

HISTORIC AND DESIGN REVIEW COMMISSION

September 02, 2020

HDRC CASE NO: 2020-372
ADDRESS: 3218 KAISER DR
LEGAL DESCRIPTION: NCB 10777 LOT 10 (0.209 AC), 11 (0.209 AC), 12 (0.209 AC), P-4G (0.275 AC) & P-4K (4.086 AC)
ZONING: NP-8
CITY COUNCIL DIST.: 3
APPLICANT: Alma Nunez/City of San Antonio
OWNER: CITY OF SAN ANTONIO
TYPE OF WORK: Final approval for the development of a new park
APPLICATION RECEIVED: August 12, 2020
60-DAY REVIEW: Not applicable due to City Council Emergency Orders
CASE MANAGER: Rachel Rettaliata

REQUEST:

The applicant is requesting a Certificate of Appropriateness for final approval of a new park at 3218 Kaiser.

APPLICABLE CITATIONS:

Sec. 35-613. - Relocation of a Landmark or Property Located in a Historic District:

(a) In considering whether to recommend approval or disapproval of a certificate application to relocate a building, object or structure designated a historic landmark or located in a historic district, the historic and design review commission shall be guided by the following considerations:

- (1) The historic character and aesthetic interest the building, structure or object contributes to its present setting;
 - (2) Whether there are definite plans for the area to be vacated and what the effect of those plans on the character of the surrounding area will be;
 - (3) Whether the building, structure, or object can be moved without significant damage to its physical integrity;
 - (4) Whether the proposed relocation area is compatible with the historical and architectural character of the building, object, or structure.
 - (5) Balancing the contribution of the property to the character of the historic district with the special merit of the application.
- (b) Should an application to relocate a building, object or structure be approved, the historic preservation officer shall ensure that the new location is already zoned historic or shall review whether such location should be designated.
- (c) The historic preservation officer may approve applications for relocation for properties deemed noncontributing to the historic character of a historic district.

UDC 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.

UDC 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.

FINDINGS:

- a. The site currently proposed for the new Jupe Manor Neighborhood Park is located southeast of downtown and is adjacent to Interstate 410. The site is situated with Paula Drive to the north, the I-410 Access Road to the east, Sinclair Road to the south, and Kaiser Drive to the west. The new park will be 1.69 acres and will feature a restroom, drinking fountain, a playground, fencing, and signage.
- b. **CASE HISTORY** – This project received conceptual approval from the HDRC on July 15, 2020. Conceptual approval is the review of general design ideas and principles. Specific design details reviewed for conceptual approval are not binding and may only be approved through a Certificate of Appropriateness or final approval.

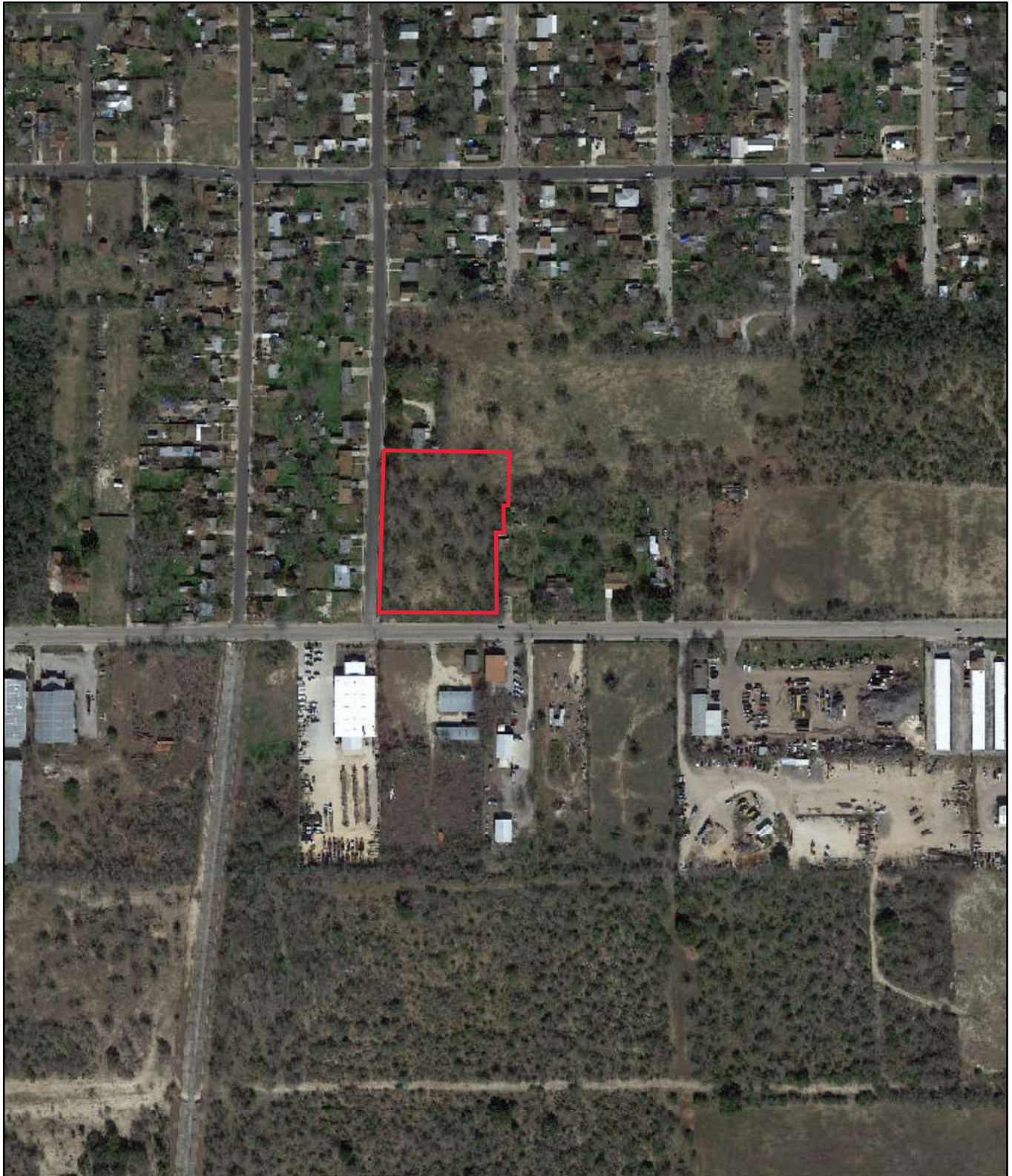
- c. PARK AMENITIES – The applicant has proposed to install park amenities such as playground equipment, a restroom, an open space lawn, a shade structure, a multi-use trail, a natural area, a perimeter fence, picnic seating, a drinking fountain, and lighting. Staff finds the proposal generally consistent with UDC Sec. 35-642.
- d. RESTROOM FACILITY – The applicant has proposed to install a restroom facility to the south and east of the proposed parking lot. The single toilet enclosure will be installed on a concrete and will feature wire screen panels. Staff finds the proposal consistent with the UDC.
- e. SHADE CANOPY – The applicant has proposed to install a shade canopy east of the parking lot, between the parking lot and the playground area. The shade canopy will feature galvalume coated roofing material and beams installed on a concrete pad. The proposed shade canopy is simple in design and appropriate for its location within a public park. The materials and colors are appropriate and consistent with UDC Section 35-642b.
- f. WALKWAYS – The applicant has proposed to install a multi-use trail with lighting throughout the proposed park, ADA accessible sidewalks, and a parking lot. UDC Sec. 35-642(b)(8) states that 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. Staff finds the proposal generally consistent with the UDC Sec. 35-642.
- g. ARCHAEOLOGY – The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable.

RECOMMENDATION:

Staff recommends final approval of the proposal to develop Jupe Manor Neighborhood Park as a new public park based on findings a through g with the following stipulation:

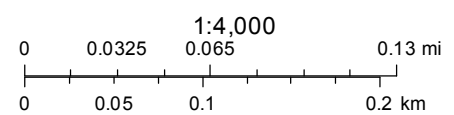
- i. ARCHAEOLOGY – The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology, as applicable.

City of San Antonio One Stop

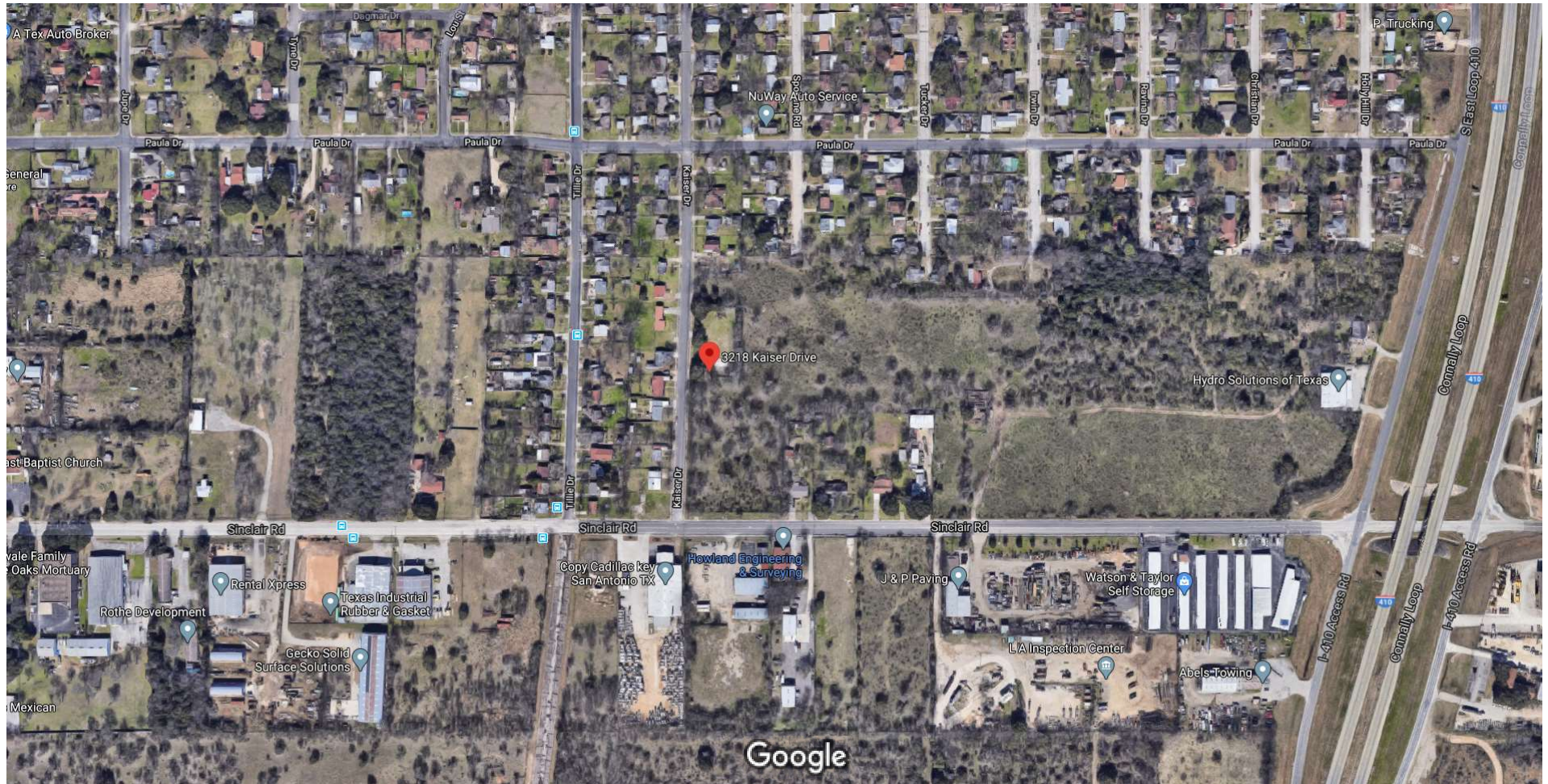


June 30, 2020

— User drawn lines



Google Maps 3218 Kaiser Dr



Imagery ©2020 Google, Imagery ©2020 Maxar Technologies, Texas General Land Office, USDA Farm Service Agency, Map data ©2020 200 ft

Google Maps 3218 Kaiser Dr



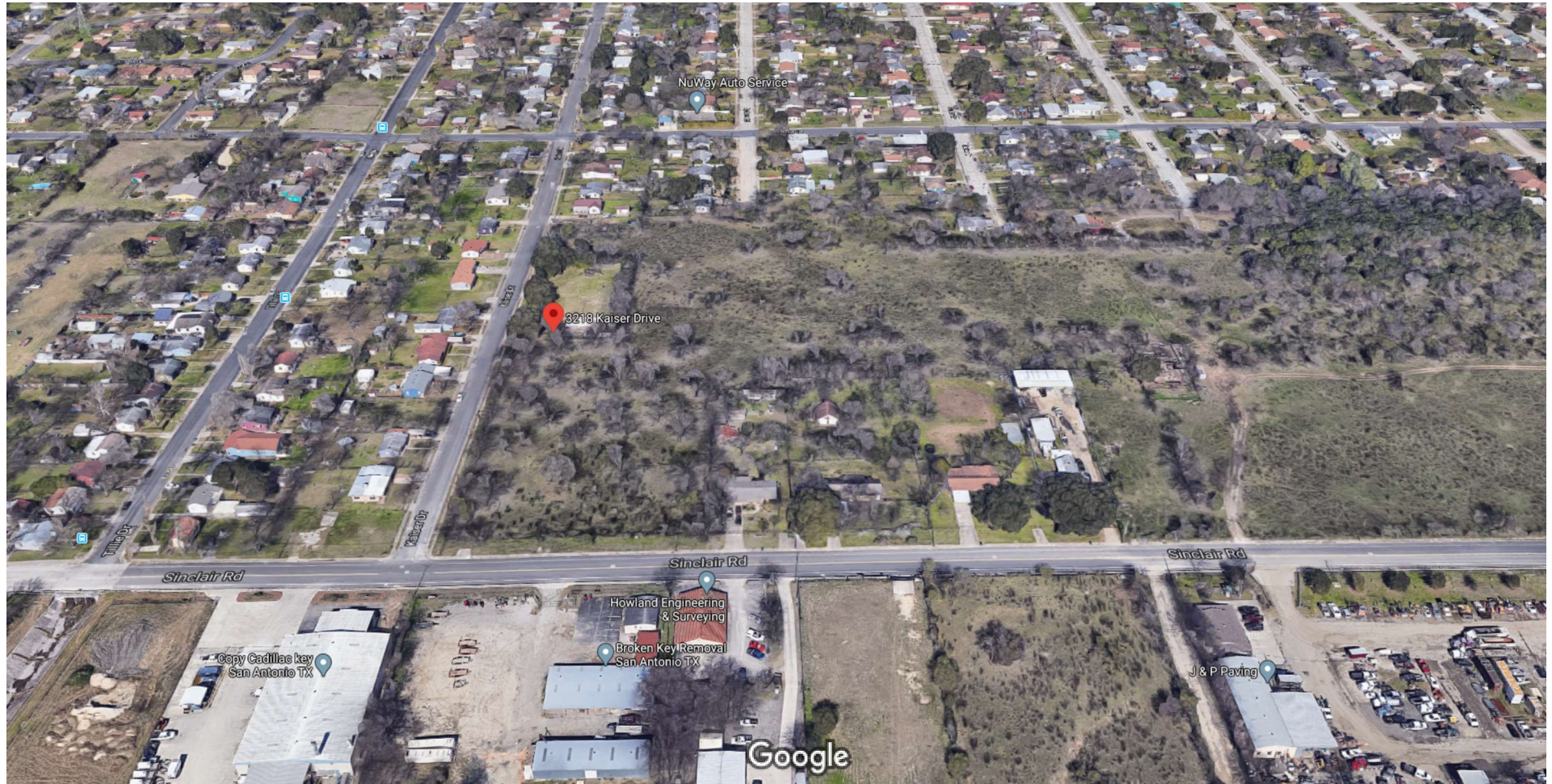
Imagery ©2020 Data SIO, NOAA, U.S. Navy, NGA, GEBCO, IBCAO, Landsat / Copernicus, Google, Imagery ©2020 Maxar Technologies, Texas General Land Office, Map data ©2020 100 ft

Google Maps 3218 Kaiser Dr



Imagery ©2020 Google, Imagery ©2020 Maxar Technologies, Texas General Land Office, Map data ©2020 100 ft

Google Maps 3218 Kaiser Dr



Imagery ©2020 Google, Imagery ©2020 Maxar Technologies, Texas General Land Office, Map data ©2020 100 ft

Google Maps 3218 Kaiser Dr



Imagery ©2020 Google, Landsat / Copernicus, Data SIO, NOAA, U.S. Navy, NGA, GEBCO, Imagery ©2020 Maxar Technologies, Texas General Land Office, Map data ©2020 100 ft



Schematic Design

11.25.2019



SCALE: 1"=30'

Jupe Manor Neighborhood Park



JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

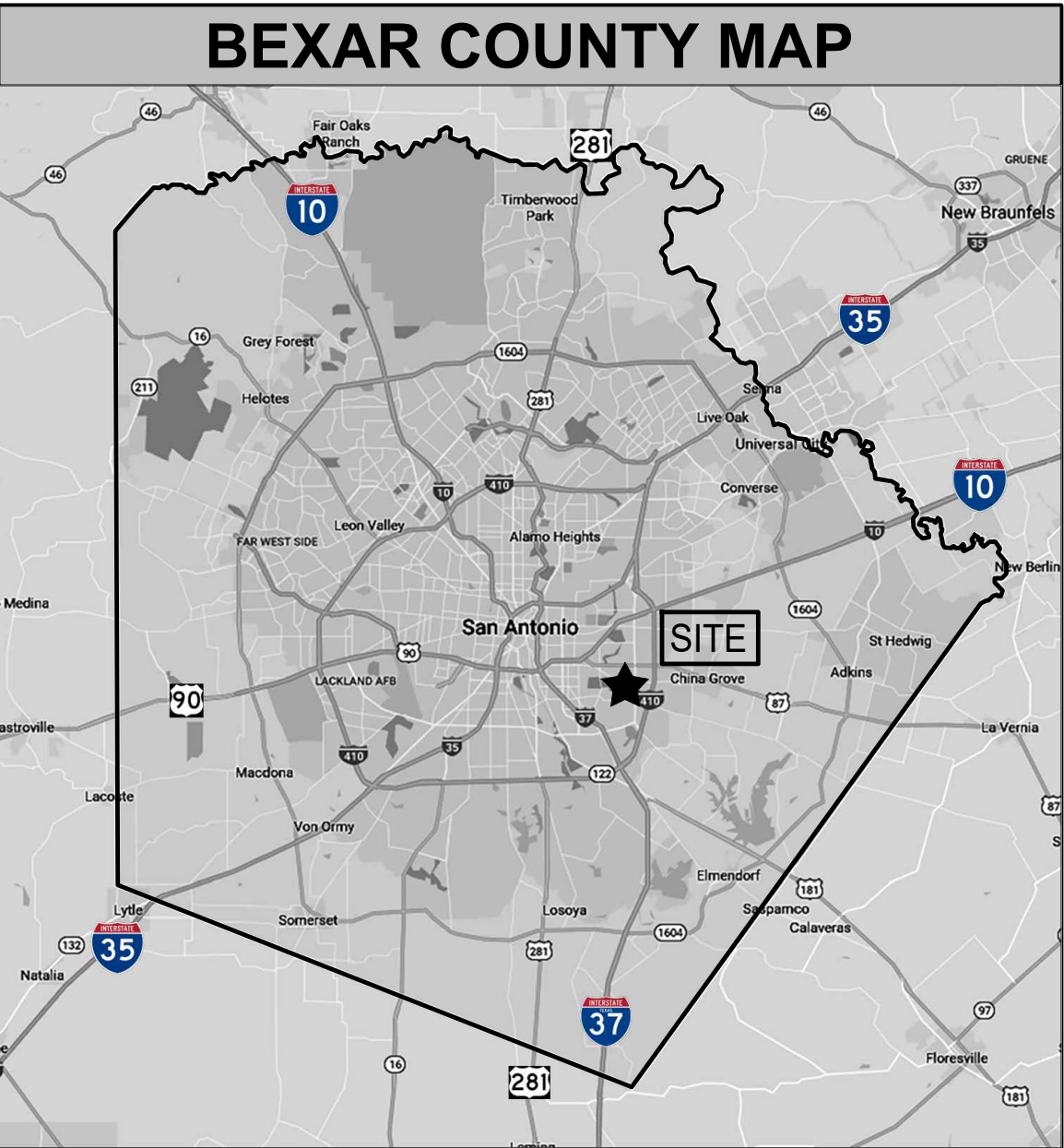
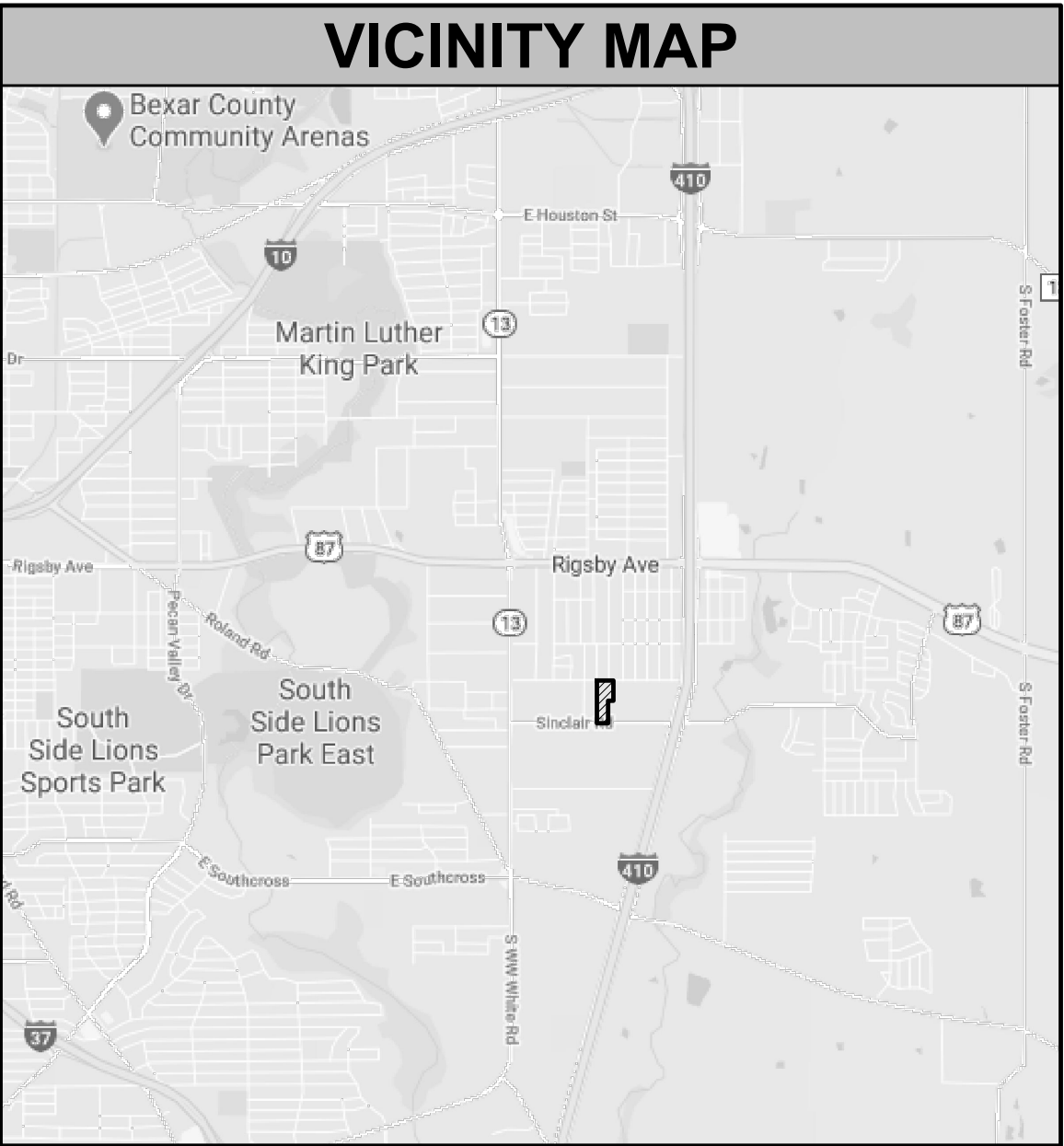
3218 KAISER DRIVE, SAN ANTONIO, TX 78222

CITY OF SAN ANTONIO	
mayor	council district 5
RON NIRENBERG	SHIRLEY GONZALES
city manager	council district 6
ERIK WALSH	MELISSA CABELLO HAVRDA
director of parks & recreation	council district 7
HOMER GARCIA	ANA SANDOVAL
council district 1	council district 8
ROBERTO TREVINO	MANNY PELAEZ
council district 2	council district 9
JADA ANDREWS-SULLIVAN	JOHN COURAGE
council district 3	council district 10
REBECCA VIAGRAN	CLAYTON PERRY
council district 4	
ADRIANA ROCHA GARCIA	

SCOPE OF WORK: PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO CONSTRUCT PROPOSED PARK FACILITIES TO INCLUDE DEMOLITION OF EXISTING FENCING AND PREVIOUS HARDSCAPE, INSTALLATION OF NEW PARKING, BOLLARD & CABLE FENCING, PORTABLE RESTROOM ENCLOSURE, DRINKING FOUNTAIN, SECURITY LIGHTING, ASSOCIATED SIDEWALKS AND PAVING AND OTHER AMENITIES AS SHOWN PER THE PLANS AND SPECIFICATIONS.

INDEX OF SHEETS			
DATE	ISSUE	SHEET TITLE	SHEET NO.
REFERENCE			
AUGUST 7, 2020	100% CD SET	COVER SHEET	LC 1.0
AUGUST 7, 2020	100% CD SET	GENERAL NOTES & MATERIAL SCHEDULE	LC 1.1
AUGUST 7, 2020	100% CD SET	OVERALL REFERENCE PLAN	LC 1.2
TREE PRESERVATION			
AUGUST 7, 2020	100% CD SET	TREE PRESERVATION PLAN	TP 1.1
AUGUST 7, 2020	100% CD SET	TREE PRESERVATION PLAN	TP 1.2
AUGUST 7, 2020	100% CD SET	TREE PRESERVATION LIST	TP 2.1
AUGUST 7, 2020	100% CD SET	TREE PRESERVATION DETAILS	TP 2.2
DEMOLITION			
AUGUST 7, 2020	100% CD SET	DEMOLITION PLAN	LD 1.1
GRADING			
AUGUST 7, 2020	100% CD SET	GRADING PLAN	LG 1.1
SITework			
AUGUST 7, 2020	100% CD SET	SITE WORK PLAN	LS 1.1
AUGUST 7, 2020	100% CD SET	SITE WORK PLAN	LS 1.2
AUGUST 7, 2020	100% CD SET	SITE WORK DIMENSION PLAN	LS 1.3
AUGUST 7, 2020	100% CD SET	SITE WORK DETAILS	LS 2.1
AUGUST 7, 2020	100% CD SET	SITE WORK DETAILS	LS 2.2
AUGUST 7, 2020	100% CD SET	SHADE STRUCTURE ADD ALTERNATE DETAILS	LS 2.3
PLANTING			
AUGUST 7, 2020	100% CD SET	PLANTING PLAN	LP 1.1
AUGUST 7, 2020	100% CD SET	PLANT LIST AND DETAILS	LP 2.1
ELECTRICAL & PLUMBING			
AUGUST 7, 2020	100% CD SET	ELECTRICAL AND PLUMBING SITE PLAN	EP 1.0
AUGUST 7, 2020	100% CD SET	ENLARGED ELECTRICAL PLAN	E 1.1
AUGUST 7, 2020	100% CD SET	ELECTRICAL RISER AND DETAILS	E 2.1
AUGUST 7, 2020	100% CD SET	ELECTRICAL SPECIFICATIONS	E 3.1
AUGUST 7, 2020	100% CD SET	PLUMBING SITE PLAN	P 1.0
AUGUST 7, 2020	100% CD SET	PLUMBING SPECIFICATIONS	P 2.0

A PROJECT BY		
owner	landscape architect	civil engineer
CITY OF SAN ANTONIO - PUBLIC WORKS DEPARTMENT	MP STUDIO	MENDEZ ENGINEERING
CONTACT: ALMA NUNEZ 114 WEST COMMERCE ST. SAN ANTONIO, TEXAS 78283 O: 210.207.6123 E: Alma.nunez@sanantonio.gov	CONTACT: MARK PADILLA 201 GROVETON STREET SAN ANTONIO, TEXAS 78210 O: 210.314.5582 E: mark@mpstud.io	CONTACT: RAY MENDEZ 12950 COUNTRY PARKWAY, SUITE 120 SAN ANTONIO, TEXAS 78216 O:210.802.0808 E: rmendez@mendezengineering.com
mep engineer	structural engineer	
ESA MECHANICAL & ELECTRICAL ENGINEERING, INC.	LEHMANN ENGINEERING	
CONTACT: STEPHEN MITCHELL 1100 NW LOOP 410, SUITE 810 SAN ANTONIO, TEXAS 78213 O: 210.342.3483 E: stephen@esaengineers.net	CONTACT: AARON STAAS 1006 BECKET SAN ANTONIO, TEXAS 78213 O:210.348.8889 E: astaas@lehmanneng.com	



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

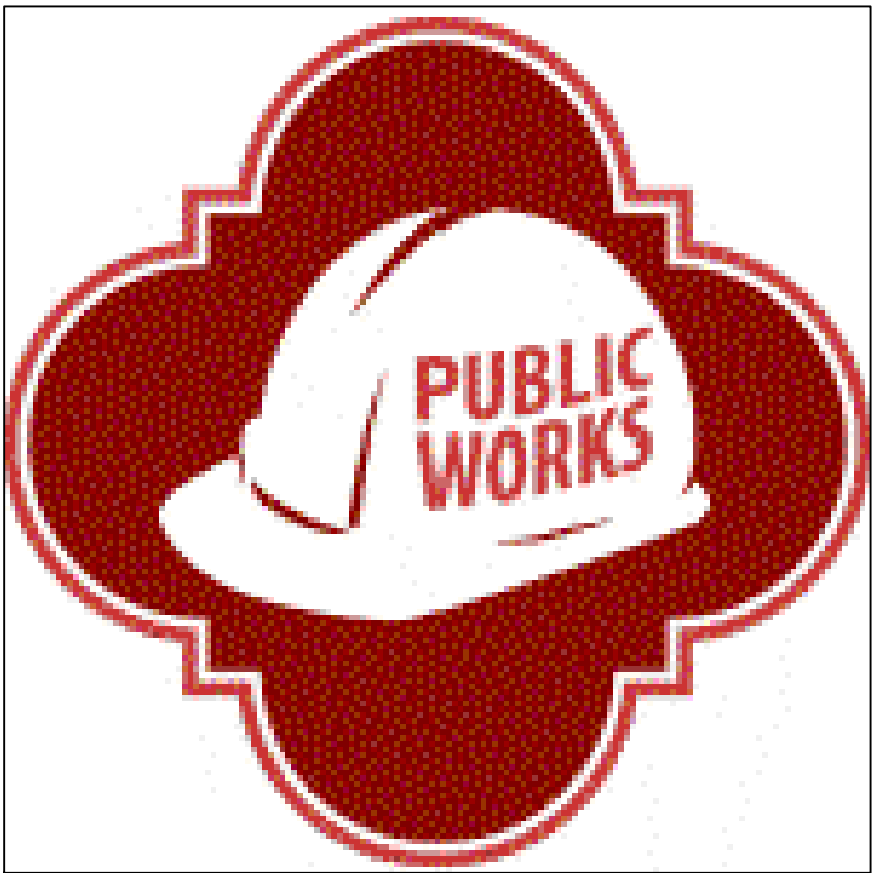
AUGUST 7, 2020

SHEET NAME

COVER SHEET

SHEET NUMBER

LC 1.0



GENERAL LEGEND	
ABBREVIATIONS	
SYMBOL	DESCRIPTION
B.C.	BOTTOM OF CURB
B.P.	BOTTOM OF PIPE
B.O.C.	BACK OF CURB
L.O.C.	LIMITS OF CONSTRUCTION
B.W.	BOTTOM OF WALL
C.L.	CENTER LINE
E.J.	EXPANSION JOINT
H.P.	HIGH POINT
E.O.P.	EDGE OF PAVEMENT
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
P.A.	PLANTING AREA
ESMT.	EASEMENT
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TANGENCY
R.O.W.	RIGHT OF WAY
T.D.	TOP OF DRAIN
F.H.	FIRE HYDRANT
T.C.	TOP OF CURB
T.F.	TOP OF FOOTING
S.S.	SANITARY SEWER
T.W.	TOP OF WALL
W.D.	WATER DEPTH
W.L.	WATER LEVEL
U.N.O.	UNTIL NOTED OTHERWISE

SYMBOLS & LINE TYPES	
SYMBOL	DESCRIPTION
REF: 	ENLARGEMENT AREA W/ CALLOUT
	DETAIL CALLOUT
	MATERIALS & FINISHES CALLOUT
	SECTION CALLOUT
	ELEVATION CALLOUT
XXXXX	SITEWORK LABEL
QTY-XXX	PLANTING LABEL
	EXISTING TOPOGRAPHY-MINOR
	EXISTING TOPOGRAPHY-MAJOR
	PROPOSED TOPOGRAPHY-MINOR
	PROPOSED TOPOGRAPHY-MAJOR
	PROPOSED SPOT ELEVATION
	PROPOSED DATUM ELEVATION

MATERIALS SCHEDULE (BASE BID)					
SITE MATERIALS					
KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
S.1	CONCRETE	STANDARD GREY	LIGHT BROOM	LOCAL SOURCE	• CONTRACTOR TO SUBMIT PRODUCT DATA AND SAMPLE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
S.2	DRINKING FOUNTAIN (1) DRINKING FOUNTAIN W/ BOTTLE FILLING STATION AND PET FOUNTAIN COMPANY: MOST DEPENDABLE FOUNTAINS MODEL: 10155SM	GREEN	SMOOTH	COMPANY: MOST DEPENDABLE FOUNTAINS, INC. CONTACT: PHONE: 901.867.0039	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECTS APPROVAL PRIOR TO INSTALLATION • INSTALL PER MANUFACTURER'S RECOMMENDATIONS
S.3	PARKING SIGN - ADA VAN ACCESSIBLE CONTENT	N/A	STANDARD	LOCAL SOURCE	CONTRACTOR TO PROVIDE MODEL COMPLIANT WITH TEXAS ACCESSIBILITY STANDARDS AND INSTALL WITHIN HEIGHT AND CLEARANCE REQUIREMENTS.
S.4	PARK STANDARD SIGNAGE - COORDINATE CONTENT WITH PARKS AND RECREATION DEPARTMENT FOR REQUIRED INFORMATION	N/A	STANDARD	LOCAL SOURCE	CONTRACTOR TO PROVIDE SIGNAGE PER CITY ORDINANCE REQUIREMENTS FOR INSTALLATION AND PATRON VISIBILITY.
S.5	LIGHT POST SELUX SATURN CUTOFF LED MODEL: SACL-R1-1-5G-30-16-SV	SILVER	STANDARD FINISH	CONTACT: SPECTRUM LIGHTING COMPANY: SELUX CORPORATION PHONE: 210-822-6140	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECTS APPROVAL PRIOR TO INSTALLATION • INSTALL PER MANUFACTURER'S RECOMMENDATIONS, REFER DETAIL 13/LS 2.1.
S.6	DECOMPOSED GRANITE - NEAR PLAYGROUND	STANDARD	STANDARD	COMPANY: KELLER MATERIAL LIMITED PHONE: 210-967-1300	• 6\"/>

MATERIALS SCHEDULE (ADD ALTERNATE)					
SITE MATERIALS					
KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
S.7	SHADE STRUCTURE 24x24' 6-POST MODEL # DB-99: 24 X 24MR	ROOF: SILVER METALLIC; POST: SUEDE. (FINAL COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT FOR APPROVAL FROM MANUFACTURER COLOR PALETTE.)	STANDARD	CONTACT: POLYGON COMPANY: EJS PARK & RECREATION PHONE: 281-356-2110	• INSTALL PER MANUFACTURER'S RECOMMENDATIONS WITH COMPLETE CONCRETE FOOTING, REFER DETAILS 1 & 2/LS 2.3. • POLYGON SHADE STRUCTURE, TO INCLUDE BUT NOT LIMITED TO, SHADE STRUCTURE, CONCRETE FOUNDATION, PERMIT SUBMITTAL FOR CITY DSD APPROVAL INCLUDING SPECIAL INSPECTIONS; REDUCTION IN DECOMPOSED GRANITE, SITE PREPARATION, GRADING, AND ALL OTHER MISC. MATERIALS AND LABOR REQUIRED TO INSTALL STRUCTURE AS SHOWN ON PLANS.

GENERAL NOTES:

- 1.) LOCATE AND VERIFY THE CONDITION OF EXISTING UTILITIES PRIOR TO EXCAVATION. TAKE RESPONSIBILITY OF CONTACTING LINE LOCATION SERVICES AND ANY COST INCURRED FOR BODILY INJURY AND / OR DAMAGE OF OWNER'S PROPERTY OR SAID UTILITIES.
- 2.) THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY DISCREPANCIES DISCOVERED BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGES IF WORK PROCEEDS WITHOUT THIS NOTIFICATION.
- 3.) THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF MAINTAINING A SAFE WORK SITE INCLUDING, BUT NOT LIMITED TO PROVIDING FOR TRAFFIC CONTROL, INSTALLATION AND PLACEMENT OF FENCING AND BARRICADES, EXCAVATION AND TRENCH PROTECTION, AND COMPLIANCE WITH ALL FEDERAL AND LOCAL REGULATIONS AND CODES. ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY.
- 4.) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING IMPROVEMENTS BOTH ON SITE AND ADJACENT TO THE WORK SITE AND SHALL REPAIR ANY DAMAGE TO THESE IMPROVEMENTS TO THE SATISFACTION OF THE OWNER.
- 5.) THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.
- 6.) ANY ALTERNATES AND OR SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL. CHANGES TO THE SCOPE OF WORK AND / OR CONTRACT DOCUMENTS RESULTING FROM THE ACCEPTANCE OF THE CONTRACTOR'S ALTERNATES AND / OR SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 7.) THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF TRASH ON A DAILY BASIS.
- 8.) THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. PRIOR TO CONSTRUCTION, ALL PERMITS AND APPROVALS REQUIRED FOR CONSTRUCTION OF THE PROJECT SHALL BE PAID FOR AND OBTAINED BY THE CONTRACTOR (PLAN REVIEW FEES ARE PAID BY OWNER) COSTS FOR PERMITS SHALL BE INCLUDED IN THE BID. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME AWARE OF REQUIRED INSPECTIONS THAT ARE ASSOCIATED WITH PERMITS ISSUED FOR THE WORK AND TO SCHEDULE THESE INSPECTIONS AT THE APPROPRIATE STAGE OF CONSTRUCTION. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO ROUGH-IN ELECTRICAL, ROUGH-IN PLUMBING, IRRIGATION PIPING, FOUNDATION STEEL FOR STRUCTURES (INCLUDING WALLS), FIRE INSPECTIONS RELATED TO ENTRY GATES AND ASSOCIATED STRUCTURES AND OTHERS AS MAY APPLY.
- 9.) COORDINATE WORK WITH SUBCONTRACTORS TO ACCOMPLISH THE SCOPE OF WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS AS WELL AS, COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS WORKING ON THE SITE.
- 10.) THE CONTRACTOR SHALL COORDINATE THE STORING OF MATERIALS, PARKING OF VEHICLES, AND RESTRICTIONS OF WORK AND ACCESS WITH THE OWNER. UNDER NO CIRCUMSTANCES SHALL ANY CONTRACTOR STORE MATERIALS, PARK VEHICLES OR EQUIPMENT UNDER THE CANOPY OF EXISTING TREES.
- 11.) UNLESS SPECIFIED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND PAYING ALL TEMPORARY UTILITIES AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS.
- 12.) THE CONTRACTOR IS RESPONSIBLE FOR THE LEGAL OFF-SITE DISPOSAL OF SURPLUS MATERIAL AND DEBRIS.
- 13.) UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL APPROVAL, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PROJECT SITE OF ALL TRASH, REPAIR ALL DAMAGE TO FINISH GRADE, INCLUDING TAILINGS FROM EXCAVATIONS, WHEEL RUTS AND ANY SETTLING OR EROSION THAT HAS OCCURRED PRIOR TO COMPLETION. ALL AREAS OF THE PROJECT SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE OWNER PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.
- 14.) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND SERVICING TEMPORARY TOILET FACILITIES.

MPSTUDIO

201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS

08-07-2020

PROJECT

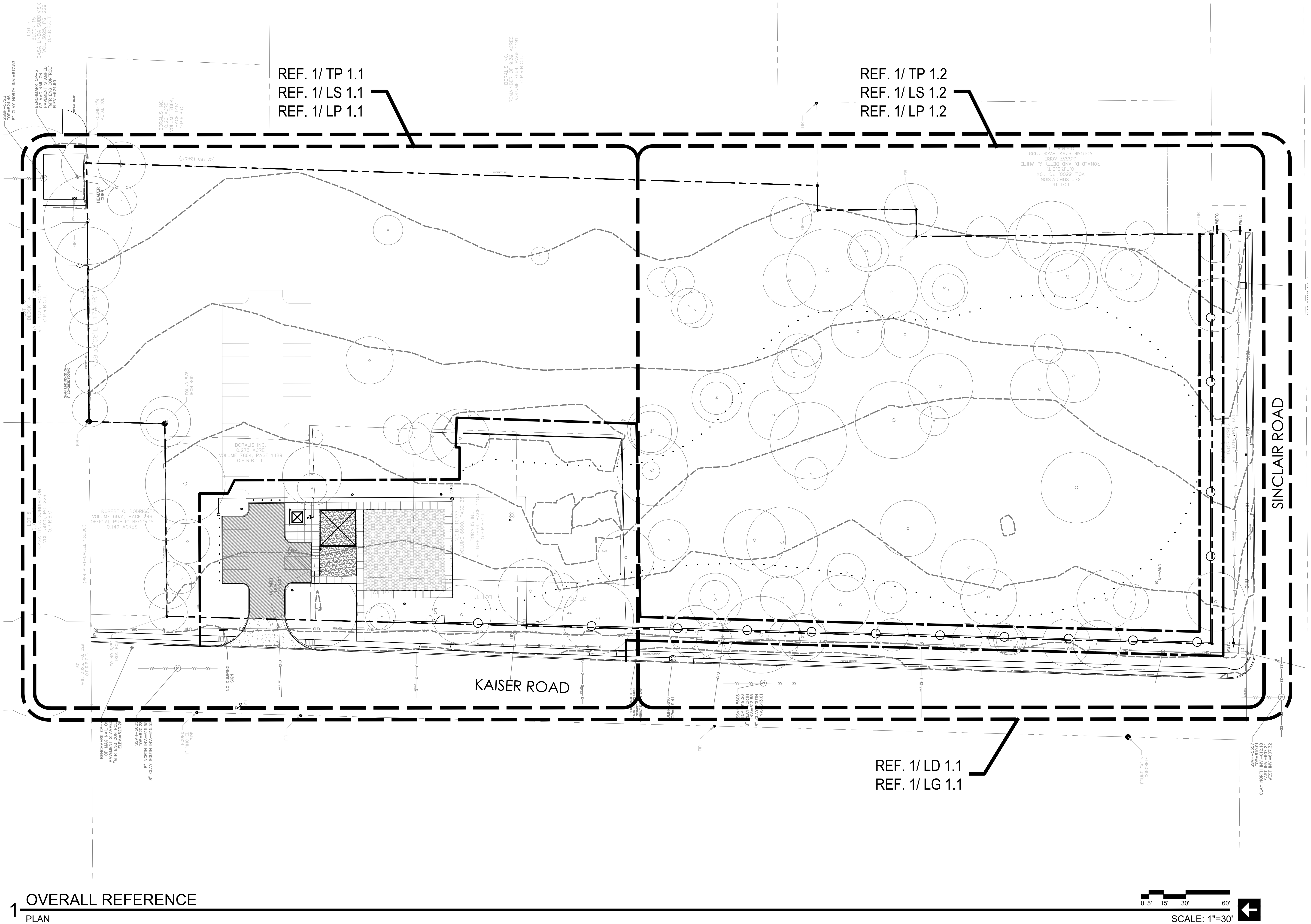
JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS
3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

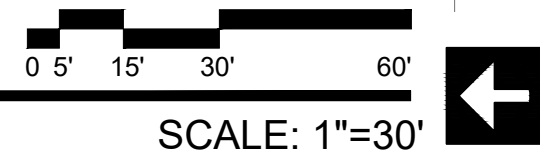
OWNER | CLIENT
CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE
ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

REVISIONS		
ISSUE SETS		
NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET
SHEET INFORMATION		
PROJECT NO.		
19056		
DATE ISSUED		
AUGUST 7, 2020		
SHEET NAME		
GENERAL NOTES & MATERIALS SCHEDULE		
SHEET NUMBER		

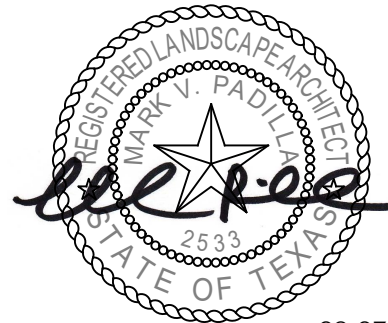


1 OVERALL REFERENCE
PLAN



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



PROJECT

**JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT**

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

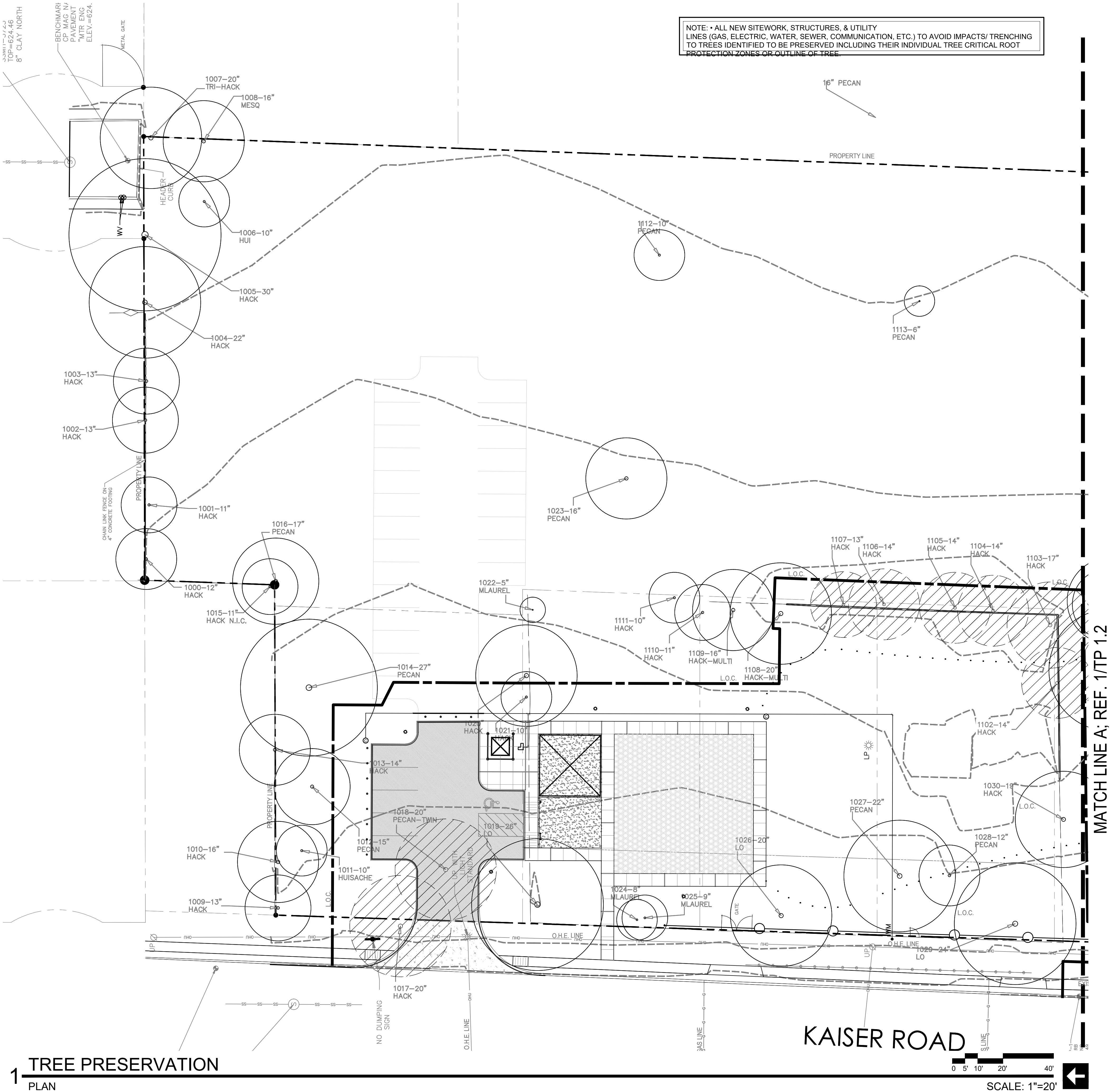
AUGUST 7, 2020

SHEET NAME

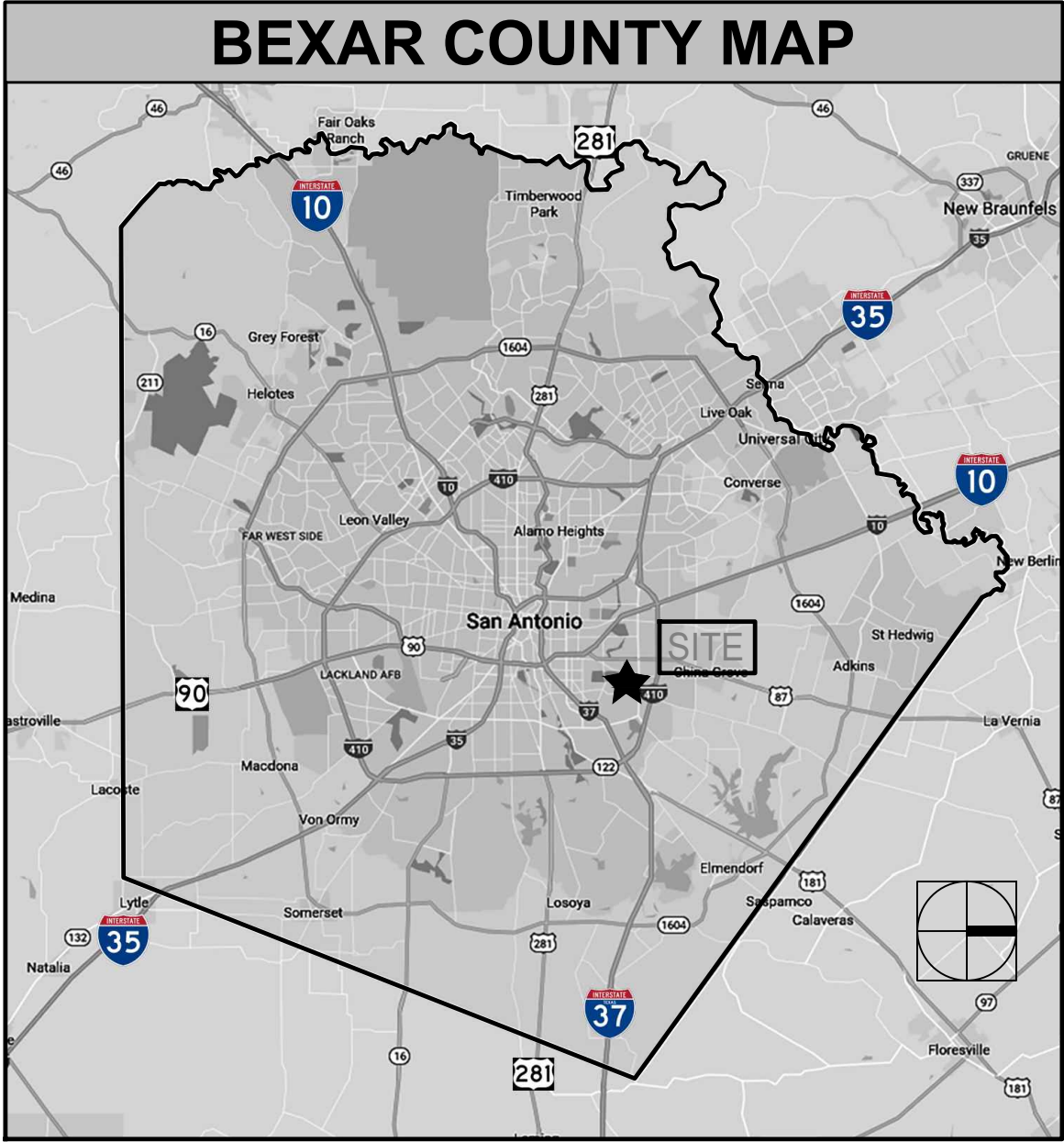
**OVERALL REFERENCE
PLAN**

SHEET NUMBER

LC 1.2



1 TREE PRESERVATION PLAN



TREE PRESERVATION PHASE

TREE PRESERVATION: (Tree Survey Method)	
MITIGATION CALCULATIONS	
SIGNIFICANT TREE:	1,264 TOTAL INCHES
1,264 INCH. X 40% REQUIRED TO BE PRESERVED :	505 INCH. (40%)
SIGNIFICANT TREE INCH. PRESERVED:	1,160 INCH. (92%)
REQUIRED SIGNIFICANT MITIGATION:	0" REQ. MITIGATION
HERITAGE TREE:	251 TOTAL INCHES
251" X 100% REQUIRED TO BE PRESERVED:	251 INCH. (100%)
HERITAGE TREE INCH PRESERVED:	251 INCH.
REQUIRED HERITAGE MITIGATION:	0" REQ. MITIGATION
TOTAL REQUIRED MITIGATION ON SITE:	0 INCH (100%)



TREE PRESERVATION-OUTSIDE R.O.W.

TREE PRESERVATION: (Tree Survey Method)	
MITIGATION CALCULATIONS	
SIGNIFICANT TREE:	193 TOTAL INCHES
193 INCH. X 100% REQUIRED TO BE PRESERVED :	193 INCH.
SIGNIFICANT TREE INCH. PRESERVED:	173 INCH. (89%)
REQUIRED MITIGATION:	20" REQUIRED MITIGATION
PROPOSED TREE MITIGATION TO BE 21", REFERENCE SHEET LP 1.1 FOR PROPOSED TREE CALCULATIONS	

TREE CANOPY ORDINANCE

MANDATORY CRITERIA:	
1. FINAL TREE CANOPY. ALL SITES MUST PROVIDE A MINIMUM FINAL TREE CANOPY COVER AS LISTED BELOW FOR THE ENTIRE GROSS PROJECT AREA OUTSIDE OF THE REGULATORY FLOODPLAIN.	
IDENTIFY "FINAL TREE CANOPY" PERCENT (%) BASED ON THE LAND USE AND AS NOTED ON SECTION (e). NONRESIDENTIAL 25% FOR THE PURPOSE OF THIS SUBMITTAL APPROVAL. NOTE: LABEL (*) SHALL RECEIVE ENERGY CONSERVATION CREDIT.	
SITE L.O.C. AREA = 217,265 SF X 25% =	54,316 SF REQUIRED
EXISTING TREES: (3) LIVE OAK - 875 SF @ 100% =	2,625 SF
(6) MESQUITE - 550 SF @ 100% =	3,300 SF
(63) HACKBERRY - 875 SF @ 100% =	55,125 SF
(16) PECAN - 1200 SF @ 90% =	19,200 SF
TOTAL TREE CANOPY COVERAGE	80,250 SF (36%)



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



08-07-2020

PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

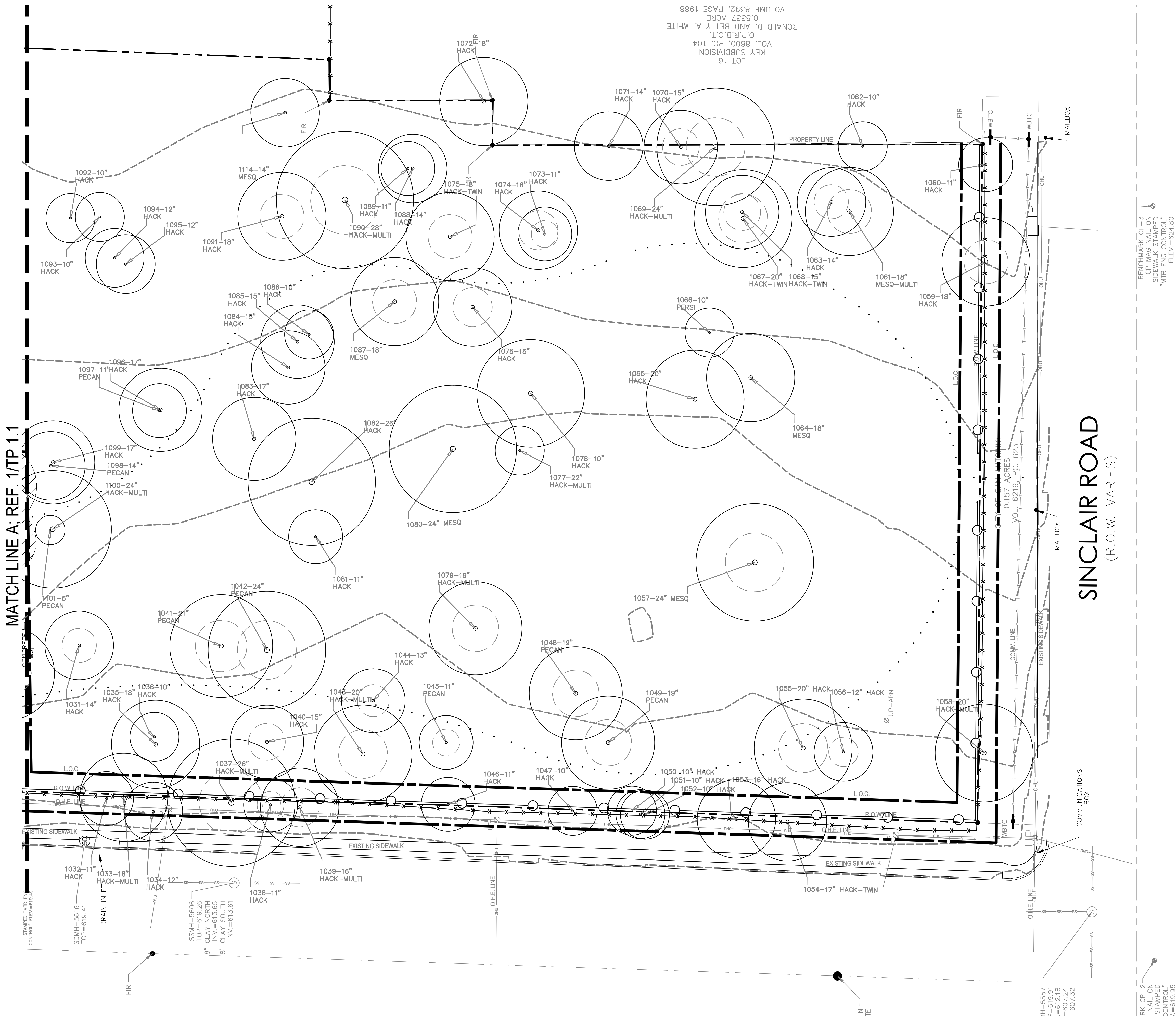
AUGUST 7, 2020

SHEET NAME

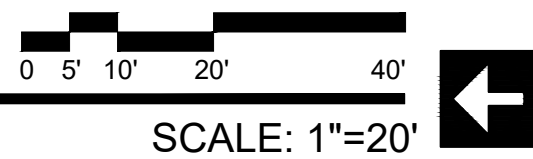
TREE PRESERVATION PLAN

SHEET NUMBER

TP 1.1



1 TREE PRESERVATION
PLAN



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

TREE PRESERVATION
PLAN

SHEET NUMBER

TP 1.2

JUPE MANOR PARK TREE INVENTORY													
Tag #	Species	Caliper	Understory Species* 5.0" - 11.5"		Significant Tree 6" - 23.5"		Significant Tree** 10.0" - 23.5"		Heritage 3:1		Heritage 1:1		Additional Inches Preserved for Mitigation ***
			Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	
1000	HACKBERRY	12						12					
1001	HACKBERRY	11						11					
1002	HACKBERRY	15						15					
1003	HACKBERRY	13						13					
1004	HACKBERRY	22						22					
1005	HACKBERRY	30						30					
1006	HACKBERRY	10						10					
1007	HACKBERRY	20						20					
1008	HACKBERRY	16						16					
1009	HACKBERRY	13						13					
1010	HACKBERRY	16						16					
1011	HUISACHE	10						10					
1012	PECAN	15				15							
1013	HACKBERRY	14						14					
1014	PECAN	27							27				
1015	HACKBERRY-N.I.C.	11											
1016	PECAN	17				17							
1018	PECAN-TWIN	20			20								
1019	LIVE OAK	26							26				
1020	HACKBERRY	20						20					
1021	HACKBERRY	10						10					
1022	MOUNTAIN LAUREL	5		5									
1023	PECAN	16				16							
1024	MOUNTAIN LAUREL	8		8									
1025	MOUNTAIN LAUREL	9		9									
1026	LIVE OAK	20				20							
1027	PECAN	22				22							
1028	PECAN	12				12							
1029	LIVE OAK	24							24				
1030	HACKBERRY	19						19					
1031	HACKBERRY	14						14					
1035	HACKBERRY	18						18					
1036	HACKBERRY	10						10					
1040	HACKBERRY	15						15					
1041	PECAN	21				21							
1042	PECAN	24							24				
1043	HACKBERRY- MULTI	20						20					
1044	HACKBERRY	13						13					
1045	PECAN	11				11							
1046	HACKBERRY	11						11					
1048	PECAN	19				19							
1049	PECAN	9				9							
1050	HACKBERRY	10						10					
1055	HACKBERRY	20						20					
1056	HACKBERRY	12						12					
1057	MESQUITE	24								24			
1061	MESQUITE-MULTI	18						18					
1062	HACKBERRY	10						10					
1063	HACKBERRY	14						14					
1064	MESQUITE	18						18					
1065	HACKBERRY	20				20							
1066	PFRS	10		10									
1067	HACKBERRY-TWIN	20				20							
1068	HACKBERRY-TWIN	15				15							
1069	HACKBERRY-MULTI	24								24			
1070	HACKBERRY	15						15					
1071	HACKBERRY	14						14					
1072	HACKBERRY	18						18					
1073	HACKBERRY	11						11					
1074	HACKBERRY	16						16					
1075	HACKBERRY-TWIN	18				18							
1076	HACKBERRY	16				16							
1077	HACKBERRY-MULTI	22				22							
1078	HACKBERRY	10				10							
1079	HACKBERRY-MULTI	19				19							
1080	MESQUITE	24								24			
1081	HACKBERRY	11						11					
1082	HACKBERRY	26								26			
1083	HACKBERRY	17						17					
1084	HACKBERRY	15						15					
1085	HACKBERRY	15						15					
1086	HACKBERRY	10						10					
1087	MESQUITE	18						18					
1088	HACKBERRY	14						14					
1089	HACKBERRY	11						11					
1090	HACKBERRY-MULTI	28								28			
1091	HACKBERRY	18						18					
1092	HACKBERRY	10						10					
1093	HACKBERRY	10						10					
1094	HACKBERRY	12						12					
1095	HACKBERRY	12						12					
1096	HACKBERRY	17						17					
1097	PECAN	17				17							
1098	PECAN	14				14							
1099	HACKBERRY	17						17					
1100	HACKBERRY- MULTI	24								24			
1101	PECAN	6				6							
1102	HACKBERRY	14					14						
1103	HACKBERRY	14					14						
1104	HACKBERRY	14					14						
1105	HACKBERRY	14					14						
1106	HACKBERRY	14					14						
1107	HACKBERRY	14					14						
1108	HACKBERRY-MULTI	14						14					
1109	HACKBERRY-MULTI	14						14					
1110	HACKBERRY	14						14					
1111	HACKBERRY	14											
1112	PECAN	10				10							
1113	PECAN	6				6							
1114	MESQUITE	14						14					
Sub. Tot. Inches=			0	32	20	215	84	945	0	101	0	150	0
				32		235		1029		101		150	
Total inches by category=													
Preservation percentage=			100%		Significant Preservation		92%		Heritage Preservation		100%		0
Mitigation required (Commercial) =			-19.2		Commercial (inches)		-654.4						
Mitigation required (Residential) =			-20.6		Residential (inches)		-717.6		Heritage Mitigation (inches)		0		

JUPE MANOR PARK ROW - TREE INVENTORY													
Tag #	Species	Caliper	Understory Species* 5.0" - 11.5"		Significant Tree 6" - 23.5"		Significant Tree** 10.0" - 23.5"		Heritage 3:1		Heritage 1:1		Additional Inches Preserved for Mitigation ***
			Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	
1017	HACKBERRY	20					20						
1032	HACKBERRY	11					11						
1033	HACKBERRY	18					18						
1034	HACKBERRY	12					12						
1037	HACKBERRY	26									26		
1038	HACKBERRY	11					11						
1039	HACKBERRY-MULTI	16					16						
1047	HACKBERRY	10					10						
1051	HACKBERRY	10					10						
1052	HACKBERRY	10					10						
1053	HACKBERRY-ROW	16											
1054	HACKBERRY-ROW	17											
1058	HACKBERRY- MULTI	20					20						
1059	HACKBERRY	18					18						
1060	HACKBERRY	11					11						
Sub. Tot. Inches=			0	0	0	0	20	147	0	0	0	26	0
				0		0		167		0		26	
Total inches by category=													
Preservation percentage=			#DIV/0!		Significant Preservation		88%		Heritage Preservation		100%		0
Mitigation required (Commercial) =			0		Commercial (inches)		-80.2						
Mitigation required (Residential) =			0		Residential (inches)		-88.55		Heritage Mitigation (inches)		0		

MPSTUDIO

201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS

REGISTRAR GENERAL OF THE STATE OF TEXAS

ALMA NUNEZ

2533

08-07-2020

PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS
3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT
CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE
ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

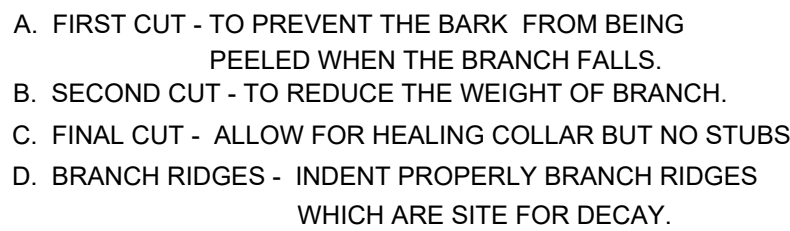
SHEET INFORMATION

PROJECT NO.
19056
DATE ISSUED
AUGUST 7, 2020
SHEET NAME

TREE PRESERVATION LIST

SHEET NUMBER

TP 2.1



2 TREE BRANCH PRUNING



OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.

5 BORING THROUGH TREE ROOT (RP2)
SECTION NOT TO SCALE

12. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST PRIOR TO ITS REMOVAL.



ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.
19056
DATE ISSUED
AUGUST 7, 2020
SHEET NAME

SHEET NUMBER

TR 000

TP 2.2



**JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT**

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

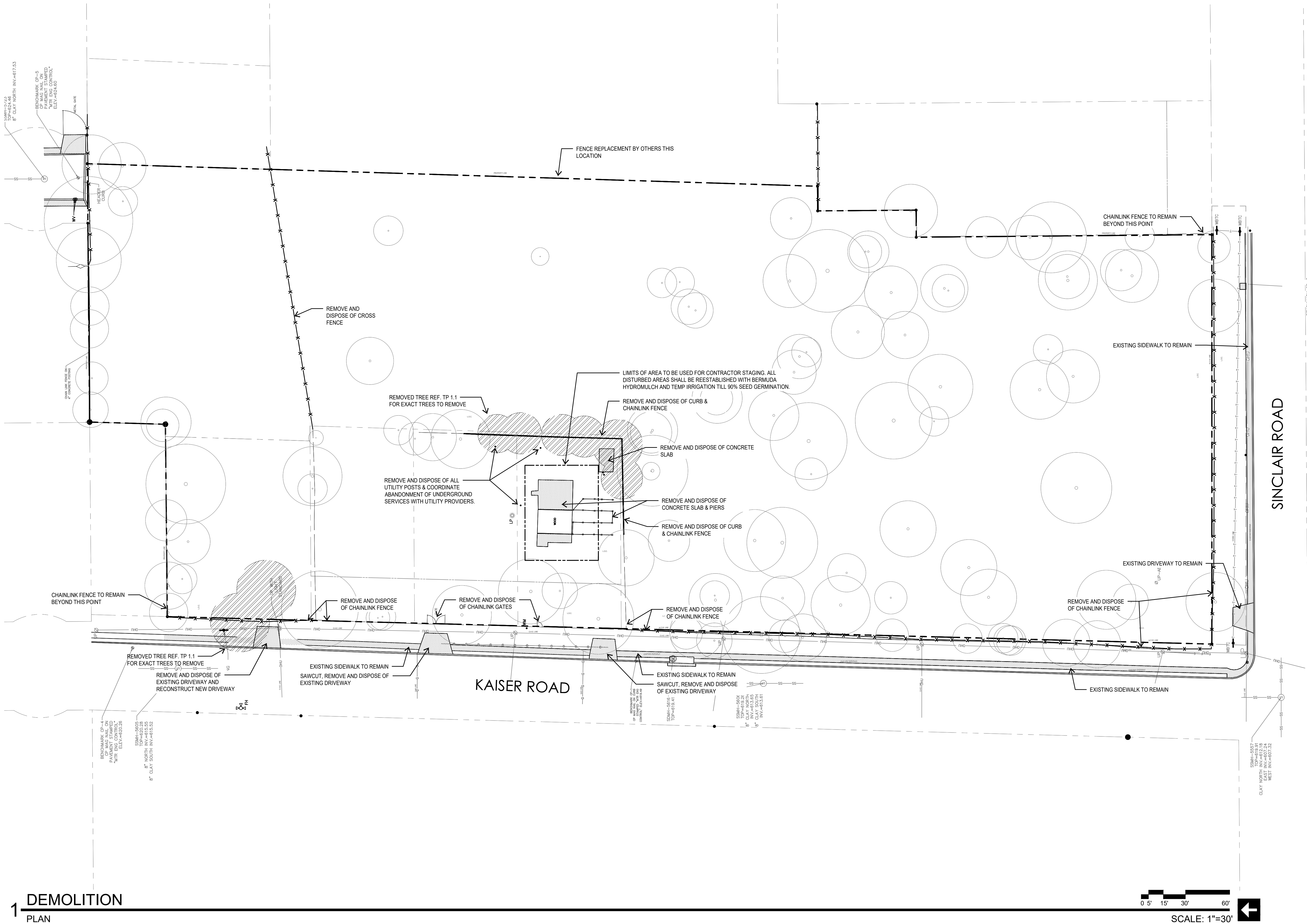
AUGUST 7, 2020

SHEET NAME

DEMOLITION PLAN

SHEET NUMBER

LD 1.1

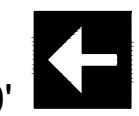
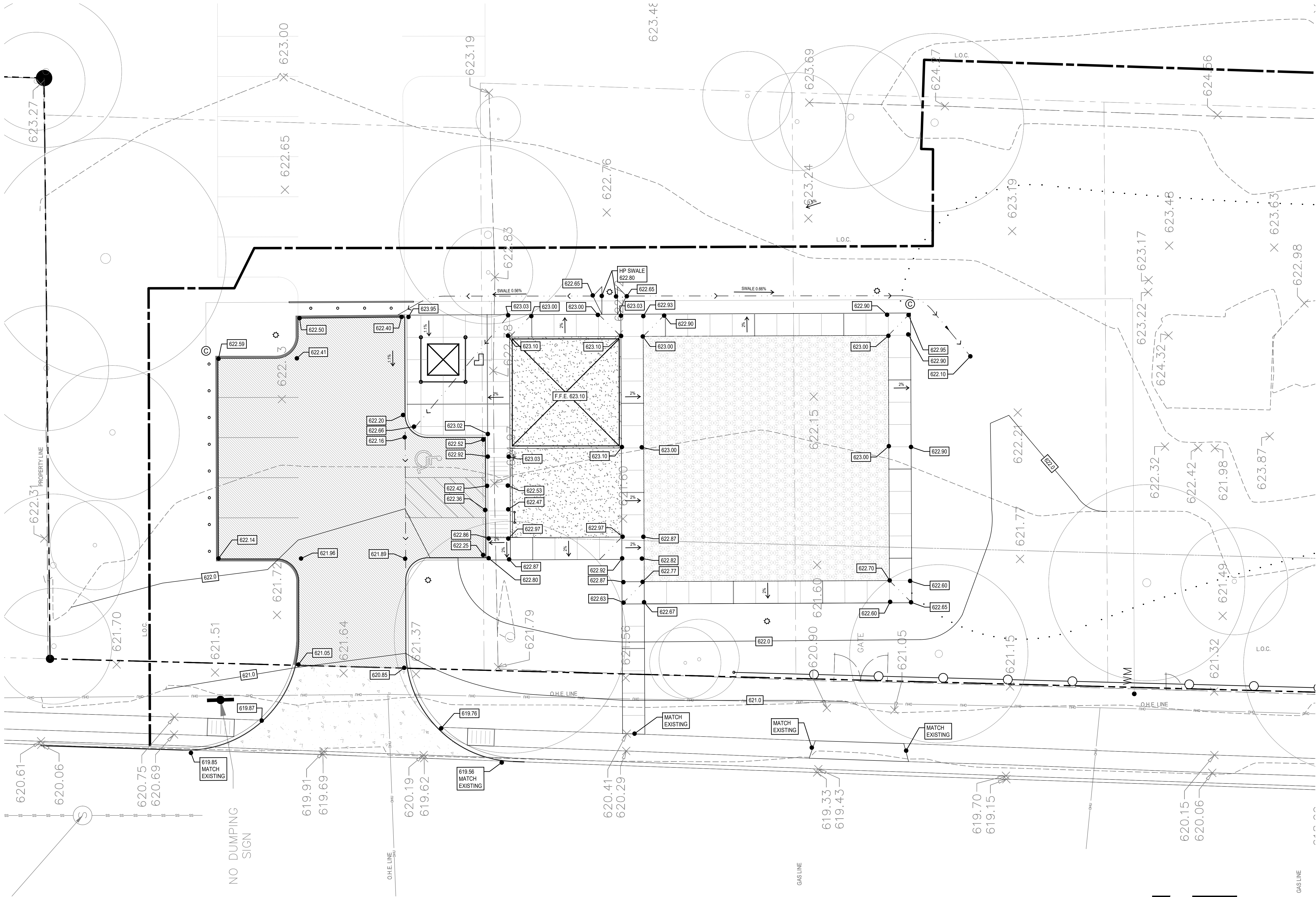




**JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT**

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

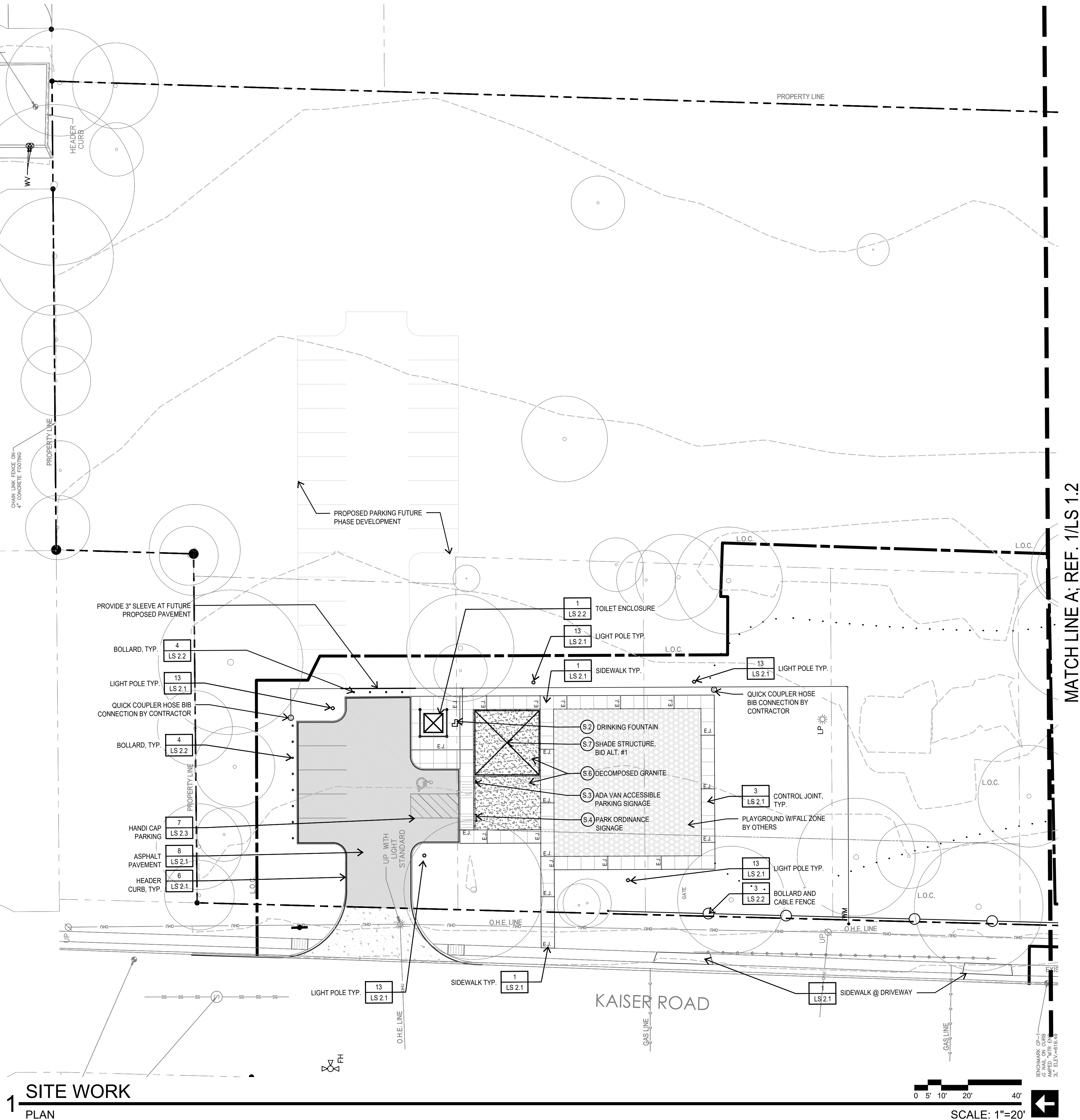
NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET





**JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT**

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

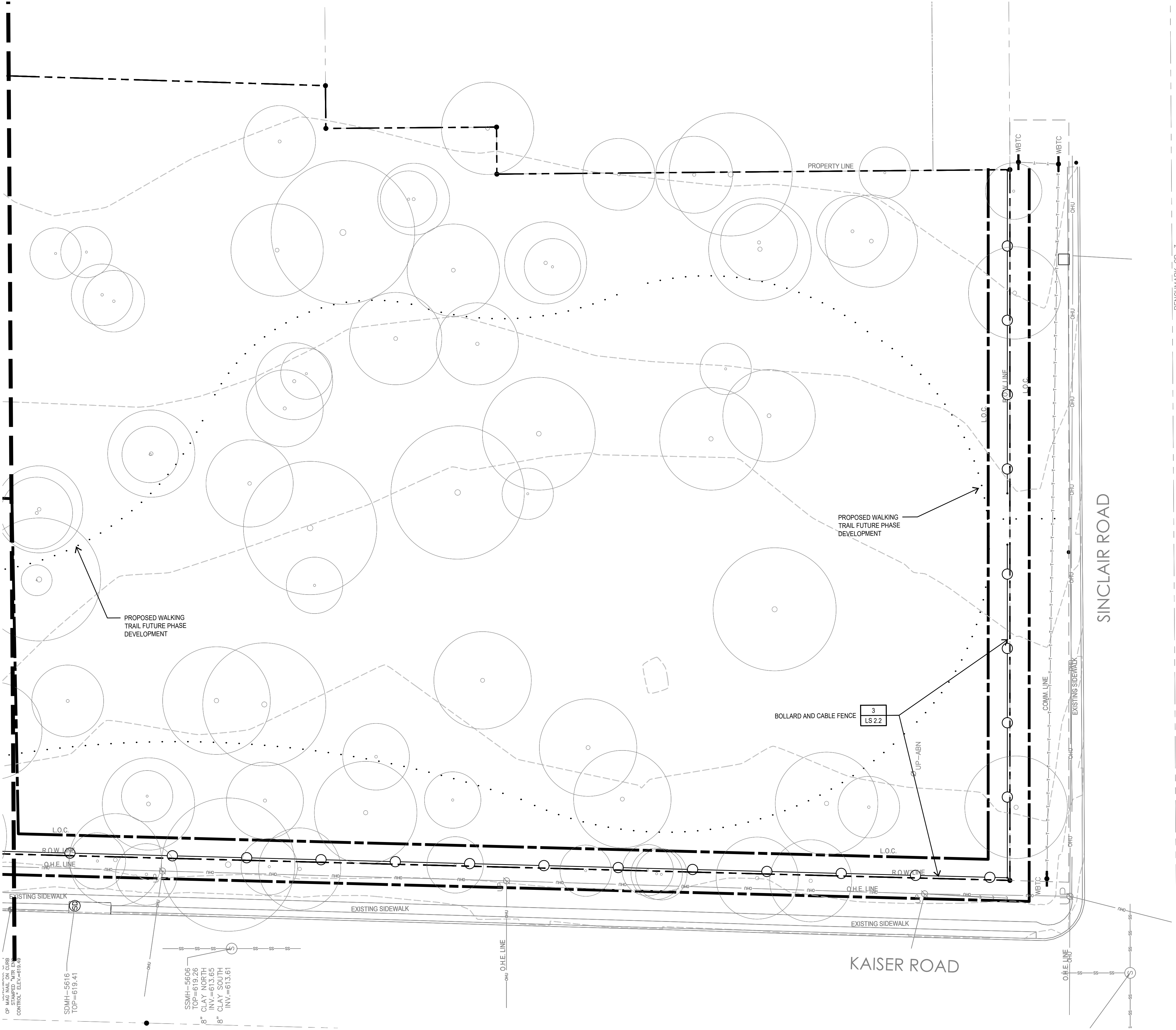


1 SITE WORK
PLAN

NOTE: BID ALTERNATE #1:
POLYGON SHADE STRUCTURE, TO INCLUDE BUT NOT LIMITED TO, SHADE STRUCTURE (S.7),
CONCRETE FOUNDATION, PERMIT SUBMITTAL FOR DSD APPROVAL INCLUDING SPECIAL
INSPECTIONS, REDUCTION IN DECOMPOSED GRANITE, SITE PREPARATION, SITE GRADING, AND
ALL OTHER MISCELLANIOUS MATERIALS AND LABOR REQUIRED TO INSTALL STRUCTURE AS
SHOWN ON PLANS.
IF ALTERNATE IS NOT ACCEPTED, THE AREA SHALL RECIEVE (S.6) COMPACTED DECOMPOSED
GRANITE PER SPECIFICATIONS.

NOTE: ALL NEW SITEWORK, STRUCTURES, & UTILITY LINES (GAS, ELECTRIC, WATER, SEWER,
COMMUNICATION, ETC.) TO AVOID IMPACTS/ TRENCHING TO TREES IDENTIFIED TO BE PRESERVED
INCLUDING THEIR INDIVIDUAL TREE CRITICAL ROOT PROTECTION ZONES OR OUTLINE OF TREE.

MATCH LINE A; REF. 1/LS 1.1



NOTE: • ALL NEW SITEWORK, STRUCTURES, & UTILITY LINES (GAS, ELECTRIC, WATER, SEWER, COMMUNICATION, ETC.) TO AVOID IMPACTS/ TRENCHING TO TREES IDENTIFIED TO BE PRESERVED INCLUDING THEIR INDIVIDUAL TREE CRITICAL ROOT PROTECTION ZONES OR OUTLINE OF TREE.



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



08-07-2020

PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

SITWORK PLAN

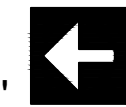
SHEET NUMBER

LS 1.2

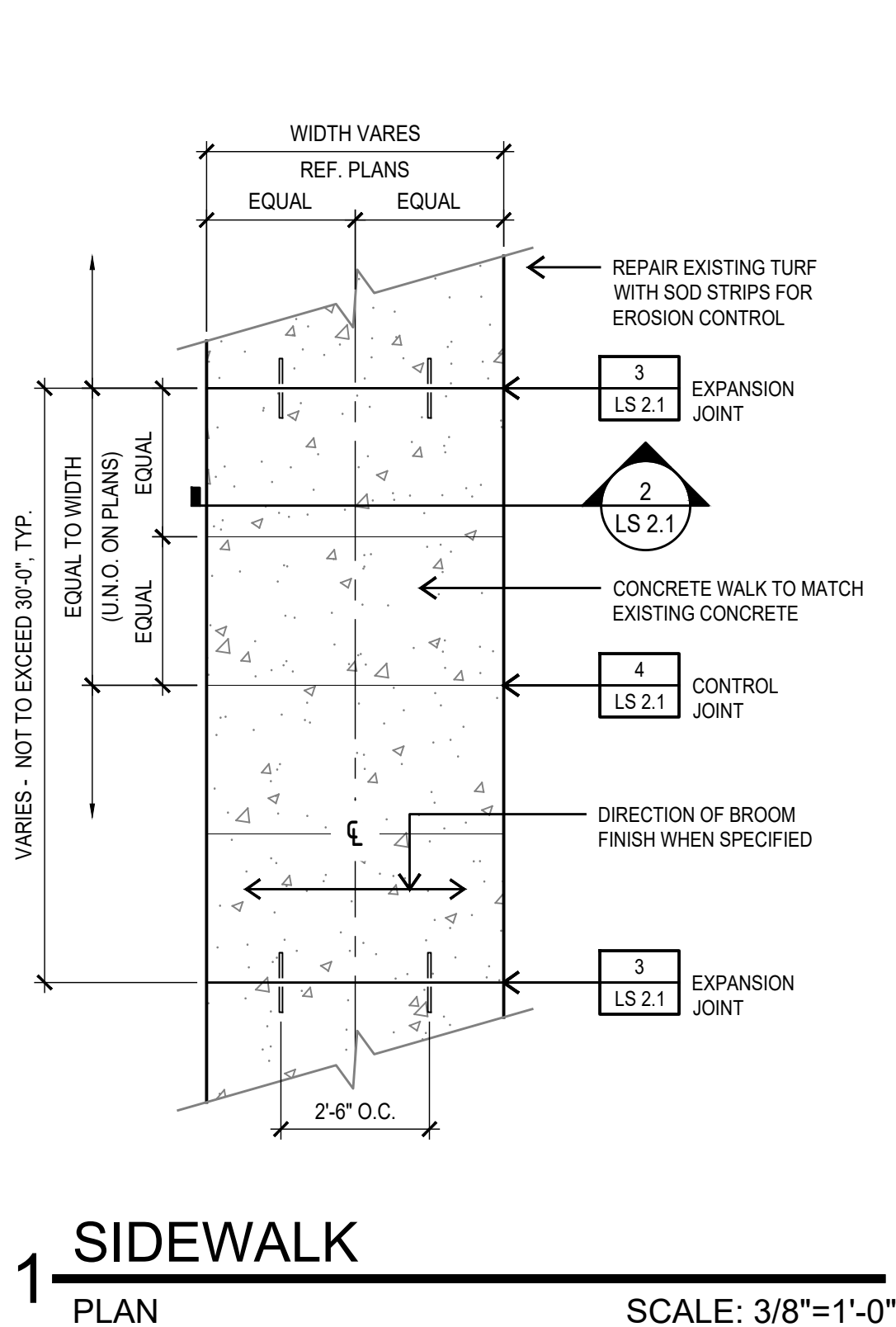
1 SITE WORK
PLAN



SCALE: 1"=20'



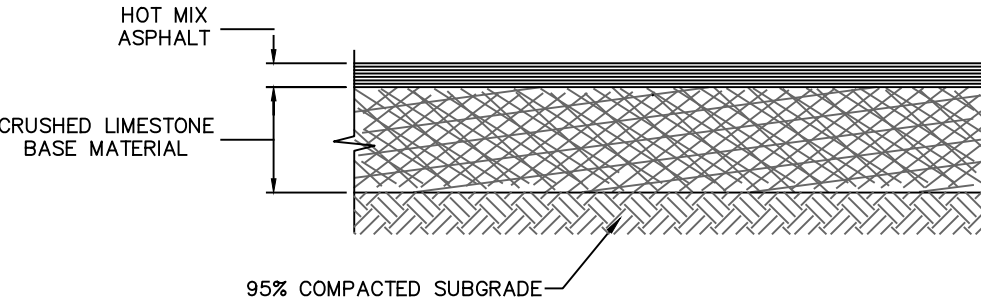
LS 1.3



RECOMMENDED THICKNESS (INCHES)		
PAVEMENT MATERIALS	LIGHT DUTY	HEAVY DUTY
ASPHALTIC CONCRETE	2"	2.5"
FLEXIBLE BASE	9"	10"
GEOTRID	YES	YES
MOISTURE CONDITIONED SUBGRADE (1)	6"	6"

(1) OR NEWLY PLACED STRUCTURAL COMPACTED FILL TO ACHIEVE FINAL CIVIL DESIGN GRADES. MATERIALS MUST MEET OR EXCEED DESIGN CBR VALUE.

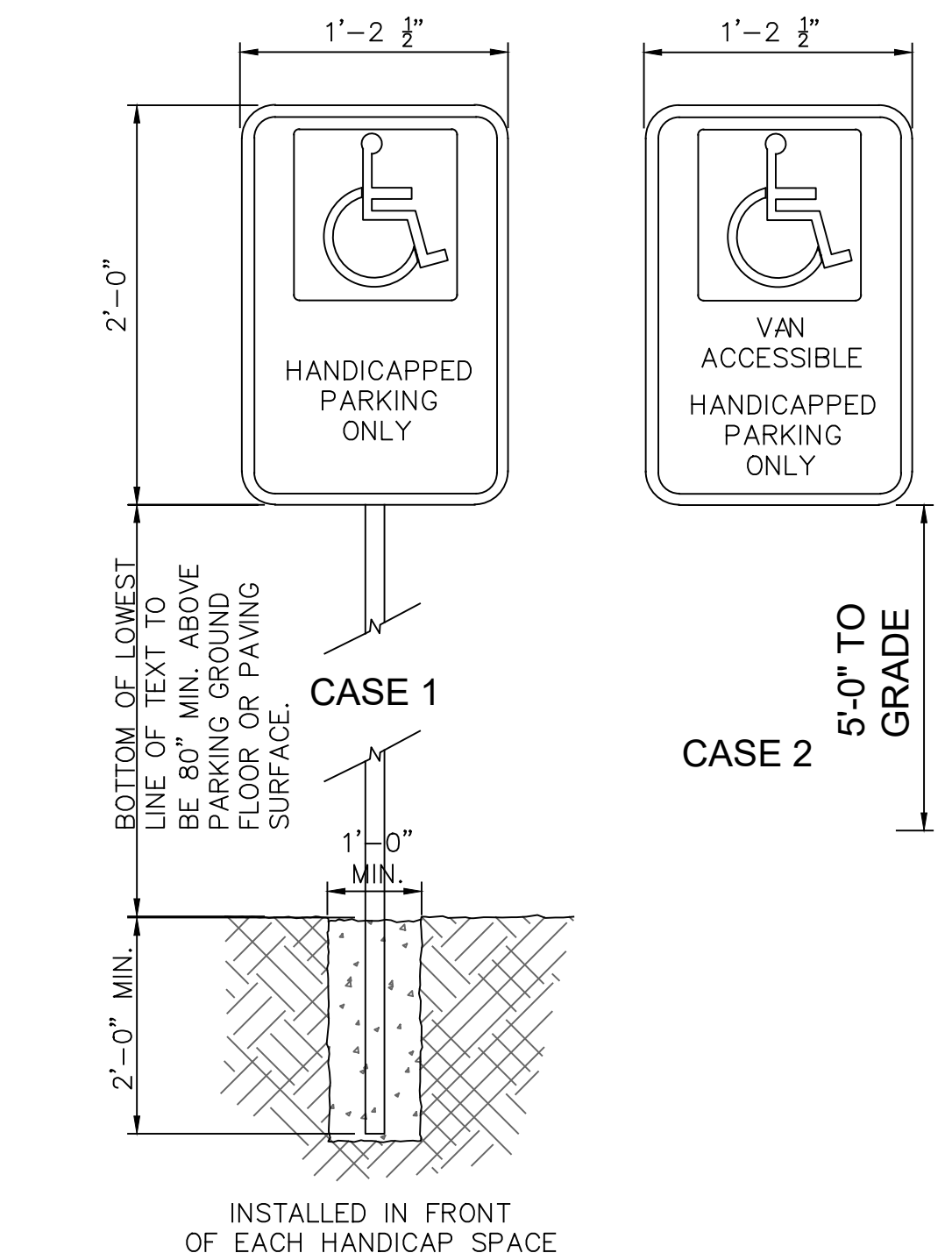
NOTE:
REFER TO GEOTECHNICAL ENGINEERING REPORT
PREPARED BY ECS SOUTHWEST, LLP DATED JANUARY 2, 2020.



8 ASPHALT PAVEMENT (LIGHT DUTY)

SECTION

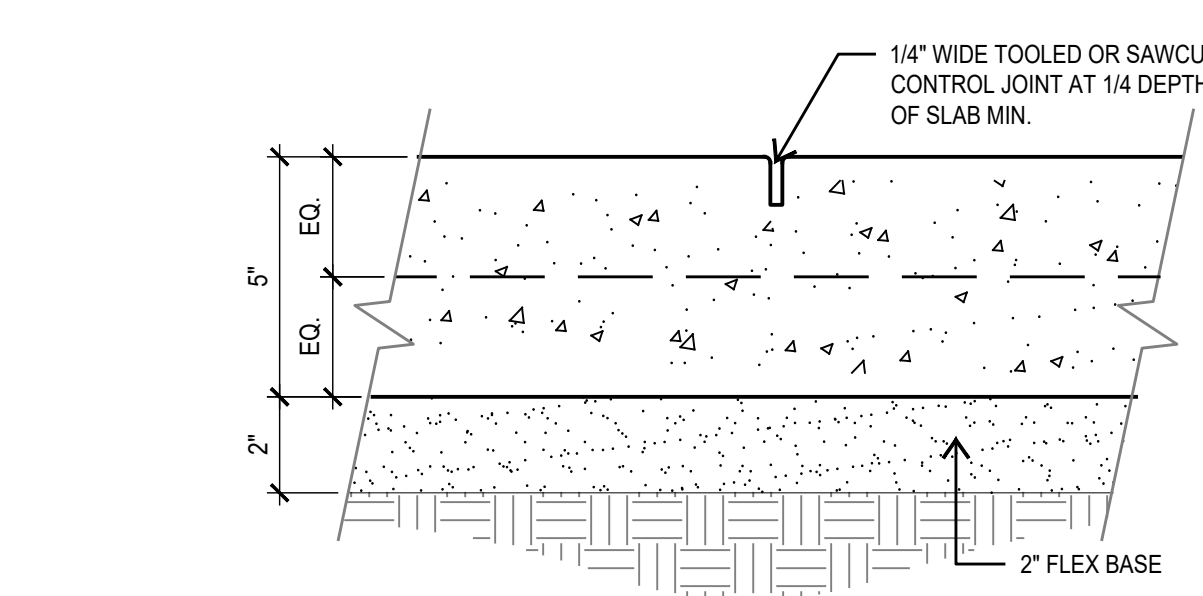
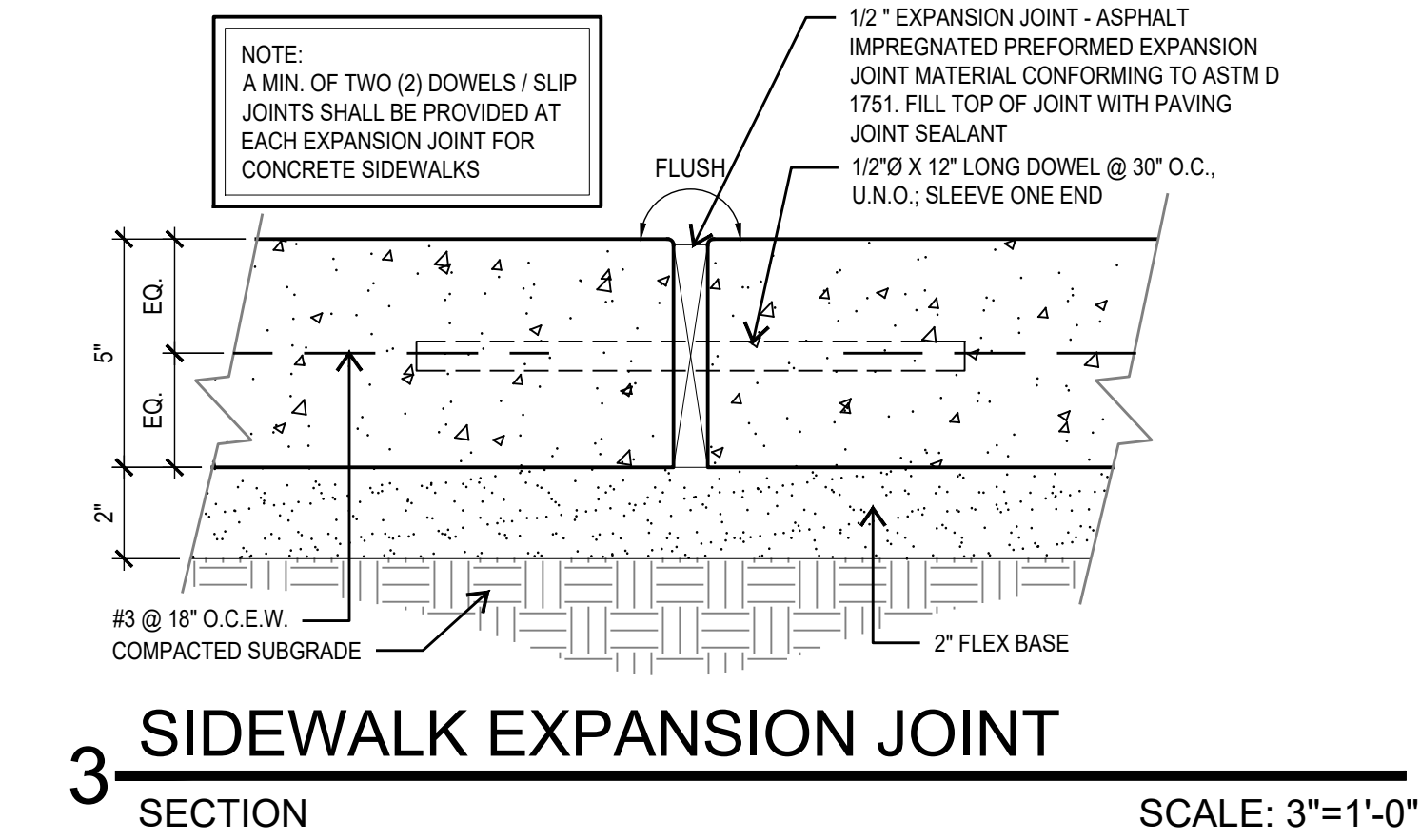
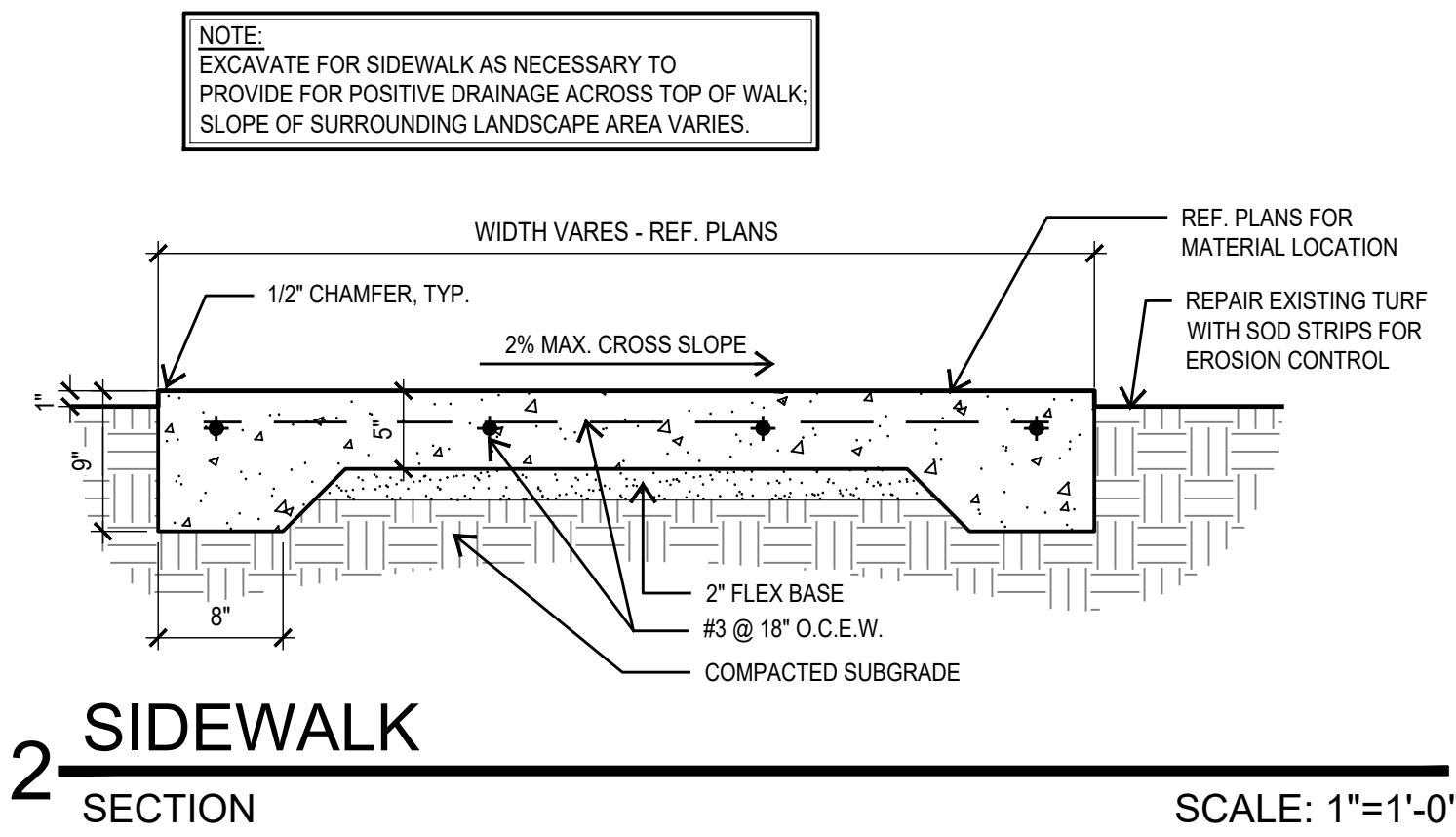
NOT TO SCALE



9 ACCESSIBLE PARKING SIGN

DETAILS

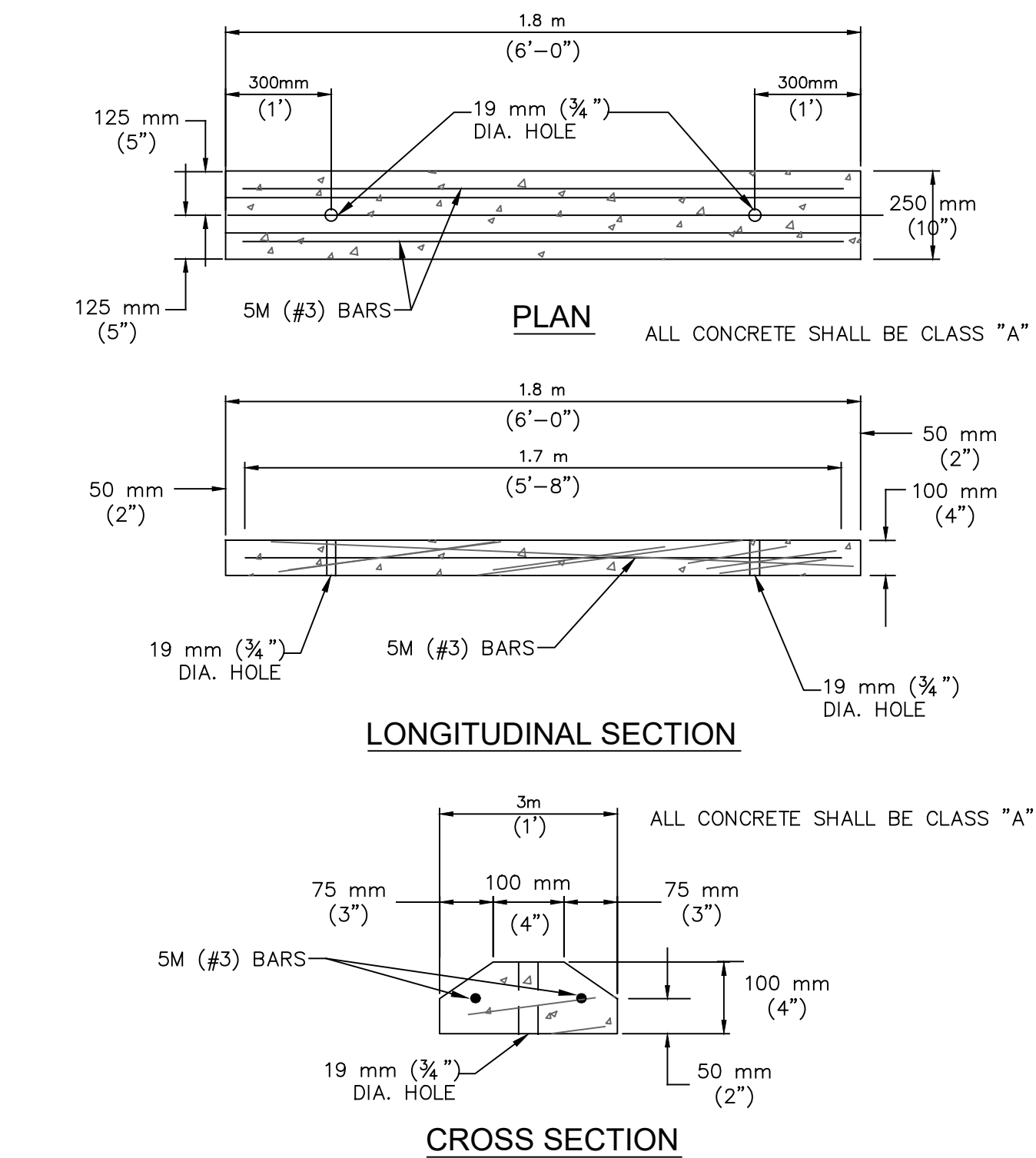
NOT TO SCALE



4 SIDEWALK CONTROL JOINT

SECTION

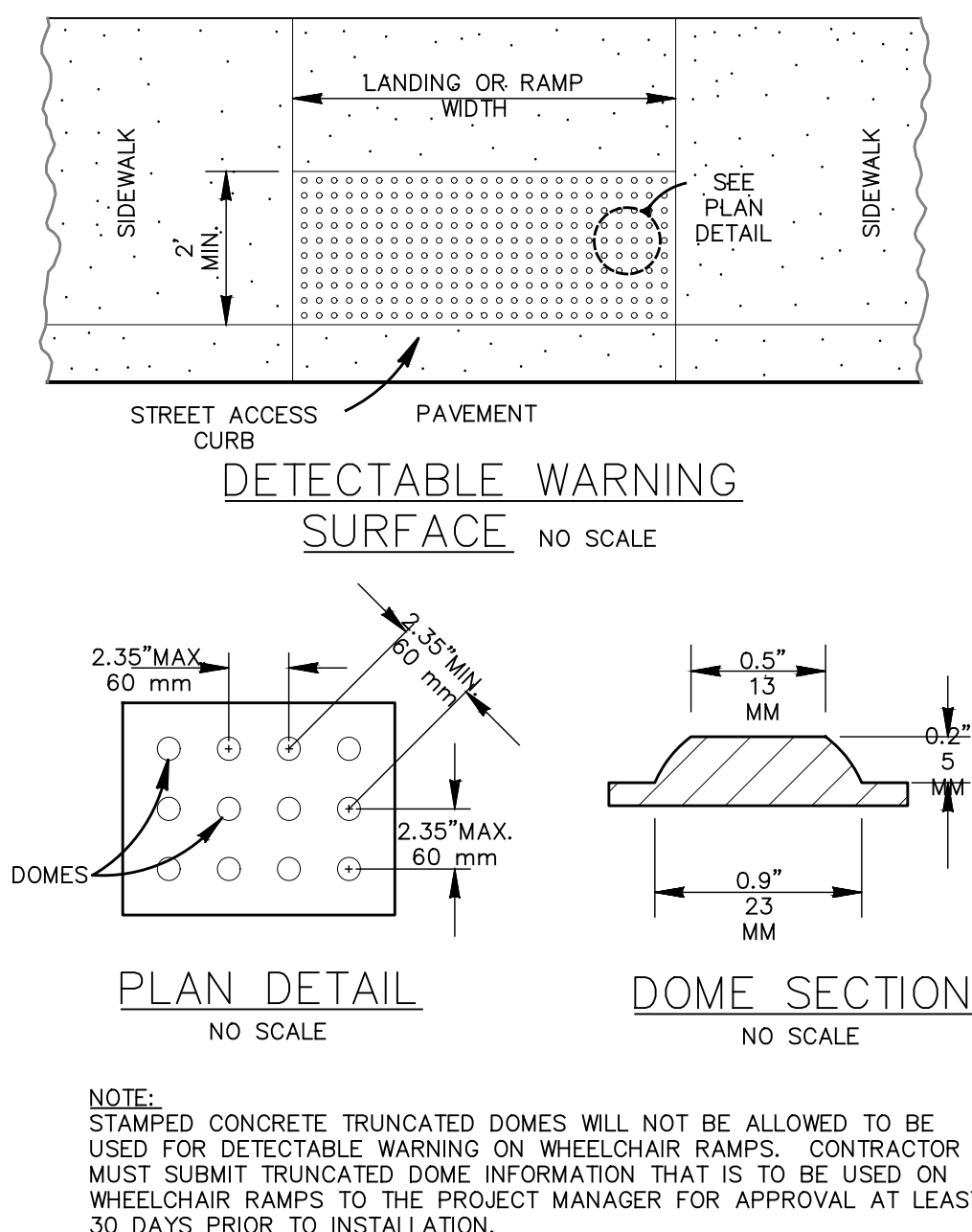
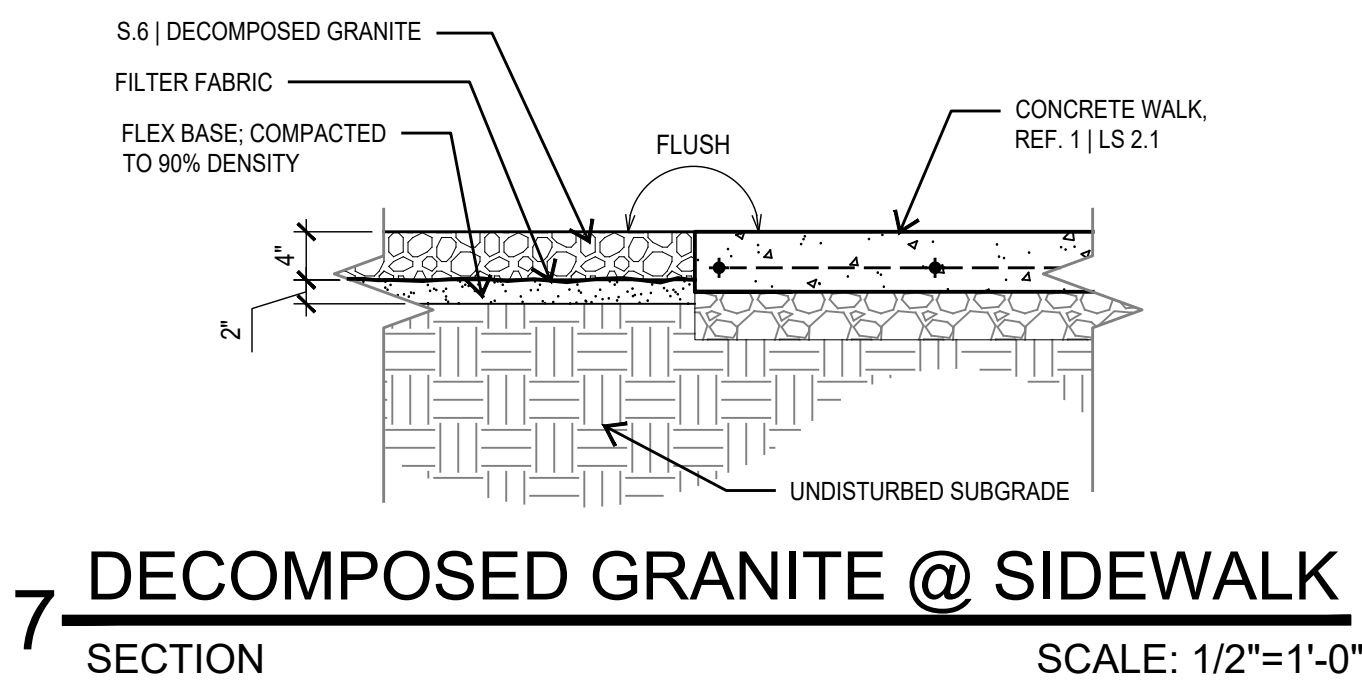
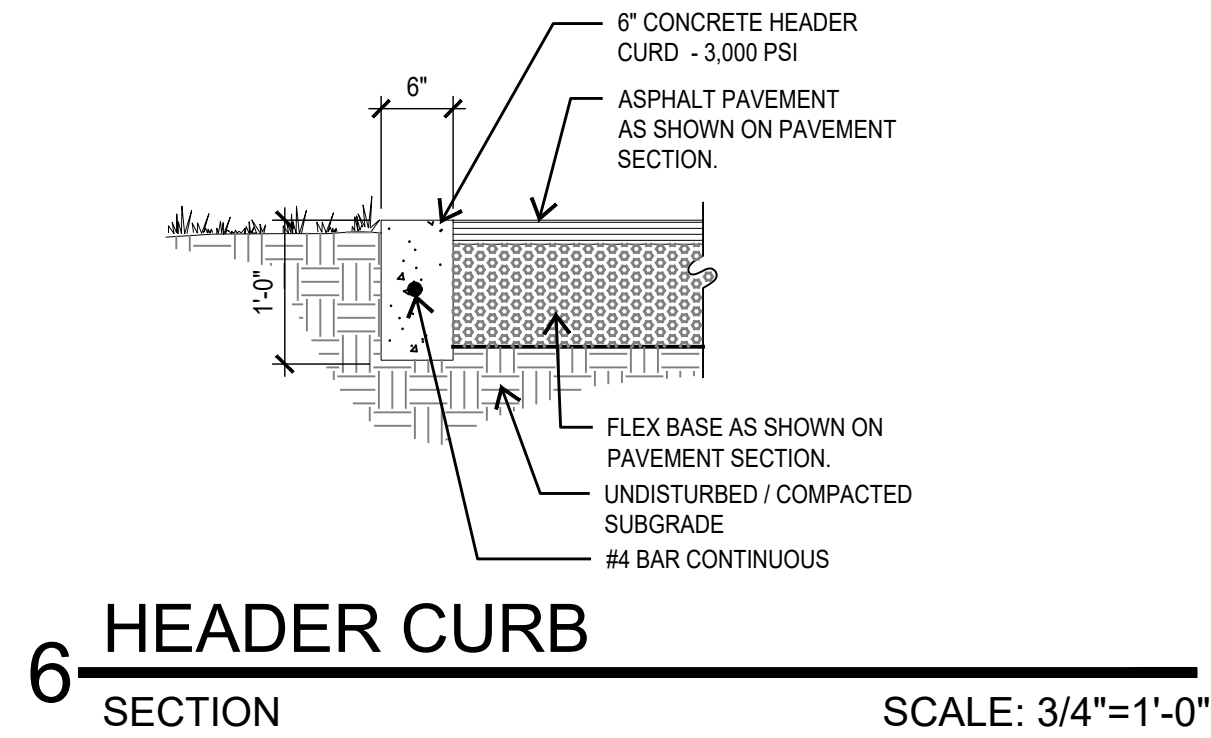
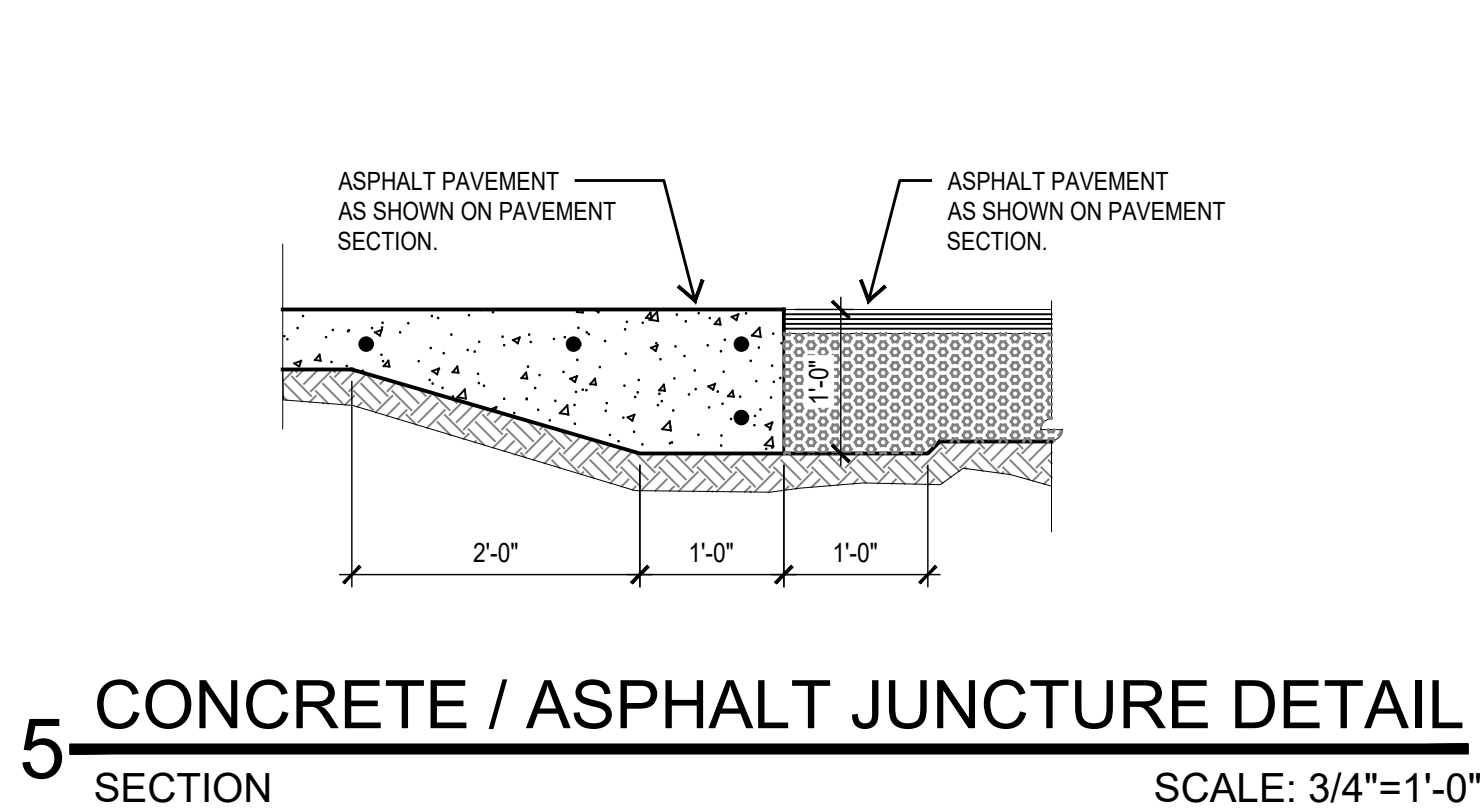
SCALE: 3"=1'-0"



10 CONCRETE WHEEL STOP, TYP.

DETAILS

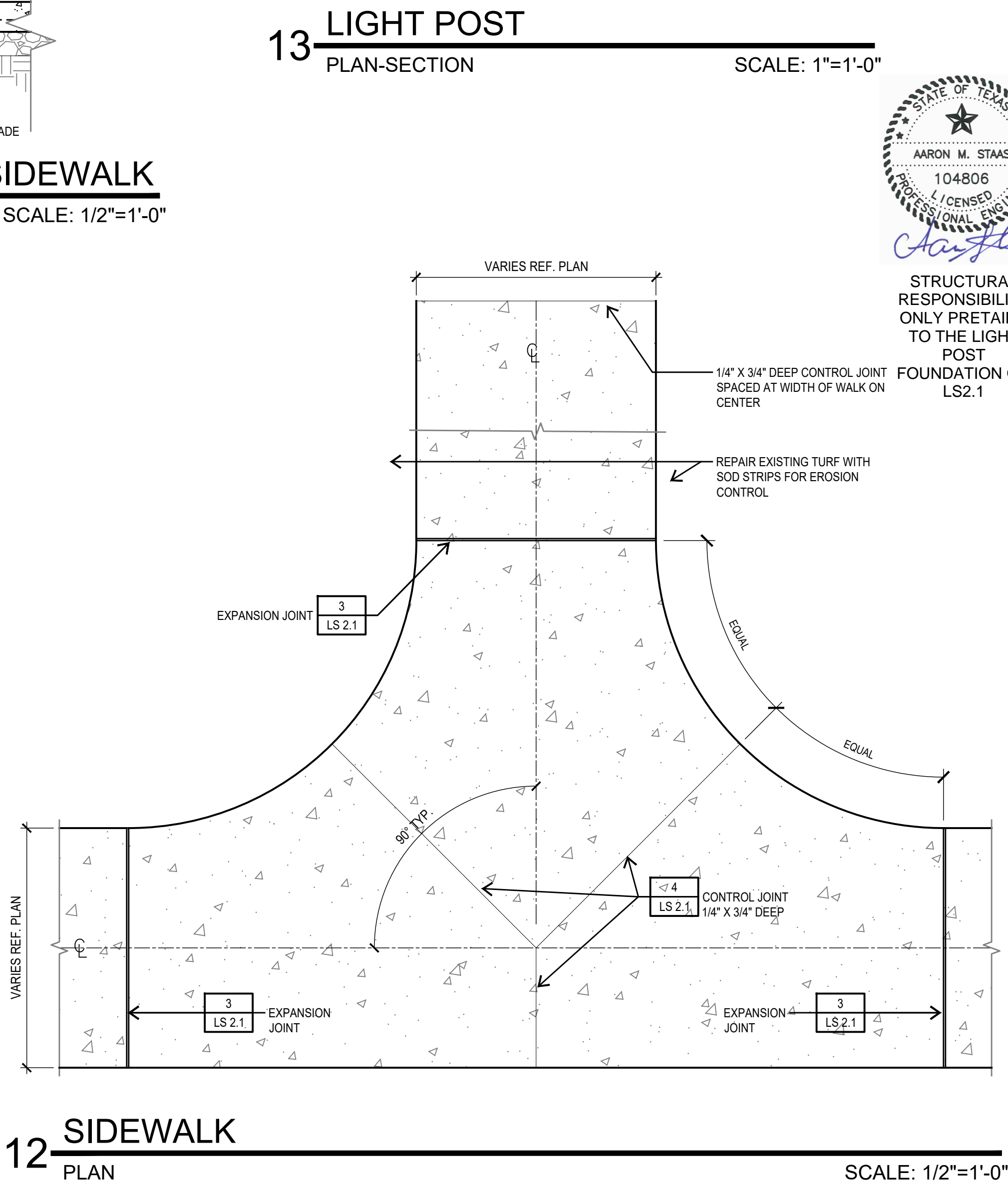
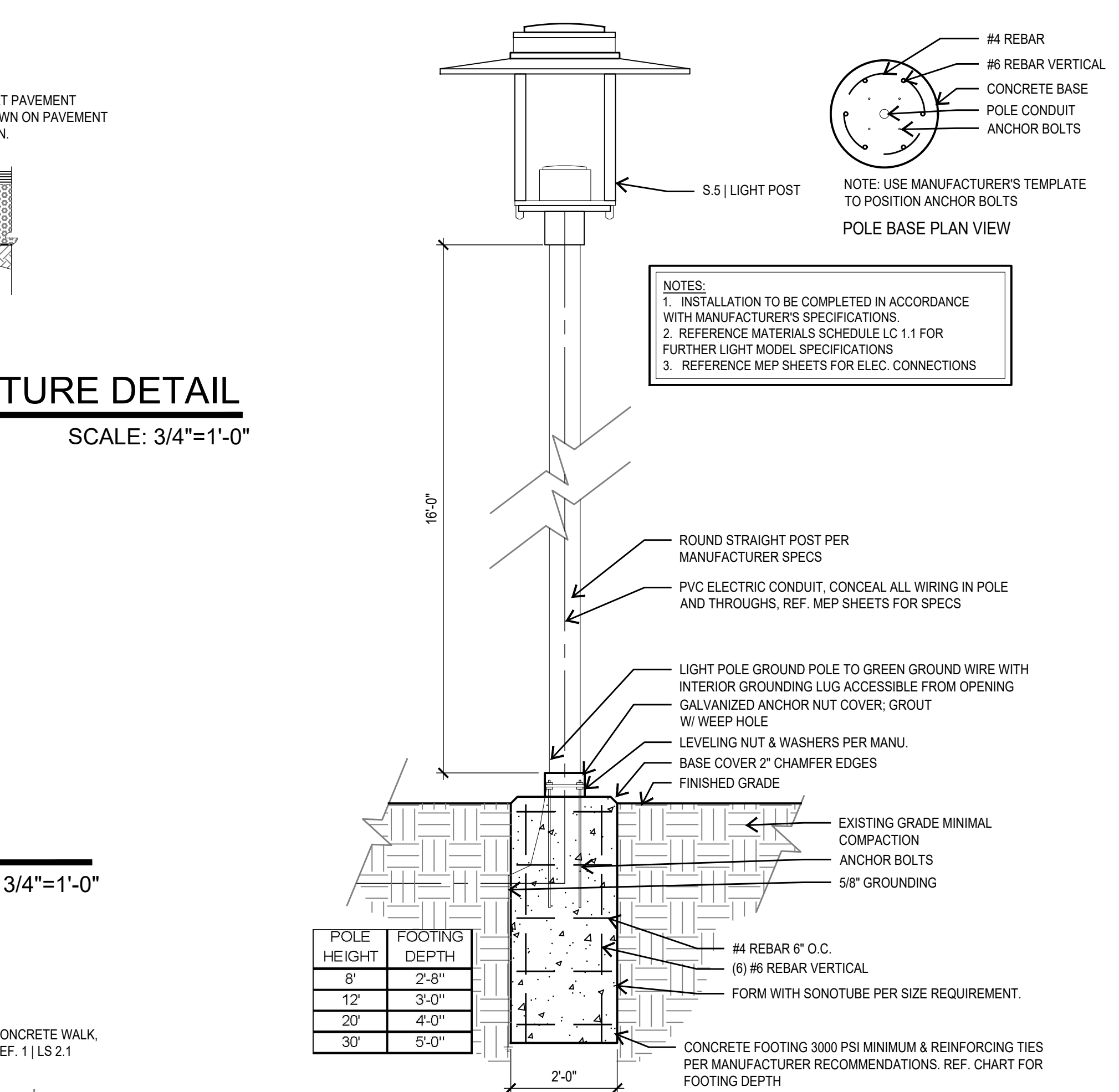
NOT TO SCALE



11 DETECTABLE WARNING SURFACE

PLAN-SECTION

NOT TO SCALE



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



08-07-2020

PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

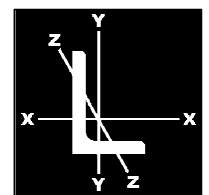
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV



LEHMANN ENGINEERING, Inc.
1006 Beckett, San Antonio, TX 78213
Ph (210)348-8889 Fx (210)348-8884
TX Firm Reg. No. F-5298

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

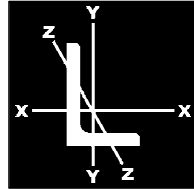
AUGUST 7, 2020

SHEET NAME

SITWORK DETAILS

SHEET NUMBER

LS 2.1

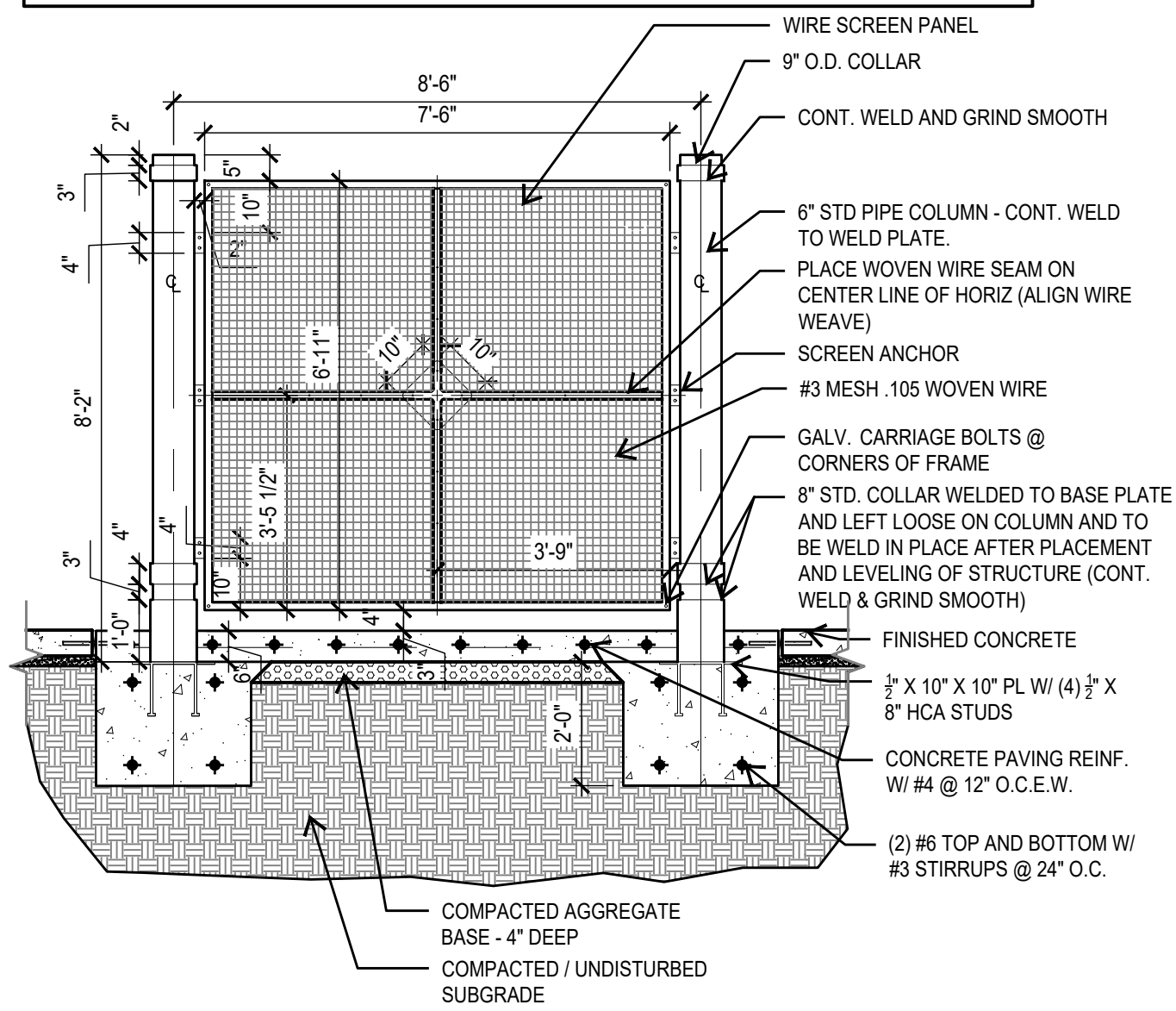


LEHMANN ENGINEERING, Inc.
1006 Beckett, San Antonio, TX 78213
Ph (210)348-8889 Fx (210)348-8884
TX Firm Reg. No. F-5298

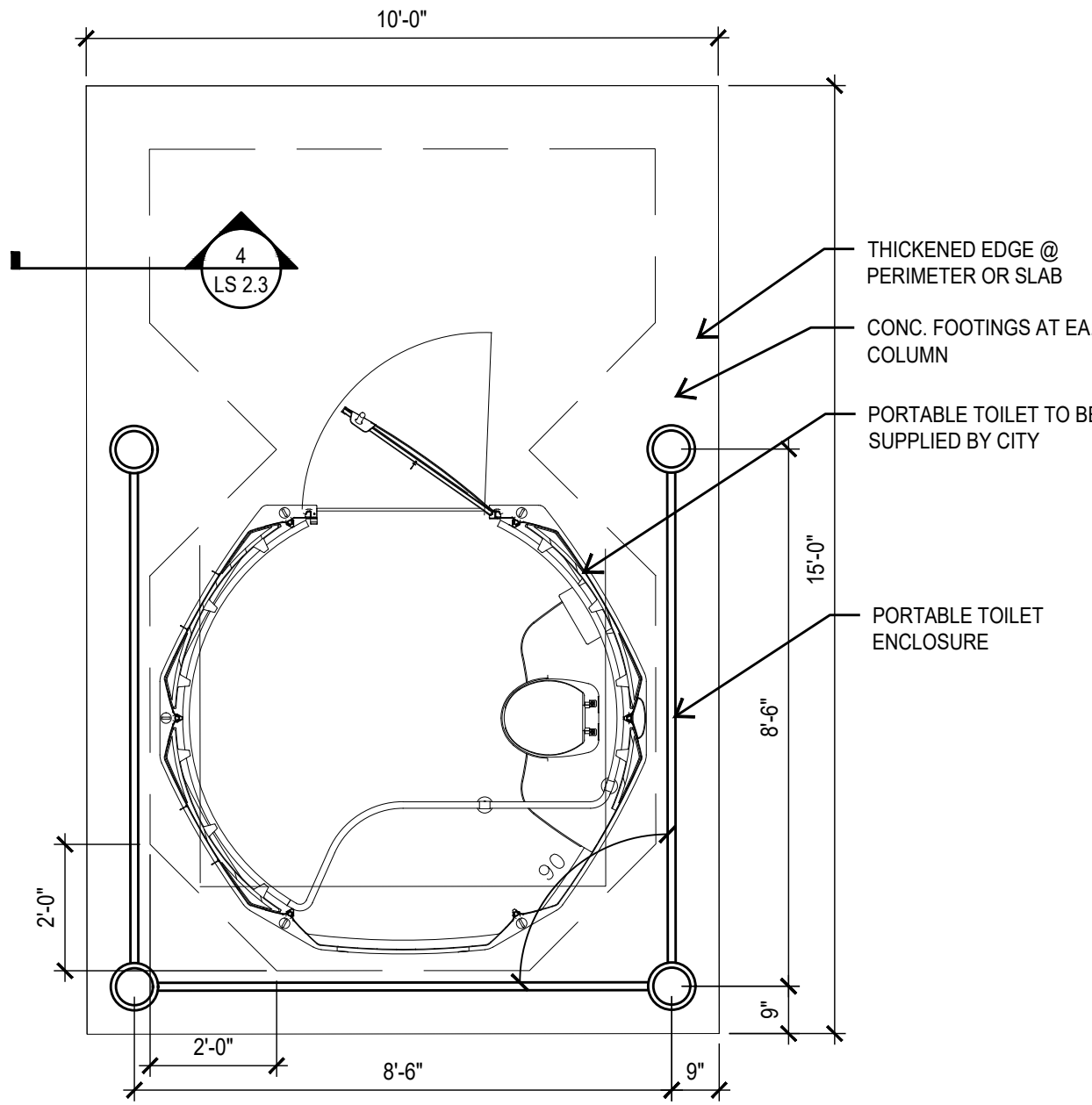


STRUCTURAL RESPONSIBILITY
ONLY PRETAINS TO
DETAILS 1 & 2 ON
LS2.2

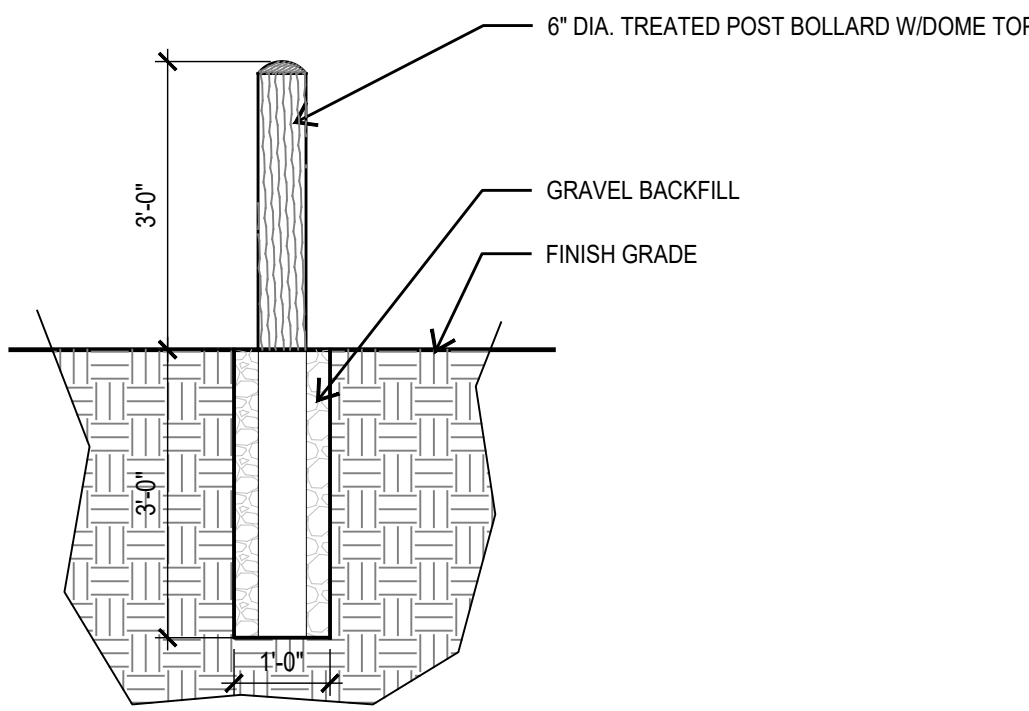
NOTE: CONTRACTOR TO SUBMIT FENCE SHOP DRAWINGS FOR FENCE PANEL CONNECTIONS, FASTENERS AND GATE HARDWARE. SHOP DRAWINGS TO INCLUDE POST FOOTING SIZING AND REINFORCING, STAMPED AND SIGNED BY A LICENSED, STATE OF TEXAS STRUCTURAL ENGINEER. SHOP DRAWINGS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER REPRESENTATIVE PRIOR TO ANY INSTALLATION. THE CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT IF DESIGN OR LAYOUT CONFLICTS WITH ANY CODES. *ALL COMPONENTS FOR THE FENCE TO BE PAINTED DARK OLIVE GREEN*



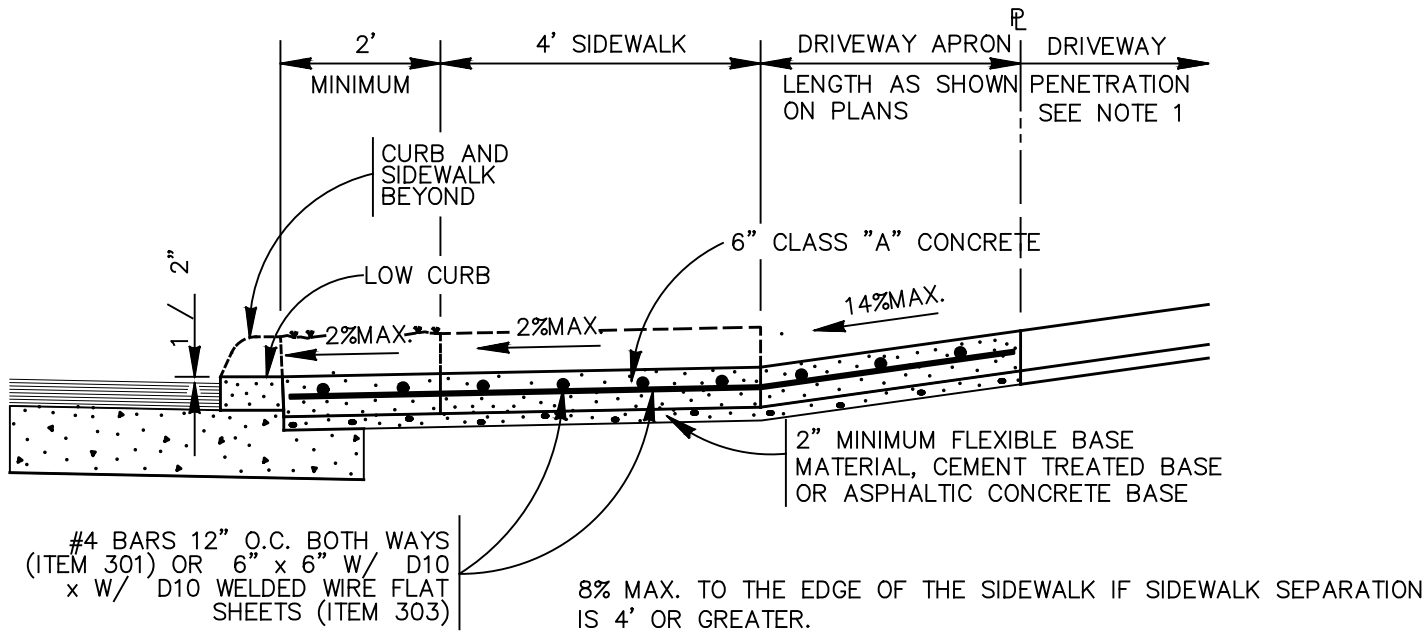
1 SINGLE TOILET ENCLOSURE
SECTION SCALE: 3/8"=1'-0"



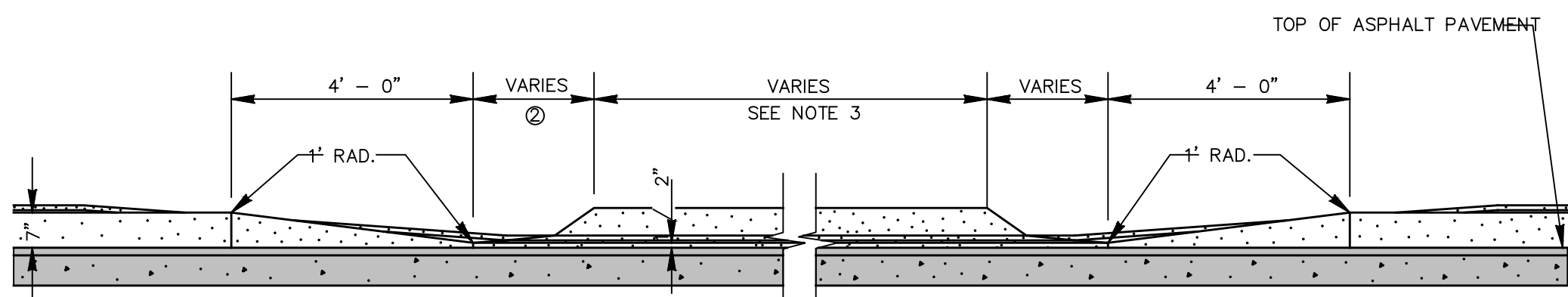
2 SINGLE TOILET ENCLOSURE
PLAN SCALE: 3/8"=1'-0"



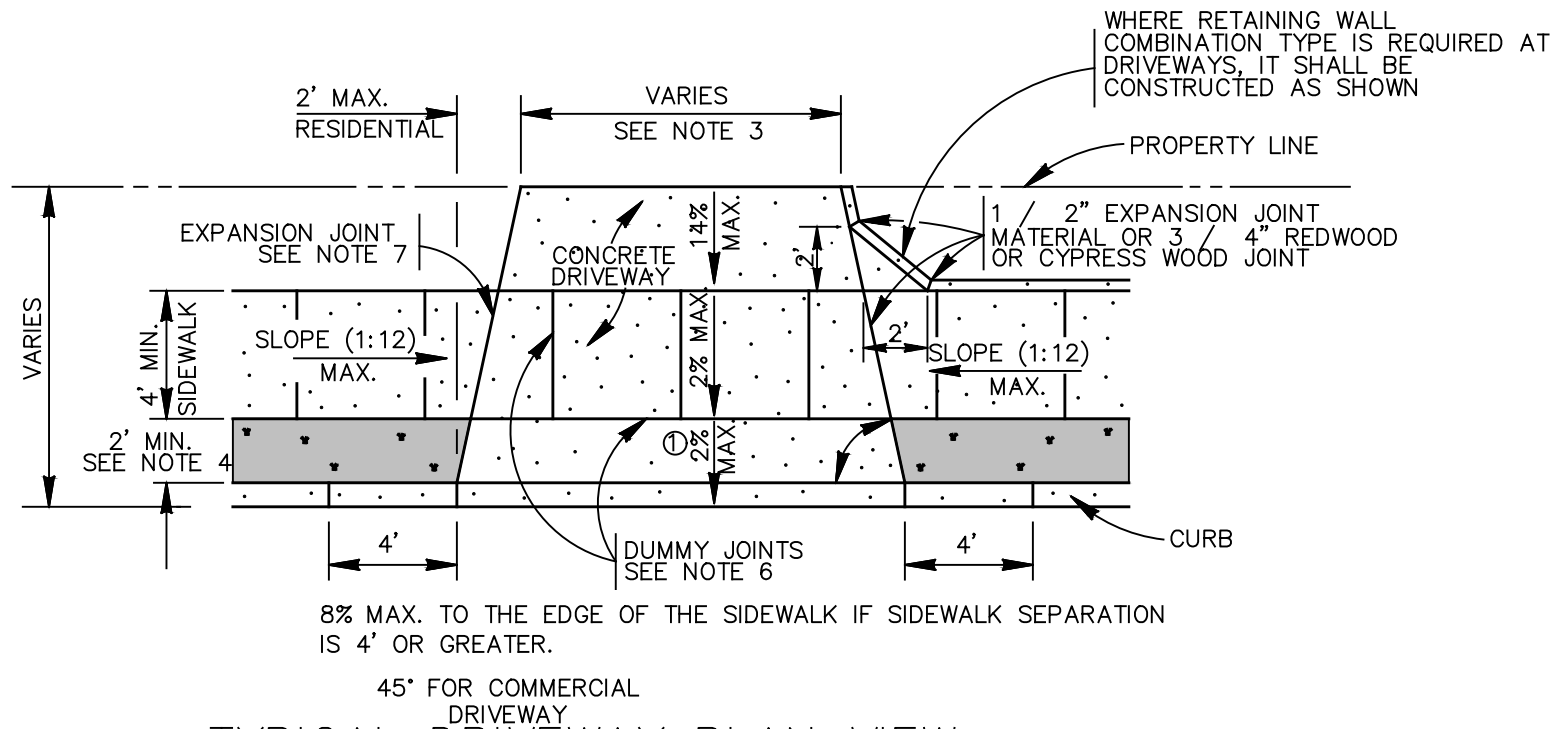
4 WOODEN BOLLARD, TYP.
SECTION SCALE: 1/2"=1'-0"



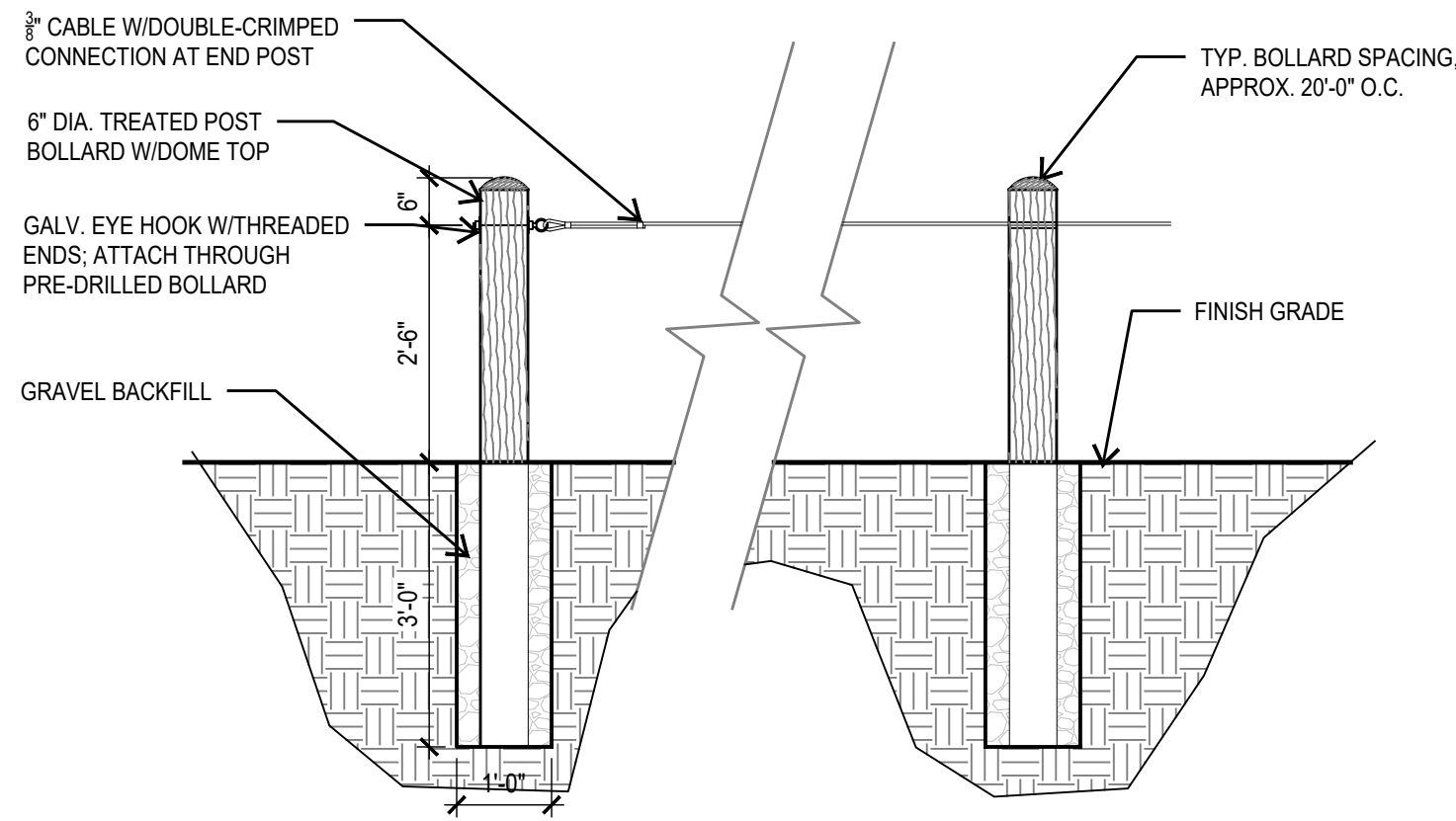
5 DRIVEWAY SECTION, TYP.
SECTION SCALE: 1/2"=1'-0"



6 CURB PROFILE AT DRIVEWAY
SECTION SCALE: 1/2"=1'-0"



7 DRIVEWAY PLAN VIEW, TYP.
PLAN SCALE: 1/2"=1'-0"



3 BOLLARD AND CABLE FENCE
SECTION SCALE: 1/2"=1'-0"

GENERAL NOTES

- WHEN POSSIBLE SIDEWALKS SHOULD BE PLACED NEXT TO THE PROPERTY LINE, ALLOWING A MINIMUM OF 1 FOOT BUFFER. DEVIATION OF THE PATHWAY FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
- FOR LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
- FOR OTHER THAN LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
- SIDEWALK RAMP LENGTHS PRESENTED IN TABLE 1 ARE GUIDELINES ONLY. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE.
- ALL CURB-RAMPS OR LANDINGS ADJUTING THE CROSSWALK SHALL HAVE A DETECTABLE WARNING 24 INCHES DEEP (IN THE DIRECTION OF PEDESTRIAN TRAVEL) AND EXTENDING THE FULL WIDTH OF THE CURB RAMP OR LANDING. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES, ALIGNED IN A GRID PATTERN WITH A DIAMETER OF A NOMINAL 0.9 INCHES (23 MM), A HEIGHT OF NOMINAL 0.2 INCHES (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 MM). THE DETECTABLE WARNING SURFACE SHALL BE A CAST-IN-PLACE TILE CONFORMING TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS OR PAVERS CONFORMING TO TxDOT STANDARD PED-05, PEDESTRIAN FACILITIES.
- DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
- SIDEWALK RAMP TYPE V SHALL BE USED ONLY WHERE THERE IS SIGNIFICANT RESTRICTION WITHIN THE PARKWAY TO CONSTRUCT TYPE I OR TYPE III RAMPS.
- CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS "500 - CONCRETE CURB, GUTTER, AND CONCRETE CURB AND GUTTER" AND / OR "502 - CONCRETE SIDEWALKS". RAMP SURFACE SHALL BE BRUSH FINISHED.
- THESE DETAILS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS OF WHEELCHAIR RAMPS TO BE SHOWN ON CONSTRUCTION PLANS. CITY CONSTRUCTION INSPECTOR CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
- SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.
- WHEELCHAIR RAMP SHALL BE CONSTRUCTED WITH 4" CLASS "A" CONCRETE AND 2" MINIMUM GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.
- REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W. OR 6" x 6" - W2.9 x W2.9 WIRE MESH.
- SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY, ANY SIDEWALK CONSTRUCTION THAT DEViates FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, HANDRAILS AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND TAS STANDARDS.
- SIDEWALK CROSS GRADE SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
- THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 2.67% (I.E. 8.33-(-2.67)=11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 5%.
- IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%, A LEVELING STRIP, 2 FEET IN LENGTH, SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.
- ADA COMPLIANCE IN ALTERATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS, BOUNDARIES OR SCOPE OF A PLANNED PROJECT.

CONCRETE DRIVEWAY NOTES

- DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
 - CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2.
 - ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE
 - GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
- 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
- THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

- FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
- FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
- DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
- A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3/8" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
- SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

MP
STUDIO

201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



08-07-2020

PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

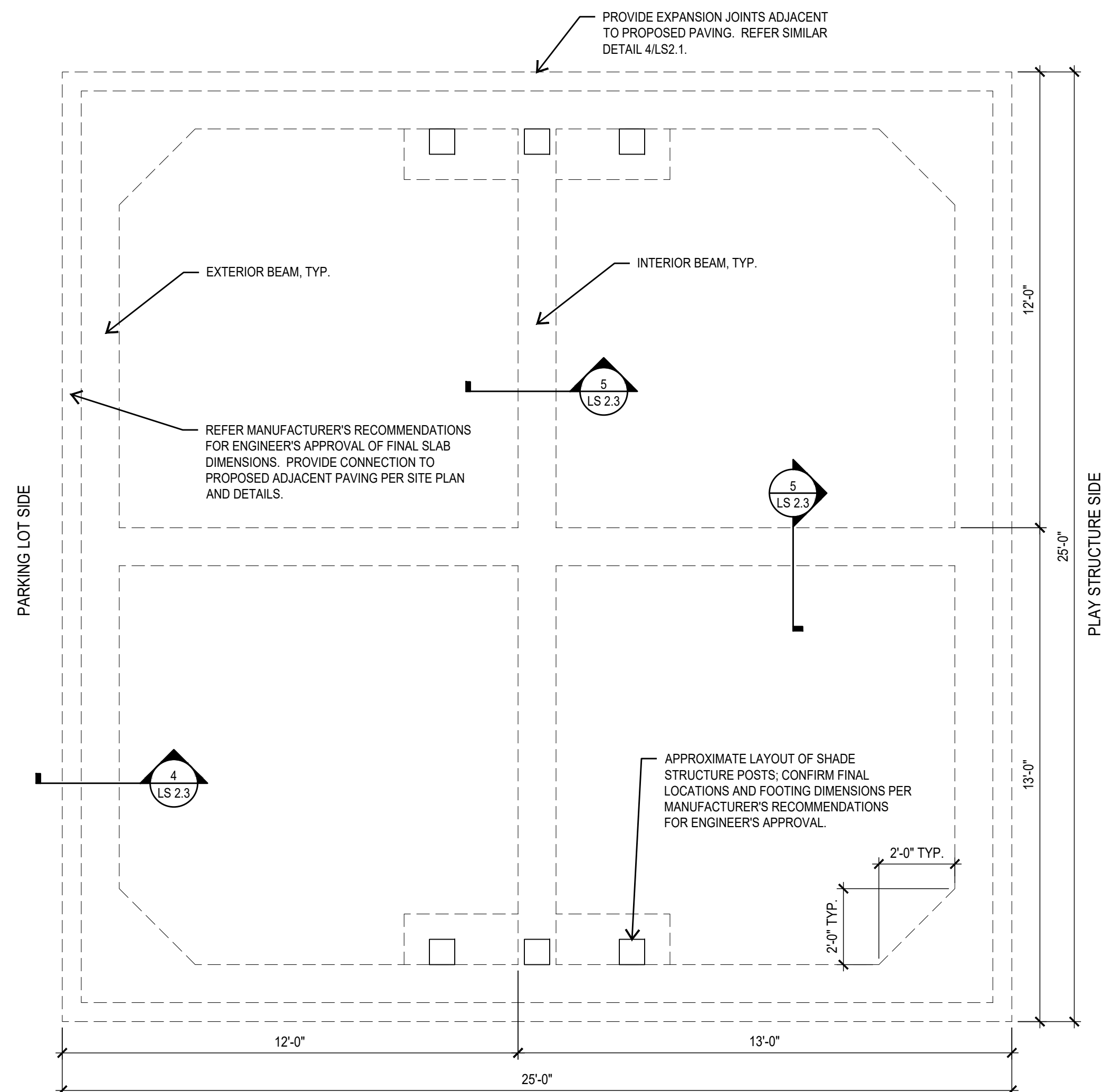
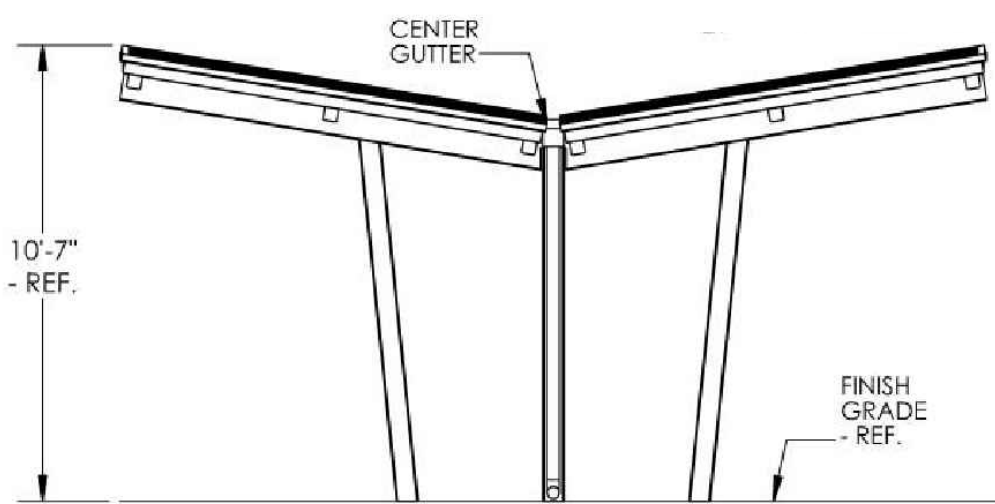
SITWORK DETAILS

SHEET NUMBER

LS 2.2



Diagram illustrating a standard gutter installation. A person is shown standing under the gutter for scale. The gutter is labeled "GUTTER DOWN SPOUT". The height from the ground to the bottom of the gutter is indicated as "8'-1 1/2" - REF." on both sides.



MP
STUDIO

STATUS



PROJECT

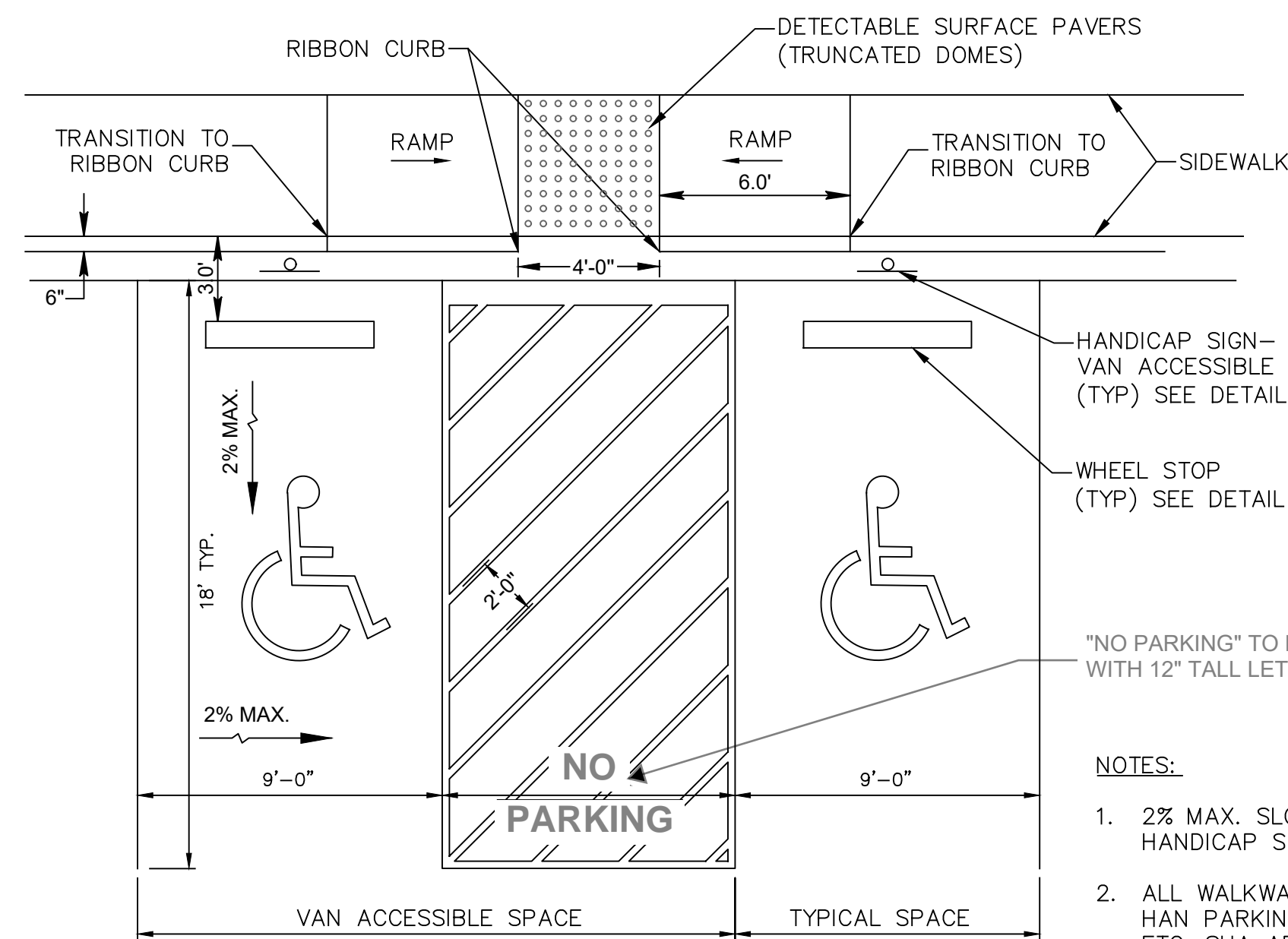
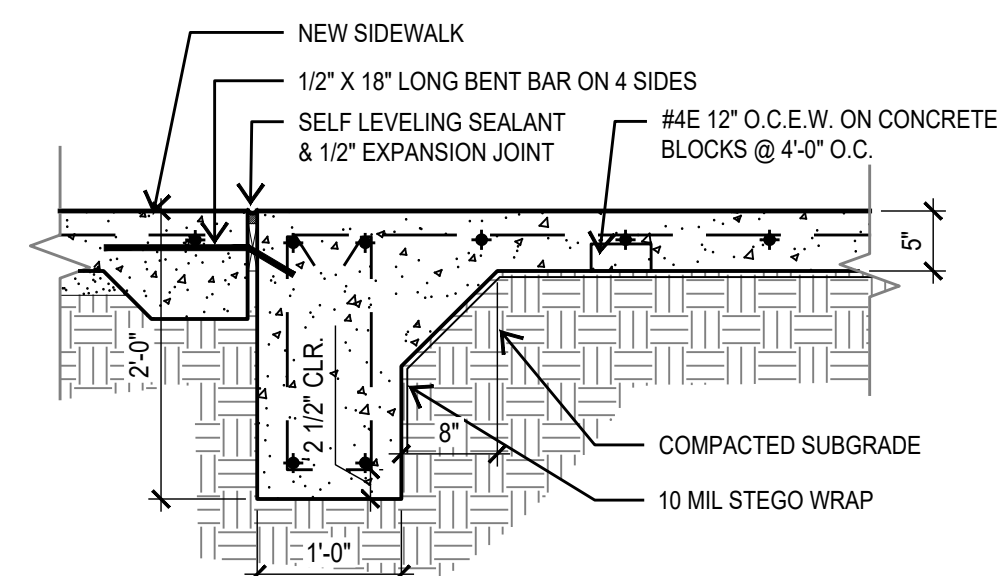
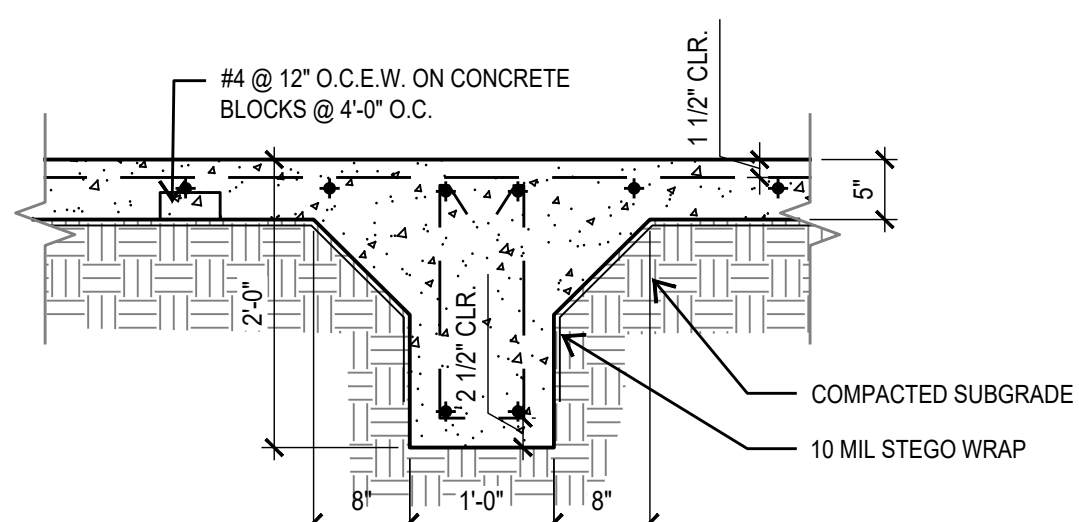
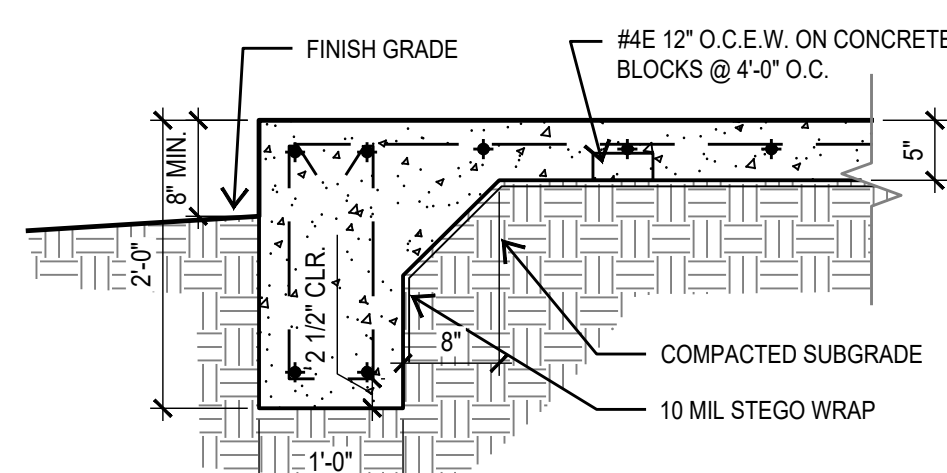
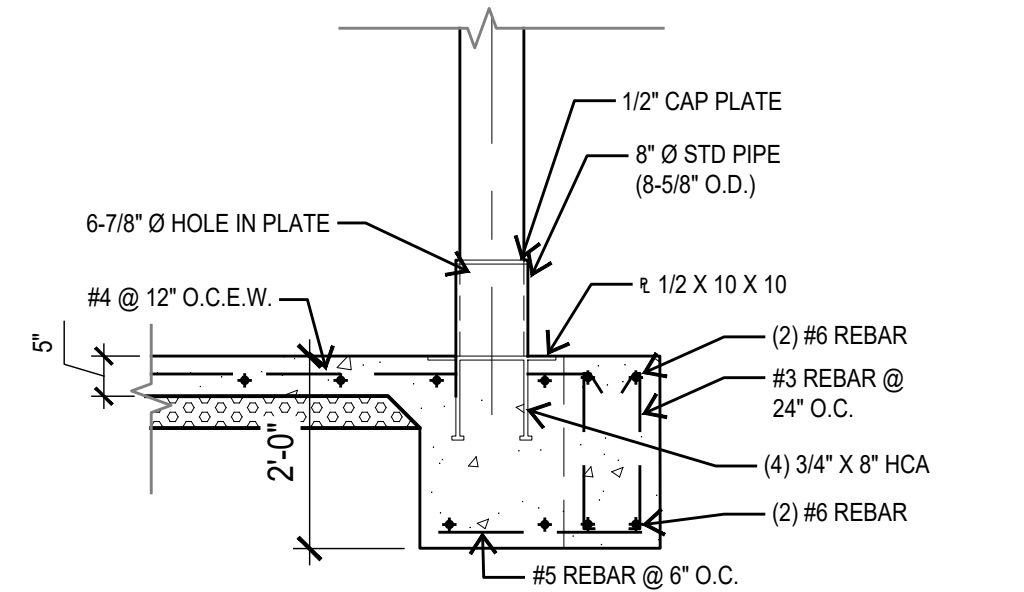
ALMA.NUNEZ@SANANTONIO.GOV

— — — — —

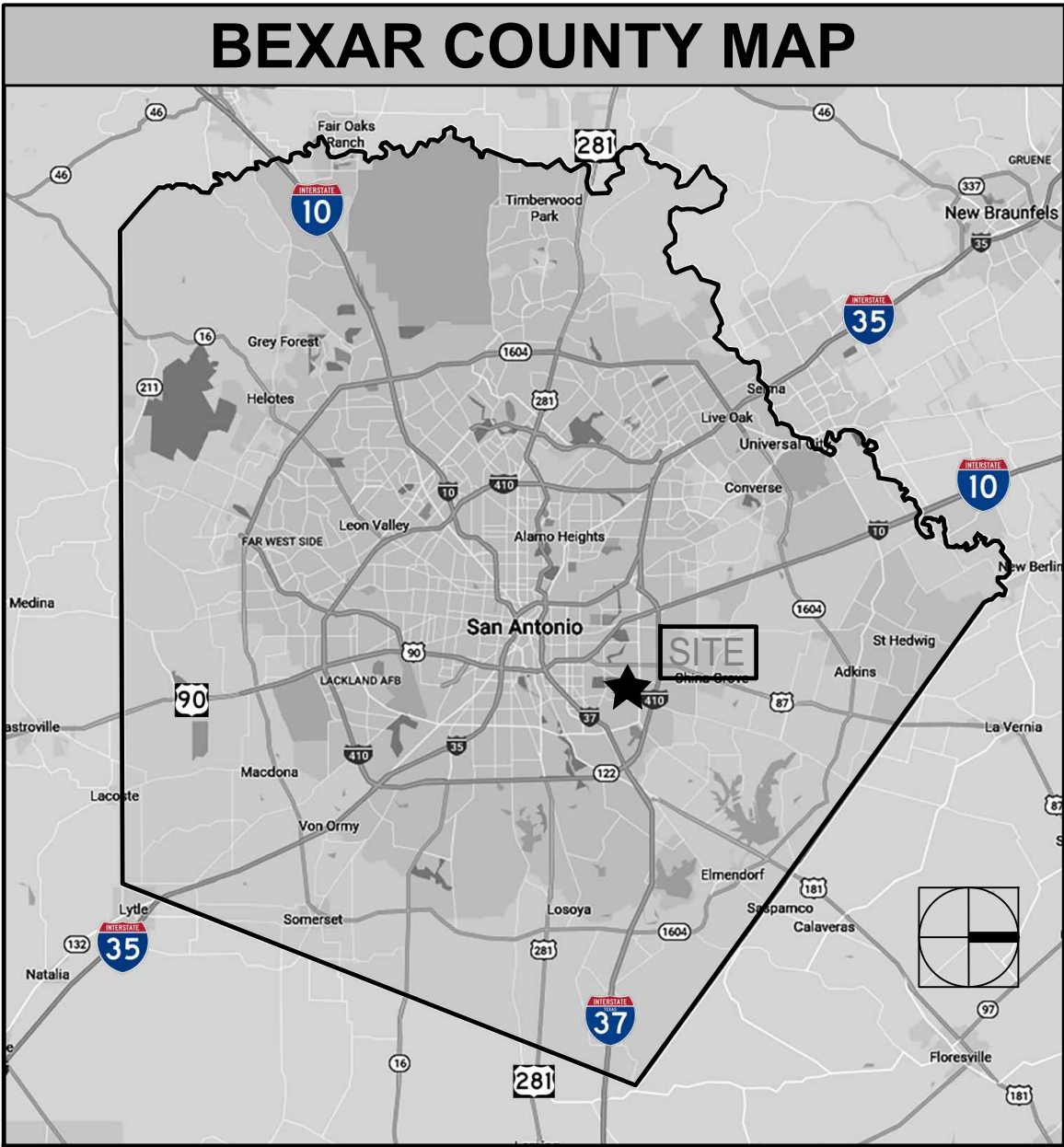
1992

1 2 3

LS 2.3



SCALE: 3/8"=1'-0"



MITIGATION TREES					
CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	TREE SIZE	MITIGATION INCHES	TOTAL MITIGATION INCHES APPLIED
MO	2	MONTERREY OAK	3"	3"	6"
CE	2	CEDAR ELM	3"	3"	6"
LO	3	LIVE OAK	3"	3"	9"
TOTAL MITIGATION					21"

LANDSCAPE ORDINANCE

MANDATORY CRITERIA:

1. 25 LANDSCAPE POINTS REQUIRED: TREE PRESERVATION

A MAXIMUM OF FORTY (40) POINTS SHALL BE AWARDED FOR THE PRESERVATION OF EXISTING HEALTHY TREES. FULL CREDIT IN ACCORDANCE WITH THE CRITERIA LISTED BELOW SHALL BE EARNED FOR THE PRESERVATION OF TREES WITHIN THE STREET YARD UP TO THIRTY (30) POINTS. HALF CREDIT MAY BE EARNED FOR PRESERVING TREES WITHIN THE STREET YARD ABOVE THIRTY (30) POINTS. HALF CREDIT MAY ALSO BE EARNED FOR PRESERVING TREES OUTSIDE THE STREET YARD UP TO A MAXIMUM OF FIFTEEN (15) POINTS. THESE POINTS SHALL BE INCLUDED WITHIN THE MAXIMUM FORTY (40) POINTS PERMITTED BY THIS ELECTIVE. POINTS SHALL BE TABULATED FOR EACH TREE RETAINED IN ACCORDANCE WITH THE FOLLOWING CRITERIA: (REF. TP SHEETS FOR TREE LOCATIONS)

- INSIDE STREET YARD TREES (FULL CREDIT)
8 PTS = (#1019-26" LIVE OAK; #1026-20" LIVE OAK; #1027-22" PECAN) = **24 POINTS**
6 PTS = #1012-15" PECAN = **6 POINTS**

TOTAL POINTS PROVIDED
(30) POINTS

TREE CANOPY ORDINANCE

MANDATORY CRITERIA:

1. FINAL TREE CANOPY. ALL SITES MUST PROVIDE A MINIMUM FINAL TREE CANOPY COVER AS LISTED BELOW FOR THE ENTIRE GROSS PROJECT AREA OUTSIDE OF THE REGULATORY FLOODPLAIN.

IDENTIFY "FINAL TREE CANOPY" PERCENT (%) BASED ON THE LAND USE AND AS NOTED ON SECTION (e). NONRESIDENTIAL 25% FOR THE PURPOSE OF THIS SUBMITTAL APPROVAL. NOTE: LABEL (*) SHALL RECEIVE ENERGY CONSERVATION CREDIT.

SITE L.O.C. AREA = 217,265 SF	X 25% =	54,316 SF REQUIRED
EXISTING TREES: (3) LIVE OAK - 875 SF @ 100% =		2,625 SF
(6) MESQUITE - 550 SF @ 100% =		3,300 SF
(63) HACKBERRY - 875 SF @ 100% =		55,125 SF
(16) PECAN - 1200 SF @ 90% =		19,200 SF
TOTAL TREE CANOPY COVERAGE		80,250 SF (36%)

NOTE: PROPOSED TREES & HYDROSEED TO BE HAND WATERED WITH GATORBAGS AND PROVIDED QUICK CUPPLER HOSE BIBS BY CONTRACTORS. TREES TO BE PROVIDED BY PARKS DEPARTMENT

MP STUDIO

201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS

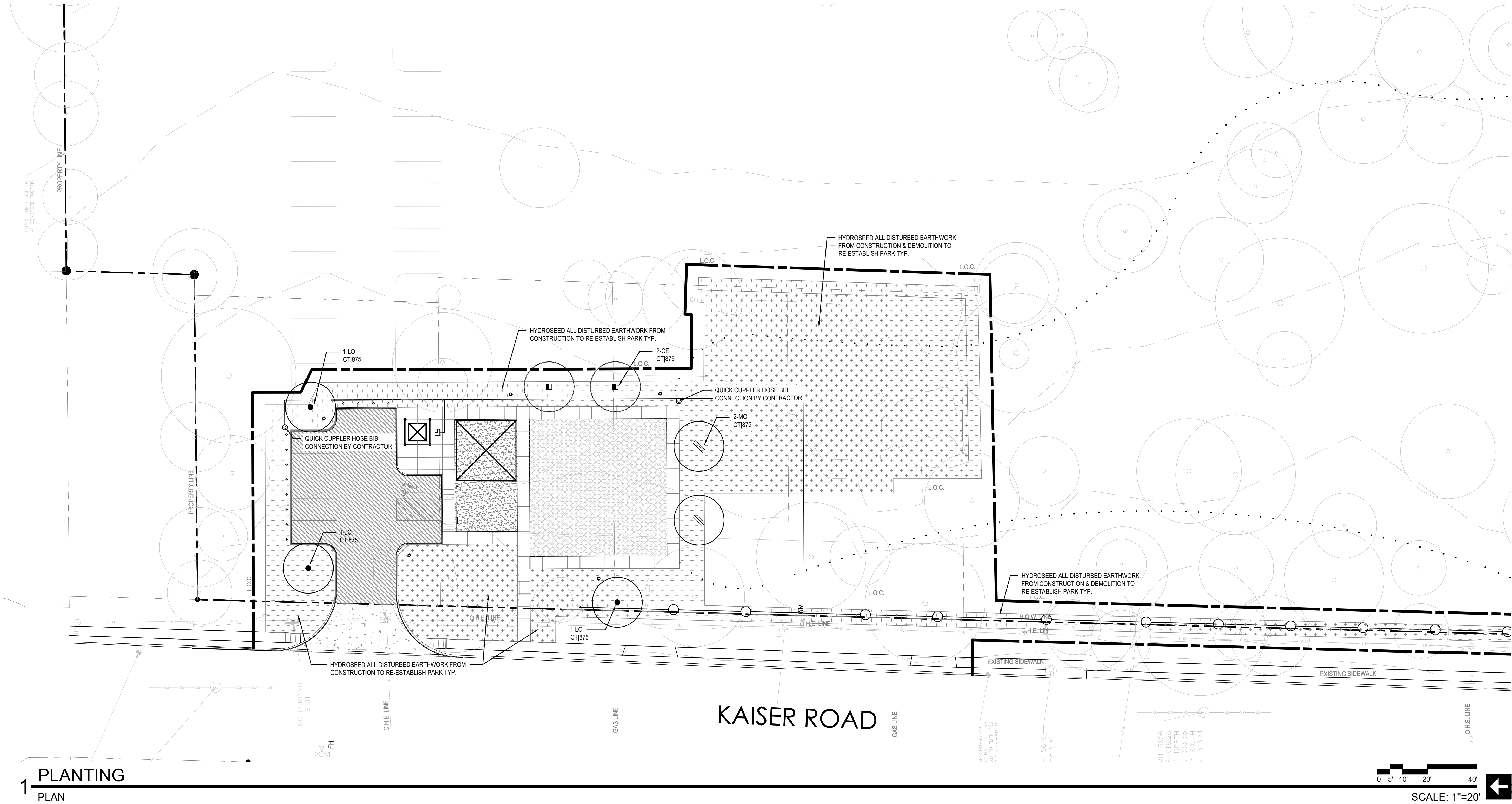
PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS
3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT
CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE
ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV



SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.	19056
DATE ISSUED	AUGUST 7, 2020
SHEET NAME	PLANTING PLAN

PLANTING PLAN

SHEET NUMBER	LP 1.1
---------------------	--------

GENERAL LANDSCAPE NOTES

PART 1 :

LANDSCAPE CONTRACTOR SHALL ACCEPT THE SITE IN ITS EXISTING CONDITION AND SHALL TIE NEW WORK TO EXISTING CONDITIONS AND CONTROLS (SUCH AS EXISTING GRADES AND WALK ELEVATIONS) AS NECESSARY TO MEET THE INTENT OF THE PLANS.

BEFORE PROCEEDING WITH ANY WORK IN AN AREA, LANDSCAPE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LAYOUTS AND SIZES AND SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL SITE CONDITIONS. IF ANY UTILITIES OR OBSTRUCTIONS ARE DISCOVERED DURING CONTRACT WHICH MAY NOT HAVE BEEN KNOWN DURING DESIGN, CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT BEFORE PROCEEDING. LANDSCAPE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGE IF WORK PROCEEDS IN EITHER OF THE ABOVE SITUATIONS WITHOUT NOTIFYING LANDSCAPE ARCHITECT.

PRIOR TO ANY EXCAVATION, LANDSCAPE CONTRACTOR SHALL CONTACT APPROPRIATE AUTHORITIES INCLUDING, BUT NOT LIMITED TO, TEXAS ONE CALL SYSTEM AT 1-800-245-4545 TO LOCATE EXISTING UNDERGROUND UTILITIES.

LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGE TO ANY UTILITIES OR PROPERTY THAT MAY OCCUR IN THE EXECUTION OF HIS CONTRACT WORK. WHEN WORK REQUIRES CROSSING EXISTING WALKS OR CURBS WITH EQUIPMENT, LANDSCAPE CONTRACTOR SHALL PROVIDE APPROVED BRIDGE MATERIAL SUCH AS WOOD PLANKS AND EARTH TO PREVENT DAMAGE TO FINISHED WORK. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS THAT MAY BE WORKING ON THE SITE SIMULTANEOUSLY AND SHALL COORDINATE STAGING OF HIS WORK WITH OWNER AND LANDSCAPE ARCHITECT. ALL TRASH AND DEBRIS GENERATED FROM CONTRACT OPERATIONS SHALL BE REMOVED ON A DAILY BASIS. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY IN CONJUNCTION WITH HIS CONTRACT WORK.

REFERENCES

- A.) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) Z60.1 - NURSERY STOCK.
- B.) TEXAS STATE DEPARTMENT OF AGRICULTURE (TDA) - NURSERY FLORAL LICENSING PROGRAM.

1.1 SUBMITTALS FOR REVIEW

A.) PRODUCT DATE: LIST OF CHEMICALS TO BE USED ON SITE.

B.) SAMPLES:

- 1. 1 QUART SAMPLES OF EACH SOIL AMENDMENT WITH ANALYTICAL DATA FROM A RECOGNIZED TESTING LABORATORY SHOWING MANUFACTURERS GUARANTEED ANALYSIS.
- 2. 1 CUBIC FOOT SAMPLES OF PREMIXED BACKFILL MIXES.

C.) TEST RESULTS:

- 1. PROVIDE SOIL SAMPLE TEST RESULTS INDICATING PH, FERTILITY LEVELS, AND PERCENTAGES OF SAND, SILT, AND CLAY.
- 2. PROVIDE RECOMMENDATIONS FOR SOIL AMENDMENTS AND FERTILIZERS BASED ON SOIL ANALYSIS; FOR CONTRACT PURPOSES, USE MIXTURE SPECIFIED IN THIS SECTION.

D.) NURSERY QUALIFICATIONS: COMPANY SPECIALIZING IN GROWING AND CULTIVATING PLANTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEAR DOCUMENTED EXPERIENCE, AND CERTIFIED BY THE STATE OF TEXAS.

E.) INSTALLER QUALIFICATIONS:

- 1. COMPANY SPECIALIZING IN LANDSCAPE INSTALLATION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.
- 2. PROVIDE FULL-TIME SUPERINTENDENT ON-SITE DURING INSTALLATION.

F.) PLANT MATERIALS:

- 1. PLANT MATERIALS ARE SUBJECT TO EXAMINATION BY LANDSCAPE ARCHITECT AT PLACE OF GROWTH OR UPON DELIVERY TO PROJECT.

1.2 DELIVERY, STORAGE AND HANDLING

- A.) DELIVER FERTILIZER IN WATERPROOF BAGS SHOWING WEIGHT, GUARANTEED CHEMICAL ANALYSIS, MANUFACTURER AND BRAND NAME, AND APPROVALS OF AUTHORITIES HAVING JURISDICTION.
- B.) DELIVER PLANT MATERIAL WITH IDENTIFICATION TAG SHOWING BOTANICAL NAME AND PLANT SIZE.
- C.) DELIVER PLANT MATERIAL IMMEDIATELY PRIOR TO INSTALLATION; PLANT MATERIALS ON SAME DAY AS DELIVERED. IF PLANTING CANNOT BE ACCOMPLISHED ON SAME DAY AS DELIVERY, PROVIDE ADDITIONAL PROTECTION TO MAINTAIN PLANTS IN HEALTHY AND VIGOROUS CONDITION.
- D.) KEEP PLANT MATERIAL MOIST AND PROTECT FROM DAMAGE AND DESICCATION OF LEAVES UNTIL PLANTING.
- E.) DO NOT HANDLE PLANT MATERIALS BY STEM OR TRUNK.
- F.) KEEP CONTAINERS INTACT UNTIL JUST PRIOR TO PLANTING.

1.3 SEQUENCING

A.) INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWNS.

1.4 WARRANTY

- A.) FURNISH WRITTEN WARRANTY THAT PLANT MATERIALS WILL BE IN HEALTHY, VIGOROUS, GROWING CONDITION ONE (1) YEAR AFTER FINAL ACCEPTANCE. DAMAGE DUE TO ACTS OF GOD, VANDALISM, OR NEGLIGENCE BY OWNER IS EXCLUDED.
- B.) REPLACE DEAD, UNHEALTHY AND UNSIGHTLY PLANT MATERIALS WITHIN WARRANTY PERIOD, UPON NOTIFICATION BY OWNER OR LANDSCAPE ARCHITECT.
- C.) NOTIFY OWNER AND LANDSCAPE ARCHITECT 30 DAYS PRIOR TO EXPIRATION OF WARRANTY PERIOD AND ARRANGE FINAL ACCEPTANCE INSPECTION BY ALL PARTIES.
 - 1. REMOVE DEAD, UNHEALTHY, AND UNSIGHTLY PLANT MATERIALS.
 - 2. REMOVE GUYING AND STAKING MATERIALS.
 - 3. WARRANT REPLACEMENT PLANTS UNDER SAME PROVISIONS AND FOR SAME TIME PERIOD AS ORIGINAL PLANTS.

1.5 MAINTENANCE

- 1. MAINTAIN PLANT LIFE IMMEDIATELY AFTER PLACEMENT AND FOR NINETY (90 DAYS) AFTER FINAL ACCEPTANCE...
- 2. REPLACE DEAD OR DYING PLANTS WITH PLANTS OF SAME SIZE AND SPECIES SPECIFIED.
- 3. REMOVE TRASH, DEBRIS, AND LITTER. WATER, PRUNE, FERTILIZE, WEED, AND MOW. SPOT APPLY HERBICIDES, AND FUNGICIDE ONLY AS REQUIRED.
- 4. REMOVE CLIPPINGS AND DEBRIS FROM SITE PROMPTLY.
- 5. COORDINATE WITH OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING ADEQUATE WATER FROM IRRIGATION SYSTEM.
- 6. RESET SETTLED PLANTS.
- 7. REAPPLY MULCH TO BARE AND THIN AREAS.

1.6 MATERIALS

- A.) PLANT MATERIALS:
 - 1. CERTIFIED IN ACCORDANCE WITH TDA REQUIREMENTS.
 - 2. SPECIES AND SIZE AS INDICATED IN PLANT SCHEDULE. LARGER SIZE MAY BE SUBSTITUTE WITHOUT ADDITIONAL COST TO OWNER, PROVIDED ROOT BALL OR SPREAD INCREASES PROPORTIONATELY.
 - 3. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.
 - 4. GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE AT SITE. FREE FROM DISEASE, INSECT INFESTATIONS, DEFECTS INCLUDING WEAK OR BROKEN LIMBS, CROTCHES, AND DAMAGED TRUNKS, ROOTS OR LEAVES, SUN SCALD, FRESH BARK ABRASIONS, EXCESSIVE ABRASIONS, AND OBJECTIONABLE DISFIGUREMENTS.
 - 5. EXHIBIT NORMAL GROWTH HABITS; VIGOROUS, HEALTHY, FULL, WELL-PROPORTIONED, AND SYMMETRICAL.
 - 6. TREE TRUNKS TO BE STURDY AND EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.
 - 7. NOT PRUNED, TRIMMED, OR TOPPED.
 - 8. CONTAINER-GROWN STOCK: GROWN IN CONTAINERS FROM SEEDING.
- B.) TOPSOIL:
 - 1. USE SITE GENERATED SOIL FROM PLANTING PREPARATIONS, REASONABLY FREE FROM CLAY LUMPS, COARSE SANDS, STONES, ROOTS, FOREIGN MATTER.
 - 2. IF SUFFICIENT ON-SITE MATERIALS DO NOT EXIST, PROVIDE SIMILAR OFF-SITE TOPSOIL FROM APPROVED LOCAL SOURCE. SUBMIT SAMPLE AND SOURCE FOR APPROVAL PRIOR TO DELIVERY OF ANY SOIL TO SITE.
- C.) MULCH:
 - 1. SHREDDED, COMPOSTED HARDWOOD BARK OF VARYING LENGTH BY NEW EARTH LLC ph. 210-6615180 OR APPROVED SUBSTITUTE. PARTIALLY DECOMPOSED, FREE FROM STICKS, STONES, CLAY, AND GROWTH AND GERMINATION-INHIBITING INGREDIENTS.
- D.) SOIL AMENDMENTS:
 - 1. SOIL SULFUR: AGRICULTURAL GRADE SULFUR CONTAINING MINIMUM 98 PERCENT SULFUR EXPRESSED AS ELEMENTAL.
 - 2. IRON SULFATE: 20 PERCENT IRON EXPRESSED AS METALLIC IRON DERIVED FROM FERRIC AND FERROUS SULFATE AND 10 PERCENT SULFUR EXPRESSED AS ELEMENTAL, WHEN REQUIRED BY SOIL TESTS.
 - 3. GYPSUM: AGRICULTURAL GRADE, CONTAINING MINIMUM 98 PERCENT CALCIUM SULFATE, WHEN REQUIRED BY SOIL TEST.
 - 4. HERBICIDE: PRE-EMERGENT TYPE: SUNFLAN OR APPROVED SUBSTITUTE.
 - 5. FERTILIZER FOR TREES AT PLANTING: PLANT HEALTH CARE GROUP "PHC TREE SAVER" APPLIED AS PER P.H.C.G. DIRECTIONS AND APPLICATION RATES.
 - 6. FERTILIZER FOR LAWN: PLANT HEALTH CARE GROUP "PHC FOR TURF" APPLIED AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET.
 - 7. SOIL INOCULATES FOLLOWING TREE PLANTING: PLANT HEALTH CARE GROUP "PHC INJECTABLE INOCULANT FOR TREES" APPLIED AS PER PHC MIXING DIRECTIONS AND APPLICATION RATES.
 - 8. FERTILIZER FOR PLANTER BED MIX: PLANT HEALTH CARE GROUP "HEALTHY START 3-4-3" APPLIED AT A RATE OF 25 POUNDS CUBIC YARD OF PLANT BED MIX.
- H.) TURF:
 - 1. ALL SEED USED SHALL BE HIGH QUALITY, EXTRA FANCY, TREATED LAWN TYPE SEED AT 98% PURITY AND 85% GERMINATION, AND SHALL BE FURNISHED IN SEALED STANDARD CONTAINERS WITH SIGNED COPIES OF A STATEMENT FROM THE VENDOR CERTIFYING THAT EACH CONTAINER OF SEED DELIVERED IS FULLY LABELED IN ACCORDANCE WITH THE TEXAS STATE AGRICULTURAL CODE AND IS EQUAL TO OR BETTER THAN THE REQUIREMENT OF THESE SPECIFICATIONS. LAWN SEED TO BE FREE OF WEEDS OR NOXIOUS GRASS SEEDS.
 - 2. SEED WHICH HAS BECOME WET, MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE WILL NOT BE ACCEPTED.
 - 3. GRASS SEED SCHEDULE:
 - A. BERMUDA GRASS SEED:
 - B. MARCH- OCTOBER SHALL BE SPECIFIED BERMUDA.
 - C. OCTOBER- MARCH SHALL BE ANNUAL RYE GRASS.
 - 4. "HYDRO-MULCH" AS MANUFACTURED BY CONVED, OR APPROVAL EQUAL.
 - 5. THE HYDRO-MULCH SHALL BE COMPOSED OF WOOD CELLULOSE FIBER AND CONTAIN NO GERMINATION OR GROWTH-INHIBITING FACTORS.
 - 6. HYDRO-SEEDING ADDITIVE (BINDER): ECOLOGY CONTROL-M BINDER: ORGANIC SEEDING ADDITIVE.
 - 7. SOD: PROVIDE FULL, DARK GREEN, UNIFORM, STRONGLY ROOTED SOD IN 16" X 24" STRIPS FREE FROM WEEDS, UNDESIRABLE GRASSES, DISEASES AND PESTS. SOD SHALL BE CUT FROM THE FIELD NO LONGER THAN 48 HOURS BEFORE PLANTING. ROOTS OF SOD SHALL BE KEPT MOIST.
 - 8. BRACING: TREE ANCHORS SHALL BE AS PER DETAILS.
 - 9. TREE PAINT: MORRISON TREE SEAL, CABORT TREE PAINT, OR OTHER PRODUCT APPROVED BY LANDSCAPE ARCHITECT.
 - 10. PLANTER BED EDGING SHALL BE 3/16"X 4" STEEL EDGING WITH MANUFACTURERS STANDARD GREEN FINISH.
- F.) MIXES:
 - 1. PLANT BED MIX: PLANT BED MIX (BACKFILL MIX) SHALL BE NEW EARTHS 4 WAY MIX AS PRODUCED BY NEW EARTH LLC PH. 210-661-5180. DOCUMENTATION OF PURCHASE OF THIS SPECIFIC MIX SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT. IF EQUAL IS PROPOSED, CONTRACTOR SHALL SUBMIT SAMPLE AND COMPLETE ANALYSIS WITH TEST RESULTS AND METHOD OF PRODUCTION FOR EVALUATION AS AN EQUAL SUBSTITUTE.

PART 2 EXECUTION:

2.1 PREPARATION
LANDSCAPE CONTRACTOR SHALL RECEIVE THE SITE AT APPROXIMATELY FINISH GRADE LESS ANY SETTLEMENT THAT MAY HAVE OCCURRED SINCE SITE CONSTRUCTION AND BACKFILLING. THIS GRADE SHALL BE RAKED TO REMOVE ALL DEBRIS INCLUDING STICKS, CLODS, AND STONES AND SHALL BE FINE GRADED TO ELIMINATE ALL HUMPS, RUTS, DEPRESSIONS AND ABRUPT CHANGES IN GRADE AND ANY AREA THAT COULD CAUSE WATER TO POND.

- A.) IF VEGETATION IS GROWING IN PLANTING/LAWN AREA, APPLY HERBICIDE AT RATES RECOMMENDED BY MANUFACTURER. ALLOW TO DIE, AND THEN GRUB OUT ROOTS TO MINIMUM 1/2 INCH DEPTH.
- B.) MARK LOCATION OF TREES AND OUTLINES OF PLANT BEDS USING COLORED WOOD STAKES OR FLAGS PRIOR TO BEGINNING PLANTING; OBTAIN LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO PROCEEDING.

2.2 PLANTING TREES AND SHRUBS

- A.) REMOVE CONTAINERS WITHOUT DAMAGE TO ROOTS.
- B.) REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS; REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING. PREVENT DAMAGE TO ROOTS.
- C.) REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAP TREES AFTER PLACEMENT.
- D.) PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. PULL ANY WEEDS GROWING IN TREE BALL AND EXPOSE ROOT FLARE (THIS WILL BE THE TOP MOST IDENTIFIABLE ROOT). REMOVE ANY GIROLING ROOTS AND SET PLANT SO THAT ROOT FLARE IS 1" ABOVE FINISH GRADE. ORIENT PLANTS FOR BEST APPEARANCE. BACKFILL THE BOTTOM 1/3 OF THE EXCAVATION WITH SOIL CUT FROM EXCAVATION OF PIT AND THOROUGHLY WATER THIS SOIL TO SETTLE IN. BACKFILL THE REMAINDER OF THE EXCAVATION WITH A 5050 MIX OF NEW EARTHS 4 WAY MIX AND NATIVE SOIL. EXCAVATED FROM THE PIT. PLACE PLANT HEALTH CARE GROUP'S "TREE SAVER" IN BACKFILL AS PER P.H.C.G. DIRECTION AND APPLICATION RATES. LIGHTLY TAMP AND WATER SOIL TO REMOVE ALL AIR POCKETS. FOR PLANTS OUTSIDE OF PLANTING BEDS, CONSTRUCT 3 INCH HIGH WATER CONTAINMENT RING AROUND PLANT. SPREAD MULCH TO MINIMUM 4 INCH DEPTH OVER PLANT BASIN.
- E.) ADJUST PLANT HEIGHT IF SETTLEMENT OCCURS AFTER BACKFILL AND STAKE AS DETAILED.
 - 1. TWO TO THREE WEEKS FOLLOWING PLANTING, INJECT PLANT HEALTH CARE INJECTABLE INOCULANT AROUND ROOT BALL FOLLOWING MANUFACTURER'S DIRECTIONS AND APPLICATION RATES. CONTACT LANDSCAPE ARCHITECT TO OBSERVE THIS OPERATION.
- F.) TRIM PLANTS TO REMOVE DEAD AND INJURED BRANCHES ONLY. TREAT CUTS OVER 3/4 INCH DIAMETER WITH TREE PAINT.
- G.) BRACE PLANTS OVER 66 GALLONS SIZE IMMEDIATELY AFTER PAINTING:
 - 1. FOR TREES 2" CAL. AND GREATER PROVIDE STAKING AS DETAILED. POSITION TO PREVENT HAZARDS TO PEDESTRIANS.
 - 2. DO NOT RESTRICT PLANT MOVEMENT UNDER LIGHT WIND LOADS OR DAMAGE BARK.

2.3 PLANTING MASS SHRUBS, GROUNDCOVERS, AND ANNUALS (SEE DETAILS)

- A.) EXCAVATE PLANT BED TO DEPTH AS DETAILED ON PLANS.
- B.) BACKFILL WITH SPECIFIED 4-WAY MIX AND TILL IN SPECIFIED PLANT HEALTH CARE'S, "HEALTHY START 3-4-3" AT A RATE OF 25 LBS. PER CUBIC YARD OF PLANT BED MIX.
- C.) INSTALL METAL EDGINGS TO SEPARATE ALL PLANTER BEDS FROM TURF AND AT LOCATIONS INDICATED ON PLANS.
- D.) PLACE PLANTS IN STRAIGHT, EVENLY SPACED ROWS AT SPACING INDICATED ON DRAWINGS, TO UNIFORMLY FILL BEDS. USE TRIANGULAR SPACING METHOD UNLESS OTHERWISE INDICATED.
- E.) WATER PLANTS THOROUGHLY IMMEDIATELY AFTER PLANTING. REPAIR SETTLED AREAS.
- F.) ADJUST FINAL GRADES TO 1/2 INCH BELOW ADJACENT PAVING CURBS.
- G.) SPREAD MULCH TO MINIMUM 4 INCH DEPTH OVER PLANTING BEDS AS DETAILED.

2.4 CLEANING AND ADJUSTING

- A.) REMOVE PLANT CONTAINERS, TRASH, RUBBISH, AND EXCESS SOILS FROM SITE DAILY AND AT COMPLETION OF TREE, SHRUBS AND GROUNDCOVER PLANTING.
- B.) REPAIR RUTS, HOLES AND SCARS IN GROWING SURFACE.

2.4 LAWN APPLICATION (AT COMPLETION OF TREE, SHRUB AND GROUNDCOVER PLANTINGS)

- A.) COORDINATION:
 - 1. HYDROMULCH AND SOD AFTER TREE, SHRUB AND GROUNDCOVER INSTALLATION IS COMPLETE.
 - 1. CONTRACTOR TO COORDINATE WITH IRRIGATION CONTRACTOR TO INSURE FUNCTIONAL IRRIGATION SYSTEM PRIOR TO ANY LAWN INSTALLATION.
- B.) PREPARATION:
 - 1. PRE-PLANT WEED CONTROL:
 - IF WEEDS EXIST WITHIN PROPOSED LANDSCAPE AREAS AT THE BEGINNING OF WORK, SPRAY WITH A NON SELECTIVE SYSTEMIC CONTACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED APPLICATOR. CLEAR AND REMOVE THESE EXISTING WEEDS UPON HERBICIDE'S COMPLETED ACTION BY GRUBBING OFF ALL PLANTS AT LEAST 1/2"-1" BELOW THE SURFACE OF THE SOIL.
 - 2. CONTRACTOR TO SCARIFY GROUND SURFACE TO A MINIMUM 2" DEPTH FOR ALL GRASSES AND REMOVE ALL STICKS, TRASH, ROCKS AND OTHER DEBRIS AND DISPOSE OFF SITE.
 - 3. IF EXISTING SOIL IN AN AREA IS FOUND TO BE CONTAMINATED OR OTHERWISE UNSUITABLE, CONTRACTOR SHALL PROVIDE COST PER CUBIC YARD TO REPLACE WITH SOIL SUITABLE FOR TURF.
 - 4. CONTRACTOR TO RAKE ENTIRE AREA, LEVELING ANY IMPERFECTIONS IN THE GRADE. LANDSCAPE CONTRACTOR TO ENSURE THAT THERE WILL BE POSITIVE DRAINAGE AND NO PONDING ON SITE. FINISHED GRADE OF LAWN AREAS TO BE 1/2" BELOW TOP OF CURBS, SIDEWALKS AND OTHER PAVEMENTS. REMOVE ANY LARGE (GREATER THAN 1") DIRT CLODS, ROCKS, AND TRASH AND PREPARE A SMOOTH, LEVEL, LOOSE AND COARSE SURFACE. LANDSCAPE ARCHITECT TO APPROVE FINE GRADING PRIOR TO ANY LAWN INSTALLATION. LAWN BED SHALL BE MOIST (BUT NOT MUDDY) TO RECEIVE SEED AND SOD.
- C.) HYDROMULCH APPLICATION:
 - 1. FOR ALL HYDROMULCH AREAS, INSTALL SOD STRIPS OF BERMUDA GRASS AT ALL BACKS OF CURBS WITHIN THE LIMITS OF CONSTRUCTION.
 - 2. LAWN AREAS TO BE SEEDDED IMMEDIATELY AFTER PREPARATION OF THE BED. APPLY A UNIFORM COAT OF HYDROMULCH AT THE RATES SPECIFIED BELOW:
 - A. SEED (REF. SCHEDULE, 1.6 H-3):
 - 1). BERMUDA (HULLED) - 2 LBS./1,000 S.F.
 - 2). ANNUAL RYE GRASS - 8 LBS./1,000 S.F.
 - B. WOOD CELLULOSE FIBER MULCH - 60 LBS./1,000 S.F.
 - C. FERTILIZER: "PHC FOR TURF" AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET.
 - D. INCORPORATE A TACKIFIER WITH MULCH CAP. DELAY IRRIGATION 8 HOURS TO PERMIT TACKIFIER TO SET.
 - 3. SEED AREAS WITHIN SEEDING LIMITS INDICATED ON THE PLAN AND AREAS DISTURBED BY CONSTRUCTION OPERATIONS.
 - 4. PROTECT EXISTING UTILITIES (INCLUDING IRRIGATION SYSTEM), PLANTING, PAVING, FENCING, AND OTHER SITE AMENITIES FROM DAMAGE CAUSED BY HYDROMULCHING OPERATION.
 - 5. IMMEDIATELY FOLLOWING APPLICATION OF HYDROMULCH, THE CONTRACTOR SHALL WASH EXCESS HYDROMULCHING MATERIAL FROM PREVIOUSLY PLANTED MATERIAL ARCHITECTURAL FEATURES, ETC. CARE SHALL BE EXERCISED TO AVOID WASHING OR ERODING MULCH MATERIALS FROM LAWN AREA. UPON ESTABLISHMENT OF LAWN, APPLY A POST EMERGENT HERBICIDE FOR CONTROL OF NUT GRASS AND WEEDS. FERTILIZE AT 45 DAY INTERVALS WITH SPECIFIED PLANT HEALTH GROUP'S FERTILIZER AT A RATE OF SEVEN (7) POUNDS PER 1,000 SQUARE FEET DURING AT 45 DAY INTERVALS DURING THE 90 DAY MAINTENANCE PERIOD.
 - 7. DURING THE MONTHS OF OCTOBER THROUGH MARCH CONTRACTOR SHALL HYDROSEED ALL LAWN AREAS WITH ANNUAL RYE GRASS. THE CONTRACTOR SHALL RETURN TO THE SITE BETWEEN APRIL 1ST AND MAY 15 TO RE-PREPARE SEED BED AND HYDROMULCH WITH SPECIFIED BERMUDA SEED IN ORDER TO ESTABLISH A PERMANENT TURF COVER IN ALL LAWN AREAS.
- D.) SOD INSTALLATION:
 - 1. INCORPORATE SPECIFIED LAWN FERTILIZER AT SEVEN (7) POUNDS PER 1000 SQUARE FEET OF LAWN AREA FOR SOD.
 - 2. PRE- EMERGE HERBICIDE APPLICATION: APPLY RECOMMENDED HERBICIDE TO LABEL. INSTRUCTIONS IN TWO APPLICATIONS. THE FIRST APPLICATION WILL BE UP TO 10 DAYS PRIOR TO PLANTING. THE SECOND APPLICATION WILL BE 5 DAYS PRIOR TO PLANTING. USE CARE TO AVOID WIND DRIFT OR RUNOFF TO ADJACENT ORNAMENTAL TREE OR SHRUB PLANTINGS.
 - 3. LAY SOD WITHIN 24 HOURS FROM TIME OF STRIPPING.
 - 4. LAY SOD TO FORM SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. WORK SIFTED SOIL INTO MINOR CRACKS BETWEEN PIECES OF SOD; REMOVE EXCESS SOD TO AVOID SMOTHERING ADJACENT GRASS.
 - 5. SOD PADS SHALL BE OF FULLEST SIZE POSSIBLE-NO SOD SLIVERS WILL BE PERMITTED.
 - 6. FINISHED GRADE OF NEW SOD SHALL BE FLUSH WITH ADJACENT LAWN AND PAVEMENT. ENSURE POSITIVE DRAINAGE.
 - 7. ROLL ENTIRE SODDED AREA WITH SOD ROLLER. WATER SOD THOROUGHLY.
 - 8. CONTRACTOR SHALL OVERSEED SOD AREAS WITH ANNUAL RYE GRASS IF LAWN INSTALLATION OCCURS SEPTEMBER 15 THROUGH APRIL 15 AT 8 LBS., 1,000 S.F.
 - 9. SHOULD LAWN AREAS BE SEEDDED WITH ANNUAL RYE GRASS THE CONTRACTOR SHALL RETURN TO THE SITE BETWEEN APRIL 15 AND MAY 15 TO RE-PREPARE SEED BED AND SEED WITH BERMUDA.

2.5 ACCEPTANCE

- A.) PRIOR TO SCHEDULING A SUBSTANTIAL COMPLETION INSPECTION LANDSCAPE CONTRACTOR SHALL THOROUGHLY CLEAN SITE OF ALL DEBRIS AND TRASH AND REPAIR ANY DAMAGE TO FINISH GRADE. WHEN LANDSCAPE WORK IS COMPLETE A SUBSTANTIAL COMPLETION INSPECTION WILL BE HELD. FOLLOWING COMPLETION OF ANY PUNCH LIST ITEMS GENERATED FROM THE SUBSTANTIAL COMPLETION INSPECTION A FINAL INSPECTION WILL BE HELD AND IF FOUND ACCEPTABLE A CERTIFICATE OF FINAL ACCEPTANCE WILL BE ISSUED.
- B.) LANDSCAPE CONTRACTOR SHALL CONTINUE MAINTENANCE UNTIL FINAL ACCEPTANCE AT WHICH TIME THE SPECIFIED MAINTENANCE PERIOD WILL BEGIN.

END OF SPECIFICATIONS

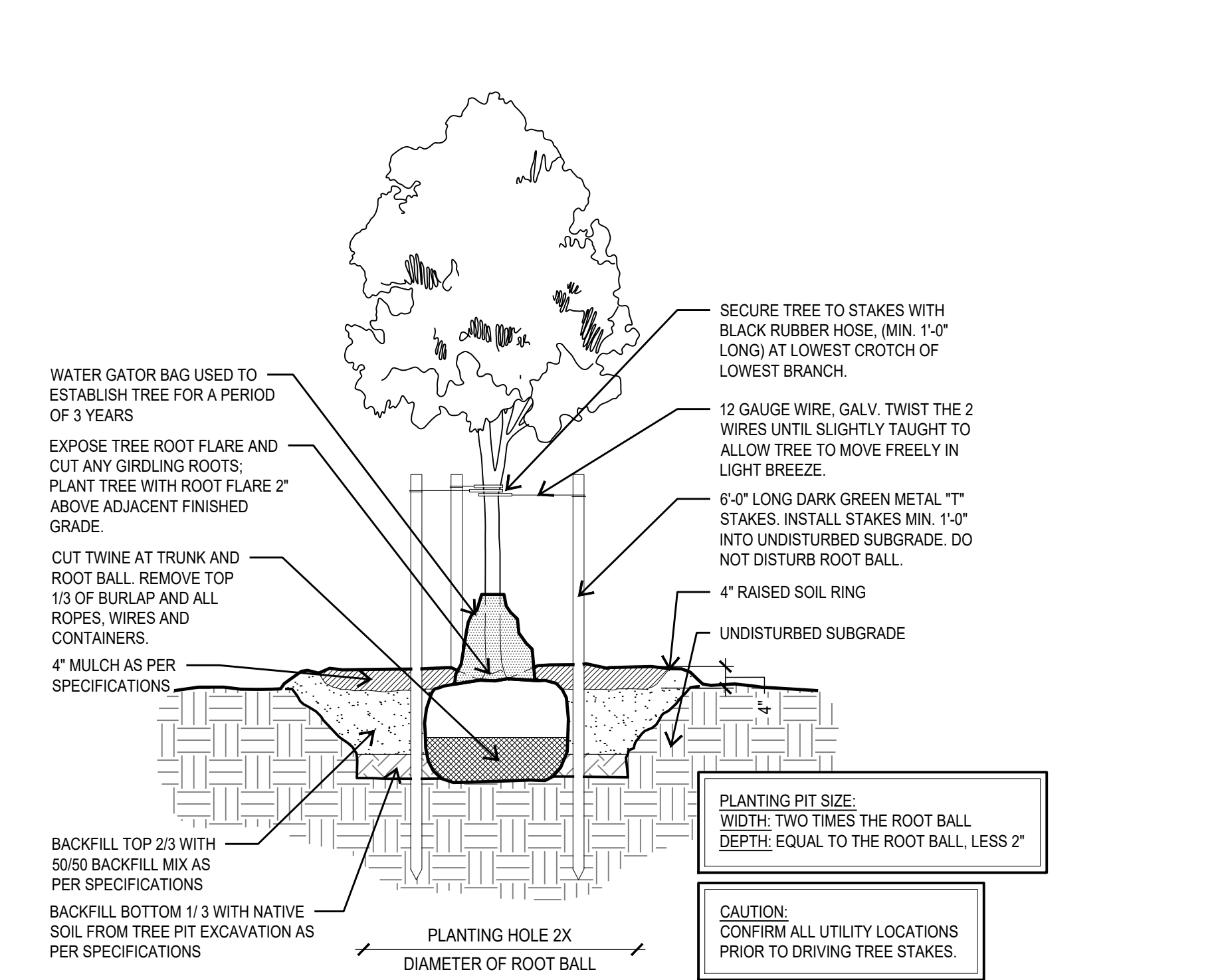
PLANT LIST

TREES

CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
LO	3	LIVE OAK QUERCUS VIRGINIANA	3" CAL; MIN 12' HT; MIN 5' SPRD.	SINGLE TRUNK B&B; STRAIGHT TRUNK WITH FULL AND UNIFORM CANOPY; PARK GRADE NOT ACCEPTABLE
MO	2	MONTERREY OAK QUERCUS POLYMORPHA	3" CAL; MIN 12' HT; MIN 5' SPRD.	SINGLE TRUNK B&B; STRAIGHT TRUNK WITH FULL AND UNIFORM CANOPY; PARK GRADE NOT ACCEPTABLE
CE	2	CEDAR ELM ULMUS CRASSIFOLIA	3" CAL; MIN 12' HT; MIN 5' SPRD.	SINGLE TRUNK B&B; STRAIGHT TRUNK WITH FULL AND UNIFORM CANOPY; PARK GRADE NOT ACCEPTABLE

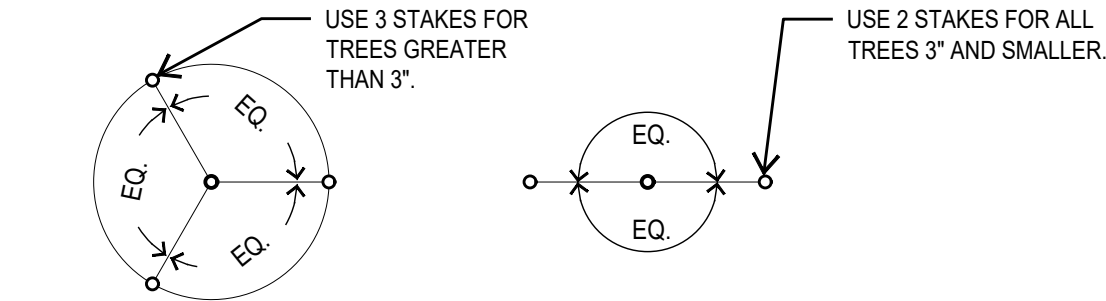
TURF

CALLOUT	QUANTITY	COMMON NAME BOTANICAL NAME	SIZE	REMARKS
HYDRO-SEED	FIELD VERIFY	COMMON BERMUDA CYNODON DACTYLON	HYDROSEED	SEEDS 2 LBS./1,000 SQ.FT. CONTRACTOR TO FIELD VERIFY QUANTITY OF LAWN REQUIRED.



1 TYPICAL TREE PLANTING AT BED

SECTION NOT TO SCALE

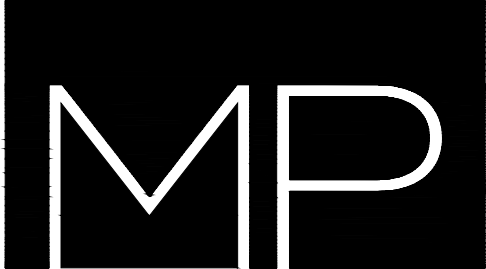


2 TYPICAL TREE STAKING

PLAN NOT TO SCALE

HAND WATERING SCHEDULE

NEW PLANT WATERING SCHEDULE: NOTE- AVOID WATERING DURING THE HOTTEST PART OF THE DAY — 10 A.M. TO 6 P.M. — TO CONSERVE WATER		
1.	THE GOAL AND INTENT IS TO DEVELOP DEEP ROOTS FOR MAXIMUM DROUGHT TOLERANCE. ALL WATERING TIMES SHALL FOLLOW S.A.W.S. STAGE RESTRICTIONS THAT MAY APPLY.	
2.	WEEK 1 - ONE-HALF INCH PER DAY (PREFERABLY A QUATER INCH IN THE MORNING AND A QUARTER INCH IN THE EVENING)	
3.	WEEK 2 - ONE-HALF INCH PER DAY (PERFERABLY ALL AT ONE TIME TO BEGIN DEVELOPING A DEEPER ROOT SYSTEM.)	
4.	WEEK 3 - ONE-HALF INCH EVERY TWO-TO-THREE DAYS (EXACT NEED DEPENDS ON TIME OF YEAR, SITE CONDITIONS, TREE TYPE, AND INSTALLATION.)	
5.	AT LEAST YEAR 1 TO YEAR 3 - ONE-INCH TO ONE & ONE-HALF INCH EVERY 3 DAYS (EXACT NEED DEPENDS ON TIME OF YEAR, SITE CONDITIONS, TREE TYPE, AND INSTALLATION.)	



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS



08-07-2020

PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

PLANTING LIST &
DETAILS

SHEET NUMBER

LP 2.1

lll p.ee

PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER ROAD
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

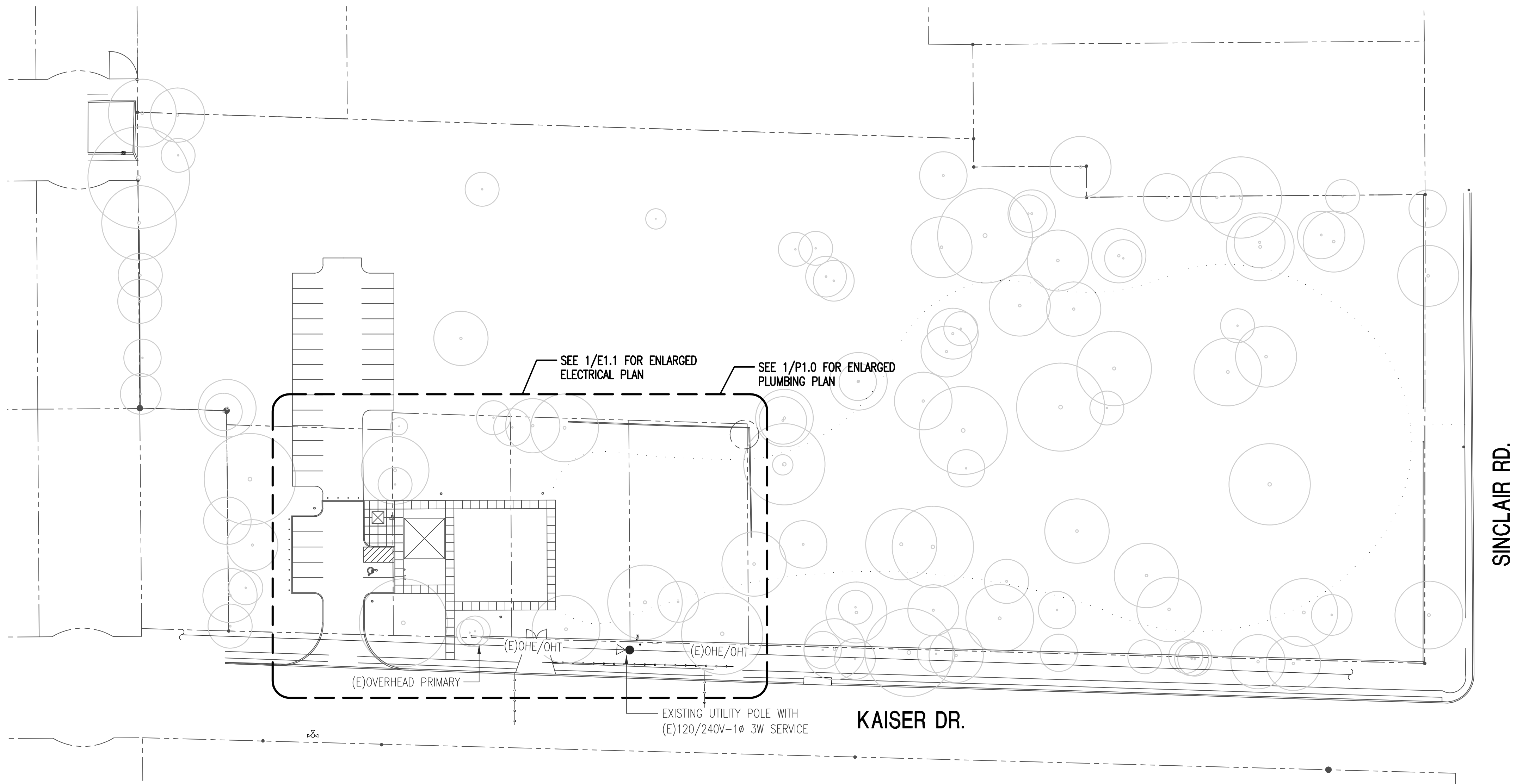
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ

210.207.6123

ALMA.NUNEZ@SANANTONIO.GOV



1 ELECTRICAL AND PLUMBING SITE PLAN

PLAN

0 10' 20' 40' 80'

SCALE: 1"=40'

GENERAL MEP SITE DEMOLITION NOTES: (ALL MEP SHEETS)

- REMOVE ALL EXISTING ELECTRICAL EQUIPMENT IN DEMOLISHED AREA UNLESS OTHERWISE NOTED TO REMAIN OR IS SHOWN EXISTING. COMPLETELY REMOVE DEMOLISHED AND ABANDONED FIXTURES, DEVICES, PLATES, WIRE, CONDUIT, FITTING, HANGERS, STRAPS, SUPPORTS, ETC. IN ACCESSIBLE LOCATIONS, DO NOT ABANDON IN PLACE. REMOVE ALL WIRING FROM NON-ACCESSIBLE, CONCEALED CONDUITS AND ABANDON IN PLACE WITH CAP.
- DISCONNECT, DEMOLISH, AND REMOVE PLUMBING SYSTEMS, EQUIPMENT, AND COMPONENTS INDICATED TO BE REMOVED.
 - PIPING TO BE REMOVED: REMOVE PORTION OF PIPING INDICATED TO BE REMOVED AND CAP OR PLUG REMAINING PIPING WITH SAME OR COMPATIBLE PIPING MATERIAL.
 - EQUIPMENT TO BE REMOVED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT.
- MAINTAIN ALL PLUMBING LINES, CHILLED WATER LINES, FEEDERS, BRANCH CIRCUITS, CONTROL CIRCUITS, ETC. EXISTING TO REMAIN OR THAT PASS THROUGH RENOVATED AREAS. RESTORE ITEMS AS REQUIRED IF INTERRUPTED BY DEMOLITION.
- IDENTIFICATION OF SPECIFIC PLUMBING AND CHILLED WATER LINES, LIGHTS, RECEPTACLES, EQUIPMENT, ETC. WAS NOT AVAILABLE. SITE VERIFY TO ENSURE EXISTING DEVICES AND EQUIPMENT REMAIN OPERATIONAL AND IN GOOD WORKING ORDER THROUGHOUT COURSE OF CONSTRUCTION.
- LOCATIONS AND QUANTITIES OF ALL MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS ARE APPROXIMATE AND IN SOME CASES ASSUMED DUE TO THE INACCESSIBILITY TO CERTAIN AREAS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ANY AND ALL ITEMS REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT.
- THE CONTRACTOR SHALL ALLOW FOR, AS PART OF THE BID, THE TRACING AND LOCATION OF ALL EXISTING MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
- SEE SHEET LD1.1 FOR ADDITIONAL DEMOLITION NOTES.

GENERAL SITE ELECTRICAL NOTES:

- CALL 811 TO SUBMIT A LOCATE REQUEST. CONTRACTOR TO DETERMINE THE PRESENCE AND LOCATION OF ANY UNDERGROUND UTILITIES SUCH AS TELEPHONE, ELECTRIC POWER, WATER, GAS, SEWAGE LINES, ETC. WHETHER PREVIOUSLY EXISTING OR AS INSTALLED BY OTHER TRADES, PRIOR TO THE START OF CONSTRUCTION.
- HAND DIG IN AREAS SUSPECTED TO CONTAIN EXISTING OR NEW UTILITIES.
- ALL SITE UNDERGROUND CONDUIT SHALL BE BURIED A MINIMUM OF 24 INCHES DEEP BELOW FINISHED GRADE UNLESS OTHERWISE NOTED. MINIMUM CONDUIT SIZE BELOW GRADE SHALL BE 3/4".
- PROVIDE ANSI COLOR TAPE FOR IDENTIFICATION AT 18 INCHES DEEP ABOVE SERVICE CONDUIT RUNS.
- ALL CONDUIT ELBOWS AND TURNS SHALL BE MADE WITH LONG SWEEP ELLS.
- CONTRACTOR SHALL PROVIDE ALL EXCAVATING AND BACK FILLING REQUIRED FOR ALL NEW WORK INCLUDING FILL, COMPACTION, SURFACE, ETC. TO MEET ALL REQUIREMENTS AS APPLICABLE FOR THE AREA.
- TELEPHONE AND CABLE TV CONDUITS SHALL BE BURIED 24" MINIMUM BELOW GRADE, WITH LONG SWEEP TURNS AND A MINIMUM SEPARATION OF 2'-0" FROM POWER CONDUITS. COORDINATE ALL SERVICE CONDUIT ROUTING WITH UTILITY COMPANY REPRESENTATIVES.
- COORDINATE ALL ELECTRICAL SERVICE REQUIREMENTS WITH POWER UTILITY COMPANY REPRESENTATIVE PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL MAINTAIN AN AS-BUILT DIMENSIONAL DRAWING ON SITE SHOWING ALL UNDERGROUND CONDUIT ROUTING AND TERMINATION POINTS.
- SECONDARY POWER CONDUIT, TELEPHONE SERVICE CONDUIT, AND CABLE TV CONDUIT ROUTING SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. ACTUAL ROUTING AND TERMINATION POINTS SHALL BE VERIFIED AND COORDINATED WITH OWNER AND LOCAL UTILITIES PRIOR TO START OF WORK.
- PROVIDE PULL-STRING IN ALL EMPTY CONDUITS. CAP EMPTY CONDUITS BELOW GRADE WATER TIGHT.
- DO NOT TRENCH OR ROUTE CONDUIT WITHIN DRIP LINES OF EXISTING TREES.
- REPAIR AT NO ADDITIONAL COST TO OWNER OR A/E DAMAGE TO ALL EXISTING SITE ELEMENTS AS REQUIRED TO MATCH EXISTING PRECONSTRUCTION CONDITIONS.
- WHEN ENCOUNTERING TREE ROOTS BELOW GRADE, HAND DIG AND HOSE BLAST ROOTS TO REVEAL THEM. DO NOT CUT THROUGH ROOTS.

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

ELECTRICAL AND
PLUMBING SITE
PLAN

SHEET NUMBER

EP1.0



ESA Mechanical & Electrical
Engineering, Inc.

1100 NW Loop 410, Suite 810
San Antonio, Texas 78213

210.342.3483
F 210.342.3641

TBPE FIRM REGISTRATION NO. F-4137
JOB NO.: 19056

lee p.ee

**JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT**

PROJECT ADDRESS

3218 KAISER ROAD
AN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

HEET INFORMATION

PROJECT NO.

9056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

ENLARGED ELECTRICAL PLAN

SHEET NUMBER

-1-1



1100 NW Loop 410, Suite 810 **210.342.3483**
San Antonio, Texas 78213 **F 210.342.3641**
 TBPE FIRM REGISTRATION NO. F-4137
 JOB NO.: 19080

E1.1

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS
3218 KAISER ROAD
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT
CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE
ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

PROJECT NO.
19056

DATE ISSUED
AUGUST 7, 2020

SHEET NAME

Electrical Riser and
Details

ELECTRICAL LEGEND

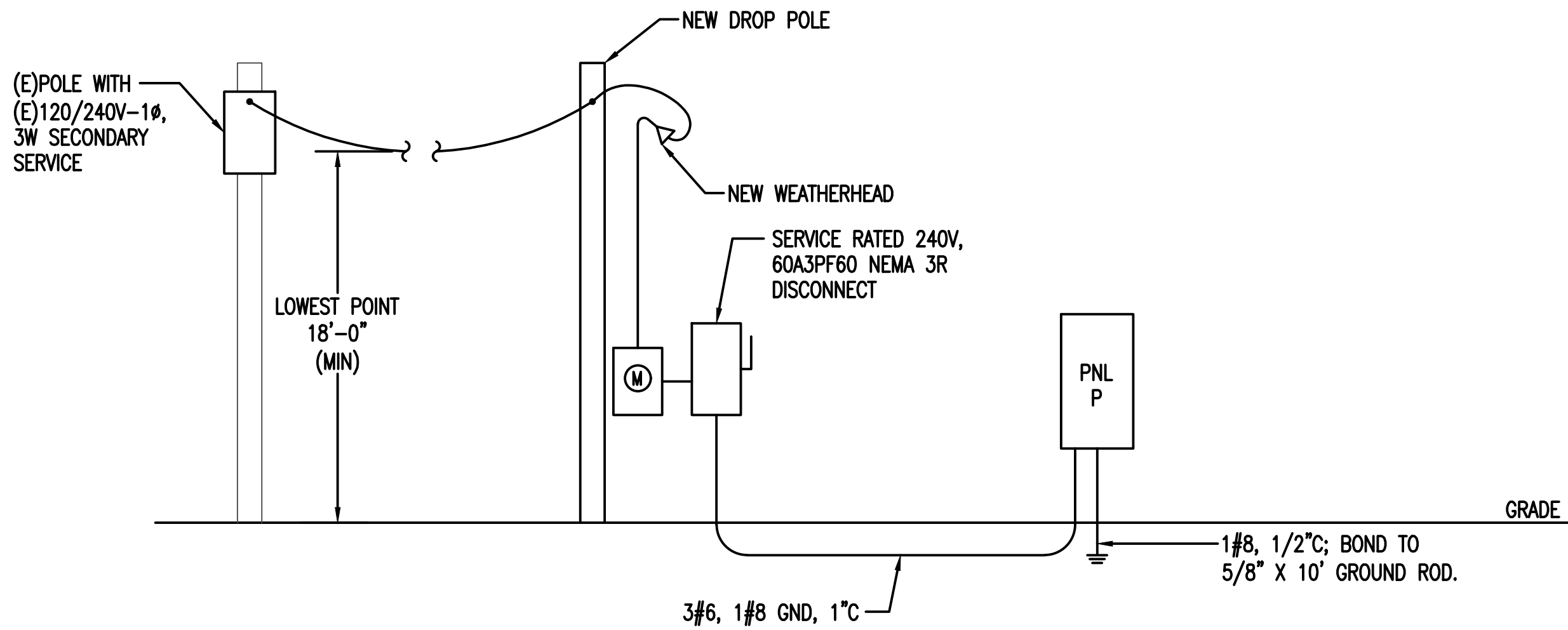
MARK	DESCRIPTION
GENERAL	
	CIRCUIT HOME-RUN TO PANEL
	SWITCH LEG
	DENOTES ELECTRICAL KEYED NOTE
(E)	DENOTES EXISTING
POC	POINT OF CONNECTION
CKT	CIRCUIT
AFF	ABOVE FINISHED FLOOR
UGE	UNDERGROUND ELECTRICAL
WP	WEATHERPROOF
OHE	OVERHEAD ELECTRICAL
N.I.C.	NOT IN CONTRACT
LIGHTING	
	FLUORESCENT STRIP FIXTURE
	WALL BRACKET FIXTURE
	LIGHT FIXTURE
	FLOOD LIGHT FIXTURE
	SURFACE LIGHT
	STEP LIGHT
	UPLIGHT FIXTURE
	STARTER OR CONTACTOR
	PHOTO CELL
POWER	
	SIMPLEX RECEPTACLE
	DUPLEX CONVENIENCE OUTLET
	208V 1Ø RECEPTACLE
	QUADPLEX CONVENIENCE OUTLET
	OUTLET WITH GROUND FAULT CIRCUIT INTERRUPTER
	JUNCTION BOX
	PULL BOX
	INDIVIDUAL METER
	PANEL
	DISCONNECT SWITCH
	MOTOR
	TIME CLOCK
	MOTOR RATED SWITCH
	TRANSFORMER
	GROUND

NOTE: NOT ALL MARKS MAY BE USED. DASHED ITEMS INDICATE
REMOVAL



ESA Mechanical & Electrical
Engineering, Inc.

1100 NW Loop 410, Suite 810
San Antonio, Texas 78213
210.342.3483
F 210.342.3641
TSPC FIRM REGISTRATION NO. F-4137
JOB NO.: 19050



1 ELECTRICAL RISER

DETAIL

NOT TO SCALE

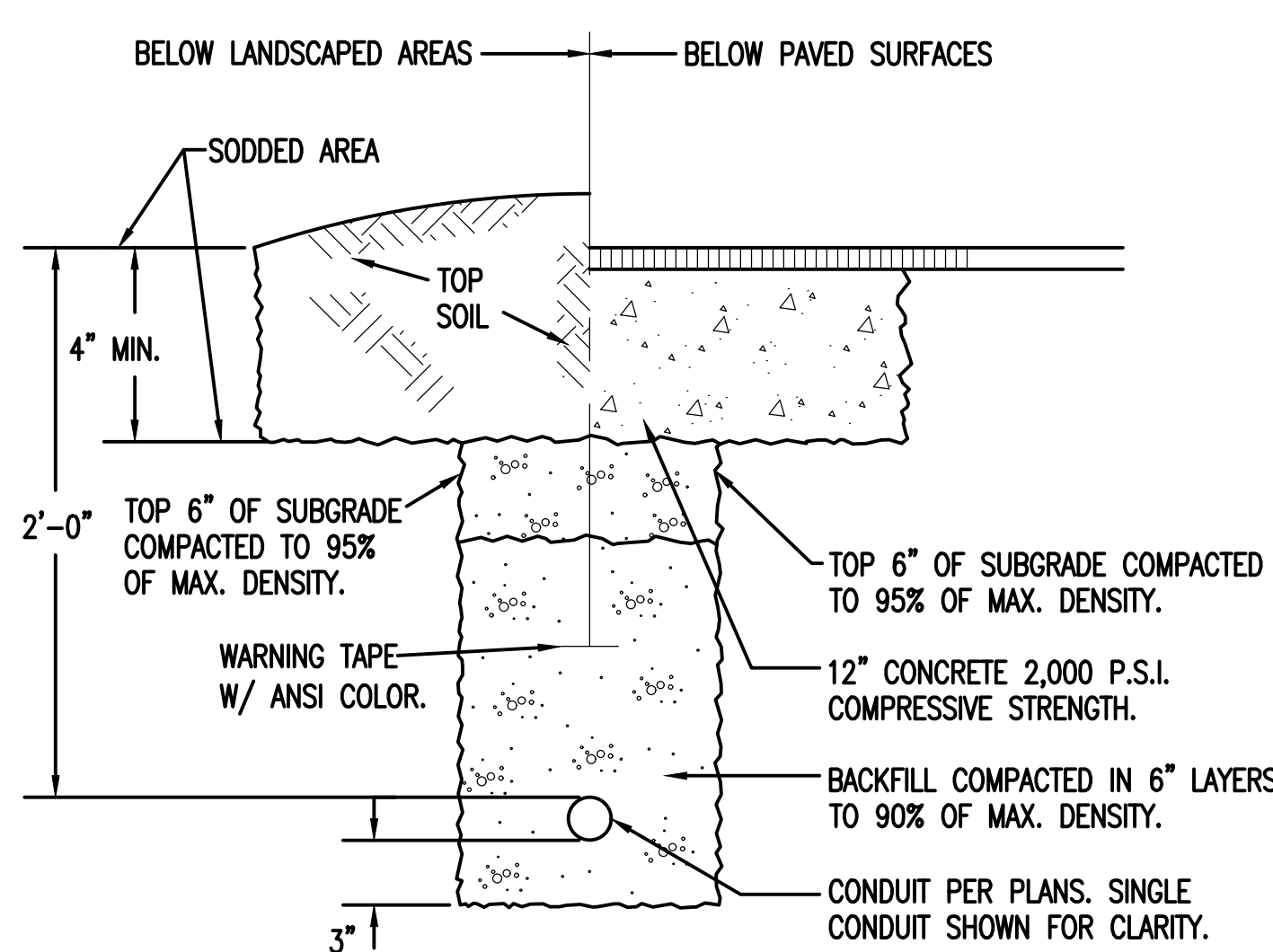
GENERAL RISER DIAGRAM NOTES:

- MAIN SERVICE ENTRANCE GEAR SHALL BE LISTED AND LABELED AS SUCH.
- GROUND RODS SHALL BE 3/4" X 10' MINIMUM. TEST SOIL FOR LESS THAN 25-OHM RESISTANCE AND ADD ADDITIONAL GROUND RODS AS REQUIRED. AT A MINIMUM, THE SERVICE GROUND SHALL BE BONDED TO BUILDING STRUCTURAL STEEL, DOMESTIC METAL COLD WATER PIPE AND CONCRETE ENCASED REBAR (UFER) LOCATED WITHIN FOOTING OR BEAM OF POURED SLAB IN DIRECT CONTACT WITH EARTH, MINIMUM 20' OF 1/2" REBAR OR #4 AWG.
- CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS.
- COORDINATE EXACT INSTRUMENT TRANSFORMER AND METER LOCATION AND DETERMINE THE CUSTOMER'S SIDE OF THE POINT OF SERVICE DELIVERY ON SITE WITH THE LOCAL UTILITY REPRESENTATIVE.

PANEL				P		COMMENTS:																																									
LOCATION:				Exterior; see E1.1																																											
120/ 240				VOLTS, 1 PHASE, 3 WIRE				60		AMP		MAIN BREAKER				10		KAIC																													
CIRCUIT DATA				CKT NR		LOAD										CB POLE NR		CB TRIP A		CB LOAD VA		PHASE A		PHASE B		CB LOAD VA		CB TRIP A		CB POLE NR		LOAD										CKT NR		CIRCUIT DATA			
NR	WIRE	GND	C	1	SPARE	1	20			279			279	20	1	LIGHTS	2	2	10	10	3/4"						2	2	10	10	3/4"																
2	10	10	3/4"	3	BESTROOM BLDG.	1	20						186	20	1	LIGHTS	4	2	10	10	3/4"						4	2	10	10	3/4"																
				5	SHADE BLDG.	1	20	1920	2385				465	20	1	FUTURE LIGHTS	6	2	10	10	3/4"						6	2	10	10	3/4"																
2	10	10	3/4"	7	RECEPIABLES	1	20	360				825	465	20	1	FUTURE LIGHTS	8	2	10	10	3/4"						8	2	10	10	3/4"																
				9	SPARE	1	20		0							BUSSED SPACE	10																														
				11	SPARE	1	20		0							BUSSED SPACE	12																														
				13	BUSSED SPACE				0							BUSSED SPACE	14																														
				15	BUSSED SPACE				0							BUSSED SPACE	16																														
				17	BUSSED SPACE				0							BUSSED SPACE	18																														
				19	BUSSED SPACE				0							BUSSED SPACE	20																														
						PHASE CONN.						2664		1211		VA		0 % SPARE CAPACITY																													
PANEL TYPE :						NEMA 3R						TOTAL CONNECTED LOAD						4		KVA		100 % DEMAND FACTOR																									
MOUNTING:						SURFACE						CONNECTED + SPARE LOAD						4		KVA		16 AMPS CONNECTED																									
FED FROM:						SEE RISER						TOTAL DEMAND						4		KVA																											
						TOTAL DEMAND, AMPS						16		AT		240		VOLTS																													

GENERAL ELECTRICAL NOTES:

- THE WORD "PROVIDE" USED THROUGHOUT THESE CONTRACT DOCUMENTS SHALL MEAN "FURNISH AND INSTALL".
- ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST ADOPTED CODES (INCLUDING LOCAL AMENDMENTS), NATIONAL ELECTRICAL CODE (NEC), INTERNATIONAL FIRE CODE (IFC), NATIONAL LIFE SAFETY CODE (NFPA 101), NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72), TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR), INTERNATIONAL ENERGY CONSERVATION CODE (IECC), INTERNATIONAL BUILDING CODES (IBC), AND AMERICANS WITH DISABILITIES ACT (ADA).
- ALL APPLICABLE STANDARDS OF THE NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION (NEMA) AND THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA) SHALL BE FOLLOWED.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM IS TO BE FULLY OPERABLE AND ACCEPTANCE OF THIS SYSTEM BY THE ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUB CONTRACT.
- IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS REQUIRED BY LOCAL, STATE AND FEDERAL LAWS.
- ALL APPLICABLE SECTIONS OF THE ELECTRICAL SAFETY IN THE WORKPLACE (NFPA 70E) AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SHALL BE FOLLOWED.
- CONTRACTOR SHALL VISIT THE SITE AND ASCERTAIN THE CONDITIONS TO BE MET THERE IN INSTALLING HIS WORK AND MAKE DUE PROVISIONS FOR SAME IN HIS BID.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL DRAWINGS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO, CIVIL, STRUCTURAL, ARCHITECTURAL, PLUMBING, AND MECHANICAL PRIOR TO SUBMITTING A BID. REPORT ANY DISCREPANCIES TO OWNER OR ENGINEER PRIOR TO BID.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNER OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING SITE CONDITIONS PRIOR TO SUBMISSION OF BID.
- PROCURE ALL THE NECESSARY AND USUAL PERMITS AND CERTIFICATES FOR ALL WORK INSTALLED. DELIVER SAME TO THE OWNER BEFORE FINAL ACCEPTANCE. CONTRACTOR TO PAY FOR ALL PERMITS, FEES, INSPECTIONS, AND TESTING.
- THE ELECTRICAL CONTRACTOR SHALL MEET AND COORDINATE WITH THE LOCAL UTILITY COMPANIES AT THE SITE PRIOR TO CONSTRUCTION. AT THAT TIME, THE CONTRACTOR SHALL COORDINATE ALL RELATED WORK WITH THE UTILITY COMPANIES' REPRESENTATIVES TO MEET THE OWNER'S SCHEDULE.
- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT SHOW EVERY MINOR DETAIL. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ITEMS REQUIRED FOR A COMPLETE ELECTRICAL SYSTEM.
- ELECTRICAL CONTRACTOR SHALL INCLUDE TEMPORARY POWER, WIRING AND LIGHTING AS PART OF HIS SCOPE AS REQUIRED.
- PROVIDE DISCONNECT SWITCHES, WIRING, CONDUIT, CONNECTIONS, LABOR, ETC. TO ENERGIZE OF ALL MECHANICAL, REFRIGERATION, AND PLUMBING EQUIPMENT SUCH AS PUMPS, MOTORS, FANS, HEATERS, AIR CONDITIONING EQUIPMENT, ETC. UNLESS OTHERWISE NOTED. COORDINATE REQUIREMENTS WITH OTHER TRADES ON SITE.
- ELECTRICAL GEAR SUCH AS SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, DISCONNECTS, ETC. SHALL BE LABELED BY NAME OR BY EQUIPMENT SERVED WITH PERMANENTLY ATTACHED LABELS. SWITCHBOARDS AND PANELBOARDS SHALL HAVE A TYPED CIRCUIT DIRECTORY CARD PROTECTED BY A PLASTIC SLEEVE. LAMINATE CIRCUIT DIRECTORY CARDS FOR ALL NON-NEMA 1 EQUIPMENT.
- PANELBOARDS MADE PART OF THIS PROJECT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ARC FLASH HAZARD IN ACCORDANCE WITH NEC 110.16.
- WHERE WORK ON ENERGIZED EQUIPMENT IS UNAVOIDABLE, MEASURES SHALL BE TAKEN TO ENSURE ONLY QUALIFIED ELECTRICIANS WEARING PERSONAL PROTECTIVE EQUIPMENT (PPE) RATED HIGHER THAN THE LISTED OR ANTICIPATED POTENTIAL ARC FLASH SHALL SERVICE/INSTALL THE EQUIPMENT.
- DE-ENERGIZED EQUIPMENT SHALL FOLLOW ALL OSHA AND NFPA 70E LOCK OUT/TAG OUT PROCEDURES.



2 SECTION THRU TRENCH

DETAIL

NOT TO SCALE

MOUNTING HEIGHTS

DEVICE	HEIGHT (PER ADA)
RECEPTACLES, DATA/TELEPHONE, TV	15" AFF TO BOTTOM OF DEVICE
SWITCHES	48" AFF TO CENTER OF DEVICE
COUNTERTOP RECEPTACLES	MOUNTED VERTICALLY, 8" ABOVE COUNTER TO CENTER MOUNTED HORIZONTALLY, 6" ABOVE COUNTER TO CENTER

NOTE: ALL DEVICES SHALL BE MOUNTED AT
THESE HEIGHTS UNLESS OTHERWISE NOTED.

LOAD ANALYSIS					
PROJECT: JUPE MANOR PARK - COSA					
AREA (SF): N/A		VOLTS: 240		SINGLE PHASE	
LOAD DESCRIPTION			CONNECTED KVA	DIVERSITY	DEMAND KVA
RECEPTACLES:			2	1.0/0.5	2
LIGHTING:			1	1.25	1
FUTURE LIGHTING:			1	1.25	1
TOTAL KVA:					4
TOTAL AMPS:					10
SERVICE ENTRANCE SIZE, AMPS:					60

- PARTS AND ELECTRIC EQUIPMENT THAT ARC OR SPARK IN NORMAL OPERATION SHALL BE ENCLOSED IN ACCORDANCE WITH NEC 110.18.
- PROVIDE GROUND FAULT CIRCUIT INTERRUPTION (GFI) MEANS FOR RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS, RESTROOMS, EXTERIOR, AND ANY OTHER LOCATION REQUIRED BY CODE.
- MINIMUM WIRE SIZE FOR LIGHTING, DEVICE, AND RECEPTACLE BRANCH CIRCUITS SHALL BE #12 AWG. ALL CONDUCTORS SHALL BE COPPER THWN/THHN AND INSTALLED IN APPROVED RACEWAY. ALUMINUM OR COPPER-CLAD WIRING SHALL NOT BE USED.
- USE SOLID #12 AWG AND #10 AWG CONDUCTORS IN ALL EXTERIOR APPLICATIONS OR WHERE CONDUCTORS MAY BE EXPOSED TO MOISTURE. STRANDED #12 AWG AND #10 AWG CONDUCTORS ARE ACCEPTABLE FOR INTERIOR HOMERUNS.
- MINIMUM CONDUIT SIZE SHALL BE 1/2" AND 3/4" WHERE ROUTED BELOW GRADE.
- OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND BE OF SPECIAL CONSTRUCTION FOR OTHER CLASSIFIED AREAS.
- ALL ELECTRICAL RACEWAYS (METALLIC AND NONMETALLIC) SHALL HAVE AN EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC OR AS SHOWN ON DRAWINGS, WHICHEVER IS MORE STRINGENT.
- ALL MATERIALS SHALL BE NEW AND OF DOMESTIC ORIGIN AND SHALL BEAR UNDERWRITERS' LABEL WHERE APPLICABLE.
- ALL ELECTRICAL GEAR SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. TANDEM AND HALF-SPACE CIRCUIT BREAKERS SHALL NOT BE USED.

PART 1 – GENERAL

1.01 WORK INCLUDED IN THIS SECTION

- A. Referenced Documents: Bidding Requirements, Conditions of the Contract, and Division 01 – General Requirements are hereby made a part of this section.
- B. Work included in Division 16 includes the furnishing of all labor, materials, tools, equipment, drayage, rigging, fees, permits, inspections, etc., necessary for the complete installation and operation of all electrical equipment and work as shown on the Plans and specified herein. Work includes the following general listings, in addition to which furnish all fittings, hangers, supports, conduits, sleeves, inserts and other such items and accessories required or necessary for the operation of a complete electrical system as shown on the Plans and/or specified herein:
- Lighting and outlet system.
 - Service entrance.
 - Wiring, feeders, and panelboards.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE
- A. Submittals: Division 1.
- B. Painting: Division 9.
- 1.03 REQUIREMENTS OF REGULATORY AGENCIES
- Work shall conform to the latest editions of the following:
- A. Power company electrical standard requirements.
- B. International Energy Conservation Code (IECC).
- C. National Electrical Code (NEC) with local amendments.
- D. National Electrical Manufacturers Association (NEMA).
- E. Occupational Safety and Health Administration (OSHA).
- F. Underwriters' Laboratories, Inc. (UL), and shall be so labeled.
- G. International Building Code (IBC).
- 1.04 QUALIFICATIONS
- Electrical Contractor of work specified herein to have been engaged in electrical contracting business for a minimum of five (5) years prior to bid date and be prepared to show evidence and references if requested by the Owner.
- 1.05 SUBMITTALS
- Brochures shall be submitted for the following:
- A. Light fixtures.
- B. Panelboards.
- C. Disconnects, fuses.
- 1.06 SUBSTITUTIONS AND DEVIATIONS
- A. The intent of these specifications is to establish minimum quality standards for material and equipment installed. All materials, equipment, and apparatus shall be new and of the quality indicated in the following specifications.
- B. It is not the Architect/Engineer's intention to discriminate against any manufacturer or product. Any manufacturer desiring to submit his product for approval as an equal to that specified may do so by providing a sample specification to the Engineer's office for approval a minimum of 10 working days prior to bid date.
- 1.07 FEES
- Procure all the necessary and usual permits and certificates for all work installed. Deliver same to the Owner before final acceptance. Pay all inspection fees necessary.
- 1.08 SPECIAL CONDITIONS OF THE WORK
- A. Drawings are necessarily diagrammatic and do not show every connection in detail or every line conduit in its exact location.
- B. Investigate structural and finish conditions and arrange Work accordingly; furnish all fittings and accessories required to meet conditions and give satisfactory operation. Coordinate with other contractors to avoid interference with the Work.
- Work shall be laid out to be concealed in furred chases and suspended ceilings, etc., in finished portions of building, unless specifically noted to be exposed. Work shall be installed to avoid crippling of structural members. Thimbling of beams shall be done only with the specific approval of the Owner.
 - Electrical Contractor, by submitting a sub-bid, sets forth that he has the necessary technical training and ability and that he will install his Work in a satisfactory and workmanlike manner up to the best standard of the trade, complete and in good working order.
 - If any of the requirements of the plans and specifications are impossible of performance, or if the installation will not perform satisfactorily, he shall report same to the Owner for correction during the bidding period.

- No extra will be allowed for extra work or changes caused by failure to comply with above requirements.
- The right to make any reasonable change in the location of outlets, apparatus, and equipment up to time of roughing-in is reserved by the Owner without involving any additional expense to the Owner.

1.09 SITE INVESTIGATION

- A. Electrical Contractor shall visit the site and ascertain the conditions to be met there in installing his Work and make due provisions for same in his bid. It will be assumed that the Electrical Contractor in submitting his bid has visited the premises and that his bid covers all work necessary to properly install his Work. Failure to comply with these requirements shall not be considered justification for the omission or faulty installation of any of his Work, or for the payment of extra compensation for work covered by Specifications and Plans.
- B. Locations and elevations of utilities shown on Plans have been obtained from site utility plans, existing plans, site inspection and utility companies serving the site. The Electrical Contractor shall examine the site verifying to his own satisfaction the location and elevation of all utilities and shall adequately inform himself as to their relationship to the Work before entering into a contract.
- C. Specifications and the Drawings in no way imply as to the condition of the soil to be encountered. No representations as to soil conditions are made or implied in any portion of the Contract documents.
- D. All Work in connection with this Contract will be under the supervision and to the entire satisfaction of the Owner or his authorized representative who shall determine all questions as to the satisfactory completion of the Work, or any part thereof, and defects necessary to be remedied.
- E. The Electrical Contractor shall give his personal attention to all parts of the Work and shall employ only skilled and reliable workmen in the performance thereof. They shall also accord to the Owner the right to decide upon and discontinue the services of any workman who does not possess satisfactory skill and qualifications, or is otherwise objectionable.

1.10 SAFETY STANDARDS

It shall be the responsibility of the Electrical Contractor to initiate, maintain and supervise all safety precautions required by local, state and federal laws, including OSHA (Occupational Safety and Health Administration).

PART 2 – PRODUCTS

2.01 MATERIALS

All materials described in Division 16 shall be new; no used materials shall be used. Brands and models listed are for quality assurance only; other brands equal in quality and approved for use are acceptable. Any material damaged during installation shall be replaced at Electrical Contractor's expense.

2.02 LIGHTING AND POWER PANELBOARDS

- A. 240/120 volt, grounded wye panels as noted on Plans; Square D type NQO or equal, factory assembled, plug-on breakers.
- B. Panels shall be listed by Underwriters' Laboratories, Inc.
- C. Circuit breakers shall be plug-on type thermal-magnetic type unit construction, employing quick-make and quick-break toggle mechanisms for manual operation as well as automatic operation. Circuit breakers shall be of the thermal magnetic type, having inverse time delay thermal trip on overloads and instantaneous magnetic trip on short circuits. Interrupting capacities shall be as noted on the drawings. Breakers employing slow-make and slow-break operating mechanisms NOT ACCEPTABLE. Automatic tripping shall be indicated by breaker's handle assuming a clearly distinctive position from manual "On" and "Off" positions; breakers shall be removable from front of enclosure for inspection and replacement. All 20 amp single pole breakers shall be suitable for switching duty.
- D. Provide directory card with each circuit labeled on card.

2.03 DISCONNECT SWITCHES

- A. General-Duty Disconnect Switches: Provide surface-mounted, general-duty type, sheet-steel enclosed switches, of types, sizes, and electrical characteristics indicated; rated 240 volts, 60 hertz, with 3-blades, 4-poles, solid neutral; incorporating spring assisted, quick-make, quick-break switches which are so constructed that switch blades are visible in OFF position with door open. Equip with operating handle which is integral part of enclosure base and whose position is easily recognizable, and is capable of being padlocked in OFF position. Construct current carrying parts of high-conductivity copper, with silver-tungsten type switch contacts, and stamped enclosure knockouts.
- B. Heavy-Duty Safety Switches: Provide surface-mounted, heavy-duty type, sheet-steel enclosed safety switches, of types, sizes and electrical characteristics indicated; fusible type, rated 600 volts, 60 hertz, 3-blades, 4-poles, solid neutral; incorporating quick-make, quick-break type switches; so construct that switch blades are visible in OFF position with door open. Equip with operating handle which is integral part of enclosure base and whose position is easily recognizable, and is padlockable in OFF position; construct current carrying parts of high-conductivity copper, with silver-tungsten type switch contacts, and positive pressure type reinforced fuse clips.
- C. Fuses: Provide fuses for safety switches, as recommended by switch manufacturer, of classes, types, and ratings needed to fulfill electrical requirements for service indicated.

2.04 CONDUCTORS

All conductors shall be copper, 600V rating, type THHN, THHW unless shown otherwise.

2.05 CONDUIT

- A. Thin wall EMT acceptable for general application.
- B. PVC acceptable in slabs or underground. Provide factory wrapped steel ells for rising exposed out of ground or slab.

2.06 LIGHT FIXTURES

- A. The Contractor shall furnish and install lighting fixtures complete with lamps for every lighting outlet shown on the accompanying drawings. Where a fixture type designation may have been omitted from the drawings, it shall be the responsibility of the Contractor to contact the Engineer in writing prior to the bid opening and determine which fixture type is intended at the location in question. If the Contractor fails to comply with this requirement, he shall furnish and install fixtures as instructed by the Architect without additional cost to the Owner. No allowance will be made on behalf of the Contractor who fails to comply with this requirement.
- B. All lighting fixtures shall be furnished complete with accessories to suit the specific service intended. Fixtures shown in the schedule to be recessed shall be complete with frames, mounting yokes, rod hangers to furnish support from the structure above and/or any other accessories required to fit the fixture to the ceiling construction.
- C. The fixture designations on the drawings and schedule are typical and are not intended to be restrictive but are indicative of a particular quality and class of fixture.
- D. Minimum starting temperature of 0 degrees F. for all outside fixtures.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Work shall be done in accordance with Plans and Specifications and shall meet rules and regulations of all governing agencies having jurisdiction.
- B. If Plans and Specifications differ from required minimum standards set forth in ordinances, ordinances shall govern unless the Plans and Specifications exceed requirements, in which case Plans and Specifications shall govern.
- C. If any disagreement between the Plans and Specifications and the ordinances occurs, attention must be called to same before signing of the Contract. After the contract has been signed, the Electrical Contractor is responsible for having all Work meet with the requirements of the governing ordinances. No extra to the contract will be granted to correct any discrepancy existing between the Work and the ordinances.

3.02 GUARANTEE

- A. All electrical Work shall be guaranteed for a period of one (1) year from date of acceptance by Owner.
- B. Upon notice of any electrical malfunction, the Electrical Contractor shall remedy the malfunction including all materials, equipment and labor at no extra cost to the Owner.

3.03 LOCATIONS OF FIXTURES AND EQUIPMENT

Fixtures and equipment shall be as shown on Plans and Elevations. Locations of fixtures or equipment not shown on Plans shall be established or verified in writing or by shop drawings.

3.04 PARTS LISTS AND MAINTENANCE MANUALS

- A. The Electrical Contractor shall submit to the Owner 30 days prior to final acceptance of the building, complete and detailed parts lists, maintenance manuals, etc., covering electrical equipment furnished under this Contract. Brochures shall include all as-built equipment shop drawings, all cuts and capacity information, names and addresses of manufacturers, stocking distributors, manufacturer's agents and/or factory representatives and shall cover all items of equipment on which submittal data is made and shall also include manuals and lists herein called for.
- B. Brochures shall be in three copies, shall be bound, indexed and tabbed referencing all items to the Plans and Specifications regarding locations of equipment and materials.
- 3.05 AS-BUILT DRAWINGS
- At the completion of this project, the Electrical Contractor shall provide the Owner with a set of marked-up drawings showing all conduit, outlets, etc., installed by the Electrical Contractor. These drawings shall be complete in every detail and shall incorporate all changes made during the course of the conduct of the project. These drawings shall be prepared in such a manner as to enable the Owner to properly maintain, operate, and repair both concealed and exposed Work. Actual routing of all underground conduit shall be shown.
- 3.06 PAINTING AND FINISHING
- A. Paint all equipment, metal work, conduit, hangers and rods, etc., exposed to view and installed under this Division, with two coats of oil base metal protective paint in colors as directed by the Owner.
- B. Refer to Division 9 for painting requirements.
- 3.07 LOCAL BOARDS
- Before submitting a bid, Electrical Contractor shall familiarize himself with the rules of all governing boards having jurisdiction, and he shall notify the Owner before submitting his bid, if in his opinion, any work or material specified is contrary to such rules.

3.08 SEPARATE CONTRACTS WITH OWNER

- A. The Owner reserves the right to let other contracts to perform tenant work. The Electrical Contractor shall afford other contractors reasonable opportunity for the storage and introduction of materials for execution of their Work and shall properly connect and coordinate his own Work with theirs. Cooperation shall be absolute to insure harmonious relations with these other contractors that all Work may be completed efficiently.
- B. If any part of the Work depends upon work of other contractors for operation or results, Electrical Contractor shall inspect the other work, and shall promptly report to the Owner any condition that conflicts with his Work. Failure to do so shall constitute an acceptance as being suitable and proper as far as his own Work is concerned.

3.09 EXCAVATION AND BACKFILL

- A. Electrical Contractor to provide all excavation required in execution of his Work.
- B. Excavations shall be to depths indicated or required, protected and kept dry at all times, and properly backfilled, moistened and mechanically tamped to maximum compaction at completion.
- C. Remove any surplus excavated earth from site.
- D. Arrange for and pay all costs of paving patching if excavation required in city streets.

3.10 SLEEVES

- A. Where conduit passes through partitions, walls, and floors, provide galvanized sheet metal sleeves of sizes to readily accommodate conduit.
- B. Conduit projecting through roofing shall be made water-tight by proper flashing, a sheet metal cap and tightening band. Flashings shall be furnished by Electrical Contractor and installed by roofer.

3.11 INTERIOR CUTTING AND PATCHING

- A. Should any structural difficulties prevent installation of fixtures, equipment, running of conduit, etc., at all points shown on Drawings, then necessary minor deviations therefrom, as determined by the Owner, may be permitted and must be made without additional cost to the Owner.
- B. Any necessary cutting into partitions, walls, or floors shall be neatly and carefully done. No cutting into structural parts of buildings, likely to impair strength of building, shall be done without approval of Owner.
- C. Electrical Contractor shall be held responsible for all damages caused by his Work or through the neglect of his workmen. All patching and repairing of damaged Work shall be done under direction of Owner at expense of Electrical Contractor.

3.12 SCAFFOLDING

Furnish and erect, at Electrical Contractor's expense and risk, any and all appliances, scaffolding, lights, guards, temporary walks, tools, transportation, etc., required for the proper construction or protection of his Work.

3.13 CONTRACTOR'S COORDINATION AND CLEANING UP

- A. Electrical Contractor shall cooperate with the other contractors on the job to the end that as a whole, the job shall be completely finished, and shall carry on this Work in such a manner that none of the other contractors shall be handicapped, hindered, or delayed. When work is finished, remove from the premises all tools, machinery, debris, etc., occasioned by his Work, and leave the premises free of all obstructions and hindrances.
- B. Where electrical work occurs in masonry walls, the installation shall be done sufficiently in advance of construction; fittings, appurtenances, etc., shall be installed in such a manner and at such locations as to avoid unnecessary cutting of masonry units. Work erected in advance of masonry shall be securely supported and held in position to prevent displacement. Cutting and fitting of masonry around properly located equipment will be done by masons. Place Work located in partitions or ceilings ahead of the construction, with equipment securely wired in place. The Contractor shall have a representative on the job during all concrete pours to insure all of his equipment is adequately supported and protected and will not be adversely affected by such operations.
- C. Cooperate with the local utility companies in such a manner that the installation of all services proceeds in an orderly manner, and meets all requirements of the specified companies involved.

3.14 ELECTRICAL EQUIPMENT BY OTHERS

Except for such items as are normally wired up at their point of manufacture and unless specifically noted to the contrary in the documents, execute all electric wiring of every character both for power supply and for pilot and control for equipment. Others will erect all motors in place ready for connection. Mount all starters and control equipment, furnishing supporting structures where necessary.

3.15 TESTING AND ADJUSTING

- A. All systems shall be tested in the presence of the Owner.
- B. All testing equipment necessary to satisfactorily conduct the required tests shall be provided, and the tests shall be made by the Electrical Contractor at his expense under the direction of the Owner.
- C. All equipment furnished and installed and/or connected under the provisions of these Specifications shall be demonstrated to function electrically in the manner required.
- D. The entire electrical installation shall be free from short circuits and improper grounds. Tests shall be made at each power panel and lighting panel with all switches closed. Each power circuit shall be tested at its switch. In testing for insulation values to ground, the power equipment shall be connected for normal operation. The instruments required for these tests shall be furnished by the Electrical Contractor.

E. Insulation values shall not be less than those required by the National Electric Code. Other specific tests shall be made in accordance with requirements stated in these Specifications.

F. All loads shall be properly balanced on each phase of the system, within five percent (5%).

G. If the tests indicate unsatisfactory materials, workmanship, or performance, the Electrical Contractor shall remove such defective materials and replace with new material at his own expense, shall correct defective workmanship, and shall then conduct same tests again until the satisfactory character of the work installed by him has been fully demonstrated to the satisfaction of the Owner.

3.16 PROTECTION OF UNDERGROUND CONDUIT

- A. All steel conduit run underground shall be protected by a factory applied coating or wrapping consisting of one of the following:
- Minnesota Mining and Manufacturing Company "Scotch Kote" Resin #202, factory applied coating with two-ply "Scotchwrap" #50 tape on field joints.
 - PVC plastic primer, followed by poly-vinyl plastic coating as supplied by Lone Star Steel Company "Extra Coat" or approved equal. Field joints shall be wrapped in strict accordance with manufacturer's directions.
- B. Electrical Contractor shall submit samples and detailed Specifications for final approval.

3.17 GROUNDING

- A. Grounding of electrical conduit system and neutral of wiring system for building shall be effectively made by connection to earth, using standard ground clamps and cables.
- B. Ground wire shall be run in rigid conduit which is securely coupled to main distribution cabinet by using special clamps or double lock nuts and bushings, and run to most accessible point and connect to 3/4" by 8'0" copper clad weld ground rods using an approved bolted pressure clamp.
- C. Underground water piping shall be used as ground if available.
- D. Service grounding conductor: Capacity not less than indicated in NEC Article 250.
- E. Electrical continuity of all metallic raceway systems shall be assured. Wherever expansion joints occur, bonding shall be provided. Carefully and securely ground all fluorescent fixture bodies to the conduit system.
- F. Provide continuous grounding wire through all PVC conduits.
- G. Ground wires for telephone service shall be copper #6. Coordinate with telephone company for exact location required in telephone rooms at cabinet locations.

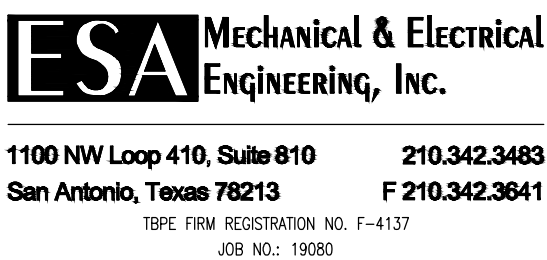
3.18 WORKMANSHIP

- A. Labor shall be performed in a thorough and workmanlike manner and with all reasonable rapidity to the satisfaction of the Owner.
- B. Material or equipment shall be delivered to the project in the manufacturer's original, unopened, labeled containers and be adequately protected against moisture, tampering, or damage from improper handling or storage. Materials shall not be delivered to the job before they are ready for installation.
- C. The Owner will require the removal from the premises of such material or work as in his opinion is not in accordance with the Specifications or Drawings. The Owner has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.
- D. Any item of equipment shall be the product, modified as required by the requirements of the project, of a manufacturer experienced in the design, construction, and operation of equipment for the purpose required and who shall have furnished such equipment long enough to be able to show a record of successful operation.

3.19 CLEANING UP

It is the Electrical Contractor's responsibility to clean up all trash and debris caused by the work of this Division, keeping premises, street, sidewalks, and adjacent property clean and neat at all times and to dispose of such materials outside the legal limits of the project or as directed by the Owner.

END OF SECTION 16000



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS

PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER ROAD
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

Electrical
Specifications

SHEET NUMBER

E3.1

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER ROAD
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

REVISIONS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

PLUMBING SITE
PLAN

SHEET NUMBER

P1.0

PLUMBING LEGEND

MARK	DESCRIPTION
---	DOMESTIC WATER
SS	SANITARY SEWER PIPING
YCO	YARD CLEANOUT
ELBOW DOWN	ELBOW DOWN
ELBOW UP	ELBOW UP
ELBOW FITTING	ELBOW FITTING
TEE FITTING	TEE FITTING
QUARTER-TURN BALL VALVE	QUARTER-TURN BALL VALVE
YCO	YARD CLEANOUTS
FCO	FLOOR CLEANOUT
DYCO	DOUBLE YARD CLEANOUT
DIRECTION OF FLOW	DIRECTION OF FLOW
POINT OF CONNECTION	POINT OF CONNECTION

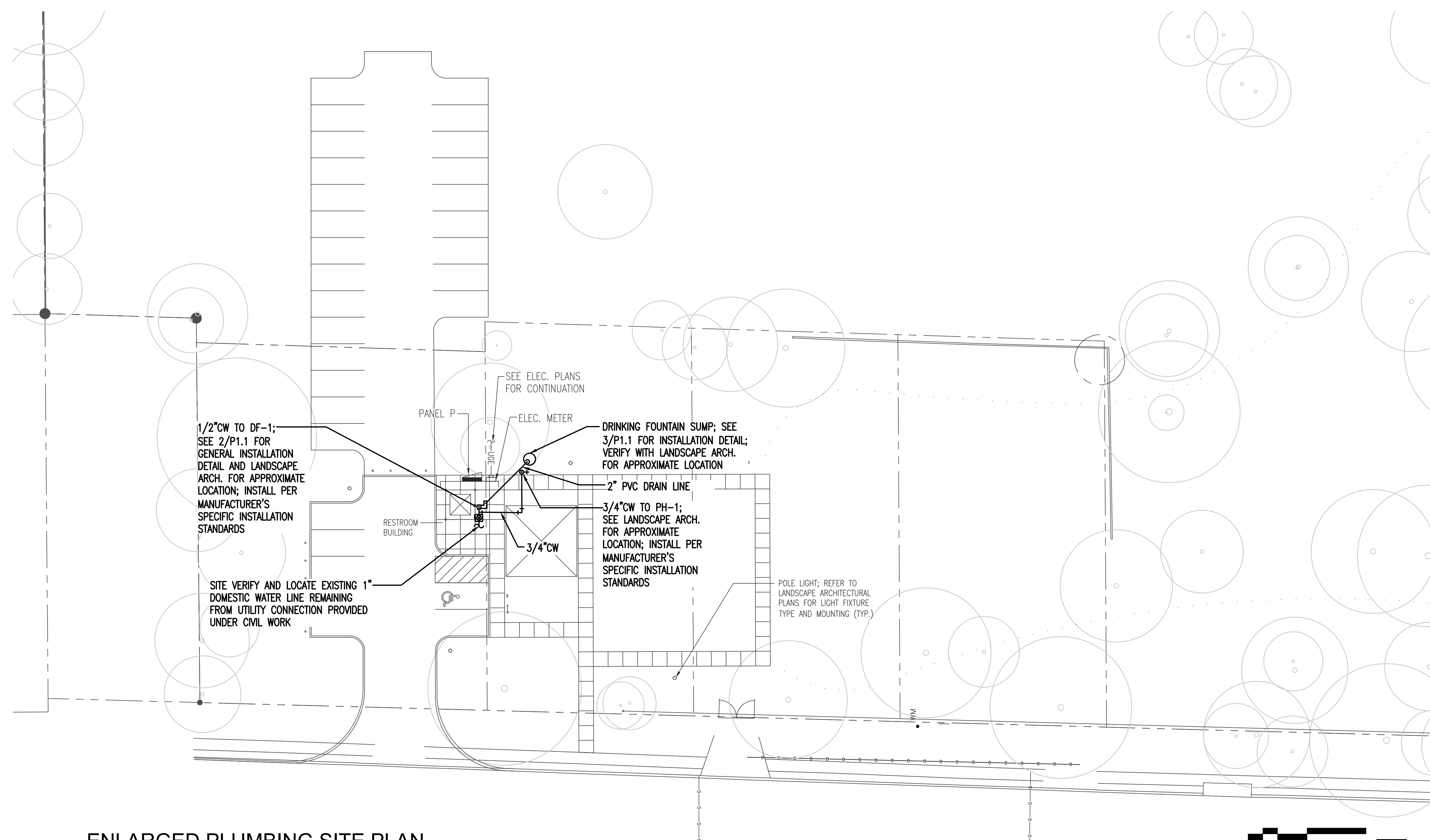
NOTE: NOT ALL MARKS MAY BE USED

GENERAL SITE NOTES:

- PER SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION, COPPER TUBING SHALL BE USED FOR 3/4" THROUGH 2" SERVICE LINES. BRASS FITTINGS FOR 3/4" AND 1" SERVICE LINES SHALL BE OF THE FLARED OR COMPRESSION TYPE FOR THE USE WITH TYPE 'K' SOFT ANNEALED COPPER TUBING. BRASS FITTINGS FOR 1 1/2" AND 2" LINES SHALL BE OF THE FLARED OR COMPRESSION TYPE FOR USE WITH TYPE 'K' SOFT ANNEALED COPPER TUBING.
- CONSULT SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION FOR ALL NECESSARY REQUIREMENTS OF INSTALLATION.
- CONTRACTOR SHALL PROVIDE ALL EXCAVATING AND BACK FILLING REQUIRED FOR ALL NEW WORK INCLUDING FILL, COMPACTION, SURFACE, ETC. TO MEET ALL REQUIREMENTS AS APPLICABLE FOR THE AREA.
- CONTRACTOR TO DETERMINE THE PRESENCE AND LOCATION OF ANY UNDERGROUND EQUIPMENT SUCH AS TELEPHONE, ELECTRIC POWER, WATER, GAS, SEWAGE LINES, ETC. WHETHER PREVIOUSLY EXISTING OR AS INSTALLED BY OTHER TRADES, PRIOR TO THE START OF CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN AN AS-BUILT DIMENSIONAL DRAWING ON SITE SHOWING ALL UNDERGROUND CONDUIT ROUTING AND TERMINATION POINTS.
- DIELECTRIC UNIONS SHALL BE USED FOR CONNECTION OF PIPES MADE OF DISSIMILAR METALS.

1 ENLARGED PLUMBING SITE PLAN

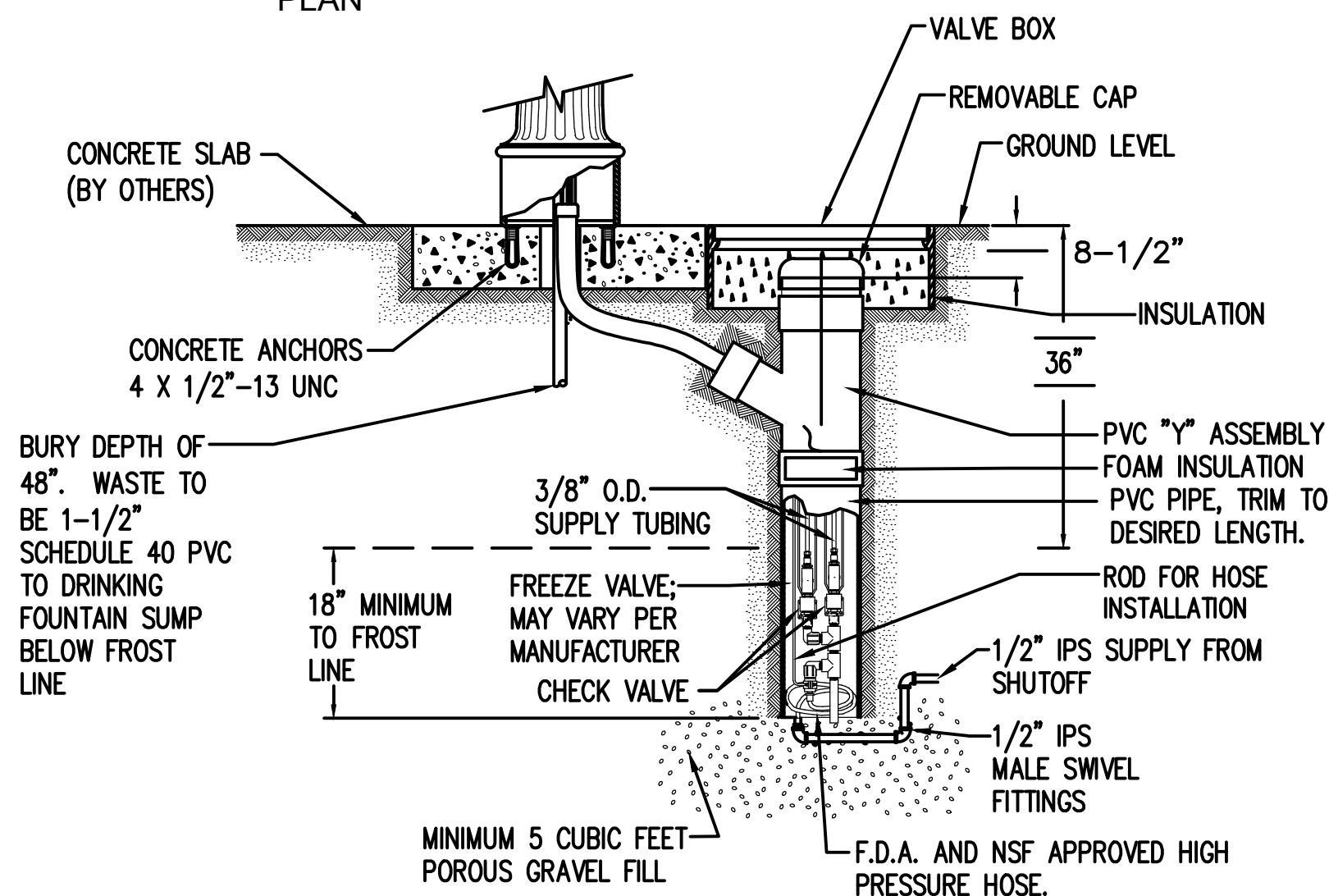
PLAN



2 DRINKING FOUNTAIN DF-1 DETAIL

DETAIL

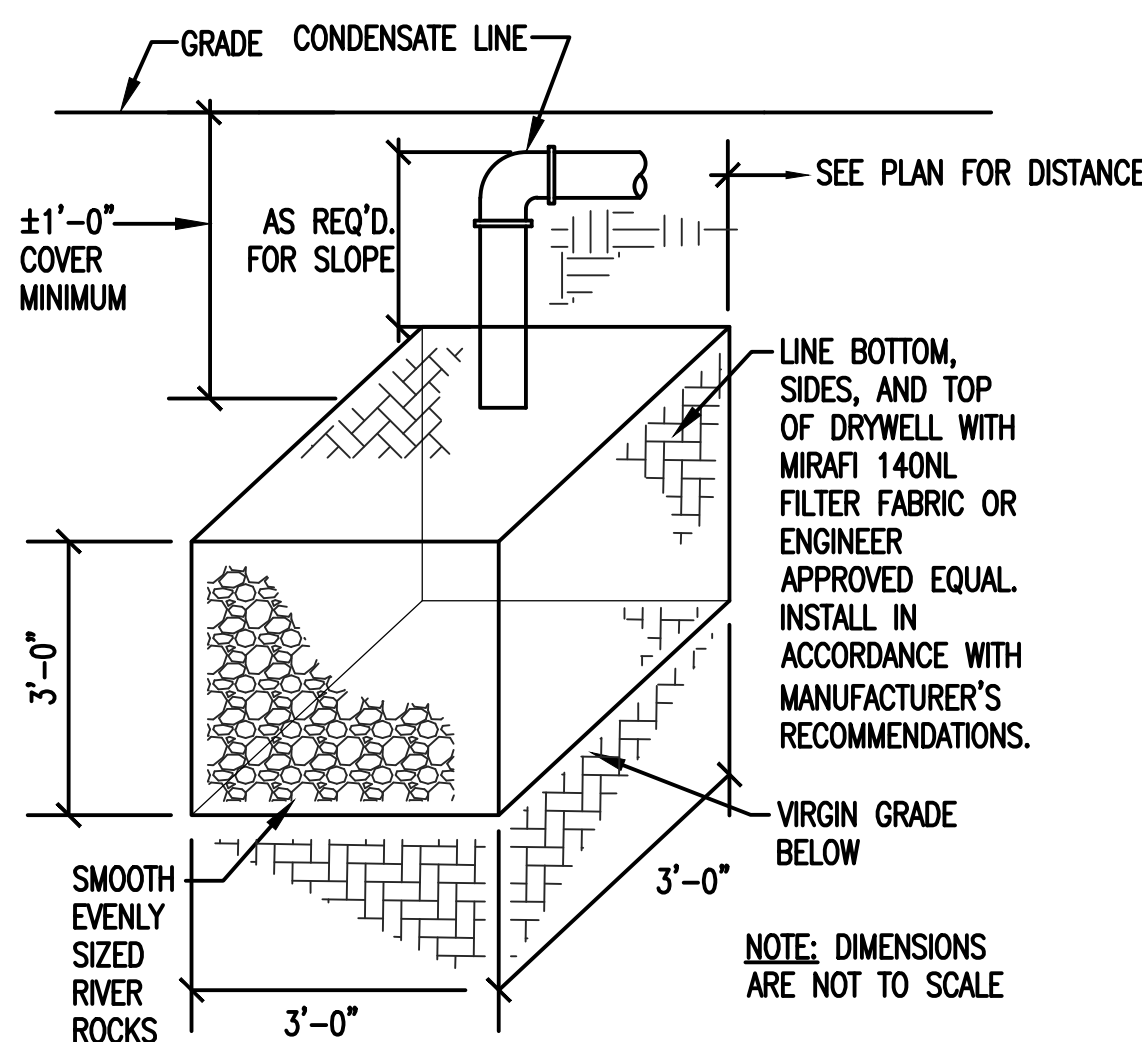
NOT TO SCALE



3 DRINKING FOUNTAIN DRYWELL DETAIL

DETAIL

NOT TO SCALE



PLUMBING FIXTURE SCHEDULE

MARK	ITEM	HW	CW	DRAIN	VENT	REMARKS
DF-1	OUTDOOR DRINKING FOUNTAIN	-	1/2"	1-1/2"	-	ELKAY MODEL LK4420BF1UDB EZH2O BOTTLE FILING STATION BI-LEVEL, PEDESTAL WITH PET STATION NON-FILTERED AND NON-REFRIGERATE, GREEN POWDER COATED STAINLESS STEEL PEDESTAL MOUNTED DRINKING FOUNTAIN W/ FREEZE RESISTANT VALVE AND PET FOUNTAIN BOWL; INSTALL PER MANUFACTURER'S INSTRUCTIONS
PH-1	NON-FREEZE YARD HYDRANT - FREE STANDING	-	3/4"	-	-	MURDOCK MODEL M-75-LC-1-VB 3/4" FREEZE RESISTANT, COMPRESSION TYPE POST HYDRANT W/ LOCKING COVER AND VACUUM BREAKER; PROVIDE 2 FOOT DEPTH OF BURY EXTENSION; INSTALL PER MANUFACTURER'S INSTRUCTIONS



ESA Mechanical & Electrical
Engineering, Inc.

1100 NW Loop 410, Suite 810
San Antonio, Texas 78213
210.342.3483
F 210.342.3641

TBPE FIRM REGISTRATION NO. F-4137
JOB NO.: 19080



201 GROVETON | SATX 78210
210.314.5582 | MPSTUD.IO

STATUS

lll fee

PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS

3218 KAISER ROAD
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO

114 W. COMMERCE
SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08.07.20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

PLUMBING
SPECIFICATIONS

SHEET NUMBER

P2.0

GENERAL PLUMBING SYSTEMS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK:

A. Extent of plumbing systems work is indicated on drawings and schedules, and by requirements of this section.

B. Applications for plumbing systems include the following:

- Domestic cold–water piping.
- Waste piping.
- Plumbing fixtures.
- Plumbing faucets.

1.2 QUALITY ASSURANCE:

A. Manufacturers: Firms regularly engaged in manufacture of plumbing systems products, of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

B. Installer: A firm with at least 3 years of successful installation experience on projects with plumbing systems work similar to that required for project.

C. Plumbing Code Compliance: Comply with applicable portions of International Plumbing Code pertaining to plumbing materials, construction and installation of products.

D. ANSI Compliance: Comply with applicable American National Standards pertaining to products and installation of plumbing systems.

E. CABO Standards: Comply with CABO A117.1 standard pertaining to plumbing fixtures for handicapped.

F. PDI Compliance: Comply with standards established by Plumbing and Drainage Institute pertaining to plumbing fixture supports.

G. ARI Labels: Provide water coolers which are rated and certified in accordance with applicable Air–Conditioning and Refrigeration Institute standards.

1.3 SUBMITTALS:

A. Product Data: Submit manufacturer’s data for the following:

- Pipe
- Fixtures
- Faucets
- Water Fountains

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. Provide factory–applied plastic end–caps on each length of pipe and tube. Maintain end–caps through shipping, storage and handling as required to prevent pipe–end damage and eliminate dirt and moisture from inside of pipe and tube.

B. Where possible, store pipe and tube inside and protected from weather. Where necessary to store outside, elevate above grade and enclose with durable, waterproof wrapping. Protect fittings from moisture and dirt by inside storage and enclosure, or by packaging with durable, waterproof wrapping.

C. Deliver plumbing fixtures individually wrapped in factory–fabricated containers.

D. Handle plumbing fixtures carefully to prevent breakage, chipping and scoring the fixture finish. Do not install damaged plumbing fixtures; replace and return damaged units to equipment manufacturer.

PART 2 – PRODUCTS

2.1 PIPING MATERIALS AND PRODUCTS:

A. General: Provide piping materials and factory–fabricated piping products of sizes, types, pressure ratings, temperature ratings, and capacities as indicated. Where not indicated, provide proper selection as determined by Installer to comply with installation requirements. Provide sizes and types matching piping and equipment connections; provide fittings of materials which match pipe materials used in plumbing systems. Where more than 1 type of materials or products are indicated, selection is Installer’s option.

Domestic Water Piping – Type L Hard Copper, ANSI H23.1 or

Cross–Linked polyethylene (PEX) water distribution pipe that meets standards NSF 14/61, ASTM F 876 and F 877, and CSA B 137.5 Pipe to be tested for resistance to hot chlorinated water in accordance with ASTM F 2023. Pipe to have a minimum extrapolated time–to–failure of 50 years, calculated in accordance with Section 13.3 of F

2023. All fittings used with cross–linked polyethylene (PEX) water distribution pipe intended for plumbing applications shall be of the cold–expansoin compression–sleeve design in accordance with ASTM F 2080. Flow shall be equal to or better than copper. Equivalent Manufacturers: Uponor and Rehau

C. Drain Piping:

- PVC: Use in general applications and where allowed by local code.
 - Wall Thickness: Schedule 40, ASTM D 2665.
 - Fittings: Solvent welded joints, ASTM D 2564 for solvent cement.

E. Cleanouts:

General: Provide cleanouts of size and type indicated or approved equal. Where not indicated, provide proper selection as determined by Installer to comply with installation requirements and governing regulations.

2. Cleanout Plugs: Cast–bronze or brass, threads complying with ASME B1.20.1, countersunk head, Zurn ZN–1403 or equal.

2.2 PLUMBING FIXTURES AND TRIM:

A. General: Provide factory–fabricated fixtures of type, style and material indicated. For each type fixture, provide fixture manufacturer’s standard trim, carrier, seats, and valves as indicated by their published product information; either as designed and constructed, or as recommended by the manufacturer, and as required for a complete installation. Where more than one type is indicated, selection is Installer’s option; but, all fixtures of same type must be furnished by a single manufacturer. Where type is not otherwise indicated, provide fixtures complying with governing regulations. All fixtures shall have traps.

- B. Materials:
- Provide materials which have been selected for their surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, foundry sand holes, stains, discoloration, or other surface imperfections on finished units are not acceptable.
 - Where fittings, trim and accessories are exposed or semi–exposed, provide bright chrome–plated or polished stainless steel units. Provide copper or brass where not exposed.
 - Stainless Steel Sheets: ASTM A 167, Type 302/304, hardest workable temper, with No. 4, bright, directional polish on exposed surfaces.
 - Steel Sheets for Baked Enamel Finish: ASTM A 591, coating Class C, galvanized–bonderized.
 - Steel Sheets for Porcelain Enamel Finish: ASTM A 424, commercial quality, Type I.
 - Aluminum: ASTM B 209/B 221 sheet, plate and extrusions, as indicated; alloy, temper and finish as determined by manufacturer, except 0.40 mil natural anodized finish on exposed work unless another finish is indicated.
 - Fiberglass: ANSI Z124, smooth surfaced, with color selected by Architect/Engineer.

C. Plumbing Fittings, Trim, and Accessories:

- Water Outlets: At locations where water is supplied (by manual, automatic or remote control), provide commercial quality faucets, valves, or dispensing devices, of type and size indicated, and as required to operate as indicated. Include manual shutoff valves and connecting stem pipes to permit outlet servicing without shut–down of water supply piping systems.
- P–Traps: Include removable P–traps where drains are indicated for direct connection to drainage system. P–traps shall be chrome–plated brass, McGuire #8902 for lavatories and McGuire #8912 for sinks, or respective equal.
- Fixture Bolt Caps: Provide manufacturer’s standard exposed fixture bolt caps finished to match fixture finish.

2.3 SPECIALTIES:

A. Dielectric unions: Provide dielectric unions on all dissimilar pipe connections.

B. Water Hammer Arresters: Provide piston type water hammer arresters, brass casing and piston, pressure rated for 250 psi, tested and certified in accordance with PDI Standard WH–201. Equal to Sioux Chief Manufacturing Corp., Inc.

2.4 SUPPORTS AND ANCHORS:

A. Piping shall be supported in accordance with ASHRAE Equipment Handbook recommendations, and the local plumbing code.

B. Provide assemblies rated for the applied load. Hangers and supports capable of vertical adjustment under load. Hangers and supports of carbon steel, malleable iron, or cast iron, insulated for copper pipe and tubing. Hangers and supports of chain, strap, perforated bar stock, gray cast iron, or wire not allowed or

approved.

C. Hangers and supports installed to adequately support pipe without interfering with inherent flexibility, and as required to prevent sagging and vibration. Lines shall be braced to prevent horizontal movement.

D. Concentrated loads of valves, fittings, etc., require closer spacing of hangers and supports. Spacing shall be based on weight to be supported and on maximum recommended loads for the hanger components.

E. Provide all pipe hangers and guides as indicated or required to properly support and anchor the piping systems. Piping in parallel shall be supported by Unistrut P–1000 or equal with P–1100 series clamps; single pipes shall be hung from rings or clamps. Size all members for weight to be carried.

2.5 VALVES:

A. General: Provide factory–fabricated valves recommended by manufacturer for use in service indicated. Provide valves of types and pressure ratings indicated; provide proper selection as determined by Installer to comply with installation requirements. Provide sizes as indicated, and connections which properly mate with pipe, tube, and equipment connections. Where more than one type is indicated, selection is Installer’s option.

B. Gate Type, Screwed model: Bronze, solid wedge, screw–in bonnet, inside screw, traveling stem, Jenkins 47, Nibco T111, T121, Hammond IB640, or equal.

C. Gate Type, Soldered model: Bronze, solid wedge, screw–in bonnet, inside screw, traveling stem, Jenkins 1242, Nibco S111, S121, Hammond IB635, or equal.

D. Check Type, Screwed model:

1. Bronze, regrinding bronze disk, Jenkins 92A, Nibco T413BWY, Hammond IB940, or equal.

2. Check Type, Soldered model:

- Bronze, regrinding bronze disk, Jenkins 1222, Nibco 5433 (BY), Hammond IB945, or equal.

3. Drain Type:

- Hammond 719, 711, or 100, or equal by Jenkins or Nibco

PART 3 – EXECUTION

3.1 INSTALLATION OF DOMESTIC WATER DISTRIBUTION PIPING:

a. General: Install pipe, tube and fittings in accordance with recognized industry practices which will achieve permanently–leakproof piping systems, capable of performing each indicated service without piping failure. Install each run with minimum joints and couplings, but with adequate and accessible unions for disassembly and maintenance/replacement of valves and equipment. Reduce sizes (where indicated) by use of reducing fittings. Align piping accurately at connections, within 1/16” misalignment tolerance.

Locate piping runs, except as otherwise indicated, vertically and horizontally (pitched to drain) and avoid diagonal runs wherever possible. Orient horizontal runs parallel with walls and column lines. Locate runs as shown or described by diagrams, details and notations or, if not otherwise indicated, run piping in shortest route which does not obstruct usable space or block access for servicing building and its equipment.

b. Electrical Equipment Spaces: Do not run piping through electrical or electronic equipment spaces and enclosures unless unavoidable. Under no circumstances run pipes above electrical panels, motor control centers, switchboards, and similar equipment.

F. Solder copper tube–and–fitting joints where indicated, in accordance with recognized industry practice. Cut tube ends squarely, ream to full inside diameter, and clean outside of tube ends and inside of fittings. Apply solder flux to joint areas of both tubes and fittings. Insert tube full depth into fitting, and solder in manner which will draw solder full depth and circumference of joint. Wipe excess solder from joint before it hardens.

3.3 INSTALLATION OF DRAIN PIPING

A. General: Install underground building drains as indicated and in accordance with International Plumbing Code. Lay underground building drains beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install required gaskets in accordance with manufacturer’s recommendations for use of lubricants, cements, and other special installation requirements. Clean interior of piping of dirt and other superfluous material as work progresses. Maintain swab

or drag in line and pull past each joint as it is completed. Place plugs in ends of uncompleted piping at end of day or whenever work stops.

B. Install drain and vent piping pitched to drain at minimum slope of 1/4” per foot.

C. Plastic Pipe/Tube Joints: Comply with manufacturer’s instructions and recommendations, and with applicable industry standards. Make Solvent–Cemented Joints in accordance with ASTM D 2672.

3.4 INSTALLATION OF PLUMBING FIXTURES AND TRIM

A. Examine roughing–in work of domestic water and drain piping systems to verify actual locations of piping connections prior to installing fixtures. Also examine floors and substrates, and conditions under which fixture work is to be accomplished. Correct any incorrect locations of piping, and other unsatisfactory conditions for installation of plumbing fixtures. Do not proceed with work until unsatisfactory conditions have been corrected.

B. Install plumbing fixtures of types indicated where shown and at indicated heights; in accordance with fixture manufacturer’s written instructions, roughing–in drawings, and with recognized industry practices. Ensure that plumbing fixtures comply with requirements and serve intended purposes. Comply with applicable requirements to the International Plumbing Code pertaining to installation of plumbing fixtures.

C. Fasten plumbing fixtures securely to indicated supports and ensure that fixtures are level and plumb. Secure plumbing supplies so as to be rigid, and not subject to pull or push movement.

3.6 INSTALLATION OF SPECIALTIES

A. Water Hammer Arresters: Install in upright position, in locations and of sizes in accordance with PDI Standard WH–201, and elsewhere as indicated.

3.7 INSTALLATION OF VALVES:

A. Install valves where required for proper operation of piping and equipment, including valves in branch lines where necessary to isolate sections of piping. Locate valves so as to be accessible and so that separate support can be provided when necessary.

B. Install valves with stems pointed up, in vertical position where possible, but in no case with stems pointed downward for horizontal plane unless unavoidable. Install valve drains with hose–end adapter for each valve that must be installed with stem below horizontal plane.

C. Shutoff Valves: Install on inlet of each plumbing fixture, and elsewhere as indicated.

D. Hose Bibbs: Install on exposed piping where indicated, with vacuum breaker.

E. Hydrants: Installed where indicated, in accordance with manufacturer’s installation instructions.

F. Water Pressure Reducing Valve: Contractor shall verify existing property’s water main pressure and shall install in the water service pipe where supply main pressure exceeds 80psi to reduce it to 55psi or lower. The water pressure reducing valve shall be constructed using Lead Free materials and shall comply with state codes and standards. Approved valve shall be listed to ASSE 1003 and IAPMO and certified to CSA B356. Valve shall be a Watts Series LF25AUB–Z3.

3.8 CLEAN, FLUSH, AND INSPECT:

A. General: Flush out piping systems with clean water before proceeding with required tests. Inspect each run of each system for completion of joints, supports and accessory items.

B. Clean plumbing fixtures of dirt and debris upon completion of installation. Protect installed fixtures from damage during the remainder of the construction period.

3.9 PIPING TESTS:

A. Test drain piping system in accordance with requirements of International Plumbing Code.

B. General: Provide temporary equipment for testing, including pump and gages. Test piping system before insulation is installed wherever feasible, and remove control devices before testing. Test each natural section of each piping system independently but do not use piping system valves to isolate sections where test pressure exceeds valve pressure rating. Fill each section with water and pressurize for indicated pressure and time.

C. Repair piping systems sections which fail required piping test by disassembly and re–installation, using new materials to extent required to overcome leakage. Do not use chemicals, stop–leak compounds, mastics, or other temporary repair methods.

D. Drain test water from piping systems after testing and repair work has been completed.

3.10 FIELD QUALITY CONTROL:

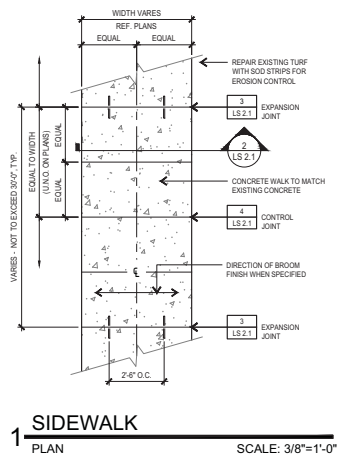
A. Upon completion of installation of plumbing fixtures and after units are water pressurized, test fixtures to demonstrate capability and compliance with requirements. When possible, correct malfunctioning units at site, then retest to demonstrate compliance; otherwise, remove and replace with new units and proceed with retesting.

B. Inspect each installed unit for damage to finish. If feasible, restore and match finish to original at site; otherwise, remove fixture and replace with new unit. Feasibility and match to be judged by Architect/Engineer. Remove cracked or dented units and replace with new units.

END OF SECTION.



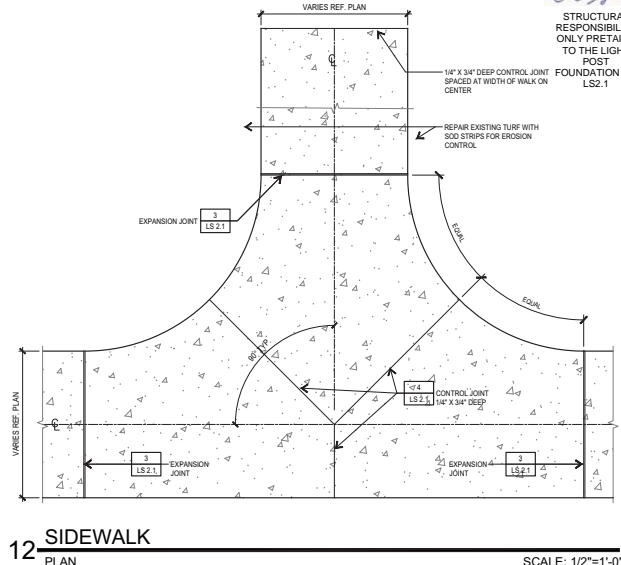
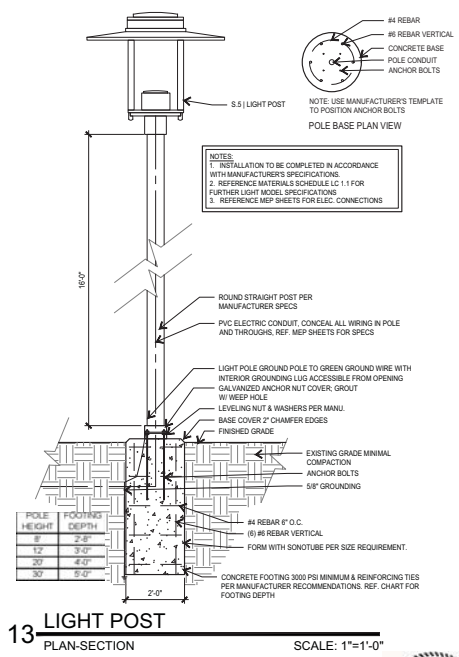
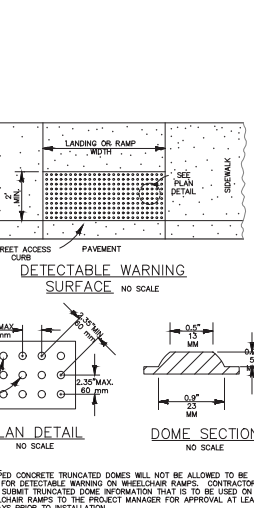
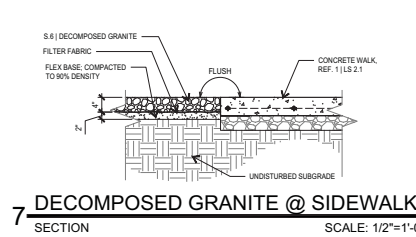
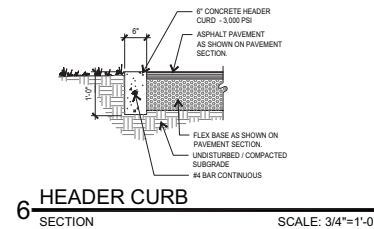
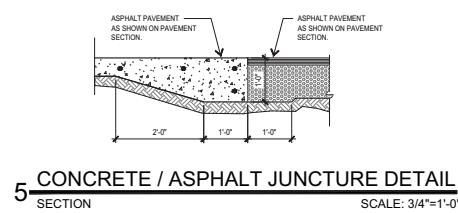
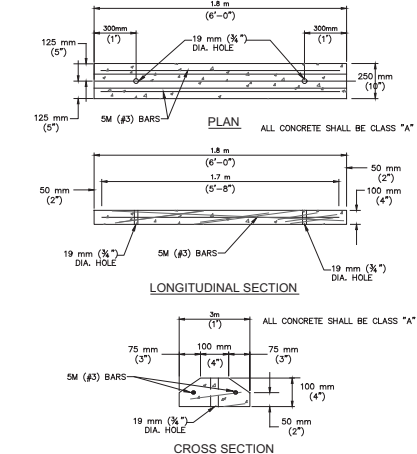
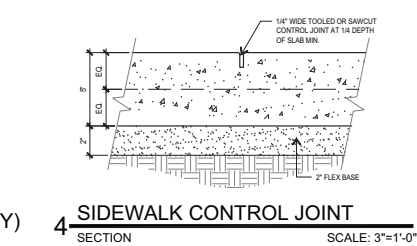
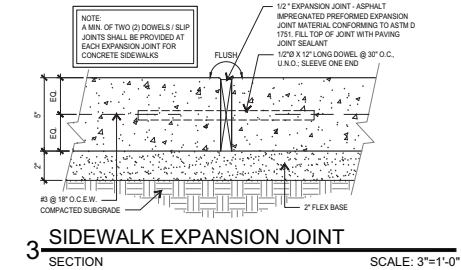
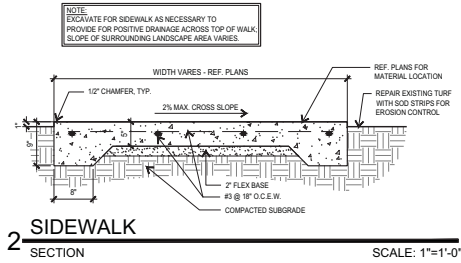
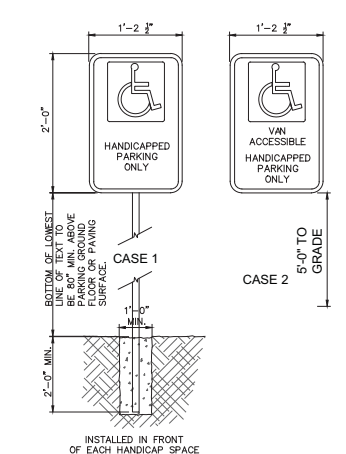
1100 NW Loop 410, Suite 810
San Antonio, Texas 78213
210.342.3483
F 210.342.3641
TBPB FIRM REGISTRATION NO. F-4137
JOB NO.: 19080



PAVEMENT MATERIALS	RECOMMENDED THICKNESS (INCHES)	
	LIGHT DUTY	HEAVY DUTY
ASPHALT/CONCRETE	2"	2.5"
FLEXIBLE BASE	4"	10"
SECOND	YES	YES
THIRD	6"	6"

NOTE: ON NEWLY PLACED STRUCTURAL COMPACTED FILL TO ACHIEVE FINAL CIVIL DESIGN GRADES. MATERIALS MUST MEET OR EXCEED DESIGN CBR VALUE. REFER TO GEOTECHNICAL ENGINEERING REPORT PREPARED BY EGS SOUTHWEST, LLP DATED JANUARY 2, 2020.

8 ASPHALT PAVEMENT (LIGHT DUTY)



201 GROVETON | SATX 78210
210.314.5582 | MPSTUDIO.IO

STATUS



PROJECT

JUPE MANOR NEIGHBORHOOD PARK DEVELOPMENT

PROJECT ADDRESS
3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT
CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78203

OWNER'S REPRESENTATIVE
ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV



LEHMANN ENGINEERING, Inc.
1006 Beckett, San Antonio, TX 78213
Ph (210)348-8889 Fx (210)348-8884
TX Firm Reg. No. F-52798

SUBCONSULTANT

STRUCTURAL RESPONSIBILITY ONLY PRETAINS TO THE LIGHT POST FOUNDATION ON LS2.1

REVISIONS

NO.	DATE	DESCRIPTION
1	08/07/20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08/07/20	100% CD SET

SHEET INFORMATION

PROJECT NO.	19056
DATE ISSUED	AUGUST 7, 2020
SHEET NAME	

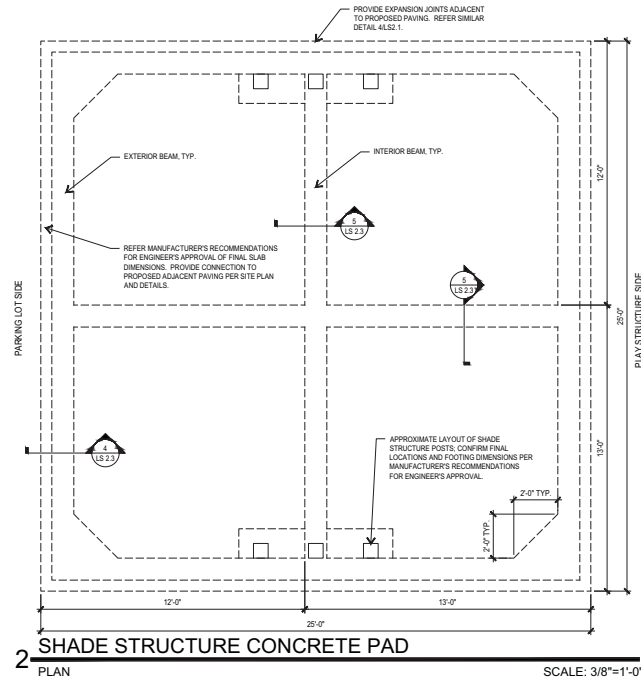
SITEWORK DETAILS

SHEET NUMBER

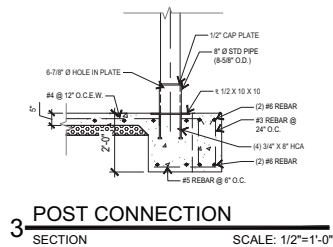
LS 2.1



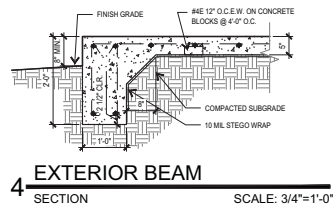
1 SHADE STRUCTURE ADD ALTERNATE
PLAN NOT TO SCALE



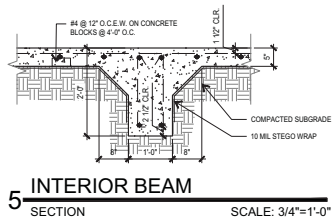
2 SHADE STRUCTURE CONCRETE PAD
PLAN SCALE: 3/8"=1'-0"



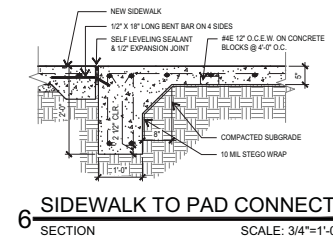
3 POST CONNECTION
SECTION SCALE: 1/2"=1'-0"



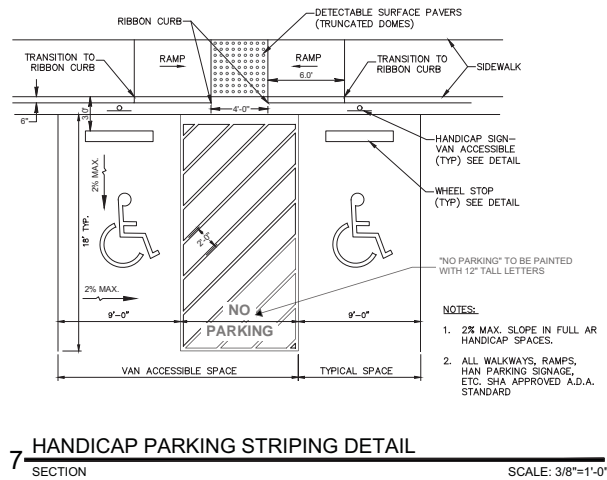
4 EXTERIOR BEAM
SECTION SCALE: 3/4"=1'-0"



5 INTERIOR BEAM
SECTION SCALE: 3/4"=1'-0"



6 SIDEWALK TO PAD CONNECTION
SECTION SCALE: 3/4"=1'-0"



7 HANDICAP PARKING STRIPING DETAIL
SECTION SCALE: 3/8"=1'-0"

NOTE: CONTRACTOR TO SUBMIT POLYGON SHADE STRUCTURE SHOP DRAWINGS TO INCLUDE POST FOOTING SIZE AND REINFORCING, STAMPED AND SIGNED BY A LICENSED STATE OF TEXAS STRUCTURAL ENGINEER. SHOP DRAWINGS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER REPRESENTATIVE PRIOR TO ANY INSTALLATION. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF DESIGN LAYOUT CONFLICTS WITH ANY CODES. SHADE STRUCTURE MANUFACTURER SHALL PROVIDE ALL EXHIBITS NECESSARY TO OBTAIN BUILDING PERMIT REQUIRED BY UDC AND CITY OF SAN ANTONIO. CONTRACTOR IS RESPONSIBLE TO COORDINATE SPECIAL INSPECTIONS WITH MANUFACTURER STRUCTURAL ENGINEER FOR CERTIFICATE OF APPROVAL.



LEHMANN ENGINEERING, Inc.
1006 Beckett, San Antonio, TX 78213
Ph (210)348-8889 Fx (210)348-8884
TX Firm Reg. No. F-5298



STRUCTURAL RESPONSIBILITY ONLY PRETAINS
SHADE STRUCTURE FOUNDATION ON LS.3



201 GROVETON | SATX 78210
210.314.5582 | MPSTUDIO.HO

STATUS



PROJECT

JUPE MANOR
NEIGHBORHOOD
PARK
DEVELOPMENT

PROJECT ADDRESS
3218 KAISER DRIVE
SAN ANTONIO, TEXAS 78222

OWNER | CLIENT

CITY OF SAN ANTONIO
114 W. COMMERCE
SAN ANTONIO, TX 78203

OWNER'S REPRESENTATIVE

ALMA NUNEZ
210.207.6123
ALMA.NUNEZ@SANANTONIO.GOV

SUBCONSULTANT

REVISIONS

NO.	DATE	DESCRIPTION
1	08/07/20	100% CD SET

ISSUE SETS

NO.	DATE	DESCRIPTION
1	08/07/20	100% CD SET

SHEET INFORMATION

PROJECT NO.

19056

DATE ISSUED

AUGUST 7, 2020

SHEET NAME

SHADE STRUCTURE
ADD ALTERNATE
DETAILS

SHEET NUMBER

LS 2.3

