HISTORIC AND DESIGN REVIEW COMMISSION

June 06, 2018

HDRC CASE NO:	**2018-247**
ADDRESS:	7110 BASIN
LEGAL DESCRIPTION:	
ZONING:	RP
CITY COUNCIL DIST.:	1
APPLICANT:	Mandi Siebels/Tetra Tech
OWNER:	San Antonio Water System
TYPE OF WORK:	Construction of ancillary structure, site work, fencing, drainage modifications
APPLICATION RECEIVED:	May 04, 2018
60-DAY REVIEW:	July 03, 2018

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Construction a new 1-story disinfection building.
2. Replace the top layer of roofing on the existing building with drainage modifications.
3. Upgrade existing fencing, gates and security system.
4. Raise one well above the floodplain.

APPLICABLE CITATIONS:

Unified Development Code Sec. 35-640. - Public Property and Rights-of-Way.
(a) Public Property. Generally, the historic and design review commission will consider applications for actions affecting the exterior of public properties except in the case of building interiors that are the sites of major public assemblies or public lobbies. The historic and design review commission will also consider applications for actions affecting public properties such as city parks, open spaces, plazas, parking lots, signs and appurtenances.
(b) Public Rights-of-Way. Generally, the historic and design review commission will consider applications for actions affecting public rights-of-way whose construction or reconstruction exceeds in quality of design or materials standards of the design manual of the public works department.

Unified Development Code Sec. 35-641. - Design Considerations for Historic and Design Review Commission Recommendations.
In reviewing an application, the historic and design review commission shall be aware of the importance of attempting to find a way to meet the current needs of the City of San Antonio, lessee or licensee of public property. The historic and design review commission shall also recognize the importance of recommending approval of plans that will be reasonable to implement. The best urban design standards possible can and should be employed with public property including buildings and facilities, parks and open spaces, and the public right-of-way. Design and construction on public property should employ such standards because the use of public monies for design and construction is a public trust. Public commitment to quality design should encourage better design by the private sector. Finally, using such design standards for public property improves the identity and the quality of life of the surrounding neighborhoods.
Sec. 35-642. - New Construction of Buildings and Facilities.
In considering whether to recommend approval or disapproval of a certificate, the historic and design review commission shall be guided by the following design considerations. These are not intended to restrict imagination, innovation or variety, but rather to assist in focusing on design principles, which can result in creative solutions that will enhance the city and its neighborhoods. Good and original design solutions that meet the individual requirements of a specific site or neighborhood are encouraged and welcomed.

(a) Site and Setting.
(1) Building sites should be planned to take into consideration existing natural climatic and topographical features. The intrusive leveling of the site should be avoided. Climatic factors such as sun, wind, and temperature should become an integral part of the design to encourage design of site-specific facilities which reinforces the individual identity of a neighborhood and promotes energy efficient facilities.

(2) Special consideration should be given to maintain existing urban design characteristics, such as setbacks, building heights, streetscapes, pedestrian movement, and traffic flow. Building placement should enhance or create focal points and views. Continuity of scale and orientation shall be emphasized.
(3) Accessibility from streets should be designed to accommodate safe pedestrian movement as well as vehicular traffic. Where possible, parking areas should be screened from view from the public right-of-way by attractive fences, berms, plantings or other means.
(4) Historically significant aspects of the site shall be identified and if possible incorporated into the site design. Historic relationships between buildings, such as plazas or open spaces, boulevards or axial relationships should be maintained.

(b) Building Design.
(1) Buildings for the public should maintain the highest quality standards of design integrity. They should elicit a pride of ownership for all citizens. Public buildings should reflect the unique and diverse character of San Antonio and should be responsive to the time and place in which they were constructed.
(2) Buildings shall be in scale with their adjoining surroundings and shall be in harmonious conformance to the identifying quality and characteristics of the neighborhood. They shall be compatible in design, style and materials. Reproductions of styles and designs from a different time period are not encouraged, consistent with the secretary of the interior's standards. Major horizontal and vertical elements in adjoining sites should be respected.
(3) Materials shall be suitable to the type of building and design in which they are used. They shall be durable and easily maintained. Materials and designs at pedestrian level shall be at human scale, that is they shall be designed to be understood and appreciated by someone on foot. Materials should be selected that respect the historic character of the surrounding area in texture, size and color.
(4) Building components such as doors, windows, overhangs, awnings, roof shapes and decorative elements shall all be designed to contribute to the proportions and scale of their surrounding context. Established mass/void relationships shall be maintained. Patterns and rhythms in the streetscape shall be continued.
(5) Colors shall be harmonious with the surrounding environment, but should not be dull. Choice of color should reflect the local and regional character. Nearby historic colors shall be respected.
(6) Mechanical equipment or other utility hardware should be screened from public view with materials compatible with the building design. Where possible, rooftop mechanical equipment should be screened, even from above. Where feasible, overhead utilities should also be underground or attractively screened. Exterior lighting shall be an integral part of the design. Interior lighting shall be controlled so that the spillover lighting onto public walkways is not annoying to pedestrians.
(7) Signs which are out of keeping with the character of the environment in question should not be used. Excessive size and inappropriate placement on buildings results in visual clutter. Signs should be designed to relate harmoniously to exterior building materials and colors. Signs should express a simple clear message with wording kept to a minimum.
(8) Auxiliary design. The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designed with the overall environment in mind and should be in visual keeping with related buildings, structures and places.

(c) Multiple Facades. In making recommendations affecting new buildings or structures which will have more than one (1) important facade, such as those which will face two (2) streets or a street and the San Antonio River, the historic and design review commission shall consider the above visual compatibility standards with respect to each important facade.

Sec. 35-645. - Signs and Billboards on Public Property or Right-of-Way.

(a) General Provisions. All non-regulatory signage on public property, on the public right-of-way, or overhanging the public right-of-way shall conform to all city codes and must be approved by the historic preservation officer prior to installation. Permits must be obtained following approval of the application. The historic preservation officer may submit an application under this section to the historic and design review commission for their recommendation prior to approving, denying, or approving with conditions the application. Memorials, markers, naming rights of public property, and recognition of charitable donations given to the City of San Antonio shall be additionally governed by existing policies for memorials and markers and/or any formal action passed by city council. Temporary displays approved by the department exercising control of the public property are authorized if in accordance with chapter 28 of the City Code of San Antonio, Texas.

(b) Sign Definitions. For signage definitions, refer to subsection 35-612(b) and chapter 28 of the City Code.

(c) Proportion of Signs. Signage width and height must be in proportion to the facade, respecting the size, scale and mass of the facade, building height, and rhythms and sizes of window and door openings. The building facade shall be considered as part of an overall sign program but the sign shall be subordinate to the overall building composition. Additionally, signs should respect and respond to the character and/or period of the area in which they are being placed.

(d) Standards for Sign Design and Placement. In considering whether to recommend approval or disapproval of an application for a certificate to construct or alter signage on a building, object, site, or structure, the historic and design review commission shall be guided by the following standards in addition to any specific design guidelines adopted by city council:
(1) Primary sign design considerations shall be identification and legibility. Size, scale, height, color and location of signs shall be harmonious with, and properly related to, the overall design of the building or structure and the surrounding area.
(2) The number of signs on each building shall be kept to a minimum to prevent unsightly clutter and confusion.
(3) Signs which describe, point, or direct the reader to a specific place or along a specific course, such as "entrance," "exit," and "handicap access" shall be reviewed.
(4) All graphic elements shall reinforce the architectural integrity of any building. Signs should not disfigure, damage, mar, alter, or conceal architectural features or details and should be limited to sizes which are in scale with the architecture and the streetscape. The historic and design review commission shall be guided by the building's proportion and scale when such elements are incorporated.
(5) Additionally, when reviewing applications for signage the historic preservation officer and the historic and design review commission shall consider the visual impact on nearby historic resources and established neighborhood character.

(f) Prohibited Signs. Signs that shall not be permitted include:
(1) Any sign placed upon a building, object, site, or structure in any manner so as to disfigure, damage, interrupt, or conceal any window opening, door, or significant architectural feature or detail of any building;
(2) Roof mounted signs, except in the cases of (i) integral design with the building; (ii) a contributing sign; (iii) or otherwise allowed in this article;
(3) Digital and/or LED lighted signs, not to include LED light sources that do not meet the definition of a sign, with or without rotating, flashing lettering, icons or images. Except as provided below:
A. A public transportation agency may incorporate transit information signage into transit shelters, utilizing LED or digital technology, provided the signage is contained within or under the transit shelter, and is limited to five (5) square feet of signage area, and one (1) sign per thirty (30) linear feet of pedestrian shelter.
B. A public transportation agency may incorporate transit information signage into a monument sign at transit stops, utilizing LED or digital technology, provided it is limited to five (5) square feet of signage area.
C. A public transportation agency may incorporate transit information signage into a monument sign at transit facilities (other than transit stops), utilizing LED or digital technology, provided it is limited to seven (7) square feet of signage area.
D. The historic preservation officer may impose additional restrictions on illumination to ensure that the character of signs are harmonious with the character of the structures on which they are to be placed and any designated landmarks or districts in the area, provided that such restrictions are reasonably related to other conforming signs and conforming structures in the area, do not unreasonably restrict the amount of signage allowed by this section, and are in keeping with the intent of this section. Among other things, consideration shall be given to the location and illumination of the sign in relation to the surrounding buildings, the use of appropriate materials, the size and style of lettering and graphics, and the type of lighting proposed. Notwithstanding the above, applicants may not exceed illumination restrictions contained in chapter 28.

FINDINGS:

a. The property addressed 7110 Basin is the site of the Basin Pump Station, owned and operated by the San Antonio Water System (SAWS). The lot boundaries also encapsulate the Olmos Basin Golf Course. The applicant has proposed to construct new chemical storage and feed facilities, perform site and civil improvements, and perform building upgrades. The work will include replacement of existing pavement and installation of new pavement, replacement of site yard piping, replacement of site security fencing, regarding of the site, replacement of electrical duct banks and other site facilities, hazardous abatement, and landscaping.
b. Per the Unified Development Code Sections 35-641 and 35-642, buildings shall be in scale with their adjacent surroundings, shall be suitable for the type of building and use for which they are designed, shall feature a color that is harmonious with the surroundings, shall feature screened mechanical equipment, and shall feature lighting

that is in keeping with the environment of the area. Site elements shall maintain existing patterns or be appropriate for the established physical and environmental context of the site. Staff finds the proposed scope appropriate and consistent with the Unified Development Code.

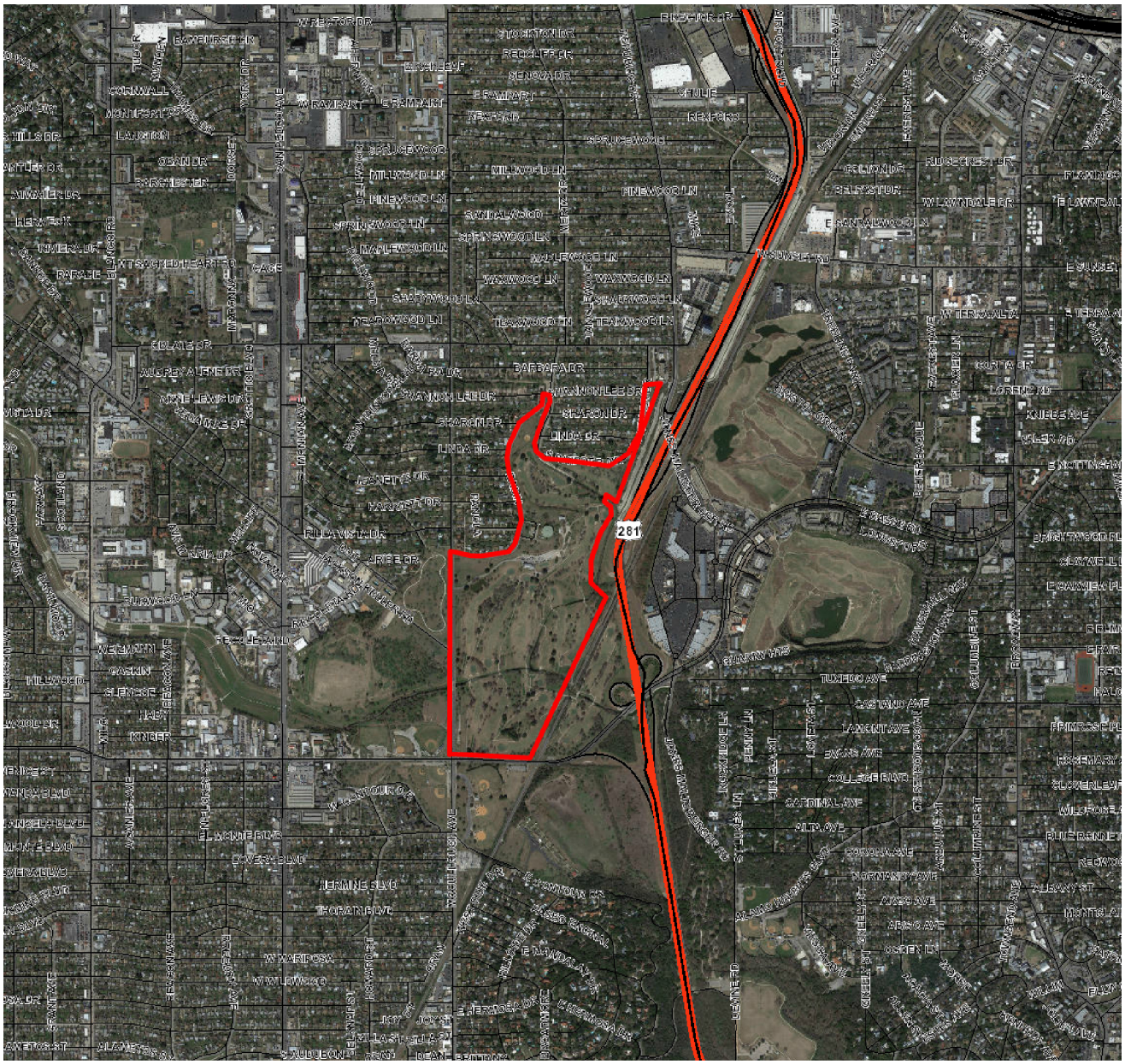
c. SIGNAGE –The proposal will include signage for the pump station to read “Basin Pump Station.” The sign will be constructed of 16” high and ¼” thick clear anodized aluminum letters mounted 3” from the exterior façade. Staff finds the proposal consistent with the UDC.

RECOMMENDATION:

Staff recommends approval based on findings a through c.

CASE MANAGER:

Stephanie Phillips



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Flex Viewer

Powered by ArcGIS Server

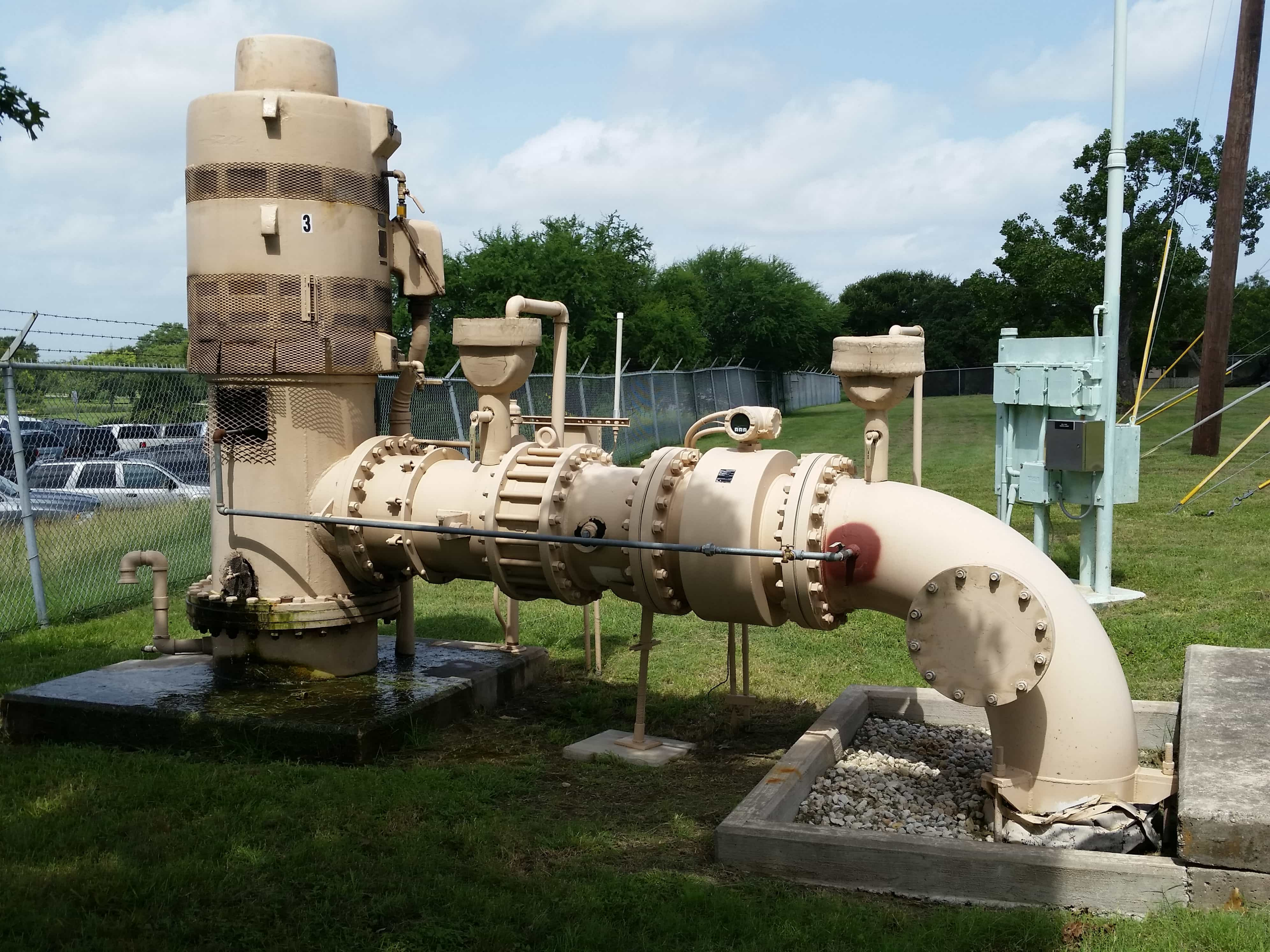
Printed:May 22, 2018


SF-1
SF-2
DANGER
HIGH VOLTAGE


4,000 LBS
DANGER
CHLORINE


STOP
STOP


Cutler-Hammer
DANGER
HIGH VOLTAGE
4160V
DANGER
HIGH VOLTAGE
4160V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SAMPLE POINT


AUTHORIZED
PERSONNEL ONLY

PROPOSED DEVELOPMENTS

Site improvements for the Basin Pump Station Improvements Project Phase II include new chemical storage and feed facilities, site/civil improvements, and upgrades to the existing building and electrical facilities. Following is a summary of the recommended improvements and associated design criteria, including an evaluation of the existing facilities.

1.1.1 SITE/CIVIL IMPROVEMENTS

Site improvements are recommended to maintain the security, functionality and durability of the pump station. The site improvements are focused on replacing and repairing site features that are failing or not meeting current SAWS standards. The site improvements recommended include the following:

- Replacement of site paving and new pavement to support the new chemical feed building.
- Replacement of site yard piping to include the wellfield collection piping outside the fenced site.
- Replacement of all valves with direct bury valves to eliminate vaults.
- Replacement of site security fencing including two new electrically operated cantilevered gates.
- Re-grading the site to cause proper drainage and eliminate low areas that collect water and to provide positive drainage away from site structures.
- Replacement of all electric duct banks to the wells and other site facilities. Removal of asbestos containing duct banks may be an alternate bid item.
- Landscaping as required to meet City of San Antonio Ordinance requirements.

1.1.2 WELL IMPROVEMENTS

The six wells at the site can produce about 69 MGD of water to the 5 MG tank on the site. Several of the wells do not meet TCEQ criteria and must be improved to be in compliance. In addition, the piping and valves for the wells are as old as the wells and need to be replaced to increase the service life of the well. In addition, the new flowmeters installed on the well in recent years do not have the required upstream and downstream lengths of straight pipe needed for high accuracy measurements. The recommended well improvements include the following:

- Replace the seal slab at Well Nos. 2, 3, 5 and 6.
- Raise the well flange and vents on Well No. 5 to three feet above the 100 year floodplain.
- Replace the well piping, isolation valves, check valves, blowoffs, combination air valves, and appurtenances
- to meet current SAWS standards for all six wells.
- Construct all-weather access roads to each well to meet TCEQ criteria.

1.1.3 CHEMICAL FEED FACILITIES

The existing chlorination system uses gaseous chlorine stored in one-ton cylinders. SAWS is upgrading larger chlorine feed facilities with on-site sodium hypochlorite generation facilities to improve the safety of the facilities. The Basin Pump Station site is also located close to a residential area that could be threatened by a chlorine leak from the existing system. The fluoride feed system is suffering from age and corrosion and will be more convenient to operate if incorporated into the design of the chemical feed facility. The recommended chemical feed improvements include:

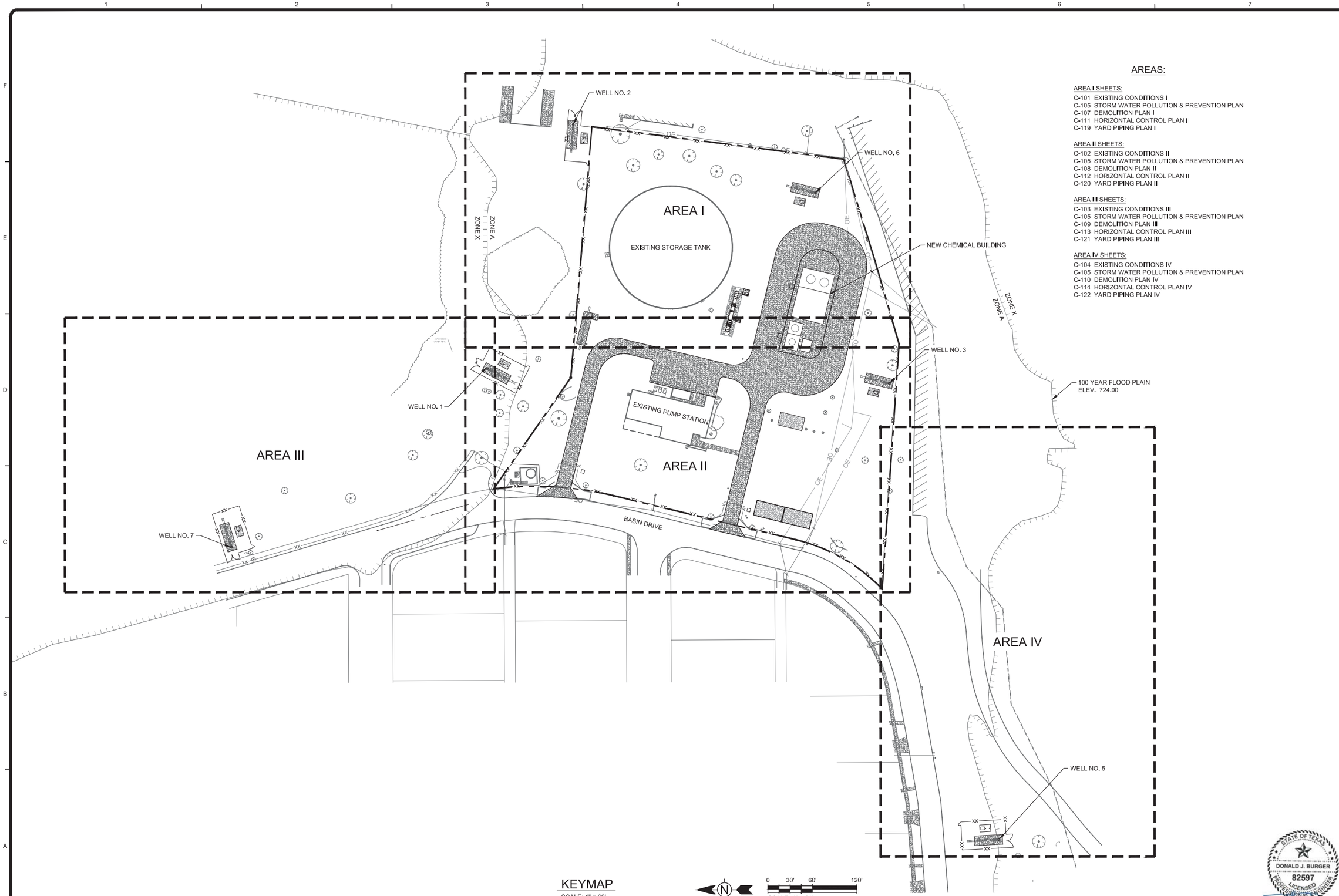
- Replace the chlorine gas feed system with a new on-site sodium hypochlorite generation system housed in a new chemical feed building.
- Replace the existing fluoride feed system with a new tank and feed pumps incorporated into the design of a new chemical feed building.
- Architectural, structural, mechanical, plumbing, HVAC, electrical and instrumentation improvements required for the new chemical feed building and to incorporate new chemical feed into the existing operations.

- Install a new static mixer into the chemical injection piping to provide adequate chemical mixing with influent to the ground storage tank.

1.1.4 EXISTING BUILDING IMPROVEMENTS

The existing high service pump station building underwent numerous improvements during Phase I, however two issues were left unresolved, the roof and the seepage into the basement. The roof includes some flashing and other materials that contain asbestos and will require special containment measures for removal. The seepage in the basement occurs through small cracks in the concrete walls and through the floor. Ground Penetrating Radar found that the walls appear to be structurally sound, but the floor may have some issues. These issues need to be further investigated to determine the actual structural condition of the floor. The recommended existing high service pump station building improvements include:

- Remove ballast, roof drains and flashing from existing roof.
- Add light weight insulated concrete to existing building roof.
- Repair roof downspouts and drains.
- Install SBS Modified bitumen roofing on existing pump station building roof.
- Seal cracks in basement walls of existing pump station building.
- Investigate structural condition of basement floor.



AREAS:

AREA I SHEETS:
C-101 EXISTING CONDITIONS I
C-105 STORM WATER POLLUTION & PREVENTION PLAN
C-107 DEMOLITION PLAN I
C-111 HORIZONTAL CONTROL PLAN I
C-119 YARD PIPING PLAN I

AREA II SHEETS:
C-102 EXISTING CONDITIONS II
C-105 STORM WATER POLLUTION & PREVENTION PLAN
C-108 DEMOLITION PLAN II
C-112 HORIZONTAL CONTROL PLAN II
C-120 YARD PIPING PLAN II

AREA III SHEETS:
C-103 EXISTING CONDITIONS III
C-105 STORM WATER POLLUTION & PREVENTION PLAN
C-109 DEMOLITION PLAN III
C-113 HORIZONTAL CONTROL PLAN III
C-121 YARD PIPING PLAN III

AREA IV SHEETS:
C-104 EXISTING CONDITIONS IV
C-105 STORM WATER POLLUTION & PREVENTION PLAN
C-110 DEMOLITION PLAN IV
C-114 HORIZONTAL CONTROL PLAN IV
C-122 YARD PIPING PLAN IV

KEYMAP
SCALE: 1" = 60'

N

0 30' 60' 120'
SCALE: 1" = 60'

STATE OF TEXAS
DONALD J. BURGER
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LICENSED
PROFESSIONAL ENGINEER
01-11-2018

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BID SET

SAN ANTONIO WATER SYSTEM

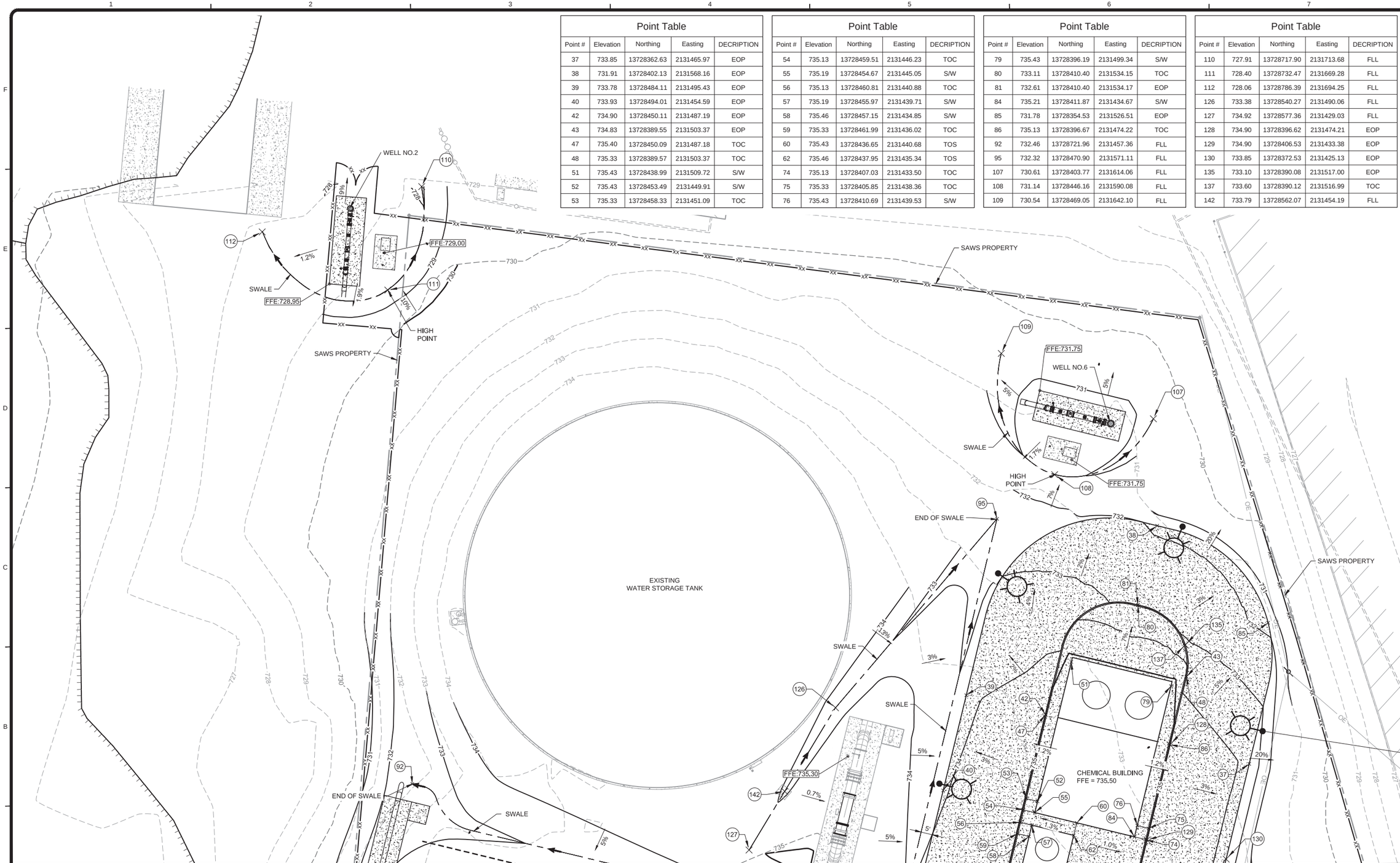
MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM
BASIN PUMP STATION IMPROVEMENT
PROJECT PHASE II
KEYMAP

Project No.:	15-6004
Designed By:	MMS
Drawn By:	NRG
Checked By:	DJB

C-002

Bar Measures 1 inch



MATCH LINE SEE SHEET C-116

GRADING PLAN I

SCALE: 1" = 20'

SCALE: 1" = 20'

Point Table				
Point #	Elevation	Northing	Easting	DECRIPTION
37	733.85	13728362.63	2131465.97	EOP
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39	733.78	13728484.11	2131495.43	EOP
40	733.93	13728494.01	2131454.59	EOP
42	734.90	13728450.11	2131487.19	EOP
43	734.83	13728389.55	2131503.37	EOP
47	735.40	13728450.09	2131487.18	TOC
48	735.33	13728389.57	2131503.37	TOC
51	735.43	13728438.99	2131509.72	S/W
52	735.43	13728453.49	2131449.91	S/W
53	735.33	13728458.33	2131451.09	TOC

Point Table				
Point #	Elevation	Northing	Easting	DECRIPTION
54	735.13	13728459.51	2131446.23	TOC
55	735.19	13728454.67	2131445.05	S/W
56	735.13	13728460.81	2131440.88	TOC
57	735.19	13728455.97	2131439.71	S/W
58	735.46	13728457.15	2131434.85	S/W
59	735.33	13728461.99	2131436.02	TOC
60	735.43	13728436.65	2131440.68	TOS
62	735.46	13728437.95	2131435.34	TOS
74	735.13	13728407.03	2131433.50	TOC
75	735.33	13728405.85	2131438.36	TOC
76	735.43	13728410.69	2131439.53	S/W

Point Table				
Point #	Elevation	Northing	Easting	DECRIPTION
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80	733.11	13728410.40	2131534.15	TOC
81	732.61	13728410.40	2131534.17	EOP
84	735.21	13728411.87	2131434.67	S/W
85	731.78	13728354.53	2131526.51	EOP
86	735.13	13728396.67	2131474.22	TOC
92	732.46	13728721.96	2131457.36	FLL
95	732.32	13728470.90	2131571.11	FLL
107	730.61	13728403.77	2131614.06	FLL
108	731.14	13728446.16	2131590.08	FLL
109	730.54	13728469.05	2131642.10	FLL

Point Table				
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111	728.40	13728732.47	2131669.28	FLL
112	728.06	13728786.39	2131694.25	FLL
126	733.38	13728540.27	2131490.06	FLL
127	734.92	13728577.36	2131429.03	FLL
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129	734.90	13728406.53	2131433.38	EOP
130	733.85	13728372.53	2131425.13	EOP
135	733.10	13728390.08	2131517.00	EOP
137	733.60	13728390.12	2131516.99	TOC
142	733.79	13728562.07	2131454.19	FLL

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SAN ANTONIO WATER SYSTEM

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BASIN PUMP STATION IMPROVEMENT
PROJECT PHASE II

PAVING GRADING & SITE IMPROVEMENTS PLAN I

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C-115

Bar Measures 1 inch

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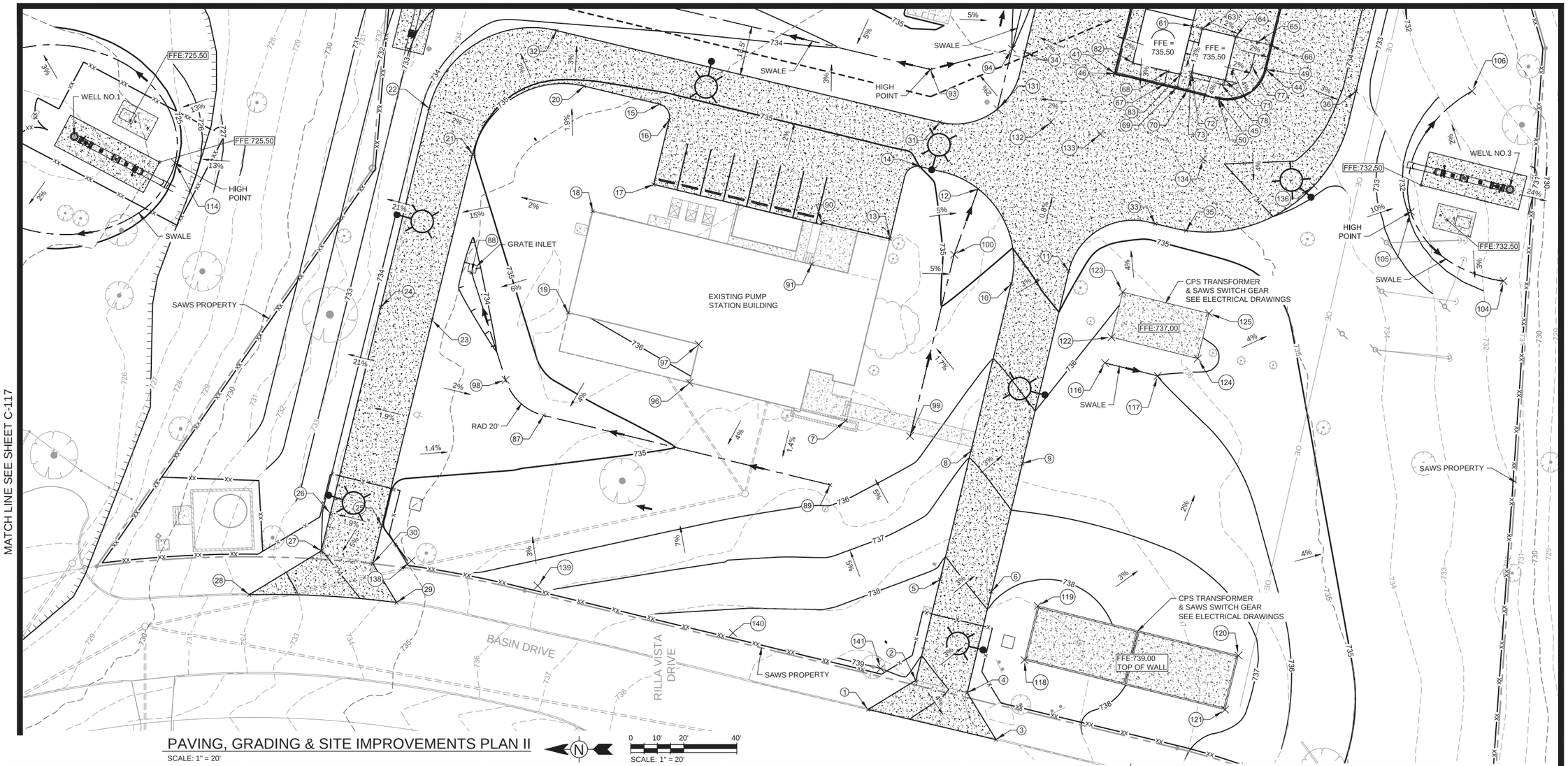

PAVING, GRADING & SITE IMPROVEMENTS PLAN II

SCALE: 1" = 20'

SCALE: 1" = 20'

Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
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3	738.53	13728516.52	2131147.21	EOP
4	738.84	13728527.36	2131164.93	EOP
5	738.23	13728537.65	2131207.70	EOP
6	737.83	13728518.20	2131203.02	EOP
7	735.95	13728573.25	2131267.65	FIN GR
8	736.93	13728525.95	2131256.31	EOP
9	736.53	13728506.54	2131251.47	EOP
10	735.24	13728510.78	2131319.36	EOP
11	734.81	13728489.05	2131324.17	EOP
12	734.53	13728523.28	2131355.12	EOP
13	735.95	13728556.59	2131336.28	FIN GR
14	734.99	13728544.94	2131363.56	EOP
15	735.10	13728643.65	2131387.18	EOP
16	735.20	13728639.95	2131381.16	EOP

Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
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19	735.95	13728678.06	2131308.44	FIN GR
20	735.05	13728672.05	2131393.98	EOP
21	734.99	13728714.19	2131368.23	EOP
22	734.54	13728730.56	2131385.53	EOP
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25	734.99	13728748.42	2131227.89	EOP
26	734.61	13728767.85	2131232.63	EOP
27	733.99	13728771.30	2131218.47	EOP
28	731.99	13728798.51	2131201.93	EOP
29	734.37	13728742.85	2131198.99	EOP
30	734.30	13728751.87	2131213.73	EOP
31	734.60	13728537.67	2131380.33	EOP
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Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
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49	735.13	13728414.57	2131400.32	TOC
50	735.13	13728432.68	2131389.28	TOC
61	735.43	13728442.48	2131416.65	TOS
63	735.46	13728438.63	2131415.74	TOS
64	735.46	13728425.96	2131412.66	TOS
65	735.23	13728417.69	2131410.61	S/W
66	735.11	13728412.86	2131409.49	TOC
67	735.33	13728452.95	2131394.71	TOC

Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
68	735.46	13728451.78	2131399.55	S/W
69	735.12	13728448.09	2131393.53	TOC
70	735.13	13728444.22	2131392.59	TOC
71	735.43	13728429.97	2131396.12	TOS
72	735.43	13728442.62	2131399.17	TOS
73	735.23	13728443.05	2131397.43	S/W
77	735.23	13728419.89	2131401.61	S/W
78	735.23	13728431.39	2131394.60	S/W
82	735.46	13728464.93	2131402.74	S/W
83	735.22	13728446.92	2131398.37	S/W
87	734.49	13728687.36	2131269.64	FLL
88	733.53	13728714.59	2131323.66	FLL
89	735.60	13728579.15	2131243.37	FLL
90	735.67	13728582.23	2131342.50	FLL
91	735.95	13728586.08	2131326.76	FLL
93	734.36	13728541.32	2131400.26	FLL

Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
94	734.00	13728510.43	2131408.11	FLL
96	735.95	13728632.24	2131281.94	EXST GR
97	736.25	13728628.77	2131296.46	EXST GR
98	734.17	13728701.71	2131283.04	FLL
99	735.51	13728548.95	2131261.83	FLL
100	734.80	13728532.32	2131330.36	FLL
104	731.44	13728324.87	2131320.37	FLL
105	731.90	13728359.91	2131346.52	FLL
106	731.35	13728336.80	2131392.08	FLL
114	724.90	13728826.48	2131364.99	FLL
116	736.17	13728475.31	2131289.44	FLL
117	736.00	13728455.45	2131284.56	FLL
118	738.50	13728505.80	2131177.25	FIN GR
119	738.29	13728500.76	2131197.68	FIN GR
120	737.51	13728424.99	2131178.99	FIN GR
121	737.51	13728430.93	2131158.56	FIN GR

Point Table

Point #	Elevation	Northing	Easting	DECRIPTION
122	736.50	13728472.91	2131299.16	FIN GR
123	735.80	13728468.70	2131316.22	FIN GR
124	736.17	13728440.31	2131291.11	FIN GR
125	735.80	13728436.10	2131308.18	FIN GR
131	734.24	13728515.95	2131385.35	EOP
132	734.44	13728495.77	2131380.46	EOP
133	734.20	13728477.06	2131375.92	EOP
134	734.08	13728438.20	2131366.50	EOP
136	733.66	13728396.51	2131356.39	EOP
138	735.08	13728737.26	2131214.77	FIN GR
139	736.82	13728689.57	2131205.33	FIN GR
140	738.48	13728615.85	2131187.54	FIN GR
141	739.00	13728560.06	2131174.06	FIN GR

STATE OF TEXAS
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BID SET

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM
BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

PAVING GRADING & SITE IMPROVEMENTS PLAN II

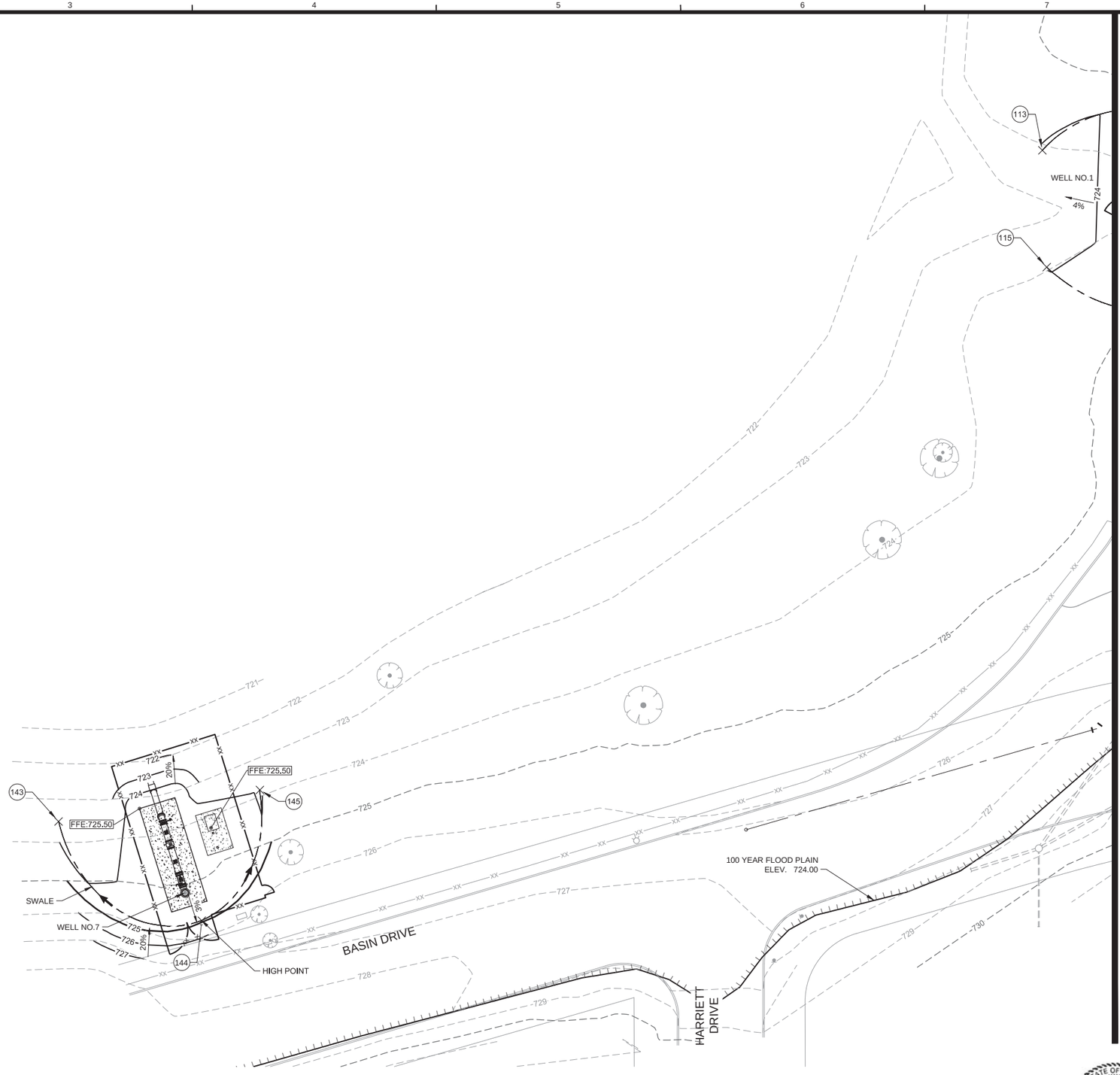
Project No.:	15-6004
Designed By:	BLE
Drawn By:	NRG
Checked By:	DJB

C-116

Bar Measures 1 inch

1/12/2018 1:52:47 PM - O:\PROJECTS\SAN ANTONIO\09308\200-09308-16003\CAD\SHEETFILES\PAVING GRADING & SITE IMPROVEMENTS PLAN.DWG - ANDERSON, DEBORAH

Point Table				
Point #	Elevation	Northing	Easting	DECRIPTION
113	723.76	13728908.60	2131394.80	FLL
115	723.93	13728907.05	2131353.80	FLL
143	723.51	13729253.86	2131159.30	FLL
144	724.90	13729203.57	2131124.51	FLL
145	723.82	13729183.19	2131170.37	FLL



PAVING, GRADING & SITE IMPROVEMENTS PLAN III

SCALE: 1" = 20'

N

0 10' 20' 40'

SCALE: 1" = 20'

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM
BASIN PUMP STATION IMPROVEMENT
PROJECT PHASE II

PAVING GRADING & SITE IMPROVEMENTS PLAN III

Project No.:	15-6004
Designed By:	BLE
Drawn By:	NRG
Checked By:	DJB

C-117

Bar Measures 1 inch

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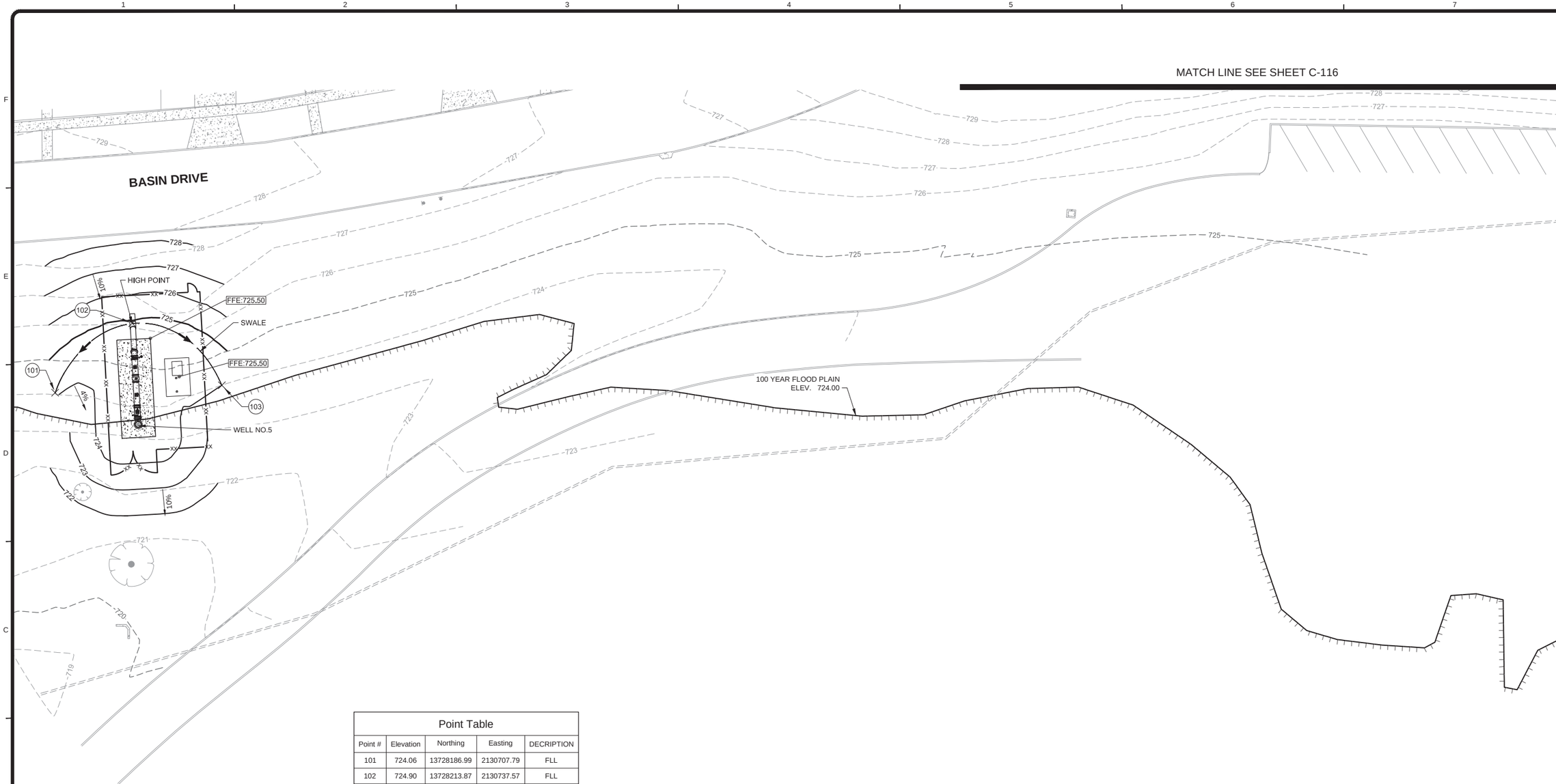

Point Table				
Point #	Elevation	Northing	Easting	DECRIPTION
101	724.06	13728186.99	2130707.79	FLL
102	724.90	13728213.87	2130737.57	FLL
103	724.00	13728189.86	2130772.19	FLL

PAVING, GRADING & SITE IMPROVEMENTS PLAN IV

SCALE: 1" = 20'

N

0 10' 20' 40'

SCALE: 1" = 20'

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

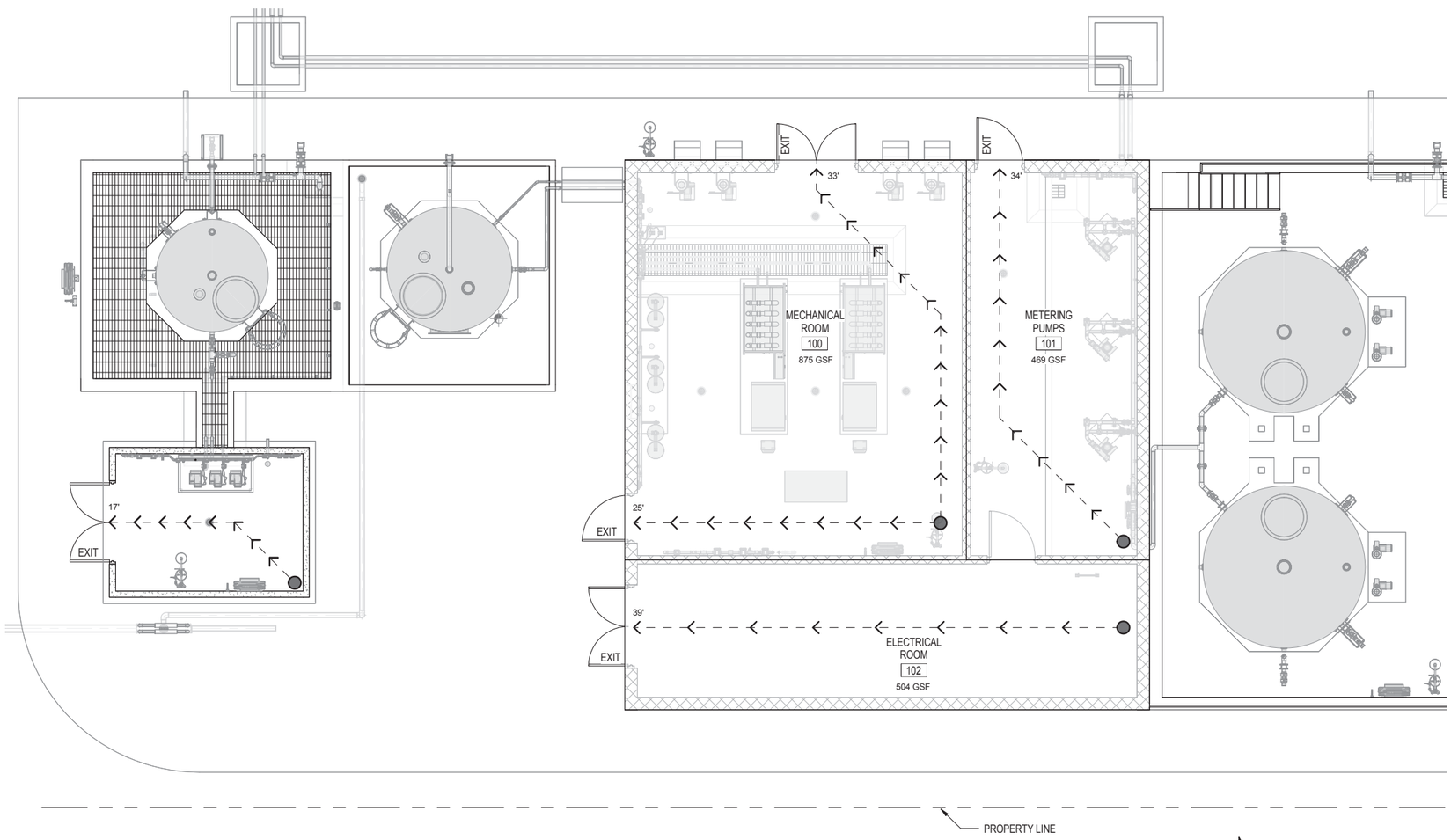
BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

PAVING GRADING & SITE IMPROVEMENTS PLAN IV

Project No.:	15-6004
Designed By:	BLE
Drawn By:	NRG
Checked By:	DJB

C-118

Bar Measures 1 inch



01 LIFE SAFETY PLAN

3/16" = 1'-0"

0 2' 4' 8'

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

NEW CHEMICAL BUILDING

APPLICABLE BUILDING CODES & REQULATIONS:

2015 INTERNATIONAL BUILDING CODE W/LOCAL AMENDMENTS
2015 INTERNATIONAL FIRE CODE W/ LOCAL AMENDMENTS
2015 INTERNATIONAL MECHANICAL CODE W/ LOCAL AMENDMENTS
2015 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS
2015 INTERNATIONAL ENERGY CONSERVATION CODE W/ LOCAL AMENDMENTS
2014 NATIONAL ELECTRICAL CODE
ASHRAE 90.1-2007
2015 INTERNATIONAL FUEL AND GAS CODE
2012 TEXAS ACCESSIBILITY STANDARDS

CODE ANALYSIS*

OCCUPANCY CLASSIFICATION (IBC SECTION 302) F-1	
TYPE OF CONSTRUCTION (IBC TABLE 601)	IIB
HEIGHT AND AREA LIMITATIONS (IBC TABLE 503)	
MAX. HEIGHT: 55 FT.	ACTUAL HEIGHT: 20 FT.
MAX. STORIES: 2 STORIES	ACTUAL STORIES: 1 STORIES
MAX. AREA/FLOOR: 15,500 SQ. FT.	ACTUAL AREA/FLOOR: 1,848 SQ. FT.

FIRE RESISTANCE RATING OF BUILDING ELEMENTS (IBC TABLE 601)	
BEARING WALLS - EXTERIOR	0
BEARING WALLS - INTERIOR	0
NONBEARING WALLS - EXTERIOR	0
STRUCTURAL FRAME	0
PARTITIONS - PERMANENT	0
SHAFT ENCLOSURES	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

ENERGY EFFICIENCY: 2015 IECC

CLIMATE ZONE: 2A	
FLOORS	NR
ROOF	R-25ci
WALLS, ABOVE GRADE	R-5.7ci*

* CONCRETE BLOCK WALL COMPLYING WITH ASTM C90 WITH UNGROUTED CORES FILLED W/ MATERIALS HAVING A MAXIMUM THERMAL CONDUCTIVITY OF 0.44BTU-IN/H-SQFT-DEGREES F.

BUILDING SQUARE FOOTAGES

SPACE DESCRIPTION	SQUARE FEET
MECHANICAL ROOM	875 - GROSS
METERING ROOM	469 - GROSS
ELECTRICAL	504 - GROSS
TOTAL	1,848- GROSS

EGRESS CALCULATIONS

SPACE DESCRIPTION	SQUARE FEET	OCCUPANT FACTOR	TOTAL OCCUPANT LOAD
MECHANICAL ROOM	875 - GROSS	300 - GROSS	3
METERING ROOM	469 - GROSS	300 - GROSS	2
ELECTRICAL ROOM	504 - GROSS	300 - GROSS	2
TOTAL	1,848 - GROSS		7

EGRESS WIDTH REQUIREMENT

OCCUPANCY	REQUIRED	PROVIDED
TYPE F-1	7 x .2 = 1.4 MINIMUM EXIT WIDTH	256"

NUMBER OF EXITS & EXIT TRAVEL DISTANCE

OCCUPANCY	DISTANCE WITH SPRIKNLER SYSTEM (IBC TABLE 1006.2.1)	NUMBER OF EXITS (IBC TABLE 1006.2.1)		MAX. OCCUPANT LOAD (IBC TABLE 1006.2.1)
		REQ'D	PROVIDED	
FACTORY (F-1)	100 FT. MAXIMUM	1	4	49

02 CODE ANALYSIS

12" = 1'-0"

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

Gerardo G. Noriega

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GNA Architecture
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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING
LIFE SAFETY & CODE ANALYSIS

SAWS Job No.	200-09308-16003
Designed By:	
Drawn By:	RD
Checked By:	GN

A-301

Bar Measures 1 inch

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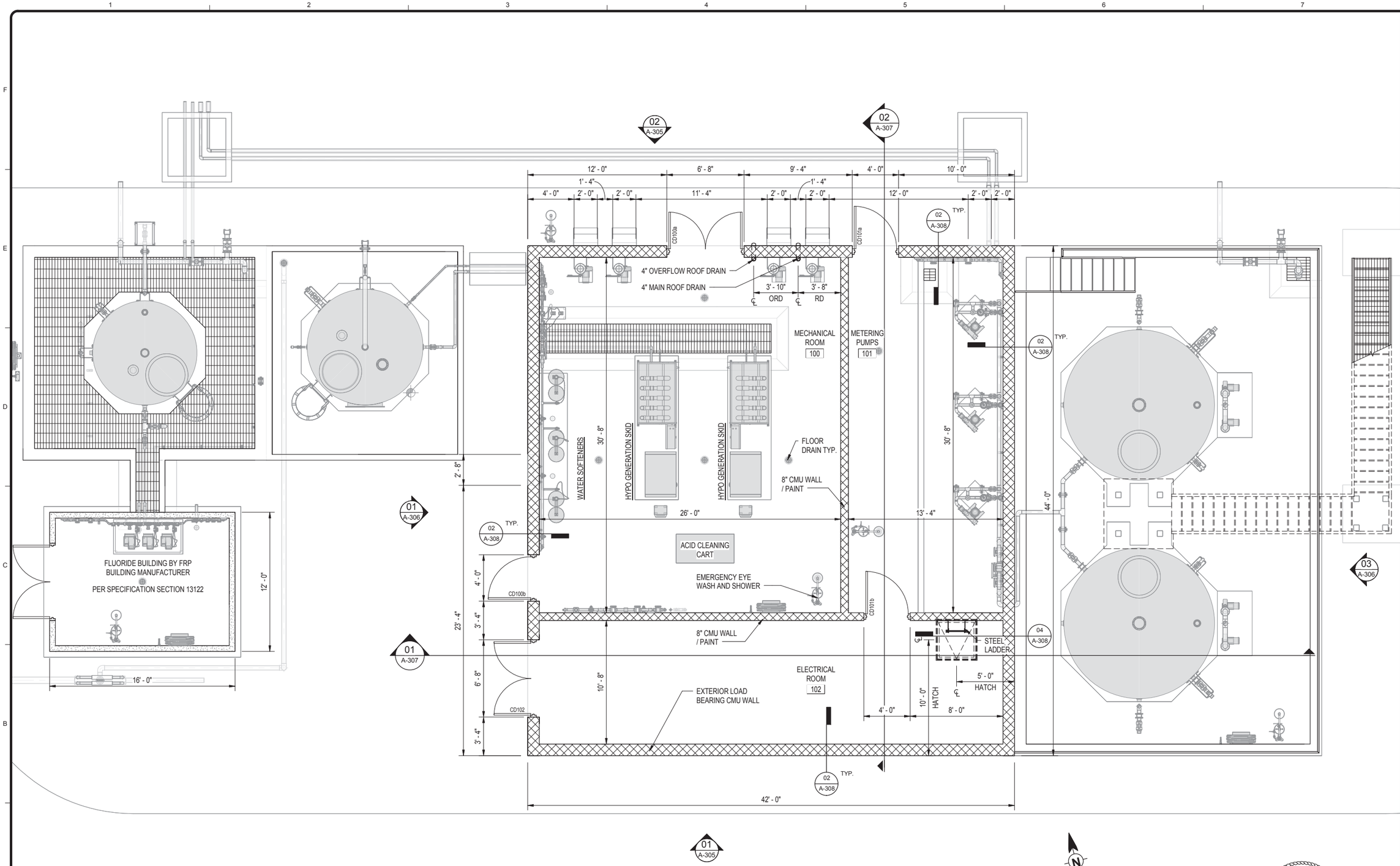

01 FLOOR PLAN

1/4" = 1'-0"

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING FLOOR PLAN

SAWS Job No.:	200-09308-16003
Designed By:	
Drawn By:	RD
Checked By:	GN

A-302

Bar Measures 1 inch

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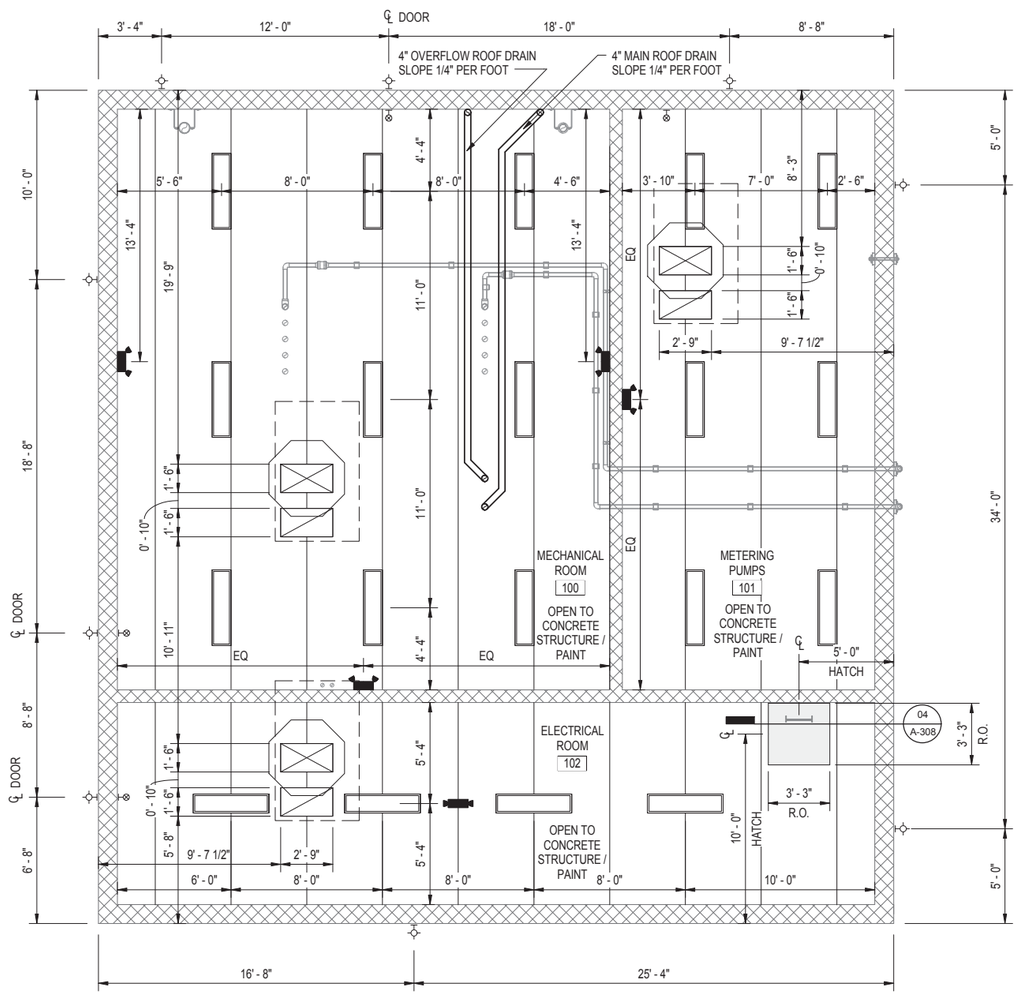
GENERAL NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES AND CONFIGURATION. LIGHT FIXTURES ARE SHOWN IN ARCHITECTURAL RCP FOR REFERENCE ONLY.

2. REFER TO MECHANICAL DRAWINGS FOR MORE INFORMATION ON HVAC.

RCP LEGEND

- EXTERIOR WALL MOUNTED LED LUMINAIRE
- LED EXIT LIGHT
- LED EMERGENCY LIGHT FIXTURE
- 1'x4' LED LIGHT FIXTURE
- RETURN AIR DUCT
- SUPPLY AIR DUCT
- COCENTRIC DIFFUSER
- OUTLINE OF ROOF TOP UNIT ABOVE



01 CHEMICAL BUILDING RCP

1/4" = 1'-0"

0 2' 4' 8'

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

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING REFLECTED CEILING PLAN

SAWS Job No.:	200-09308-16003
Designed By:	
Drawn By:	RD
Checked By:	GN

A-303

Bar Measures 1 inch

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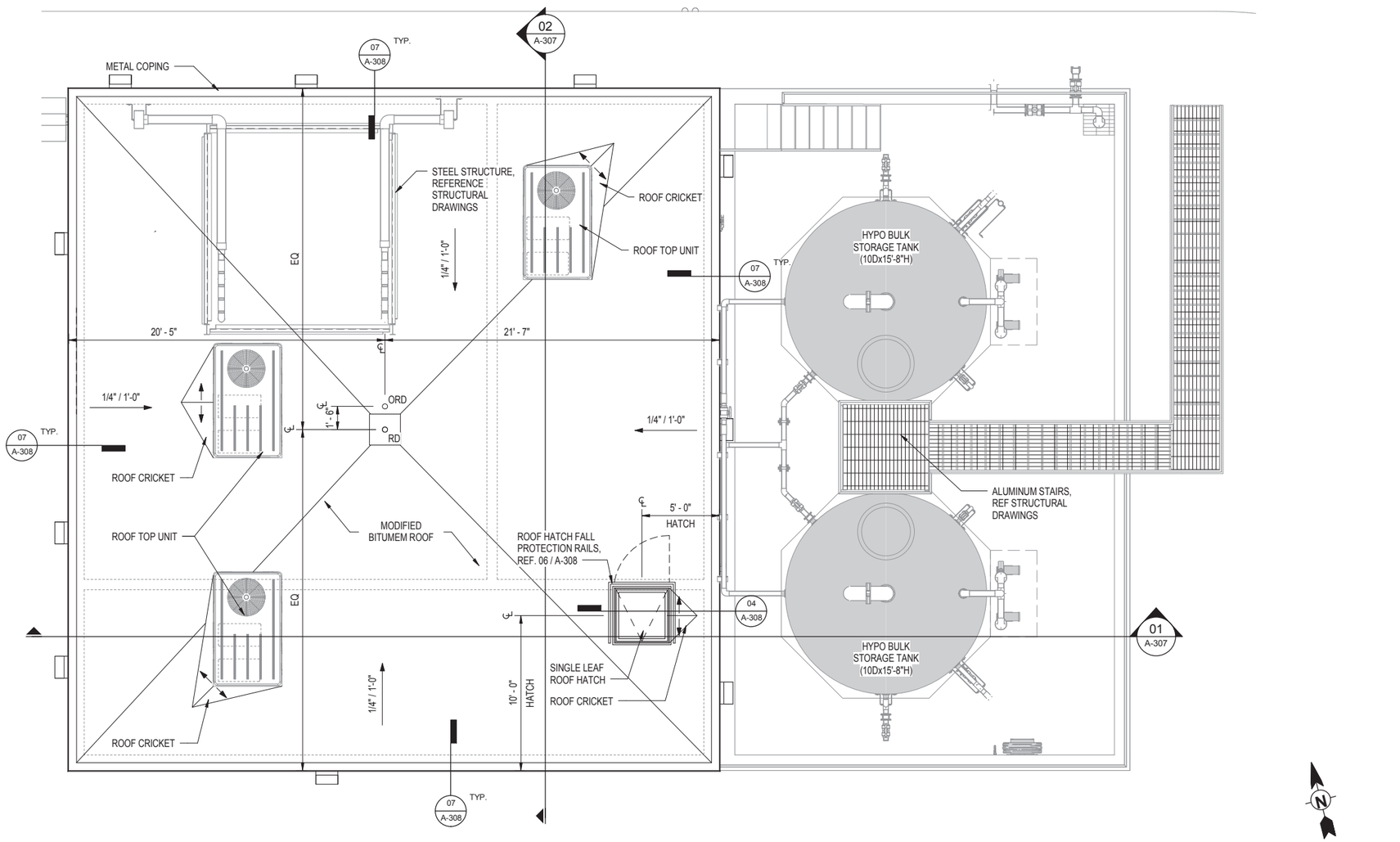
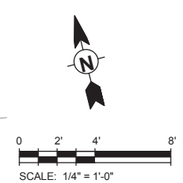
ROOF PLAN LEGEND

RD	ROOF DRAIN
ORD	OVERFLOW ROOF DRAIN
	36"x36" SINGLE LEAF ROOF ACCESS HATCH
	WALLS BELOW



01 CHEMICAL BUILDING ROOF PLAN

1/4" = 1'-0"



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

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING ROOF PLAN

SAWS Job No.:	200-09308-16003
Designed By:	
Drawn By:	RD
Checked By:	GN

A-304

Bar Measures 1 inch

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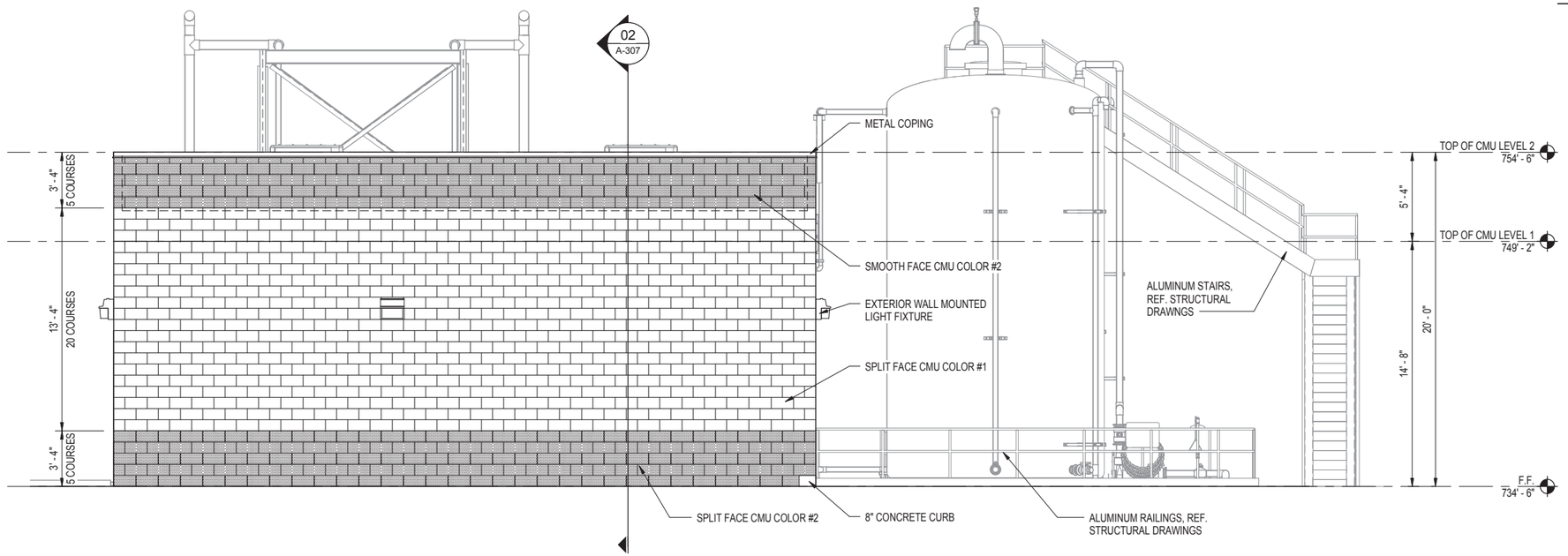
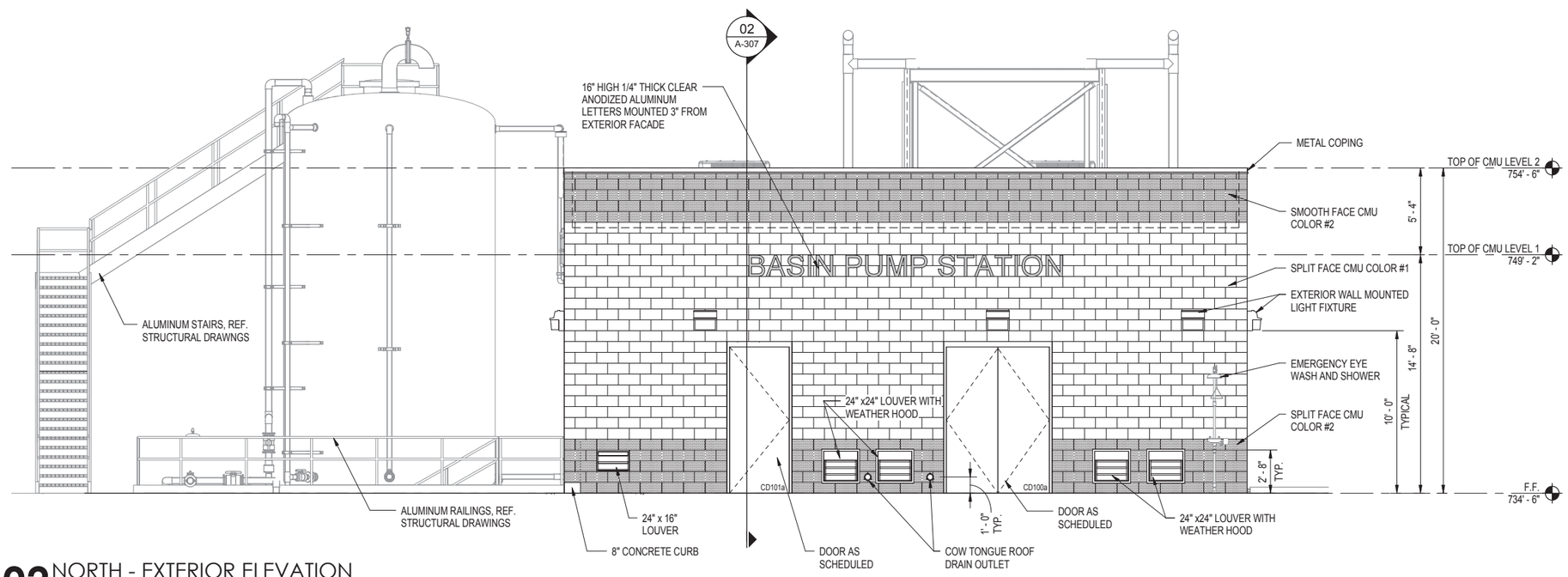
GENERAL NOTES

1. COLORS SELECTED BY THE OWNER DURING SUBMITTAL REVIEW BASED ON COLOR CHARTS TO BE FURNISHED BY CONTRACTOR



01 SOUTH - EXTERIOR ELEVATION

1/4" = 1'-0"



02 NORTH - EXTERIOR ELEVATION

1/4" = 1'-0"

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

Gerardo G. Noriega

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING EXTERIOR ELEVATIONS

SAWS Job No.	200-09308-16003
Designed By:	
Drawn By:	RD
Checked By:	GN

A-305

Bar Measures 1 inch

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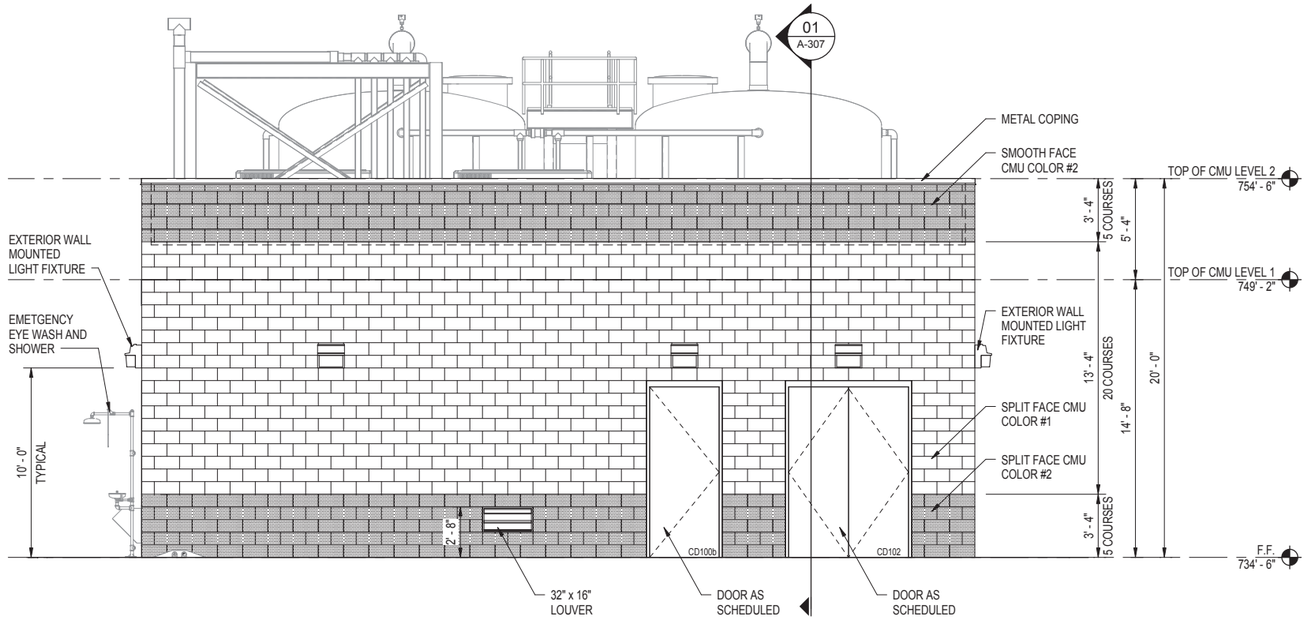
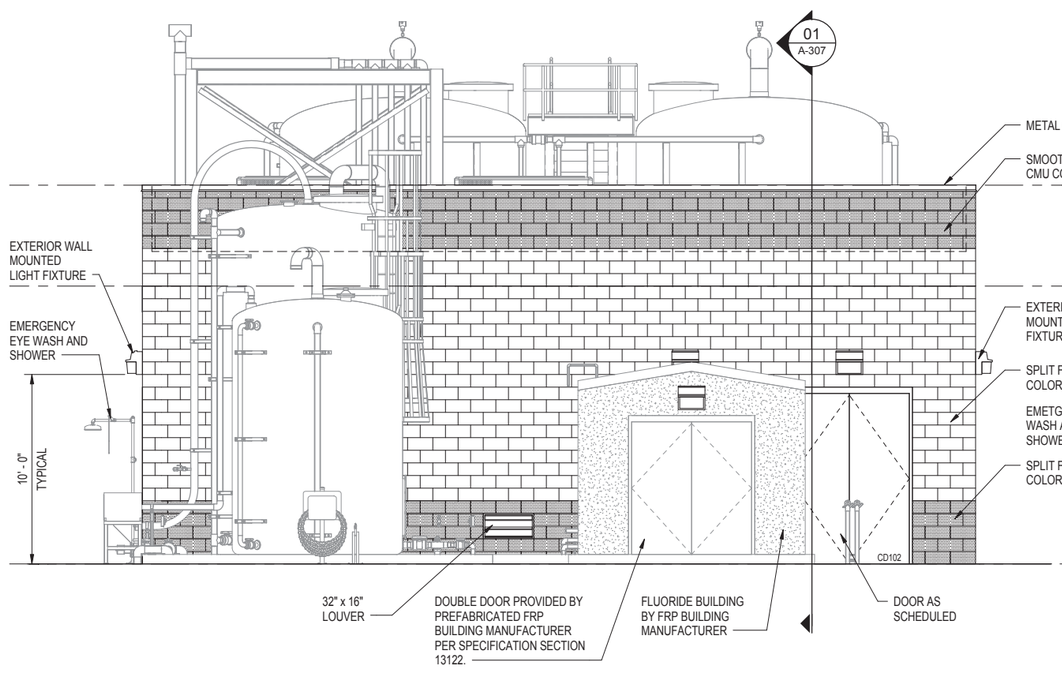
GENERAL NOTES

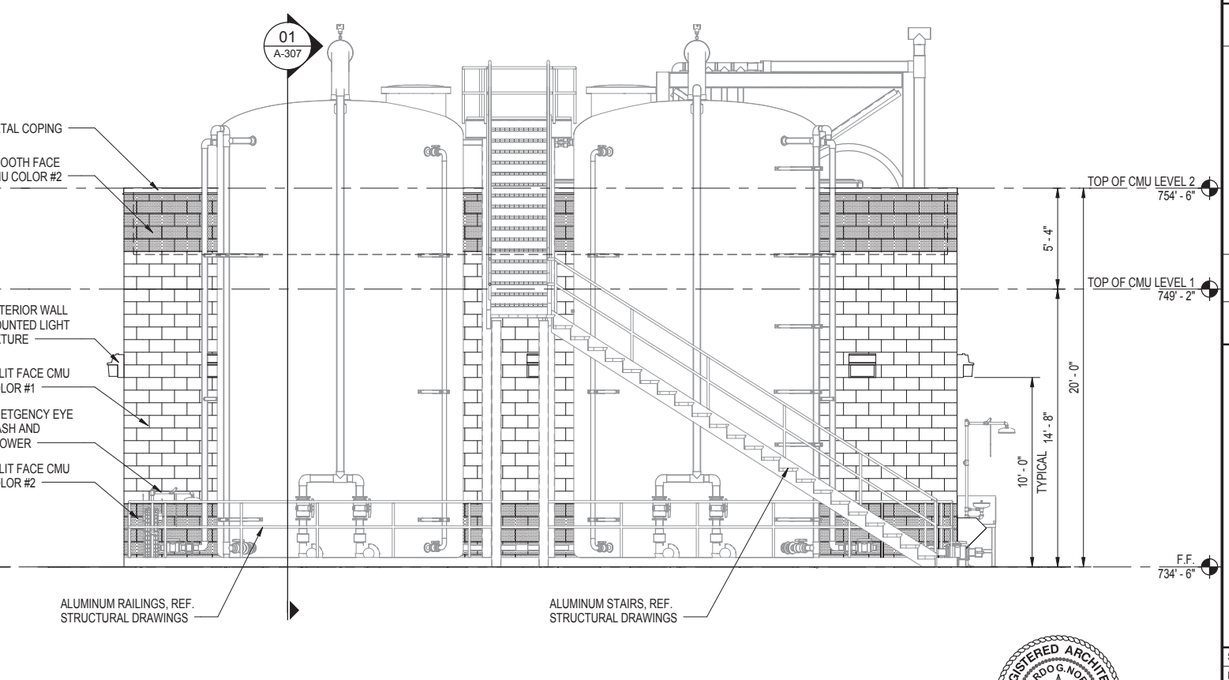
1. COLORS SELECTED BY THE OWNER DURING SUBMITTAL REVIEW BASED ON COLOR CHARTS TO BE FURNISHED BY CONTRACTOR



01 WEST - EXTERIOR ELEVATION
1/4" = 1'-0"



02 WEST - OVERALL EXTERIOR ELEVATION
1/4" = 1'-0"



03 EAST - EXTERIOR ELEVATION
1/4" = 1'-0"

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS
Jan. 10, 2018

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM
BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II
NEW CHEMICAL BUILDING EXTERIOR ELEVATIONS

SAWS Job No.:200-09308-16003
Designed By:
Drawn By: RD
Checked By: GN

A-306

Bar Measures 1 inch

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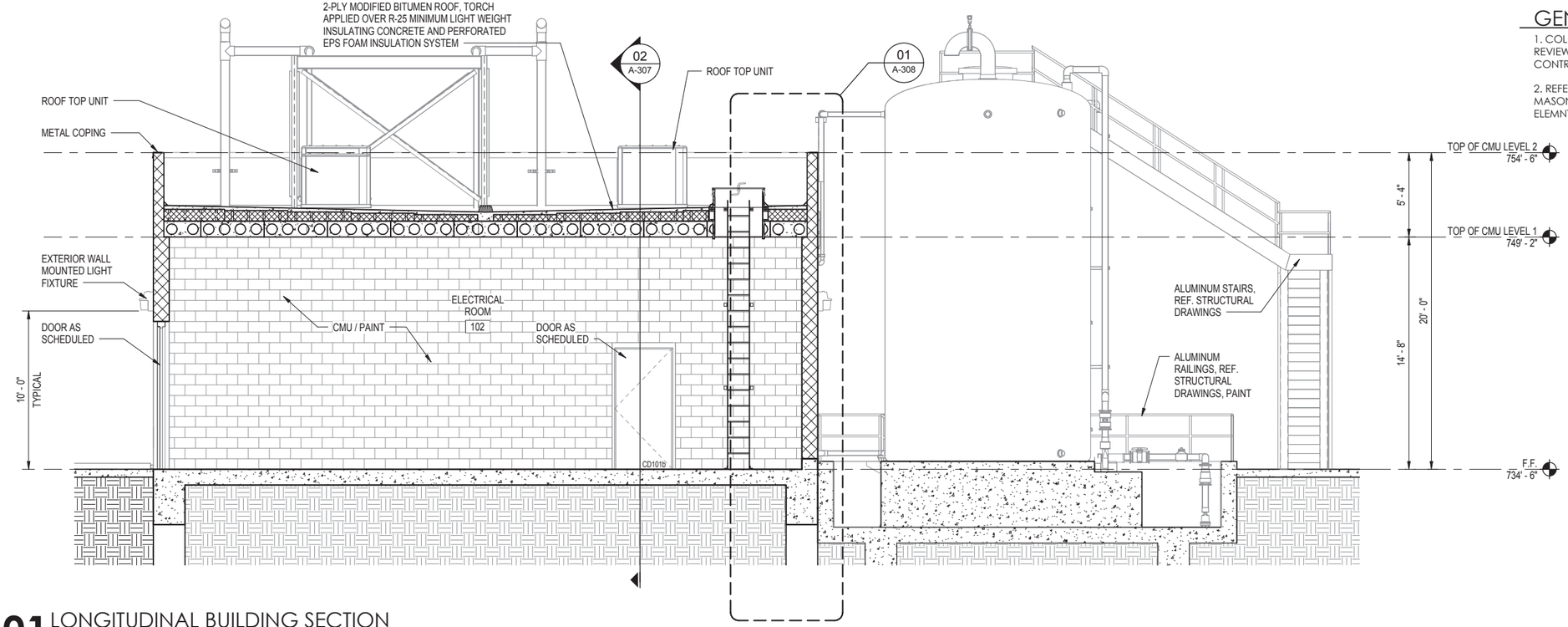
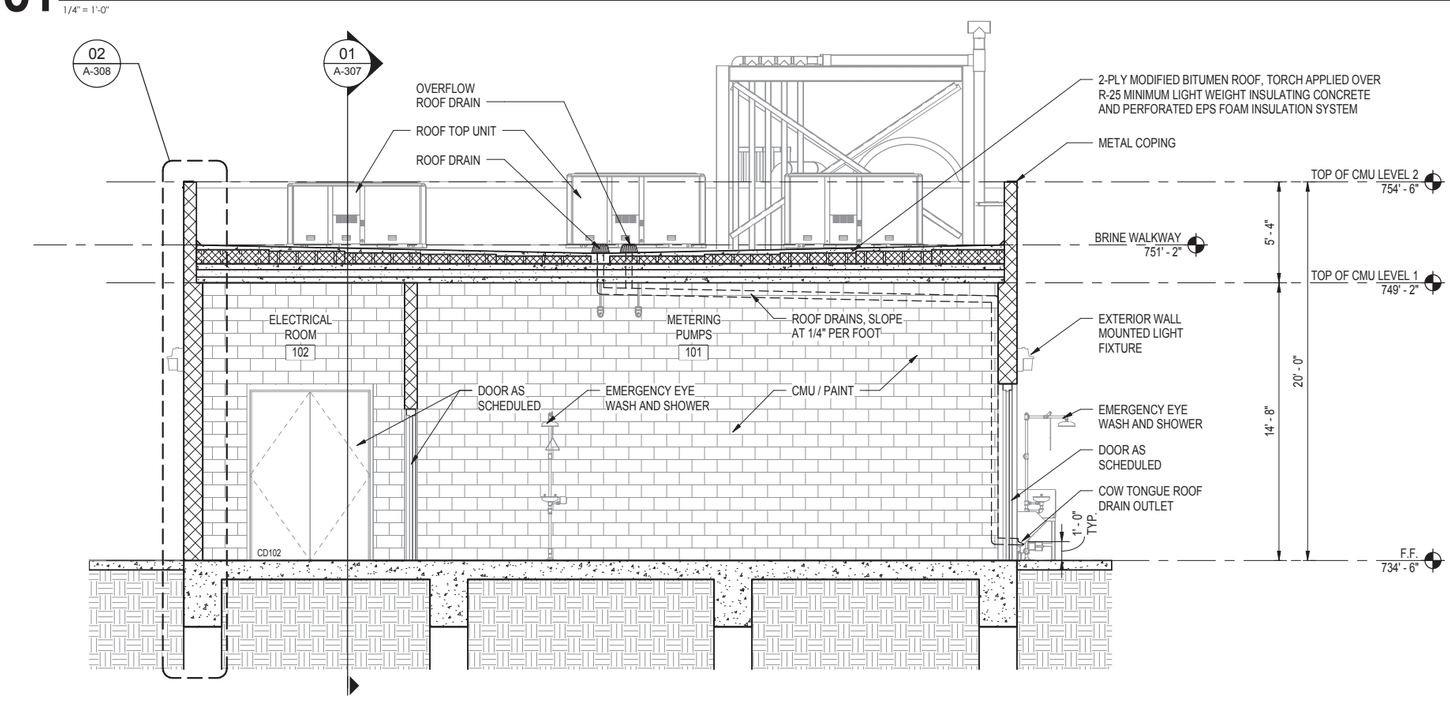


01 LONGITUDINAL BUILDING SECTION

1/4" = 1'-0"



02 BUILDING CROSS SECTION

1/4" = 1'-0"

GENERAL NOTES

1. COLORS SELECTED BY THE OWNER DURING SUBMITTAL REVIEW BASED ON COLOR CHARTS TO BE FURNISHED BY CONTRACTOR

2. REFER TO STRUCTURAL DRAWINGS FOR REINFORCED MASONRY, FOUNDATION, AND ALL OTHER STRUCTURAL ELEMNTS INFORMATION.

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p. 210.298.7800

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING SECTIONS

SAWS Job No.:200-09308-16003

Designed By:

Drawn By: RD

Checked By: GN

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

A-307

Bar Measures 1 inch

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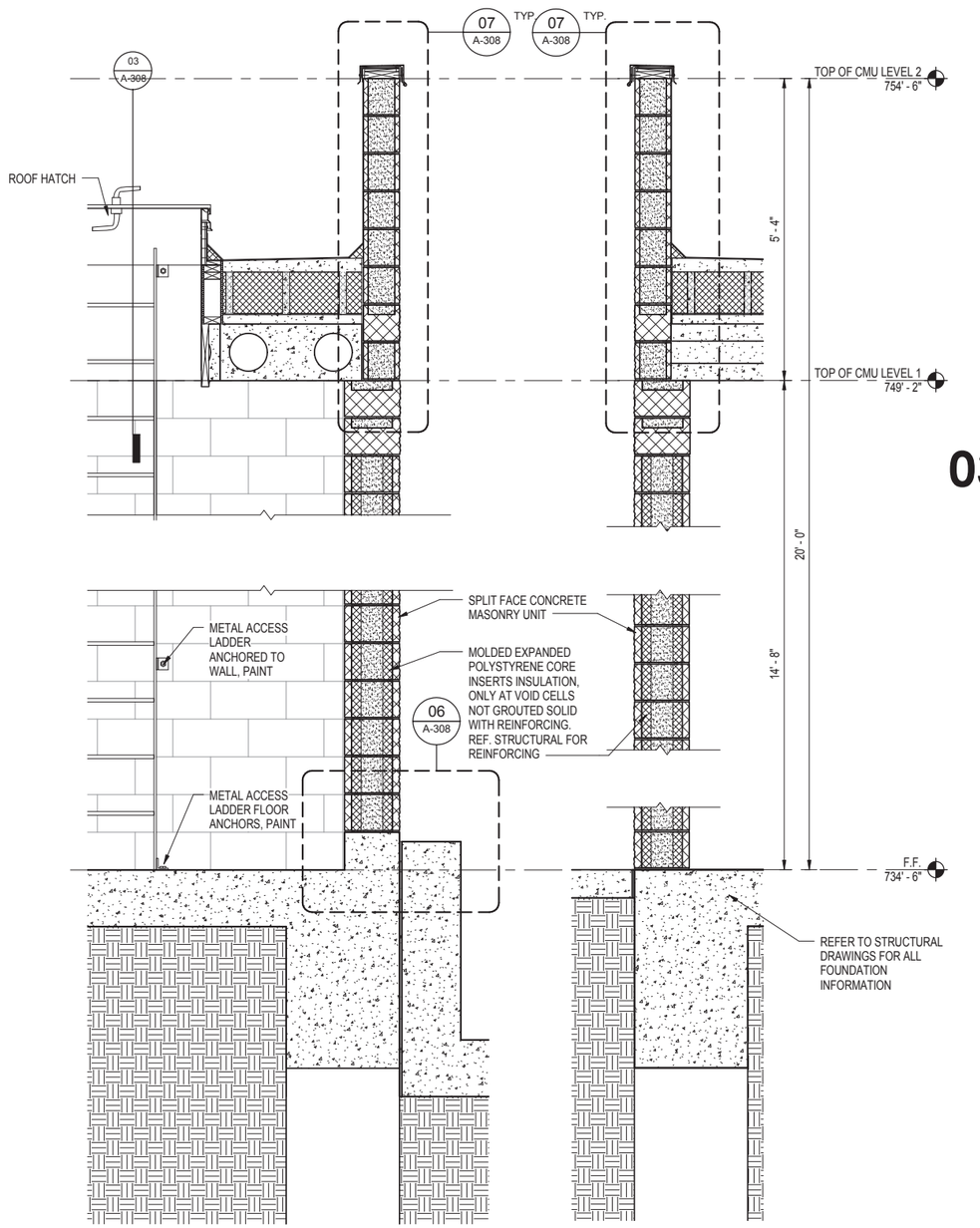
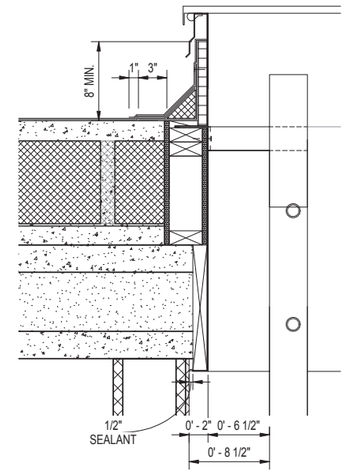
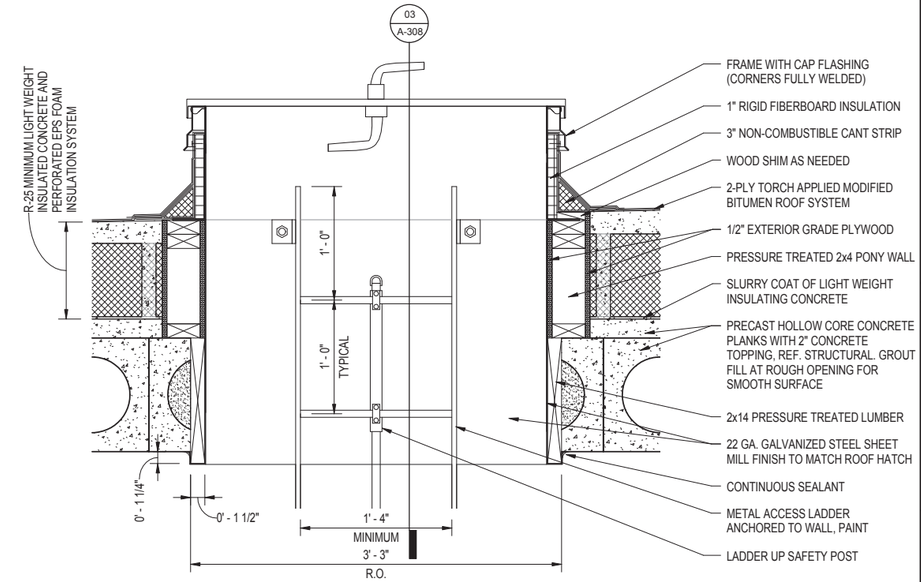


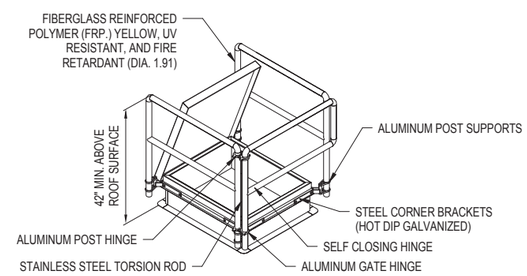
01 WALL SECTION @ ADJACENT TANKS
3/4" = 1'-0"



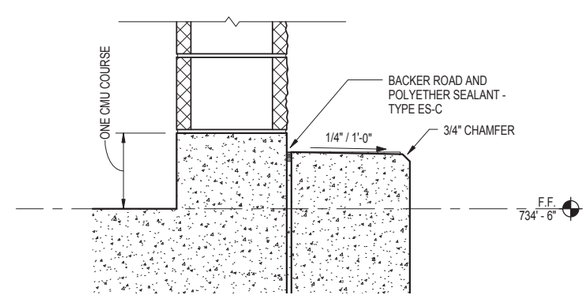
03 ROOF HATCH DETAIL
1 1/2" = 1'-0"



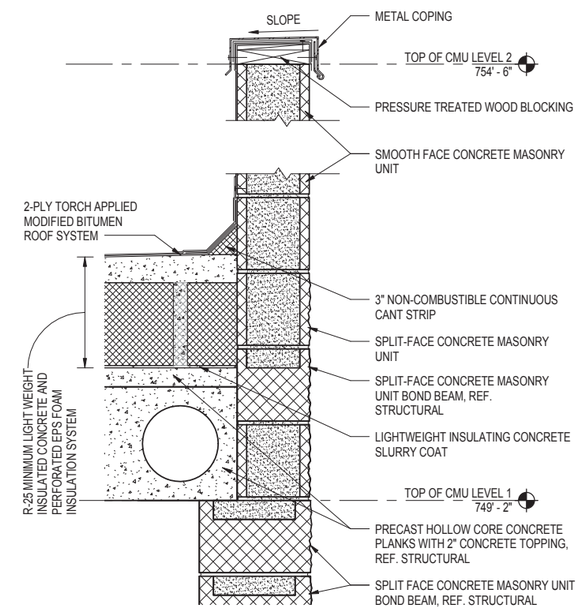
04 ROOF HATCH DETAIL
1 1/2" = 1'-0"



05 ROOF HATCH FALL PROTECTION RAILS
3/4" = 1'-0"



06 WALL BASE DETAIL @ CURB EXPANSION JOINT
1 1/2" = 1'-0"



07 PARAPET VERTICAL DETAIL
1 1/2" = 1'-0"

REGISTERED ARCHITECT GERARDO G. NORIEGA 18918 STATE OF TEXAS

Jan. 10, 2018

Gerardo G. Noriega

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BID SET

GNA ARCHITECTURE
GNA Architecture
300 Convent Street #1330
San Antonio, Texas 78205
p. 210.298.7800

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

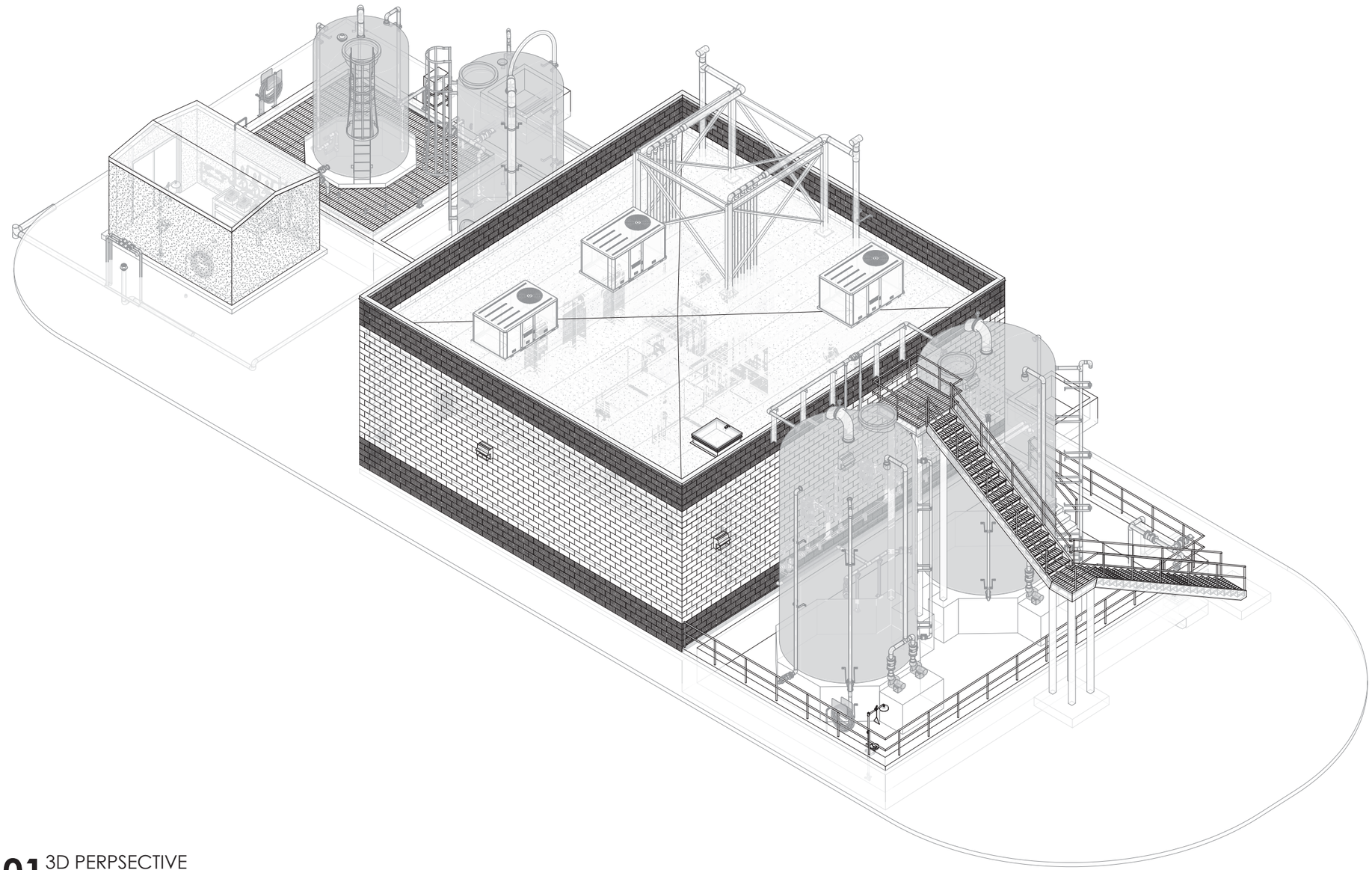
SAN ANTONIO WATER SYSTEM
BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II
NEW CHEMICAL BUILDING WALL SECTIONS

SAWS Job No.:200-09308-16003
Designed By:
Drawn By: RD
Checked By: GN

A-308

Bar Measures 1 inch

1/10/2018 1:33:47 PM P:\Projects\2016\16-004_Municipal-SAWS - Basin Pump Station\03-Constuction Documents\03.1-Architectural\REVIT\Models\Alt_1-09308-A-CHEM_BLDG-2015.rvt



01 3D PERPSECTIVE

Jan. 10, 2018

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY

SAN ANTONIO WATER SYSTEM

BASIN PUMP STATION IMPROVEMENT PROJECT PHASE II

NEW CHEMICAL BUILDING 3D PERSPECTIVE

SAWS Job No.:200-09308-16003

Designed By:

Drawn By: RD

Checked By: GN

A-309

Bar Measures 1 inch

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BUILDING ASSEMBLY AND CONSTRUCTION MATERIALS

The proposed new chemical building will be constructed of 12x8x16 nominal dimension load bearing concrete masonry unit (CMU) exterior walls with a split face finish on the exterior and painted on the interior. The interior walls will be constructed of 6x8x16 CMU and painted. The building will have concrete floors throughout with a power trowel finish. The roof structure will consist of precast concrete planks with a 2-inch light weight insulated concrete topping. The underside of the planks shall be painted. The building will have a 1/4-inch per foot sloping flat roof with 42-inch high parapet walls constructed from 6x8x16 smooth face CMU. The roof will consist of a 2-ply, torch applied, modified bitumen roof system over minimum R-20 expanded polystyrene tapered rigid insulation sloping towards the center from all four (4) sides. A 4-inch diameter internal drain will be used to expel water from the roof and will outlet through the wall favoring site drainage. An adjacent 4-inch diameter overflow drain will outlet through front side of the building.

The interior spaces of the building shall consist of a mechanical room, a pump metering room, and an electrical room. All ceilings will be open to structure and will have a 14-foot-8-inch clear ceiling height. The mechanical room of the building will house two (2) hypochlorite generation skids, an acid cleaning cart, and three (3) water softeners. The mechanical room will be accessible from the front of the building through a double leaf door and a single leaf door from the side of the building facing the brine and fluoride tanks. The pump metering room will contain two (2) metering pumps and will be accessible through a single leaf door from the front of the building and through a single leaf door from the electrical room. The electrical room shall be accessible from the metering pump room and through a double leaf door to the exterior. The electrical room will have a roof access ladder and a 30-inchx36-inch single leaf hatch to access the roof of the building. All exterior doors in the building will be painted insulated hollow metal panel with hollow metal frames and all interior doors will be painted hollow metal panel with hollow metal frames.

Below is the Table of Contents for our Material Specifications, please let us know if you require additional information regarding any line items of the specifications.

DIVISION 3 - CONCRETE

03300	Cast-in-Place Concrete
03313	Tightness Testing of Concrete Structures
03410	Pre-Cast Concrete Structures
03521	Lightweight Insulating Concrete

DIVISION 4 – MASONRY

04200	Unit Masonry

DIVISION 5 – METALS

05120	Structural Steel Framing
05140	Structural Aluminum
05400	Cold Formed Metal Framing
05520	Metal Grating Stairs
05521	Pipe and Tube Railings

DIVISION 6 – WOOD AND PLASTICS

06100	Rough Carpentry
06600	Fiberglass Reinforced Plastics (FRP) Fabrications Molded Grating
06610	Fiberglass Reinforced Plastics (FRP) Fabrications Pultruded Fiberglass Structural Shapes

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07210	Thermal Insulation
07260	Weather Barriers
07555	Styrene-Butadiene-Styrene Modified Bituminous Roofing (SBS)
07595	Preparation for Re-Roofing
07620	Sheet Metal Flashing and Trim
07631	Gutters and Downspouts
07710	Roof Specialties
07720	Roof Accessories
07840	Firestopping
07920	Joint Sealants

DIVISION 8 – DOORS AND WINDOWS

08110	Hollow Metal Doors and Frames
08710	Finish Hardware
08910	Louvers

DIVISION 9 – FINISHES

09260	Gypsum Board Assemblies
09850	Protective Coatings – Chemical Resistant Coatings
09900	Painting and Coating
09910	Polyethylene Tape Coating
09911	Polyurethane Coating for Steel Pipe