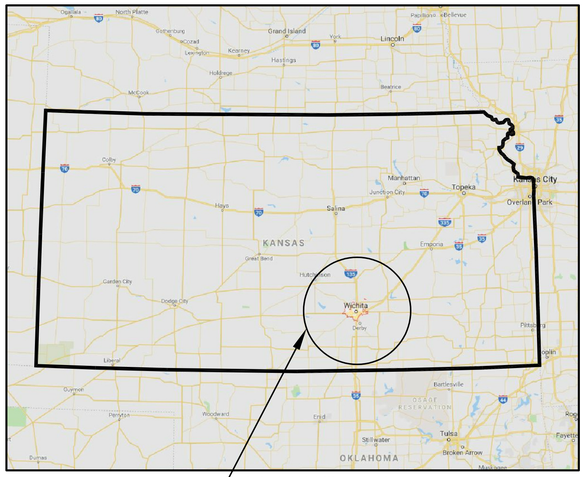
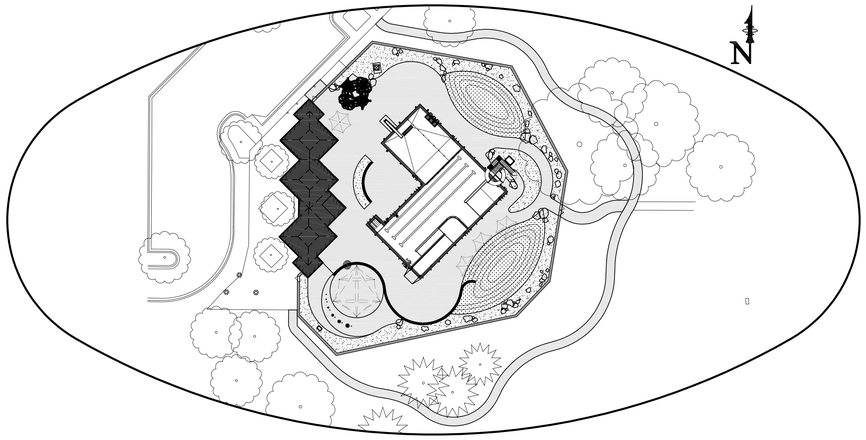
WICHITA, KANSAS
Pool Improvements
ORCHARD PARK
2020

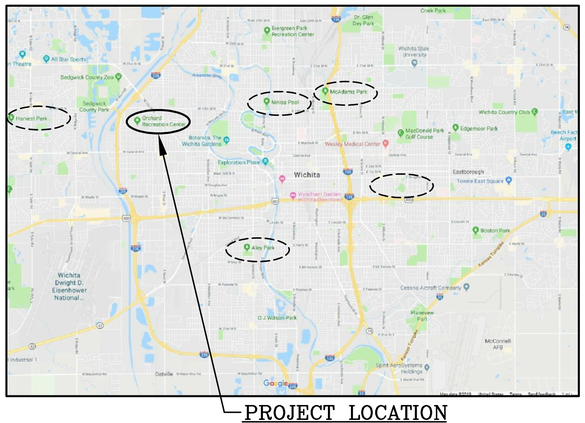
CITY OF WICHITA
Project Number 482-11013
OCA Number 796063



PROJECT AREA



POOL LAYOUT



PROJECT LOCATION
1062 North Clara Street
Wichita, KS 67212

SHEET INDEX

AQUATICS
Waters Edge Aquatic Design
11205 West 79th Street
Lenexa, KS 66214
Tel (913) 438-4338
www.WeDesignPools.com

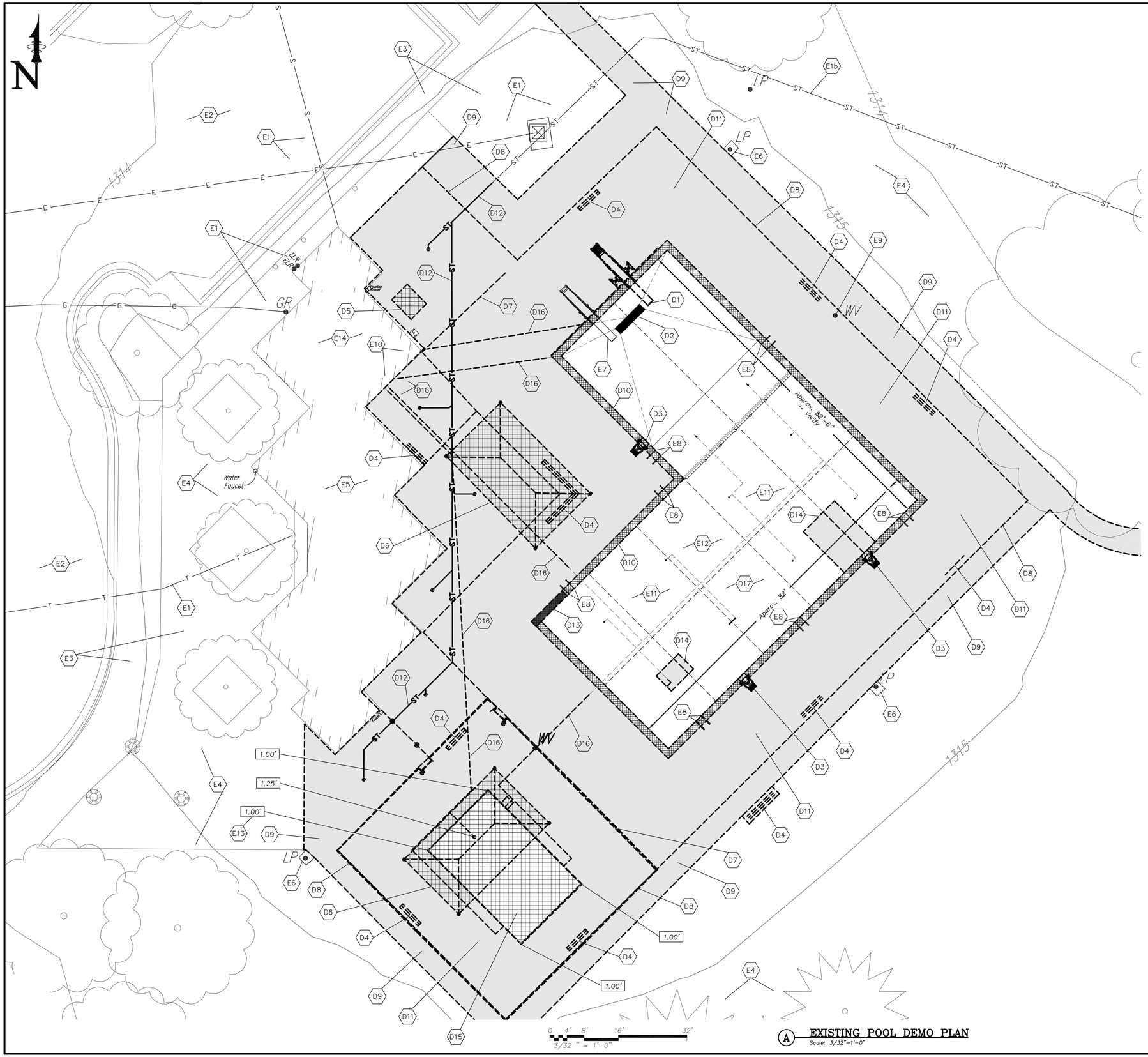
SITE-CIVIL
PEC - Professional Engineering Consultants
303 South Topeka
Wichita, KS 67202
Tel (316) 262-2691
www.PEC1.com

LANDSCAPE ARCHITECT
Landworks Studio
102 South Cherry Street, 2nd Floor
Olathe, KS 66061
Tel (913) 780-6707
www.LandworksStudio.com

BUILDING ARCHITECT
Urban Prairie Architectural Collaborative, P.C.
4523 Mercier
Kansas City, MO 64111
Tel (816) 304-7416
www.UrbanPrairieKC.com

MECHANICAL-ELECTRICAL-PLUMBING
Hoss & Brown Engineers, Inc.
11205 West 79th Street
Lenexa, KS 66214
Tel (913) 362-9090
www.H-BE.com

DATE: 02-21-20	ISSUE: CONSTRUCTION DOCUMENTS	WEAD JOB #: 18-512



A EXISTING POOL DEMO PLAN
Scale: 3/32"=1'-0"

POOL AREA KEY NOTES – EXISTING DEMOLITION

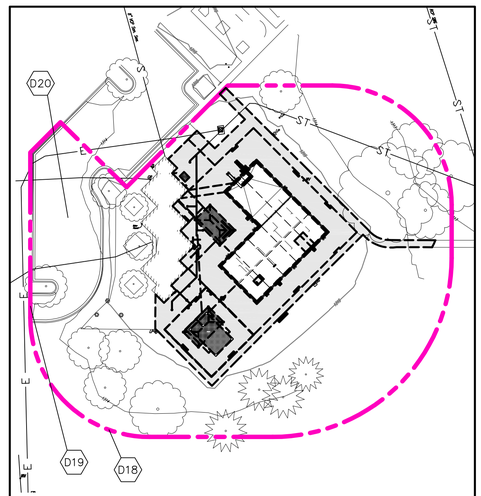
Contractor shall verify all existing dimensions and report any discrepancies

EXISTING ITEMS

- E1 Existing utilities shall be protected
- E1b Existing storm pipe ~ See Sheet CG-01 for remain or removal
- E2 Existing parking lot shall be protected
- E3 Existing sidewalk shall be protected
- E4 Existing trees shall be protected
- E5 Existing bathhouse shall be protected
- E6 Existing light pole shall be protected
- E7 Existing 1 meter diving stand and board shall be removed and protected for reinstallation
- E8 Existing grab rails shall be removed and protected for reinstallation
- E9 Existing hose bibb and piping shall be protected
- E10 Existing pool piping at filter area shall be protected
- E11 Existing pool piping under pool shall be protected
- E12 Existing pool floor and walls shall be protected ~ See Detail A-SP-PM2
- E13 Existing approximate wading pool water depths (7" freeboard)
- E14 Existing Filter Area ~ See Sheet SP-F1

DEMOLITION ITEMS

- D1 Remove existing 3 meter diving stand, protect and deliver to Owner
- D2 Remove existing pool main drain grate
- D3 Remove existing lifeguard chair
- D4 Remove existing bench, protect and deliver to Owner
- D5 Remove existing table, protect and deliver to Owner
- D6 Remove existing sunshade, protect and deliver to Owner
- D7 Remove existing 4'-0" tall chain link fence fabric, posts, and footings
- D8 Remove existing 6'-0" tall chain link fence fabric, posts, and footings
- D9 Remove existing sidewalk
- D10 Remove existing concrete gutter blocks ~ See Detail A-SP-PM2
- D11 Remove existing pool deck ~ See Detail A-SP-PM2
- D12 Remove existing portions of deck drain piping located beneath existing pool deck, and in areas that interfere with new construction. Also remove piping as noted on Sheet CG-01. Protect remaining piping extension for connection of new deck drain piping
- D13 Remove existing portions of pool wall ~ See Pool Area Details
- D14 Remove existing portions of pool floor ~ See Pool Area Details
- D15 Remove existing wading pool
- D16 Remove existing pool and wading pool main drain, gutter return, and recirc piping, between pool and filter area ~ See Sheet SP-PM1 for existing piping notes
- D17 Remove existing pool paint by sandblasting for repainting
- D18 Construction limits
- D19 Construction access
- D20 Construction staging



B EXISTING POOL DEMO PLAN
Scale: 1"=60'

waters edge AQUATIC DESIGN
11205 W. 79th St.
Lenexa, KS 66214
t. 913.438.4338
www.WeDesignPools.com
Kansas STATE CERTIFICATE OF AUTHORITY #E-990

PEC

landworks STUDIO

ARCHITECTURAL URBAN PRAIRIE COLLABORATIVE, P.C.

H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY of WICHITA

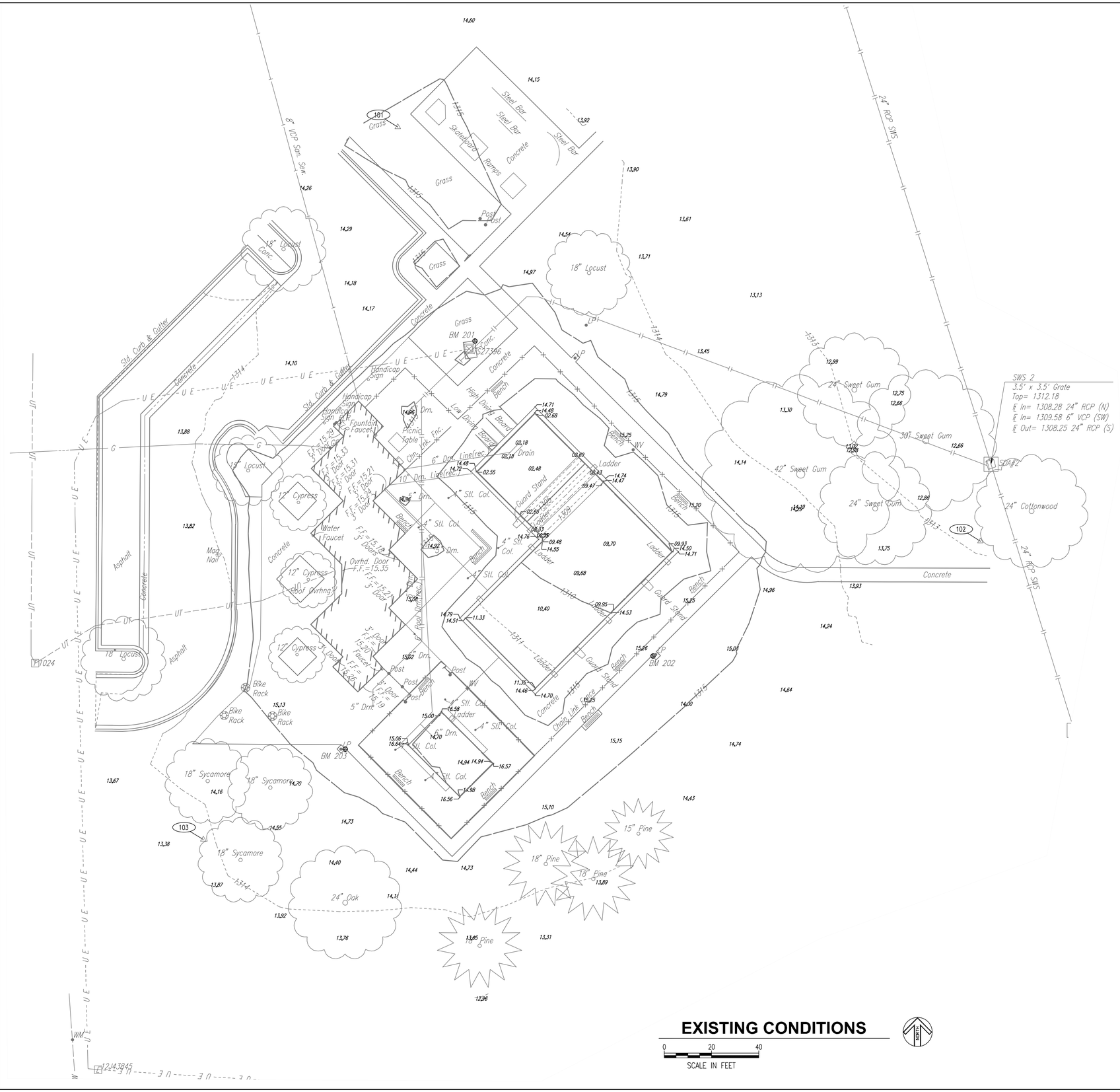
Seal: JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley-ENGINEER
LICENSE #15116

Date: 02-21-20	Job #: 18-512
Drawn: SRS	Checked: JAB
Issue: CONSTRUCTION DOCUMENTS	

EXISTING POOL DEMO PLAN

SP-D1



EXISTING CONDITIONS

0 20 40

SCALE IN FEET

NORTH

LEGEND

- Coniferous Tree
- Deciduous Tree
- BM — Benchmark
- LP — Light Pole
- ELR — Electric Riser
- Electric Box
- Post — Gate Post
- GR — Gas Riser Pipe
- Monument
- Area Inlet
- SWS — Storm Drain Manhole
- Sign
- SS — Sanitary Sewer Manhole
- Telephone Box
- Transformer
- FH — Fire Hydrant
- WM — Water Meter
- WV — Water Valve
- UT — Buried Telephone Line
- U E — Buried Electric Line
- G — Gas Line
- Sanitary Sewer Line
- Storm Water Sewer Line
- W — Waterline
- 1305 — Major Contour
- 1304 — Minor Contour

BM #201

BENCH MARK LIST

BMK-201 N: 1,691,416.092, E: 1,630,177.419 ELEV.= 1315.590 NAVD88
CHISELED SQUARE ON NORTHEAST CORNER OF TRANSFORMER PAD LOCATED OUTSIDE FENCE NORTH OF BUILDING.

BMK-202 N: 1,691,282.772, E: 1,630,252.830 ELEV.= 1315.360 NAVD88
CHISELED SQUARE ON WEST CORNER OF LIGHT POLE BASE LOCATED ON THE EAST SIDE OF THE POOL.

BMK-203 N: 1,691,243.361 E: 1,630,122.545 ELEV.= 1315.530 NAVD88
CHISELED SQUARE ON THE EAST CORNER OF THE LIGHT POLE BASE LOCATED +/- 30' SOUTH OF SOUTH END OF POOL BUILDING.

CONTROL POINTS

101

CP-101 N: 1,691,506.625, E: 1,630,144.901 ELEV.= 1315.160 NAVD88
1/2" REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND
96.10' S-SE TO CHISELED SQUARE ON NE CORNER OF TRANSFORMER PAD
7.70' N-NE TO WESTERLY CORNER OF SKATEBOARD PAD
17.00' E-NE TO THE E FACE OF 18" LOCUST TREE

CP-102 N: 1,691,331.366, E: 1,630,391.472 ELEV.= 1313.010 NAVD88
1/2" REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND
30.55' N TO THE S CORNER OF THE AREA INLET GRATE LOCATED NE OF THE POOL
11.35' S TO N EDGE OF SIDEWALK

CP-103 N: 1,691,205.168, E: 1,630,062.547 ELEV.= 1313.810 NAVD88
1/2" REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND
71.20' NE TO CHISELED SQUARE (BMK 203) ON LIGHT POLE BASE
53.10' N-NE TO CHISELED "+" ON TOP OF CONCRETE BIKE RACK BASE
2.00' SE TO SE FACE OF BUILDING EXTENDED

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H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal:

Kurt Huiras-Landscape Architect LICENSE #0812
Date: 02-21-20 Job #: 18-512
Drawn: RFT Checked: NLS
Issue: CONSTRUCTION DOCUMENTS

EXISTING CONDITIONS

SV-01

Saved 02-20-2020 11:54:46 AM by ASHLEYAKERS
Plot Scale: 1:245.2402 02-21-2020 10:41:56 AM by RFT
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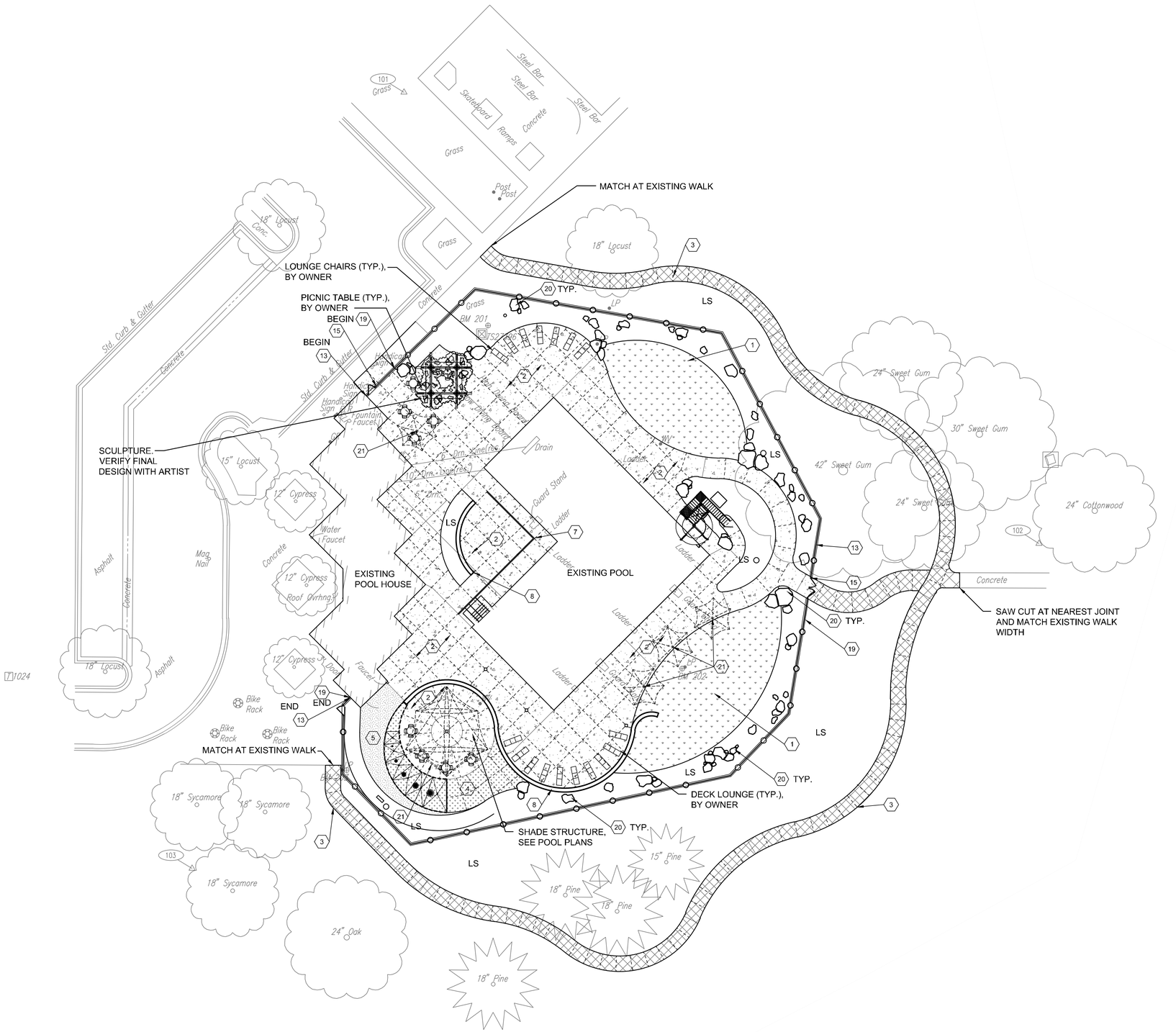

SITE ARCHITECTURAL PLAN

0 20 40
SCALE IN FEET

NORTH

LEGEND

- 4" CONCRETE SIDEWALK. REF. 3/SA-05
- POOL DECK. REF. 2/SA-05
- TYPE 1 COLORED STAMPED CONCRETE. REF. 2/SA-05
- TYPE 2 COLORED STAMPED CONCRETE. REF. 2/SA-05
- ARTIFICIAL TURF. REF. 1/SA-05
- LS PLANTING BED

KEY NOTES

1. ARTIFICIAL TURF, REF: 1/SA-05
2. POOL DECK PAVEMENT, REF: 2/SA-05
3. SIDEWALK PAVEMENT, REF: 3/SA-05
4. TYPE 1 COLORED CONCRETE, PROVIDE INTEGRAL COLOR INTO CONCRETE, COLOR BAJA RED FROM DAVIS COLORS, PHONE: (323)-265-8323.. COLORED PAVEMENT CONSTRUCTION SHALL MATCH POOL DECK, REF: 2/SA-05
5. TYPE 2 COLORED CONCRETE, PROVIDE INTEGRAL COLOR INTO CONCRETE, COLOR SAN DIEGO BUFF FROM DAVIS COLORS, PHONE: (323)-265-8323. COLORED PAVEMENT CONSTRUCTION SHALL MATCH POOL DECK, REF: 2/SA-05
6. NOT USED
7. TRENCH DRAIN, SEE SPECIFICATION SECTION 13 11 70 TRENCH DRAIN GRATING SYSTEM FOR INSTALLATION AND SIZING OF DECK SLOTTED DRAINAGE SYSYEM.
8. NOT USED
9. NOT USED
10. NOT USED
11. NOT USED
12. NOT USED
13. 6'-0" TALL BLACK COATED CHAIN LINK FENCE, REF: SP-P1 FOR LOCATIONS AND DETAILS
14. NOT USED
15. 6'-0" WIDE GATE, REF: POOL DETAILS
16. NOT USED
17. NOT USED
18. NOT USED
19. MOW STRIP, REF: POOL DETAILS
20. BOULDERS, REF: 2/LS-04
21. SHADE STRUCTURES, REF: POOL DETAILS

NOTES:

1. SEE DEMO PLANS FOR LIMITS OF PAVEMENT TO REMAIN.
2. OWNER TO PROVIDE AND INSTALL FURNISHINGS.
3. SAW CUT DEPTHS AND WIDTHS SHALL BE PER CITY OF WICHITA DETAILS AND SPECIFICATIONS.
4. ALL JOINTS IN POOL DECK AND SIDEWALK NOT CALLED OUT TO BE ISOLATION/EXPANSION JOINT SHALL BE UNTIED.

waters edge AQUATIC DESIGN
11205 W. 79th St.
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H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK
CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras-Landscape Architect LICENSE #0812
Date: 02-21-20 Job #: 18-512
Drawn: RFT Checked: NLS
Issue: CONSTRUCTION DOCUMENTS

SITE ARCHITECTURAL PLAN

SA-01

Saved 02-20-2020 4:45:55 PM by RFT
Plot Scale 1:1 02-21-2020 10:42:08 AM by RFT
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NOTES:

1. SEE DEMO PLANS FOR LIMITS OF PAVEMENT TO REMAIN.
2. OWNER TO PROVIDE AND INSTALL FURNISHINGS.
3. SAW CUT DEPTHS AND WIDTHS SHALL BE PER CITY OF WICHITA DETAILS AND SPECIFICATIONS.
4. EJ = EXPANSION JOINT
   ALL OTHER JOINTS TO BE UNTIED CONSTRUCTION JOINTS. PROVIDE EXPANSION JOINTS WHERE SIDEWALK / POOL DECK ABUTS A STRUCTURE

MATCH AT EXISTING WALK

SAW CUT AT NEAREST JOINT AND MATCH EXISTING WALK WIDTH

MATCH LINE SEE SHEET SA-03

LEGEND

- 4" CONCRETE SIDEWALK. REF. 3/SA-05
- POOL DECK. REF. 2/SA-05
- TYPE 1 COLORED STAMPED CONCRETE. REF. 2/SA-05
- TYPE 2 COLORED STAMPED CONCRETE. REF. 2/SA-05
- ARTIFICIAL TURF. REF. 1/SA-05
- LS PLANTING BED

LAYOUT PLAN - NORTH

0 10 20
SCALE IN FEET

NORTH

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

LAYOUT PLAN – NORTH

SA-02

Saved 02-21-2020 10:34:01 AM by KURT.HUIRAS
Plot Scale 1:1 02-21-2020 10:42:19 AM by RFT
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NOTES:

1. SEE DEMO PLANS FOR LIMITS OF PAVEMENT TO REMAIN.
2. OWNER TO PROVIDE AND INSTALL FURNISHINGS.
3. SAW CUT DEPTHS AND WIDTHS SHALL BE PER CITY OF WICHITA DETAILS AND SPECIFICATIONS.
4. EJ = EXPANSION JOINT
   ALL OTHER JOINTS TO BE UNITED CONSTRUCTION JOINTS. PROVIDE EXPANSION JOINTS WHERE SIDEWALK / POOL DECK ABUTS A STRUCTURE

SEE SHEET SA-02
MATCH LINE

SEE SHEET SP-PI FOR JOINTS WITHIN SPRAY AREA

LEGEND

- 4" CONCRETE SIDEWALK. REF. 3/SA-05
- POOL DECK. REF. 2/SA-05
- TYPE 1 COLORED STAMPED CONCRETE. REF. 2/SA-05
- TYPE 2 COLORED STAMPED CONCRETE. REF. 2/SA-05
- ARTIFICIAL TURF. REF. 1/SA-05
- LS — PLANTING BED

LAYOUT PLAN - SOUTH

SCALE IN FEET 0 10 20

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H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

LAYOUT PLAN – SOUTH

SA-03

Saved 02-21-2020 10:33:22 AM by KURT.HUIRAS
Plot Scale 1:1 02-21-2020 10:42:30 AM by RFT
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COORDINATE LIST		
POINT	NORTHING	EASTING
5000	1,691,388.1290	1,630,202.9520
5001	1,691,326.9650	1,630,263.5400
5002	1,691,399.4565	1,630,149.3830
5003	1,691,408.5528	1,630,158.6336
5004	1,691,408.9042	1,630,180.0060
5005	1,691,398.0311	1,630,223.8509
5006	1,691,409.5498	1,630,217.1220
5007	1,691,364.5321	1,630,267.4525
5008	1,691,362.5886	1,630,277.6472
5009	1,691,315.2129	1,630,289.9653
5010	1,691,305.7231	1,630,275.3747
5011	1,691,258.0522	1,630,232.9224
5012	1,691,242.4323	1,630,226.2279
5013	1,691,265.3659	1,630,243.6657
5014	1,691,235.7009	1,630,200.5554
5015	1,691,260.0824	1,630,181.3830
5016	1,691,272.7327	1,630,147.5876
5017	1,691,269.9582	1,630,144.7063
5018	1,691,231.3346	1,630,176.2223
5019	1,691,257.7505	1,630,127.6736

COORDINATE LIST		
POINT	NORTHING	EASTING
5020	1,691,267.7070	1,630,127.9530
5021	1,691,388.7349	1,630,130.2470
5022	1,691,430.1925	1,630,172.4082
5023	1,691,413.1624	1,630,268.2956
5024	1,691,341.0714	1,630,306.5699
5025	1,691,265.2518	1,630,294.2924
5026	1,691,214.5810	1,630,147.4916
5027	1,691,241.7355	1,630,121.0797
5028	1,691,271.5779	1,630,124.0645
5029	1,691,312.5817	1,630,268.4444
5030	1,691,351.5887	1,630,280.9154
5031	1,691,356.5330	1,630,267.3310
5032	1,691,357.2645	1,630,259.2116
5033	1,691,347.1038	1,630,253.9810
5034	1,691,315.8028	1,630,266.7340
5035	1,691,447.0042	1,630,178.6453
5036	1,691,445.7543	1,630,179.8636
5037	1,691,442.8879	1,630,185.2763
5038	1,691,437.1705	1,630,217.4682
5039	1,691,437.8836	1,630,239.7367

COORDINATE LIST		
POINT	NORTHING	EASTING
5040	1,691,411.7149	1,630,292.7715
5041	1,691,386.9128	1,630,321.7046
5042	1,691,311.9296	1,630,351.1027
5043	1,691,271.0674	1,630,339.7058
5044	1,691,217.3826	1,630,297.6071
5045	1,691,185.8237	1,630,259.7984
5046	1,691,172.8062	1,630,206.9727
5047	1,691,184.5339	1,630,179.9740
5048	1,691,203.9269	1,630,141.4630
5049	1,691,228.6543	1,630,117.4118
5050	1,691,236.3904	1,630,114.2973
5051	1,691,245.2925	1,630,114.3511
5052	1,691,241.2981	1,630,271.5438
5053	1,691,323.9401	1,630,356.6135
5054	1,691,320.0603	1,630,359.4750
5055	1,691,320.0576	1,630,360.6793
5056	1,691,314.1441	1,630,360.6587
5057	1,691,314.1666	1,630,354.1680
5058	1,691,323.3838	1,630,274.2970
5059	1,691,334.5027	1,630,276.3700

CURVE LIST		
POINT	NORTHING	EASTING
C500	1,691,419.2520	1,630,169.1468
C501	1,691,490.3384	1,630,226.9111
C502	1,691,429.4249	1,630,333.0500
C503	1,691,338.6035	1,630,308.8120
C504	1,691,334.5353	1,630,267.0165
C505	1,691,324.9931	1,630,254.8791
C506	1,691,272.4521	1,630,413.6928
C507	1,691,270.0569	1,630,285.7153
C508	1,691,248.0988	1,630,292.0910
C509	1,691,302.2097	1,630,231.3913
C510	1,691,262.3653	1,630,207.2826
C511	1,691,164.7083	1,630,309.4989
C512	1,691,199.1185	1,630,228.5055
C513	1,691,131.0161	1,630,172.7735
C514	1,691,206.6123	1,630,193.2167
C515	1,691,249.9445	1,630,188.7745
C516	1,691,251.9365	1,630,162.0603
C517	1,691,236.3239	1,630,125.2971
C518	1,691,256.8809	1,630,158.6614
C519	1,691,258.3262	1,630,161.4603

CURVE LIST		
POINT	NORTHING	EASTING
C520	1,691,333.2438	1,630,185.0384
C521	1,691,410.5272	1,630,268.1211
C522	1,691,390.9680	1,630,198.8287
C523	1,691,393.1999	1,630,250.6622
C524	1,691,367.2945	1,630,234.9055
C525	1,691,351.3464	1,630,258.2236
C526	1,691,330.4548	1,630,267.2259
C527	1,691,323.0603	1,630,359.4816
C528	1,691,311.1667	1,630,354.1575
C529	1,691,314.5774	1,630,268.3146
C530	1,691,452.7338	1,630,187.0250
C531	1,691,257.8307	1,630,240.9789
C532	1,691,328.5188	1,630,317.4373
C533	1,691,297.1088	1,630,342.2044

COORDINATE LIST		
POINT	NORTHING	EASTING
5060	1,691,341.6072	1,630,271.4984
5061	1,691,338.0717	1,630,267.9628
5062	1,691,331.9884	1,630,272.0066
5063	1,691,335.5968	1,630,265.4880
5064	1,691,393.9117	1,630,125.2697
5065	1,691,404.4554	1,630,136.2199
5066	1,691,394.3440	1,630,135.9513
5067	1,691,399.1519	1,630,141.5539
5068	1,691,314.8905	1,630,166.6222
5069	1,691,352.3671	1,630,167.3922
5070	1,691,347.0548	1,630,172.6864
5071	1,691,320.1847	1,630,171.9346
5072	1,691,236.2864	1,630,188.8064
5073	1,691,389.7929	1,630,155.3292
5074	1,691,399.7929	1,630,155.3292
5075	1,691,399.7929	1,630,165.3292
5076	1,691,389.7929	1,630,165.3292
5077	1,691,375.0732	1,630,149.8711
5078	1,691,275.8262	1,630,161.4603
5079	1,691,266.3262	1,630,173.5537

COORDINATE LIST		
POINT	NORTHING	EASTING
5080	1,691,251.3262	1,630,177.4993
5081	1,691,240.8262	1,630,161.4603
5082	1,691,251.3262	1,630,145.4213
5083	1,691,266.3262	1,630,149.3669
5084	1,691,275.7537	1,630,237.9930
5085	1,691,291.1938	1,630,249.2109
5086	1,691,302.4117	1,630,264.6510
5087	1,691,326.7204	1,630,295.9808
5088	1,691,324.0105	1,630,296.0104
5089	1,691,321.0878	1,630,298.3082
5090	1,691,318.4343	1,630,302.9043
5091	1,691,314.6624	1,630,309.4373
5092	1,691,313.8213	1,630,323.7606
5093	1,691,317.4454	1,630,329.4600
5094	1,691,321.1088	1,630,342.2044
5095	1,691,321.1088	1,630,349.1729
5096	1,691,313.1088	1,630,344.7980
5097	1,691,313.1088	1,630,342.2044
5098	1,691,307.7342	1,630,305.4373
5099	1,691,314.1596	1,630,294.3082

COORDINATE LIST		
POINT	NORTHING	EASTING
5100	1,691,314.5330	1,630,290.1121

COORDINATE POINTS

waters edge AQUATIC DESIGN
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal:
KURT M HUIRAS LICENSED 0812 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS

Issue: CONSTRUCTION DOCUMENTS

COORDINATE POINTS

SA-04

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Plot Scale 1:1 02-21-2020 10:42:37 AM by JEFF
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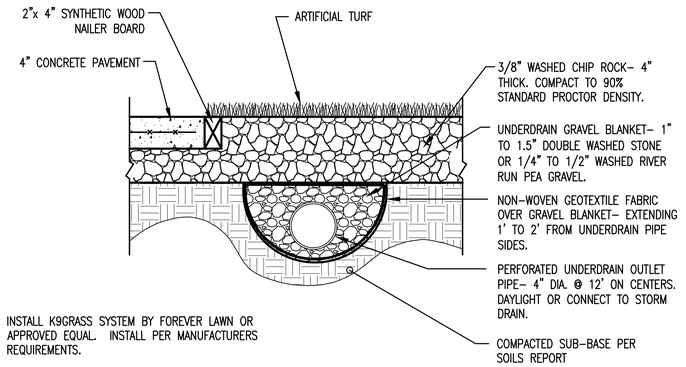
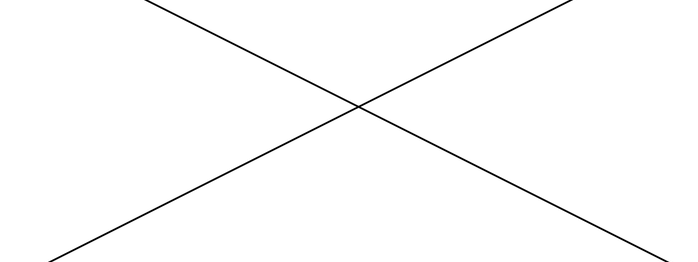


INSTALL K9GRASS SYSTEM BY FOREVER LAWN OR APPROVED EQUAL. INSTALL PER MANUFACTURERS REQUIREMENTS.

1 ARTIFICIAL TURF INSTALLATION

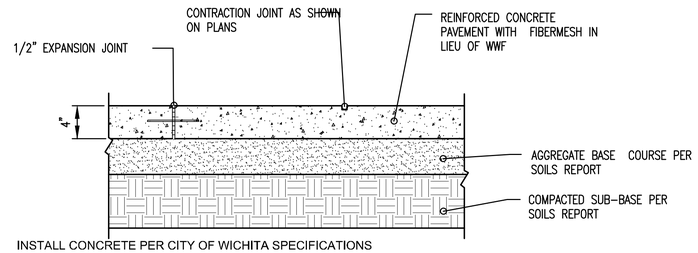
NOT TO SCALE



INSTALL CONCRETE PER CITY OF WICHITA SPECIFICATIONS

2 POOL DECK PAVEMENT

NOT TO SCALE



INSTALL CONCRETE PER CITY OF WICHITA SPECIFICATIONS

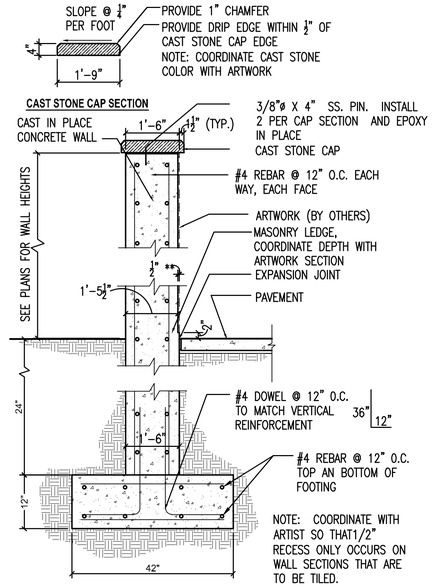
3 SIDEWALK DETAIL

NOT TO SCALE

4 STEP DETAIL

NOT TO SCALE

NOT USED



5 CONCRETE WALL WITH CAP

NOT TO SCALE

6 STAIR WITH HANDRAIL

NOT TO SCALE

NOT USED

8 PLANTER INSTALLATION

NOT TO SCALE

NOT USED

9 TREE GRATE INSTALLATION

NOT TO SCALE

NOT USED

SITE DETAILS

waters edge AQUATIC DESIGN
11205 W. 79th St.
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 02-21-2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02–21–20	Job #: 18–512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

SITE DETAILS

SA–05

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Plot Scale 1:1 02–21–2020 10:42:46 AM by RFT
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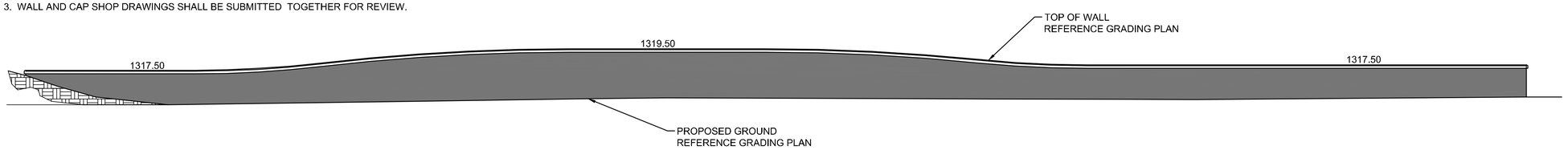
NOTES:

1. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS ON TOP OF WALL BETWEEN CHANGES IN ELEVATIONS. COORDINATE WALL WITH ARTWORK AND PROVIDE SHOP DRAWINGS FOR WALL TO LANDSCAPE ARCHITECT TO REVIEW PRIOR TO INSTALLATION.

2. COORDINATE CAST STONE CAP WITH CHANGES IN WALL ELEVATION. CAP BE FABRICATED TO MATCH ANY CURVES IN TOP OF WALL. PROVIDE FINAL SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

3. WALL AND CAP SHOP DRAWINGS SHALL BE SUBMITTED TOGETHER FOR REVIEW.



1 WALL ELEVATIONS
NOT TO SCALE

WALL ELEVATIONS

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 02-21-2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS

Issue: CONSTRUCTION DOCUMENTS

WALL ELEVATIONS

SA-07

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Plot Scale 1:1 02-21-2020 10:42:52 AM by RFT
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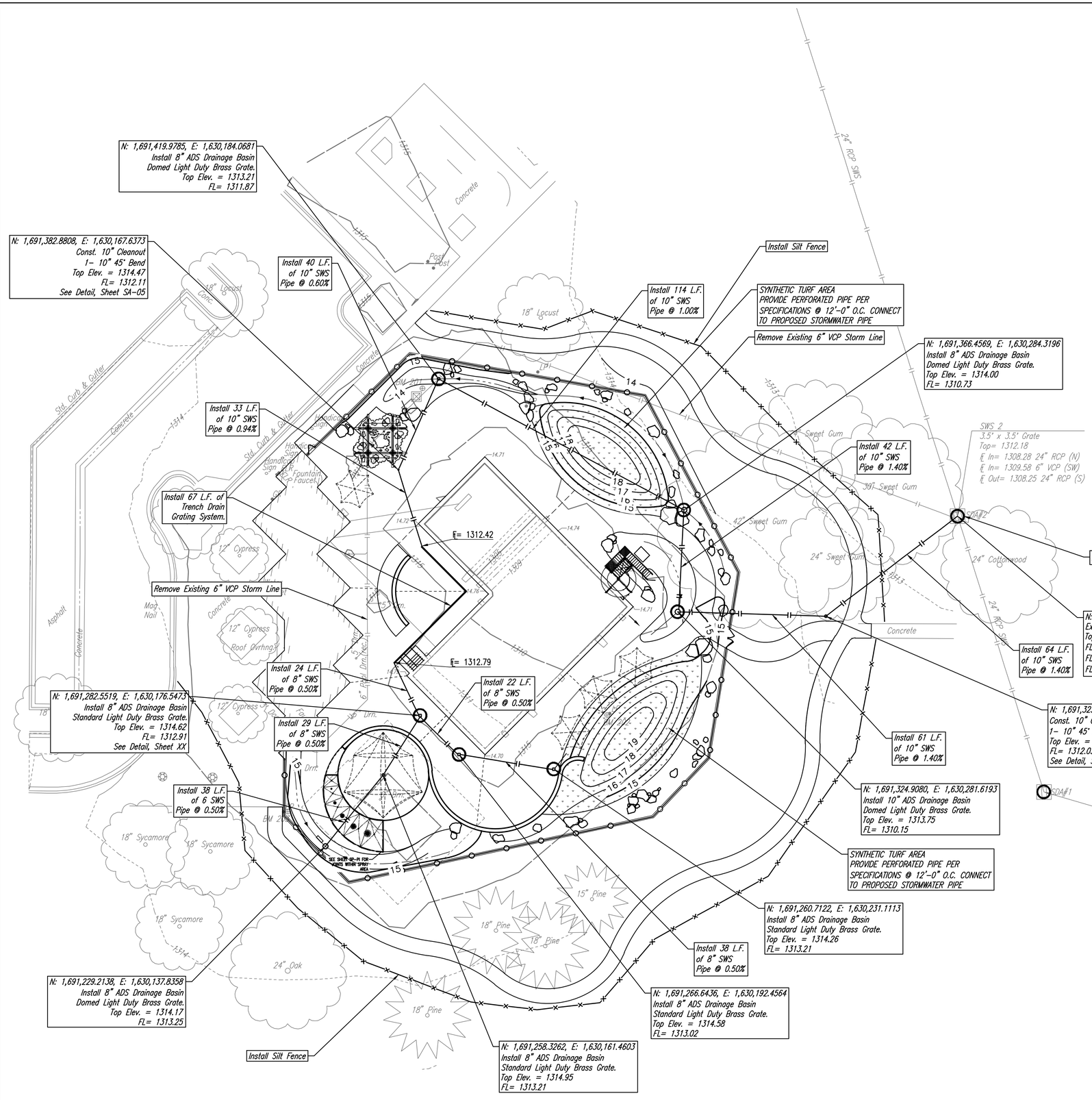

LEGEND

- 1290 — EXISTING MAJOR CONTOUR
- 1291 — EXISTING MINOR CONTOUR
- 1290 — PROPOSED MAJOR CONTOUR
- 1291 — PROPOSED MINOR CONTOUR
- BREAK LINE
- FLOW DIRECTION
- INLET PROTECTION (TEMPORARY)
- SILT FENCE (TEMPORARY)
- STONE CONSTRUCTION ENTRANCE (TEMPORARY)

STORM SEWER FIXTURES AND PIPING SHALL BE MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, 4640 TRUEMAN BOULEVARD, HILLIARD OH, 43026, PH: 800.821.6710, WWW.ADS-PIPE.COM. CONTRACTOR SHALL COORDINATE INSTALLATION WITH MANUFACTURERS RECOMMENDATION FOR TYPE AND INSTALLATION METHODS. CONTRACTOR SHALL PROVIDE PRODUCT CUT SHEETS AND SHOP DRAWINGS FOR REVIEW BY CIVIL ENGINEER.

NOTE:
ARTIFICIAL TURF – PROVIDE UNDERDRAIN PER SPECIFICATIONS SPEC PERFORATED PIPE @ 12' O.C.

SYNTHETIC TURF, SEE NOTE

GRADING PLAN - OVERALL

0 20 40
SCALE IN FEET

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK
CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

GRADING PLAN – OVERALL

CG-00

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Plot Scale 1:1 02-21-2020 10:43:06 AM by RFT
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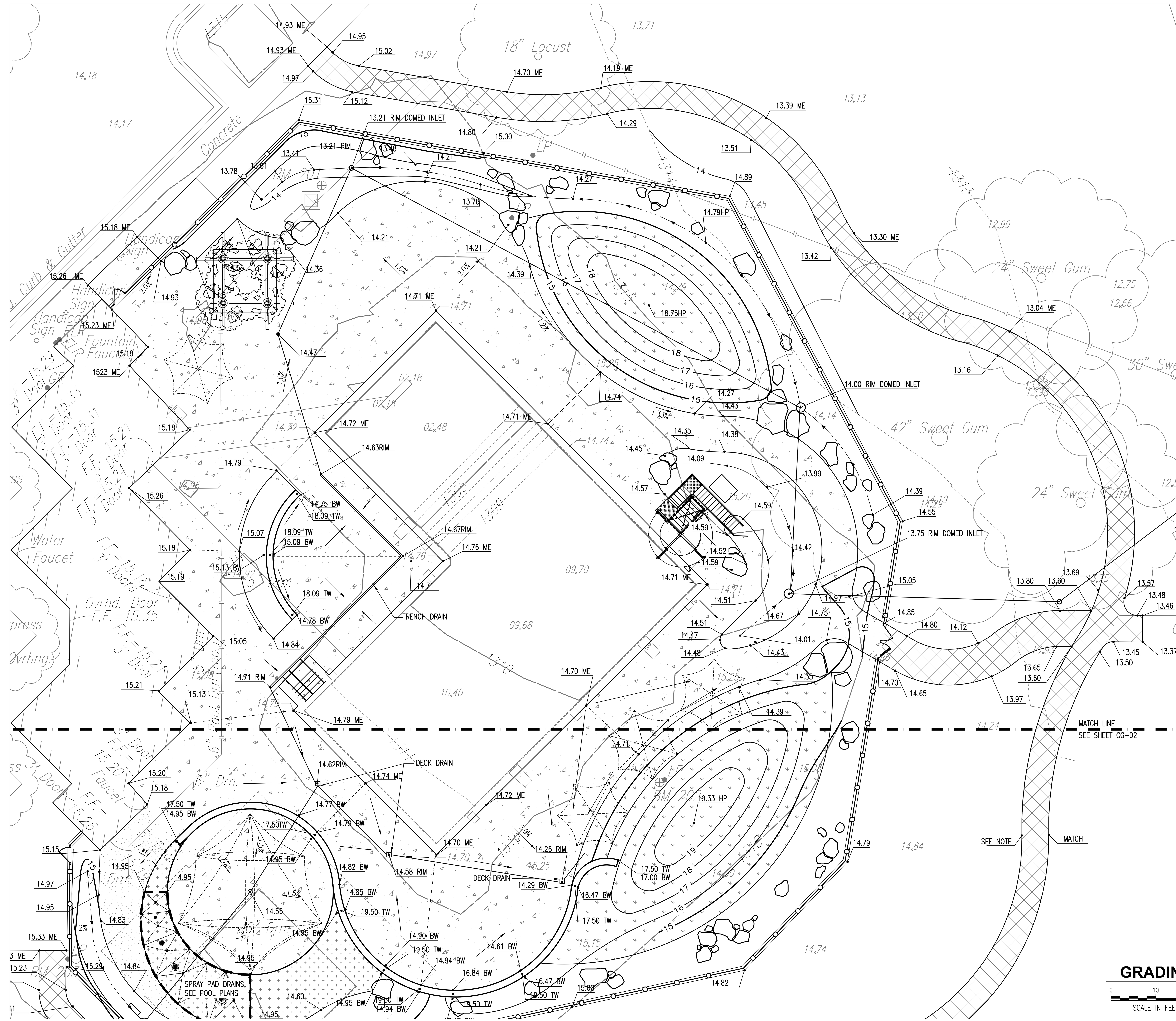

GRADING PLAN - NORTH

SCALE IN FEET (0, 10, 20)

NORTH

LEGEND

13.60	PROPOSED PAVEMENT ELEVATION (+ 1300 = NAVD88 ELEVATION)
10.3	PROPOSED GROUND ELEVATION (+ 1300 = NAVD88 ELEVATION)
—1310—	EXISTING MAJOR CONTOUR
—1311—	EXISTING MINOR CONTOUR
—1310—	PROPOSED MAJOR CONTOUR
—1311—	PROPOSED MINOR CONTOUR
	SWALE FLOW LINE
	FLOW DIRECTION
	HP = HIGH POINT
	TC = TOP OF CURB
	FL = FLOW LINE
	TW = TOP OF WALL
	BW = TOP OF WALL
	ME = MATCH EXISTING CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
	FF = FINISHED FLOOR
	RIM = RIM ELEVATION
	4" CONCRETE SIDEWALK
	POOL DECK
	TYPE 1 COLORED STAMPED CONCRETE
	TYPE 2 COLORED STAMPED CONCRETE
	ARTIFICIAL TURF
	CHAIN LINK FENCE

NOTE: FIELD VERIFY GRADES AND EXISTING DRAINAGE. MATCH ELEVATION ON EXISTING DOWN SLOPE SIDE OF PROPOSED WALK AND SLOPE UP AT 2% MAXIMUM TO UPSLOPE SIDE OF WALK. ENSURE GRADES ON WALK DO NOT IMPEDE EXISTING DRAINAGE CONDITIONS.

waters edge AQUATIC DESIGN
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 842 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02–21–20	Job #: 18–512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

GRADING PLAN – NORTH

CG–01

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Plot Scale 1:1 02-21-2020 10:43:13 AM by RFT
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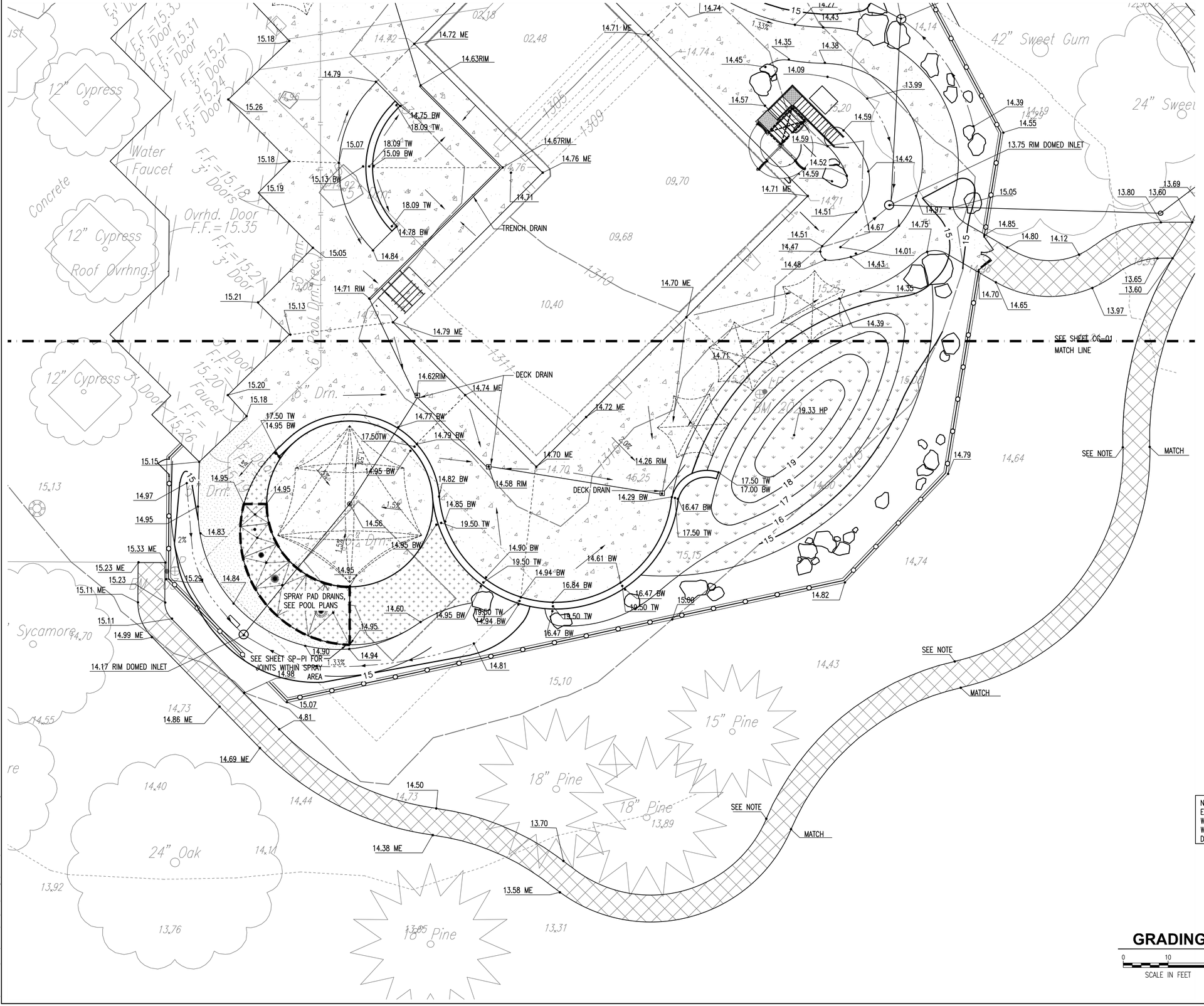

LEGEND

- 13.60 — PROPOSED PAVEMENT ELEVATION (+ 1300 = NAVD88 ELEVATION)
- 10.3 — PROPOSED GROUND ELEVATION (+ 1300 = NAVD88 ELEVATION)
- 1310 — EXISTING MAJOR CONTOUR
- 1311 — EXISTING MINOR CONTOUR
- 1310 — PROPOSED MAJOR CONTOUR
- 1311 — PROPOSED MINOR CONTOUR
- SWALE FLOW LINE
- FLOW DIRECTION
- HP = HIGH POINT
- TC = TOP OF CURB
- FL = FLOW LINE
- TW = TOP OF WALL
- BW = TOP OF WALL
- ME = MATCH EXISTING CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- FF = FINISHED FLOOR
- RIM = RIM ELEVATION
- 4" CONCRETE SIDEWALK
- POOL DECK
- TYPE 1 COLORED STAMPED CONCRETE
- TYPE 2 COLORED STAMPED CONCRETE
- ARTIFICIAL TURF
- CHAIN LINK FENCE

NOTE: FIELD VERIFY GRADES AND EXISTING DRAINAGE. MATCH ELEVATION ON EXISTING DOWN SLOPE SIDE OF PROPOSED WALK AND SLOPE UP AT 2% MAXIMUM TO UPSLOPE SIDE OF WALK. ENSURE GRADES ON WALK DO NOT IMPEDE EXISTING DRAINAGE CONDITIONS.

GRADING PLAN - SOUTH

0 10 20
SCALE IN FEET

waters edge AQUATIC DESIGN
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 0812 02/21/2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02–21–20 | Job #: 18–512

Drawn: RFT | Checked: NLS

Issue: CONSTRUCTION DOCUMENTS

GRADING PLAN – SOUTH

CG–02

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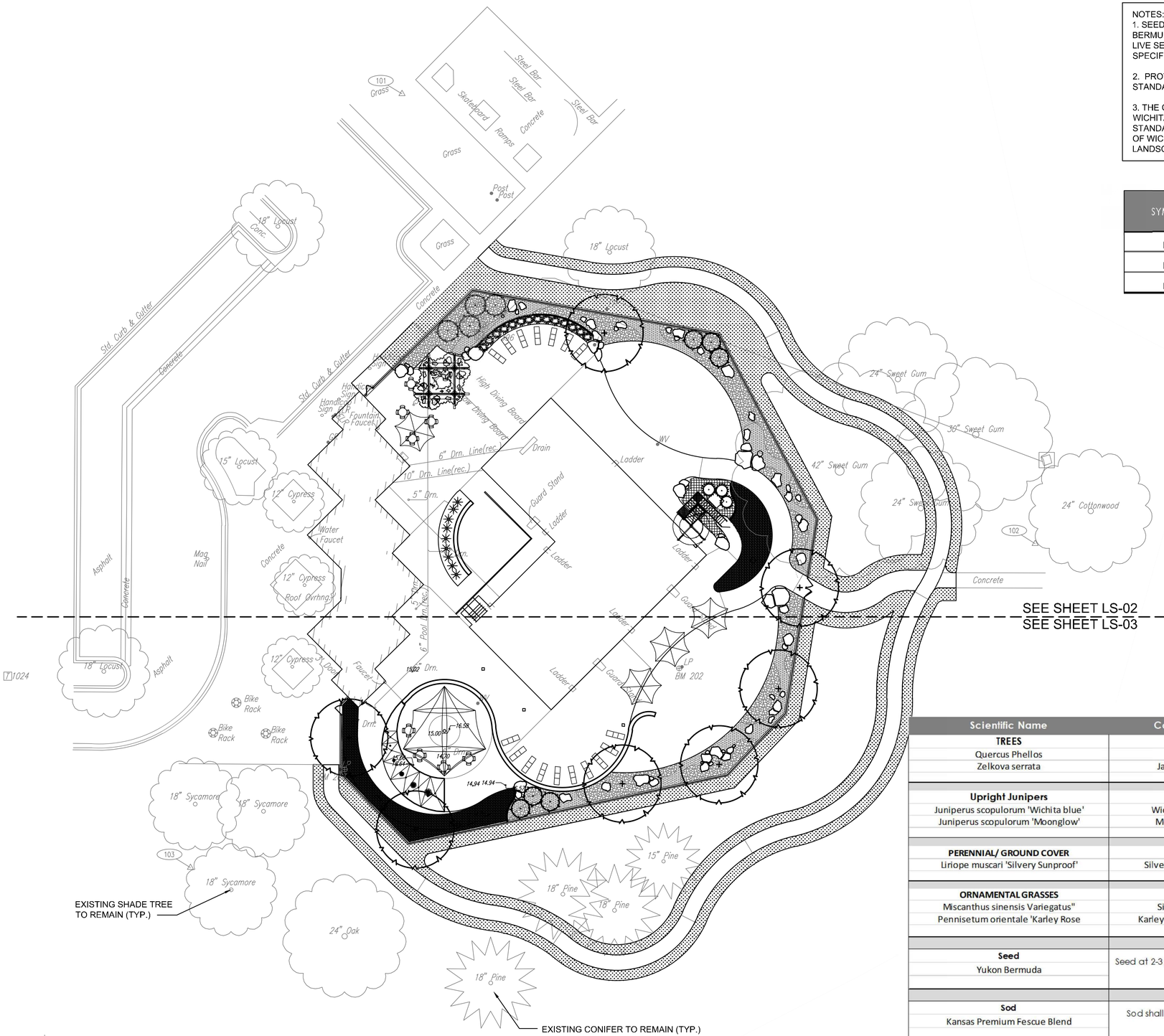

SEE SHEET LS-02
SEE SHEET LS-03

NOTES:
1. SEED ALL DISTURBED AREAS WITH YUKON BERMUDA SEED AT A RATE OF 2-3 LBS PURE LIVE SEED PER 1000 SF, PER CITY STANDARD SPECIFICATION.

2. PROTECT ALL TREES TO REMAIN PER CITY STANDARD SPECIFICATIONS

3. THE CONTRACTOR SHALL FOLLOW CITY OF WICHITA STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS TO THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR LANDSCAPE

BOULDER SCHEDULE

SYMBOL	AVG. SIZE	
	DIA.	HT.
R-1	48"+	48"+
R-2	36"-48"	24"-48"
R-3	34"-36"	12"-36"

LEGEND

SHADE TREE, SEE DETAIL SHEET LS-04

UPRIGHT JUNIPER, SEE DETAIL SHEET LS-04

ORNAMENTAL GRASS, SEE DETAIL SHEET LS-04

PERENNIAL SEE DETAIL SHEET LS-04

SEED WITH YUKON BERMUDA SEEDS (2-3LBS PER 1000 SF) SEE NOTE #3

SOD WITH KANSAS PREMIUM FESCUE SOD, SEE NOTE #6

4-8" COLORADO RIVER ROCK SEE NOTE #4

1/2" DARK GRAY GRANITE ROCK MULCH SEE NOTE #4

GRANITE BOULDERS, SEE DETAIL LS-04

NOTES:

1. SEE SHEET LS-04 FOR PLANTING DETAILS AND PLANT LIST.
2. SEE SHEET LS-01 FOR PLANT LIST
3. ALL SEEDING OPERATIONS SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY STANDARD LANDSCAPE SPECIFICATION.
4. ROCK MULCH SHALL BE PLACED OVER 5 0Z. NON-WOVEN GEOTEXTILE FABRIC. COORDINATE WITH GRADING PLAN AND ROCK SIZES TO ENSURE A MINIMUM MULCH DEPTH TO ALLOW FOR 2 LAYERS OF ROCK. THE CONTRACTOR SHALL ENSURE THAT NO PORTION OF GEOTEXTILE IS VISIBLE .
5. PROVIDE SHREDDED HARDWOOD MULCH AT ORNAMENTAL GRASS AND GROUNDCOVER PLANTING AREAS. SPREAD MULCH TO A DEPTH OF 3". DO NOT USE WEED BARRIER FABRIC/GEOTEXTILE UNDER HARDWOOD MULCH.
6. SODDING OPERATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF WICHITA STANDARD LANDSCAPE SODDING SPECIFICATION.

Scientific Name	Common Name	Plant Size	Container Size	Condition	Remarks
TREES					
Quercus Phellos	Willow Oak	2 1/2" Cal.	b&b		
Zelkova serrata	Japanese Zelkova	2 1/2" Cal.	b&b		
Upright Junipers					
Juniperus scopulorum 'Wichita blue'	Wichita Blue Juniper	6 ft. Height	b&b		
Juniperus scopulorum 'Moonglow'	Moonglow Juniper	6 ft. Height	b&b		
PERENNIAL/ GROUND COVER					
Liriope muscari 'Silvery Sunproof'	Silvery Sunproof Liriope	Perennial	#1	Container	Plant @ 12" o.c.
ORNAMENTAL GRASSES					
Miscanthus sinensis Variegatus"	Silver Miscanthus	Orn. Grass	#1	Container	Full & Healthy
Pennisetum orientale 'Karley Rose	Karley Rose Fountain Grass	Orn. Grass	#1	Container	Full & Healthy
Seed	Seed at 2-3 pounds of pure live seed per 1000 square feet. Seeding shall meet the City of Wichita Standard Landscape specification requirements				
Yukon Bermuda					
Sod	Sod shall contain a mix of Fescure with a Kentucky Bluegrass as binder. Sodding shall meet the City of Wichita Standard Landscape specification requirements				
Kansas Premium Fescue Blend					

OVERALL PLANTING PLAN

0 20 40
SCALE IN FEET

waters edge AQUATIC DESIGN
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Lenexa, KS 66214
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK
CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED LANDSCAPE ARCHITECT 02/21/2020

Kurt Huiras–Landscape Architect LICENSE #0812
Date: 02-21-20 Job #: 18-512
Drawn: RFT Checked: NLS
Issue: CONSTRUCTION DOCUMENTS

OVERALL PLANTING PLAN

LS-01

Saved 02-21-2020 10:38:39 AM by KURT.HUIRAS
Plot Scale 1:1 02-21-2020 10:43:32 AM by RFT
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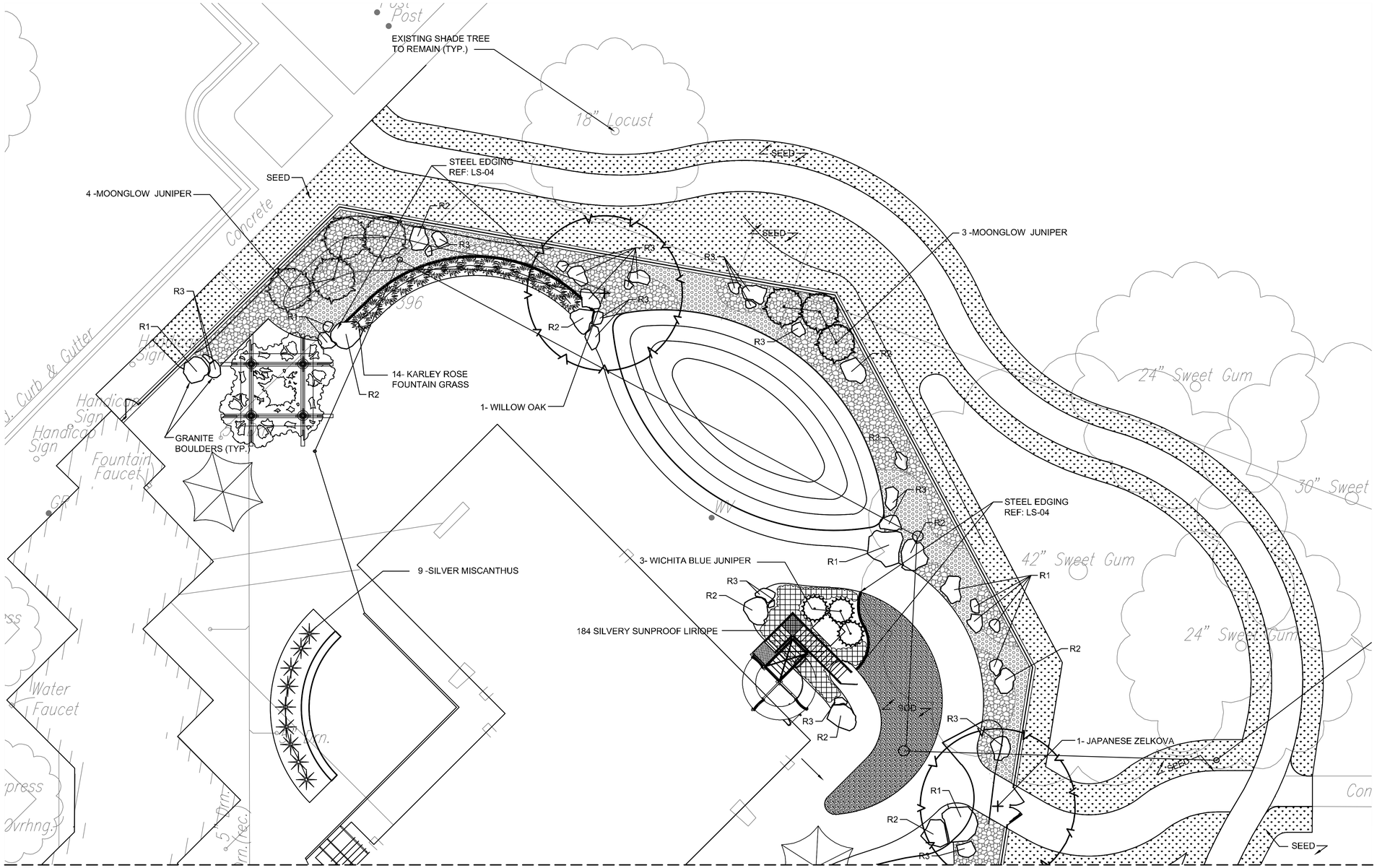
NOTES:
1. SEED ALL DISTURBED AREAS WITH YUKON BERMUDA SEED AT A RATE OF 2-3 LBS PURE LIVE SEED PER 1000 SF, PER CITY STANDARD SPECIFICATION.

2. PROTECT ALL TREES TO REMAIN PER CITY STANDARD SPECIFICATIONS

3. THE CONTRACTOR SHALL FOLLOW CITY OF WICHITA STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS TO THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR LANDSCAPE



NORTH PLANTING PLAN

0 10 20
SCALE IN FEET

NORTH

LEGEND

- SHADE TREE, SEE DETAIL SHEET LS-04
- UPRIGHT JUNIPER, SEE DETAIL SHEET LS-04
- ORNAMENTAL GRASS, SEE DETAIL SHEET LS-04
- PERENNIAL SEE DETAIL SHEET LS-04
- SEED WITH YUKON BERMUDA SEEDS (2-3LBS PER 1000 SF) SEE NOTE #3
- SOD WITH KANSAS PREMIUM FESCUE SOD, SEE NOTE #6.
- 4-8" COLORADO RIVER ROCK SEE NOTE #4
- 1/ 3/4" DARK GRAY GRANITE ROCK MULCH SEE NOTE #4
- GRANITE BOULDERS, SEE DETAIL LS-04

NOTES:

1. SEE SHEET LS-04 FOR PLANTING DETAILS AND PLANT LIST.
2. SEE SHEET LS-01 FOR PLANT LIST
3. ALL SEEDING OPERATIONS SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY STANDARD LANDSCAPE SPECIFICATION.
4. ROCK MULCH SHALL BE PLACED OVER 5 0Z. NON-WOVEN GEOTEXTILE FABRIC. COORDINATE WITH GRADING PLAN AND ROCK SIZES TO ENSURE A MINIMUM MULCH DEPTH TO ALLOW FOR 2 LAYERS OF ROCK. THE CONTRACTOR SHALL ENSURE THAT NO PORTION OF GEOTEXTILE IS VISIBLE .
5. PROVIDE SHREDDED HARDWOOD MULCH AT ORNAMENTAL GRASS AND GROUNDCOVER PLANTING AREAS. SPREAD MULCH TO A DEPTH OF 3". DO NOT USE WEED BARRIER FABRIC/GEOTEXTILE UNDER HARDWOOD MULCH.
6. SODDING OPERATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF WICHITA STANDARD LANDSCAPE SODDING SPECIFICATION.

BOLDER SCHEDULE

SYMBOL	AVG. SIZE	
	DIA.	HT.
R-1	48"+	48"+
R-2	36"-48"	24"-48"
R-3	34"-36"	12"-36"

waters edge AQUATIC DESIGN
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WICHITA, KANSAS
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ORCHARD PARK

CITY OF WICHITA

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Kurt Huiras–Landscape Architect LICENSE #0812
Date: 02-21-20 Job #: 18-512
Drawn: RFT Checked: NLS
Issue: CONSTRUCTION DOCUMENTS

NORTH PLANTING PLAN

LS-02

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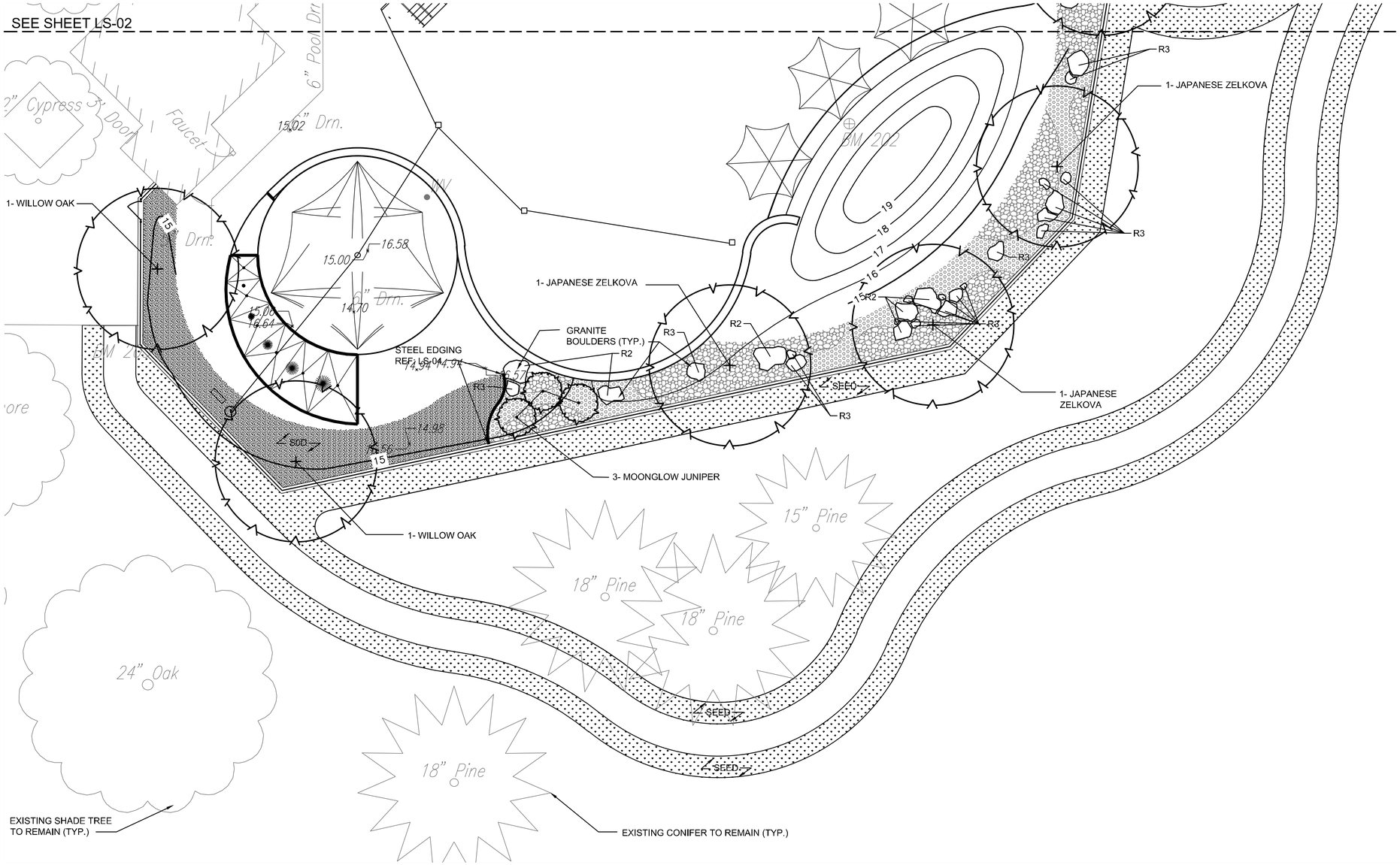
NOTES:
1. SEED ALL DISTURBED AREAS WITH YUKON BERMUDA SEED AT A RATE OF 2-3 LBS PURE LIVE SEED PER 1000 SF, PER CITY STANDARD SPECIFICATION.

2. PROTECT ALL TREES TO REMAIN PER CITY STANDARD SPECIFICATIONS

3. THE CONTRACTOR SHALL FOLLOW CITY OF WICHITA STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS TO THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR LANDSCAPE



SOUTH PLANTING PLAN

0 10 20
SCALE IN FEET

NORTH

LEGEND

- SHADE TREE, SEE DETAIL SHEET LS-04
- UPRIGHT JUNIPER, SEE DETAIL SHEET LS-04
- ORNAMENTAL GRASS, SEE DETAIL SHEET LS-04
- PERENNIAL SEE DETAIL SHEET LS-04
- SEED WITH YUKON BERMUDA SEEDS (2-3LBS PER 1000 SF) SEE NOTE #3
- SOD WITH KANSAS PREMIUM FESCUE SOD, SEE NOTE #6.
- 4-8" COLORADO RIVER ROCK SEE NOTE #4
- 1/ 1/2" DARK GRAY GRANITE ROCK MULCH SEE NOTE #4
- GRANITE BOULDERS, SEE DETAIL LS-04

NOTES:

1. SEE SHEET LS-04 FOR PLANTING DETAILS AND PLANT LIST.
2. SEE SHEET LS-01 FOR PLANT LIST
3. ALL SEEDING OPERATIONS SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY STANDARD LANDSCAPE SPECIFICATION.
4. ROCK MULCH SHALL BE PLACED OVER 5 0Z. NON-WOVEN GEOTEXTILE FABRIC. COORDINATE WITH GRADING PLAN AND ROCK SIZES TO ENSURE A MINIMUM MULCH DEPTH TO ALLOW FOR 2 LAYERS OF ROCK. THE CONTRACTOR SHALL ENSURE THAT NO PORTION OF GEOTEXTILE IS VISIBLE .
5. PROVIDE SHREDDED HARDWOOD MULCH AT ORNAMENTAL GRASS AND GROUNDCOVER PLANTING AREAS. SPREAD MULCH TO A DEPTH OF 3". DO NOT USE WEED BARRIER FABRIC/GEOTEXTILE UNDER HARDWOOD MULCH.
6. SODDING OPERATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF WICHITA STANDARD LANDSCAPE SODDING SPECIFICATION.

BOULDER SCHEDULE

SYMBOL	AVG. SIZE	
	DIA.	HT.
R-1	48"+	48"+
R-2	36"-48"	24"-48"
R-3	34"-36"	12"-36"

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK
CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED LANDSCAPE ARCHITECT KANSAS 02/21/2020

Kurt Huiras–Landscape Architect LICENSE #0812

Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

SOUTH PLANTING PLAN

LS-03

Saved 02-21-2020 10:38:04 AM by KURT.HUIRAS
Plot Scale 1:1 02-21-2020 10:43:54 AM by RFT
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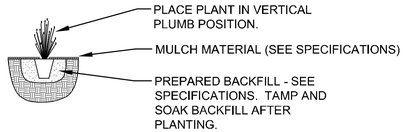
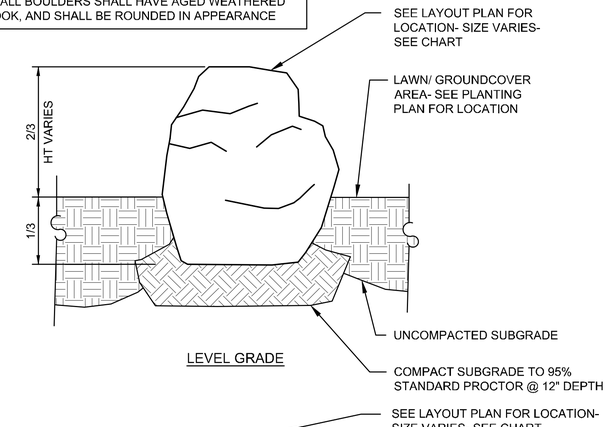
GENERAL PLANTING NOTES

1. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE LANDSCAPE ARCHITECT FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK. REPORT ANY ISSUES IN SITE CONDITIONS AND CONSTRUCTION THAT MAY AFFECT THE PLANTING LAYOUT TO THE PROJECT ARCHITECT PRIOR TO STARTING CONSTRUCTION.
2. LANDSCAPE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND SERVICE NECESSARY TO FURNISH AND INSTALL PLANTINGS AS SPECIFIED HEREIN AND AS SHOWN ON THESE PLANS.
3. NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT LANDSCAPE ARCHITECT'S APPROVAL. ALTERNATIVE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REVISE PLANT LIST AS DEEMED NECESSARY.
4. LANDSCAPE CONTRACTOR IS TO STAKE ALL PLANT MATERIAL (TREE AND SHRUB) LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR IS TO CONTACT OWNER'S REPRESENTATIVE FOR PRE-INSTALLATION CONFERENCE AND FINAL APPROVAL OF STAKING. ADJUST PLANT LOCATIONS ONLY AS NECESSARY TO AVOID SITE CONFLICTS.
5. UTILITIES HAVE BEEN SHOWN ON THE PLAN FOR ROUGH LOCATION OF SERVICES. CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE WORK. LOCATE EXACT UTILITY LOCATIONS BY CONTACTING UTILITY LOCATOR SERVICES. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE HE MAY CAUSE TO UTILITIES.
6. GENERAL CONTRACTOR SHALL PROVIDE 4" OF TOPSOIL AT ALL SOD AND PLANTING AREAS. GRADE SHALL BE ADJUSTED FOR SOD THICKNESS. ANY BERMS SHOWN ON PLANS ARE REFLECTED ON GRADING PLAN. FINISH GRADING SHALL BE PERFORMED BY LANDSCAPE CONTRACTOR.
7. WHEN CLAY SOIL IS ENCOUNTERED IN THE ESTABLISHMENT OF THE LAWN OR THE INSTALLATION OF THE PLANT MATERIAL IT SHALL BE IMPROVED IN ACCORDANCE WITH STANDARD TRADE PRACTICE.
8. BACKFILL FOR PLANT EXCAVATIONS TO BE CLEAN NATURAL SOIL, EXCAVATED FROM PLANTING PITS MIXED WITH COMPOST AND WELL-ROTTED MANURE AT A RATIO OF THREE (3) PARTS SOIL TO ONE (1) PART COMPOST AND WELL-ROTTED MANURE.
9. CULTIVATE GROUND COVER PLANTING BEDS TO A DEPTH OF 6", TILL COMPOST AND WELL-ROTTED MANURE INTO THE PLANTING BED AT THE APPROXIMATE RATIO OF ONE (1) PART COMPOST/ MANURE TO THREE (3) PARTS SOIL.
10. ALL PLANT MATERIALS SHALL BE PROTECTED FROM THE DRYING ACTION OF THE SUN AND WIND AFTER BEING DUG, WHILE BEING TRANSPORTED, AND WHILE AWAITING PLANTING. BALLS OF PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY SHALL BE PROTECTED FROM DRYING ACTION BY COVERING THEM WITH MOIST MULCH. PERIODICALLY, APPLY WATER TO MULCH-COVERED BALLS TO KEEP MOIST. IF PLANTING SHOULD OCCUR DURING GROWING SEASON, APPLY ANTI-DESICCANT TO LEAVES BEFORE TRANSPORT TO REDUCE LIKELIHOOD OF WINDBURN. REAPPLY ANTI-DESICCANT AFTER PLANTING TO REDUCE TRANSPIRATION.
11. AFTER PLANTING IS COMPLETED, REPAIR INJURIES TO ALL PLANTS AS REQUIRED. LIMIT AMOUNT OF PRUNING TO A MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES. PRUNE IN SUCH A MANNER AS NOT TO CHANGE NATURAL HABIT OR SHAPE OF PLANT. MAKE CUTS FLUSH, LEAVING NO STUBS. CUTS OF ONE INCH (1") OR MORE TO BE PAINTED WITH TREE PAINT. CENTRAL LEADERS SHALL NOT BE REMOVED.
12. PLANTING BEDS ARE TO BE FREE OF WEEDS AND GRASS. TREAT PLANTING BEDS WITH A PRE-EMERGENT HERBICIDE PRIOR TO PLANTING. APPLY IN ACCORDANCE WITH STANDARD TRADE PRACTICE. DO NOT APPLY HERBICIDE IN PERENNIAL BEDS.
13. THE CONTRACTOR SHALL PROVIDE ALL WATER, WATERING DEVICES AND LABOR NEEDED TO IRRIGATE PLANT MATERIALS UNTIL ACCEPTANCE OF PLANT MATERIALS AS DESCRIBED WITHIN SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY ENOUGH WATER TO MAINTAIN THE PLANT'S HEALTHY CONDITION.
14. USE SHREDDED CEDAR MULCH IN ALL PLANTING BEDS UNLESS OTHERWISE NOTED. LANDSCAPE CONTRACTOR SHALL SUBMIT A SAMPLE OF MULCH FOR APPROVAL PRIOR TO STARTING CONSTRUCTION. SIZE OF MATERIAL TO RANGE FROM 1" TO 3" ONLY. PLACE 3" TO 4" OF MULCH IN ALL SHRUB BEDS. PLACE 1" OF MULCH IN GROUNDCOVER BEDS. PLACE 4" OF MULCH IN ALL TREE SAUCERS.
15. REMOVE ALL RUBBISH, EQUIPMENT AND MATERIAL AND LEAVE THE AREA IN A NEAT, CLEAN CONDITION EACH DAY. MAINTAIN PAVED AREAS UTILIZED FOR HAULING EQUIPMENT AND MATERIALS BY OTHER TRADES IN A CLEAN AND UNOBSTRUCTED CONDITION AT ALL TIMES. REMOVE SOIL OR DIRT THAT ACCUMULATED DURING OR AS A RESULT OF PLANTING OPERATIONS EACH DAY.
16. ALL PLANTS SHALL BE INSPECTED BY THE OWNER AND LANDSCAPE ARCHITECT AT SUBSTANTIAL COMPLETION. CONTRACTOR SHALL REPLACE IMMEDIATELY ANY PLANTS NOT IN HEALTHY AND VIGOROUS CONDITION AT THAT TIME AT NO EXPENSE TO THE OWNER.
17. ANY VEGETATED AREAS DISTURBED BY THE CONSTRUCTION PROCESS MUST BE RESTORED BY REPAIRING THE SOIL BED AND RE-ESTABLISHING ORIGINAL PLANTINGS.
18. LANDSCAPE CONTRACTOR IS REQUIRED TO REMOVE THE TREE STAKES AND ALL DEAD WOOD ON TREES ONE YEAR AFTER PROVISIONAL/ FINAL ACCEPTANCE. ALL PRUNING ACTIVITIES SHALL BE PER ANSI A300: STANDARDS FOR THE TREE CARE INDUSTRY, PART 1 PRUNING AND TRIMMING OPERATIONS.
19. ALL TREES SHALL BE CALLIPERED AND TRUNKS SHALL BE STRAIGHT. TREE DIAMETER MEASUREMENT SHALL BE TAKEN FROM DBH (DIAMETER AT BREAST HEIGHT OF 4.5 FEET ABOVE GROUND. ALL UNDERSIZED AND TREES WITH UNSATISFACTORY FORM SHALL BE REJECTED.
20. ANY DEVIATION TO THE APPROVED FINAL LANDSCAPE PLAN SHALL REQUIRE THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
21. FERTILIZE ALL PLANT MATERIALS AND TURF WITH MILORGANITE FERTILIZER AT MANUFACTURERS RECOMMENDED RATE.
22. REFER TO IRRIGATION CONCEPT PLAN FOR AREAS AND METHODS FOR IRRIGATION.
23. APPLY MYKE (OR EQUAL) MYCORRHIZAL FUNGI TO PLANT MATERIAL PER THE MANUFACTURERS INSTRUCTIONS.
24. ALL PLANT MATERIALS SHALL HAVE BACKFILL CAREFULLY PLACED AROUND BASE AND SIDES OF BALL TO TWO-THIRDS (2/3) DEPTH OF BALL, THEN THOROUGHLY SOAKED WITH WATER TO ALLOW SETTLEMENT. ALL WIRE, BURLAP FASTENERS AND LOOSE BURLAP AROUND BASE OF TREE SHALL BE REMOVED AT THIS TIME. REMAINDER OF PIT SHALL THEN BE BACKFILLED, ALLOWING FOR DEPTH OF MULCH, SAUCER AND SETTLEMENT OF BACKFILL. BACKFILL SHALL THEN BE THOROUGHLY WATERED ONCE AGAIN.
25. PLANTING BEDS ARE TO BE FREE OF WEEDS AND GRASS. DO NOT INSTALL WEED BARRIER IN PLANTING AREAS.
26. SEED ALL DISTURBED AREAS WITH BERMUDA SEED PER CITY OF WICHITA STANDARD SPECIFICATIONS.
27. SOD ALL AREAS SHOWN ON PLAN PER CITY OF WICHITA STANDARD SPECIFICATIONS.

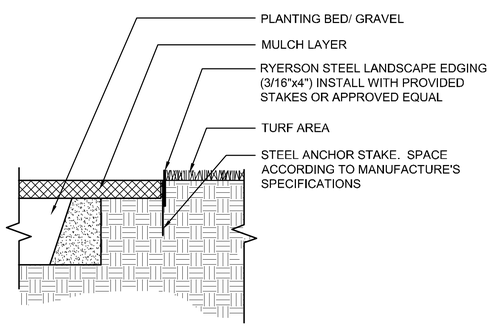


1 ORNAMENTAL GRASS PLANTING DETAIL
NO SCALE

NOTE:
1) BOULDERS SHALL BE GRANITE
2) FINAL FIELD LOCATIONS TO BE APPROVED BY LANDSCAPE ARCHITECT/ OWNER
3) SIZES INCLUDE ALLOWANCE FOR BURY DEPTHS
4) ALL BOULDERS SHALL HAVE AGED WEATHERED LOOK, AND SHALL BE ROUNDED IN APPEARANCE

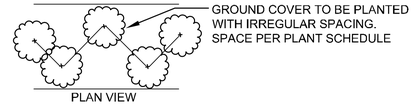


2 BOULDER BURY DETAIL
NO SCALE



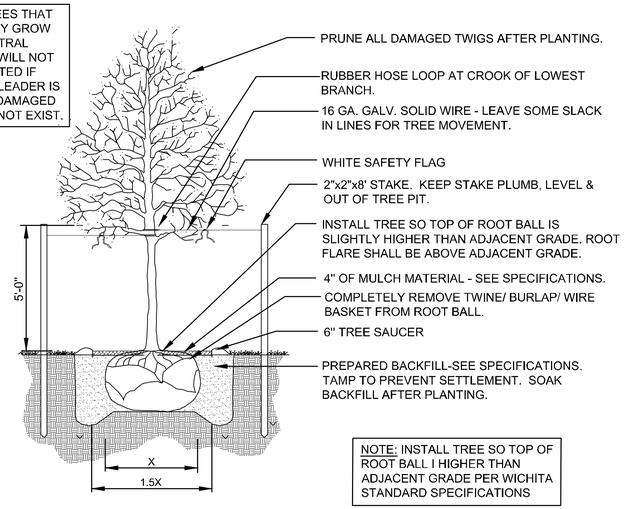
3 STEEL EDGING DETAIL
NO SCALE

PLANTING DETAILS



4 PERENNIAL PLANTING DETAIL
NO SCALE

NOTE: TREES THAT NATURALLY GROW WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF CENTRAL LEADER IS PRUNED, DAMAGED OR DOES NOT EXIST.

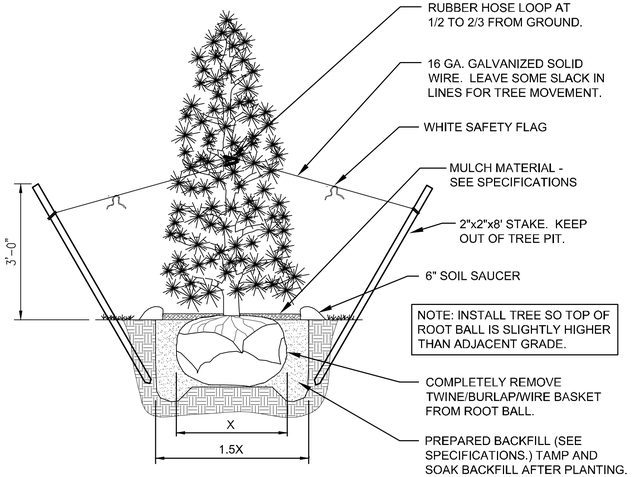


NOTE: INSTALL TREE SO TOP OF ROOT BALL I HIGHER THAN ADJACENT GRADE PER WICHITA STANDARD SPECIFICATIONS

TREE PLANTING DETAIL
NO SCALE

SINGLE LEADER ONLY.

NOTE: DO NOT CUT CENTRAL LEADER OR PRUNE NEW CANDLES.



6 EVERGREEN TREE PLANTING DETAIL
NO SCALE

waters edge AQUATIC DESIGN
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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 02-21-2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

PLANTING DETAILS

LS-04

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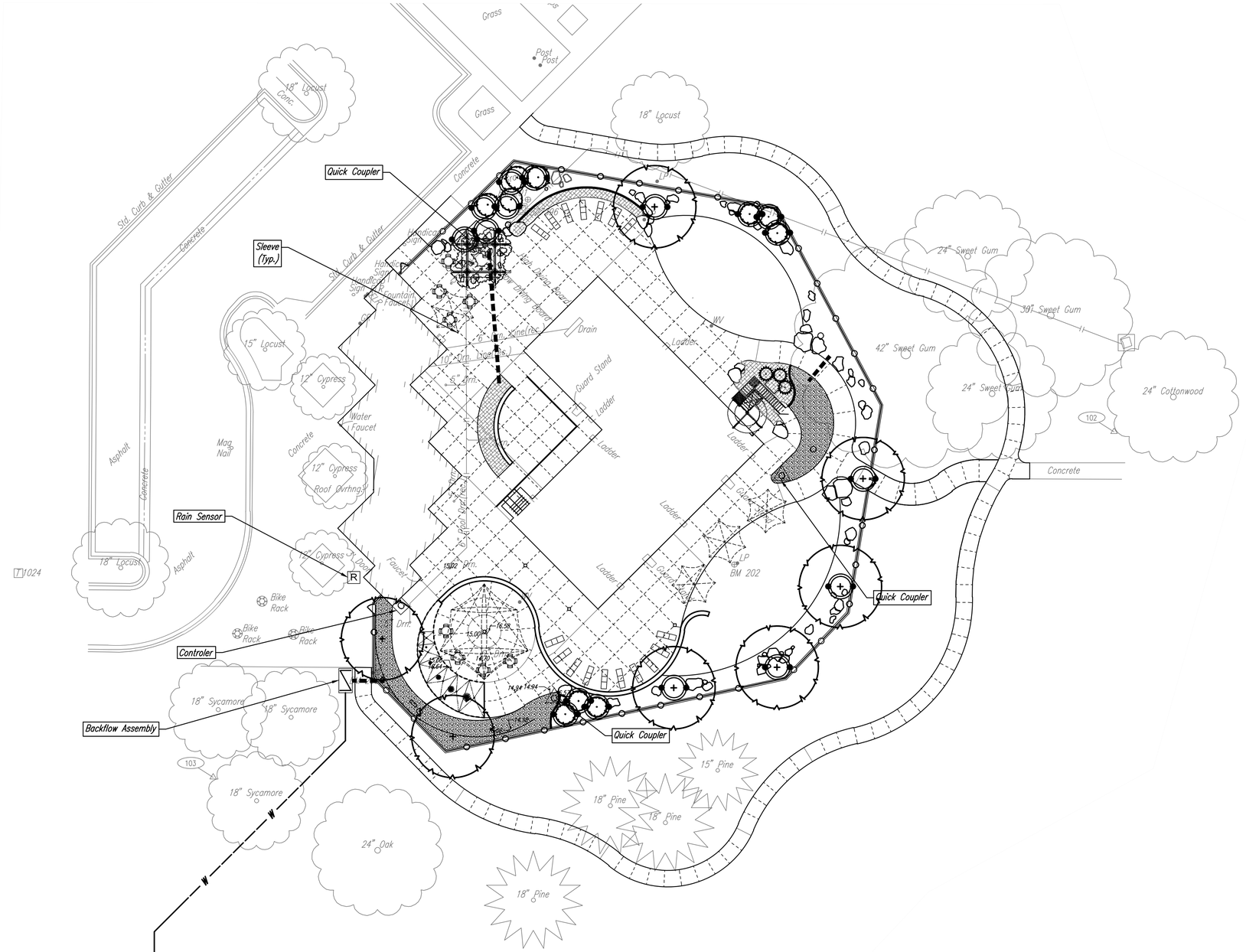
NOTE

CONTRACTOR SHALL FOLLOW CITY OF WICHITA STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS TO THE CITY OF WICHITA STANDARD SPECIFICATIONS FOR IRRIGATION.



IRRIGATION PLAN

0 20 40

SCALE IN FEET

NORTH

- IRRIGATION SLEEVE, SEE SHEET LI-02 FOR DETAILS.
- R — RAIN/FREEZE SENSOR, SEE SHEET LI-02 FOR DETAILS.
- C — IRRIGATION CONTROLLER, SEE SHEET LI-02 FOR DETAILS.
- M — NEW WATER METER, SEE SHEET LI-02 FOR DETAILS.
- Q — QUICK COUPLER, SEE SHEET LI-02 FOR DETAILS.
- ROOT BALL IRRIGATION, SEE SHEET LI-02 FOR DETAILS.
- CP — 2" IRRIGATION CONNECTION
- BACKFLOW PREVENTOR ASSEMBLY, SEE SHEET LI-02 FOR DETAILS.
- BASE BID TURF IRRIGATION, SEE SHEET LI-02 FOR DETAILS.
- BASE BID PLANTING BED IRRIGATION, SEE SHEET LI-02 FOR DETAILS.

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Pool Improvements
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CITY OF WICHITA

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Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

IRRIGATION PLAN

LI-01

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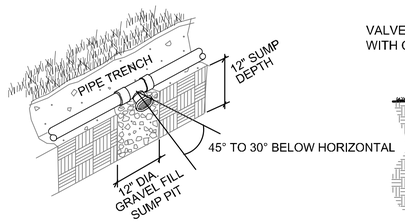
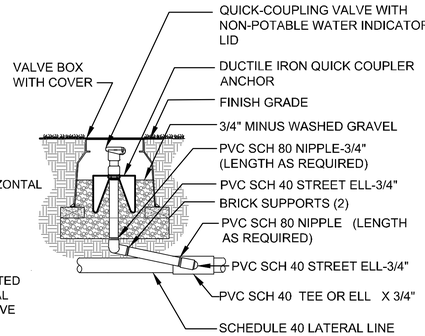
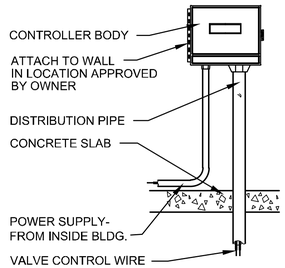


AUTOMATIC VALVES ARE TO BE LOCATED AT LOW POINTS AND ENDS OF LATERAL LINES. LOCATE END AUTO. DRAIN VALVE 12" UP STREAM FROM LAST HEAD

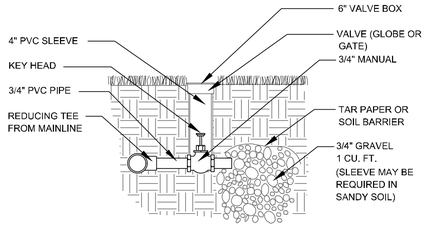
1 AUTOMATIC DRAIN VALVE
NO SCALE



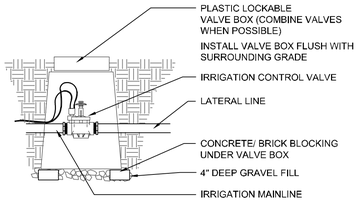
2 QUICK COUPLER
NO SCALE



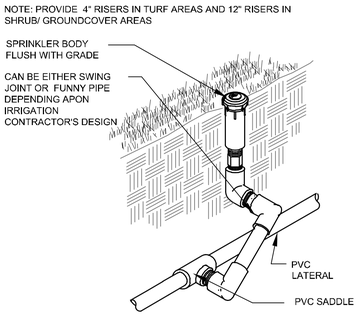
3 IRRIGATION CONTROLLER
NO SCALE



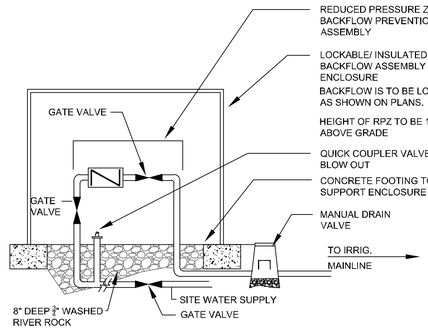
4 MANUAL VALVE
NO SCALE



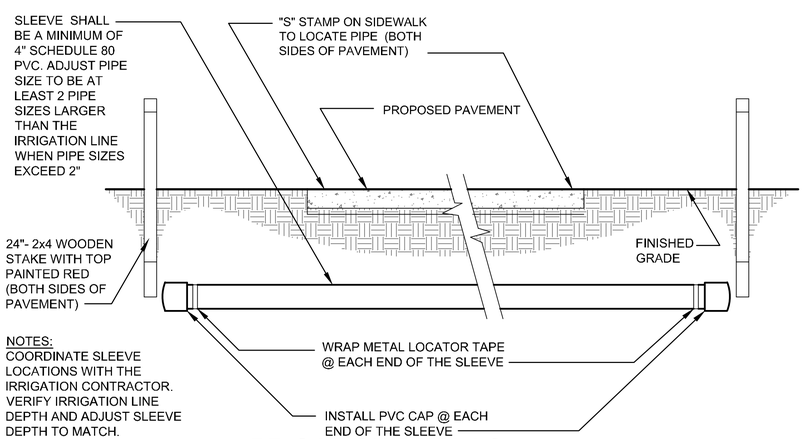
7 AUTOMATIC VALVE
NO SCALE



5 SPRAY HEAD INSTALLATION
NO SCALE



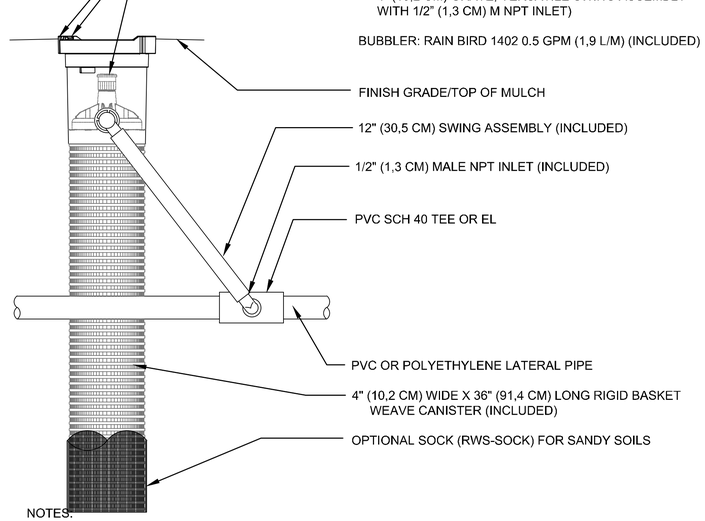
6 RPZ INSTALLATION
NO SCALE



NOTES:
COORDINATE SLEEVE LOCATIONS WITH THE IRRIGATION CONTRACTOR. VERIFY IRRIGATION LINE DEPTH AND ADJUST SLEEVE DEPTH TO MATCH.

8 IRRIGATION SLEEVE
NO SCALE

IRRIGATION DETAILS



NOTES:
1. INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
2. PROVIDE OPTIONAL SAND SOCK (RWS-SOCK) IS 34" (86,4 CM) IN LENGTH TO COVER MESH BASKET AREA.
3. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1,9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
4. ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.
5. PROVIDE 2 PER TREE AND INSTALL ON OPPOSITE SIDES OF TREE, PER MANUFACTURERS RECOMMENDATION

9 ROOT BALL WATERER
NO SCALE

GENERAL IRRIGATION NOTES

1. IRRIGATION SHALL BE PER THE CITY OF WICHITA STANDARD SPECIFICATION, PART 900, LANDSCAPE AND IRRIGATION. THE DESIRED AREAS OF IRRIGATION SYSTEM COVERAGE IS SCHEMATICALLY SHOWN ON THE DRAWINGS. THE CONTRACTOR IS TO COMPLETE THE SYSTEM DESIGN, SUBMIT IT AS SHOP DRAWINGS AND INSTALL EQUIPMENT NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL SYSTEM THAT IS IN COMPLIANCE WITH THE SPECIFICATIONS, APPLICABLE CODES, AND REGULATIONS. THE CONTRACTOR WILL VERIFY THE SITE'S STATIC PRESSURE AND VOLUME OF SITE WATER SUPPLY AND DESIGN ENTIRE IRRIGATION SYSTEM ACCORDINGLY.
2. THE LOCATION OF THE IRRIGATION WATER METER, BACKFLOW AND ENCLOSURE, RAIN SWITCH, SLEEVES AND CONTROLLER ARE SHOWN ON THE PLANS.
3. SHOP DRAWINGS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR REVIEW. ILLUSTRATING THE TYPE AND LOCATION OF IRRIGATION HEADS, VALVES, PIPING, CONTROLLER, BLOW OUT VALVE, ISOLATION GLOBE VALVES, DRAIN VALVES AND ACCESSORIES. SHOW DESIGN PRESSURE, VALVE SIZES, GPM REQUIREMENTS, PIPE SIZES AND PRESSURE LOSS CALCULATIONS FROM THE SITE WATER SUPPLY TO THE FURTHEST HEAD OF THE LARGEST ZONE AND FROM THE SITE WATER SUPPLY TO THE FURTHEST HEAD FROM THE SUPPLY.
4. ALL APPLICABLE PERMITS FOR IRRIGATION INSTALLATION WITHIN THE RIGHT-OF-WAY IS TO BE SECURED AND PAID FOR BY THE IRRIGATION CONTRACTOR.
5. THE CONTRACTOR SHALL LOCATE ALL UTILITIES BEFORE COMMENCEMENT OF ANY WORK. IDENTIFY EXACT UTILITY LOCATIONS BY CONTACTING UTILITY OWNERS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE HE MAY CAUSE TO UTILITIES.
6. PROVIDE PVC SLEEVES FOR IRRIGATION THRU WALL, PIPES AND WIRING THAT CROSSES UNDER WALKS, STREETS AND CONCRETE PADS. DO NOT COMBINE PIPES WITHIN SLEEVES.
7. WHEN INSTALLING IRRIGATION PIPE ALONG CURBS OR IN ISLANDS, PLACE PIPE AS CLOSE TO CURB AS POSSIBLE TO ALLOW FOR PLANTING TREES AND SHRUBS.
8. MANUAL DRAIN VALVES ARE TO BE LOCATED AT THE LOW POINT(S) ON THE IRRIGATION MAIN LINE. ENSURE LINE DRAINS TO VALVE BY PROVIDING A MINIMUM OF 0.5% SLOPE TOWARDS VALVE. PLACE MANUAL VALVES IN LATCHABLE VALVE BOX FOR EASY ACCESS. PLACE ONE CUBIC FOOT OF GRAVEL BELOW VALVE. VALVES SHALL BE LOCATED AT LINE DEPTH AT THE LOW SPOT IN THE SYSTEM.
9. THE SYSTEM IS TO CONSIST OF SEPARATE SHRUB / GROUNDCOVER SPRAY ZONES AND TURF SPRAY HEAD ZONES EACH WITH SEPARATE VALVES AND STATIONS ON THE CONTROLLER. IF DIFFERENT TURF IRRIGATION SPRINKLER TYPES ARE USED, EACH TYPE IS TO BE GROUPED TOGETHER ON SEPARATED ZONES. THE CONTRACTOR SHOULD BE FAMILIAR WITH WATER REQUIREMENTS OF ALL PLANT MATERIALS AND DESIGN SYSTEM ACCORDINGLY. GROUP LIKE PLANTS ON SAME ZONES WITH SIMILAR WATER REQUIREMENTS. COORDINATE RUNNING TIMES OF EACH ZONE WITH LANDSCAPE ARCHITECT.
10. IRRIGATION CONTROL EQUIPMENT INCLUDING RAIN SENSOR AND CONTROLLER, AS WELL AS IRRIGATION ROTORS (HUNTER I-20) SHALL BE MANUFACTURED BY HUNTER INDUSTRIES (WWW.HUNTERINDUSTRIES.COM) PER SPECIFICATIONS. IRRIGATION VALVES, QUICK COUPLERS, AND SPAY HEADS SHALL BE RAINBIRD (WWW.RAINBIRD.COM) PER CITY STANDARD SPECIFICATION.
11. THE CONTROLLER SHALL BE A HUNTER I-CORE IRRIGATION CONTROLLER PER CITY SPECIFICATION.
12. ADJUST ALL IRRIGATION EQUIPMENT SO SIDEWALKS, PAVING AND BUILDING REMAIN DRY OF DIRECT SPRAY OR EXCESS WATER RUN-OFF. SEE CITY STANDARD SPECIFICATIONS FOR SPACING REQUIREMENTS.
13. ALL IRRIGATION MAIN AND LATERAL LINES SHALL BE PROVIDED AND INSTALLED PER CITY STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL EVALUATE THE IRRIGATED AREAS AND PROVIDE PIPE SIZING THAT MEETS THE HYDRAULIC REQUIREMENTS OF THE SYSTEM. VELOCITIES ON THE PIPE SHALL NOT EXCEED 5 FEET PER SECOND.
14. ALL IRRIGATION SLEEVES SHALL BE SCHEDULE 40 PVC PIPE PER ASTM D1785.
15. MAINLINE OR TURF BOXES SHALL BE SHALL BE RAINBIRD PVB PROFESSIONAL IRRIGATION VALVE BOXES , AS MANUFACTURED BY RAINBIRD, 6991 EAST SOUTHPOINT ROAD TUCSON, AZ 85756, WWW.RAINBIRD.COM, OR APPROVED EQUAL. VALVE BOXES SHALL BE SIZED BASED ON RECOMMENDED VALVE INSTALLATION. PROVIDE VALVE BOX EXTENSIONS AS REQUIRED TO ALLOW THE VALVE TO BE INSTALLED PER RECOMMENDATION AND ALLOW THE BOX LID TO BE FLUSH WITH FINISHED GRADE. IRRIGATION BOXES SHALL HAVE GREEN LIDS. PROVIDE A 6" DEEP MINIMUM LAYER OF ¾" CRUSHED STONE DRAINAGE IN THE BOTTOM OF ALL VALVE BOXES.
16. ALL IRRIGATION CONNECTIONS SHALL BE PER MANUFACTURER, WITH PRODUCTS AS RECOMMENDED BY MANUFACTURER UNLESS OTHERWISE NOTED ON PLANS.
17. WIRE SPLICES SHALL BE MADE WITH 3M-DIRECT BURY WEATHER PROOF SPLICE KITS, OR APPROVED EQUAL.
18. ALL GATE VALVES ON MAIN LINE SHALL BE BRONZE, CROSS -HANDLE GATE VALVE THAT MEETS THE REQUIREMENTS OF THE CITY STANDARD SPECIFICATION.
19. CONTRACTOR SHALL PROVIDE AS BUILT PLANS AND IRRIGATION SCHEDULE TO OWNER UPON COMPLETION OF IRRIGATION INSTALLATION. THE CONTRACTOR SHALL PROVIDE A WIRING DIAGRAM FOR THE CONTROLLER AS PART OF THE AS-BUILT DRAWINGS.
20. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF (2) OF EACH OF THE FOLLOWING: IRRIGATION CURB VALVE KEYS, CONTROLLER ENCLOSURE KEYS, QUICK COUPLER VALVE KEYS, IRRIGATION HEAD KEYS, ETC.
21. CONTRACTOR SHALL PERFORM A LEAK TEST AFTER INSTALLATION, BUT BEFORE BURYING NETWORK PIPING BY CHARGING SYSTEM TO OPERATING PRESSURE AND EXAMINING FOR LEAKS. LEAKS MUST BE REPAIRED AND ADDITIONAL TESTS BE PERFORMED UNTIL NO LEAKS ARE PRESENT.
22. THE CONTRACTOR MUST TEST AND SCHEDULE CONTROLLER AFTER INSTALLATION AND ENSURE PROPER OPERATION PRIOR TO HANDING THE SYSTEM OVER TO OWNER.

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: KURT M HUIRAS LICENSED 02-21-2020 KANSAS LANDSCAPE ARCHITECT

Kurt Huiras–Landscape Architect LICENSE #0812	
Date: 02-21-20	Job #: 18-512
Drawn: RFT	Checked: NLS
Issue: CONSTRUCTION DOCUMENTS	

IRRIGATION DETAILS

LI-02

Saved 02-21-2020 10:36:50 AM by KURT.HUIRAS
Plot Scale 1:1 02-21-2020 10:44:15 AM by JRET
J:\Wichita-Civil\2018\180189\001\Working\Drawings\Orchard\180189-001-C-Irrigation Details-Orchard

POOL AREA KEY NOTES

1. Pool deck and gutter grating ~ See Detail A–SP–PM2
2. Buoy line cup anchor ~ See Detail A–SP–PM2
3. Buoy line
4. Existing wall anchor
5. Reinstall existing buoy line
6. Existing 1 meter diving stand and board reinstalled with new deck anchors ~ Provide 6'–0" overhang
7. Diving stand slab ~ 12" thick concrete with #5 @ 12" E.W. top mat only
8. Climbing wall ~ Canyon style
9. Enclosed body water slide with rigid canopy, and footings or surface mount anchors as req'd
10. Slide stairs with lockable gate
11. 4" Pump suction air break riser pipe ~ Extend above deck and provide gooseneck fittings
12. Ceramic deck marker ~ See Detail A–SP–PM2 and Legend on Sheet SP–P0
13. Pool deck ~ See Civil Sheets
14. Pool deck drain ~ See Civil Sheets
15. Wet deck
16. Artificial turf deck ~ See Civil Sheets
17. Landscape ~ See Civil Sheets
18. Wall seat ~ See Civil Sheets
19. Zero depth entry ~ See Detail B–SP–PM2
20. Plunge area bulkhead wall sump and floor ~ See Detail C–SP–PM2
21. Pool floor repair at pipe replacement ~ See Detail D–SP–PM2
22. Existing main drain pipe below deck and into filter area shall be replaced
23. Existing main drain pipe below pool shall be in situ lined
24. Existing gutter pipe below deck shall be replaced
25. Existing gutter pipe in pool wall shall be in situ lined
26. Existing gutter pipe below filter area shall be in situ lined
27. Existing recirc pipe below deck shall be replaced
28. Existing recirc pipe below filter area shall be in situ lined
29. Existing wading pool recirc pipe (spray ground drain pipe) below filter area shall be in situ lined
30. Existing recirc pipe and inlets below pool floor shall be pressure tested and replaced as required per alternate bid/unit cost
31. Extend floor inlet piping from existing location to new location and provide new inlet
32. Cap existing recirc pipe
33. Existing pool construction joints (floor and wall) shall be filled with crystalline repair material ~ Grind existing joints to be clean and minimum ¾" wide x 1½" deep
34. Zero depth entry bulkhead and floor ~ See Detail E–SP–PM3
35. ADA pool steps ~ See Detail F–SP–PM4
36. Pump pit ~ See Detail G–SP–PM4
37. Water feature valve pit ~ See Detail H–SP–PM4
38. "Jet Stream No. 1" ~ See Detail I–SP–PM4
39. Deck area drain
40. Wedge anchors and existing grab rails ~ See Detail J–SP–PM4
41. Existing recessed steps
42. Wedge anchors and ADA step rails (30" setback) ~ See Detail J–SP–PM4
43. Anchors and basketball goal (30" setback) ~ See Detail J–SP–PM4
44. ADA lift and deck anchor
45. Barrier at pool bulkhead – post with netting ~ See Detail K–SP–PM4
46. Sunshade ~ 16'–0"ø hexagon, dynamic tension, (1) post ~ See Detail L–SP–PM4
47. Sunshade ~ 16'–0"ø hexagon, dynamic tension, (1) post ~ See Detail L–SP–PM4 ~ Clear height shall be from upward sloping artificial turf mound ~ Approx. 2'–0" additional height ~ Contractor shall verify
48. Sunshade ~ Approx. 32' x 35', dynamic tension, multi–layer, 8'–0" height min., 16'–0" height max., (6) post, ~ See Detail L–SP–PM4
- 49a. Chain link fence 6'–0" tall ~ See Detail M–SP–PM5
- 49b. Mow strip ~ See Detail M–SP–PM5
- 49c. 4'–0" Wide chain link fence single gate ~ See Detail M–SP–PM5
- 49d. 8'–0" Wide chain link fence double gate ~ See Detail M–SP–PM5
- 49e. Exit hardware with exit sign ~ See Detail M–SP–PM5
- 49f. Self–closing gate hinges ~ See Detail M–SP–PM5
50. Art structure ~ See Detail N–SP–PM5
51. Artist beehive water feature
52. Water supply to beehive water feature
53. Pool finish ~ See Detail O–SP–PM5 ~ Existing pool shall be sandblasted to bare concrete
54. 4" Black stripe at main drain ~ See Detail O–SP–PM5
55. 4" Black stripe at 5'–0" water depth, floor and walls ~ See Detail O–SP–PM5
56. Main drain baffle ~ See Detail P–SP–PM5
57. Provide PVC main drain VGB grating ~ 8'–1" x 1'–8" x 1" ~ Contractor shall verify size ~ Provide S.S. mounting hardware per mftr.
58. Bathhouse ~ See Architectural Sheets
59. Filter area ~ See Sheet SP–F1
60. Sidewalk ~ See Civil Sheets
61. Existing utilities ~ See Civil Sheets
62. All piping shall drain by gravity

ABBREVIATIONS

&	And
@	At
°	Degree
ø	Diameter
'	Feet
"	Inches
#	Number
w/	With
w/o	Without
ACI	American Concrete Institute
Addl.	Additional
A.F.F	Above finish floor
Approx.	Approximately
Arch.	Architectural
BFV	Butterfly valve
Bldg.	Building
BM	Benchmark
Clr.	Clear
CMU	Concrete masonry unit
Ctr.	Center
Det.	Detail
Dia.	Diameter
Diag.	Diagonal
Dim.	Dimension
DIP	Ductile iron pipe
E.F.	Each face
E.W.	Each way
Ea.	Each
El.	Elevation or elbow
Elec.	Electrical
Eq.	Equal
Exp.	Expansion
Fipt	Female iron pipe thread
FRP	Fiberglass reinforced plastic
Ft.	Feet
Galv.	Galvanized
GPM	Gallons per minute
H.C.	Handicap
Hi.	High
HOA	Hand Off Automatic
Horiz./H.	Horizontal
HSS	Hollow steel section
I.D.	Inside diameter
Inv. El.	Invert elevation
Jt.	Joint
Lo.	Low
Long.	Longitudinal
Max.	Maximum
Mftr./Mfr.	Manufacturer
Min.	Minimum
Misc.	Miscellaneous
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
N.I.C.	Not in contract
N.T.S.	Not to scale
O.C.	On center
O.D.	Outside diameter
Pl.	Plate
PSI	Pounds per square inch
PVC	Polyvinyl chloride
R	Radius
Rad.	Radius
RCP	Reinforced concrete pipe
Rebar	Reinforcing
Recirc.	Recirculation
Ref.	Reference
Reinf.	Reinforcing
Req'd	Required
S.S.	Stainless steel
Sch	Schedule
SDR	Standard dimension ratio
S.F.	Square feet
Soc	Socket
Sq.	Square
Struct.	Structural
T&B	Top and bottom
TDH	Total dynamic head
Thru	Through
Thus	Typical
Trans.	Transverse
Typ.	Typical
Vert./V.	Vertical

SYMBOLS

- Construction Joint
- Expansion Joint
- Isolation Joint
- Saw Cut
- Valley / Ridge Line
- Detail — Detail Callout, Detail Name, DETAIL NAME, Scale, Detail Scale
- Section Cut — Detail Letter, Sheet, SP–##, Section Cut
- Depth/warning marker or note — A

POOL SURFACE AREA DATA		
Shallow Area	552	S.F.
Lap Area	2,519	S.F.
Plunge Area	324	S.F.
Diving Area	1,406	S.F.
Total Pool Surface Area	4,801	S.F.
Pool Perimeter	315	L.F
Concrete Deck Area	13,515	S.F.
Wet Deck Area	402	S.F.
Artificial Turf Deck Area	4,134	S.F.
POOL VOLUME DATA		
Shallow Area	6,900	Gallons
Lap Area	75,370	Gallons
Plunge Area	9,910	Gallons
Diving Area	116,550	Gallons
Total Pool Volume	208,740	Gallons
POOL RECIRC. RATE DATA		
Total Pool Recirc. Rate	600	GPM
POOL PATRON DATA		
Total Pool Patrons	500	Patrons

"CERAMIC TILE" DEPTH/WARNING MARKERS

1. Ceramic tiles shall be imbedded flush into concrete pool deck
2. Depth markers shall be located at 20'–0" O.C. max. spacing (Depth markers on vertical wall – if req'd – shall be located as indicated on plan)
3. No Diving markers shall be located at 25'–0" O.C. max. spacing
4. Contractor shall verify location of depth markers at proper water depth
5. Do not saw cut thru ceramic tiles ~ Saw cuts shall be 6" min. from ceramic tile edge
6. Depth/warning markers on deck shall be placed to be read from deck (not from pool)

- A — 0"
- B — 1'0"
- C — 1'10"
- D — 1'11"
- E — 3'0"
- F — 3'6"
- G — 3'8"
- H — 4'0"
- I — 4'6"
- J — 4'9"
- K — 5'0"
- L — 11'9"
- M — MAX. DEPTH 12'3"
- N — No Diving

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley–ENGINEER
LICENSE #15116

Date: 02–21–20 | Job #: 18–512
Drawn: SRS | Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

POOL AREA KEY NOTES AND DATA

SP–P0

EGRESS CAPACITY CALCULATION					
Applicable Code:	2012 IBC			Max Capacity based upon # exits	
# of Exit Discharges:	2			Exits	Max. Occupants
Total Egress Capacity	800 occupants			1	49
Note: Capacity is limited by number of exit discharges				2	500
Egress Capacity Factor	*0.2 in. / occupant*			3	1,000
Limit based upon # of exits	**500 occupants**				
Max. travel distance	180 ft.				
EGRESS LOCATIONS	Width, in.	No.	Total Width, in.	Egress Factor (in./occ.)	Egress Capacity
Bathhouse Entry/Exit	32	2	64	0.2	320
East Gate	48	2	96	0.2	480

Diving Area

Approx. 82'-6"

Lap Area

Approx. 42'

Approx. 82'

Plunge Area

13'-6"

24'-0"

Shallow Area

Water El. 1314.40

23'-6"

17'-0"

11'-6"

12'-0"

17'-8"

thus

0 4' 8' 16' 32'

3/32" = 1'-0"

A POOL PLAN

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

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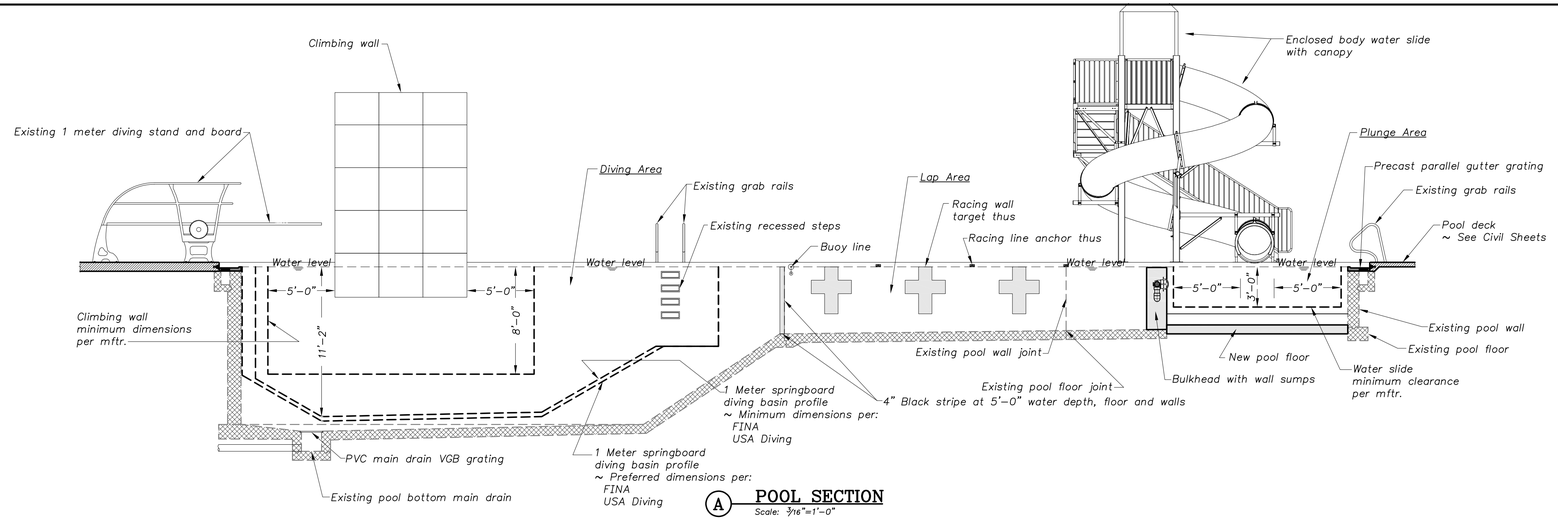
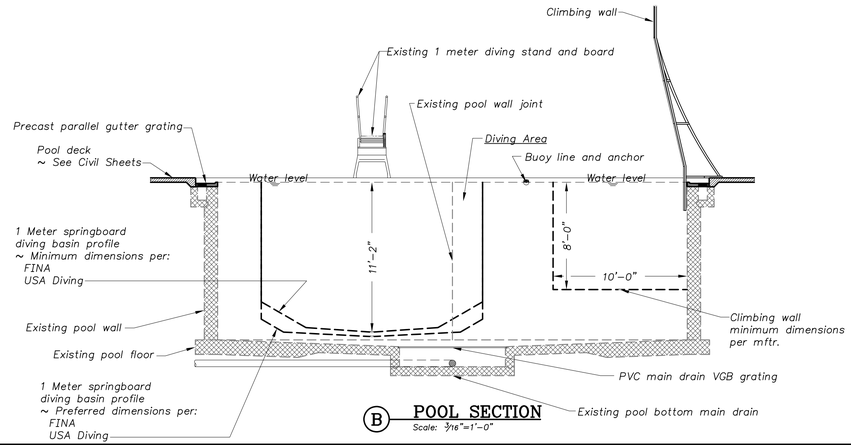
POOL PLAN

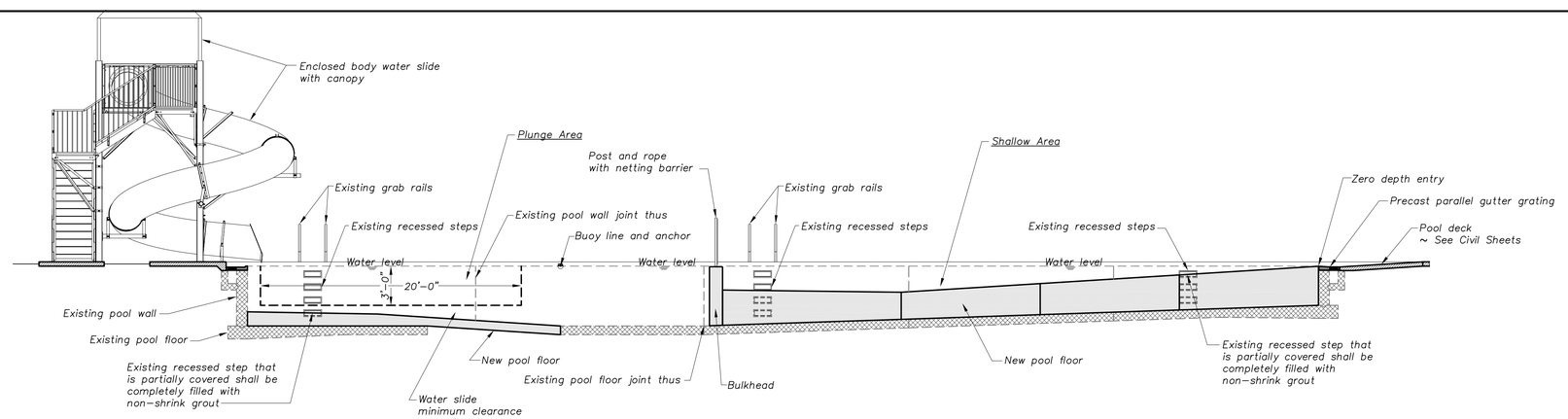
SP-P1



A POOL SECTION
Scale: 3/16"=1'-0"



B POOL SECTION
Scale: 3/16"=1'-0"



C POOL SECTION
Scale: 3/16"=1'-0"

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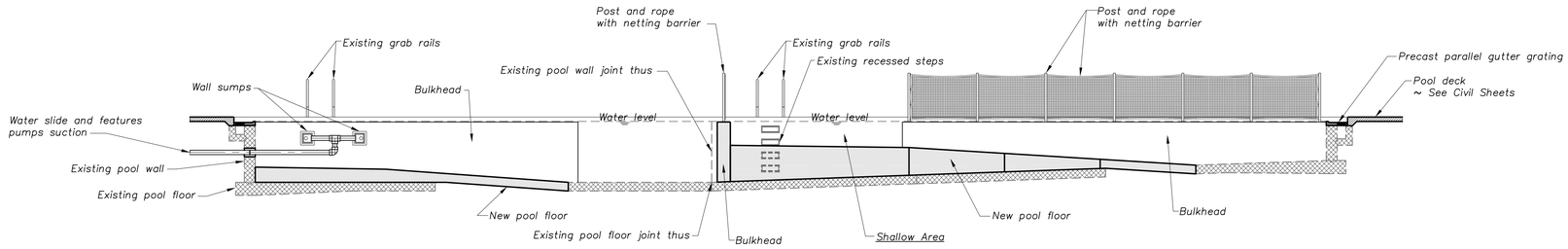
POOL SECTIONS

SP-P2



D POOL SECTION
Scale: 3/16"=1'-0"

E POOL SECTION
Scale: 3/16"=1'-0"

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Jeff Bartley-ENGINEER
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Date: 02-21-20	Job #: 18-512
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Issue: CONSTRUCTION DOCUMENTS	

POOL SECTIONS

SP-P3

WATER FEATURE FLOW DATA									
Description	Flow		Quantity	Total Flow		Pressure		Spray Height	
POOL									
Enclosed Body Water Slide	40	GPM	1	40	GPM	--	PSI	--	Ft.
SUB TOTAL			1	40	GPM				
SPRAY ZONE									
Jet Stream No. 1	3	GPM	5	15	GPM	10	PSI	--	Ft.
SUB TOTAL			5	15	GPM				
TOTAL			6	55	GPM				

PIPE TYPE NOTES

Pool system piping
(main drain gutter recirc features)
shall be: Sch 80 PVC

GENERAL SHEET NOTES

1. *All pipes shall slope to drain*
   ~ Slope shall be uniform between Inv. El's. shown, unless otherwise required to prevent piping conflicts
2. *Inv. El's at structures, adjacent to equipment (basket strainers, pumps, etc.), are approximate and may vary per mftr.*
   ~ Contractor shall verify
3. *All piping through concrete structures shall be cast-in-place*
   ~ No pipe sleeves or coring allowed
4. *Coordinate all items with piping*
   ~ Example...fence post footings, shade column footings, etc.
5. *Tee fitting sizes shall match that of the largest connecting pipe size*

0 4' 8' 16' 32'
3/32" = 1'-0"

A POOL MECHANICAL PLAN
Scale: 3/32"=1'-0"

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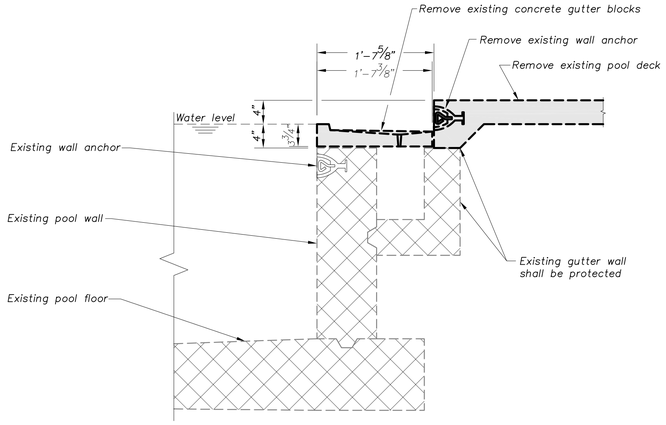
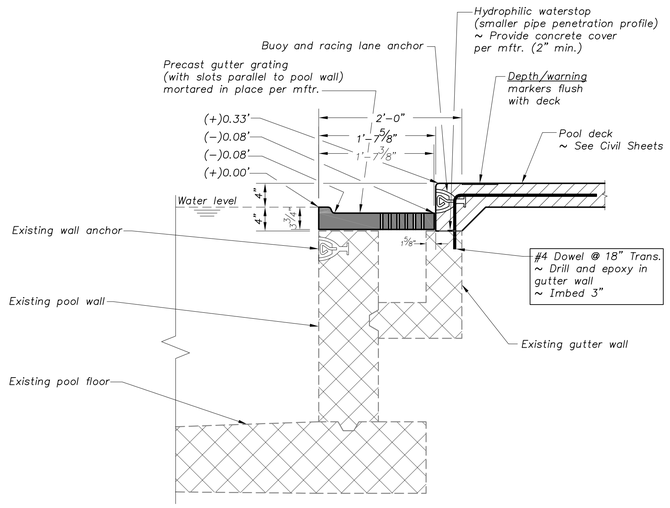
POOL MECHANICAL PLAN

SP-PM1



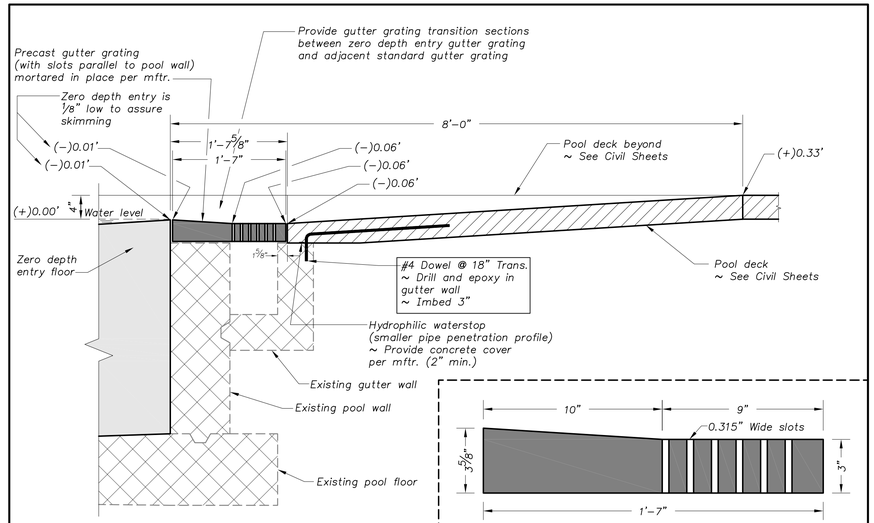
EXISTING POOL AND DECK DEMO



POOL DECK AND GUTTER GRATING

A POOL DECK AND GUTTER GRATING DETAIL

Scale: 1"=1'-0"

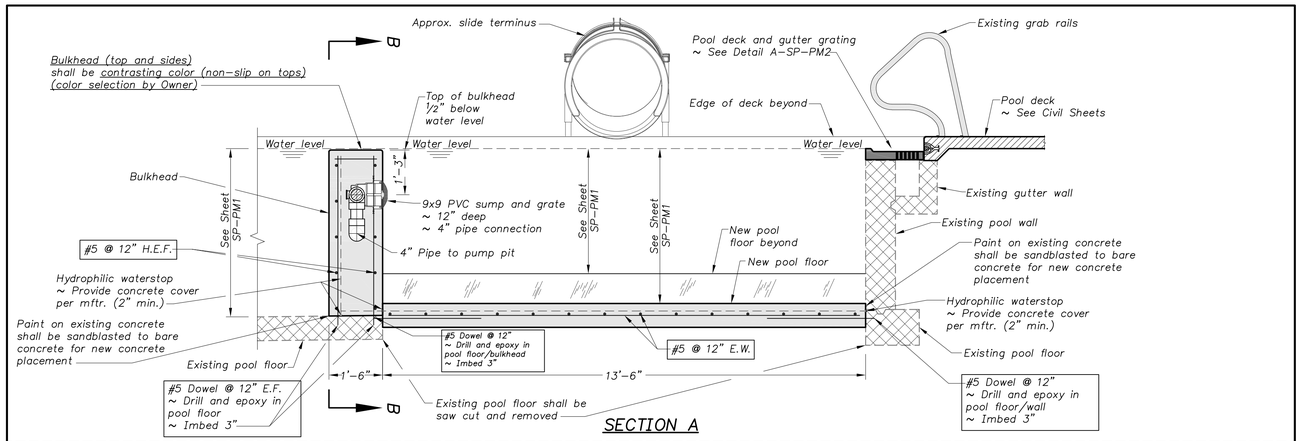


GRATING SECTION

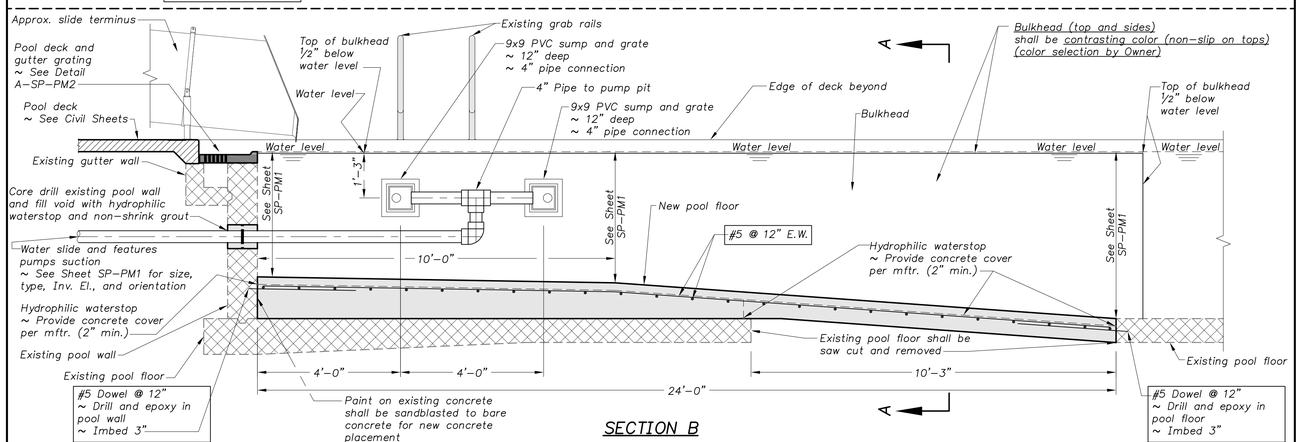
Scale: 3"=1'-0"

B ZERO DEPTH ENTRY DETAIL

Scale: 1"=1'-0"



SECTION A

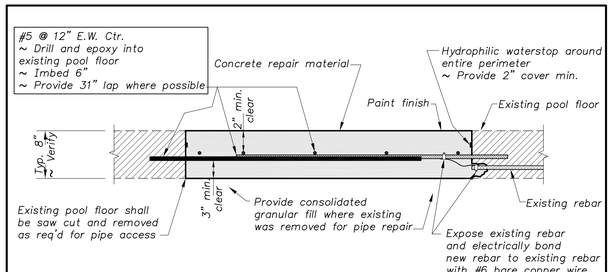


SECTION B

C PLUNGE AREA BULKHEAD WALL SUMP AND FLOOR DETAIL

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

Provide construtions joints in bulkheads at 15'-0" max. length



D POOL FLOOR REPAIR DETAIL

Scale: 1"=1'-0"

LAP LENGTH SCHEDULE

BAR SIZE	LAP LENGTH	HOOK LENGTH
#3	19"	7"
#4	26"	10"
#5	31"	12"
#6	37"	15"
#7	54"	17"
#8	62"	19"

NOTES:
1. Bar lap length of smaller diameter bar shall be used when splicing different size bars.
2. Lap splices shall be wired in contact.
3. Tabulated values are based on 4000 psi, normal weight concrete with Grade 60 reinf.

CONCRETE PROTECTION FOR REINFORCEMENT

CONDITION	MIN. COVER (INCHES)
Concrete cast against and permanently exposed to earth, subgrade, or granular fill	3"
Formed or top surfaces exposed to weather, submerged, or in contact with earth, including stirrups, ties, or spirals	2"
Formed concrete not exposed to earth, liquids, or weather:	
Slabs, walls, and joists	1 1/2"
Beams and columns primary reinforcement, ties, stirrups, and spirals	1 1/2"

NOTES:
1. The above minimum concrete cover shall be provided for reinforcement unless noted otherwise.
2. Placing reinforcement tolerances:
   a. For members less than or equal to 8" Tolerance = (±3/8")
   b. For members greater than 8" Tolerance = (±1/2")

GENERAL SHEET NOTES

1. All El.'s shown (-)x.xx', are distances down from indicated Water El.
2. All El.'s shown (+)x.xx', are distances up from indicated Water El.
3. Form savers may be used at Contractor's option
4. Hold waterstop 1 1/2" clear Min. from reinforcing. Tie to reinforcing/tie rod @ 6" O.C.
5. All form ties shall be 1 1/2" deep, cone snap type

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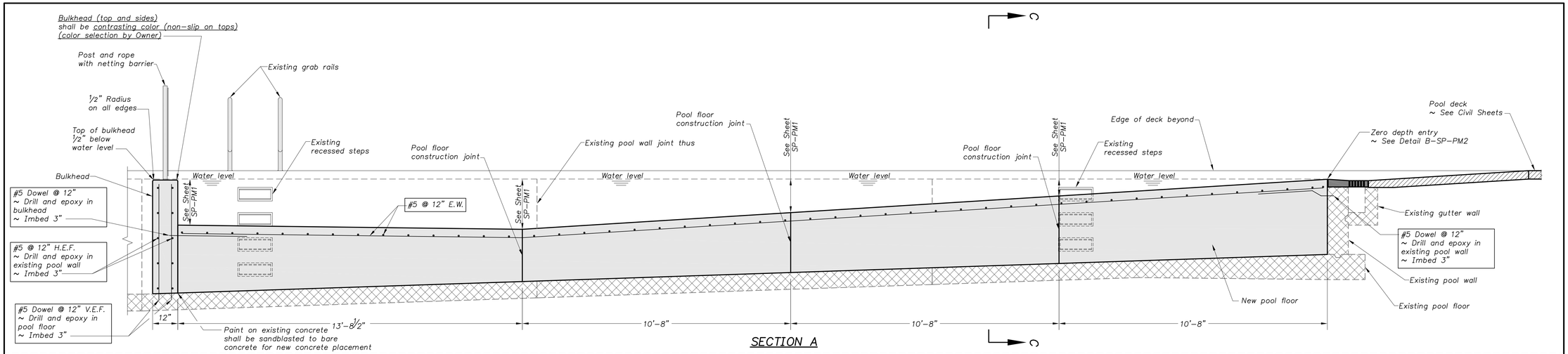
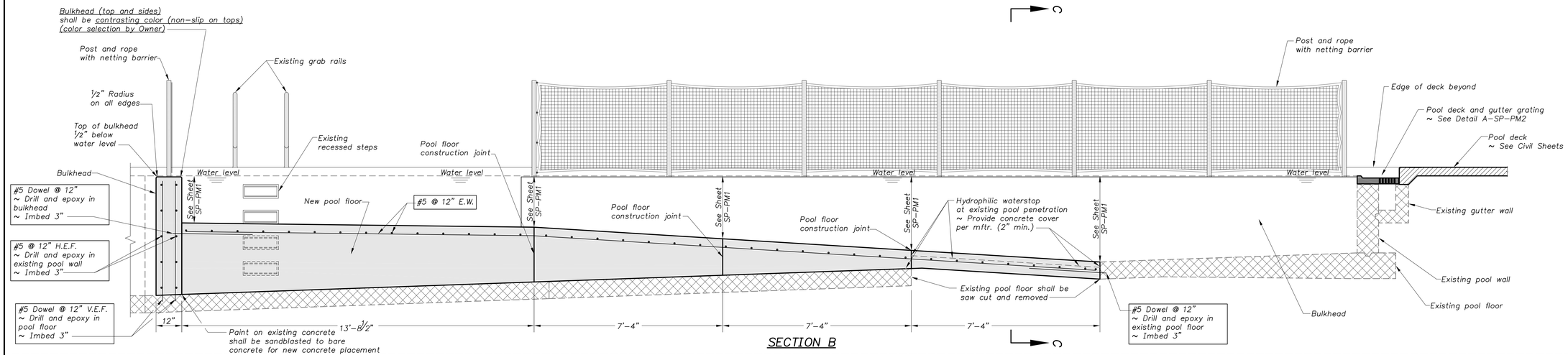
POOL AREA DETAILS

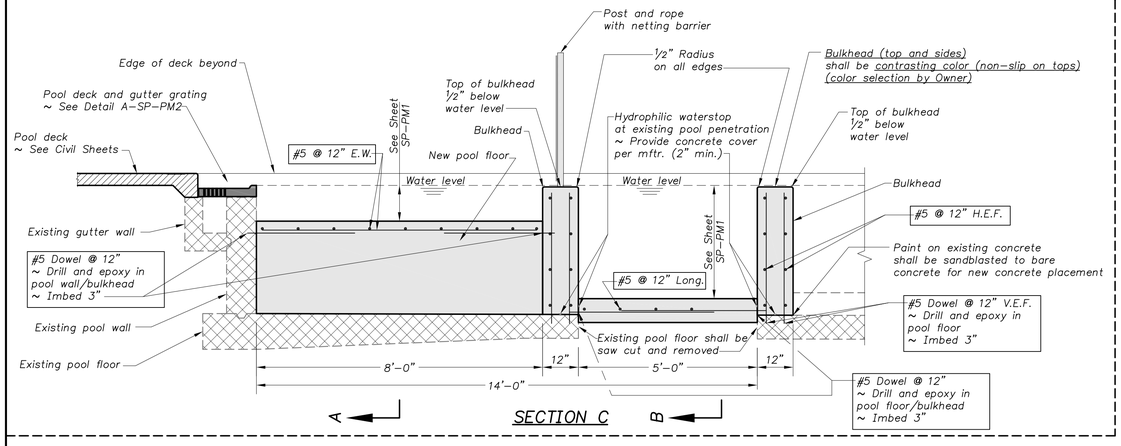
SP-PM2



SECTION A



SECTION B



SECTION C

REINFORCING AND BONDING NOTE:
Reinforcing that is cast-in-place
or drilled & epoxied,
or other metallic items,
shall be electrically bonded per:
National Electrical Code, 680-26

Provide constrution joints
in bulkheads at 15'-0" max. length

E ZERO DEPTH ENTRY BULKHEAD AND FLOOR DETAIL
Scale: ½"=1'-0"

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CITY OF WICHITA

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

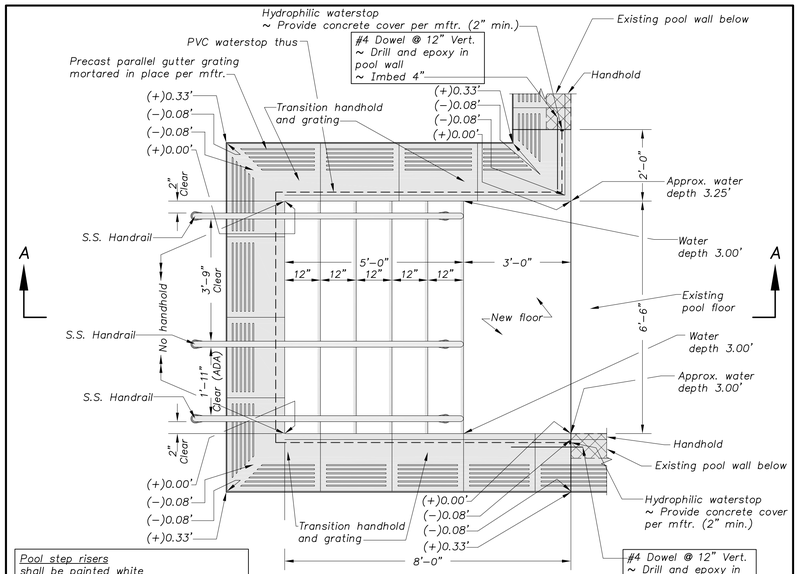
Seal: JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley-ENGINEER
LICENSE #15116

Date: 02-21-20 Job #: 18-512
Drawn: SRS Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

POOL
AREA
DETAILS

SP-PM3

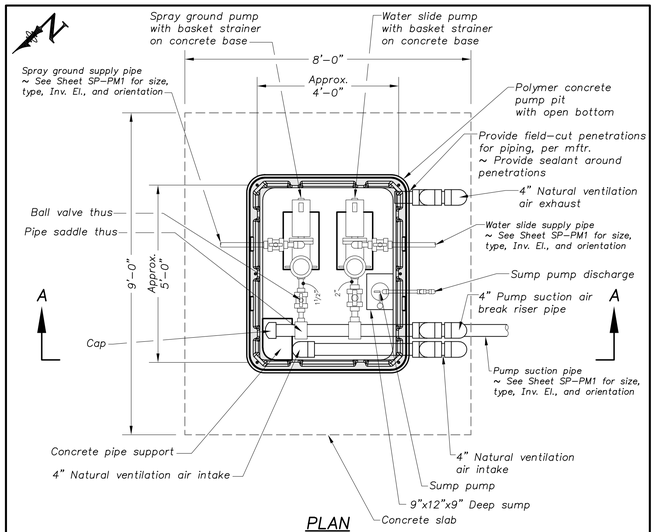


Pool step risers shall be painted white

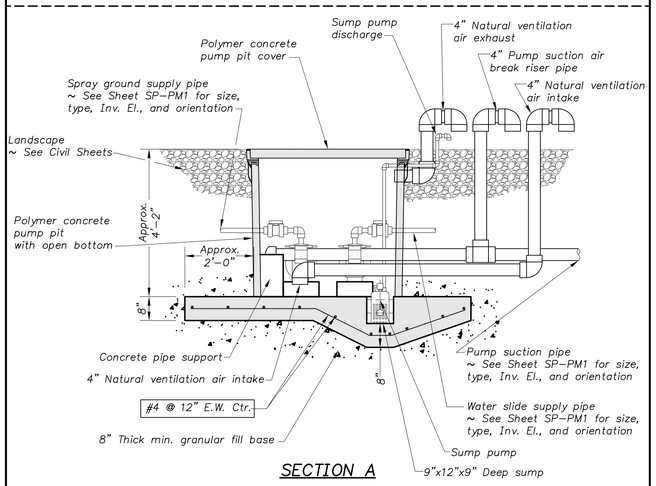
Pool step treads shall be painted non-slip white

Pool step tread nosing (2" wide, top & side) shall be painted non-slip black

PLAN

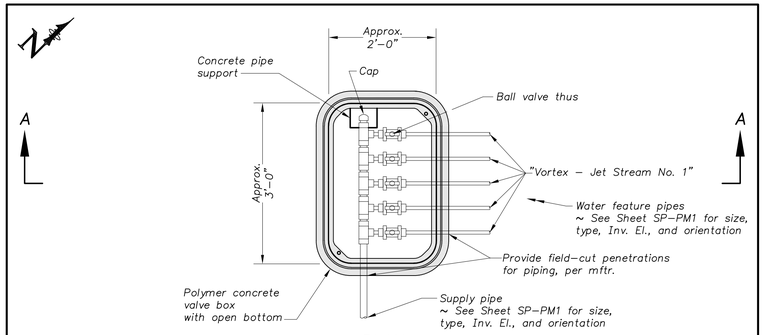


PLAN

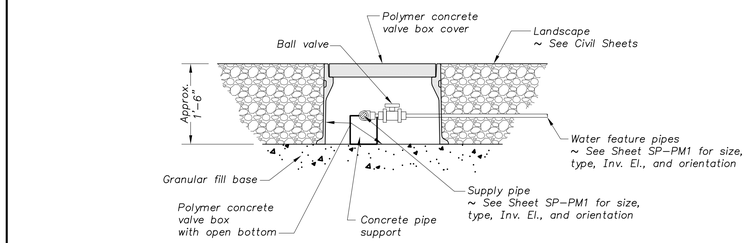


SECTION A

G PUMP PIT DETAIL
Scale: ½"=1'-0"

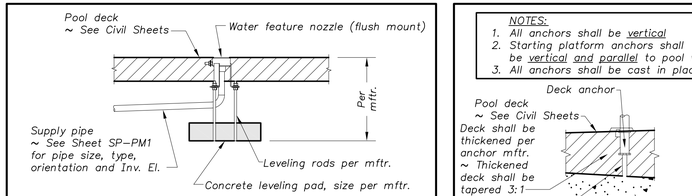


PLAN



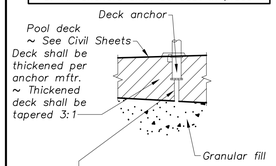
SECTION A

H WATER FEATURE VALVE PIT DETAIL
Scale: ¾"=1'-0"



I "VORTEX FLUSH MOUNT SPRAY" DETAIL
Scale: 1"=1'-0"

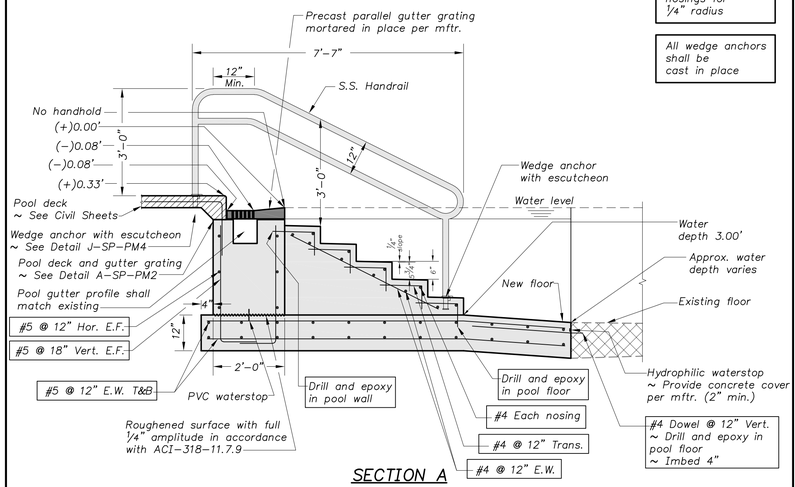
NOTES:
1. All anchors shall be vertical
2. Starting platform anchors shall be vertical and parallel to pool wall
3. All anchors shall be cast in place



J DECK ANCHOR DETAIL
Scale: 1"=1'-0"

Stone edge of nosings for ¼" radius

All wedge anchors shall be cast in place

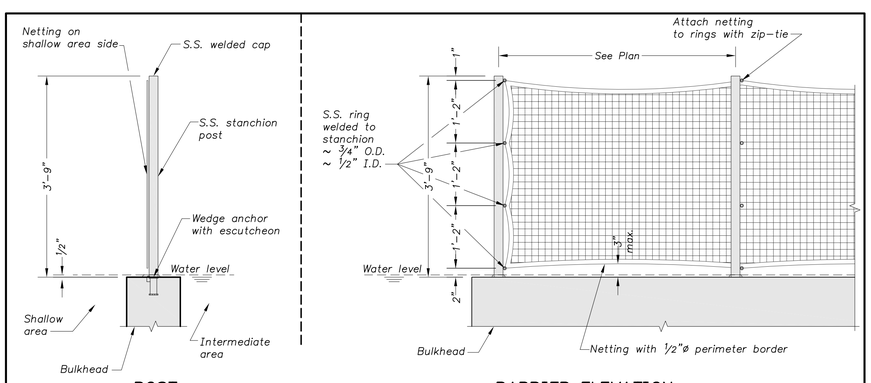


SECTION A

NOTES:
1. All El.'s shown (−)x.xx', are distances down from indicated Water El.
2. All El.'s shown (+)x.xx', are distances up from indicated Water El.

F ADA POOL STEPS DETAIL
Scale: ½"=1'-0"

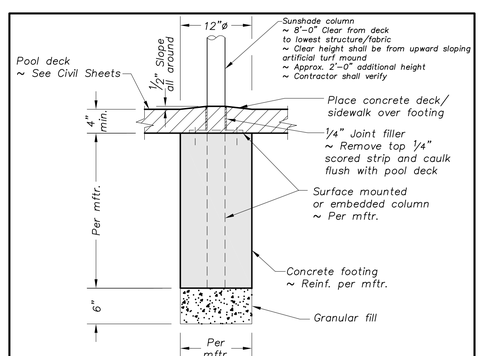
REINFORCING AND BONDING NOTE:
Reinforcing that is cast-in-place or drilled & epoxied, or other metallic items, shall be electrically bonded per: National Electrical Code, 680-26



POST

BARRIER ELEVATION

K BARRIER AT POOL BULKHEAD – POST WITH NETTING DETAIL
Scale: ¾"=1'-0"



L DECK SUNSHADE – FOOTING DETAIL
Scale: 1"=1'-0"

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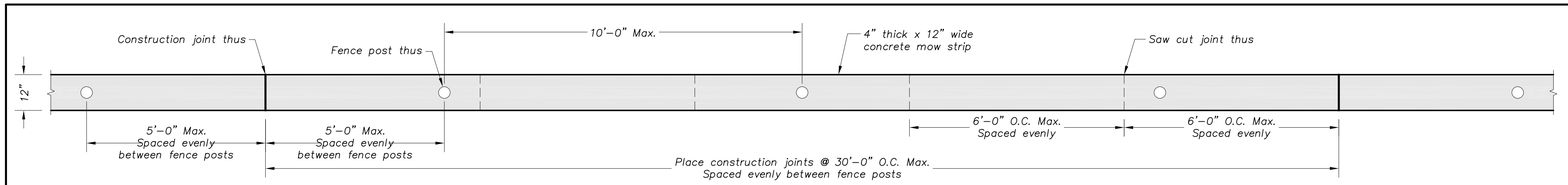
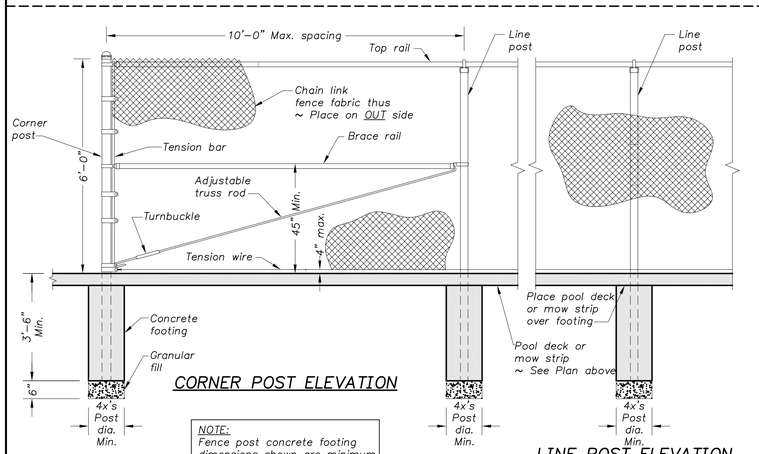
Date: 02-21-20 Job #: 18-512
Drawn: SRS Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

POOL AREA DETAILS

SP-PM4



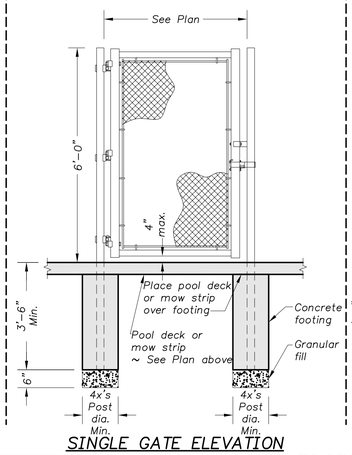
MOW STRIP PLAN



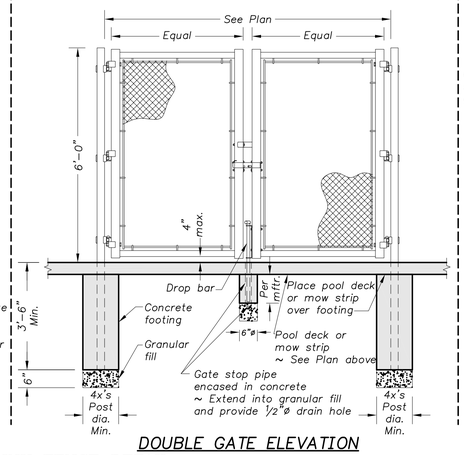
CORNER POST ELEVATION

NOTE:
Fence post concrete footing dimensions shown are minimum ~ Mftr. dimensions exceeding those minimum shall be req'd

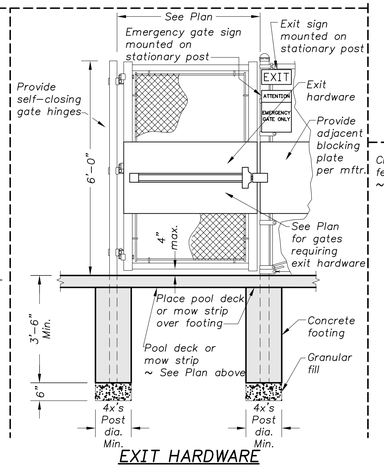
LINE POST ELEVATION



SINGLE GATE ELEVATION



DOUBLE GATE ELEVATION

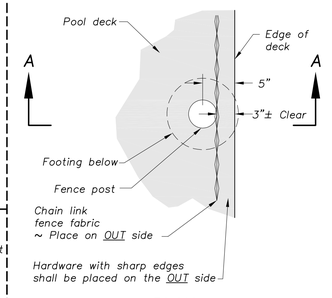


EXIT HARDWARE

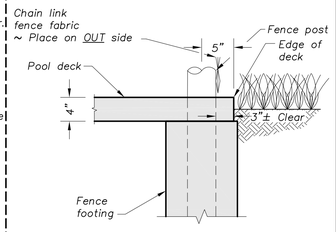
Gap between any post and adjacent structure shall not exceed 4"

Ⓜ CHAIN LINK FENCE DETAIL

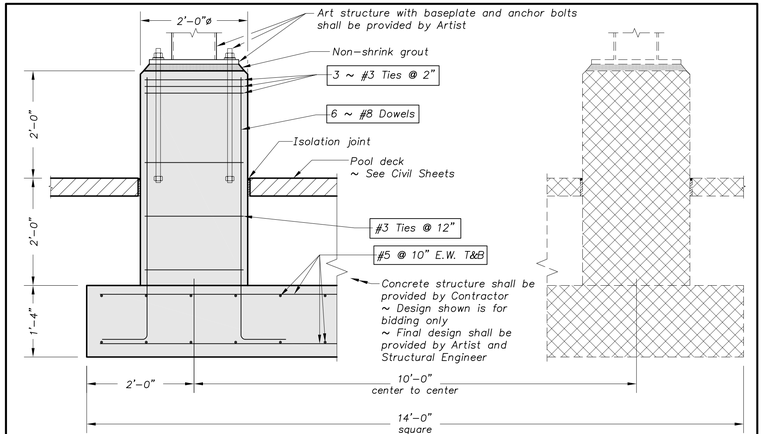
Scale: ½"=1'–0"



PLAN
POST AT EDGE OF DECK

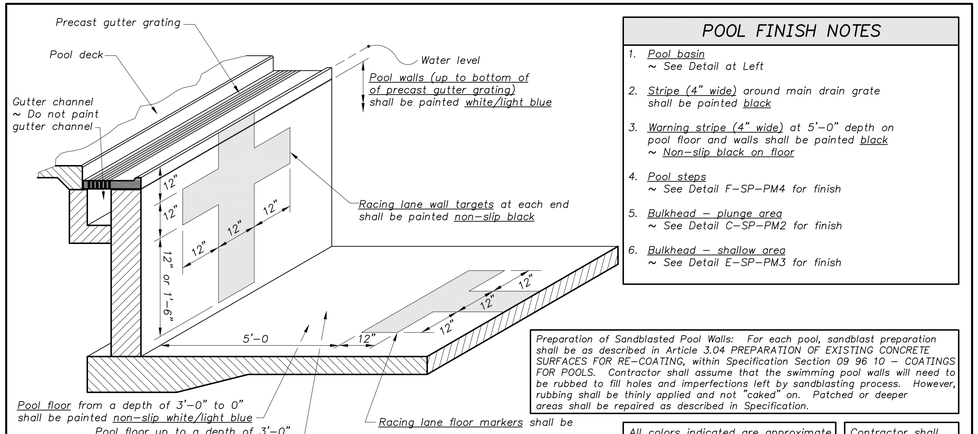


SECTION A
POST AT EDGE OF DECK



Ⓝ ART STRUCTURE DETAIL

Scale: ¾"=1'–0"



POOL FINISH NOTES

1. Pool basin ~ See Detail at Left
2. Stripe (4" wide) around main drain grate shall be painted black
3. Warning stripe (4" wide) at 5'–0" depth on pool floor and walls shall be painted black ~ Non–slip black on floor
4. Pool steps ~ See Detail F–SP–PM4 for finish
5. Bulkhead – plunge area ~ See Detail C–SP–PM2 for finish
6. Bulkhead – shallow area ~ See Detail E–SP–PM3 for finish

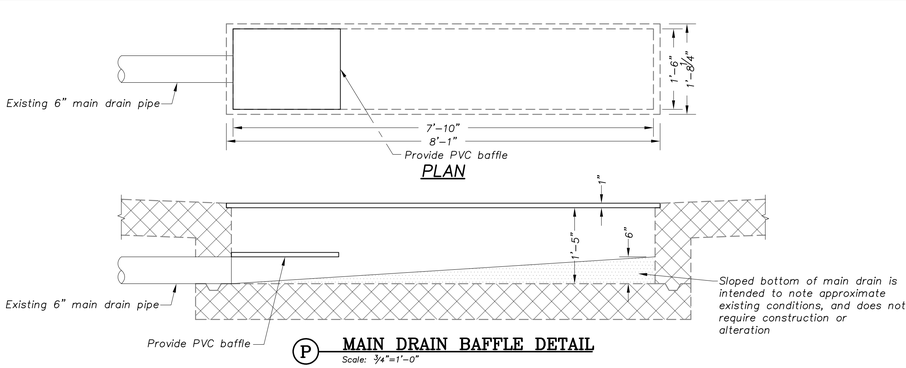
Preparation of Sandblasted Pool Walls: For each pool, sandblast preparation shall be as described in Article 3.04 PREPARATION OF EXISTING CONCRETE SURFACES FOR RE–COATING, within Specification Section 09 96 10 – COATINGS FOR POOLS. Contractor shall assume that the swimming pool walls will need to be rubbed to fill holes and imperfections left by sandblasting process. However, rubbing shall be thinly applied and not "caked" on. Patched or deeper areas shall be repaired as described in Specification.

All colors indicated are approximate and will be selected by Owner and included in project color schedule

Contractor shall provide (3) coats of each color

Ⓞ POOL FINISH DETAIL

N.T.S.



PLAN
Ⓟ MAIN DRAIN BAFFLE DETAIL

Scale: ¾"=1'–0"

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CITY OF WICHITA

Seal: JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley–ENGINEER
LICENSE #15116

Date: 02–21–20 | Job #: 18–512
Drawn: SRS | Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

POOL AREA DETAILS

SP–PM5

EXISTING FILTER AREA DEMO KEY NOTES

1. Protect existing filter building structure
2. Protect existing building doors
3. Existing pool chemical storage room
4. Salvage all existing related chemical feed systems. Present to Owner for assessment to possibly be reused/reinstalled
5. Location of existing building electrical panels and transformers
6. Protect/remain existing pump starter panel
7. Existing life guard room
8. Protect/remain approximate location of existing pool mechanical area floor drains
9. Demo/remove elevated section of existing pit wall down to finish floor elevation. Grind down all existing surface cut reinforcing 2" below cut surface grout fill holes
10. Protect/remain existing filter area domestic water service line
11. Protect/reused existing valve
12. Protect/existing hose bibb
13. Demo/remove partial piping of pool manual fill line
14. Demo/remove existing pool filter mechanical equipment identified unless other wise noted or needed for complete system
15. Protect/remain existing D.E. pit floor drain
16. Protect/remain existing submersible sump pump for reconnection pool filtration system
17. Protect/remain existing end of season sump pump

a. Protect/remain existing high & low water switches

18. Protect existing deep pit ladder system
19. Demo/remove exposed existing 6" pool main drain return within deep pit

a. Cut/cap and abandon remain drain piping in wall

20. Demo/ remove existing 4" – Pool end of season drain piping
21. Protect/remain existing 10" – Pool gutter drain piping
22. Protect/remain existing 4" – Wading pool drain/end of season drain piping
23. Protect/remain existing 4" Main pool gutter end of season drain piping
24. Protect/remain existing deep pit trash basket and pulley retrieval system
25. Protect/remain existing deep pit wood wall baffle system
26. Demo/remove existing submersible sump pump piping supports
27. Demo/remove existing wood planks
28. Protect remainder of existing filter return piping below grade for reconnection
29. Protect/remain existing 4"x 10" block out through pit wall
30. Protect existing drain pit piping
31. Protect/remain existing drain pit structure
32. Protect/remain existing wet pit structure
33. Existing bathhouse concessions area
34. Below grade piping within filter space identified shall remain and be in-situ lined for reuse. See PM1 for reconnection of new piping to exsiting and continuation

FILTER AREA IMPROVEMENT KEY NOTES

1. 10" Pool main drain piping
2. 10x6 Eccentric reducer with flat side down
3. 4" Pool main drain end of season drain piping
4. 6X4 Tee fitting
5. 6" Pool main drain supply piping to float valve
6. Van stone flange connection – Spigot/Soc
7. 6" Float valve
8. 10" Existing pool gutter return piping. Construct PVC pipe to DIP transition with restrained – mechanical joint. See PM1 sheet for pipe route and connection

a. 10" Pool gutter piping connected to existing piping. See PM1 sheet for pipe route and connection

9. 4" Existing wading pool return piping

a. 4" Spray ground main drain connected to existing wading pool return piping

10. Provide cored hole within existing walls
11. Provide link seal fitting around piping
12. Fill annular space around pipe with non shrink grout on wet side of pit
13. 4" Spray ground – Main Drain – End of season drain piping
14. 4" Main pool – Gutter end of season drain piping
15. Backwater valve
16. Existing DE pit floor drain
17. Existing high water cut-off switch
18. Existing low water cut-off switch
19. 3" Pool manual fill line re routed over to pit
20. Wet pit mechanical auto fill supply piping – See Detail F-SP-F4
21. Mechanical auto fill device – See Detail F-SP-F4
22. Mechanical auto fill discharge piping – See Detail F-SP-F4
23. Existing drop-in off season sump pump with 2" pipe discharge into drain basin
24. Isolation Butterfly Valve ~ Lever or handwheel operated valve equipment (pumps, float valve, end of existing pool piping). Provide S.S. operator extension stem for submerged valves
25. Throttling Butterfly Valve ~ Wheel operated valve at supply lines (water features, pool recirc, backwash)
26. 6" Main Pool – Recirc pump discharge/filter influent piping

a. 6" Submersible pump end of season discharge piping

27. Existing pool – Recirc submersible sump pump reused
28. Check valve
29. Pipe supports – See Details D,E,H-SP-F4
30. Magmeter flowmeter
31. 6" Filter face piping
32. Pipe support – See Detail H-SP-F4
33. Floor mount pipe support, saddle type
34. Filter pressure gauges mounted to filter face piping with S.S. hardware
35. 6" Filter backwash piping. Set discharge of piping 3" above drain pit
36. 5'-0" ø Steel split flange filters
37. Air release valve at top of filters with bypass drain line – See Detail G-SP-F4
38. Connection TO Pool Chemical Controller – See Detail C,D-SP-F4
39. Connection TO Pool Calcium Hypochlorite feed system – See Detail B,D-SP-F4
40. Connection FROM Calcium Hypochlorite feed system – See Detail B,D-SP-F4
41. Connection FROM Muriatic feed system – See Detail A,D-SP-F5
42. 6" Filter effluent piping
43. Concrete pipe support – See Detail A-SP-F4
44. 6" Existing pool return piping – See PM1 sheet for pipe route and continuation

a. 6" Pool return piping connected to existing piping – See PM1 sheet for pipe route and continuation

45. Pool chemical controller and sensor box stacked on wall – See Detail C-SP-F5
46. Emergency eyewash station
47. Provide 1¼" tempered water supply connection with mixing valve from existing building tempered water supply
48. Calcium Hypochlorite chemical feed system – See Detail B-SP-F5
49. Pump features control panel– Refer to MEP sheets for electrical connection
50. Muriatic Acid chemical storage drums and feeder system – See Detail A-SP-F5
51. 2" Thick FRP grating. (4) Equally sized grating panels covering pit below with ¼" gap around – See Detail D-SP-F2
52. FRP I beam – See Detail I-SP-F4
53. FRP angles as required at sides for support – See Detail I-SP-F4
54. 2" Thick FRP grating. (2) Equally sized grating panels covering drain pit below with ¼" gap around – See Detail D-SP-F2
55. Existing pit handrails
56. ½" "Bee-hive" spray feature supply piping – See Detail F-SP-F4
57. Bee hive spray feature controller
58. Provide drain valve at bottom of pipes at low points. Provide tapped of appropriate fittings to allow release of all water at low points

FILTER DATA

Pool	Volume (gallons)	Recirc flow rate (GPM)	Filter Size (dia.)	Quantity or Cells	Filter Area Each (s.f.)	Filter Area Total (s.f.)	Filter Loading Rate (gpm/s.f.)	Average Turnover (hours)	Backwash Rate at 15 gpm*s.f. (gpm)	Backwash Time (minutes)	Backwash Volume Each (gal.)	Backwash Volume Total (gal.)
Main	198,940	600	6.00	2	28.26	56.52	10.62	5.53	424	5	2,120	4,239

PUMP DATA

Location	Pump Description	Flow (gpm)	TDH (ft.)	TDH (psi)	Shut off Head (max.) (ft.)	Efficiency +/- 5%	HP	RPM	VFD
Pool	Recirc (existing)	600	--	--	--	--	--	--	--
Pool	Open Body Water Slide	40	25	11	100	n/a	3	3,600	Yes
Spray Ground	Water Features	15	35	15	100	n/a	3	3,600	Yes

MAXIMUM PIPE SUPPORT SPACING (Feet) **

Pipe Size	Sch 80 PVC	Ductile Iron	Copper (L&K)	
½"	4.5	–	5.0	
¾"	4.5	–	5.0	
1"	5.0	–	6.0	
1¼"	5.0	–	7.0	
1½"	5.5	–	8.0	
2"	6.0	–	8.0	
2½"	6.0	–	9.0	
3"	7.0	–	10.0	
4"	7.5	*	12.0	
5"	–	–	13.0	
6"	9.0	*	14.0	
8"	9.5	*	16.0	
10"	10.0	*	18.0	
12"	11.5	*	19.0	
14"	–	*	–	
16"	–	*	–	

* Maximum support spacing of 20 Ft. Provide a minimum of 1 hanger as close as practical to the joint behind the bell, and at changes of direction and branch connections.

** Unless shown or noted otherwise

PIPING NOTES

1. Pipe type shall be Sch 80 PVC unless noted otherwise
2. Refer to Pool Mechanical Sheets for pipe types beyond the building
3. Pipe sizes are identified in inches on the drawings
4. Pipe connection hardware shall be S.S. within Pool Mechanical Room
5. Contractor shall provide and install uniflanges/unions as req'd
6. Sch 80 PVC fittings may be solvent weld or flanged at Contractor's option
7. All piping and fittings at equipment (filters, pumps, valves, etc.) shall be flanged
   ~ PVC flanges at fittings shall be male type as shown
8. Refer to Maximum Pipe Support Spacing Schedule for frequency and spacing of pipe supports
   ~ At minimum, Contractor shall support piping as indicated on schedule which may require more supports than indicated on drawings
9. All hardware shall be S.S.
10. Provide air release valve at all high loops in piping
11. Provide drain valve at all low points in piping
12. All piping through concrete structures shall be cast-in-place
    ~ No pipe sleeves or coring allowed

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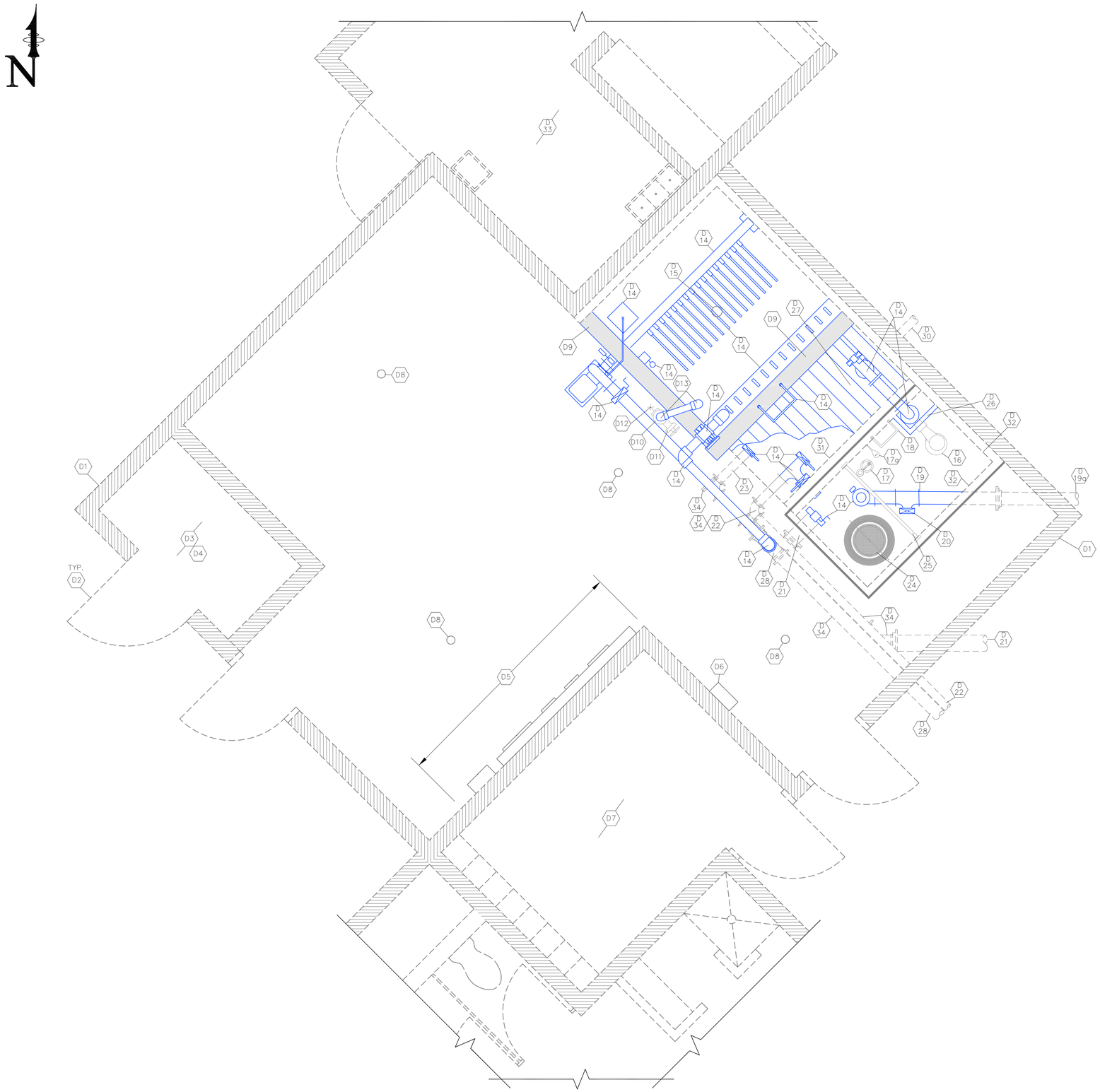
Date: 02-21-20 | Job #: 18-512

Drawn: CJB | Checked: JAB

Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT DATA AND KEY NOTES

SP-F0



A EXISTING FILTER AREA DEMO PLAN
Scale: 1/2"=1'-0"

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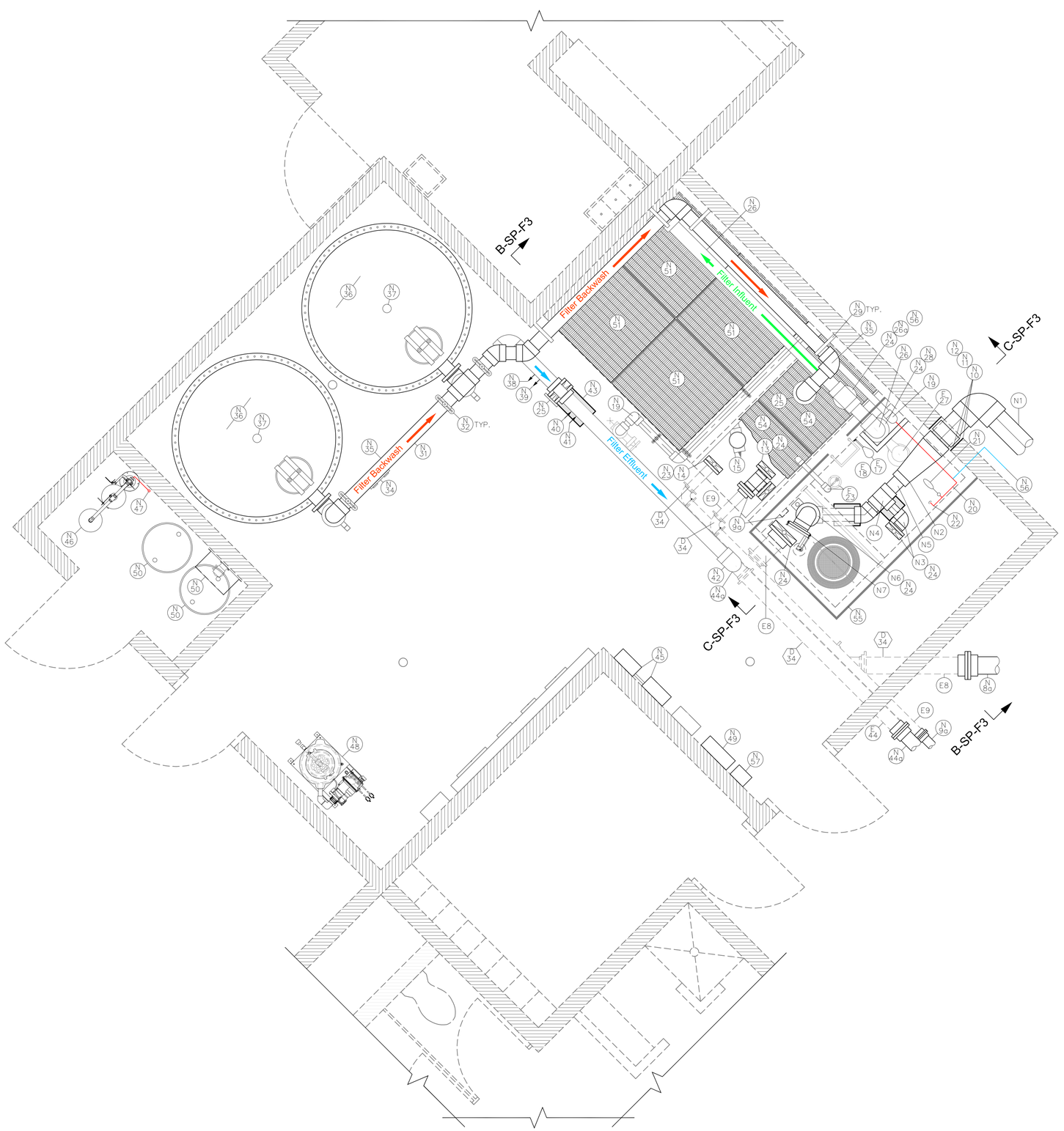
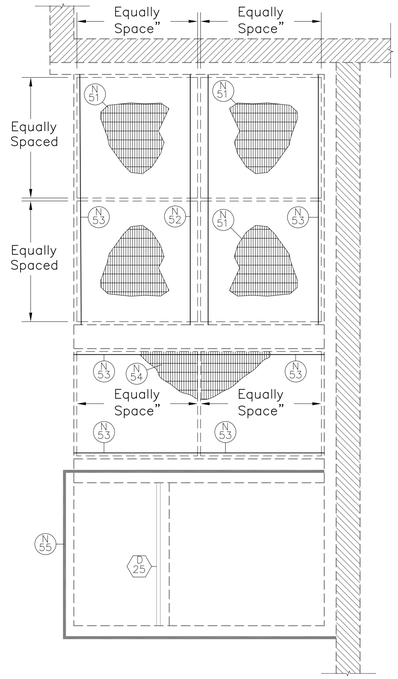
FILTER AREA DEMO PLAN

SP-F1



A FILTER AREA IMPROVEMENT PLAN
Scale: 1/2"=1'-0"



D FILTER AREA IMPROVEMENT PLAN SECTION
Scale: 1/2"=1'-0"

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Kansas STATE CERTIFICATE OF AUTHORITY #E-990

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ARCHITECTURAL URBAN PRAIRIE COLLABORATIVE, P.C.

H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

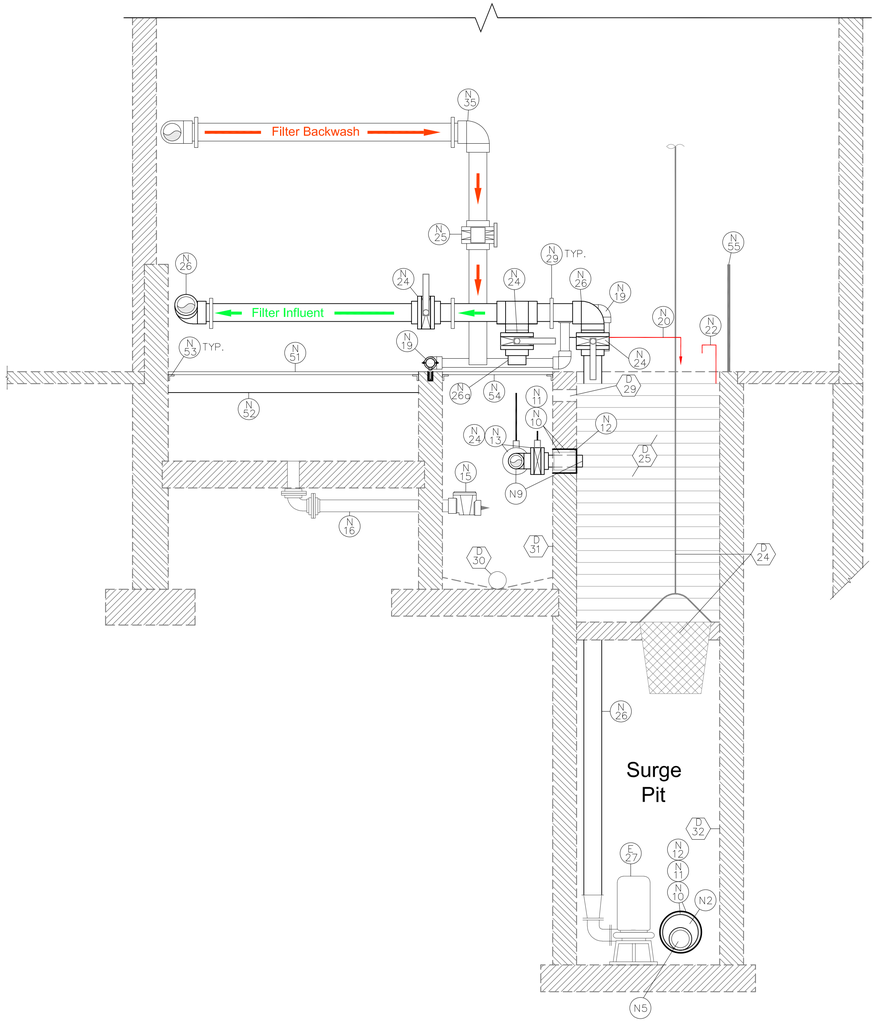
Seal:
JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley-ENGINEER
LICENSE #15116

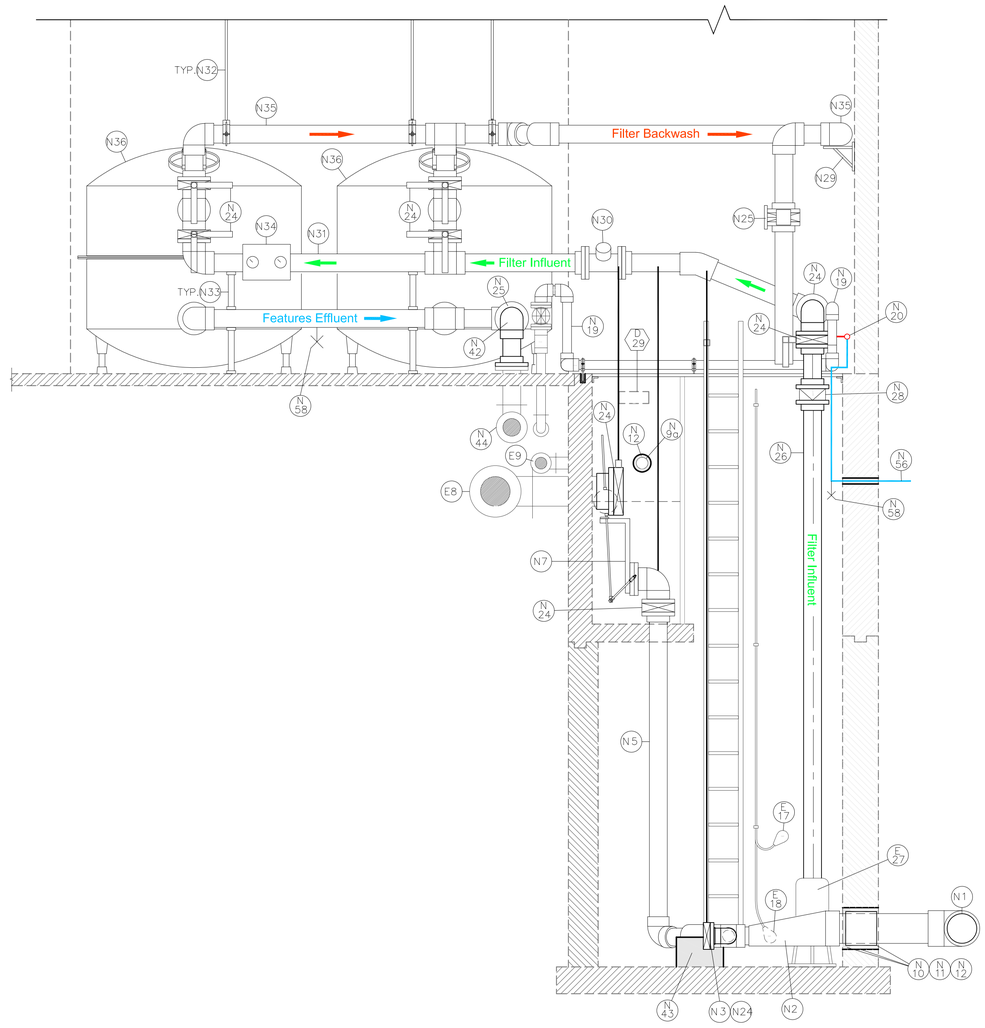
Date: 02-21-20 | Job #: 18-512
Drawn: CJB | Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT PLAN AND PLAN SECTION

SP-F2



B FILTER AREA IMPROVEMENT SECTION
Scale: 1/2"=1'-0"



C FILTER AREA IMPROVEMENT SECTION
Scale: 1/2"=1'-0"

waters edge AQUATIC DESIGN
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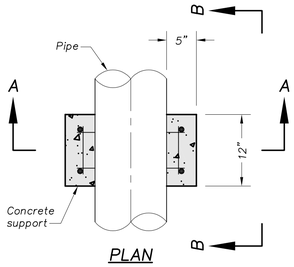
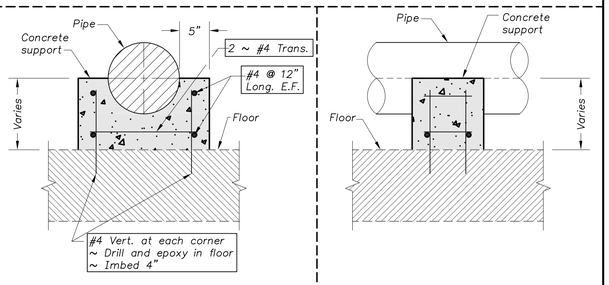
Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVMENT SECTIONS

SP-F3



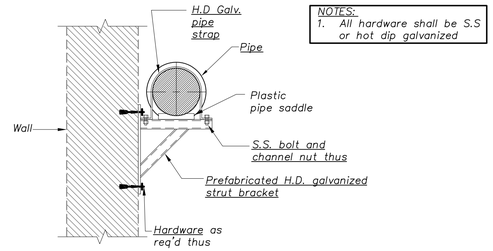
PLAN



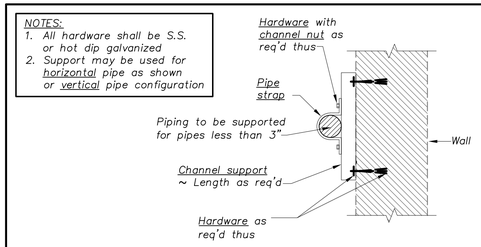
SECTION A

SECTION B

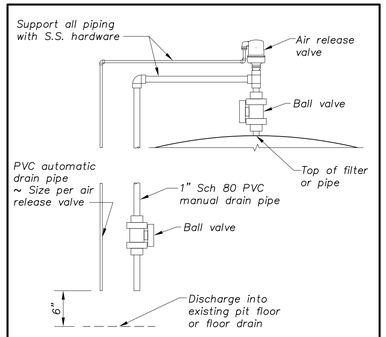
Ⓐ PIPE SUPPORT – CONCRETE DETAIL
Scale: 1"=1'-0"



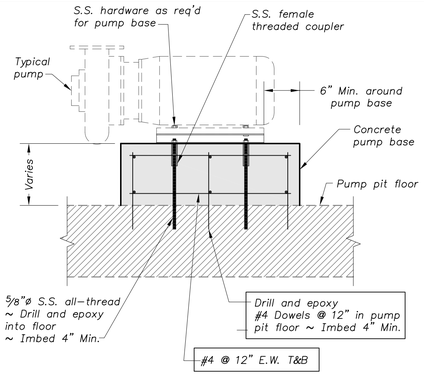
PIPE SUPPORT
Ⓓ WALL MOUNT BRACKET DETAIL
Scale: NTS



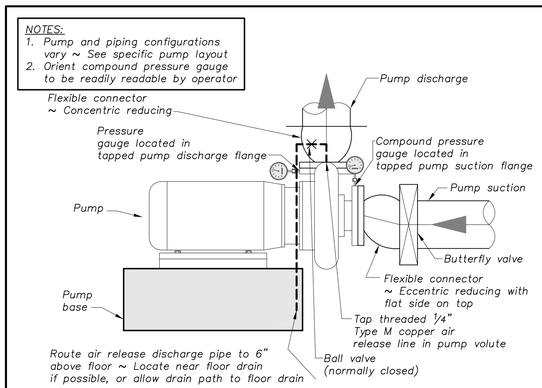
PIPE SUPPORT
Ⓔ WALL MOUNT BRACKET DETAIL
Scale: NTS



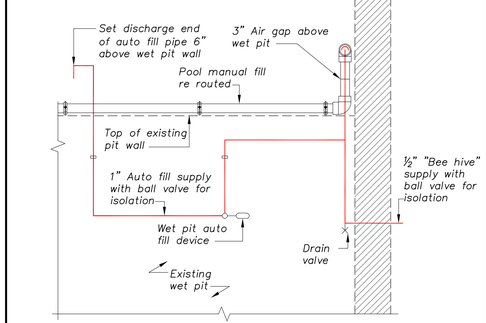
Ⓖ AIR RELEASE VALVE DETAIL
N.T.S.



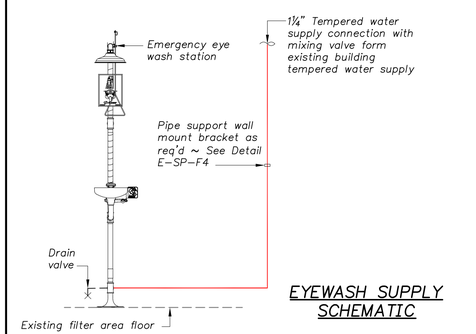
Ⓑ PUMP BASE DETAIL
Scale: 1"=1'-0"



Ⓒ PUMP CONNECTION DETAIL
Scale: 1"=1'-0"

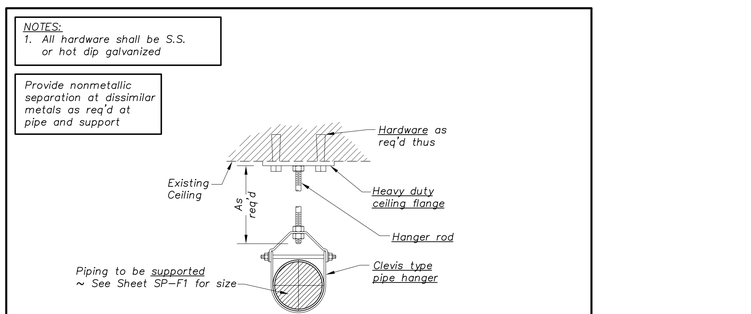


WET PIT FILL SCHEMATIC

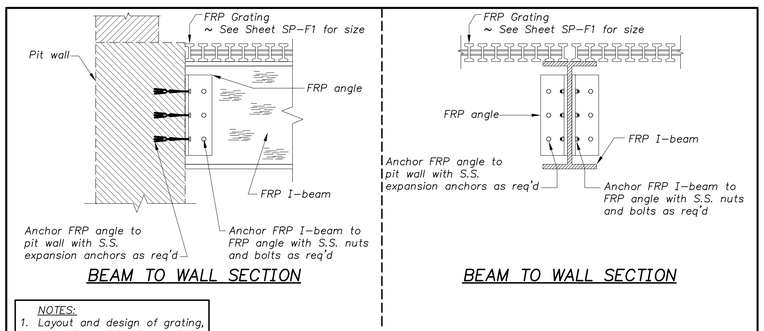


EYEWASH SUPPLY SCHEMATIC

Ⓕ DOMESTIC WATER SCHEMATIC DETAIL
N.T.S.



Ⓗ PIPE SUPPORT – CLEVIS HANGER DETAIL
Scale: 1½"=1'-0"



BEAM TO WALL SECTION

BEAM TO WALL SECTION

NOTES:
1. Layout and design of grating, supports and hardware shall be designed and submitted by mftr.
~ Min. live load = 100 psf
2. All hardware shall be S.S.

Ⓘ FRP GRATING SUPPORT DETAIL
Scale: 1½"=1'-0"

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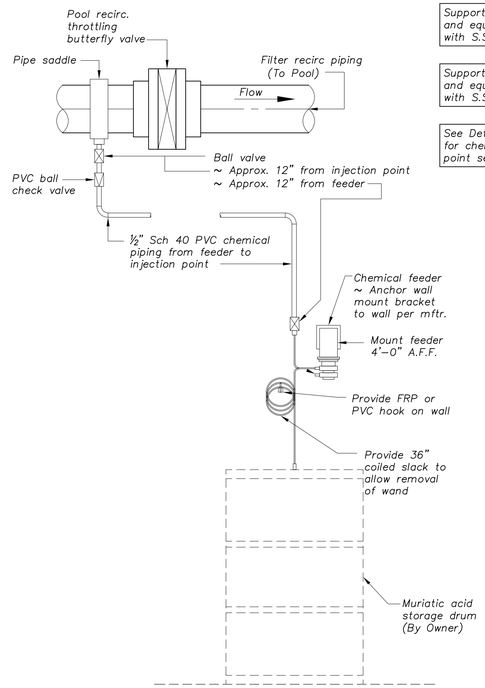
Seal:
JEFF A. BARTLEY LICENSED 15116 KANSAS PROFESSIONAL ENGINEER

Jeff Bartley-ENGINEER
LICENSE #15116

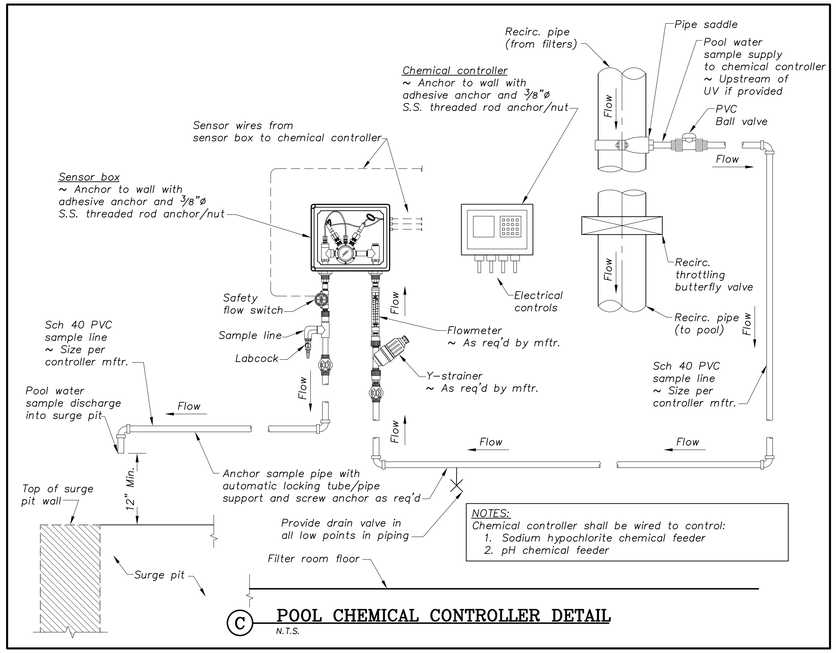
Date: 02-21-20 | Job #: 18-512
Drawn: CJB | Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT DETAILS

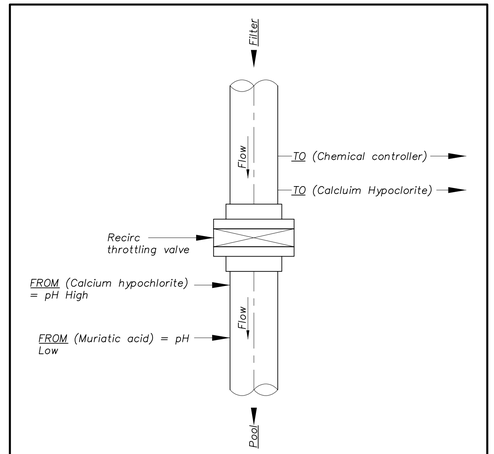
SP-F4



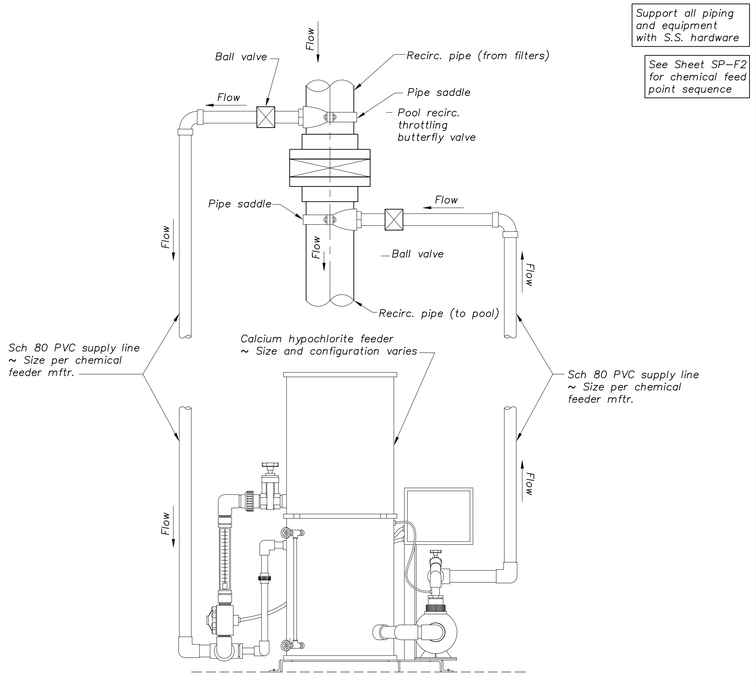
Ⓐ "MURIATIC ACID" FEED SYSTEM DETAIL
N.T.S.



Ⓒ POOL CHEMICAL CONTROLLER DETAIL
N.T.S.



Ⓓ CHEMICAL FEED SEQUENCE DETAIL
N.T.S.



Ⓑ "CALCIUM HYPOCHLORITE" FEED SYSTEM DETAIL
N.T.S.

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LICENSE #15116

Date: 02-21-20	Job #: 18-512
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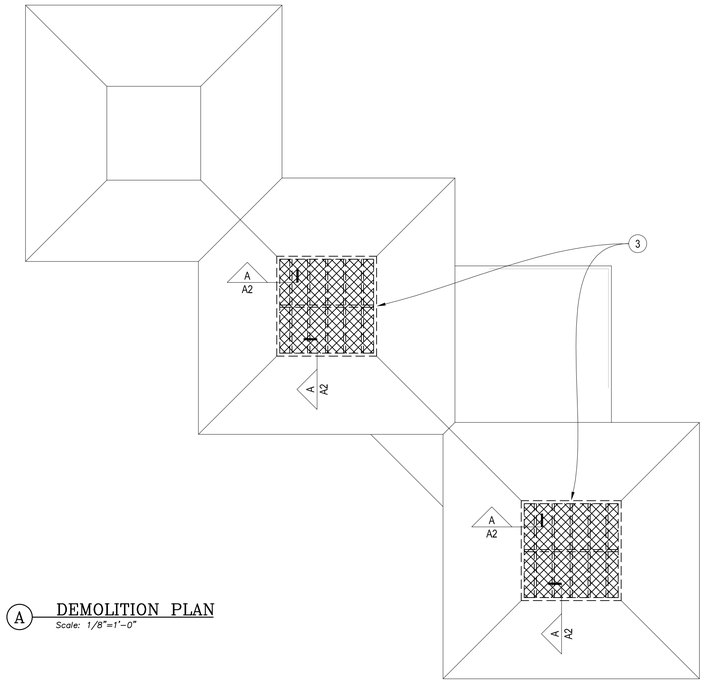
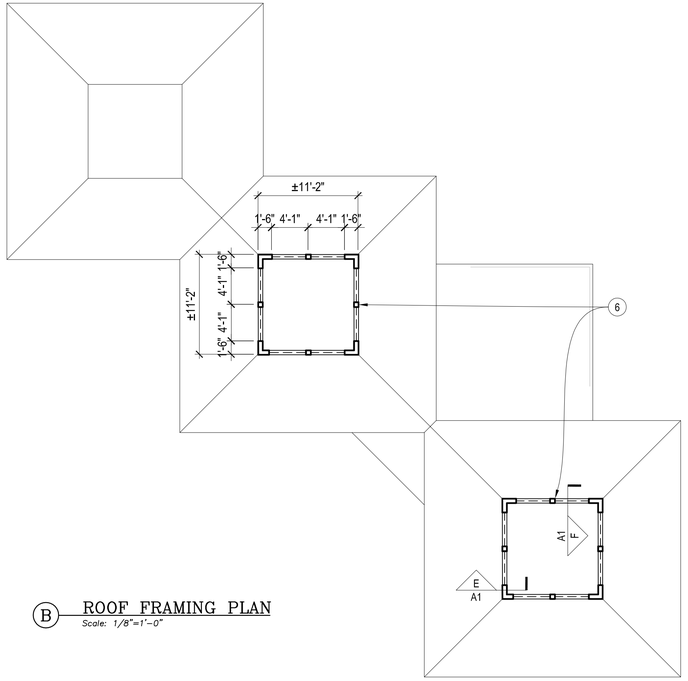
Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT DETAILS

SP-F5



A DEMOLITION PLAN
Scale: 1/8"=1'-0"



B ROOF FRAMING PLAN
Scale: 1/8"=1'-0"

DEMO PLAN KEYNOTES

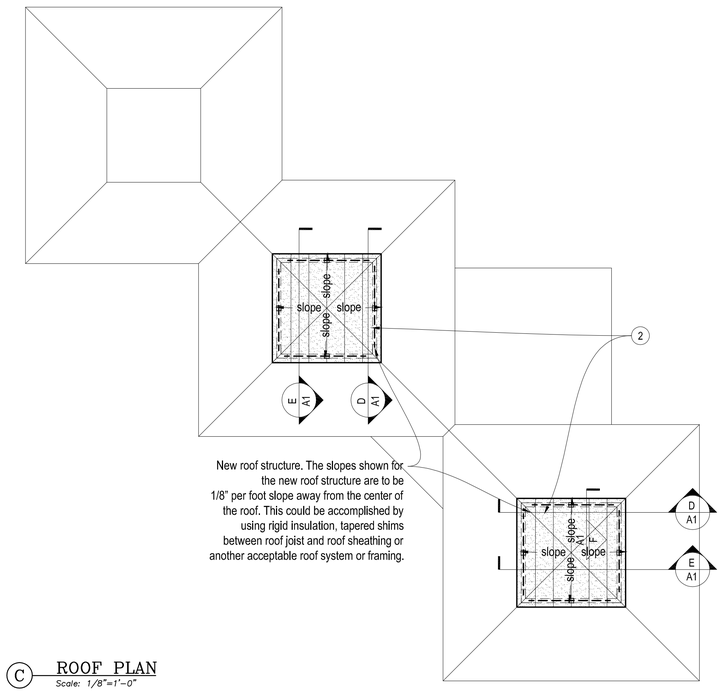
1. Remove existing roof overbuild, including but not limited to the vertical surfaces around the interior skylights, mesh located over sky lights, perimeter knee walls and horizontal wood framing.
2. Remove grilles, fences, gates and associated crowd control items. Salvage for modification and reinstallation.
3. Remove 2x trellis members, angle bracket/joist hangers and expanded metal mesh from skylights. Remove asphalt shingles and portion of decking as required at perimeter of opening. RE: A/A2.

ROOF FRAMING PLAN KEYNOTES

1. New framed walls and overbuilt roof structure, including but not limited to the vertical framed walls around the interior skylights and window openings w/ mesh screens. See sections for details.
2. (3) holddowns per corner. Typical.
3. (2) 6x4x5/16 angle. Typical.

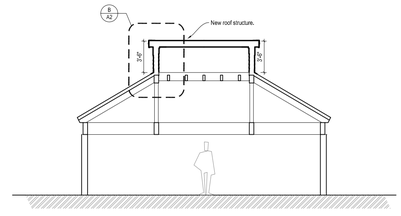
ROOF PLAN KEYNOTES

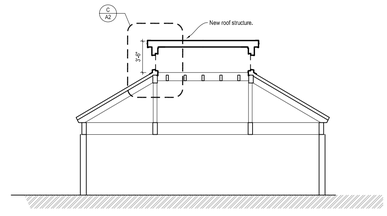
1. New TPO roofing system over tapered rigid insulation. Replace metal edge flashing.
2. New framed overbuilt roof structure w/ membrane roofing system. See sections for details.
3. 2x8 framing @ 24" o.c.
4. New design/build fabric and shade structure over the existing skylight screen and framing structure. RE: 2/A2
5. Patch and repair existing roofing system at and around new penetrations



New roof structure. The slopes shown for the new roof structure are to be 1/8" per foot slope away from the center of the roof. This could be accomplished by using rigid insulation, tapered shims between roof joist and roof sheathing or another acceptable roof system or framing.

C ROOF PLAN
Scale: 1/8"=1'-0"

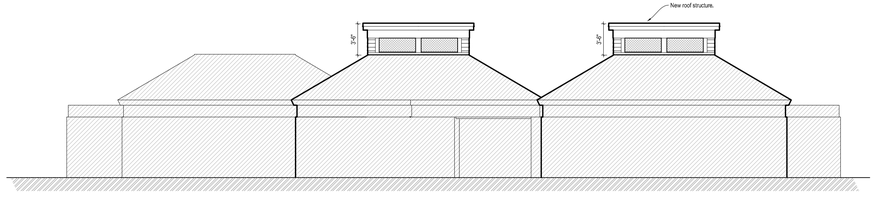




*The slopes shown for the new roof structure are to be

D BUILDING SECTION
Scale: 1/8" = 1'-0"

E BUILDING SECTION
Scale: 1/8" = 1'-0"



F SOUTHEAST ELEVATION
Scale: 1/8" = 1'-0"

waters edge
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HOSS & BROWN ENGINEERS

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

Seal: PAUL C. MINTO LICENSED 3118 KANSAS PROFESSIONAL ARCHITECT Feb 21, 2020

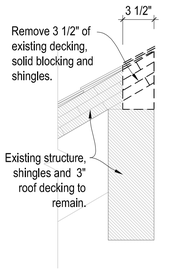
Paul Minto—ARCHITECT
LICENSE #3118

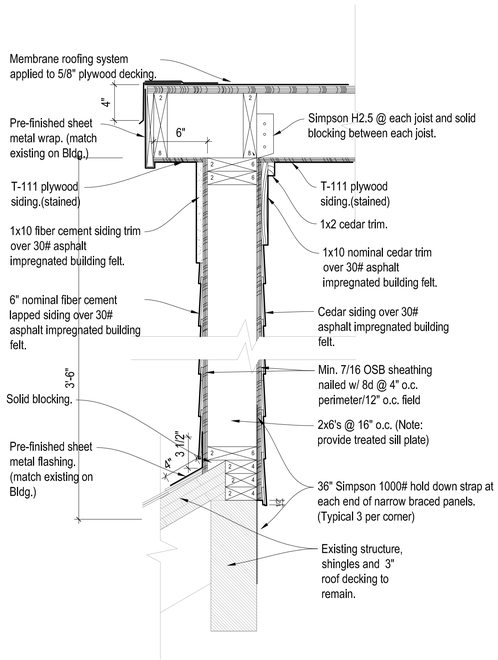
Date: 02-21-20	Job #: 18-512
Drawn:	Checked:

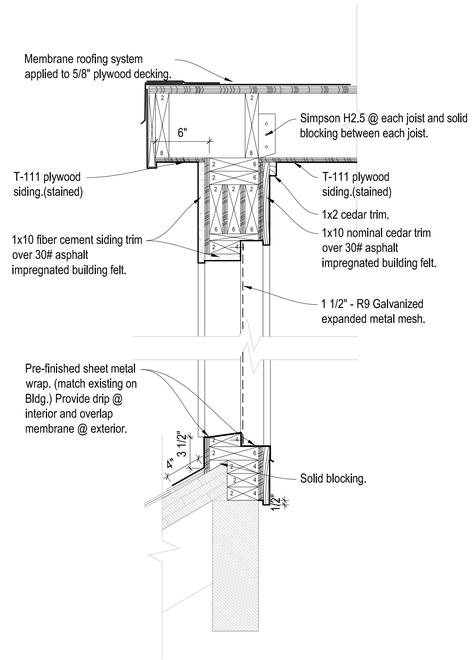
Issue: CONSTRUCTION DOCUMENTS

ARCHITECTURAL PLAN

A-1







FIBER CEMENT SIDING AND TRIM

–

Material:

1. Fiber cement lap siding, trim, soffits and accessories;
2. Fiber-cement siding - complies with ASTM C 1186 Type A Grade II.

Product Warranty:

Limited, non-pro-rated product warranty.

1. Lap siding for 30 years.
2. Soffit panels for 30 years.
3. Trim boards for 15 years.

Products:

1. Lap Siding: Type: Smooth - sizes shown
2. Soffit Panels: Type: Smooth vented, provides 5 square inches (32.3 sq. cm) of net free ventilation per linear foot.
3. Trim Boards: Type: smooth texture, sizes as indicated, thickness ¾" (19mm).
4. Finish: Boards and panels shall be factory primed.

Installation:

1. Use only corrosion resistant fasteners. Acceptable are stainless steel or hot-dipped galvanized nails.
2. Drive nails perpendicular to the framing lumber and the wood trim product; drive nails flush with the product's surface ONLY AS DIRECTED BY MANUFACTURER.
3. Install materials in strict accordance with manufacturer's installation instructions.
4. Install flashing around all wall openings.

Finishing:

1. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic or latex or oil based exterior grade paint within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.

END OF SECTION

CEDAR SIDING AND TRIM

–

Material:

1. Western Red Cedar.

Certified Wood:

1. Operations shall be FSC and PEFC Chain of Custody certified.

Grade: Clear:

1. This is a fine appearance grade NLGA 201b that allows only slightly more WCLIB 106-agrowth characteristics than Clear Heart. Pieces are of mixed grain. These mixed grain (vertical and flat) pieces are graded from the surfaced face.

Bevel Siding:

1. Solid KD Clear Face: Smooth.

Installation:

1. Use only corrosion resistant fasteners. Acceptable are stainless steel or hot-dipped galvanized nails.
2. Joints shall fall over framing lumber and shall be double nailed. Trim boards of 10 inches (254 mm) or greater in width require 3 nails evenly spaced across the face of the board. Do not nail any less than 1/2 inch (13 mm) from any edge and fasten at a minimum of every 24 inches (610 mm) on center.
3. Drive nails perpendicular to the framing lumber and the wood trim product; drive nails flush with the product's surface. Nails shall penetrate at least 1-1/4 inches (32 mm) into the structural framing.

Finishing:

1. Finish with Cabot® Clear Wood Protector or approved equal. **Finish all 6 sides of the cedar before it is installed.**

END OF SECTION

A DETAIL
Scale: 1 1/2"=1'-0"

B DETAIL
Scale: 1 1/2"=1'-0"

C DETAIL
Scale: 1 1/2"=1'-0"

D PARTIAL SPECIFICATION

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Paul Minto–ARCHITECT
LICENSE #3118

Date: 02–21–20	Job #: 18–512
Drawn:	Checked:

Issue: CONSTRUCTION DOCUMENTS

ARCHITECTURAL PLAN

A–2

SYMBOLS

PIPING

- DIRECTION OF FLOW
- UNION
- FLANGE CONNECTION
- CAP
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- PIPE REDUCER
- PIPE GUIDE
- PIPE ANCHOR
- EXPANSION JOINT
- SHUT-OFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- TRIPLE DUTY VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- MANUAL AIR VENT
- SOLENOID VALVE
- THREE-WAY CONTROL VALVE
- TWO-WAY CONTROL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE GAUGE
- THERMOMETER
- BACKFLOW PREVENTER
- AIR OUTLET
- OXYGEN OUTLET
- VACUUM OUTLET
- NITROGEN OUTLET
- NITROUS OXIDE OUTLET
- FS-1 FLOOR SINK
- FD-1 FLOOR DRAIN
- RD-1 ROOF DRAIN
- HB-1 HOSE BIBB
- FLOOR/GRADE CLEANOUT
- WALL CLEANOUT
- END OF LINE CLEANOUT

DUCTWORK

- AHU EQUIPMENT TYPE AND NUMBER
- PUMP
- LINEAR SLOT DIFFUSER
- FLEXIBLE DUCT
- NEGATIVE PRESSURE AIR DUCT UP
- NEGATIVE PRESSURE AIR DUCT DOWN
- POSITIVE PRESSURE AIR DUCT UP
- POSITIVE PRESSURE AIR DUCT DOWN
- RISE DUCT RISE OR DROP IN THE DIRECTION OF AIRFLOW
- SQUARE TO ROUND TRANSITION
- ROUND DUCT UP, DOWN
- ELBOW WITH TURNING VANES
- FLEXIBLE CONNECTION
- MANUAL BALANCE DAMPER
- MD MOTORIZED CONTROL DAMPER
- FD FIRE DAMPER
- SD SMOKE DAMPER
- FSD FIRE/SMOKE DAMPER
- SPIN-IN BRANCH DUCT CONNECTOR- WITH DAMPER IF SHOWN
- HIGH EFFICIENCY BRANCH DUCT CONNECTOR- WITH DAMPER IF SHOWN
- SUPPLY AIR DIFFUSER
- DUCT MOUNTED GRILLE/WALL GRILLE
- RETURN GRILLE
- NOISE REDUCING RETURN AIR TRANSFER
- SUPPLY DIFFUSER - THREE-WAY THROW
- SI 100 6" DIFFUSER, GRILLE, OR REGISTER TYPE / CFM / CONNECTION SIZE

POWER EQUIPMENT

- ELECTRICAL DISTRIBUTION PANEL, SWITCHBOARD, OR MOTOR CONTROL
- PANEL BOARD
- LOAD CENTER
- M METER
- J-BOX
- MOTOR
- VFD VARIABLE FREQUENCY DRIVE WITH DISCONNECT
- DISCONNECT SWITCH
- COMBINATION DISCONNECT SWITCH AND MOTOR STARTER
- MAGNETIC MOTOR STARTER OR DECK RECEPTACLE AS NOTED ON PLANS
- VFD VARIABLE FREQUENCY DRIVE
- BELL
- HOME RUN
- SHARED CIRCUIT
- CONCEALED CONDUIT
- CONDUIT BELOW SLAB
- LOW VOLTAGE CABLE
- ONE HOT, ONE NEUTRAL, AND ONE GROUND IN CONCEALED CONDUIT (#12 in 1/2" C. U.N.O.)
- #14'S (WIRE NUMBER INDICATED)
- #16'S (WIRE NUMBER INDICATED)
- EXPOSED CONDUIT
- CONDUIT TURNING DOWN
- CONDUIT TURNING UP
- BARE COPPER BONDING LOOP

FIRE ALARM

- FACP FIRE ALARM CONTROL PANEL
- FAA ANNUNCIATOR PANEL
- FA FIRE ALARM POWER EXTENDER
- P PULL STATION
- K KNOX BOX
- R CONTROL RELAY
- Z1 SIGNAL ZONE ADDRESSABLE MODULE
- Z2 CONTROL ZONE ADDRESSABLE MODULE
- Z3 MONITOR ZONE ADDRESSABLE MODULE
- S1 SINGLE STATION SMOKE DETECTOR
- S2 SMOKE DETECTOR (SUP. RELAY BASE)
- S3 SYSTEM SMOKE DETECTOR
- S BEAM DETECTOR
- H HEAT/THERMAL DETECTOR
- D DUCT SMOKE DETECTOR
- I INDIVIDUAL ADDRESSABLE MONITOR
- MAGNETIC DOOR HOLD
- HORN/STROBE
- STROBE
- SPEAKER/STROBE
- SPEAKER
- HORN
- T VALVE TAMPER SWITCH
- F FLOW SWITCH
- EOL END OF LINE RESISTOR
- PV POST INDICATING VALVE
- FIRE ALARM BELL
- FIREMAN'S PHONE JACK
- SECURITY GUARD FOR DEVICE SHOWN

COMMUNICATIONS

- S SPEAKER HORN-PROJECTION TYPE
- S SPEAKER
- V VOLUME CONTROL (TOP 48" AFF)
- MJ MICROPHONE JACK (TOP 18" AFF)
- SC COMBINATION SPEAKER/CLOCK
- C SYSTEM CLOCK
- ET ELAPSED TIME CLOCK
- IC INTERCOM
- PS POWER SUPPLY
- A AMPLIFIER

SECURITY

- CLOSED CIRCUIT TELEVISION CAMERA
- EL ELECTRIC DOOR LOCK
- DM DOOR MONITOR
- CR CARD READER
- GB GLASS BREAK
- RE REQUEST TO EXIT BUTTON
- SM SECURITY MONITOR
- PB P PANIC BUTTON (D=DESK, W=WALL, F=FLOOR)
- KP KEY PAD

TEMPERATURE CONTROLS

- T AHU-1 TEMPERATURE SENSOR/THERMOSTAT SERVING AHU-1
- H HUMIDITY SENSOR/HUMIDISTAT
- T REMOTE TEMPERATURE SENSOR
- H REMOTE HUMIDITY SENSOR
- CO2 CARBON DIOXIDE SENSOR
- OCC OCCUPANCY SENSOR
- CO CARBON MONOXIDE SENSOR
- SP STATIC PRESSURE SENSOR
- DPT DIFFERENTIAL PRESSURE TRANSMITTER
- FM FLOW METER

PLUMBING

- WASTE LINE-ABOVE GRADE
- GW GREASE WASTE LINE-ABOVE GRADE
- WASTE LINE-BELOW GRADE
- VENT LINE
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- T DOMESTIC TEMPERED HOT WATER
- DOMESTIC HOT WATER RECIRC.
- 140 140 DEGREE DOMESTIC HOT WATER
- 1 VENT THROUGH ROOF NOTE

FIRE PROTECTION

- SPRINKLER HEAT (PENDANT)
- SPRINKLER HEAD (SIDEWALL)
- SPRINKLER HEAD (UPRIGHT)
- FP FIRE PROTECTION PIPING
- SIAMESE CONNECTION

LIGHTING

- LIGHT TRACK WITH LIGHT TYPES AS INDICATED
- WALL WASHER LIGHTING FIXTURE, ARROW INDICATES DIRECTION
- A FLUORESCENT FIXTURE AND TYPE
- EMERGENCY LIGHT FIXTURE
- NIGHT LIGHT FIXTURE
- A LIGHT FIXTURE AND TYPE
- A LIGHT FIXTURE AND TYPE
- WALL MOUNTED FIXTURE
- WALL SCONCE
- WALL MOUNTED FIXTURE
- POLE MOUNTED LIGHT (NUMBER OF HEADS AS SHOWN)
- TENON MOUNTED POLE LIGHT
- IN-GROUND LIGHT FIXTURE
- BOLLARD LIGHT FIXTURE
- EXIT LIGHT CLG. MNTD. (SGL. FACE)
- EXIT LIGHT CLG. MNTD. (DBL. FACE)
- EXIT LIGHT WALL MNTD. (SGL. FACE)
- EXIT/EMERGENCY LIGHT
- EMERGENCY LIGHT
- CEILING FAN
- LIGHT POLE WITH: 1000 WATT FLOODS AND 250 WATT SECURITY FLOODS (QUANTITY TO MATCH PLANS AND SCHEDULE)

WIRING DEVICES & OUTLETS

- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- GFI GROUND FAULT INTERRUPTER
- WP WEATHERPROOF DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER
- QUAD RECEPTACLE
- HEAVY DUTY RECEPTACLE-NEMA TYPE AS NOTED
- FLOOR MOUNTED DEVICE
- CEILING MOUNTED DEVICE
- ISOLATED GROUND DUPLEX RECEPTACLE
- IG ISOLATED GROUND QUAD RECEPTACLE
- WALL MOUNTED PHONE
- 48 48" CENTER OF DEVICE AT 48" A.F.F.
- DATA OUTLET
- TELEPHONE/DATA OUTLET
- CABLE T.V. OUTLET
- CABLE TRAY
- SURFACE RACEWAY
- S SWITCH, SPST U.N.O.
- S2 SWITCH, DPST
- SF FUSESTAT
- S3 3-WAY SWITCH
- S4 4-WAY SWITCH
- SD DIMMER SWITCH
- SJ JAMB SWITCH
- SM MOTOR RATED SWITCH
- SWP SWITCH WITH WEATHERPROOF COVER
- SK KEYED SWITCH
- TS TIME SWITCH
- PUSH BUTTON
- P PHOTOCELL SWITCH
- M MOTION SENSOR
- H O1 OCCUPANCY SENSOR & TAG
- P POWER PACK

ABBREVIATIONS

A	AMPS; AIR (COMPRESSED)
A/C	AIR CONDITIONING
AF	AMPERE FUSE
AFC	ABOVE FINISHED CEILING
AFEA	AREA FOR EVACUATION ASSISTANCE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
APD	AIR PRESSURE DROP
ATS	AUTOMATIC TRANSFER SWITCH
AV	ACID VENT
AW	ACID WASTE
AWG	AMERICAN WIRE GAUGE
BCU	BLOWER COIL UNIT
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BFF	BELOW FINISHED FLOOR
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTUH	BRITISH THERMAL UNITS PER HOUR
C	CONDUIT
CT	CURRENT TRANSFORMER
CATV	CABLE TELEVISION SYSTEM
CAV	CONSTANT AIR VOLUME
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONDENSATE DRAIN
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CO	CLEANOUT, CARBON MONOXIDE
CO2	CARBON DIOXIDE
CT	COOLING TOWER
CTR	COOLING TOWER RETURN
CTS	COOLING TOWER SUPPLY
CU	COPPER, CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
D	DRAIN
DDC	DIRECT DIGITAL CONTROL
DFU	DRAINAGE FIXTURE UNITS
DN	DOWN
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
E/C	ELECTRICAL CONTRACTOR
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EJ	EXPANSION JOINT
ESFR	EARLY SUPPRESSION FAST RESPONSE
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEANOUT
FCU	FAN COOL UNIT
FD	FIRE DAMPER, FLOOR DRAIN
FF	FINISHED FLOOR
FGCO	FINISHED GRADE CLEANOUT
FL	FLOW LINE
FLA	FULL LOAD AMPS
F/C	FIRE PROTECTION CONTRACTOR
FTU	FAN TERMINAL UNIT
FVNR	FULL VOLTAGE, NON-REVERSING
G	NATURAL GAS
G/C	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HCR	HOT/CHILLED WATER RETURN
HCS	HOT/CHILLED WATER SUPPLY
HD	HEAD, HUB DRAIN
HOA	HAND-OFF-AUTOMATIC
HP	HEAT PUMP
HPC	HIGH PRESSURE CONDENSATE
HPR	HEAT PUMP RETURN
HPS	HEAT PUMP SUPPLY, HIGH PRESSURE STEAM, HIGH PRESSURE SODIUM
HSTAT	HUMIDISTAT
HTG	HEATING
HTR	HEATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IG	ISOLATED GROUND
IN. WC	INCHES OF WATER COLUMN
INC.	INCANDESCENT
kcmil	1000 CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPS
KVAR	KILOVOLT-AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT-HOUR
L	LAVATORY
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB
LF	LINEAR FEET
LP	LOW PRESSURE
LPC	LOW PRESSURE STEAM CONDENSATE
LPG	LIQUIFIED PETROLEUM GAS (PROPANE)
LPS	LOW PRESSURE STEAM
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MBH	1000 BTU PER HOUR
M/C	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MCM	1000 CIRCULAR MILS
MD	MOTORIZED DAMPER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE/METAL HALIDE
MLO	MAIN LUGS ONLY
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MS	MOTOR STARTER
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MAU	MAKE-UP AIR UNIT
N	NITROGEN
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NFNH	NON-FREEZE WALL HYDRANT
NIC	NOT IN CONTRACT
NO	NITROUS OXIDE
N/O N/C	NORMALLY OPEN, NORMALLY CLOSED
O	OXYGEN
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
ORD	OVERFLOW ROOF DRAIN
PA	PIPE ANCHOR
PCWR	PRIMARY CHILLED WATER RETURN
PCWS	PRIMARY CHILLED WATER SUPPLY
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP (WITH OF WATER)
PH	PHASE
PHWR	PRIMARY HEATING WATER RETURN
PHWS	PRIMARY HEATING WATER SUPPLY
PNL	PANEL
PRV	PRESSURE REDUCING VALVE
PS	PULSE START
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH-ABSOLUTE
PSIG	POUNDS PER SQUARE INCH-GAUGE
PT	POTENTIAL TRANSFORMER
QTY	QUANTITY
R	REFRIGERANT
RA	RETURN AIR
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REV	REVISION
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
S	SINK, STEAM
SA	SUPPLY AIR
SAN	SANITARY SEWER
SCWR	SECONDARY CHILLED WATER RETURN
SCWS	SECONDARY CHILLED WATER SUPPLY
SD	SMOKE DAMPER, STORM DRAIN
SF	SUPPLY FAN
SHWR	SECONDARY HEATING WATER RETURN
SHWS	SECONDARY HEATING WATER SUPPLY
SPST	SINGLE-POLE SINGLE-THROW
SP	STATIC PRESSURE
SQFT	SQUARE FOOT/SQUARE FEET
S/S	START/STOP
SS	SERVICE SINK, STAINLESS STEEL
ST	STORM DRAIN, SOUND TRAP, STEAM TRAP
STC	SOUND TRANSMISSION CLASS
STM	STEAM
SW	SOFT WATER
SWBD	SWITCHBOARD
T	TEMPERED WATER
TG	TEMPERATURE GAUGE
TDH	TOTAL DYNAMIC HEAD
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TL	TWISTLOCK
TU	TERMINAL UNIT
TR	TEMPERED WATER RETURN
UF	UNDER FLOOR
UG	UNDER GROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VACUUM
VAC	VOLTS ALTERNATING CURRENT
VAV	VARIABLE AIR VOLUME
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	WATER SERVICE, WATTS
WB	WET BULB
WCO	WALL CLEANOUT
WC	WATER COLUMN, WATER CLOSET
WH	WALL HYDRANT
WPD	WATER PRESSURE DROP
WP	WEATHERPROOF
WT	WATERTIGHT, WEIGHT
XFMR	TRANSFORMER
XP	EXPLOSION-PROOF

GENERAL

- HEAVY LINEWEIGHT INDICATES NEW WORK
- CONNECT NEW TO EXISTING
- LIGHT AND SCREENED LINEWEIGHT INDICATES EXISTING-TO-REMAIN
- DARK AND DASHED LINEWEIGHT INDICATES DEMOLITION WHEN SHOWN ON DEMOLITION PLAN OR NOTED
- 2 CONSTRUCTION NOTE
- 2 REVISION NUMBER
- M201 SECTION CUT THROUGH DRAWING
- M201 AREA OF ENLARGEMENT
- 1 M201 PLAN NUMBER / SHEET WHERE ENLARGED PLAN IS DRAWN

THIS IS A MASTER LEGEND. NOT ALL SYMBOLS, ABBREVIATIONS, ETC. ARE USED ON THE DRAWINGS.

THE SYMBOLS ON THIS SHEET SHALL APPLY TO MECHANICAL AND ELECTRICAL SHEETS.

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H&B Project Number: 1820529

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal: CASEY STEINER LICENSED PROFESSIONAL ENGINEER KANSAS 2-21-20

CASEY JOHN STEINER LICENSE #19423

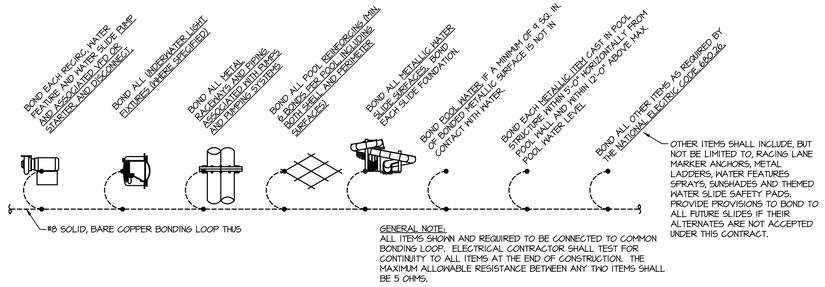
Date: 2-21-20 | Job #: 1820529

Drawn: CDW | Checked: MST

Issue: CONSTRUCTION DOCUMENTS

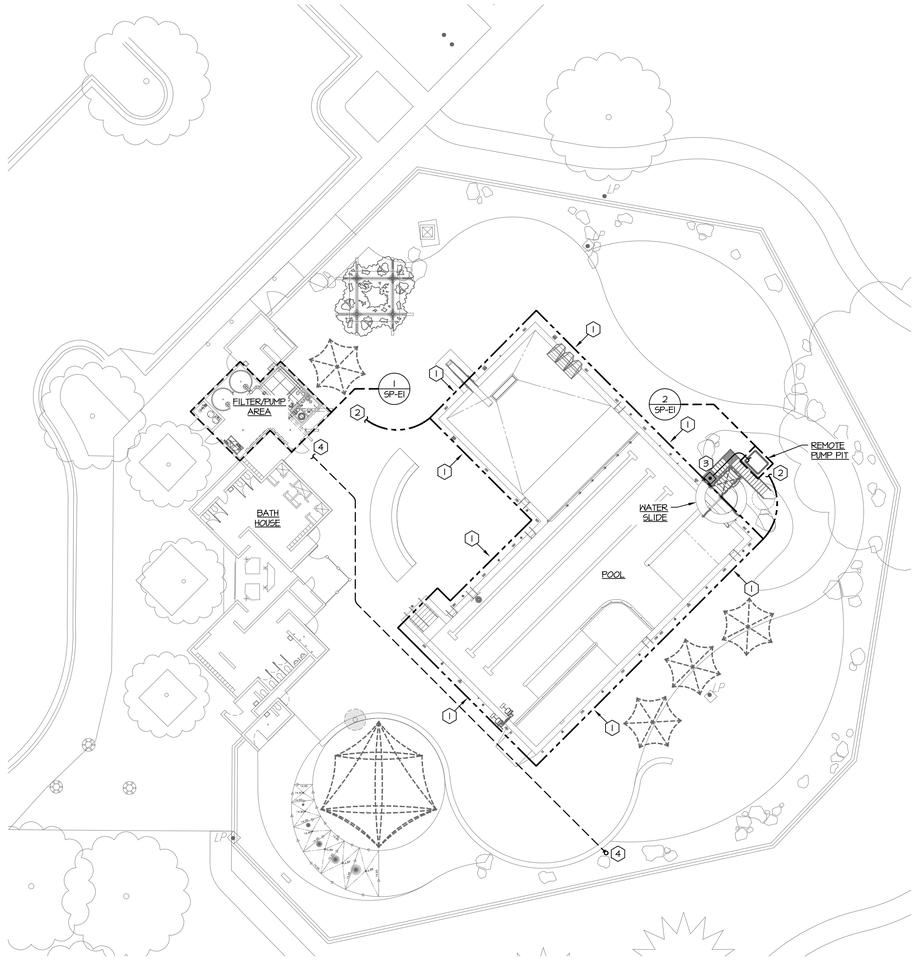
SYMBOLS & ABBREVIATIONS

SP-ME1



GENERAL NOTE:
ALL ITEMS SHOWN AND REQUIRED TO BE CONNECTED TO COMMON BONDING LOOP. ELECTRICAL CONTRACTOR SHALL TEST FOR CONTINUITY TO ALL ITEMS AT THE END OF CONSTRUCTION. THE MAXIMUM ALLOWABLE RESISTANCE BETWEEN ANY TWO ITEMS SHALL BE 5 OHMS.

2 Equipotential Bonding Schematic
Scale: None



1 MEP Site Plan
Scale: 1" = 20'-0"

GENERAL NOTES:

THE FOLLOWING NOTES SHALL APPLY TO ALL WORK SHOWN ON SHEETS 5P-ME1, 5P-ME2, 5P-M1, 5P-E1, 5P-E2, AND 5P-E3 AND SHALL SUPERSEDE REQUIREMENTS DEFINED IN SPECIFICATIONS:

A. UNLESS NOTED OTHERWISE, ALL CONDUITS SHALL BE SCHEDULE 40 PVC WITH BARE COPPER GROUND WIRE. ALL CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING SURFACES. ALL EMPTY CONDUIT SYSTEMS SHALL BE PROVIDED WITH PULL STRINGS.
B. ALL POWER WIRES AND CABLES SHALL BE COPPER, #12 AWG, UNLESS NOTED OTHERWISE. WIRE SHALL BE CODE TYPE THHN OR THWN.
C. JUNCTION, PULL, RECEPTACLE, AND LIGHT FIXTURE BOXES SHALL BE PVC.
D. ALL FLUSH WIRING DEVICES SHALL BE PROVIDED WITH JUMBO PASS & SEYMOUR STAINLESS STEEL COVER PLATES. COVER PLATES FOR WIRING DEVICES IN SURFACE BOXES SHALL BE STAINLESS STEEL UTILITY BOX COVERS, RAISED 1/4".
E. PROVIDE THE LIGHT FIXTURES AS SCHEDULED. MATERIAL, TRIM, EQUIPMENT OR SERVICES NECESSARY TO COMPLETE THE INSTALLATION OF THESE FIXTURES, BUT NOT SPECIFICALLY MENTIONED, SHALL BE FURNISHED AS THOUGH SPECIFIED.
F. ALL ELECTRICAL EQUIPMENT AND INSTALLATION SHALL MEET THE REQUIREMENTS OF NEC ARTICLE 680. ALL EQUIPMENT IN AND AROUND THE POOL SHALL BE UL LISTED AND APPROVED FOR POOL USE.
G. FOR ALL ELECTRICAL ENCLOSURES, PANELS, MCC, TRANSFORMERS, ETC., PROVIDE BLACK PHENOLIC PLASTIC TAGS WITH WHITE LETTERING. TAGS SHALL CLEARLY DESCRIBE CONTENTS OF ENCLOSURE OR FUNCTION OF DEVICE AND SHALL BE MECHANICALLY FASTENED TO THE ENCLOSURE. ADHESIVE FASTENING SHALL NOT BE ACCEPTABLE.
H. ALL ELECTRICAL EQUIPMENT IN ENCLOSED PUMP PITS AND FILTER AREAS SHALL BE IN NEMA-4 ENCLOSURES. ALL EXTERIOR ELECTRICAL EQUIPMENT SHALL BE NEMA-3R ENCLOSURES. ALL ELECTRICAL EQUIPMENT IN DEDICATED MECHANICAL/ ELECTRICAL ROOMS SHALL BE NEMA-1. THIS NOTE SHALL APPLY UNLESS NOTED OTHERWISE ON DRAWINGS.
I. ALL BELOW GRADE CONDUITS ON SITE SHALL BE ROUTED IN GRANULAR FILL OR LOWER, AND NOT WITHIN THE CONCRETE DECK.

(E) ELECTRICAL PLAN NOTES:

1. #8 SOLID BARE COPPER POOL BONDING LOOP. BOND ALL METALLIC ITEMS AS REQUIRED BY THE NATIONAL ELECTRIC CODE, 680.26. INSTALL BONDING LOOP 48" (+/- 6") FROM INSIDE FACE OF POOL AND NO DEEPER THAN 18" BELOW THE FINISHED DECK ELEVATION. SEE DETAIL #2/5P-ME2 FOR FURTHER INFORMATION. WHERE EXISTING POOL SHELL IS EXISTING TO REMAIN, CONTRACTOR SHALL CHIP AND REMOVE POOL SHELL CONCRETE AND BOND TO EXISTING REBAR WHERE NOTE IS INDICATED ON PLAN. COORDINATE WORK WITH POOL ENGINEER PRIOR TO BEGINNING WORK.
2. EXTEND #8 BONDING WIRE INTO FILTER AREA OR PUMP PIT AND BOND TO PUMPS.
3. ROUTE START/STOP WIRING BETWEEN SLIDE PLATFORM AND SLIDE PUMP WITH INTEGRAL VFD AS NOTED ON PUMP SCHEMATIC FOUND ON SHEET 5P-E2.
4. PROVIDE (2) 3/4" EMT CONDUITS WITH PULL-STRING BELOW GRADE TO SCULPTURE LED CONTROL BOX FOR POWER AND DATA. PROVIDE AND COORDINATE CABLE SPECIFICS WITH SCULPTURE LED SPECIFICATIONS. REFER TO ELECTRICAL PLAN ON SHEET 5P-E1 FOR CONTINUATION.

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WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

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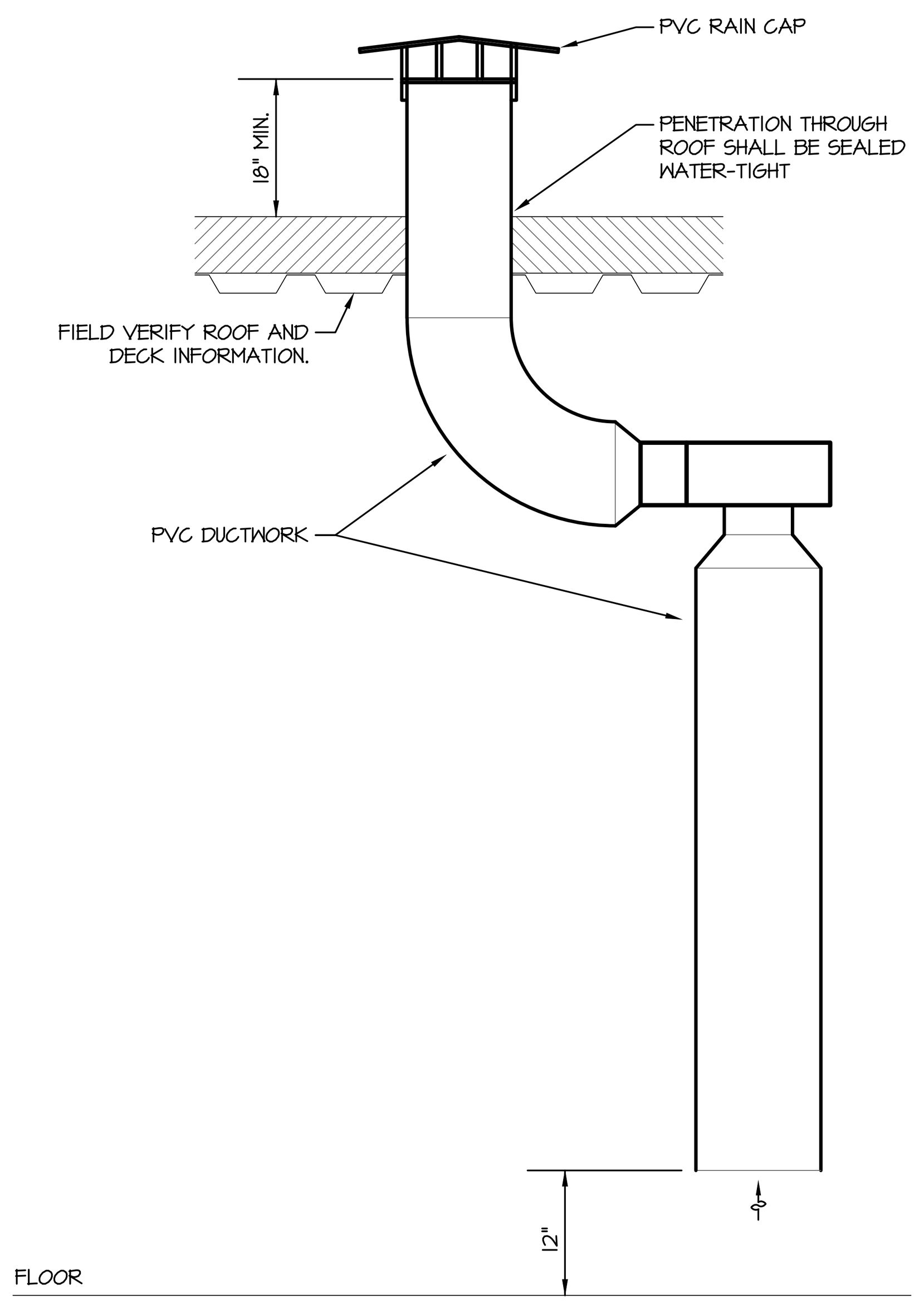
Seal:
CASEY STEINER LICENSED KANSAS PROFESSIONAL ENGINEER 2/20/20

CASEY JOHN STEINER
LICENSE #19423

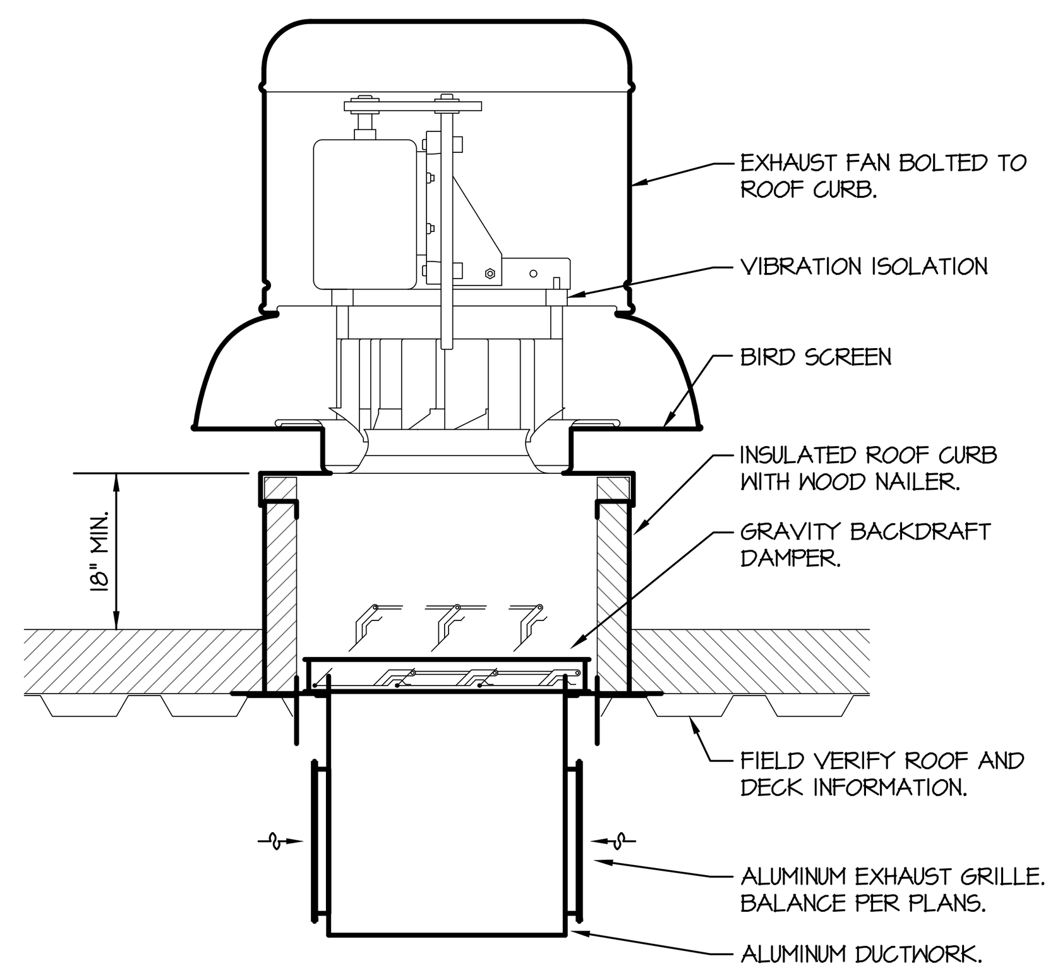
Date: 2-21-20	Job #: 1820529
Drawn: CDW/JEM	Checked: MST
Issue: CONSTRUCTION DOCUMENTS	

MEP SITE PLAN

SP-ME2

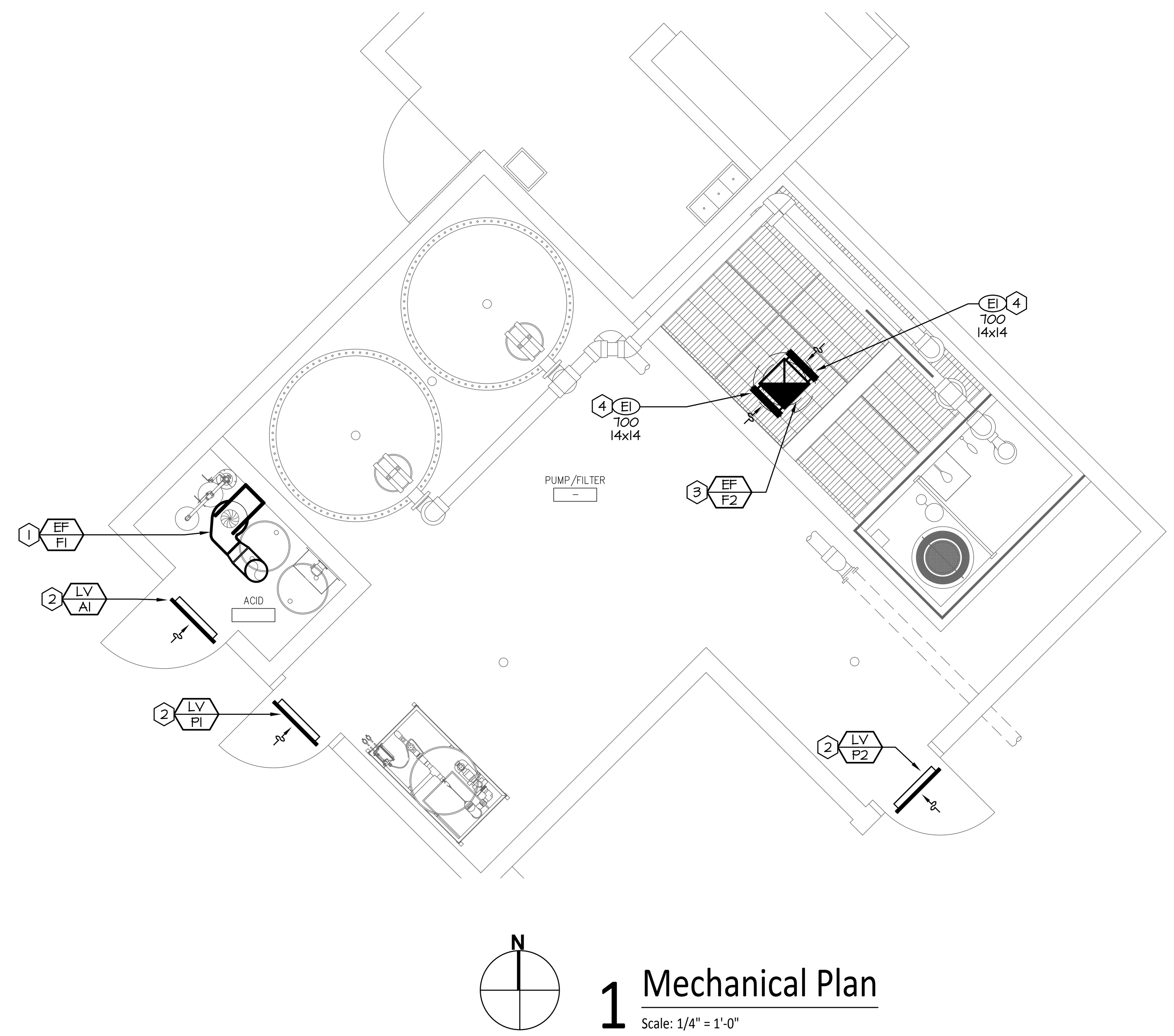


3 Chemical Exhaust Fan Detail
Scale: Not to Scale



NOTES:
1. DUCT SIZES SHALL BE AS INDICATED ON THE PLANS.
2. PROVIDE ROOF CURB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 18" CLEARANCE FROM THE TOP OF THE CURB TO THE FINISHED ROOF.
3. BOTTOM OF ROOF CURB SHALL MATCH THE SLOPE OF THE ROOF SO THAT THE TOP OF ROOF CURB IS LEVEL. ATTACH FAN TO CURB PER MANUFACTURER'S RECOMMENDATIONS.
4. PROVIDE ROOFING AND FLASHING PER ARCHITECTURAL AND ROOF MANUFACTURER'S REQUIREMENTS.
5. CURB INSTALLATION SHALL NOT VOID ROOF WARRANTY. COORDINATE ROOF WARRANTY WITH OWNER.

2 Roof Exhaust Fan Detail
Scale: Not to Scale



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

GENERAL NOTES:

A. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE SHEET METAL SYSTEMS COMPLETE AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS AND SPECIAL RADIUS OR MITRED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
B. COORDINATE THE INSTALLATION OF THE DUCTWORK AND EQUIPMENT WITH THE WORK OF ALL OTHER TRADES. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY SYSTEM COMPONENTS.
C. DUCTWORK SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT OR PANELS. PROVIDE THE CODE REQUIRED WORKING CLEARANCE AROUND ALL ELECTRICAL EQUIPMENT AND PANELS.
D. PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.
E. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS, ETC. WITH THE ARCHITECTURAL TRADES.
F. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND WALL ELEVATIONS FOR EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
G. ALL DUCTWORK DIMENSIONS INDICATE THE INSIDE CLEAR DIMENSION.

PLAN NOTES:

1. PROVIDE CENTRIFUGAL FAN AS SCHEDULED MOUNTED HIGH IN CHEMICAL ROOM. PROVIDE 12" PVC PIPE DOWN TO APPROXIMATELY 12" AFF. DISCHARGE DUCTWORK SHALL HAVE FLEXIBLE CONNECTION. PROVIDE 10" PVC PIPE AND ROUTE UP TO ROOF. PROVIDE 10" PVC RAIN CAP , U.S. PLASTIC CORPORATION MODEL #35206 OR EQUAL.
2. PROVIDE LOUVER AS SCHEDULED. REFER TO ARCHITECTURAL PLANS FOR SPECIFIC LOUVER LOCATION.
3. PROVIDE ROOF-MOUNTED FAN AS SCHEDULED. EXTEND ALUMINUM DUCTWORK DOWN APPROXIMATELY 2'-0" INTO THE SPACE.
4. PROVIDE ALUMINUM EXHAUST GRILLE AS SCHEDULED APPROXIMATELY 0'-2" ABOVE THE BOTTOM OF THE EXHAUST DUCT.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	S.P.	DRIVE	RPM	WATTS	HP	V/PH	NOTES
EF-F1	FANAM	CB1-200	650	0.5	DIRECT	1725	-	1/4	120/1	1
EF-F2	LOREN COOK	135C17DEC	1,400	0.75	DIRECT	1325	302	3/4	120/1	2

NOTES:
1. FAN HOUSING AND WHEEL SHALL BE CONSTRUCTED OF POLYPROPLYENE.
2. PROVIDE FAN WITH ECM SPEED CONTROL IN THE FAN HOUSING.

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	SIZE W x H (IN.)	AIRFLOW CFM	MIN. FREE AREA (S.F.)	MAX. PD INCHES WC	NOTES
LV-A1	ACTIVAR	1400 SERIES	INTAKE	24x18	500	1	-	1,2
LV-P1	ACTIVAR	1400 SERIES	INTAKE	24x24	1,000	2	-	1
LV-P2	ACTIVAR	1400 SERIES	INTAKE	24x24	1,000	2	-	1

PLAN NOTES:
1. PROVIDE INSECT SCREEN.
2. PROVIDE BACK OF LOUVER WITH BAKED ENAMEL FINISH.

GENERAL NOTES:
A. PROVIDE MOUNTING FRAME TO MATCH CONSTRUCTION.
B. CUSTOM COLOR TO BE SELECTED BY ARCHITECT DURING THE SUBMITTAL PROCESS.
C. PROVIDE ALL FASTENERS, HANGERS, AND ASSOCIATED DEVICES REQUIRED FOR COMPLETE INSTALLATION.

GRILLE, REGISTER, & DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	FACE SIZE	NECK SIZE	DAMPER	NOTES
EI	TITUS	8F	EXHAUST	AS NOTED	AS NOTED	YES	1

NOTES:
1. GRILLE AND ALL FASTENERS SHALL BE ALUMINUM.

GENERAL NOTES (APPLY TO ALL ABOVE):
A. MAXIMUM NC OF 30 FOR ALL GRILLES, REGISTERS, AND DIFFUSERS.
B. WHERE NOT NOTED, DIFFUSER NECK SIZE SHALL BE THE SAME AS THE BRANCH DUCT SIZE.

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ORCHARD PARK

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CASEY JOHN STEINER
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MECHANICAL PLAN, DETAILS & SCHEDULES

SP-M1

GENERAL NOTES:

A. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE GENERAL EXTENT OF THE WORK. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL PULL BOXES, JUNCTION BOXES AND INCIDENTAL MATERIALS AND LABOR FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.

B. ELECTRICAL CONTRACTOR SHALL DERATE CONDUCTORS AS REQUIRED BY THE N.E.C. WHEN GROUPED IN COMMON RACEWAYS.

C. COORDINATE THE EXACT LIGHT FIXTURE LOCATIONS WITH THE ARCHITECTURAL DRAWINGS.

D. ALL WIRES RUN BELOW GRADE, IN CONCRETE THAT IS IN DIRECT CONTACT WITH THE EARTH, OR MASONRY THAT IS IN DIRECT CONTACT WITH THE EARTH SHALL BE WET LOCATION LISTED.

E. ALL RECEPTACLES SHALL BE GFI PROTECTED UNLESS NOTED OTHERWISE. AT CONTRACTOR'S OPTION, GFI BREAKERS OR RECEPTACLES MAY BE USED. RECEPTACLES SERVING CONCESSIONS REFRIGERATION EQUIPMENT, CHEMICAL CONTROLLERS, AND EXHAUST FANS SHALL NOT BE GFI PROTECTED.

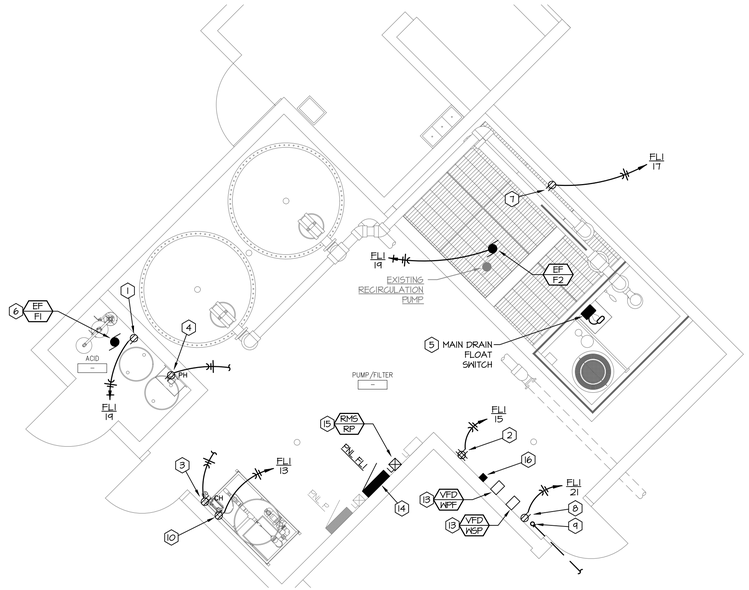
F. WHERE PHONE, DATA OR PHONE/DATA OUTLETS ARE SHOWN ON PLANS, CONTRACTOR SHALL PROVIDE A BACKBOX AND CONDUIT WITH PULL STRING BACK TO AN ACCESSIBLE LOCATION AT TELEPHONE BOARD FOR FUTURE WIRING INSTALLATION BY OWNER.

G. ANY INTERRUPTION OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING OPERATION.

H. REMOVE ALL ELECTRICAL ITEMS ON THE SITE AND IN THE FILTER, PUMP, AND CHEMICAL AREAS NO LONGER REQUIRED AFTER THE RENOVATION. THIS SHALL INCLUDE BUT IS NOT LIMITED TO PUMPS, FILTERS, STARTERS, FEEDERS, AND CONTROLS.

(6) PLAN NOTES:

1. EXHAUST FAN RECEPTACLE. COORDINATE EXACT HEIGHT AND LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
2. CHEMICAL CONTROLLER RECEPTACLE. PROVIDE ENGRAVED COVERPLATE DENOTING POOL SERVED AND CHEMICAL CONTROLLER.
3. CHLORINE FEEDER RECEPTACLE. CONNECT CIRCUIT TO CHEMICAL CONTROLLER. SEE CIRCULATION PUMP CONTROL SCHEMATIC ON SHEET SP-E2 FOR MORE INFORMATION. PROVIDE ENGRAVED COVERPLATE DENOTING POOL SERVED AND CHLORINE FEEDER.
4. PH FEEDER RECEPTACLE. CONNECT CIRCUIT TO CHEMICAL CONTROLLER. SEE CIRCULATION PUMP CONTROL SCHEMATIC ON SHEET SP-E2 FOR MORE INFORMATION. PROVIDE ENGRAVED COVERPLATE DENOTING POOL SERVED AND PH FEEDER.
5. PROVIDE ZOELLER SWITCH-MATE PIGGYBACK VARIABLE LEVEL FLOAT SWITCH (VLFS). FLOAT SHALL BE NORMALLY OPEN (NO) OR NORMALLY CLOSED (NC) PER NOTES, BE RATED FOR 13A AT 115V, AND SHALL NOT CONTAIN MERCURY. COORDINATE MOUNTING HEIGHT WITH POOL ENGINEERS. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
6. PROVIDE 6'-0" NEMA PLUG AND COORDINATE FOR EXHAUST FAN.
7. PROVIDE 120V OUTLET FOR FLOW METER.
8. PROVIDE 120V OUTLET FOR SHADE STRUCTURE LED CONTROL BOX.
9. PROVIDE (2) 3/4" SCHEDULE 40 PVC CONDUITS WITH PULL-STRINGS BELOW GRADE OUT TO ARTIST SCULPTURE FOR POWER AND DATA. PROVIDE AND COORDINATE CABLE SPECIFICS WITH SCULPTURE LED SPECIFICATIONS. REFER TO SITE PLAN ON SHEET SP-ME2 FOR CONTINUATION.
10. CHLORINE FEEDER CONSTANT POWER RECEPTACLE. PROVIDE ENGRAVED COVERPLATE DENOTING POOL SERVED AND CHLORINE FEEDER. COORDINATE EXACT HEIGHT OF RECEPTACLE WITH MANFACTURER.
11. PROVIDE PUMP SAFETY SWITCH AT APPROXIMATELY 48" AFF. CONDUIT TO PUMP SHALL BE BELOW GRADE AND STUB UP AT PUMP. COORDINATE INSTALLATION WITH POOL CONTRACTOR.
12. ROUTE ALL FEEDERS BELOW GRADE BETWEEN VFD AND PUMP MOTOR. REFER TO VFD SCHEDULE FOR PUMP POWER INFORMATION.
13. ROUTE POWER THROUGH VFD PRIOR TO MAKING ELECTRICAL PANEL CONNECTION.
14. PANEL - PROVIDE PANEL AS SCHEDULED ON SHEET SP-E3.
15. REPLACE EXISTING REMOTE MOTOR STARTER AND ROUTE POWER THROUGH NEW REMOTE MOTOR STARTER PRIOR TO MAKING ELECTRICAL PANEL CONNECTION.
16. RECIRCULATION START/STOP STATION - PROVIDE START/STOP STATION FOR RECIRCULATION PUMP AS DETAILED ON SHEET SP-E2.
17. SUMP PUMP - PROVIDE POWER TO WATERPROOF JUNCTION BOX FOR SUMP PUMP. ALL CONNECTIONS SHALL BE SEALED AND BE LIQUID TIGHT. COORDINATE FINAL LOCATION WITH POOL ENGINEER.



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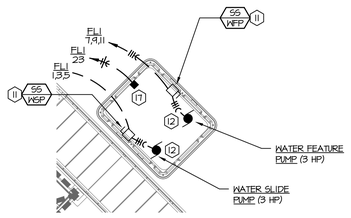
1 Electrical Plan

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



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2 Remote Pump Pit Electrical Plan

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

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H&B Project Number: 1820529

WICHITA, KANSAS
Pool Improvements
ORCHARD PARK

CITY OF WICHITA

Seal:

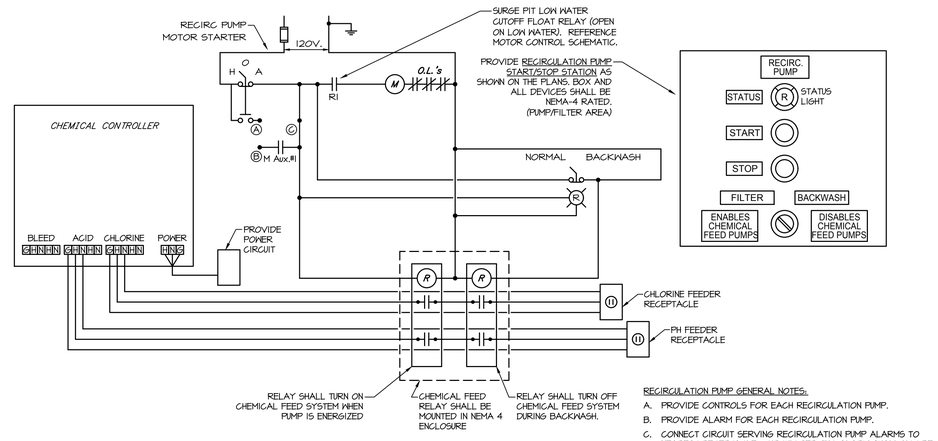
CASEY STEINER LICENSED KANSAS PROFESSIONAL ENGINEER 2-21-20

CASEY JOHN STEINER
LICENSE #19423

Date: 2-21-20	Job #: 1820529
Drawn: CDW	Checked: MST
Issue: CONSTRUCTION DOCUMENTS	

ELECTRICAL PLAN

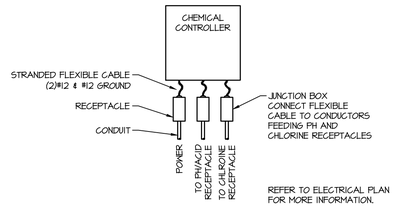
SP-E1



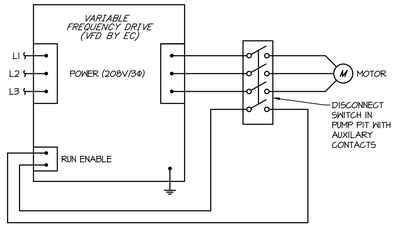
RECIRCULATION PUMP GENERAL NOTES:

A. PROVIDE CONTROLS FOR EACH RECIRCULATION PUMP.
B. PROVIDE ALARM FOR EACH RECIRCULATION PUMP.
C. CONNECT CIRCUIT SERVING RECIRCULATION PUMP ALARMS TO NEAREST RECEPTACLE. CIRCUIT SERVING ALARM SHALL NOT BE CONNECTED TO THE CIRCUITS SERVING THE MOTORS.

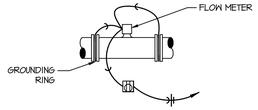
1 Recirculation Pump Control Schematic (RMS-RP)
Scale: None



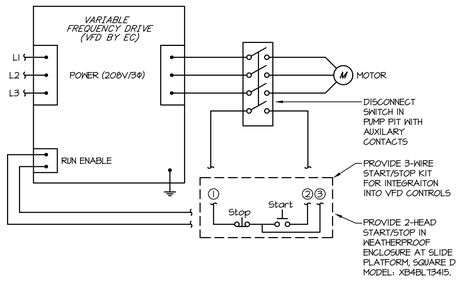
3 Chemical Controller Schematic
Scale: None



2 VFD Control Schematic (VFD-WFP)
Scale: None



5 Flow Meter Grounding Detail
Scale: None



4 VFD Control Schematic (VFD-WSP)
Scale: None

ELECTRICAL CONTRACTOR IS TO PROVIDE POOL PUMP CONTROLS. POOL PUMP CONTROLS, FLOAT SWITCHES, STARTERS, VFDS AND SWITCHES ARE NOT PROVIDED BY THE POOL CONTRACTOR.

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ELECTRICAL DETAILS

SP-E2

VARIABLE FREQUENCY DRIVE SCHEDULE

208 VOLT / 3 PHASE

MARK	DESCRIPTION	HP	LOAD	OCPD AMPS	POLES	NEMA ENCL.	CONDUCTORS	NOTES
VFD-WSP	WATER SLIDE PUMP	3	3,820	25	3	4X	(3) #12 & #12G. IN 1" C.	-
VFD-WFP	WATER FEATURE PUMP	3	3,820	25	3	4X	(3) #12 & #12G. IN 1" C.	-

GENERAL NOTES (APPLIES TO ALL ABOVE):

A. VFD SHALL BE DANFOSS, MODEL #VLT OR EQUIVALENT APPROVED BY ENGINEER PRIOR TO BID. CONTRACTOR SHALL VERIFY VFD CLEARANCES PRIOR TO ORDERING. ALTERNATE DRIVE MANUFACTURERS WILL NOT BE ACCEPTED WITHOUT WRITTEN APPROVAL FROM ENGINEER.
B. OCPD AMPACITIES ARE LISTED FOR FUSES/CIRCUIT BREAKER.
C. VFD SHALL HAVE INTEGRAL FUSED DISCONNECT.

REMOTE MOTOR STARTER SCHEDULE

480 VOLT / 3 PHASE

MARK	DESCRIPTION	HP	LOAD	POLES	STARTER SIZE	CONTROL P.B.	HOA	PILOT	CONDUCTORS	NOTES
RMS-RP	RECIRCULATION PUMP	15	17,460	3	2	X	X	X	(3) #8 & #10G. IN 1" C.	-

GENERAL NOTES (APPLIES TO ALL ABOVE):

A. PROVIDE REMOTE MOTOR STARTERS AS SCHEDULED. REFERENCE DETAILS ON SHEET SP-E2 FOR ADDITIONAL INFORMATION.
B. REMOTE SOFT START MOTOR STARTER SHALL BE IN A NEMA-3R ENCLOSURE.

SAFETY SWITCH SCHEDULE

SAFETY SWITCH TAG	DESCRIPTION	VOLTS	HP	DISC. AMPS	FUSE AMPS	NEMA TYPE	POLE/ WIRES	CONDUCTORS	NOTES
SS-WSP	WATER SLIDE PUMP	240	3	30	-	3R	3/3	SEE VARIABLE FREQUENCY DRIVE SCHEDULE	1
SS-WFP	SPRAYGROUND WATER FEATURES PUMP	240	3	30	-	3R	3/3	SEE VARIABLE FREQUENCY DRIVE SCHEDULE	1

GENERAL NOTES (APPLIES TO ALL ABOVE):

A. SAFETY SWITCHES SHALL BE HEAVY DUTY.

NOTES:

1. PROVIDE DISCONNECT WITH AUXILARY CONTACTS FOR INTERCONNECTION WITH VFD.

PANEL FL1

DESCRIPTION: 150A MCB — 100% Neutral Bus w/ Feed Through Lugs — 22 kAIC RATING

VOLTAGE: 120/208V, 3PH, 4 WIRE
TOTAL CONNECTED LOAD: 12kW= 34A
DEMANDED LOAD CONTINUOUS: 13kW= 37A

NO	LOAD (W)	LOAD DESCRIPTION	P	AMP SIZE	PH	AMP SIZE	P	LOAD DESCRIPTION	LOAD (W)	NO
1	1273	PUMP - WATER SLIDE	3	25	A	-	-	SPACE	-	2
3	1273	(3 HP)			B	-	-	SPACE	-	4
5	1273				C	-	-	SPACE	-	6
7	1273	PUMP - WATER FEATURE	3	25	A	-	-	SPACE	-	8
9	1273	(3 HP)			B	-	-	SPACE	-	10
11	1273				C	-	-	SPACE	-	12
13	1800	RCPT - CHLORINE FEEDER	1	20	A	-	-	SPACE	-	14
15	180	RCPT - CHEM CONTROLLER	1	20	B	-	-	SPACE	-	16
* 17	180	RCPT - FLOW METER	1	20	C	-	-	SPACE	-	18
19	250	RCPT - EF-F1	1	20	A	-	-	SPACE	-	20
21	1920	RCPT - ARTIST CONTROL BOX	1	20	B	-	-	SPACE	-	22
23	373	SUMP PUMP - REMOTE PIT	1	20	C	-	-	SPACE	-	24
25	-	SPACE	-	-	A	-	-	SPACE	-	26
27	-	SPACE	-	-	B	-	-	SPACE	-	28
29	-	SPACE	-	-	C	-	-	SPACE	-	30

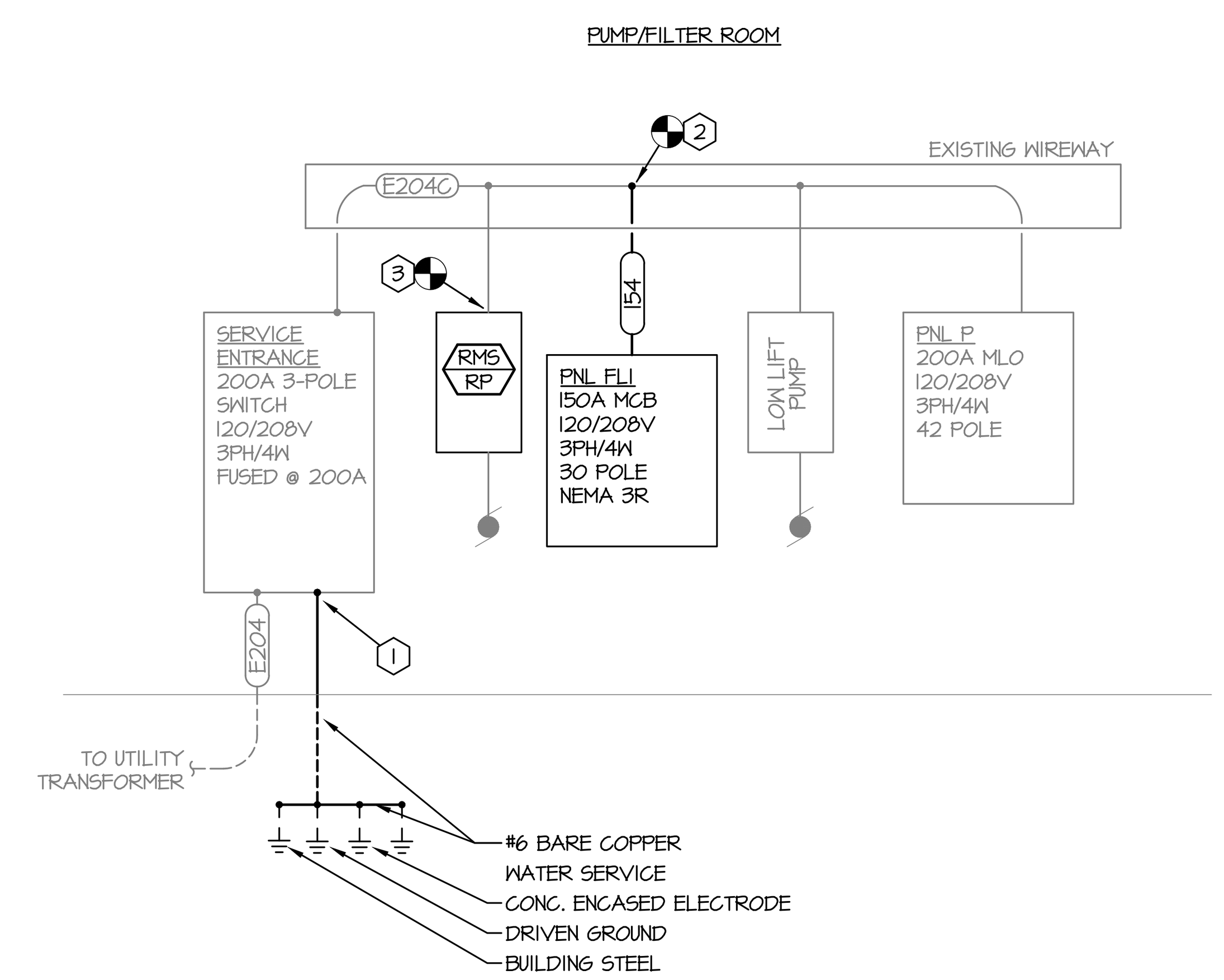
* PROVIDE NEW GFI BREAKER AS INDICATED.

PANEL P (EXISTING)

DESCRIPTION: 225A MLO — 100% Neutral Bus NEMA 1 Enclosure — 10 kAIC RATING

VOLTAGE: 120/208V, 3PH, 4 WIRE
TOTAL CONNECTED LOAD: 49kW= 135A
DEMANDED LOAD CONTINUOUS: 41kW= 113A

NO	LOAD (W)	LOAD DESCRIPTION	P	AMP SIZE	PH	AMP SIZE	P	LOAD DESCRIPTION	LOAD (W)	NO
1	1500	AREA LTS	2	20	A	20	1	TIME CLOCK	180	2
3	1500	AREA LTS	-	-	B	20	1	GFCI RCPT	900	4
5	1500	UNKOWN	1	20	C	20	1	UNKNOWN	1500	6
7	1500	POOL LTS	1	20	A	20	1	SODA MACH. AREA GFCI RCPT	1000	8
9	1500	POOL LTS	1	20	B	20	1	CONCESSION AREA	1500	10
11	1500	POOL LTS	1	20	C	20	1	POOL LTS	1500	12
13	180	TIME CLOCK	1	20	A	20	1	BUILDING LTS	1500	14
15	1500	OFFICE LTS	1	20	B	20	1	WOMENS LOCKER RM LTS	1500	16
17	1500	MEN LOCKER RM LTS	1	20	C	20	1	UNKNOWN	1500	18
19	1500	UNKOWN	1	20	A	20	1	SODA MACH. & SNACK LTS	1000	20
21	1500	UNKOWN	1	20	B	20	1	UNKNOWN	1500	22
23	1500	UNKOWN	2	30	C	20	1	UNKNOWN	1500	24
25	1500	-	-	-	A	20	1	UNKNOWN	1500	26
27	360	PUMP CONTROLS	1	30	B	20	1	UNKNOWN	1500	28
29	1500	UNKOWN	1	20	C	20	1	UNKNOWN	1500	30
31	1500	UNKOWN	3	20	A	20	1	UNKNOWN	1500	32
33	1500	-	-	-	B	20	1	UNKNOWN	1500	34
35	1500	-	-	-	C	20	1	UNKNOWN	1500	36
37	0	SPACE	1	-	A	-	1	SPACE	0	38
39	0	SPACE	1	-	B	-	1	SPACE	0	40
41	0	SPACE	1	-	C	-	1	SPACE	0	42



1 Electrical Riser Diagram
Scale: None

RISER NEW WORK NOTES:

1. GROUNDING - VERIFY SERVICE ENTRANCE EQUIPMENT IS GROUND PER THE GROUNDING ELECTRODE SYSTEM REQUIREMENTS SET FORTH IN NEC 250.50. ANY BARE GROUNDING ELECTRODE CONDUCTOR THAT IS OXIDIZED SHALL BE REPLACED WITH AN INSULATED GROUNDING ELECTRODE CONDUCTOR IN SCHEDULE 80 PVC CONDUIT.
2. PANEL FL1 - PROVIDE NEW PANEL AND FEEDER AS SHOWN.
3. REMOTE MOTOR STARTER - REMOVE EXISTING MOTOR STARTER SERVING THE RECIRCULATION PUMP. PROVIDE NEW REMOTE MOTOR STARTER AS SCHEDULED.

FEEDER SCHEDULE:

E204 (4)#3/0 IN 3" CONDUIT
E204C (4)#3/0
154 (4)#1/0 & #6 GROUND IN 1-1/2" CONDUIT

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Pool Improvements
ORCHARD PARK

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ELECTRICAL DETAILS AND RISER DIAGRAM

SP-E3