CITY OF BATAVIA

DATE: November 10, 2016

TO: Plan Commission

FROM: Drew Rackow AICP, Planner

SUBJECT: Batavia Wastewater Treatment Plant, 400 South Shumway Avenue
- **PUBLIC HEARING:** Amendment to the Zoning Map for a Planned Development Overlay
- Design Review

City of Batavia, Applicant

Background and Information Submitted by the Applicant

A Public Hearing is scheduled for the November 16th Plan Commission meeting to review a request for a Zoning Map Amendment for a Planned Development with Design Review for the Batavia Wastewater Treatment Plant at 400 South Shumway Avenue. The City contracted Trotter & Associates to design this multi-phase rehabilitation and capacity expansion project. The facility was first developed in 1939. The last modifications to the facility occurred in 2001. The proposed modifications are to implement parts of the 2008 Facility Plan. Modifications will expand capacity and capabilities to meet increasing standards for the treatment of the City's wastewater. This first phase will introduce several new buildings, including a 15,500 square foot Main Operations building, replacing the existing structure. Other buildings include treatment buildings and storage to facilitate water treatment. Additional site changes include new fencing, additional landscaping, and new on-street parking areas to serve the building and the Food Pantry.

The proposed Planned Development would allow modification to the Zoning Code to permit operations at this site to be expanded within the existing developed areas of the property, and would both recognize existing non-conforming and proposed conditions. The property is designated on both the Comprehensive Plan Land Use and Zoning Maps as PFI, Public Facilities and Institutional District. The Historic Preservation Commission and City Council has approved a Certificate of Appropriateness to permit demolition of the existing Administration building. The HPC also approved the proposed site and building improvements. The property is designated as "non-contributing" in the District.

Staff Analysis

Staff believes the proposed site plan balances the City Council's desire to expand treatment capabilities without expanding the physical size of the facility's site. The proposed brick architecture reflects a traditional institutional design, rather than simply being a utilitarian structure. A new street presence is created for the facility with the proposed architecture and signage. Existing landscape along the west property line provides visual screening from the bicycle trail.

Setbacks: Most of the modifications requested as part of this project are related to building and landscape setback areas. These are to align existing site conditions with current Zoning Code requirements, and to allow the new building to be located closer to the property line. The new building is consistent in design and character with downtown construction, and is appropriately closer to the street frontage. Additionally, with limited space for this critical utility, staff believes it is important to grant these modifications. A listing of requested setback and perimeter landscape areas is included in the attached application material.

Access: Vehicular access remains the same with the site design. The bike trail would be rerouted between the food pantry and the proposed Main building. At that point, trail riders can use the street to continue on the trail, or use the sidewalk in front of the building. A stop sign would be provided to inform bicyclists

that they are approaching the street. A connection through the sidewalk to the Riverwalk needs to provided to the east; Trotter has been made aware of this need.

Parking: Parking for the site is based on the office space provided in the main building. The proposed site would have 13 spaces provided on the property. In addition the City would construct 11 new spaces on Flinn Street. Parking demand is based on the overall office space, which is 1,130 square feet. Other spaces are devoted to operations, laboratories, garage area and truck loading. This would mean a parking demand of 5 spaces for the existing building. Parking for the food pantry is provided by on-street parking. Staff recommends a modification to allow for the proposed 13 off-street spaces to provide the parking required for both the food pantry and the wastewater treatment plant, given the presence of new constructed on-street spaces.

As parking is being provided with access directly from the street, certain modifications would also be required to allow this layout. For operational concerns, visitors would be limited to these parking spaces. Internal site parking would be for employees and City vehicles. As parking is being accessed directly from the street, screening cannot be provided. Staff notes that the downtown context and security of the facility are reasons to allow this arrangement. Staff recommends that requirements to provide landscape islands for internal areas be waived. Bicycle parking would be added to the site.

Landscaping: Additional landscaping is proposed for the front of the site. The proposed landscaping would meet minimum requirements. Landscaping has been provided around transformer areas, and along the site perimeter. Existing site landscaping along the west edge would remain.

Lighting: No new site lighting is proposed. All lighting would be associated with buildings on site. Light fixtures, other than those needed for building code requirements (doors above the second floor, access areas such as staircases above the second floor) would be decorative, with more typical shielded fixtures above doors and in other areas of the site.

Signage: A new masonry sign would be installed in front of the new building, and would provide screening for electrical equipment from the street. Sign height and dimensions are proposed to comply with Zoning Code requirements.

Design Review Findings: Plan Commission action on Design Review is final. In considering approval of Design Review, the Commission must arrive at findings for approval as specified in the Zoning Code. Staff believes that the findings can be found in the affirmative. Staff provides the following responses for the Commission's consideration.

A. The project is consistent with applicable design guidelines: The proposed improvements would be generally consistent with Design Guidelines for Institutional projects.

B. The project conforms to the Comprehensive Plan, and specifically to the Land Use, Urban Design, and Environment Elements: As a proposed Public Facility & Institutional development, the project balances the Land Use priorities for developing such properties to serve expected demands with site design concerns of the Urban Design and Environment elements in the existing surrounding context. Landscape provides additional screening not currently provided along the street frontage.

C. The project is consistent with all applicable provisions of the Zoning Code: The project requests relief from the Zoning Code through the planned development. In all other regards it will be consistent with the Zoning Code.

D. The project is compatible with adjacent and nearby development: The proposed development, by fitting within the existing site, will remain compatible with nearby properties. Facility improvements may reduce impacts through improvements to the treatment process.

E. The project design provides for safe and efficient provision of public services: As approved, public services can be delivered safely and efficiently.

Staff Recommendations

Staff recommends the Plan Commission open and conduct the public hearing for the Planned Development concurrent with its consideration of the Design Review. After closing the hearing, the Commission should take the following actions.

Planned Development. Staff recommends the Commission recommend approval of the Planned Development to include the following modifications to the Zoning Code and conditions:

1. Table 2.703 to allow setbacks and minimum required perimeter landscape areas as depicted on the proposed Planned Development Site Plan.
2. Zoning Code Table 4.204: Off-Street Parking Requirements - Reduce the required number of required parking spaces to 13 spaces, with spaces accessible directly from the street. 11 on-street parking spaces shall be required to be constructed.
3. Zoning Code Section 4.205, to waive aisle requirements for off-street parking
4. Zoning Code Section 4.207 to waive driveway requirements
5. Zoning Code Section 4.211 to waive screening requirements for vehicle parking, and to waive landscape islands internally to the site.
6. Other modifications as necessary to develop the plan in accordance with the proposed Site Plan.
7. Add a sidewalk connection between the front sidewalk and the Riverwalk to the east.

Design Review. Staff recommends the Commission review and take action on the Findings for Approval as noted in the Staff Memo. Staff recommends the Plan Commission approve Design Review, subject to City Council approval of the Planned Development.

Attachment: Application Package

c Jerry Ruth, Trotter & Associates
Susan Novak, Trotter & Associates
Byron Ritchason, Wastewater Superintendent
Mayor and City Council
Department Heads
Media

City of Batavia - WWTP
Phase I Rehabilitation

Proposed List of Setback and Landscape Variances:

	Required	Proposed
Main Building		
Front (North):	30’ Bldg	30’ Bldg
	20’ Landscape	0’ – 20’ Landscape
Side (East/West):	15’	12.6’ Bldg – Bldg Spacing
Food Pantry		
Front (North):	30’ Bldg	0’ Bldg
	20’ Landscape	0’ Landscape
Side (East/West):	15’	4.7’
Chlorination Facilities		
Side (East/West):	15’	14.6’ - Bldg/Landscape
Intermediate Pump Station		
Side (East/West):	15’	0’ – Bldg/Landscape
Final Clarifier No. 1		
Side (East/West):	15’	13.7’ – Bldg/Landscape
Rear (South):	15’	9.2’ – Bldg/Landscape
Ultraviolet Disinfection:		
Rear (South):	15’	0’ – Bldg/Landscape
Final Clarifier No. 3		
Rear (South):	15’	8.5’ – Bldg/Landscape
Chemical Storage:		
Side (East/West):	15’	9.5’ – Bldg/Landscape
Nitrification Basins:		
Side (East/West):	15’	8.8’ – Bldg/Landscape
Lot 1 - Overview		
Access Drives:		
Side (East):	15’	1.2’ – Bldg/Landscape
Side (West):	15’	4.0’ – Bldg/Landscap
Parking		
Front (North):	20’ – Landscape	0’ - Landscape

Project Description:

The 2008 Wastewater Master Plan study considered replacing the Sludge Handling Building structure but determined at that time the replacement would require the purchase of additional property. Therefore, the replacement would expand the facility beyond its current boundaries. Since the 2008 Wastewater Master Plan Update, the City has decided that the expansion of the treatment facility will be done within the existing property. This means that the site will essentially need to be redeveloped to maximize use of the available space. The new Main Building will be constructed on land currently occupied by the existing Administration Building and Maintenance Garage.

Existing Administration and Maintenance Buildings

Exterior Aesthetics:

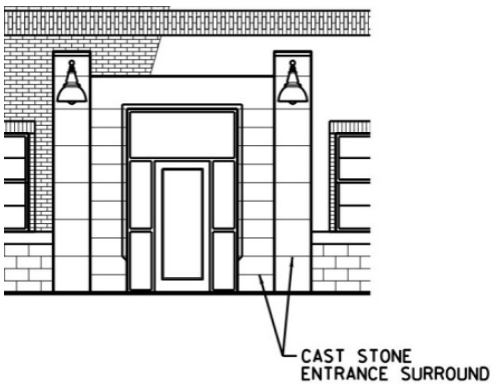
The exterior of the Main Building will be primarily brick, detailed to complement the early 20th century styles found throughout Batavia. Special detailing will include brick quoins, accent bands of projected soldier coursing and projected coursing at jambs and heads of openings. Ground floor openings will have straight soldier coursing at the head and upper level openings will have arched soldier coursing. The brick will be selected from a tan-to-brown range and will be modular size.

Proposed Main Building Rendering

The base of the building will be a chiseled-face CMU and will be capped with a cast stone water table. The entrance surround will be of cast stone and detailed to match the entrance of the original Solids Processing Building on the campus. Other cast stone features include cast stone lugged window sills and a cast stone trim at the top of the wall. The top of the wall will be finished with a factory fabricated cornice fascia, color matched to the cast stone. Doors and windows will be PVDF coated aluminum, with divided lites and green-tinted, low-e insulated glass units.

A masonry screen wall, featuring cast stone signage, coping and pilaster caps will screen the electrical transformer from public view.

Existing Solids Handling Building Entrance



Proposed Main Building Entrance

Lighting Improvements:

The existing site lighting will not be modified. Building lighting on the front of the new Main Building, facing Flinn Street, will be arm-mounted decorative down light fixtures; Sternberg Lighting "Lake Bluff Series". Pedestal mounted lights on the screen wall/entrance sign will be Sternberg Lighting "Plaza Series", to match the post-mounted fixtures along the bike trail on Shumway Avenue. All exterior building lighting will be LED Technology.

Sternberg Lake Bluff 1910 / 5LB

Sternberg Plaza 1190A

Site Improvements:

Ornamental fencing and gates will be featured at the entrance to the plant. The basis of design will be Ameristar Echelon II ornamental industrial aluminum fence, to provide security and corrosion resistance in an aesthetically pleasing style.

Ornamental Fencing

The existing bike trail will be re-routed to within Flinn Street and along the western edge of the new Main Building.

A retaining wall will be constructed on the west side of the Digester Operations building to account for the change in ground elevations. As part of the improvements to digester operations, the existing flare will be replaced in its current location.

On the west side of the plant south of the Nitrifications Basins, a chemical storage area is being constructed. This three-walled concrete structure will house two 5,400 gallon Ferric Chloride solution storage tanks.

As part of this project Flinn Street will also be reconstructed. These improvements include additional parking spaces and improved drainage along the right-of-way. A section of the brick pavers along the bike path on the east side of Shumway will also be removed and replaced in kind.

All disturbed surface will be restored to their original concrete, asphalt, grass or brick paver conditions. Additionally landscaping will be placed around the new buildings.


ILLINOIS


ILLINOIS
City of Batavia
100 South Shumway Avenue

1190 PLAZA SERIES

HID

EPA
1.15 (ft²)
WEIGHT
35 LBS

5 YEAR WARRANTY

MAXIMUM WATTAGE
250W

UL LISTED

JOB NAME

FIXTURE TYPE

MEMO

BUILD A PART NUMBER

ORDERING EXAMPLE: 2A-1190A-5P-100HPS120-MED-RE5-A-PEC-FHS/579PT/6214FP5/BKT

Mounting Config.	Fixture	Fitter	Ballast	Volts	Socket	Optic	Lens	Option Photocontrol	Option Fuse	Lamps See Lamp Spec Sheet	Arm See Arm Spec Sheets	Pole See Pole Spec Sheets	Finish

Mounting Configuration
(Click here to view mounting configuration sheet)

- 1W
- PT
- 1A
- 1APT
- 2A
- 2A90
- 2APT
- 3A
- 3A90
- 3APT
- 4A
- 4APT
- 1AM
- 2AM
- 450PB

W = Wall Mount **PT** = Post Top **APT** = Post Top Arm Mid-Mount
A = Arm Mount **AM** = Arm Mid-Mount **PB** = Pier Base

Fixture
- 1190A
- 1190B

Fitter
- 5P
- BD4
- BD5
- BD7
- OL3
- OL4

Ballast[1,2]
- 35HPS[3]
- 50HPS
- 70HPS
- 100HPS
- 150HPS
- 250HPS
- 50MHP
- 70MHP
- 100MHP
- 150MHP
- 250MHP
- 26CFL
- 32CFL
- 42CFL
- 57CFL
- 70CFL
- INCAND

[1] Medium base sockets standard with ballasts up to 150 watts. Mogul base sockets are standard with ballasts 200 watts and over. 4-PIN for CFL.
[2] Metal halide systems are pulse start.
[3] 35HPS is 120 volt only.

Volts
- 120
- 208
- 240
- 277
- 347
- 480

Socket
- MED
- MOG
- 4P (4-PIN)

Optic
- NONE
- RE3
- RE5
- ALZAK
- HSS
- LO3
- LO5

Lens
- A (Acrylic)
- WA (White Acrylic)
- P (Polycarbonate)
- WP (White Polycarbonate)

Options
- **PEC** Electronic Photocontrol 120-277 Volt
- **FHS**[4] Single Fuse & Holder - 120, 277 Volt
- **FHD**[4] Dual Fuse & Holder - 208, 240, 480 Volt
- **LAMPS** See Lamp Specification Sheet

[4] Ships loose for installation in base.

Arm (Click here to view arm website page)
See Arms & Wall Brackets specification sheets.

- 50
- 478
- 70
- 80
- 480
- 55
- 779
- 6236
- 579
- TA
- TASCR
- BA

Pole (Click here to view pole website page)
See Pole specification sheets.

Finish (Click here to view paint finish sheet)

Standard Finishes[5]
- **BKT** Black Textured
- **WHT** White Textured
- **PGT** Park Green Textured
- **ABZT** Architectural Medium Bronze Textured
- **DBT** Dark Bronze Textured

[5] Smooth finishes are available upon request

Custom Finishes[6]
- **CM** Custom Finish
- **OI** Old Iron
- **RT** Rust
- **WBR** Weathered Brown
- **CD** Cedar
- **WBK** Weathered Black
- **TT** Two Tone

[6] Custom colors require upcharge.

Sternberg Select Finishes
- **VG** Verde Green
- **SI** Swedish Iron
- **OWGT** Old World Gray Textured

Specifications

Fixture
The 1190A fixture shall be 18" in diameter and 38" tall. The 1190B fixture shall be 18" in diameter and 44-3/4" tall. The acorn globe shall be made of vandal resistant clear textured polycarbonate or dent resistant (DR) clear textured acrylic. White textured is also available. The cage shall be made of cast aluminum, 356 alloy for high tensile strength.

Fitter - Standard
The fitter shall be heavy wall cast aluminum, 356 alloy for high tensile strength. It shall have an 8-1/2" inside diameter opening to attach to the 8" neck of the acorn globe. When ordered with a Sternberg aluminum pole, the fitter shall be welded to the pole top or tenon for safety and to ensure the fixture will be plumb, secure and level over the life of the installation. The fitter shall have a one-piece ring bug gasket to resist insect penetration into lamp assembly.

Electrical
Fixture shall be UL listed in US and Canada. HID ballasts shall be high power factor with lamp starting down to -30 degrees C. Medium base and mogul base porcelain sockets are 4KV rated. The ballast/socket assembly shall be pre-wired when ballast is located in the fitter. Ballasts shall be DOE EISA compliant.

Optical Options
Refractors shall be borosilicate glass with an IES type 3 or 5 distribution, using a vertically mounted lamp. It shall be secured to the socket/stem with 3/8"plated steel threaded pipe nipple and rest on a cast aluminum holder with anti-shock gasket. The refractor will be secured to cast holder with a quarter-turn internal aluminum twist ring for ease of maintenance.

Alzak Disk shall be an optical shield to help direct light downward. It shall be 7"diameter and made of specular reflective aluminum and mounted directly above a vertically mounted lamp.

NIGHTSKY® OPTI-SHIELD® Louver Optic System shall be a multi-tier reflector with 7"diameter rings to produce an IES cut-off type 3 or 5 distribution. The Louver optic System shall be made of highly specular anodized aluminum and shall come stan dard with medium base socket.

House Side Shield shall be an additional optic used to block 120° of light in any one direction.

Photocontrols
Button Style: On single post top fixtures the photocontrol shall be mounted in the fitter and pre-wired to ballast.

See next page

SternbergLighting
ESTABLISHED 1923 / EMPLOYEE OWNED

800-621-3376
555 Lawrence Ave., Roselle, IL 60172
info@sternberglighting.com
www.sternberglighting.com

1190 PLAZA SERIES

HID

On multiple head fixture assembly's photocontrol shall be mounted in the pole shaft on an access plate and are not pre-wired as ballast housing assemblies and fitters are packaged separately for ease of wiring to source. The electronic button type photocontrol is instant on with a 5-10 second turn off, and shall turn on at 1.5 foot-candles with a turn-off at 2-3 footcandles. Photocontrol is 120-277 volt and warranted for 6 years.

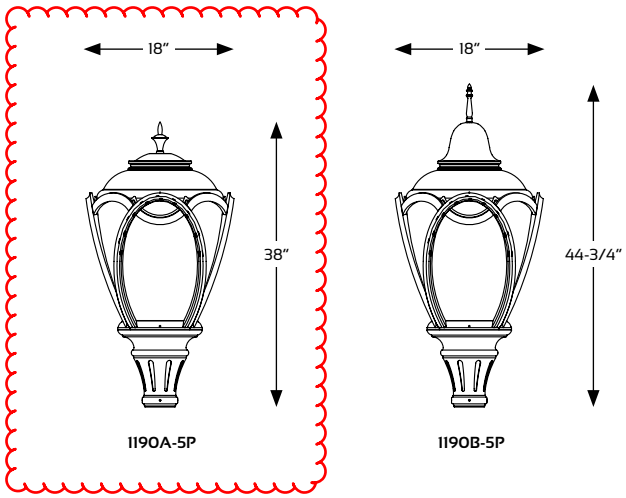
Warranty

Five-year limited warranty. See product and finish warranty guide for details.

Finish

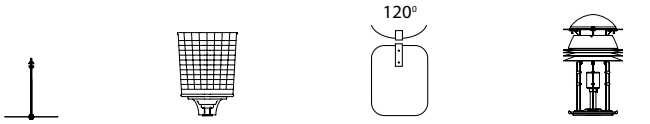
Refer to website for details.

Fixture Examples



1190A-5P **1190B-5P**

Optical Systems



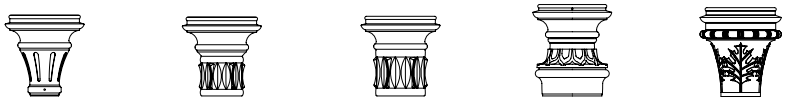
ALZAK
Alzak Disc

RE3
RE5
Refractor

HSS
House Side Shield

LO3
LO5
Louver Optics

Fitters



10-1/8" W 10-3/8" H	10-1/8" W 10-1/8" H	10-1/8" W 10-1/4" H	10-1/8" W 11-3/4" H	10-1/2" W 11-3/8" H
5P Fits 3" OD x 3" tall tenon/pole	**BD4** Fits 4" OD x 5" tall tenon/pole	**BD5** Fits 5" OD x 6" tall tenon/pole	**BD7** Fits 7" OD x 1" tall tenon/pole	**OL3** Fits 3" OD x 3" tall tenon/pole **OL4** Fits 4" OD x 3" tall tenon/pole

3
2015

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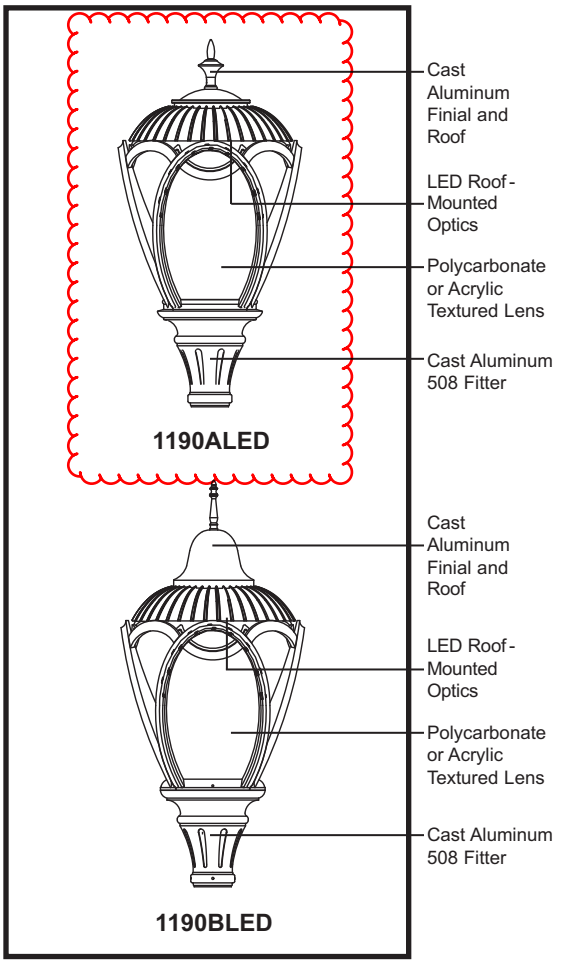
www.sternberglighting.com

1190A LED / 1190B LED PLAZA SERIES Specifica tionS

LUMINAIRE DESIGN

• the luminaire shall be an elegantly styled fixture which consists of a decorative cast aluminum fitter, a polycarbonate or clear acrylic textured acorn and a cast aluminum roof.
• the luminaire shall have LeD light sources and roof mounted, down-lighting optics.
• the luminaire shall feature a fully cast aluminum decorative cage surrounding the acorn.
• the cage shall consist of 16 Victorian pallets on the ring and 4 slender "Y" shaped supports.
• the luminaire shall be appointed with a cast aluminum decorative torch finial.
• the 1190aLeD luminaire shall be 17 3/4" diameter and 35 1/2" over-all height.
• the 1190BLeD luminaire shall have an optional taller bell shaped roof appointed with a spindle finial and measures 17 3/4" diameter and 39 1/4" over-all height.
• the luminaire shall be U.L. or e .t .L. listed in U.S. and canada.



EPA = 1.15 (ft²)
WEIGHT = 45 LBS

POST FITTER - STANDARD

• the fitter shall be heavy wall cast aluminum for high tensile strength.
• t he fitter shall have an inside diameter opening of 8 1/2" to attach to the 8" neck of the acorn globe.
• When ordered with a Sternberg pole, the fitter shall be welded to the pole top or tenon to ensure safety and to ensure the luminaire will remain plumb and level over the luminaire life.

DRIVER

• the LeD driver shall be securely mounted inside the fitter, for optimized performance and longevity.
• the LeD driver shall be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections and fixture installation.

LIGHT SOURCES

• the luminaire shall use high output, high brightness LeDs.
• the LeDs shall be mounted in arrays, on printed circuit boards designed to maximize heat transfer to the heat sink surface.
• the LeDs shall be attached to the printed circuit board with not less than 90% pure silver to insure optimal electrical and thermal conductivity.

(Continued on next page)

1190A LED / 1190B LED PLAZA SERIES Specifica tionS

LIST NO. 1190A LED / 1190B LED PLAZA SERIES

• the LeDs and printed circuit boards shall be protected from moisture and corrosion by a conformal coating of 1 to 3 mils.
• the LeDs and printed circuit board construction shall be environmentally friendly and 100% recyclable. they shall not contain lead, mercury or any other hazardous substances and shall be RoHS compliant.
• the LeD life rating data shall be determined in accordance with ieSna LM-80.

OPTICS

• the luminaire shall be provided with individual, acrylic, refractor type optics applied to each LeD.
• the luminaire shall provide t ype ___ (2, 3, 3R, 4 or 5) light distribution per the ieSna classifications. t esting shall be done in accordance with ieSna LM-79.

PERFORMANCE

• the LeD arrays are built in series-parallel circuits which maintain overall light output in the event of single LeD failures.
• the LeDs and LeD driver shall operate over a -40°c (-40°f) to +50°c (122°f) ambient air temperature range.
• the High performance white LeDs will have a life expectancy of approximately 100,000 hours with not less than 70% of original brightness (lumen maintenance), rated at 25°c.
• the High Brightness, High output LeD's shall be 4500K (3500K or 2700K option) color temperature with a minimum of 75 cRi.
• the luminaire shall have a minimum _____ (see table) initial delivered lumen rating when operated at steady state with an average ambient temperature of 25°c (77°f).

LIGHT SOURCE	T2 SPEC LUMENS	T3 SPEC LUMENS	T3R SPEC LUMENS	T4 SPEC LUMENS	T5 SPEC LUMENS	WATTS
4A1R27T-MDL03	5255	4930	5240	5120	5260	92
4A1R35T-MDL03	6000	5625	5980	5845	6000	92
4A1R45T-MDL03	6740	6325	6720	6565	6740	92
4ARC27T-MDL03	3565	3335	3526	3410	3560	64
4ARC35T-MDL03	4065	3805	4025	3890	4065	64
4ARC45T-MDL03	4570	4280	3526	4370	4565	64
1RND27T-MDL03	1845	1745	1860	1860	1835	32
1RND35T-MDL03	2105	1995	2120	2120	2095	32
1RND45T-MDL03	2365	2240	2380	2385	2350	32

1190A LED / 1190B LED PLAZA SERIES Specifica tionS

LIST NO. 1190A LED / 1190B LED PLAZA SERIES

ELECTRONIC DRIVERS

- the driver shall be U.L. or e.t .L. Recognized.
- the driver shall have overload as well as short circuit protection.
- the driver shall be a Dc voltage output, constant current design, 50/60HZ.

For 4ARC and 4A1R LED Light Sources

- the driver shall have a minimum efficiency of 90%.

t he driver shall be rated at full load with t HD<20% and a power factor of greater than 0.90.

- the driver shall contain over-heat protection which reduces output to less than half rating if the case temperature reaches 85°c.

For 1RND LED Light Sources

- the driver shall have a minimum efficiency of 88%.

ACORN

- the acorn shall be made of _____ (vandal resistant, clear textured poly-carbonate or dent resistant (DR clear textured acrylic). for acrylic add "a" to model number.
- the acorn shall be supplied with a cast aluminum finial and a solid, cast aluminum roof which includes optimized heat sinks to provide maximum life and performance for the LeD light sources.
- the acorn shall be sealed to the cast aluminum roof to provide a moisture-free and bug-free optics chamber for the LeD light sources and rated ip65.
- * the acorn shall be a white textured polycarbonate. * OPTION

ARMS

- the arms shall be cast aluminum and/or extruded aluminum.
- arms with decorative filigree shall have meticulously detailed scroll work and gracefully curved brackets.
- **(All except BAPT and 779 arms)** the arms shall be bolted to a post mount adaptor which is welded to the pole to ensure proper alignment.
- **(Twin TA and twin 579 arms)** the arms shall be attached to a decorative center hub which will fit the center tenon of the pole (not shown).

1190A LED / 1190B LED PLAZA SERIES Specifica tionS

LIST NO. 1190A LED / 1190B LED PL:AZA SERIES

PHOTOCELL OPTIONS

Electronic Button Cell Option

- photocells shall be electronic button type.
- on single post-top fixtures, the photocell shall be mounted in the fitter and pre-wired to the driver.
- on multiple head fixtures, photocells shall be mounted in the pole shaft, on an access plate. t he photocell is not pre-wired since drivers are mounted in the fitters and packaged separately.
- the photocell is instant-on at 1.5 foot-candles and turns off 5-10 seconds at 2-3 foot-candles.
- the photocell is 120V-277 volt.

FINISH

- prior to coating, the luminaire shall be chemically cleaned and etched in a 5-stage washing system which includes alkaline cleaning, rinsing, phosphoric etching, reverse-osmosis water rinsing and non-chrome sealing to ensure corrosion resistance and excellent adhesion for the finish coat.
- the finish coat shall be an electrostatically applied semi-gloss, super durable polyester powder coat, baked on at 400°f, to provide a durable, color retentive finish.
- *the optional _____ (Verde Green or Swedish iron) finish shall be hand-brushed using a 3-step process. * (OPTION)

WARRANTY

- the luminaire shall be free from all defects in materials and workmanship for a period of seven (7) years from the date of manufacture.
- the luminaire manufacturer shall warrant the LeD boards/system, during the stated warranty period, against failure defined as more than three (3) simultaneous non-operating LeDs.
- the driver shall be warranted for seven (7) years.

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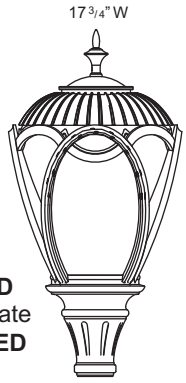
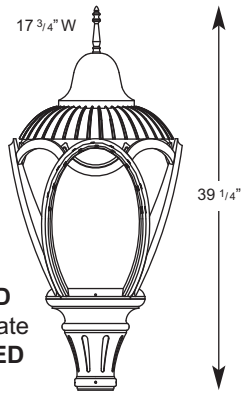
1190A LED / 1190B LED PLAZA acoRn S / fitteRS / aRMS pM - WB

CAGED ACORNS

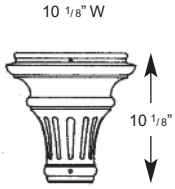


1190ALED
Polycarbonate
1190A/ALED
Acrylic

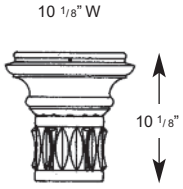


1190BLED
Polycarbonate
1190B/ALED
Acrylic

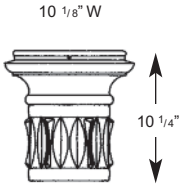
FITTERS



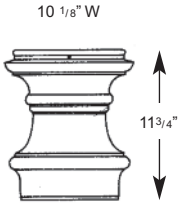
5P
(508)
Fits 3" poles or tenons and arms below



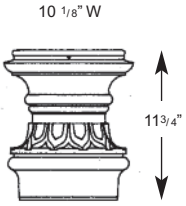
BD4
(508BD4)
Fits 4" poles or tenons



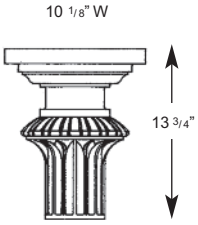
BD5
(508BD5)
Fits 5" poles or tenons



B7
(508B7)
Fits 7" poles or tenons



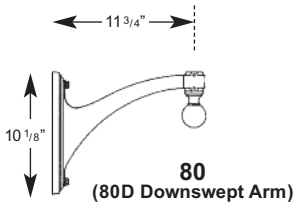
BD7
(508BD7)
Fits 7" poles or tenons



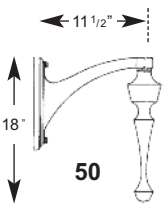
7
(708)
Fits 4" poles or tenons - 3" with adapter & large arms

ARMS - POST MOUNT (PM) or WALL BRACKETS (WB)

See Arms Section for more information



80
(80D Downswept Arm)



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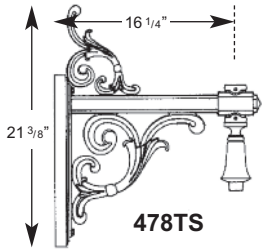
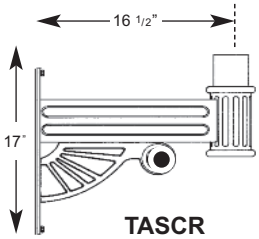
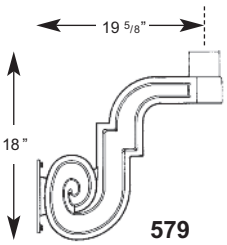


478TS



TASCR



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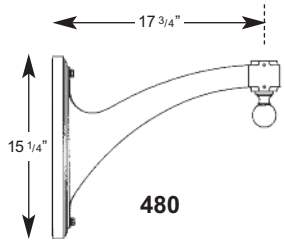

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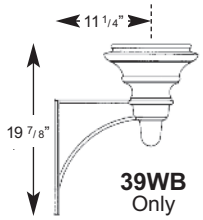
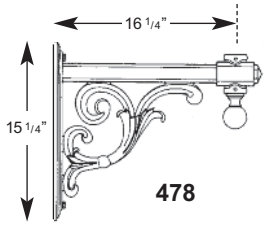


39WB
Only



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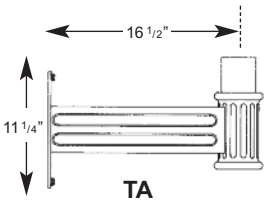
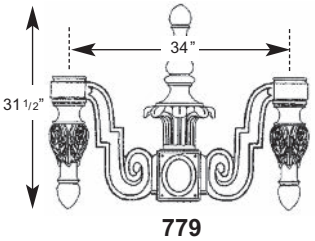


TA



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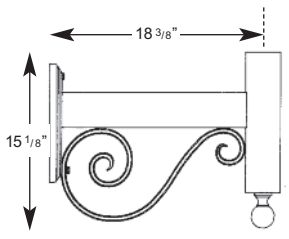
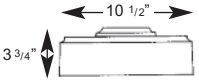
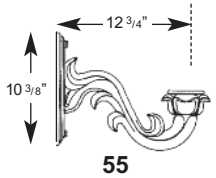


6-16 **6236**



450PB



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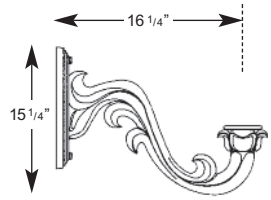
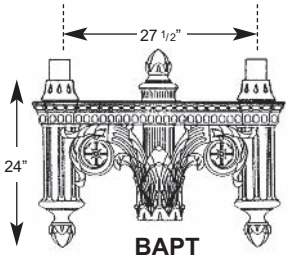
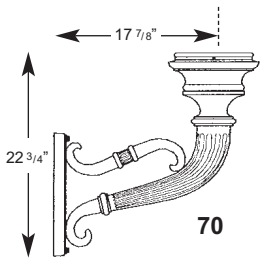


55L



BAPT
Twin Only



70

BUiLDinG a p aR t nUMBeR

POST & ARM FIXTURES

ARM MOUNTED FIXTURE			CENTER POST TOP FIXTURE (PT)		POST	POST CAP		LIGHT SOURCE			DRIVER	OPTIONS	FINISH
NO. OF ARMS		ACORN/FITTER/POSTARM		ACORN/FITTER		(See Post Section)			LED	COLOR	TYPE		
2	/	1190ALED/5P/579PT	/		PT /	4212FP4	/	/	4A1R	45	T5	/ MDL03 /	/ BKT

WALL FIXTURES

ACORN/FITTER/WALL BRACKET	LIGHT SOURCE			DRIVER	OPTIONS	FINISH
	LED	COLOR	TYPE			
1190ALED/5P/6236WB /	4ARC	45	T3	/ MDL03	/ /	BKT

PIER FIXTURES

Uses same information boxes as wall fixture

1190ALED/5P/450PB

ACORN / FITTER / PIER BASE

PART NUMBER SELECTIONS

ACORNS
- 1190ALED[1]
- 1190A/ALED
- 1190BLED[1]
- 1190B/ALED

FITTERS
- 5P
- 7
- BD4
- BD5
- BD7
- B7

DRIVERS
- MDL03 - Dimming 120-277
- MDH03 - Dimming 347-480

POST ARMS
- 50PM
- 50DPM
- 478PM
- 478TSPM
- 70PM*
- 80PM
- 80DPM
- 480PM
- 480DPM
- 55PM
- 55LPM
- 6236PM
- 579PT
- TAPT
- TASCRPT
- BAPT

PIER BASE
- 450PB

WALL BRACKET ARMS
- 50WB
- 50DWB
- 478WB
- 478TSWB
- 70WB*
- 80WB
- 80DWB
- 480WB
- 480DWB
- 55WB
- 55LWB
- 6236WB
- 579WB
- TAWB
- TASCRWB
- 39WB*

*No fitter required

LIGHT SOURCES*

LED	COLOR TEMP (K)	TYPE
4A1R	45(00)	T2
4ARC	35(00)	T3
1RND	27(00)	T3R
		T4
		T5

*Consult factory for other color temperatures

OPTIONS
- PEC Photocell-Electronic 120-277 Volt
- FHD Dual Fuse & Holder
- PF per arm Pineapple Finial or Font (for TA, TASCR)
- BF per arm Ball Finial or Font (for TA, TASCR)

STANDARD FINISHES*
- BKT Black Textured
- WHT White Textured
- PGT Park Green Textured
- ABZT Architectural Medium Bronze Textured
- DBT Dark Bronze Textured

*Smooth Finishes are available upon request

CUSTOM FINISHES
- OI Old Iron
- RT Rust
- WBR Weathered Brown
- CD Cedar
- WBK Weathered Black
- TT Two Tone

STERNBERG SELECT FINISHES
- VG Verde Green
- SI Swedish Iron
- OWGT Old World Gray Textured

NOTES:
[1] White polycarbonate acorns are available. Specify WP after acorn number.

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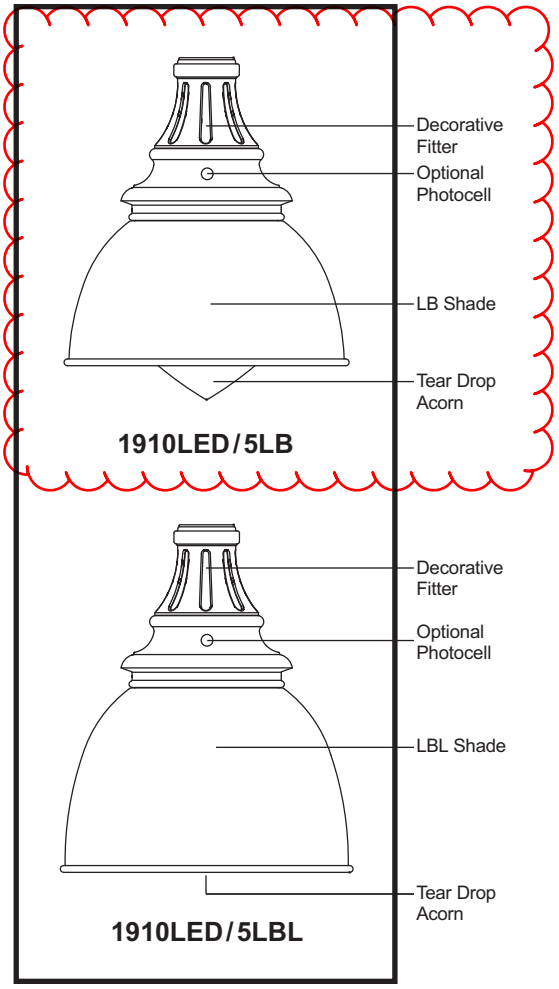
1910LED/5LB-5LBL LAKE BLUFF SERIES Specifica tionS

LUMINAIRE DESIGN

• the luminaire shall be a decorative down light fixture which consists of a decorative cast aluminum fitter, a spun aluminum shade and lens.
• the luminaire shall have LeD light sources with down lighting optics.
• the luminaire shall be supplied with line-ground, line-neutral and neutral-ground electrical surge protection in accordance with ieee /anSi c62.41.2 guidelines.
• the luminaire shall be U.L. or e.t L. Listed in U.S. and canada.

POST FITTER

• the fitter shall be heavy wall cast aluminum for high tensile strength.
• t he fitter shall have an inside diameter opening of 9 1/4" to accept the Le D/LB or Le D/LBL assembly.
• the large end of the fitter shall have four (4) stainless steel, allen head set screws which secure the LeD /LB or LeD /LBL assembly.
• When ordered with a Sternberg candy cane pole, the fitter shall be welded to the arm or tenon for safety and to ensure the luminaire will remain plumb and level over the luminaire lifetime.



1910LED/5LB
EPA = 0.74 (ft²)
WEIGHT = 17 LBS

1910LED/5LBL
EPA = 0.74 (ft²)
WEIGHT = 17 LBS

DRIVER

• the LeD driver shall be securely mounted inside the fitter to provide high capacity heat sinking for driver temperatures.
• * the driver shall be mounted in the base for optimized performance and longevity.
• the fitter mounted LeD driver shall be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections and fixture installation.

* OPTION

LIGHT SOURCES

• the luminaire shall use high output, high brightness LeDs.
• the LeDs shall be mounted in arrays, on printed circuit boards designed to maximize heat transfer to the heat sink surface.
• the LeDs shall be attached to the printed circuit board with not less than 90% pure silver to insure optimal electrical and thermal conductivity.
• the LeDs and printed circuit boards shall be protected from moisture and corrosion by a conformal coating of 1 to 3 mils.
• the LeDs and printed circuit board construction shall be environmentally friendly and 100% recyclable. they shall not contain lead, mercury or any other hazardous substances and shall be RoHS compliant.
• the LeD life rating shall be determined in accordance with ieSna LM-80.

(Continued on next page)

1910LED/5LB-5LBL LAKE BLUFF SERIES Specifica tionS

LIST NO. 1910LED/5LB-5LBL LAKE BLUFF SERIES

OPTICS

- the luminaire shall be provided with individual, acrylic, refractor type optics applied to each LeD.
- the luminaire shall provide t ype V light distribution per the ieSna classifications.
- t esting shall be done in accordance with ieSna LM-79.

PERFORMANCE

- the LeDs and LeD driver shall operate over a -40°c (-40°f) to +50°c (122°f) ambient air temperature range.
- the high performance white LeDs will have a life expectancy of approximately 70,000 hours with not less than 70% of original brightness (lumen maintenance), rated at 25°c.
- the high brightness LeD's shall be 4500K (3500K or 6000K options) color temperature with a minimum of 75 cRi.
- the luminaire shall have a minimum _____ (see table) delivered initial lumen rating when operated at steady state with an average ambient temperature of 25°c (77°f).

LB SERIES			LBL SERIES		
Light Source	Initial Delivered Lumens	Fixture Watts	Light Source	Initial Delivered Lumens	Fixture Watts
4A1R60T5	**6055**	**96**	**4A1R60T5**	**5855**	**96**
4A1R45T5	**4980**	**96**	**4A1R45T5**	**4785**	**96**
4A1R35T5	**4445**	**96**	**4A1R35T5**	**4250**	**96**
3A1R60T5	**5610**	**82**	**3A1R60T5**	**4710**	**82**
3A1R45T5	**4720**	**82**	**3A1R45T5**	**3820**	**82**
3A1R35T5	**4275**	**82**	**3A1R35T5**	**3380**	**82**
4ARC60T5	**4540**	**66**	**4ARC60T5**	**4255**	**66**
4ARC45T5	**3805**	**66**	**4ARC45T5**	**3525**	**66**
4ARC35T5	**3440**	**66**	**4ARC35T5**	**3160**	**66**
3ARC60T5	**3520**	**51**	**3ARC60T5**	**3015**	**51**
3ARC45T5	**2965**	**51**	**3ARC45T5**	**2465**	**51**
3ARC35T5	**2695**	**51**	**3ARC35T5**	**2190**	**51**
1RND60T5	**2285**	**32**	**1RND60T5**	**2005**	**32**
1RND45T5	**1945**	**32**	**1RND45T5**	**1665**	**32**
1RND35T5	**1775**	**32**	**1RND35T5**	**1495**	**32**

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1910LED/5LB-5LBL LAKE BLUFF SERIES Specifica tionS

LIST NO. 1910LED/5LB-5LBL LAKE BLUFF SERIES

ELECTRONIC DRIVERS - ALL

- the driver shall be U.L.or e.t .L. Recognized.
- the driver shall have overload as well as short circuit protection.
- the driver shall be a Dc voltage output, constant current design, 50/60HZ.

For 3ARC and More LED Sources

- the driver shall have a minimum efficiency of 90%.
- t he driver shall be rated at full load with t HD<20% and a power factor of greater than 0.90.
- the driver shall contain over-heat protection which reduces output to less than half rating if the case temperature reaches 85°c.

For 1RND LED Sources

- the driver shall have a minimum efficiency of 88%.

ACORN GLOBE and LB or LBL SHADES

- the acorn globe shall be made of _____ (vandal resistant, UV stabilized, clear textured polycarbonate or dent resistant (DR) clear textured acrylic).
- the acorn globe LB or LBL assembly shall include an aluminum heat sink which has been optimized to provide maximum life and performance for the LeD light sources.
- the acorn globe shall be sealed to the LB or LBL/heat sink assembly to provide a moisture-free and bug-free optics chamber for the LeD light sources.
- the LB or LBL shade shall be made of a minimum 0.100" thick, spun aluminum and have an outside diameter of 18 1/2."

ARMS

- the arms shall be cast aluminum and/or extruded aluminum.
- arms with decorative filigree shall have meticulously detailed scroll work and gracefully curved brackets.
- the fitter shall be either welded or mechanically attached at the factory to ensure arms will be plumb, secure and level for the life of the installation.
- each arm shall be bolted to a post mount adaptor which is welded to the pole, ensuring proper alignment to the base.
- each arm shall be pre-wired for ease of installation.

1910LED/5LB-5LBL LAKE BLUFF SERIES Specifica tionS

LIST NO. 1910LED/5LB-5LBL LAKE BLUFF SERIES

PHOTOCELL OPTIONS

Electronic Button Cell Type

- photocells shall be electronic button type.
- on single fixtures, the photocell shall be mounted in the fitter and pre-wired to the driver.
- on multiple head fixtures, the photocell shall be mounted in the pole, on an access plate.

t he photocell is not pre-wired since drivers are mounted in the fitters and packaged separately.

- t he photocell is instant-on at 1.5 foot-candles and turns off 5-10 seconds at 2-3 foot-candles.
- the photocell is 120-277 volt.

FINISH

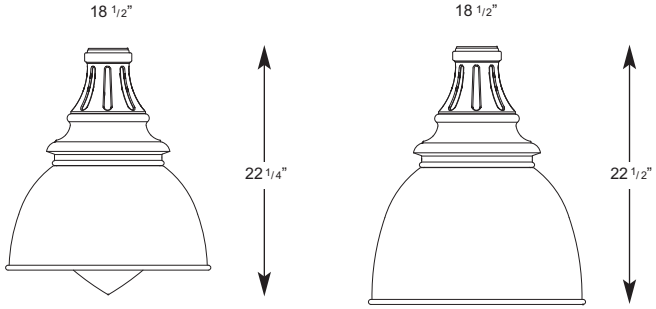
- prior to coating, the luminaire shall be chemically cleaned and etched in a 5-stage washing system which includes alkaline cleaning, rinsing, phosphoric etching, reverse-osmosis water rinsing and non-chrome sealing to ensure corrosion resistance and excellent adhesion for the finish coat.
- the finish coat shall be an electrostatically applied semi-gloss, super durable polyester powder coat, baked on at 400°f, to provide a durable, color retentive finish.
- *the optional _____ (Verde Green or Swedish iron) finish shall be hand-brushed using a 3-step process.

WARRANTY

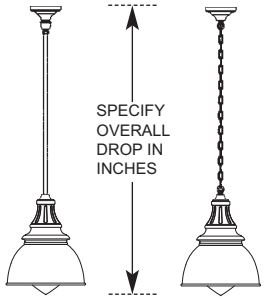
- the luminaire shall be free from all defects in materials and workmanship for a period of seven (7) years from the date of manufacture.
- the luminaire manufacturer shall warrant the LeD boards/system, during the stated warranty period, against failure defined as more than three (3) simultaneous non-operating Le Ds.
- the driver shall be warranted for seven (7) years.

1910 LED/5LB-5LBL LAKE BLUFF fiXtUReS /aRMS pM - WB

FIXTURES



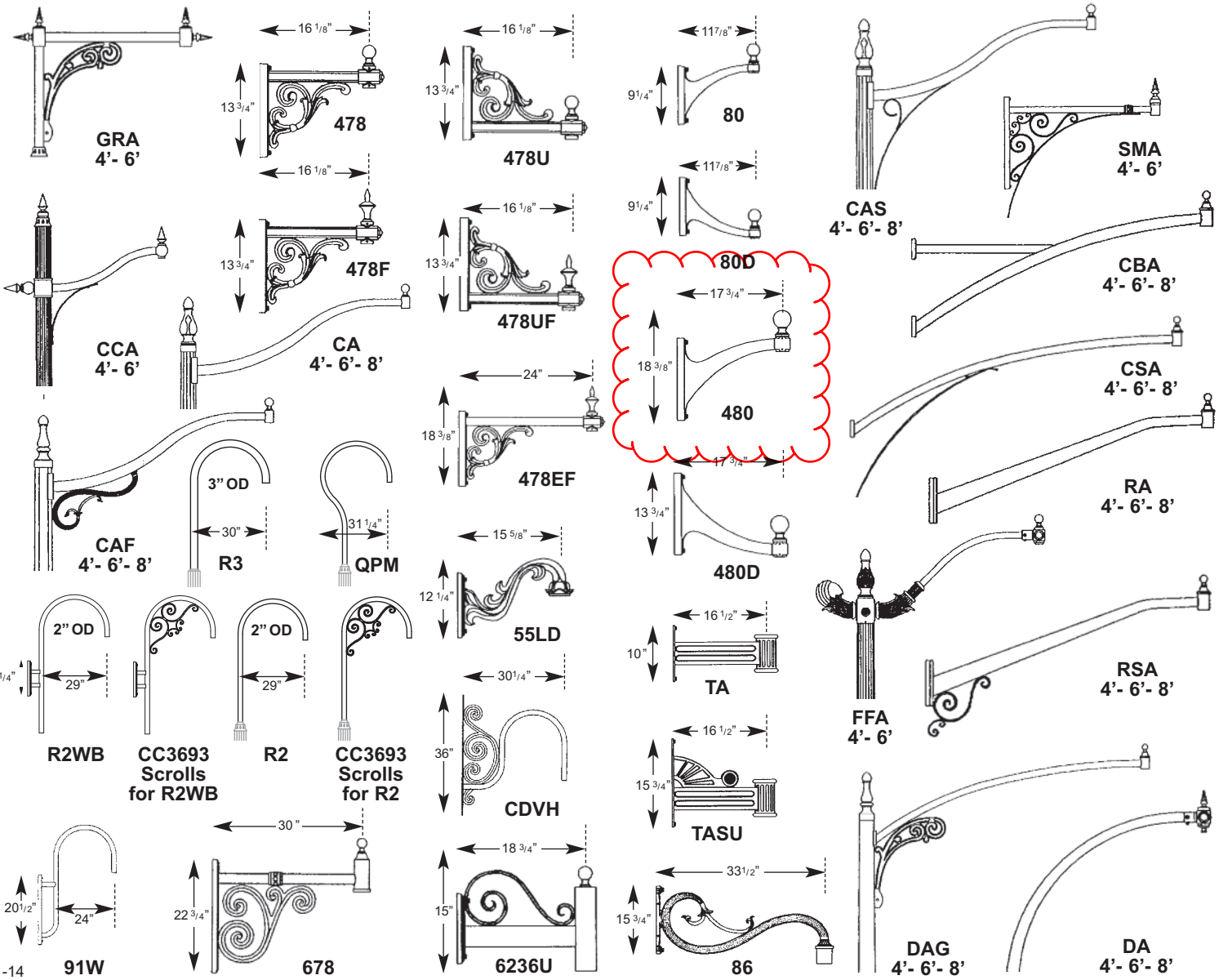
1910 LED/5LB **1910 LED/5LBL**



SH44 Stem Hung **CH44** Chain Hung

ARMS - POST MOUNT (PM) or WALL BRACKETS (WB)

See Arms Section for more information



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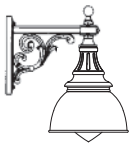
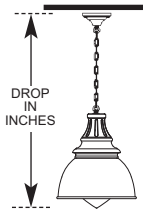
POST & ARM FIXTURES

NO. OF ARMS	ARM MOUNTED FIXTURE FIXTURE/POSTARM	CENTER POST TOP FIXTURE (PT) FITTER		POST (See Post Section)	POST CAP	LIGHT SOURCE LED	LIGHT SOURCE COLOR	LIGHT SOURCE TYPE	DRIVER	OPTIONS	FINISH
2	1910LED/5LB/RPM		PT	3900RTT4/12AG		4A1R	45	T5	ML		BKT



WALL FIXTURES

FIXTURE/WALL BRACKET	LIGHT SOURCE LED	LIGHT SOURCE COLOR	LIGHT SOURCE TYPE	DRIVER	OPTIONS	FINISH
1910LED/5LB/478WB	4ARC	45	T5	ML		BKT



HANGING FIXTURES

FIXTURE/HANGING BRACKET	OVERALL DROP IN INCHES	LIGHT SOURCE LED	LIGHT SOURCE COLOR	LIGHT SOURCE TYPE	DRIVER	OPTIONS	FINISH
1910LED/5LB/CH44	48 INCHES	4ARC	45	T5	ML		BKT

PART NUMBER SELECTIONS

FIXTURES
- 1910LED / 5LB
- 1910LED / 5LBL

DRIVERS
- ML - 120-277
- MH - 347-480
- MDL - Dimming 120-277
- MDH - Dimming 347-480

POST ARMS
- 80PM
- 80DPM
- 86PM
- 480PM
- 480DPM

POST ARMS
- 478PM
- 478FPM
- 478UPM
- 478UFPM
- TAPT
- TASUPT
- 478EFPM
- 678PM
- 55LDPM
- 6236UPM
- CDVHPM
- 91WPM
- RPM
- R3PM
- QPM
- CSA4[1]
- CSA6[1]
- CSA8[1]
- CA4[1]
- CA6[1]
- CA8[1]
- CAS4[1]
- CAS6[1]
- CAS8[1]

POST ARMS
- SMA4[1]
- SMA6[1]
- CCA4[1]
- CCA6[1]
- CAF4[1]
- CAF6[1]
- CBA4[1]
- CBA6[1]
- CBA8[1]
- RSA4[1]
- RSA6[1]
- RSA8[1]
- FFA4[1]
- FFA8[1]
- RA4[1]
- RA6[1]
- RA8[1]
- DA4[1]
- DA6[1]
- DA8[1]
- DAG4[1]
- DAG6[1]

1 Add (S) Spike or (B) Ball after arm to designate type of finial.

WALL BRACKET ARMS
- 55LDWB
- 80WB
- 80DWB
- 86WB
- 91WWB
- 478WB
- 478FWB
- 478UWB
- 478UFWB
- 478EFWB
- 480WB
- 480DWB
- 678WB
- 6236UWB
- CDVHWB
- R2WB
- TAWB
- TAHSUWB

HANGING BRACKETS
- CH44
- SH44

LIGHT SOURCES*

LED	COLOR TEMP. (K)	TYPE
4A1R	60(00)	T5
3A1R	45(00)	
4ARC	35(00)	

*Consult factory for other color temperatures

STANDARD FINISHES*
- BKT Black Textured
- WHT White Textured
- PGT Park Green Textured
- ABZT Architectural Medium Bronze Textured
- DBT Dark Bronze Textured

*Smooth Finishes are available upon request

CUSTOM FINISHES
- OI Old Iron
- RT Rust
- WBR Weathered Brown
- CD Cedar
- WBK Weathered Black
- TT Two Tone

STERNBERG SELECT FINISHES
- VG Verde Green
- SI Swedish Iron
- OWGT Old World Gray Textured

OPTIONS
- PEC Photocell-Electronic 120-277 Volt
- FHD Dual Fuse & Holder
- PF per arm Pineapple Finial or Font (For TA, TASCR)
- BF per arm Ball Finial or Font (TA, TASCR)
- HS Hangstraight
- HL Hi-Low Operation (Only available on 4A1R and 4ARC)
- CC3693 Scrolls for R2 or R3 arms

555 Lawrence Ave. Roselle, IL 60172 • 847-588-3400 • Fax 847-588-3440
www.sternberglighting.com Email: info@sternberglighting.com

0 40 80
SCALE: 1 " = 40'

Union Ave

Flinn St

Lot 4
0.591 ACRES±

Lot 1
5.95 ACRES±

Lot 2
0.482 ACRES±

Lot 3
0.128 ACRES±

Shumway Ave

Fox River

Fox River

15' SIDEYARD & BUILDING SETBACK

EXIST. BITUMINOUS ROADWAY

EXIST. BITUMINOUS BIKE PATH

EXIST. BRICK WALK

Final Clarifier No. 3 700

Final Clarifier No. 2 700

Final Clarifier No. 1 700

Ultraviolet Disinfection 800

Diversion Structure 600

EXISTING DUMPSTER

Anaerobic Digester 1000

Anaerobic Digester 1000

Nitrification Basins 500

Aeration Basins 500

Primary Clarifiers 400

Headworks 300

Excess Flow Facilities 200

Food Pantry Building

Admin. Building 100

Sludge Handling Builiding 900

Sludge Storage Tank 900

Sludge Storage Tank 900

Aeration Basins 500

Chlorination Facilities 800

Intermediate Pump Station 500

20' LANDSCAPE SETBACK

30' BUILDING SETBACK

7 PARKING SPACES

7 PARKING SPACES (INC. 1 HC)

66.00'

25' E-E

25.4' E-E

20.5' E-E

EX. BIT. ROADWAY

PROJECT STAFF	ISSUE	REVISIONS	DATE
PROJECT MANAGER: SCOTT TROTTER, P.E.			
ENGINEER: JERRY RUTH, P.E.			
ENGINEER: SUSAN NOVAK, P.E.			
ENGINEER:			
TECHNICIAN: GARY COOPER		ISSUED FOR FINAL DESIGN	8/15/16
TECHNICIAN: MIKE IAVISSO		FINAL DESIGN DEVELOPMENT REVIEW	7/29/16
TECHNICIAN: MARTY BOPKE	2	DESIGN DEVELOPMENT REVIEW	4/1/16
TECHNICIAN: DAN GILLOTTE	1	ISSUED FOR PRELIMINARY REVIEW	12/9/15

TROTTER ASSOCIATES, INC.
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Wastewater Treatment Facility - Phase I Rehabilitation

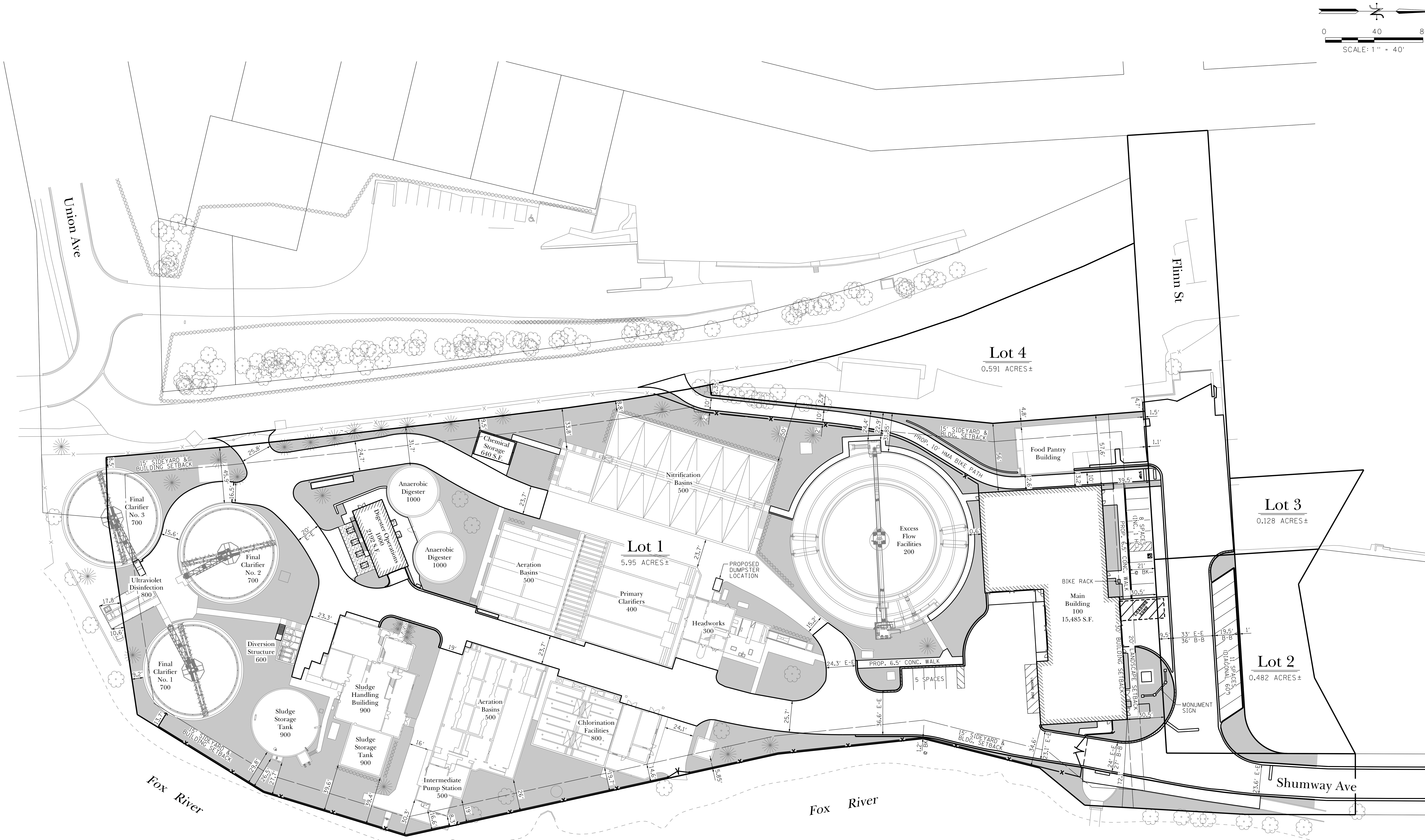
Existing Site Conditions Exhibit

City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	0_BASE 2D.DGN
Sheet File:	
Issue Date:	8/16/2016
Scale:	1" = 40'

Sheet Number

PUD-X



TROTTER and ASSOCIATES, INC.
ENGINEERS AND SURVEYORS
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St. Charles, Il. 60175
Ph.: 630-587-0470 • Fax: 630-587-0475

PROJECT STAFF
PROJECT MANAGER: SCOTT TROTTER, P.E.
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ENGINEER: SUSAN NOVAK, P.E.
ENGINEER:
TECHNICIAN: GARY COOPER
TECHNICIAN: MIKE DAVISON
TECHNICIAN: MARTY DOPKE
TECHNICIAN: DAN GILLESPIE

ISSUE	REVISIONS	DATE
A	ISSUED FOR BIDDING	10/31/2016

Wastewater Treatment Facility - Phase I Rehabilitation

Proposed Site Improvement Exhibit

City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	0_BASE 2D.DGN
Sheet File:	
Issue Date:	11/7/2016
Scale:	1" = 40'
Sheet Number	PUD-PR

For City of Batavia Use

0 20 40

SCALE: 1" = 20'

Food Pantry Building

Nitrification Basins 500

Excess Flow Facilities 200

Primary Clarifiers 400

Headworks 300

Main Building 100

Flinn Street

Shumway Ave.

LOADING ZONE

TURF AREA

TURF AREA

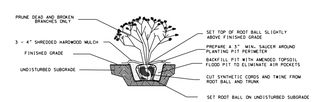
Fox River

3 PHM
4 TN
4 CM
3 BG
3 BG
3 BG
4 TN
2 TN
CM
8 RA
EA

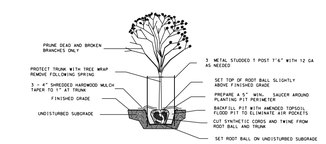
5 EA
GD
13 SA
5 CA
17 PPDL
44 SA
EA
7 PHM
3 MP
12 FB
1 EA
7 HPB
14 CA
24 SA
EA
5 BG

GENERAL NOTES

- ALL PLANT MATERIAL SHALL BE NORTHERN ILLINOIS NURSERY GROWN TO ASSURE CLIMATIC AND SOIL SIMILARITY. ALL MATERIAL SHALL BE BALLED AND BURLAP PER AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. PERENNIAL AND GROUND COVER SHALL BE CONTAINER GROWN.
- ALL BEDS SHALL RECEIVE 3-4" OF FINELY SHREDDED HARDWOOD MULCH GROUND COVER BEDS SHALL BE TREATED WITH TRFLAN PRE-EMERGENT HERBICIDE. ALL OTHER BEDS SHALL RECEIVE RONSTAR 5g OR SIMILAR PRE-EMERGENT HERBICIDE FOR WEED CONTROL. ALL TREES SHALL RECEIVE 6" OF FINELY SHREDDED HARDWOOD MULCH. ALL LANDSCAPE SPOILS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- OWNER SHALL PROVIDE SUFFICIENT WATER FOR THE CONTRACTOR TO OWNER SHALL PROVIDE SUFFICIENT WATER FOR THE CONTRACTOR TO MAINTAIN THE PLANT MATERIAL, SEED AND SOD AREAS. CONTRACTOR SHALL WATER SOD UNTIL THE TURF HAS BECOME ADEQUATELY ESTABLISHED CONTRACTOR SHALL WARRANTEE ALL MATERIAL AND LABOR FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE OF ALL WORK. OWNER TO PROVIDE ALL SUPPLEMENTAL WATERING AND PROPER CARE AND MAINTENANCE OF ALL MATERIAL AFTER CONTRACTOR'S INITIAL CARE
- QUANTITY LISTS ARE SUPPLIED AS A CONVENIENCE. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES ON-SITE. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- PLANTING BEDS SHALL BE ELEVATED SLIGHTLY TO INSURE PROPER DRAINAGE. ALL ROOT BALLS OF TREES SHALL BE ELEVATED ABOVE FINISHED GRADE. ALL GRADING SHALL PROVIDE SLOPES WHICH ARE SMOOTH, CONTINUOUS AND HAVE POSITIVE DRAINAGE IN ALL AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY EROSION CONTROL FOR SOIL AREAS DUE TO SLOPE CONDITIONS. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL STRUCTURES, FENCES, DITCH CHECKS, AND INLET PROTECTORS UNTIL ADEQUATE VEGETATION HAS BEEN ESTABLISHED.
- EXCAVATED MATERIALS IN EXCESS OR THOSE NOT REQUIRED OR UNSUITABLE FOR RE-USE SHALL BE DISPOSED OF OFF SITE AT CONTRACTORS EXPENSE. CONTRACTOR SHALL REMOVE ALL DEBRIS DAILY AND MAINTAIN THE SITE IN A NEAT AND SAFE CONDITION.
- SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH SOIL AMENDMENTS AND FERTILIZER. SOIL TESTS SHALL BE CONDUCTED BY A GOVERNMENT LABORATORY OR RECOGNIZED COMMERCIAL LABORATORY, COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR. CONTRACTOR IS RESPOSIBLE FOR MATERIAL COST AND APPLICATION OF TESTING LABORATORY'S RECOMMENDATIONS.
- LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN EQUIPMENT AND LABOR RATE SCHEDULE. THIS LIST SHALL INCLUDE COST OF TOPSOIL AND LANDSCAPE DEBRIS/SPOILS REMOVAL WITH SQUARE FOOT COST FOR TURF RESTORATION (SOD AND SEED). LANDSCAPE CONTRACTOR SHALL RESTORE ALL TURF AREAS DAMAGED DUE TO CONSTRUCTION ON AND OFF SITE AT THE AGREED RATES TO RESTORE TO EXISTING CONDITIONS.
- LANDSCAPE CONTRACTOR SHALL FOLLOW ALL LOCAL AND MUNICIPAL CODES AND REQUIREMENTS. CONTRATOR SHALL SECURE ALL REQUIRED PERMITS AS NECESSARY TO COMPLETE THE SCOPE OF THE JOB.



SHRUB PLANTING DETAIL
NOT TO SCALE USE ONLY NORTHERN ILLINOIS GROWN NURSERY STOCK



TREE PLANTING DETAIL
NOT TO SCALE USE ONLY NORTHERN ILLINOIS GROWN NURSERY STOCK

PLANT LIST

KEY	NAME	BOTANICAL/COMMON	SIZE	QUANTITY
GD	GYMNOCLADUS DIOICUS	KENTUCKY COFFEE TREE	4"	1
CM	CORNUS MAS	CORNELIANCHERRY DOGWOOD GOLDEN GLORY	8' MS	5
TN	TAXUS X MEDIA 'TAUNTONII'	TAUNTON'S YEW	24"	10
BG	BUXUS 'GLENCOE'	CHICAGOLAND GREEN BOXWOOD	24"	14
EA	EUONYMUS ALATUS 'COMPACTUS'	DWARF BURNING BUSH	36"	10
FB	FORSYTHIA VIRIDISSIMA 'BRONXENSIS'	BRONX FORSYTHIA	18"	12
HPB	HYDRANGEA PANICULATA 'BOMBSHELL'	BOMBSHELL HYDRANGEA	3 GAL	7
MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	3'	3
RA	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	3 GAL	8
CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	3 GAL	19
PHM	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	3 GAL	10
PPDL	PHLOX PANICULATA 'DAVID'S LAVENDER'	PURPLE GARDEN PHLOX	1 GAL	17
SA	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	1 GAL	81

JOHN A. HERMAN
157-000419
REGISTERED LANDSCAPE ARCHITECT
EXP. 08/31/17
STATE OF ILLINOIS

DATE	REVISIONS	ISSUE	PROJECT STAFF
			PROJECT MANAGER: SCOTT TROTTER, P.E.
			ENGINEER: JERRY RUTH, P.E.
			ENGINEER: SUSAN NOVAK, P.E.
			ENGINEER:
			TECHNICIAN: GARY COOPER
			TECHNICIAN: MIKE JAVINSON
			TECHNICIAN: MARTY DOPKE
10/31/2016	ISSUED FOR BIDDING	A	TECHNICIAN: DAN GILLESPIE

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Ph. 630-587-0170 • Fax 630-587-0175

Wastewater Treatment Facility - Phase I Rehabilitation

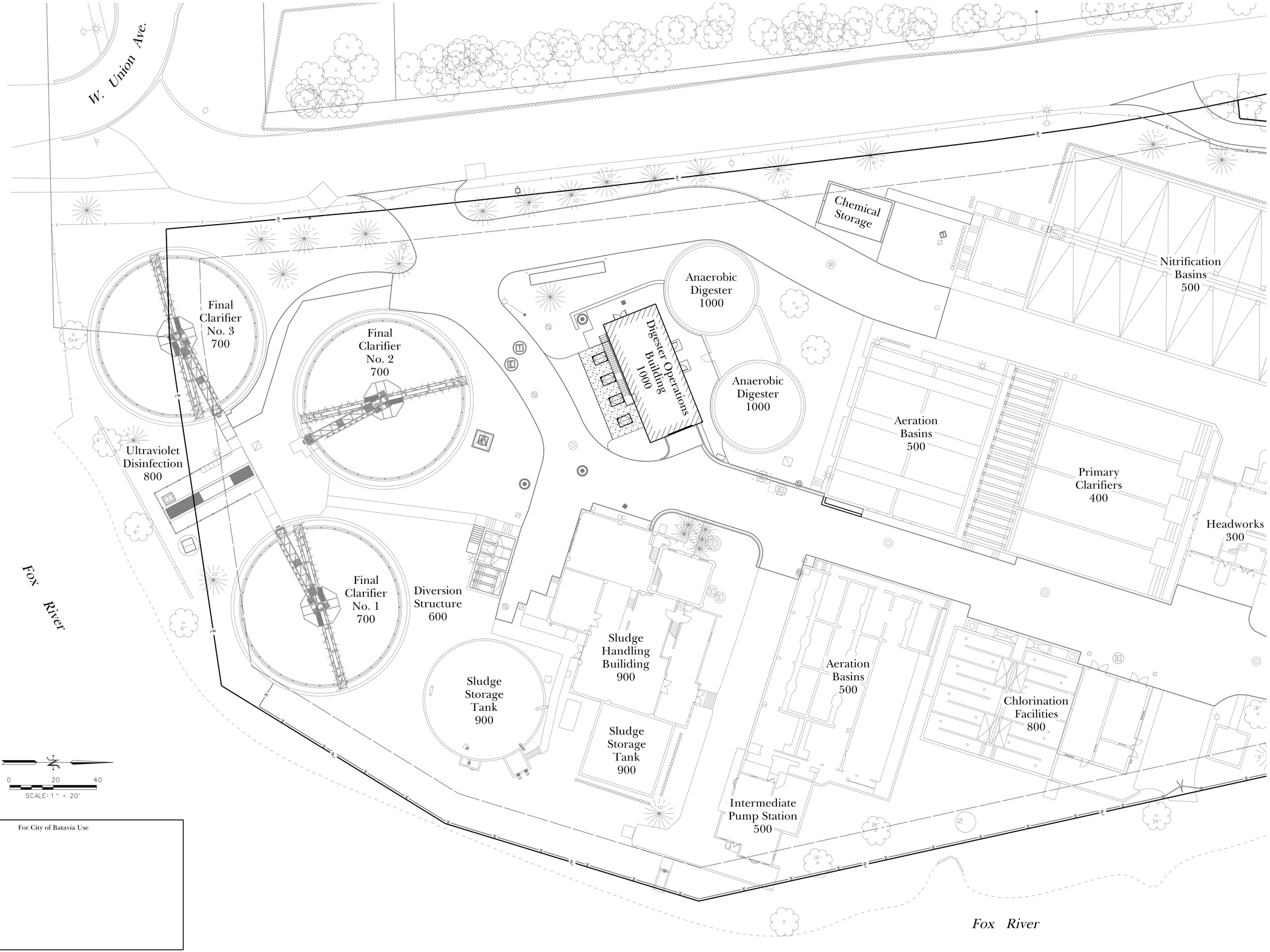
Landscape Plan - North

City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	0_BASE 20.DGN
Sheet File:	L0-01.DGN
Issue Date:	11/7/2016
Scale:	1" = 20'

Sheet Number

L0-1



For City of Batavia Use

ISSUE	DATE
REVISIONS	
A ISSUED FOR BIDDING	10/31/2016

PROJECT STAFF

PROJECT MANAGER: SCOTT TROTTER, P.E.
ENGINEER: JERRY RUHL P.E.
ENGINEER: SUSAN NOVAK, P.E.
ENGINEER:
TECHNICIAN: GARY COOPER
TECHNICIAN: MIKE JAVINSON
TECHNICIAN: MARTY BOPKE
TECHNICIAN: DAN GILLOOLY

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Wastewater Treatment Facility - Phase I Rehabilitation

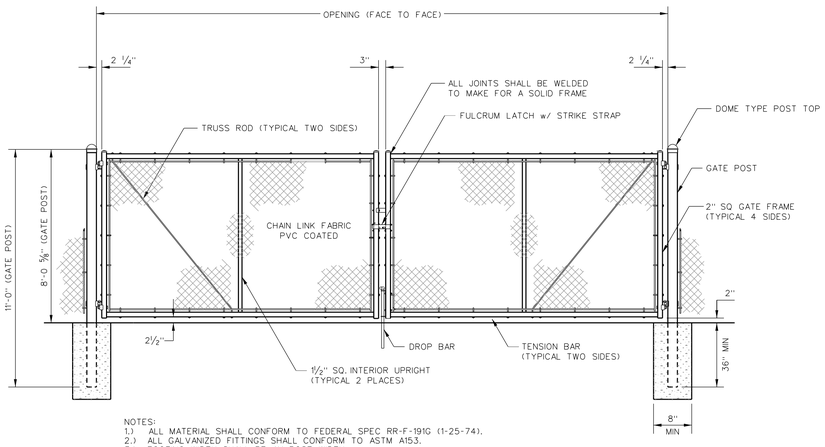
Landscape Plan - South

City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	0_BASE 2D.DGN
Sheet File:	L0-02.DGN
Issue Date:	11/7/2016
Scale:	1" = 20'

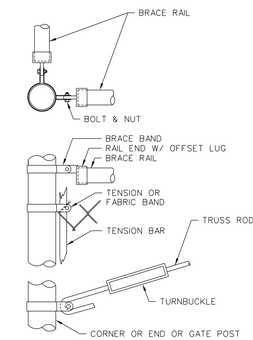
Sheet Number

L0-2

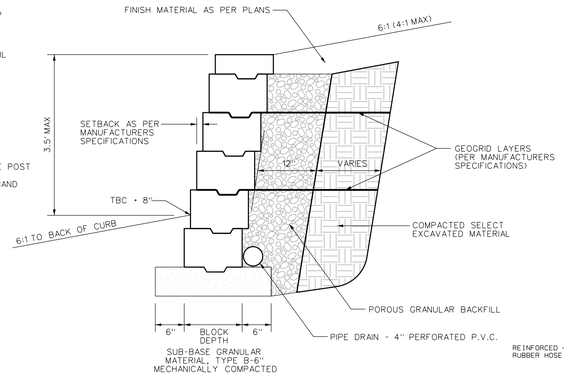


NOTES:
1.) ALL MATERIAL SHALL CONFORM TO FEDERAL SPEC RR-F-191G (1-25-74).
2.) ALL GALVANIZED FITTINGS SHALL CONFORM TO ASTM A153.
3.) FOOTING WIDTH SHALL BE 4X POST WIDTH.
4.) WORK THIS DETAIL WITH SEC. 02815 OF THE SPECIFICATIONS.
5.) GATES AT THE SOUTH ACCESS ROAD AND THE NORTH PARKING AREA SHALL BE MANUALLY OPERATED.

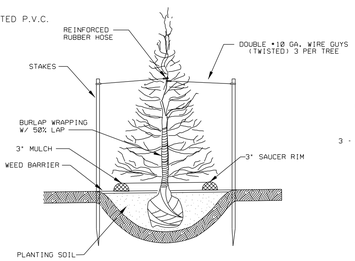
Double Swing Chain Link Fence Gate - 8' Height



NOTES:
1.) ALL MATERIAL SHALL CONFORM TO FEDERAL SPEC RR-F-191G (1-25-74).
2.) ALL GALVANIZED FITTINGS SHALL CONFORM TO ASTM A153.
3.) FOOTING WIDTH SHALL BE 4X POST WIDTH.
4.) WORK THIS DETAIL WITH SEC. 02815 OF THE SPECIFICATIONS.

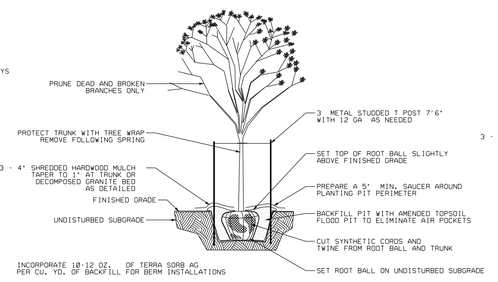


Modular Concrete Retaining Wall Detail



Tree Planting Detail

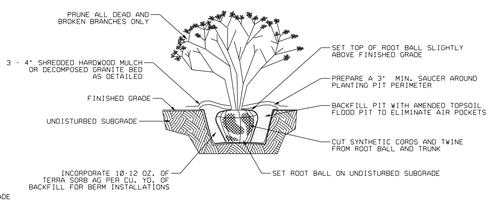
NO SCALE



USE ONLY NORTHERN ILLINOIS GROWN NURSERY STOCK

Tree Planting Detail

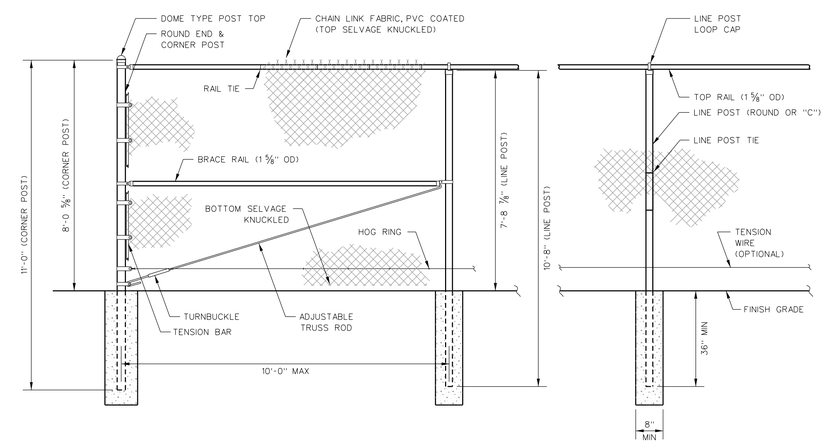
NO SCALE



USE ONLY NORTHERN ILLINOIS GROWN NURSERY STOCK

Shrub Planting Detail

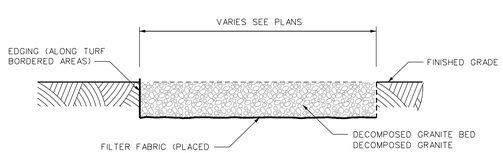
NO SCALE



Chain Link Fence - 8' Height

General Landscape Notes

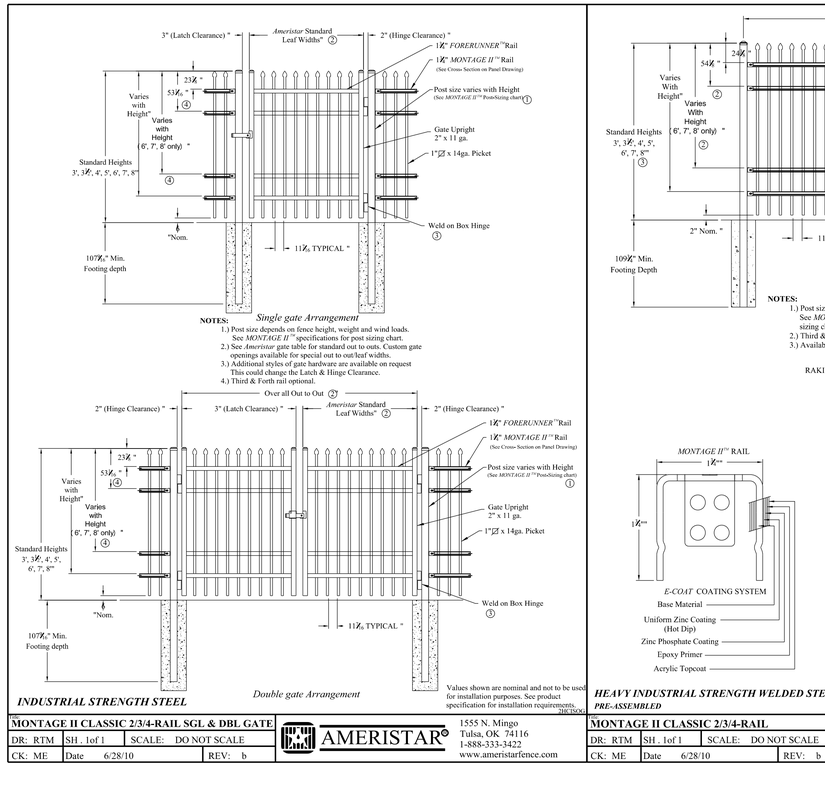
1. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED w/ SIX (6) INCHES OF TOPSOIL AND I.D.O.T. CLASS 2A SEEDING. IF SEEDING DOES NOT TAKE, SOD SHALL BE INSTALLED INSTEAD.
2. ALL PLANT MATERIAL SHALL BE NORTHERN ILLINOIS NURSERY GROWN TO ASSURE CLIMATIC AND SOIL SIMILARITY.
3. ALL MATERIAL SHALL BE BALLED & BURLAP PER AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. PERENNIAL AND GROUND COVER SHALL BE CONTAINER GROWN.
4. THE QUANTITY LIST IS PROVIDED AS A CONVENIENCE. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES ON-SITE. ALL PLANTING SHALL BE APPROVED BY THE ENGINEER PRIOR TO IT'S INSTALLATION.
5. THE CONTRACTOR IS RESPOSIBLE FOR WATERING ALL PLANTINGS, SEEDED AND/OR SODDED AREAS UNTIL THE TURF HAS BECOME ADEQUATELY ESTABLISHED. WATERING SHALL BE DONE A MINIMUM OF THREE (3) TIMES A WEEK FOR THE FIRST SIX (6) WEEKS.
6. THE CONTRACTOR SHALL WARRANTEE ALL MATERIAL AND LABOR FOR A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE.



NOTES:

1) ALL BEDS SHALL BE A MINIMUM OF 3" OF DECOMPOSED GRANITE w/ 3.5 OZ. NON-GEOTEXTILE FABRIC, IN AREAS WHERE THE BED IS BORDERED BY TURF AREAS A 3/16" X 4" ALUMINUM EDGING WITH A GREEN FINISH SHALL BE INSTALLED.
2) ALL BEDS SHALL BE TREATED W/ RONSTAR 5G PRE-EMERGENT HERBICIDE FOR WEED CONTROL.
3) ALL BEDS SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE PLANS.

Decomposed Granite Installation Detail



For City of Batavia Use

Project No.:	BAT025
Base File:	NONE
Sheet File:	C0-15.DGN
Issue Date:	11/4/2016
Scale:	NONE

Sheet Number

C0-15

DATE	REVISIONS	ISSUE	PROJECT STAFF
			PROJECT MANAGER: SCOTT TROTTER, P.E.
			ENGINEER: JERRY BUTH, P.E.
			ENGINEER: SUSAN NOVAK, P.E.
			ENGINEER:
			TECHNICIAN: GARY COOPER
			TECHNICIAN: MIKE JAVINSON
			TECHNICIAN: MARTY BOPKE
			TECHNICIAN: DAN GILLESPIE
10/31/2016	ISSUED FOR BIDDING	A	

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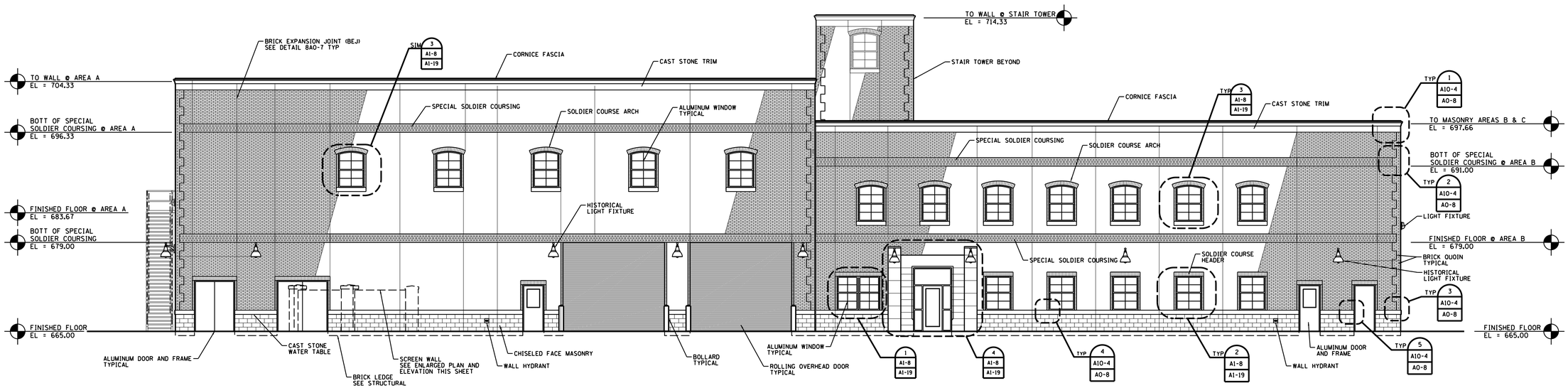
Wastewater Treatment Facility - Phase I Rehabilitation

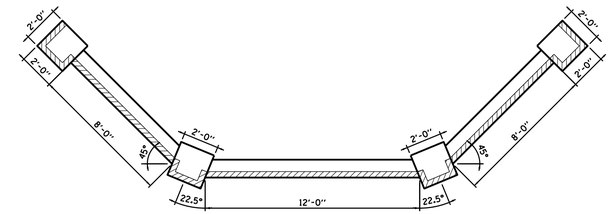
Landscaping & Miscellaneous Construction Details

City of Batavia, Kane County, Illinois



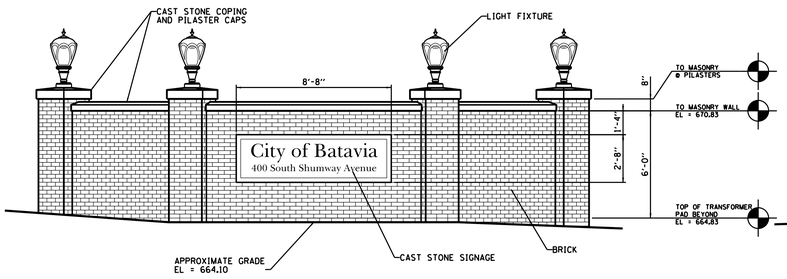
North Elevation

1/8" = 1'-0"



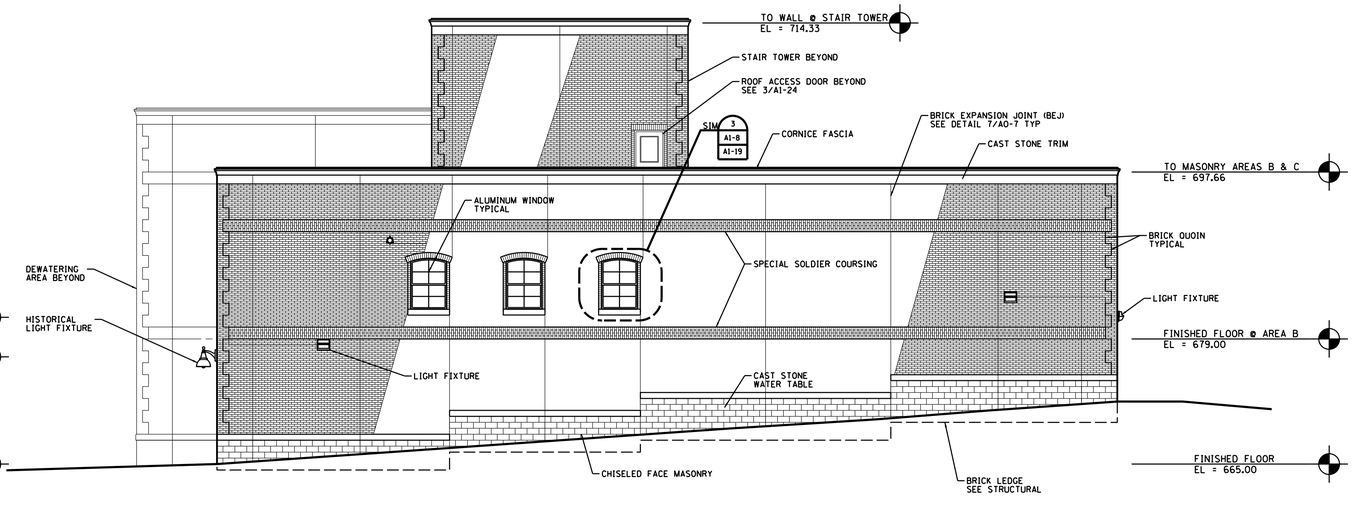
Screen Wall Plan

1/4" = 1'-0"



Screen Wall Elevation

1/4" = 1'-0"



West Elevation

1/8" = 1'-0"

DATE	REVISIONS	ISSUE
10/31/2016		A ISSUED FOR BIDDING

PROJECT STAFF

PROJECT MANAGER: R. SCOTT TROTTER, P.E.
ARCHITECT: MICHAEL D. DOHL, R.A.
DESIGNER: VINCENT P. FALLON, CDT
DESIGNER:
TECHNICIAN: VINCENT P. FALLON, CDT
TECHNICIAN: RAY AMEN
TECHNICIAN:

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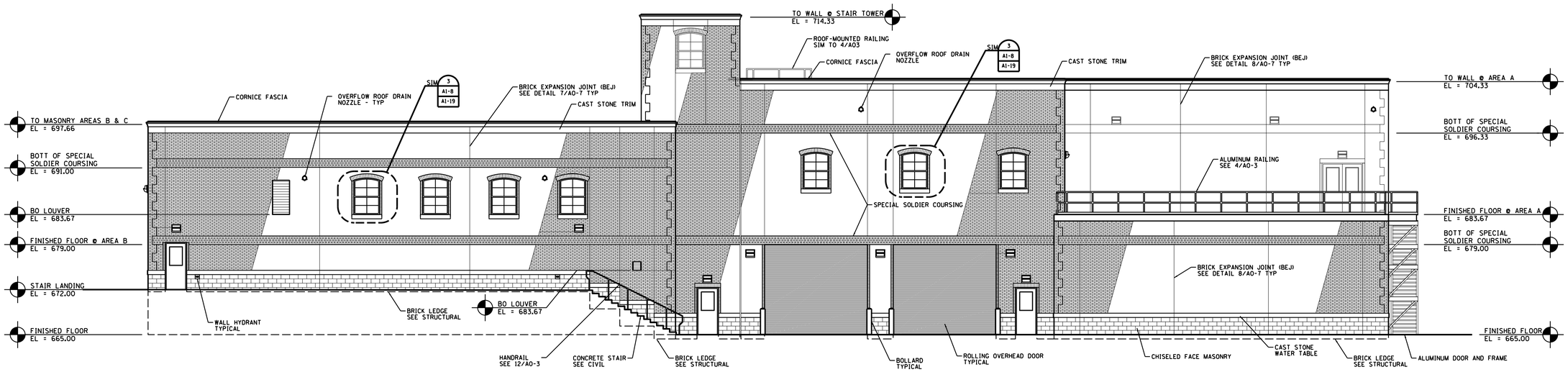
Batavia, Illinois 60510
Ph. 630-587-0170 • Fax 630-587-0175

Wastewater Treatment Facility - Phase 1 Rehabilitation
Main Building
Architectural Exterior Elevations
City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	A01-EL01-96.DGN
Sheet File:	A01-08.DGN
Issue Date:	11/1/2016
Scale:	1/8" = 1'-0"

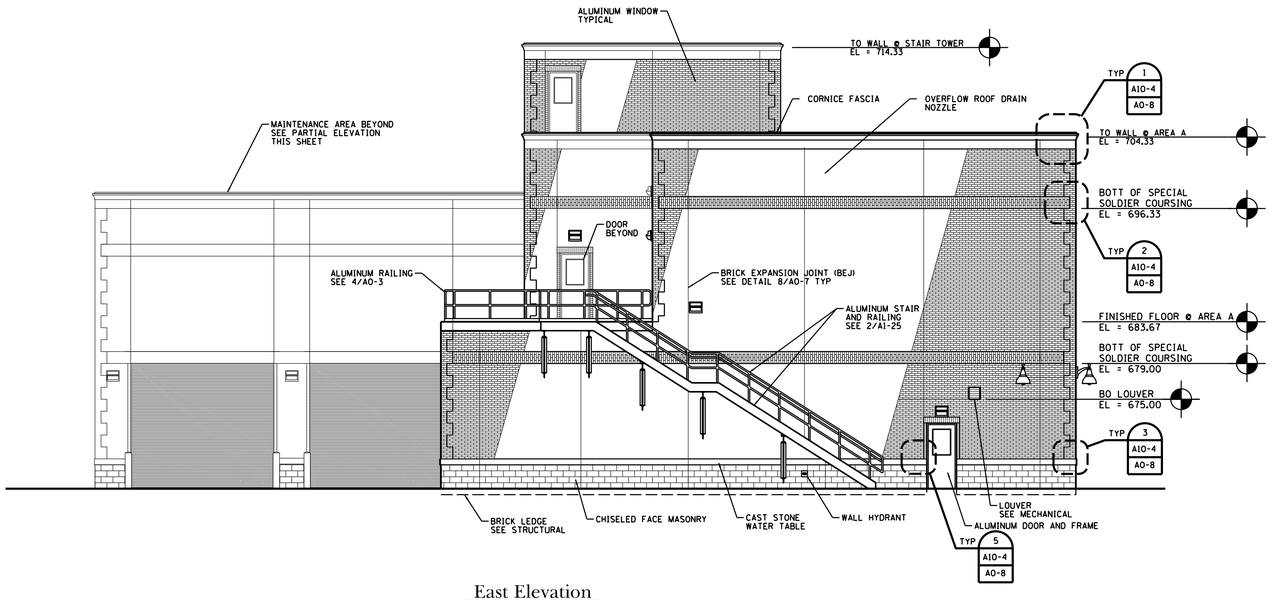
Sheet Number

A1-8



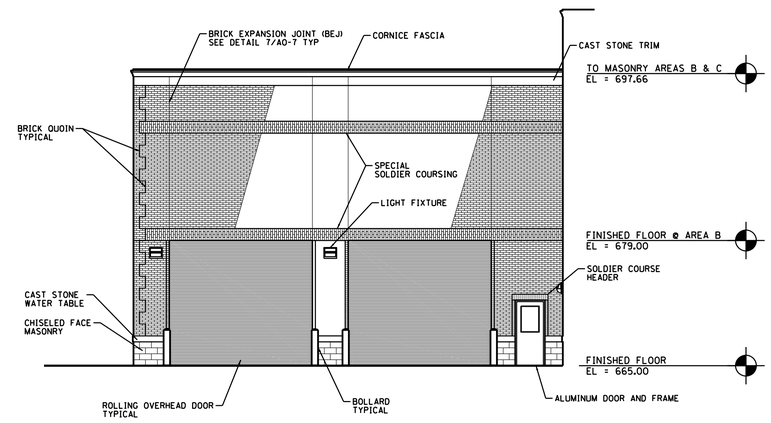
South Elevation

1/8" = 1'-0"



East Elevation

1/8" = 1'-0"



Partial East Elevation

1/8" = 1'-0"

DATE	ISSUE	REVISIONS
10/31/2016	A	ISSUED FOR BIDDING

PROJECT STAFF

PROJECT MANAGER: R. SCOTT TROTTER, P.E.
ARCHITECT: MICHAEL D. DOHL, R.A.
DESIGNER: VINCENT P. FALLON, CDT
DESIGNER:
TECHNICIAN: VINCENT P. FALLON, CDT
TECHNICIAN: RAY OSKIN
TECHNICIAN:

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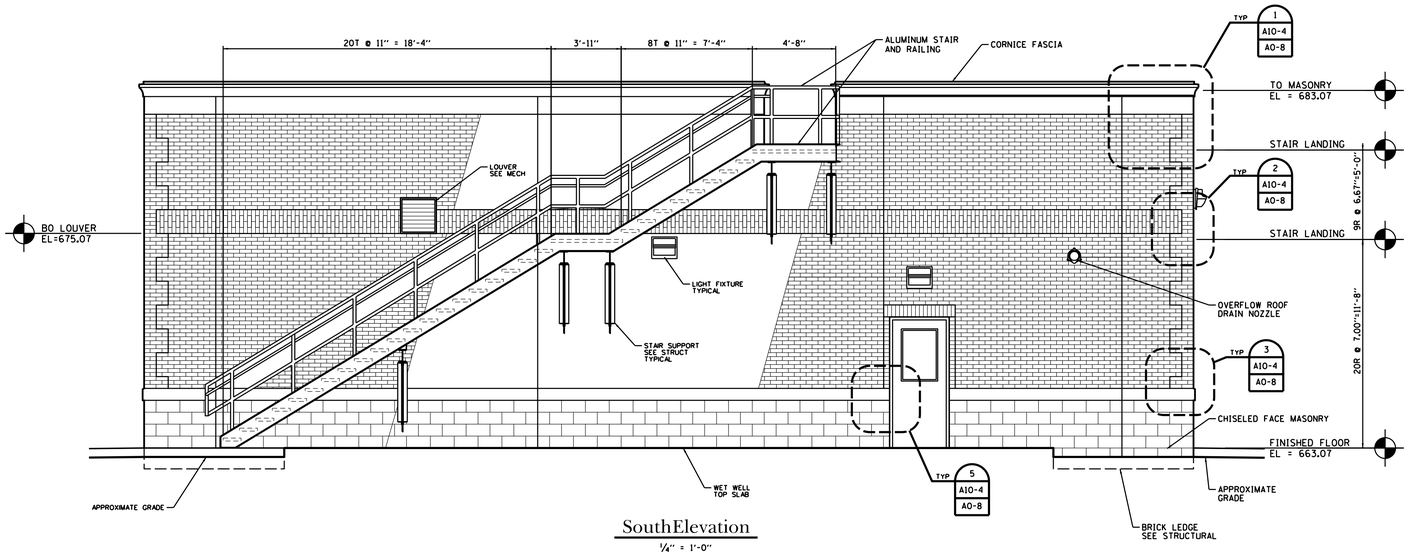
Wastewater Treatment Facility - Phase 1 Rehabilitation
Main Building
Architectural Exterior Elevations
City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	A01-EL01-96.DGN
Sheet File:	A01-09.DGN
Issue Date:	11/1/2016
Scale:	1/8" = 1'-0"

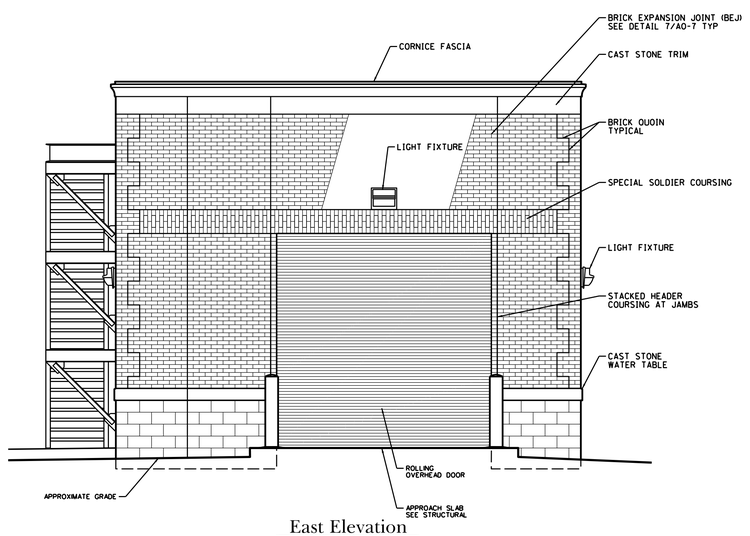
Sheet Number

A1-9



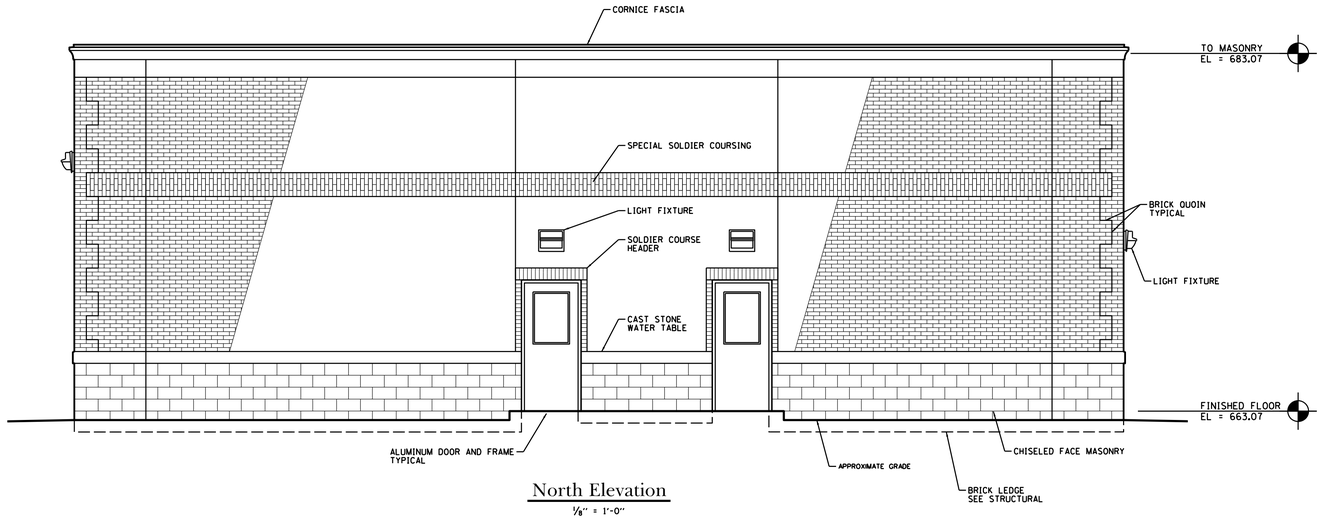
South Elevation

1/4" = 1'-0"



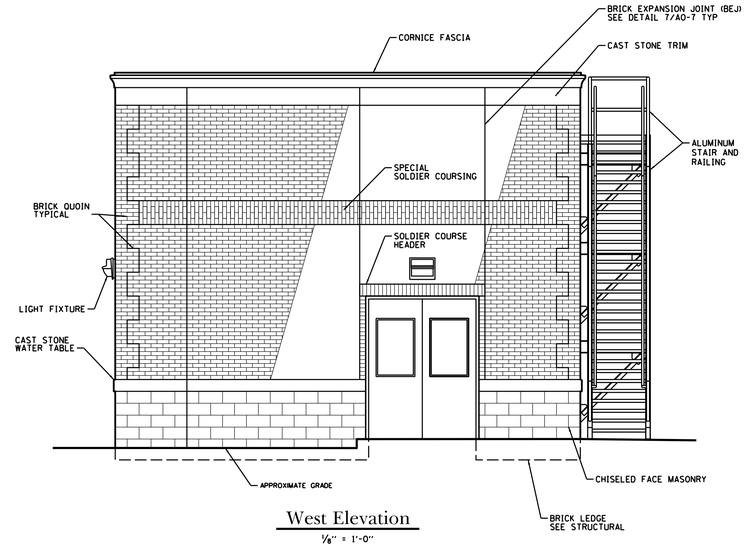
East Elevation

1/8" = 1'-0"



North Elevation

1/8" = 1'-0"



West Elevation

1/8" = 1'-0"

DATE	REVISIONS	ISSUE
10/31/2016	ISSUED FOR BIDDING	A

PROJECT STAFF

PROJECT MANAGER: R. SCOTT TROTTER, P.E.
ARCHITECT: MICHAEL D. DOHL, R.A.
DESIGNER: VINCENT P. FALLON, CDT
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TECHNICIAN: RAY SIKES
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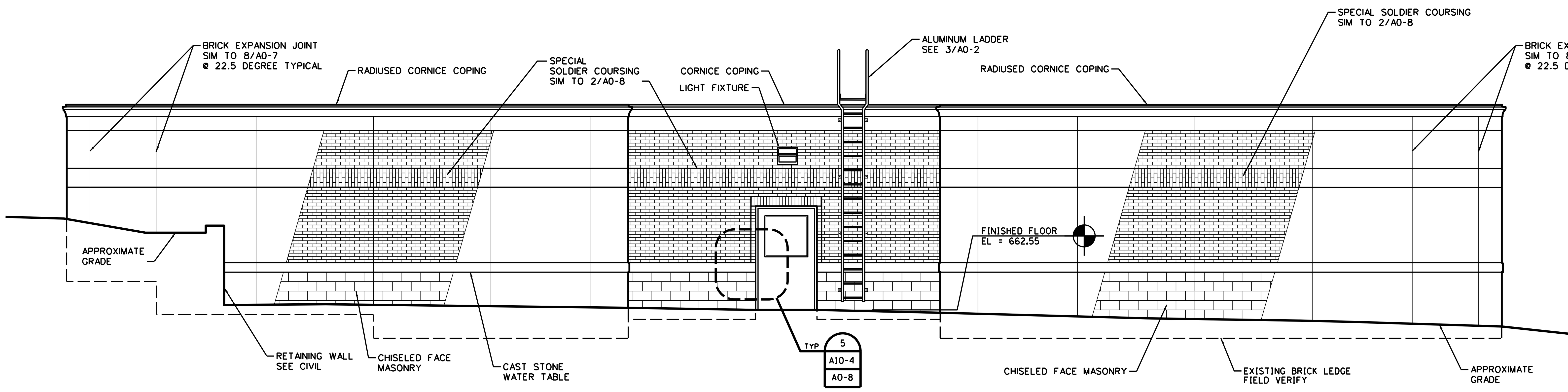
Wastewater Treatment Facility - Phase 1 Rehabilitation
Digester Operations Building
Architectural Exterior Elevations
City of Batavia, Kane County, Illinois

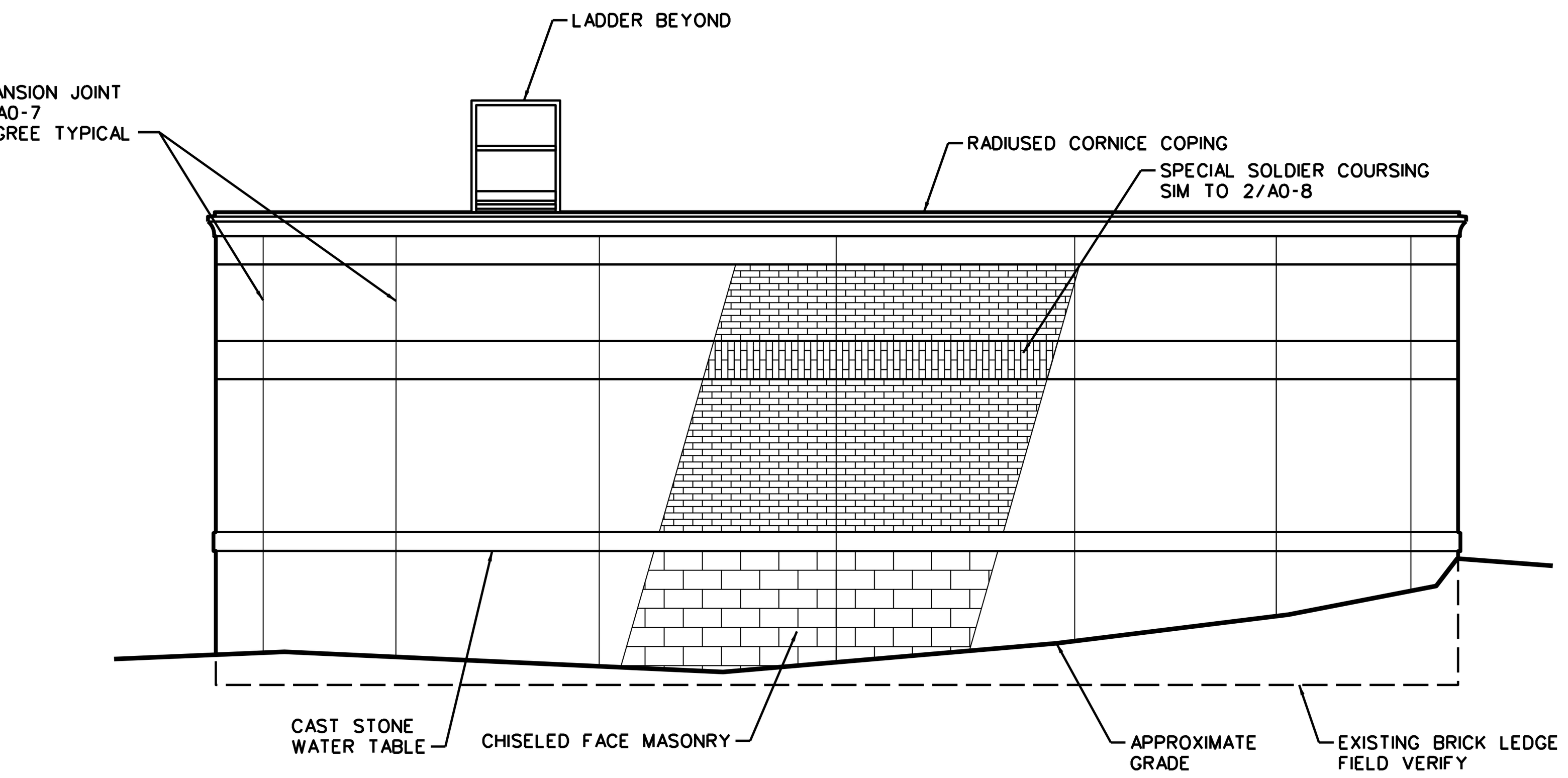
Project No.:	BAT025
Base File:	A10-EL01-48.DGN
Sheet File:	A10-04.DGN
Issue Date:	11/1/2016
Scale:	1/4" = 1'-0"

Sheet Number

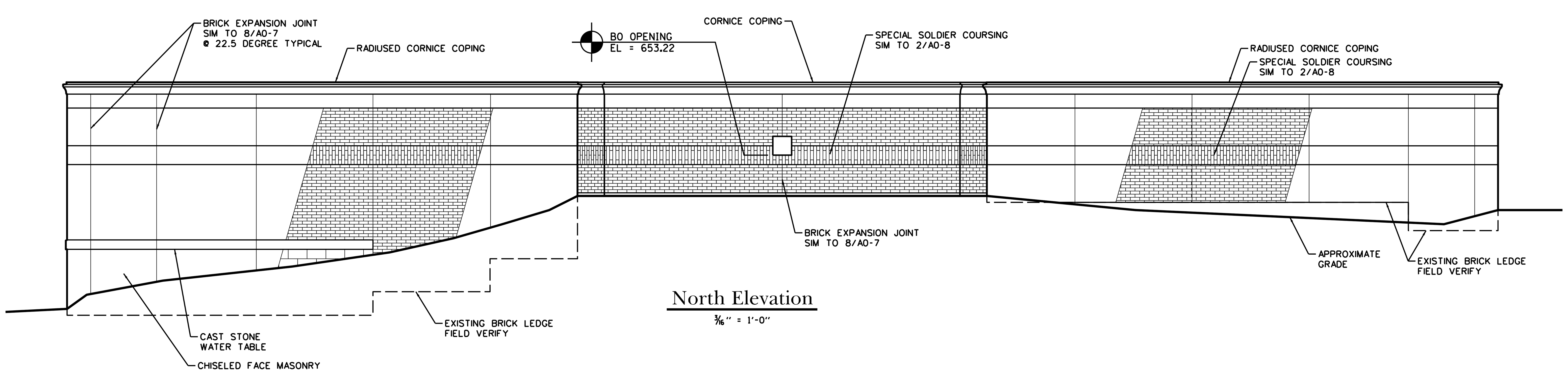
A10-4



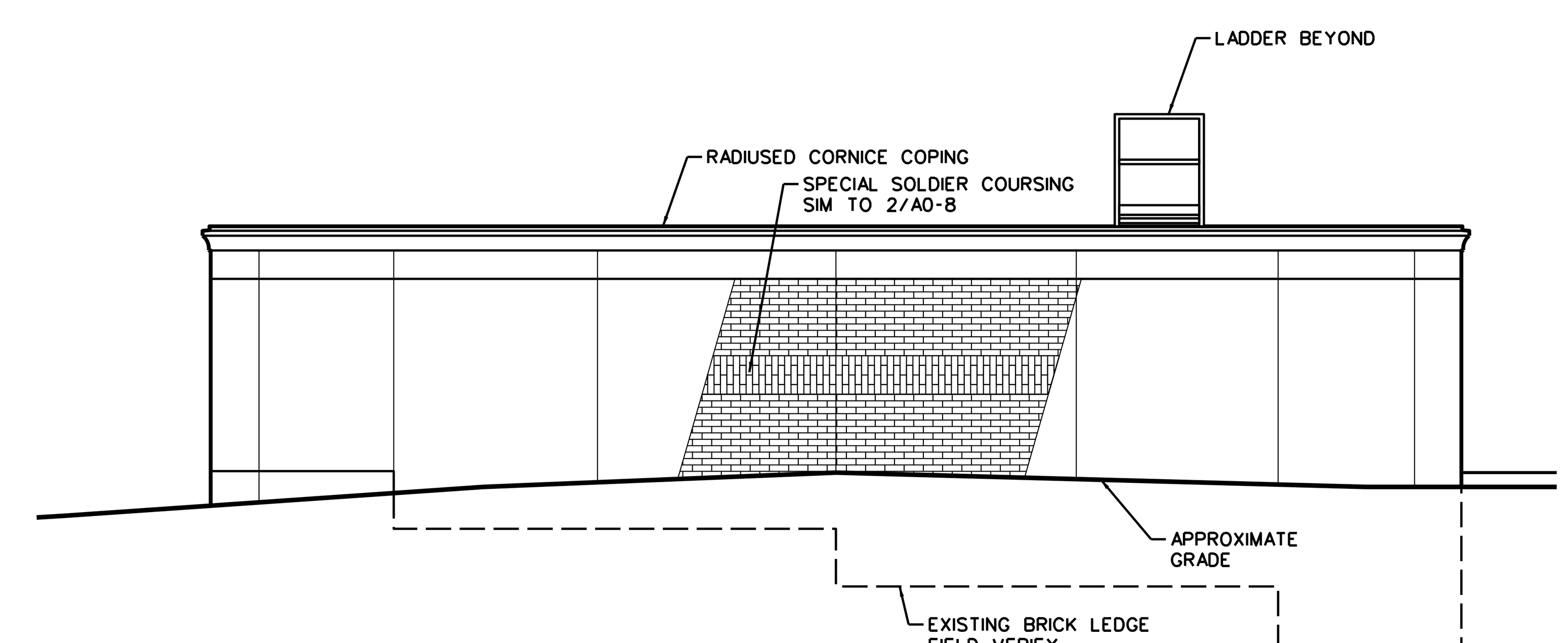
South Elevation
3/16" = 1'-0"



East Elevation
3/16" = 1'-0"



North Elevation
3/16" = 1'-0"



West Elevation
3/16" = 1'-0"

HDR

DATE	REVISIONS	ISSUE
10/31/2016	ISSUED FOR BIDDING	4

PROJECT STAFF
PROJECT MANAGER: R. SCOTT TROTTER, P.E.
ARCHITECT: MICHAEL D. DOEL, R.A.
DESIGNER: VINCENT P. FALLON, CDT
DESIGNER:
TECHNICIAN: VINCENT P. FALLON, CDT
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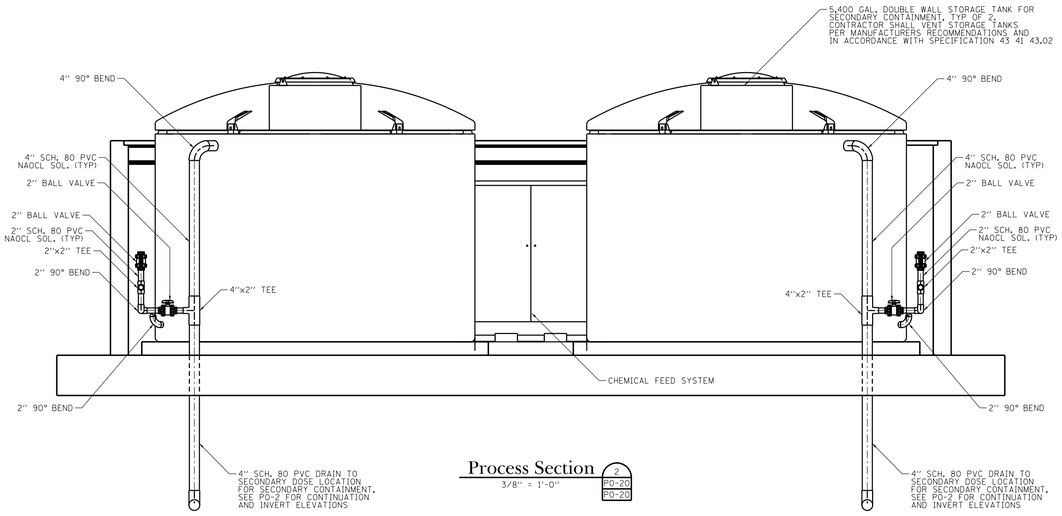
Wastewater Treatment Facility - Phase 1 Rehabilitation
Anaerobic Digesters
Architectural Exterior Elevations
City of Batavia, Kane County, Illinois

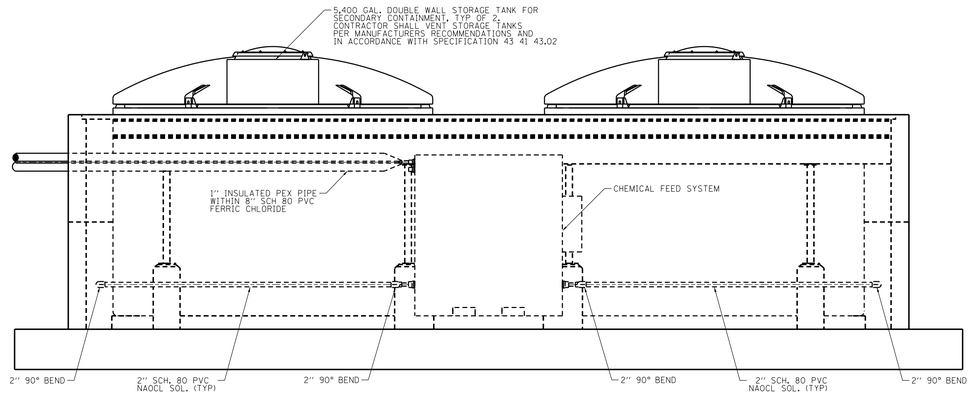
Project No.:	BAT025
Base File:	10A-EL11-64.DGN
Sheet File:	A10-11.DGN
Issue Date:	11/1/2016
Scale:	3/16" = 1'-0"

Sheet Number
A10-11

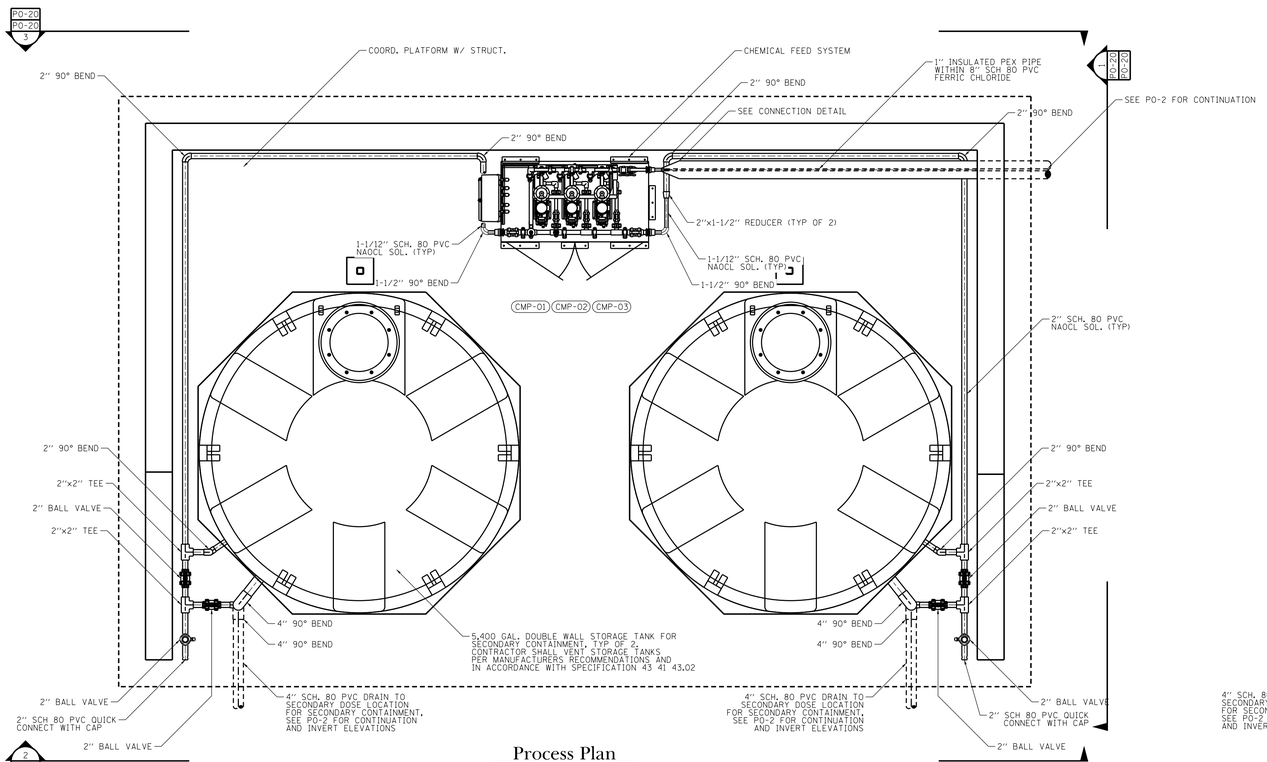
For City of Batavia Use



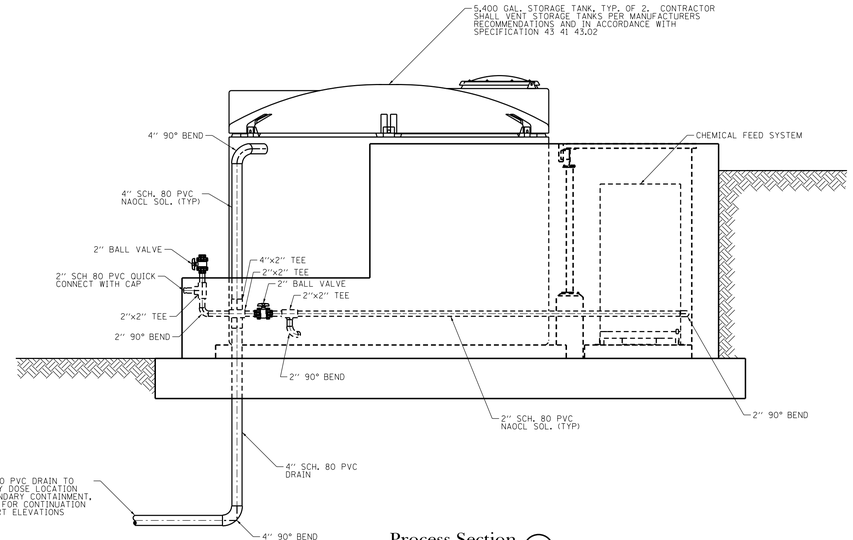
Process Section
3/8" = 1'-0"
2 PO-20 PO-20



Process Section
3/8" = 1'-0"
3 PO-20 PO-20



Process Plan
3/8" = 1'-0"



Process Section
3/8" = 1'-0"
1 PO-20 PO-20

DATE	ISSUE	REVISIONS
10/31/2016	A	ISSUED FOR BIDDING

PROJECT STAFF
PROJECT MANAGER: SCOTT TROTTER, P.E.
ENGINEER: JERRY RUTH, P.E.
ENGINEER: SUSAN NOVAK, P.E.
ENGINEER:
TECHNICIAN: GARY COOPER
TECHNICIAN: MIKE JAVINSON
TECHNICIAN: MARTY DOPKE
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Wastewater Treatment Facility - Phase I Rehabilitation

Chemical Feed Facility

City of Batavia, Kane County, Illinois

Project No.:	BAT025
Base File:	NONE
Sheet File:	P0-20.DGN
Issue Date:	11/1/2016
Scale:	3/8" = 1'-0"

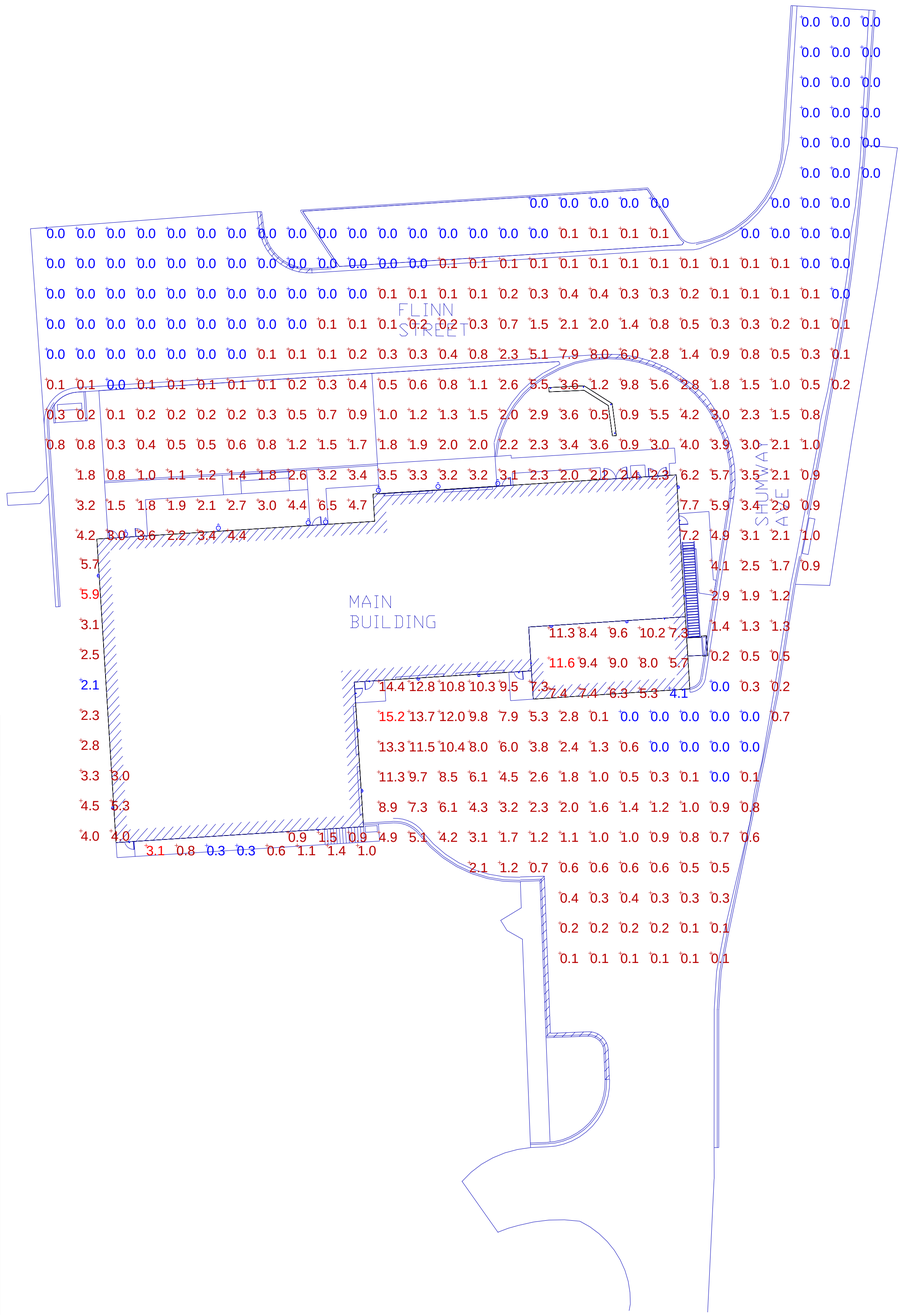
Sheet Number
P0-20

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.6 fc	15.2 fc	0.0 fc	N / A	N / A
Calc Zone #2	+	3.7 fc	5.9 fc	2.1 fc	2.8:1	1.8:1
Calc Zone #3	+	8.1 fc	11.6 fc	4.1 fc	2.8:1	2.0:1
Calc Zone #4	+	1.1 fc	3.1 fc	0.3 fc	10.3:1	3.7:1

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A	9	WSQ LED 1 10A700/40K SR3 MVOLT	WSQ LED WITH 1 MODULE, 10 LED?s, 700mA DRIVER, 4000K COLOR TEMPERATURE, TYPE 3 LENS	Outdoor Wall Pack Luminaire to IES LM-79-08. LUMINAIRE OUTPUT: 2000 Lms.	WSQ_LED_1_10A700_40K_SR3_MVOLT.ies	Absolute	0.95	24.2
	B	9	CSXW LED 30C 1000 40K T4M	CONTOUR SERIES LED WALL-MOUNT WITH 30 4000K LEDS OPERATED AT 1000mA AND PRECISION MOLDED ACRYLIC TYPE IV LENS	LED	CSXW_LED_30C_1000_40K_T4M.ies	Absolute	0.95	104
	C	8	1910LED/5RLM18/FG/4ARC45T5	56 WHITE CREE LEDS (4ARC)w/TYPE V OPTICS/HEATSINK 1910LED/5RLM18/FG LUMINAIRE w/FLAT GLOBE ADVANCE DRIVER #LEDINTA0700C210FO ELECT:120V .546A 65.0W		1910LED-4ARC45T5-FL.IES	Absolute	0.95	65
	D	4	1190LED-4ARC45T4-MDL03	1190ALED PLAZA CAGED ACORN, POST TOP, TYPE 4	56 LEDS	1190LED-4ARC45T4-MDL03.IES	Absolute	0.95	64



Plan View

Scale 1" = 50'

Wastewater Treatment Facility

Phase 1 Rehabilitation

Main Building Site Lighting

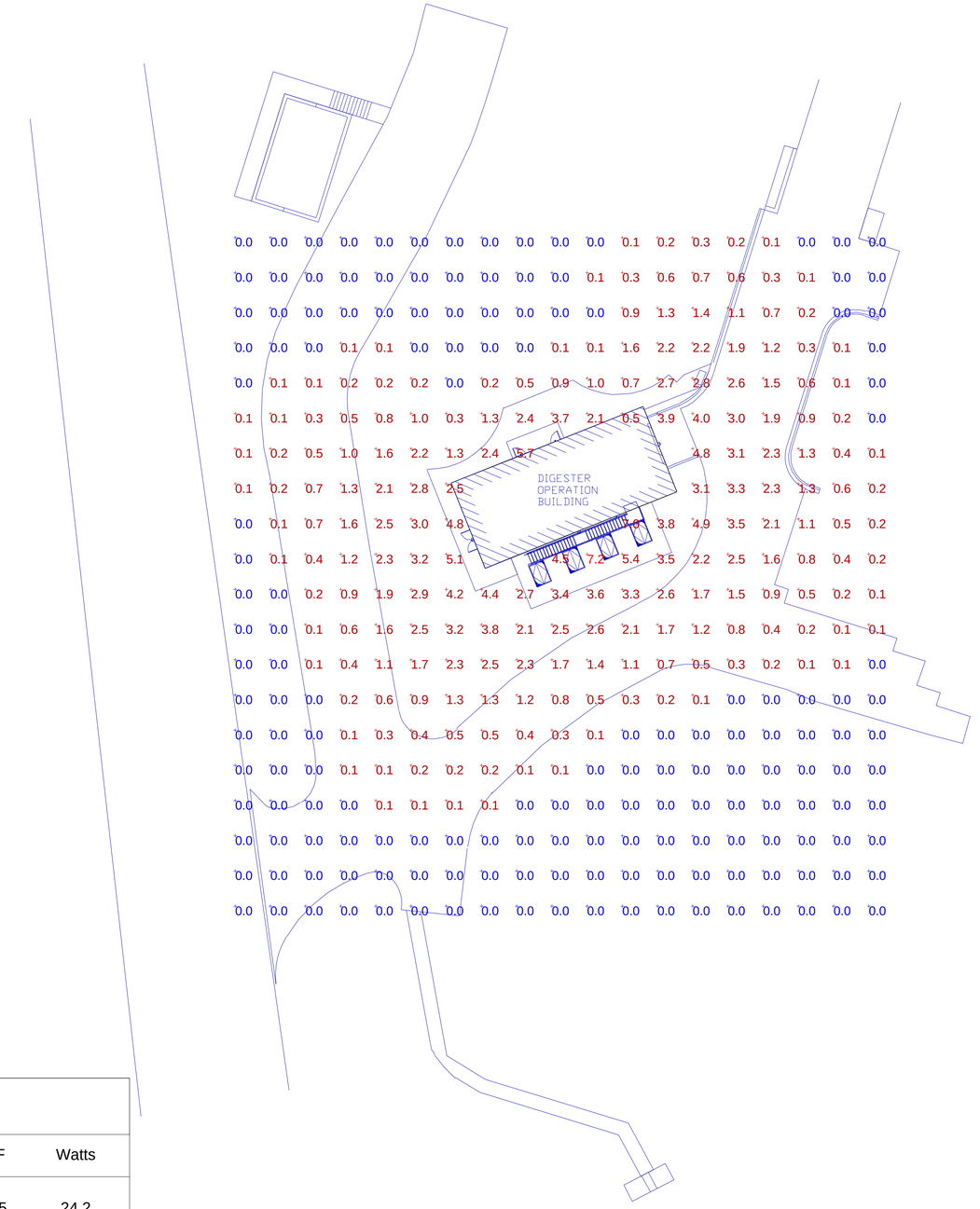
City of Batavia, Kane County, IL

Designer
LMR

Date
Jul 8 2016

Scale
As Noted

Drawing No.
1



Plan View

Scale 1" = 40'

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.7 fc	7.2 fc	0.0 fc	N / A	N / A

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
	A	3	WSQ LED 1 10A700/40K SR3 MVOLT	WSQ LED WITH 1 MODULE, 10 LED?s, 700mA DRIVER, 4000K COLOR TEMPERATURE, TYPE 3 LENS	Outdoor Wall Pack Luminaire to IES LM-79-08. LUMINAIRE OUTPUT: 2000 Lms.	WSQ_LED_1_10A700_40K_SR3_MVOLT.ies	Absolute	0.95	24.2
	B	3	CSXW LED 30C 1000 40K T4M	CONTOUR SERIES LED WALL-MOUNT WITH 30 4000K LEDS OPERATED AT 1000mA AND PRECISION MOLDED ACRYLIC TYPE IV LENS	LED	CSXW_LED_30C_1000_40K_T4M.ies	Absolute	0.95	104

VIRIDIAN

Wastewater Treatment Facility

Phase 1 Rehabilitation

Digester Operation Building

City of Batavia, Kane County, IL

Designer
LMR

Date
Jul 11 2016

Scale
As Noted

Drawing No.
2