



WICHITA, KANSAS

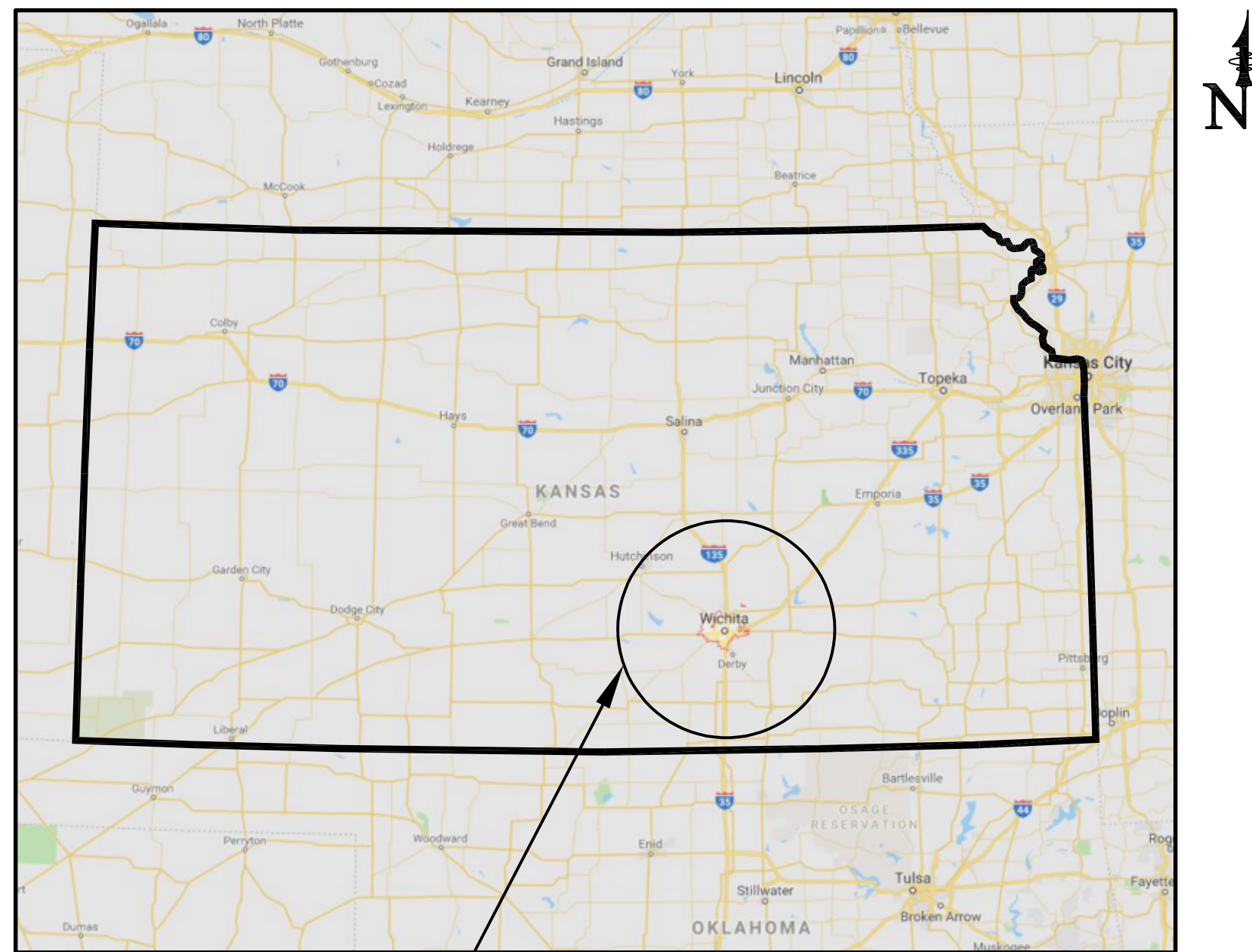
Spray Ground

HARRISON PARK

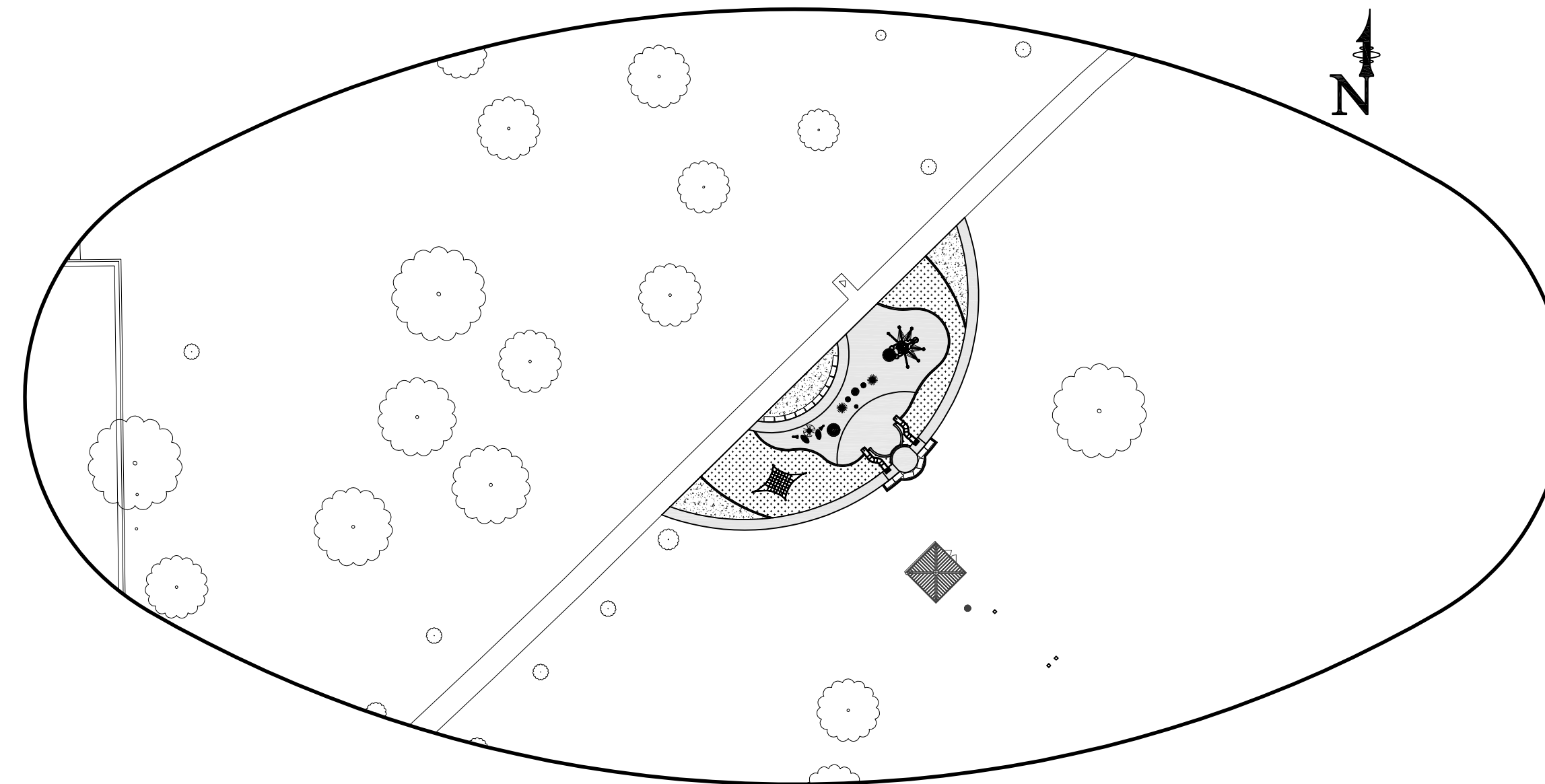
2021



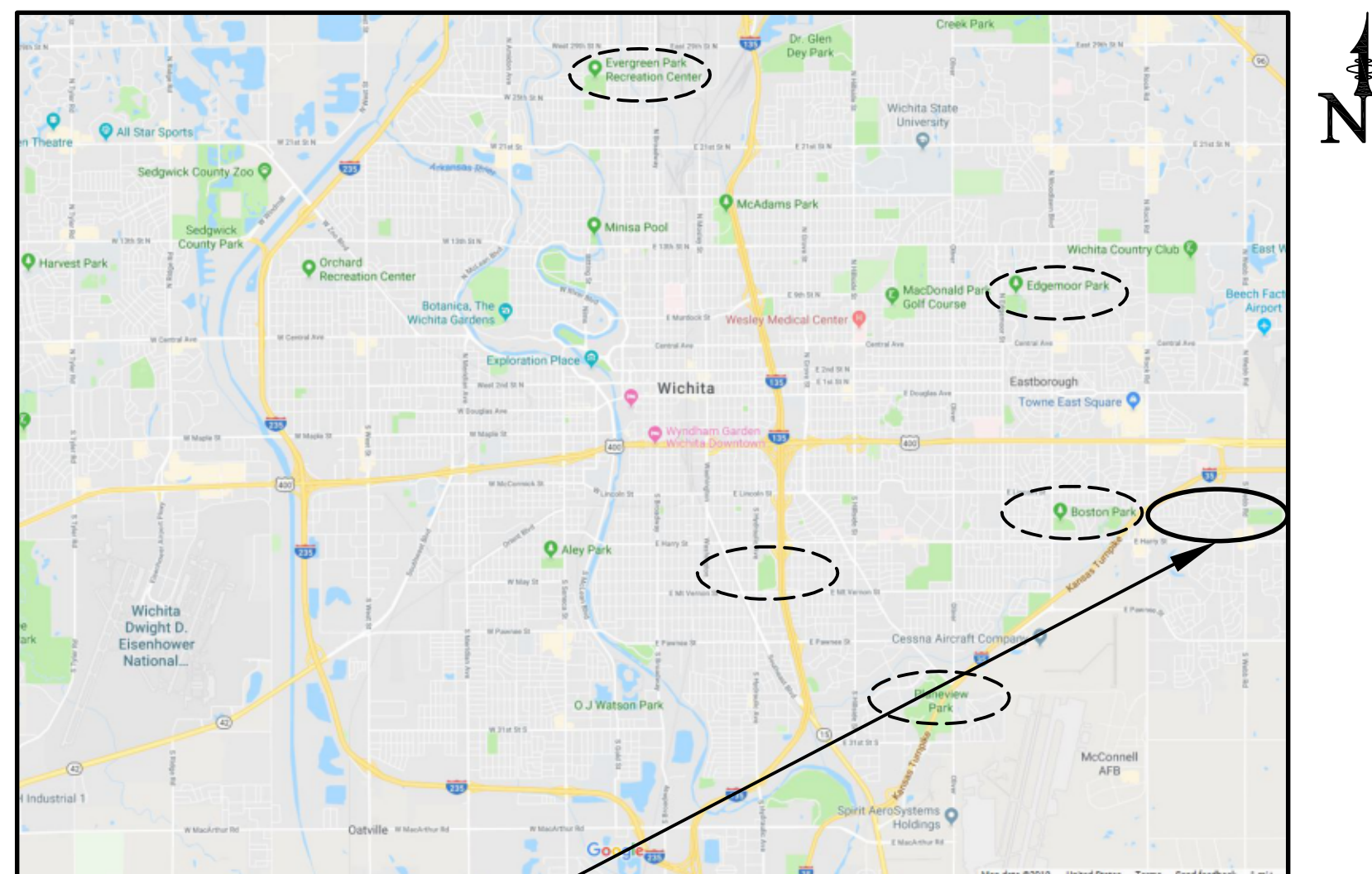
CITY OF WICHITA
 Project Number 482-11047
 Org. Code 44002018
 Munis Number R8021



PROJECT AREA



SPRAY GROUND LAYOUT



PROJECT LOCATION
 1300 South Webb Road
 Wichita, KS 67207

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SP-E3	ELECTRICAL DETAILS AND RISER DIAGRAM




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 Street 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	



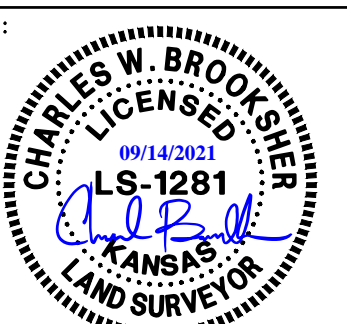
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 Plot Scale 1:245.2402 09-14-2021 10:40:05 AM by H
 UT Wichita-Civil (2018) 180189-001 Mun/Drainage Version 180189-001-C-Survey-Harrison 1 of 2

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

 landworks
 STUDIO
 ARCHITECTURAL
URBAN PRAIRIE
 COLLABORATIVE, P.C.

 HOSS & BROWN
 ENGINEERS

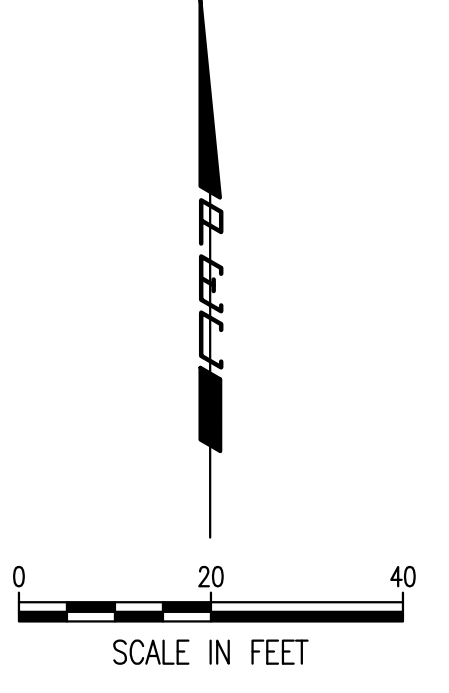

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Spray Ground
HARRISON PARK



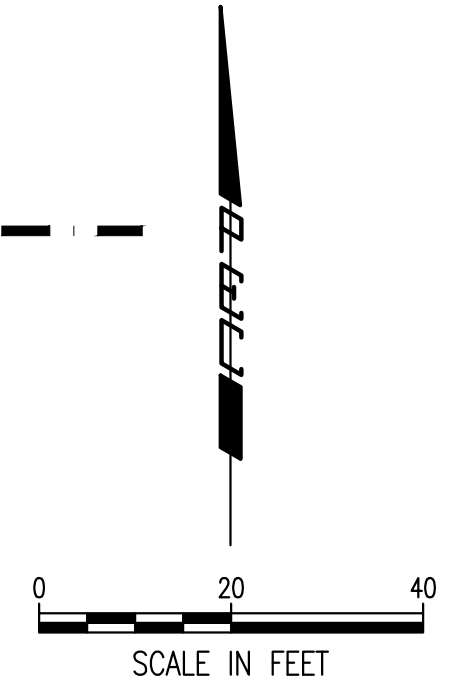
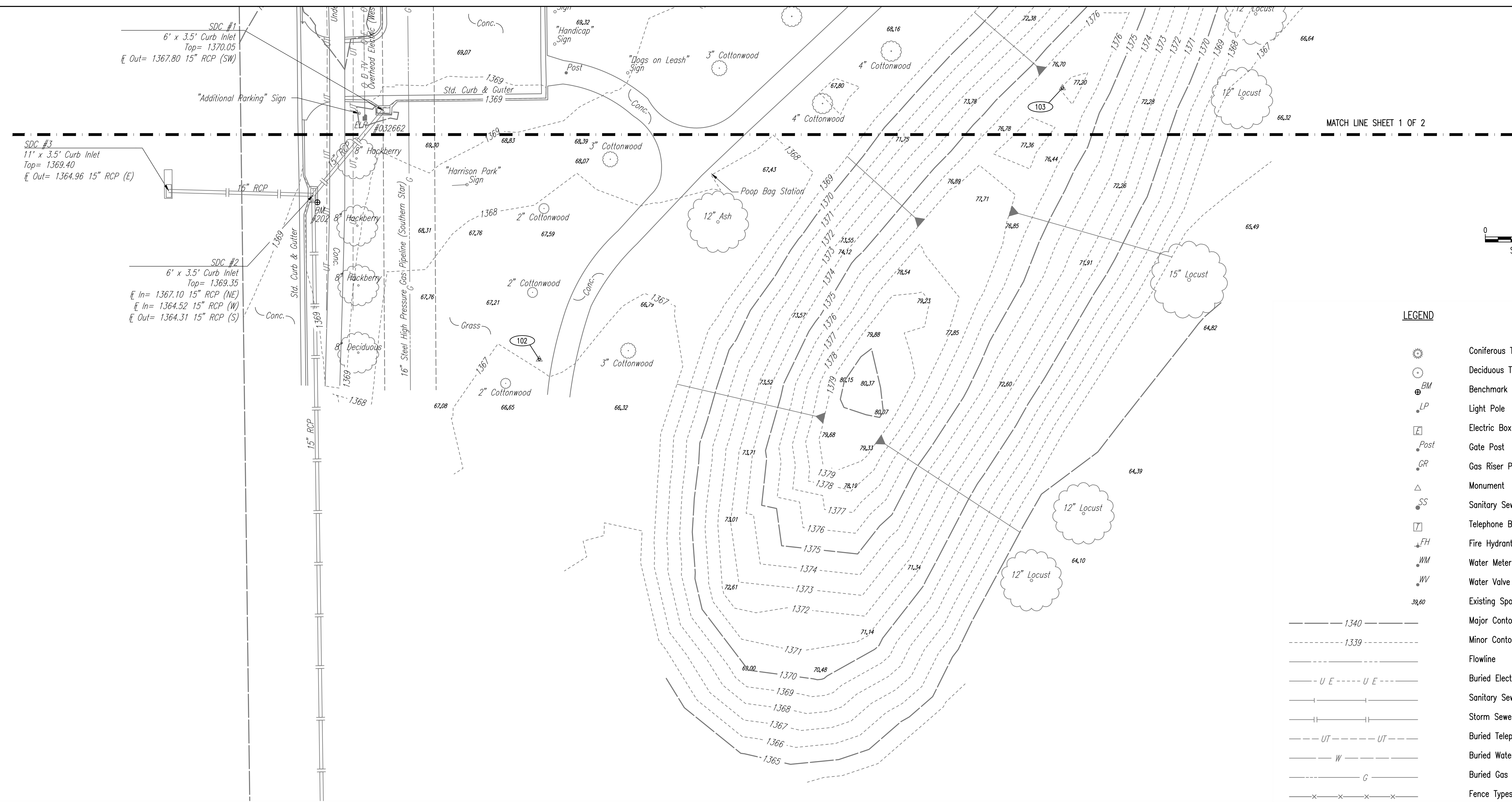
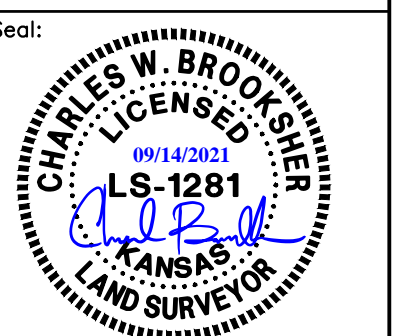
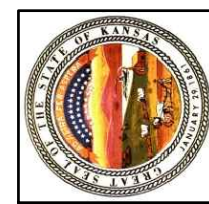
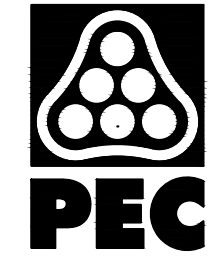
Seal:

 Charles Brooksher - Licensed Surveyor
 LICENSE #1281
 Date: 08-12-19 Job #: 18-512
 Drawn: _____ Checked: _____
 Issue: PERMIT REVIEW

EXISTING
CONDITIONS
- NORTH

SV-01
 Water's Edge Aquatic Design
 © 2019



MATCH LINE SHEET 2 OF 2



LEGEND

- Coniferous Tree
- Deciduous Tree
- Benchmark
- Light Pole
- Electric Box
- Gate Post
- Gas Riser Pipe
- Monument
- Sanitary Sewer Manhole
- Telephone Box
- Fire Hydrant
- Water Meter
- Water Valve
- Existing Spot Elevation
- Major Contour
- Minor Contour
- Flowline
- Buried Electric
- Sanitary Sewer
- Storm Sewer
- Buried Telephone
- Buried Waterline
- Buried Gas Line
- Fence Types

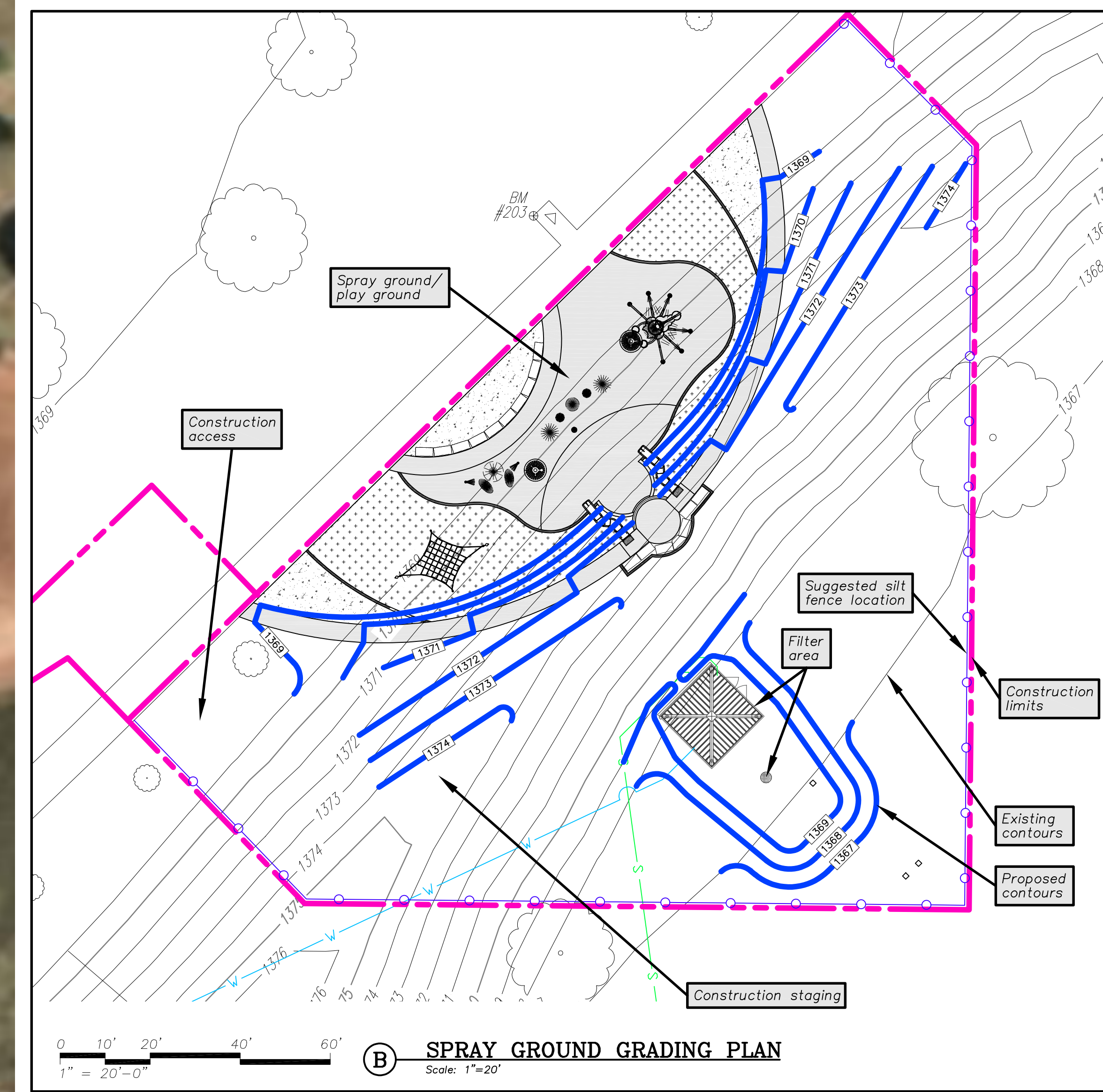
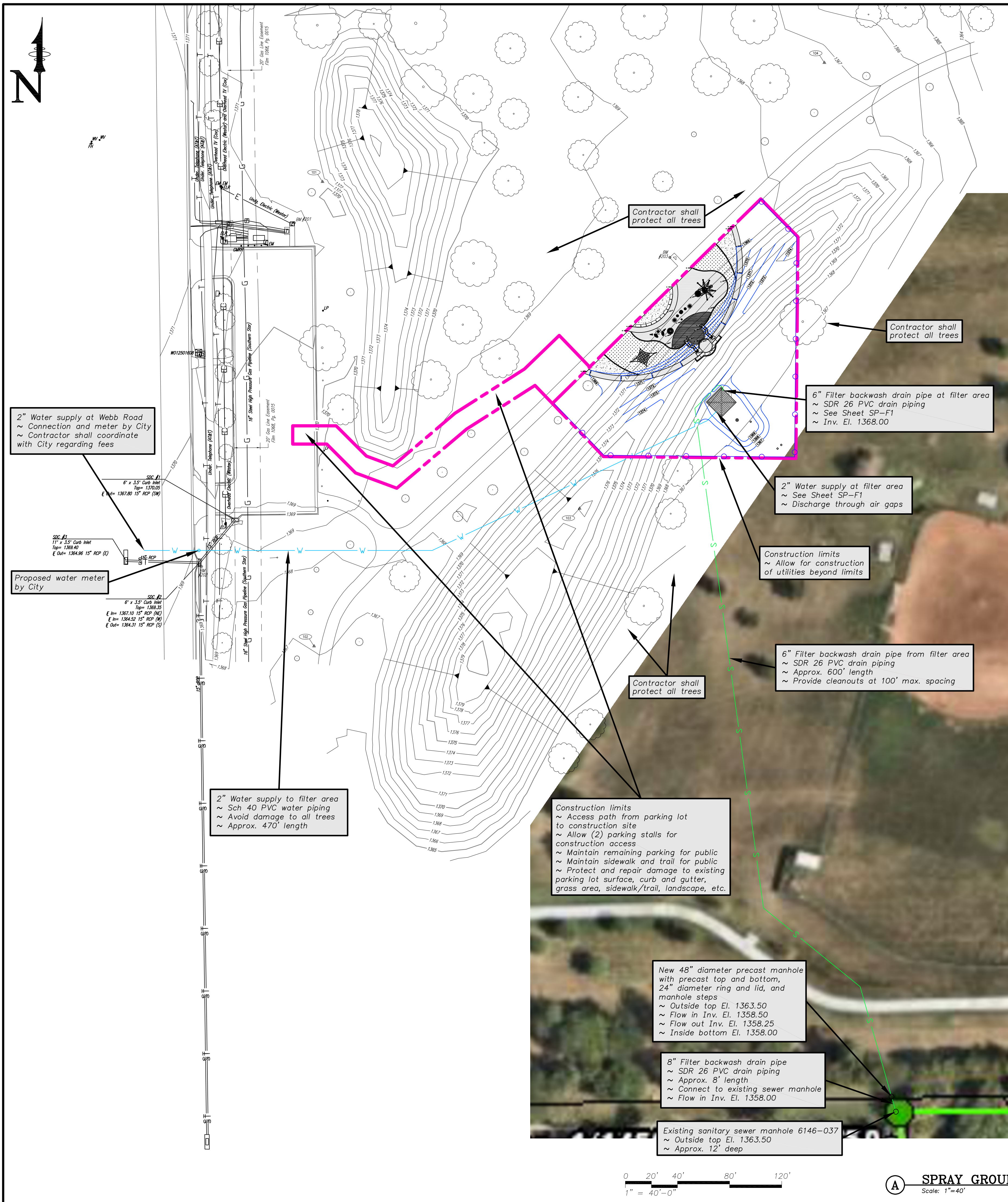
CONTROL POINTS

- CP-101. N: 1,679,843.5610, E: 1,681,148.7550
#4 REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND LOCATED NORTH OF PARKING LOT.
49.40' S-SW TO BACK OF CURB AT NE CORNER OF PARKING LOT.
38.10' SW TO CHISELED SQUARE ON NE CORNER OF SIDEWALK.
78.00' W TO NAIL AND SHINER IN NORTH FACE OF POWER POLE.
- CP-102. N: 1,679,487.2970, E: 1,681,142.2780
#4 REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND LOCATED SOUTH OF THE PARKING LOT
5.00' E TO WEST EDGE OF SIDEWALK.
73.50' NW TO THE SE CORNER OF THE EAST POST FOR THE "HARRISON PARK" SIGN.
105.88' W-NW TO CHISELED SQUARE ON SE CORNER OF CURB INLET.
- CP-103. N: 1,679,592.9010, E: 1,681,346.0020
#4 BAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND.
CENTERED ON TOP OF HILL.
EVEN WITH BACK OF CURB AT S SIDE OF PARKING LOT EXTENDED.
- CP-104. N: 1,679,934.9090, E: 1,681,533.8690
#4 REBAR WITH PEC CONTROL CAP SET FLUSH WITH GROUND LOCATED SOUTH OF E-W PROPERTY LINE TO THE NORTH.
81.10' NW TO SW CORNER OF ROD IRON FENCE.
89.40' NE TO SE CORNER OF ROD IRON FENCE.

BENCH MARK LIST

- BM 201. ELEVATION: 1371.30 NAVD88
CHISELED SQUARE IN NORTHEAST CORNER OF SIDEWALK AT TLX # 1300 AT NORTH END OF PARKING LOT.
- BM 202. ELEVATION: 1369.45 NAVD88
CHISELED SQUARE ON SOUTHEAST CORNER OF INLET ON EAST SIDE OF WEBB RD.
±52' NORTH TO CENTER OF PARKING LOT SOUTH EXIT/ENTRANCE.
- BM 203. ELEVATION: 1368.83 NAVD88
CHISELED SQUARE ON THE WEST CORNER OF CONCRETE FOR "TAI CHI" FITNESS WHEELS.

Saved: 08-13-2019 7:40:29 AM by KURT HUBBS
 Plot Scale: 1:245.2402 09-14-2024 10:41:04 AM by ###
 U:\Wichita-Civil\2018\180189\001\Main\Drawings\Version\180189-001-C-Survey-Harrison 2 of 2



- GRADING AND STORM WATER POLLUTION PREVENTION NOTES**
- Contractor shall be responsible for utilizing best management practices for retaining all debris and silt on site, and to take measures to minimize erosion and keep from migrating off site.
 - Suggested location for sediment fence and/or erosion control fabric for disturbed areas. Fence shall be located at all down hill slopes of disturbed areas.
 - Fence shall be cleaned when its effectiveness has been diminished to one-third of its capacity.
 - Provide erosion control measures on all slopes of excavations and stock piles throughout construction.
 - Maintain maximum slope of 3:1 except for below grade excavations.
 - Disturbed area: 0.31 acres
 - Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized at least once every 7 calendar days and within 24 hours of the end of a storm event that is 1/2" or greater.
 - All building material wastes shall be removed from the site.
 - Off site vehicle tracking of sediment wastes shall be minimized and cleaned up within a 24-hr period.

waters edge AQUATIC DESIGN
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Kansas STATE CERTIFICATE OF AUTHORITY #E-990

PEC

landworks STUDIO

ARCHITECTURAL URBAN PRAIRIE COLLABORATIVE, P.C.

H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS Spray Ground HARRISON PARK

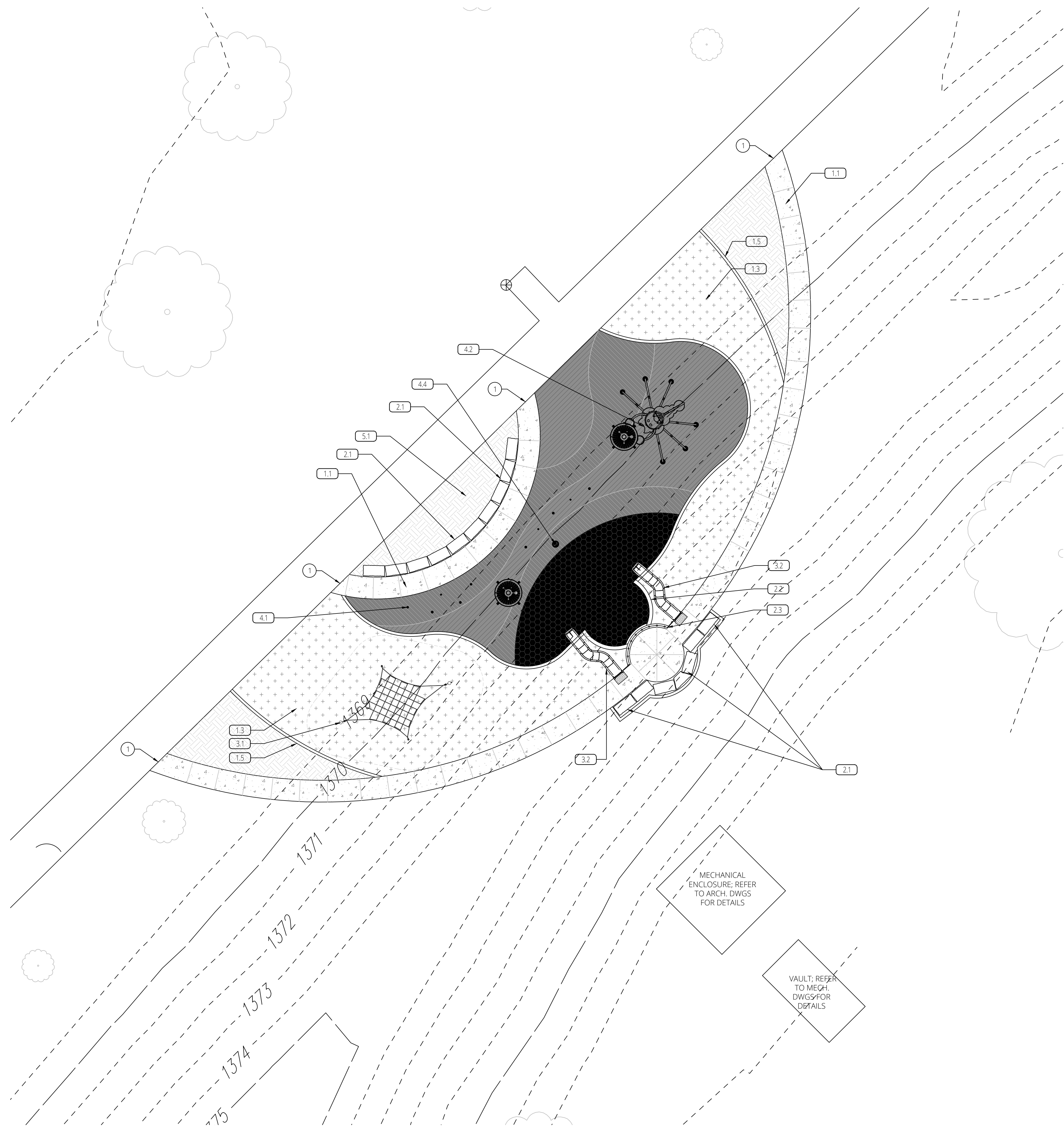
WICHITA

Seal: **JEFF A. BARTLEY**
LICENSE #15116
15116
9/17/21
KANSAS
PROFESSIONAL ENGINEER
Jeff Bartley-ENGINEER
LICENSE #15116

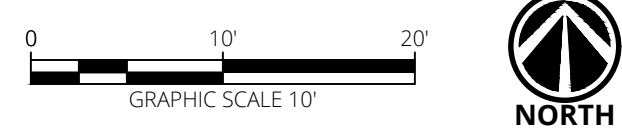
Date: 09-27-21 Job #: 18-512
Drawn: SRS Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

SPRAY GROUND SITE PLAN

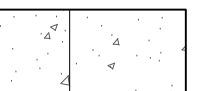



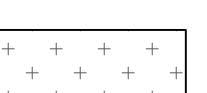
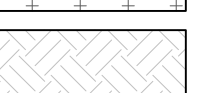
SP-C1
Water's Edge Aquatic Design
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1 MATERIALS PLAN
SCALE = 1" = 10'



GRAPHIC LEGEND

-  POOL DECK AND SIDEWALK CONCRETE
-  COLORED CONCRETE - DAVIS COLORS - HARVEST GOLD
-  COLORED CONCRETE - DAVIS COLORS - GRANITE RED
-  RUBBERIZED SAFETY SURFACE - DURAPLAY - LIGHT BLUE
-  ARTIFICIAL TURF - GREEN
-  WOOD CHIP MULCH, MEDIUM SHRED, NO COLOR

SITE MATERIAL KEYNOTES:

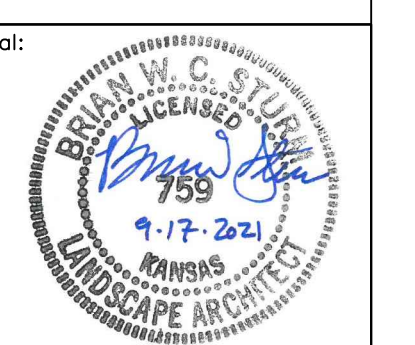
KEYNOTE	DESCRIPTION	DETAIL	SPEC
(1.0) PAVEMENTS AND SURFACING			
1.1	CITY STD. CONCRETE PAVEMENT	SP DWGS	13 11 15
1.2	RUBBERIZED SAFETY SURFACING	3/L400	32 13 16
1.3	ARTIFICIAL TURF	2/L400	32 18 13
1.4	CONCRETE JOINTING	SP DWGS	13 11 15
1.5	CONCRETE PLAY CURB	1/L400	13 11 15
(2.0) SITE FURNISHINGS			
2.1	LIMESTONE BLOCK SEATING	4/L400	N/A
2.2	GROTTO WALL	11/L400	13 11 15
2.3	GROTTO RAILING	8/L400	05 52 13
(3.0) PLAY EQUIPMENT			
3.1	SMALL CLIMETRIC NET	7/L400	11 68 00
3.2	PLASTIC CURVED EMBANKMENT SLIDE	5 & 6/L400	11 68 00
(4.0) AQUATIC / SPRAYGROUND			
4.1	SPRAY NOZZLE HEAD	SP DWGS	13 14 20
4.2	SCORPION BY VORTEX	SP DWGS	13 14 20
4.3	DRAIN GRATE	SP DWGS	13 11 92
4.4	ACTIVATION BOLLARD	SP DWGS	13 14 20
(5.0) PLANTING / LANDSCAPE			
5.1	WOOD CHIP MULCH	N/A	CITY STD.

EXISTING CONDITIONS NOTES:

- ① EXISTING CONCRETE WALKWAYS. TIE INTO SMOOTHLY AND EVENLY. REPLACE ANY CONCRETE DAMAGED BY CONSTRUCTION. SEE CIVIL DRAWINGS.

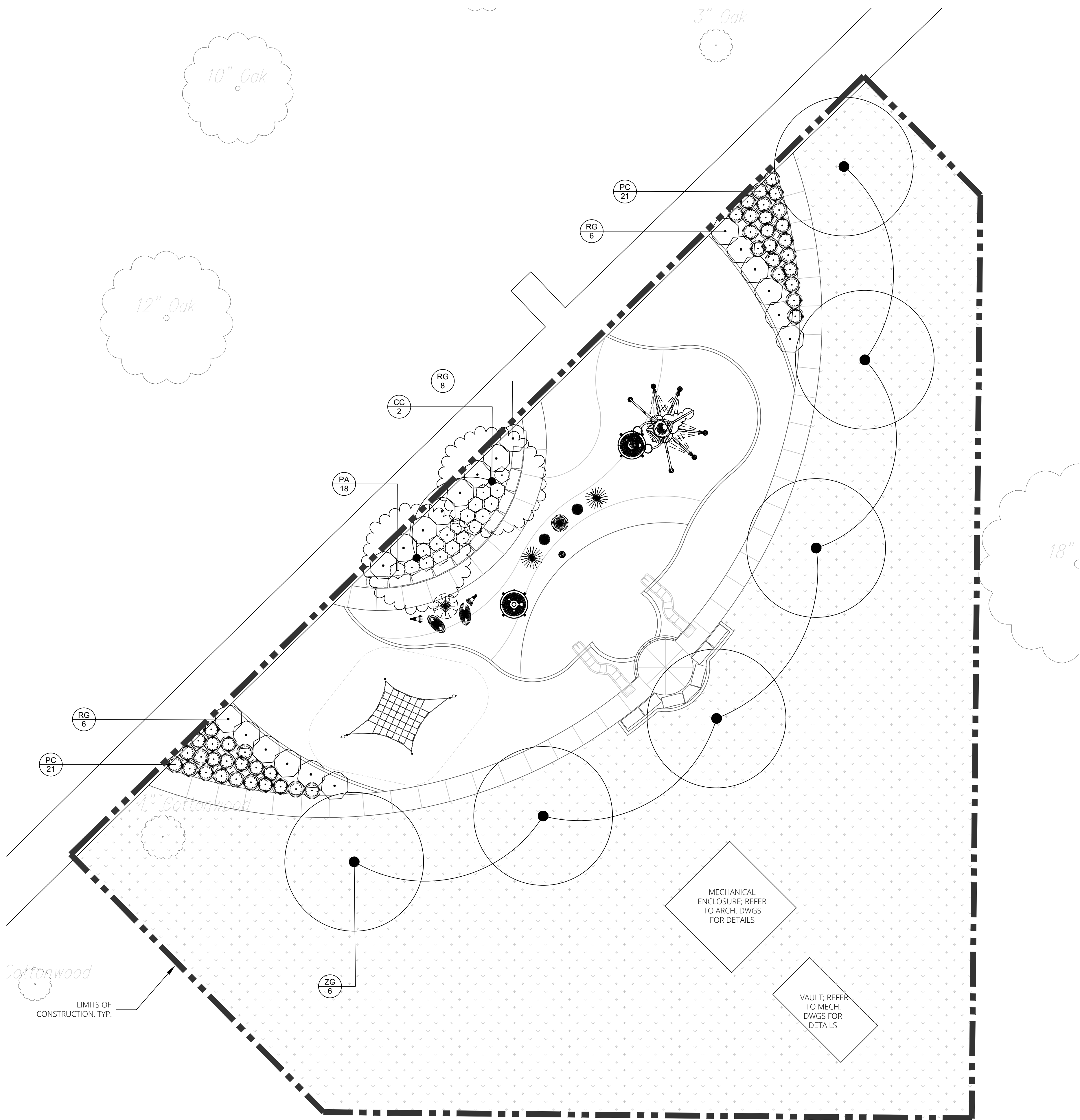


WICHITA, KANSAS
Spray Ground
HARRISON PARK



Brian Sturm—LSCP, ARCH.
LICENSE #759
Date: 09-17-21 Job #: 18-512
Drawn: BS Checked: BS
Issue: CONSTRUCTION DOCUMENTS

MATERIALS PLAN



PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
	CC	2	CERCIS CANADENSIS / EASTERN REDBUD	B & B	MULTI	6'-7'
	ZG	6	ZELKOVA SERRATA 'GREEN VASE' / GREEN VASE SAWLEAF ZELKOVA	B & B	3"	CAL

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	RG	20	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL

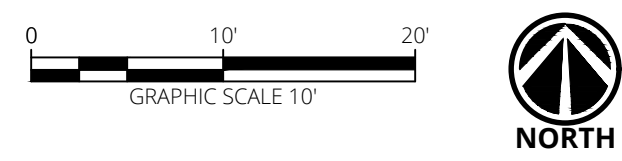
GRASSES & PERENNIALS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	PC	44	PANICUM VIRGATUM 'CHEYENNE SKY' / SWITCH GRASS	3 GAL
	PA	18	PEROVSKIA ATRIPLICIFOLIA / RUSSIAN SAGE	1 GAL

LAWN	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	TS	12,390 SF	TURF-TYPE TALL FESCUE / TURF SEED	SEED

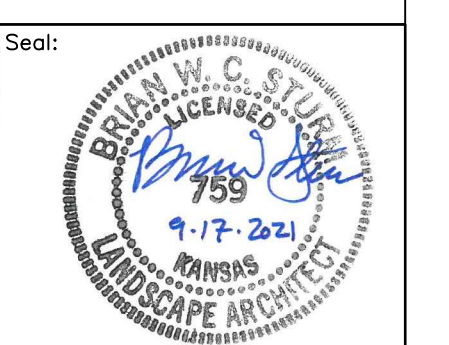
LANDSCAPE NOTES:

- CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES IN THE PROJECT AREA AND THEIR PROTECTION DURING THE SCOPE OF WORK. CONTACT KANSAS ONE CALL AT 8-1-1 TO FILE A LOCATE REQUEST PRIOR TO ANY EXCAVATION. ANY DAMAGE TO UTILITIES DURING PLANTING OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR IN A MANNER APPROVED BY THE CITY AND AT NO ADDITIONAL COST TO THE CITY. ANY UTILITIES SHOWN ON THE PLAN ARE FOR REFERENCE ONLY AND MAY OR MAY NOT DEPICT THE ACTUAL LOCATION OF SERVICES.
- ALL SEEDING, SODDING, PLANTING, AND IRRIGATION OPERATIONS REQUIRED BY THIS PROJECT SHALL CONFORM TO PART 900 (LANDSCAPING AND IRRIGATION) OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES ON CITY PROJECTS SHALL HAVE THE TURF RESTORED TO EXISTING CONDITIONS, PER THE REQUIREMENTS LISTED IN SECTION 901 OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.
- NO MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. ALTERNATE MATERIALS OF SIMILAR SIZE AND CHARACTER MAY BE CONSIDERED IF SPECIFIED PLANT MATERIALS CANNOT BE OBTAINED.
- ALL PLANT MATERIAL SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS AND FREE FROM DISEASE AND INSECT INFESTATIONS. THE MINIMUM ACCEPTABLE SIZES OF ALL PLANTS, MEASURED BEFORE PRUNING WITH BRANCHES IN NORMAL POSITION, SHALL CONFORM TO THE MEASUREMENTS SPECIFIED ON THE PLAN. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS AS SET FORTH IN THE LATEST EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1).
- ALL SEEDING, SODDING, AND PLANTING SHALL OCCUR DURING SEASONAL DATE RANGES SPECIFIED IN PART 900 (LANDSCAPING AND IRRIGATION) OF THE CITY OF WICHITA STANDARD SPECIFICATIONS. PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE. DEVIATION FROM THE SPECIFIED PLANTING DATES WILL BE PERMITTED ONLY WHEN APPROVED BY THE LANDSCAPE ARCHITECT AND CITY STAFF.
- ALL PLANT LOCATIONS ARE APPROXIMATE. CONTRACTOR MAY ADJUST, AS NECESSARY, TO AVOID CONFLICTS. THE FOLLOWING APPLIES FOR GENERAL PLANT LOCATIONS:
 - SHRUBS SHALL BE LOCATED A MINIMUM OF 2 FEET FROM EDGE OF PAVEMENT AND 4 FEET FROM BUILDINGS.
 - TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM EDGE OF PAVEMENT.
 - EQUALLY SPACE ALL PLANTS OF THE SAME SPECIES FOR BEST VIEWING.
- WATER SHALL BE FURNISHED BY THE CONTRACTOR FOR EXECUTION OF ALL WORK SPECIFIED ON THIS PLAN. THE CONTRACTOR SHALL VERIFY THAT THE WATER AVAILABLE IS SUITABLE FOR IRRIGATION AND FREE FROM INGREDIENTS HARMFUL TO PLANT LIFE. THE CONTRACTOR SHALL WATER ALL PLANT MATERIAL UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- 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 ACCUMULATES DUE TO PLANTING OPERATIONS EACH DAY.
- MAINTENANCE OPERATIONS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PANTED AND SHALL CONTINUE AS REQUIRED UNTIL FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND CITY STAFF. PLANTS SHALL BE KEPT IN A HEALTHY AND GROWING CONDITION BY PRUNING, SPRAYING, AND ANY OTHER NECESSARY OPERATION OF MAINTENANCE. THE CONTRACTOR SHALL INSPECT PLANTS DURING THE MAINTENANCE PERIOD AND NEEDED MAINTENANCE SHALL BE PERFORMED PROMPTLY. MULCHED AREAS SHALL BE KEPT FREE OF WEEDS. THE CONTRACTOR SHALL SUBMIT A WRITTEN SCHEDULE OF PLANT MAINTENANCE FOR APPROVAL BY THE LANDSCAPE ARCHITECT AND CITY STAFF AT THE TIME OF PLANT INSTALLATION. THE SCHEDULE SHALL INCLUDE INSPECTION, WATERING, PRUNING, SPRAYING, AND OTHER NECESSARY MAINTENANCE ACTIVITIES.
- AT THE CONCLUSION OF PLANT INSTALLATION, THE LANDSCAPE ARCHITECT SHALL CONDUCT AN INSPECTION OF PLANTED MATERIALS. THE PURPOSE OF THIS INSPECTION SHALL BE FOR THE PROVISIONAL ACCEPTANCE OF THE CONTRACT WORK. IF THERE ARE ANY DEFICIENCIES IN THE WORK, THE CONTRACTOR WILL BE NOTIFIED AND THE WORK WILL BE SUBJECT TO REINSPECTION BEFORE FINAL ACCEPTANCE.
- AFTER PROVISIONAL ACCEPTANCE OF THE INITIAL PLANT INSTALLATION BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR IS REQUIRED TO PROVIDE ESTABLISHMENT CARE FOR ALL PLANTS PLANTED ON THE PROJECT UNTIL THE FOLLOWING OCTOBER, AT WHICH TIME THE LANDSCAPE ARCHITECT WILL AGAIN INSPECT THE PLANTS. ALL PLANTS FOUND TO BE UNHEALTHY OR DEAD AT THE TIME OF THIS OCTOBER INSPECTION SHALL BE REPLACED. THE CONTRACTOR'S RESPONSIBILITY ENDS AT THE TIME OF INSPECTION FOR ANY PLANTS REPLACED OR ACCEPTED IN OCTOBER. DURING THE ESTABLISHMENT MAINTENANCE PERIOD, THE CONTRACTOR SHALL INSPECT THE PLANT MATERIALS TWICE A MONTH FOR WATERING AND OTHER MAINTENANCE NEEDS. THE MULCH AREAS AROUND PLANTS SHALL BE KEPT FREE OF WEEDS AND GRASSES FOR THE FULL DURATION OF ANY REQUIRED ESTABLISHMENT MAINTENANCE PERIOD.
- ALL DEAD AND UNHEALTHY MATERIAL IDENTIFIED AT THE TIME OF ANY SPECIFIED INSPECTION SHALL BE REMOVED FROM THE SITE AND REPLACED WITH PLANTS OF THE SAME TYPE AND SIZE AS ORIGINALLY SPECIFIED. SUCH REPLACEMENTS SHALL BE MADE IN THE SAME MANNER AS SPECIFIED FOR THE ORIGINAL PLANTINGS AND AT NO EXTRA COST TO THE CITY. ALL DEAD AND UNHEALTHY PLANTS SHALL BE REMOVED WITHIN 14 DAYS AFTER THE CONTRACTOR HAS BEEN NOTIFIED THAT THE PLANT MUST BE REPLACED. A PENALTY OF \$50 PER PLANT PER DAY WILL BE CHARGED TO THE CONTRACTOR FOR ALL DAYS IN EXCESS OF THE 14 DAYS REQUIRED TO REMOVE ANY PLANT.

1 | LANDSCAPE PLAN
SCALE = 1" = 10'

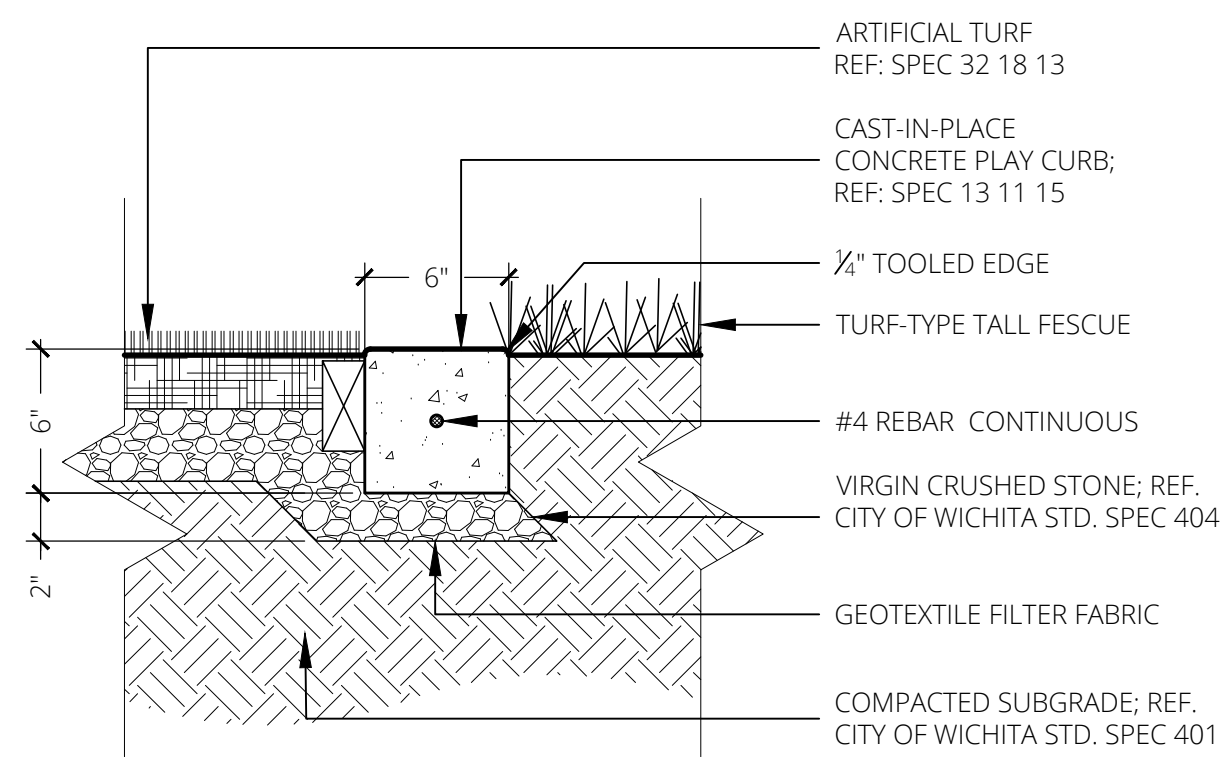


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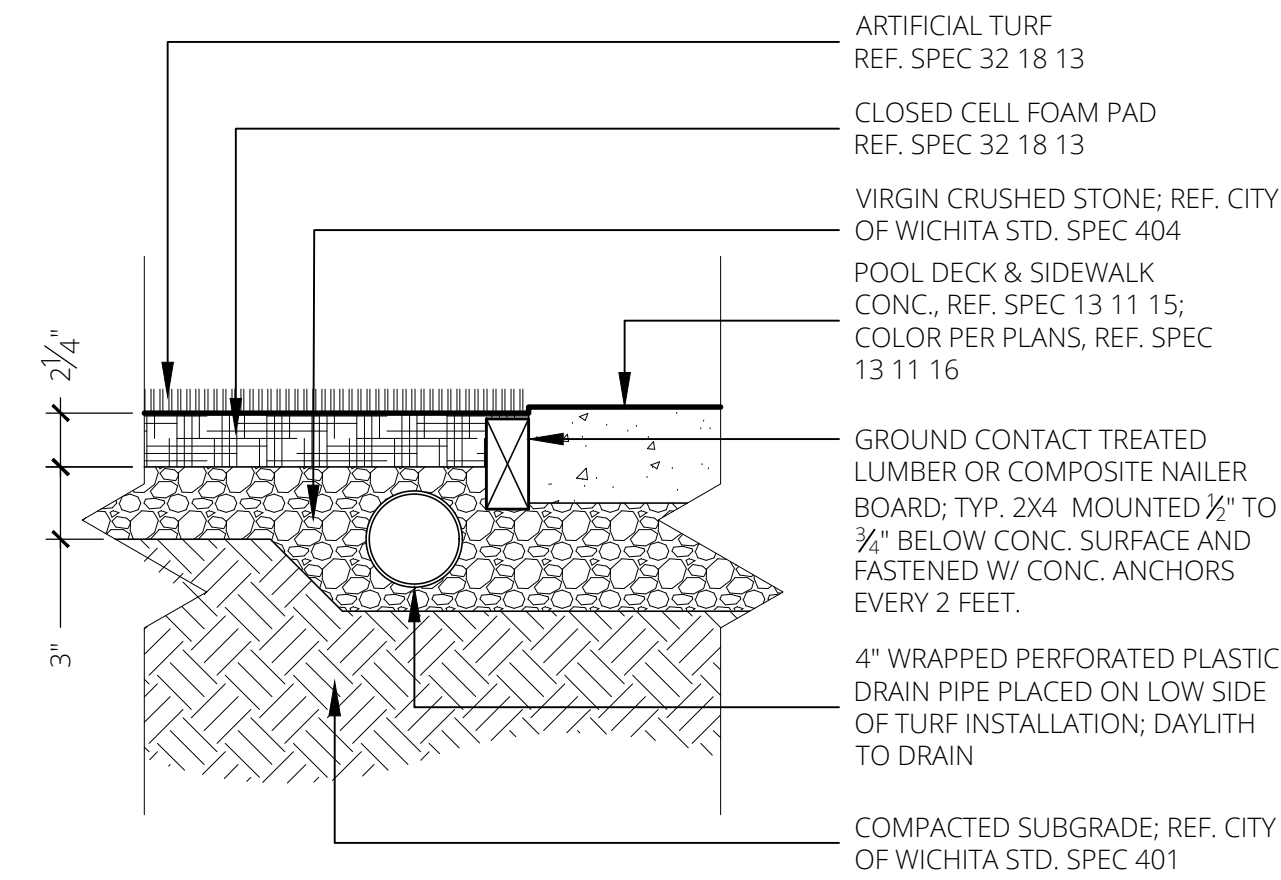


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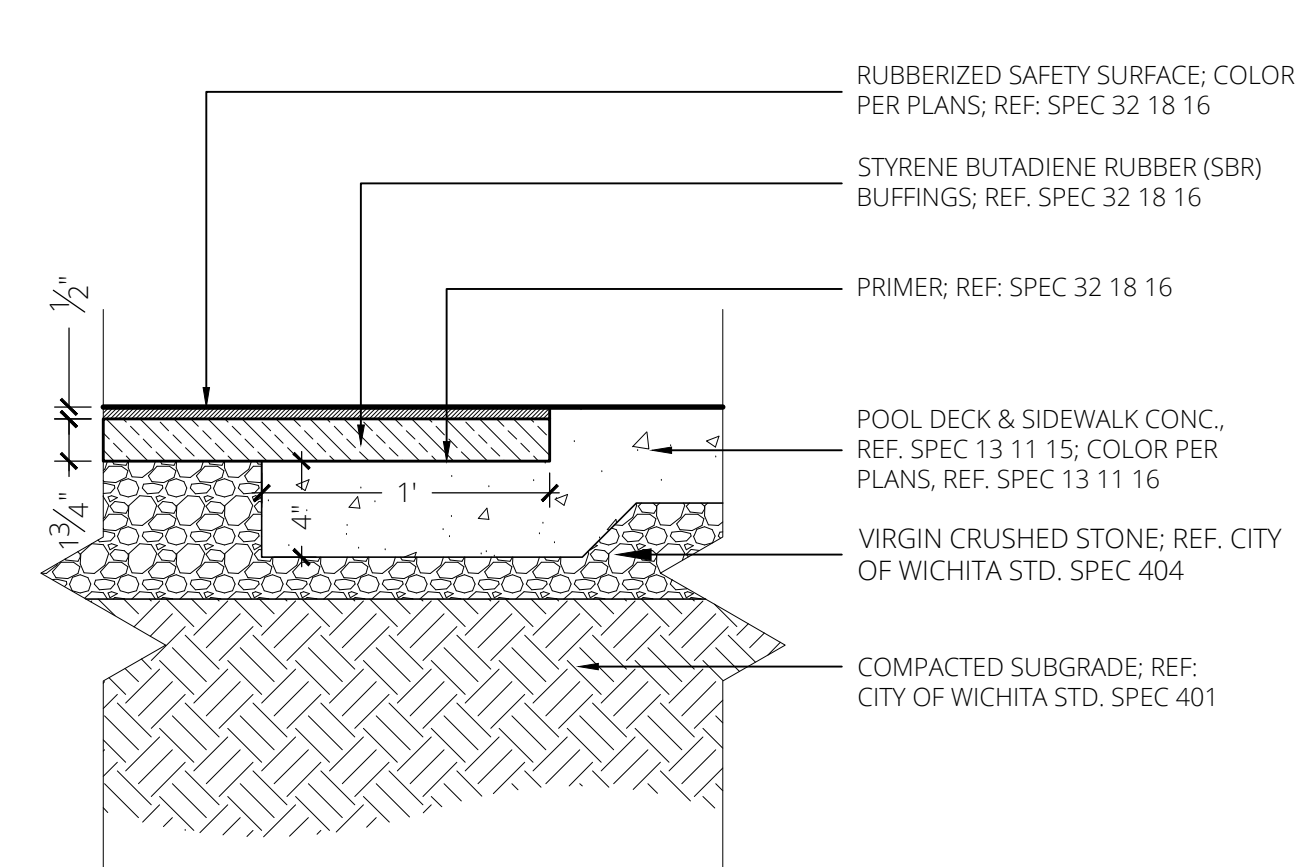
LANDSCAPE PLAN



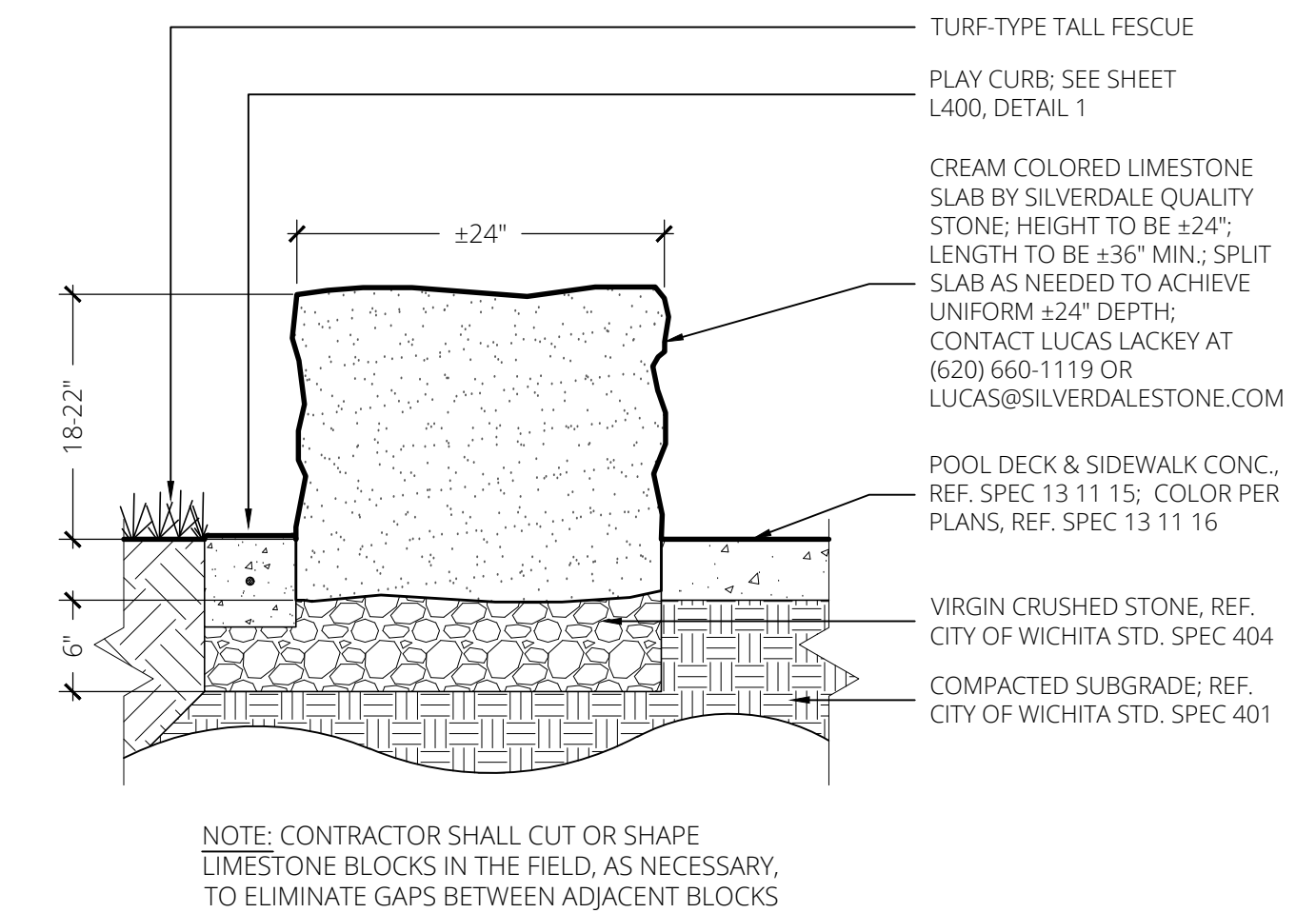
1 PLAY CURB
SCALE = 1 1/2" = 1'-0"



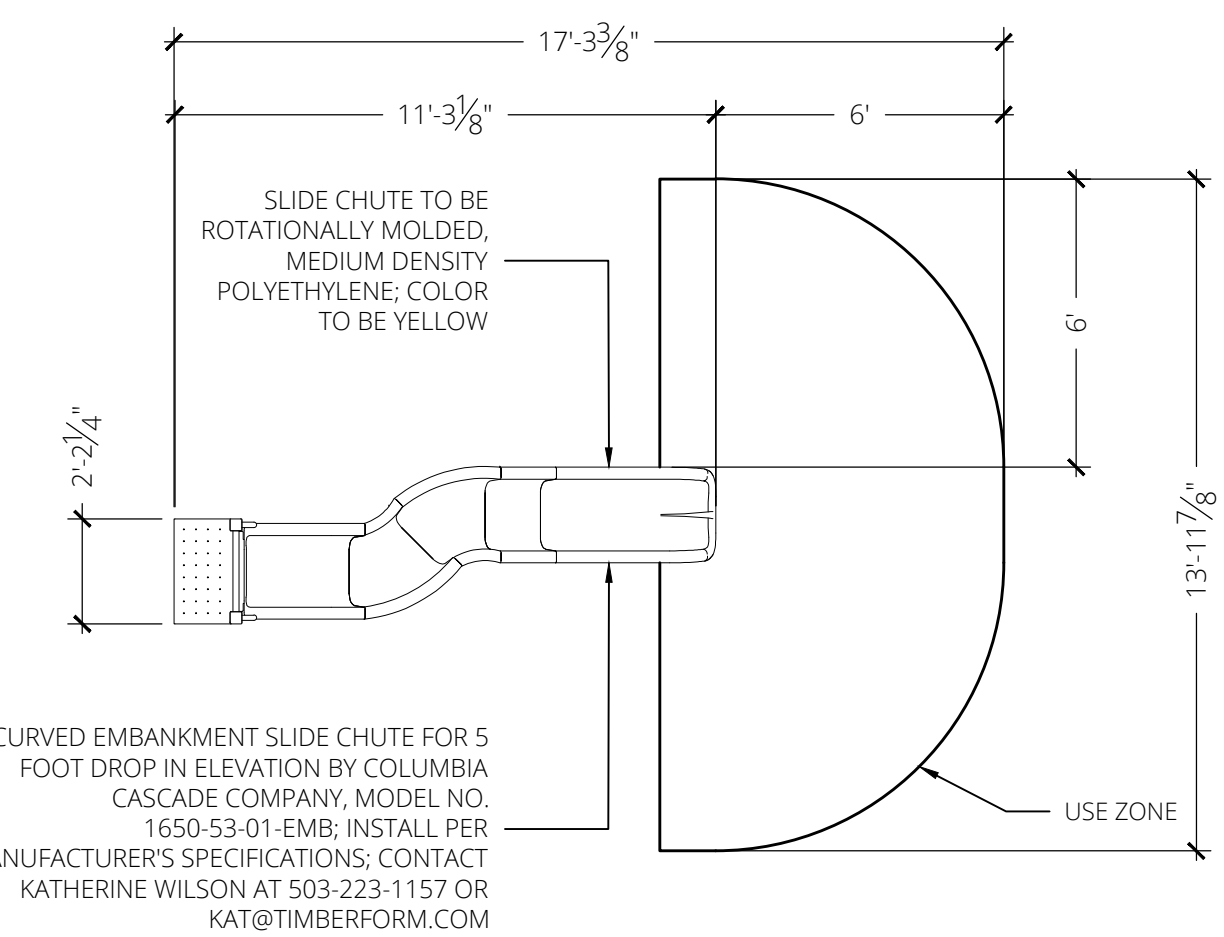
2 ARTIFICIAL TURF
SCALE = 1 1/2" = 1'-0"



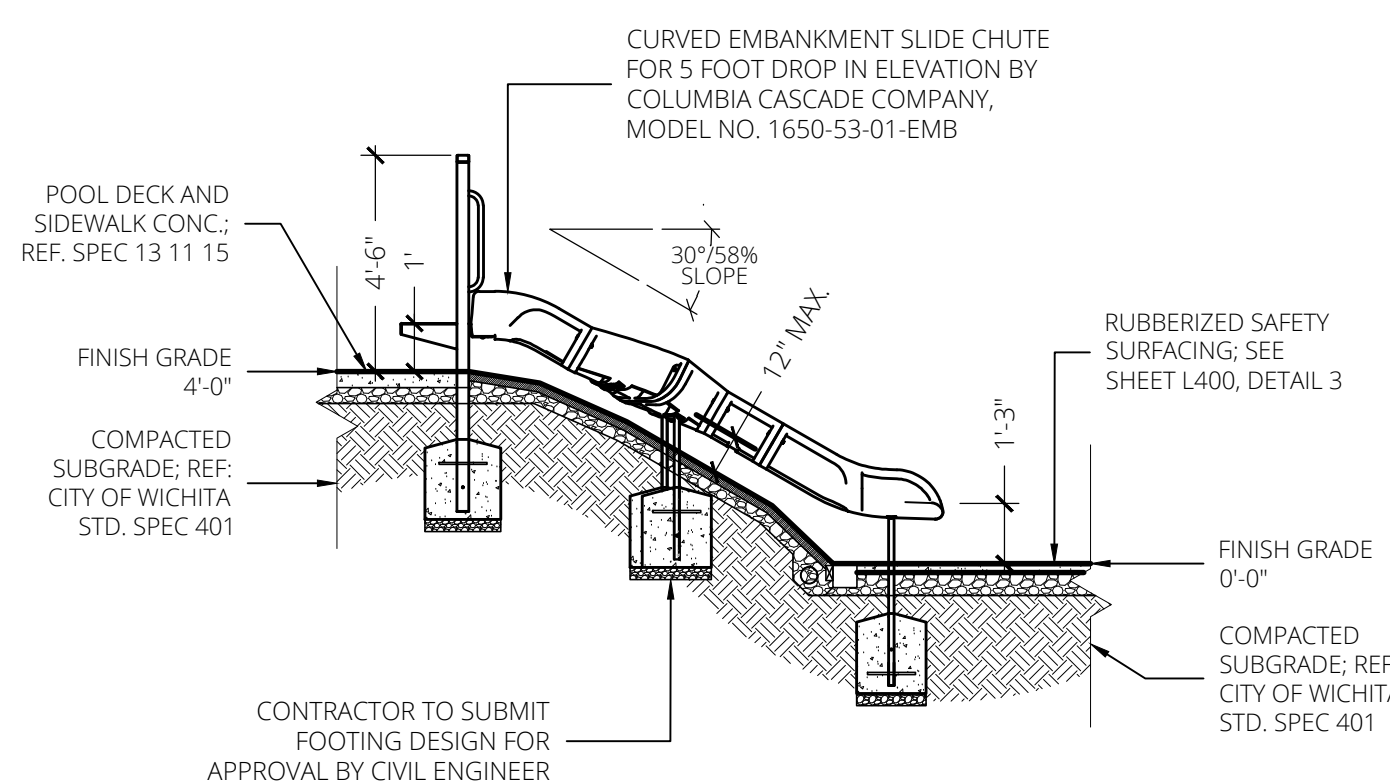
3 RUBBERIZED SAFETY SURFACE
SCALE = 1 1/2" = 1'-0"



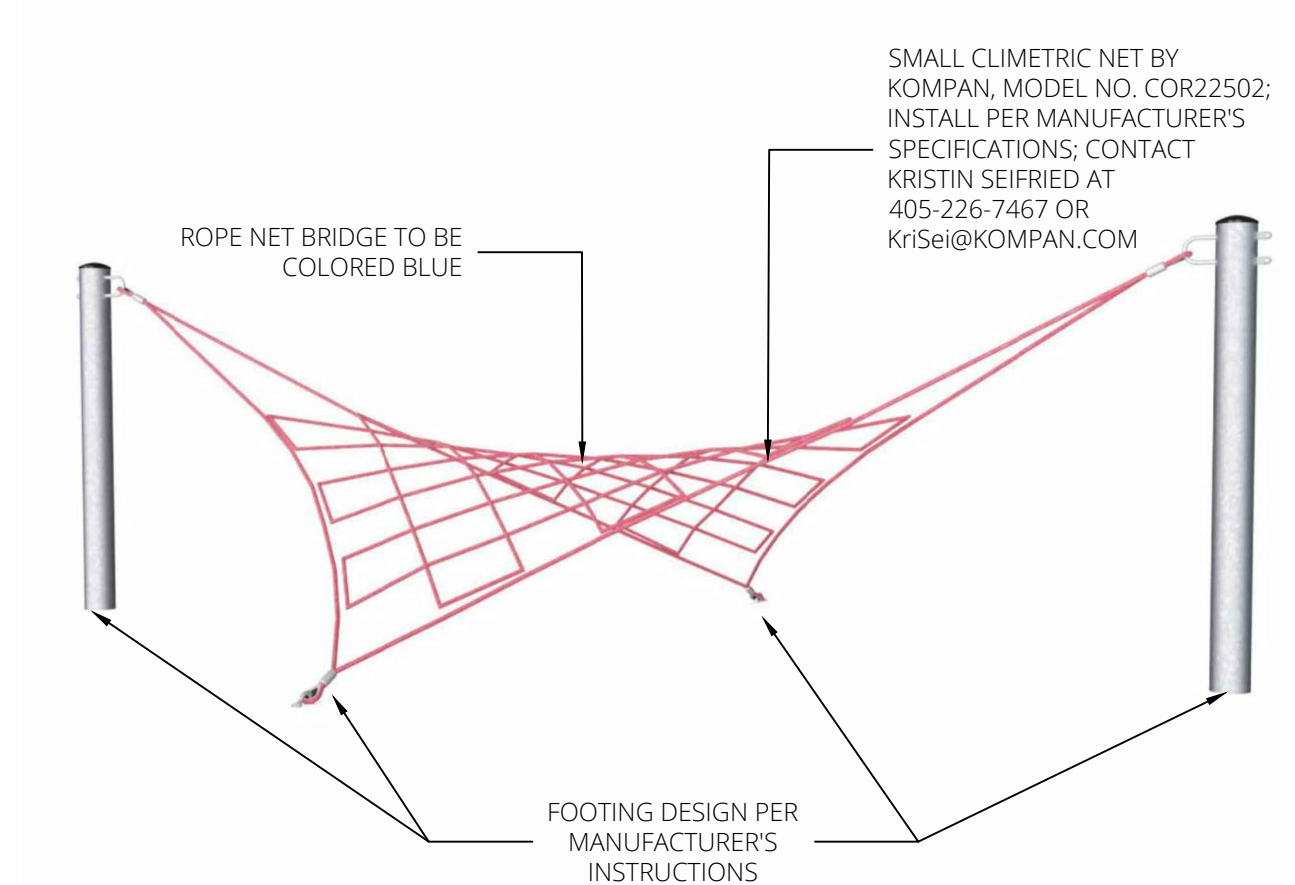
4 LIMESTONE BLOCK SEATING
SCALE = 1" = 1'-0"



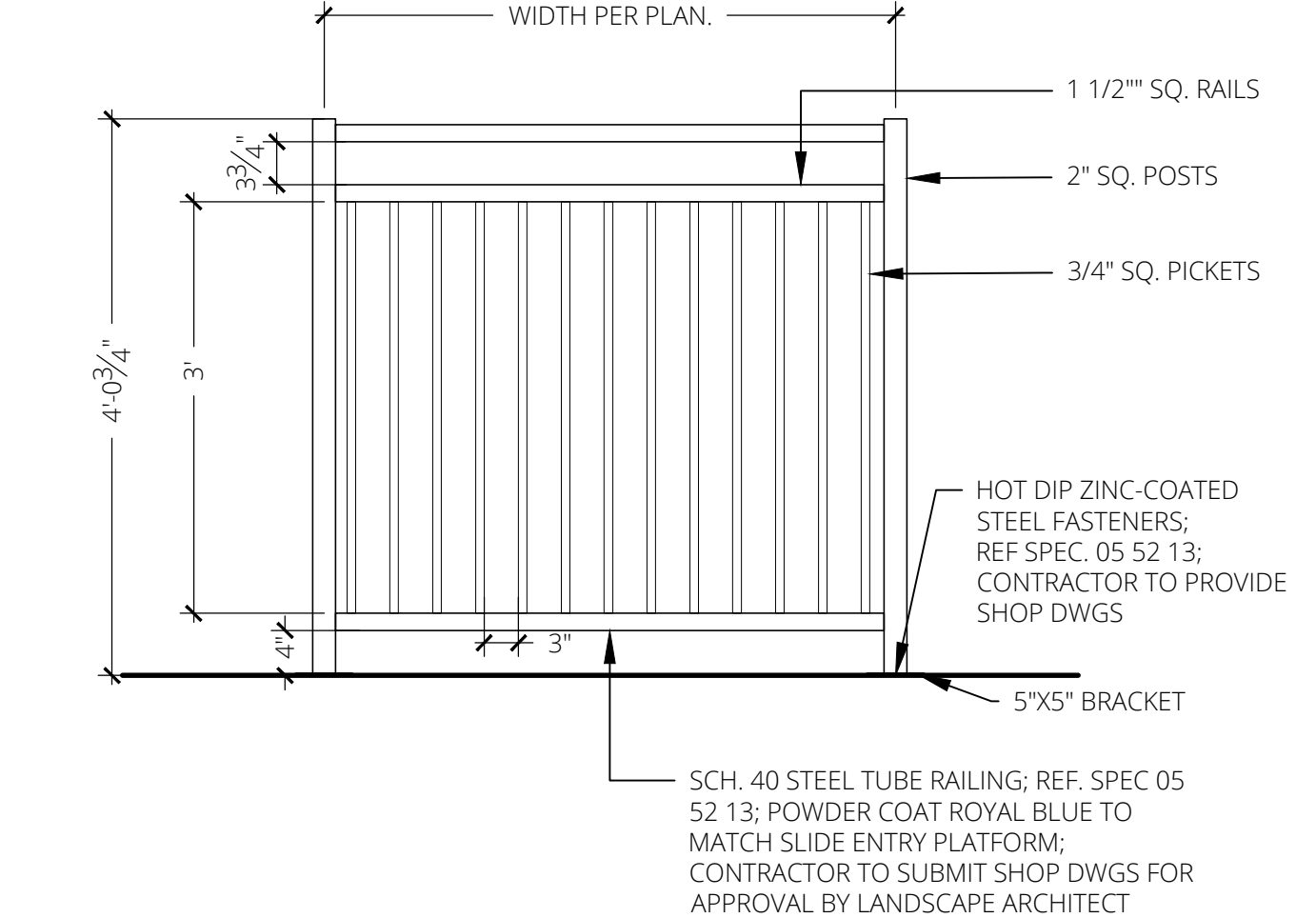
5 PLASTIC CURVED EMBANKMENT SLIDE - PLAN
SCALE = 1/4" = 1'



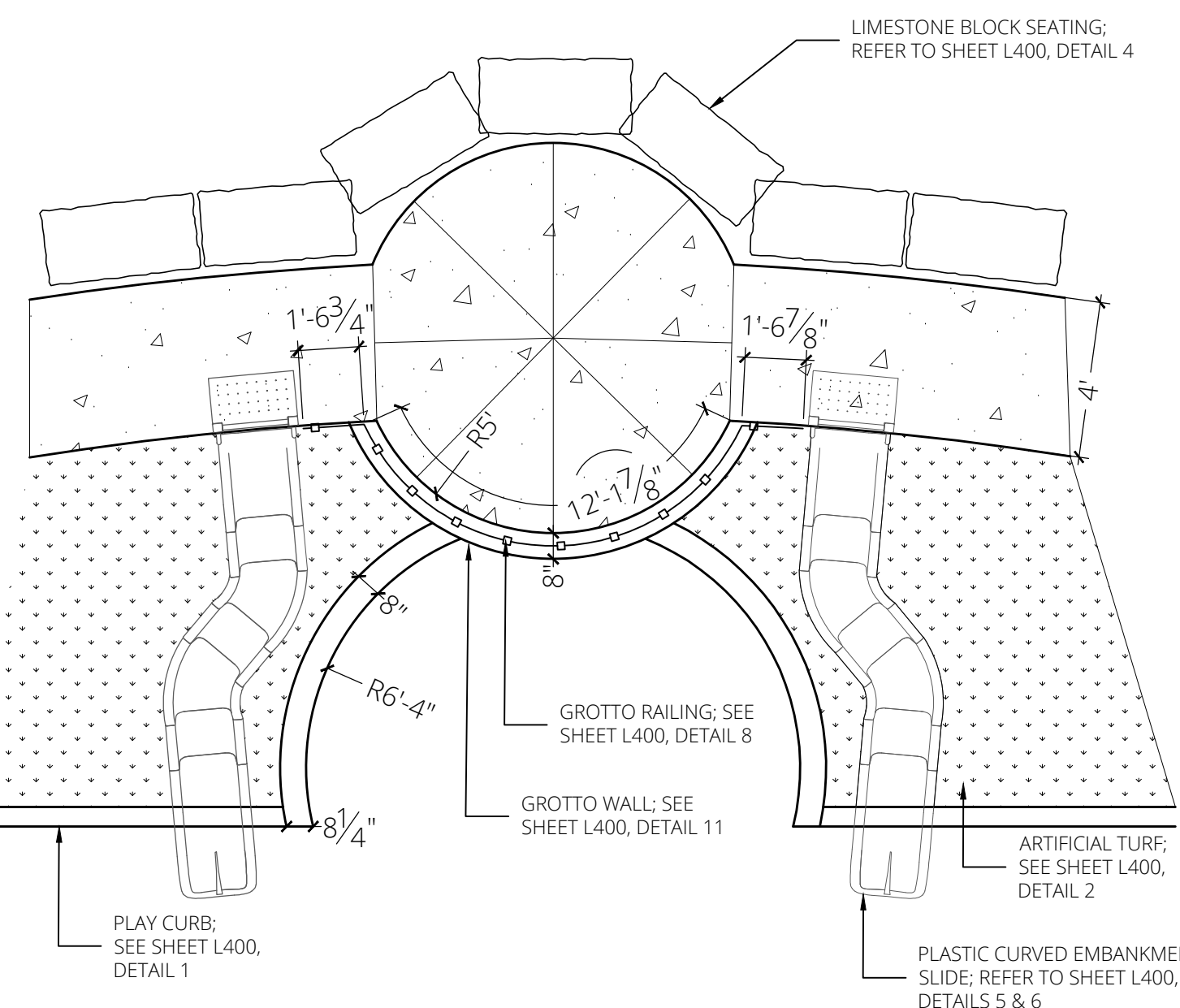
6 PLASTIC CURVED EMBANKMENT SLIDE - SECTION
SCALE = 1/4" = 1'



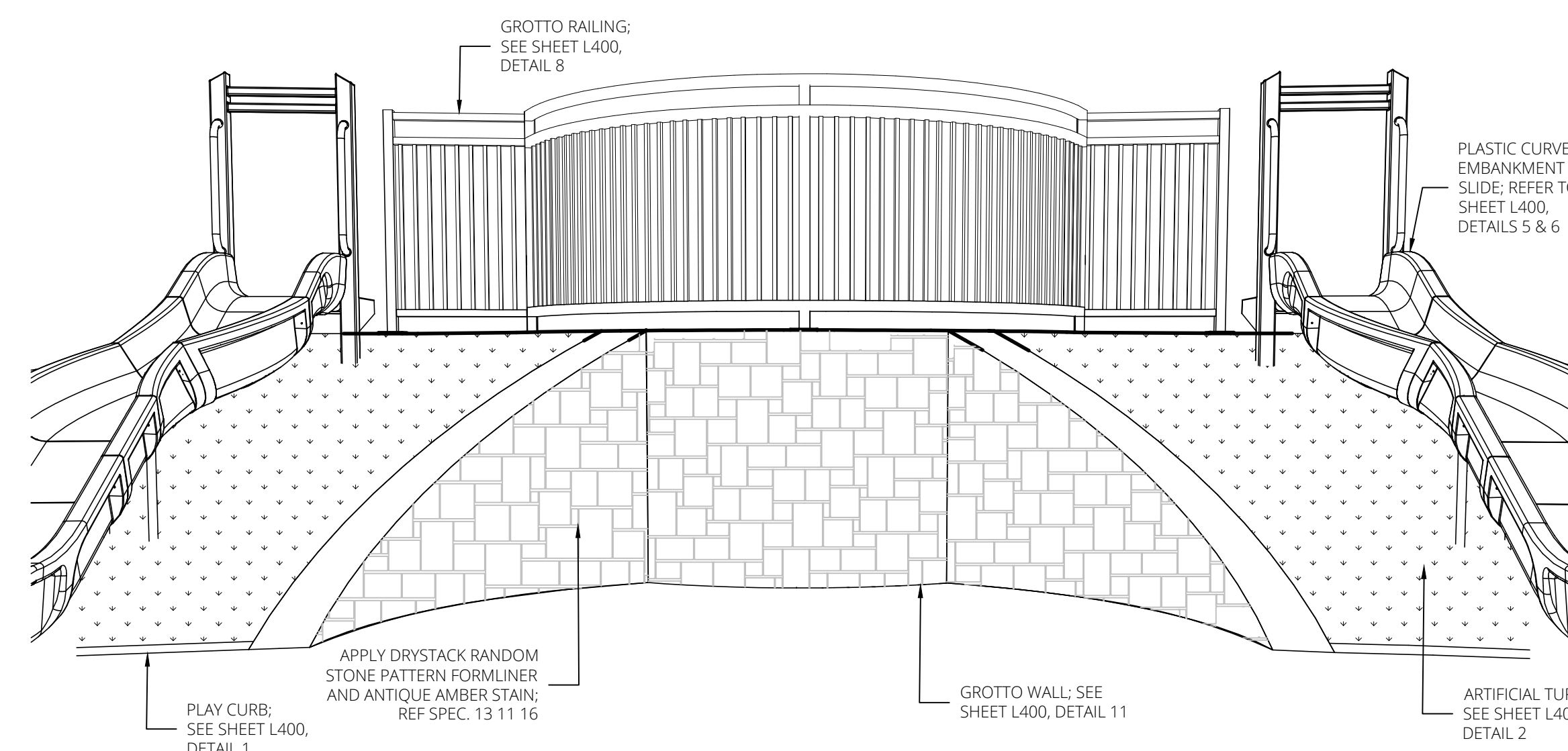
7 SMALL CLIMETRIC NET BY KOMPAN
SCALE = NOT TO SCALE



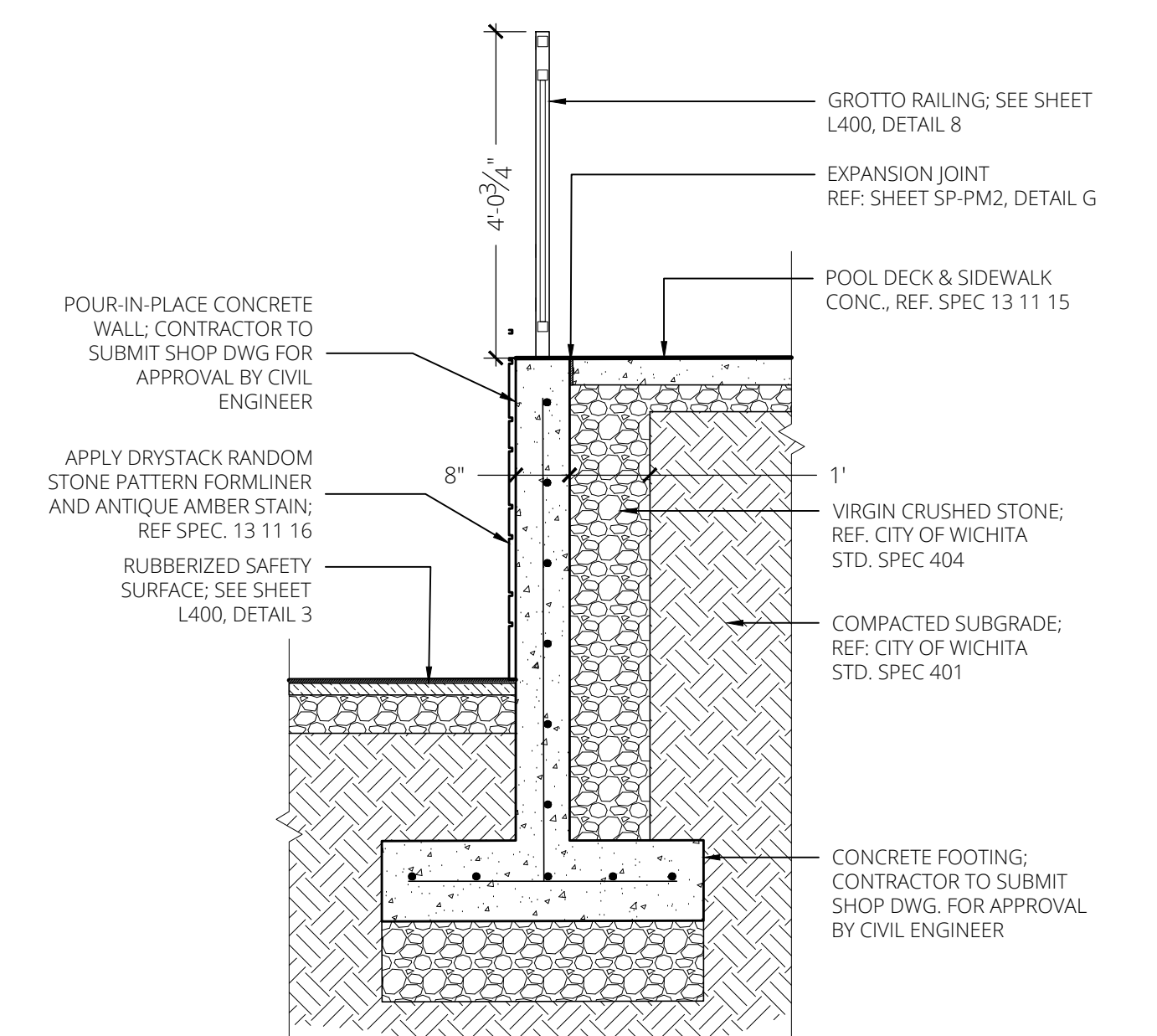
8 GROTTO RAILING
SCALE = NOT TO SCALE



9 GROTTO WALL - PLAN
SCALE = 1/4" = 1'



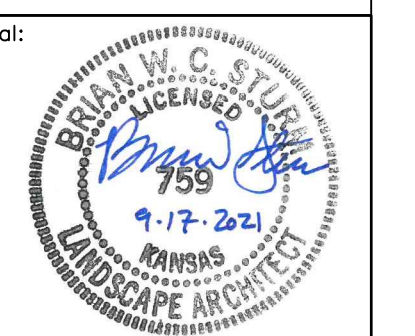
10 GROTTO WALL - ELEVATION
SCALE = NOT TO SCALE



11 GROTTO WALL - SECTION
SCALE = 1/2" = 1'



WICHITA, KANSAS
Spray Ground
HARRISON PARK



Brian Sturm - LSCP, ARCH.
LICENSE #759

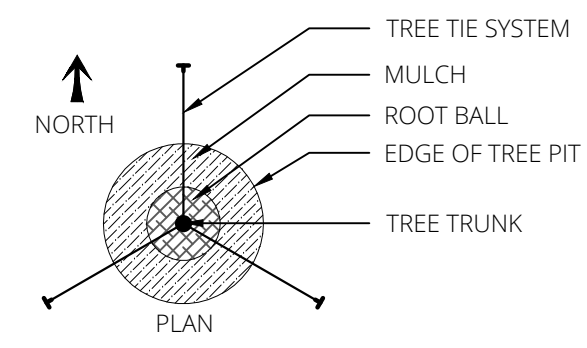
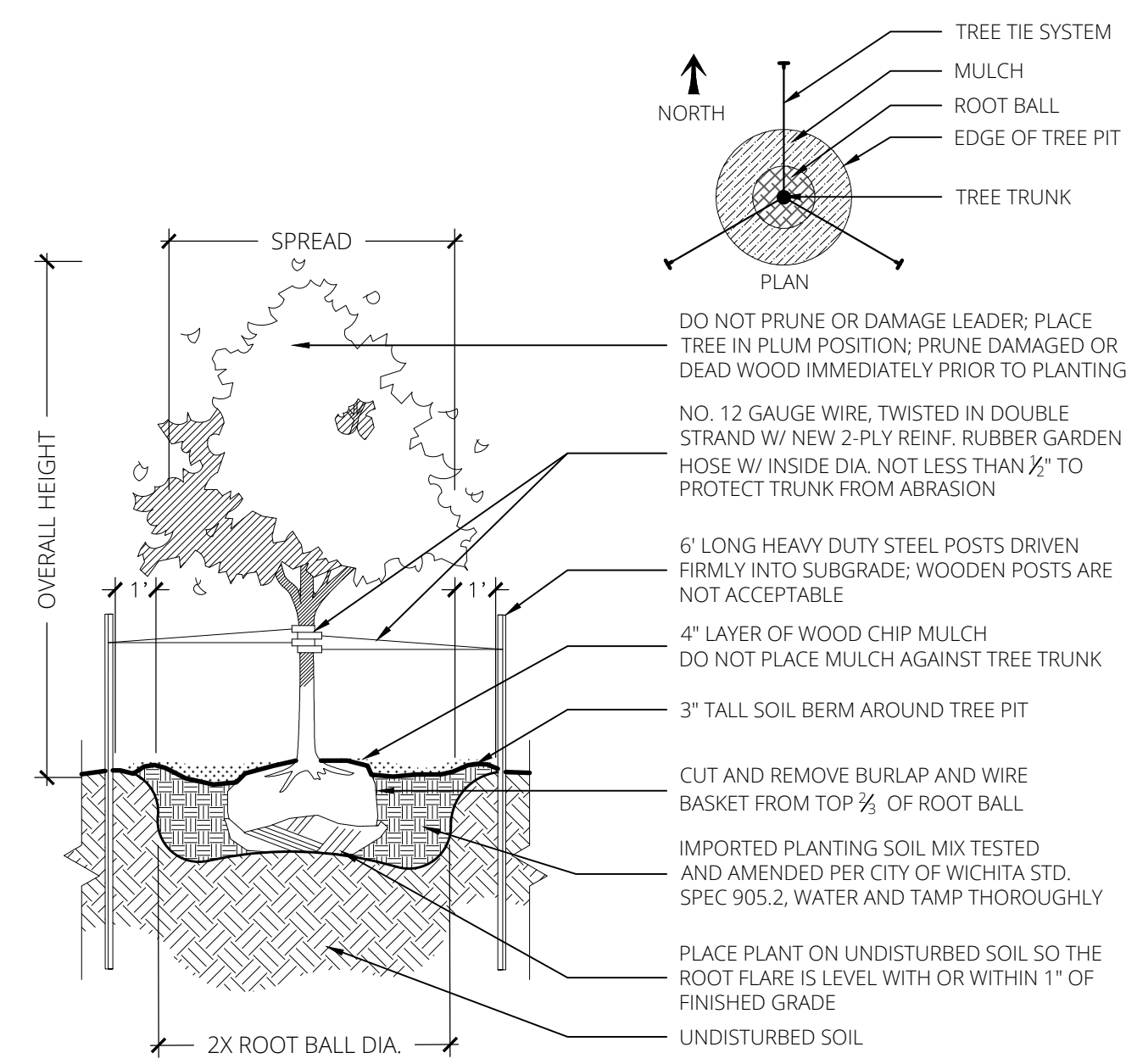
Date: 09-17-21 Job #: 18-512

Drawn: BS Checked: BS

Issue: CONSTRUCTION DOCUMENTS

SITE
DETAILS

L400



DO NOT PRUNE OR DAMAGE LEADER; PLACE TREE IN PLUMB POSITION; PRUNE DAMAGED OR DEAD WOOD IMMEDIATELY PRIOR TO PLANTING

NO. 12 GAUGE WIRE, TWISTED IN DOUBLE STRAND W/ NEW 2-PLY REINF. RUBBER GARDEN HOSE W/ INSIDE DIA. NOT LESS THAN 1/2" TO PROTECT TRUNK FROM ABRASION

6' LONG HEAVY DUTY STEEL POSTS DRIVEN FIRMLY INTO SUBGRADE; WOODEN POSTS ARE NOT ACCEPTABLE

4" LAYER OF WOOD CHIP MULCH DO NOT PLACE MULCH AGAINST TREE TRUNK

3" TALL SOIL BERM AROUND TREE PIT

CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 1/2 OF ROOT BALL

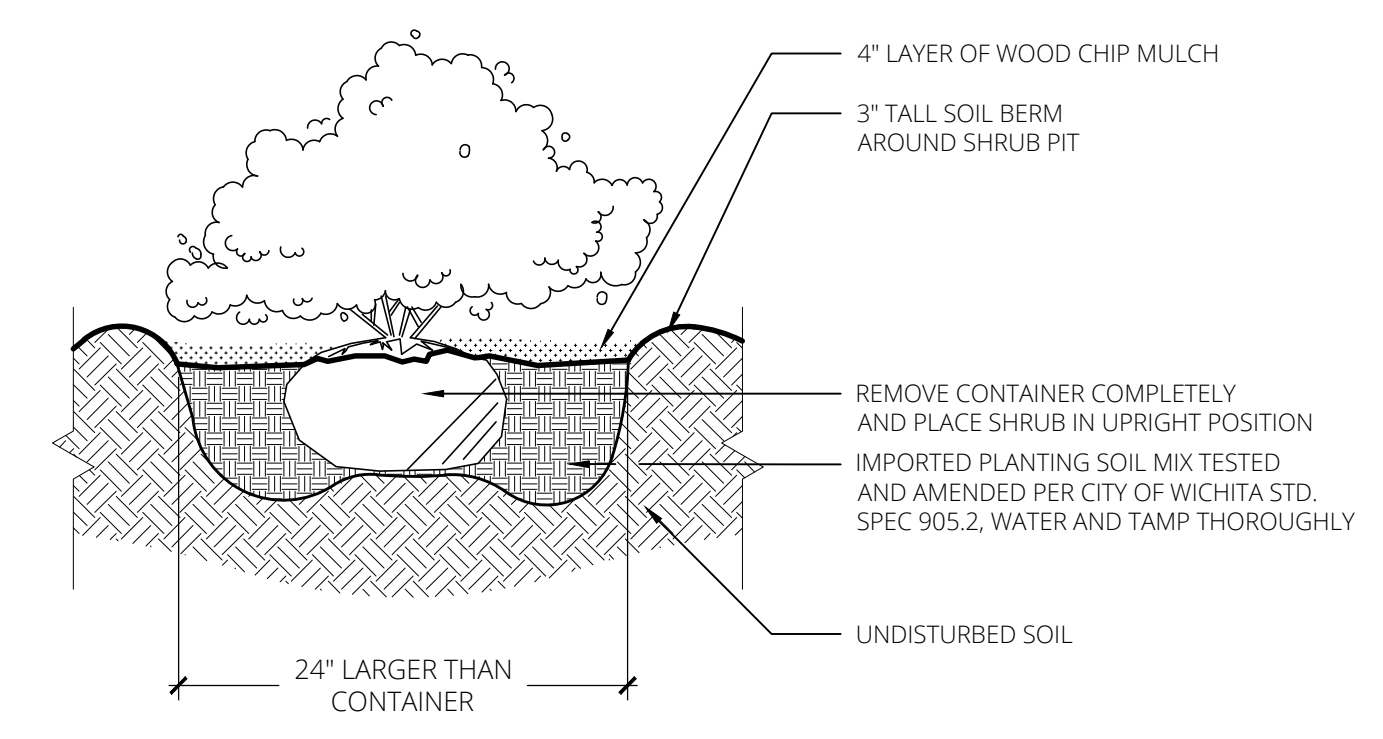
IMPORTED PLANTING SOIL MIX TESTED AND AMENDED PER CITY OF WICHITA STD. SPEC 905.2, WATER AND TAMP THOROUGHLY

PLACE PLANT ON UNDISTURBED SOIL SO THE ROOT FLARE IS LEVEL WITH OR WITHIN 1" OF FINISHED GRADE

UNDISTURBED SOIL

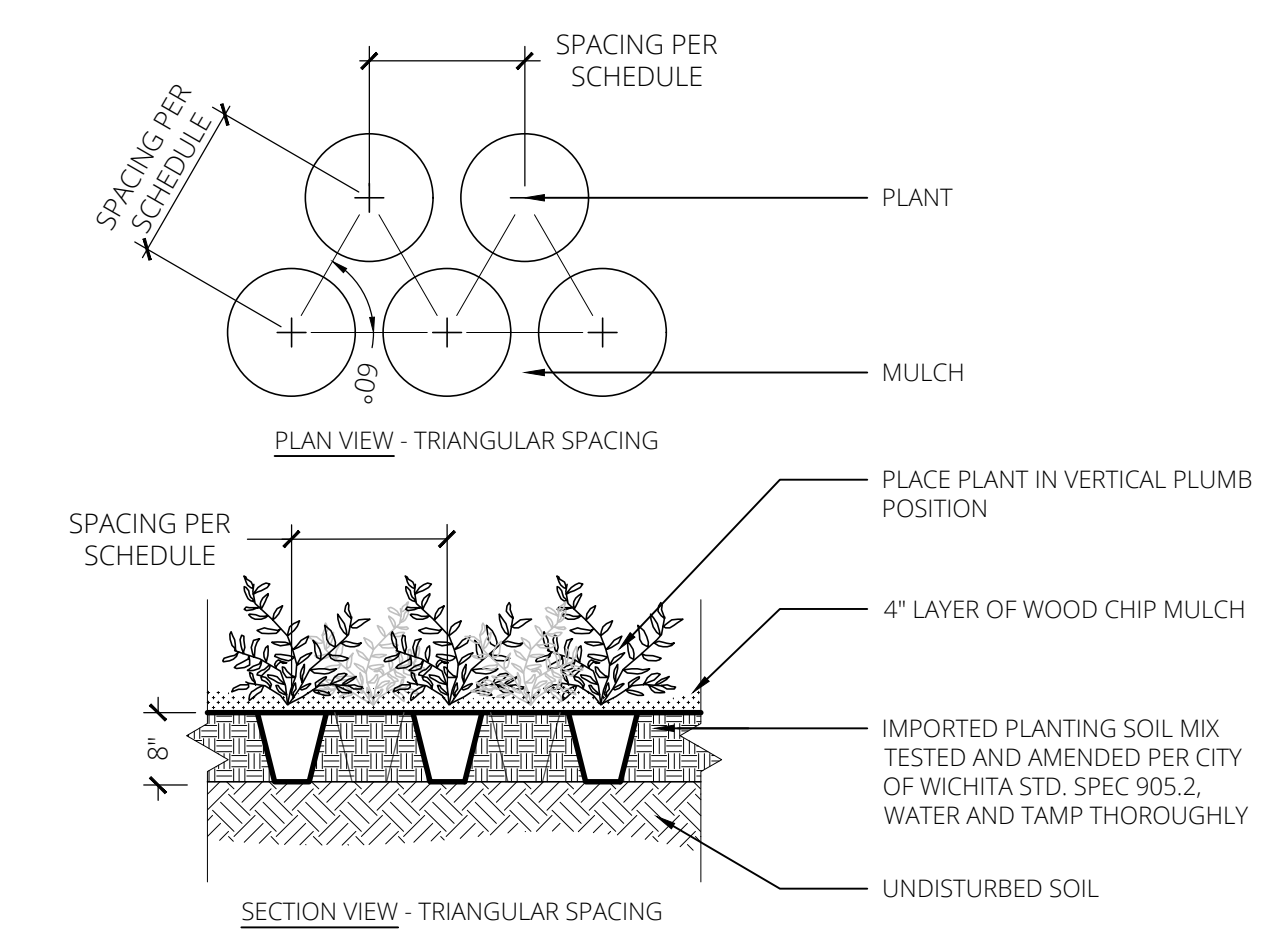
1 DECIDUOUS TREE PLANTING

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



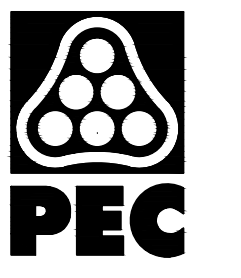
2 SHRUB PLANTING

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

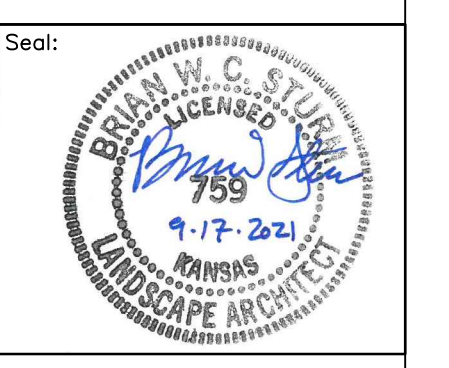


3 PERENNIAL PLANTING

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



WICHITA, KANSAS
Spray Ground
HARRISON PARK



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LICENSE #759
Date: 09-17-21 Job #: 18-512
Drawn: BS Checked: BS
Issue: CONSTRUCTION DOCUMENTS

SITE
DETAILS

L401
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SPRAY GROUND AREA KEY NOTES

- 1 Existing sidewalk shall be protected
- 2 Existing park equipment shall be protected
- 3 Existing tree shall be protected
- 4 Subgrade
~ 12" depth of granular fill
~ Geotextile fabric
~ 12" depth of structural fill
~ See Detail A-SP-F2 similar
~ Subgrade and backfill to be reviewed and revised as req'd by Engineer after receipt and review of Geotechnical Report
- 5 Underdrain ~ See Detail A-SP-PM2
- 6 4" Off-season water diverter
~ Provide tee with eccentric reducer (flat side on bottom)
~ Provide valve box, with ball valve and T-handle operator
~ Valve normally closed, open for offseason
- 7 4" Overflow with wye fitting
- 8 Drain pipe to daylight
- 9 12" x 12" x 4" Thick concrete pad around pipe discharge ~ Provide HDG discharge screen
- 10 All piping shall slope uniformly to drain by gravity
- 11 "Vortex Drain" ~ See Detail B-SP-PM2
- 12 "Vortex Fountain Spray No. 1" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 13 "Vortex Gusher" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 14 "Vortex Jet Stream No. 2" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 15 "Vortex Rooster Tail" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 16 "Vortex Scorpion" ~ See Detail D-SP-PM2, and Sheet SP-PM1 data for quantity
- 17 "Vortex Sparkle No. 1" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 18 "Vortex Water Bloom No. 1" ~ See Detail C-SP-PM2, and Sheet SP-PM1 data for quantity
- 19 "Vortex Bollard Activator" ~ See Detail E-SP-PM2
- 20 Rain and wind sensors connected to Vortex controller

- 21 6" Thick concrete deck at spray areas ~ See Detail F-SP-PM2
~ Deck and drain finish surface elevations ~ Deck slopes shall be 1% min. / 2% max.
~ Water shall not be allowed to pond in any location
- 22 4" Thick concrete deck ~ See Detail F-SP-PM2
~ Deck and drain finish surface elevations ~ Deck slopes shall be 1% min. / 2% max.
~ 5% (1:20) max. slope for sidewalk in direction of travel, 2% (1:50) max. cross slope
~ Water shall not be allowed to pond in any location
- 23 Construction joint ~ See Detail F-SP-PM2
- 24 Expansion joint ~ See Detail F-SP-PM2
- 25 Saw cut ~ See Detail F-SP-PM2
- 26 Valley/ridge line ~ No joint
- 27 Concrete at existing concrete ~ See Detail G-SP-PM2 ~ Elevations shall match flush
- 28 Standard concrete (no color)
- 29 Colored concrete ~ See Landscape Architect Sheet L100
- 30 Safety surface ~ See Landscape Architect Sheet L100
- 31 Concrete curb ~ See Landscape Architect Sheet L100
- 32 Artificial turf ~ See Landscape Architect Sheet L100
- 33 Landscape area ~ See Landscape Architect Sheet L100
- 34 Boulder ~ See Landscape Architect Sheet L100
- 35 Play equipment ~ See Landscape Architect Sheet L100
- 36 Grotto wall with rail ~ See Landscape Architect Sheet L100
- 37 Slide ~ See Landscape Architect Sheet L100
- 38 Utility ~ Water service ~ See Sheet SP-C1
- 39 Utility ~ Sanitary sewer ~ See Sheet SP-C1
- 40 Filter area ~ See Sheet SP-F1
- 41 Dogs not allowed signage by Owner (N.I.C.)

ABBREVIATIONS

&	And
@	At
°	Degree
∅	Diameter
'	Feet
"	Inches
#	Number
With	With
w/o	Without
ACI	American Concrete Institute
Add.	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
Ea.	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
Sp	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

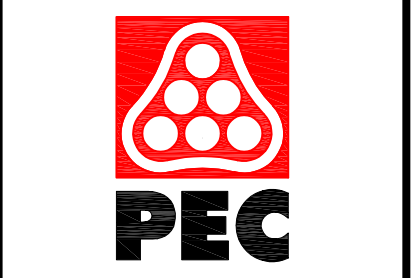
SYMBOLS

	Construction Joint
	Expansion Joint
	Isolation Joint
	Saw Cut
	Valley / Ridge Line
Detail	Detail Callout Detail Name Detail Scale Detail Letter Sheet
Section Cut	Section Cut
Depth/warning marker or note	



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Kansas STATE CERTIFICATE OF AUTHORITY #E-990



WICHITA, KANSAS
Spray Ground
HARRISON PARK



Seal: Jeff Bartley-ENGINEER LICENSE #15116

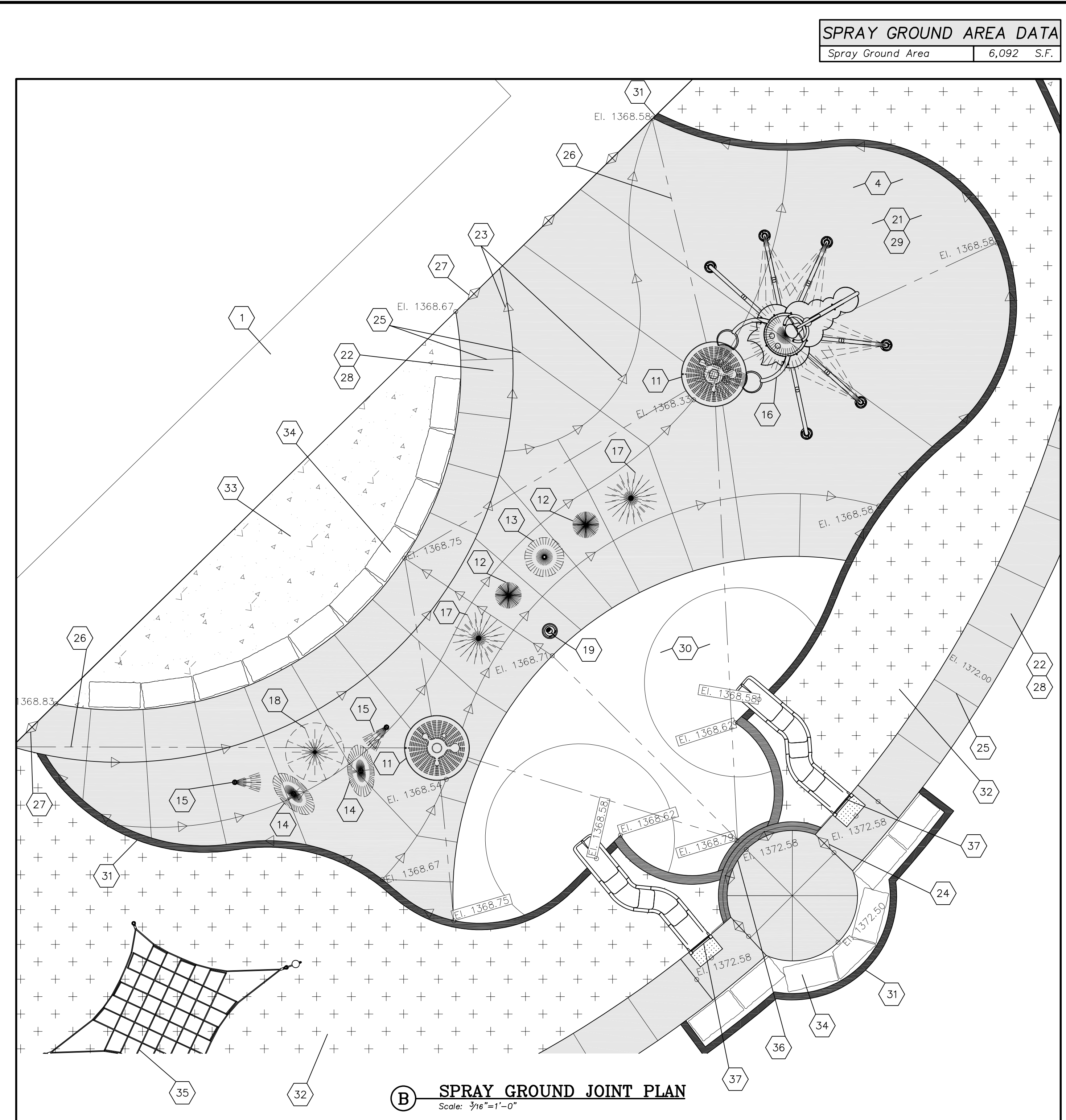
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Drawn: SRS Checked: JAB

Issue: CONSTRUCTION DOCUMENTS

SPRAY GROUND
KEY NOTES
AND
DATA

SP-P0



SPRAY GROUND AREA DATA	
Spray Ground Area	6,092 S.F.

waters edge
AQUATIC DESIGN

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HARRISON PARK



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LICENSE #15116

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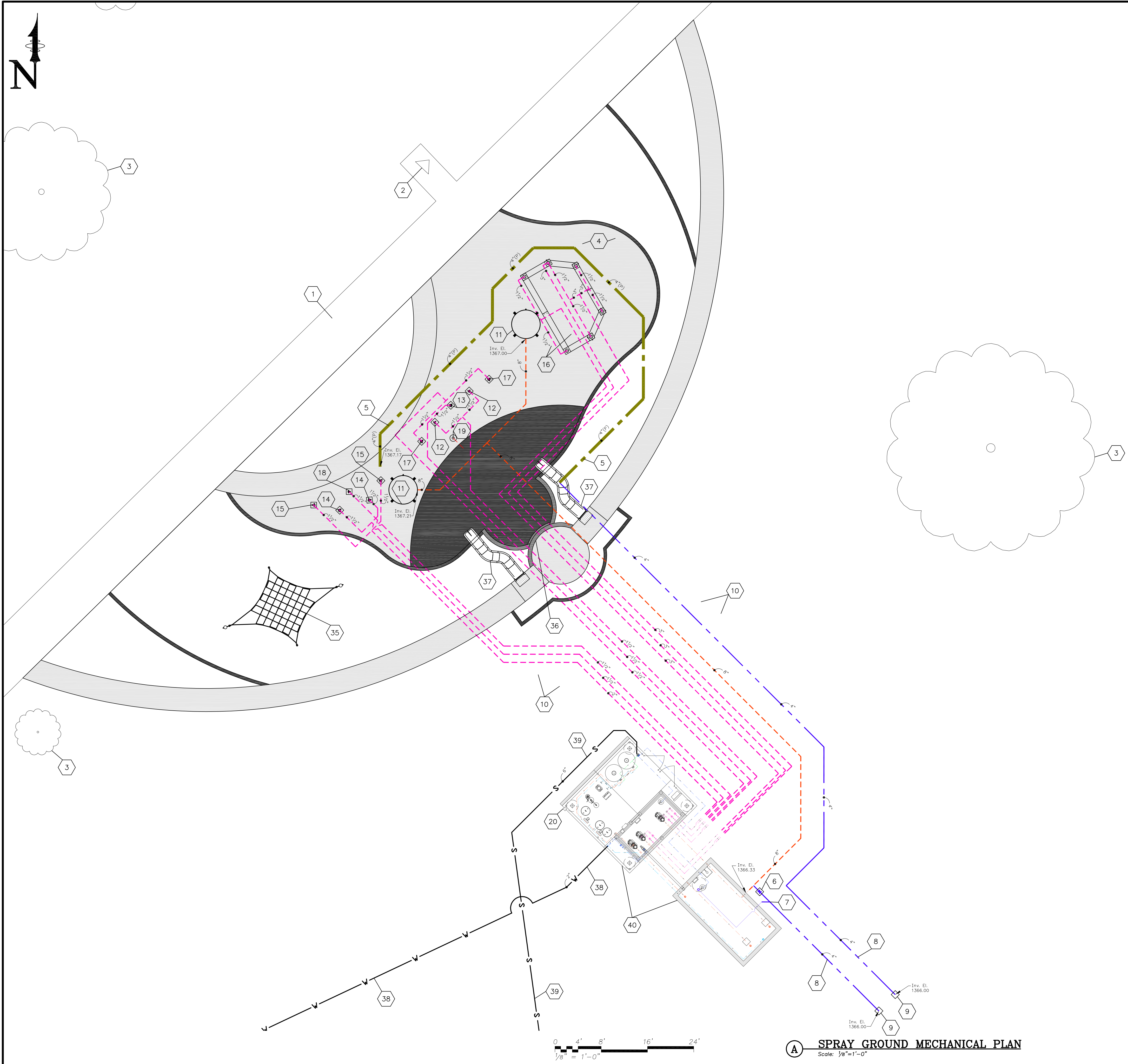
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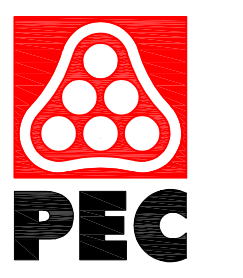
SPRAY GROUND PLAN

SP-P1

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WATER FEATURE FLOW DATA - HARRISON					
Description	Flow	Quantity	Total Flow	Pressure	Spray Height
SPRAY GROUND					
Fountain Spray No. 1	7 GPM	2	14 GPM	10 PSI	-- Ft.
Gusher	17 GPM	1	17 GPM	6 PSI	-- Ft.
Jet Stream No. 2	5 GPM	2	10 GPM	5 PSI	-- Ft.
Rooster Tail	15 GPM	2	30 GPM	10 PSI	-- Ft.
Scorpion	120 GPM	1	120 GPM	25 PSI	-- Ft.
Sparkle No. 1	6 GPM	2	12 GPM	5 PSI	-- Ft.
Water Bloom No. 1	11 GPM	1	11 GPM	8 PSI	-- Ft.
TOTAL		11	214 GPM		



WICHITA, KANSAS
Spray Ground
HARRISON PARK



Jeff Bartley - ENGINEER
LICENSE #15116

Date: 09-27-21 Job #: 18-512

Drawn: SRS Checked: JAB

Issue: CONSTRUCTION DOCUMENTS

SPRAY GROUND
MECHANICAL
PLAN

SP-PM1

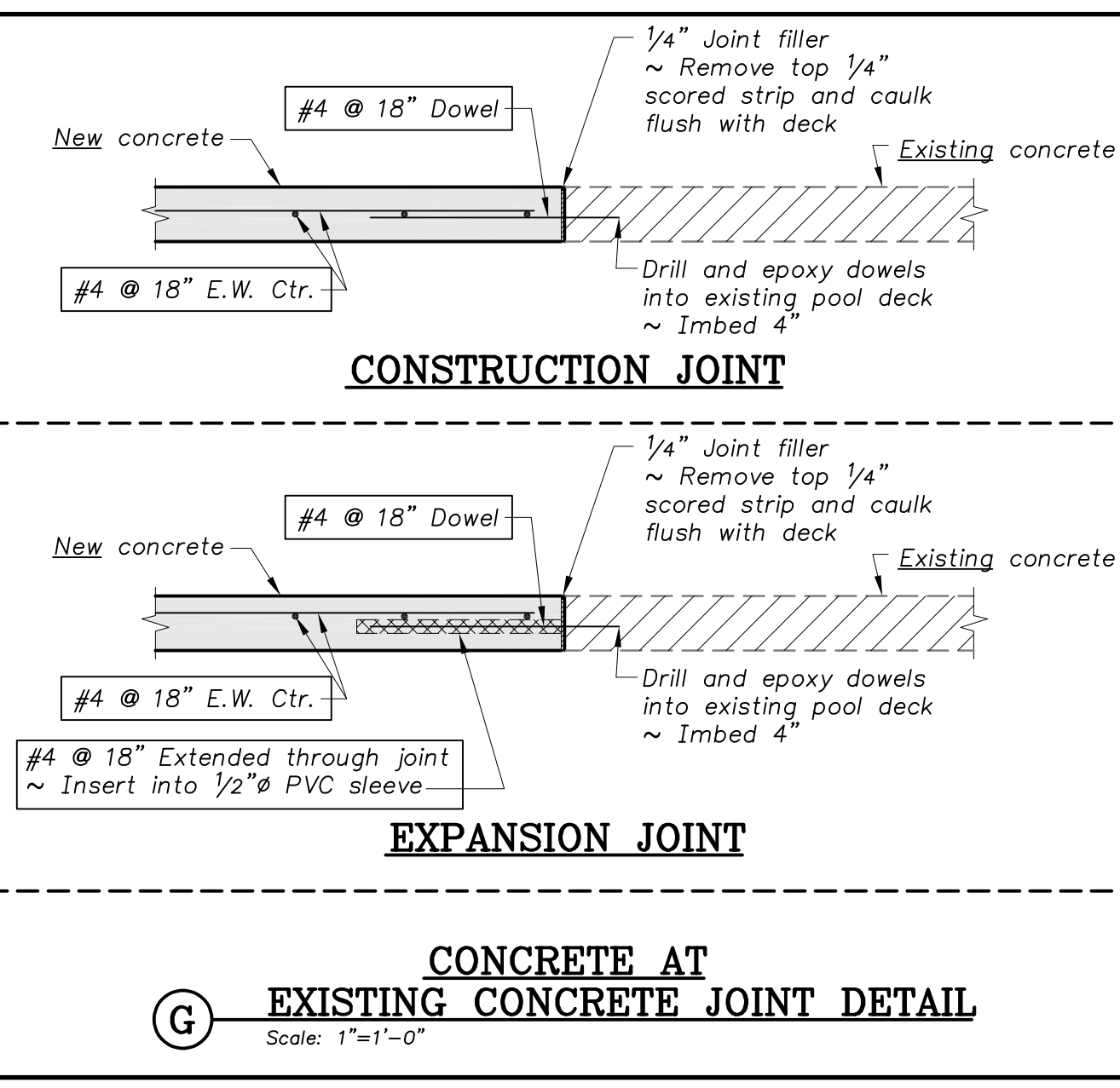
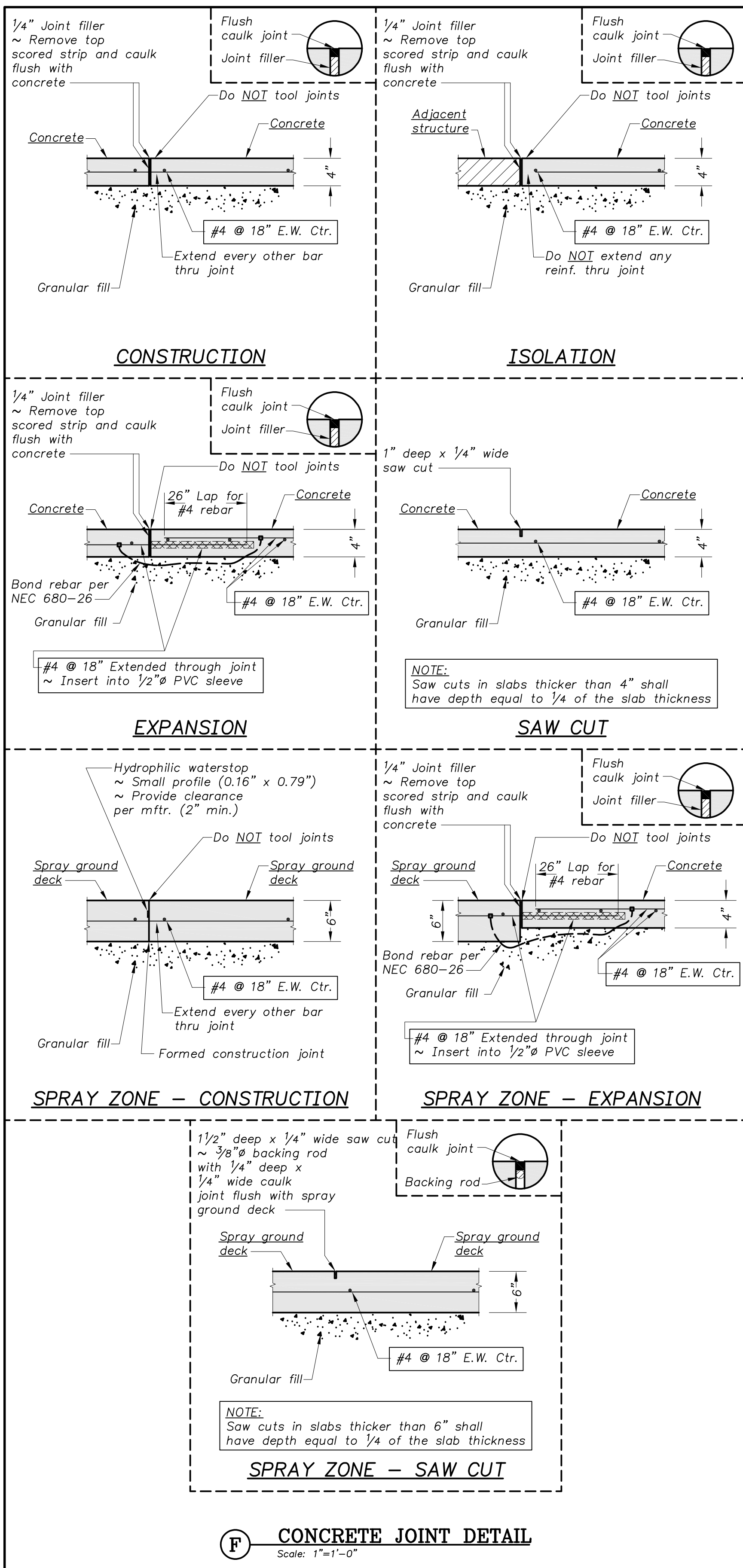
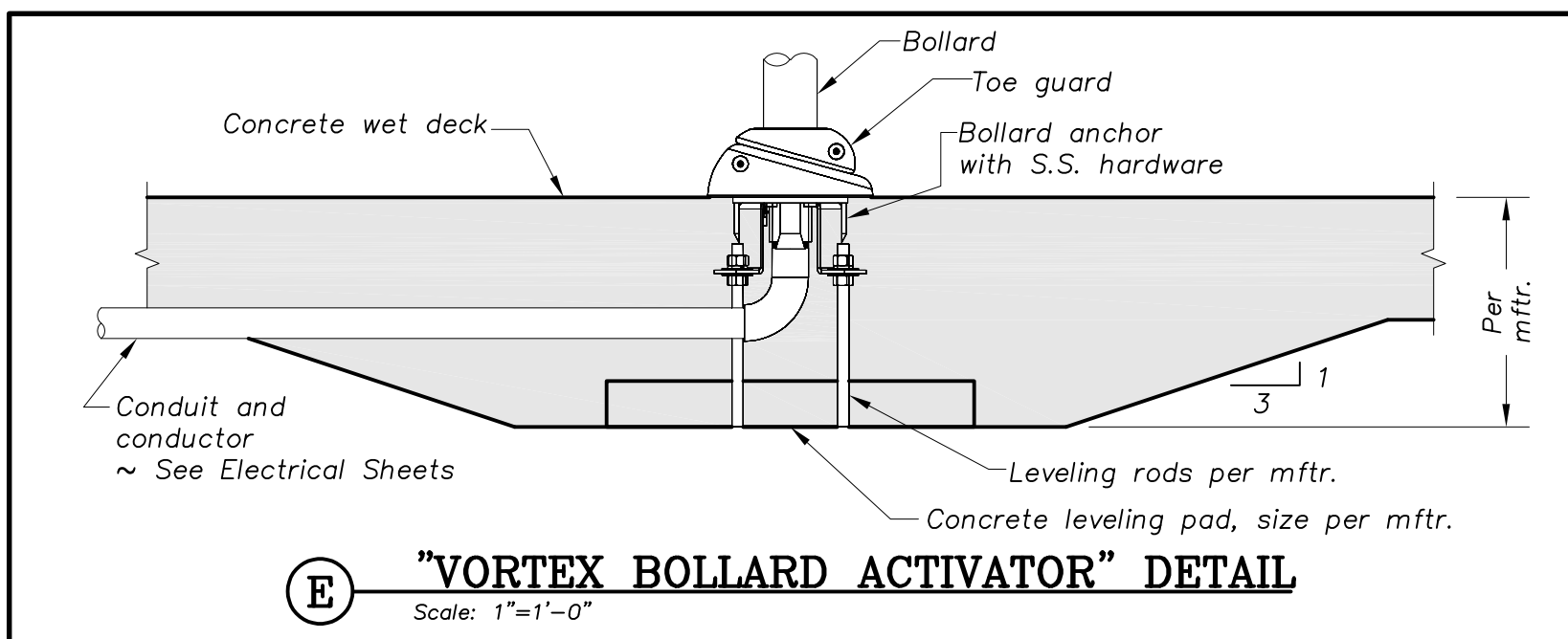
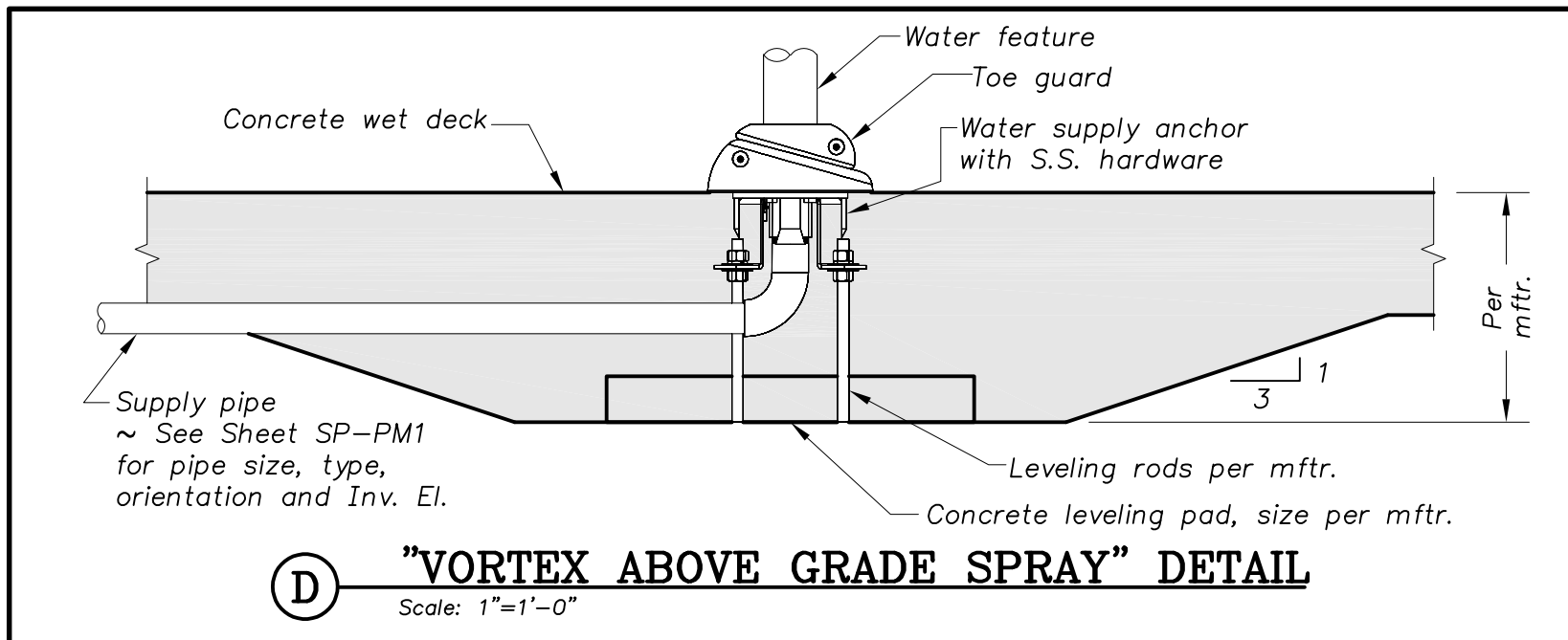
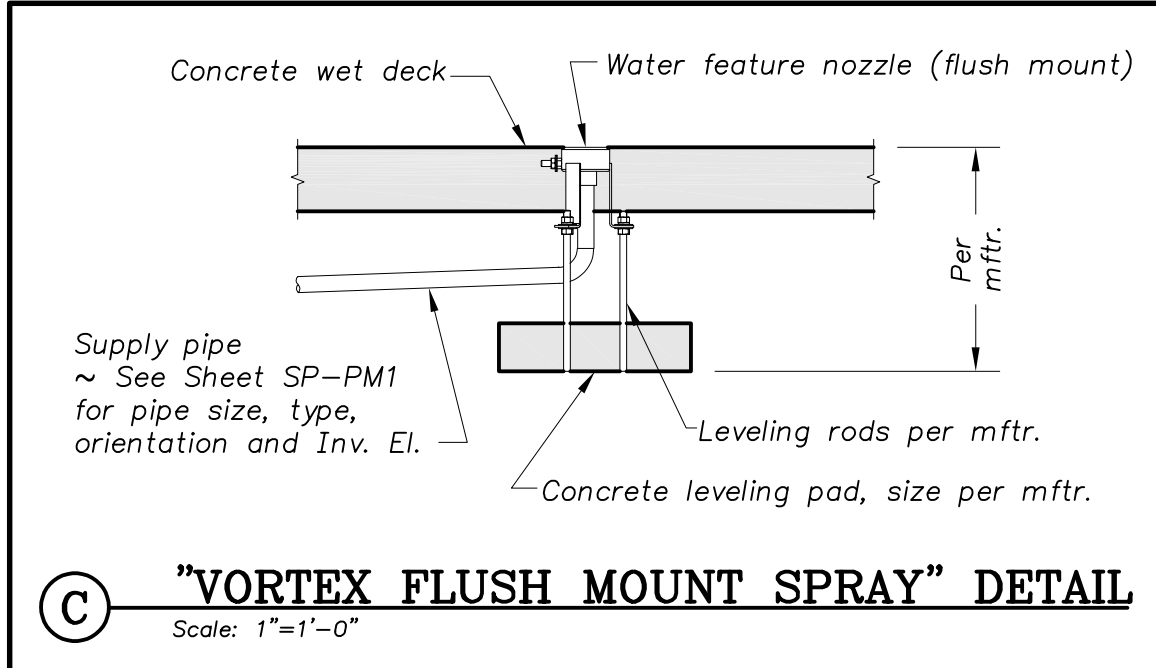
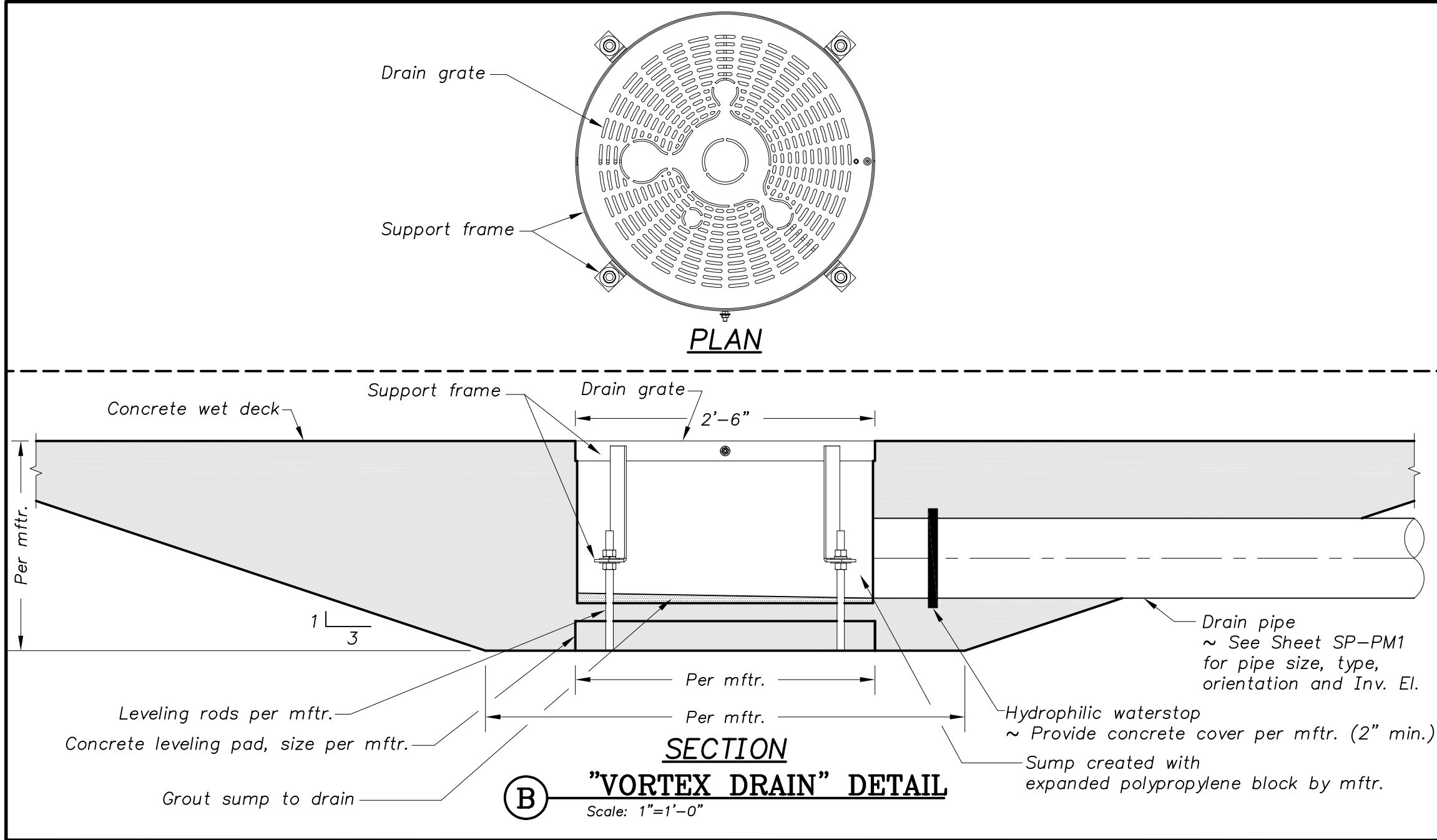
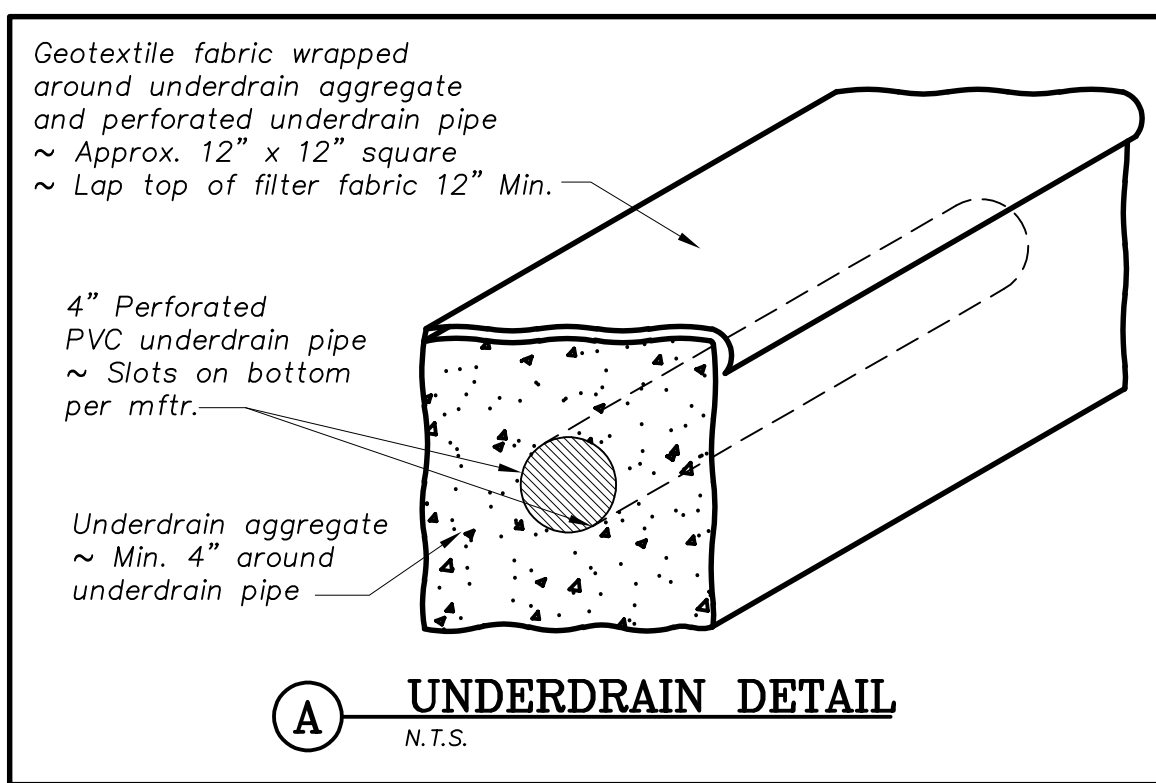
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PIPE TYPE NOTES	
	Pool system piping (main drain gutter recirc features) shall be: Sch. 80 PVC
	Underdrain shall be: 4" Rigid ~ Indicated as 4"(RP) perforated PVC
	Drain piping shall be: SDR 26 PVC

- | 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 mfr.
~ 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 |

SPRAY GROUND MECHANICAL PLAN
Scale: 1/8" = 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:
- Bar lap length of smaller diameter bar shall be used when splicing different size bars.
 - Lap splices shall be wired in contact.
 - 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:
- The above minimum concrete cover shall be provided for reinforcement unless noted otherwise.
 - Placing reinforcement tolerances:
 - For members less than or equal to 8" Tolerance = (±3/8")
 - For members greater than 8" Tolerance = (±1/2")

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

waters edge AQUATIC DESIGN
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ARCHITECTURAL URBAN PRAIRIE COLLABORATIVE, P.C.

H&B HOSS & BROWN ENGINEERS

WICHITA, KANSAS Spray Ground HARRISON PARK

WICHITA

Seal: JEFF A. BARTLEY LICENSE #15116 PROFESSIONAL ENGINEER

Jeff Bartley - ENGINEER LICENSE #15116
 Date: 09-27-21 Job #: 18-512
 Drawn: SRS Checked: JAB
 Issue: CONSTRUCTION DOCUMENTS

SP-PM2
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FILTER AREA KEY NOTES

- 1 Precast wet pit
- 2 30" Diameter manhole ring and lid
- 3 12" Diameter x 7" deep sump
- 4 Wet pit pipe penetrations shall be watertight with hydrophilic waterstop (2" min. concrete cover) and non-shrink grout
- 5a 8" Spray ground drain pipe to wet pit
- 5b Butterfly valve for off-season water diversion to daylight
~ Valve normally open, closed for off-season
~ Provide valve box lid, valve box riser, 8" C900 PVC sleeve, S.S. valve extension stem, T-handle operator
- 5c 4" Overflow ~ Set top at 1/2" below lowest spray ground drain rim = 1368.29
- 6 4" Recirc pump suction ~ 90° elbow down with flange max. 12" above pit floor
- 7 Precast pump pit
- 8 Ball valve on pump suction
- 9 Recirc pump with integral basket strainer on concrete base, and gauges on suction and discharge
- 10 3" Recirc pump discharge/filter influent
- 11 Ball valve on pump discharge
- 12 Mag meter ~ Provide signage by magmeter ~ Recirc rate = ____GPM ~ Backwash rate = ____GPM
- 13 Locate mag meter readout within easy access at guardrail approx. 42" tall
- 14 3" Filter face piping
- 15 Filter influent ball valve
- 16 3'-0" Ø Fiberglass filter
- 17 Filter pressure gauges panel
- 18 3" Filter effluent/recirc piping
- 19 Recirc/backwash isolation ball valve
- 20 3" Blind flange for future UV
- 21 Ball valve for future UV bypass
- 22 Space for future UV system
- 23 Connection to chemical controller ~ See Detail A-SP-F3
- 24 Recirc throttling ball valve
- 25 Connection from muriatic acid feeder ~ See Detail B-SP-F3
- 26 Connection from sodium hypochlorite feeder ~ See Detail B-SP-F3
- 27 3" Recirc effluent discharge at water feature pump suction
- 28 Filter backwash isolation ball valve
- 29 3" Backwash discharge ~ Route pipe overhead along roof trusses and discharge into tank with 12" air gap
- 30 Filter backwash throttling ball valve
- 31 8x6 PVC reducer funnel with P-trap and vent
- 32 6" PVC drain pipe connected to existing sanitary sewer ~ See Sheet SP-C1
- 33 Chemical controller mounted on guardrail ~ See Detail A-SP-F3 ~ Furnished by Owner (N.I.C.) ~ Installed by Contractor
- 34 Sodium hypochlorite feeder mounted on strut channel ~ See Detail B-SP-F3
- 35 Sodium hypochlorite drum ~ See Detail B-SP-F3
- 36 Muriatic acid feeder mounted on strut channel ~ See Detail B-SP-F3
- 37 Muriatic acid drum ~ See Detail B-SP-F3
- 38 Emergency shower/eye wash ~ See MEP Sheets for water heater
- 39 4" Water feature sprays pump suction adjacent to filter/recirc effluent ~ 90° elbow down with flange max. 12" above pit floor
- 40 Concrete pipe support
- 41 Water features pump with integral basket strainer on concrete base, and gauges on suction and discharge
- 42 3" Water feature sprays pump discharge

- 43 Water feature lateral pipes doubled and stacked vertically
- 44 Water feature throttling ball valve
- 45 Water feature solenoid valve
- 46 Drain valve
- 47 2" Rooster Tail feature supply
- 48 1/2" Jet Stream No. 2 feature supply
- 49 1/2" Water Bloom No. 1 feature supply
- 50 1/2" Sparkle No. 1 feature supply
- 51 1/2" Gusher feature supply
- 52 1/2" Fountain Spray No. 1 feature supply
- 53 4" Water feature Scorpion pump suction adjacent to filter/recirc effluent ~ 90° elbow down with flange max. 12" above pit floor
- 54 Scorpion water features pump with integral basket strainer on concrete base, and gauges on suction and discharge
- 55 3" Water feature Scorpion pump discharge
- 56 3" Scorpion claws feature supply
- 57 3" Scorpion tail bucket feature supply
- 58 3" Scorpion legs feature supply
- 59 Water feature controller mounted on strut channel
- 60 Water feature rain and wind sensor mounted on roof per mfr.
- 61 Sump pump for wet pit ~ Install in wet pit only as needed
- 62 1/2" Discharge pipe with ball valve to backwash funnel
- 63 Quick-connect between sump pump piping and discharge piping
- 64 Sump pump for pump pit
- 65 1/2" Discharge pipe with ball valve to backwash funnel ~ Route below slab and extend air gap at funnel
- 66 Manhole step at 12"
- 67 Low water cut-off float switch and baffle ~ Set at 24" above pit floor ~ See Detail C-SP-F3
- 68 Guardrail with safety chains ~ See Detail D-SP-F4
- 69a 2" Water supply ~ See Sheet SP-C1
- 69b Isolation ball valve
- 69c Backflow preventer
- 69d Water supply to water heater and emergency shower ~ See MEP Sheets
- 70 Hose bibb with vacuum breaker
- 71 2" Wet pit water fill with ball valve ~ Provide 12" air gap
- 72 1" Wet pit water make-up with ball valve, water meter, and solenoid valve ~ Provide 12" air gap for flow visibility
- 73 Water make-up level sensor ~ Set at 36" above pit floor
- 74 Water make-up level sensor controller mounted on guardrail
- 75 2" Clear PVC standpipe
- 76 4" PVC riser pipe with 4x6 reducer funnel
- 77 Chain link fence with privacy slats ~ Full height up to roof structure
- 78 Surface mount fence to top of pits, and as req'd elsewhere
- 79 8'-0" Wide double gate
- 80 16'-0" x 16'-0" Steel canopy with columns and footings per mfr. ~ Approx. 7'-6" clear height, and 12'-0" peak height
- 81 4" Thick concrete slab with saw cut ~ See Detail F-SP-PM2
~ Concrete slopes shall be 1% min. / 2% max.
~ Water shall not be allowed to pond in any location
- 82 Concrete curb

PUMP DATA - HARRISON								
Location	Pump Description	Flow (gpm)	TDH (ft.)	Shut-off Head (max.) (ft.)	Efficiency +/- 5%	HP	RPM	VFD
Spray Ground	Recirc	150	55	24	--	5	3,450	Integral
Spray Ground	Sprays	94	33	14	--	5	2,500	Integral
Spray Ground	Scorpion	120	77	33	--	5	3,450	Integral

FILTER DATA - HARRISON												
	Volume (gallons)	Recirc Rate (GPM)	Filter Size (dia.)	Quantity or Cells	Filter Area (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.)	
Spray Ground	4,146	150	3.00	2	7.07	14.13	10.62	0.46	106	5	530	1,060

MAXIMUM PIPE SUPPORT SPACING (Feet) **			
Pipe Size	Sch 80 PVC	Ductile Iron	Copper (L&K)
1/2"	4.5	--	5.0
3/4"	4.5	--	5.0
1"	5.0	--	6.0
1 1/4"	5.0	--	7.0
1 1/2"	5.5	--	8.0
2"	6.0	--	8.0
2 1/2"	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"	--	*	--

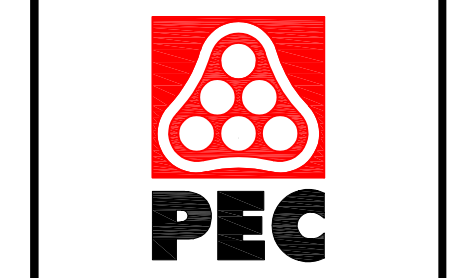
* Maximum support spacing of 20 Ft. Provide a minimum of 1 hanger as close as practical to the joint behind the bell, and at changes of direction and branch connections.
** Unless shown or noted otherwise

PIPING NOTES

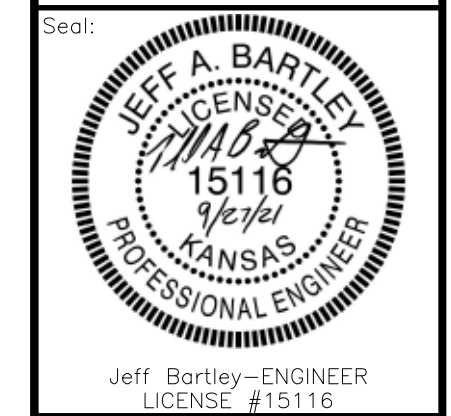
1. Pipe type shall be Sch 80 PVC unless noted otherwise
2. Pipe type shall be CPVC for all piping downstream of pool heaters
3. Refer to Pool Mechanical Sheets for pipe types beyond the building
4. Pipe sizes are identified in inches on the drawings
5. Pipe connection hardware shall be S.S. within Pool Mechanical Room
6. Contractor shall provide and install uniflanges/unions as req'd
7. Sch 80 PVC fittings may be solvent weld or flanged at Contractor's option
8. All piping and fittings at equipment (filters, pumps, valves, etc.) shall be flanged
~ PVC flanges at fittings shall be male type as shown
9. 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
10. All pipe supports shall be 316 S.S. or FRP
11. All hardware shall be S.S.
12. Provide air release valve at all high loops in piping
13. All piping shall slope to drain by gravity
14. Provide drain valve at all low points in piping
15. Provide drain valve at normally closed solenoid valve or check valve, or provide true unions, to allow for winter drainage
16. All piping through concrete structures shall be cast-in-place
~ No pipe sleeves or coring allowed
17. Provide compound pressure gauge on all pump suction
18. Provide pressure gauge on all pump discharges



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t. 913.438.4338
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WICHITA, KANSAS
Spray Ground
HARRISON PARK



Jeff Bartley - ENGINEER
LICENSE #15116
Date: 09-27-21 Job #: 18-512
Drawn: SRS Checked: JAB
Issue: CONSTRUCTION DOCUMENTS

FILTER AREA KEY NOTES AND DATA

SP-F0



WICHITA, KANSAS
Spray Ground
HARRISON PARK



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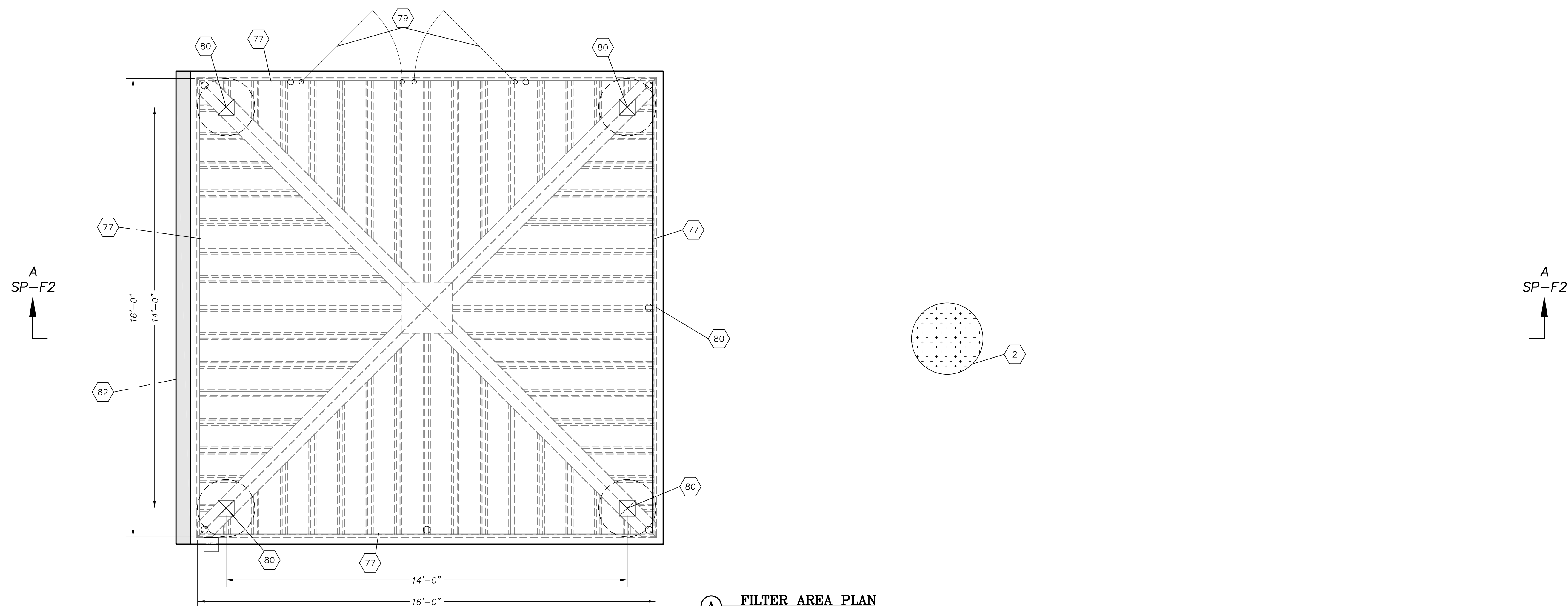
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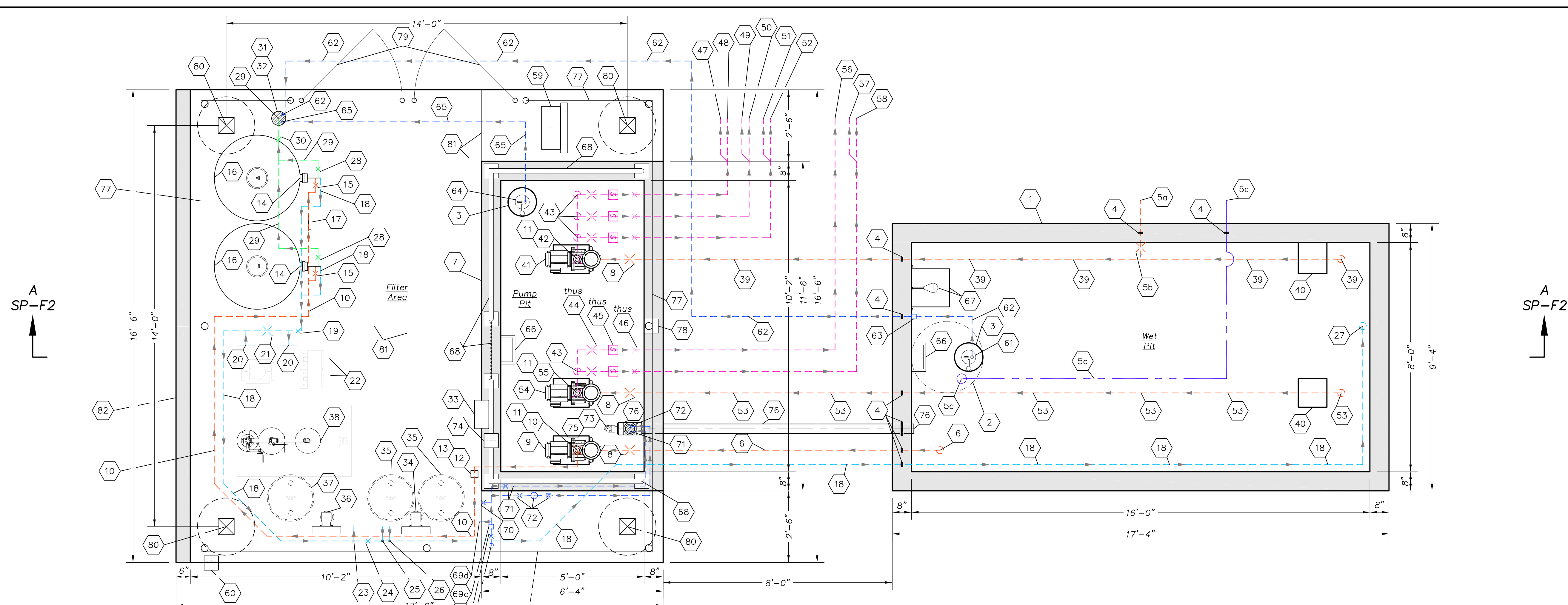
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FILTER
AREA
PLAN

SP-F1



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



(B) FILTER AREA PLAN SECTION
Scale: 1/2"=1'-0"



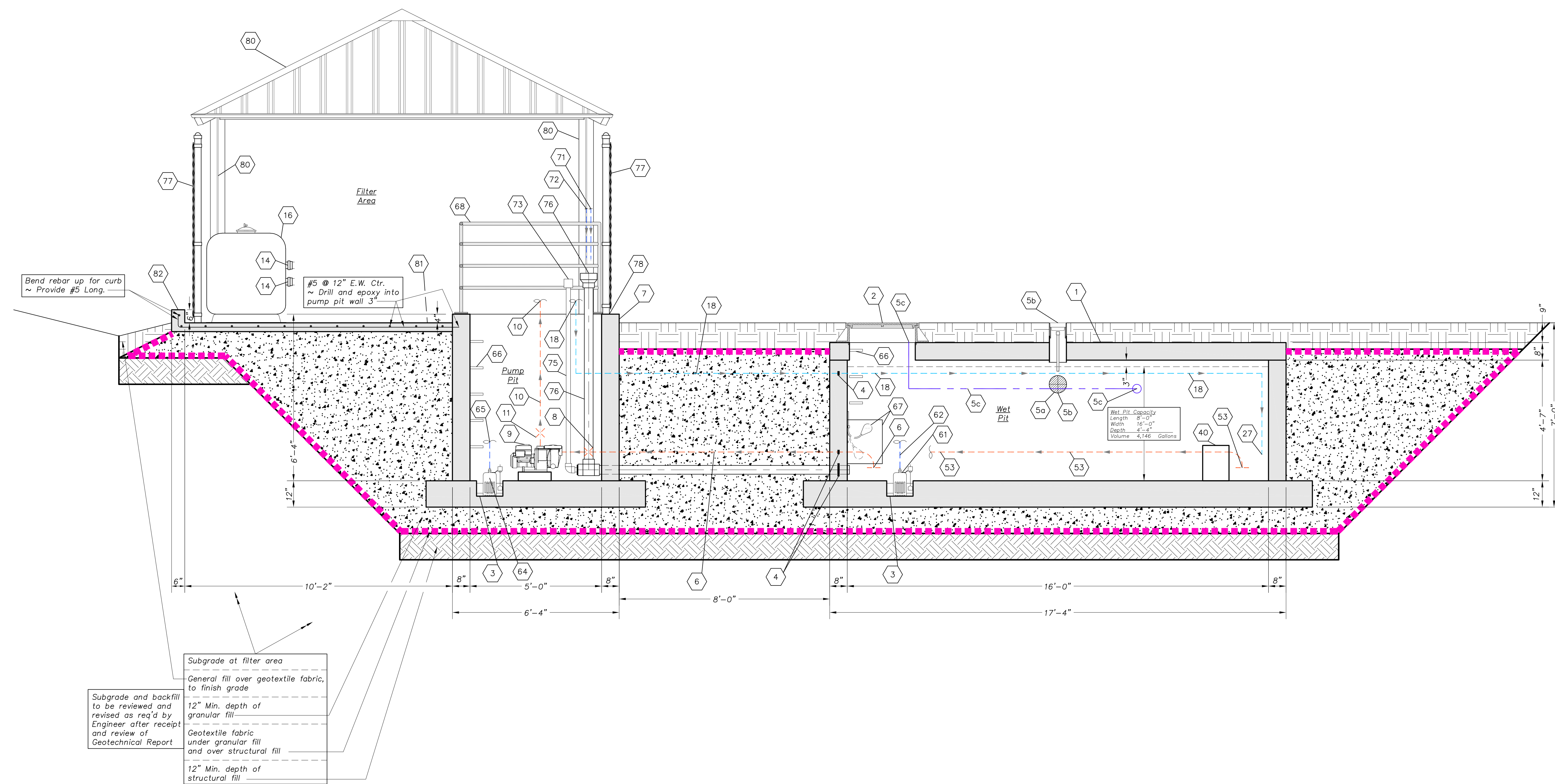
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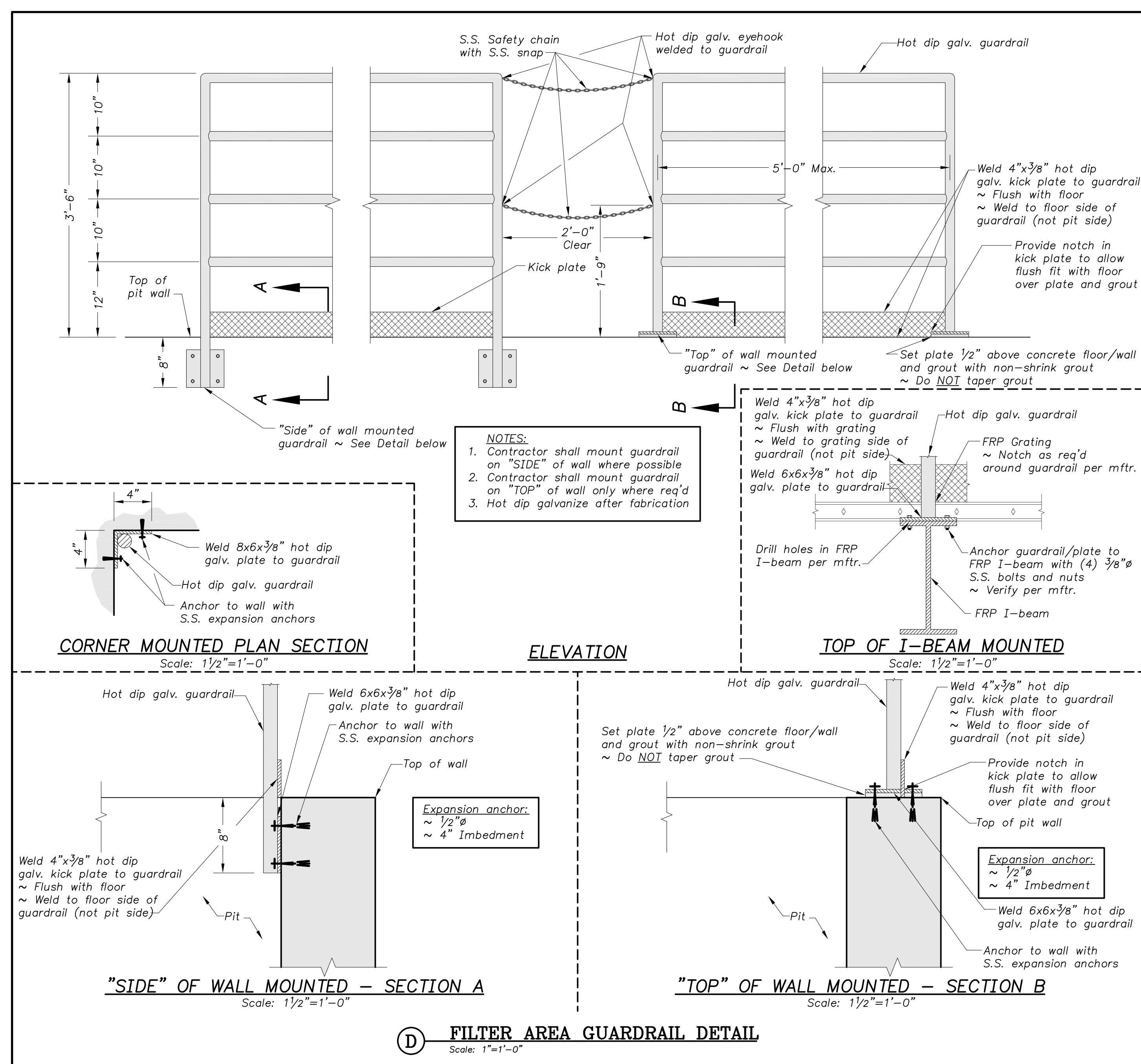
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FILTER
AREA
SECTION

SP-F2



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



WICHITA, KANSAS
Spray Ground
HARRISON PARK



Jeff Bartley-ENGINEER
LICENSE #15116

Date: 09-27-21 Job #: 18-512

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FILTER
AREA
DETAILS

SP-F4

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
	FLOOR SINK
	FLOOR DRAIN
	ROOF DRAIN
	HOSE BIBB
	FLOOR/GRADE CLEANOUT
	WALL CLEANOUT
	END OF LINE CLEANOUT

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

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

DUCTWORK	
	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
	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
	MOTORIZED CONTROL DAMPER
	FIRE DAMPER
	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
	DIFFUSER, GRILLE, OR REGISTER TYPE
	CFM
	CONNECTION SIZE

TEMPERATURE CONTROLS	
	TEMPERATURE SENSOR/THERMOSTAT
	HUMIDITY SENSOR/HUMIDISTAT
	REMOTE TEMPERATURE SENSOR
	REMOTE HUMIDITY SENSOR
	CARBON DIOXIDE SENSOR
	OCCUPANCY SENSOR
	CARBON MONOXIDE SENSOR
	STATIC PRESSURE SENSOR
	DIFFERENTIAL PRESSURE TRANSMITTER
	FLOW METER

LIGHTING	
	LIGHT TRACK WITH LIGHT TYPES AS INDICATED
	WALL WASHER LIGHTING FIXTURE, ARROW INDICATES DIRECTION
	FLUORESCENT FIXTURE AND TYPE
	EMERGENCY LIGHT FIXTURE
	NIGHT LIGHT FIXTURE
	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)

POWER EQUIPMENT	
	ELECTRICAL DISTRIBUTION PANEL, SWITCHBOARD, OR MOTOR CONTROL
	PANEL BOARD
	LOAD CENTER
	METER
	J-BOX
	MOTOR
	VARIABLE FREQUENCY DRIVE WITH DISCONNECT
	DISCONNECT SWITCH
	COMBINATION DISCONNECT SWITCH AND MOTOR STARTER
	MAGNETIC MOTOR STARTER OR DECK RECEPTACLE AS NOTED ON PLANS
	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) symbol"/>	#14'S (WIRE NUMBER INDICATED)
#16's (wire number indicated) symbol"/>	#16'S (WIRE NUMBER INDICATED)
	EXPOSED CONDUIT
	CONDUIT TURNING DOWN
	CONDUIT TURNING UP
	BARE COPPER BONDING LOOP

WIRING DEVICES & OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
	GROUND FAULT INTERRUPTER
	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
	ISOLATED GROUND QUAD RECEPTACLE
	WALL MOUNTED PHONE
	CENTER OF DEVICE AT 48" A.F.F.
	DATA OUTLET
	TELEPHONE/DATA OUTLET
	CABLE T.V. OUTLET
	CABLE TRAY
	SURFACE RACEWAY
	SWITCH, SPST U.N.O.
	SWITCH, DPST
	FUSESTAT
	3-WAY SWITCH
	4-WAY SWITCH
	DIMMER SWITCH
	JAMB SWITCH
	MOTOR RATED SWITCH
	SWITCH WITH WEATHERPROOF COVER
	KEYED SWITCH
	TIME SWITCH
	PUSH BUTTON
	PHOTOCELL SWITCH
	MOTION SENSOR
	OCCUPANCY SENSOR & TAG
	POWER PACK

FIRE ALARM	
	FIRE ALARM CONTROL PANEL
	ANNUNCIATOR PANEL
	FIRE ALARM POWER EXTENDER
	PULL STATION
	KNOX BOX
	CONTROL RELAY
	SIGNAL ZONE ADDRESSABLE MODULE
	CONTROL ZONE ADDRESSABLE MODULE
	MONITOR ZONE ADDRESSABLE MODULE
	SINGLE STATION SMOKE DETECTOR
	SMOKE DETECTOR (SUP. RELAY BASE)
	SYSTEM SMOKE DETECTOR
	BEAM DETECTOR
	HEAT/THERMAL DETECTOR
	DUCT SMOKE DETECTOR
	INDIVIDUAL ADDRESSABLE MONITOR
	MAGNETIC DOOR HOLD
	HORN/STROBE
	STROBE
	SPEAKER/STROBE
	SPEAKER
	HORN
	VALVE TAMPER SWITCH
	FLOW SWITCH
	END OF LINE RESISTOR
	POST INDICATING VALVE
	FIRE ALARM BELL
	FIREMAN'S PHONE JACK
	SECURITY GUARD FOR DEVICE SHOWN

COMMUNICATIONS	
	SPEAKER HORN-PROJECTION TYPE
	SPEAKER
	VOLUME CONTROL (TOP 48" AFF)
	MICROPHONE JACK (TOP 18" AFF)
	COMBINATION SPEAKER/CLOCK
	SYSTEM CLOCK
	ELAPSED TIME CLOCK
	INTERCOM
	POWER SUPPLY
	AMPLIFIER

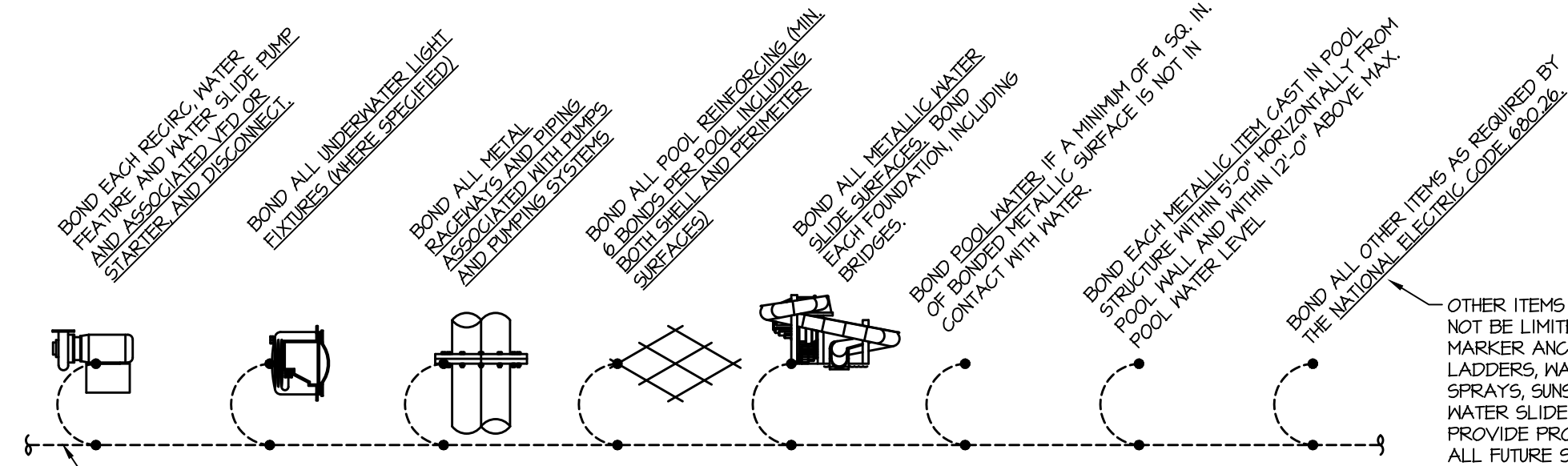
SECURITY	
	CLOSED CIRCUIT TELEVISION CAMERA
	ELECTRIC DOOR LOCK
	DOOR MONITOR
	CARD READER
	GLASS BREAK
	REQUEST TO EXIT BUTTON
	SECURITY MONITOR
	PANIC BUTTON (D=DESK, W=WALL, F=FLOOR)
	KEY PAD

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
CAV	CABLE TELEVISION SYSTEM
CAY	CONSTANT AIR VOLUME
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONTRACTOR
CFGI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFM	CUBIC FEET PER HOUR
CH	CHILLER
CO	CLEANOUT, CARBON MONOXIDE
CO2	CARBON DIOXIDE
CT	COOLING TOWER
CTR	COOLING TOWER RETURN
CS	COOLING TOWER SUPPLY
CU	COPPER CONDENSING UNIT
CU	CABINET UNIT HEATER
CW	COLD WATER
CNR	CHILLED WATER RETURN
CNS	CHILLED WATER SUPPLY
D	DRAIN
DDC	DIRECT DIGITAL CONTROL
DFU	DRAINAGE FIXTURE UNITS
DN	DOWN
DOT	DOUBLE-POLE DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
E/C	ELECTRICAL CONTRACTOR
EB	ENTERING DRY BULB
EF	EXHAUST FAN
EJ	EXPANSION JOINT
ESP	EARLY SUPPRESSION FAST RESPONSE
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EW	ELECTRIC WATER COOLER
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FCD	FLOOR CLEANOUT
FCU	FAN COOL UNIT
FF	FIRE DAMPER, FLOOR DRAIN
FF	FINISHED FLOOR
FfCO	FINISHED GRADE CLEANOUT
FL	FLOW LINE
FLA	FILL LOAD AMPS
F/C	FIRE PROTECTION CONTRACTOR
FU	FAN TERMINAL UNIT
FVNR	FULL VOLTAGE, NON-REVERSING
G	NATURAL GAS
G/C	GENERAL CONTRACTOR
GND	GROUND FAULT INTERRUPTER
GND	GROUND
GPM	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GN	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
HNR	HOT WATER RETURN
HNS	HOT WATER SUPPLY
ID	INSIDE DIAMETER
IE	INFEET ELEVATION
IG	ISOLATED GROUND
IN, INC	INCHES OF WATER COLUMN
INC.	INCANDESCENT
kcmil	1000 CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPS
KVAR	KILOVOLT-AMPS REACTIVE
KWH	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
LRS	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	MAIN LINES ONLY
MLO	MANHOLES/METAL HALIDE
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
NFPH	NON-FREEZE WALL HYDRANT
NIC	NOT IN CONTRACT
NO	NITROUS OXIDE
NO	NORMALLY OPEN, NORMALLY CLOSED
NO NC	

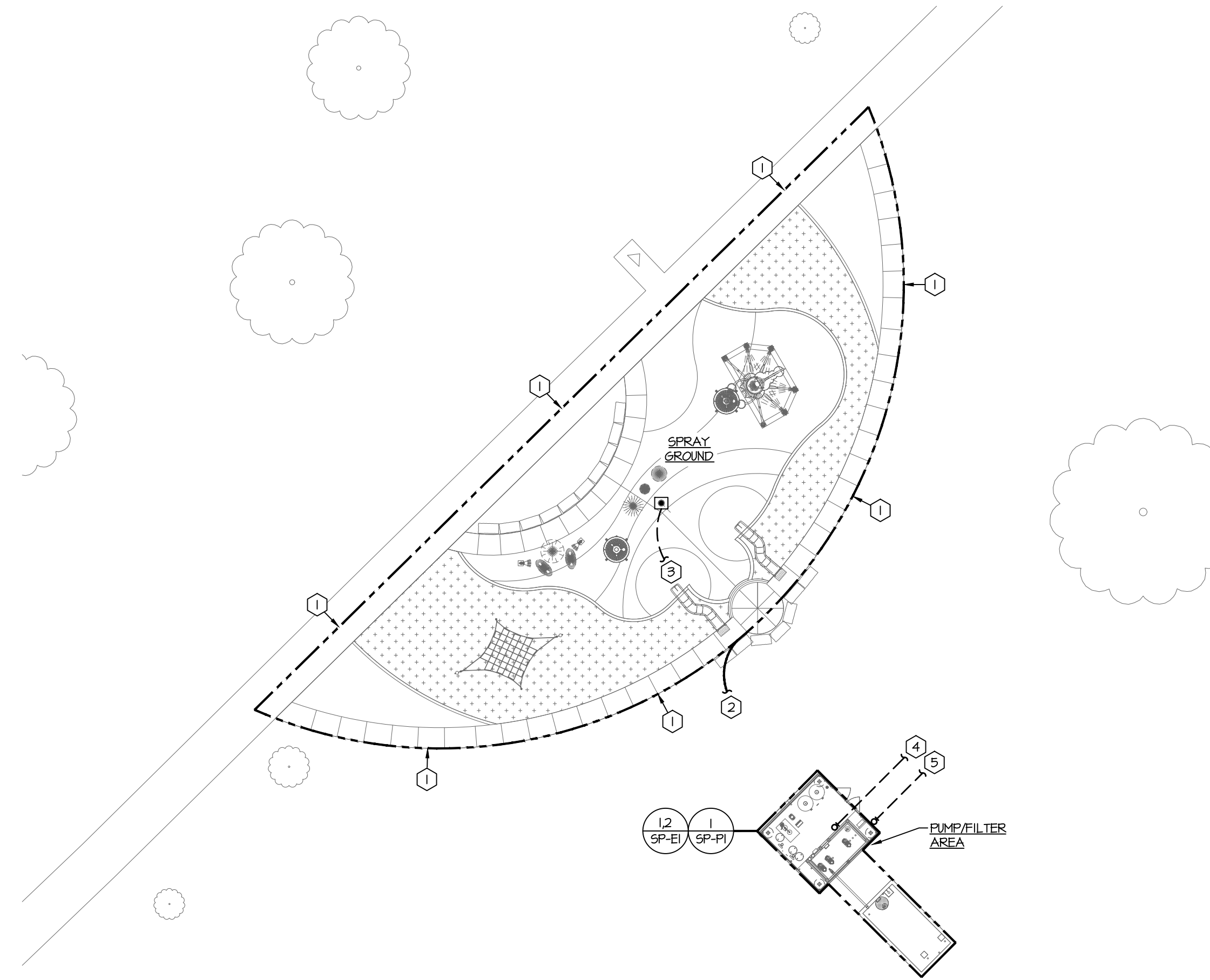
O	OXYGEN
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OCFI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFD	OVERFLOW ROOF DRAIN
PA	PIPE ANCHOR
PCNR	PRIMARY CHILLED WATER RETURN
PCNS	PRIMARY CHILLED WATER SUPPLY
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP (FEET OF WATER)
PH	PHASE
PHNR	PRIMARY HEATING WATER RETURN
PHNS	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
RC	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REV	REVISION
RFAN	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
SCNR	SECONDARY CHILLED WATER RETURN
SCNS	SECONDARY CHILLED WATER SUPPLY
SD	SMOKE DAMPER, STORM DRAIN
SDF	SUPPLY FAN
SHNR	SECONDARY HEATING WATER RETURN
SHNS	SECONDARY HEATING WATER SUPPLY
SPST	SINGLE-POLE SINGLE-THROW
SP	STATIC PRESSURE
SQFT	SQUARE FEET/SQUARE FEET
START/STOP	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	TRISLOTT
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, MATTS
WB	WET BULB
NCO	WALL CLEANOUT
WC	WATER COLUMN, WATER CLOSET
WH	WALL HYDRANT
WPD	WATER PRESSURE DROP
WP	WEATHERPROOF
WT	WATERTIGHT, WEIGHT
XPNR	TRANSFORMER
XP	EXPLOSION-FROOF

GENERAL	
	HEAVY LINEWEIGHT INDICATES NEW WORK
	CONNECT NEXT TO EXISTING LIGHT AND SCREENED LINEWEIGHT INDICATES EXISTING-TO-REMAIN
	DARK AND DASHED LINEWEIGHT INDICATES DEMOLITION WHEN SHOWN ON DEMOLITION PLAN OR NOTED
	CONSTRUCTION NUMBER
	REVISION NUMBER
	SECTION CUT THROUGH DRAWING



2 Equipotential Bonding Schematic
Scale: None

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.



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

- GENERAL NOTES:**
THE FOLLOWING NOTES SHALL APPLY TO ALL WORK SHOWN ON SHEETS SP-ME1, SP-ME2, SP-PI, SP-E1, SP-E2, AND SP-E3 AND SHALL SUPERSEDE REQUIREMENTS DEFINED IN SPECIFICATIONS.
- 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 FULL STRINGS.
 - ALL POWER WIRES AND CABLES SHALL BE COPPER, #12 AWG, UNLESS NOTED OTHERWISE. WIRE SHALL BE CODE TYPE THHN OR THWN.
 - JUNCTION, PULL, RECEPTACLE, AND LIGHT FIXTURE BOXES SHALL BE PVC.
 - ALL FLUSH WIRING DEVICES SHALL BE PROVIDED WITH JUMBO PAGES 4 SEMI-COUR STAINLESS STEEL COVER PLATES. COVER PLATES FOR WIRING DEVICES IN SURFACE BOXES SHALL BE STAINLESS STEEL UTILITY BOX COVERS, RAISED 1/4".
 - 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.
 - 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.
 - 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.
 - 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.
 - ALL BELOW GRADE CONDUITS ON SITE SHALL BE ROUTED IN GRANULAR FILL OR LOWER, AND NOT WITHIN THE CONCRETE DECK.

- ELECTRICAL PLAN NOTES:**
- #8 SOLID BARE COPPER SPRAYGROUND BONDING LOOP. BOND ALL METALLIC ITEMS AS REQUIRED BY THE NATIONAL ELECTRIC CODE, 680.26. INSTALL BONDING LOOP 18"-24" FROM INSIDE FACE OF SPRAYGROUND AND 4"-6" BELOW THE FINISHED DECK ELEVATION. SEE DETAIL #2/SP-ME2 FOR FURTHER INFORMATION.
 - EXTEND #8 BONDING WIRE INTO FILTER AREA OR PUMP PIT AND BOND TO PUMPS.
 - PROVIDE (1) 3/4" SCHEDULE 40 PVC CONDUIT WITH (2) #12 CONTROL CONDUCTORS BELOW GRADE TO FILTER/PUMP AREA AND CONNECT TO VORTEX SMARTFLOW LOGICS CONTROLLER. REFER TO ELECTRICAL PLAN ON SHEET SP-E1 FOR CONTINUATION. COORDINATE ACTIVATION BOLLARD/BUTTON LOCATION WITH POOL ENGINEER.
 - PROVIDE TWO (2) 2" CONDUITS WITH PULL STRING FOR DATA. ROUTE TO SERVICE PEDestal. COORDINATE PROVIDER AND EXACT LOCATION OF CONDUIT STUB-UP WITH OWNER DURING CONSTRUCTION.
 - CONTRACTOR SHALL COORDINATE REQUIREMENTS OF UTILITY TRANSFORMER SECONDARY FEEDER WITH THE UTILITY IMMEDIATELY AFTER BEING AWARDED THE CONTRACT.

waters edge AQUATIC DESIGN
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Kansas STATE CERTIFICATE OF AUTHORITY #E-990

PEC

landworks STUDIO

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H&B PROJECT NUMBER: 100208
H&B & Brown Engineers 2021

WICHITA, KANSAS
Spray Ground
HARRISON PARK

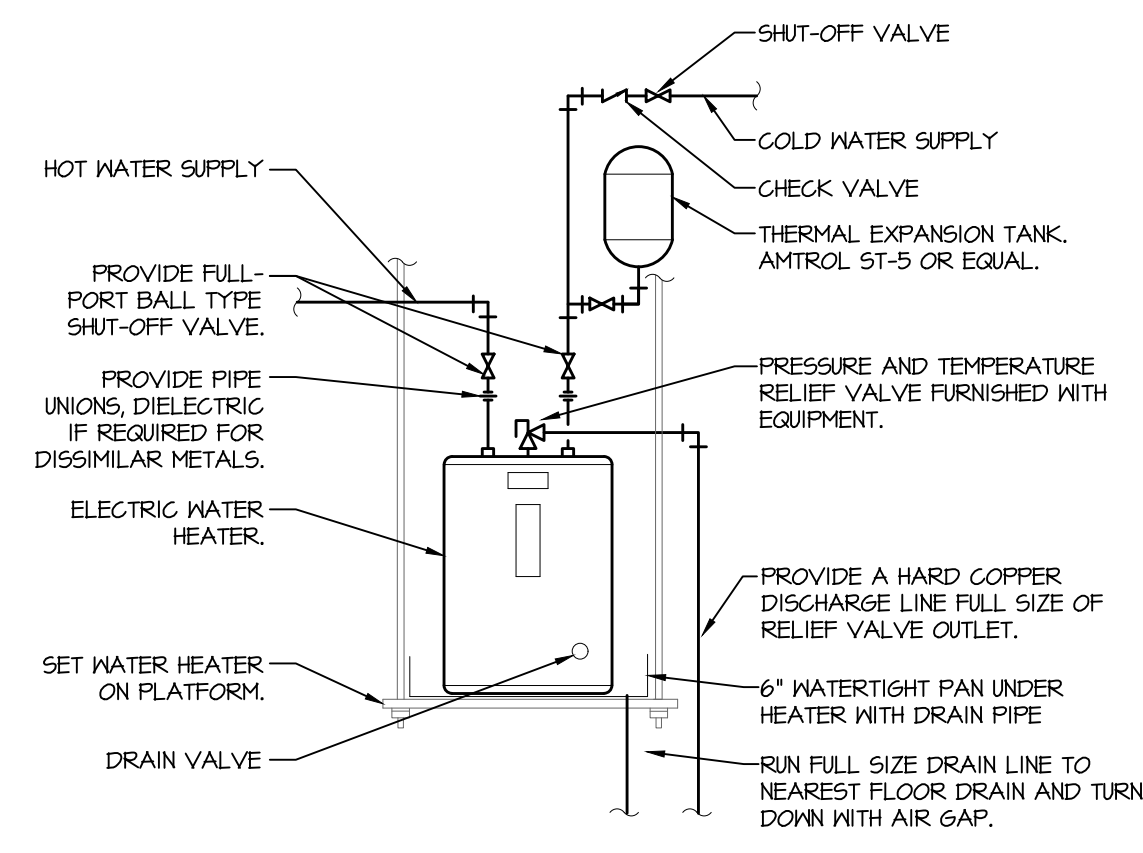
CITY OF WICHITA

Seal: **CASEY STEINER**
LICENSE #19423
PROFESSIONAL ENGINEER
10/20/21

CASEY JOHN STEINER
LICENSE #19423
Date: 10-20-21 Job #: 18-512
Drawn: CDW Checked: CJS
Issue: CONSTRUCTION DOCUMENTS

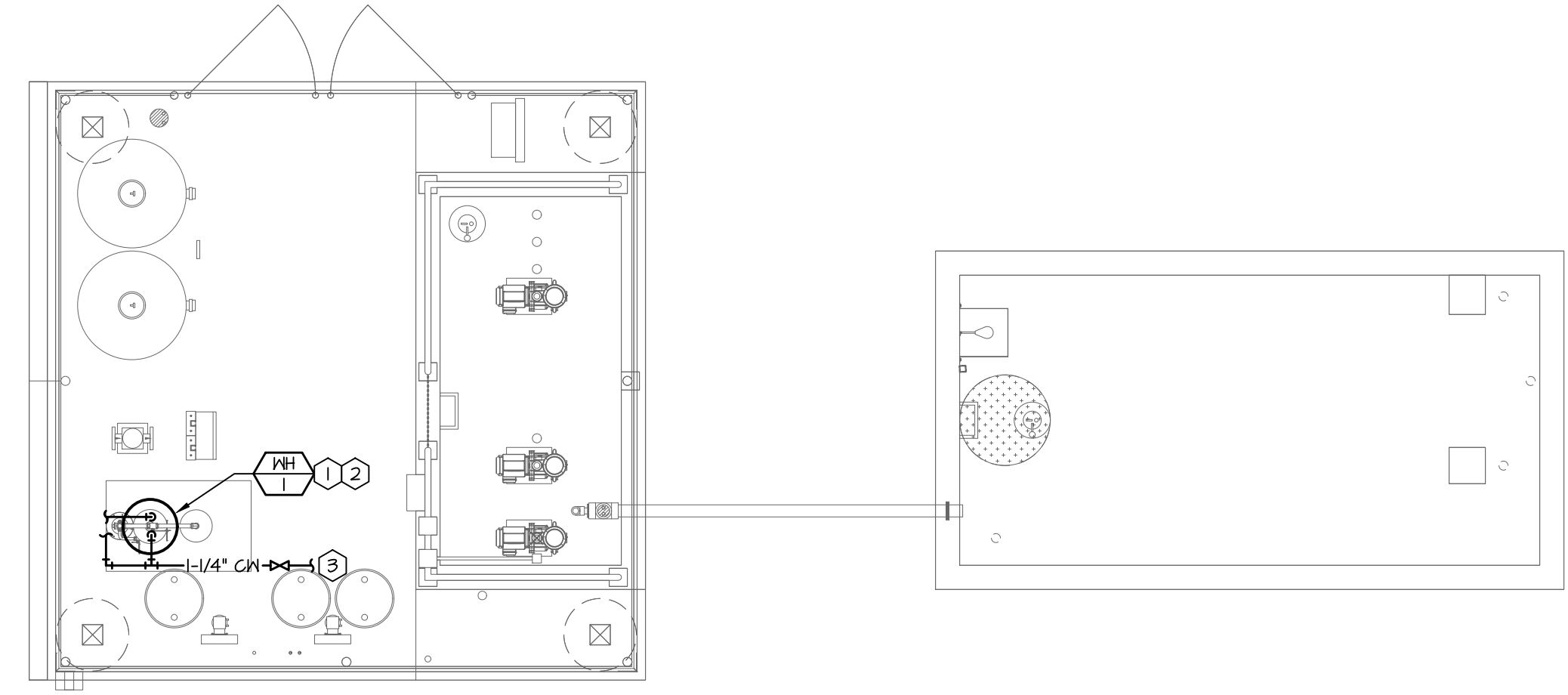
MEP SITE PLAN

SP-ME2
Water's Edge Aquatic Design
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NOTES:
 I. PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. REFER TO FLOOR PLANS FOR PIPE SIZES. SET HEATER THERMOSTAT AT 140F. PROVIDE CLEARANCES RECOMMENDED BY MANUFACTURER.

2 Water Heater Detail
 Scale: Not to Scale



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

WATER HEATER SCHEDULE							
MARK	MANUFACTURER	MODEL	CAPACITY (GAL)	INPUT (kW)	RECOVERY (GPH)	V/PH	NOTES
WH-1	BRADFORD WHITE	LD-50L3-3-1500W	41	1.5	1.0	120/1	
GENERAL NOTES (APPLIES TO ALL ABOVE):							
A. PROVIDE ASME PRESSURE AND TEMPERATURE RELIEF VALVE.							
B. PROVIDE DIELECTRIC CONNECTIONS AT WATER HEATER.							

- GENERAL NOTES:**
- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE PLUMBING SYSTEMS COMPLETE AND PER APPLICABLE CODES INCLUDING ALL NECESSARY COMPONENTS AND OFFSETS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
 - REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT LOCATIONS OF PLUMBING FIXTURES.
 - COORDINATE THE INSTALLATION OF PLUMBING AND PIPING WITH THE WORK OF ALL OTHER TRADES.
 - PIPING SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT OR PANELS, PROVIDE THE CODE REQUIRED WORKING CLEARANCE AROUND ALL ELECTRICAL EQUIPMENT AND PANELS.
 - PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL PLUMBING SYSTEMS.
 - COORDINATE THE SHUT DOWN OF ANY EXISTING SERVICES AND/OR EQUIPMENT WITH THE OWNER'S REPRESENTATIVE.
 - PLUMBING VENT PIPING THROUGH THE ROOF SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM ANY FRESH AIR INTAKE LOCATION AND A MINIMUM OF 18" CLEAR FROM THE INSIDE FACE OF THE PARAPET.
 - PROVIDE THE CODE REQUIRED CLEARANCE FOR ALL CLEANOUTS INSTALLED IN SANITARY WASTE AND VENT PIPING.
 - SLOPE ALL DOMESTIC WATER PIPING TO LOW POINTS IN THE SYSTEM AND PROVIDE DRAINS TO ALLOW COMPLETE DRAINING FOR WINTER SHUT-DOWN. INSTALL AIR VALVE AT DISCHARGE OF BACKFLOW PREVENTER FOR SYSTEM BLOW-OUT. AT PROJECT CLOSE-OUT, PLUMBING CONTRACTOR SHALL PROVIDE INSTRUCTIONS TO OWNER FOR COMPLETE WINTERIZATION OF SYSTEM, INCLUDING REMOVAL OF BACKFLOW PREVENTION ASSEMBLY. MANUAL WATER REMOVAL FROM RISER TO BELOW FROST LINE AND WINTERIZATION OF TRAPS. THESE INSTRUCTIONS SHALL BE PROVIDED IN BOTH WRITTEN FORM AND PERFORMED ON-SITE IN THE PRESENCE OF AN OWNER'S REPRESENTATIVE.
 - ALL CIRCUIT SETTERS IN HOT WATER RECIRCULATION LOOPS ARE TO BE SET FOR 0.5 G.P.M. UNLESS NOTED OTHERWISE.

- PLAN NOTES:**
- PROVIDE WATER HEATER AS SCHEDULED. WATER HEATER SHALL BE SUSPENDED FROM THE NEW STRUCTURE DIRECTLY OVER THE EMERGENCY EYEWASH/SHOWER STATION. PROVIDE 1" HOT AND COLD WATER CONNECTION TO EMERGENCY MIXING VALVE AND SET THE OUTLET TEMPERATURE TO 100 DEG F. WATER HEATER TEMPERATURE SHALL BE SET TO 140 DEG F.
 - EXTEND DRAIN LINES FROM WATER HEATER TO WET PIT AND PROVIDED AIR GAP.
 - PROVIDE NEW DOMESTIC COLD WATER LINE FROM POOL WATER SERVICE AND MAKE CONNECTION TO NEW WATER HEATER.

waters edge
 AQUATIC DESIGN
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 www.WeDesignPools.com
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WICHITA, KANSAS
 Spray Ground
 HARRISON PARK

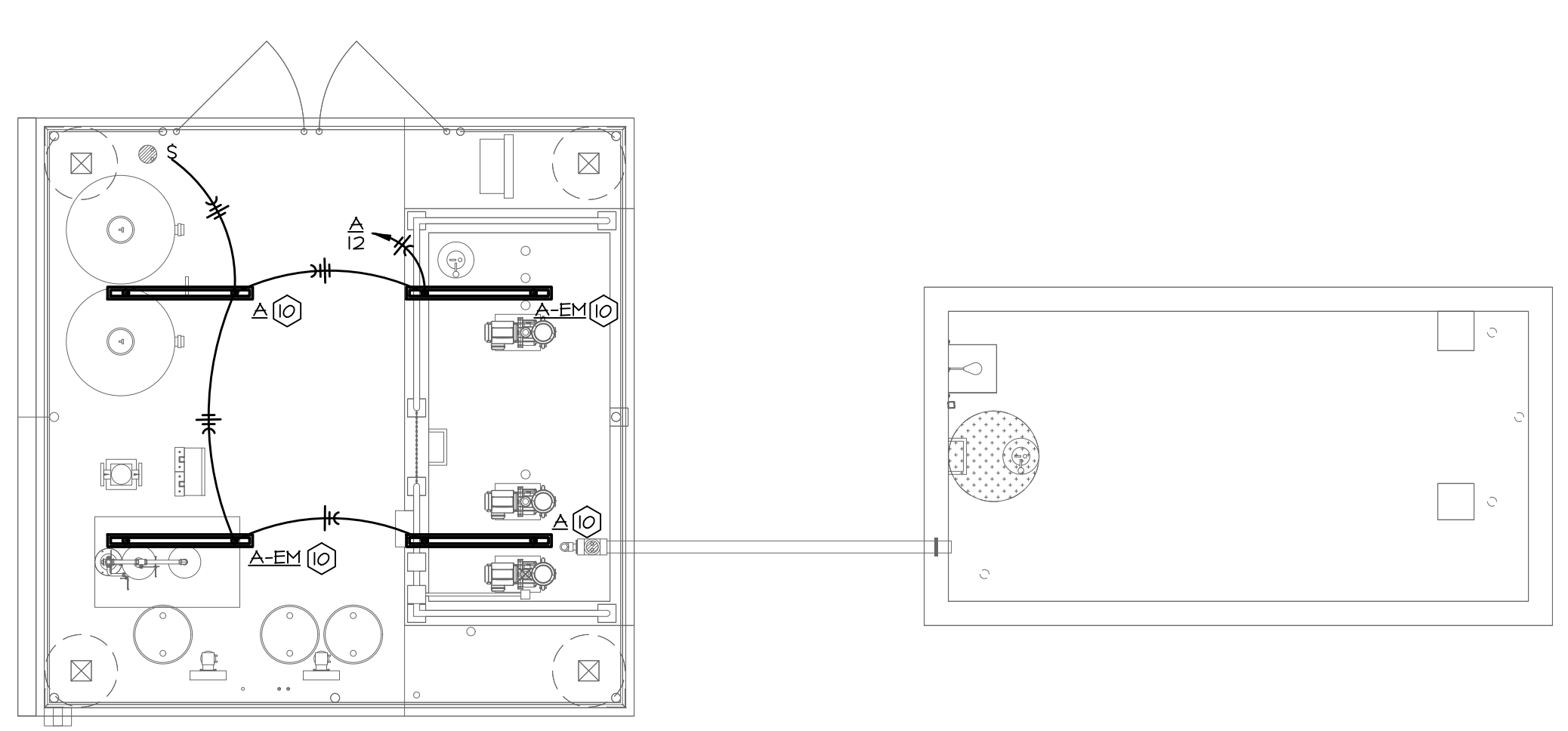


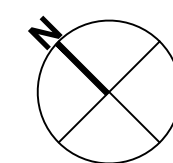
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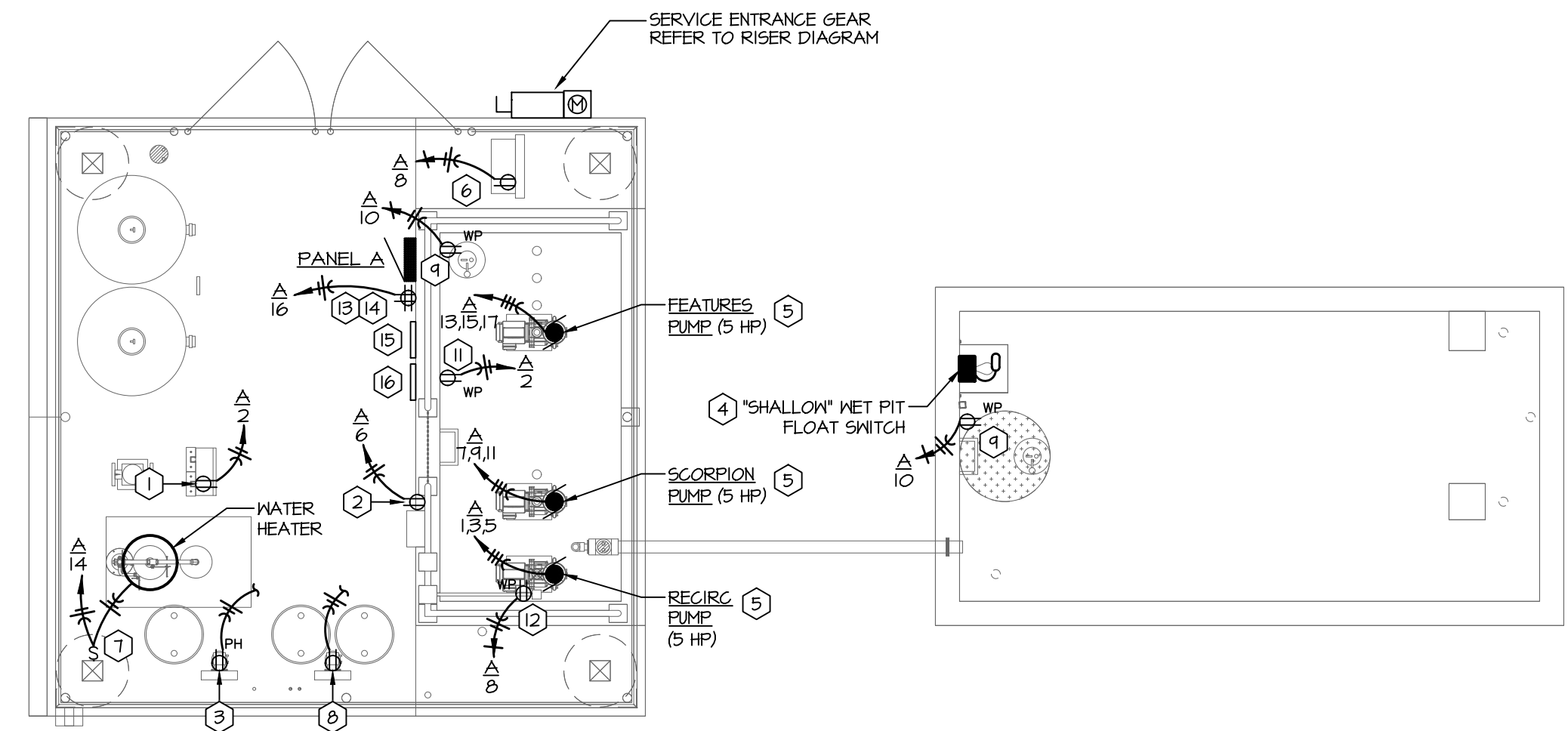
CASEY JOHN STEINER
 LICENSE #19423
 Date: 10-20-21 Job #: 18-512
 Drawn: CDW Checked: CJS

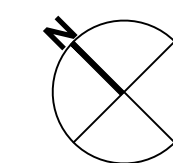
Issue: CONSTRUCTION DOCUMENTS
**PLUMBING PLAN,
 DETAILS &
 SCHEDULES**

SP-P 1
 Water's Edge Aquatic Design
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 **2** Lighting Plan
Scale: 1/4" = 1'-0"



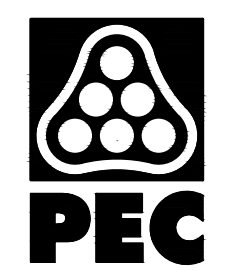
 **1** Power Plan
Scale: 1/4" = 1'-0"

GENERAL NOTES:

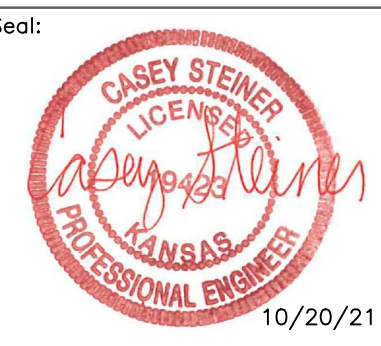
- A. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE GENERAL EXTENT OF THE WORK. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL FULL BOXES, JUNCTION BOXES AND INCIDENTAL MATERIALS AND LABOR FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
- B. ELECTRICAL CONTRACTOR SHALL DERATE CONDUCTORS AS REQUIRED 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 MET 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 FULL 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 IS COMPLETE BUT IS NOT LIMITED TO PUMPS, FILTERS, STARTERS, FEEDERS, AND CONTROLS.

PLAN NOTES:

- 1. UV SYSTEM RECEPTACLE. COORDINATE EXACT HEIGHT AND LOCATION WITH THE POOL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE ENGRAVED COVERPLATE DENOTING UV SYSTEM.
- 2. CHEMICAL CONTROLLER RECEPTACLE. PROVIDE ENGRAVED COVERPLATE DENOTING POOL SERVED AND CHEMICAL CONTROLLER. COORDINATE LOCATION WITH POOL ENGINEER AND POOL CONTRACTOR PRIOR TO INSTALLATION/MOUNT ON UNISTRUT AT APPROXIMATELY 48" AFF.
- 3. 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.
- 4. PROVIDE ZOELLER SWITCH-MATE PIGGYBACK VARIABLE LEVEL FLOAT SWITCH (VLFSS). FLOAT SHALL BE NORMALLY OPEN (NO) OR NORMALLY CLOSED (NC) PER NOTES. BE RATED FOR 15A AT 120V, AND SHALL NOT CONTAIN MERCURY. COORDINATE MOUNTING HEIGHT WITH POOL ENGINEER. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- 5. ROUTE FEEDER BELOW GRADE BETWEEN PUMP MOTOR/DRIVE AND PANEL.
- 6. PROVIDE 120V OUTLET FOR VORTEX SMARTFLOW CONTROLLER. COORDINATE LOCATION WITH POOL ENGINEER AND POOL CONTRACTOR PRIOR TO INSTALLATION/MOUNT ON UNISTRUT AT APPROXIMATELY 48" AFF.
- 7. PROVIDE 120V/1PH POWER TO NEW WATER HEATER LOCATED ABOVE EMERGENCY EYEWASH/SHOWER STATION. PROVIDE TOGGLE SWITCH DISCONNECT.
- 8. SANITIZER RECEPTACLE. CONNECT CIRCUIT TO CHEMICAL CONTROLLER. SEE CIRCULATION PUMP CONTROL SCHEMATIC ON SHEET SP-E2 FOR MORE INFORMATION. PROVIDE ENGRAVED COVERPLATE DENOTING SANITIZER FEEDER.
- 9. PUMP PUMP RECEPTACLE. PROVIDE WEATHERPROOF RECEPTACLE MOUNTED ABOVE FLOOD RIM OF PIT ON STAINLESS STEEL UNISTRUT.
- 10. CONTRACTOR SHALL SUSPEND LIGHT FIXTURES 8'-0" AFF USING STAINLESS STEEL HANGING HARDWARE.
- 11. GENERAL RECEPTACLE. PROVIDE WEATHERPROOF RECEPTACLE MOUNTED ABOVE FLOOD RIM OF PIT ON STAINLESS STEEL UNISTRUT.
- 12. MAGMETER RECEPTACLE. PROVIDE WEATHERPROOF RECEPTACLE MOUNTED ABOVE FLOOD RIM OF PIT ON STAINLESS STEEL UNISTRUT.
- 13. PROVIDE WALL-MOUNTED NEMA 3R ENCLOSURE FOR IT EQUIPMENT AND PROVIDE DEDICATED CIRCUIT TO GFI RECEPTACLE WITHIN ENCLOSURE. COORDINATE REQUIRED ENCLOSURE SIZE WITH INTERNET SERVICE PROVIDER. ENCLOSURE SHALL BE LARGE ENOUGH TO ACCOMMODATE ISP EQUIPMENT AND A 4-PORT SWITCH. CONFIRM ENCLOSURE LOCATION AND MOUNTING HEIGHT WITH OWNER.
- 14. PROVIDE (1) CAT6 PLENUM RATED DATA CABLE WITHIN 3/4" C. FROM IT RACK TO THE CHEMICAL CONTROLLER IN THE PUMP/FILTER AREA AND TO A WIRELESS ACCESS POINT TO ALLOW FOR PUBLIC Wi-Fi. CONDUIT SHALL BE ROUTED CLEANLY. CONFIRM LOCATIONS AND ROUTINGS WITH OWNER PRIOR TO CONSTRUCTION. CABLE SHALL BE BLUE 23/4 SOLID CU CAT6 PLENUM RATED DATA CABLE BY SOUTHWIRE, MODEL 56480441 OR EQUAL.
- 15. PUMP START/STOP STATION - PROVIDE PUMP START/STOP STATION. REFERENCE CIRCULATION PUMP CONTROL SCHEMATIC ON SHEET SP-E2 FOR ADDITIONAL INFORMATION. CONTROL STATION SHALL BE CENTERED 4'-6" AFF.
- 16. LOW WATER RESET STATION - PROVIDE LOW WATER PUMP RESET STATION. REFERENCE FLOAT SWITCH SCHEMATIC ON SHEET SP-E2 FOR ADDITIONAL INFORMATION. CONTROL STATION SHALL BE CENTERED 4'-6" AFF.



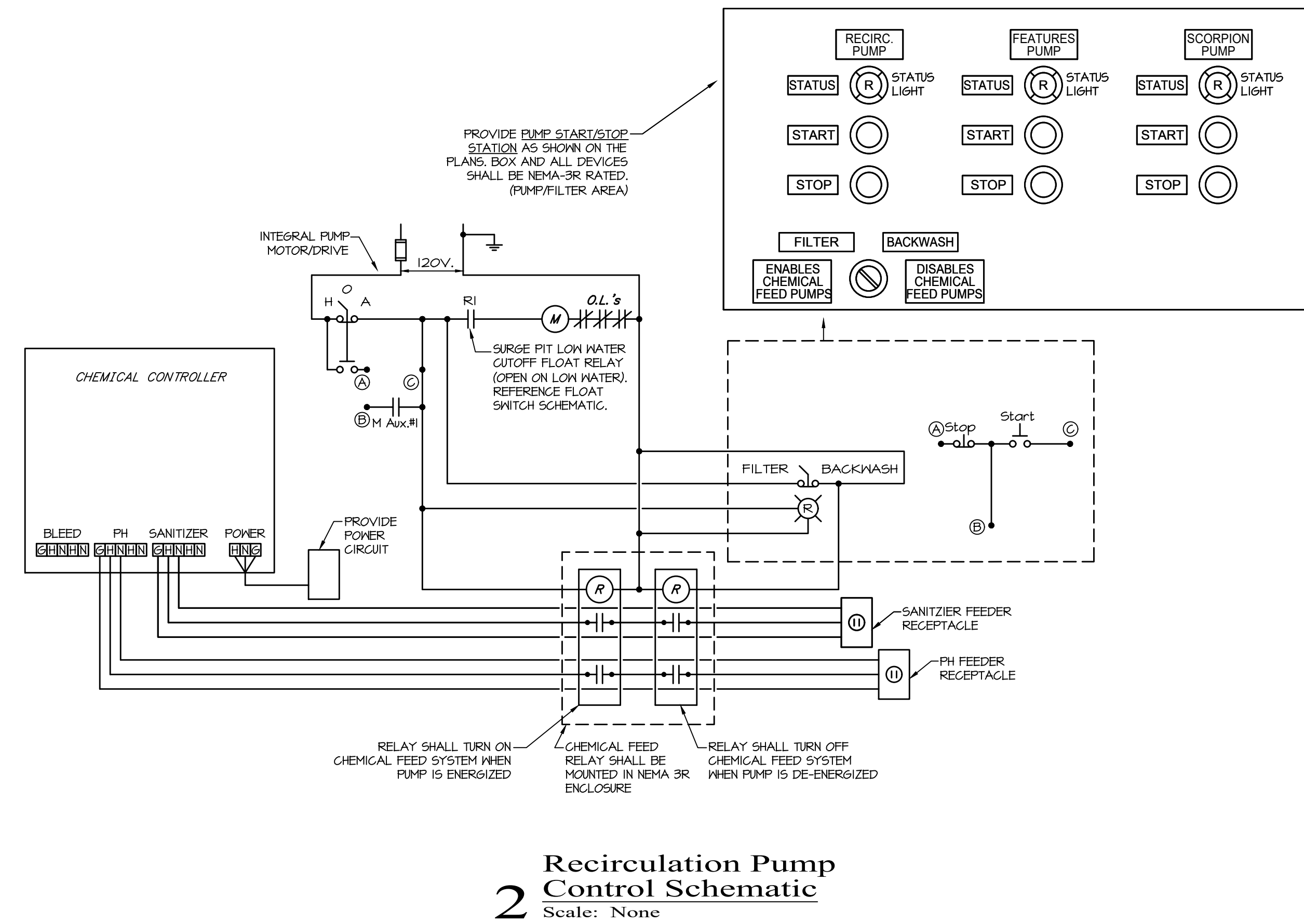
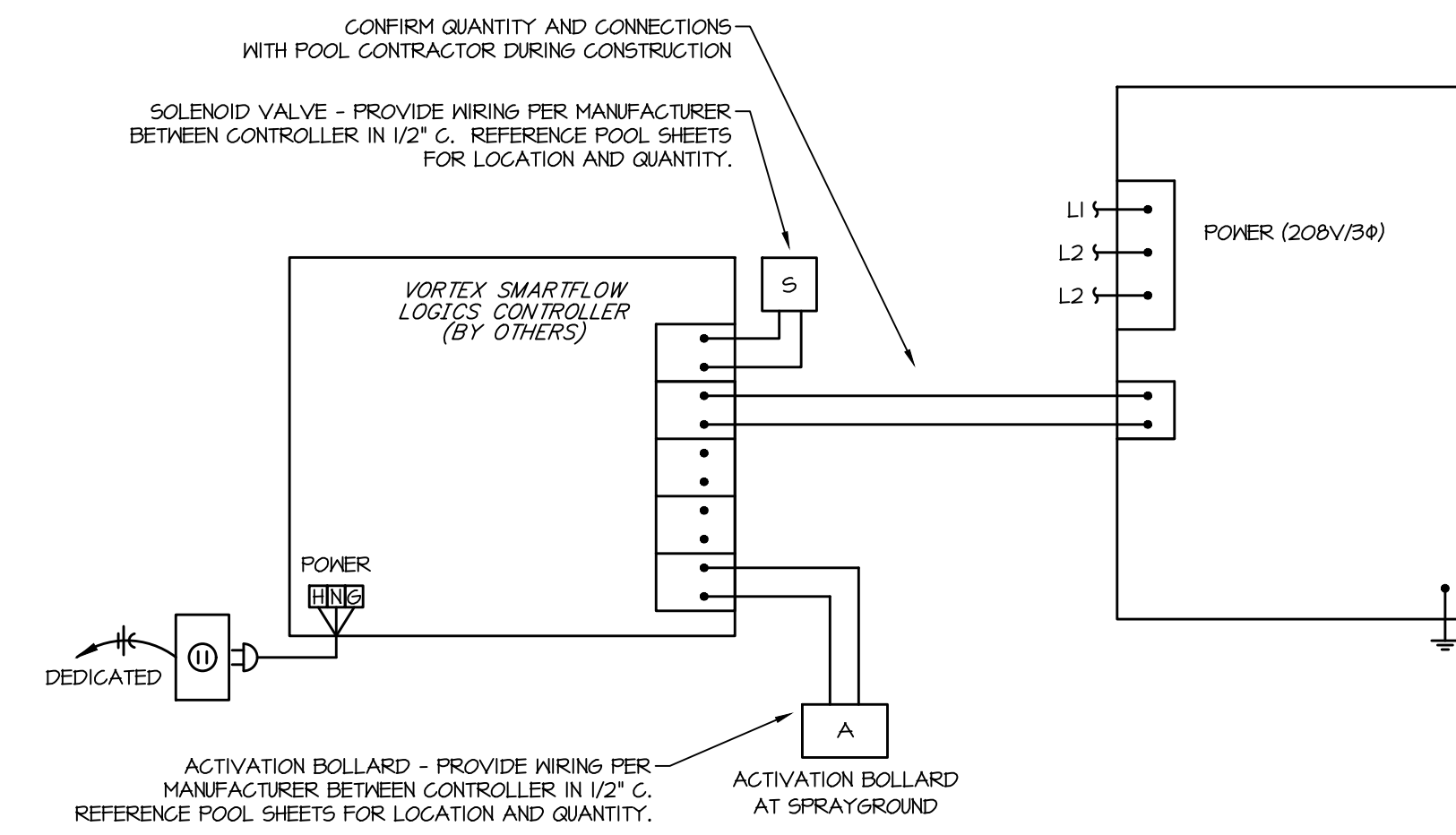
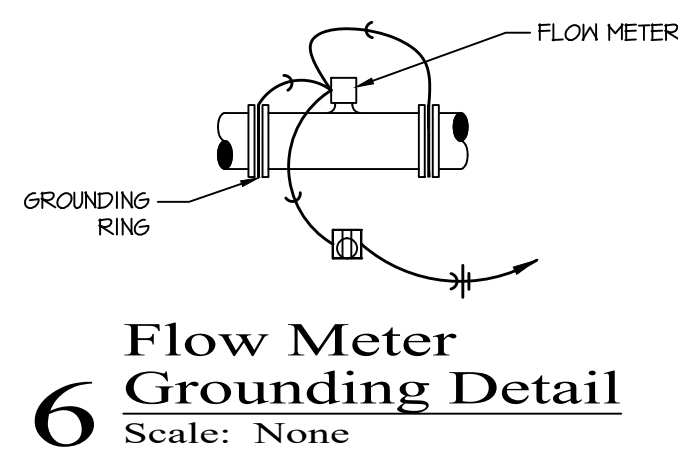
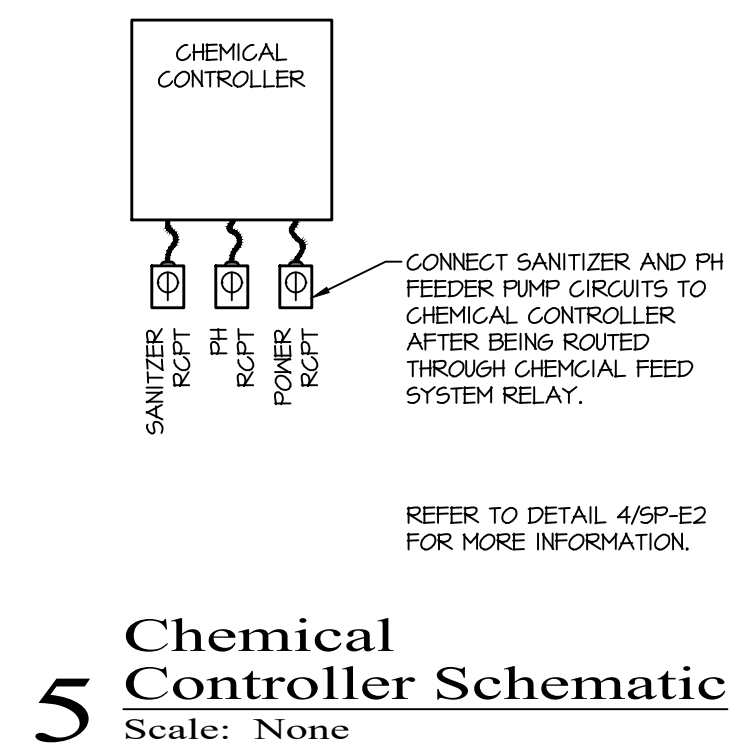
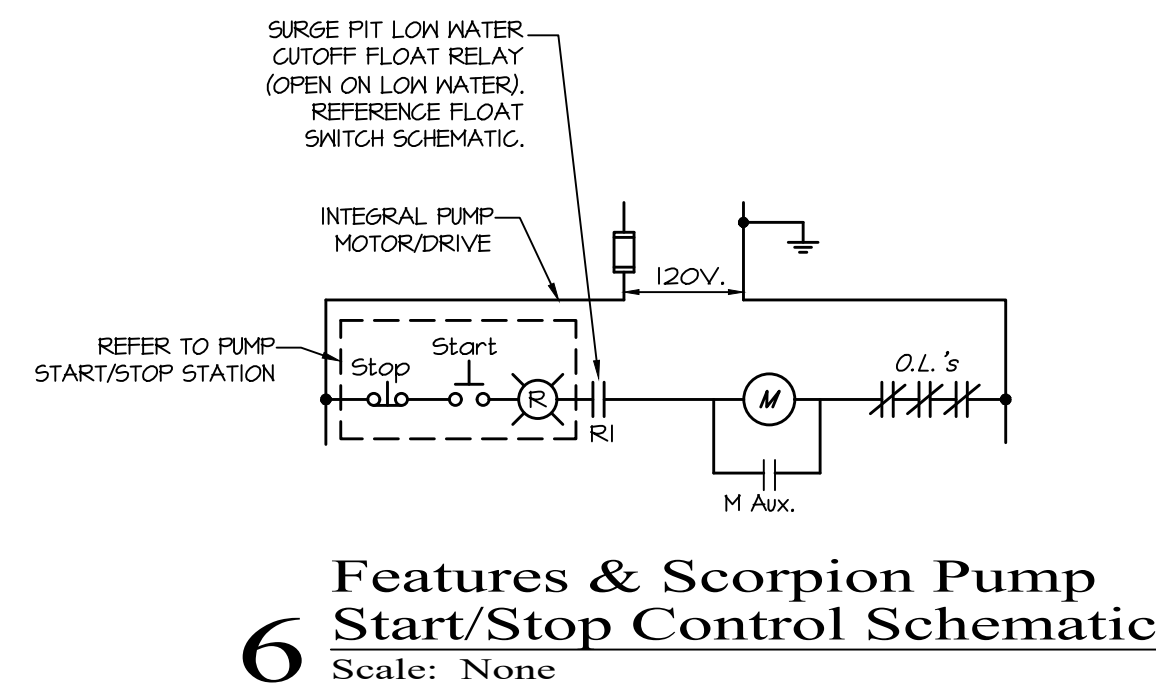
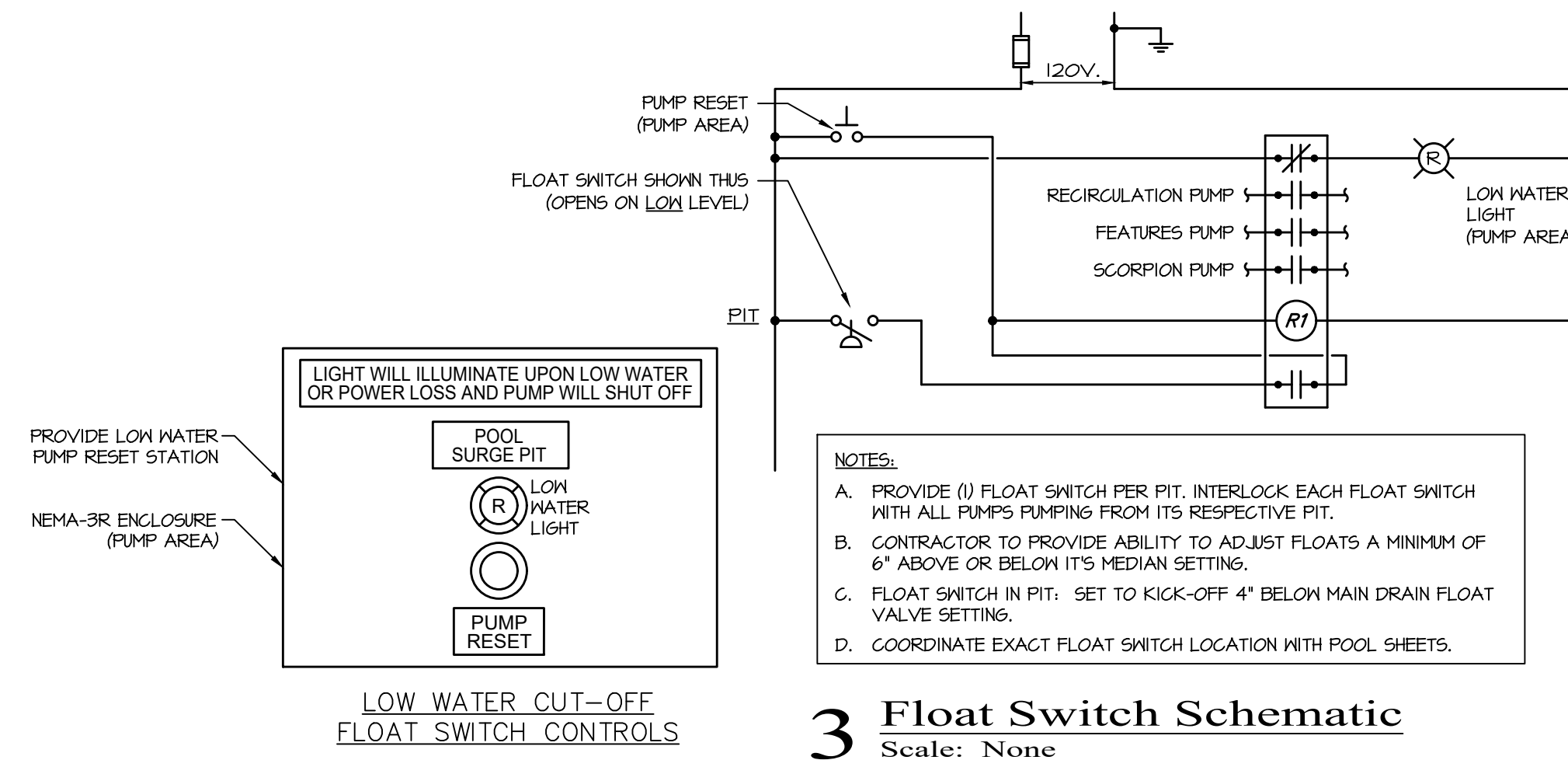
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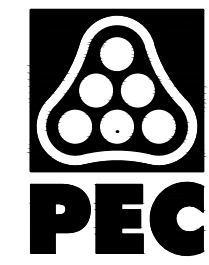
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**ELECTRICAL
PLAN**

SP-E1
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ELECTRICAL CONTRACTOR IS TO PROVIDE POOL PUMP CONTROLS, POOL PUMP CONTROLS, FLOAT SWITCHES, STARTERS, VFDS AND SWITCHES ARE NOT PROVIDED BY THE POOL CONTRACTOR.



WICHITA, KANSAS
Spray Ground
HARRISON PARK



CASEY JOHN STEINER
LICENSE #19423
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ELECTRICAL
DETAILS

SP-E2



WICHITA, KANSAS
Spray Ground
HARRISON PARK



Seal:



CASEY JOHN STEINER
LICENSE #19423

Date: 10-20-21 Job #: 18-512

Drawn: CDW Checked: CJS

Issue: CONSTRUCTION DOCUMENTS

ELECTRICAL
DETAILS AND
RISER DIAGRAM

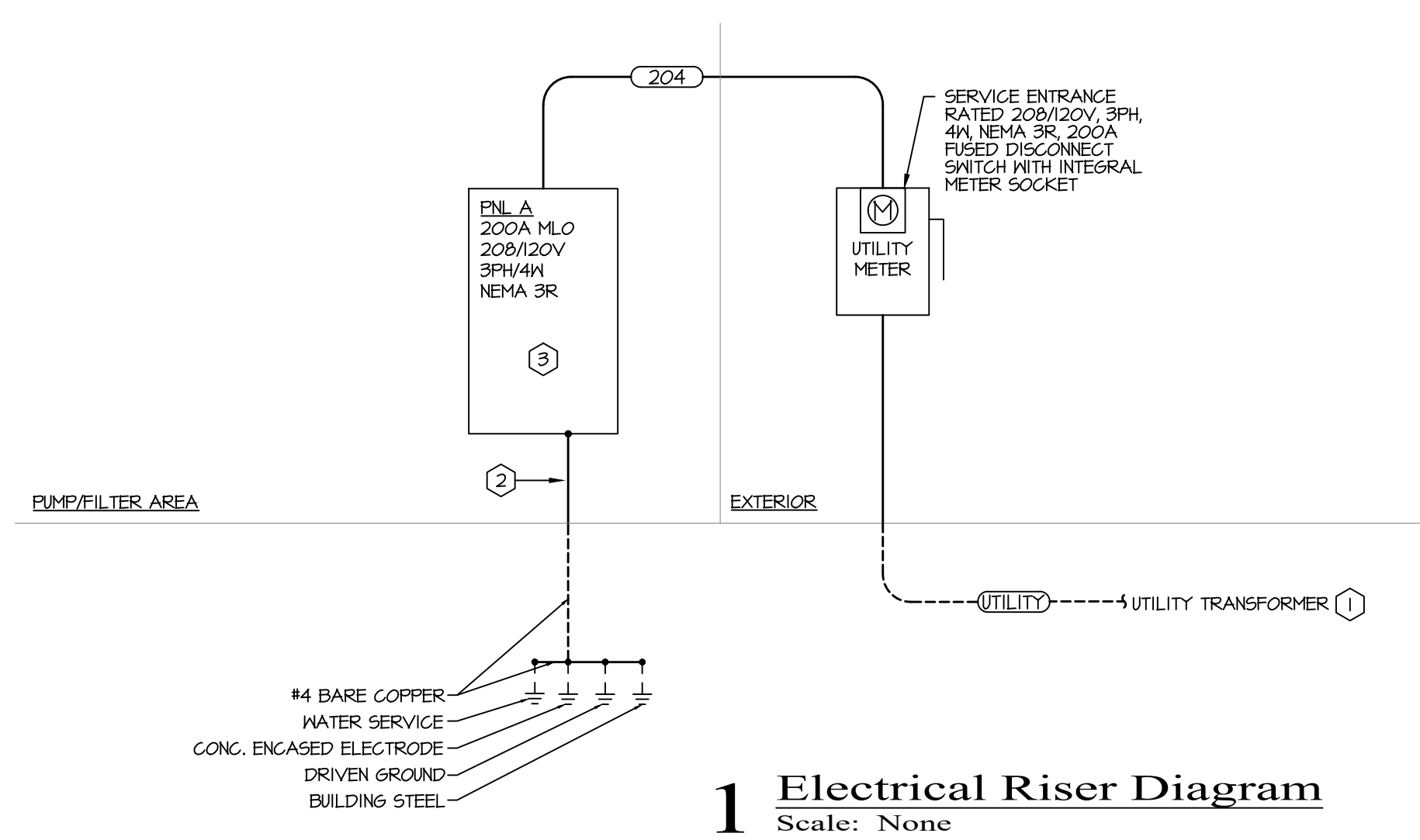
SP-E3

PANEL A							
DESCRIPTION: 200A MLO		100% Neutral Bus NEMA 3R Enclosure		VOLTAGE: 120/208V, 3PH, 4 WIRE			
22 KAIC RATING				TOTAL CONNECTED LOAD: 22kW @ 61A DEMANDED LOAD CONTINUOUS: 24kW @ 65A			
NO	LOAD (W)	LOAD DESCRIPTION	AMP P SIZE	AMP P SIZE	LOAD DESCRIPTION	LOAD (W)	
1	210T	PUMP - RECIRC (5 HP)	3	40	A 20	RCPT - GENERAL	180
3	210T				B 20	RCPT - CHEM FEEDERS	180
5	210T				C 20	RCPT - CHEM CONTROLLER	180
7	210T	PUMP - SCORPION (5 HP)	3	40	A 20	RCPT - VORTEXMAG	360
4	210T				B 20	RCPT - SUMP	180
11	210T				C 20	LITG - FILTER AREA	200
13	210T	PUMP - SPRAYS (5 HP)	3	40	A 20	WATER HEATER	1500
15	210T				B 20	IT EQUIPMENT	180
17	210T				C 20	SPARE	0
19	0	SPARE	1	20	A 20	SPARE	0
21	0	SPARE	1	20	B 20	SPARE	0
23	0	SPARE	1	20	C 20	SPARE	0
25	0	SPARE	1	20	A 20	SPARE	0
27	0	SPARE	1	20	B 20	SPARE	0
29	0	SPARE	1	20	C 20	SPARE	0

LIGHT FIXTURE SCHEDULE										
MARK	MANUFACTURER	MODEL	LAMP DATA			VOLTS	MOUNTING	TOTAL WATTS	DESCRIPTION	NOTES
			LUMENS	TYPE	COLOR (K)					
A	WILLIAMS	96-4-L40/B40-HIAFR-KET/I-DRV-UNV	4000	LED	4000K/82CRI	UNV	SURFACE	40	4" DEEP ENCLOSED INDUSTRIAL, 4FT	I
A-EM	WILLIAMS	96-4-L40/B40-HIAFR-EM/I0K-KET/I-DRV-UNV	4000	LED	4000K/82CRI	UNV	SURFACE	40	4" DEEP ENCLOSED INDUSTRIAL, 4FT, EM	I

NOTES:
I. FIXTURE SHALL BE NET LISTED.

GENERAL NOTES (APPLIES TO ALL ABOVE):
A. ALL LIGHT FIXTURES SCHEDULED AND SHOWN ON THE PLANS WITH AN 'EM' TAG SUFFIX SHALL HAVE AN INTEGRAL EMERGENCY DRIVER.
B. CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING ALL FIXTURES.



- RISER NEW WORK NOTES:**
- UTILITY SERVICE - REFER TO SHEET SP-ME2 FOR MORE INFORMATION.
 - GROUNDING - SERVICE ENTRANCE EQUIPMENT SHALL BE GROUND PER THE GROUNDING ELECTRODE SYSTEM REQUIREMENTS SET FORTH IN NEC 250.50.
 - PANEL A - CONTRACTOR SHALL PROVIDE 200A MLO, 120/208V, 22KAIC, 30 POLE NEMA 3R PANEL.

- FEEDER SCHEDULE:**
- UTILITY FEEDER BY UTILITY
 - 204 (4) #3/0, #6 GROUND IN 2" CONDUIT

1 Electrical Riser Diagram
Scale: None