"

EQUIPMENT LIST & DEMANDS

1 EA. TC2400	TEECUP	425 GPM
1 EA. UM6800	UMBRELLA (SMALL)	300 GPM
1 EA. UM8400	UMBRELLA	400 GPM
1 EA. WC6	WATER CURTAIN	300 GPM
1 EA. AJ6	ARCH JET	120 GPM
12 EA. 34-118	RECREONICS JET	40 GPM (8 ONLY SIMULTANEOUSLY)

TOTAL WATER DEMAND 1865 GPM

7% EXCESS CAPACITY INCLUDED 2000 GALS AVAILABLE SUPPLY

SPLASH PAD LAYOUT AND SECTIONS SHOWING WATER FEATURES

KEYNOTES

02780	UNIT PAVERS
02780.A5	Concrete Pavers
03300	CAST-IN-PLACE CONCRETE
03300.A5	Concrete Slab
03300.F1	Concrete Curb
03300.F2	Concrete Equipment Base
03300.H1	Reinforcing Bars
07210	BUILDING INSULATION
07210.A1	Extruded-Polystyrene Board Insulation
13110	SWIMMING POOLS
13110.A2	Pool Interior Finish WERAC
13110.E4	Main Drain Box
13110.M1	Splash Pad Water Feature

GENERAL NOTES

0.000	DEMOLITION
0.035	remove existing curb to slab level
0.121	existing curbing, sandblast and epoxy coat, paint to match new
0.122	top of existing concrete curb
0.139	existing ballusters to remain
0.353	existing concrete structure to remain

A14 | KEYNOTES

NO SCALE

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No:0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
DOH PERMIT SUBMITTAL	07.12.04

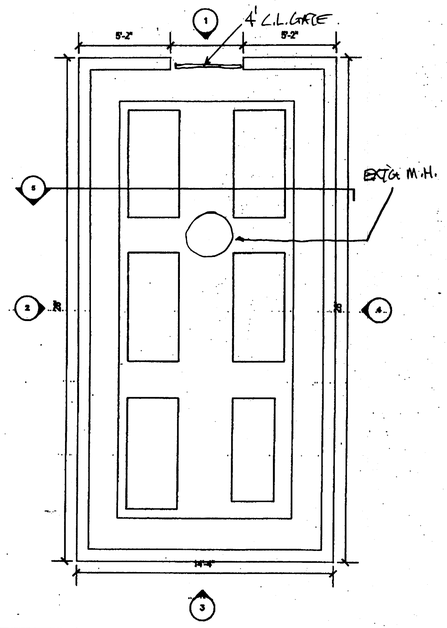
ENLARGED SPLASH PAD PLAN, SECTIONS, AND DETAILS

RECORD DWG.
DATE 8/26/05

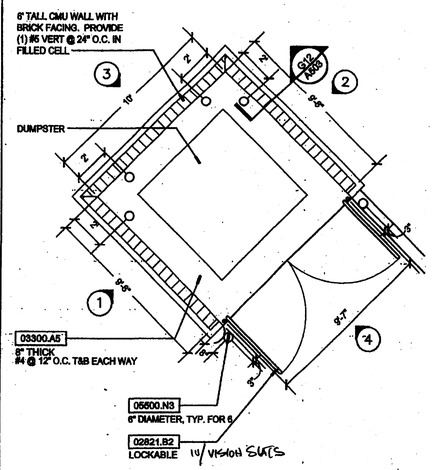
A502

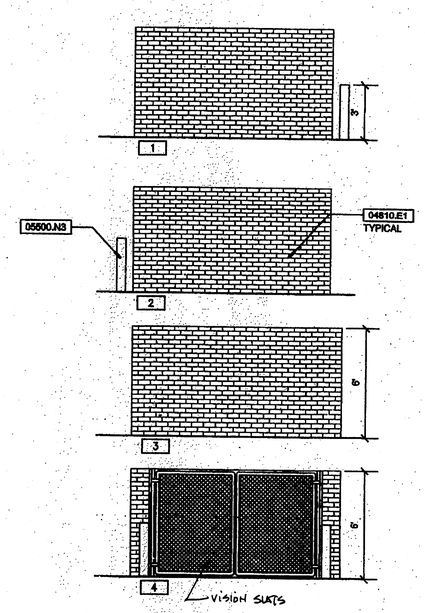
217
009

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

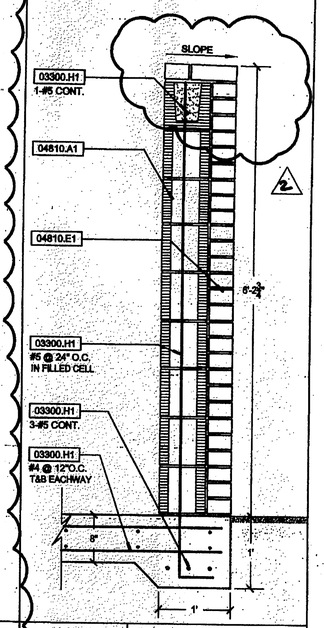


G1	HEATER FLOOR PLAN
1/4" = 1'-0"	





G4	DUMPSTER ENCLOSURE DETAILS
1/4" = 1'-0"	



G12	WALL SECTION
1" = 1'-0"	

KEYNOTES

02821	CHAIN-LINK FENCES AND GATES
02821.B2	Double Swing Gate
03300	CAST-IN-PLACE CONCRETE
03300.A5	Concrete Slab
03300.D1	Concrete Footing
03300.E2	Concrete Wall
03300.H1	Reinforcing Bars
04810	UNIT MASONRY ASSEMBLIES
04810.A1	Concrete Masonry Unit
04810.E1	Face Brick
05500	METAL FABRICATIONS
05500.N3	Pipe Bollards

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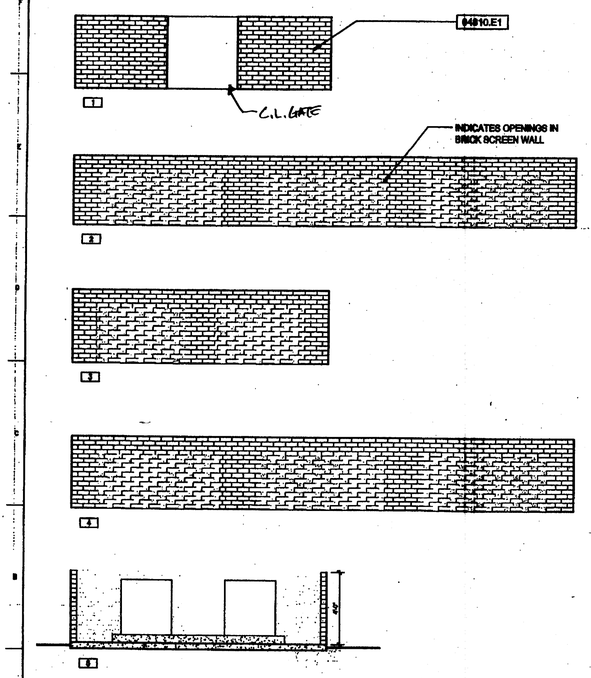
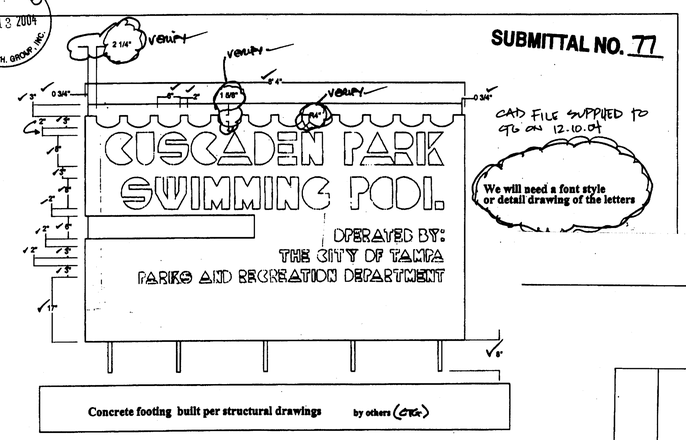
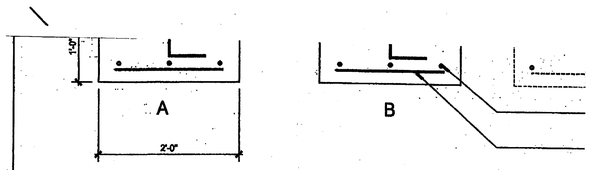


A1	EQUIPMENT
1/4" = 1'-0"	



Georgia Precast Services inc
phone 678 858 2263 fax 404 325 4559

Construction Technology Group
Cuscaden Sign



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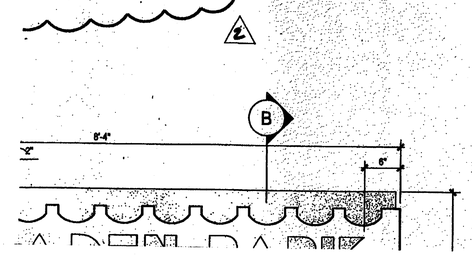

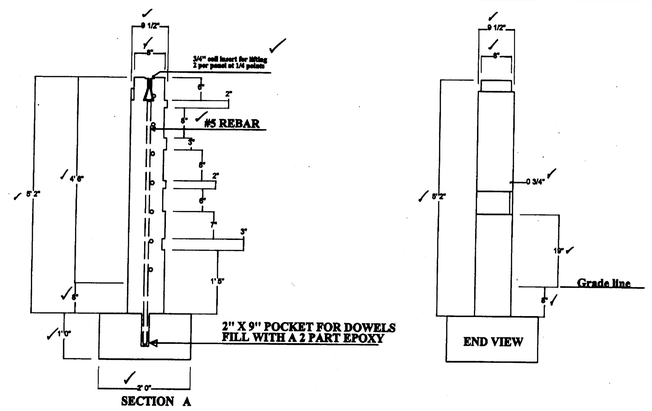

Georgia Precast Services inc
phone 678 858 2263 fax 404 325 4559

Construction Technology Group
Cuscaden Sign

S3

A5	SITE SIGN DETAILS
1" = 1'-0"	

4	LEGEND / NOTES

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
REVISION 2	05.07.04

ENLARGED PLANS AND DETAILS

RECORD DWG.
DATE 8/26/05

A503

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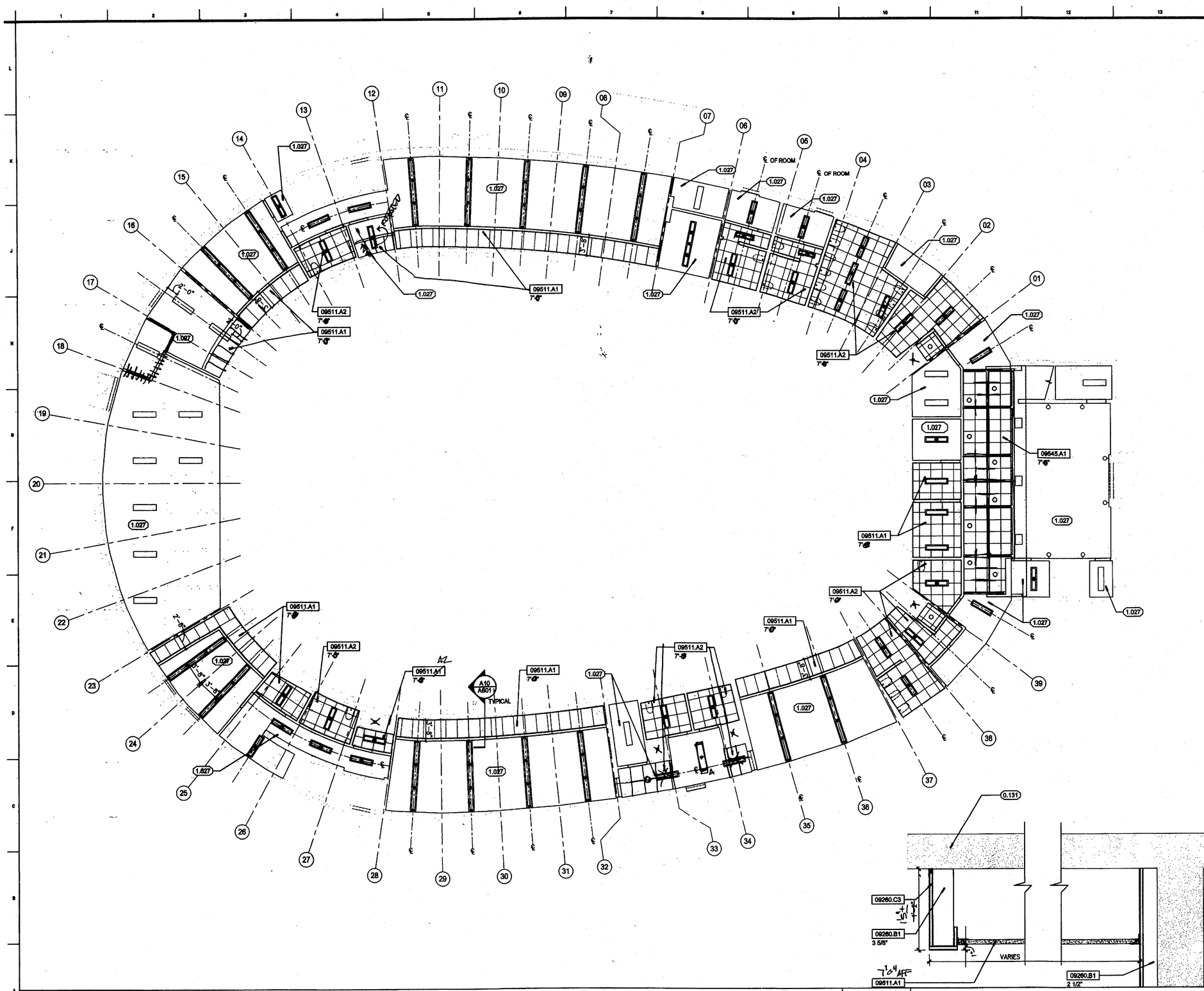

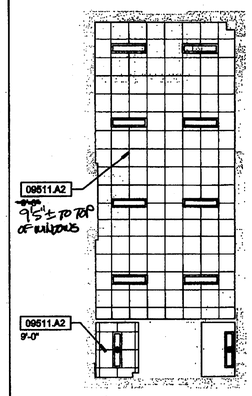

H14	REF. CLG. PLAN
1/8"=1'-0"	Second Floor

FIXTURE LEGEND

	SURFACE MOUNTED FLOURESCENT
	SURFACE MOUNTED FLOURESCENT
	SURFACE MOUNTED FLOURESCENT
	WALL SCONCE
	RECESSED FLOURESCENT FIXTURE
	EMERGENCY EXIT DEVICE

KEYNOTES

09260	GYPSUM BOARD ASSEMBLIES
09260.B1	Steel Studs
09260.C3	Gypsum Wallboard
09511	ACOUSTICAL PANEL CEILINGS
09511.A1	Suspended Acoustical Panel Ceiling System
09511.A2	Suspended Gypsum Based Panel Ceiling System
09545	METAL CEILINGS
09545.A1	Suspended Metal Ceiling System

GENERAL NOTES

0.000	DEMOLITION
0.131	existing concrete slab to remain
1.000	ARCHITECTURAL
1.027	exposed structure

C14	KEYNOTES

GENERAL NOTES

1. Locate all ceiling fixtures per Architectural Drawings.
2. Where existing concrete ceiling is to remain, repair/patch as necessary and paint
3. Elevations given on Reflected Ceiling Plans are from finish floor to finish ceiling at point directly below indicator.
4. All rooms with one fixture - Fixture to be centered in room.

A1	REFLECTED CEILNG PLAN - First Floor
1/8"=1'-0"	

A10	TYPICAL SOFFIT DETAIL
1 1/2"=1'-0"	

A14	LEGEND / NOTES

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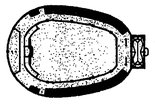


CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

REFLECTED CEILING PLAN

RECORD DWG.
DATE 8/26/05

PROJECT NORTH TRUE NORTH

A601

RECEIVED FEB 23 2004 CONST. TECH. GROUP, INC.

217 009

DOOR HARDWARE

Hardware Set #1 - doors: 101, 130, 201; each to have:
2 Cylinder 3080/1080 630
Remainder of hardware specified with aluminum door

Hardware Set #2 - doors: 157; each to have:
6 ea Hinges FBB191 4.5 x 4.5 NRP 630
1 Classroom Lock ML2055 NSM 630
2 Closer with Stop 4111 CUSH 689
2 Flush Bolts 555 12" 630
1 Lock Guard LG10 630
1 Threshold 2005AV
1 Rain Drip 346C
1 set Weather Stripping S88BL

Hardware Set #3 - doors: 120 (90 Min. Rated Door & Frame); each to have:
3 ea Hinges FBB191 4.5 x 4.5 NRP 630
1 Storeroom Lock ML2057 NSM 630
1 Closer with Stop 4111 CUSH 689
1 Lock Guard LG10 630
1 Threshold 2005AV
1 Rain Drip 346C
1 set Weather Stripping S88BL

Hardware Set #4 - doors: 124A, 124B, 140, each to have:
3 ea Hinges FBB191 4.5 x 4.5 NRP 630
1 Storeroom Lock ML2057 NSM 630
1 Closer with Stop 4111 CUSH 689
1 Lock Guard LG10 630
1 Threshold 2005AV
1 Rain Drip 346C
1 set Weather Stripping S88BL

1 EXIT DEVICE PER ELEC. INSTRUCT.

Hardware Set #5 - doors: 125, 156; each to have:
3 ea Hinges FBB191 4.5 x 4.5 NRP 630
1 Exit Device/Panic Hardware 98EO 630
1 Closer with Stop 4111 CUSH 689
1 Door Top Weather Strip 346

Hardware Set #6 - doors: 112, 160, 161; each to have:
3 ea Hinges FBB191 4.5 x 4.5 NRP 630
1 Deadlock DL4017 630
1 Push Plate 70F 630
1 Door Pull BF112 630
1 Closer with Stop 4111 CUSH 689
1 Rain Drip 346C

Hardware Set #7 - doors: 102, 110, 113, 114, 121, 122, 154 and 162; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Privacy Set ML2030 NSM 630
1 Stop
3 ea Silencers

Hardware Set #8 - doors: 103, 104, 105, 106, 131, 152, 159, 203; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Storeroom Lock ML2057 NSM 630
1 Stop
3 ea Silencers

Hardware Set #9 - doors: 107, 151; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Office Lock ML2051 NSM 630
1 Stop
3 ea Silencers

Hardware Set #10 - doors: 109 (90 Min. Rated Door & Frame); eac
3 ea Hinges FBB191 4.5 x 4.5 630
1 Storeroom Lock ML2057 NSM 630
1 Closer with Stop 4111 CUSH 689
3 ea Silencers

Hardware Set #11 - doors: 111, 117, 202; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Classroom Lock ML2055 NSM 630
1 Stop
3 ea Silencers

Hardware Set #12 - doors: 115, 155; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Storeroom Lock ML2057 NSM 630
1 Overhead Stop GJ450 series 630
3 ea Silencers

Hardware Set #13 - doors: 124C; each to have:
3 ea Hinges FBB191 4.5 x 4.5 630
1 Office Lock ML2051 NSM 630
1 Overhead Stop GJ450 series 630
3 ea Silencers

Hardware Set #14 - doors: 158; each to have:
6 ea Hinges FBB191 4.5 x 4.5 630
1 Storeroom Lock ML2057 NSM 630
2 Overhead Stops GJ450 series 630
2 Flush Bolts 555 12" 630
1 Dustproof Strike 570 630
2 ea Silencers

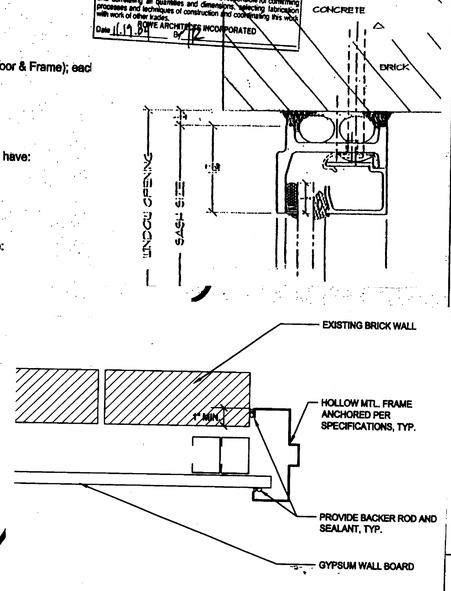
ALUMINUM STOREFRONT HARDWARE

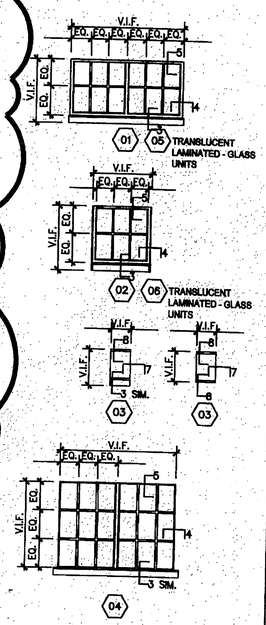
Hardware Set #01
Opening: 101, each to have:
6 Hinges FBB 191 4.5 x 4.5 NRP 630
2 Exit Device/Panic Hardware Kawneer Paneline® CR-90
2 Pulls Kawneer CPN
2 Closers with stop 4111 CUSH 689
1 Astragal
1 Threshold 2005AS
1 Weather Seals S88BL

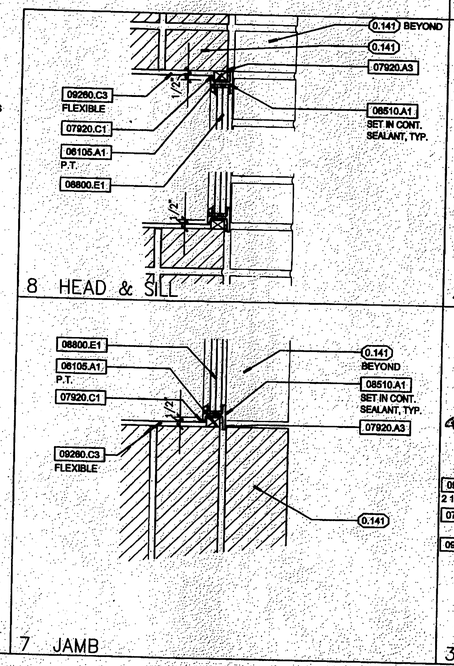
Hardware Set #02
Opening: 201, each to have:
6 Hinges FBB 191 4.5 x 4.5 NRP 630
2 Exit Device/Panic Hardware Kawneer Paneline® CR-90, locate on pool side of door.
2 Pulls Kawneer CPN
2 Closers with stop 4111 CUSH 689
1 Astragal
1 Threshold 2005AS
1 Weather Seals S88BL

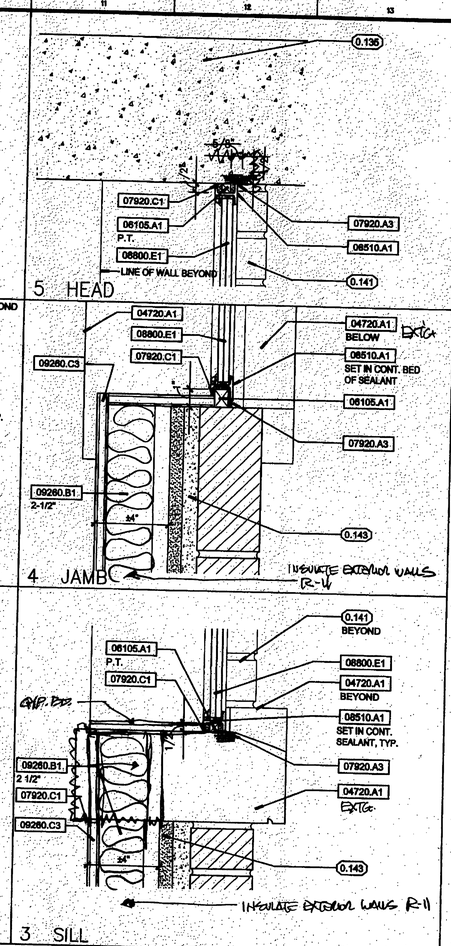
Hardware Set #03
Opening: 130, each to have:
6 Hinges FBB 191 4.5 x 4.5 NRP 630
1 Storeroom Lock ML2057 NSM 630
2 Flush Bolts 555 12" 630
2 Overhead Stop GJ450 Series 630
1 Threshold 2005AS
1 Weather Seals S88BL

NO EXCEPTION TAKEN
EXCEPTIONS TAKEN AS NOTED
REJECTED
REVISE AND RESUBMIT
Review of this submittal is only for general conformance with the design concept of the project and general compliance with the requirements of the Contract Documents. The Contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction and coordinating this work with work of other trades.
Date 11.19.04 ROWE ARCHITECTS INCORPORATED By



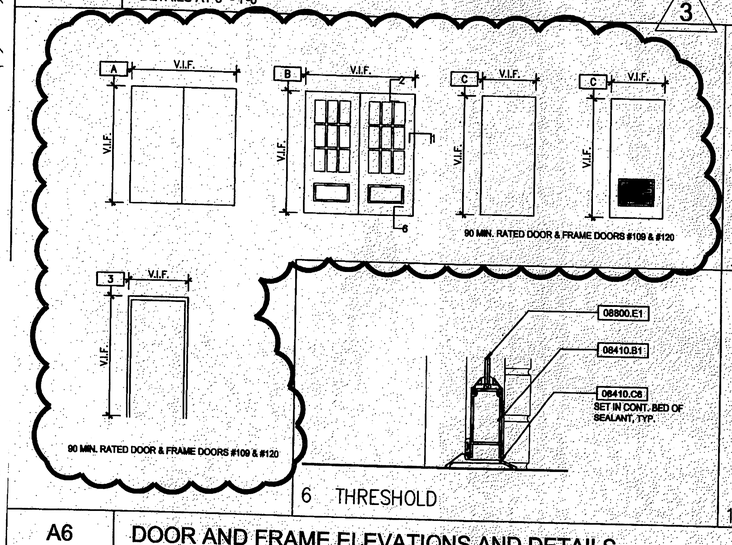






E6 | WINDOW ELEVATIONS & DETAILS

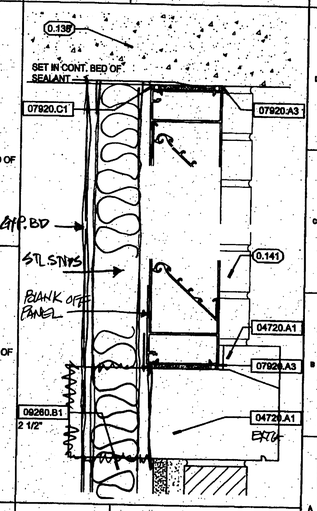
DETAILS AT 3" - 1'-0"



A6 | DOOR AND FRAME ELEVATIONS AND DETAILS

DETAILS AT 3" = 1'-0"

E14 | KEYNOTES



A14 | LOUVER DETAILS

3" = 1'-0"

KEYNOTES

04720	CAST STONE
04720.A1	Cast stone windowsill (EXTG.)
05500	METAL FABRICATIONS
05500.G2	Loose Steel Lintel, Galvanized
06105	MISCELLANEOUS CARPENTRY
06105.A1	Wood Blocking.
07920	JOINT SEALANTS
07920.A3	Silicone Sealant
07920.C1	Latex Sealant
08410	ALUMINUM ENTRANCES AND STOREFRONTS
08410.A1	Aluminum Storefront Framing
08410.B1	Aluminum and Glass Entrance Door
08410.C6	Threshold
08510	STEEL WINDOWS
08510.A1	Fixed Window
08800	GLAZING
08800.E1	Laminated Glass
09260	GYPSUM BOARD ASSEMBLIES
09260.B1	Steel Studs
09260.C3	Gypsum Wallboard

GENERAL NOTES

0.000	DEMOLITION
0.135	existing pool deck slab to remain
0.141	existing masonry to remain
0.143	existing brick wall

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602.4704
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Fax: 813.221.9154
813.221.8771
AAC002172

Rick Rowe 07.13.04

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
REVISION 1	05.07.04
REVISION 2	07.14.04

WINDOW, DOOR & LOUVER DETAILS

RECORD DWG.
DATE 8/26/05

REVISED
JUL 16 2004
CITY OF TAMPA
COMMERCIAL PLAN REVIEW

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PRE-BID SUBMITTAL
THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO BIDDING TO FAMILIARIZE HIMSELF WITH THE CONDITIONS FOR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN FROM THE OWNER A WRITTEN LIST OF ALL PERMITS AND COPIES THEREOF, AND CAREFULLY REVIEW ALL PLANS, SPECIFICATIONS, AND PERMITS PREVIOUSLY SECURED ON BEHALF OF THE OWNER. IN CASE OF ANY DISCREPANCY EITHER IN PERMIT DOCUMENTS, PLANS, DRAWINGS, OR SPECIFICATIONS. THE CONTRACTOR MUST PROMPTLY SUBMIT A "WRITTEN CLARIFICATION REQUEST" TO THE OWNER, WHO WILL PROMPTLY FORWARD SAME TO THE ENGINEER WHO WILL MAKE A DETERMINATION IN WRITING. THE CONTRACTOR MUST VERIFY EXISTING FACILITY INFORMATION, AND ALL DESIGN/PERMIT DATA REQUIRED FOR WORK THAT IS TO CONNECT WITH EXISTING FACILITIES. ANY DISCREPANCIES BETWEEN THE CONTRACT REQUIREMENTS AND THE EXISTING CONDITIONS MUST BE REFERRED TO THE OWNER, IN WRITING, FOR AN ENGINEERING DETERMINATION. ANY FURTHER ADJUSTMENT DUE TO FAILURE BY THE CONTRACTOR TO IDENTIFY THE RELATED DISCREPANCY, WILL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY LICENSES AND ADDITIONAL PERMITS. AND FOR COMPLYING WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES, AND REGULATIONS IN CONNECTION WITH THE PERFORMANCE OF THE WORK.

CONSTRUCTION SAFETY AND LIABILITY
THE CONTRACTOR MUST TAKE PROPER SAFETY AND HEALTH PRECAUTIONS TO PROTECT THE WORK, THE WORKERS, THE PUBLIC, AND THE PROPERTY OF OTHERS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS DELIVERED AND WORK PERFORMED UNTIL COMPLETION AND ALL ACCEPTANCES HAVE BEEN OBTAINED. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH "THE STATE OF FLORIDA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO PERSONS OR PROPERTY THAT OCCURS AS A RESULT OF HIS NEGLIGENCE. THE CONTRACTOR MUST SAVE HARMLESS AND INDEMNIFY THE OWNER AND CHARLOTTE ENGINEERING AND SURVEYING, INC., ITS OFFICERS, REPRESENTATIVES, AND EMPLOYEES FROM ALL CLAIMS, LOSS, DAMAGE, ACTIONS, CAUSES OF ACTION, AND/OR EXPENSES RESULTING FROM, BROUGHT FOR, OR ON ACCOUNT OF ANY PERSONAL INJURY OR PROPERTY DAMAGE RECEIVED OR SUSTAINED BY ANY PERSONS OR PROPERTY GROWING OUT OF, OCCURRING, OR ATTRIBUTABLE TO ANY WORK PERFORMED UNDER OR RELATED TO THIS CONTRACT, RESULTING IN WHOLE OR IN PART FROM THE NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, ANY SUBCONTRACTOR, OR ANY EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE CONTRACTOR OR ANY SUBCONTRACTOR.

PRE-CONSTRUCTION
THE OWNER SHALL SECURE PRIOR TO CONSTRUCTION A PROFESSIONAL LAND SURVEYOR TO PERFORM AN "AS-BUILT" SURVEY OF ALL COMPLETED IMPROVEMENTS. THE OWNER SHALL ALSO SECURE PRIOR TO CONSTRUCTION A PROFESSIONAL ENGINEER TO PROVIDE THE APPROPRIATE SERVICES NEEDED IN ORDER TO CERTIFY TO ALL APPLICABLE REGULATORY AGENCIES THAT THE IMPROVEMENTS WERE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH ALL APPLICABLE PERMITS AND APPROVALS. THE OWNER SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, SURVEYOR, CONTRACTOR, TESTING LAB, UTILITY COMPANIES, AND APPROPRIATE REGULATORY AGENCIES. THE CONTRACTOR SHALL PROVIDE A SHOP DRAWING SUBMISSION SCHEDULE FOR ALL PROJECT MATERIALS AND COMPONENTS. THE CONTRACTOR SHALL NOT INITIATE CONSTRUCTION OF ANY PORTION OF THE IMPROVEMENTS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED FOR THAT PORTION BY THE ENGINEER. THE OWNER, CONTRACTOR, ENGINEER AND UTILITY COMPANY SHALL ALSO DISCUSS ALL DOCUMENTATION REQUIRED FOR CONTRIBUTED FACILITIES TRANSFER FROM THE OWNER/DEVELOPER TO THE UTILITY COMPANY UPON PROJECT COMPLETION. UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE FOLLOWING DOCUMENTS SHALL BE PROVIDED:
DOCUMENTS REQUIRED FOR CONTRIBUTED FACILITIES FROM DEVELOPER TO UTILITY COMPANY:
1. UTILITY EASEMENT(S): MUST BE RECORDED AT COUNTY CLERK OF COURT OFFICE BEFORE SUBMITTING TO UTILITY.
2. EASEMENT ACKNOWLEDGEMENT.
3. AFFIDAVIT.
4. RELEASE OF LIEN.
5. BILL OF SALE.
6. ASSIGNMENT OF RIGHTS UNDER UTILITY AGREEMENT: WHEN PROPERTY HAS BEEN TRANSFERRED TO A NEW OWNER.
7. DESCRIPTION OF FACILITIES: A SHORT EXPLANATION DEPICTING WHAT HAS BEEN CONSTRUCTED.
8. DETAILED COST OF CONSTRUCTION; MUST INCLUDE INDIVIDUAL ITEMS OR APPURTENANCES, UNIT COST AND TOTAL COST OF EACH. DO NOT INCLUDE WATER SERVICE LINES OR SEWER LATERALS.
9. RECORD DRAWINGS (AS-BUILT): MUST BE SIGNED AND SEALED BY ENGINEER OF RECORD. SUBMIT A REPRODUCIBLE MYLAR AND TWO COPIES OF PRINTS.
10. F.D.E.P. APPLICATION(S).
11. INSPECTION REPORT(S).
12. PRESSURE TEST REPORT(S).
13. INFILTRATION-EXFILTRATION TEST REPORT(S), INCLUDING VIDEO TAPES AND LAMPING REPORTS.
14. LIFT STATION INSPECTION (START-UP) REPORT(S) AND EQUIPMENT SHOP DRAWINGS.
15. BACTERIOLOGICAL TEST REPORT(S).
16. ENGINEER'S CERTIFICATE OF SUBSTANTIAL COMPLETION TO F.D.E.P.
17. SYSTEM(S) ACCEPTANCE LETTER(S) FROM F.D.E.P.
NOTES: ITEM 1-8 TO BE SUPPLIED BY OWNER. ITEMS 9-17 TO BE SUPPLIED BY ENGINEER OF RECORD.

UNLESS OTHERWISE SPECIFIED BY THE UTILITY, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENTS OF THE WATER, GAS, SEWER, TELEPHONE, AND POWER COMPANIES, 10 DAYS IN ADVANCE, THAT HE INTENDS TO START WORK IN A SPECIFIC AREA. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE SUPPORT AND PROTECTION OF SEWERS, DRAINS, WATER LINES, GAS LINES, CONDUITS OF ANY KIND, UTILITIES OR OTHER STRUCTURES OWNED BY THE CITY, COUNTY, STATE OR BY PRIVATE OR PUBLIC UTILITIES LEGALLY OCCUPYING ANY STREET, ALLEY, PUBLIC PLACE, RIGHT-OF-WAY, OR EASEMENT.

PROJECT SIGN
THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A CONSTRUCTION PROJECT SIGN AT A LOCATION DIRECTED BY THE OWNER. CHARLOTTE ENGINEERING AND SURVEYING, INC. SHALL PROVIDE A SEPARATE SIGN FOR INSTALLATION BY THE CONTRACTOR AT THIS LOCATION. THESE SIGNS SHALL BE ERECTED WITHIN 15 DAYS AFTER RECEIVING A NOTICE TO PROCEED. UPON PROJECT COMPLETION, THE CONTRACTOR SHALL REMOVE THESE SIGNS AND RETURN TO CHARLOTTE ENGINEERING AND SURVEYING, INC. THEIR SIGN.

ENVIRONMENTAL PROTECTION DURING CONSTRUCTION
PROTECTION OF LAND RESOURCES—EXCEPT IN AREAS IDENTIFIED ON THE PLANS TO BE CLEARED, THE CONTRACTOR MUST NOT DEFACE, INJURE, OR DESTROY TREES OR SHRUBS OR REMOVE OR CUT THEM WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER. IN THE ABSENCE OF A CLEARING PLAN, AREAS SHOWN FOR IMPROVEMENTS SHALL BE CLEARED UNLESS NOTED OTHERWISE.
PROTECTION OF WATER RESOURCES—IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, REGIONAL, COUNTY, AND MUNICIPAL LAWS CONCERNING POLLUTION OF WATER RESOURCES. ALL WORK MUST BE PERFORMED IN SUCH A MANNER THAT OBJECTIONABLE CONDITIONS WILL NOT BE CREATED IN PUBLIC WATERS RUNNING THROUGH, OR ADJACENT TO THE PROJECT AREA.
1. EROSION AND SEDIMENT CONTROL-ALL PRACTICABLE AND NECESSARY EFFORT SHOULD BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND THE TRANSPORT OF SEDIMENT TO SURFACE DRAINS, SURFACE WATER, OR ONTO OTHER-PROPERTY BY ANY OR ALL OF THE FOLLOWING METHODS:
   A. STORMWATER FACILITIES ARE TO BE BUILT AS EARLY IN THE CONSTRUCTION PHASE AS POSSIBLE TO ENSURE THE TREATMENT OF STORMWATER RUNOFF. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, HOWEVER, SUCH AS BERMS, SEDIMENT BASINS, GRASSING, SODDING, SAND BAGGING, BALED HAY OR STRAW, FLOATING SILT BARRIERS, STACKED SILT BARRIERS, ETC. MUST BE PROVIDED AND MAINTAINED UNTIL THE PERMANENT FACILITIES ARE COMPLETED AND OPERATIONAL.
   B. RE-VEGETATION AND STABILIZATION OF DISTURBED GROUND SURFACES SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE.
   C. FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES.
   D. PROHIBIT THE USE OF ANY CONSTRUCTION EQUIPMENT THAT LEAKS EXCESSIVE AMOUNTS OF FUEL, OIL, OR HYDRAULIC FLUID.
2. ALL DISTURBED AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, EXCEPT RETENTION AREAS, AND SHALL BE STABILIZED BY SODDING, EXCEPT WHERE SEEDING AND MULCHING ARE CALLED FOR ON THE PLANS. THE LATEST VERSION OF THE F.D.O.T. ROAD AND BRIDGE SPECIFICATIONS SHALL BE USED, UNLESS MORE RESTRICTIVE LOCAL SPECIFICATIONS EXIST.

PROTECTION OF FISH AND WILDLIFE
THE CONTRACTOR MUST AT ALL TIMES PERFORM ALL WORK IN A WAY AND TAKE SUCH STEPS AS REQUIRED TO PREVENT ANY INTERFERENCE WITH OR DISTURBANCE TO FISH AND WILDLIFE. THE CONTRACTOR SHALL NOT ALTER WATER FLOWS OR OTHERWISE DISTURB NATIVE HABITATS AND JURISDICTIONAL WETLANDS LOCATED WITHIN AND/OR ADJACENT TO THE PROJECT AREA.

RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS
ALL ITEMS HAVING ANY APPARENT HISTORICAL OR ARCHEOLOGICAL INTEREST THAT ARE DISCOVERED IN THE COURSE OF ANY CONSTRUCTION ACTIVITIES MUST BE CAREFULLY PRESERVED. THE CONTRACTOR MUST LEAVE THE ARCHEOLOGICAL FIND UNDISTURBED AND MUST IMMEDIATELY REPORT THE FIND TO THE OWNER SO THAT THE PROPER AUTHORITY MAY BE NOTIFIED.

EARTHWORK
I. GENERAL
1-01 SUBMITTALS
A. EROSION AND CONTROL MEASURES
B. COMPACTION TESTS
C. SOILS CLASSIFICATION TESTS
D. PRESERVATION PLANS
1-02 SITE EXAMINATION
A. BEFORE SUBMITTING BIDS, CONTRACTORS SHALL INFORM THEMSELVES AS TO LOCATION AND NATURE OF THE WORK, CHARACTER OF EQUIPMENT AND FACILITIES NEEDED FOR PERFORMANCE OF THE WORK, GENERAL AND LOCAL CONDITIONS PREVAILING AT THE SITE, AND OTHER MATTERS WHICH MAY, IN ANY WAY, AFFECT THE WORK UNDER CONTRACT.
B. EXAMINE SOURCES OF INFORMATION CONCERNING GROUND WATER LEVEL, WHETHER SURFACE OR SUBSURFACE. EACH BIDDER TO DRAW HIS OWN CONCLUSION CONCERNING GROUND WATER LEVELS AND HOW WATER AFFECTS HIS WORK.
1-03 SUBSURFACE INVESTIGATIONS
A. SUBSURFACE DATA, INCLUDING GROUND WATER ELEVATIONS OR CONDITIONS, IF SHOWN ON THE DRAWINGS OR ATTACHED TO THESE SPECIFICATIONS, ARE PRESENTED ONLY AS INFORMATION THAT IS AVAILABLE WHICH INDICATED CERTAIN CONDITIONS FOUND AND LIMITED TO THE EXACT LOCATIONS, SHALL NOT BE INTERPRETED AS AN INDICATION OF CONDITIONS THAT MAY ACTUALLY BE DEVELOPED THROUGH THE PERIOD OF CONSTRUCTION. BIDDERS SHALL EXAMINE THE SITE OF THE WORK AND MAKE THEIR OWN DETERMINATION OF THE CHARACTER OF MATERIALS AND THE CONDITIONS TO BE ENCOUNTERED ON THE WORK, AND THEIR PROPOSAL SHALL BE BASED UPON THEIR OWN INVESTIGATIONS. THE OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIATIONS FOUND TO EXIST BETWEEN THE ATTACHED DATA ABOVE REFERRED TO AND ACTUAL FIELD CONDITIONS THAT DEVELOP THROUGH THE PERIOD OF CONSTRUCTION.
B. WHERE EXISTING GRADES, UTILITY LINES AND SUBSTRUCTURES ARE SHOWN ON THE DRAWINGS, THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR CORRECTNESS OF EXISTING CONDITIONS INDICATED. THE CONTRACTOR SHALL ASCERTAIN EXACT LOCATIONS OF UTILITIES AND SUBSTRUCTURES THAT MAY BE AFFECTED BY THIS PROJECT, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY THAT MAY RESULT FROM WORKING ON OR NEAR THOSE UTILITIES, SUBSTRUCTURES WHICH ARE NOT TO BE REMOVED OR DEMOLISHED.
C. THE CONTRACTOR SHALL MAKE HIS OWN DEDUCTIONS OF THE SUBSURFACE CONDITIONS WHICH MAY AFFECT METHODS OR COST OF CONSTRUCTION AND HE AGREES THAT HE WILL MAKE NO CLAIM FOR DAMAGES OR OTHER COMPENSATION, EXCEPT SUCH AS ARE PROVIDED FOR IN THE AGREEMENT, SHOULD HE FIND CONDITIONS DURING THE PROGRESS OF THE WORK DIFFERENT FROM THOSE AS CALCULATED OR ANTICIPATED BY HIM.
1-04 BENCH MARKS AND MONUMENTS
A. MAINTAIN CAREFULLY EXISTING BENCH MARKS, MONUMENTS, AND OTHER REFERENCE POINTS. IF DISTURBED OR DESTROYED, REPLACE AS DIRECTED.
1-05 JOB CONDITIONS
A. CONDITION OF PREMISES: ACCEPT SITE AS FOUND AND EXCAVATE, FILL, COMPACT, AND BACKFILL SITE AS HEREINAFTER SPECIFIED.
B. PROTECTION:
   1. EXISTING STRUCTURES AND PROPERTY: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES AND FACILITIES; PROVIDE AND PLACE BRACING OR SHORING AS NECESSARY OR PROPER IN CONNECTION THEREWITH; BE RESPONSIBLE FOR SAFETY AND SUPPORT OF SUCH STRUCTURES; BE LIABLE FOR ANY MOVEMENT OR SETTLEMENT, ANY DAMAGE OR INJURY CAUSED THEREBY OR RESULTING THEREFROM. IF AT ANY TIME SAFETY OR ANY ADJACENT STRUCTURES APPEARS TO BE ENDANGERED, CEASE OPERATION, TAKE PRECAUTIONS TO SUPPORT SUCH STRUCTURES AND NOTIFY THE OWNER. RESUME OPERATIONS ONLY AFTER PERMISSION HAS BEEN GRANTED BY THE OWNER.
   2. SIDEWALKS AND STREETS: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT, SETTLEMENT OR COLLAPSE OF ANY SIDEWALKS, CURBS OR STREET PASSAGES ON ADJOINING SITE; BE LIABLE FOR ANY SUCH MOVEMENT, SETTLEMENT OR COLLAPSE; REPAIR PROMPTLY SUCH DAMAGE WHEN SO ORDERED. INSTALL SUCH SHORING, INCLUDING SHEET PILING, AS MAY BE REQUIRED DURING EXCAVATION, TO PROTECT BANKS, ADJACENT PAVING, STRUCTURES AND UTILITIES.
   3. RESPONSIBILITY: BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING STRUCTURES OR TO EQUIPMENT AND FURNISHINGS HOUSED THEREIN WHICH ARE DUE DIRECTLY OR INDIRECTLY TO CONSTRUCTION OPERATIONS. EXCEPT WHERE REMOVAL IS NECESSITATED BY SITE GRADING OR LOCATION OF NEW BUILDING, USE EVERY POSSIBLE PRECAUTION TO PREVENT INJURIES TO LANDSCAPING, DRIVES, CURBS, AND WALKS ON OR ADJACENT TO SITE OF THE WORK AND REPLACE, AT NO EXPENSE TO OWNER, ANY OF SUCH THAT ARE DESTROYED.

II. EXECUTION
2-01 GENERAL
A. ACCOMPLISH IN A MANNER THAT PROVIDES FOR THE SAFETY OF THE PUBLIC AND WORKMEN AND PROVIDE FOR THE PROTECTION OF ALL PROPERTY.
B. CONSTRUCTION: DO NOT CLOSE, OBSTRUCT OR STORE MATERIAL OR EQUIPMENT IN STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT A PERMIT IN ACCORDANCE WITH LOCAL ORDINANCES, REGULATIONS, AND CODES.
C. INTERFERENCE: CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, ALLEYS, SIDEWALKS AND OTHER FACILITIES.
D. PNEUMATIC TOOLS: WORK WITH PNEUMATIC OR VIBRATORY TOOLS WILL BE PERMITTED ONLY IN A MANNER WHICH CAUSES NO RELATED DAMAGES.
E. REMOVAL: UNLESS OTHERWISE NOTED OR SPECIFIED TO BE RELOCATED OR STORED, ALL MATERIALS REMOVED BECOME THE PROPERTY OF THE CONTRACTOR AND ARE BE REMOVED COMPLETELY AWAY FROM THE SITE BY HIM. DO NOT STORE OR PERMIT DEBRIS TO ACCUMULATE ON THE SITE.
F. TEMPORARY STRUCTURES: REMOVE ALL TEMPORARY STRUCTURES WHEN THEY ARE NO LONGER REQUIRED.
G. REPAIR: CLEAN UP, REPAIR OR REPLACE AT NO COST TO OWNER ALL PROPERTY DAMAGED BY REASON OF REQUIRED WORK. ALL PATCH WORK SHALL MATCH EXISTING AND BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER BY CRAFTSMEN SKILLED IN THE TRADE INVOLVED. IN NEWLY GRADED AREAS TAKE EVERY PRECAUTION AND TEMPORARY MEASURE NECESSARY TO PREVENT DAMAGE FROM EROSION OF FRESHLY GRADED AREAS. WHERE ANY SETTLEMENT OR WASHING MAY OCCUR PRIOR TO ACCEPTANCE OF THE WORK, REPAIR AND RE-ESTABLISH GRADES TO THE REQUIRED ELEVATIONS AND SLOPES AT NO ADDITIONAL COST TO THE OWNER. THIS APPLIES TO DAMAGE TO THE NEWLY GRADED AREAS WITHIN THE CONSTRUCTION LIMITS AND DAMAGE TO ADJACENT PROPERTIES BY ERODED MATERIAL.
2-02 LOCATIONS AND ELEVATIONS
A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYS, MEASUREMENTS AND LAYOUTS REQUIRED FOR PROPER EXECUTION OF THE WORK. LAY OUT LINES AND GRADES FROM EXISTING SURVEY CONTROL SYSTEM AND AS SHOWN ON DRAWINGS.
2-03 CLEARING AND GRUBBING
A. WITHIN LIMITS OF AREAS DESIGNATED FOR GRADING AND SITE CONSTRUCTION WORK, REMOVE TREES, BRUSH, STUMPS, WOOD DEBRIS AND OTHER DELETERIOUS MATERIALS NOT REQUIRED TO REMAIN AS PART OF THE FINISHED WORK.
B. REMOVE ALL GRASS, PLANTS, VEGETATION AND ORGANIC MATERIAL FROM SAME AREA.
2-04 STRIPPING
A. STRIP ALL TOPSOIL, ORGANIC MATERIAL, SURFACE LITTER, RUBBLE, AND OVERBURDEN FOR ENTIRE DEPTH OF ROOT SYSTEM OF GRASS OR OTHER VEGETATION OVER THE LIMITS OF CONSTRUCTION.
B. STOCKPILE TOPSOIL ON SITE WHERE DIRECTED.
2-05 EXECUTION
A. BEGIN EXCAVATION AFTER STRIPPING, CLEARING AND GRUBBING WHERE APPLICABLE, HAS BEEN COMPLETED.
B. EXCAVATE TO GRADES REQUIRED TO ACCOMMODATE THE PROPOSED CONSTRUCTION; DE-WATER AS NEEDED.
C. REMOVE UNSATISFACTORY MATERIALS ENCOUNTERED FROM THE BUILDING AREAS, AND OTHER NON-LANDSCAPED AREAS.
D. EXCAVATE IN SUCH A MANNER THAT QUICK AND EFFICIENT DRAINAGE OF STORMWATER WILL BE AFFECTED.
E. CLASSIFY EXCAVATED MATERIALS AND STOCKPILE SEPARATELY SUITABLE SOILS FOR USE AS BACKFILL MATERIALS. IF SUFFICIENT QUANTITIES OF EXCAVATED MATERIALS MEETING REQUIREMENTS FOR BACKFILL ARE NOT AVAILABLE ON-SITE, PROVIDE MATERIALS MEETING THESE REQUIREMENTS.
F. STOCKPILE EXCAVATED MATERIAL SUITABLE FOR USE AS FILL AND BACKFILL.
2-06 FILLING, BACKFILLING, AND COMPACTING
A. THE WORK CONSISTS OF COMPACTION OF EXISTING EARTH (EXCLUDES ROCK), SURFACES AFTER EXCAVATION, FILLING AND COMPACTION OF SAID AREA TO LEVELS REQUIRED WITH SUITABLE BACKFILL MATERIAL.
B. MATERIALS: SATISFACTORY FILL MATERIALS, AASHTO CLASSIFICATION A-3 OR BETTER, SHALL BE USED IN FILLS AND BACKFILLS.
C. FILLING AND BACKFILLING: PLACE SATISFACTORY FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING SIX (6") INCHES IN LOOSE DEPTH. COMPACT AS SPECIFIED HEREIN. NO MATERIAL SHALL BE PLACED ON SURFACES THAT ARE MUDDY.
D. COMPACTION: COMPACTION SHALL BE WITH EQUIPMENT SUITED TO SOIL BEING COMPACTED. MOISTEN OR AERATE MATERIAL, AS NECESSARY, TO PROVIDE MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING SPECIFIED COMPACTION WITH EQUIPMENT USED. COMPACT EACH LAYER TO NOT LESS THAN PERCENTAGE OF MAXIMUM DENSITY SPECIFIED BELOW, DETERMINED IN ACCORDANCE WITH AASHTO T-180. INSURE THAT THE COMPACTION OF PREVIOUSLY PREPARED FILL AREAS HAS BEEN MAINTAINED PRIOR TO PLACING NEW LAYERS.
E. RECONDITIONING OF SUBGRADE: WHERE APPROVED COMPACTED SUBGRADES ARE DISTURBED BY THE CONTRACTOR'S SUBSEQUENT OPERATIONS OR ADVERSE WEATHER, SUBGRADE SHALL BE SCARIFIED AND COMPACTED AS SPECIFIED HEREINBEFORE TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION THEREON. RE-COMPACTION OVER UNDERGROUND UTILITIES SHALL BE BY POWER-DRIVEN HAND TAMPERS.
F. COMPACTION REQUIREMENTS:
   1. FILL UNDER LAWNS AND PLANTED AREAS: 95%
   2. BELOW SLABS ON GRADE AND CONCRETE WALKS: 98%
   3. UNDER PAVING AND PARKING AREAS: 98%

2-07 TESTING
A. THE CONTRACTOR WILL PROVIDE THE SERVICES OF A TESTING LABORATORY TO PERFORM SPECIFIED TESTS, INSPECTIONS, INSTRUMENTATION AND INSPECTION OF THE WORK.
B. TESTS OF MATERIALS SHALL BE AS FOLLOWS:
   1. SOIL CLASSIFICATION: ONE TEST FROM EACH TYPE OF MATERIAL ENCOUNTERED AND/OR PROPOSED TO BE USED.
   2. LABORATORY TESTS FOR MOISTURE-CONTENT AND DENSITY ACCORDING TO AASHTO T-180: ONE TEST FOR EACH MATERIAL ENCOUNTERED AND/OR PROPOSED TO BE USED.
   3. FIELD TESTS FOR MOISTURE CONTENT AND DENSITY: ONE TEST PER LAYER OF FILL PER 5,000 SQUARE FEET OF AREA.
C. ONE COPY OF ALL TEST REPORTS, SIGNED AND SEALED BY TESTING LABORATORY ARE TO BE PROVIDED TO THE ENGINEER.

SUPPLEMENTAL SPECIFICATIONS
GENERAL
THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND ADHERE TO THE SPECIFICATIONS AND STANDARDS OF THE UTILITY COMPANIES WHICH ARE SERVING THE PROJECT SITE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL SITE DEVELOPMENT STANDARDS AND CODES OF THE REGULATORY AGENCIES ASSOCIATED WITH THIS PROJECT. THE LATEST VERSION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION STANDARD SPECIFICATIONS THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS SHALL BE INCLUDED WITHIN THE PROJECT SPECIFICATIONS. UNLESS OTHERWISE NOTED, EITHER ON THE PLANS OR WITHIN THE SPECIFICATIONS, THE APPLICABLE SECTIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS SHALL APPLY INCLUDING REFERENCES THEREIN. THE GENERAL DESCRIPTION OF THE NATURE OF THE WORK SHALL BE SUFFICIENT CORRELATION TO THE FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, EXACT ITEM DESCRIPTION IS NOT REQUIRED. IN THE EVENT THERE ARE CONFLICTS BETWEEN SPECIFICATIONS OR REQUIREMENTS, THE MOST RESTRICTIVE (CONSERVATIVE) SPECIFICATION OR REQUIREMENT SHALL BE USED.

POTABLE WATER DISTRIBUTION/WASTEWATER COLLECTION INSTALLATION
UNLESS OTHERWISE NOTED ON THE PLANS, THE STANDARDS AND SPECIFICATIONS OF THE ASSOCIATED UTILITY COMPANY SERVING THE PROJECT SITE SHALL BE ADHERED TO FOR ALL MATERIALS, INSTALLATION, TESTING, AND CERTIFICATION ACTIVITIES FOR ALL PUMP STATIONS, MAIN LINES, SERVICES, AND APPURTENANCES. IF STANDARDS AND SPECIFICATIONS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS ADOPTED BY LOCAL UTILITIES, LOCAL GOVERNMENTAL REGULATIONS, OR THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY THE MOST RESTRICTIVE.

STORMWATER PIPE INSTALLATION AND MISCELLANEOUS EXCAVATIONS
UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE EXCAVATION, BEDDING, JOINTS, AND BACKFILLING OPERATIONS IN ACCORDANCE WITH THE POTABLE WATER/WASTEWATER INSTALLATION SPECIFICATIONS, LOCAL GOVERNMENTAL REGULATIONS OR STANDARDS, F.D.O.T. STANDARDS AND SPECIFICATIONS, OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY THE MOST RESTRICTIVE.

UNSUITABLE MATERIALS
IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE ROADWAY AREA AND/OR UTILITY AREAS IT SHALL BE REMOVED TO A DEPTH OF THREE (3.0') FEET BELOW THE SUB-BASE OR TRENCH BOTTOM AND SHALL BE BACKFILLED WITH A-3 MATERIAL OR BETTER WITH PLACEMENT AND COMPACTION METHODS IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, OR AS OTHERWISE NOTED ON THE PLANS. UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE SITE, UNLESS THE ENGINEER APPROVES USE WITHIN LANDSCAPED AREAS.

DE-WATERING
1-01 GENERAL
A. DE-WATERING CONSISTS OF PERFORMING ALL WORK NECESSARY TO REMOVE SURFACE WATER AND/OR CONTROL THE GROUND WATER LEVELS AND HYDROSTATIC PRESSURES IN ORDER TO PERMIT ALL EXCAVATION AND CONSTRUCTION UNDER THIS CONTRACT TO BE PERFORMED IN THE DRY.
B. WORK OF THIS SECTION INCLUDES INSTALLATION, OPERATIONS, MAINTENANCE, SUPERVISION, SUPPLY, DISMANTLING, AND REMOVAL FROM THE SITE OF THE DE-WATERING EQUIPMENT.
C. THE CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE POTENTIAL FOR EXCESSIVE RAINFALL, THE GROUND CONDITIONS, AND THE GROUND WATER CONDITIONS. GROUND WATER ELEVATION CAN FLUCTUATE. IT IS ANTICIPATED THAT ANY EXCAVATIONS MAY ENCOUNTER THE GROUND WATER TABLE.
D. DRAINAGE OF THE SITE: AT ALL TIMES THE CONTRACTOR SHALL MAINTAIN AND OPERATE ADEQUATE SURFACE AND SUBSURFACE DRAINAGE METHODS IN ORDER TO KEEP THE CONSTRUCTION SITE DRY AND IN SUCH CONDITION THAT PLACEMENT AND COMPACTION OF FILL MAY PROCEED UNHINDERED BY SATURATION OF THE AREA. DURING CONSTRUCTION, THE SURFACE OF THE BACKFILL AREA SHALL BE LEFT IN SUCH CONDITION THAT PRECIPITATION AND/OR SURFACE WATER WILL RUN OFF WITHOUT PONDING.
1-02 METHOD
A. THE CONTROL OF ALL SURFACE AND SUBSURFACE WATER IS PART OF THE DE-WATERING REQUIREMENTS. MAINTAIN ADEQUATE CONTROL SO THAT THE STABILITY OF EXCAVATED AND CONSTRUCTION SLOPES IS NOT ADVERSELY AFFECTED BY WATER, THAT EROSION IS CONTROLLED, AND THE FLOODING OF EXCAVATIONS OR DAMAGE TO STRUCTURES DOES NOT OCCUR. DRAIN SURFACE WATER AWAY FROM THE EXCAVATION.
B. DISPOSE OF ALL WATER REMOVED FROM THE EXCAVATION IN A MANNER THAT WILL NOT ENDANGER PUBLIC HEALTH, PROPERTY, OR PORTIONS OF THE WORK UNDER CONSTRUCTION OR COMPLETED. DISPOSE OF WATER IN A MANNER THAT WILL CAUSE NO INCONVENIENCE WHATSOEVER TO THE OWNER OR TO OTHERS ENGAGED IN WORK AT THE SITE.
C. DISPOSE OF WATER RESULTING FROM DE-WATERING OPERATIONS IN ACCORDANCE WITH CITY, COUNTY, STATE AND FEDERAL REGULATIONS.
D. CONDUCT OPERATIONS SO THAT STORMWATER RUNOFF, SEDIMENT IS NOT DISCHARGED TO THE ADJACENT WATER BODIES, SEWERS, STREETS AND ADJACENT PROPERTIES.
E. DE-WATERING SYSTEM SHALL BE SO DESIGNED AS TO PREVENT REMOVAL OF SOIL FINES FROM THE SITE DURING THE DE-WATERING OPERATION.

PORTLAND CEMENT CONCRETE PAVING
1-01 QUALITY ASSURANCE
A. COMPLY WITH ACI STANDARDS "RECOMMENDED PRACTICES FOR CONSTRUCTION OF CONCRETE PAVEMENTS AND CONCRETE BASES" (ACI316, LATEST EDITION).
1-02 REFERENCE STANDARDS
A. THE FOLLOWING REFERENCE STANDARDS OF THE ISSUES LISTED BELOW, BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH HEREINAFTER SPECIFIED STANDARDS.
   1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
   2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD
   3. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) 1986 STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - SECTION 350 - "CEMENT CONCRETE PAVEMENT".
   4. T-180 MOISTURE-DENSITY RELATIONS OF SOILS
1-03 SUBMITTALS
A. THE CONTRACTOR SHALL SUBMIT TWO COPIES OF TEST REPORTS PREPARED BY AN INDEPENDENT TESTING LABORATORY AND CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE STATE OF FLORIDA. THESE REPORTS SHALL INDICATE ALL TESTS PERFORMED AND SHALL INCLUDE A CERTIFICATION STATEMENT OF COMPLIANCE WITH THE PROJECT SPECIFICATIONS. TESTS SHALL BE PERFORMED AS SPECIFIED UNDER THIS SECTION.
   1. SUBMIT FOR REVIEW THE FOLLOWING:
      A. CONCRETE DESIGN MIX AND PROVING FLEXURAL STRENGTH (MODULUS OF RUPTURE) TESTS
      B. EXPANSION JOINT FILLER DATA
      C. JOINT SEALER DATA
      D. "PROPOSED PAVING CONSTRUCTION PLAN" WHICH SHALL SHOW THE CONCRETE PAVING JOINT TYPES AND LOCATIONS AND SHALL INCLUDE A STATEMENT OF PROPOSED SEQUENCE AND SCHEDULE OF PAVING OPERATIONS
      E. RESULTS OF CONCRETE TESTS
      F. RESULTS OF FIELD TESTS OF LBR AND COMPACTION OF STABILIZED SUBGRADE
1-04 MATERIALS
A. STABILIZED SUBGRADE: PROVIDE 12 INCH STABILIZED SUBGRADE (LBR 40 MIN) COMPACTED TO A MINIMUM DENSITY OF 98% AS DETERMINED BY AASHTO T-180
B. CONCRETE: CONCRETE FOR CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, A SLUMP RANGE BETWEEN 2 TO 4 INCHES AND A 28-DAY MODULUS OF RUPTURE OF 650 PSI AS DETERMINED BY THE REQUIREMENTS OF PARAGRAPH TESTING SPECIFIED HEREINAFTER.
C. JOINT SEALER: JOINT SEALING SHALL CONFORM TO FEDERAL SPECIFICATIONS SS-S1401 OR SS-S-200d (COLD APPLIED).
D. PRE-MOLDED EXPANSION JOINT FILLER: PRE-MOLDED EXPANSION JOINT FILLER SHALL CONFORM TO ASTM D1751-73.
1-05 EXECUTION
A. COMPLY WITH ACI STANDARD 316-74 AND SECTION 350, FDOT STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED HEREIN.
B. FINAL GRADING: ALL CONCRETE PAVEMENT SHALL HAVE A MAXIMUM DEVIATION OF 1/8 INCH(+/-) FROM THE SPECIFIED SURFACE PLANE AND PLAN GRADES.
C. THE SURFACE FINISH SHALL BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE. IN GENERAL, THE TEXTURE IS OF A MEDIUM BROOM FINISH AFTER FLOATING.
D. JOINTS
   1. CONTRACTION JOINTS INDICATED ON DRAWINGS, OR AS REQUIRED, SHALL BE PLACED PERPENDICULAR TO THE FINISH GRADE OF THE CONCRETE. JOINTS SHALL BE CUT TO A DEPTH OF 1/4 OF THE SLAB THICKNESS BY CUTTING WITH AN EDGING TOOL HAVING A 1/4 INCH RADIUS OR BY SAWING WITH A BLADE PRODUCING A CUT NOT LESS THAN 1/8 INCH IN WIDTH. SAW JOINTS WITHIN 4 TO 6 HOURS OF CONCRETE PLACEMENT.
   2. EXPANSION JOINTS SHALL BE PLACED WHERE INDICATED ON DRAWINGS, OR AS REQUIRED, USING 1/2 INCH THICK PREFORMED EXPANSION JOINT MATERIAL. ANCHOR WITH APPROVED DEVICES TO PREVENT DISPLACEMENT DURING PLACEMENT AND FINISHING. EDGES SHALL BE ROUNDED WITH AN EDGING TOOL. JOINTS SHALL BE FULL DEPTH OF CONCRETE EXCEPT THAT TOP EDGES SHALL BE 1/2 INCH BELOW THE FINISH CONCRETE SURFACE. EXPANSION JOINTS SHALL BE SEALED TO THE SURFACE BY FILLING WITH JOINT SEALING COMPOUND. JOINTS SHALL BE CLEAN AND DRY BEFORE SEALING COMPOUND IS PUT IN PLACE.
   3. CONSTRUCTION JOINTS ARE TO BE USED AT CONTRACTION JOINT LOCATIONS TO STOP CONCRETE POURS.
E. CURING: CONCRETE SHALL BE CURED BY PROTECTING IT AGAINST LOSS OF MOISTURE AND MECHANICAL INJURY FOR AT LEAST THREE DAYS AFTER PLACEMENT. A PIGMENTED LIQUID CURING MEMBRANE SHALL BE APPLIED IMMEDIATELY AFTER FINISHING OPERATION AT THE RATE OF ONE GALLON TO NOT MORE THAN 200 SQUARE FEET.
F. CLEANING AND SEALING JOINTS: JOINTS SHALL BE FILLED WITH JOINT-SEALING MATERIAL NO LESS THAN 8 HOURS AND WITHIN 2 WEEKS AFTER JOINTS ARE CUT. JUST PRIOR TO SEALING, EACH JOINT SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATERIAL INCLUDING ANY MEMBRANE CURING COMPOUND.
G. TESTING: LABORATORY AND FIELD TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE. IN ADDITION, ALL RETESTING SHALL BE DONE AT CONTRACTOR'S EXPENSE.
   1. DESIGN MIXES AND TESTING REQUIREMENTS FOR THE CONCRETE PAVEMENT SHALL BE AS FOLLOWS:
      A. FLEXURAL STRENGTH TESTS OF CONCRETE AS BASIS FOR DESIGN
      B. SLUMP, MODULUS OF RUPTURE AND 7- AND 28-DAY COMPRESSIVE STRENGTH TESTS SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE.
   2. WHERE THE FLEXURAL STRENGTH OF THE CONCRETE IS SPECIFIED, MAKE ONE STRENGTH TEST AND ONE FLEXURAL TEST FOLLOWING (ASTM C192 AND ASTM C78) FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF PLACED PER DAY. NUMBER OF CYLINDERS SHALL BE THREE FOR STRENGTH TEST AND THREE FOR FLEXURAL TEST. TEST ONE AT THREE DAYS, ONE AT SEVEN DAYS AND ONE AT 28 DAYS.

PAVEMENT MARKING
1-01 QUALITY ASSURANCE
A. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS IN A NEAT AND ACCURATE MANNER.
B. ALL EQUIPMENT SHALL BE OF A TYPE AND DESIGN WHICH WILL READILY OBTAIN THE REQUIRED UNIFORMITY OF APPLICATION OF THE PAVEMENT MARKINGS BOTH AS TO THICKNESS OF COATING AND AS TO ALIGNMENT.
1-02 REFERENCE STANDARDS
A. THE FOLLOWING PUBLICATIONS OF THE ISSUE LISTED BELOW, BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO:
   1. SECTIONS 710 AND 711 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
   2. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, LATEST EDITION.
1-03 SUBMITTALS
A. SUBMIT PAINT TESTS, AS SPECIFIED IN SECTION 971 OF THE FDOT SPECIFICATIONS AND AS APPLICABLE TO HEREINAFTER SPECIFIED MATERIAL.
1-04 MATERIALS AND COLORS
A. THERMOPLASTIC: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 711 OF THE FDOT SPECIFICATIONS.
B. PAINT: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 971-12, CODE T-2 OF THE FDOT SPECIFICATIONS, LATEX PAINT ONLY.
C. COLORS: YELLOW AND WHITE PER FDOT, OR AS INDICATED ON THE DRAWINGS.
1-05 EXECUTION
A. TIME OF APPLICATION: PAINTING SHALL BE DONE ONLY DURING DAYLIGHT HOURS AND, AS FAR AS PRACTICAL, SHALL BE TERMINATED IN TIME TO PERMIT SUFFICIENT DRYING BY SUNSET.
B. WEATHER LIMITATIONS: NO PAINT SHALL BE APPLIED WHEN ANY MOISTURE IS PRESENT ON THE SURFACE TO BE PAINTED OR WHEN THE AIR TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT. PAINTING SHALL NOT BE DONE WHEN WINDS ARE SUFFICIENT TO CAUSE SPRAY DUST.
C. PREPARATION OF SURFACE TO BE PAINTED: THE SURFACE WHICH IS TO BE PAINTED SHALL BE CLEANED, BY COMPRESSED AIR OR OTHER EFFECTIVE MEANS, IMMEDIATELY BEFORE THE START OF PAINTING AND SHALL BE CLEAN AND DRY WHEN THE PAINT IS APPLIED. ANY VEGETATION OR LOOSE SOILS SHALL BE REMOVED FROM THE PAVEMENT BEFORE STRIPING IS BEGUN.
D. MIXING PAINT: THE PAINT SHALL BE THOROUGHLY MIXED BEFORE IT IS POURED INTO THE PAINTING MACHINE AND NO THINNING OF THE PAINT IN THE MACHINE WILL BE ALLOWED AT ANY TIME. BEFORE THE START OF EACH DAY'S WORK, THE PAINT CONTAINER, CONNECTIONS AND THE SPRAY NOZZLES ON THE MACHINE SHALL BE THOROUGHLY CLEANED WITH PAINT THINNER OR OTHER SUITABLE CLEANER.
E. PAINT APPLICATION: THE TRAFFIC MARKINGS SHALL BE OF THE SPECIFIED DIMENSIONS WITH CLEAN, TRUE EDGES AND WITHOUT SHARP BREAKS IN THE ALIGNMENT. A UNIFORM COATING OF PAINT SHALL BE OBTAINED AND THE FINISHED MARKINGS SHALL CONTAIN NO LIGHT SPOTS OR PAINT SKIPS. ANY STRIPES WHICH DO NOT HAVE A UNIFORM, SATISFACTORY APPEARANCE, BOTH DAY AND NIGHT, SHALL BE CORRECTED.
F. RATE OF PAINT APPLICATION: THE MINIMUM RATE OF APPLICATION FOR PAINT SHALL BE AS FOLLOWS:
   1. FOUR INCH SOLID: 20 GALLONS PER MILE.
   2. HANDICAP LOGO: IN CONFORMANCE TO THE REQUIREMENTS OF THIS SECTION AND LOCAL CODES.
   3. ANY OTHER WIDTH STRIPE OR MARKINGS: A DIRECT PROPORTION OF THE ABOVE ITEM 1.
G. REQUIRED FILM THICKNESS: THE MINIMUM WET FILM THICKNESS FOR ALL PAINTED AREAS SHALL BE 15 MILS.
H. ALIGNMENT OF STRIPES: WHERE A STRIPE DEVIATES FROM THE CORRECT ALIGNMENT, AS INDICATED BY THE STRING LINE, BY MORE THAN ONE INCH IN ANY 20 FOOT LENGTH, IT SHALL BE OBLITERATED AND THE STRIPE CORRECTED HEREINAFTER AS SPECIFIED IN SECTION 1.8 "CORRECTIVE MEASURES".
1-06 PROTECTION OF PAINTED MARKINGS
A. PROTECTION OF STRIPES: ALL NEWLY PAINTED STRIPES, OR OTHER MARKINGS, SHALL BE PROTECTED UNTIL THE PAINT IS SUFFICIENTLY DRY TO PERMIT VEHICLES TO CROSS THE MARKING WITHOUT DAMAGE FROM THE TIRES.
B. REPAIR OF DAMAGED AREAS: ANY PORTIONS OF THE STRIPES DAMAGED BY PASSING TRAFFIC OR FROM ANY OTHER CAUSE, SHALL BE REPAINTED AT THE CONTRACTOR'S EXPENSE.
1-07 DIMENSION AND ALIGNMENT TOLERANCE
A. DIMENSIONS: NO MARKING SHALL BE LESS THAN THE SPECIFIED WIDTH. NO MARKINGS SHALL EXCEED THE SPECIFIED WIDTH BY MORE THAN ONE-HALF INCH. ALIGNMENT TOLERANCES SHALL BE AS SPECIFIED IN PARAGRAPH 1-05(H).
B. CORRECTION RATES: ANY CORRECTIONS OF VARIATION IN THE WIDTH OF OR IN THE ALIGNMENT OF STRIPES SHALL NOT BE MADE ABRUPTLY BUT THE STRIPES SHALL BE RETURNED TO THE DESIGN WIDTH AT THE RATE OF AT LEAST 10 FEET FOR EACH 1/2 INCH OF CORRECTION.
1-08 CORRECTIVE MEASURES
A. ALL PAINTED MARKINGS WHICH FAIL TO MEET THE SPECIFICATIONS, INCLUDING THE PERMISSIBLE TOLERANCES AND THE APPEARANCE REQUIREMENTS, OR ARE MARRED OR DAMAGED BY TRAFFIC OR FROM OTHER CAUSES, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. ALL DRIP AND SPATTERED PAINT SHALL BE REMOVED. WHENEVER IT IS NECESSARY TO REMOVE PAINT, IT SHALL BE DONE BY MEANS WHICH WILL NOT DAMAGE THE UNDERLYING SURFACE OF THE PAVEMENT. WHEN NECESSARY TO CORRECT A DEVIATION WHICH EXCEEDS THE PERMISSIBLE TOLERANCE IN ALIGNMENT, THAT PORTION OF THE STRIPE AFFECTED SHALL BE REMOVED AND REPAINTED IN ACCORDANCE WITH THESE SPECIFICATIONS.
B. CORRECTIVE DEVICES: MIS-ALIGNMENT, DEFECTIVE SURFACES, ETC, SHALL BE CORRECTED BY CHEMICAL AGENTS, OR BY ANY OTHER TYPE OF MECHANICAL DEVICE, WHICH WILL EFFECTIVELY REMOVE THE PAINT WITHOUT DAMAGE TO THE PAVEMENT SURFACE, OR WHICH WILL NOT PREVENT THE RE-APPLICATION OF MARKINGS.
1-09 SPARE PAINT
A. PROVIDE THE OWNER WITH A MINIMUM OF FIVE (5) GALLONS OF TRAFFIC PAINT FROM THE SAME BATCH USED IN APPLICATION OF PAVEMENT MARKINGS. ALSO PROVIDE PAINT SPECIFICATIONS AND THE MANUFACTURER'S IDENTIFICATION NUMBER OF THE PAINT USED.
1-10 MARKING TYPE
A. ANY PAVEMENT MARKINGS LOCATED WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE THERMOPLASTIC UNLESS OTHERWISE INDICATED.
B. ANY PAVEMENT MARKINGS LOCATED ON-SITE SHALL BE PAINT UNLESS OTHERWISE INDICATED.

CONSTRUCTION TOLERANCES
THE FOLLOWING ARE THE ALLOWABLE DEVIATIONS FROM PROJECT DESIGN GRADES AND GRADIENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM AND DOCUMENT COMPLIANCE WITH THESE TOLERANCES PRIOR TO PROCEEDING FROM ONE PHASE OF CONSTRUCTION TO THE NEXT:
I. STORMWATER MANAGEMENT/DRAINAGE FACILITIES
   A. PERIMETER CONTAINMENT BERM:
      MINIMUM ELEVATION = DESIGN GRADE
      MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FOOT
   B. WATER CONTROL STRUCTURE:
      1. MINIMUM GRATE ELEVATION = DESIGN GRADE
         MAXIMUM GRATE ELEVATION = DESIGN GRADE + 0.10 FOOT
      2. MINIMUM CREST ELEVATION = DESIGN GRADE
         MAXIMUM CREST ELEVATION = DESIGN GRADE + 0.05 FOOT
      3. MINIMUM BLEEDER ELEVATION = DESIGN GRADE
         MAXIMUM BLEEDER ELEVATION = DESIGN GRADE + 0.05 FOOT
      4. MINIMUM TOP OF FILTER ELEVATION = DESIGN GRADE
         MAXIMUM TOP OF FILTER ELEVATION = DESIGN GRADE + 0.05 FOOT
   C. CATCH BASINS/INLETS/PIPE INVERTS:
      MINIMUM ELEVATION = DESIGN GRADE - 0.05 FOOT
      MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FOOT
   D. SWALE GRADES/GRADIENTS:
      1. MINIMUM ELEVATION = DESIGN GRADE - 0.10 FOOT
         MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FOOT
      2. MINIMUM FLOWLINE GRADIENT = 90% OF DESIGN GRADIENT
   E. PAVEMENT GRADES/GRADIENTS:
      1. FLEXIBLE PAVEMENT GRADE:
         MINIMUM ELEVATION = DESIGN GRADE - 0.10 FOOT
         MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FOOT
      2. FLEXIBLE PAVEMENT GRADIENT = 90% OF DESIGN GRADIENT (CROSS SLOPE AND LONGITUDINAL SLOPE)
      3. RIGID (CONCRETE) PAVEMENT GRADE:
         MINIMUM ELEVATION = DESIGN GRADE - 0.05 FOOT
         MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FOOT
      4. RIGID PAVEMENT GRADIENTS:
         A) MINIMUM GRADIENTS = 90% OF DESIGN GRADIENT (CROSS SLOPE AND LONGITUDINAL SLOPE)
         B) MAXIMUM HANDICAP RAMP = 15:1 (GRADIENT UNLESS OTHERWISE SPECIFIED BY LOCAL CODES)
II. STORMWATER MANAGEMENT/DRAINAGE FACILITIES
   UNLESS OTHERWISE SPECIFIED BY THE LOCAL UTILITY COMPANIES, THE FOLLOWING ARE THE ALLOWABLE TOLERANCES FOR THESE ACTIVITIES:
   A. MANHOLES AND PIPE INVERTS:
      1. MINIMUM ELEVATION = DESIGN GRADE - 0.05 FOOT
         MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FOOT
      2. MINIMUM LINE GRADIENT = 90% OF DESIGN GRADIENT
   B. ALIGNMENT/LOCATION OF APPURTENANCES:
      AS ALLOWED BY THE APPLICABLE UTILITY AND/OR LOCAL GOVERNMENTAL ENTITY. CONTRACTOR SHALL CONFIRM AND DOCUMENT THIS PRIOR TO CONSTRUCTION.

TESTING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, COORDINATING, DOCUMENTING, AND PROVIDING THE FOLLOWING MINIMUM TESTING:
WATER DISTRIBUTION—UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE LINES SHALL BE PRESSURE TESTED TO THE RATING OF THE PIPE. THE LINES SHALL BE TESTED IN SEGMENTS BETWEEN MAINLINE VALVES. BACTERIOLOGICAL TEST SAMPLES SHALL BE TAKEN AT ALL BRANCH LINE TERMINATION POINTS OR CONNECTION POINTS, AND ALONG THE MAIN LINES AT DISTANCES NOT TO EXCEED 2,640 FEET. ALL HYDRANTS AND VALVES SHALL BE OPERATED TO TEST PERFORMANCE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 36 HOURS NOTICE TO THE ENGINEER OF RECORD PRIOR TO TESTING.
WASTEWATER COLLECTION—UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE FORCE MAIN SHALL BE PRESSURE TESTED TO THE RATING OF THE PIPE. VALVES SHALL BE OPERATED TO TEST PERFORMANCE. DEPENDING UPON WATER TABLE CONDITIONS DETERMINED BY THE ENGINEER, THE GRAVITY LINES SHALL BE TESTED FOR EITHER INFILTRATION OR EXFILTRATION AND INFLOW. THERE SHALL BE NO INFILTRATION/EXFILTRATION OR INFLOW ALLOWED. THE CONTRACTOR SHALL SEAL ANY PIPE, FITTING OR MANHOLE AS REQUIRED. THE CONTRACTOR SHALL PROVIDE A VIDEO TAPE OF ALL MAIN GRAVITY LINES ALONG WITH A LOG OF LATERAL LOCATIONS. ALL ELECTRICAL AND MECHANICAL DEVICES AT LIFT STATIONS SHALL BE TESTED TO VERIFY PROPER OPERATIONAL STATUS. THE CONTRACTOR SHALL PROVIDE MAINTENANCE MANUALS TO THE OWNER. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 36 HOURS NOTICE TO THE ENGINEER OF RECORD PRIOR TO TESTING.
PRIVATE ROADWAY/PARKING SUBGRADE—THE SUBGRADE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF. DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 10,000 SF. THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PRIVATE ROADWAY/PARKING BASE—THE BASE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF. DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 10,000 SF. A SIEVE ANALYSIS SHALL BE PERFORMED AT A FREQUENCY OF ONE PER ACRE. THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PRIVATE ASPHALT PAVING—ASPHALTIC CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: THICKNESS, SIEVE ANALYSIS, MIX TYPE, STABILITY, % BITUMEN, AND DENSITY. THE ASPHALT SHALL BE TESTED AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
PUBLIC ROADWAYS—AS REQUIRED BY THE ENTITY HAVING JURISDICTION. THE CONTRACTOR SHALL DETERMINE AND DOCUMENT THESE SPECIFICATIONS PRIOR TO BIDDING.
PORTLAND CEMENT CONCRETE—CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: SLUMP, MODULUS OF RUPTURE, AND 7 AND 28 DAY COMPRESSIVE STRENGTH. TESTS SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.
RETENTION/DETENTION FACILITIES—IF INCLUDED WITHIN THE PROJECT, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND PERFORM A DRAWDOWN AND CAPACITY TEST OF THE FACILITIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT WATER AND ACCEPTABLE MEANS TO MEASURE THE WATER VOLUMES PROVIDED, IF REQUIRED BY THE ENGINEER. IF A FILTRATION SYSTEM IS INCLUDED WITHIN THE PROJECT, THE FILTER MEDIA SHALL BE TESTED FOR COMPLIANCE WITH ALL CURRENT SPECIFICATIONS OF THE WATER MANAGEMENT DISTRICT. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.

IN ADDITION TO THE ENVIRONMENTAL PROTECTION DURING CONSTRUCTION SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE FOLLOWING IN THE ORDER LISTED:
1. PRIOR TO COMMENCEMENT, PROVIDE NOTIFICATION TO THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT AND LOCAL GOVERNMENT.
2. PREPARE AND SUBMIT A NPDES NOTICE OF CONSTRUCTION TO THE EPA.
3. ERECT A TURBIDITY SCREEN ON ANY DOWNSTREAM SYSTEM WHICH RECEIVES RUNOFF FROM THE PROJECT. INSTALL OUTFALL CONTROL STRUCTURE AND FILTRATION SYSTEM IF INCLUDED.
4. PROVIDE A TEMPORARY FILTER CLOTH COVERED WITH GRAVEL OVER ANY PROPOSED FILTERS.
5. INSTALL A TEMPORARY TURBIDITY SCREEN AT ALL CONTROL STRUCTURES.
6. CONSTRUCT A TEMPORARY PERIMETER BERM AS NECESSARY TO DIRECT ALL RUNOFF WITHIN ANY AREA PLANNED FOR CLEARING.
7. MAINTAIN FILTER DURING CONSTRUCTION TO PROVIDE CONTINUOUS OPERATION.
8. UPON PERFORMING FINAL GRADING, THE CONTRACTOR SHALL REMOVE ALL SILTS, CLAYS AND OTHER DELETERIOUS MATERIAL FROM THE BOTTOM OF ALL STORMWATER MANAGEMENT AREAS PRIOR TO GRASSING.
9. AFTER ACHIEVING A NON-ERODIBLE COVER OF GRASS, REMOVE TEMPORARY FILTER CLOTH AND GRAVEL OVER FILTERS AND REPLACE WITH NEW FILTER CLOTH AND COVER MATERIAL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
10. NOTIFY THE OWNER FOR FINAL INSPECTION.
11. UPON FINAL APPROVAL FROM THE OWNER, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES.

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State of Florida

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00	
Distribution	Date
BID DOCUMNETS	02.02.04

GENERAL NOTES & SPECIFICATIONS

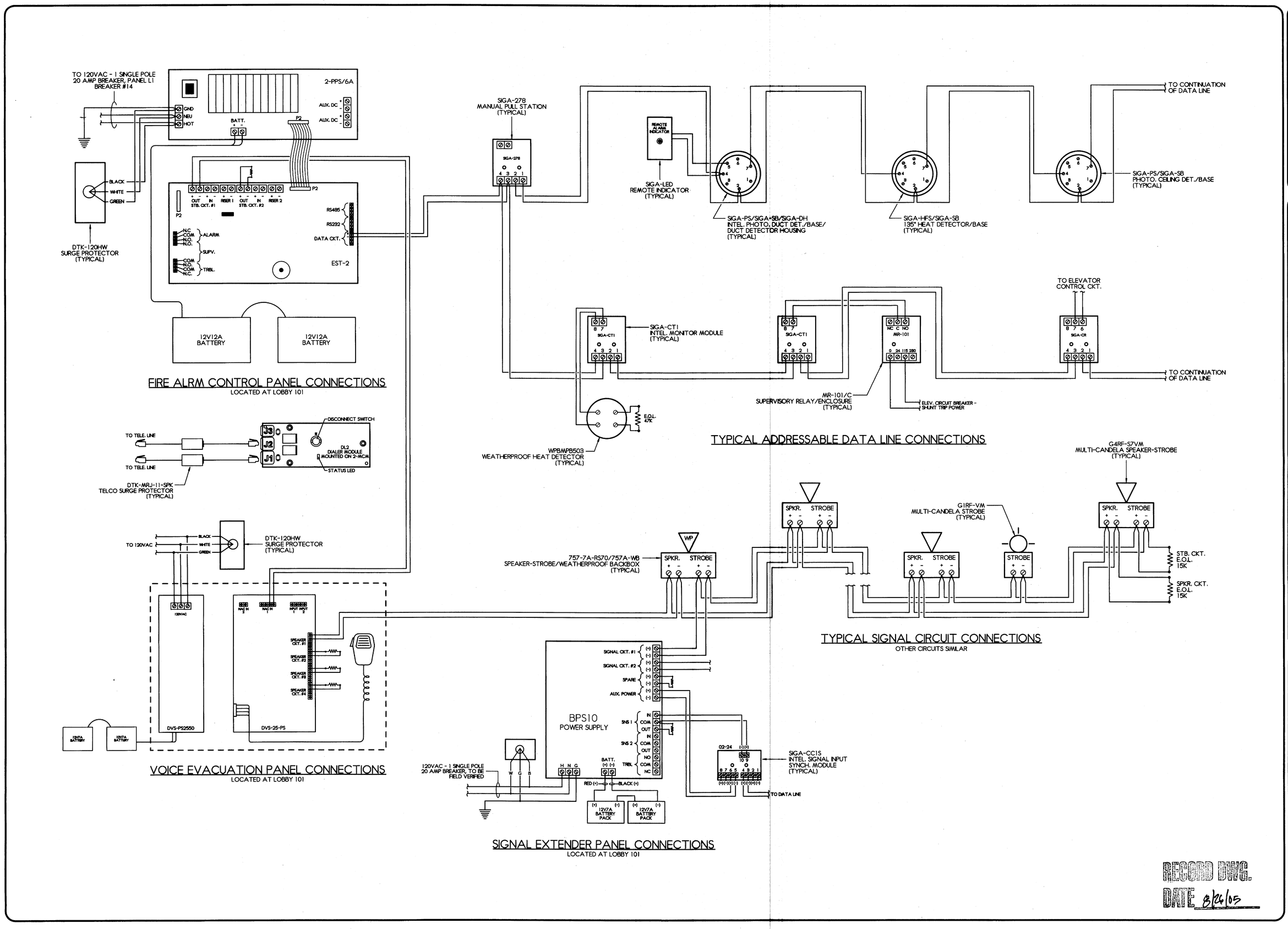
NOT TO SCALE

0 0 0

RECEIVED
FEB 26 2004
CONST. TECH. GROUP, INC.

PROJECT NORTH   TRUE NORTH

C1 RECORD DWG.
DATE 8/26/05



RECORD DWG.
DATE 8/26/05

SAI inc. SYSTEMS DIVISION
2593 24TH AVE NORTH
SAINT PETERSBURG, FLORIDA 33713
TELEPHONE: (727) 323-4300
FLA STATE LIC. EF-0000295, EF-0001045
CONTRACTOR: AMERICAN ELEC. SERVICES - TAMPA, FL

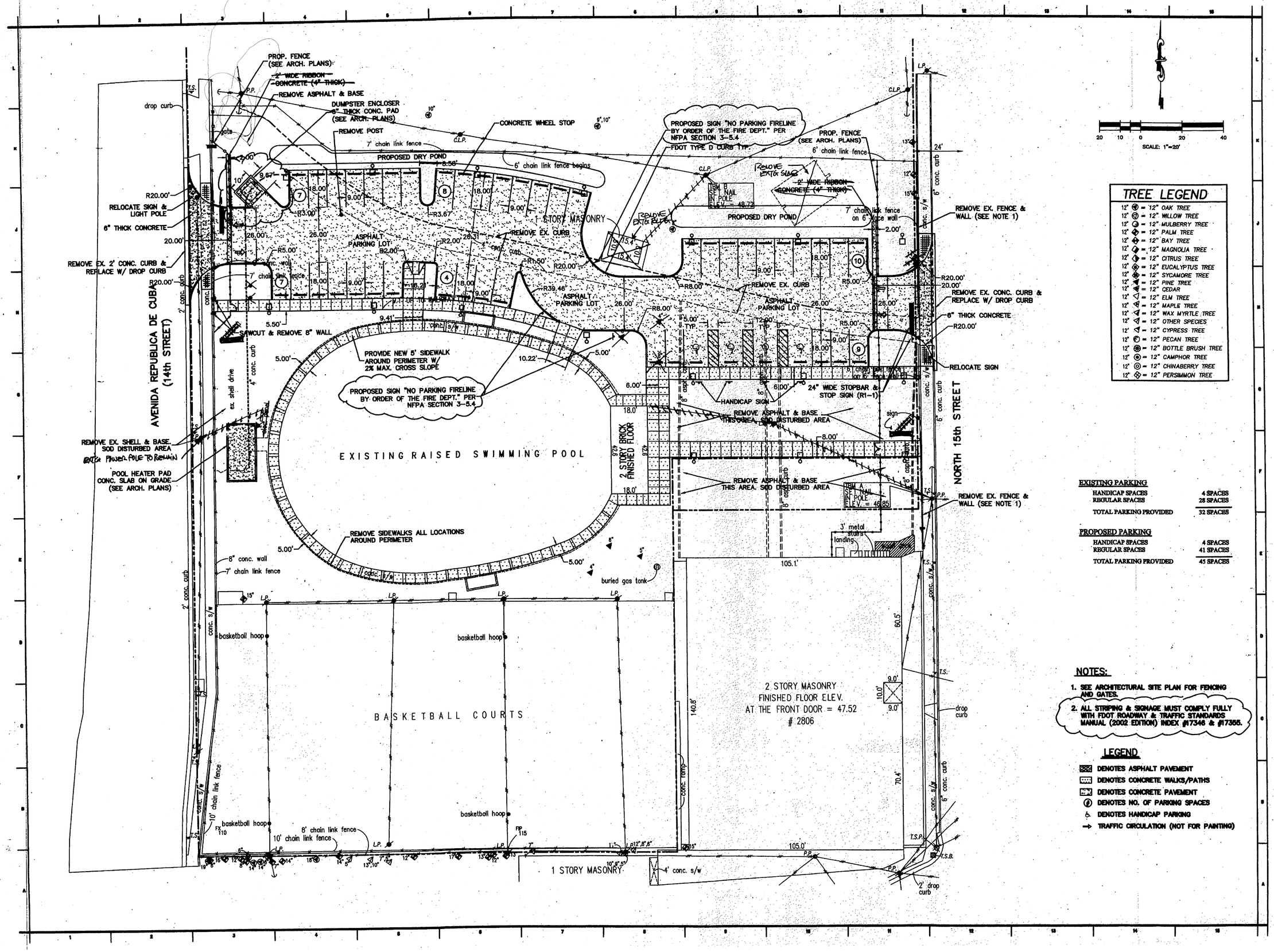
CUSCADEN POOL RENOVATION
TAMPA, FLORIDA
FIRE ALARM SYSTEM PLAN

REVISIONS
REVISED 11/10/04 - PER FIRE MARSHAL'S COMMENTS
REVISED 03/09/05 - PER MATRIX 11/23/04 COMMENTS

SCALE: AS NOTED
DRAWN BY: BK
APPROVED BY: RJS
DRAWING DATE: 08/31/04
REF. DWG. DATE: 02/02/04

STAMP

SHEET 3 OF 3
04J-0078-C1



SCALE: 1"=20'

TREE LEGEND

- 12" = 12" OAK TREE
- 12" = 12" WILLOW TREE
- 12" = 12" MULBERRY TREE
- 12" = 12" PALM TREE
- 12" = 12" BAY TREE
- 12" = 12" MAGNOLIA TREE
- 12" = 12" CITRUS TREE
- 12" = 12" EUCALYPTUS TREE
- 12" = 12" SYCAMORE TREE
- 12" = 12" PINE TREE
- 12" = 12" CEDAR
- 12" = 12" ELM TREE
- 12" = 12" MAPLE TREE
- 12" = 12" WAX MYRTLE TREE
- 12" = 12" OTHER SPECIES
- 12" = 12" CYPRESS TREE
- 12" = 12" PECAN TREE
- 12" = 12" BOTTLE BRUSH TREE
- 12" = 12" CAMPHOR TREE
- 12" = 12" CHINABERRY TREE
- 12" = 12" PERSIMMON TREE

EXISTING PARKING

HANDICAP SPACES	4 SPACES
REGULAR SPACES	28 SPACES
TOTAL PARKING PROVIDED	32 SPACES

PROPOSED PARKING

HANDICAP SPACES	4 SPACES
REGULAR SPACES	41 SPACES
TOTAL PARKING PROVIDED	45 SPACES

NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR FENCING AND GATES.
2. ALL STRIPING & SIGNAGE MUST COMPLY FULLY WITH FDOT ROADWAY & TRAFFIC STANDARDS MANUAL (2002 EDITION) INDEX #17346 & #17356.

LEGEND

- DENOTES ASPHALT PAVEMENT
- DENOTES CONCRETE WALKS/PATHS
- DENOTES CONCRETE PAVEMENT
- DENOTES NO. OF PARKING SPACES
- DENOTES HANDICAP PARKING
- TRAFFIC CIRCULATION (NOT FOR PAINTING)

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CUSCADEN POOL RENOVATION

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306 East Jackson Street
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Project No.0202.00

Distribution	Date
~~BID DOCUMENTS~~	~~02.02.04~~
~~CITY COMMENTS~~	~~05.03.04~~
REVISION 2	05.03.04

SITE PLAN

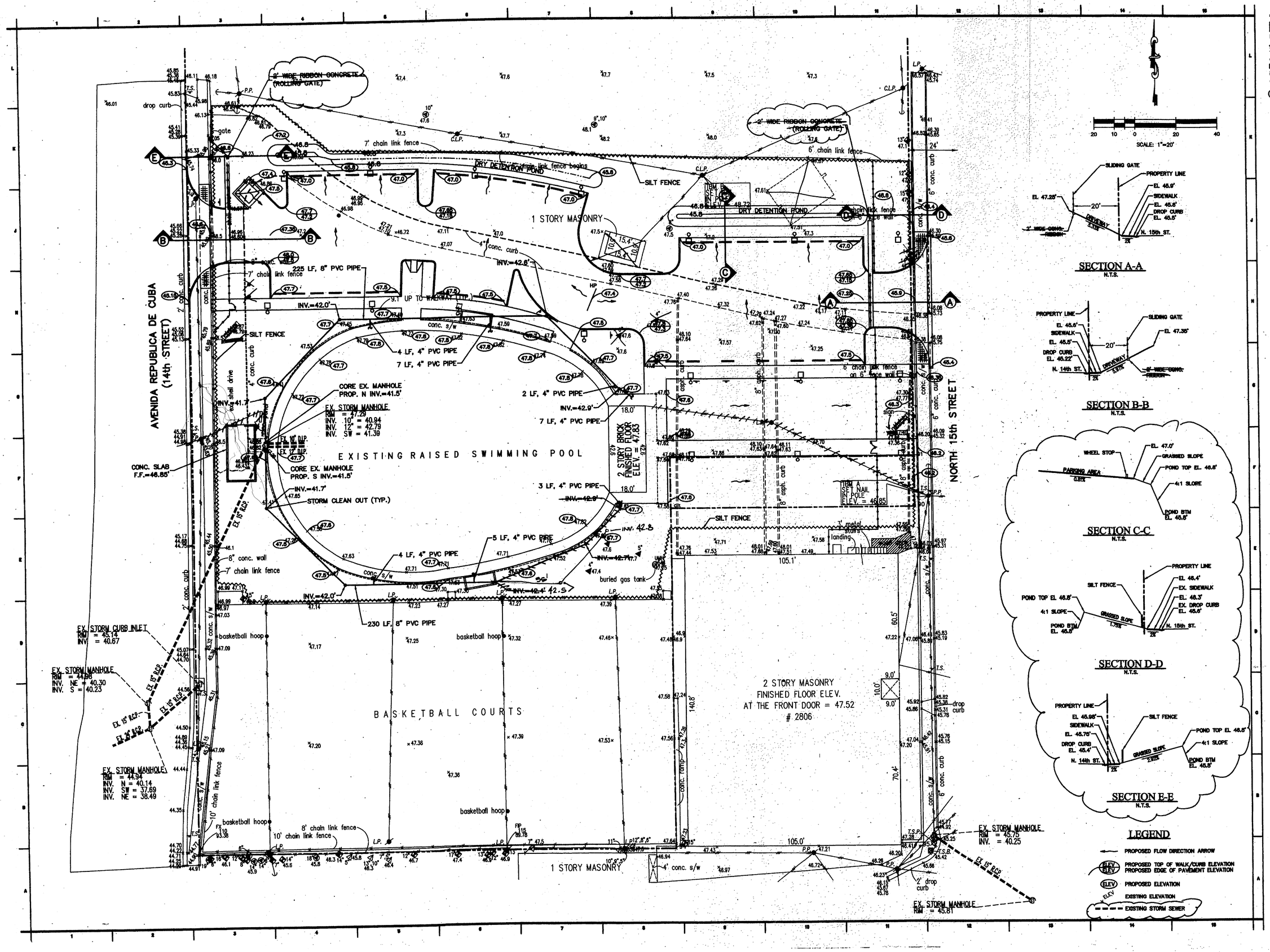
1" = 20'-0"

0 10 20 40 FT

CONCEPT NORTH TRUE NORTH

C2 RECORD DWG.

DATE 8/26/05 217/009



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Daniel M. Vickstrom, P.E.
P.E. No. 36080
State of Florida

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
CITY COMMENTS	05.03.04
REVISION 2	05.04.04

PAVING, GRADING & DRAINAGE PLAN

1" = 20'-0"

0 10 20 40 FT

PROJECT NORTH TRUE NORTH

C3

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DATE 8/20/05

217
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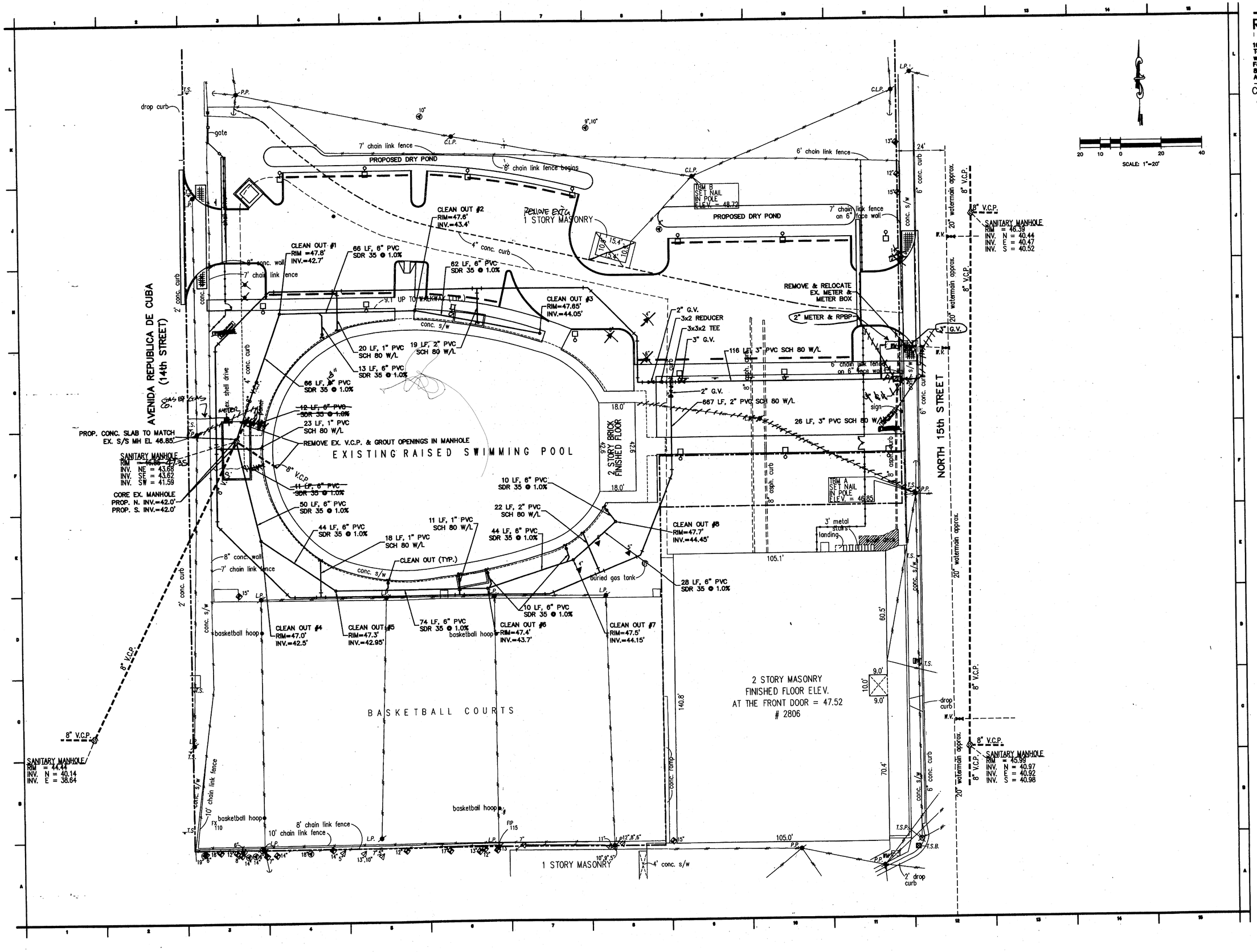

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

UTILITY PLAN

1" = 20'-0"

0 10 20

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PROJECT NORTH TRUE NORTH

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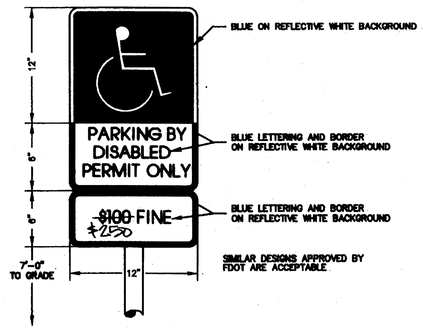
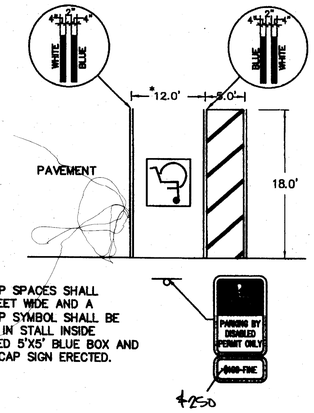
DATE 8/26/05 217/009



NOTE:
ALL HANDICAP PARKING SPACES MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION.

HANDICAPPED SIGN

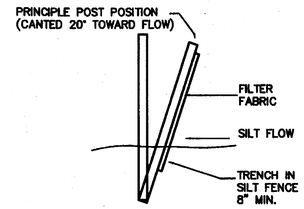
NOT TO SCALE



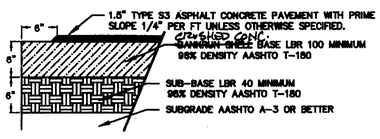
* HANDICAP SPACES SHALL BE 12 FEET WIDE AND A HANDICAP SYMBOL SHALL BE PAINTED IN STALL INSIDE A PAINTED 5'X5' BLUE BOX AND A HANDICAP SIGN ERECTED.

TYPICAL HANDICAP PARKING SPACE DETAIL

NOT TO SCALE



SECTION



NOTE:

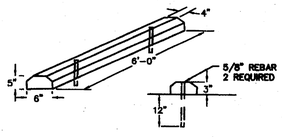
THE SUBGRADE SHALL CONSIST OF A-3 OR BETTER MATERIAL FOR A DEPTH OF 3 FEET BELOW THE SUB-BASE. IF THE SUBGRADE IS REPLACED OR DISTURBED, IT SHALL BE COMPACTED TO 98% T-180 TO THE DEPTH REPLACED OR DISTURBED.

THE SUB-BASE MAY BE STABILIZED IN PLACE TO PROVIDE REQUIRED LBR AND DENSITY.

~~BANKRUN SHELL BASE MAY BE SUBSTITUTED WITH SOIL CEMENT CONSISTING OF LOCAL SHELL MATERIAL WITH A MINIMUM LBR VALUE 100 SOURCE SITE MIXED WITH 2 1/2% CEMENT COMPACTED 98% T-180.~~

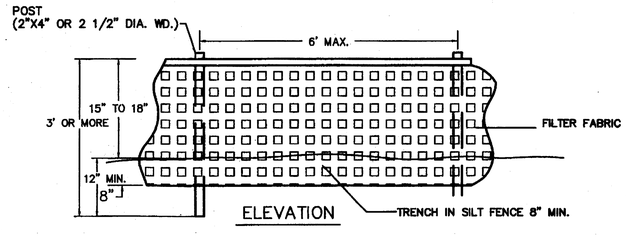
TYPICAL ASPHALT PAVEMENT SECTION

NOT TO SCALE



CONC. WHEEL STOP

NOT TO SCALE



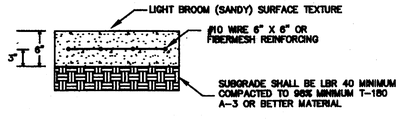
ELEVATION

EROSION CONTROL CONSTRUCTION NOTES

CONTRACTOR SHALL PERFORM DAILY INSPECTIONS FOR ANY EXISTING OR POTENTIAL EROSION PROBLEMS AT ANY LOW POINTS DURING CONSTRUCTION. IF ANY EXISTING OR POTENTIAL EROSION PROBLEMS ARE ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL INSTALL (SILT FENCES, HAY BALES ETC.) EROSION CONTROL IMMEDIATLY.

TYPICAL SILT FENCE

NOT TO SCALE

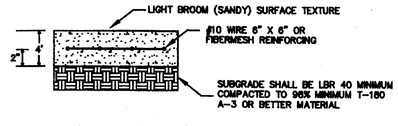


NOTE:

1. EXPANSION JOINTS EVERY 400 SQUARE FEET OF CONCRETE PAVEMENT.

TYPICAL CONCRETE PAVEMENT SECTION

NOT TO SCALE



NOTE:

1. EXPANSION JOINTS EVERY 400 SQUARE FEET OF CONCRETE PAVEMENT.

TYPICAL CONCRETE SIDEWALK SECTION

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State of Florida

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

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CIVIL DETAILS

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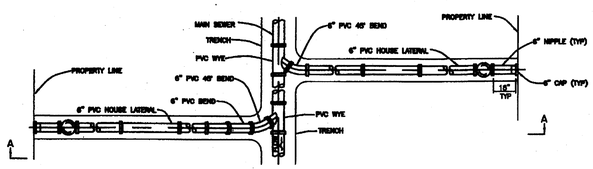
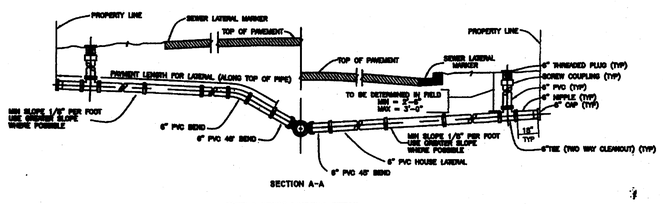


PLAN



SECTION A-A

TYPE A HOUSE LATERAL DETAIL

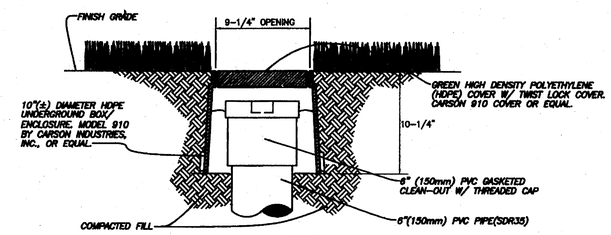
NOT TO SCALE

NOTES

1. THE LOCATIONS OF HOUSE LATERALS ARE SHOWNED ON PLANS ARE APPROXIMATE ONLY AND THE ACTUAL LOCATIONS AND SIZES WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
2. THE MINIMUM DIAMETER OF ALL HOUSE LATERALS SHALL BE 6".
3. HOUSE LATERALS WITH PIPE WITH SHORTER DEPTHS THAN LESS THAN 18" OF COVER OR WITH LESS THAN 24" OF COVER UNDER PAVEMENT, SHALL BE CLASS 54 POLY-LINED DIP PER SPECIFICATIONS.
4. THE CONTRACTOR'S ESTIMATE INCLUDES VERTICAL PERPENDICULAR CONFLICTS REQUIRING TYPE TWO, TYPE THREE OR TYPE FOUR CLEANOUTS. SEWER HOUSE LATERALS AND ALL CLEANOUTS WILL BE INSTALLED IN ACCORDANCE WITH TYPE ONE. HOWEVER, THE CONTRACTOR MAY ELECT TO INSTALL TYPE TWO, THREE OR FOUR CLEANOUTS AT HIS OPTION TO ADDRESS THE MORE COMMON CONFLICT CONDITIONS.
5. THE MINIMUM CLEARANCE BETWEEN HOUSE LATERALS AND WATER LINES SHALL BE 6". UNLESS ALL CONDITIONS, A 18" PVC SEWER LATERAL IS REQUIRED TO REPAIR A WATER LINE, THE LINE SHALL BE 18" OF CLEARANCE ON 6" SEWER LATERAL IS REQUIRED TO REPAIR THE WATER LINE. REGARDLESS OF SIZE LINE, WHEN A HOUSE LATERAL OF SEWER PIPE CLASS 150 C900 PVC PIPE SHALL BE CROSSED OVER/UNDER THE WATER LINE.
6. IF THE HOUSE LATERAL MUST PASS OVER ANY UTILITY OTHER THAN A WATER LINE WITH LESS THAN 18" CLEARANCE, THE LATERAL SHALL REMAIN SDR 35 PVC PIPE.
7. IF THE HOUSE LATERAL MUST PASS UNDER ANY UTILITY OTHER THAN A WATER LINE WITH LESS THAN 18" CLEARANCE, THE LATERAL SHALL REMAIN SDR 35 PVC PIPE. UNLESS THE UTILITY POSES A STRUCTURAL LOAD TOO GREAT FOR THE PVC LATERAL. IF THE UTILITY POSES SUCH A STRUCTURAL LOAD AS DETERMINED BY THE ENGINEER, EACH CONFLICT WILL BE REVIEWED ON A CASE BY CASE BASIS.
8. TRANSITION FROM SDR 35 PVC TO EITHER C900 OR DUCTILE IRON PIPES SHALL BE MADE WITH PVC SEWER ADAPTORS. TRANSITIONS FROM SDR 35 PVC TO SEWER EXISTING CLAY OR CONCRETE PIPES SHALL BE MADE WITH FERNCO FLEXIBLE ADAPTORS OR EQUAL.

CONNECTION DETAIL

NOT TO SCALE



DETAIL

CLEAN-OUT W/ COVER FOR GRASS (NON-VEHICULAR TRAFFIC) AREAS

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL ADJUST THE CLEAN-OUT AND CAST IRON RING AND COVER OR HDPE BOX AND COVER SO THAT THE COVER IS SEATED SECURELY AND THE TOP OF THE COVER IS FLUSH WITH THE FINISH GRADE. THE PVC CAP OF THE CLEAN OUT SHALL BE NO MORE THAN 4 INCHES DEEPER THAN THE FINISH GRADE.
2. PVC CAP MAY BE PROVIDED WITH RECESSED NUT.
3. CAST IRON COVER SHALL BE PROVIDED WITH AN EMBOSSED LETTER "S" FOR IDENTIFICATION HDPE COVER SHALL BE MARKED "SEWER" FOR IDENTIFICATION.
4. CAST IRON RING AND COVER, OR HDPE BOX AND COVER, AS WELL AS THE FOUR (4 SF) SQUARE FEET OF MATERIAL (CONCRETE OR ASPHALT AROUND THE CLEAN OUT), ARE PART OF THE CLEAN-OUT INSTALLATION AND COST SHALL BE INCLUDED WITHIN THE UNIT PRICE FOR CLEAN-OUT WITH NO ADDITIONAL PAYMENT.
5. ALL CLEAN-OUTS ON THIS PROJECT SHALL BE ONE OF THE ~~SAME~~ TYPES SHOWN ON THIS SHEET. FIELD CONDITIONS WILL DETERMINE WHICH TYPE.

CLEANOUT COVER DETAIL

NOT TO SCALE

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

UTILITY DETAILS

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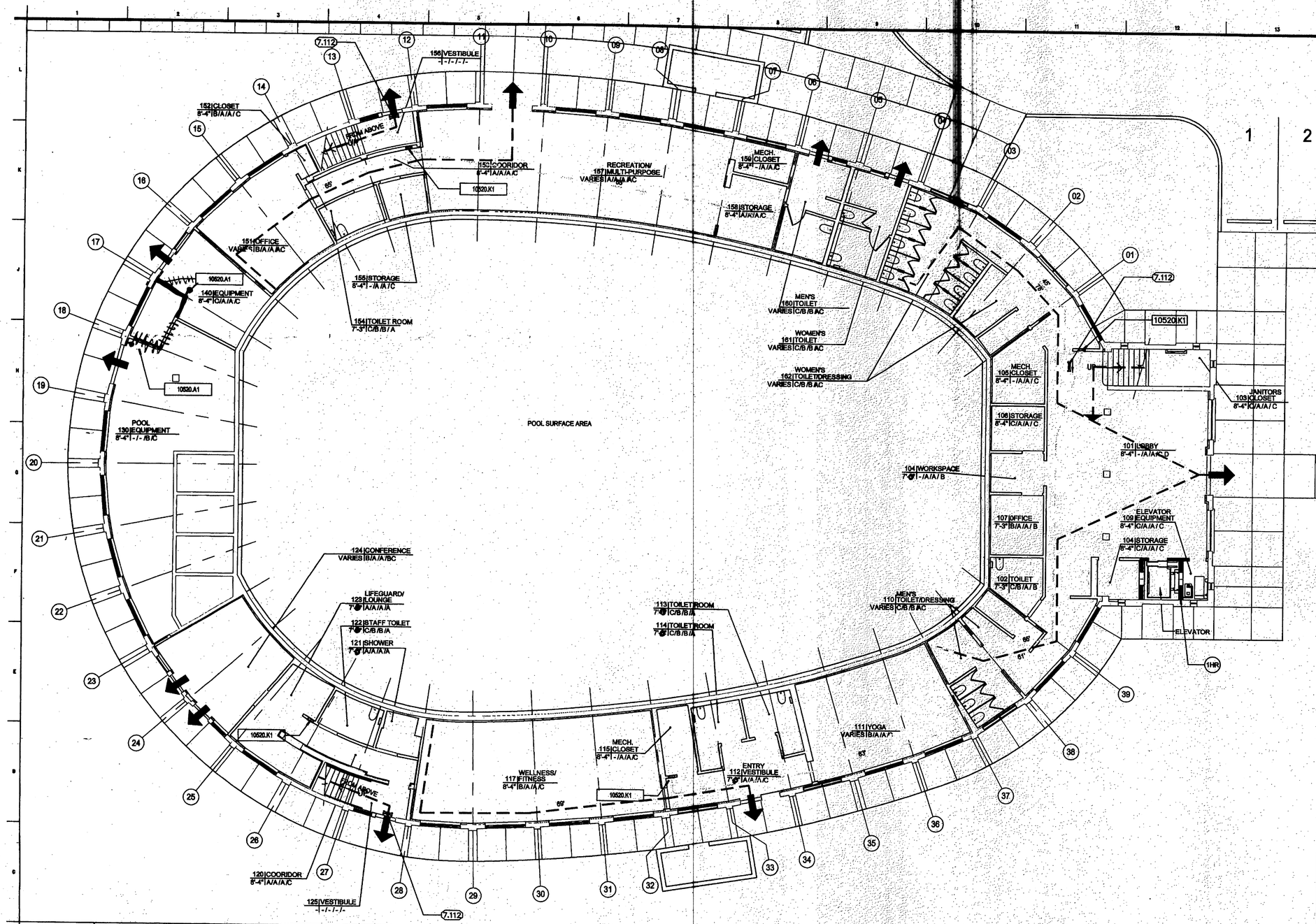
DATE 8/26/05 217 009



A1 CODE COMPLIANCE PLAN - First Floor

1/8"=1'-0"

CODE SUMMARY

CODE AUTHORITY:

FLORIDA BUILDING CODE, 2001
FLORIDA FIRE PREVENTION CODE, 2001
NATIONAL ELECTRIC CODE

OCCUPANCY CLASSIFICATION:

1. NEW BUSINESS: ALL AREAS. 100 GSF/OCCUPANT
   FIRST FLOOR: 7,721 GSF = 77 OCCUPANTS
   SECOND FLOOR: 633 GSF = 6 OCCUPANTS
2. ASSEMBLY: POOL DECK. 30 GSF/OCCUPANT
   POOL SURFACE. 50 GSF/OCCUPANT
   POOL DECK: 7,345 GSF = 245 OCCUPANTS
   POOL SURFACE: 8,152 GSF = 163 OCCUPANTS

TOTAL PERSONS = 491 PERSONS

TYPE IV CONSTRUCTION, UNPROTECTED, UNSPRINKLERED

HEIGHT LIMIT: 55'-0"
AREA DENSITY: 17,000 SQ FT

EGRESS:

BUSINESS OCCUPANCY, UNSPRINKLERED, MAXIMUMS:

COMMON PATH OF TRAVEL:	75'-0"
DEAD END CORRIDOR:	20'-0"
TRAVEL DISTANCE TO EXIT:	200'-0"
REQUIRED EGRESS CAPACITY:	0.2 / PERSON
LEVEL (RAMPS/DOORS/CORRIDORS)	(112)(0.2) = 22.4"
MINIMUM CORRIDOR WIDTH:	44" (36" IF SERVES LESS THAN 50)
MINIMUM CLEAR OPENING OF EXIT DOORS	32"
MINIMUM NUMBER OF EXITS	2

3

CODE DATA

MAX. HEIGHT ALLOWED:	-
MAX. NO. OF STORIES ALLOWED:	-
MAX. TRAVEL DIST. TO EXIT ALLOWED:	200 FT.
MAX. AREA ALLOWED:	-
MIN. OCCUPANT LOAD:	-

BUILDING AREA

GROSS BUILDING AREA:

FIRST FLOOR	7,721 SF
SECOND FLOOR	633 SF
POOL DECK	7,345 SF
POOL SURFACE	8,152 SF
TOTAL:	23,851 SF

KEYNOTE LEGEND

INSTANCES OF ALL NOTES ARE TYPICAL

10520	FIRE-PROTECTION SPECIALTIES
10520.A1	Portable Fire Extinguishers
10520.K1	Fire Extinguisher Cabinet

F14 KEYNOTES

PLUMBING FIXTURE TABULATION

TOILET FIXTURES REQUIRED BY 2001 FLORIDA BUILDING CODE BY ASSOCIATED OCCUPANCY

COUNT BY POOL SF PER CODE		
DISTRIBUTION BY 2001 FLORIDA BUILDING CODE		
POOL SURFACE AREA	7,827 SF	
	Required	Provided
MEN		
WATER CLOSETS	4	4
URINALS	4	4
LAVATORIES	4	4
WOMEN		
WATER CLOSETS	12	12
LAVATORIES	4	5
DRINKING FOUNTAINS	2	2
RINSE SHOWER	0	0
SHOWER STALLS	0	0

GENERAL NOTES

A. CONNECTION TO A FUTURE EMERGENCY ELECTRIC POWER: WILL BE PROVIDED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.

B. ACCESSIBILITY FOR THE DISABLED WILL BE PROVIDED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, CHAPTER 11.

C. SMOKE DETECTION WILL BE PROVIDED IN ACCORDANCE WITH THE FLORIDA MECHANICAL CODE.

D. FIRE ALARM SYSTEM WITH VOICE COMMUNICATION & FIRE DEPARTMENT NOTIFICATION WILL BE PROVIDED IN ACCORDANCE WITH GOVERNING CODES.

E. FIRE EXTINGUISHERS WILL BE PROVIDED IN ACCORDANCE WITH GOVERNING CODES.

DRAWING LEGEND - LIFE SAFETY

- PRIMARY EXIT
- TWO HOUR FIRE RATED WALL OR PARTITION
- EXIT TRAVEL DISTANCE
- TRAVEL DISTANCE TO FIRE EXTINGUISHER'S
- 1 HR — 1 HOUR, B-LABEL FIRE RATED DOOR
- EXIT LIGHT
- FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER
- WALL-MOUNTED FIRE EXTINGUISHER

A14 LEGENDS

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Rick Rowe
07.13.04

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
REVISION 4	07.14.04

CODE COMPLIANCE PLAN
First Floor

RECORD DWG
DATE 8/26/05

REVISED
JUL 16 2004
CITY OF TAMPA
COMMERCIAL PLAN REVIEW

CC101

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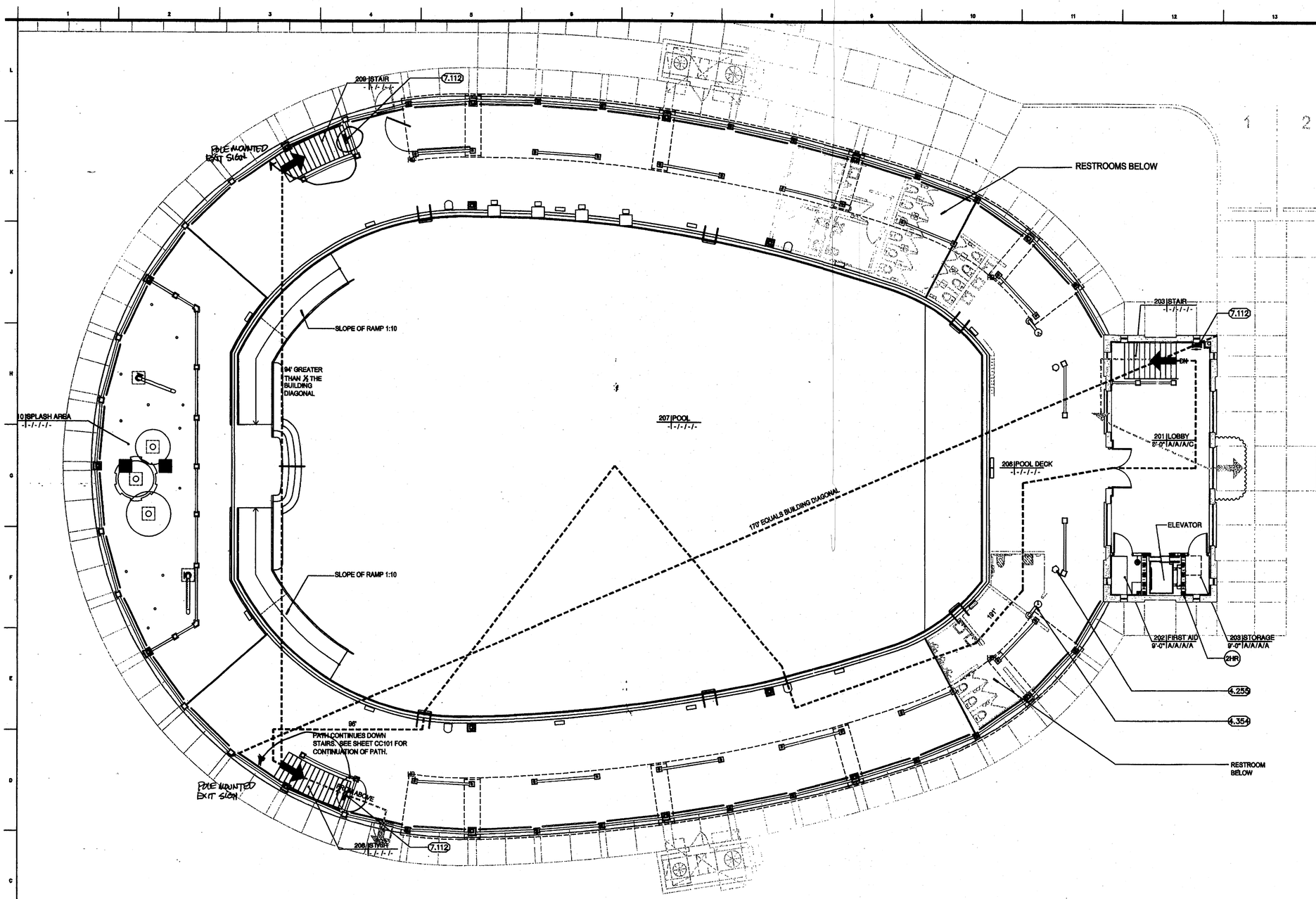

GENERAL NOTES

7.000	ELECTRICAL
7.112	exit light fixture

F14	KEYNOTES

DRAWING LEGEND - LIFE SAFETY

- PRIMARY EXIT
- TWO HOUR FIRE RATED WALL OR PARTITION
- TWO HOUR FIRE RATED WALL OR PARTITION
- EXIT TRAVEL DISTANCE
- 1 HR — 1 HOUR, B-LABEL FIRE RATED DOOR
- EXIT LIGHT
- FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER
- WALL-MOUNTED FIRE EXTINGUISHER

A1	CODE COMPLIANCE PLAN - Second Floor
1/8"=1'-0"	

A14	LEGENDS

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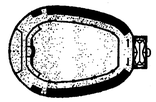

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

CODE COMPLIANCE PLAN
First Floor

RECORD DWG.
DATE 8/26/05

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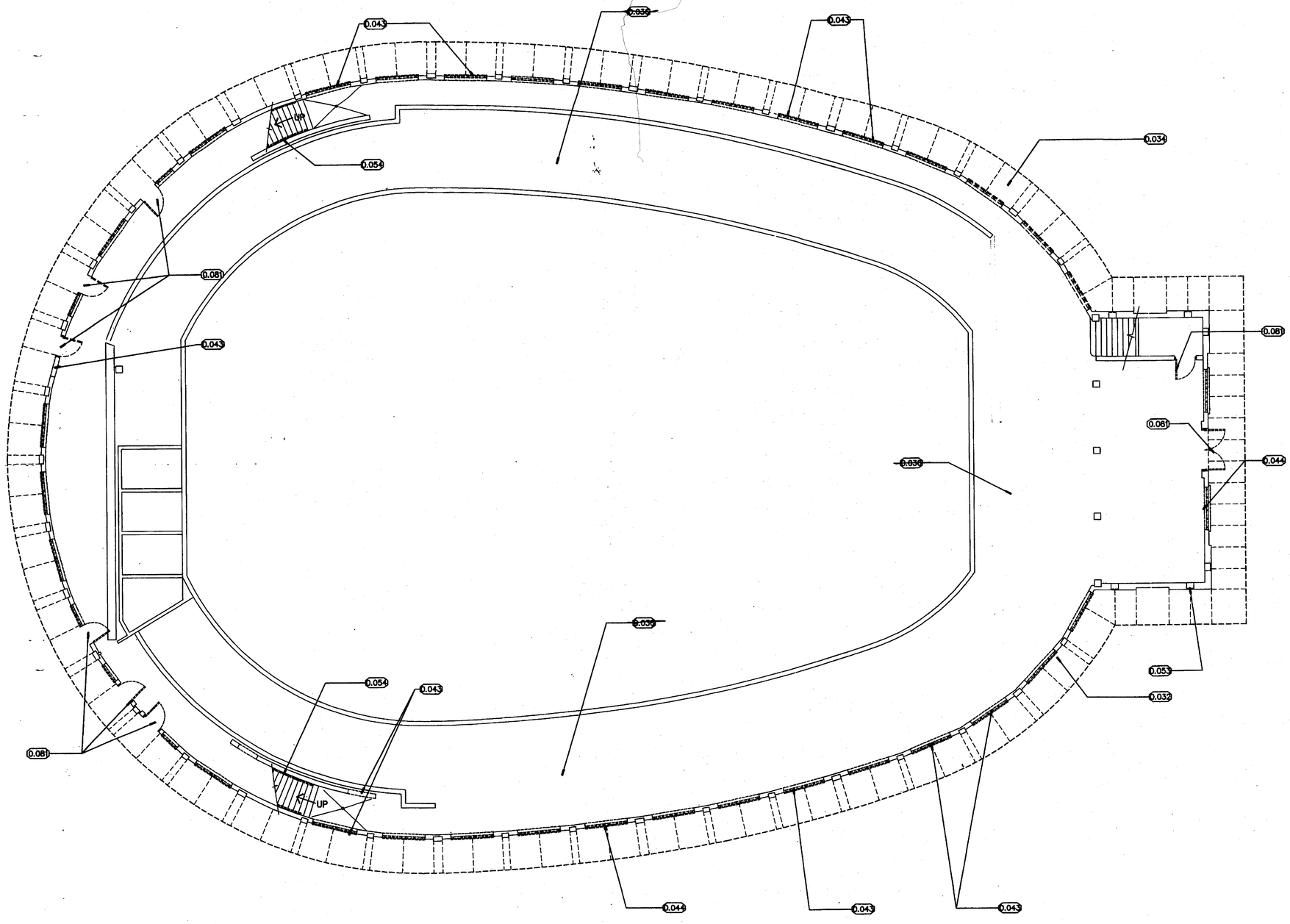

GENERAL NOTES

0.000	DEMOLITION
0.032	line of pool deck slab above
0.034	remove existing concrete sidewalk, typical
~~0.036~~	~~patch cracks and imperfections on underside existing pool deck slab~~
0.043	remove existing masonry as required for new opening
0.044	remove existing concrete louver
0.053	remove existing steel plate
0.054	remove existing handrail
0.081	remove existing door and frame

F14	KEYNOTES

A1	FLOOR PLAN - First Floor
1/8"=1'-0"	

A14	LEGEND / NOTES

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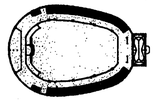

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DEMO PLAN
First Floor

RECORD DWG.
DATE 8/26/05

PROJECT NORTH
TRUE NORTH

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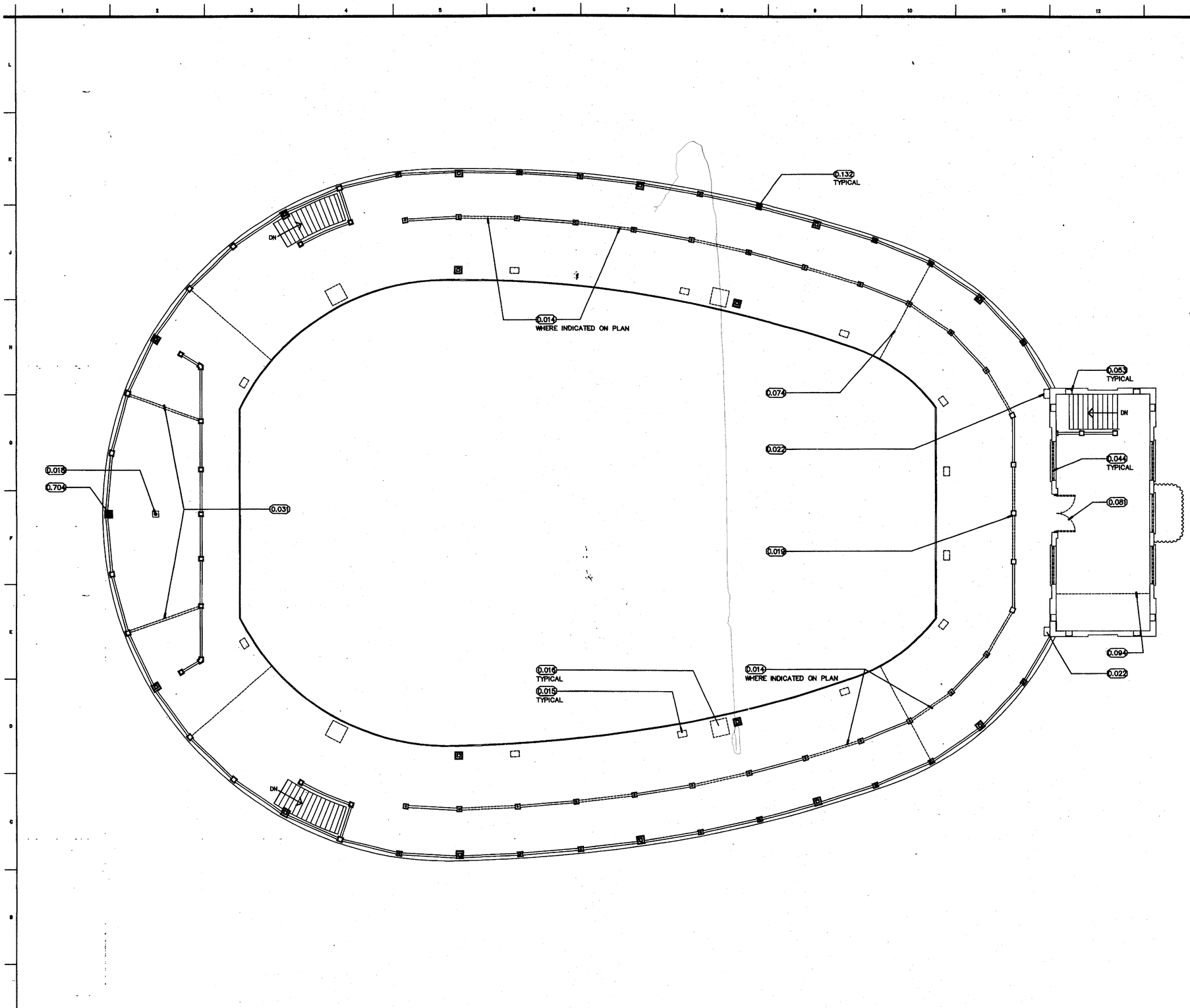

GENERAL NOTES

0.000	DEMOLITION
0.014	remove existing railings and curbs, typical
0.015	remove existing pool depth markers, typical
0.016	remove existing lifeguard stands, typical
0.018	remove existing drain to slab level
0.019	remove existing baluster
0.022	remove existing light fixture
0.031	remove curb to exist pool deck level
0.044	remove existing concrete louver
0.053	remove existing statel plate
0.074	remove existing expansion joint sealant, typical
0.081	remove existing door and frame
0.094	remove existing raised floor
0.132	existing concrete poles to remain
0.704	remove existing light fixture

F14	KEYNOTES

A1	DEMO PLAN - Second Floor Pool Deck
1/8"=1'-0"	

A14	LEGEND / NOTES

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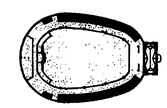

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CITY OF TAMPA
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Tampa, Florida 33602

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Distribution	Date
BID DOCUMENTS	02.02.04

DEMO PLAN
Second FLoor
Pool Deck

RECORD DWG.
DATE 8/26/05

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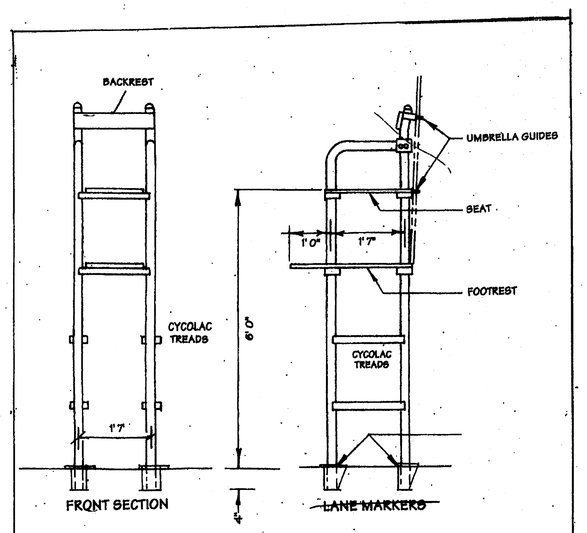
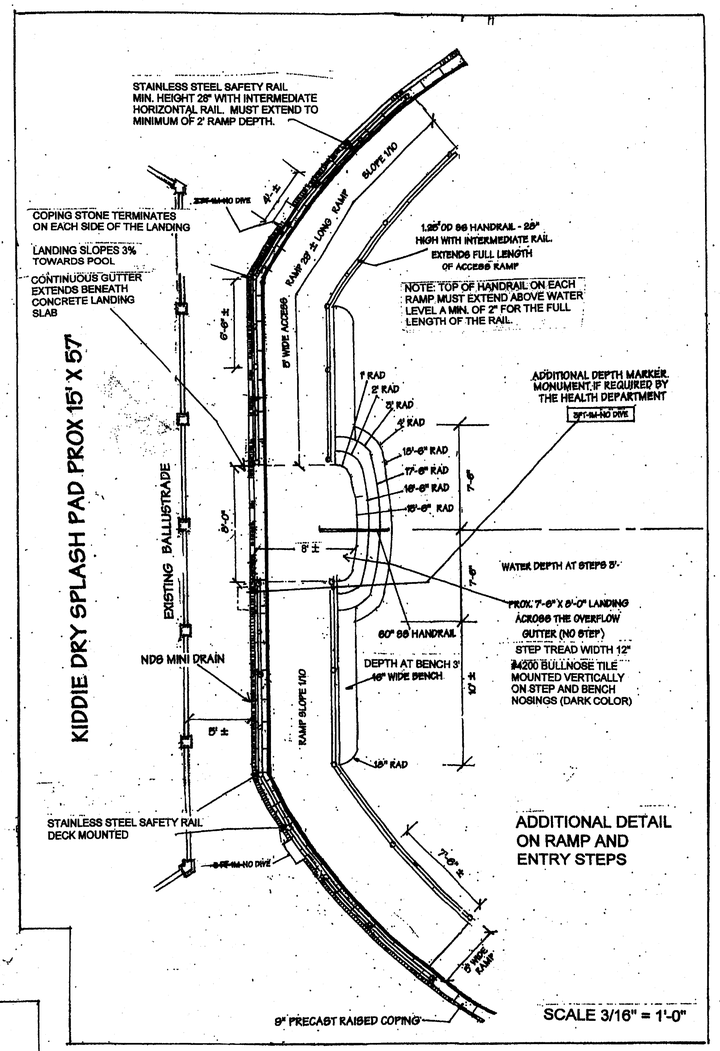
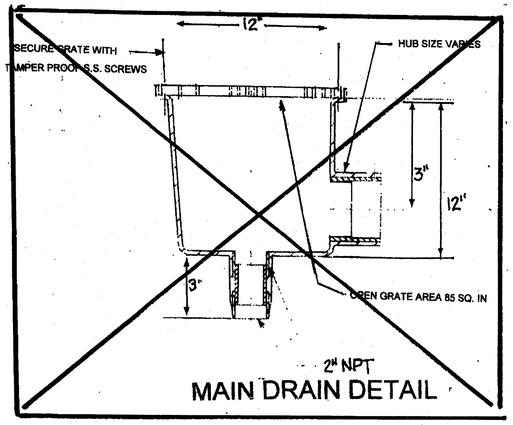
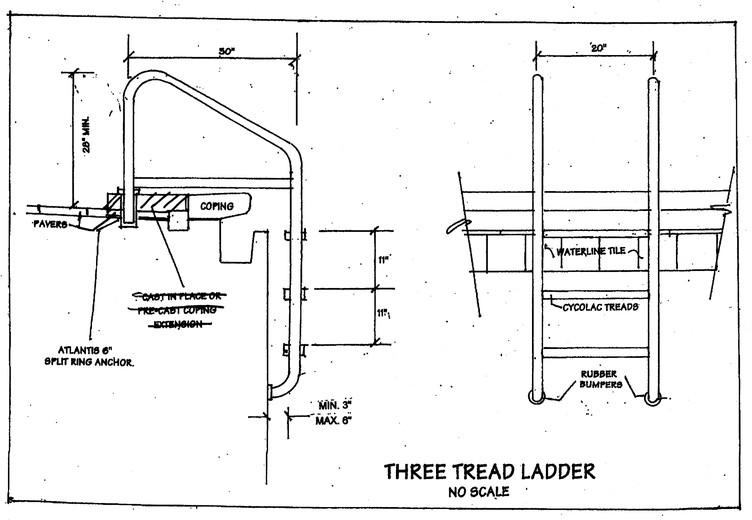


LIFEGUARD CHAIR W/UMBRELLA
NO SCALE





MAIN DRAIN DETAIL



THREE TREAD LADDER
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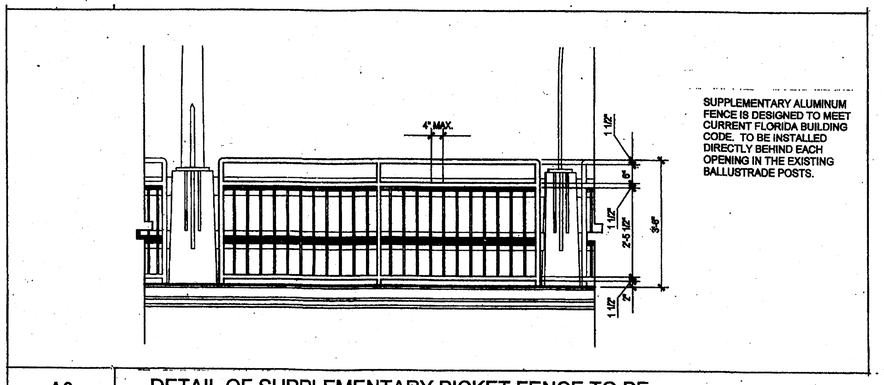

SUPPLEMENTARY ALUMINUM FENCE IS DESIGNED TO MEET CURRENT FLORIDA BUILDING CODE. TO BE INSTALLED DIRECTLY BEHIND EACH OPENING IN THE EXISTING BALLUSTRADE POSTS.

A8

1/2" = 1'-0"

DETAIL OF SUPPLEMENTARY PICKET FENCE TO BE MOUNTED BEHIND EXISTING ART DECO BALLUSTRADES

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #0008161
Post Office Box 8574
Tampa, FL 33674 813/920-9192

11-4-04

RECORD DWG.
DATE 8/26/05

PICKET FENCE DETAIL, ADDITIONAL RAMP, STEP DETAIL, LADDER AND LIFE GUARD CHAIR DETAIL

217
009

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
	TYPICAL LIGHTING SYMBOL NOTES: 1. UPPER CASE LETTER DENOTES FIXTURE TYPE, SEE FIXTURE SCHEDULE 2. LOWER CASE LETTER DENOTES SWITCHED LEG 3. SHADED FIXTURE SYMBOL INDICATES EMERGENCY FIXTURE 4. 'NL' DENOTES NIGHT LIGHT CIRCUIT	
	CEILING OUTLET FOR INCANDESCENT, 'PL' FLUORESCENT OR HIGH INTENSITY DISCHARGE DISCHARGE DOWNLIGHT FIXTURE.	SEE FIXTURE SCHEDULE
	WALL OUTLET FOR INCANDESCENT,'PL' FLUORESCENT OR HIGH INTENSITY FIXTURE (WALL SCONCE, WALL PACK)	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 2'x4' FLUORESCENT FIXTURE.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 2'x2' FLUORESCENT FIXTURE.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 1'x4' FLUORESCENT FIXTURE. (SURFACE, RECESSED, WRAPAROUND, VANDAL-PROOF)	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR FLUORESCENT FIXTURE. (PENDANT MOUNT, CHANNEL, INDUSTRIAL)	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR SINGLE FACE EXIT LIGHT FIXTURE. ARROW INDICATES DIRECTION	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR DOUBLE FACE EXIT LIGHT FIXTURE. ARROW INDICATES DIRECTION	SEE FIXTURE SCHEDULE
S	SINGLE POLE SWITCH	48"AFF U.O.N.
S_3	THREE WAY SWITCH	48"AFF U.O.N.
S_4	FOUR WAY SWITCH	48"AFF U.O.N.
S_H	MOTOR RATED SWITCH WITHOUT THERMAL OVERLOADS FOR FRACTIONAL HORSEPOWER MOTORS.	
S_{SC}	SPEED CONTROL	
S_K	SINGLE POLE SWITCH KEY OPERATED.	48"AFF U.O.N.
S_D	WALL BOX TYPE DIMMER SWITCH. PROVIDE DIMMING BALLAST WHERE REQUIRED.	48"AFF U.O.N.
	TYPICAL RECEPTACLE, OUTLET AND JUNCTION BOX SUFFIX LEGEND: EVC = ELECTRIC WATER COOLER EWH = ELECTRIC WATER HEATER GFI = GROUND FAULT INTERRUPTER EX = EXPLOSION PROOF UP = UP (CONDUIT) DN = DOWN (CONDUIT) E = EXISTING IG = ISOLATED GROUND O = OVEN R = RANGE WP = WEATHERPROOF PS = PAYPHONE STATION REF = REFRIGERATOR P = PEDESTAL	
	DUPLEX RECEPTACLE (20A,120V). FLOOR	FLUSH FLOOR OUTLET
	DUPLEX RECEPTACLE (20A, 120V).	M.H. 16" AFF U.O.N.
	DUPLEX RECEPTACLE (20A, 120V). ABOVE COUNTER.	42"AFF, ABOVE COUNTER BACKSLASH U.O.N.
	DOUBLE DUPLEX RECEPTACLE (20A,120V). FLOOR	FLUSH FLOOR OUTLET
	DOUBLE DUPLEX RECEPTACLE (20A, 120V).	16"AFF U.O.N.
	RANGE RECEPTACLE, 50A, 250V, ONE PHASE, FOUR WIRE.	4" AFF. U.O.N.
	DRYER RECEPTACLE, 30A, 250V, ONE PHASE, FOUR WIRE.	36" AFF. U.O.N.
	SPECIAL PURPOSE RECEPTACLE, AMPS, VOLTS AND WIRE AS NOTED.	18" AFF, U.O.N.
J	JUNCTION OR OUTLET BOX, 4" SQUARE BOX U.O.N.	AS NOTED
J	FLOOR MOUNTED JUNCTION OR OUTLET BOX, 4" SQUARE BOX U.O.N.	AS NOTED
30/3	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3 POLE, U.O.N.	SEE SPECIFICATIONS
60/40/3	FUSIBLE DISCONNECT SWITCH, AMPS/FUSE SIZE/NO. POLES AS NOTED.	SEE SPECIFICATIONS
	COMBINATION MAGNETIC MOTOR STARTER	SEE SPECIFICATIONS
VFD	VARIABLE FREQUENCY DRIVE	
3	MOTOR, NUMERAL INDICATES HORSEPOWER	BY OTHER DIVISION
	ELECTRIC DUCT HEATER	BY OTHER DIVISION
	VARIABLE AIR VOLUME CONTROL	
T	DRY TYPE TRANSFORMER, SIZE AS SHOWN ON RISER	FLOOR OR AS NOTED
	PANELBOARD, 120/208V., 3 PH., 4W	6'-6"AFF MIN. TO TOP
TTC	TELEPHONE TERMINAL CABINET	M.H. 6'-6" MIN. TO TOP
TTB	TELEPHONE TERMINAL BOARD, AS NOTED	6'-6"AFF MIN. TO TOP
UP	RACEWAY RISER, UP OR DOWN AS NOTED.	SEE SPECIFICATIONS
	RACEWAY CONCEALED UNDER FLOOR, IN SLAB OR BELOW GRADE	SEE SPECIFICATIONS
	RACEWAY CONCEALED IN WALL OR CEILING	SEE SPECIFICATIONS
L1D-1,3	HOMERUN TO PANEL, LETTERS INDICATE PANEL, NUMBERS INDICATE CIRCUITS.	SEE SPECIFICATIONS

NOTE:
NOT ALL SYMBOLS SHOWN IN THIS LEGEND MAY NECESSARILY APPEAR IN THESE DOCUMENTS. ADDITIONAL SYMBOLS MAY BE DEFINED ELSEWHERE IN SPECIFIC DRAWINGS.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
	TYPICAL FIRE ALARM DEVICE SUFFIX LEGEND. F = FLASHING STROBE LIGHT S = SUPPLY R = RETURN	
H	FIRE ALARM HEAT DETECTOR	CEILING, U.O.N.
S	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR	CEILING, U.O.N.
S	FIRE ALARM PHOTOELECTRIC DETECTOR. INSIDE DUCT.	DUCT
F	FIRE ALARM MANUAL PULL STATION	48"AFF TO TOP, U.O.N.
R	FIRE ALARM SYSTEM FAN OR AHU SHUTDOWN OR RUN RELAY	
S_{TL}	FIRE ALARM DUCT SMOKE DETECTOR TEST SWITCHES & LIGHTS. ONE PER SMOKE DUCT DETECTOR	48"AFF TO TOP, U.O.N.
F	FIRE ALARM HORN (WEATHER PROOF WHEN INSTALLED OUTDOORS.)	8'-0"AFF TO TOP, U.O.N.
F	FIRE ALARM HORN/FLASHING STROBE LIGHT.	80" AFF TO TOP, U.O.N.
F	FIRE ALARM WITH FLASHING STROBE LIGHT.	80" AFF TO TOP, U.O.N.
FACP	FIRE ALARM CONTROL PANEL.	M.H. 60" MIN. TO TOP
FARA	FIRE ALARM REMOTE ANNUNCIATOR PANEL.	M.H. 60" MIN. TO TOP
FATC	FIRE ALARM TERMINAL CABINET	M.H. 60" MIN. TO TOP
FAS	FIRE ALARM PULL STATION SIGN - FOR INTERIOR MOUNTED STATION	M.H. 48" MIN. TO TOP
S_{ER}	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR WITH ELEVATOR RECALL CONTACTS.	CEILING, U.O.N.
TS	FIRE ALARM WATER TAMPER SWITCH.	48"AFF TO TOP, U.O.N.
FS	FIRE ALARM WATER FLOW SWITCH.	48"AFF TO TOP, U.O.N.
	SOUND SYSTEM CALL IN SWITCH.	M.H. 48" TO TOP, U.O.N.
EPO	EMERGENCY POWER OFF SWITCH WITH LEGEND PLATE IDENTIFYING IT AS "EMERGENCY POWER OFF."	M.H. 48" TO TOP, U.O.N.
EEO	EMERGENCY POWER EMERGENCY EXHAUST FAN ON SWITCH WITH LEGEND PLATE IDENTIFYING IT AS "EMERGENCY EXHAUST ON."	M.H. 48" TO TOP, U.O.N.
PRS	POWER RESTORE SWITCH WITH LEGEND PLATE IDENTIFYING IT AS "POWER RESTORE SWITCH".	M.H. 48" TO TOP, U.O.N.
C	MECHANICALLY HELD 6 POLE CONTACTOR WITH 120V COIL CLEARING CONTACTS MOUNTED IN NEMA-1 ENCLOSURE ABOVE SUSPENDED CEILING.	MOUNTED ABOVE CEILING
	(1) RJ-45 OUTLET (ORANGE ICON) FOR VOICE TERMINATION	16" A.F.F. U.O.N.
	(2) RJ-45 OUTLETS (1) WITH (ORANGE ICON) FOR VOICE TERMINATION AND (1) WITH (BLUE ICON) FOR DATA TERMINATION.	16" A.F.F. U.O.N.
22	REFER TO LIKE NUMBERED KEY NOTES.	

GENERAL NOTES ELECTRICAL

1. DO NOT SCALE FROM THESE DRAWINGS.
2. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
4. ALL EMERGENCY SYSTEMS SHALL BE RUN IN SEPARATE RACEWAY/CONDUIT SYSTEM(S).
5. PROVIDE CEILING MOUNTED RED L.E.D. ALARM INDICATOR FOR EACH SMOKE DETECTOR MOUNTED IN PLENUM SPACE(S) OR CONCEALED AREAS.
6. FROM EACH FLUSH MOUNTED PANEL BOARD, STUB-OUT INTO CEILING CAVITY ABOVE, A 3/4" C. FOR EACH SET OF 3 - SPARES AND/OR SPACES OR FRACTIONS OF EITHER SET THEREOF.
7. REFER TO MECHANICAL DRAWINGS FOR INTERLOCKING REQUIREMENTS OF MECHANICAL EQUIPMENT (MOTORS, FANS, PUMPS, ETC...). INSTALL ANY ELECTRICAL EQUIPMENT (STARTERS, RELAYS, VFD'S, ETC.) FURNISHED BY DIV 15.
8. TELEPHONE RACEWAY SYSTEM: PROVIDE RACEWAY FOR TELEPHONE CABLE TO BE INSTALLED BETWEEN EACH OUTLET AND DISTRIBUTION FRAME. IN ADDITION, PROVIDE THE REQUIRED RACEWAY BETWEEN EACH DISTRIBUTION FRAME. PROVIDE ALL TERMINAL BOARDS, SIZED AND LOCATED, AS REQUIRED.
9. ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTIVE CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTIVE CEILING PLANS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS.
10. PROVIDE ADEQUATE POWER IN THE FIRE ALARM SYSTEM TO OPERATE ALL LIFE SAFETY SYSTEM AND E.M.C.S. CONTROL DEVICES.
11. WHERE NON-FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT). FEEDER (AND/OR BRANCH CIRCUIT) OVER-CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED-OFF" PROVISION.
12. PROVIDE WALL SWITCHES IN EACH OFFICE/AREA TO CONTROL THE LIGHT FIXTURE(S) IN EACH OFFICE/AREA.
13. REFERENCE MECHANICAL DRAWINGS FOR ALL MECHANICAL EQUIPMENT NEEDING ELECTRICAL CONNECTIONS. MAKE ALL CONNECTIONS AND PROVIDE APPROPRIATE WIRE CONDUIT AND OVERCURRENT PROTECTION FOR ALL EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR.
14. PROVIDE EXIT SIGNAGE AS INDICATED ON DRAWINGS.
15. RECEPTACLES IN MECHANICAL ROOM, ELECTRICAL ROOMS, STORAGE ROOMS AND JANITOR CLOSETS TO BE MOUNTED 48" A.F.F. AND G.F.I.
16. ALL EXTERIOR WIRING DEVICES TO BE WEATHERPROOF AND GROUND INTERRUPTING TYPE.
17. CONDUIT RUNS SHOWN ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NEC AND FOR COORDINATION WITH OTHER DISCIPLINES.
18. ALL H.I.D. AND FLUORESCENT LIGHT FIXTURES SHALL BE FURNISHED WITH INTEGRAL FUSING.
19. FURNISH AND INSTALL ONE (1) LIGHT FIXTURE WITH SWITCH AND ONE (1) DUPLEX RECEPTACLE IN ELEVATOR PIT. COORDINATE EXACT LOCATION WITH ELEVATOR CONTRACTOR AND INSPECTOR.
20. COORDINATE EXACT LOCATIONS OF ELEVATOR DISCONNECT SWITCH WITH ELEVATOR CONTRACTOR AND INSPECTOR. PROVIDE ALL NECESSARY EQUIPMENT CONTROL AS REQUIRED BY ELEVATOR CODE.
21. COORDINATE EXACT LOCATIONS OF ALL ITEMS INSTALLED ON SITE WITH CIVIL ENGINEER.
22. COORDINATE ALL LOCATIONS OF RECEPTACLES AND SYSTEMS OUTLETS WITH IN ALL CASEWORK.
23. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU.
24. ALL SITE LIGHTING POLES AND POLE BASES SHALL BE CAPABLE OF SUPPORTING THE ENTIRE WEIGHT AND WIND LOADS (WINDS OF 130 MPH) OF THE ENTIRE LIGHTING SYSTEM. SHOP DRAWINGS MUST INCLUDE DRAWINGS OF THE ENTIRE ASSEMBLY FOR EACH OF THE MOUNTING CONFIGURATIONS USED. DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER.

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS QTY	LAMPS TYPE	VOLTS	MOUNTING	REMARKS
A	LIGHTOLIER	QVT-1-S-PF-232-120-SO-GLR-EM1100	2	32W T8	120	SURFACE MOUNTED	1'X4' SURFACE MOUNTED FLUORESCENT DIRECT / INDIRECT FIXTURE. ELECTRONIC BALLAST WITH LESS THAN 10% THD. SHADED FIXTURES PROVIDE EMERGENCY BATTERY WITH NO LESS THAN 1100 LUMEN OUTPUT. PROVIDE FUSING.
B	LIGHTOLIER	SL-B-1-S-XX-VA-232-120-LE<10-GLR-EM1100	2	32W T8	120	SURFACE MOUNTED	1'X4' SURFACE MOUNTED FLUORESCENT FIXTURE WITH ACRYLIC PRISMATIC 0.125" NOMINAL LENS. ELECTRONIC BALLAST WITH LESS THAN 10% THD. SHADED FIXTURES PROVIDE EMERGENCY BATTERY WITH NO LESS THAN 1100 LUMEN OUTPUT. PROVIDE FUSING. PROVIDE DAMP LABEL.
C	LIGHTOLIER	ST-48-W-A-232-120-P<10-GLR-EM1100	2	32W T8	120	SURFACE MOUNTED OR PENDANT MOUNTED	SURFACE MOUNTED FLUORESCENT FIXTURE WITH FIBERGLASS HOUSING. WHERE SHADED FIXTURE PROVIDE EMERGENCY BATTERY CAPABLE OF TWO LAMPS OPERATING WITH NO <1100 LUMEN OUTPUT. ELECTRONIC BALLAST WITH <10% THD. DAMP LOCATION LISTED. PROVIDE FUSING.
D	KENALL	MLHA12-48-R-MX-PP-4-32-PB8-1-120-PEL-FUSE	4	32W T8	120	WALL MOUNTED	1X4 WALL MOUNTED ARCHITECTURAL LINEAR LIGHT. FOUR FLUORESCENT LAMPS. MARINE GRADE ALUMINUM BODY WITH DIE-CAST CAPS, HIGH ABUSE POLYCAROBONATE LENS AND LIFETIME GUARANTEE. PROVIDE FUSING AND ALL COMPONENTS NECESSARY FOR MOUNTING. SHADED FIXTURES PROVIDE EMERGENCY BATTERY WITH NO LESS THAN 1100 LUMEN OUTPUT.
F	HALO PRESCOLITE CAPRI LITHONIA	H7T-71 PBX-TL1 R9-R16P-60W LP6-6LD2	1	60W A19	120	RECESSED INTO CEILING	7" RECESSED DOWNLIGHT WITH 60 WATT INCANDESCENT LAMP. PLASTIC DROP OPAL LENS. UL LISTED FOR DAMP LOCATIONS.
G	RAL G.E. PHOENIX	VPWB100-GG-175 H7-X15F-3W-DD VP 100	1	100W	120	SURFACE MOUNT TO WALL	ENCLOSED AND GASKETED INCANDESCENT FIXTURE. CLEAR GLASS GLOBE. DIE CAST ALUMINUM GUARD.
H	GARDCO - - -	MAG18-1/2-3-175MH-277-XX-F	1	175 MH	120	PROVIDE POLE SEE TYPE "H2"	175W MH OUTDOOR GLOWTOP LUMINARE. SINGLE OR DOUBLE FIXTURES @ 90° POLE MOUNT. PROVIDE MOUNTING BRACKET AND POLE REFERENCE FIXTURE SCHEDULE FOR POLE TYPE. TYPE 3 DISTRIBUTION. PROVIDE FUSING. COLOR BY ARCHITECT.
H2	GARDCO - - -	RA4-15	NA	NA	NA	15' POLE REFERENCE DETAIL SHEET	15' STRAIGHT ROUND ALUMINUM POLE WITH 4-BOLT ANCHOR BASE DESIGNED FOR SIDE-MOUNT LIGHT FIXTURES. POLE SHALL BE RATED FOR 130 MPH WIND LOADS AS A MIN. REFER TO DETAIL SHEET FOR MORE INFORMATION. VERIFY BOLT PATERN AND SIZE.
J	NITEBRITES - - -	PM2-10XM-MT-N6-PM2-N6	1	1000 MH	208	PROVIDE POLE SEE TYPE "J2"	1000W MH OUTDOOR SPORTS LIGHTING LUMINARE. PROVIDE MOUNTING BRACKET BCS-002-TUB AND POLE REFERENCE FIXTURE SCHEDULE FOR POLE TYPE. N6 DISTRIBUTION. PROVIDE FUSING. COLOR BY ARCHITECT: (*).
J2	NITE BRITES - - -	RSS-416-G07-XXX-CBA	NA	NA	NA	16' POLE REFERENCE DETAIL SHEET	16' STRAIGHT ROUND STEEL POLE WITH 4-BOLT ANCHOR BASE DESIGNED FOR SIDE-MOUNT LIGHT FIXTURES. POLE SHALL BE RATED FOR 130 MPH WIND LOADS AS A MIN. REFER TO DETAIL SHEET FOR MORE INFORMATION. VERIFY BOLT PATERN AND SIZE. COORDINATE MOUNTING REQUIREMENTS WITH STRUCTURAL DRAWINGS.
K	DYNAMIC LIGHTING INC - - -	D130/G16ACN-100-PM06	1	100 MH	120	MOUNT TO EXISTING POLE	100W MH OUTDOOR GLOBE LUMINARE WITH PILLAR MOUNT STANTION AND BASE WITH INTEGRAL BALLAST. PROVIDE ALL MOUNTING COMPONENTS TO MOUNT TO EXISTING POLE. PROVIDE FUSING. COLOR BY ARCHITECT.
L	PORTFOLIO		1	32W TRT	120	RECESSED INTO CEILING	RECESSED 6" OPEN CONE FLUORESCENT DOWNLIGHT WITH 32W LAMPS. CLEAR ALZAK REFLECTOR WITH LENS. PROVIDE ELECTRONIC BALLAST WITH LESS THAN 10% THD. WHERE SHADED FIXTURE PROVIDE EMERGENCY BATTERY W/ NO LESS 650 LUMENS. PROVIDE FUSING. DAMP LABEL.
M	LIGHTOLIER		2	50W TT5	120	WALL MOUNTED AT 6'0" A.F.F.	WALL MOUNTED DIRECT/ INDIRECT FLUORESCENT SCONCE WITH 2-50W TT5 LAMPS. MICRO PERFORATED MESH LAMP SHIELD.
N	MCGRAW EDISON DAYBRITE LITHONIA G.E.	- - KFL2-100MH-RW-120-STM-CR-SF-WG -	1	100W MH	120	MOUNTED 6" ABOVE GRADE	100W METAL HALIDE FLOOD LIGHT. PROVIDE ALL NECESSARY MOUNTING HARDWARE, SLIP FITTER AND TENON MOUNTED TO CONCRETE BASE. PROVIDE FUSING.
X	LITHONIA CW COLE CHLORIDE	LVS-W-1/2-R-120-ELN-UM-WL LX-16X-RED-EM-W-120 R-L-N-1/2-R-W-WLVRS-X	1	LED	120	CEILING OR WALL VERIFY	EXIT LIGHT SIGN FOR OUTDOOR USE. UL LISTED FOR WET LOCATION. RED LED LAMP, STENCIL LETTERS, AND WHITE FINISH. SINGLE OR DOUBLE SIDED. PROVIDE WITH AC INDICATOR LAMP, TEST SWITCH, AND DUAL VOLTAGE. MAINTENANCE-FREE NICKEL CADMIUM BATTERY WITH 90 MINUTE CAPACITY. UNIVERSAL MOUNT.

COORDINATE ALL EQUALS WITH ACHITECTECT FOR PRIOR APOVAL
* PROVIDE PHOTOMETRICS AND AIMING OF FIXTURES FOR EQUAL FIXTURES

Legend - Electrical

N.T.S

ROWE ARCHITECTS INCORPORATED
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ENGINEERING MATRIX, INC.
CONSULTING ENGINEERS

[redacted]

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

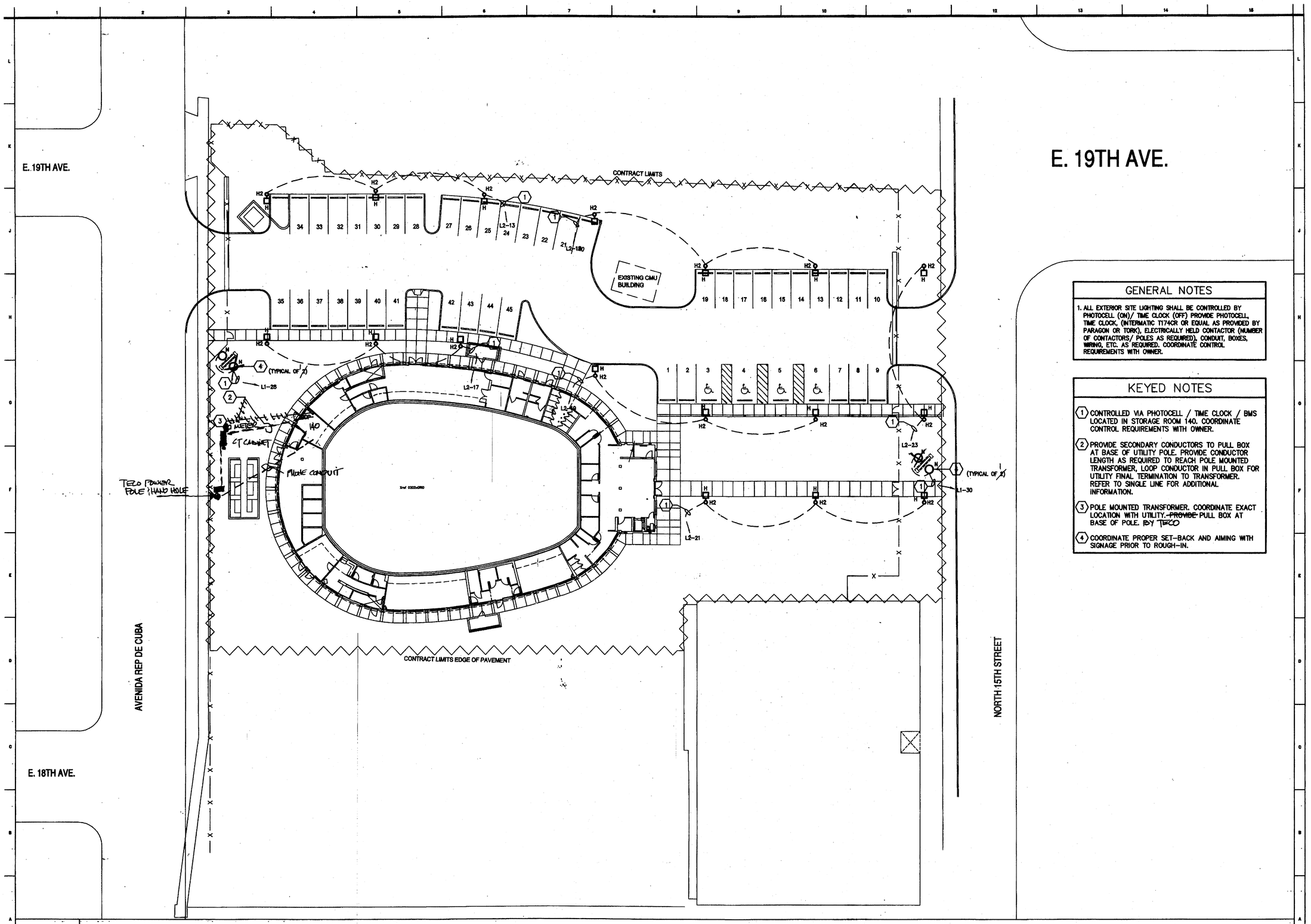
Legend
Electrical

RECORD DWG.
DATE 8/26/05

RECEIVED
FEB 23 2004
CONST. TECH. GROUP, INC.

217/009

E001



GENERAL NOTES

1. ALL EXTERIOR SITE LIGHTING SHALL BE CONTROLLED BY PHOTOCELL (ON)/ TIME CLOCK (OFF) PROVIDE PHOTOCELL, TIME CLOCK, (INTERMATIC T174CR OR EQUAL AS PROVIDED BY PARAGON OR TORK), ELECTRICALLY HELD CONTACTOR (NUMBER OF CONTACTORS/ POLES AS REQUIRED), CONDUIT, BOXES, WIRING, ETC. AS REQUIRED. COORDINATE CONTROL REQUIREMENTS WITH OWNER.

KEYED NOTES

1. CONTROLLED VIA PHOTOCELL / TIME CLOCK / BMS LOCATED IN STORAGE ROOM 140. COORDINATE CONTROL REQUIREMENTS WITH OWNER.
2. PROVIDE SECONDARY CONDUCTORS TO PULL BOX AT BASE OF UTILITY POLE. PROVIDE CONDUCTOR LENGTH AS REQUIRED TO REACH POLE MOUNTED TRANSFORMER, LOOP CONDUCTOR IN PULL BOX FOR UTILITY FINAL TERMINATION TO TRANSFORMER. REFER TO SINGLE LINE FOR ADDITIONAL INFORMATION.
3. POLE MOUNTED TRANSFORMER. COORDINATE EXACT LOCATION WITH UTILITY. ~~PROVIDE~~ PULL BOX AT BASE OF POLE. BY TECO
4. COORDINATE PROPER SET-BACK AND AIMING WITH SIGNAGE PRIOR TO ROUGH-IN.

Site Plan - Electrical

1" = 20'-0"

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

Site Plan - Electrical

RECORD DWG.
DATE 8/26/05

PROJECT NORTH TRUE NORTH

E101

RECEIVED FEB 23 2004 COMM. TECH. GROUP, INC.

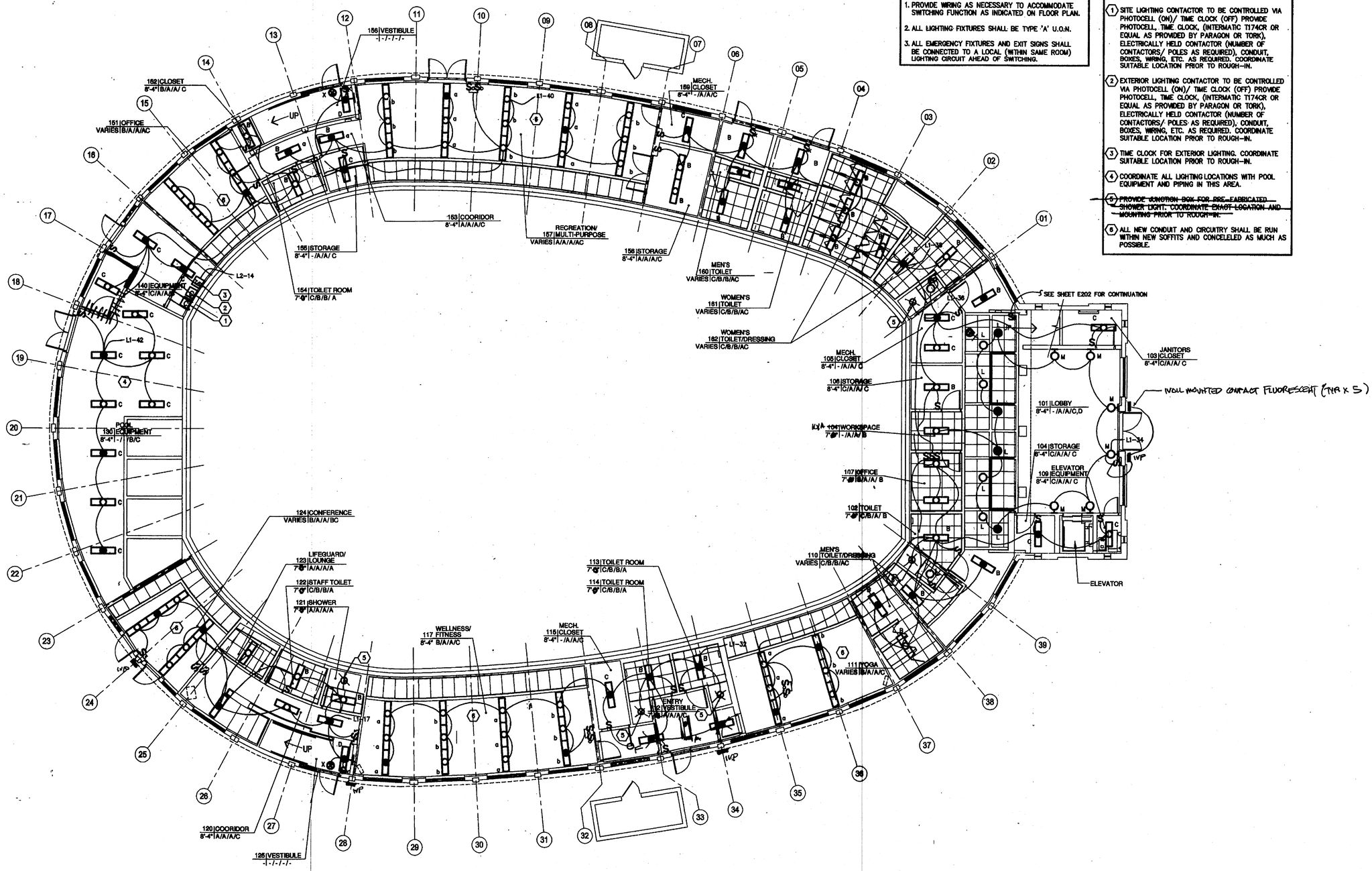
2/7 009

GENERAL NOTES

1. PROVIDE WIRING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
2. ALL LIGHTING FIXTURES SHALL BE TYPE 'A' U.O.N.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

KEYED NOTES

1. SITE LIGHTING CONTACTOR TO BE CONTROLLED VIA PHOTOCELL (ON)/ TIME CLOCK (OFF) PROVIDE PHOTOCELL, TIME CLOCK, (INTERMATIC T174CR OR EQUAL AS PROVIDED BY PARAGON OR TORK), ELECTRICALLY HELD CONTACTOR (NUMBER OF CONTACTORS/ POLES AS REQUIRED), CONDUIT, BOXES, WIRING, ETC. AS REQUIRED. COORDINATE SUITABLE LOCATION PRIOR TO ROUGH-IN.
2. EXTERIOR LIGHTING CONTACTOR TO BE CONTROLLED VIA PHOTOCELL (ON)/ TIME CLOCK (OFF) PROVIDE PHOTOCELL, TIME CLOCK, (INTERMATIC T174CR OR EQUAL AS PROVIDED BY PARAGON OR TORK), ELECTRICALLY HELD CONTACTOR (NUMBER OF CONTACTORS/ POLES AS REQUIRED), CONDUIT, BOXES, WIRING, ETC. AS REQUIRED. COORDINATE SUITABLE LOCATION PRIOR TO ROUGH-IN.
3. TIME CLOCK FOR EXTERIOR LIGHTING. COORDINATE SUITABLE LOCATION PRIOR TO ROUGH-IN.
4. COORDINATE ALL LIGHTING LOCATIONS WITH POOL EQUIPMENT AND PIPING IN THIS AREA.
5. ~~PROVIDE JUNCTION BOX FOR PRE-FABRICATED SHOWER LIGHT. COORDINATE EXACT LOCATION AND MOUNTING PRIOR TO ROUGH-IN.~~
6. ALL NEW CONDUIT AND CIRCUITRY SHALL BE RUN WITHIN NEW SOFFITS AND CONCELELED AS MUCH AS POSSIBLE.



First Floor - Lighting

1/8"=1'-0"

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

Floor Plan
First Floor
Lighting

RECORD DWG.
DATE 8/26/05

PROJECT NORTH
TRUE NORTH

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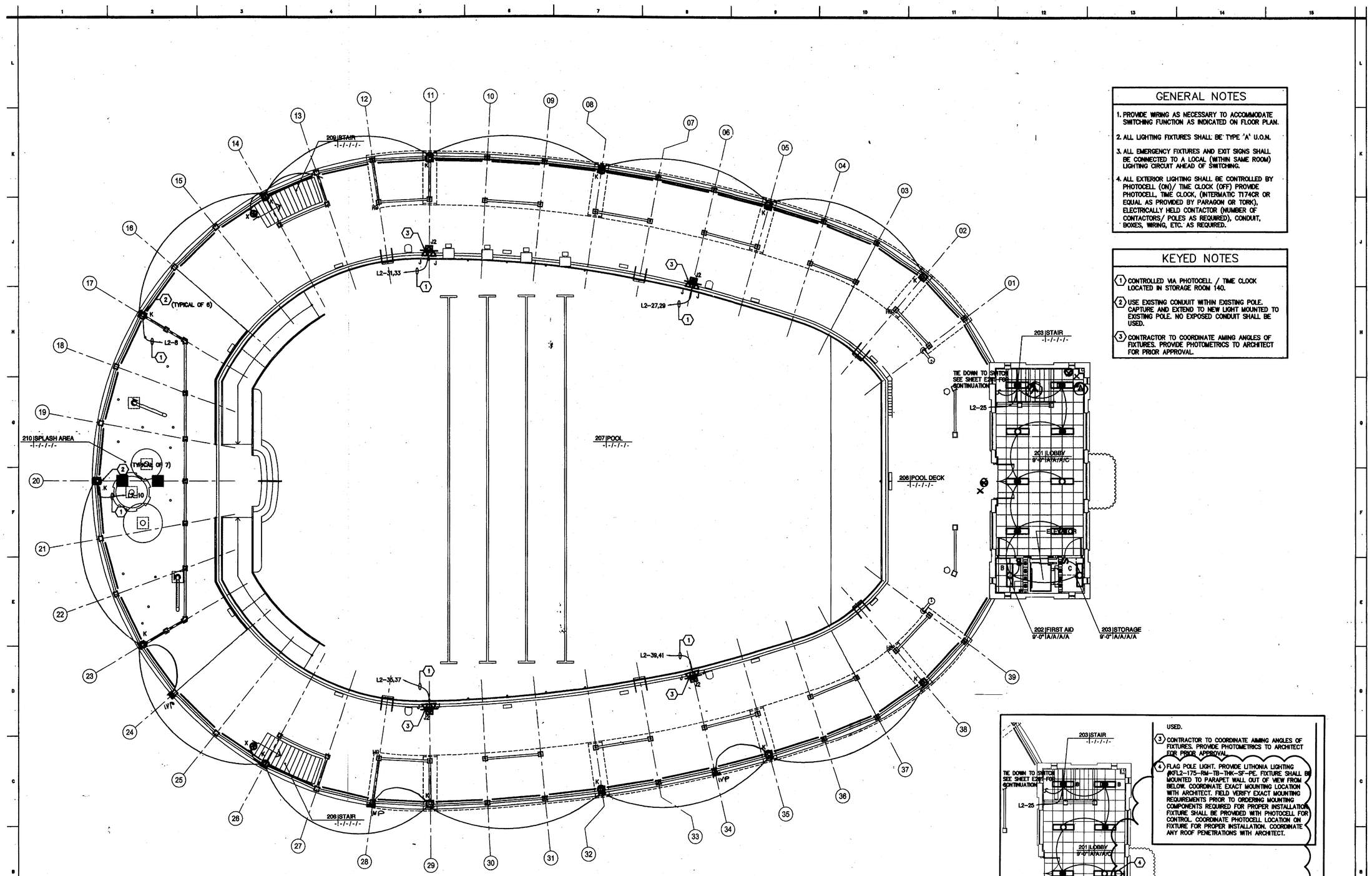
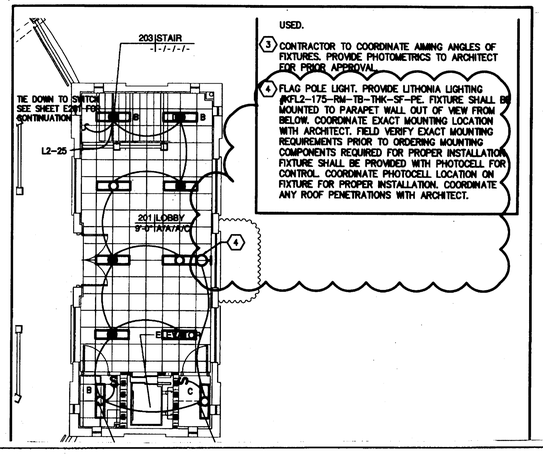


GENERAL NOTES

1. PROVIDE WIRING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
2. ALL LIGHTING FIXTURES SHALL BE TYPE 'A' U.O.N.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.
4. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTOCELL (ON)/ TIME CLOCK (OFF) PROVIDE PHOTOCELL, TIME CLOCK, (INTERMATIC T174CR OR EQUAL AS PROVIDED BY PARAGON OR TORK), ELECTRICALLY HELD CONTACTOR (NUMBER OF CONTACTORS/ POLES AS REQUIRED), CONDUIT, BOXES, WIRING, ETC. AS REQUIRED.

KEYED NOTES

1. CONTROLLED VIA PHOTOCELL / TIME CLOCK LOCATED IN STORAGE ROOM 140.
2. USE EXISTING CONDUIT WITHIN EXISTING POLE. CAPTURE AND EXTEND TO NEW LIGHT MOUNTED TO EXISTING POLE. NO EXPOSED CONDUIT SHALL BE USED.
3. CONTRACTOR TO COORDINATE AIMING ANGLES OF FIXTURES. PROVIDE PHOTOMETRICS TO ARCHITECT FOR PRIOR APPROVAL.



USED.

3. CONTRACTOR TO COORDINATE AIMING ANGLES OF FIXTURES. PROVIDE PHOTOMETRICS TO ARCHITECT FOR PRIOR APPROVAL.
4. FLAG POLE LIGHT. PROVIDE LITHONIA LIGHTING #OPL2-175-RM-TB-THK-SF-PE. FIXTURE SHALL BE MOUNTED TO PARAPET WALL OUT OF VIEW FROM BELOW. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECT. FIELD VERIFY EXACT MOUNTING REQUIREMENTS PRIOR TO ORDERING MOUNTING COMPONENTS REQUIRED FOR PROPER INSTALLATION. FIXTURE SHALL BE PROVIDED WITH PHOTOCELL FOR CONTROL. COORDINATE PHOTOCELL LOCATION ON FIXTURE FOR PROPER INSTALLATION. COORDINATE ANY ROOF PENETRATIONS WITH ARCHITECT.

Second Floor Pool Deck - Lighting

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Floor Plan
Second Floor Pool Deck
Lighting

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PROJECT NORTH
GRID NORTH

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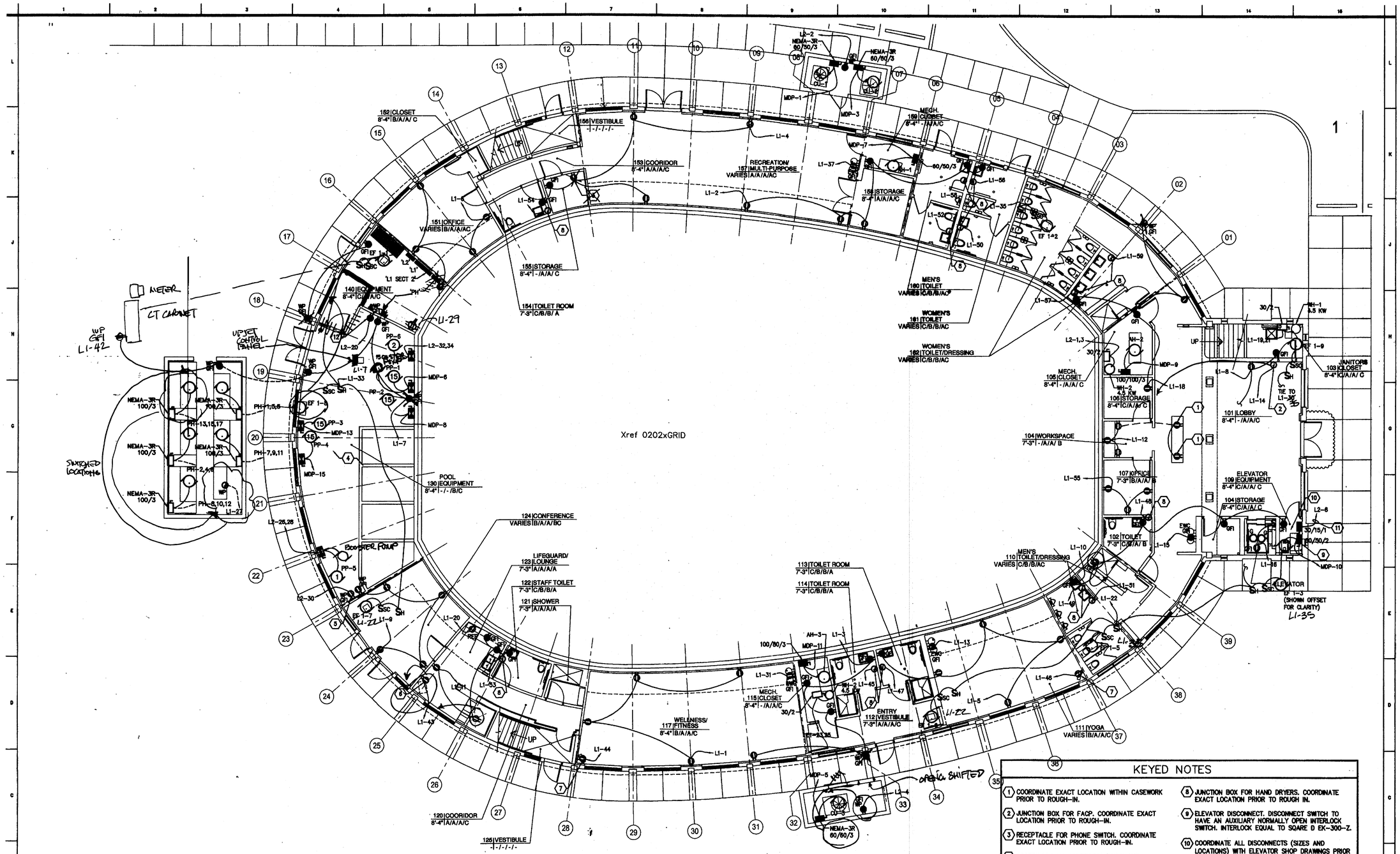

KEYED NOTES

1. COORDINATE EXACT LOCATION WITHIN CASEWORK PRIOR TO ROUGH-IN.
2. JUNCTION BOX FOR FACP. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
3. RECEPTACLE FOR PHONE SWITCH. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
4. COORDINATE ALL EQUIPMENT (SIZES AND LOCATIONS) WITH POOL CONSULTANT DRAWINGS PRIOR TO ROUGH-IN.
5. RECEPTACLE FOR CHEMICAL FEEDERS. COORDINATE EXACT LOCATION WITH POOL CONSULTANT DRAWINGS PRIOR TO ROUGH-IN. INTERLOCK RECEPTACLE WITH PP-5.
6. RECEPTACLES FOR TELEVISION. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH IN.
7. RECEPTACLES FOR OSCILLATING FANS. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH IN.
8. JUNCTION BOX FOR HAND DRYERS. COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
9. ELEVATOR DISCONNECT. DISCONNECT SWITCH TO HAVE AN AUXILIARY NORMALLY OPEN INTERLOCK SWITCH. INTERLOCK EQUAL TO SQARE D EK-300-Z.
10. COORDINATE ALL DISCONNECTS (SIZES AND LOCATIONS) WITH ELEVATOR SHOP DRAWINGS PRIOR TO ROUGH-IN.
11. ELEVATOR CAB LIGHTING. PROVIDE 2-#12 CU. THWN. 1-#12 E.G. CU. THWN. IN ¾" CONDUIT. FIELD VERIFY LOCATION OF ELEVATOR CAB LIGHTING TERMINATION POINT AT ELEVATOR CAB. PROVIDE ALL ELECTRICAL COMPONENTS (DEVICES, CONDUIT, WIRING, ETC.) AS REQUIRED FOR COMPLETE ELEVATOR CAB LIGHTING POWER TERMINATIONS PER N.E.C. AND FLORIDA ELEVATOR CODE.
12. RECEPTACLE FOR CHEMICAL FEEDERS. COORDINATE EXACT LOCATION WITH POOL CONSULTANT DRAWINGS PRIOR TO ROUGH-IN. INTERLOCK RECEPTACLE WITH PP-1 AND PP-2.

First Floor - Power

1/8"=1'-0"

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First Floor - Power Plan

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DATE 8/26/05

PROJECT NORTH TRUE NORTH

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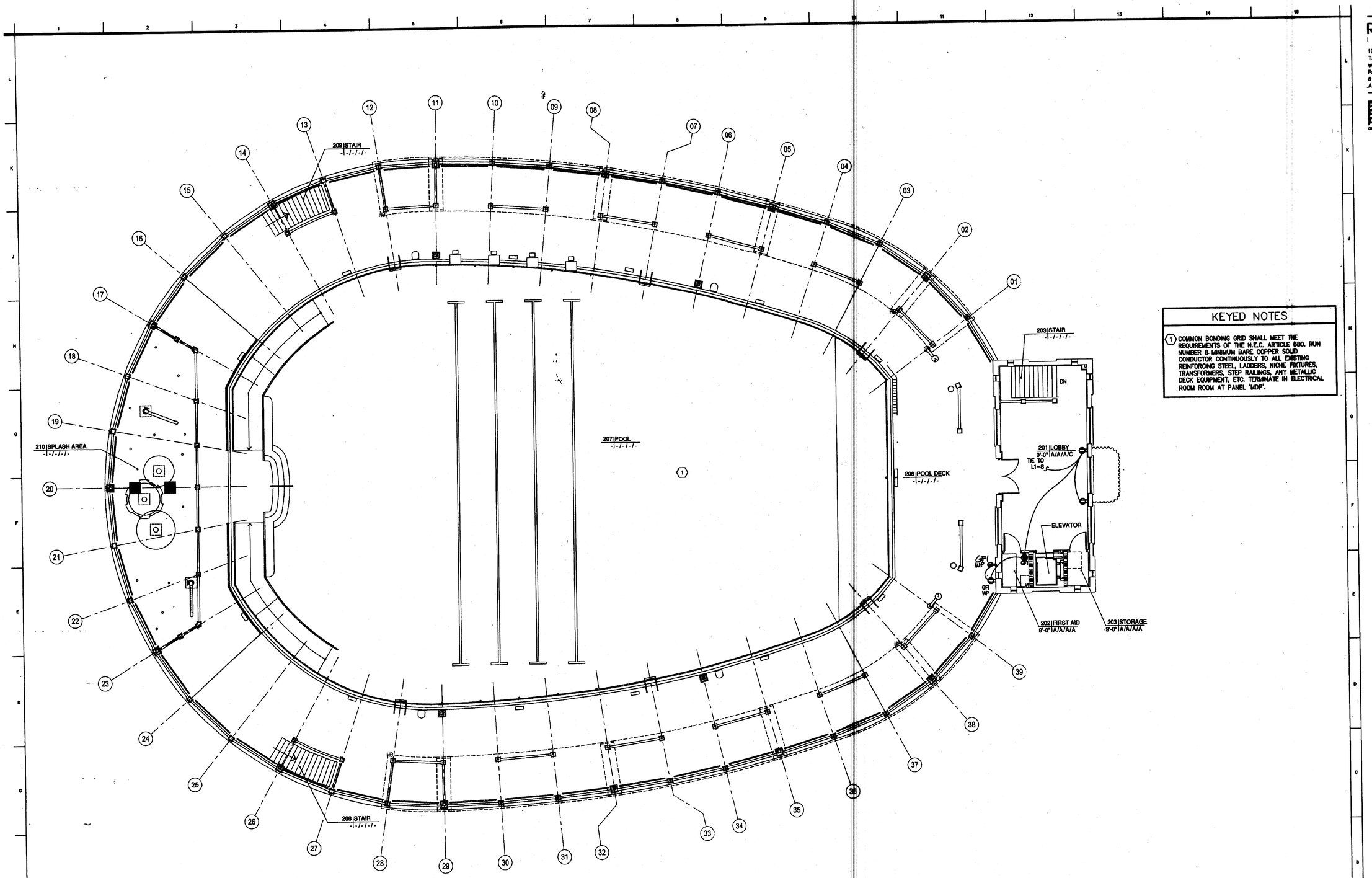

KEYED NOTES

1. COMMON BONDING GRID SHALL MEET THE REQUIREMENTS OF THE N.E.C. ARTICLE 680. RUN NUMBER 8 MINIMUM BARE COPPER SOLID CONDUCTOR CONTINUOUSLY TO ALL EXISTING REINFORCING STEEL, LADDERS, NICHE FIXTURES, TRANSFORMERS, STEP RAILINGS, ANY METALLIC DECK EQUIPMENT, ETC. TERMINATE IN ELECTRICAL ROOM ROOM AT PANEL 'MDP'.

Second Floor Pool Deck - Power

1/8"=1'-0"

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Second Floor Pool Deck - Power Plan

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PROJECT NORTH
TRUE NORTH

E302

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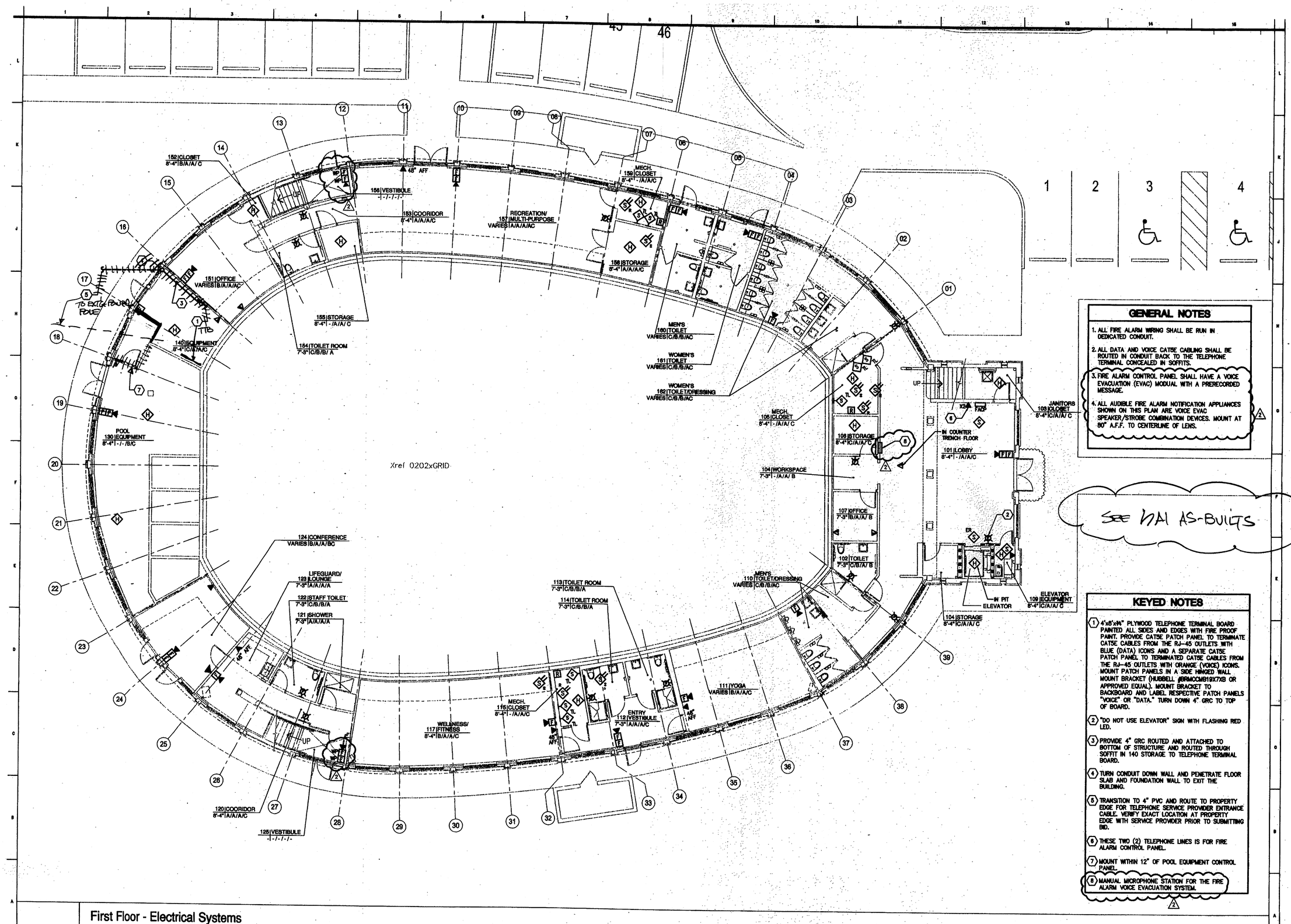

GENERAL NOTES

1. ALL FIRE ALARM WIRING SHALL BE RUN IN DEDICATED CONDUIT.
2. ALL DATA AND VOICE CAT5E CABLING SHALL BE ROUTED IN CONDUIT BACK TO THE TELEPHONE TERMINAL CONCEALED IN SOFFITS.
3. FIRE ALARM CONTROL PANEL SHALL HAVE A VOICE EVACUATION (EVAC) MODUAL WITH A PRERECORDED MESSAGE.
4. ALL AUDIBLE FIRE ALARM NOTIFICATION APPLIANCES SHOWN ON THIS PLAN ARE VOICE EVAC SPEAKER/STROBE COMBINATION DEVICES. MOUNT AT 80" A.F.F. TO CENTERLINE OF LENS.

2

SEE NAI AS-BUILTS

KEYED NOTES

1. 4'x8'x¾" PLYWOOD TELEPHONE TERMINAL BOARD PAINTED ALL SIDES AND EDGES WITH FIRE PROOF PAINT. PROVIDE CAT5E PATCH PANEL TO TERMINATE CAT5E CABLES FROM THE RJ-45 OUTLETS WITH BLUE (DATA) ICONS AND A SEPARATE CAT5E PATCH PANEL TO TERMINATED CAT5E CABLES FROM THE RJ-45 OUTLETS WITH ORANGE (VOICE) ICONS. MOUNT PATCH PANELS IN A SIDE HINGED WALL MOUNT BRACKET (HUBBELL #BRMCCM919X7XB OR APPROVED EQUAL). MOUNT BRACKET TO BACKBOARD AND LABEL RESPECTIVE PATCH PANELS "VOICE" OR "DATA." TURN DOWN 4" GRC TO TOP OF BOARD.
2. "DO NOT USE ELEVATOR" SIGN WITH FLASHING RED LED.
3. PROVIDE 4" GRC ROUTED AND ATTACHED TO BOTTOM OF STRUCTURE AND ROUTED THROUGH SOFFIT IN 140 STORAGE TO TELEPHONE TERMINAL BOARD.
4. TURN CONDUIT DOWN WALL AND PENETRATE FLOOR SLAB AND FOUNDATION WALL TO EXIT THE BUILDING.
5. TRANSITION TO 4" PVC AND ROUTE TO PROPERTY EDGE FOR TELEPHONE SERVICE PROVIDER ENTRANCE CABLE. VERIFY EXACT LOCATION AT PROPERTY EDGE WITH SERVICE PROVIDER PRIOR TO SUBMITTING BID.
6. THESE TWO (2) TELEPHONE LINES IS FOR FIRE ALARM CONTROL PANEL.
7. MOUNT WITHIN 12" OF POOL EQUIPMENT CONTROL PANEL.
8. MANUAL MICROPHONE STATION FOR THE FIRE ALARM VOICE EVACUATION SYSTEM.

2

First Floor - Electrical Systems

1/8"=1'-0"

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FLOOR PLAN
First Floor
Electrical Systems

RECORD DWG.
DATE 8/26/05

PROJECT NORTH
TRUE NORTH

E401

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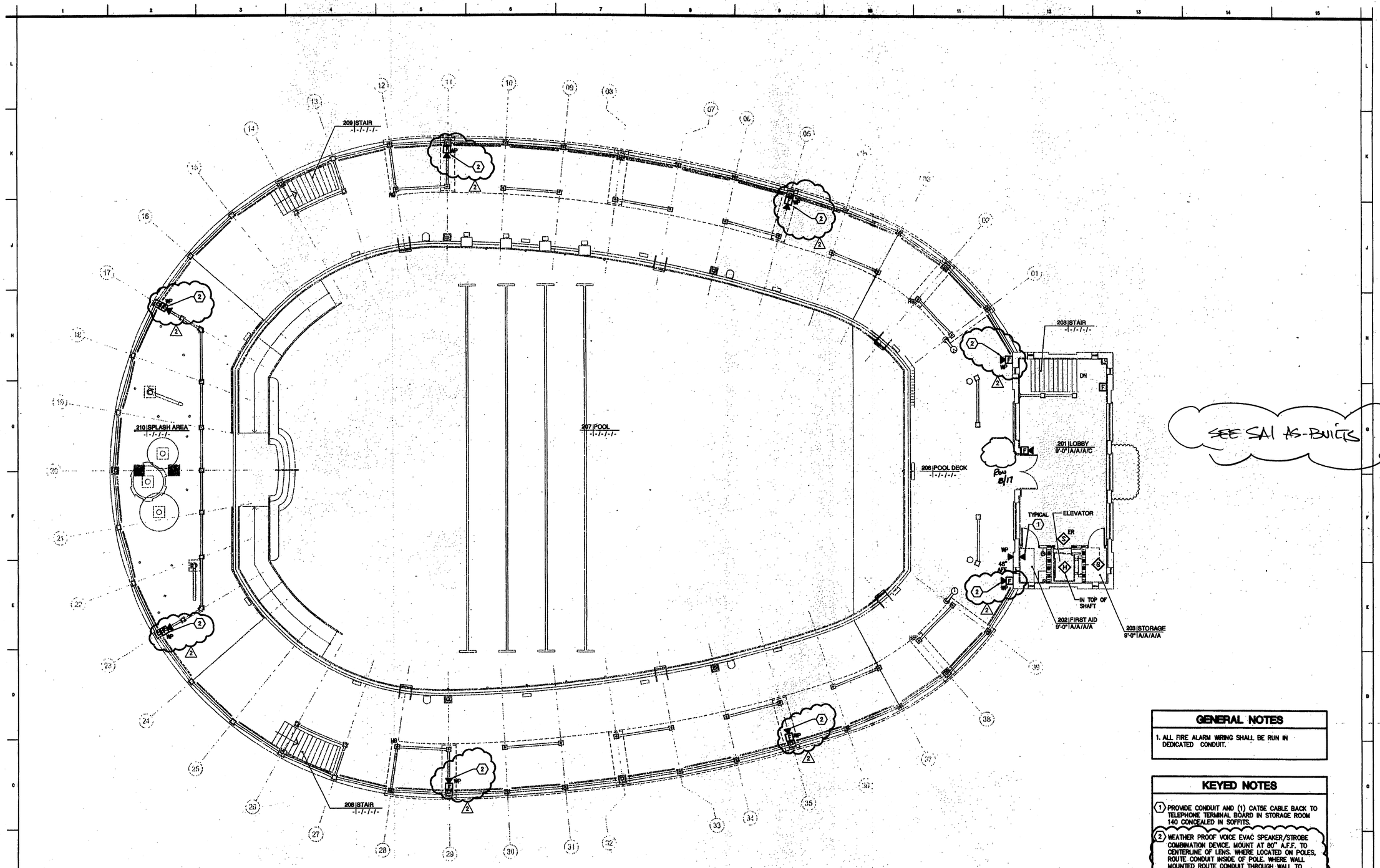

SEE SA1 AS-BUILTS

GENERAL NOTES

1. ALL FIRE ALARM WIRING SHALL BE RUN IN DEDICATED CONDUIT.

KEYED NOTES

1. PROVIDE CONDUIT AND (1) CAT5E CABLE BACK TO TELEPHONE TERMINAL BOARD IN STORAGE ROOM 140 CONCEALED IN SOFFITS.
2. WEATHER PROOF VOICE EVAC SPEAKER/STROBE COMBINATION DEVICE. MOUNT AT 80" A.F.F. TO CENTERLINE OF LENS. WHERE LOCATED ON POLES, ROUTE CONDUIT INSIDE OF POLE. WHERE WALL MOUNTED ROUTE CONDUIT THROUGH WALL TO CONCEAL. CUT-IN FLUSH MOUNT NEMA3R BOXES AT ALL LOCATIONS. 2

Second Floor Pool Deck - Electrical Systems

1/8"=1'-0"

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FLOOR PLAN
Second Floor Pool Deck
Electrical Systems

RECORD DWG.
DATE 8/26/05

PROJECT NORTH
TRUE NORTH

E402

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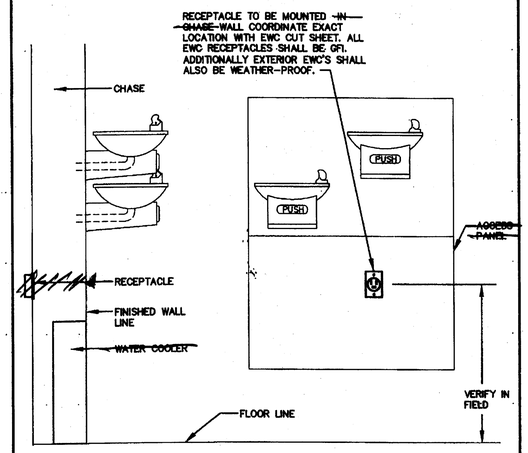


'EWC' RECEPTACLE DETAIL

NO SCALE

Filename: EWC

GENERAL NOTES

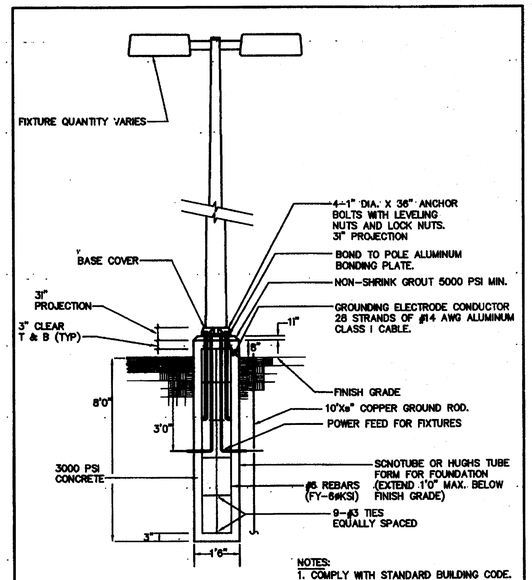
1. ALL GROUNDING ELECTRODE CONDUCTORS/GROUNDING CONDUCTORS INSTALLED UNDERGROUND/IN-SLAB SHALL BE IN PVC CONDUIT.
2. REFERENCE NEC 250.53 (B) AND 250.104(B) FOR BONDING METAL GAS PIPING. GAS PIPING TO BE GROUNDED WITH A GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122 OR A MINIMUM OF #6 AWG COPPER.
3. REFERENCE NEC 250.104(B) FOR BONDING ALL INTERIOR METAL PIPING AND AIR DUCTS. GROUND ALL SAME INTERIOR PIPING/DUCTS.
4. REFERENCE NEC 250.52(A)(4) FOR A GROUND RING ENCIRCLING THE BUILDING OR STRUCTURE, IF INSTALLED. GROUNDING CONDUCTOR SHALL NOT BE LESS THAN 2.5' BELOW THE EARTH'S SURFACE, CONSISTING OF AT LEAST 20' OF BARE COPPER, NOT SMALLER THAN #2 AWG.
5. REFERENCE NEC 250.106 AND NFPA 780 FOR LIGHTNING PROTECTION SYSTEMS, IF INSTALLED. LIGHTNING PROTECTION SYSTEM GROUND TERMINAL SHALL BE BONDED TO THE BUILDING OR STRUCTURE GROUND BUS.
6. ALL FLOOR-MOUNTED SWITCHBOARDS, PANELBOARDS AND TRANSFORMERS ARE TO BE INSTALLED ON 4" CONCRETE HOUSEKEEPING PADS.
7. ALL TVSS DEVICES SHALL BE PROVIDED AND INSTALLED PER DIVISION 16600 AND PER MANUFACTURERS STANDARDS. FOR CLARITY ONLY BONDING, GROUNDING AND NEUTRAL CONDUCTORS/CONNECTIONS ARE SHOWN.
8. ALL COPPER GROUNDING ELECTRODES CONDUCTORS SHALL BE IDENTIFIED EVERY 4' WITH GREEN TAPE IF INSULATED AND EXPOSED).
9. REFERENCE NEC 250.58 COMMON GROUNDING ELECTRODE – WHERE SEPARATE SERVICES SUPPLY A BUILDING, THEY SHALL BE PROVIDED WITH A COMMON GROUNDING ELECTRODE.
10. ALL NATIONAL ELECTRICAL CODE ARTICLE NUMBERS ARE BASED ON THE 2003 N.E.C.
11. EACH CONDUCTOR SHALL BE PERMANENTLY IDENTIFIED AT GROUND BUS AS TO EQUIPMENT SERVED.

KEYED NOTES

1. STRUCTURAL BUILDING STEEL.
2. BOND MAIN METAL PLUMBING PIPING WITHIN 5' OF ENTERING BUILDING. IF UNDERGROUND PLUMBING PIPING IS PVC, GROUND METAL PLUMBING WITHIN BUILDING AT CLOSEST ACCESSABLE POINT.
3. GROUNDING ELECTRODE CONDUCTOR SIZED PER TABLE 250.66.
4. GROUND BUS – 4" WIDE X 18" LONG MINIMUM X 1/4" THICK SOLID COPPER TERMINAL BUS MOUNTED ON INSULATORS OFF WALL.
5. MINIMUM #4 COPPER GROUNDING ELECTRODE CONDUCTOR.
6. MAIN GROUNDING ELECTRODE CONDUCTOR 20' BARE COPPER IN EARTH, BURIED 24" DEEP, SIZED PER TABLE 250.66. INSURE CONDUCTOR IS BURIED OUTSIDE OF BUILDING PAD AND NOT INSTALLED UNDER SLAB OR FOOTER.
7. FOOTER STEEL IN GROUND. GROUND CONNECTIONS TO BE EXOTHERMIC WELDS TO A MIN. 1/2" THICK BY 20' LONG REBAR.
8. NOT USED.
9. THREE COPPER GROUND RODS, 5/8" BY 20' LONG. SPACED A MINIMUM OF 10' APART. GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS. PROVIDE 6" PVC SLEEVE WITH THREADED CAP INSTALLED FLUSH WITH FINISHED GRADE FOR ACCESS FOR SERVICE AND/OR INSPECTION.
10. EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH PRIMARY AND SECONDARY FEEDERS SIZED PER TABLE 250.122. CONNECT TO GROUND BUS AT PANELBOARD.
11. NOT USED.

KEYED NOTES (CONT.)

12. NEUTRAL (GROUNDED CONDUCTOR) SHALL NOT BE BONDED AT SECONDARY PANELBOARDS (FLOAT IF APPLICABLE).
13. ALL ENCLOSURES/CONTROL CABINETS FOR SYSTEMS PER DETAIL SHALL BE GROUNDED WITH A MINIMUM #4 COPPER GROUNDING CONDUCTOR TO MAIN GROUNDING ELECTRODE BUSSBAR.
14. INSTALL A GROUND BAR KIT CAPABLE OF TERMINATING ALL EQUIPMENT GROUNDING CONDUCTORS ENTERING THE ENCLOSURE.
15. LIGHTNING PROTECTION SYSTEM AIR TERMINAL(S). (SEE GENERAL NOTE #5)
16. IF PROVIDED, LIGHTNING PROTECTION SYSTEM GROUND TERMINALS SHALL BE BONDED TO MAIN BUILDING GROUNDING ELECTRICAL SYSTEM/BUSS.
17. GROUND RING. (SEE GENERAL NOTE #4)
18. MADE ELECTRODES INSTALLED AS NECESSARY PER MANUFACTURERS REQUIREMENTS. GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS. PROVIDE 6" PVC SLEEVE WITH THREADED CAP INSTALLED FLUSH WITH FINISHED GRADE FOR ACCESS FOR SERVICE AND/OR INSPECTION.
19. NEUTRAL (GROUNDED CONDUCTOR) TO BE BONDED ONLY AT SERVICE MAIN. ALL OTHER BUILDING MAIN NEUTRALS ARE NOT TO BE BONDED. (FLOATING).
20. NOT USED.
21. METAL HVAC DUCTWORK SHALL BE BONDED AS PER 250.104 (B) WITHIN THE MECHANICAL ROOM IN WHICH THEY ORIGINATE WITH A MINIMUM #6 AWG COPPER.

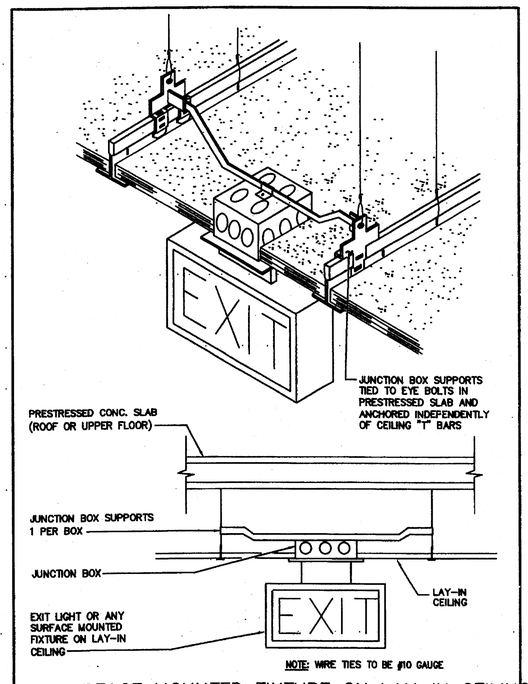


NOTES:
1. COMPLY WITH STANDARD BUILDING CODE.
2. DESIGN WIND VELOCITY = 130 MPH WITH 1.3 GUST FACTOR.

POLE SECTION AT 8" ABOVE GRADE

NO SCALE

FILE NAME : ABOVE POLE SIN

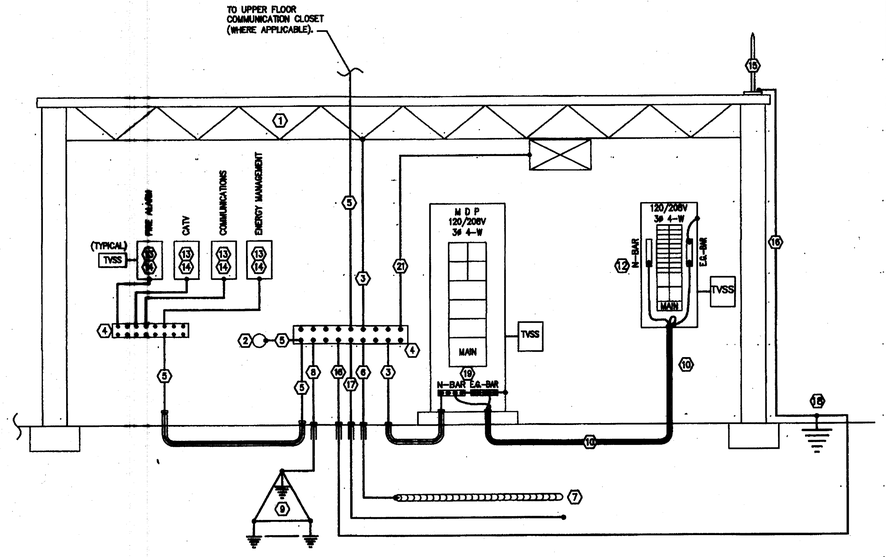


NOTE: WIRE TIES TO BE #10 GAUGE

SURFACE MOUNTED FIXTURE ON LAY-IN CEILING

NO SCALE

Filename: EXIT2



GROUNDING DETAIL

NO SCALE

Details - Electrical

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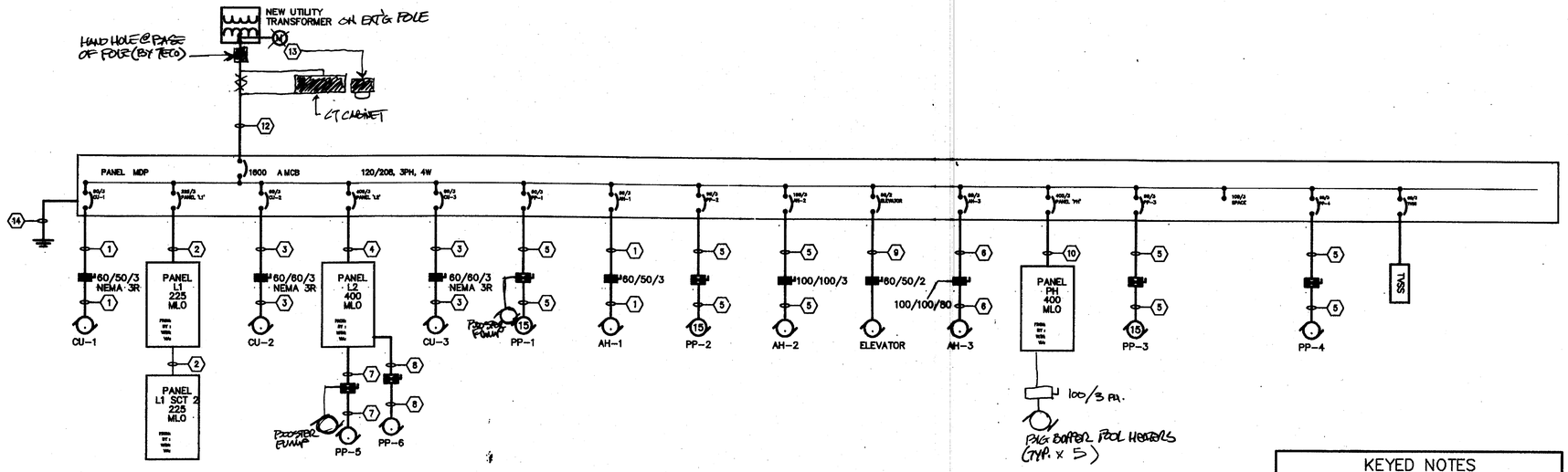

KEYED NOTES

1. PROVIDE 3–#8 THWN CU AND 1–#10 E.G. CU IN 3" CONDUIT.
2. PROVIDE 4–4/0 THWN CU AND 1–#4 E.G. CU IN 2½" CONDUIT.
3. PROVIDE 3–#6 THWN CU AND 1–#10 E.G. CU IN 3" CONDUIT.
4. PROVIDE 2 RUNS OF 2" CONDUITWITH 4–3/0 THWN CU AND 1–#3 E.G. CU IN EACH.
5. PROVIDE 3–#3 THWN CU AND 1–#8 E.G. CU IN 1½" CONDUIT.
6. PROVIDE 3–#4 THWN CU AND 1–#8 E.G. CU IN 1" CONDUIT.
7. PROVIDE 2–#12 THWN CU AND 1–#12 E.G. CU IN 3" CONDUIT.
8. PROVIDE 2–#10 THWN CU AND 1–#10 E.G. CU IN 3" CONDUIT.
9. PROVIDE 2–#6 THWN CU AND 1–#10 E.G. CU IN 3" CONDUIT.
10. PROVIDE 2 RUNS OF 2" CONDUITWITH 4–3/0 THWN CU AND 1–#3 E.G. CU IN EACH.
11. NOT USED.
12. PROVIDE 4 RUNS OF 4" CONDUIT WITH 4–#600 MCM THWN CU IN EACH.
13. NEW METER COORDINATE EXACT REQUIRMENTS WITH UTILITY COMPANY.
14. GROUNDING. PROVIDE 3/0 COPPER GROUNDING ELECTRODE CONDUCTOR TO BUILDING STEEL, METALLIC COLD WATER PIPE AND 3–20'–0"X3/4" COPPERCLAD GROUND RODS SPACED ONE ROD LENGTH APART. GROUNDING SHALL BE IN ACCORDANCE WITH N.E.C. PROVIDE ALL COMPONENTS FOR COMPLETE GROUNDING SYSTEM. REFER TO GROUNDING DETAIL FOR ADDITIONAL GROUNDING REQUIREMENTS.

Single Line Diagram & Panel Schedules - Electrical

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Single Line Diagram
& Panel Schedules
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PANEL : MDP

LOAD SERVING – VOLT AMPS

3 Phase Info		Remarks	CKT.	Poles and Amps	A Lights	A Power	B Lights	B Power	C Lights	C Power	Wire Size	CKT. No.
x	SCHD	CU-1		50/3		3384					8	
	H.P	–	1	–				3384			8	1
	HT/KW	–		–						3384	8	
x	SCHD	CU-2		60/3		5184					6	
	H.P	–	3	–				5184			6	3
	HT/KW	–		–						5184	6	
x	SCHD	CU-3		60/3		4968					6	
	H.P	–	5	–				4968			6	5
	HT/KW	–		–						4968	6	
x	SCHD	AH-1		50/3		4470					8	
2	H.P	–	7	–				4470			8	7
11.25	HT/KW	–		–						4470	8	
x	SCHD	AH-2		100/3		9861					3	
3	H.P	–	9	–				9861			3	9
26.2	HT/KW	–		–						9861	3	
x	SCHD	AH-3		80/3		6957					4	
2	H.P	–	11	–				6957			4	11
18.71	HT/KW	–		–						6957	4	
x	SCHD	PP-3		90/3		5796					3	
15	H.P	–	13	–				5796			3	13
	HT/KW	–		–						5796	3	
x	SCHD	PP-4		90/3		5796					3	
15	H.P	–	15	–				5796			3	15
	HT/KW	–		–						5796	3	
					0	46416	0	46416	0	46416		

CKT. No.	Wire Size	A Lights	A Power	B Lights	B Power	C Lights	C Power	Poles and Amps	CKT.	Remarks	3 Phase Info	
	4/0		18815					225/3		PANEL 'L1'		SCHD
2	4/0				18815			–	2	–		H.P
	4/0						18815	–		–		HT/KW
	2-3/0		10785					400/3		PANEL 'L2'		SCHD
4	2-3/0				10785			–	4	–		H.P
	2-3/0						10785	–		–		HT/KW
	3		5796					90/3		PP-1	x	SCHD
6	3				5796			–	6	–	15	H.P
	3						5796	–		–		HT/KW
	3		5796					90/3		PP-2	x	SCHD
8	3				5796			–	8	–	15	H.P
	3						5796	–		–		HT/KW
	6		3640					60/2		ELEVATOR		SCHD
10	6				3640			–	10	–		H.P
												HT/KW
	2-3/0		53760					400 ~~600/3~~		FUTURE PANEL PH		SCHD
12	2-3/0				53760			–	12	–		H.P
	2-3/0						53760	–		–		HT/KW
	3		6720					90/3		FUTURE POOL HEATER	x	SCHD
14	3				6720			–	14	–		H.P
	3						6720	–		–		HT/KW
	6							60/3		TVSS		SCHD
16	6							–	16	–		H.P
	6							–		–		HT/KW
		0	105312	0	105312	0	101672					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	20.2	56.0	–	15.1	41.9
MOTORS	181.3	503.6	1	181.3	503.6
MISC	250.1	694.7	1	250.1	694.7
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	–	0.0	0.0
TOTAL	451.6	1254.3		446.5	1240.2

PHASE LOADS	
A	151728
B	151728
C	148088

REMARKS:

INFO – FROM: BY: WITH: VIA: PER PH

PANEL : MDP
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 1600 AMPS
MAIN TYPE: MCB
BRACING: 22 KAIC
EMI JOB #02-0540

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH FLUORESCENT LIGHTING CIRCUIT, CONDUCTORS SERVING 20 BRANCH CIRCUITS SHALL BE #10 AWG UNLESS OTHERWISE NOTED.

PANEL : L2

LOAD SERVING – VOLT AMPS

3 Phase Info	Remarks	CKT.	Poles and Amps	A Lights	A Power	B Lights	B Power	C Lights	C Power	Wire Size	CKT. No.
SCHD	WH-2	1	30/2		2250					10	1
H.P	–	3	–				2250			10	3
HT/KW	SPARE	5	20/1								5
SCHD	SPARE	7	20/1								7
H.P	SPARE	9	20/1								9
HT/KW	SPARE	11	20/1								11
SCHD	SITE LIGHTING	13	20/1	900							13
H.P	SITE LIGHTING	15	20/1			900					15
HT/KW	SITE LIGHTING	17	20/1					900			17
SCHD	SITE LIGHTING	19	20/1	900							19
H.P	SITE LIGHTING	21	20/1			900					21
HT/KW	SITE LIGHTING	23	20/1					900			23
SCHD	LIGHTING	25	20/1	700							25
H.P	POOL LIGHTING (*)	27	(*)20/2			1080					27
HT/KW	–	29	–					1080			29
SCHD	POOL LIGHTING (*)	31	(*)20/2	1080							31
H.P	–	33	–			1080					33
HT/KW	POOL LIGHTING (*)	35	(*)20/2					1080			35
SCHD	–	37	–	1080							37
H.P	POOL LIGHTING (*)	39	(*)20/2			1080					39
HT/KW	–	41	–					1080			41
				4860	2250	5040	2250	4740	0		

CKT. No.	Wire Size	A Lights	A Power	B Lights	B Power	C Lights	C Power	Poles and Amps	CKT.	Remarks	3 Phase Info
2			180					20/1	2	RECEPT	SCHD
4					180			20/1	4	RECEPT	H.P
6						300		20/1	6	ELEVATOR CABLIGHTS	HT/KW
8		780						20/1	8	GLOBE LIGHTS	SCHD
10				910				20/1	10	GLOBE LIGHTS	H.P
12						1040		20/1	12	POOL LIGHTING	HT/KW
14			360					20/1	14	TIME CLOCK	SCHD
16								20/1	16	SPARE	H.P
18								20/1	18	SPARE	HT/KW
20			360					20/1	20	RECEPT FOR CHEM FEED	SCHD
22								20/1	22	SPARE	H.P
24								20/1	24	SPARE	HT/KW
26			915					15/2	26	PP-5	SCHD
28					915			–	28	–	H.P
30							360	20/1	30	RECEPT FOR CHEM FEED	HT/KW
32	10		1373					25/2	32	PP-6	SCHD
34	10				1373			–	34	–	H.P
36									36	SPACE	HT/KW
38									38	SPACE	SCHD
40									40	SPACE	H.P
42									42	SPACE	HT/KW
		780	3186	910	2466	1340	360				

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	17.5	48.5	1.25	21.8	60.7
CONV. OUTLETS	1.4	4.0	–	1.4	4.0
MOTORS	4.6	12.7	1	4.6	12.7
MISC	0.0	0.0	1	0.0	0.0
EWH	4.5	12.5	1	4.5	12.5
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	–	0.0	0.0
TOTAL	28.0	77.7		32.4	89.9

PHASE LOADS	
A	10676
B	10668
C	6440

REMARKS:

INFO – FROM: BY: WITH: VIA: PER PH

PANEL : L2
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 400 AMPS
MAIN TYPE: MLO
BRACING: 22 KAIC
EMI JOB #02-0540

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH FLUORESCENT LIGHTING CIRCUIT, CONDUCTORS SERVING 20 BRANCH CIRCUITS SHALL BE #10 AWG UNLESS OTHERWISE NOTED.
(*) PROVIDE GFI CIRCUIT BREAKER

PANEL : L1

LOAD SERVING – VOLT AMPS

3 Phase Info	Remarks	CKT.	Poles and Amps	A Lights	A Power	B Lights	B Power	C Lights	C Power	Wire Size	CKT. No.
SCHD	RECEPT	1	20/1		720						1
H.P	RECEPT	3	20/1				900				3
HT/KW	RECEPT	5	20/1						900		5
SCHD	RECEPT	7	20/1		900						7
H.P	RECEPT	9	20/1				900				9
HT/KW	RECEPT	11	20/1						900		11
SCHD	EWC	13	20/1		560						13
H.P	EWC	15	20/1				560				15
HT/KW	LIGHTING	17	20/1					980			17
SCHD	WH-2	19	30/2		2250						19
H.P	–	21	–				2250				21
HT/KW	WH-3	23	30/2						2250		23
SCHD	–	25	–		2250						25
H.P	SPARE	27	20/1								27
HT/KW	SPARE	29	20/1								29
SCHD	EWC	31	20/1		560						31
H.P	EF 1-1, 1-7, 1-8	33	20/1				792				33
HT/KW	EF 1-2	35	20/1						822		35
SCHD	EWC	37	20/1		560						37
H.P	SPARE	39	20/1								39
HT/KW	SPARE	41	20/1								41
				0	7800	0	5402	980	4872		

CKT. No.	Wire Size	A Lights	A Power	B Lights	B Power	C Lights	C Power	Poles and Amps	CKT.	Remarks	3 Phase Info
2			1080					20/1	2	RECEPT	SCHD
4					1080			20/1	4	RECEPT	H.P
6							900	20/1	6	RECEPT	HT/KW
8			1080					20/1	8	RECEPT	SCHD
10					720			20/1	10	RECEPT	H.P
12							900	20/1	12	RECEPT	HT/KW
14			180					20/1	14	FACP	SCHD
16					360			20/1	16	ELEVATOR PIT LIGHTS	H.P
18							720	20/1	18	RECEPT	HT/KW
20			840					20/1	20	REFRIG.	SCHD
22					594			20/1	22	EF 1-3, 1-5, 1-6, 1-9	H.P
24								20/1	24	SPARE	HT/KW
26								20/1	26	SPARE	SCHD
28				440				20/1	28	LIGHTING	H.P
30						440		20/1	30	LIGHTING	HT/KW
32		1260						20/1	32	LIGHTING	SCHD
34				1330				20/1	34	LIGHTING	H.P
36						1540		20/1	36	LIGHTING	HT/KW
38		910						20/1	38	LIGHTING	SCHD
40				1330				20/1	40	LIGHTING	H.P
42						1260		20/1	42	LIGHTING	HT/KW
		2190	3180	3100	2754	3240	2520				

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	9.5	26.4	1.25	11.9	33.0
CONV. OUTLETS	12.2	34.0	–	11.1	30.9
MOTORS	5.3	14.7	1	5.3	14.7
MISC	0.0	0.0	1	0.0	0.0
EWH	9.0	25.0	1	9.0	25.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SECTION 2	19.2	53.2	1	19.2	53.2
SPACE ONLY	0.0	0.0	–	0.0	0.0
TOTAL	55.2	153.3		56.4	156.6

PHASE LOADS	
A	13170
B	11256
C	11612

REMARKS:

INFO – FROM: BY: WITH: VIA: PER PH

PANEL : L1
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 225 AMPS
MAIN TYPE: MLO
BRACING: 22 KAIC
EMI JOB #02-0540

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PANEL : L1 SECT 2

LOAD SERVING – VOLT AMPS

3 Phase Info	Remarks	CKT.	Poles and Amps	A Lights	A Power	B Lights	B Power	C Lights	C Power	Wire Size	CKT. No.
SCHD	TV RECEPT	43	20/1		360						43
H.P	HAND DRYER	45	25/1				1800			10	45
HT/KW	HAND DRYER	47	25/1						1800	10	47
SCHD	HAND DRYER	49	25/1		1800					10	49
H.P	HAND DRYER	51	25/1				1800			10	51
HT/KW	HAND DRYER	53	25/1						1800	10	53
SCHD	RECEPT	55	20/1		540						55
H.P	HAND DRYER	57	25/1				1800			10	57
HT/KW	HAND DRYER	59	25/1						1800	10	59
SCHD	SPARE	61	20/1								61
H.P	SPARE	63	20/1								63
HT/KW	SPARE	65	20/1								65
SCHD	SPACE	67									67
H.P	SPACE	69									69
HT/KW	SPACE	71									71
SCHD	SPACE	73									73
H.P	SPACE	75									75
HT/KW	SPACE	77									77
SCHD	SPACE	79									79
H.P	SPACE	81									81
HT/KW	SPACE	83									83
				0	2700	0	5400	0	5400		

CKT. No.	Wire Size	A Lights	A Power	B Lights	B Power	C Lights	C Power	Poles and Amps	CKT.	Remarks	3 Phase Info
44			1000					20/1	44	OSCILLATING FAN	SCHD
46					1000			20/1	46	OSCILLATING FAN	H.P
48	10						1800	25/1	48	HAND DRYER	HT/KW
50	10		1800					25/1	50	HAND DRYER	SCHD
52	10				1800			25/1	52	HAND DRYER	H.P
54	10						1800	25/1	54	HAND DRYER	HT/KW
56	10		1800					25/1	56	HAND DRYER	SCHD
58	10				1800			25/1	58	HAND DRYER	H.P
60								20/1	60	SPARE	HT/KW
62								20/1	62	SPARE	SCHD
64								20/1	64	SPARE	H.P
66								20/1	66	SPARE	HT/KW
68									68	SPACE	SCHD
70									70	SPACE	H.P
72									72	SPACE	HT/KW
74									74	SPACE	SCHD
76									76	SPACE	H.P
78									78	SPACE	HT/KW
80									80	SPACE	SCHD
82									82	SPACE	H.P
84									84	SPACE	HT/KW
		0	4600	0	4600	0	3600				

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	24.3	67.5	–	17.2	47.6
MOTORS	2.0	5.6	1	2.0	5.6
MISC	0.0	0.0	1	0.0	0.0
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	–	0.0	0.0
TOTAL	26.3	73.1		19.2	53.2

PHASE LOADS	
A	7300
B	10000
C	9000

REMARKS:

INFO – FROM: BY: WITH: VIA: PER PH

PANEL : L1 SECT 2
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 225 AMPS
MAIN TYPE: MLO
BRACING: 22 KAIC
EMI JOB #02-0540

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PANEL : PH

LOAD SERVING – VOLT AMPS

3 Phase Info		Remarks	CKT.	Poles and Amps	A Lights	A Power	B Lights	B Power	C Lights	C Power	Wire Size	CKT. No.
x	SCHD	FUTURE POOL HEATER	1	60 ~~80/3~~		6288					4	1
	H.P	–	3	–				6288			4	3
	HT/KW	–	5	–						6288	4	5
x	SCHD	FUTURE POOL HEATER	7	60 ~~80/3~~		6288					4	7
	H.P	–	9	–				6288			4	9
	HT/KW	–	11	–						6288	4	11
x	SCHD	FUTURE POOL HEATER	13	60 ~~80/3~~		6288					4	13
	H.P	–	15	–				6288			4	15
	HT/KW	–	17	–						6288	4	17
	SCHD		19									19
	H.P		21									21
	HT/KW		23									23
	SCHD		25									25
	H.P		27									27
	HT/KW		29									29
					0	18864	0	18864	0	18864		

CKT. No.	Wire Size	A Lights	A Power	B Lights	B Power	C Lights	C Power	Poles and Amps	CKT.	Remarks	3 Phase Info	
2	4		6288					60 ~~80/3~~	2	FUTURE POOL HEATER	x	SCHD
4	4				6288			–	4	–		H.P
6	4						6288	–	6	–		HT/KW
8	4		6288					60 ~~80/3~~	8	FUTURE POOL HEATER	x	SCHD
10	4				6288			–	10	–		H.P
12	4						6288	–	12	–		HT/KW
14									14			SCHD
16									16			H.P
18									18			HT/KW
20									20			SCHD
22									22			H.P
24									24			HT/KW
26									26			SCHD
28									28			H.P
30									30			HT/KW
		0	12576	0	12576	0	12576					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	94.3	262.0	1	94.3	262.0
MISC	0.0	0.0	1	0.0	0.0
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	–	0.0	0.0
TOTAL	94.3	262.0		94.3	262.0

PHASE LOADS	
A	31440
B	31440
C	31440

REMARKS: FUTURE PANEL

INFO – FROM: BY: WITH: VIA: PER PH

PANEL : PH
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 400 AMPS
MAIN TYPE: MLO
BRACING: 22 KAIC
EMI JOB #02-0540

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
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Circuit Directories

PNL/L1-Sect. 1	
1) REC- RM 117	2) REC-RM 157,158,159 160,162
3) REC- RM 114,115,117	4) REC-RM 157
5) SPARE	6) REC-RM 140,151
7) REC- RM 130 CONTROL PNL	8) REC-RM 101,103, 201,202
9) REC- RM124,130	10) REC-RM 102,104, 109,110
11) REC- RM120,123	12) REC-RM 104, RECEPTION DESK
13) EWC-RM 111	14) FACP
15) EWC-RM 101	16) ELEV. PIT LIGHTS
17) LTS-RM 121,122,123, 124,125	18) REC-RM 105,106,162
19) WH-1 RM 103	20) REC-REFRIG
21) WH-1	22) EF 1-6,1-7
23) WH-3 RM115	24) SPARE
25) WH-3	26) SPARE
27) GAS VALVE CONTROL	28) ~~SPARE~~ W. SIGN LIGHT
29) REC-TTB	30) ~~SPARE~~ E. SIGN LIGHT
31)EWC RM 117	32) LTS-RM 112,113, 114,115,117
33)EF 1-1,1-8	34) LTS-RM 101
35) EF 1-2,1-3,1-5,1-9	36) LTS-RM 102,103,105, 106,107
37) EWC RM 157	38) LTS-RM 158,159,160, 161,162
39) REC RM 111,113	40) LTS-RM 155,156,157
41) REC IRRIGATION	42) LTS-RM 130,140,151, 152,154

PNL/L1-Sect. 2	
43) TV REC-RM 120	44) OSCILLATING FAN RM 117
45) HAND DRYER-RM 114	46) OSCILLATING FAN RM 111
47)HAND DRYER-RM 113	48) HAND DRYER-RM 102
49) HAND DRYER-RM 110	50) HAND DRYER-RM
51) SPARE	52) HAND DRYER-RM
53) HAND DRYER-RM 122	54) HAND DRYER-RM
55) REC-RM 107	56) HAND DRYER-RM
57) HAND DRYER-RM 162	58) HAND DRYER-RM
59) HAND DRYER-RM 162	60) SPARE
61) SPARE	62) SPARE
63) SPARE	64) SPARE
65) SPARE	66) SPARE
67)	68)
69)	70)
71)	72)
73)	74)
75)	76)
77)	78)
79)	80)
81)	82)
83)	84)

PANEL / L2	
1) WH-2 RM 105	2) REC-N. MECH COURT YARD
3) WH-2	4) REC-S. MECH COURT YARD
5) SPARE	6) ELEV. CAB LIGHTS
7) SPARE	8) POOL DECK GLOBE LIGHTS
9) SPARE	10) POOL DECK GLOBE LIGHTS
11) SPARE	12) SPARE
13) SITE LIGHTS	14) LTING CONTACTOR CONTROLS
15) SITE LIGHTS	16) SPARE
17) SITE LIGHTS	18) ~~SPARE~~ Pool VALVE
19) SITE LIGHTS	20) REC.CHEM FEED
21) SITE LIGHTS	22) PP-1 BOOSTER PUMP
23) SITE LIGHTS	24) PP-5 BOOSTER PUMP
25) LTS-RM 201,202,203	26) PP-5
27) POOL LIGHTING	28) PP-5
29) POOL LIGHTING	30) REC-CHEM FEED
31) POOL LIGHTING	32) PP-6
33) POOL LIGHTING	34) PP-6
35) POOL LIGHTING	36)
37) POOL LIGHTING	38)
39) POOL LIGHTING	40)
41) POOL LIGHTING	42)

PNL/PH	
1)	2)
3)	4)
5)	6)
7) POOL HTR-1	8) POOL HTR-2
9) POOL HTR-1	10) POOL HTR-2
11) POOL HTR-1	12) POOL HTR-2
13) POOL HTR-3	14) POOL HTR-4
15) POOL HTR-3	16) POOL HTR-4
17) POOL HTR-3	18) POOL HTR-4
19) POOL HTR-5	20)
21) POOL HTR-5	22)
23) POOL HTR-5	24)
25)	26)
27)	28)
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33)	34)
35)	36)
37)	38)
39)	40)
41)	42)

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ENGINEERING MATRIX, INC.
CONSULTING ENGINEERS
CERT. OF AUTHORIZATION NO. 4886 EMI JOB NO. 02-0540

[redacted]

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

Panel Schedules
Electrical

RECORD DWG.
DATE 8/26/05

RECEIVED FEB 23 2004 CONST. TECH. GROUP, INC.

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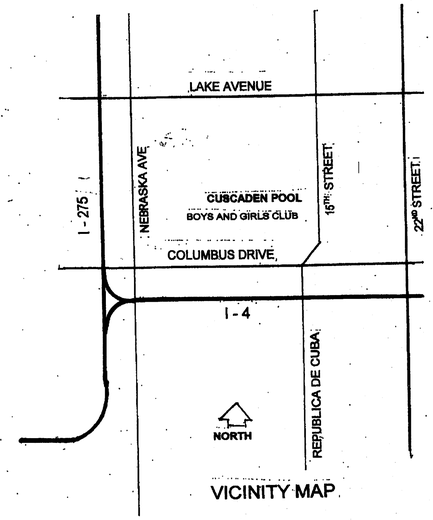
Panel Schedules - Electrical

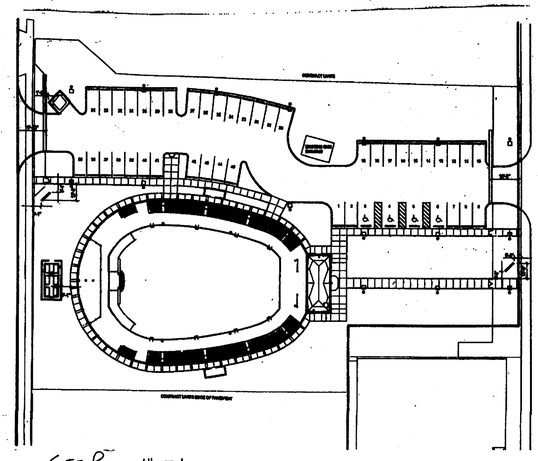
N.T.S



VICINITY MAP

LEGAL DESCRIPTION

CUSCADEN'S GROVE FIRST ADDITION N 825 FT OF LOT A LESS LOT
BEG 210 FT N OF SE COR OF LOT A & RUN N 170 FT W 129 FT S 170 FT & E 120 FT TO BEG, PLAT BOOK 26 PAGE 7
AND
CUSCADEN'S GROVE FIRST ADDITION LOTS 51 TO 64 INCL, PLAT BOOK 26 PAGE 7



SITE PLAN 1" = 50'

GENERAL NOTES & CONDITIONS PERTAINING TO 64E-9 F.A.C.

IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT THEY COMPLY WITH CHAPTER 64E-9 F.A.C., HOWEVER, REGARDLESS OF STATEMENTS OR DETAILS IN THESE DOCUMENTS, THE POOL AND SPLASH PAD MUST BE CONSTRUCTED IN COMPLIANCE WITH CURRENT HEALTH DEPARTMENT REQUIREMENTS AND BUILDING CODES IN FORCE IN THIS JURISDICTION.

DEEP BOWL REQUIREMENTS.
#1. IF THE DEPTH AT THE DEEPEST POINT (MAIN DRAIN GRATE) DEVIATES MORE THAN 3 INCHES IN DEPTH FROM THE SIDE WALLS AT THAT LOCATION, A SECOND DEPTH MARKER SHALL BE INSTALLED INDICATING THE DEPTH AT THE DEEP POINT.

#2. EACH MAIN DRAIN GRATE SHALL HAVE SUFFICIENT AREA SO THAT THE MAXIMUM VELOCITY THROUGH THE GRATE WILL NOT EXCEED 1.5 FEET PER SECOND.

#3. EACH MAIN DRAIN GRATE SHALL BE SECURELY FASTENED WITH STAINLESS STEEL SCREWS TO PREVENT UNAUTHORIZED REMOVAL BY BATHERS.

INTERIOR FINISH.
SHALL BE SLIP RESISTANT AND REFLECTIVE IN NATURE TO ASSIST IN THE IDENTIFICATION OF PERSONS BENEATH THE SURFACE OF THE WATER IN THE POOL.

DECK REQUIREMENTS.
#1. DECKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET AROUND THE PERIMETER OF THE POOL INCLUDING, LADDERS AND HANDRAILS. (AND AS SHOWN ON THE DRAWING OF THE SPLASH PAD PER VARIANCE ISSUED 6/6/03.)

DECKING WILL SLOPE TOWARD THE POOL AND DRAIN INTO A CONTINUOUS CHANNEL DRAIN AROUND THE POOL PERIMETER LOCATED DIRECTLY BEHIND THE COPING STONE AS SHOWN ON THE DRAWINGS OF THE POOL DECK (PER VARIANCE ISSUED 6/6/03).

DECK SHALL BE COMPRESSED CONCRETE PAVERS PROX. 1" IN THICKNESS LAID OVER THE EXISTING CONCRETE PERIMETER DECKING. THE PATTERN OF THE PAVERS AS WELL AS THE COLORS WILL BE SELECTED BY THE ARCHITECT.

JOINTS WILL BE FITTED TO LESS THAN 1/8" SPACING AND THEN SANDED WITH BUILDER'S SAND.

THE PERIMETER COURSE OF PAVERS WILL BE SECURED IN PLACE BY A SOLDIER COURSE SECURED TO THE EXISTING SLAB WITH THINSET OR EQUAL BEDDING MATERIAL. FIELD PAVERS WILL BE LAID OVER A 1" THICK BEDDING OF BUILDERS SAND. 1 1/2" ±

#2. ALL DECKING SHALL BE SLIP RESISTANT AND NON ABSORBENT MATERIAL.

#3. THE MINIMUM VERTICAL CLEARANCE BETWEEN THE WATER SURFACE AND DECKS AND ANY OVERHEAD OBSTRUCTIONS IS 7 FEET.

#4. NO WOOD DECKING, WOOD EXPANSION JOINT OR CARPETING SHALL BE INSTALLED IN THE DECK AREA.

DECK SHOWER REQUIREMENTS.
#1. A DECK SHOWER IS TO BE LOCATED WITHIN 20 FEET FROM THE WATERLINE EDGE OF THE MAIN POOL. WASTE SHALL BE TO DECK DRAINAGE.

#2. THE SHOWER PIPING SHALL BE SECURED TO A PERMANENT STRUCTURE OR COLUMN.

#3. THE SHOWER NOZZLE SHALL BE AS SPECIFIED BY THE ARCHITECT IN THE PLUMBING SECTION OF THE SPECIFICATIONS.

#4. A SUFFICIENT NUMBER OF HOSE BIBBS WITH VACUUM BREAKERS ARE REQUIRED SO THAT THE ALL PORTIONS OF THE POOL DECK MAY BE WASHED DOWN WITH A 100 FOOT HOSE. THEY MAY BE INCORPORATED WITH THE SHOWER COLUMN(S).

POOL SHELL
#1. THE WALLS OF THE POOL SHELL SHALL BE PNEUMATICALLY PLACED CONCRETE, MINIMUM DESIGN STRENGTH 4,000 PSI. (FLOORS ARE TO BE MONOLITHICALLY POURED CONCRETE OR DIVIDED BY LOAD TRANSFERRING ISOLATION JOINTS WITH DUMBBELL WATERSTOPS) STEEL SCHEDULE AND SECTION PROFILE ARE TO BE AS SHOWN ON THE DRAWINGS.

#2. THE POOL WALLS SHALL ALL BE VERTICAL (PERPENDICULAR) FLOOR TO WALL RADIUS AT ALL POINTS AROUND THE POOL PERIMETER IS TO BE 6".

#3. THE OVERFLOW GUTTER LIP SHALL BE UNIFORMLY LEVEL WITH A MAXIMUM TOLERANCE OF .25" BETWEEN THE HIGH AND THE LOW POINTS. THE GUTTER BOTTOM SHALL BE LEVEL. WATER SHALL BE DIRECTED TO THE GUTTER DRAINS BY HYDRAULIC PITCH.

#4. REFER TO THE POOL DRAWINGS AND SPECIFICATIONS FOR WALL, FLOOR AND GUTTER SURFACING MATERIALS.

#5. INSIDE AND OUTSIDE VERTICAL CORNERS SHALL HAVE A MINIMUM 2" RADIUS.

#6. MINIMUM POOL DEPTH SHALL BE 3 FEET. MAXIMUM DEPTH AT LEAST 4 FEET (ACTUAL DEPTH 7').

#7. THE GUTTER DRAIN FITTINGS SHALL BE PLACED AS INDICATED ON THE DRAWINGS, BUT SHALL NOT BE SPACED FURTHER THAN TEN FEET APART.

RESTROOM SIGNAGE REQUIREMENTS
#1. SEPARATE DIRECTIONAL SIGNS SHALL BE INSTALLED IN THE POOL AREA DIRECTING BATHERS TO THE RESTROOMS WHICH ARE LOCATED ON THE FLOOR BELOW DIRECTLY BENEATH THE POOL DECK. THESE MUST BE LEGIBLE FROM ALL PARTS OF THE POOL DECKS.

LETTERING OF THE SIGN(S) SHALL BE BLACK, AT LEAST 4" HIGH AND ON A LIGHT BACKGROUND.

RESTROOM REQUIREMENTS. RESTROOM FLOORS SHALL BE CONSTRUCTED OF CONCRETE WITH A SLIP RESISTANCE FINISH AND SHALL SLOPE TO FLOOR DRAINS. INTERSECTION AT THE WALL AND FLOOR MUST BE COVED.

HOSE BIBBS WITH VACUUM BREAKERS MUST BE PROVIDED IN OR NEAR EACH RESTROOM.

POOL PIPING.
#1. ALL PERIMETER PIPING SHALL BE CAST INTO THE CONCRETE POOL SHELL, SECURELY ATTACHED TO THE POOL STRUCTURE WITH CORROSION PROOF STRAPPING, OR PLACED ON DENSELY CONSOLIDATED SOIL.

#2. FLOOR INLETS SHALL BE PROVIDED AT THE RATE OF ONE INLET FOR EVERY 20 FEET OF PERIMETER. THEY SHALL BE NO MORE THAN 20 FEET APART AND OUTSIDE FLOOR INLETS SHALL NOT BE FURTHER THAN 10 FEET FROM WALLS.

MAXIMUM FLOW IS 15 GPM PER INLET FITTING.

#3. MAXIMUM VELOCITY THROUGH THE 2 7/8" X 6" GUTTER DRAIN GRATES AT 1.5 FPS IS 21.3 GPM PER FITTING.

#4. WALL MOUNTED VACUUM FITTINGS ARE TO BE MINIMUM 10 INCHES BELOW THE WATERLINE AND KEPT CLOSED WITH A SPRING LOADED COVER WHEN THE FITTING IS NOT IN USE.

POTABLE WATER SUPPLY AND WASTE WATER DISPOSITION
SERVING THE POOL IS TO BE PROVIDED BY OTHERS AND IS NOT PART OF THE SCOPE OF WORK OF THE SWIMMING POOL CONTRACTOR. THIS INCLUDES THE POOL SIDE SHOWER(S) AND DECK AREA HOSE BIBBS BY OTHERS.

FRESH WATER TO THE POOL WILL BE SUPPLIED BY THE CITY OF TAMPA WATER DEPARTMENT.

WASTE WATER IS TO BE DISCHARGED INTO AN EXISTING 12" X 12" X 12" OPEN DRAINAGE TROUGH IN THE EQUIPMENT ROOM. ALL WASTE WATER DISCHARGING INTO THE TROUGH SHALL HAVE AN 4" ATMOSPHERIC GAP OF AT LEAST 4". WASTE WATER DISPOSITION IS TO CITY OF TAMPA STORM SEWER.

ALL HOSE BIBBS AROUND THE POOL DECK AND IN THE EQUIPMENT ROOM WILL BE EQUIPPED WITH VACUUM BREAKERS.

AREA LIGHTING
ALL AREAS OF THE POOL DECK AND POOL SURFACES ARE TO BE ILLUMINATED TO 15 FOOT CANDLES IF NIGHT SWIMMING IS TO BE ALLOWED AND THIS MUST BE CERTIFIED BY THE ~~ELECTRICIAN OF RECORD OR AN~~ ELECTRICAL ENGINEER.

FENCING
SPLASH PAD WILL BE ISOLATED FROM THE SWIMMING POOL BY AN EXISTING CONCRETE BALUSTRADE WITH VERTICAL PICKETS.

CHEMICAL STORAGE
~~WILL BE SEPARATE FROM, BUT~~ ADJACENT TO THE EQUIPMENT ROOM. IT MUST BE SECURE, SAFE FROM PUBLIC ACCESS AND DRY.

POOL GRAPHICS.
DEPTH MARKERS ARE TO BE PLACED AS SHOWN ON THE DRAWINGS AND SHALL CONSIST OF PRECAST CONCRETE MONUMENTS 6 1/4" X 27" X 6 1/4" WITH CERAMIC TILE DEPTH MARKER REBATED INTO THE MONUMENTS AS SHOWN IN THE DRAWINGS. (PER VARIANCE DATED 6/6/03)

THEY SHALL BE LOCATED A MAXIMUM OF 25 FEET APART. EACH MONUMENT SHALL HAVE AN INTERNATIONAL "NO DIVING" SYMBOL TILE REBATED IN EACH END OF THE MONUMENT.

CHARACTERS ON THE TILE MARKERS SHALL BE A MINIMUM OF 4 INCHES HIGH.

CERAMIC TILES ARE REQUIRED, NO PAINTING OF CHARACTERS FOR DEPTH MARKINGS IS ALLOWED. MARKINGS WILL BE IN FEET AND METERS.

ABBREVIATIONS FOR "FEET", "INCHES" AND "METERS" WILL BE "FT", "IN" AND "M" RESPECTIVELY.

SIGNS STATING "NO DIVING" IN LETTERS AT LEAST 4" HIGH MUST BE POSTED AT THE POOL RULE SIGN LOCATION SO AS TO BE CLEARLY VISIBLE TO BATHERS USING THE POOLS.

ALL DEPTH MARKINGS SHALL BE LOCATED TO ACCURATELY DEPICT THE ACTUAL WATER DEPTH WITHIN 3 INCHES WHEN MEASURED THREE FEET FROM THE VERTICAL WALL DEPTH MARKINGS.

HANDRAILS AND STEPS.
#1. THE HANDRAIL SHALL BE ANCHORED ON THE DECK AND THE BOTTOM STEP. IT SHALL EXTEND A MINIMUM 28" ABOVE THE DECK AND STEP NOSINGS. HANDRAIL SHALL BE FABRICATED OF 1.5 O.D. STAINLESS STEEL AND MOUNTED IN BRASS COMPRESSION ANCHORS AT EACH END.

#2. A DARK, CONTRASTING BULLNOSE #4200 IS REQUIRED AT THE NOSING INTERSECTIONS OF EACH TREAD AND RISER. THESE TILES SHALL HAVE A VERTICAL HEIGHT OF 2" AND .75" WIDTH ON THE HORIZONTAL TREAD SURFACE FOR VISIBILITY.

3. THE MAXIMUM RISER ALLOWED IS 10 INCHES. THE RISERS SHALL BE UNIFORMLY EQUAL AND DIMENSIONED AS INDICATED. THE MINIMUM TREAD LENGTH IS 24" AND DIMENSIONED AS INDICATED. ALL STEP TREADS SHALL BE SLIP RESISTANT.

LADDER/RAIL REQUIREMENTS
#1. ONLY CROSS-BRACED LADDERS ARE PERMISSIBLE. EACH LADDER SHALL EXTEND A MINIMUM 28 INCHES ABOVE THE DECK ELEVATION. THE MAXIMUM DISTANCE BETWEEN THE POOL WALL AND THE LADDER SHALL BE 6 INCHES. THE MINIMUM DISTANCE SHALL BE 3 INCHES.

THE LADDERS SHALL BE CONSTRUCTED OF STAINLESS STEEL. EACH LADDER TREAD SHALL BE SLIP RESISTANT.

EACH LADDER AND RAIL MUST BE SECURED TO THE DECKING USING COMPRESSION DECK ANCHORS WITH STAINLESS STEEL escutcheon PLATES.

FILTER NOTES.
#1. THE SWIMMING POOL FILTER SHALL BE AS PRESENTLY EXISTING. A VACUUM SAND SYSTEM DIVIDED INTO FOUR SEPARATE CHAMBERS FOR BACKWASHING AT PROPER FLOW. (PER VARIANCE DATED 6/6/03)

THE VACUUM SAND SYSTEM WILL BE DESIGNED SO AS TO MEET THE REQUIREMENTS OF HIGH RATE SAND FILTER SYSTEMS WITH GAUGES, FLOW METER, SIGHT GLASS AND VALVING FOR OPERATING THE FILTER IN ALL OF THE FOLLOWING MODES:
FILTER
VACUUM TO WASTE (SPLASH PAD WILL VACUUM C.T.TANK)
VACUUM TO FILTER (N/A SPLASH PAD SYSTEM)
DRAIN THE POOL (N/A SPLASH PAD SYSTEM)
BACKWASH FILTERS INDIVIDUALLY (SPLASH PAD 1 TANK)

2. OTHER FILTERS AND FILTER EQUIPMENT MUST BE NSF APPROVED. THE PRESSURE SAND FILTER ON THE SPLASH PAD CT TANK SHALL HAVE AN AIR RELIEF VALVE, A SIGHT GLASS IN THE BACKWASH LINE, VACUUM AND PRESSURE GAUGES AND AN AIR RELIEF DEVICE.

THE HRS FILTER SHALL BE CAPABLE OF PERFORMING IN THE FOLLOWING MODES:
FILTER CT TANK WATER
VACUUM CT TANK TO FILTER
VACUUM TO WASTE
DRAIN FILTER TANK

#2. ALL PIPING WILL BE SCHEDULE 40 (OR #80) AND SHALL CARRY A NSF APPROVAL AND BE CONTINUOUSLY MARKED (NSF-pw).

MAXIMUM VELOCITY IN PRESSURE PIPING, 8 FPS. . . IN SUCTION PIPING 6 FPS.8 . . AND IN GRAVITY PIPING 3 FPS.

#3. CIRCULATING PUMPS WILL BE FLOODED SUCTION STYLE DESIGNED TO DELIVER RATED FLOW AT 50 FT TDH FOR THE VACUUM SAND SYSTEM AND 60 FT FOR THE PRESSURE SAND SYSTEM.

VACUUM PUMP WILL BE SIZED TO DELIVER 45 GPM AT 60 FT. OF HEAD. EACH PUMP SHALL HAVE A MIN. 5" H & L STRAINER. THE VACUUM PUMP OF THE SPLASH PAD SYSTEM SHALL ALSO SERVE TO DRAIN THE CT TANK.

#4. HYPOCHLORITE FEEDING ON POOL AND SPLASH PAD WILL BE BY VENTURI TYPE FEEDER KNOWN AS "THE SOLUTION." SODIUM HYPOCHLORITE WILL BE DRAWN FROM 55 GALLON CHLORINE SHIPPING CONTAINERS. SEE TECH SHEETS.

PH CONTROL ON THE SWIMMING POOL AND THE SPLASH PAD WILL BE BY STRANTROL CO2 FEEDERS.

BOTH POOLS WILL BE EQUIPPED WITH STRANTROL SYSTEM 3 CONTROLLERS. SEE TECH SHEETS ATTACHED.

#5. SWIMMING POOL PIPING WILL BE ARRANGED SO THAT 100 PERCENT OF RATED FLOW CAN BE ACCOMMODATED THROUGH THE GUTTER SYSTEM AS WELL AS THE MAIN DRAINS.

#6. EACH SYSTEM WILL BE EQUIPPED WITH FLOW METERS ON THE RETURN LINE SIZED TO READ 150 PERCENT OF THE DESIGN FLOW AND SIZED TO MATCH THE PIPE ON WHICH THEY ARE MOUNTED. INSTALL PER MFGR SPECIFICATIONS.

#7. VENTILATION OF THE EQUIPMENT ROOM IS BY TWO WALL LOUVRES.

#8. CIRCULATING PUMP ON THE SPLASH PAD CT TANKS SHALL BE EQUIPPED WITH A 5" HAIR AND LINT STRAINER.

#9. SAND FILTER TANKS WILL HAVE 2" COVE AT THE INTERSECTION OF THE WALLS AND FLOOR AND THE FLOOR OF THE TANKS SHALL SLOPE TO THE TANK DRAINS.

~~#10. ELECTRICAL CHEMICAL FEEDERS SHALL HAVE AN ELECTRICAL INTERLOCK WITH THE FILTER PUMP.~~ CHEMICAL FEED LINES SHALL BE ENCASED IN PVC RIGID CONDUIT PERMANENTLY SECURED IN PLACE.

#11. ALL VALVES WILL BE PERMANENTLY TAGGED OR NUMBERED WITH BRADY LABELS. PIPING WILL BE IDENTIFIED WITH PERMANENT MARKINGS.

#12. EQUIPMENT AREA WILL BE EQUIPPED WITH A TAYLOR #2006 TEST KIT FOR TESTING FOR FAC, TAC, pH, TA, CH, CYA.

#13. OPERATING INSTRUCTIONS WILL BE MOUNTED IN CLEAR PROTECTIVE COVER AND POSTED IN THE EQUIPMENT ROOM OR ENCLOSURE .

#14. THE EQUIPMENT ROOM ENCLOSURE SHALL BE LOCKABLE, EQUIPMENT ROOM FLOOR SLOPED TO A CONTINUOUS DRAINAGE CHANNEL.

THE EQUIPMENT ROOM MUST BE PROVIDED WITH A HOSE BIBB, VACUUM BREAKER, 7 FEET OF HEADROOM AND ILLUMINATED TO 50 FOOTCANDLES. THE EQUIPMENT ROOM SHALL HAVE FORCED DRAFT OR CROSS VENTILATION. ALL WIRING INSIDE THE POOL EQUIPMENT AREA ROOM OR ENCLOSURE SHALL BE ENCASED IN APPROVED PVC CONDUIT.

ACCESS TO THE EQUIPMENT ROOM SHALL BE THROUGH AN OPENING AT LEAST 3' WIDE AND 6' HIGH.

#15. DRY, SECURE , CHEMICAL STORAGE MUST BE PROVIDED ~~OUTSIDE THE EQUIPMENT ROOM.~~

~~TIME CLOCKS. THE FILTER SYSTEMS ARE TO BE OPERATED 24/7 (CONTINUOUSLY), HOWEVER EACH SYSTEM WILL BE EQUIPPED WITH A TIME CLOCK SO THAT SHOULD THE OWNER CHOOSE, FILTERING CAN COMMENCE 3 HRS. BEFORE THE POOLS ARE OPEN AND RUN CONTINUOUSLY UNTIL 3 HRS. AFTER THE POOLS ARE CLOSED.~~

PLUMBING NOTES
#1. ALL VALVES SHALL BE PROPORTIONAL EXCEPT HEATER ISOLATION VALVES.

#2. GAUGES SHALL HAVE FACE DIAMETER OF AT LEAST 2". PRESSURE GAUGES SHALL PREFERABLY READ- 0 TO 30- POUNDS, BUT SHALL NOT EXCEED -0 TO 60- POUNDS. VACUUM GAUGES SHALL READ -0 TO 30- INCHES OF MERCURY.

#3. ANY PVC PIPING EXPOSED TO SUNLIGHT AND UV RAYS SHALL BE PROTECTED FROM DEGRADATION BY APPLYING AN ULTRA VIOLET RESISTANT COATING

#5. AN AUTOMATIC WATER MAKE-UP DEVICE MUST BE INSTALLED IN EITHER THE CT TANK OR THE SWIMMING POOL WITH A SOLID STATE FLOAT SWITCH, OR A 2" STATIC PIPE FROM THE POOL WALL (12" DEEP MINIMUM) TO A SEPARATE WATER CHAMBER AT THE FILTER TANK EQUIPPED WITH AN ELECTRONICALLY CONTROLLED MAKE-UP DEVICE. THE POOL AND THE SPLASH PAD SHALL EACH HAVE MANUAL MAKE-UP WATER CAPABILITY.

#6. HYPOHALOGENATION MATERIAL (SODIUM HYPOCHLORITE) MAY BE PUMPED DIRECTLY FROM THE SHIPPING CONTAINERS PROVIDED THEY ARE CLEARLY MARKED WITH CONTENT AND CAPACITY IN GALLONS. FEEDING EQUIPMENT MUST BE CAPABLE OF DISCHARGING SIX PPM CHLORINE IN THE RETURN PIPING.

ELECTRICAL NOTES
ELECTRICAL WORK IS NOT INCLUDED IN THE SCOPE OF WORK OF THE SWIMMING POOL CONTRACTOR.

ELECTRICAL EQUIPMENT TO BE SUPPLIED BY THE POOL BUILDER AS SHOWN ON THE POOL EQUIPMENT LISTS.

OTHER ELECTRICAL PARAPHERNALIA IS TO BE PROVIDED BY OTHERS. THIS INCLUDES STARTERS, DISCONNECTS, SWITCHING, WIRING OF ALL ELECTRIC MOTORS AND OTHER EQUIPMENT.

A #8 SOLID COPPER BONDING GRID LOOP SHALL RUN COMPLETELY AROUND THE POOLS WHICH SHALL BE BONDED AT NO LESS THAN TWO OPPOSITE CORNERS (EACH POOL). BONDING GRIDS WILL INCLUDE ALL FIXED METAL PARTS WITHIN FIVE FEET OF THE INSIDE OF THE POOLS INCLUDING FIXTURES, LADDERS, HANDRAILS, STARTING BLOCK ANCHORS, LIFEGUARD CHAIRS AND OTHER METALLIC COMPONENTS AND THE PUMP MOTORS.

AT LEAST ONE 115 V GFI PROTECTED RECEPTACLE SHALL BE LOCATED MORE THAN 10 FEET BUT LESS THAN 15 FEET FROM POOL.

POOL FILTERING EQUIPMENT SHALL BE GROUNDED TO THE GROUND BUSS OF THE POOL DISTRIBUTION PANEL WITH #8 SOLID CONDUCTOR AS REQUIRED BY NEC.

THERE SHALL BE NO POWER LINES WITHIN TEN FEET HORIZONTALLY OF THE WATERLINE OF ANY OF THE POOLS.

ALL MOTORS SHALL HAVE INTEGRAL THERMAL PROTECTION.

ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED. ALL ELECTRICAL WORK SHALL CONFORM TO NEC ARTICLE 680 AND ALL APPLICABLE LOCAL CODES.

ALL WIRING SHALL BE COPPER WITH TYPE THW INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG.

POOL RULE SIGNS
POOL RULE SIGNS MUST BE POSTED SO AS TO BE VISIBLE TO BATHERS FROM ALL PARTS OF THE POOL DECKS. A SPECIMEN SIGN IS SHOWN BELOW.

POOL RULES
NO DIVING IN THIS POOL
NO FOOD, DRINK GLASS OR ANIMALS IN THE POOLS OR POOL AREAS
BATHING LOAD - 161 PERSONS
POOL HOURS ___A.M. TO ___P.M.
SHOWER BEFORE ENTERING THE POOLS
NO LIFEGUARD ON DUTY

THE WORDS "POOL RULES" AND "NO DIVING" MUST BE IN CHARACTERS AT LEAST FOUR INCHES HIGH. BALANCE OF THE LETTERS MUST BE IN LETTERS AT LEAST ONE INCH HIGH. DIRECTIONAL SIGNS TO THE RESTROOMS MUST BE VISIBLE FROM ALL AREAS OF THE DECK.

NO FOOD IS TO BE CONSUMED IN THE POOL DECK AREA. NO FOOD SERVICE IS TO BE PROVIDED CLOSER THAN 12 FEET FROM THE WATER'S EDGE.

FIRST AID EQUIPMENT MUST BE STORED NEARBY AND READILY AVAILABLE TO BATHERS WHEN THE POOL IS IN USE.

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
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Swimming Pool Plan Review
Silcox Engineering, Inc.
Ernest Silcox
PE 8161

11-4-04

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #00008161
Post Office Box 8574
Tampa, FL 33674 813/920-9192

REVISED PER HILLSBOROUGH COUNTY DEPARTMENT OF HEALTH NOV. 3, 2004

RECORD DWG.
DATE 8/26/05

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT
DATE: 11-5-04 PERMIT NO. 29-60-0384
ENGINEER:
NOTE: THIS APPROVAL IS NOT INTENDED TO COVER STRUCTURAL DESIGN.

NOV 19 2004
Environmental Health

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CONST. TECH. GROUP, INC.

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SYSTEM OPERATION POOL

THE POOL IS DESIGNED WITH USE OF THE EXISTING VACUUM SAND AND GRAVEL FILTER SYSTEM. WATER IS SUPPLIED TO THE FILTER BY GRAVITY. THE FILTER CONSISTS OF FOUR INDEPENDENT TANKS, FED WITH A COMMON TROUGH SET ABOVE THE SAND BEDS. THE TROUGH ALSO ACTS AS THE WASTE ACCUMULATOR DURING BACKWASH OPERATION. ALL WATER ENTERS THE FILTERS THROUGH THE TROUGH AND IS DRAWN AT THE BASE OF THE TANKS THROUGH INDIVIDUAL PORTS, TIED TO A COMMON 8" SUCTION LINE. THE WATER IS THE CHEMICALLY TREATED AND RETURNED TO THE POOL

MAIN DRAIN DESIGN THE MAIN DRAINS ARE LOCATED AT THE DEEPEST POINT IN THE POOL. COLLECTION UTILIZES THREE 12" X 12" X 12" FIBERGLASS MAIN DRAIN BOXES. EACH BOX IS EQUIPPED WITH A 12" X 12" MOLDED FRAME AND GRATE WITH A TYPICAL OPEN SURFACE AREA OF 85.6 S.I. WHICH WILL ALLOW RATED FLOW AT A VELOCITY WHICH DOES NOT EXCEED .5FPS. EACH BOX IS CONNECTED TO A COMMON 12" LINE THAT IS INSTALLED ALONG THE LONG AXIS OF THE POOL AND ENTERS THE EQUIPMENT ROOM JUST ABOVE FLOOR LEVEL. THE 12" LINE TEES TO ALLOW DIRECT SUCTION FOR BACKWASH AND CONTINUES TO A MODULATING VALVE FOR FLOW CONTROL FOR DESIRED FLOW VERSUS THE GUTTER LINE. (40/60) THE 12" LINE THEN ENTERS THE FILTER TROUGH.

GUTTER DESIGN CONSISTS OF 35 EACH 2 1/2" X 6" DRAINS, SPACED EVENLY AROUND THE POOL PERIMETER PROX. 9" APART. THE POOL WATER, OVERFLOWING THE GUTTER AREA IS DIRECTED TO THE DRAINS, TIED TO FOUR SEPARATE 6" GUTTER LINES. THE TWO PRIMARY 6"LINES, 235 GPM EACH, ARE SET IN THE HEADPIECE WITH THE GUTTER DROPS TYING INTO THE 6" LINES DIRECTLY BELOW. THE TWO PRIMARY LINES TURN OUT OF THE HEADPIECE ON THE NORTH AND SOUTH SIDE OF THE POOL AFTER ACCUMULATING 235 GPM EACH AND CONTINUE TO THE EQUIPMENT AREA OUTSIDE THE POOL WALL IN A SOFFITT DESIGNED FOR THIS PURPOSE. THE SOUTH LINE PENETRATES THE FILTER WALL AND PASSES THROUGH THE FILTER EXTING INTO THE EQUIPMENT AREA. THE TWO SECONDARY 6" LINES, 172 GPM EACH, CONTINUE IN THE HEADPIECE, TEE TOGETHER IN THE HEADPIECE AND EXIT THE HEADPIECE IN THE EQUIPMENT ROOM. AT THE CEILING ELEVATION, THE FOUR GUTTER LINES JOIN IN A MANIFOLD, PASS THROUGH A 12" MODULATING VALVE THEN ENTER THE FILTER AND DISCHARGE INTO THE 1'-4" X 12" DISTRIBUTION TROUGH WHICH RUNS FULL LENGTH OF THE FILTER TANK.

MODULATING VALVES ARE DIAPHRAGM VALVE OPERATED, CONTROLLED BY POTABLE WATER LINE PRESSURE REGULATED BY BALL FLOAT VALVES MOUNTED IN THE FILTER TANK. THESE ARE SPECIAL VALVE COMBINATIONS THAT ALLOW FLOW CONTROL ON FILTER TANK RISE AND POSITIVE SHUTOFF AS THE WATER REACHES A POINT 10", PLUS OR MINUS, FROM THE TOP OF THE FILTER TANK. THIS CONTROL PROCEDURE IS REQUIRED BECAUSE THE POOL WATER LINE (LIP OF THE GUTTER) IS SET AT 2.5" ABOVE THE EXISTING TANK CEILING. THE ANTICIPATED NORMAL TANK LEVEL DURING FILTER OPERATION IS AT 2' BELOW FILTER TANK CEILING.

CIRCULATING SYSTEM THE CIRCULATION PUMP IS A 15 HP MARLOW HANDLING 900 GPM AT 50 HDFT. THE PUMP PULLS WATER OUT OF THE INDIVIDUAL FILTER TANKS THROUGH A COMMON 8" MANIFOLD, AND 1 ½" LATERAL 28 TO EACH TANK. A 4" VACUUM GAUGE IN THIS SUCTION LINE IS INSTALLED TO MONITOR THE FILTER CONDITION. THE WATER IS THEN DIRECTED TO THE RETURN VALVE. (IN BACKWASH CYCLE, POOL WATER WILL BE DRAWN THROUGH THE MAIN DRAINS AND INTRODUCED INTO THE BOTTOM HEADERS AND LATERALS.)

THE LINE IS VALVED TO DIVERT A PORTION OF THE RETURN WATER INTO A 4" HEATER LOOP (FUTURE USE) AND HAS MOUNTED IN IT THE FLOW METER, PRESSURE AND TEMPERATURE GAUGES AND CHEMICAL INJECTION PORTS.

FILTERED WATER IS MONITORED FOR PH AND CHLORINE RESIDUALS WITH A "STRANTROL SYSTEM 3" CONTROLLER. AND THE CHEMICAL TREATMENT IS BY SODIUM HYPOCHLORITE FEEDER, VENTURI STYLE, AND A CO2 GAS FEEDER IS SPECIFIED FOR PH CONTROL. FILTERED WATER IS PIPED THROUGH A 1.25" LINE WHICH SUPPLIES THE VENTURI HYPOCHLORITE FEEDER AND SAMPLE WATER TO THE CONTROLLER. AFTER CHLORINATION, THIS 1.25" LINE CONNECTS TO THE 8" RETURN LINE JUST PRIOR TO THE POOL WALL PENETRATION. CO2 IS THE LAST INJECTION POINT IN THE LINE.

BACKWASH WATER IS A 10" LINE CONNECTED TO THE FILTER TROUGH VIA THE COMMON 12" FILTER SUPPLY MANIFOLD. THE BACKWASH WASTE LINE IS VALVED AND IS CONNECTED TO AN EXISTING OPEN 12" WASTE LINE AT THE FLOOR LEVEL. (THIS WASTE DEPOSITORY IS A 12" X 12" CONCRETE TROUGH WHICH RUNS THE FULL LENGTH OF THE FILTER WALLS AND TERMINATES IN A 12" LINE TO WASTE.)

VACUUM SYSTEM CONSISTS OF A 2HP PUMP CONNECTED TO A 3" LINE AND THEN TO 6 VACUUM FITTINGS LOCATED IN THE POOL WALL. THE VACUUM EFFLUENT IS VALVED TO BOTH THE FILTER TANK AND TO THE OPEN WASTE TROUGH.

MAKE-UP WATER IS INTRODUCED TO THE POOL AT THE DECK LEVEL TO ACHIEVE THE REQUIRED AIR GAP. THE SYSTEM IS A 1" POTABLE WATER LINE CONTROLLED BY A 1" HYDRAULICALLY OPERATED VALVE, WITH A PILOT DUTY VALVE SET IN A DECK MOUNTED BOX IN THE ENTRY LANDING TO THE POOL.

SYSTEMS OPERATION SPLASH PAD

THE TWO INDIVIDUAL COLLECTOR TANKS WILL BE CONNECTED TOGETHER WITH 12" PVC THIMBLES AND THEY ARE TO BE LOCATED ALONG WITH THE FILTERING EQUIPMENT AT GROUND LEVEL DIRECTLY BELOW THE SPLASH PAD.

THEY ARE 4'-10" X 5'-11" X 4'-7" DEEP AND HAVE A 1000 GALLON CAPACITY EACH. THE TANKS ARE TIED TOGETHER WITH ONE 12" PVC PIPE AT THE FLOOR OF THE TANKS.

THE DEMAND OF THE ACTIVITIES WATER FEATURES IS PROX. 1,865 GPM. THE SPLASH PAD IS DESIGNED TO DRAIN DRY EXCEPT WHEN THE WATER FEATURES ARE IN OPERATION. WHEN FEATURES ARE FLOWING WATER, THE WATER DRAINS IMMEDIATELY INTO THE TWO 24" X 24" GRATED DRAINS AT THE CENTER OF THE SPLASH PAD.

FROM THERE THE FEATURES WATER DROPS DIRECTLY INTO THE TWO 1,000 GALLON COLLECTOR TANKS BELOW (CONTACT TIME TANK) WHERE IT IS FILTERED, TREATED AND CHLORINATED.

WATER IS DRAWN FROM THE COLLECTOR TANKS BY TWO 15 HP PUMPS AND SUPPLIED TO THE FEATURES THROUGH TWO MANIFOLDS OF RETURN VALVES WHICH CONTROL THE WATER FLOW TO EACH OF THE 17 SEPARATELY VALVED WATER FEATURES.

THE WATER FOR THE ACTIVITIES FEATURES STORED IN THE 2,000 GALLON COLLECTOR TANK IS FILTERED AND CHEMICALLY TREATED BY A 30 SQ. IN. HI-RATE SAND FILTER (FILTER AREA 4.9 SQ. FT.) THE FILTER WILL ACCEPT 73.5 GPM, HOWEVER, THE TURNOVER RATE WILL BE REDUCED TO 67 GPM WHICH WILL DELIVER A 30 MINUTE TURNOVER FOR THE COLLECTOR TANKS. BY REDUCING THE FLOW THROUGH THE FILTER TO 67 GPM AN EXTENDED CYCLE WILL BE ACHIEVED.

THE CIRCULATING PUMP WILL DRAW WATER FROM THE TWO SIDE PORTED MAIN DRAINS IN THE COLLECTOR TANK AS WELL AS THE TWO FLOATING SKIMMERS, ONE IN EACH TANK. CIRCULATED WATER WILL BE RETURNED TO THE TANKS AFTER PASSING THROUGH THE FILTER, THE HYPOCHLORINATION TREATMENT AND THE FOUR WALL RETURN INLETS IN THE COLLECTOR TANKS.

THE CIRCULATING PUMP TOGETHER WITH TWO TANK DRAINS AT FLOOR LEVEL WILL ALSO SERVE AS AN "EMERGENCY DRAIN" SYSTEM IN THE EVENT THE COLLECTOR TANK MUST BE DRAINED AND CLEANED. IN SUCH CASE, THE ENTIRE CONTENTS OF THE FEATURE SYSTEM WILL BY DRAINED AND PUMPED TO THE SEWER.

CHEMICAL CONTROL IS BY SYSTEM 3 STRANTROL CHLORINATING EQUIPMENT.

HYPOCHLORINATION WILL BE BY SODIUM HYPOCHLORITE, PH CONTROL WILL BE BY CO_2 GAS.

THE TWELVE UP-JETS ARE DESIGNED SO THAT EACH JET IS INDEPENDENTLY OPENED WITH AN ELECTRIC SOLENOID VALVE. THE PROGRAMMING DEVICE WILL RANDOMLY OPEN EIGHT UP-JETS SIMULTANEOUSLY SO THAT THE BATHERS WILL BE ABLE TO PREDICT WHERE THE NEXT UP-JET ACTION WILL OCCUR.

THE TWELVE UP-JETS ALONG WITH THE THREE UMBRELLAS, THE ARCH JET AND THE WATER CURTAIN ARE ALL EQUIPPED WITH PROPORTIONING VALVES IN THEIR SUPPLY LINE. THIS WILL ENABLE EACH OF THE WATER FEATURES TO DELIVER A CONSTANT FLOW OF WATER AT THE RATED GPM.

THE FLOOR OF THE SPLASH PAD WILL BE FINISHED WITH A PRODUCT KNOWN AS ~~PEBBLE-TEC WHICH IS AN ABSORTMENT OF SMALL 1/4" DOWN ROUND GRAVEL WHICH ARE LOCKED IN WITH A WHITE CEMENT/WHITE MARBLE MATRIX SIMILAR TO POOL PLASTER. THIS WILL PRODUCE A NEARLY SLIP-PROOF FINISH AND THE "PEBBLE-TEC" WILL BE APPLIED IN A PATTERN USING THREE OR FOUR DIFFERENT COLORS OF AGGREGATE. THE MULTI-COLORED PATTERN IS SHOWN IN THE ARCHITECTURAL SECTION.~~ WERAC

THE SPLASH PAD WILL BE SURROUNDED BY AND ISOLATED FROM THE POOL BY THE EXISTING BALUSTRADE RAILING

SPLASH PAD EQUIPMENT LIST

4	D		
2	24" X 24" MAIN DRAIN RINGS AND GRATES	GRATE TECH	
1	WATERS FEATURES ASSEMBLIES	VAKPAK	
	TEECUP		TC2400
	SMALL UMBRELLA		UM6600
	UMBRELLA		UM8400
	WATER CURTAIN		WC6
	ARCH JET		AJ6
12	UP-JETS - VARIABLE ORIFICE EYEBALL FTNG	RECREONICS	34-115
12	1 ½" JANDY PROPORTIONING VALVES FOR ABOVE	JANDY	4724
12	1 ½" INLINE SOLENOID VALVES	RITE-FLO	200-01-06
1	ELECTRONIC PROGRAMMER FOR 12 UP-JETS	CRYSTAL FOUNTAINS SPECIAL	
2	6" PVC BUTTERFLY VALVES	RECREONICS	32-037.06
3	4" PVC BUTTERFLY VALVES	RECREONICS	32-037.04
1	3" PVC BUTTERFLY VALVE	RECREONICS	32-037.03
2	10" PVC BUTTERFLY VALVE GEAR OPERATED	RECREONICS	32-254
3	2" JANDY	RECREONICS	4724
2	FIBERGLASS COLLECTOR TANK	VAK PAK	CT1000
2	FLOATING SURFACE SKIMMERS (1 ½" LILLYPAD TYPE WITH 3' FLEXIBLE UMBILICAL HOSE	WIZARD (VAKPAK)	SPECIAL
4	INLETS FOR FIBERGLASS COLLECTOR TANK	RECREONICS	34-015
1	VACUUM FITTING W/SPRING LOADED COVER	RECREONICS	34-015
2	9" X 9" COMMERCIAL MAIN DRAIN WITH ABS POT	HAYWARD	SP1062
2	FEATURES PUMPS - 15 HP	GRISWOLD	R6FL151
2	10" X 6" S.S. H & L STRAINERS	LINCOLN	14-550
1	2 HP "WHISPER FLOW RECIRCULATING PUMP 208/230 VOLT	PENTAIR	011514
1	30" HI-RATE SAND FILTER (NSF) 4.9 SQ.FT.	~~PENTAIR~~ BAKER	~~146515~~
1	2 ½" DIAL VALVE FOR ABOVE	PENTAIR	261-050.
3	4" PRESSURE GAUGES	RECREONICS	32-818
3	4" VACUUM GAUGES	RECREONICS	32-826
1	FLOWMETER FOR 3" PIPE (FILTER)	RECREONICS	32-074
1	FLOWMETER FOR 8" PIPE (FEATURE SYSTEM)	RECREONICS	32-345
1	STRANTROL SYSTEM 3 CONTROLLERS	STRANTROL	CASYS-3
1	SODIUM HYPOCHLORITE VENTURI FEEDER	CES	BX22152-01.
1	CO_2 FEEDER AND REGULATOR	STRANTROL	BG002-3
1	WATER LEVEL CONTROL, 115V SOLID STATE, SJ FLOAT SWITCH	RITE-FLO	1588U
1	3/4" ELECTRIC SOLENOID VALVE, 115V	RITE-FLO	RICHDELL

AND OTHER MISCELLANEOUS EQUIPMENT NOT LISTED ABOVE NECESSARY TO COMPLETE A WORKABLE INSTALLATION.

~~SODIUM HYPOCHLORITE STORAGE WILL BE IN 55 GALLON DELIVERY DRUMS~~

WHERE SPECIFICS SUPPLIERS ARE LISTED "OR EQUAL" SUBSTITUTION IS INFERRED IF APPROVED BY THE OWNER BEFORE CONSTRUCTION.

SPLASH PAD DATA

PERIMETER	PROX. 137'
SURFACE AREA	PROX. 705 SQ. FT.
COLLECTOR TANK CAPACITIES 2 @ 1000	2,000 GALS.
TURNOVER RATE	67 GPM
TURNOVER TIME	30 MIN.
FILTER	30" HI-RATE SAND
FILTER RATE	13.7 GPM PER SQ.FT. FILT. AREA
CIRCULATING PUMP	2 HP
HYPOCHLORINATION	STRANTROL SYSTEM 3
PH CONTROL	CO_2

FEATURE WATER TURNOVER 1865 GPM

POOL DATA

BATHING LOAD	161
PERIMETER	PROX. 325 L/F
SURFACE AREA	7900 SQ. FT.
DEPTH	3 FT TO 7 FT.
VOLUME	38,870 CF.
GALLONAGE	291,500
TURNOVER RATE	809 GPM
TURNOVER TIME	6 HRS.
FILTER	EXISTING VACUUM SAND
FILTER AREA	216 SQ. FT.
FILTER RATE	3.75 GPM PER SQ.FT. FILTER AREA
360° FLOOR INLETS	54 @ 14.9 GPM
2 7/8" X 6" GUTTER DRAINS	35 @ 21.3 GPM
MAIN DRAINS	3 @ 270 GPM
MAIN DRAIN GRATE VELOCITY	1.02 FPS
VACUUM FITTINGS	6 EA.

EQUIPMENT LIST FOR POOL MODIFICATION

QUANTITY	ITEM & DESCRIPTION	MFG.	PART #
54	1 ½" FLOOR INLETS	HAYWARD	SP1425S
35	2 ½" x 6" GUTTER FITTINGS	PENTAIR	542039
6	1 ½" WALL VACUUM FITTINGS W/SPRING LOADED COVER	HAYWARD	SP1022
3	12" X 12" X 12" MAIN DRAIN BOXES	PENTAIR	543036
1	EXISTING VACUUM SAND FILTER IS TO BE RENOVATED AND REMAIN IN SERVICE. SEE DRAWING		
1	24" VERTICAL LEXAN SITE GLASS EXTERNALLY MOUNTED ON FILTER WALLS. TO BE JOB FABRICATED.		
1	15 HP 1750 RPM 208/230 V, 6" X 5"	MARLOW	5L15C
1	2 HP VACUUM PUMP	PENTAIR	011514
1	HORIZONTAL MOUNTED FLOWMETER 10" PIPE	RECREONICS	32-146
1	INLINE THERMOMETER 3 ½" STEM	RECREONICS	32-700
1	4" PRESSURE GAUGE 0 - 60#	RECREONICS	32-818
1	4" VACUUM GAUGE 0-30#	RECREONICS	32-826
2	12" MODULATING VALVE	RECREONICS	32-046
1	½" FLOAT CONTROL	RECREONICS	32-051
1	1" HYDRAULIC WATER MAKE-UP VALVE	LINCOLN	20-010
1	8" X 6" S.S. H & L STRAINERS	LINCOLN	14-545
	6" BUTTERFLY VALVES (LEVER)	RECREONICS	32.037.06
	8" BUTTERFLY VALVES (GEAR)	RECREONICS	32-353
	10" BUTTERFLY VALVES (GEAR)	RECREONICS	32-254
	12" BUTTERFLY VALVES (GEAR)	RECREONICS	32-255
1	SYSTEM 3 CONTROLLER	STRANTROL	CASYS-3
1	SODIUM HYPOCHLORITE VENTURI FEEDER	CES	BX22152-01
1	CO_2 FEEDER AND REGULATOR	STRANTROL	BG002-3
6	3 TREAD CROSS BRACED S.S. LADDER, 30" THROAT	S.R. SMITH	LFB-30-35
1	60" HANDRAIL MIN. ABOVE STEP 28"	PARAGON	34202
14	1.9" BRASS DECK ANCHORS	ATLANTIS	5796
14	S.S. DEEP ROUND ESCUTCHEON	FROST	A41664-1

^(AS NEEDED - ATLANTIS DECK ANCHORS AND FROST ESCUTCHEONS FOR SPECIAL 1.9" O.D. RAILS ON ENTRY RAMP AND DECK BARRIERS AT ENTRY RAMP. SEE ARCHITECTURAL DRAWINGS FOR DETAIL)

4	STARTING PLATFORMS, STANDARD.	KDI PARAGON	22113
10	RECESSED LANE LINE AND ROPE ANCHORS	HAYWARD	SP1040
5	MAXIMUM RACING LANES (KIEFER) MUST BE CUSTOM TO LENGTH	RECREONICS	14-625
1	AERATING WATER MAKE-UP JET	JOB MADE	
15	DEPTH MARKER MONUMENTS SPECIALLY PRE-CAST	HOLLOWAY CAST STONE	
^9 REQ'D	3" X 3 1/8" CHANNEL DRAIN	NDS	MINI DRAIN
1	TEST KIT, CL, ACID, TA, CALC HARDNESS, PH, CYA	TAYLOR	2006
1	24" WALL BRUSH WITH QUICK CONNECT	RECREONICS	10-155
1	LEAF RAKE WITH QUICK CONNECT	RECREONICS	10-124
2	16' ALUMINUM POLE, STRAIGHT	GIAMMANCO	16
1	TELESCOPING HANDLE 16/32'	RECREONICS	10-334
2	POLE HANGAR SETS	ALADDIN	955
1	24" COMMERCIAL FLEX VACUUM HEAD	RECREONICS	10-201
1	1 ½" X 40' VAC HOSE W/SWIVEL CUFF	RECREONICS	10-413
2	24" U.S. COAST GUARD LIFE RING	CAL-JUNE	GW24
2	LIFE RING HOLDER, S.S.	FROST	41160-0
2	60' 1/4" LIFE LINE ROPE WITH BALL	GIAMMANCO	60
2	SHEPHERDS CROOK	RAINBOW	2210126-153

AND OTHER MISCELLANEOUS EQUIPMENT NOT LISTED ABOVE NECESSARY TO COMPLETE A WORKABLE INSTALLATION IN COMPLIANCE WITH 64E-9 FAC. COUNTS AND QUANTITIES ARE GIVEN FOR ASSISTANCE TO THE BIDDERS AND ARE ONLY APPROXIMATE.

~~POOL HEATING EQUIPMENT IS BY SEPARATE CONTRACT~~

FILTER MEDIA – ~~SEE SRI's 8/12/05 LETTER~~

~~5 FT COVER ON LATERALS 108 CF~~
~~3/8" RIVER GRAVEL @ 105# = 17,820# = 8.9 TONS~~

~~1.5 FT FILTER BED 324 CF~~
~~20/30 DAVENPORT SAND @ 120# = 38,880# = 19.4 TONS~~

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #0008161
Post Office Box 5574
Tampa, FL 33674 813/920-9192

VALVES. VALVES 2 ½" AND UNDER SHALL BE JANDY OR EQUAL, VALVES 3" AND OVER SHALL BE BUTTERFLY VALVES, COMPOSITE OR IRON BODIES, STAINLESS STEEL SHAFTS, STAINLESS OR PVC WAFERS AND EPDM TRIM. ELECTRIC SOLENOID VALVES SHALL BE DIAPHRAGM "SLOW CLOSING" TYPE.

VALVES SHALL BE NUMBERED WITH BRASS TAGS OR BRADY LABELS. EXPOSED PIPING IN THE EQUIPMENT ROOMS AND ENCLOSURES SHALL ALSO BE IDENTIFIED WITH BRADY LABELS.

RECORD DWG.
DATE 8/26/05

SCOPE OF WORK

The Scope of Work for the swimming pool contractor on this project will include, but not be restricted to, the furnishing of all labor and material necessary to complete the following:

1. Layout, earth handling, shaping and compaction involved with the remodeling work on the pool.

2. Installation of a new concrete shell inside of the walls of the existing swimming pool. Construction of a new water features pool (Splash Pad) and other structures shown on these drawings.

3. Installation of pool interior finish and provision of all deck equipment shown in the drawings and specifications.

4. Construction of a water feature kiddies pool adjacent to the pool.

5. Deckwork, fences, balustrades and other improvements around the pool are not part of the pool contractor's scope of work.

6. Installation of drainage conduit around the pool perimeter is included in the pool contractor's scope.

7. All perimeter and underpool piping serving the pool and all face piping within the equipment room as shown on the drawings.

8. All filtering and chemical treatment equipment, piping, and appurtenances incidental to the proper installation of the pool and water features filtering and water treatment equipment.

9. Initial startup and balancing of the pool water and operation of the pools until the owner has been instructed in its operation and the pool work approved by the Health Department.

10. Any other material or labor necessary to construct a complete an operational swimming pool and water feature installation.

11. Arrangement for inspections by the Hillsborough County Health Department, Environmental Engineering Section and procurement of an Operating Permit. Submission Fees will be paid by the owner.

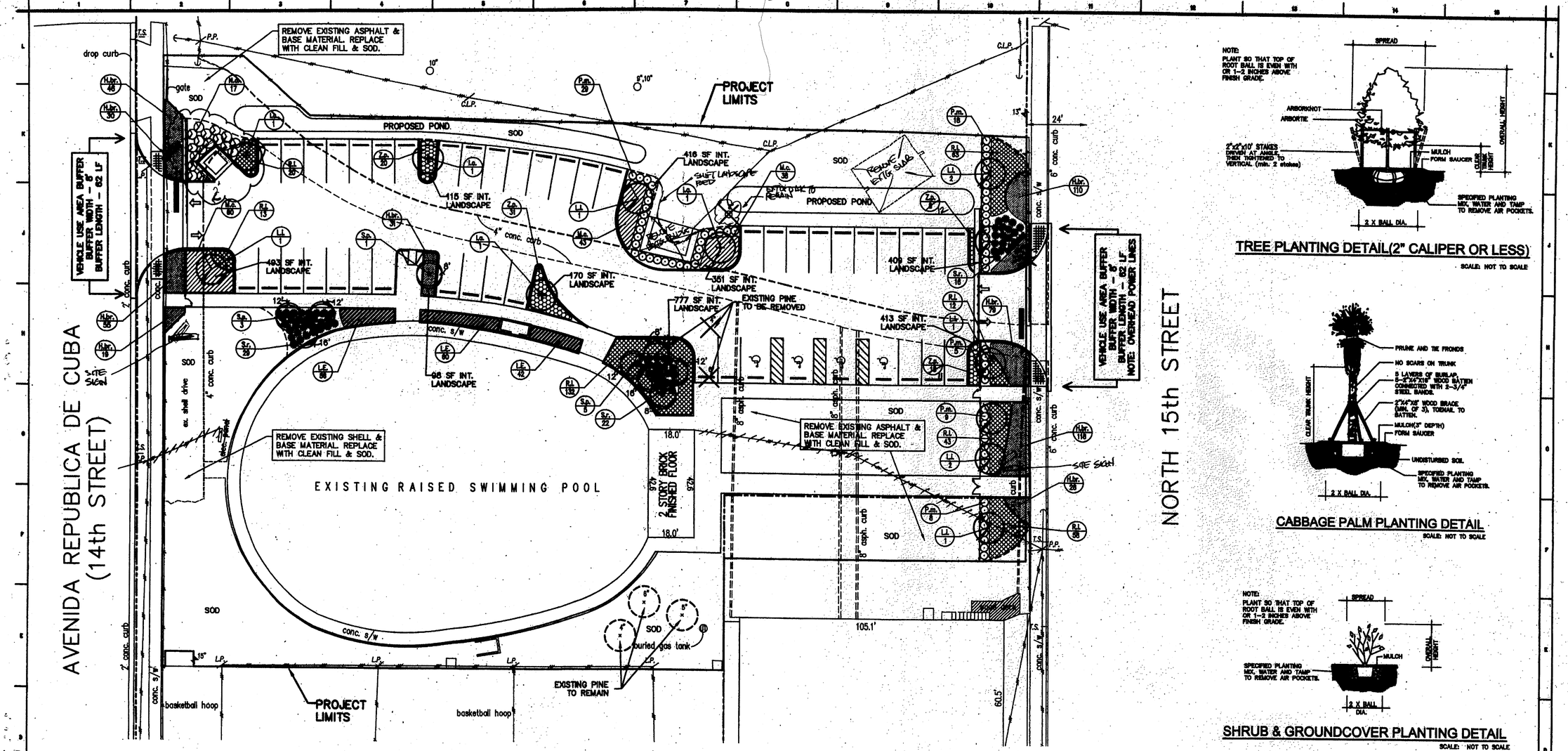
#12. Heating equipment will be per drawings and specifications.

13. Underwater lighting is not included in this contract. Lighting for night swimming will be by overhead illumination to 15 footcandles.

SCOPE OF WORK, SYSTEMS, EQUIPMENT LISTS AND POOL DATA

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

217
009



TREE PLANTING DETAIL(2" CALIPER OR LESS)

SCALE: NOT TO SCALE

CABBAGE PALM PLANTING DETAIL

SCALE: NOT TO SCALE

SHRUB & GROUNDCOVER PLANTING DETAIL

SCALE: NOT TO SCALE

LANDSCAPE REQUIREMENTS

PERIMETER LANDSCAPE BUFFER

VEHICLE USE AREA

Avenida Republica De Cuba – Buffer Width–6'/Buffer Length–62LF
Trees Required – 1 Tree per 40 LF – 62/40 = 2
Trees Provided – 2
Shrubs(Hedge) Required – Yes
Shrubs(Hedge) Provided – Yes

N. 15th Street – Buffer Width–6'/Buffer Length–62LF
Trees Required – 1 Tree per 40 LF – 62/40 = 2
Trees Provided – 2
Shrubs(Hedge) Required – Yes
Shrubs(Hedge) Provided – Yes

INTERIOR LANDSCAPE REQUIREMENTS

INTERIOR LANDSCAPE AREA (20 percent of vehicle use area)

Total Vehicle Use Area – 18,376 SF x 20% = 3,675 SF
Interior Landscape Area Required – 3,675 SF
Interior Landscape Area Provided – 3,726 SF

INTERIOR TREE REQUIREMENTS

(1 Tree per 1,000 SF of Parking Area)
Total Vehicle Use Area – 18,376 SF/1,000 SF = 13
Interior Trees Required – 13
Interior Trees Provided – 13

TREE CREDIT<DEBIT> REQUIREMENTS

Replacement Trees Required – 0
Tree Credits Available – 0

TREE CREDIT<DEBIT> REQUIREMENTS				
TREES TO BE REMOVED				
QUANTITY	DESCRIPTION	CALIPER	MULTIPLIER CREDIT/<DEBIT>	TOTAL REPLACEMENT TREES CREDIT/<DEBIT>
1	PINE	4" Cal.	<0>	<0>
2	PINE	6" Cal.	<0>	<0>
TOTAL TREE REPLACEMENT<DEBIT>				0
TREES TO BE PRESERVED				
QUANTITY	DESCRIPTION	CALIPER	MULTIPLIER CREDIT/<DEBIT>	TOTAL REPLACEMENT TREES CREDIT/<DEBIT>
1	PINE	4" Cal.	0	0
1	PINE	5" Cal.	0	0
1	PINE	6" Cal.	0	0
TOTAL TREE CREDITS				0

← 1 extra 8" oak

PLANT LIST			
SYMBOL	BOTANICAL(COMMON NAME)	DESCRIPTION	QUANTITY
TREES			
Lc.	~~Sea-o-elmonte 'Seaonal'~~ (WINGED ELM)	6"H x 6"Spr., 2"Cal., 30 gal., Full	4
L.I.	Lagerstroemia Indica'Tuscarora'(Crape Myrtle)	6"H x 6"Spr., 2"Cal., 30 gal., Multi-Trunk, Red	8
PALMS			
S.p.	Sabal palmetto(Cabbage Palm)	8-12'H, See Plan For Sizes	9
S.c.	Serenoa repens'minis'(Silver Saw Palmetto)	10-12"H & Spr., 3gal, 36"OC, Full	67
SHRUBS			
H.a.	Nerium oleander 'Calypso'(Oleander)	36-48"H x 18-24"Spr., 3 gal., 48"OC, Full, Shrub	17
P.m.	Podocarpus macrophylla(Podocarpus)	36-48"H x 12-18"Spr., 3 gal., 36"OC, Full	69
GROUNDCOVER			
H.hr.	Hemerocallis 'Butterscotch Ruffles'(Daylily)	12"H & Spr., 1 gal., 18"OC, Full, Evergreen	96
L.E.	Liriope 'Evergreen Giant'(Ex. Giant Liriope)	10-12"H & Spr., 1 gal., Full, 5 bhs min., 18"OC.	108
M.a.	Muhlenbergia capillari(Gulfy Grass)	18"H x 12"Spr., 1 gal., 24"OC, Full	191
R.i.	Rhaphiolepis indica(Indian Hawthorn)	8-10"H & Spr., 3 gal., 24"OC, Full	341
Z.p.	Zamia pumila(Coontie)	8-10"H & Spr., 3 gal., 24"OC	74
MISCELLANEOUS			
	Eucalyptus Mulch(Grade B or Better)	3" Depth Min.	± 6,383 SF
	Pennpaloa notatum 'Bahia' Sod	Weed Free	± 22,085 SF
	Soil Amendments	Per Notes and Details	±115.5 CY
	Staking and Guying	Per Details	12 Trees / 9 Palms

GENERAL NOTES

All plant materials shall be Florida Grade No. 1 or better, as specified in GRADES AND STANDARDS FOR NURSERY PLANTS, Parts I and II, by the Division of Plant Industry, Florida Department of Agriculture and Consumer Services, and shall conform to current American Association of Nurserymen STANDARDS FOR NURSERY STOCK, unless otherwise specified on the plans and plant list.

All plant materials shall be guaranteed for a period of one year (365 days) after final acceptance. All replacement materials shall be guaranteed for an additional 365 days.

All planting beds shall be mulched with Eucalyptus mulch, Grade B or better to a depth of three (3) inches. All trees in sod areas shall have a 30" min. radius mulched tree ring. Sod shall be Pennpaloa notatum 'Bahia' sod.

Landscaping shall be irrigated by a fully automatic irrigation system, utilizing low volume nozzles where practical and equipped with a rain or moisture sensing device.

All plantings shall receive soil amendments consisting of fifty (50) percent native amended soil and fifty (50) percent planting mix. Planting mix shall consist of sixty (60) percent Florida Peat, twenty (20) percent Canadian Peat, and twenty (20) percent Sand. Refer to the planting details & specifications for additional planting specifications.

When building or paving occurs within the protective area of an existing tree to remain, the CONTRACTOR shall root prune those roots affected by the construction. Roots shall be cleanly pruned to an elevation deep enough to avoid tearing of the roots 18 inches beyond the excavation area.

Proposed utility lines for water, irrigation, electric, telephone and sanitary sewer lines shall be tunneled through the roots of the existing trees to remain when realignment is not an acceptable alternative.

Remove all existing sod within the project limits & rototill the existing soils to a depth of 12" prior to the installation of the new plantings and sod.

EXISTING TREE LEGEND

EXISTING TREE TO BE REMOVED

EXISTING TREE TO REMAIN

ROWE ARCHITECTS INCORPORATED
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Fax: 813.221.9154
813.221.8771
AAC002172

CHARLOTTE ENGINEERING & SURVEYING, INC.
Port Charlotte Office
1700 El Jobean Road.
Port Charlotte, Florida 33948
Telephone No. (941) 629-2552
Fax No. (941) 743-8298

John J. Sisen, R.L.A.
L.A. No. 0001032
State of Florida
Charlotte Engineering & Surveying, Inc.
Corporation No. 2904

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
~~REV. PER COMMENTS~~	~~05.03.04~~
REVISION 2	5.07.04

LANDSCAPE PLAN

1" = 20'-0"

0 10 20 40 FT

PROJECT NORTH TRUE NORTH

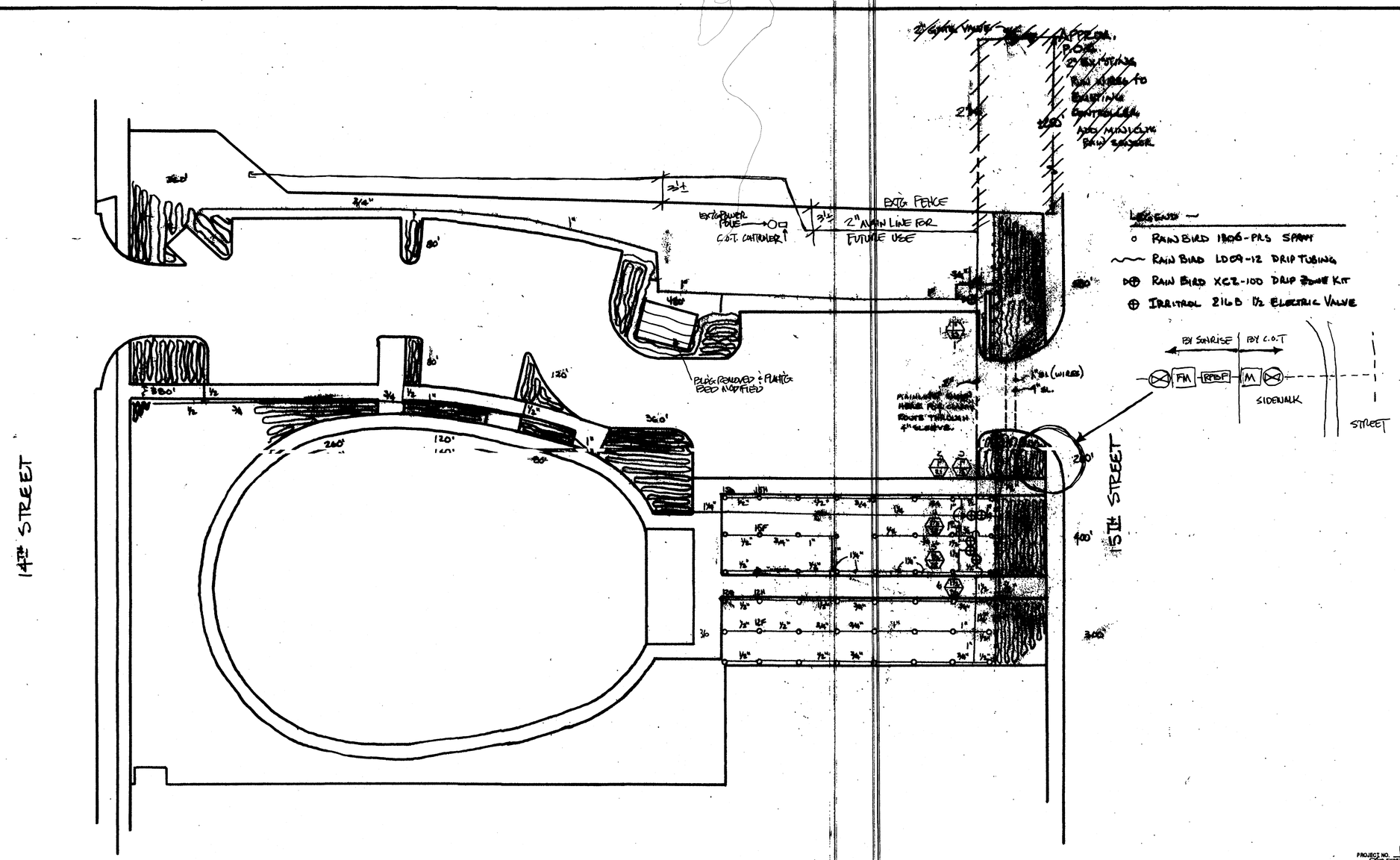
L1

RECORD DWG.

DATE 8/26/05

CES Project No. 0202.2

217/009



LEGEND —

- ○ RAIN BIRD 1806-PRS SPRAY
- ~~~ RAIN BIRD LD09-12 DRIP TUBING
- RAIN BIRD XCZ-100 DRIP ZONE KIT
- ⊕ IRRITROL 216B 1½ ELECTRIC VALVE

SUBMITTAL NO. 8A

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0001

Distribution	Date
BID DOCUMENTS	1-24-05

PROJECT NO. 10406
- [x] NO EXCEPTIONS TAKEN
- [ ] MAKE CORRECTIONS NOTED
- [ ] RESUBMIT CORRECTED COPY
- [ ] REJECTED - RESUBMIT
- [ ] RESUBMIT SPECIFIED ITEM
- [ ] REVISE AND RESUBMIT

This review is limited to general conformance of the product and general compliance with the contract documents and in no way relieves the subcontractor/supplier of his responsibilities either expressed or implied within the contract documents. The subcontractor/supplier is responsible for confirming and coordinating all dimensions on the project site, techniques of construction, coordination of his work and other trades and satisfactory performance of the work.
CONSTRUCTION TECHNOLOGY GROUP, INC.
DATE: 1-31-05 BY: [illegible]
CC:

SUNRISE LANDSCAPE
Landscape Contractors
North Every Day
P.O. Box 15531
Tampa, FL 33687
Tel: 813-[illegible]
Fax: 813-964-0155
Email: [illegible]@sunriselandscape.com

IRRIGATION PLAN

1" = 20'-0"

0 10 20 40 FT

RECORD DWG.
DATE 8/26/05

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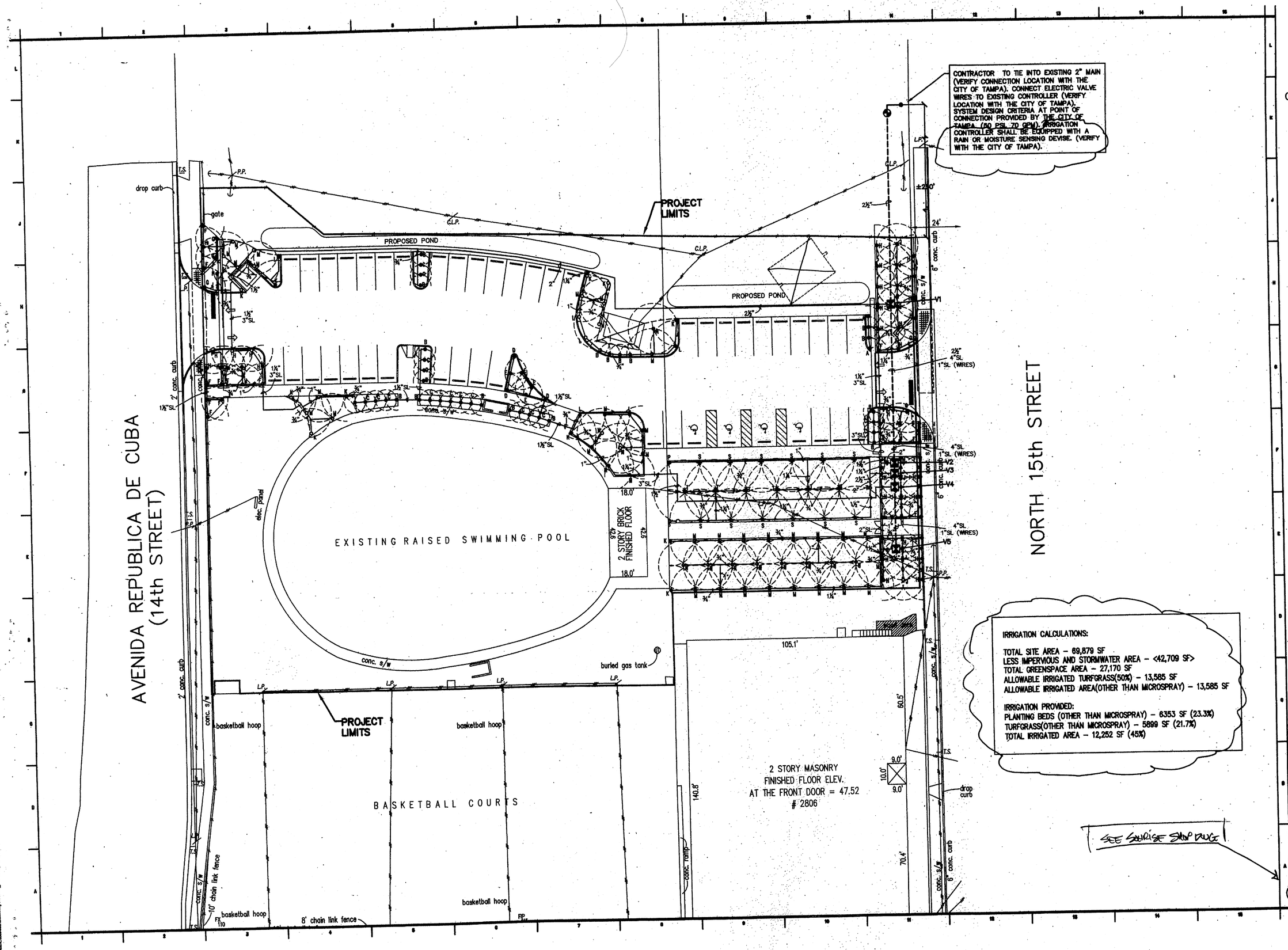

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(e-mail)
John T. Sweny, R.L.A.
L.A. No. 0001032
State of Florida
Charlotte Engineering & Surveying, Inc.
Corporation No. 2904

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
~~REV. PER COMMENTS~~	~~05.06.04~~
REVISION 1	2.07.05

IRRIGATION PLAN

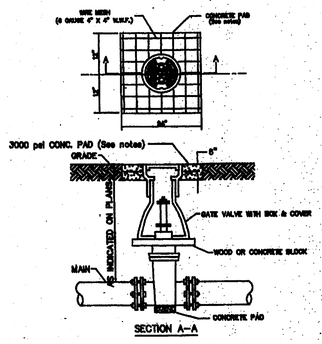
1" = 20'-0"

0 10 20 40 FT

CES Project No. 14202-3

SYM.	EQUIPMENT
O	Rainbird 1800-PRS Series 4" Pop-Up Sprinkler Model No. 1804-PRS. See Plan For Nozzle Size
●	Rainbird 1800-PRS Series 12" Pop-Up Sprinkler Model No. 1812-PRS. See Plan For Nozzle Size
	Rainbird MPR Nozzles
A	5Q – 0.10 gpm @ 30 psi/5' Spacing
B	5H – 0.20 gpm @ 30 psi/5' Spacing
C	5F – 0.41 gpm @ 30 psi/5' Spacing
D	8Q – 0.26 gpm @ 30 psi/8' Spacing
E	8H – 0.52 gpm @ 30 psi/8' Spacing
F	10Q – 0.39 gpm @ 30 psi/10' Spacing
G	10T – 0.53 gpm @ 30 psi/10' Spacing
H	10H – 0.79 gpm @ 30 psi/10' Spacing
J	10F – 1.58 gpm @ 30 psi/10' Spacing
K	12Q – 0.65 gpm @ 30 psi/12' Spacing
L	12T – 0.87 gpm @ 30 psi/12' Spacing
M	12H – 1.30 gpm @ 30 psi/12' Spacing
N	12F – 2.60 gpm @ 30 psi/12' Spacing
P	15Q – 0.92 gpm @ 30 psi/15' Spacing
R	15T – 1.23 gpm @ 30 psi/15' Spacing
S	15H – 1.85 gpm @ 30 psi/15' Spacing
T	15F – 3.70 gpm @ 30 psi/15' Spacing
U	12TT – 1.75 gpm @ 30 psi/12' Spacing
⊠	Irritrol 200B Series, 2" Electric Valve, Model 217B with Manual Flow Control
⊕	2 1/2" Gate Valve (Per City Of Tampa Specifications)

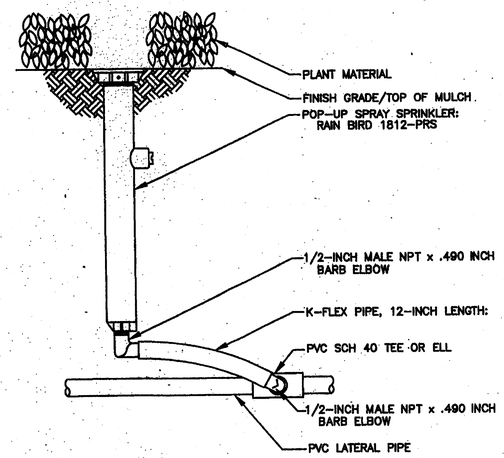
ZONE	GPM	PSI
V1	48.99	30
V2	40.50	30
V3	49.94	30
V4	19.88	30
V5	44.20	30



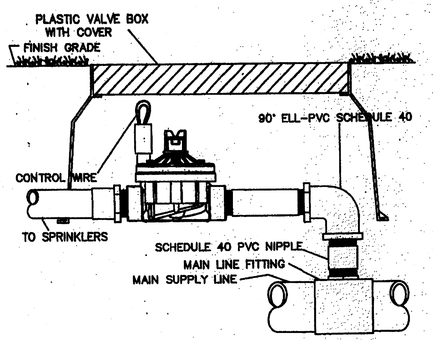
Notes :

1. Pad Required When :
   A. When valve box is installed in pavement (includes roadways,driveways,etc.).
   B. As directed by the Engineer.
2. Cast iron valve boxes shall be firmly supported and maintained centered and plumb over the operating nut of the valve by the contractor with valve box cover flush with the surface of the finished pavement or at such other level as may be directed.

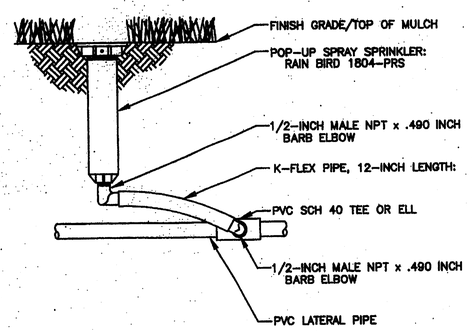
TYPICAL GATE VALVE VALVE BOX AND PAD INSTALLATION



RAINBIRD 1800-PRS 12" POP-UP



IRRITROL 200B SERIES ELECTRIC VALVE



RAINBIRD 1800-PRS 4" POP-UP

WATER SCHEDULE

	WEEK 1	WEEK 2	WEEK 3
SPRAYS	DAILY / (2) CYCLES PER DAY 20 MINUTES PER CYCLE	DAILY / (1) CYCLE PER DAY 20 MINUTES PER CYCLE	(3) CYCLES PER WEEK / (1) CYCLE PER DAY / 20 MINUTES PER CYCLE

NOTE: AFTER WEEK 3, SET WATERING SCHEDULE TO COMPLY WITH ALL LOCAL & STATE WATERING RESTRICTIONS.

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REVISION 2	07.07.04

IRRIGATION SCHEDULES & DETAILS

L3

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DATE 8/26/05

CES Project No. 11999-3

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MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
S/S	STAINLESS STEEL
W/	WITH
	SIGNAL TYPE (AI,AO,DI,DO) FUNCTIONAL DESCRIPTION

CONTROLS SYMBOL LEGEND

SYMBOL	DESCRIPTION
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
T	TEMPERATURE SENSOR/TRANSMITTER
P	PRESSURE SENSOR/TRANSMITTER
CO2	CARBON DIOXIDE SENSOR/TRANSMITTER
TS	THERMOSTAT
	"AND " LOGIC GATE
	THREE INPUT "AND " LOGIC GATE
DO	SIGNAL OUT OF DIGITAL (EMCS) SOFTWARE INTO HARDWARE
DI	SIGNAL OUT OF HARDWARE INTO DIGITAL (EMCS) SOFTWARE
	NOT INPUT LOGIC

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW
CU	CONDENSING UNIT
AM	AIR MONITOR
EF	EXHAUST FAN
AH	SPLIT SYSTEM AIR HANDLER
A	INSERT INDICATES TYPE OF AIR DEVICE (REFER TO SCHEDULE)
	KEY NOTE
Ø	DIAMETER
—C.D.—	DIAMETER

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SUPPLY DUCT (SECTION)
	RETURN/EXHAUST DUCT (SECTION)
	RETURN/EXHAUST AIR
	UNDERCUT DOOR, DOORS SHALL HAVE A 3/4 INCH UNDERCUT. THIS CONTRACTOR SHALL COORDINATE ALL DOOR UNDERCUTS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
	LOUVERED DOOR, DOOR LOUVERS SHALL BE MINIMUM 12" X 12", UNLESS OTHERWISE NOTED ON THE DRAWINGS. THIS CONTRACTOR SHALL COORDINATE ALL DOOR LOUVERS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
D	DROP IN DUCT ELEVATION
	90 DEGREE SQUARE ELBOW WITH TURNING VANES
	DUCT TEE WITH TURNING VANES AND SPLITTER
VD	VOLUME DAMPER
	FLEXIBLE CONNECTION IN DUCT
	BRANCH TAKE OFF WITH SHOE FITTING
	RECTANGULAR TO ROUND TRANSITION (SINGLE LINE)
	SPIN-IN FITTING WITH VOLUME DAMPER
	SPIN-IN FITTING WITH OUT VOLUME DAMPER
M	MOTORIZED DAMPER
S	SMOKE DETECTORS, WITH 6X6 ACCESS DOOR
	RIGID TO FLEXIBLE DUCT TRANSITION
TV	90 DEGREE SQUARE ELBOW WITH TURNING VANES
VD	VOLUME DAMPER
	PIPE DOWN

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	VIBRATION ISOLATOR
	ANGLE GATE VALVE W/ HOSE BIB
	PRESSURE REDUCING VALVE
	3-WAY CONTROL VALVE
	SHUT-OFF VALVE IN VALVE BOX
	COMBINATION MAGNETIC MOTOR STARTER

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ENGINEERING MATRIX, INC.
CONSULTING ENGINEERS

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

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BID DOCUMENTS	02.02.04

Legend - Mechanical

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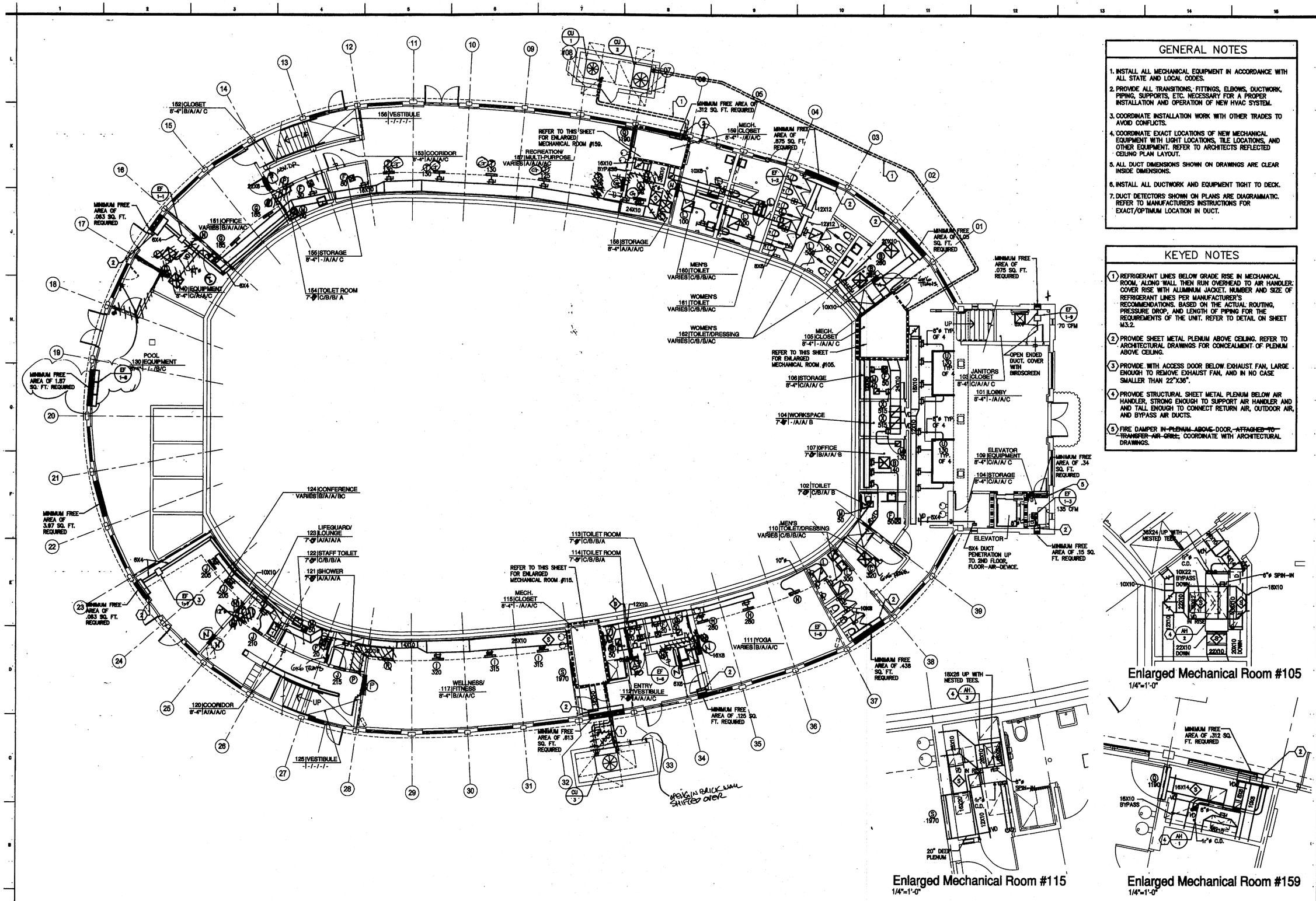
Legend - Mechanical

None



GENERAL NOTES

1. INSTALL ALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
2. PROVIDE ALL TRANSITIONS, FITTINGS, ELBOWS, DUCTWORK, PIPING, SUPPORTS, ETC. NECESSARY FOR A PROPER INSTALLATION AND OPERATION OF NEW HVAC SYSTEM.
3. COORDINATE INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
4. COORDINATE EXACT LOCATIONS OF NEW MECHANICAL EQUIPMENT WITH LIGHT LOCATIONS, TILE LOCATIONS, AND OTHER EQUIPMENT. REFER TO ARCHITECTS REFLECTED CEILING PLAN LAYOUT.
5. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
6. INSTALL ALL DUCTWORK AND EQUIPMENT TIGHT TO DECK.
7. DUCT DETECTORS SHOWN ON PLANS ARE DIAGRAMMATIC. REFER TO MANUFACTURERS INSTRUCTIONS FOR EXACT/OPTIMUM LOCATION IN DUCT.

KEYED NOTES

1. REFRIGERANT LINES BELOW GRADE RISE IN MECHANICAL ROOM, ALONG WALL THEN RUN OVERHEAD TO AIR HANDLER. COVER RISE WITH ALUMINUM JACKET. NUMBER AND SIZE OF REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. BASED ON THE ACTUAL ROUTING, PRESSURE DROP, AND LENGTH OF PIPING FOR THE REQUIREMENTS OF THE UNIT. REFER TO DETAIL ON SHEET M3.2.
2. PROVIDE SHEET METAL PLENUM ABOVE CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR CONCEALMENT OF PLENUM ABOVE CEILING.
3. PROVIDE WITH ACCESS DOOR BELOW EXHAUST FAN, LARGE ENOUGH TO REMOVE EXHAUST FAN, AND IN NO CASE SMALLER THAN 22"X36".
4. PROVIDE STRUCTURAL SHEET METAL PLENUM BELOW AIR HANDLER, STRONG ENOUGH TO SUPPORT AIR HANDLER AND AND TALL ENOUGH TO CONNECT RETURN AIR, OUTDOOR AIR, AND BYPASS AIR DUCTS.
5. FIRE DAMPER ~~IN PLENUM ABOVE DOOR, ATTACHED TO TRANSFER AIR GRILL~~; COORDINATE WITH ARCHITECTURAL DRAWINGS.

Enlarged Mechanical Room #105
1/4"=1'-0"

Enlarged Mechanical Room #115
1/4"=1'-0"

Enlarged Mechanical Room #159
1/4"=1'-0"

First Floor - Mechanical

1/8"=1'-0"

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EMX JOB NO. 02-0202

CUSCADEN POOL RENOVATION

CITY OF TAMPA
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Project No. 0202.00	
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First Floor - Mechanical

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PROJECT NORTH
TRUE NORTH

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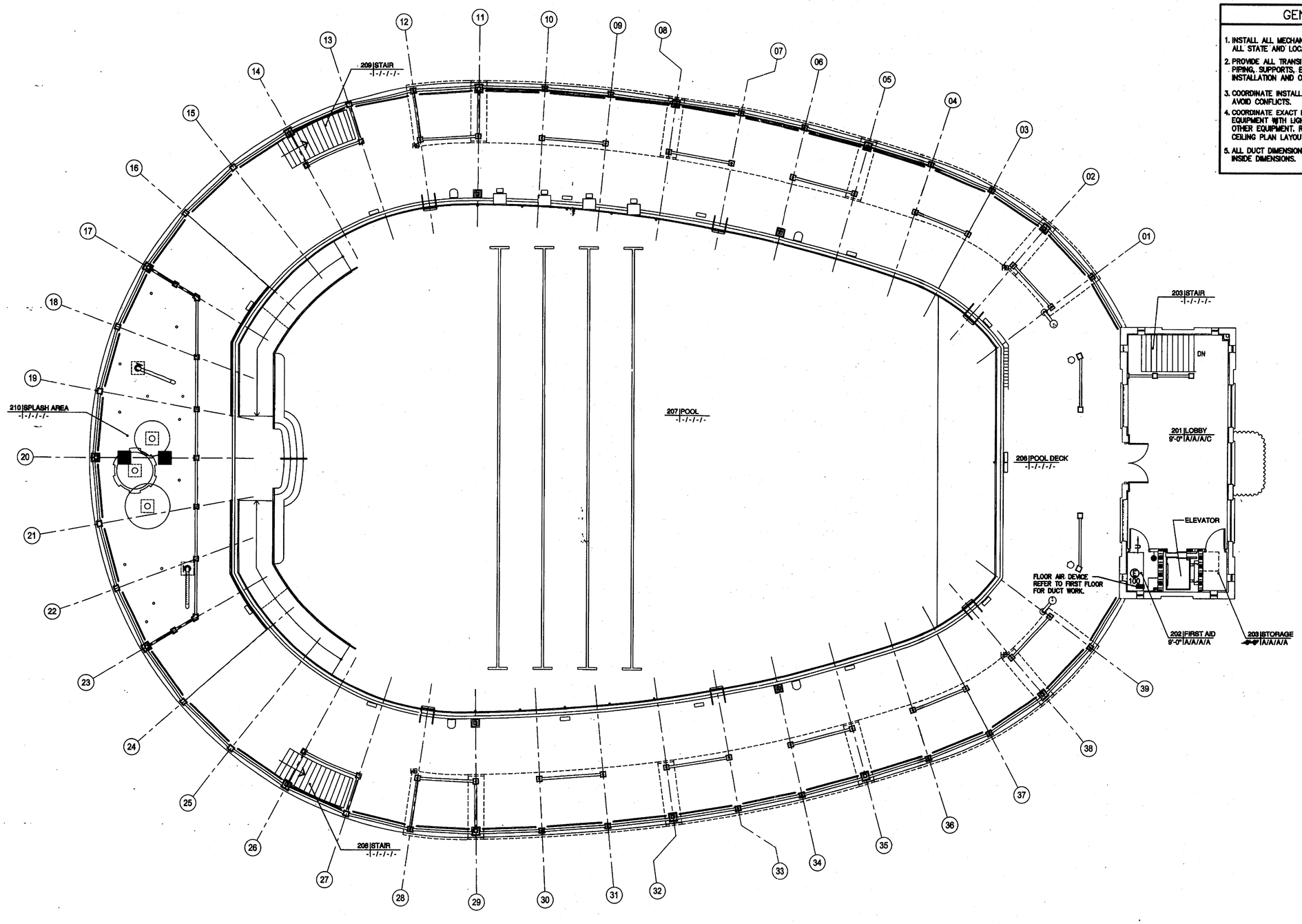

GENERAL NOTES

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2. PROVIDE ALL TRANSITIONS, FITTINGS, ELBOWS, DUCTWORK, PIPING, SUPPORTS, ETC. NECESSARY FOR A PROPER INSTALLATION AND OPERATION OF NEW HVAC SYSTEM.
3. COORDINATE INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
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5. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

Second Floor Pool Deck - Mechanical

1/8"=1'-0"

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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

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BID DOCUMENTS	02.02.04

Second Floor Pool Deck - Mechanical

RECORD DRAWING
DATE 8/26

PROJECT NORTH
TRUE NORTH

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CITY OF TAMPA

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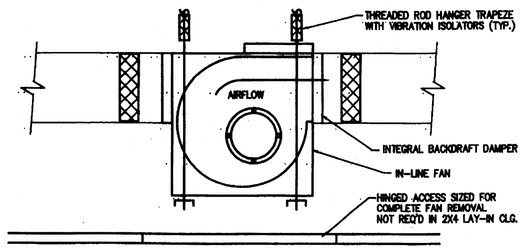

TYPICAL IN-LINE FAN INSTALLATION DETAIL

NO SCALE

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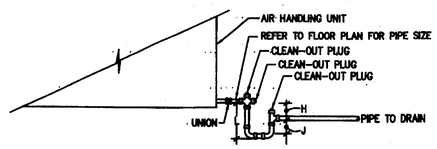
disk no.: j001



TYPICAL CONDENSATE DRAIN/TRAP DETAIL

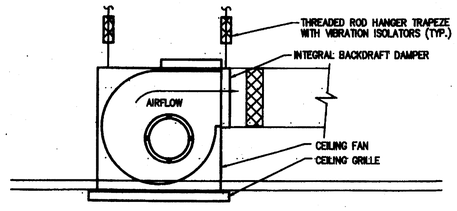
NO SCALE

H = (1" FOR EACH 1" OF MAXIMUM NEGATIVE STATIC PRESSURE) + 1"

J = HALF OF H

L = H + J + PIPE DIAMETER + INSULATION

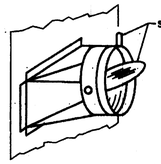
THIS DETAIL IS FOR DIAGRAMMATIC PURPOSES ONLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR PROPER TRAPPING.



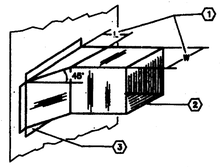
TYPICAL CEILING FAN INSTALLATION DETAIL

NO SCALE

filename: MD52
disk no.: j001

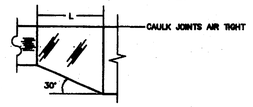


BUCKLEY MODEL 3300
45° BRANCH CONNECTION
NO SCALE (TYPICAL)

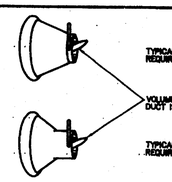


45° BRANCH CONNECTION
NO SCALE (TYPICAL)

1. L = 1/4" W OR 4" MINIMUM
2. TO BRANCH DUCT
3. CAULK AIR-JOINT AIR-TIGHT



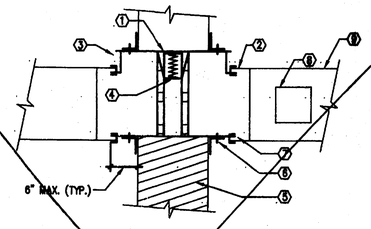
ECCENTRIC TRANSITION
NO SCALE (TYPICAL)



TYPICAL BRANCH TAKE -OFF DETAILS

NO SCALE

filename: MD55
disk no.: j002



1. 1/8" PER FOOT MIN. CLEARANCE HEIGHT AND WIDTH U.O.N. IN THE LISTING OF THE ASSEMBLY.
2. EXPAND DUCT SO THAT FIRE DAMPER DOES NOT REDUCE AIR FLOW
3. APPLY SEALANT TO JOINT ALL AROUND BOTH SIDES OF WALL WITH AN APPROVED CAULKING MATERIAL
4. VERTICAL GUILLOTINE TYPE FIRE DAMPER WITH U.L. RATING AND STAMP.
5. FIRE RATED WALL.
6. MOUNTING ANGLE, OVERLAP WALL OPENING BY 1" MINIMUM.
7. FASTEN DUCT TO SLEEVE WITH BREAKAWAY CONNECTION
8. FIRE DAMPER ACCESS DOOR WITH CAM LATCH.
9. DUCTWORK - REFER TO PLANS FOR SIZE AND CONTINUATION

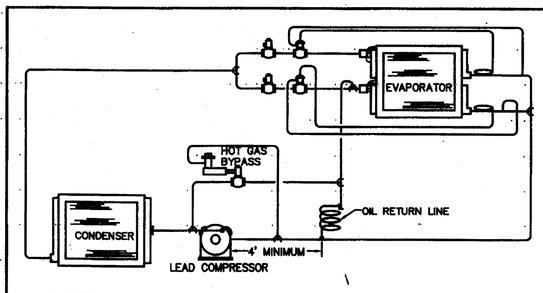
NOTE:

INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURE'S INSTALLATION INSTRUCTIONS, UL555 & UL555S DAMPER AND RESPECTIVE ACTUATORS SHALL BE U.L. TESTED AND LABELED AS AN ASSEMBLY.

TYPICAL FIRE DAMPER DETAIL

NO SCALE

filename: MD56
disk no.: j002



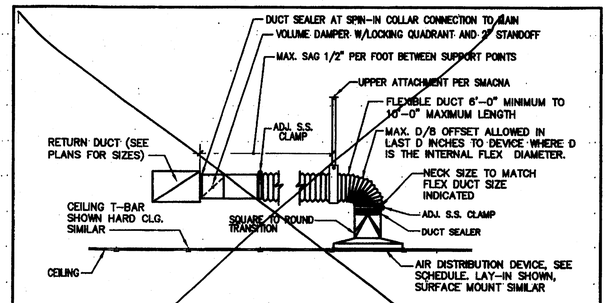
HOT GAS BYPASS TO EVAPORATOR INLET DETAIL

NO SCALE

filename: MD16
disk no.: j001

NOTES:

1. INSULATE THE FULL LENGTH OF THE HOT GAS BYPASS LINE.
2. THE BYPASS LINE MUST BE ROUTED IN A MANNER THAT WILL NOT PERMIT OIL TRAPPING.
3. HOT GAS LINE SHALL BE A MAXIMUM OF 35 FEET IN LENGTH. RUNS OF OVER 35 FEET SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. SIZE ALL REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDED SIZES.



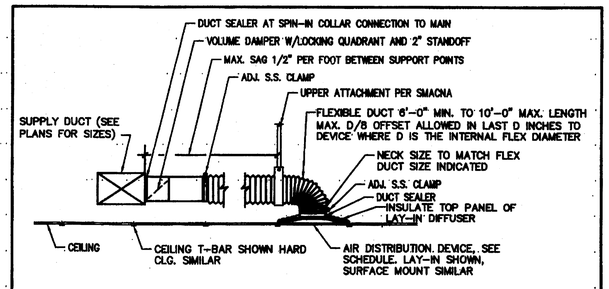
TYPICAL RETURN FLEXIBLE DUCT DETAIL

NO SCALE

filename: MD90
disk no.: j001

FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0



TYPICAL SUPPLY FLEXIBLE DUCT DETAIL

NO SCALE

filename: MD91
disk no.: j003

FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0

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CERT. OF AUTHORIZATION NO. 4800 EMI JOB NO. 03-3640

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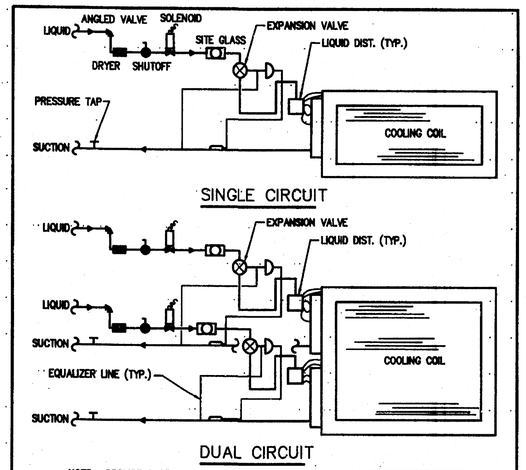
Details - Mechanical

None

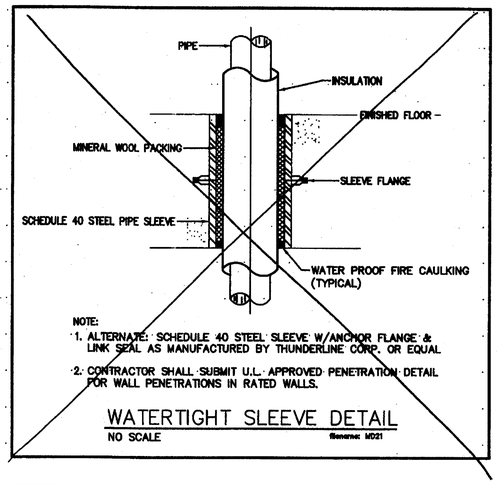


NOTE: PROVIDE SUCTION AND LIQUID LINES PER CU MANUFACTURER RECOMMENDATION

TYPICAL DX COIL PIPING DIAGRAM

NO SCALE

filename: MD36



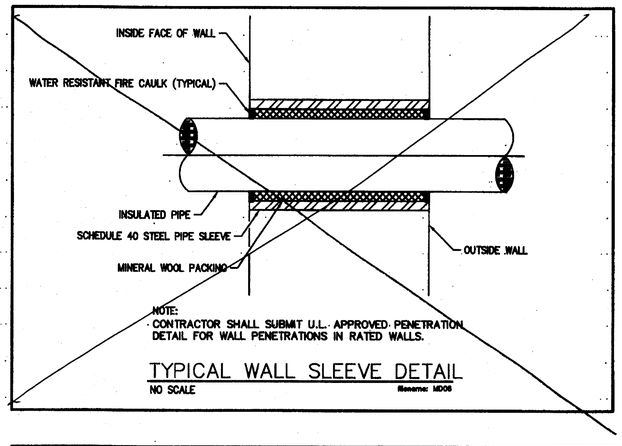
NOTE:

1. ALTERNATE: SCHEDULE 40 STEEL SLEEVE W/ANCHOR FLANGE & LINK SEAL AS MANUFACTURED BY THUNDERLINE CORP. OR EQUAL.
2. CONTRACTOR SHALL SUBMIT U.L. APPROVED PENETRATION DETAIL FOR WALL PENETRATIONS IN RATED WALLS.

WATERTIGHT SLEEVE DETAIL

NO SCALE

filename: MD21

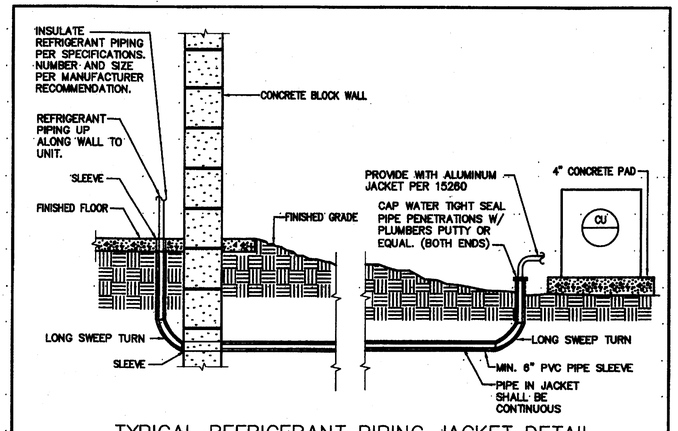


NOTE:
CONTRACTOR SHALL SUBMIT U.L. APPROVED PENETRATION DETAIL FOR WALL PENETRATIONS IN RATED WALLS.

TYPICAL WALL SLEEVE DETAIL

NO SCALE

filename: MD06



TYPICAL REFRIGERANT PIPING JACKET DETAIL

NO SCALE

filename: MD110
disk no.: jf02

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CERT. OF AUTHORIZATION NO. 4355 EMI JOB NO. 03-0040

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

Details - Mechanical

RECORD DWG
DATE 8/26/05

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M302

Details - Mechanical

None

FAN SCHEDULE

MARK	–	EF 1–1	EF 1–2	EF 1–3	EF 1–5	EF 1–6	EF 1–7	EF 1–8	EF 1–9
MANUFACTURER	–	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER	–	CSP–A200	CSP–A1410	SP–A290	CSP–A700	CSP–A250	CSP–A200	SE1–18–429–B4	CSP–B110
SERVICE	–	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST
AIR QUANITITY	CFM	50	700	135	350	100	50	1590	70
EXT. STATIC PRESSURE	IN H_2O	.42	.52	.4	.47	.46	.44	.1	.4
FAN TYPE	–	FC	FC	FC	FC	FC	FC	PROP	FC
DRIVE TYPE	–	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MAXIMUM GENERATED NOISE	SONES	.2	3.6	2	.9	1	.3	3.9	.2
MAXIMUM FAN SPEED	RPM	900	1450	829	785	1000	900	1160	727
MOTOR SIZE	–	48 W	822 W	81 W	350 W	83 W	48 W	1/4 HP	80 W
CONTROLS	–	INTERLOCK W/ AH–1	INTERLOCK W/ AH–3	INTERLOCK W/ AH–2	INTERLOCK W/ AH–2	INTERLOCK W/ AH–3	INTERLOCK W/ AH–3	INTERLOCK W/ THERMOSTAT	INTERLOCK W/ AH–2
LOCATION	–	ABOVE CEILING	ABOVE CEILING	ABOVE CEILING	ABOVE CEILING	ABOVE CEILING	ABOVE CEILING	MOUNTED IN WALL	ABOVE CEILING
ELECTRICAL CHARACTERISTICS	V/ø/HZ	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60
NOTES	–	①②③④	①②③④	①②③④	①②③④	①②③④	①②③④	①②③④⑤	①②③④

NOTE:

① PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO FAN.

② PROVIDE FAN WITH GRAVITY BACKDRAFT DAMPER. REFER TO STANDARD MECHANICAL DETAILS FOR FURTHER DETAILS.

③ PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.

④ PROVIDE FAN WITH SPEED CONTROLLER. MOUNT SPEED CONTROLLER IN 2X4 METALLIC BOX ADJACENT TO FAN IN CEILING. TEST AND BALANCE CONTRACTORS SHALL ADJUST FAN PERFORMANCE THROUGH USE OF SPEED CONTROLLER.

⑤ PROVIDE WITH CHLORINE RESISTANT FINISH, AND OSHA GUARD.

SPLIT SYSTEM A/C SCHEDULE

AIR HANDLING UNIT DATA				
MARK	–	AH–1	AH–2	AH–3
MANUFACTURER	–	TRANE	TRANE	TRANE
MODEL	–	TWE090A3	TWE120B3	TWE090A
TOTAL COOLING CAPACITY	MBH	83.02	120.0	105.2
SENSIBLE CAPACITY	MBH	48.28	64.01	69.3
SUPPLY AIR QUANTITY	CFM	2600	4200	2460
OUTSIDE AIR QUANTITY	CFM	410	1060	490
MOTOR SIZE	HP	2	3	2
ELECTRICAL	V/ø/HZ	208/3/60	208/3/60	208/3/60
E.E.R.	–	11.6	11.5	–
ENTERING AIR TEMP. DB/WB	°F /°F	70.25/63.3	69.8/64.6	79.6/67.0
LEAVING AIR TEMP. DB/WB	°F /°F	53.14/52.35	55.75/55.24	54.8/53.1
EXT. STATIC PRESSURE	IN. W.C.	1.5	1.5	1.5
FILTER	–	1" PLEATED	1" PLEATED	1" PLEATED
WEIGHT	–	435	485	435
ELECTRIC HEAT	KW	11.25	26.2	18.71
CONDENSING UNIT DATA				
MARK	–	CU–1	CU–2	CU–3
MANUFACTURER	–	TRANE	TRANE	TRANE
MODEL	–	TTA090A3	TTA120B3	TTA120C
OUTDOOR TEMPERATURE	°F	95	95	95
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60	208/3/60	208/3/60
MIN. CKT. AMPS	–	34.5	47.9	49.4
NOTES:	–	①②	①②	①

Filename: sch–26

KEYED NOTE:

① PROVIDE WITH NECESSARY CONTROLS TO CONNECT TO MAIN BUILDING MANAGEMENT SYSTEM; AUTO CHANGEOVER TO COOLING MODE; REMOTE THERMOSTAT SETPOINT; ROOM TEMPERATURE SENSOR.

② PROVIDE HOT GAS BYPASS ON THE LEAD COMPRESSOR.

VENTILATION SCHEDULE

UNIT NUMBER	NUMBER OF PEOPLE	CFM/PERSON	TOTAL	EXHAUST AIR	PRESSURIZATION	TOTAL	TOTAL DESIGN VALUE
AH–1	12	20	240	170	240	410	410
AH–2	2	20	40	770	290	1060	1060
AH–3	32	15	480	315	175	490	490

Filename: sch37

AIR DEVICE SCHEDULE

MARK	FACE SIZE	NECK SIZE	MATERIAL	ACCESSORIES	FINISH	MANUFACTURER AND MODEL	NOTES
A	24X24	6"ø	ALUMINUM	–	–	TITUS–TMS	①②
B	24X24	8"ø	ALUMINUM	–	–	TITUS–TMS	①②
C	24X24	10"ø	ALUMINUM	–	–	TITUS–TMS	①②
D	24X24	12"ø	ALUMINUM	–	–	TITUS–TMS	①②
E	14X6	12X4	ALUMINUM	⑧	–	TITUS–CT–PP–0	⑤
F	12X12	10X10	ALUMINUM	–	–	TITUS–TDC–AA	①②
G	10X10	8X8	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–300FL	②
H	14X10	12X8	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–300FL	②
I	20X8	18X6	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–300FL	②
J	14X8	12X6	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–300FL	②
L	24X24	22X22	ALUMINUM	–	–	TITUS–50F	③④⑧
M	12X12	10X10	ALUMINUM	–	–	TITUS–50F	③④⑧
N	20X12	18X10	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–350FL	②④
P	26X14	24X12	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–350FL	②④
Q	~~36X16~~ ~~CURVE~~	~~36X14"~~ ~~16X24~~	ALUMINUM	–	–	TITUS–350FL	②④
R	20X14	18X12	ALUMINUM	O.B.D. AG–15–AA	–	TITUS–350FL	②④
S	44X38	42X36	ALUMINUM	–	–	TITUS–350FL	②④
U	48"X1SLOT	8"ø	ALUMINUM	MP–39–LP MITER CORNER	–	TITUS–ML–39	②④⑨
W	38X8	36X6	ALUMINUM	–	–	TITUS–350FL	④
X	24X12	22X10	ALUMINUM	–	–	TITUS–50F	④⑤

KEY NOTES:

① FLEX DUCT SIZE TO MATCH NECK SIZE. MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0", BALANCE OF DUCT SHOWN ON PLAN SHALL BE RIGID STEEL DUCT SAME SIZE AS NECK SIZE, EXTERNALLY INSULATED.

② PROVIDE RUNOUT BRANCH DUCT TO AIR DEVICE SAME SIZE AS AIR DEVICE NECK UNLESS OTHERWISE NOTED ON PLANS. PROVIDE O.B.D MODEL # AG–15–AA FOR AIR DEVICES IN HARD CEILING.

③ ALUMINUM 1 X 1 X 1 GRID

④ AIR DEVICES USED FOR THE TRANSFER OF AIR DO NOT REQUIRE O.B.D. OR FILTER. PROVIDE O.B.D MODEL # AG–15–AA FOR AIR DEVICES IN HARD CEILING.

⑤ PROVIDE WITH SHEETMETAL PLENUM 12 INCHES DEEP X FACE DIMENSION FOR TRANSITION OF LOUVER TO DUCT.

⑥ HORIZONTAL RUNOUT BRANCH DUCTS SERVING A SINGLE AIR DEVICE WITH 200 CFM OR LESS SHALL BE 8"ø RIGID STEEL DUCT AND TRANSITION TO 8"ø FLEX DUCT PRIOR TO AIR DEVICE, 200 TO 600 C.F.M. SHALL BE 12"ø RIGID STEEL DUCT AND TRANSITION TO 12"ø FLEX DUCT PRIOR TO AIR DEVICE, UNLESS OTHERWISE NOTED. MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0".

⑦ HORIZONTAL RUNOUT BRANCH DUCT SHALL BE 6"ø RIGID STEEL DUCT AND TRANSITION TO 6"ø FLEX PRIOR TO AIR DEVICE. MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0".

⑧ PROVIDE FRAME TYPE 5 WITH C2 MOUNTING CONFIGURATION.

⑨ PROVIDE FACTORY SUPPLIED LOW PROFILE PLENUM. WRAP EXTERIOR OF PLENUM WITH TYPE A INSULATION. PROVIDE FILLER PANELS AS INDICATED IN ARCHITECTURAL DRAWINGS. COLOR SHALL BE DETERMINED BY ARCHITECT.

GENERAL NOTES:

1. ALL UNITS FOR LAY–IN T–BAR GRILLE SHALL BE PROVIDED WITH TYPE 3 BORDER CEILING MODULE (24X24).
2. ALL AIR DEVICES SHALL HAVE PAINTED WHITE FINISH UNLESS COLOR COORDINATED WITH ARCHITECT.
3. ALL 24X24 FACE AIR DEVICES INSTALLED IN HARD CEILINGS SHALL BE PROVIDED WITH T–BAR FRAME FOR PLASTER OR GYPSUM CEILINGS.
4. PROVIDE SQUARE TO ROUND TRANSITIONS AS REQUIRED FOR COORDINATION OF DUCT AND AIR DEVICE NECK.
5. COORDINATE FRAME TYPE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLAN.
6. INSULATE THE TOPS OF ALL SUPPLY AIR DEVICES, REFER TO SPECIFICATIONS.
7. AIR DEVICES LOCATED IN HARD CEILINGS SHALL BE EQUIPPED WITH AN OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.

PRESSURE TABLE

UNIT NUMBER	VENTILATION AIR	TOTAL EXHAUST	MAKE UP FROM OTHER SYSTEM	RELATIVE PRESSURE
AH–1	410	50	–120	+240
AH–2	1060	485	+285	+290
AH–3	490	150	–165	+175

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CERT. OF AUTHORIZATION NO. 4386 INT. JOB NO. 03-3543

CUSCADEN POOL RENOVATION

CITY OF TAMPA
308 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
BID DOCUMENTS	02.02.04

Schedules - Mechanical

RECORD DWG.
DATE 8/26/05

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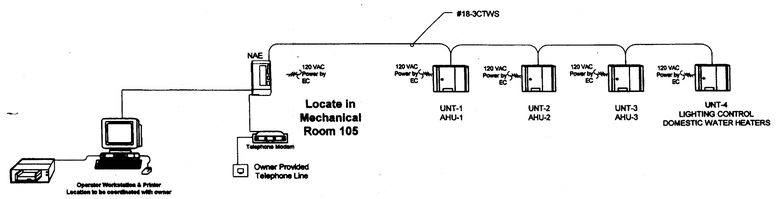
M401

Schedules - Mechanical

None

Network Riser Diagram



AS-BUILT 6/2/2005

Bill of Materials

Designation	Qty	Part Number	Description
CPU	1	CPU	CENTRAL PROCESSING UNIT, WITH KEY BOARD, MOUSE AND MONITOR
MS-NAE3510-1	1	MS-NAE3510-1	NETWORK AUTOMATION ENGINE (MAIN CONTROLLER
ENCLOSURE	1	EN-EWC35-0	MASTER CONTROL ENCLOSURE
MODEM	1	ZOOM-2949	EXTERNAL MODEM 56K

INSTALLATION NOTES:
1. N2 BUS shall be daisy chained. T-Tapping is absolutely unacceptable.
2. All 120 volt wiring by Div. 16. QBC to field coordinate with electrician exact location of 120VAC for controls.

NOTES:
1. Coordinate the location of N30 with electrician and owner.
2. A single enclosure shall house DDC controllers for each air handling Unit unless noted otherwise.
3. The owner shall provide a phone line adjacent to the master control panel (N30).
4. All wiring shall be in twisted shielded pairs.

Instrument and Control Color Codes

Type:	Color:
24 + VAC Power	White
24 - VAC Common	Black
Sensor Signal	White
Sensor Common	Black
Sensor Power	Red

Drawing Title: Network Riser Diagram
Project Title: Cuscaden Pool Renovations
QBC Quality Building Contractors, 6089 Johns Rd. Suite 6, Tampa FL 33634, Phone: (813)885-5005, Fax: (813)243-4405
Contract Number: 2004-40
Drawing Number: 1

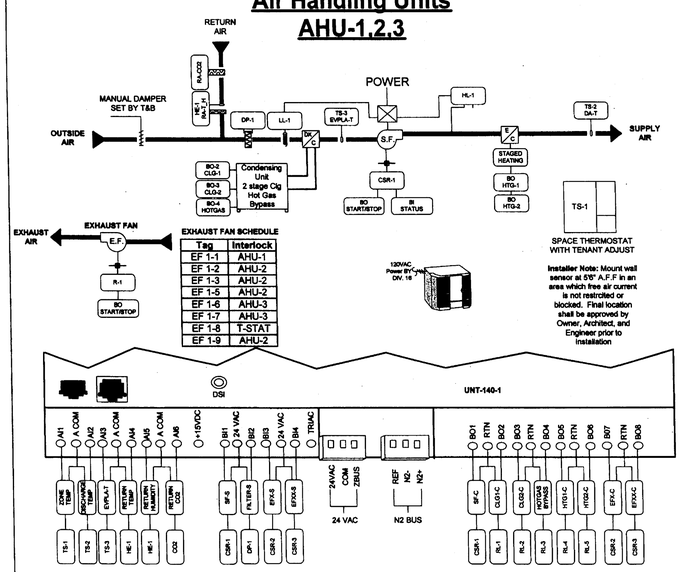
Contract Name : Cuscaden Pool Renovations
Contract Number : 2004-40

Room Schedule

AS-BUILT 6/2/2005

Location					Room Controller/Sensor								Reheat Valve						Box Information								Actuator Information				
	Room					Controller					Sensor			Valve	Size	Valve	Flow	Delta P	Box Type												
Bldg./Flr.	No.	Name	System Name	Ref. dwg.	Pt Sched N2 Addr	Code No.	N30 Addr	N2 Trunk	N2 Addr	CS Model	Code No.	Device Code	Body Style	in.	Cv	GPM lb/hr	psi	Box ID	Box Type	K Factor	Inlet Size (inches)	Inlet Size (Area)	Clg Min Flow	Clg Max Flow	VMA Box Config	Code No.	Range	Type		Comments
MECH RM	159	AHU-1	AHU-1	M201	1	AS-UNT140	1	1	1																					
MECH RM	105	AHU-2	AHU-2	M201	2	AS-UNT140	1	1	2																					
MECH RM	115	AHU-3	AHU-3	M201	3	AS-UNT140	1	1	3																					
MECH RM		LIGHTING/BOILER	LIGHTING/BOILER	M501	4	AS-UNT140	1	1	4																					

Air Handling Units AHU-1,2,3



EXHAUST FAN SCHEDULE	
Tag	Interlock
EF 1-1	AHU-1
EF 1-2	AHU-2
EF 1-3	AHU-2
EF 1-5	AHU-2
EF 1-6	AHU-3
EF 1-7	AHU-3
EF 1-8	T-STAT
EF 1-9	AHU-2

AS-BUILT 6/2/2005

Bill of Materials

Designation	Qty	Part Number	Description
CSR-1	3	H-938	SENS,CURR,1A @30V,1/3HP,CMND RELAY,SPLI
CSR-2,3	7	H120	SWITCH, CURRENT, RELAY COMB SPST
CO2	3	CDL8X0X	VERIS SENSOR,CO2, 0-2000PPM,DUCT MOUNT
HE-1	3	HE-67N2-0N00P	SENSOR,2%RH-8.1K NI TEMP,DUCT-PROBE
HL-1	3	AFS-460	AIR FLOW SW,SPST,NC RESET 0.05-12IN
LL-1	3	A19ABC-14C	STAT,8FT CAP,SPDT,-30/100F, MANUAL RESET
	3	FTG13A-600R	PACKIN G NUT,WELL ,1/2IN NPT
RL-1-5	15	MR-801/T	SPDT RELAY, LED, 120/24 VAC
TS-1	3	AP-TMZ1600-0	ROOM SENSOR W/LCD DISPLAY
TS-2,3	6	TE-6311P-1	SENSOR,T-NI,0.1%,8IN DUCT
UNT	3	AS-UNT140-101	CNTRLR,DIG,UNT,8AI,4BI,8BO,SCR,ENCL,50VA

Sequence of Operations

AHU-1,2,3 Control

Occupied Mode:

Weekly Schedule will be accomplished by the supervisory network controller with a Operator Workstation.

The AHU supply fan shall start on the weekly schedule times as provided by the owner. Upon supply fan status, the temperature control sequences shall commence. The stages of cooling shall be controlled to maintain a space temperatureset point of (75 deg F adj.), and heating shall be controlled to maintain a space temperature set point of (68 deg F adj.).

A high limit and a low limit sensor will be provided as safeties to shutdown the AHU in case of an alarm conditon.

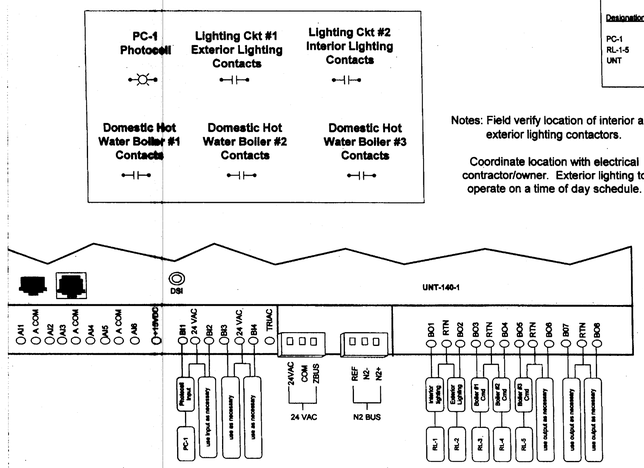
Unoccupied Mode:

The AHU fan shall remain off, stages of cooling and heating shall remain off, and exhaust fan(s) off. If the space temperature served by an individual AHU exceeds the unoccupied cooling set point (82 deg F adj.), or drop below the unoccupied heating set point (62 deg F adj.), the AHU shall run until the unoccupied differential (4 deg F adj.) is satisfied.

AHU-1 MECH RM 159
AHU-2 MECH RM 105
AHU-3 MECH RM 115

Drawing Title: Air Handling Unit Control
Project Title: Cuscaden Pool Renovations
QBC Quality Building Contractors, 6089 Johns Rd. Suite 6, Tampa FL 33634, Phone: (813)885-5005, Fax: (813)243-4405
Contract Number: 2004-40
Drawing Number: 2

Lighting Control & Domestic Hot water Boiler



BILL OF MATERIALS

Designation	Qty	Part Number	Description
PC-1	1	MK7-B-CR	PHOTOCELL SENSOR
RL-1-5	5	MR-801/T	SPST 24VAC RELAY W/LED
UNT	1	AS-UNT140-101	CNTRLR,DIG,UNT,8AI,4BI,8BO,SCR,ENCL,50VA

Notes: Field verify location of interior and exterior lighting contactors.

Coordinate location with electrical contractor/owner. Exterior lighting to operate on a time of day schedule.

AS-BUILT 6/2/2005

Drawing Title: Miscellaneous Control
Project Title: Cuscaden Pool Renovations
QBC Quality Building Contractors, 6089 Johns Rd. Suite 6, Tampa FL 33634, Phone: (813)885-5005, Fax: (813)243-4405
Contract Number: 2004-40
Drawing Number: 3

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PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	ABBREV.
TP	TRAP PRIMER	
A.F.F.	ABOVE FINISHED FLOOR	
CONT.	CONTINUATION	
DW	DISHWASHER	
DWG	DRAWING	
HC	HANDICAPPED	
N.I.C.	NOT IN CONTRACT	
N.T.S.	NOT TO SCALE	
RWL	RAIN WATER LEADER	
VTR	VENT THROUGH ROOF	
PC	PLUMBING CONTRACTOR	
GC	GENERAL CONTRACTOR	
FB	FROM BELOW	
FA	FROM ABOVE	
BF	BELOW FLOOR	
BG	BELOW GRADE	
I.E.	INVERT ELEVATION	
W.F.U.	WATER FIXTURE UNIT	
D.F.U.	DRAINAGE FIXTURE UNIT	
(E)	EXISTING CONDITION	
(N)	NEW CONDITION	

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	ABBREV.
OF	OVERFLOW DRAIN ABOVE CEILING	OF
CD	CONDENSATE DRAIN ABOVE CEILING	CD
CD	CONDENSATE DRAIN	CD
ST	STORM ABOVE CEILING	ST
ST	STORM BELOW SLAB	ST
S	SANITARY SEWER ABOVE CEILING	SAN
S	SANITARY SEWER BELOW SLAB	SAN
GW	GREASE WASTE	GW
V	VENT PIPING	V
	COLD WATER PIPING	C.W.
	HOT WATER PIPING	H.W.
140°	HOT WATER PIPING (140°F)	H.W.
	HOT WATER RECIRULATING	HWR
	DIRECTION OF FLOW	
G	GAS PIPING	G.
	SWING CHECK VALVE	C.V.
	SHUTOFF VALVE	
	SOLENOID VALVE	
	BALANCING VALVE	B.V.
	PRESSURE REGULATING VALVE	P.R.V.
	ELBOW TURNED DOWN	DN.
	ELBOW TURNED UP	UP
	TEE TURNED UP	UP
	TEE TURNED DOWN	DN.
WCO	WALL CLEANOUT	FCO
FCO	FLOOR CLEANOUT	FCO
ECO	EXTERIOR CLEANOUT	EXT. C.O.
	PRESSURE & TEMPERATURE RELIEF VALVE (AGA RATED)	P.T.V.
	VENT THROUGH ROOF	VTR
	FLOOR DRAIN	FD
	AREA DRAIN	
	ROOF DRAIN	RD
	ROOF DRAIN ABOVE	RD
HB	HOSE BIB	HB
	CONNECT TO EXISTING UTILITIES	
	WATER HAMMER ARRESTOR	
	INSERT INDICATES DETAIL NUMBER INSERT INDICATES SHEET NUMBER	
	INSERT INDICATES RISER NUMBER INSERT INDICATES SHEET NUMBER	
	SHUTOFF VALVE IN VALVE BOX	
00.00'	INVERT ELEVATION	
	SQUARE FOOTAGE	

PLUMBING GENERAL NOTES

1. RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
2. VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.
3. SANITARY PIPING 2" SHALL HAVE A 1/4" PER FT. SLOPE. PIPING 3" & LARGER SHALL HAVE A 1/8" PER FT. SLOPE MINIMUM.
4. COORDINATE SANITARY VENTS WITH HVAC O.A. INTAKES. PROVIDE AT LEAST 10'-0" DISTANCE FROM VENT STACKS AND INTAKE VENTS.
5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
6. COORDINATE ALL WORK WITH OTHER TRADES.
7. FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED. SHOCK ARRESTORS SHALL BE INSTALLED ON ALL TOILET ROOM GROUPS IN THE BRANCH SUPPLY FOR HOT AND COLD WATER PIPE AS PER STANDARD PDI-WH201 AND AS DESCRIBED ON THE FIXTURE SCHEDULE. PROVIDE ISOLATION VALVE, INSTALL IN CEILING AND PROVIDE ACCESS PANELS IN THE CEILING AS REQUIRED FOR ACCESSABILITY AND MAINTENANCE.
9. RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS. REFER TO DETAILS.
10. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
11. RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
12. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
13. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES EXCEPT AS SPECIFICALLY NOTED, OR IN MECHANICAL ROOMS.
14. PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON- ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
15. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE LOCATIONS, MOUNTING HEIGHTS, AND DIMENSIONS.
16. PROVIDE A PRE MANUFACTURED DRAIN INSULATING COVER ON ALL SINKS AND LAVATORIES DESIGNATED AS A HANDICAP FIXTURE. REFER TO PLUMBING DRAWINGS AND THE ARCHITECTS DRAWINGS FOR DESIGNATIONS.
17. VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINE.
18. INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
19. ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIPMENT ACCORDING TO MANUFACTURER'S SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED. INSTALL VACUUM BREAKERS WHERE REQUIRED BY CODE.
20. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS FOR DOMESTIC WATER SUPPLIES AS REQUIRED BY LOCAL WATER PURVEYORS.
21. DO NOT PENETRATE WALL FOOTINGS WITH PIPING. COORDINATE WITH GENERAL CONTRACTOR TO DROP FOOTINGS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ANY PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER.
22. MAKE ALL FINAL CONNECTIONS TO FIXTURES.

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CUSCADEN POOL RENOVATION

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Legend - Plumbing

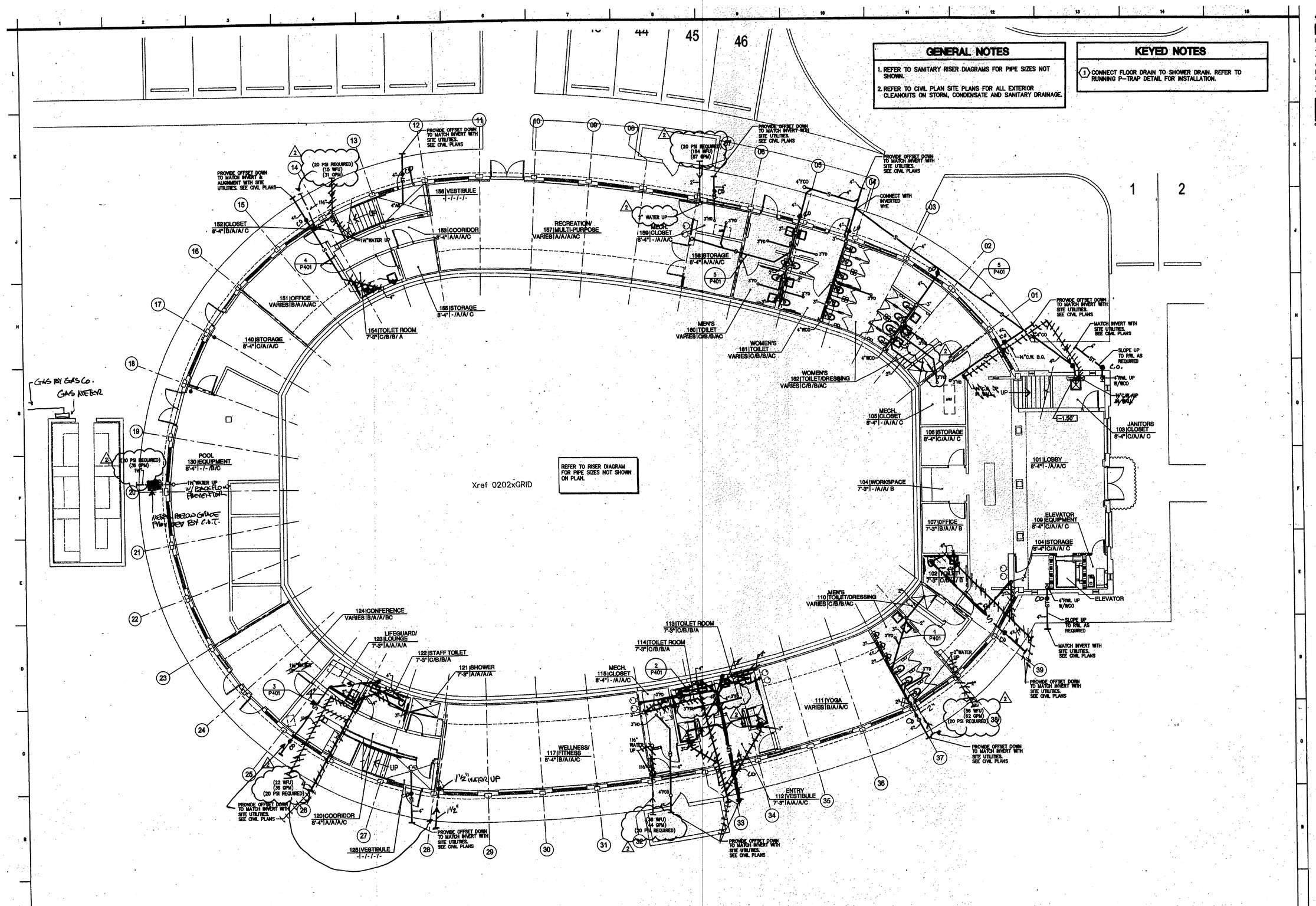
NOT TO SCALE

GENERAL NOTES

1. REFER TO SANITARY RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN.
2. REFER TO CIVIL PLAN SITE PLANS FOR ALL EXTERIOR CLEANOUTS ON STORM, CONDENSATE AND SANITARY DRAINAGE.

KEYED NOTES

1. CONNECT FLOOR DRAIN TO SHOWER DRAIN. REFER TO RUNNING P-TRAP DETAIL FOR INSTALLATION.



Underground Plan - Plumbing

1/8"=1'-0"

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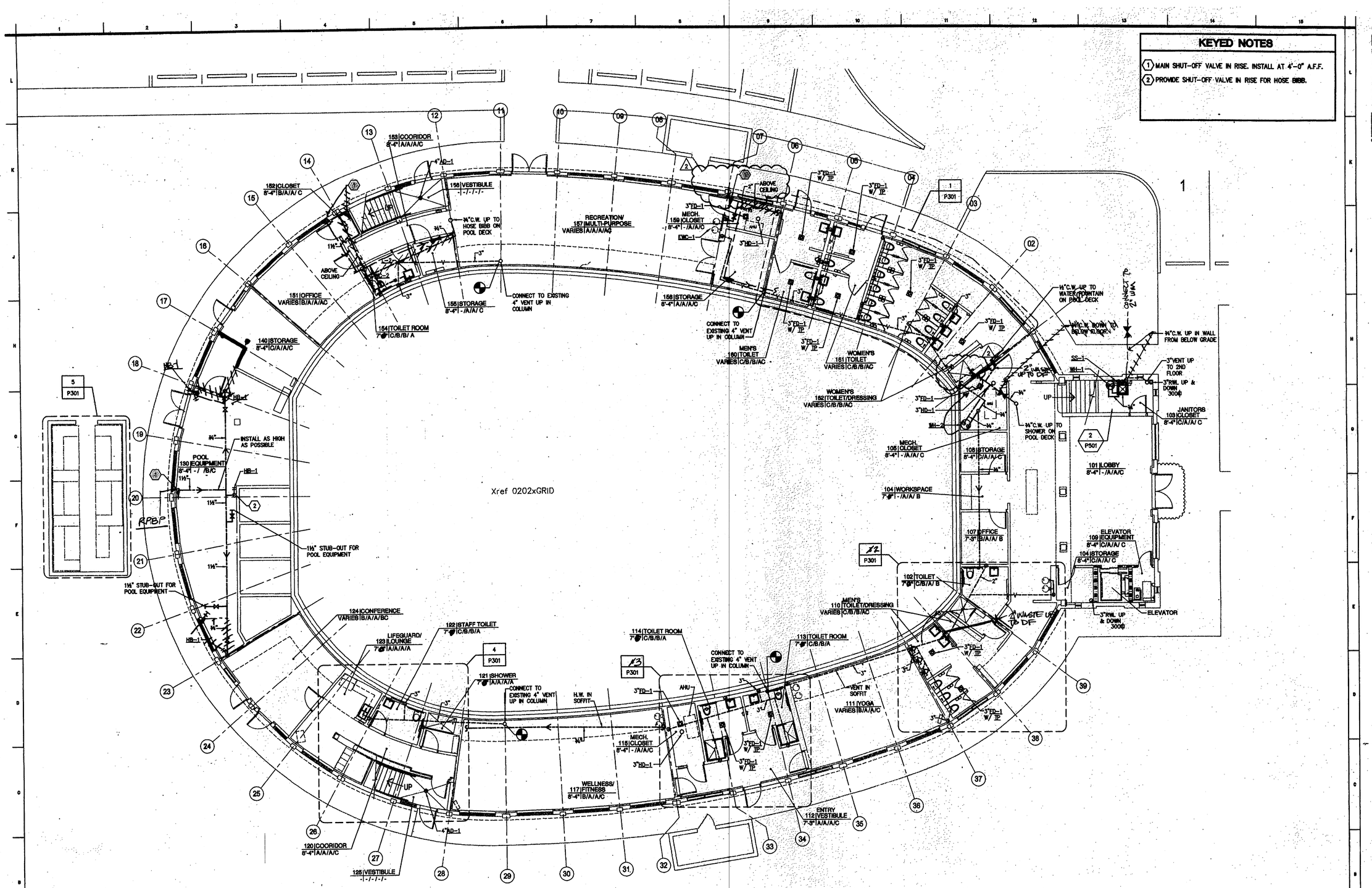
KEYED NOTES

1. MAIN SHUT-OFF VALVE IN RISE. INSTALL AT 4'-0" A.F.F.
2. PROVIDE SHUT-OFF VALVE IN RISE FOR HOSE BIBB.



FLOOR PLAN - First Floor PLUMBING

1/8"=1'-0"

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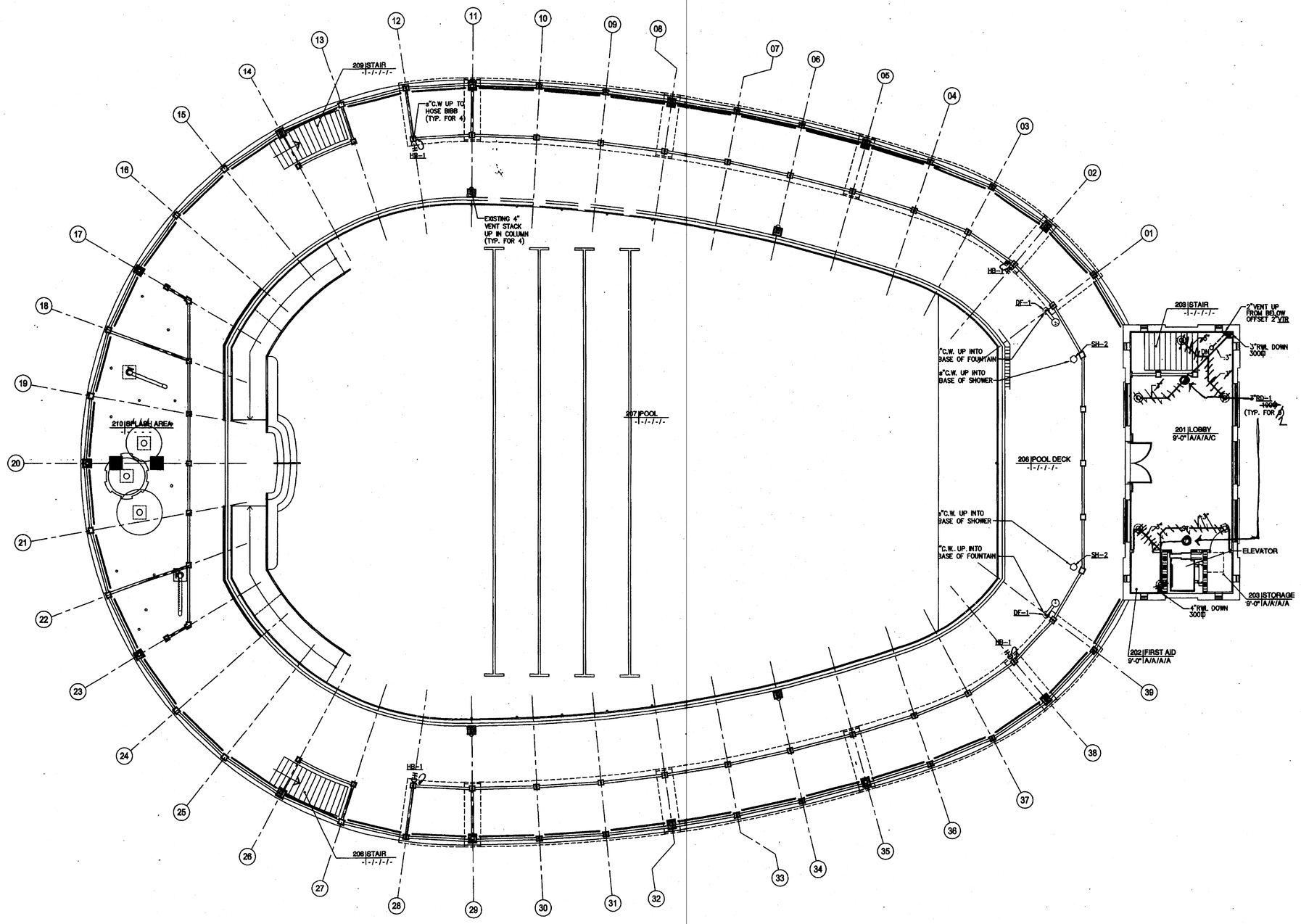

Floor Plan - Second Floor Pool Deck - Plumbing

1/8"=1'-0"

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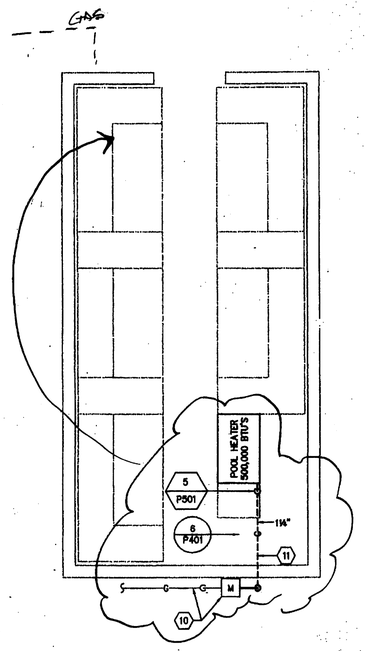
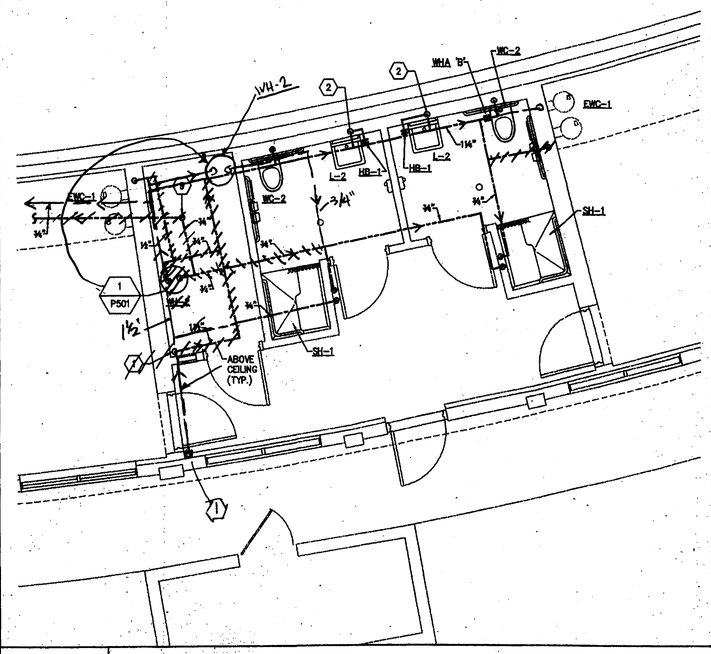


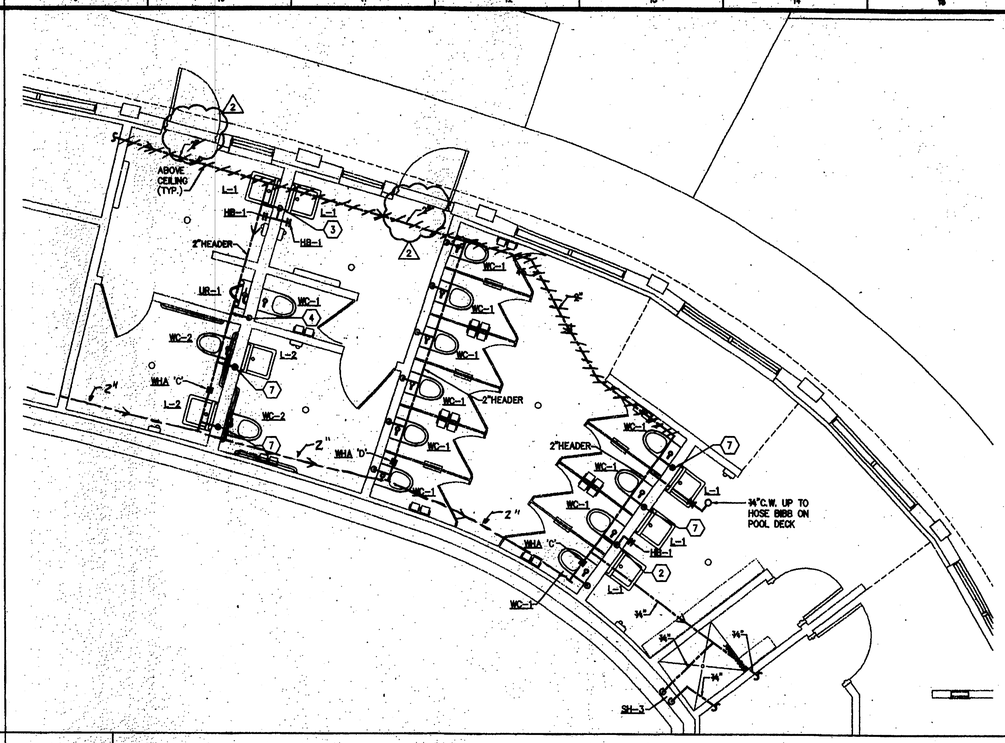
5 Pool Equipment Plan

1/4"=1'-0"



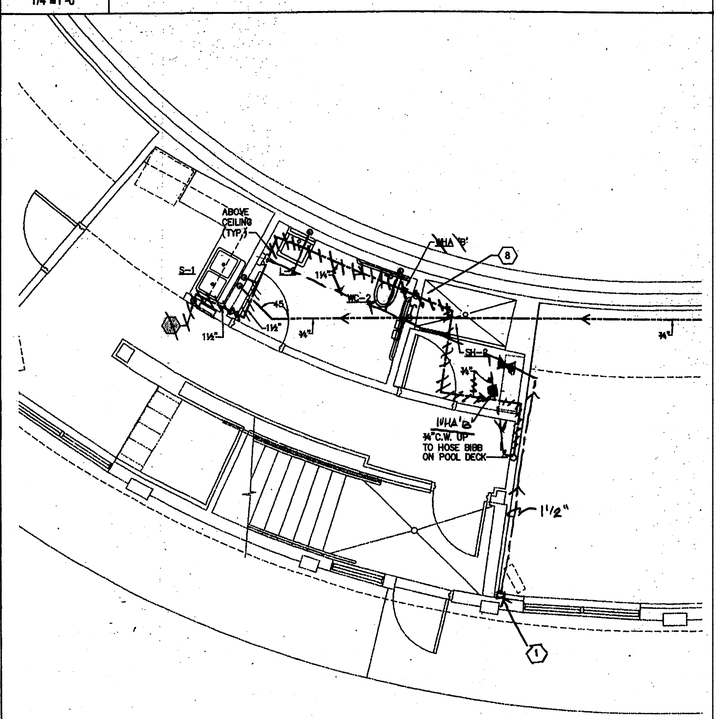
3 Toilet's 113 AND 114

1/4"=1'-0"



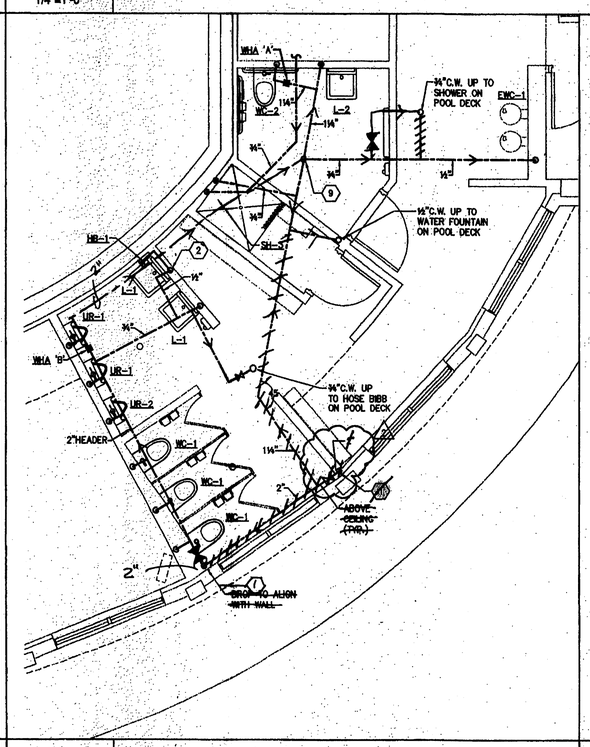
1 Men's and Women's Toliet

1/4"=1'-0"



4 Lifeguard Lounge and Staff Toilet

1/4"=1'-0"



2 Men's Toilet and Toilet 102

1/4"=1'-0"

GENERAL NOTES

1. REFER TO SANITARY RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.
2. REFER TO FIXTURE SCHEDULE FOR ALL WATER BRANCH SIZE CONNECTIONS, UNLESS OTHERWISE NOTED ON THIS PLAN.
3. REFER TO 1/4" PLAN FOR CONTINUATION OF ALL PIPING.

KEYED NOTES

1. WATER SUPPY UP FROM BELOW FLOOR. RISE UP TO ABOVE CEILING.
2. ¾" DOWN. BRANCH ½" TO LAVATORY AND ¾" TO HOSE BIBB.
3. ¾" DOWN. BRANCH ½" TO EACH LAVATORY AND ¾" TO EACH HOSE BIBB.
4. 1¼" DOWN. BRANCH 1" TO URINAL & 1¼" TO WATER CLOSET.
5. 1¼" DOWN. BRANCH 1¼" TO EACH WATER CLOSET.
6. ¾" DOWN. BRANCH ½" TO EACH LAVATORY.
7. 1¼" DOWN. BRANCH 1¼" TO WATER CLOSET AND ½" TO LAVATORY.
8. ¾" C.W. AND H.W. DOWN TO SHOWER VALVE.
9. DROP OR RISE TO ALIGN PIPING WITH STRUCTURE, WALLS OR SOFFIT.
10. GAS SERVICE AND GAS METER SHALL BE INSTALLED BY LOCAL GAS SUPPLIER. GAS METER SHALL BE SIZED TO DELIVER 1/2 LB. PSI TO POOL HEATER.
11. INSTALL GAS PIPING BELOW SLAB TO POOL HEATER. DO NOT INSTALL PIPING IN FOOTING OR CONCRETE SLAB.

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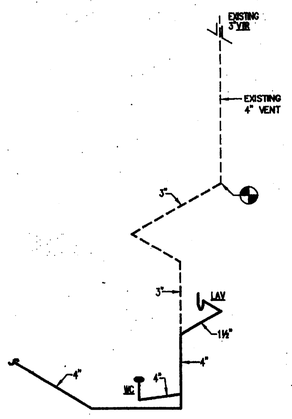
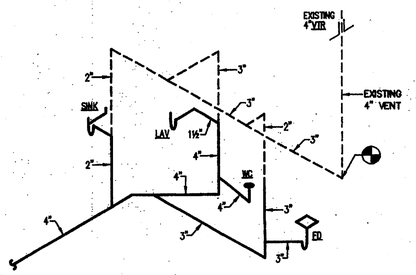
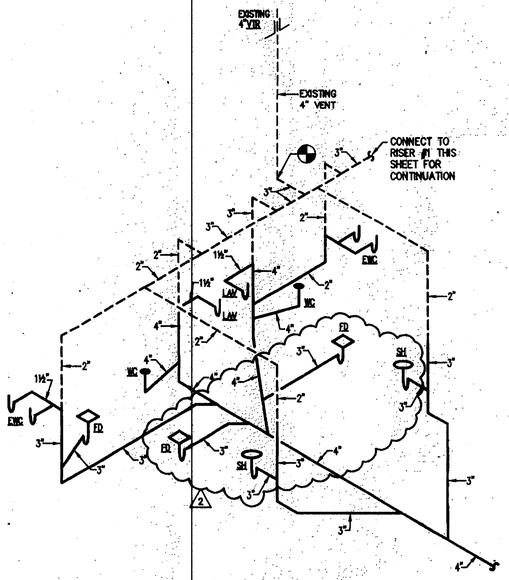


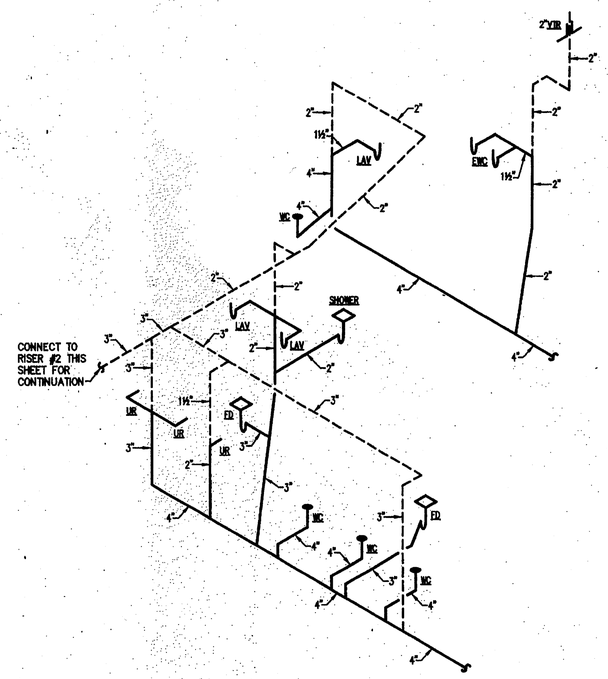
4 **SANITARY RISER DIAGRAM**
NOT TO SCALE



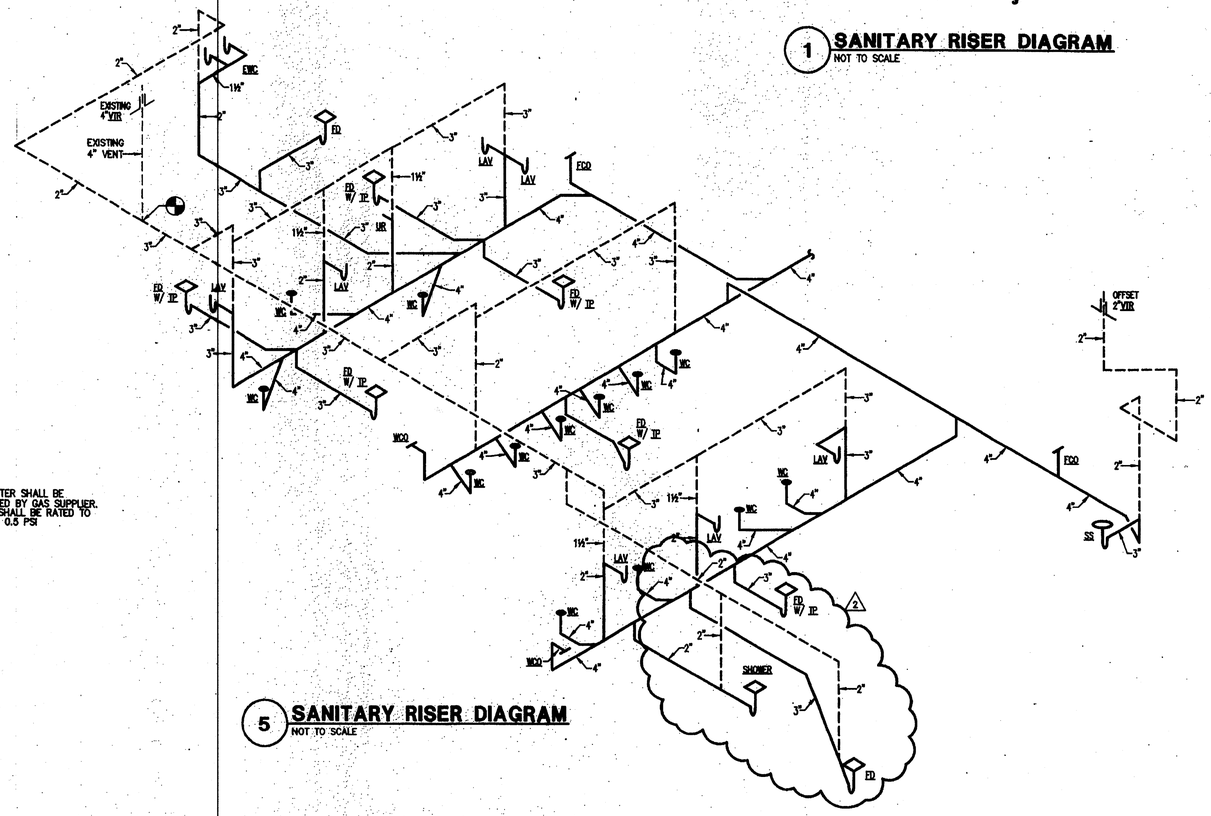
3 **SANITARY RISER DIAGRAM**
NOT TO SCALE



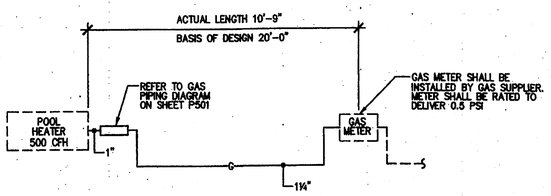
2 **SANITARY RISER DIAGRAM**
NOT TO SCALE



1 **SANITARY RISER DIAGRAM**
NOT TO SCALE



5 **SANITARY RISER DIAGRAM**
NOT TO SCALE



NOTE: THE ABOVE INFORMATION IS BASED ON THE FLORIDA BUILDING CODE "FUEL GAS 2001" TABLE 402(2) PAGE 4.2 REFER TO PLUMBING DETAILS FOR GAS SIZING TABLE.

6 **GAS RISER DIAGRAM**
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RISERS - PLUMBING

NOT TO SCALE

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RISERS
PLUMBING

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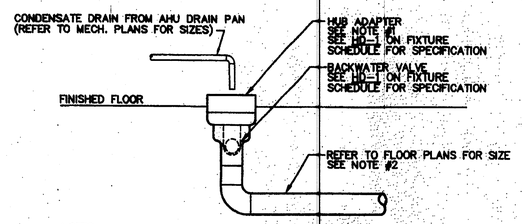
TABLE 402(2)
MAXIMUM CAPACITY OF PIPE IN CUBIC FEET OF GAS PER HOUR FOR GAS PRESSURES OF 0.5 PSI AND A PRESSURE DROP OF 0.5 INCH WATER COLUMN

(BASED ON A 0.60 SPECIFIC GRAVITY GAS)

NOMINAL INSIDE PIPE DIA. INCHES	LENGTH OF PIPE, FEET													
	10	20	30	40	50	60	70	80	90	100	125	150	175	200
¼	43	29	24	20	18	16	15	14	13	12	11	10	9	8
⅜	95	65	52	45	40	36	33	31	29	27	24	22	20	19
½	175	120	97	82	73	66	61	57	53	50	44	40	37	35
¾	360	250	200	170	151	138	125	118	110	103	93	84	77	72
1	680	465	375	320	285	260	240	220	205	195	175	160	145	135
1¼	1,400	950	770	660	580	530	490	450	430	400	360	325	300	280
1½	2,100	1,460	1,180	990	900	810	750	690	650	620	550	500	460	430
2	3,950	2,750	2,200	1,900	1,680	1,520	1,400	1,300	1,220	1,150	1,020	950	850	800
2½	6,300	4,350	3,520	3,000	2,650	2,400	2,250	2,050	1,950	1,850	1,650	1,500	1,370	1,280
3	11,000	7,700	6,250	5,300	4,750	4,300	3,900	3,700	3,450	3,250	2,950	2,650	2,450	2,280
4	23,000	15,800	12,800	10,900	9,700	8,800	8,100	7,500	7,200	6,700	6,000	5,500	5,000	4,600

2 POOL HEATER 500 CFH

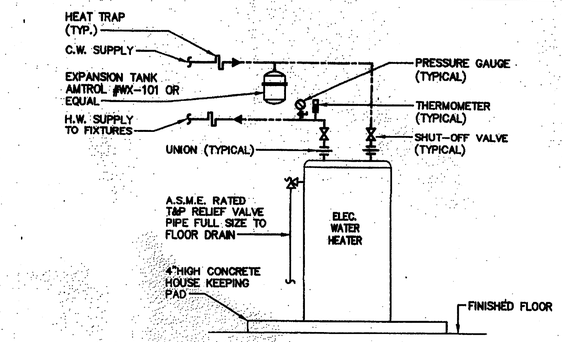
NOTE: THE ABOVE TABLE REFERENCES FLORIDA BUILDING CODE "FUEL GAS 2001" PAGE 4.2



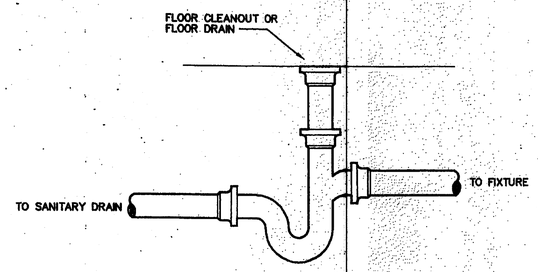
NOTES:

1. LOCATE HUB DRAIN AS CLOSE AS POSSIBLE TO HOUSEKEEPING PAD FOR MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION OF HOUSEKEEPING PAD PRIOR TO FINAL ROUGH-IN OF HUB DRAIN.

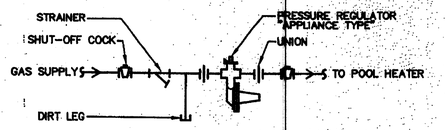
3 TYPICAL HUB DRAIN DETAIL
NO SCALE



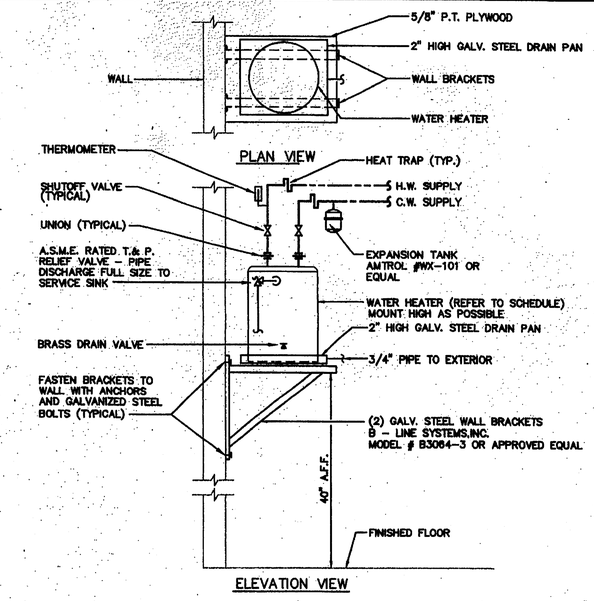
1 WATER HEATER DIAGRAM
NO SCALE



4 RUNNING P-TRAP DETAIL
NO SCALE



5 GAS PIPING DIAGRAM FOR POOL HEATER
NO SCALE



2 WALL HUNG WATER HEATER DETAIL
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DETAILS - PLUMBING

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PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	BRANCH CONNECTIONS (1)		
				WASTE	C.W.	H.W.
S-1	SINK – COUNTER MOUNTED, STAINLESS STEEL, 18 GA. TYPE 304 (18-8) NICKEL BEARING, 19" X 33" X 7 1/2" SIZE, DOUBLE COMPARTMENT, STAINLESS STEEL FLAT STRAINER, 1 1/2" O.D., S.S. TAILPIECE, 4" LONG. TRIM – SINK FAUCET, GOOSENECK SPOUT, AERATOR, BLADE HANDLES, HANDLES INDEXED, SELF-CLOSING VALVE, COUPLING UNIT, LESS DRAIN. SUPPLIES – ANGLE STOP (1/2" I.P.S.), LOOSE KEY, C.P. NIPPLES, ESCUTCHEONS, 12" X 3/8" O.D. FLEX RISER. TRAP – CHROME PLATED, CAST BRASS, ONE-PIECE CLEANOUT PLUG, OUTLET TRAPPED FOR I.P. NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME PLATED THREADED BOTH ENDS.	JUST ELKAY OR EQUAL CHICAGO T&S BRASS ZURN CHICAGO MCGUIRE ZURN MCGUIRE ZURN SANITARY DASH	# DL-1933-A-GR # LR-3319 # 201-GNBA-E3-317 # B-2866 & 136X & 199-2 # Z8331C4 # 1017 # H2165LKC # HLS0090LK # 8912 # Z8701 # R870-9	1i"	i"	–
SH-1 (accessible)	SHOWER – PRESSURE BALANCING MIXING VALVE, ADJUSTABLE STOP SCREW, DIVERTER WITH INTEGRAL VOLUME CONTROL, SHOWER HEAD WITH ARM AND FLANGE, INTEGRAL SERVICE STOPS, WALL/HAND SHOWER WITH FLEXIBLE METAL HOSE, ADA COMPLIANT LEVER HANDLE, WALL CONNECTION AND 30" SLIDE BAR, IN-LINE VACUUM BREAKER, POLISHED CHROME FINISH. * INSTALL WITH WATER HAMMER ARRESTOR TYPE 'A' ON BOTH H.W. AND C.W. SUPPLY. SHOWER DRAIN – NEO-LOC PIPE CONNECTION DRAIN, DURA-COATED CAST IRON BODY WITH NEOPRENE GASKET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE 'B' NICKEL BRONZE STRAINER. INSTALL CONTROL VALVE BETWEEN 38" & 48" ABOVE FINISHED FLOOR.	SYMMONS POWERS LEONARD ZURN JOSAM J.R. SMITH	#S-96-300-B30-X-V # P900H-8-W # PAS II ST-5-501 -PS-30 # ZN-415 # 30000-5A # 2005 A6 NB	2"	i"	i"
SH-2	SHOWER – STAINLESS STEEL COLUMN AND COLUMN CAP, 3 SHOWER HEADS (2.5 GPM), BASE FLANGE, MOUNTING BOLTS, ACCESS DOOR IN LOWER PORTION, BOTTOM SUPPLY, SINGLE COMPRESSION VALVE, INTERIOR PIPING, VANDEL-PROOF SHOWERHEAD, FOOT SPRAY AT BOTTOM, STOPS IN SUPPLY, LESS DRAIN SLOTS, 6'-0" SHOWER HEAD HEIGHT.	BRADLEY ACORN ENGINEERING OR EQUAL	# 4CA-B-6'-0"-SV	–	s"	–
SH-3	SHOWER – PRESSURE BALANCING MIXING VALVE, LEVER HANDLE, ADJUSTABLE STOP SCREW, ADJUSTABLE SHOWER HEAD WITH FLANGE, INTEGRAL SERVICE STOPS, IN-LINE VACUUM BREAKER POLISHED CHROME FINISH. * INSTALL WITH WATER HAMMER ARRESTOR TYPE 'A' ON BOTH H.W. AND C.W. SUPPLY. SHOWER DRAIN – NEO-LOC PIPE CONNECTION DRAIN, DURA-COATED CAST IRON BODY WITH NEOPRENE GASKET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE 'B' NICKEL BRONZE STRAINER.	SYMMONS POWERS LEONARD ZURN JOSAM J.R. SMITH	# 25-1-X # # ZN-415 # 30000-5A # 2005 A6 NB	2"	i"	i"
FD-1	FLOOR DRAIN – COATED CAST IRON BODY WITH NEOPRENE GASKET, COMBINATION INVERTIBLE MEMBRANE CLAMP, INTEGRAL 1/2" PRIMER CONNECTION AND ADJUSTABLE NICKEL BRONZE STRAINER WITH VANDAL-PROOF SCREWS. (REFER TO PLANS FOR SIZES)	ZURN JOSAM J.R.SMITH	# ZN-415 # 30000-A # 2005 NB	PROVIDE DEEP SEAL TRAPS WHERE TRAP PRIMERS ARE NOT INDICATED.		
AD-1	AREA DRAIN – 8" PROM-DECK DRAIN, COATED CAST IRON BODY, SQUARE PROMENADE FRAME, HEEL PROOF GRATE WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, VANDAL PROOF SECURED TOP, POLISHED BRONZE GRATE.	ZURN JOSAM J.R. SMITH	# ZB-158-VP # 23750-30-SI # 1470-U-PB	REFER TO PLANS FOR SIZES		
HD-1	HUB DRAIN – COATED CAST IRON BACKWATER VALVE, PLASTIC BALL FLOAT, ELASTOMER SEAT, BRONZE CAGE AND BOTTOM OUTLET SPIGOT CONNECTION, CAST IRON HUB ADAPTER WITH CAST IRON SOIL PIPE HUB AND FEMALE THREADED OUTLET.	ZURN JOSAM J.R. SMITH	# Z-1099 & Z-1030 # 67100A & 88550 # 7080 & 2645	REFER TO FLOOR DRAINS		
HB-1	HOSE BIBB (EXTERIOR) – VACUUM BREAKER, BACKFLOW PROTECTED, WALL FAUCET, 3/4" INLET, ROUGH CHROME PLATED BRONZE CASTING, CHROME PLATED VACUUM BREAKER, LOOSE KEY HANDLE, WALL FLANGE.	CHICAGO T & S BRASS ZURN	# 387-RCF & E27 # B-731 # Z80707-RB & HYZ850-P34-PC-LK	–	s"	–
SS-1	SERVICE SINK – FLOOR MOUNTED, ONE-PIECE PRE-CAST TERRAZZO, STAINLESS STEEL RIM GUARD, GRID DRAIN. TRIM – SERVICE SINK FAUCET, THREADED SPOUT, POLISHED CHROME, VACUUM BREAKER, PAIL HOOK, WALL BRACE, RENEWABLE VALVES, INTEGRAL STOPS. 24" LONG X 3" WIDE, STAINLESS STEEL ATTACHED WITH THREE (3) RUBBER TOOL GRIPS. 30" LONG FLEXIBLE, HEAVY DUTY 5/8" RUBBER HOSE, CLOTH REINFORCED, WITH 3/4" BRASS COUPLING AT ONE END. 5" LONG X 3" WIDE BRACKET, 18 GA. #302 STAINLESS STEEL WITH RUBBER GRIP	FIAT STERN WILLIAMS FLORESTONE CHICAGO T&S BRASS ZURN FIAT T&S BRASS OR EQUAL FIAT T&S BRASS OR EQUAL	# TSB-100 # SB-900 # MODEL 82 # 897-CP # B-0667-POL # Z841M1 # 889-CC # B-0655 # 832-AA # B-0654	3"	s"	s"
DF-1 (accessible)	DRINKING FOUNTAIN – STAINLESS STEEL WITH NO. 4 FINISH RECEPTOR AND BASE, CHROME PLATED BUBBLER, PUSH BUTTON OPERATED, CARTRIDGE TYPE, BRASS SELF-CLOSING VALVE, AUTOMATIC STREAM REGULATION, INTEGRAL WASTE STRAINER WITH 1-1/2" O.D. TAILPIECE, 1/2" I.P.S. SCREWDRIVER STOP. DRINKING FOUNTAIN SHALL BE INSTALLED WITH THE SPOUT A MAXIMUM OF 34" A.F.F. AND PROVIDE A MINIMUM OF 27" BETWEEN BOTTOM OF APRON AND FINISHED FLOOR.	HAWS OR EQUAL	# 33800	–	i"	–
WH-1	WATER HEATER (ELECTRIC) – 10 GALLON GLASS LINED TANK, SINGLE HEATING ELEMENT, THERMOSTAT, TANK INSULATION HEAVY GAUGE STEEL JACKET WITH BAKED ENAMEL FINISH, BRASS DRAIN VALVE, FULL 3 YEAR WARRANTY, ASME RELIEF VALVE, MEET ASHRAE 90A – 1980 FOR ENERGY EFFICIENCY, PROVIDE HEAT TRAP FITTNGS FOR CW & HW CONNECTIONS. ELECTRICAL REQ.: 4500 WATT / 208 VOLT / 1 PHASE	A.O. SMITH RHEEM STATE	# DEL-10 # 81VP10S # PV-10-10MSK	–	s"	s"
WH-2	WATER HEATER (ELECTRIC) – 40 GALLON GLASS LINED TANK, SINGLE HEATING ELEMENT, THERMOSTAT, TANK INSULATION HEAVY GAUGE STEEL JACKET WITH BAKED ENAMEL FINISH, BRASS DRAIN VALVE, FULL 10 YEAR WARRANTY, ASME RELIEF VALVE, MEET ASHRAE 90A – 1980 FOR ENERGY EFFICIENCY, PROVIDE HEAT TRAP FITTINGS ON BOTH CW & HW CONNECTIONS. 46 G.P.H @ 40°F TEMPERATURE RISE ELECTRICAL REQ.: 4500 WATT / 208 VOLT / 1 PHASE	A.O. SMITH RHEEM STATE	# DEN-40 # 68V40S # PV-40-20RT	–	s"	s"
RD-1	ROOF DRAIN – 15" COATED CAST IRON LOCKING ALUMINUM DOME, NON-PUNCTURING CLAMP RING WITH GRAVEL STOP, BOTTOM OUTLET, DECK CLAMP, DRAIN RECEIVER.	ZURN JOSAM J.R.SMITH	# Z100-ZA-AC # 21500-3-26 # 1010-A	REFER TO DRAWINGS FOR SIZES.		

(1) BRANCH CONNECTION SIZES ARE INTENDED FOR BRANCH SIZES FROM WATER SUPPLY. REFER TO DESCRIPTION IN SCHEDULE FOR ACTUAL ROUGH IN PIPE SIZE CONNECTION TO FIXTURE.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	BRANCH CONNECTIONS (1)		
				WASTE	C.W.	H.W.
WC-1	WATER CLOSET – FLOOR MOUNTED, FLUSH VALVE, 1.6 GAL., ELONGATED VITREOUS CHINA, SIPHON JET ACTION, TOP SPUD, BOLT CAPS, ELONGATED BOWL, 14 1/8" HEIGHT. FLUSH VALVE – EXPOSED FLUSHOMETER, NON-HOLD-OPEN HANDLE, 1" I.P.S. SCREW DRIVER ANGLE STOP, VACUUM BREAKER FLUSH ACTION, TOP SPUD, SWEAT ADAPTOR, 1.6 GAL. FLUSH. SEAT – FINISH WHITE, EXTRA HEAVY DUTY PLASTIC, ELONGATED BOWL, OPEN FRONT LESS COVER, SELF SUSTAINING CHECK HINGE.	AMERICAN STANDARD CRANE KOHLER SLOAN BEMIS OLSONITE CHURCH	# 2234.015 # 3326E # K-4350 # 111-YB "ROYAL" # 1655-SS/C # 95 # 9500WC	4"	1r"	–
WC-2 (accessible)	WATER CLOSET – FLOOR MOUNTED, FLUSH VALVE, 1.6 GAL., ELONGATED VITREOUS CHINA, SIPHON JET ACTION, TOP SPUD, BOLT CAPS, ELONGATED BOWL, 17" HEIGHT. FLUSH VALVE – SAME AS WC-1 SEAT – SAME AS WC-1.	AMERICAN STANDARD CRANE KOHLER	# 3043.102 # 3H701E # K-4368	4"	1r"	–
L-1	LAVATORY – WALL MOUNTED 20 1/2" X 18 1/4" SIZE, VITREOUS CHINA, 4" CENTERS, SELF-DRAINING DECK, FAUCET LEDGE, FRONT OVERFLOW, CONCEALED ARM SUPPORT, INSTALL AT STANDARD ADULT HEIGHT. TRIM – SINGLE LAVATORY FAUCET, PUSH BUTTON HANDLE (COLD WATER INDEXED), SELF-CLOSING METERING CARTRIDGE (SET FOR TEN SECONDS), VANDAL PROOF AERATOR, CHROME PLATED, CAST BRASS BODY, COUPLING NUT, INTEGRAL PERFORATED GRID DRAIN, 1 1/4" TAILPIECE. SUPPLIES – ANGLE STOPS (1/2" I.P.S.) LOOSE KEY, C.P NIPPLES, ESCUTCHEONS, 12" X 3/8" FLEX RISER. TRAP – CHROME PLATED, CAST BRASS, ONE-PIECE P-TRAP, CLEANOUT PLUG, OUTLET TRAPPED FOR I.P. NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME, THREADED BOTH ENDS, OFFSET GRID DRAIN. CARRIER – DURA-COATED CAST IRON, STEEL UPRIGHTS, CONCEALED ARMS AND SLEEVES, HEAVY CAST IRON FEET, ADJUSTABLE HEADERS, ALIGNMENT TRUSS, MOUNTING FASTENERS, LESS ESCUTCHEONS.	AMERICAN STANDARD CRANE KOHLER CHICAGO T&S BRASS ZURN CHICAGO MCGUIRE ZURN MCGUIRE ZURN SANITARY DASH ZURN JOSAM J.R. SMITH	# 0355.012 # 1412-V # K-2005 # 404-665CW # # # 1017 # H2165LKC # ZH-8822-LR- # 8872 # Z8700 # R867-8 # ZR-1231 # 17100 # 0700	1r"	i"	–
L-2 (accessible)	LAVATORY – SAME AS L-1, INSTALL WITH 29" CLEAR FROM FLOOR TO UNDERSIDE OF LAVATORY. TRIM – SAME AS L-1 SUPPLIES – SAME AS L-1 TRAP – SAME AS L-1 CARRIER – SAME AS L-1 P-TRAP AND ANGLE VALVE ASSEMBLIES SHALL BE INSULATED WITH MOLDED SEAMLESS ANTIMICROBIAL MATERIAL. MINIMUM 3/16" THICKNESS, COLOR WHITE.	MCGUIRE TRUEBRO OR EQUAL	# PW 2000 WC	1r"	i"	–
UR-1	URINAL – WALL MOUNTED, FLUSH VALVE, 1.0 GALLON FLUSH, VITREOUS CHINA, SIPHON ACTION, 3/4" TOP SPUD, 2" I.P.S. OUTLET CONNECTION, REMOVABLE BEEHIVE STRAINER. INSTALL STANDARD ADULT HEIGHT. FLUSH VALVE – VACUUM BREAKER, 3/4" I.P.S. SCREWDRIVER ANGLE STOP, FLUSH CONNECTIONS, ADJUSTABLE TAILPIECE, 3/4" TOP SPUD, 1.0 GALLON FLUSH. CARRIER – DURA-COATED CAST IRON, STEEL UPRIGHTS, ADJUSTABLE SUPPORT PLATE, HEAVY CAST IRON FEET, MOUNTING FASTENERS, BEARING JACKS.	AMERICAN STANDARD CRANE KOHLER SLOAN DELANY ZURN ZURN JOSAM J.R. SMITH	# 6501.010 # 7197 # K-4960-T # ROYAL 186-1-YB # Z-1221 # 17800 # 0636	2"	s"	–
UR-2 (accessible)	URINAL – SAME AS UR-1. INSTALL WITH RIM AT 17" A.F.F. FLUSH VALVE – SAME AS UR-1. CARRIER – SAME AS UR-1.			2"	s"	–
EWC-1 (accessible)	BI-LVL EZ FR/SD SSTL ELECTRIC WATER COOLER – DOUBLE UNIT, ~~RECESSED IN-WALL REFRIGERATION UNIT, BASED UPON 80°F INLET WATER AND 90°F AMBIENT, FLEXI-GUARD BUBBLER, "LIGHT" TOUCH" PUSH BAR, BUILT-IN FLOW REGULATOR, STAINLESS STEEL GRILLE, REMOVABLE LOUVERED FRONT VENTILATING GRILLE, STAINLESS STEEL BOTTOM COVER PLATE. STAINLESS STEEL GRILLE, REMOVABLE LOUVERED FRONT.~~ CAPACITIES: 8.0 GAL., 380 WATTS, 4.7 AMPS, 1/5 HP SUPPLIES – STRAIGHT STOP (1/2" SIZE), LOOSE KEY, ESCUTCHEON. TRAP – 1 1/4" X 1 1/4" CHROME PLATED, CAST BRASS, ONE PIECE P-TRAP, CLEANOUT PLUG, NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME THREADED BOTH ENDS. MOUNTING HEIGHT – COOLER SHALL BE INSTALLED WITH THE (HC) SPOUT A MAXIMUM OF 34" A.F.F. AND PROVIDE A MIN. OF 27" BETWEEN BOTTOM OF SUPPORT ARM AND FLOOR.	ELKAY ~~HAWS~~ ~~OASIS~~ CHICAGO T&S BRASS ZURN MCGUIRE ZURN SANITARY DASH	EZSTL8SCC ~~# EHFA20C~~ ~~# H1011.8.50~~ ~~# MBCR~~ # 45-LK # B-0416 # 8088 # Z8710 #	1r"	i"	–
	SHOWER ENCLOSURE – ADA COMPLIANT, WHITE CAST ACRYLIC SHOWER MODULE, SOLID PADDED VINYL SEAT "FOLD-DOWN", INTEGRAL MOLDED SOAP SHELF, ANTI-SKID FLOOR TREATMENT, UNIT SHALL BE INSTALLED IN A PIT (7/8" DEEP), SET IN MORTAR BASE, FACTORY SUPPLIED STAINLESS STEEL GRAB BAR, STAINLESS STEEL CURTAIN ROD, PROVIDE BLOCKING AS REQUIRED FOR COMPLETE INSTALLATION. NOMINAL DIMENSIONS: 36" X 36" UNIT LOCATIONS: (ROOMS #162, #110, #113 AND #114)	FIAT PRODUCTS OR APPROVED EQUAL	# A 3636.01F			
	SHOWER ENCLOSURE – ADA COMPLIANT, WHITE CAST ACRYLIC SHOWER MODULE, SOLID PADDED VINYL SEAT "FOLD-DOWN", INTEGRAL MOLDED SOAP DISH AND SHELF, ANTI-SKID FLOOR TREATMENT, FACTORY SUPPLIED STAINLESS STEEL GRAB BARS (1) HORIZONTAL AND (2) VERTICAL, STAINLESS STEEL CURTAIN ROD, PROVIDE BLOCKING AND MOTAR AS REQUIRED FOR COMPLETE INSTALLATION. NOMINAL DIMENSIONS: 62" X 34" X 88 1/2" UNIT LOCATION: (ROOM #121)	FIAT PRODUCTS OR APPROVED EQUAL	# MS-305H			

FOR ACTUAL

(1) BRANCH CONNECTION SIZES ARE INTENDED FOR BRANCH SIZES FROM WATER SUPPLY. REFER TO DESCRIPTION IN SCHEDULE FOR ROUGH IN PIPE SIZE CONNECTION TO FIXTURE.

△1

Fixture Schedule - Plumbing

NOT TO SCALE

ROWE ARCHITECTS
INCORPORATED
100 Madison Street, Suite 200
Tampa, Florida 33602.4704
www.RoweArchitects.com
Fax: 813.221.9154
813.221.8771
AAC002172

ENGINEERING MATRIX, INC.
CONSULTING ENGINEERS
ST. PETERSBURG, FLORIDA 33716
CERT. OF AUTHORIZATION NO. 4886
EMI JOB NO. 02-0540

[redacted]

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
BID DOCUMENTS	02.02.04

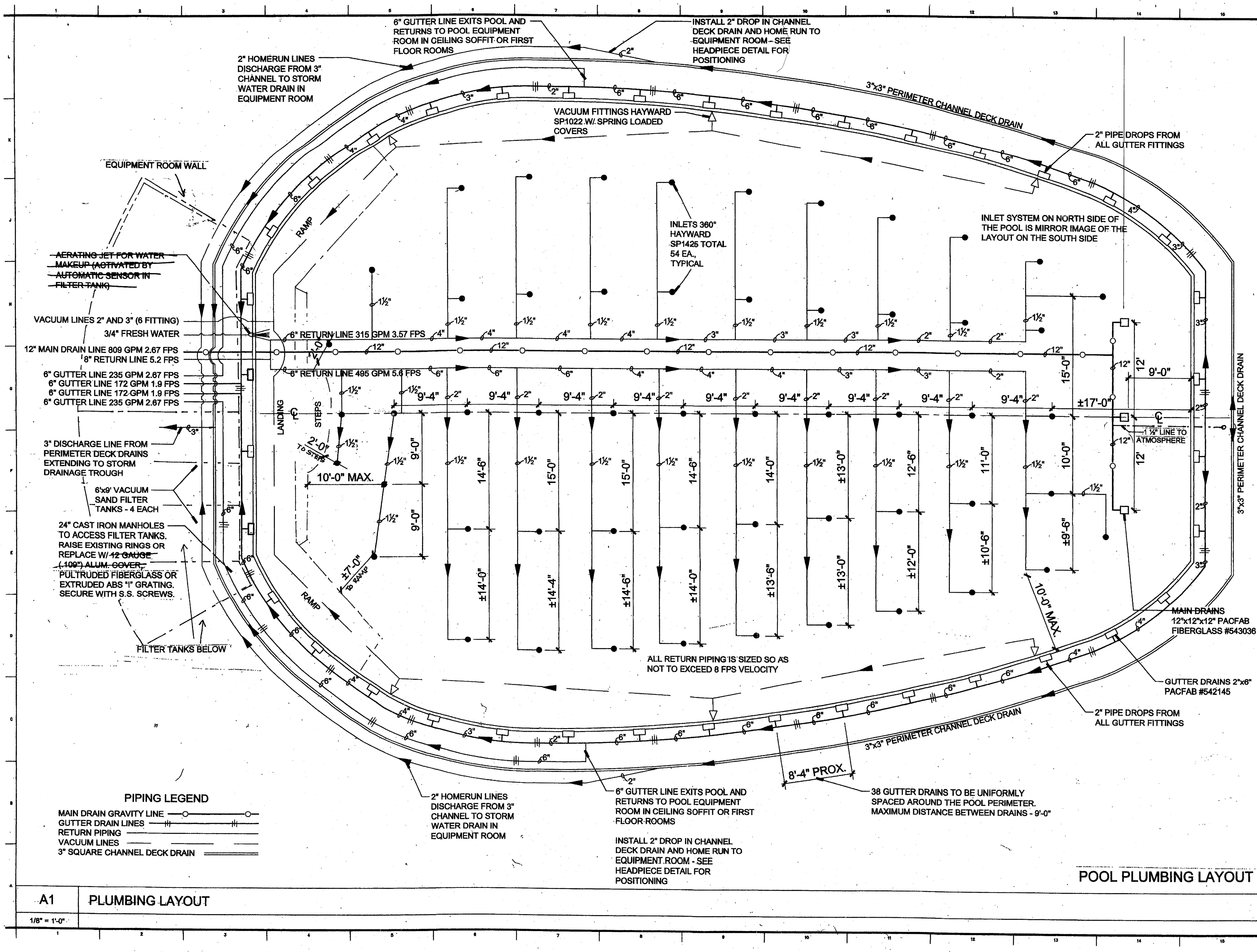
Fixture Schedule - Plumbing

RECORD DWG.
DATE 8/26/05

P601

RECEIVED
FEB 23 2004
CONST. TECH GROUP, INC.

217/009



ROWE ARCHITECTS

100 Madison Street, Suite 200
Tampa, Florida 33602.4704
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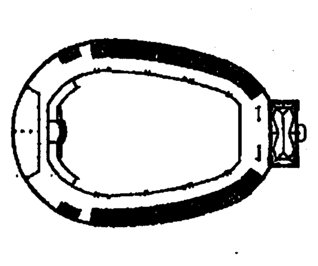
Fax: 813.221.9154
813.221.8771
AAC002172

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #0008161
Post Office Box 8574
Tampa, FL 33674 813/920-9192

12-4-04



CUSCADEN
POOL
RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No:0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
DOH PERMIT SUBMITTAL	07.12.04

PLUMBING LAYOUT
SCALE 3/8" = 1'-0"

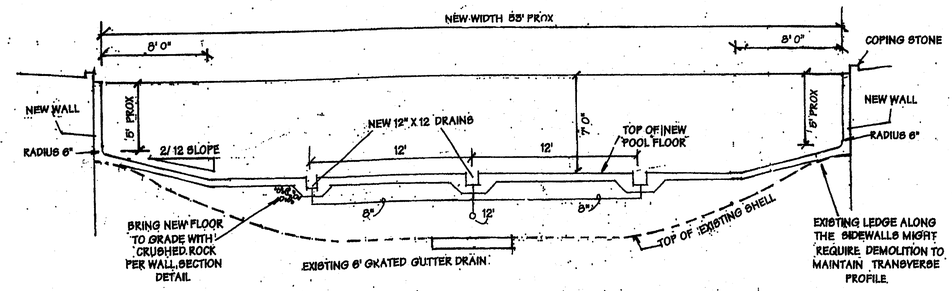
RECORD DWG.
DATE 8/26/05

PROJECT NORTH TRUE NORTH

Q101

217/009

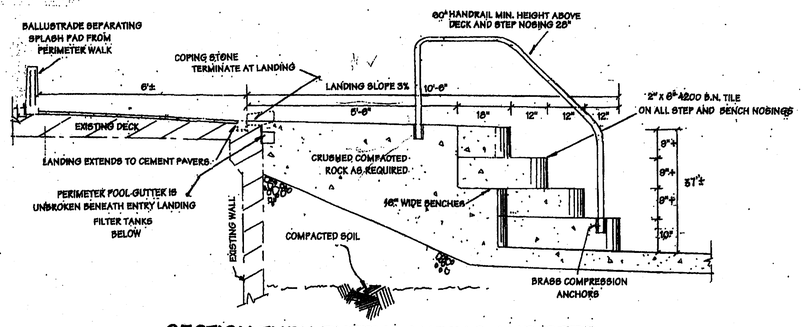
APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT



TRANSVERSE SECTION @ DEEP POINT

SCALE 3/16" = 1' 0"

SUPPLEMENTARY CHILD PROOF FENCE NOT REQUIRED BEHIND BALLUSTRADE FENCE SEPARATE THE POOL FROM THE SPLASH PAD.



SECTION THRU ENTRY LANDING AND STEP

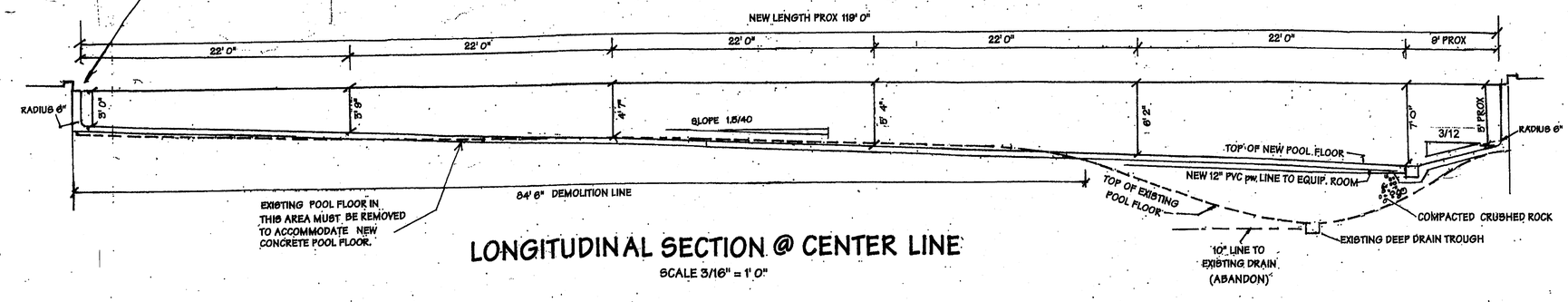
SCALE ½" - 1'-0"

STAIRS SHALL HAVE A MINIMUM TREAD WIDTH OF 10 INCHES FOR A MINIMUM TREAD LENGTH OF 24 INCHES AND A MAXIMUM RISER HEIGHT OF 10 INCHES. TREADS AND RISERS BETWEEN THE TOP AND BOTTOM TREADS SHALL BE UNIFORM IN WIDTH AND HEIGHT.

Silcox Engineering, Inc. Civil Engineering
ERNEST S. SILCOX P.E. #00081161
Post Office Box 5574
Tampa, FL 33674 813/920-9192

11-4-04

ALL VERTICAL WALLS WILL BE WITHIN 5 DEGREES OF VERTICAL



LONGITUDINAL SECTION @ CENTER LINE

SCALE 3/16" = 1' 0"

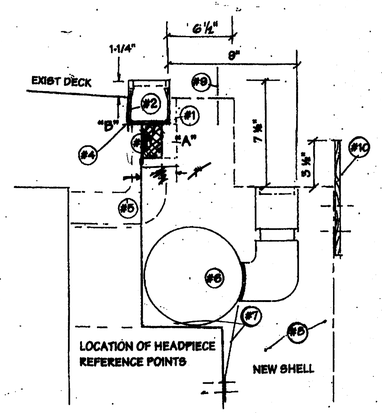
POOL SECTIONS AND STEP DETAIL

RECORD DWG.
DATE 8/26/05

SHEET Q301

217
009

APPROVED
HILLSBOROUGH COUNTY HEALTH DEPARTMENT



RECOMMENDED PROCEDURE FOR CONSTRUCTING NEW PERIMETER HEADPIECE DETAIL ON THE EXISTING POOL

(SEE REDUCED NUMBERED KEY ABOVE)

1. SHORTEN EXISTING DECK CANTILEVER (A) BY 1" WITH A VERTICAL CUT THRU THE 4" FACE.

2. THEN CUT VERTICAL REBATE INTO EXISTING DECK AT "B" PROX 2 1/4" FROM THE NEWLY EXPOSED VERTICAL FACE. THIS WILL RECEIVE THE NDS PERIMETER DECK DRAIN AS SHOWN.

3. IDENTIFY THE HIGH POINT IN THE POOL DECK. MAKE HORIZONTAL CUT INTO THE NEWLY EXPOSED DECK FACE COMMENCING AT 1 3/4" FROM THE TOP OF DECK AT THE HIGH POINT AROUND THE ENTIRE POOL. THIS CUT MUST BE LASER LEVEL SINCE IT WILL CREATE A "PLATFORM" FOR PLACEMENT OF THE NDS PERIMETER DRAIN.

SAWCUTS MUST BE ACCURATE, LEVEL AND STRAIGHT OR MUST MATCH EXISTING DECK CONTOUR RADII.

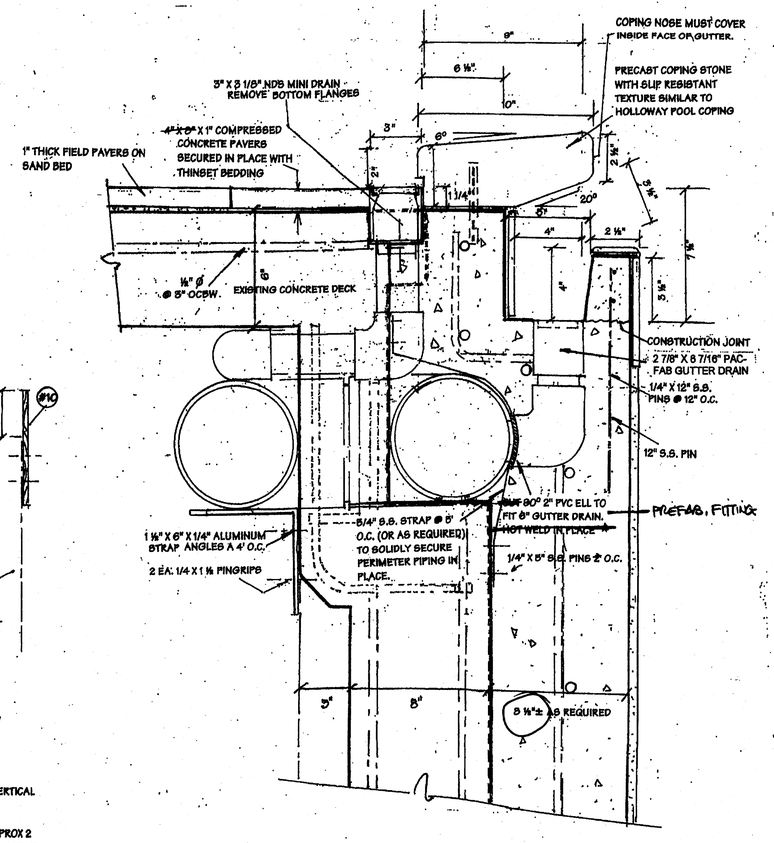
4. POSITION NDS DRAIN IN PLACE TO THE HORIZONTAL CUT AND POSITIONED TIGHTLY AGAINST THE VERTICAL CUT. SECURE IN PLACE WITH MASONRY FASTENERS SUCH AS 1/4" X 3/4" S.S. PIN GRIP THROUGH BOTTOM OF THE DRAIN. THE NDS DRAIN WILL THEN BECOME A "GROUND" FOR THE CONSTRUCTION OF THE NEW SWIMMING POOL HEADPIECE AND WALL.

5. 2" DRAIN LINE FROM THE NDS CHANNEL DRAIN (4 EA.) ARE TO BE INSTALLED, EXTENDED THROUGH THE EXISTING POOL WALL, AND PIPED TO WASTE AS SHOWN ON THE PLUMBING DETAIL.

6. INSTALL 6" SCH. 40 PVC pw DRAIN LINE TOGETHER WITH STUB-UPS AND 2" X 6" PENTAIR GUTTER DRAINS AS SHOWN ON THIS DETAIL. DRAINS MUST BE PRECISELY THE RIGHT ELEVATION, LEVEL, AND MUST PARALLEL THE EXISTING POOL WALL.

THE TOP OF THE GUTTER DRAINS SHOULD THEN BE CAREFULLY MASKED WITH SUN-PROOF MASKING TAPE TO PROTECT THEM DURING THE GUNITING.

GUTTER DRAINS EXIT THE SWIMMING POOL AT FOUR POINTS AS SHOWN ON THE PLUMBING SHEET. CORE THE EXISTING WALL AND INSTALL 6" THIMBLES AS SHOWN.



DIMENSIONING FOR MODIFICATION OF THE EXITING POOL HEADPIECE

SCALE 3" = 1'-0"

7. SECURE THE 6" GUTTER LINE FIRMLY IN PLACE WITH 3/4" S.S. STRAP AS REQUIRED.

8. AFTER ½" REBAR IS IN PLACE AND THE PERIMETER DECK DRAIN IS TIGHTLY MASKED, THE WALL AND HEADPIECE IS READY FOR GUNITE (SHOTCRETE) APPLICATION. (THE GUTTER LIP IS TO BE POST APPLIED.)

9. S.S. PINS FOR SECURING THE COPING STONE IN PLACE AND FOR PROVIDING SUPPORT FOR THE 3" X 4" GUTTER LIP MUST BE ACCURATELY POSITIONED BEFORE THE PNEUMATICALLY PLACED CONCRETE TAKES INITIAL HYDRATION.

10. TO FORM AND CONSTRUCT THE GUTTER LIP, SECURE A VERTICAL FORM PROX. 8" TO 10" IN HEIGHT TO THE GUNITE WALL SO THAT 3 1/2" OF THIS FORM PROJECTS ABOVE THE TOP OF THE POOL SHELL AT THE GUTTER LIP. SECURE TWO EACH 1/4" S.S. RODS TO THE EXPOSED 1/4" PIN PROJECTING ABOVE THE SHELL AT THIS POINT. THE SAND/CEMENT GROUT MIX (4500#) FOR BUILDING THE GUTTER LIP MAY NOW BE CAREFULLY HANDPACKED AND TIGHTLY CONSOLIDATED TO FORM THE NEW CONCRETE GUTTER LIP.

11. THE HEADPIECE IS NOW READY FOR THE TWO VERTICAL COURSES OF 2" X 6" TILE AND THE CERAMIC TILE SINK CAP ON TOP OF THE GUTTER LIP ALONG WITH EPOXY COATING OF THE GUTTER BOTTOM AND INSIDE FACE.

12. COPING STONE MAY BE SET AT THE CONTRACTOR'S CONVENIENCE.

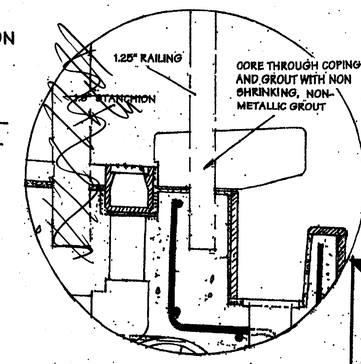
FINAL NOTE: SINCE THE NDS GUTTER DRAIN IS SHIPPED IN 6' STRAIGHT SECTION, THE WORK ON THIS HEADPIECE MIGHT BE SIMPLIFIED BY MITREING OR QUARTER CUTTING THE GUTTER AT 24" OR 30" CENTERS WHEN POSITIONING IT AS DESCRIBED ABOVE.

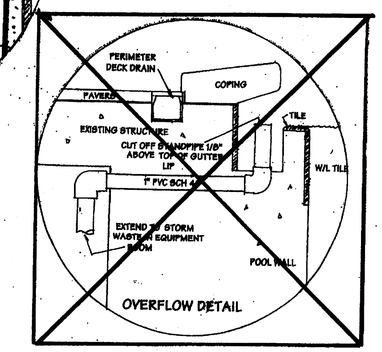
IF THE PRECAST COPING WERE MANUFACTURED IN MATCHING LENGTHS, 24"/30", THEN THE COPING COULD BE SET SO AS TO REGISTER WITH THE DECK DRAINS.

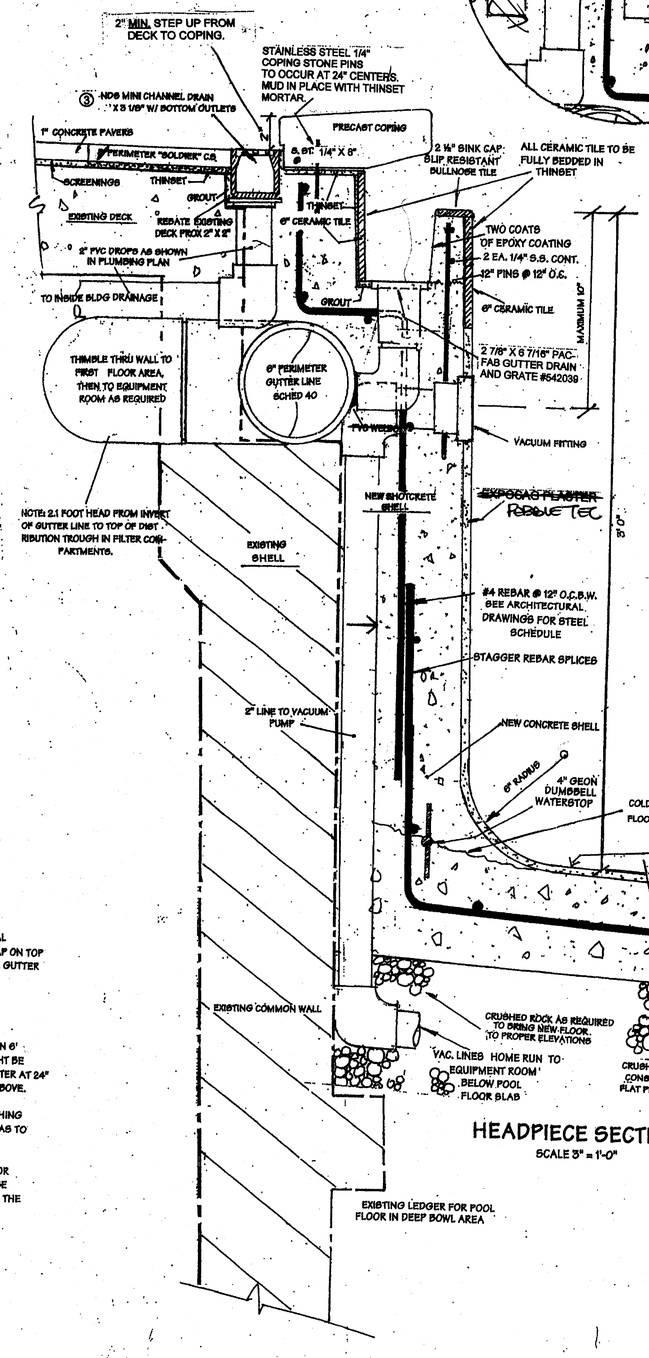
THIS PROCEDURE WOULD REQUIRE THAT THE S.S. PINS FOR LOCKING THE COPING STONE IN PLACE WOULD NEED TO BE POSITIONED AT MIDPOINT IN THE STRAIGHT SECTIONS OF THE PERIMETER DRAINS.

HANDRAIL/ROPE AND STANCHION HEADPIECE BARRIER AT RAMP ACCESS TO POOL.

~~BASE BID S. STEEL 1.25" HANDRAIL, 2.5" HIGH WITH INTERMEDIATE RAIL. . ALT ERNATE 1.25" OD S.STEEL STANCHIONS WITH 3/4" POLYETHYLENE ROPE BARRIER.~~







HEADPIECE SECTION

SCALE 3" = 1'-0"

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11-4-04

WALL SECTIONS

SHEET Q401

RECORD DWG.
DATE 8/26/05

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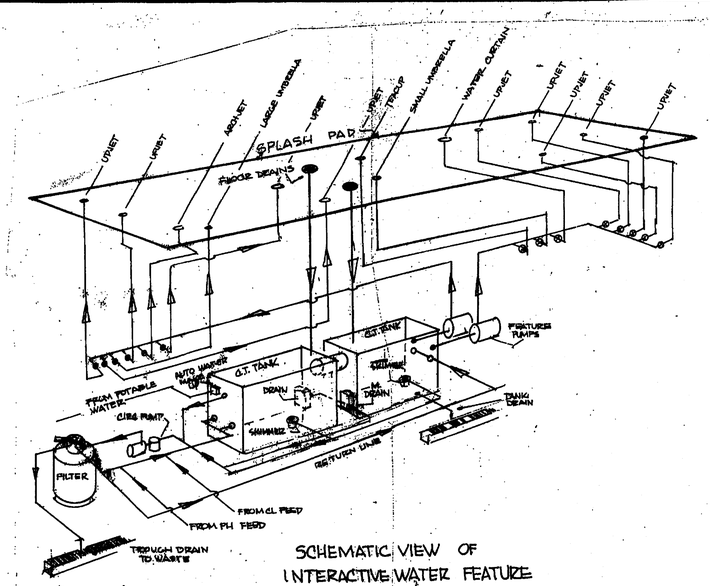
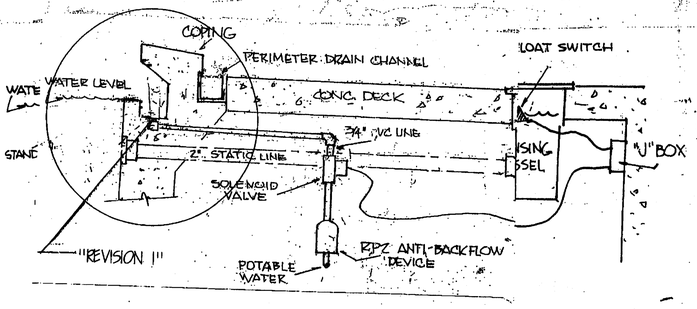
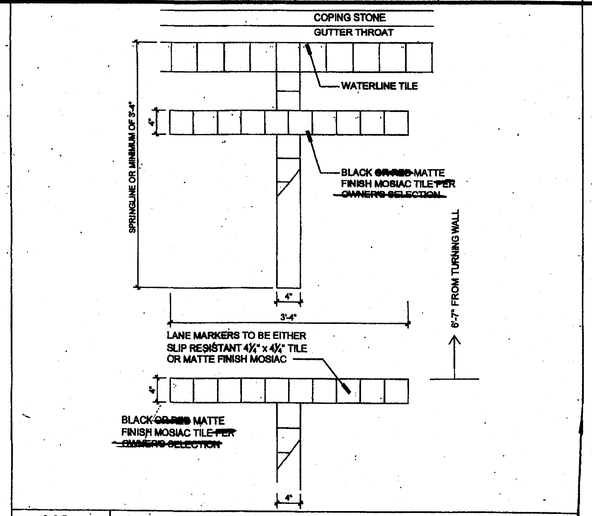
HILLSBOROUGH COUNTY HEALTH DEPARTMENT
217/009



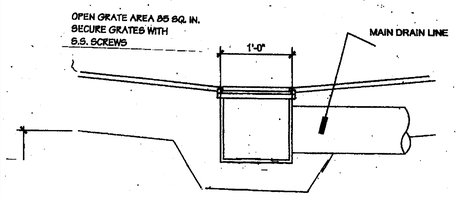
SCHEMATIC VIEW OF INTERACTIVE WATER FEATURE



AUTOMATIC WATER MAKE-UP

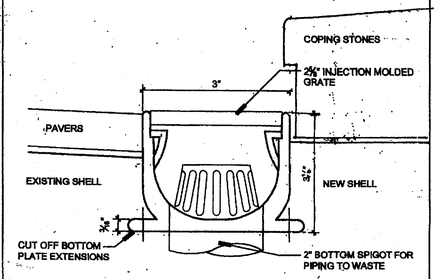


H8	WALL TARGET & RACING LANE TERMINUS
NO SCALE	

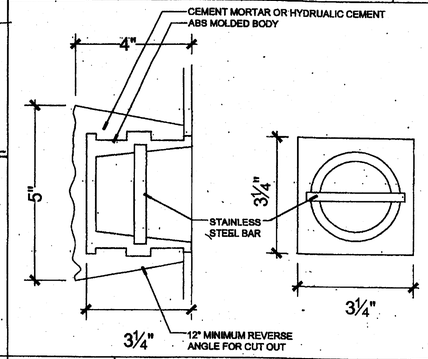


MAIN DRAIN
NTS

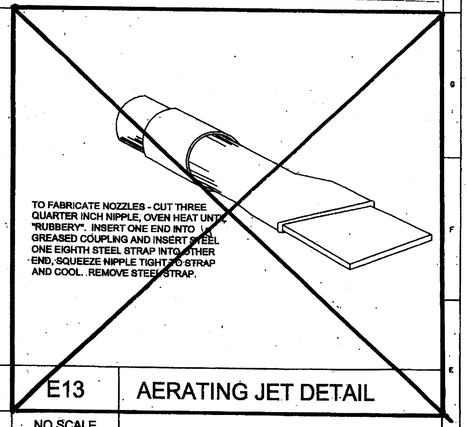
NO SCALE



E7	NDS MINI CHANNEL DRAIN
NO SCALE	



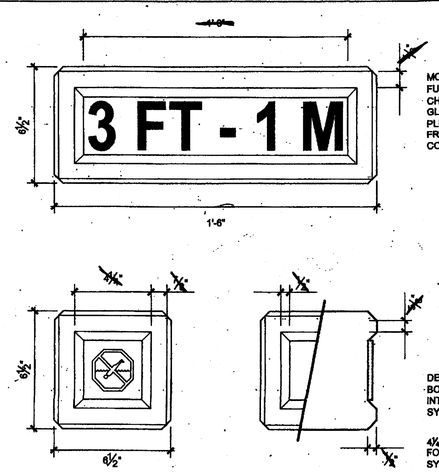
E10	ROPE ANCHORS
NO SCALE	



E13	AERATING JET DETAIL
NO SCALE	

TYPICAL TILES FOR DEPTH MARKER MONUMENTS

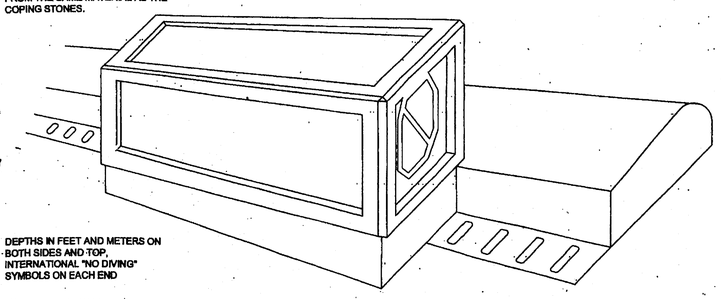
- 3½ FT-1.1M
- 4½ FT-1.4M
- 5½ FT-1.7M
- 6½ FT- 2M
- 7 FT-2.1M
- 5 FT-1.5M
- DEEP
- WALL



MONUMENTS AND PLINTHS TO BE FULLY BEDDED IN THINSET CHARACTERS TO BE FIRED INTO THE GLAZE COAT. MONUMENTS AND PLINTHS BENEATH ARE TO BE CAST FROM THE SAME MATERIAL AS THE COPING STONES.

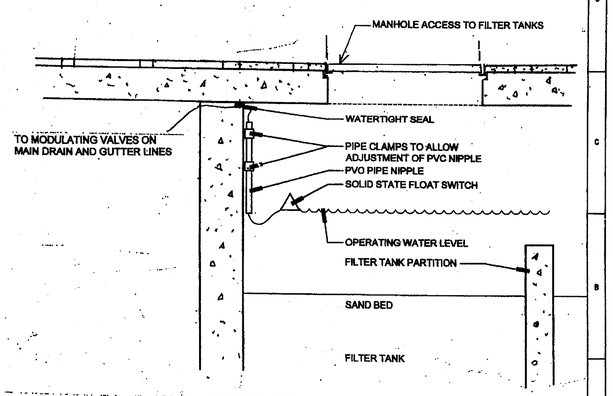
DEPTHS IN FEET AND METERS ON BOTH SIDES AND TOP, INTERNATIONAL "NO DIVING" SYMBOLS ON EACH END

4½" SKID-RESISTANT CERAMIC TILE FOR NUMBERS AND NO DIVING SYMBOL



DEPTH MARKER MONUMENTS & MISC. DETAILS

A1	DEPTH MONUMENT DETAILS
NO SCALE	



A11	AUTOMATIC WATER LEVEL CONTROL S
NO SCALE	

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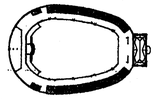
Tampa, FL 33674 813/920-9192

4-4-04



CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No.0202.00

Distribution	Date
BID DOCUMENTS	02.02.04
DOH PERMIT SUBMITTAL	07.12.04

POOL DETAILS

RECORD DWG.
DATE 8/26/05

PROJECT NORTH TRUE NORTH

Q402

217
009

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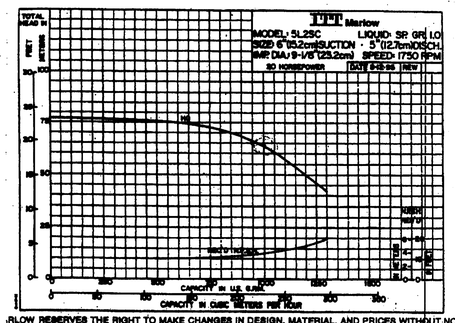
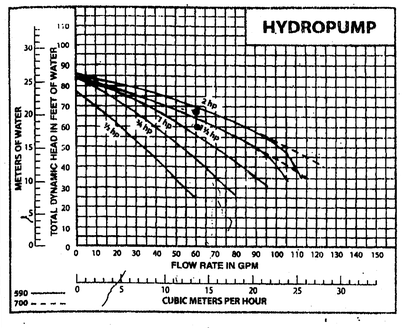
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

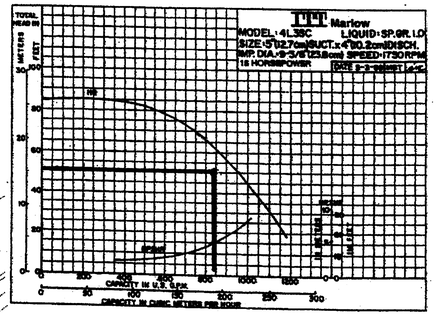
PERFORMANCE CURVES -Model 5L2SC

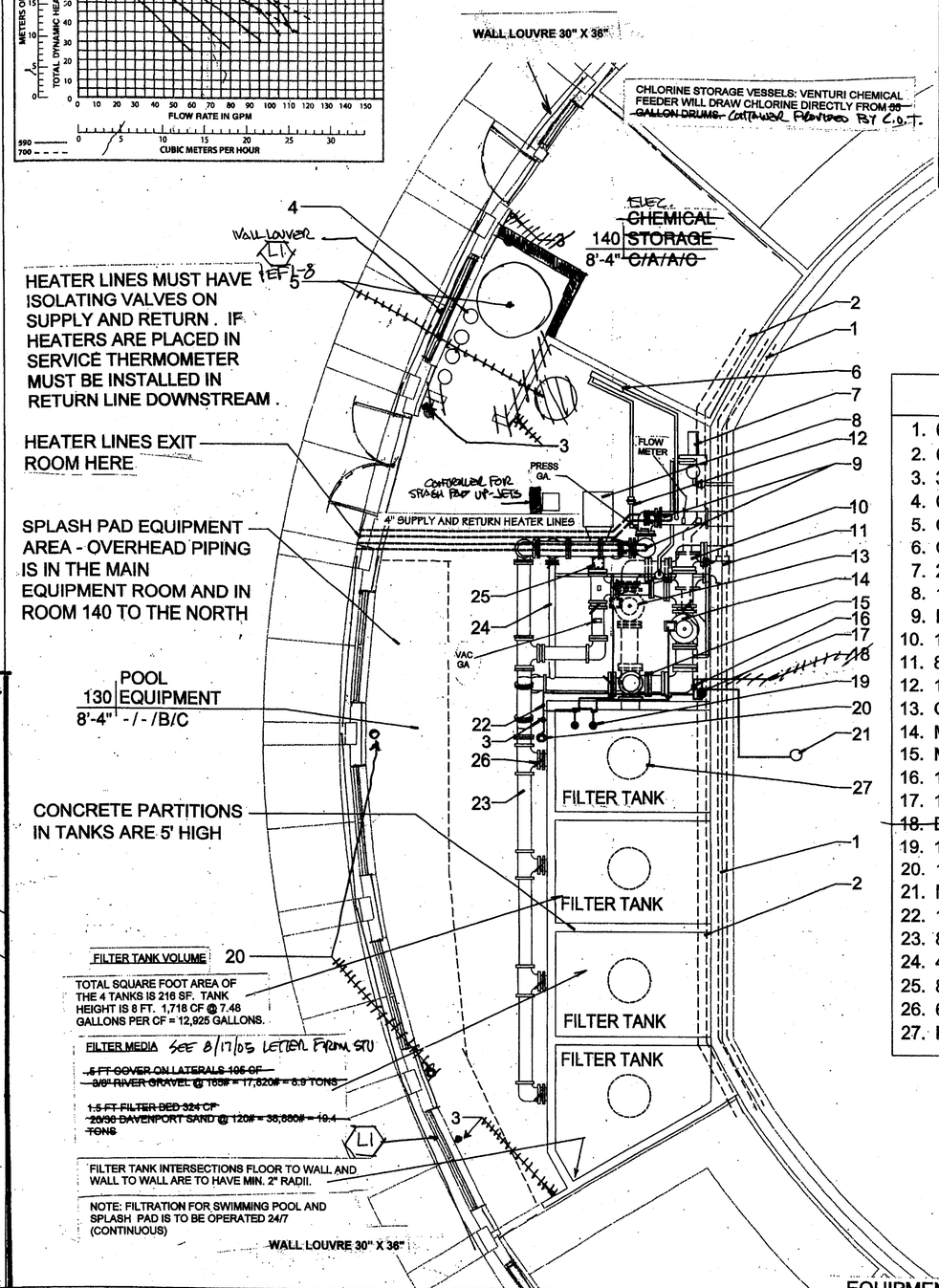


MARLOW RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN, MATERIAL, AND PRICES WITHOUT NO



PERFORMANCE CURVES -Model 4L3SC

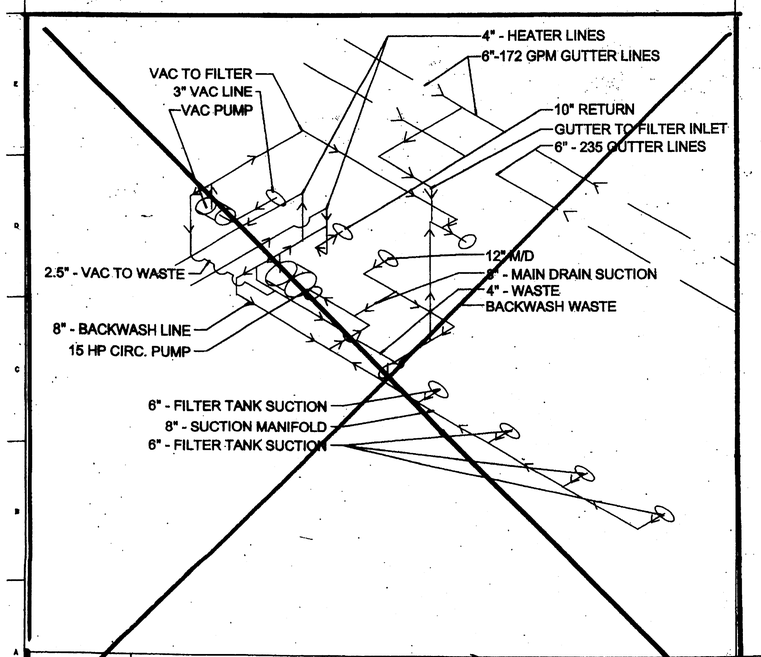




EQUIPMENT ROOM PIPING FOR SWIMMING POOL

LEGEND

1. 6", 172gpm GUTTER LINE
2. 6", 235gpm GUTTER LINE
3. 3/4" FULL BORE HOSE BIBB
4. CO2 TANKS (ALTERNATE STORAGE)
5. CL2 IN-USE TANK
6. CHEMICAL MONITOR/FEEDER CONTROL
7. 2 HP VACUUM PUMP
8. 15 HP CIRC PUMP
9. HEATER LINE
10. 12" MAIN DRAIN LINE
11. 8" COLLECTOR FOR 172gpm LINES
12. 1.5" CHEMICAL FEED LINE
13. GUTTER MODULATING VALVE
14. MAIN DRAIN MODULATING VALVE
15. MAIN DRAIN/GUTTER COLLECTOR TO FILTER
16. 1" MANUAL WATER MAKE-UP VALVE
17. 1" AUTO MAKE-UP VALVE
18. ~~DECK SET MAKE-UP JET.~~
19. 1/2" MODULATING VALVE CONTROLS
20. 1.5" POTABLE WATER CONNECTION
21. MAKE-UP WATER SENSOR, DECK SET
22. 1' MANUAL SHUT-OFF FOR MAKE-UP
23. 8" SUCTION MANIFOLD.
24. 4" PUMP TO WASTE LINE
25. 8" HAIR AND LINT STRAINER
26. 6" FILTER TANK ISOLATION VALVE (TYP)
27. FILTER TANK ACCESS (DECK LEVEL)



A4 MAIN POOL EQUIPMENT RISER

NOT TO SCALE

A5

3/16" = 1'-0"

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11-4-04

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida, 33602

Project No. 0202.00

Distribution	Date
50% Contract Documents	03.31.03
Contract Documents	04.25.03
90% Contract Documents	09.05.03

ENLARGED POOL EQUIPMENT ROOM PLANS

SCALE 1/4" = 1'-0"

RECORD DWG
DATE 8/26/05

PROJECT NORTH TRUE NORTH

Q701

217/009

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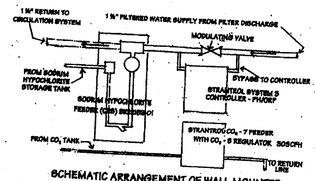
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

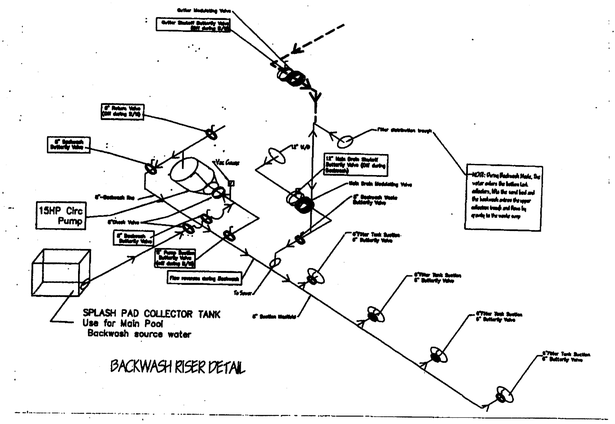


SCHEMATIC ARRANGEMENT OF WALL MOUNTED HYPOHALOGENATION EQUIPMENT

TYPICAL

VELOCITY IN SPLASH PAD PLUMBING MUST NOT EXCEED 20 FPS.

BACKWASHING PROCEDURE: BACKWASHING WILL BE DONE WHEN THE FACILITY IS CLOSED. WATER FOR BACKWASHING THE FILTERS WILL BE DRAWN FROM THE 2000 GALLON COLLECTOR TANK SERVING THE SPLASH PAD FILTERING SYSTEM. BACKWASH RATE IS 809 GPM AND BACKWASH TIME IS MAXIMUM TWO MINUTES. AFTER BACKWASHING IS COMPLETE THE POOL AND SPLASH PAD MAY BE PLACED BACK IN OPERATION AND THE AUTOMATIC WATER MAKE-UP DEVICE IN THE SPLASH PAD COLLECTOR TANK WILL REPLENISH THE WATER DRAWN OUT FOR BACKWASHING THE SAND FILTERS.



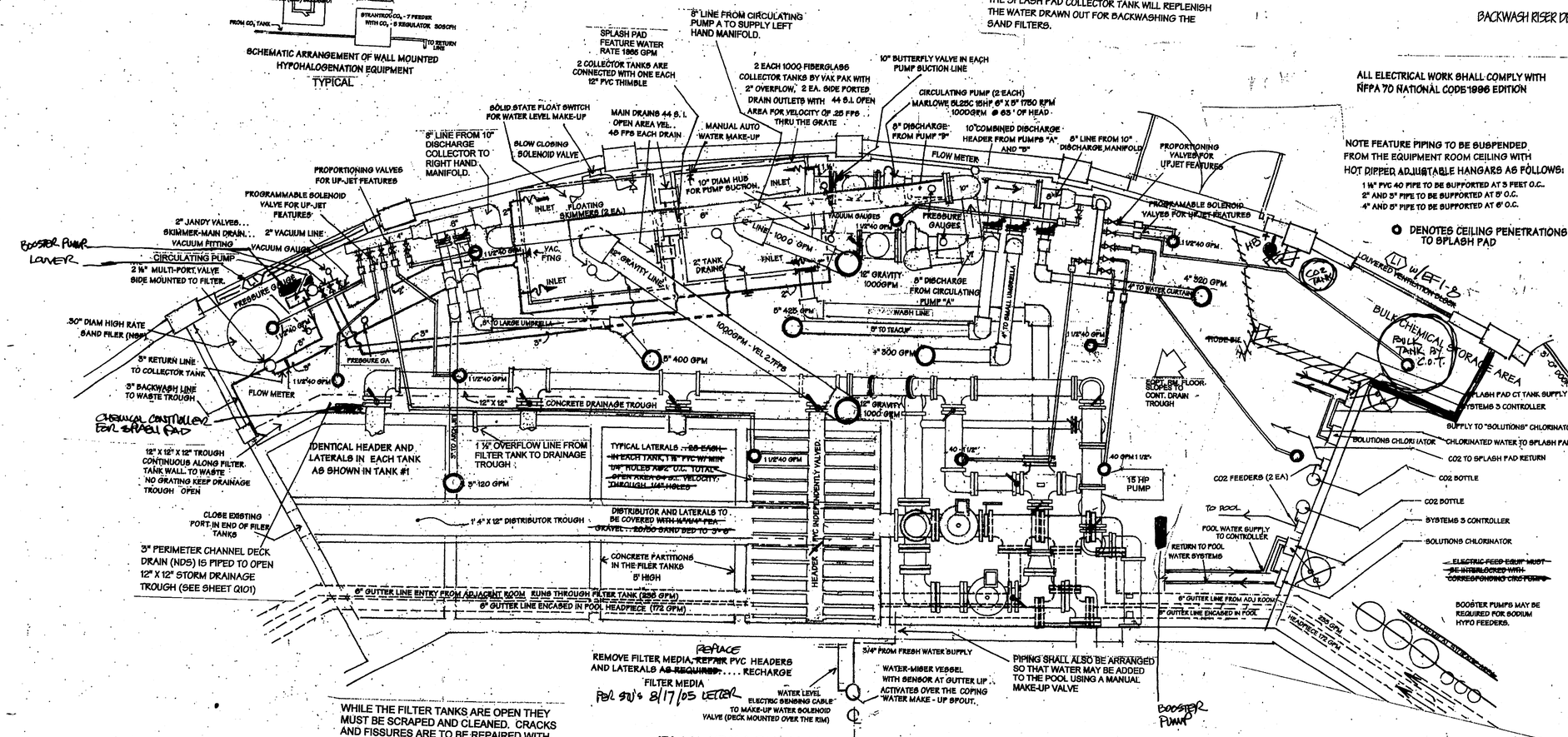
BACKWASH RISER DETAIL

ALL ELECTRICAL WORK SHALL COMPLY WITH NFPA 70 NATIONAL CODE 1996 EDITION

NOTE FEATURE PIPING TO BE SUSPENDED FROM THE EQUIPMENT ROOM CEILING WITH HOT DIPPED ADJUSTABLE HANGARS AS FOLLOWS:

1 1/2" PVC 40 PIPE TO BE SUPPORTED AT 5 FEET O.C.
2" AND 3" PIPE TO BE SUPPORTED AT 8' O.C.
4" AND 5" PIPE TO BE SUPPORTED AT 6' O.C.

O DENOTES CEILING PENETRATIONS TO SPLASH PAD



WHILE THE FILTER TANKS ARE OPEN THEY MUST BE SCRAPED AND CLEANED. CRACKS AND FISSURES ARE TO BE REPAIRED WITH VULKEM SEALANT #116. ANY VOIDS IN THE POURED CONCRETE WALLS AND FLOOR ARE TO BE PATCHED WITH HYDRAULIC CEMENT.

PLUMBING LAYOUT FOR SPLASH PAD

SCALE 3/8" - 1'-0"

SEE SHEET 1 FOR POOL SYSTEM OPERATION NARRATIVE

ALL EQUIPMENT ROOM DRAINAGE SLOPES TO 12" X 12" OPEN DRAINAGE TROUGH 30' LONG.

EQUIPMENT SHALL BE INSTALLED SO THAT CLEARANCE SHALL BE PROVIDED FOR ALL EQUIPMENT AS PRESCRIBED BY THE MANUFACTURER TO ALLOW NORMAL MAINTENANCE AND REMOVAL WITHOUT DISTURBING OTHER PIPING OR EQUIPMENT.

ELECTRICAL NOTE:
3 EA. 15 HP PUMPS
3 PHASE 240 VOLTS
ALL OTHER PUMPS
2 HP DOWN SINGLE PHASE 208/230 VOLTS

~~NON - HAMMERING CHECK VALVES TO BE INSTALLED ON THE DISCHARGE SIDE OF BOTH FEATURE PUMPS~~

ALL FLANGES TO HAVE STAINLESS STEEL BOLTS

VACUUM GAUGES TO BE INSTALLED ON THE SUCTION SIDE OF EACH PUMP. PRESSURE GAUGES ON DISCHARGE SIDE OF PUMP

SPLASH PAD C.T. TANKS AND POOL FILTER TANKS MUST HAVE 2" MINIMUM COVE AT ALL INSIDE CORNERS.

FILTER RATE THROUGH HI-RATE SAND SPLASH PAD FILTER IS 13.7 GPM PER SQUARE FOOT OF FILTER AREA. FILTER RATE THROUGH VACUUM SAND FILTER IS 3.75 GPM PER SQ. FOOT OF FILTER AREA.

PRESSURE SAND FILTER TO HAVE AUTOMATIC AIR RELIEF VALVE

VACUUM AND CIRC PUMPS TO BE EQUIPPED WITH VACUUM GAUGES (0-30") AND PRESSURE GAUGES (0-60#)

AUTOMATIC WATER MAKE-UP ON POOL IS REGULATED BY A "WATER MISER" TANK MOUNTED IN DECK AT POOL SIDE WHICH WILL ACTIVATE AN OVER-THE-COPING WATER MAKE-UP SPOUT.

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11-4-04

EQUIPMENT ROOM PIPING FOR POOL AND SPLASH PAD

RECORD DWG.
DATE 8/26/05

SHEET Q702

217/009

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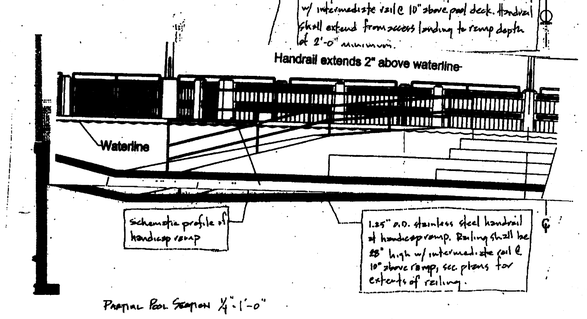
HILLSBOROUGH COUNTY HEALTH DEPARTMENT

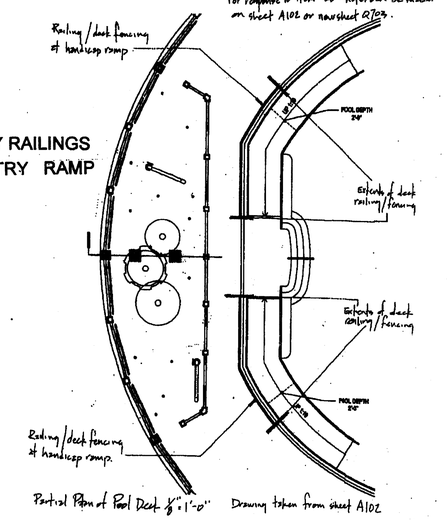
For response to Item #28 and #22. In regards to item #22 - nothing in the code indicates railing must be 2' above water level. We do not want to change the design unless the code requires it. If the code requires, we ask that the health dept. provide reference so we may design accordingly.

Profile of deck fencing / railing around handicap ramp. Railing to be 1.25" o.d. stainless steel handrail 28" high w/ intermediate rail @ 10" above pool deck. Handrail shall extend from access landing to ramp depth of 2'-0" minimum.



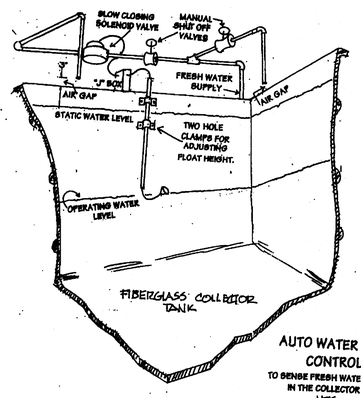
Partial Pool Section 1/4" = 1'-0"

For response to Item #28 - notes can be made on sheet A102 or new sheet Q703.

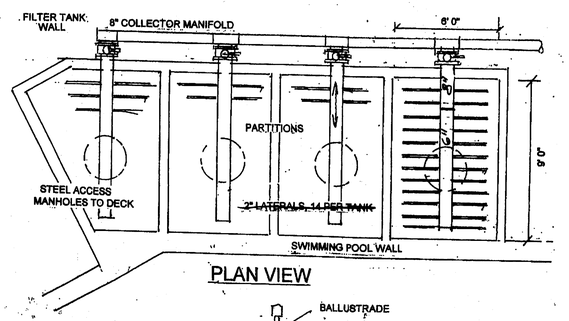


SAFETY RAILINGS ON ENTRY RAMP

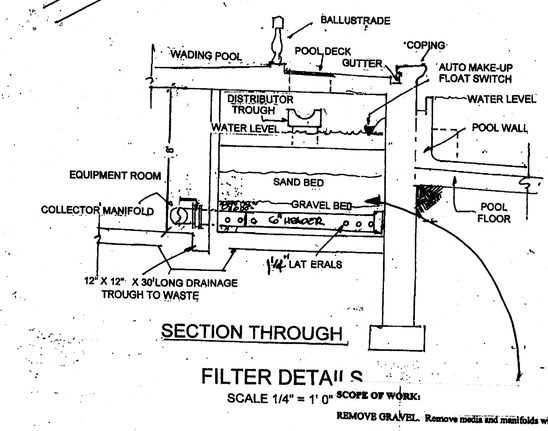
Partial Plan of Pool Deck 1/8" = 1'-0" Drawing taken from sheet A102



AUTO WATER LEVEL CONTROL.
TO SENSE FRESH WATER DEMAND IN THE COLLECTOR TANK
NTS



PLAN VIEW



SECTION THROUGH

FILTER DETAILS

SCALE 1/4" = 1' 0"

SCOPE OF WORK:

REMOVE GRAVEL. Remove media and manifolds with laterals. Clean the tank.

FURNISH and INSTALL. 4 ea. New 6" schedule 80 manifolds prox 8' 6 long. Cap one end and install 8" x6" reducer on the other end. Connect to existing thimbles through the filter tank walls. Prepare for laterals. (See later)

INSTALL SUPPORTS for each manifold so that they will withstand foot traffic and abuse from placing gravel bed.

FURNISH and INSTALL prox 96 new 1 1/4" schedule 80 laterals. Drill 1/4" holes on prox 2" O.S. Cap one end. Install female adaptors on the opposite ends.

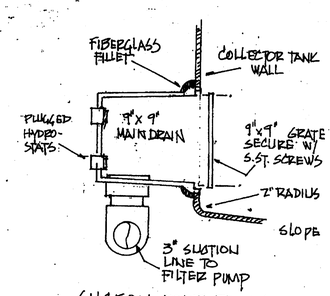
Drill the 6" headers as originally planned, 14 each threaded holes, two rows opposite each other to receive the 1 1/4" laterals.

INSTALL MANIFOLDS AND LATERALS. Place supports under each lateral to prevent damage while charging the filters and installing the gravel underdrain.

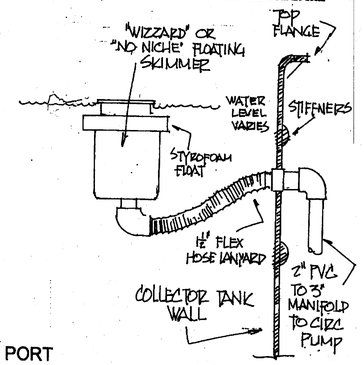
Charge the filters.

Course:	Replace the large rock which was removed from the tanks. This must give minimum 8" cover over the new laterals. Bring to level.
Intermediate:	Install 4" layer of 3/8" pea gravel over coarse bed. Bring to level. (Prox 2 3/4 yds.
Final:	Install 4" layer of 3/16" rock and bring to level. (Prox 2 3/4 yds.)
Sand bed:	Install standard filter sand to bring sand portion of the filter bed to 18" in depth. (Prox 12 ½ yds)

WET THE FILTER BED, then carefully backwash the system, all tanks simultaneously, while visually monitoring the backwash through the access manholes in the deck.

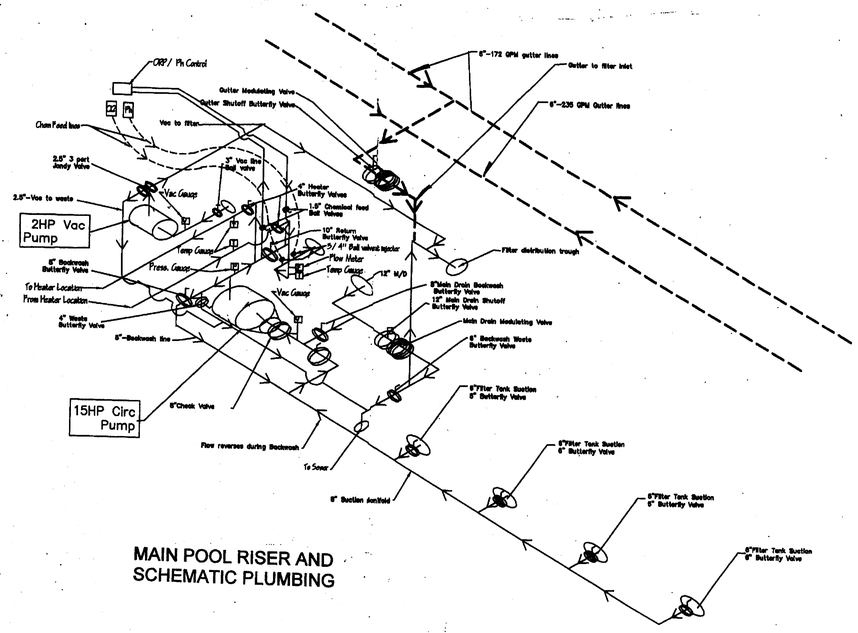


SUCTION PORT FROM SPLASH PAD COLLECTOR TANK (TWO EACH) NTS

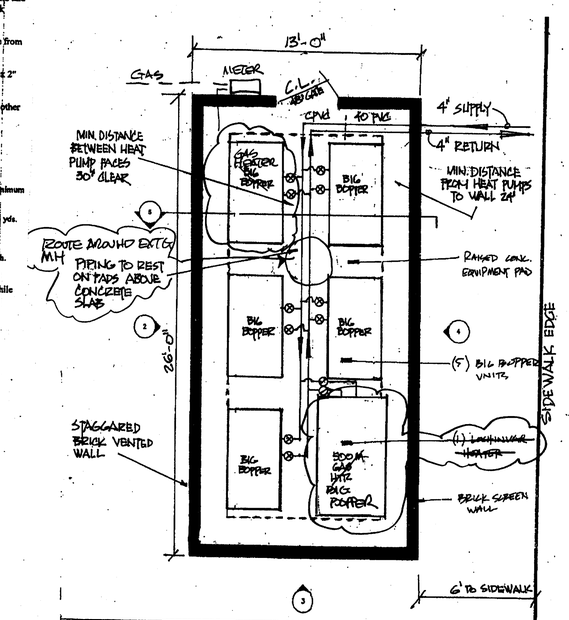


SKIMMER AND AND SIDE PORT FOR COLLECTOR TANK

FLOATING SKIMMER IN SPLASH PAD COLLECTOR TANK NTS



MAIN POOL RISER AND SCHEMATIC PLUMBING



G1	HEATER FLOOR PLAN
1/4" = 1'-0"	

RECORD DWG.
DATE 8/26/05

Silcox Engineering, Inc. Civil Engineering
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Tampa, FL 33674 813/920-9192

11-4-01

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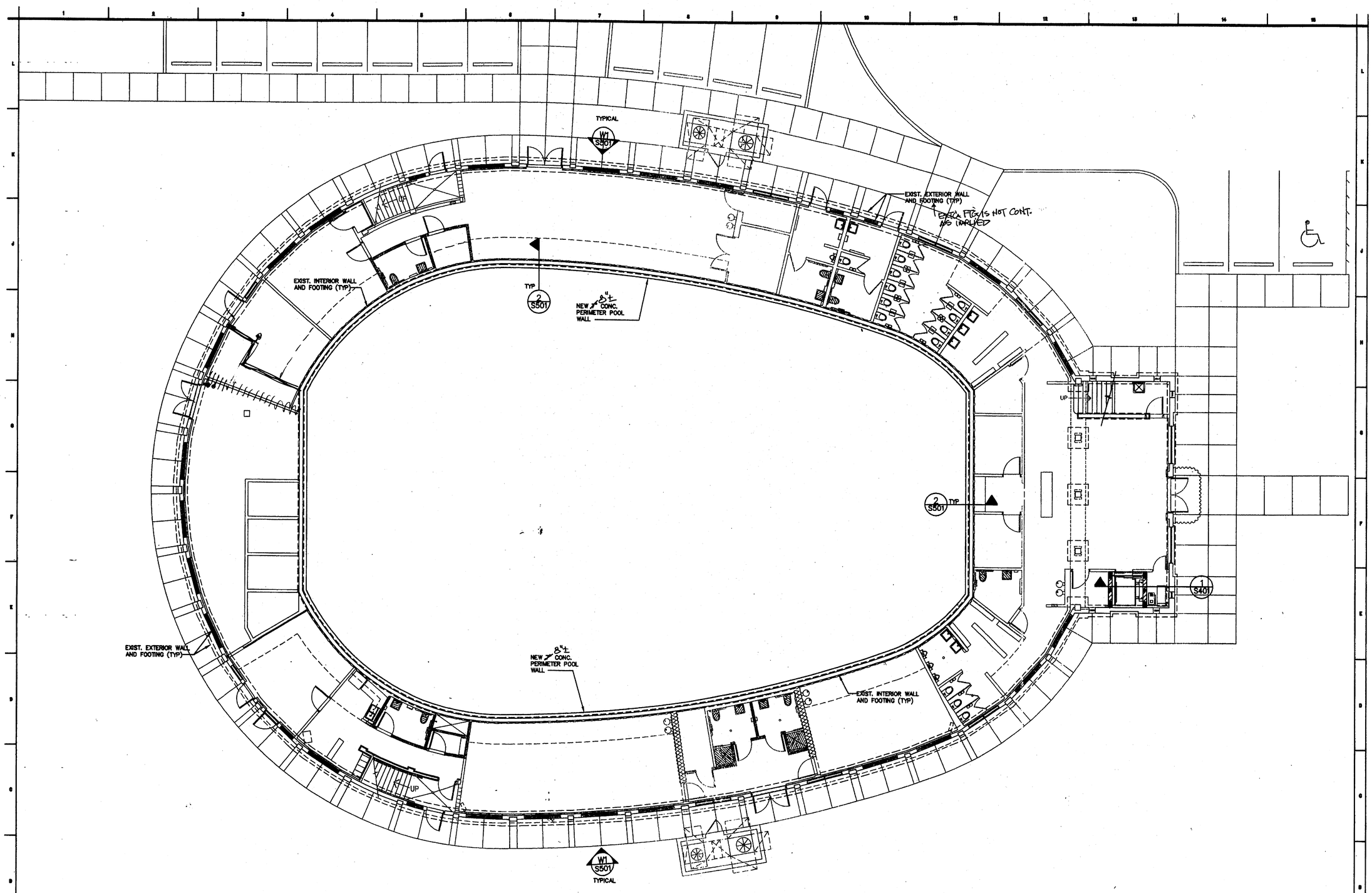
SHEET Q 703



FOUNDATION PLAN

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

ROWE ARCHITECTS INCORPORATE
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813.221.8771
AAC002172

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
Bid Documents	02.02.04

FOUNDATION PLAN

RECORD DWG.

DATE 8/26/05

0 4 8 16 FT

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33660

Signature Date

MASTER CONSULTING ENGINEERS, INC.
2907 W. BAY TO BAY BOULEVARD, #201
TAMPA, FLORIDA 33629-6181
813.835.4885 FAX 813.835.5226
MCE@mcengineers.com
EB: 8426 PROJ NO.

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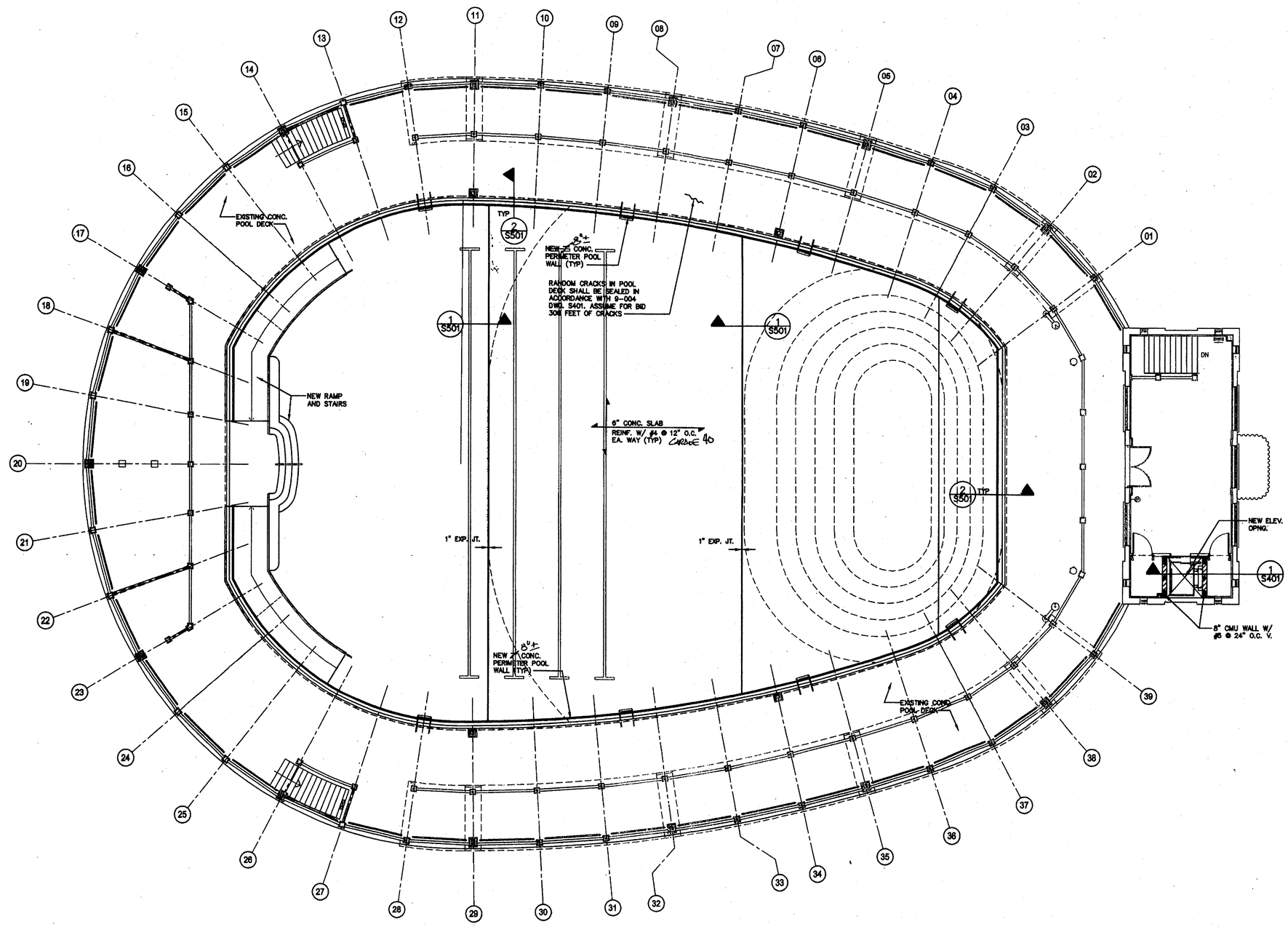
S101



TOP DECK PLAN

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

ROWE ARCHITECTS INCORPORATED
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Tampa, Florida 33602.4704
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Fax: 813.221.9154
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AAC002172

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00	
Distribution	Date
Bid Documents	02.02.04

TOP DECK PLAN

RECORD DWG.
DATE 8/26/05

1/8"=1'-0"

0 4 8 16 FT

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33860

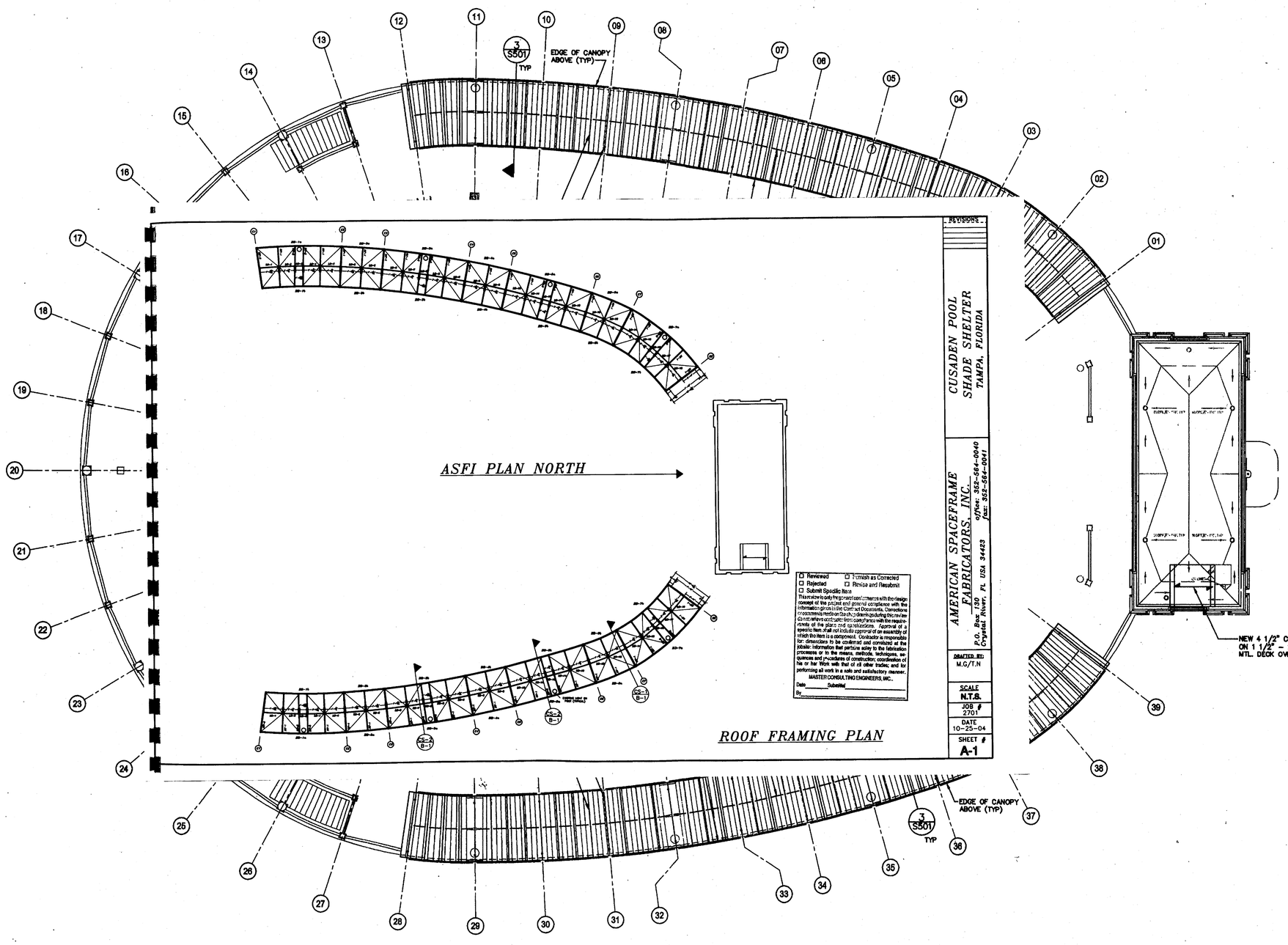
MASTER CONSULTING ENGINEERS, INC.
2907 W. BAY TO BAY BOULEVARD, #201
TAMPA, FLORIDA 33629-8161
813.835.4866 FAX 813.835.9226
MCE@mcengineers.com
EB: 8426 PROJ NO.

Signature Date

RECEIVED
FEB 23 2004
CONST. TECH. GROUP, INC.

217
009

S201



ROOF PLAN

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

REVISIONS

CUSADEN POOL
SHADE SHELTER
TAMPA, FLORIDA

AMERICAN SPACEFRAME FABRICATORS, INC.
P.O. Box 130
Crystal River, FL USA 34423
office: 352-564-0040
fax: 352-564-0041

DRAFTED BY: M.G./T.N

SCALE: N.T.S.

JOB # 2701

DATE 10-25-04

SHEET # A-1

☐ Reviewed ☐ Furnish as Corrected
☐ Rejected ☐ Revise and Resubmit
☐ Submit Specific Item

Review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; coordination of his or her Work with that of all other trades; and for performing all work in a safe and satisfactory manner.

MASTER CONSULTING ENGINEERS, INC.

Date _____ Submitted

By _____

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33860

Signature _____ Date

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1/8" = 1'-0"

0 4 8 16 FT

S301

RECEIVED FEB 23 2004 CONST. TECH. GROUP, INC.

217/009

TENSION AND COMPRESSION LAP SPLICES W/ F'c= 4000 PSI   3-066

f'c=4000 PSI, NORMAL WEIGHT

BAR SIZE	LAP CLASS	TENSION LAP SPLICES — TOP BARS CATEGORY 1	2	3	4	5	6	OTHER BARS CATEGORY 1	2	3	4	5	6	COMPRESSION LAP SPLICES
#3	A	14	14	14	14	14	14	12	12	12	12	12	12	14
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#4	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#5	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#6	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#7	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30
	B	77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#8	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	34
	B	[illegible]	[illegible]	71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37	
#9	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	38
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#10	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44
	B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
#11	A	[illegible]	[illegible]	[illegible]	[illegible]	77	[illegible]	[illegible]	[illegible]	[illegible]	67	[illegible]	[illegible]	49
	B	[illegible]	[illegible]	[illegible]	112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	77	[illegible]	
#14	N/A	[illegible]	[illegible]	147	147	[illegible]	[illegible]	[illegible]	[illegible]	113	113	[illegible]	81	
#18	N/A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	119	119	

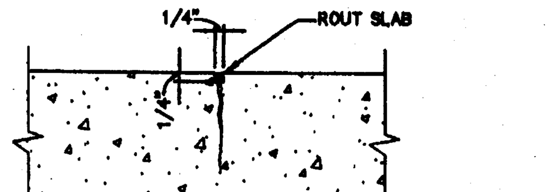
NOTES:

1. CATEGORIES 1 THROUGH 6, WHICH DEPEND ON THE STRUCTURAL ELEMENT, CONCRETE COVER, AND THE CENTER-TO-CENTER SPACING OF THE BARS, AS SHOWN IN THE TABLE BELOW THIS DETAIL.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
3. USE LAP CLASS "B" U.N.O..
4. #11 AND SMALLER EDGE BARS WITH CENTER-TO-CENTER SPACING NOT LESS THAN 6d ARE ASSUMED TO HAVE A SIDE COVER NOT LESS THAN 2.5d. OTHERWISE CATEGORY 5 APPLIES RATHER THAN CATEGORY 6.
5. FOR LIGHTWEIGHT AGGREGATE, MULTIPLY THE VALUES ABOVE BY 1.3.
6. FOR EPOXY COATED REINFORCING BARS, MULTIPLY THE VALUES IN THE SPLICE TABLE AS SHOWN ON THIS DRAWING BY ONE OF THE VALUES IN THE BAR COVER AND SPACING TABLE THIS DRAWING.
7. FOR SPLICE OF BARS WITH DIFFERENT SIZE USE VALUE REQUIRED FOR LARGER BAR.
8. ACI 318-95 CODE DOES NOT ALLOW LAP SPLICE OF #14 OR #18. VALUES SHOWN ARE TENSION DEVELOPMENT LENGTH.

STRUCTURAL ELEMENT	CONCRETE COVER	CATEGORY, ACCORDING TO CENTER-TO-CENTER SPACING ≤ 3db	> 3db, < 4db	≥ 4db, < 6db	≥ 6db
BEAMS, COLUMNS, AND INNER LAYER OF WALLS OR SLABS	≤ db > db	1 1	1 3	1 5	2 6
ALL OTHERS	≤ db > db, < 2db ≥ 2db	1 1 1	1 3 3	1 3 5	2 4 6

BAR COVER AND SPACING	TOP BARS	OTHER BARS
COVER < 3db or C.-C. SPACING < 7db	1.31	1.50
COVER ≥ 3db & C.-C. SPACING ≥ 7db	1.20	1.20

TYPICAL SECTION – CRACK TYPE I (20 MILLS TO 1/4")   9-004



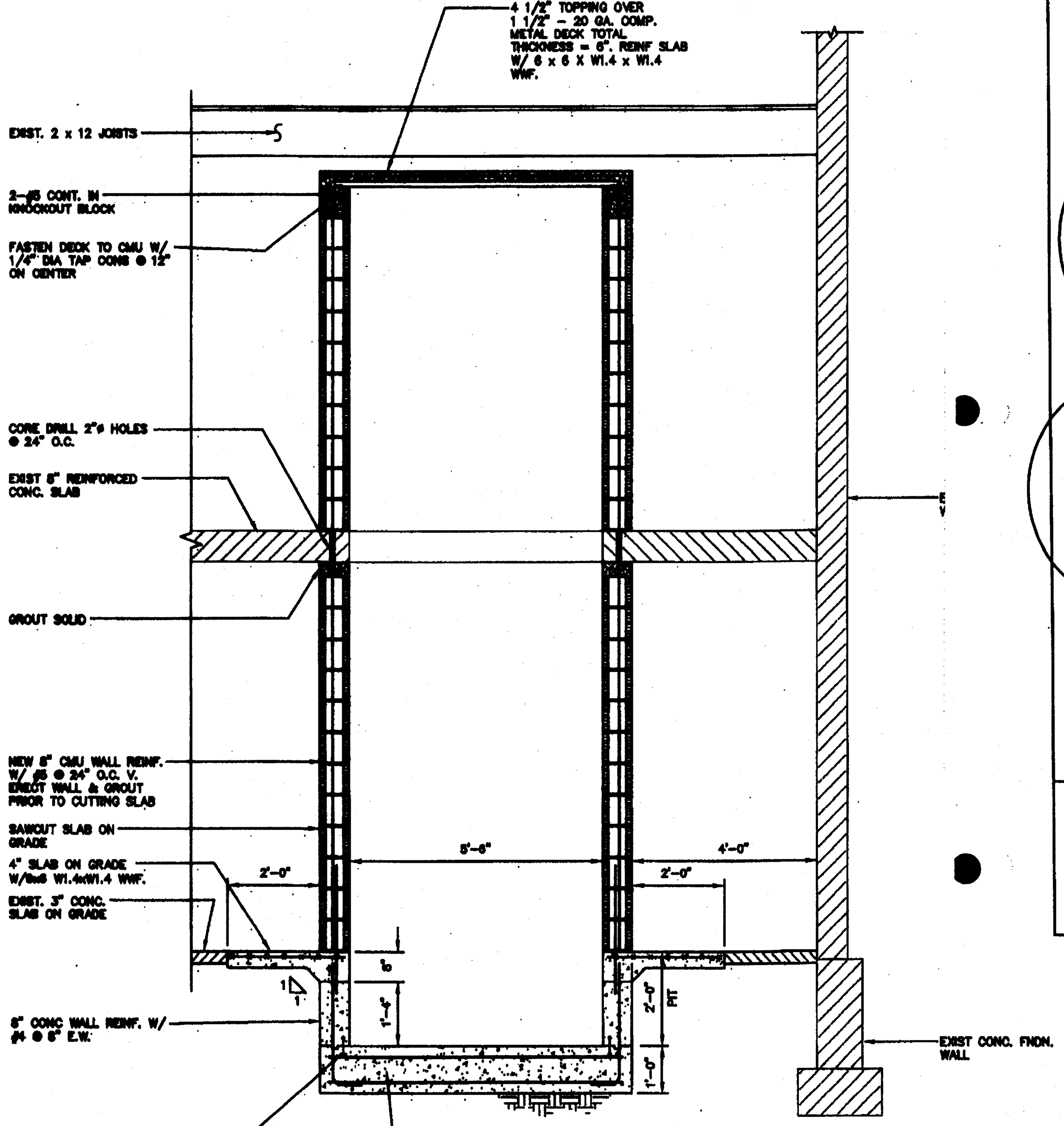
CRACKS TYPE I
(20 MILLS TO 1/4")

SURFACE PREPARATION:

1.– VEE NOTCH THE SURFACE OF THE CRACK WITH A MECHANICAL ROUTER OR HAND CHIPPING TOOL TO A MAXIMUM WIDTH OF A 1/4". REMOVE LOOSE DEBRIS.
2.– REMOVE ALL DUST, LAITANCE, GREASE, CURING COMPOUND, WAXES, IMPREGNATIONS, FOREIGN PARTICLES, EFFLORESCENCE AND OTHER BOND INHIBITING MATERIALS FROM THE SURFACE BY MECHANICAL MEANS, I.E. – SANDBLASTING, HIGH PRESSURE WATERBLASTING, ETC., AS APPROVED BY ENGINEER.
3.– SEAL UNDERSIDE OF SLAB IF CRACKS REFLECT THROUGH WITH AN EPOXY GEL.

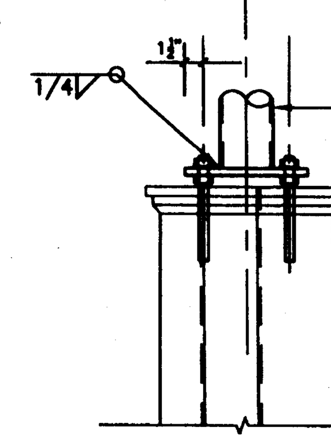
REPAIR PROCEDURE:

SIKA PRODUCTS:
1.– POUR NEAT SIKADUR 35 HI-MOD LV EPOXY RESIN ADHESIVE INTO VEE NOTCHED CRACK. REPLENISH THE RESERVOIR WITH THE MIXED EPOXY RESIN ADHESIVE UNTIL CRACKS HAVE BEEN COMPLETLY FILLED.
2.– IF PENETRATION OF ANY CRACK IS IMPOSSIBLE, CONSULT THE ENGINEER.



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

RESPONSIBILITY TO INFORM THE ARCHITECT AND ENGINEER OF SUCH CONFLICT IN ORDER TO RECEIVE A CLARIFICATION BEFORE PROCEEDING TO WORK.



NEW 4 1/2" DIA. GALV LIGHT POLE PIPE COLUMN W/ 12" X 12" X ¾" BASE PLATE PROVIDE (4) ¾" DIA S.S. EPOXY ANCHORS (8" EMB) INTO EXIST COLUMN. RAISE PLATE ABOVE TOP OF COL 1" W/ LEVELING NUTS DO NOT GROUT.

EXIST CONC 14"X14" CONC. COLUMN W/ VENT STACK EXTENDING 2" FROM TOP OF COLUMN. CUT PIPE FLUSH W/ TOP OF COLUMN.

TYPICAL LIGHT POLE BASE DETAIL (X4)

SECTION 2
SCALE: 3/4"=1'-0"

REFERENCE DWG. S401

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EB: 8426

SUBJECT: LIGHT POLE BASE DEATIL
CLIENT: ROWE ARCHITECTS
PROJECT: CUSCANDEN POOL   JOB NO: 2100-115
SHEET NO. SSK-005   DES. BY: JRM
DATE: 08/06/04

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
2. DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE BUILDING IS COMPLETED.
4. ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:
   A. THE FLORIDA BUILDING CODE, 2001 EDITION.
   B. ACI STANDARD 318-99 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
   C. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-99/ASCE 5-99).
   D. AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION.
5. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO PERFORMING WORK.

CONCRETE AND REINFORCING

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

CONCRETE STRENGTH	TYPE AGGREGATE	WHERE USED
4,000 PSI	STONE	ALL CONCRETE, U.N.O.

3. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE PRIOR TO POURING CONCRETE.
4. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A-185.
5. UNLESS NOTED, ALL BARS MARKED CONT. SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOPS BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS.
6. CONCRETE COVER FOR REINFORCING BARS SHOWN IN TYPICAL DETAILS.
7. UNLESS NOTED, TEMPERATURE REINFORCING (ASTM A-615-60) TO BE 0.0018 X CONCRETE AREA.
8. PROVIDE #4 @ 12" O/C TOP BARS IN ALL SLABS AT DISCONTINUOUS ENDS UNLESS OTHERWISE NOTED ON PLANS. LENGTH OF BARS 1/4 OF SPAN, MINIMUM 3'–0".
9. WHERE PIPE SLEEVES (UP TO 2" IN DIAMETER) PASS THROUGH CONCRETE BEAMS, PROVIDE ADDITIONAL STIRRUP EACH SIDE OF SLEEVE, SLEEVES FOR PIPES 2" IN DIAMETER OR LARGER MUST BE STEEL OR CAST IRON, AND THE LOCATION MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
10. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED JUST BEFORE PLACING NEW CONCRETE.
11. FOR CHAMFER OF EXPOSED CORNERS OF BEAMS AND/OR COLUMNS, SEE ARCHITECTURAL DRAWINGS.
12. CONTRACTOR SHALL COORDINATE PLACEMENT OF, OR BOX OUT FOR, ALL PIPE SLEEVES, OPENINGS, ETC, REQUIRED FOR VARIOUS TRADES.
13. CONTRACTOR SHALL COORDINATE AND NOTIFY OTHER TRADES IN SUFFICIENT TIME TO ALLOW THEM TO SET ANCHORS, INSERTS, BOLTS, HANGERS, ETC., AS REQUIRED FOR THEIR USE.
14. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF FLASHING REGLETS, FASCIA DETAILS, ETC,
15. UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUGGIES, CHUTES, CONVEYORS, TREMIE PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.
16. SLUMPS OF OVER 4 INCHES WILL NOT BE PERMITTED UNLESS THE HRWR ADMIXTURE (SUPER PLASTICIZER) IS USED. MAXIMUM SLUMP IS THEN 8 INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN ANY CASE, THE MAXIMUM WATER-CEMENT RATIO SHALL BE 0.42 FOR 4,000 PSI CONCRETE.
17. NO ADMIXTURE SHALL BE USED IN CONCRETE EXCEPT WITH THE PERMISSION OF THE ENGINEERS AND AFTER LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER.
18. WATER REDUCING ADMIXTURE SHALL CONFORM TO ASTM C-494, TYPE A, AND SHALL BE USED IN ALL CONCRETE.
19. AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. AIR CONTENT OF CONCRETE SHALL BE USED AS FOLLOWS:
   A. FOR CONCRETE EXPOSED TO SOIL AND/OR WEATHER, 5%.
   B. FOR INTERIOR WALLS, COLUMNS, AND SLABS, 3%.

NOTE:
IN CASE OF CONFLICT BETWEEN INFORMATION SHOWN ON THIS DRAWING, SECTION DRAWINGS OR ARCHITECTURAL DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE ARCHITECT AND ENGINEER OF SUCH CONFLICT IN ORDER TO RECEIVE A CLARIFICATION BEFORE PROCEEDING TO WORK.

FOUNDATION NOTES:

1. FOUNDATIONS FOR THIS PROJECT HAS BEEN DESIGNED ASSUMING THE SOIL IS SUITABLE TO SUPPORT 2 KSF SPREAD FOOTINGS. CONTRACTOR MUST VERIFY SOIL CONDITIONS AND BEARING CAPACITY.
2. COMPACT FILL TO 98 % MODIFIED PROCTOR.
3. ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTERLINES UNLESS OTHERWISE NOTED.
4. BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT, AFTER SLABS ON GROUND ARE IN PLACE AND CONCRETE HAS SET. NO TRUCKS, BULLDOZERS, ETC. SHALL BE ALLOWED CLOSER THAN 6'–0" TO ANY FOUNDATION WALL.
5. NO FOOTINGS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPES EXTENDED FROM THE CLOSES EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF FOOTINGS SHALL NOT BE LESS THAN 1'–0" BELOW EXISTING GRADE (U.N.O.).
6. CONCRETE SLABS ON GRADE TO BE 6" THICK STONE CONCRETE REINFORCED WITH #4@12" O.C. ON PROPERLY COMPACTED SUBBASE.
7. TOP OF FOOTING SHOWN THUS ('– ") ON PLAN OR SECTION IS REFERENCE TOP OF FOOTING ELEVATION.
8. ELEVATOR PIT DIMENSIONS – VERIFY WITH ELEVATOR MANUFACTURERS' APPROVED SHOP DRAWINGS.
9. WATER PROOFING MATERIALS SHALL BE PROVIDED ON ALL SIDES AND BOTTOM OF ELEVATOR.

MASONRY

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 930-99/ASCE 9-99).
2. MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE 1900 PSI (f'm = 1500 PSI).
3. MORTAR FOR MASONRY SHALL BE TYPE S OR M.
4. FOR LOAD BEARING WALLS, ALL BED JOINTS ARE TO COVER 100% OF THE MASONRY SURFACES AND ALL HEAD JOINTS ARE TO COVER 100% OF THE PROJECTED AREA OF THE FACE SHELLS.
5. MINIMUM HORIZONTAL REINFORCING SHALL BE 9 GAGE TRUSS TYPE JOINT REINFORCING @ 16".
6. MINIMUM VERTICAL REINFORCING SEE PLAN & SECTION.
7. FILL ALL CELLS AS REQUIRED WITH 3000 PSI GROUT. SLUMP SHALL BE 8 TO 11 INCHES. SUBMIT DESIGN MIX FOR APPROVAL.
9. PROVIDE ADDITIONAL VERTICAL REINFORCING BAR AT EVERY CORNER, INTERSECTION AND OPENING EDGES. (U.O.N.)
10. SIZES OF TIE BEAMS AND TIE COLUMNS ARE NOMINAL.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST A.I.S.C. SPECIFICATIONS.
2. ALL STRUCTURAL STEEL SHALL BE NEW, CLEAN, AND STRAIGHT, AND SHALL CONFORM TO ASTM SPECIFICATIONS A572, FY = GR50 KSI, EXCEPT AS NOTED. ALL STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE "B", NOTED FY = 46 KSI. PLATES AND OTHER SHAPES SHALL CONFORM TO ASTM A36, FY = 36 KSI.
3. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325 AND SHALL BE PROVIDED WITH HARDENED WASHERS UNDER THE TURNED ELEMENT (NUT OR BOLT HEAD).
4. INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS", TURN OF THE NUT METHOD.
5. SHOP CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED. ALL BOLTS SHALL BE 3/4" DIAMETER MIN.. ALL CONNECTIONS SHALL CONFORM TO THE TYPICAL CONNECTION DETAILS SHOWN ON THE PLANS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
6. ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS, SLIP-CRITICAL (FRICTION) TYPE.
7. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION.
8. STEEL CONTRACTOR SHALL PROVIDE STEEL FRAMING AS SHOWN IN TYPICAL DETAILS FOR ALL ROOF OPENINGS OR SUMP PAN OPENINGS 8" OR GREATER.
9. CUTS, HOLES, COPINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AS REQUIRED BY THE ENGINEER.
10. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER.
11. AT COLUMNS, IF EDGES OF METAL DECK WOULD NOT OTHERWISE BE SUPPORTED, PROVIDED 3 X 3 X 1/4" THICK MINIMUM BENT PLATES OR ANGLES FOR METAL DECK SUPPORTS (MAY BE FIELD WELDED).
12. ALL STEEL MEMBERS EXPOSED TO WEATHER (SUCH AS LINTELS, DOOR JAMBS, CANOPIES, ETC.) SHALL BE GALVANIZED.
13. FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS.
14. PROVIDE HOLES FOR WOOD BLOCKING AS SHOWN ON DRAWINGS.
15. ANY STEEL MEMBERS REQUIRED BY THE ELECTRICAL OR MECHANICAL TRADES FOR THE SUPPORT OF THEIR EQUIPMENT, WHICH ARE NOT SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS, SHALL BE PROVIDED BY THE TRADE REQUIRING SUCH SUPPORT.
16. ALL STEEL TUBES AND PIPE COLUMNS SHALL HAVE 1/4" THICK MIN. CLOSURE PLATES AND 1/4" DIA WEEP HOLE @ LOWEST POINT
17. SEE SPECIFICATIONS FOR PAINTING OF STRUCTURAL STEEL. ALL FABRICATION AND ERECTION MARKS SHALL BE COVERED DURING FIELD TOUCH-UP PAINTING.

SHOP DRAWINGS

1. NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
2. ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS DETAILER.
3. DETAILER SHALL CHECK ALL ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
4. SHOP DRAWINGS SHALL BE SUBMITTED TO ALLOW SUFFICIENT TIME FOR PROCESSING.
5. ALL SHOP DRAWINGS SHALL BE SUBMITTED ON TRANSPARENCIES FOR DIRECT REPRODUCTION WITH TWO PRINTS ONLY. DISTRIBUTION AS PER ARCHITECT INSTRUCTIONS.
6. PROVIDE SUFFICIENT SPACE ON SHOP DRAWINGS NEAR TITLE BOX (ABOUT 40 SQUARE INCHES) FOR STAMPS AND ENGINEERS COMMENTS.
7. THE SHOP DRAWINGS SHALL BEAR INITIALS OF DETAILER'S CHECKER AND CONTRACTOR PRIOR TO SUBMISSION.
8. COMPLETED ERECTION PLANS SHALL BE SUBMITTED PRIOR TO OR IN CONJUNCTION WITH DETAIL DRAWINGS. BUT IN NO CASE SHALL DETAIL DRAWINGS BE SUBMITTED PRIOR TO ERECTION PLANS.
9. DETAILER SHALL SUBMIT AN INDEX OF THE DETAIL DRAWINGS WITH EACH SHOP DRAWING SUBMITTAL.
10. SHOP DRAWINGS NOT COMPLYING WITH ALL THE ABOVE ITEMS SHALL BE RETURNED FOR CORRECTIONS WITHOUT PROCESSING.
11. RESUBMITTED SHOP DRAWINGS SHALL HAVE THE FOLLOWING CHANGES INCORPORATED:
   A. FIRST RESUBMISSION TO HAVE LETTER "A" ADDED TO DRAWING NUMBER AND ANY CHANGES MARKED ON THE DRAWING MARKED 1 AT EACH ITEM CHANGED. ALL ITEMS TO BE NOTED IN REVISION BOX.
   B. SUBSEQUENT RESUBMISSION SHALL BEAR CHANGES "B" AND 2 AND 3 ETC. AS IN 11A.
12. CONTRACTOR SHALL HAVE SHOP DRAWINGS WHICH HAVE BEEN SATISFACTORILY REVIEWED BY THE ARCHITECT AND/OR ENGINEER AND CONFIRMED BY THE CONTRACTOR BEFORE PROCEEDING WITH ANY WORK.
13. DETAILER SHALL USE THE SAME COLUMN NUMBERS IN HIS DETAILS AS THOSE SHOWN ON CONTRACT DRAWINGS.

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33860

Signature   Date

MASTER CONSULTING ENGINEERS, INC.
2907 W. BAY TO BAY BOULEVARD, #201
TAMPA, FLORIDA 33629-8161
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MCE@mcengineers.com
EB: 8426   PROJ NO.

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www.RoweArchitects.com
Fax: 813.221.9154
813.221.8771
AAC002172

[redacted]

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
Bid Documents	02.02.04

TYPICAL DETAIL AND GENERAL NOTES SECTIONS

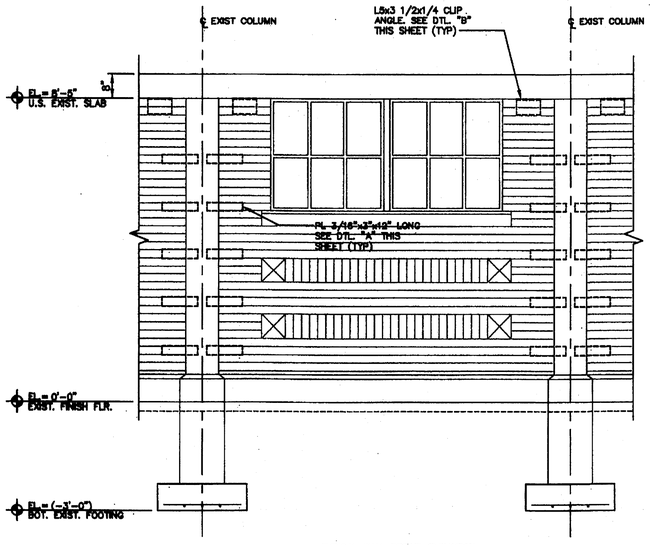
RECORD DWG.
DATE 8/26/05

PROJECT NORTH   TRUE NORTH

RECEIVED FEB 23 2004 CONST. TECH GROUP, INC.

S401

217/009



TYPICAL WALL REPAIR ELEVATION

WALL ELEVATION W1

SCALE: 1/2"=1'-0" (OUTSIDE VIEW)

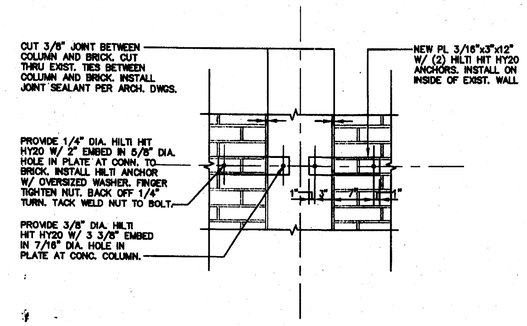
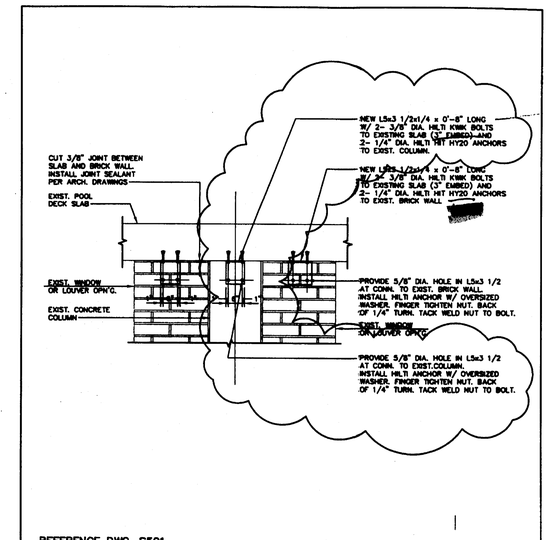


PLATE DETAIL "A"

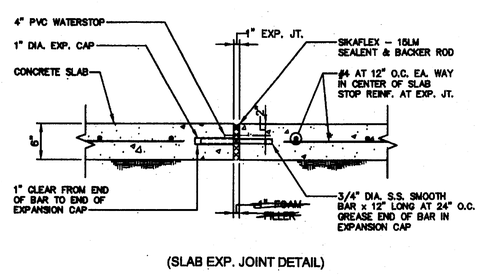
SCALE: 1"=1'-0" (INSIDE VIEW)



REFERENCE DWG. S501

MASTER CONSULTING ENGINEERS, INC.
2907 W. BAY TO BAY BOULEVARD, #201
TAMPA, FLORIDA 33629-5151
813.835.4665 FAX 813.835.5225
MCE@mceengineers.com
EB: 8426

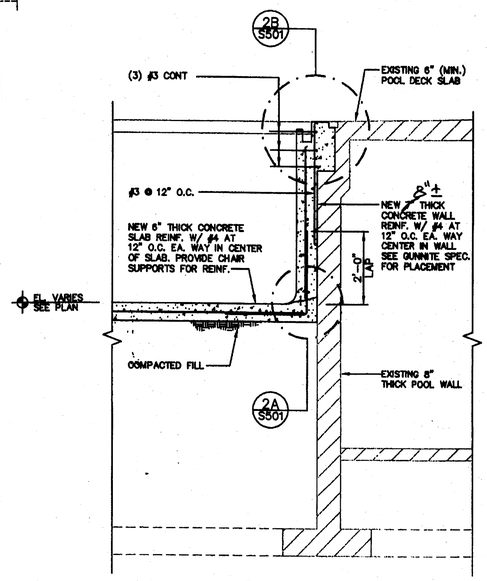
SUBJECT: ANGLE DETAIL W/ COLUMN CONNECTION
CLIENT: ROWE ARCHITECTS
PROJECT: CUSCADEN POOL JOB NO: 2100-115
SHEET NO. SSK-008 DES. BY: JRM
DATE: 08.25.04



(SLAB EXP. JOINT DETAIL)

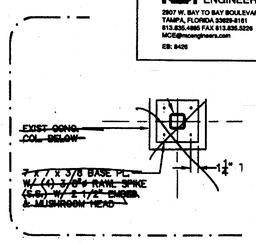
SECTION 1

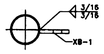
SCALE: 1"=1'-0"



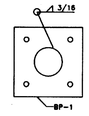
SECTION 2

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

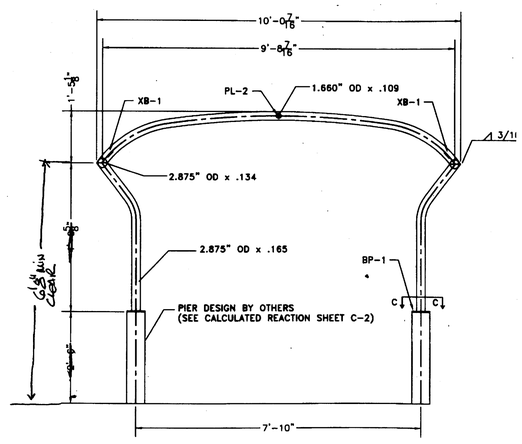




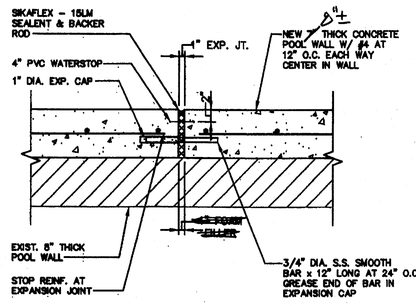
DETAIL-B



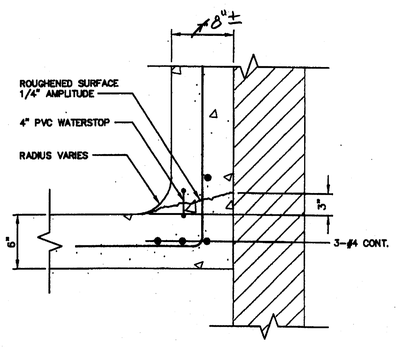
DETAIL-C



CS-1

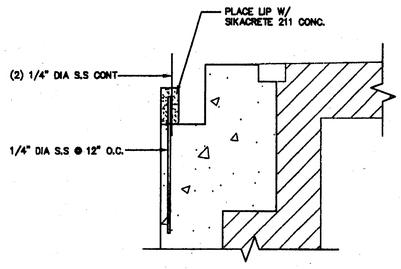


WALL EXP. JOINT DETAIL (PLAN)



DETAIL 2A

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



DETAIL 2B

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

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33860

Signature Date

MASTER CONSULTING ENGINEERS, INC.
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AAC002172

CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
Tampa, Florida 33602

Project No. 0202.00

Distribution	Date
Bid Documents	02.02.0

WALL ELEVATION/DETA

RECORD DWG.
DATE 8/26/05

1/8" = 1'-0"

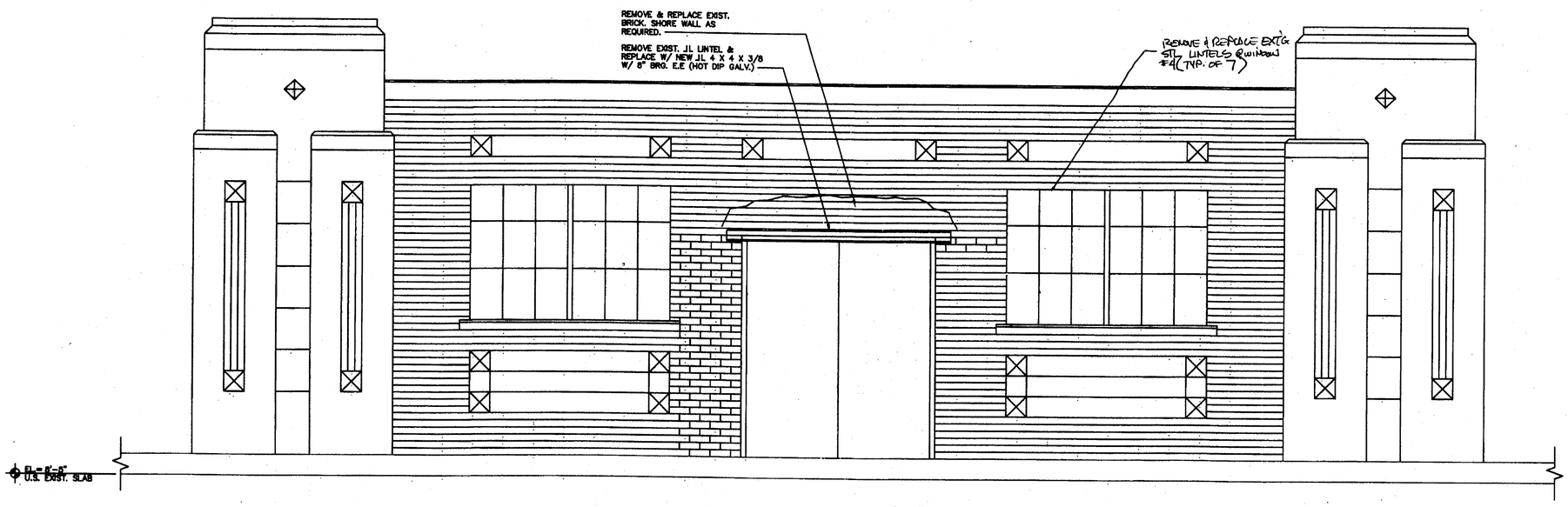
0 4 8 16 FT

PROJECT NORTH TRUE NORTH

RECEIVED FEB 23 2004 CONST. TECH. GROUP, INC.

S501

217/009



EXISTING REAR WALL ELEVATION

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

ROWE ARCHITECTS INCORPORATED
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CUSCADEN POOL RENOVATION

CITY OF TAMPA
306 East Jackson Street
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Project No. 0202.00

Distribution	Date
Bid Documents	02.02.04

WALL ELEVATION

RECORD DWG.
DATE 8/26/05

1/8" = 1'-0"

0 4 8 16 FT

PROJECT NORTH TRUE NORTH

RECEIVED FEB 23 2004 CONST. TECH. GROUP, INC.

217/009

S502

JAMES R. MEHLTRETTER, P.E.
FL. LIC. No. 33860

Signature Date

MASTER CONSULTING ENGINEERS, INC.
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TAMPA, FLORIDA 33629-8161
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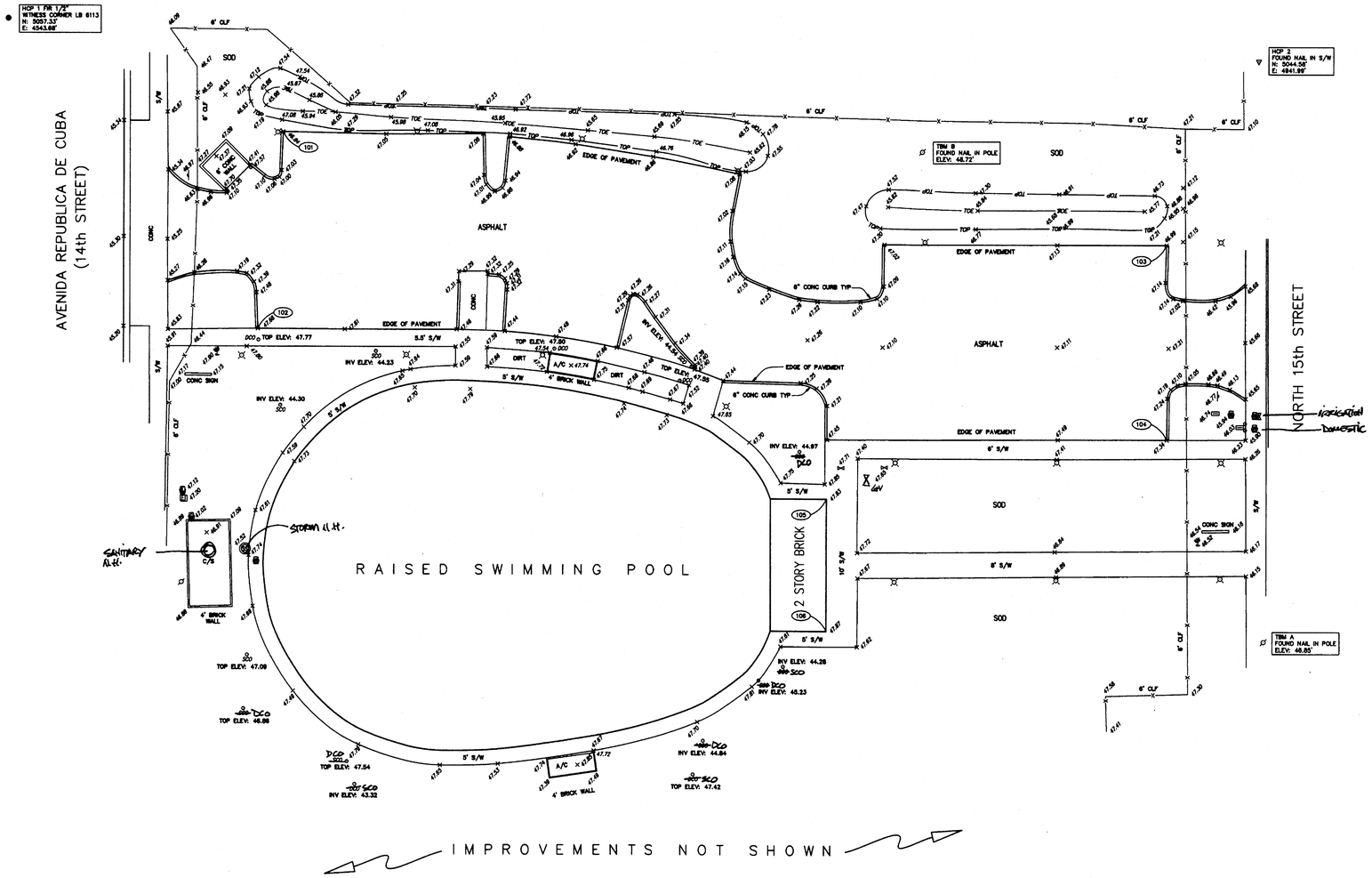
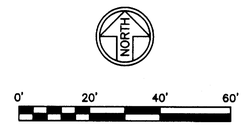
EB: 8426 PROJ NO.





LEGEND

HCP	HORIZONTAL CONTROL POINT
TBM	TEMPORARY BENCH MARK
FIR	FOUND IRON ROD
S/W	CONCRETE SIDEWALK
TOP	TOP OF SLOPE
TOE	TOE OF SLOPE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
TYP	TYPICAL
A/C	AIR CONDITIONER SLAB
C/S	CONCRETE SLAB
INV	INVERT
ELEV	ELEVATION
SCO	SANITARY CLEANOUT
DCO	STORM DRAIN CLEANOUT
LB	LICENSED BUSINESS
	SANITARY SEWER MANHOLE
	BOLLARD
	GAS METER
	ELECTRIC SPLICE BOX
	ELECTRIC METER
	POWER POLE
	LIGHT POLE
	STOP SIGN
	ELEVATION
	WATER VALVE
	WATER METER
	BACKFLOW PREVENTER
	SURFACE MOUNTED LIGHT

POINT	NORTHING	EASTING
101	5021.63	4631.00
102	4959.22	4623.04
103	4986.42	4912.76
104	4924.75	4912.97
105	4905.56	4804.34
108	4863.49	4804.41

SURVEYOR'S NOTES

1. This is an as-built survey, the purpose of which is to show the horizontal and vertical location of Cuscaden Pool renovations constructed by Construction Technology Group, Inc. as of August 26 2005.
2. All elevations shown hereon are based on temporary bench marks A and B as shown on Rowe Architects, Inc. Site Plan 0202.00 dated 02/02/04.
3. All horizontal coordinates shown hereon are based on information provided by Polaris Associates, Inc. for horizontal control points 1 and 2.
4. Any reuse of this survey for purposes other than which it was intended, without written verification, will be at the reuser's sole risk and without liability to the surveyor.
5. Not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.

Thomas G. Davis
Professional Surveyor and Mapper
State of Florida No. 5177

Date Signed: 9/01/05
Last Date of Field Survey: 8/26/05

RECORD DWG.
DATE 9/26/05

METZGER & WILLARD, INC.
Civil • Environmental Engineers • Surveyors
8600 Hidden River Parkway, Suite 550
Tampa, Florida 33637 (813) 977-6005
Certificate of Authorization No. 2886 – L.B. #7502

No.	DESCRIPTIONS	DATE	BY

REVISIONS

AS-BUILT SURVEY

CUSCADEN POOL RENOVATION

RECEIVED
SEP 02 2005
CONST. TECH. GROUP, INC.

DRAWN BY: TGD
PARTY CHIEF: DLS
CHECKED BY: BLA
SCALE: 1"=20'
DATE: 9/01/05
SEC-TWP-RNG: 7-29S-19E
FIELDBOOK:
PAGE:
JOB NUMBER: CU55501.04
SHEET NUMBER: 1 OF 1

217

INSTALLATION NOTES:

1. NO PARALLEL BRANCHING OF WIRE IS ALLOWED IN SIGNAL CIRCUIT.
2. **PARALLEL BRANCHING OF INITIATION CIRCUIT IS ALLOWED, BUT MUST NOT EXCEED 63 BRANCHES PER DATA LINE.**
3. WHEN SPADE CRIMP CONNECTORS ARE USED FOR TERMINATION AT THE DEVICES, UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE WIRE BE CRIMPED IN A CONNECTOR.

CONTRACTOR/INSTALLER NOTE:

YOUR INSTALLATION OF WIRING AND EQUIPMENT MUST BE IN ACCORDANCE WITH NFPA 70 - THE NATIONAL ELECTRIC CODE - ARTICLE 760 - FIRE PROTECTIVE SIGNALING SYSTEMS, NFPA 72 - CURRENT EDITION AND MAY ALSO BE SUBJECT TO REVIEW AND ACCEPTANCE OF LOCAL AUTHORITIES HAVING JURISDICTION.

INSTALLATION SHALL ALSO BE IN COMPLIANCE WITH THE FLORIDA FIRE CODE 2001 EDITION.

NOTE:

ELECTRICAL CONTRACTOR SHALL PULL, BUT NOT CONNECT A/C POWER TO CONTROL PANEL. THIS WILL BE CONNECTED BY AN SAI TECHNICIAN.

ALL OTHER FIELD WIRES ARE TO BE CONNECTED BY ELECTRICAL CONTRACTOR AFTER CHECKING FOR CONTINUITY AND GROUNDS.

NOTE:

THESE FIRE ALARM WIRING AND CONNECTION DIAGRAMS ARE PROVIDED TO INDICATE WIRING REQUIREMENTS AND SUGGESTED CONDUIT RUNS. FOR EXACT LOCATION AND PLACEMENT OF FIRE ALARM DEVICES REFER TO CONSTRUCTION DOCUMENTS.

⚠ NOTE:

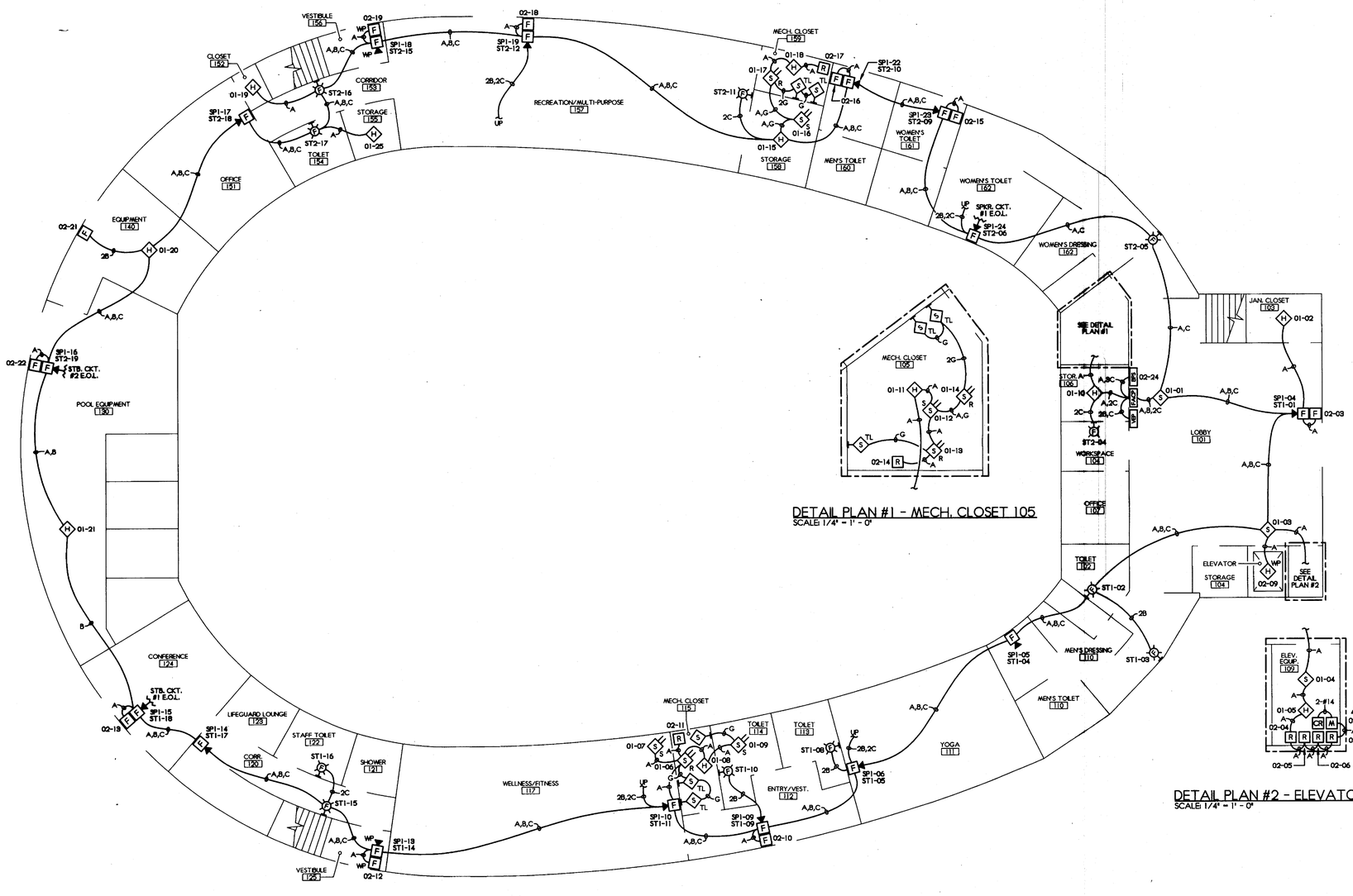
PER NFPA REGULATION, MONITORING OF ELEVATOR SHUNT TRIP POWER SHALL BE ACCOMPLISHED THRU THE USE OF A SIGA-CT1 INPUT MODULE AND AN MR-101/C HEAVY DUTY RELAY. SEE CONNECTION DIAGRAM FOR TYPICAL WIRING.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
F	ADDRESSABLE MANUAL PULL STATION (SIGA-278)
F WP	ADDRESSABLE MANUAL PULL STATION/WEATHERPROOF COVER (SIGA-278/STI-3150
H	ADDRESSABLE 135° HEAT DETECTOR/BASE (SIGA-HFS/SIGA-SB)
H WP	WEATHERPROOF HEAT DET./MONITOR MODULE (WPBMPB503/SIGA-CT1)
S	ADDRESSABLE PHOTO. SMOKE DETECTOR/BASE (SIGA-PS/SIGA-SB)
S S/R	ADDRESSABLE PHOTO. SMOKE DETECTOR/BASE/HOUSING/AIR SAMPLING TUBE (SIGA-PS/SIGA-SB/SIGA-DH/6261-006)
TL S	REMOTE INDICATOR LIGHT (SIGA-LED)
R	ADDRESSABLE CONTROL RELAY (SIGA-CR)
F	MULTI-CANDELA SPEAKER-STROBE (G4RF-S7VM)
F WP	SPEAKER-STROBE/WEATHERPROOF BACKBOX (757-7A-RS70/757A-WB)
	MULTI-CANDELA STROBE (G1RF-VM)
CR	HEAVY DUTY RELAY/ENCLOSURE (MR-101/C)
M	MONITOR MODULE (SIGA-CT1)
BPS	BOOSTER POWER SUPPLY (BPS10)
VEP	VOICE EVACUATION PANEL (DVS-25P)
FACP	FIRE ALARM CONTROL PANEL (EST2)
	END OF LINE RESISTOR (E.O.L.)

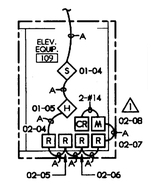
WIRING LEGEND

ABRV	SIZE	COLOR	CIRCUIT
A	2 - #16	ORANGE/BLUE	ADDRESSABLE DATA CIRCUIT
B	2 - #16	WEST PENN 990 TWISTED PAIR CABLE	SPEAKER CIRCUITS
C	2 - #12	RED/BLACK	STROBE CIRCUITS
G	2 - #16	WHITE/BLACK	REMOTE INDICATORS



FIRE ALARM PLAN - 1ST FLOOR
SCALE: 1/8" = 1' - 0"

DETAIL PLAN #1 - MECH. CLOSET 105
SCALE: 1/4" = 1' - 0"



DETAIL PLAN #2 - ELEVATOR EQUIP. 109
SCALE: 1/4" = 1' - 0"

ELEVATOR CONTROL RELAYS

DEVICE 02-04 (PRI. ELEVATOR RECALL)
DEVICE 02-05 (ALT. ELEVATOR RECALL)
DEVICE 02-06 (ELEVATOR WARNING LIGHT)
DEVICE 02-07 (ELEVATOR SHUNT TRIP)

BATTERY CALCULATIONS
EST2

TOTAL SUPV. CURRENT	HOURS OF SUPV.	TOTAL ALARM CURRENT	HOURS IN ALARM
[(.251	X 24	)+(.515	X .083)] X 1.2
6.024	+ .043	= 6.067	
		X 1.2	
		7.280 APH	(12 APH SUPPLIED)

BATTERY CALCULATIONS
DVS-25P

TOTAL SUPV. CURRENT	HOURS OF SUPV.	TOTAL ALARM CURRENT	HOURS IN ALARM
[(.080	X 24	)+(1.920	X .25)] X 1.2
1.920	+ .480	= 2.400	
		X 1.2	
		2.880 APH	(7 APH SUPPLIED)

BATTERY CALCULATIONS
BPS10

TOTAL SUPV. CURRENT	HOURS OF SUPV.	TOTAL ALARM CURRENT	HOURS IN ALARM
[(.070	X 24	)+(5.082	X .083)] X 1.2
1.680	+ .424	= 2.104	
		X 1.2	
		2.524 APH	(7 APH SUPPLIED)

RECORD DWG.
DATE 8/26/05

AS-BUILT DRAWINGS

SAI inc. SYSTEMS DIVISION
2595 24TH AVE NORTH
SAINT PETERSBURG, FLORIDA 33713
TELEPHONE: (727) 323-4300
FLA STATE LIC. EF-0000055, EF-0001045
CONTRACTOR: AMERICAN ELEC. SERVICES - TAMPA, FL

CUSCADEN POOL RENOVATION
TAMPA, FLORIDA
FIRE ALARM SYSTEM PLAN

RECEIVED
SEP 02 2005
COMET TECH. GROUP, INC.

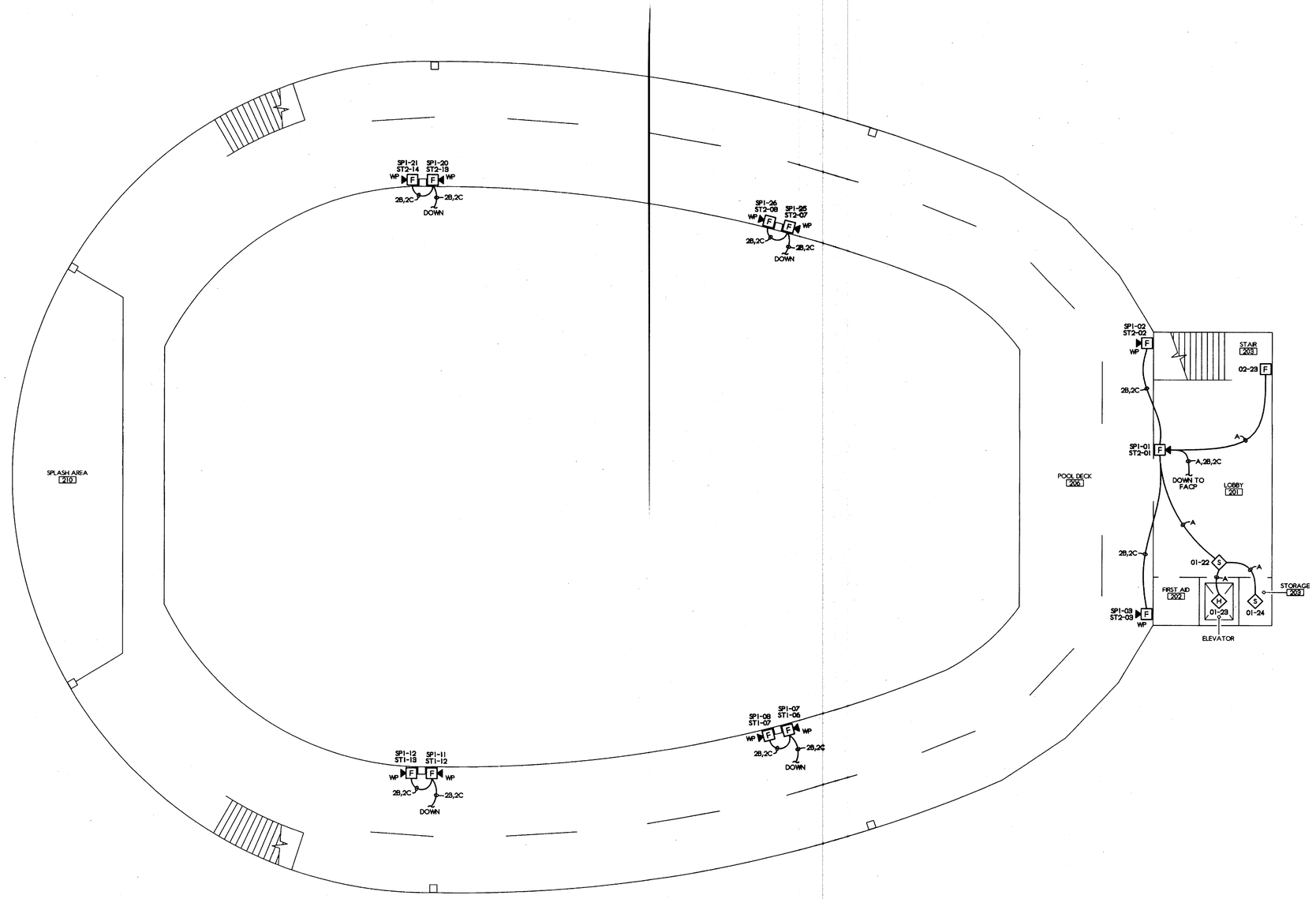
REVISIONS
REVISED 11/10/04 - PER FIRE MARSHAL'S COMMENTS
REVISED 03/09/05 - PER MATRIX 11/23/04 COMMENTS

SCALE: AS NOTED
DRAWN BY: BK
APPROVED BY: RJS
DRAWING DATE: 08/31/04
REF. DWG. DATE: 02/02/04

STAMP

SHEET 1 OF 3
04J-0078-W1

217
009



FIRE ALARM PLAN - 2ND FLOOR

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

RECORD DWG.
DATE 8/26/05

SAI inc. SYSTEMS DIVISION
2595 24TH AVE NORTH
SAINT PETERSBURG, FLORIDA 33713
TELEPHONE: (727) 323-4300
FLA STATE LIC. EF-0000295, EF-0001045
CONTRACTOR: AMERICAN ELEC. SERVICES - TAMPA, FL

CUSCADEN POOL RENOVATION
TAMPA, FLORIDA
FIRE ALARM SYSTEM PLAN

REVISIONS
REVISED 11/10/04 - PER FIRE MARSHAL'S COMMENTS
REVISED 03/09/05 - PER MATRIX 11/23/04 COMMENTS

SCALE: AS NOTED
DRAWN BY: BK
APPROVED BY: RJS
DRAWING DATE: 08/31/04
REF. DWG. DATE: 02/02/04

STAMP

SHEET 2 OF 3
04J-0078-W2

217
004