

HISTORIC AND DESIGN REVIEW COMMISSION

December 05, 2018

HDRC CASE NO: 2018-596
ADDRESS: 637 N MAIN AVE
LEGAL DESCRIPTION: NCB 788 BLK 2 LOT 10 FOX TECH HIGH SCHOOL
ZONING: D,HS
CITY COUNCIL DIST.: 1
LANDMARK: SA High School
APPLICANT: RVK Architects
OWNER: San Antonio ISD
TYPE OF WORK: Site and parking modifications, ROW improvements
APPLICATION RECEIVED: November 16, 2018
60-DAY REVIEW: January 15, 2018
REQUEST:

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

1. Construct a new playing field at the location of an existing baseball field and surface parking.
2. Install new queuing lanes and walkways along W Quincy Ave.
3. Install a new sidewalks and pedestrian access from the right-of-way.
4. Install a new canopy structure along the Jackson St/Romana St frontage.
5. Install new fencing.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

1. Topography

A. TOPOGRAPHIC FEATURES

- i. *Historic topography*—Avoid significantly altering the topography of a property (i.e., extensive grading). Do not alter character-defining features such as berms or sloped front lawns that help define the character of the public right-of-way. Maintain the established lawn to help prevent erosion. If turf is replaced over time, new plant materials in these areas should be low-growing and suitable for the prevention of erosion.
- ii. *New construction*—Match the historic topography of adjacent lots prevalent along the block face for new construction. Do not excavate raised lots to accommodate additional building height or an additional story for new construction.
- iii. *New elements*—Minimize changes in topography resulting from new elements, like driveways and walkways, through appropriate siting and design. New site elements should work with, rather than change, character-defining topography when possible.

3. Landscape Design

A. PLANTINGS

- i. *Historic Gardens*—Maintain front yard gardens when appropriate within a specific historic district.
- ii. *Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.
- iii. *Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.
- iv. *Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.
- v. *Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to

cause damage.

B. ROCKS OR HARDSCAPE

- i. *Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.
- ii. *Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.
- iii. *Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

C. MULCH

Organic mulch – Organic mulch should not be used as a wholesale replacement for plant material. Organic mulch with appropriate plantings should be incorporated in areas where appropriate such as beneath a tree canopy.

- i. *Inorganic mulch* – Inorganic mulch should not be used in highly-visible areas and should never be used as a wholesale replacement for plant material. Inorganic mulch with appropriate plantings should be incorporated in areas where appropriate such as along a foundation wall where moisture retention is discouraged.

D. TREES

- i. *Preservation*—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.
- ii. *New Trees* – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.
- iii. *Maintenance* – Proper pruning encourages healthy growth and can extend the lifespan of trees. Avoid unnecessary or harmful pruning. A certified, licensed arborist is recommended for the pruning of mature trees and heritage trees.

5. Sidewalks, Walkways, Driveways, and Curbing

A. SIDEWALKS AND WALKWAYS

- i. *Maintenance*—Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials—often brick or concrete—in place.
- ii. *Replacement materials*—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.
- iii. *Width and alignment*— Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree.
- iv. *Stamped concrete*—Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.
- v. *ADA compliance*—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to address ADA requirements.

B. DRIVEWAYS

- i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives. Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.
- ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.

C. CURBING

- i. *Historic curbing*—Retain historic curbing wherever possible. Historic curbing in San Antonio is typically constructed of concrete with a curved or angular profile.
- ii. *Replacement curbing*—Replace curbing in-kind when deteriorated beyond repair. Where in-kind replacement is not be feasible, use a comparable substitute that duplicates the color, texture, durability, and profile of the original. Retaining walls and curbing should not be added to the sidewalk design unless absolutely necessary.

6. Non-Residential and Mixed Use Streetscapes

A. STREET FURNITURE

- i. *Historic street furniture*—Preserve historic site furnishings, including benches, lighting, tree grates, and other features.
- ii. *New furniture*—Use street furniture such as benches, trash receptors, tree grates, and tables that are simple in design and are compatible with the style and scale of adjacent buildings and outdoor spaces when historic furnishings do not exist.

B. STREET TREES

i. *Street trees*—Protect and maintain existing street trees. Replace damaged or dead trees with trees of a similar species, size, and growth habit.

C. PAVING

i. *Maintenance and alterations*—Repair stone, masonry, or glass block pavers using in-kind materials whenever possible. Utilize similar materials that are compatible with the original in terms of composition, texture, color, and detail, when in-kind replacement is not possible.

D. LIGHTING

i. *General*—See UDC Section 35-392 for detailed lighting standards (height, shielding, illumination of uses, etc.).

ii. *Maintenance and alterations*—Preserve historic street lights in place and maintain through regular cleaning and repair as needed.

iii. *Pedestrian lighting*—Use appropriately scaled lighting for pedestrian walkways, such as short poles or light posts (bollards).

iv. *Shielding*—Direct light downward and shield light fixtures using cut-off shields to limit light spill onto adjacent properties.

v. *Safety lighting*—Install motion sensors that turn lights on and off automatically when safety or security is a concern. Locate these lighting fixtures as discreetly as possible on historic structures and avoid adding more fixtures than necessary.

7. Off-Street Parking

A. LOCATION

i. *Preferred location*—Place parking areas for non-residential and mixed-use structures at the rear of the site, behind primary structures to hide them from the public right-of-way. On corner lots, place parking areas behind the primary structure and set them back as far as possible from the side streets. Parking areas to the side of the primary structure are acceptable when location behind the structure is not feasible. See UDC Section 35-310 for district-specific standards.

ii. *Front*—Do not add off-street parking areas within the front yard setback as to not disrupt the continuity of the streetscape.

iii. *Access*—Design off-street parking areas to be accessed from alleys or secondary streets rather than from principal streets whenever possible.

B. DESIGN

i. *Screening*—Screen off-street parking areas with a landscape buffer, wall, or ornamental fence two to four feet high—or a combination of these methods. Landscape buffers are preferred due to their ability to absorb carbon dioxide. See UDC Section 35-510 for buffer requirements.

ii. *Materials*—Use permeable parking surfaces when possible to reduce run-off and flooding. See UDC Section 35-526(j) for specific standards.

iii. *Parking structures*—Design new parking structures to be similar in scale, materials, and rhythm of the surrounding historic district when new parking structures are necessary.

8. Americans with Disabilities Act (ADA) Compliance

A. HISTORIC FEATURES

i. *Avoid damage*—Minimize the damage to the historic character and materials of the building and sidewalk while complying with all aspects of accessibility requirements.

ii. *Doors and door openings*—Avoid modifying historic doors or door openings that do not conform to the building and/or accessibility codes, particularly on the front façade. Consider using a discretely located addition as a means of providing accessibility.

B. ENTRANCES

i. *Grade changes*—Incorporate minor changes in grade to modify sidewalk or walkway elevation to provide an accessible entry when possible.

ii. *Residential entrances*—The preferred location of new ramps is at the side or rear of the building when convenient for the user.

iii. *Non-residential and mixed use entrances*—Provide an accessible entrance located as close to the primary entrance as possible when access to the front door is not feasible.

C. DESIGN

i. *Materials*—Design ramps and lifts to compliment the historic character of the building and be visually unobtrusive as to minimize the visual impact, especially when visible from the public right-of-way.

ii. *Screening*—Screen ramps, lifts, or other elements related to ADA compliance using appropriate landscape materials.

Refer to Guidelines for Site Elements for additional guidance.

iii. *Curb cuts*—Install new ADA curb cuts on historic sidewalks to be consistent with the existing sidewalk color and texture while minimizing damage to the historical sidewalk.

FINDINGS:

- a. The structure at 637 was constructed circa 1935 and is commonly known as Fox Technical High School, or Fox Tech. The structure features Art Deco architectural detailing and is bound by N Flores to the west, W Quincy to the north, N Main to the east, and Galitzen to the south. The property is an individually designated local landmark.
- b. **PLAYING FIELD** – The applicant has proposed to construct a new rectangular playing field on the current location of a baseball diamond and surface parking spots. According to the Historic Design Guidelines, significant landscaping features should be preserved whenever possible. The existing condition of the area is not historically significant to the site. Staff finds the proposal appropriate.
- c. **QUEUING LANES AND WALKWAYS** – The applicant has proposed to install new queuing lanes and walkways along the W Quincy right-of-way. The lanes will be located within the property boundary, partially located in the area of the existing baseball diamond. Staff finds that the modifications will not adversely affect
- d. **PEDESTRIAN WALKWAYS** – The applicant has proposed to install a sidewalk fronting the N Flores right-of-way to connect to an existing bus stop. The applicant has also proposed to install pedestrian access from N Flores to the interior of the site per the submitted site plan. Staff finds the proposal consistent.
- e. **CANOPY** – The applicant has proposed an open air canopy structure to cover a pedestrian walkway at the frontage of the bend where Jackson St becomes Romana St, as indicated in the submitted site plans. The structure will be constructed of clear anodized columns and beams, white roofing and fascia. Staff finds the proposed design, materiality, and location appropriate for the site.
- f. **FENCING** – The applicant has proposed to install new fencing to match existing in various locations. Per the submitted site plans, the applicant has proposed 6' tall wrought iron fencing to match the existing on site, and 6' chain link fencing to match existing. Staff finds that the proposed wrought iron fencing is consistent with the material recommendation in the Guidelines, but finds that the proposed chain link fencing should feature a black vinyl coating treatment to be appropriate.
- g. **ARCHAEOLOGY** – The San Pedro or Principal Acequia, a designated Local Historic Landmark, National Historic Civil Engineering Landmark, and previously recorded archaeological site, likely traverses the project area. In addition, a review of historic archival maps shows structures within the property as early as 1873. Furthermore, human remains have been found within, or in close proximity to, the project area. Therefore, an archaeological investigation is required. The development project shall comply with the Antiquities Code of Texas, Health and Safety Code of Texas, and all other applicable federal, state, and local laws, rules, and regulations regarding archaeology.

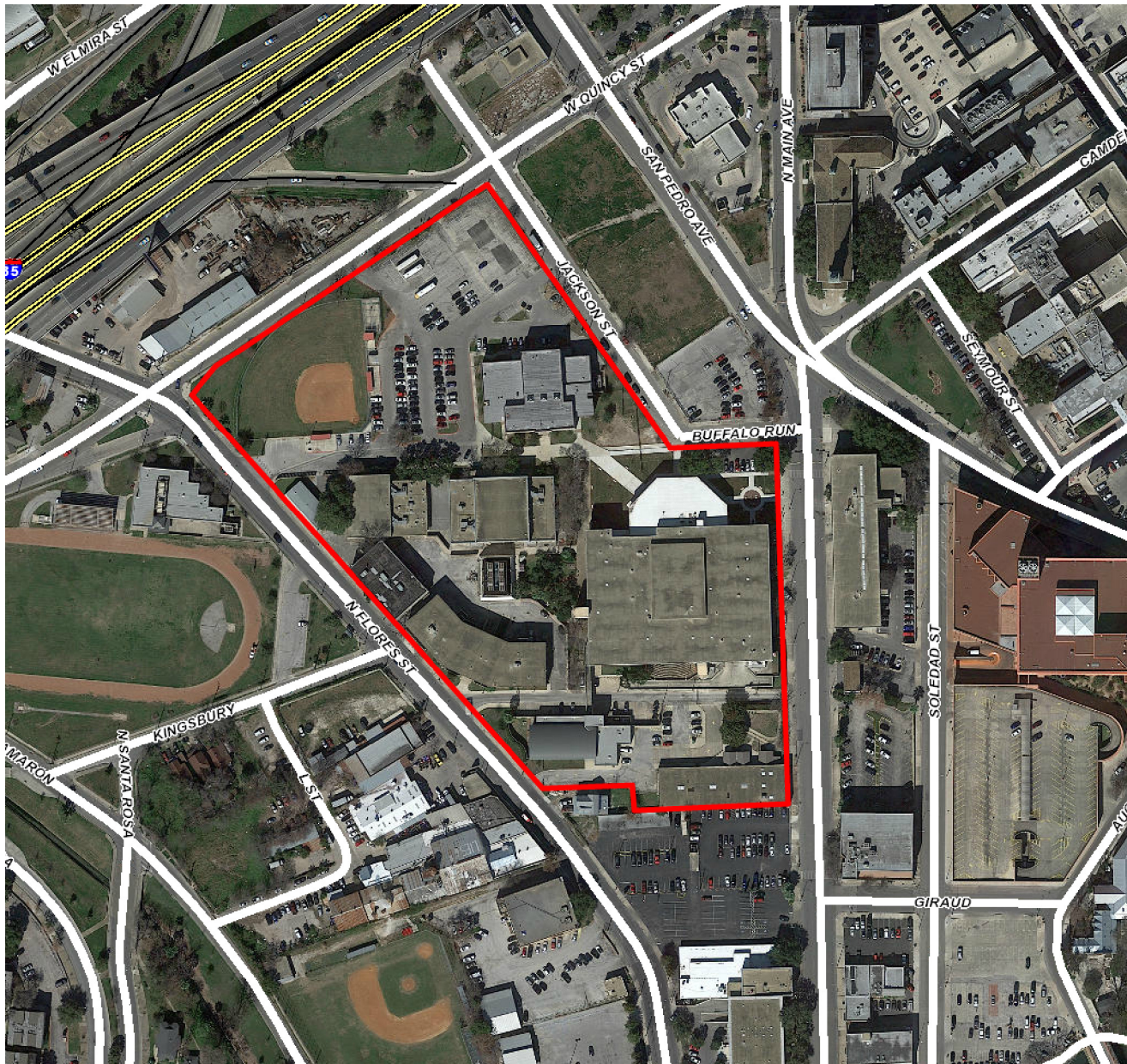
RECOMMENDATION:

Staff recommends approval based on findings a through f with the following stipulations:

- i. That the proposed fencing features a black vinyl coating as noted in finding f. The final construction height of an approved fence may not exceed the maximum height as approved by the HDRC at any portion of the fence. Additionally, all fences must be permitted and meet the development standards outlined in UDC Section 35-514.
- ii. **ARCHAEOLOGY** – An archaeological investigation is required. The archaeological scope of work should be submitted to the OHP archaeologists for review and approval prior to beginning the archaeological investigation. The development project shall comply with the Antiquities Code of Texas, Health and Safety Code of Texas, and all other applicable federal, state, and local laws, rules, and regulations regarding archaeology.

CASE MANAGER:

Stephanie Phillips



Flex Viewer

Powered by ArcGIS Server

Printed: Nov 20, 2018

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PHOTO 1



PHOTO 2



EXISTING
DECORATIVE
FENCING

EXISTING CHAINLINK
FENCING

PHOTO 3



PHOTO 4



PHOTO 5



PHOTO 6



PHOTO 7



PHOTO 8

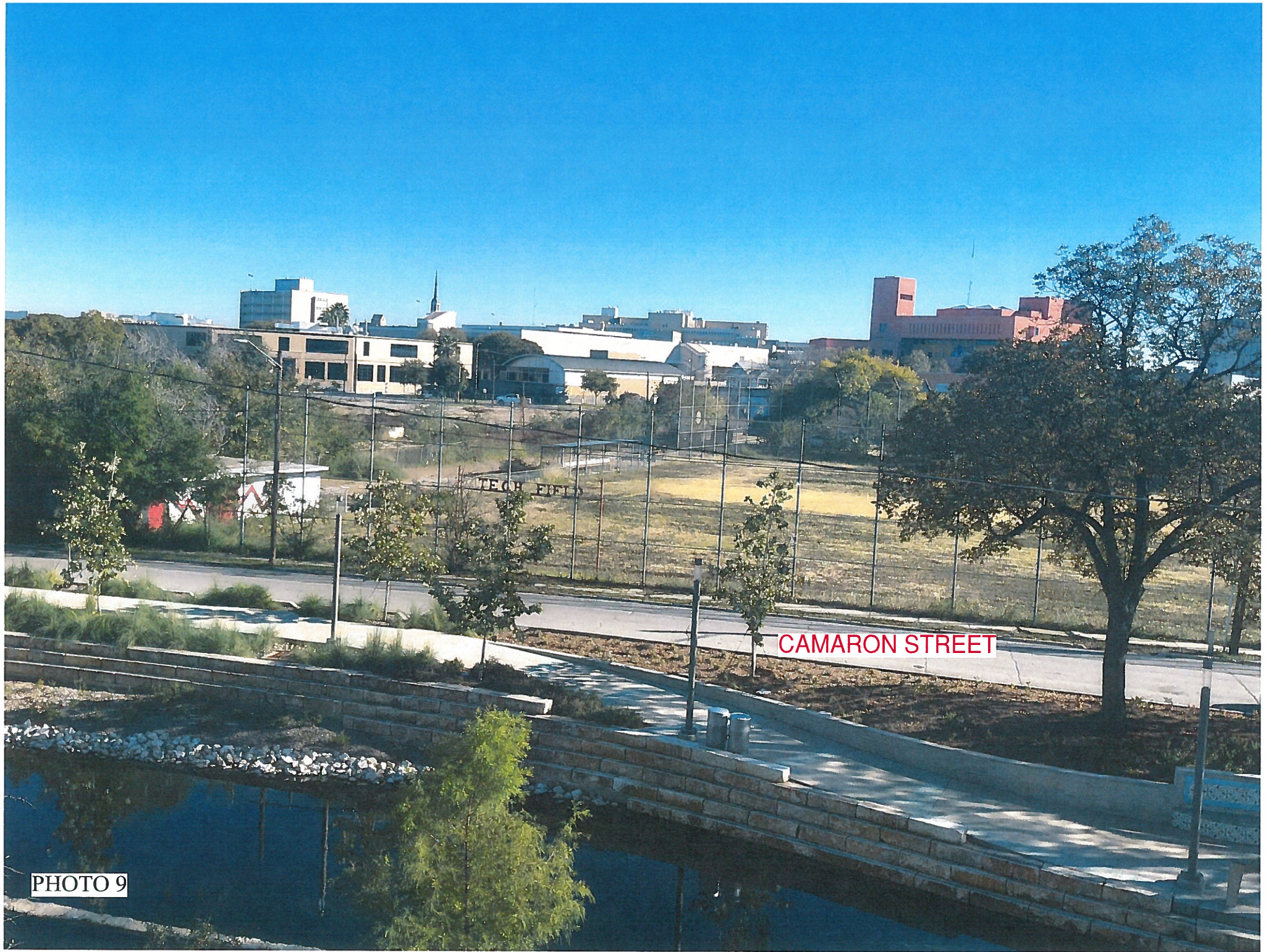


PHOTO 9

A photograph of a city street scene. In the foreground, a concrete sidewalk and a low wall are visible. A road with several cars, including a white van and a silver sedan, runs horizontally across the middle. Behind the road is a grassy area with a chain-link fence and several large trees. In the background, a city skyline is visible under a clear blue sky, featuring a prominent tall building and other structures. The text "CAMARON STREET" is overlaid in red on the left side of the road.

CAMARON STREET

PHOTO 10



Walkway Cover 16

AVAdak / Air-Vent

Walkway Canopy

Finish to be provided (As shown on photo) - clear anodized column and beam, white roof and fascia.

Product : Avadek Walkway Cover 16

POROUS PAVE

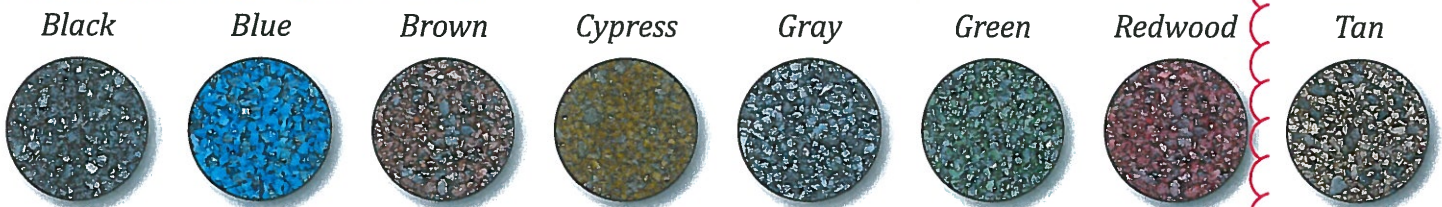


An eco-friendly surfacing material — highly porous and flexible

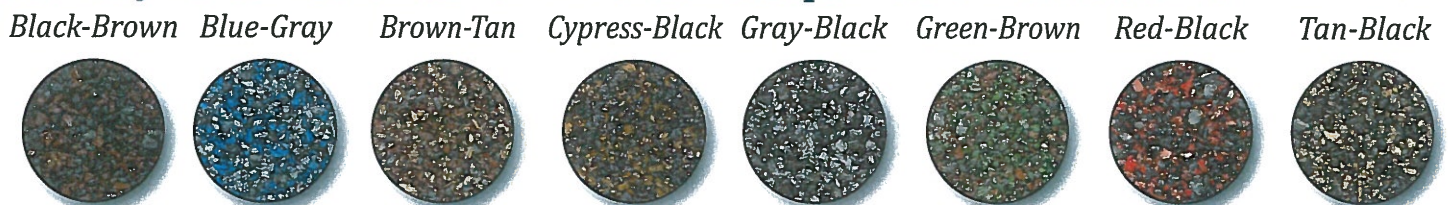
Made from recycled tires, stone aggregate and a proprietary binding agent — Porous Pave is an ideal surfacing material with endless applications. The unique design of the material allows the entire surface area to be porous which allows an amazing 5800 - 6300 gallons of water per hour to pass thru each square foot of surface area.

Porous Pave is a 'pour in place' material that is mixed on site and applied as a single monolithic pour. Installation is much faster than traditional pavers and is much easier than concrete to finish. A typical four man crew can install up to 3000 square feet per day using a single mortar mixer, readily available concrete tools and a small amount of wood form boards. Best of all, Porous Pave is fully cured in 24 hours and ready for use.

AVAILABLE IN 8 COLORS



Mix any of the colors above to create unique color combinations



ONLINE

www.porouspaveinc.com

Visit our website to see:

- Informative installation video
- Independent lab test results
- MSDS sheets
- Technical bulletins
- Project photos
- & much more

DESCRIPTION

The Navion™ area, site and roadway LED luminaire combines world class optical performance, energy efficiency, and outstanding versatility to meet the requirements of any area, site or roadway lighting application. Patented AccuLED Optic™ technology delivers unparalleled uniformity. Heavy-duty construction and easy installation features make the Navion luminaire the right choice for site lighting applications and municipal streets. UL/cUL listed for wet locations, optional IP66 enclosure rating available.

SPECIFICATION FEATURES

Construction

Heavy-duty, cast aluminum housing and door with extruded aluminum heat sink. Tool-less entry, hinged removable power tray door for easy maintenance. 3G vibration rated.

Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K and 6000K CCT. For the ultimate level of spill light control, an optional house side shield accessory is available and can be field or factory installed. The house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

Electrical

LED drivers are mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV common and differential-mode surge protection standard. 0-10V dimming driver standard. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA option available. Greater than 90% lumen maintenance expected at 60,000 hours. Light squares are IP66 enclosure rated. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

Mounting

Four-bolt/two-bracket slipfitter with cast-in pipe stop and built-in incremental 2.5° leveling steps are standard. Fixed-in-place bird guard seals around 1-1/4" or 2" mounting arms.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is anodized aluminum. Consult your lighting representative at Eaton for a complete selection of standard colors.

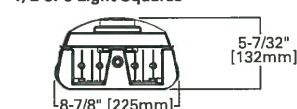
Warranty

Five-year warranty.

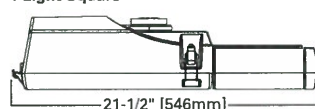


DIMENSIONS

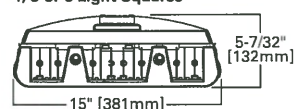
1, 2 or 3 Light Squares



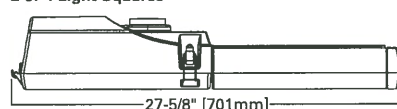
1 Light Square



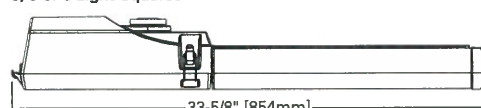
4, 5 or 6 Light Squares



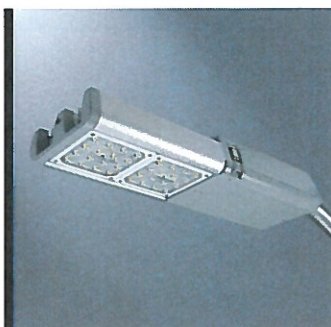
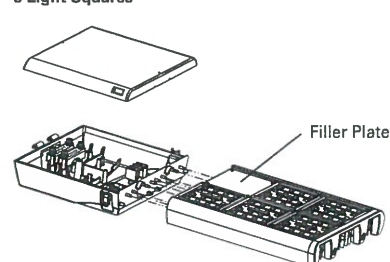
2 or 4 Light Squares



3, 5 or 6 Light Squares



5 Light Squares



NAV NAVION

1-6 Light Squares
LED

AREA / SITE / ROADWAY
LUMINAIRE



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
IP66 Light Squares
3G Vibration Rated
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60 Hz,
347V 60 Hz, 480V 60 Hz
-40°C Minimum Temperature
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.):

(Fixture only)

1 Square 0.8

2 Square's 1.0

3 Square's 1.2

4 Square's 1.2

5 Square's 1.4

6 Square's 1.4

(Fixture with AI arm)

1 Square 1.2

2 Square's 1.3

3 Square's 1.5

4 Square's 1.5

5 Square's 1.7

6 Square's 1.7

SHIPPING DATA

Approximate Net Weight:

1 Square 17 lbs. (7.7 kgs.)

2 Square's 22 lbs. (10.0 kgs.)

3 Square's 26 lbs. (11.8 kgs.)

4 Square's 31 lbs. (14.1 kgs.)

5 Square's 34 lbs. (15.4 kgs.)

6 Square's 36 lbs. (16.3 kgs.)



ORDER INFORMATION


Sample Number: NAV-AF-01-D-UNV-T3-10K-AI-AP

Product Family ^{1,2}	Light Engine	Number of Light Squares ³	Driver	Voltage	Distribution	Surge Protection
NAV=Navion	AF	01=1 02=2 03=3 04=4 05=5 06=6	D=Dimming	UNV=Universal (120-277V) 347=347V ⁴ 480=480V ⁵	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Front Line	10K=Cooper 10kV Surge Module (Standard) X=Driver Surge Protection Only ⁶
Options (Add as Suffix)						Color
2L=Two Circuits ⁷ 8030=80 CRI / 3000K ⁸ 7030=70 CRI / 3000K ⁸ 7050=70 CRI / 5000K ⁸ 600=Drive Current Factory Set to 600mA ⁹ 800=Drive Current Factory Set to 800mA ⁹ 1200=Drive Current Factory Set to 1200mA ⁹ PER=NEMA Twistlock Photocontrol Receptacle PER7=7-PIN NEMA Twistlock Photocontrol Receptacle ¹⁰ IP66=IP66 Rated HA=50°C High Ambient ¹¹ L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right CE=CE Marking ¹²				MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ¹³ MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ¹³ MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height ¹³ MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height ¹⁴ MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height ¹⁴ MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height ¹⁴ K=Level Indicator AI=Arm Included ¹⁵ A15=Arm Included (15" Straight Arm) ¹⁶ LCF=Light Square Trim Plate Painted to Match Housing HSS=Factory Installed House Side Shield ¹⁷ LWR-LW=LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ^{18, (A)} LWR-LN=LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ^{18, (A)} AHD145=After Hours Dim, 5 Hours ¹⁹ AHD245=After Hours Dim, 6 Hours ¹⁹ AHD255=After Hours Dim, 7 Hours ¹⁹ AHD355=After Hours Dim, 8 Hours ¹⁹		AP=Grey (Standard) BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Accessories (Order Separately)						Select Finish
QA123=10kV Surge Module Replacement QA/RAT1013=Photocontrol Shorting Cap QA/RAT1014=NEMA Photocontrol - 120V QA/RAT1016= NEMA Photocontrol - Multi-Tap QA/RAT1027= NEMA Photocontrol - 480V QA/RAT1201=NEMA Photocontrol - 347V MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon				MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1012-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1013-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1014-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1015-XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1016-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon		MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1019-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1045-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1048-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1049-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon FSIR-100=Wireless Configuration Tool for Motion Sensor ²⁰ LS/HSS=Field Installed House Side Shield ²¹ A15=15" Straight Arm ²² WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ^{23, (C)}

NOTES:

- DesignLights Consortium[®] Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
- Standard 1A drive current. Standard 4000K CCT and minimum 70 CRI.
- Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Consult factory for driver surge protection values.
- Low-level output varies by number of light squares specified. Consult factory. 2L is not available with MS/X, MS/DIM, DIMRF-LW or DIMRF-LN in combination with 347V or 480V. 2L is available in 4 and 6 light square configurations. No terminal block with 2L options.
- Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Navion luminaire product page on the website. Extended lead times apply.
- 1Amp standard. Use dedicated IES files for 600mA, 800mA and 1200mA when performing layouts. These files are published on the Navion luminaire product page on the website.
- Only available with dimming driver. Not available with MS, MS/DIM or DIMRF options.
- Not available with 1200mA.
- CE is not available with the 1200mA, DIMRF, MS, MS/X, MS/DIM, PER or PER7 options. Available in 120-277V only.
- Sensor mounted externally. Must specify dimming driver. Consult factory for more information.
- Sensor mounted externally. Available in 4, 5 or 6 light square configurations. Replace "X" with number of squares in low output mode. For ON/OFF operation, replace "X" with "0". Maximum two squares in low output mode.
- 22" upswing arm. Round pole adapter and mounting hardware included, "M" drill pattern.
- Round pole adapter and mounting hardware included, "M" drill pattern.
- Only for use with SL2, SL3, SL4 and AFL distributions. The light square trim plate is painted black when the HSS option is selected.
- LumaWattPro wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information. Not available with PER, PER7, or 2L options.
- Requires the use of PER or PER7 photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
- One required for each light square.
- Replace XX with paint color.
- Requires 7-pin NEMA twistlock photocontrol receptacle.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul
L=LumenSafe Technology* 	D=Dome Camera	C=Cellular, Customer Installed SIM Card A=Cellular, Factory Installed AT&T SIM Card V=Cellular, Factory Installed Verizon SIM Card S=Cellular, Factory Installed Sprint SIM Card R=Cellular, Factory Installed Rogers SIM Card W=Wi-Fi Networking w/ Omni-Directional Antenna E=Ethernet Networking

*Consult LumenSafe system pages for additional details and compatibility. Not available with 347V, 480V or high ambient options.

DESCRIPTION

The Navion™ area, site and roadway LED luminaire combines world class optical performance, energy efficiency, and outstanding versatility to meet the requirements of any area, site or roadway lighting application. Patented AccuLED Optic™ technology delivers unparalleled uniformity. Heavy-duty construction and easy installation features make the Navion luminaire the right choice for site lighting applications and municipal streets. UL/cUL listed for wet locations, optional IP66 enclosure rating available.

SPECIFICATION FEATURES

Construction

Heavy-duty, cast aluminum housing and door with extruded aluminum heat sink. Tool-less entry, hinged removable power tray door for easy maintenance. 3G vibration rated.

Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K and 6000K CCT. For the ultimate level of spill light control, an optional house side shield accessory is available and can be field or factory installed. The house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

Electrical

LED drivers are mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV common and differential-mode surge protection standard. 0-10V dimming driver standard. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA option available. Greater than 90% lumen maintenance expected at 60,000 hours. Light squares are IP66 enclosure rated. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

Mounting

Four-bolt/two-bracket slipfitter with cast-in pipe stop and built-in incremental 2.5° leveling steps are standard. Fixed-in-place bird guard seals around 1-1/4" or 2" mounting arms.

Finish

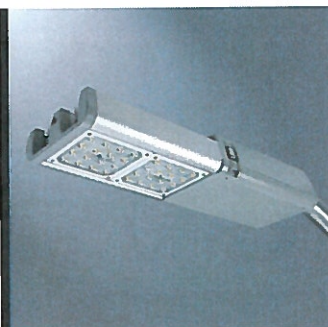
Housing and cast parts finished in five-stage superTGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is anodized aluminum. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.



LumenSafe Technology
CLICK HERE



NAV NAVION

1-6 Light Squares
LED

AREA / SITE / ROADWAY
LUMINAIRE



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
IP66 Light Squares
3G Vibration Rated
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60 Hz,
347V 60 Hz, 480V 60 Hz
-40°C Minimum Temperature
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.):

(Fixture only)

1 Square 0.8

2 Square's 1.0

3 Square's 1.2

4 Square's 1.2

5 Square's 1.4

6 Square's 1.4

(Fixture with AI arm)

1 Square 1.2

2 Square's 1.3

3 Square's 1.5

4 Square's 1.5

5 Square's 1.7

6 Square's 1.7

SHIPPING DATA

Approximate Net Weight:

1 Square 17 lbs. (7.7 kgs.)

2 Square's 22 lbs. (10.0 kgs.)

3 Square's 26 lbs. (11.8 kgs.)

4 Square's 31 lbs. (14.1 kgs.)

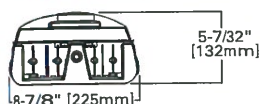
5 Square's 34 lbs. (15.4 kgs.)

6 Square's 36 lbs. (16.3 kgs.)

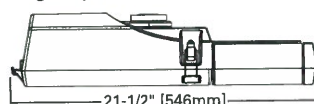


DIMENSIONS

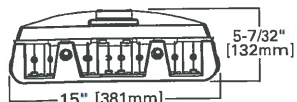
1, 2 or 3 Light Squares



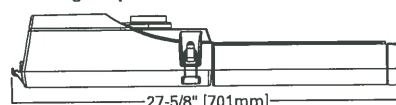
1 Light Square



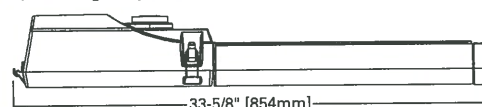
4, 5 or 6 Light Squares



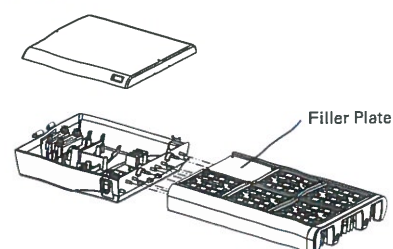
2 or 4 Light Squares



3, 5 or 6 Light Squares



5 Light Squares



Name: _____		Client Name: _____	
Location - City: _____ State: _____		Created By: _____ Date: _____	
Quote: _____		Customer Approval: _____ Date: _____	

SPECIFICATIONS

Pole - The pole shaft conforms to ASTM A595 Grade A or A572 Grade 55 with a constant linear taper of 0.11 in/ft.

Pole Top - Pole is provided with either a tenon top or drilled for a fixture mounting. A removable pole cap is provided for drilled poles. Consult the luminaire manufacturer for correct tenon size or drill pattern. Other pole top options include pole cap only (PC) or plain top (PL) which is typical when the pole top diameter matches the necessary slip fit dimensions.

Hinge - The internal hinge includes a stainless steel pin. A flexible guide is provided for wiring protection through the hinge area.

Shroud - The shroud is fabricated from weldable grade hot rolled commercial quality carbon steel with a minimum yield strength of 45,000 psi. It is a one-piece formed channel which conforms to the pole shaft taper. The shroud is secured by a threaded stud and nut with provisions for a padlock to prevent accidental or unauthorized lowering.

Winch - A removable winch is available for raising and lowering the pole.

Handhole - A reinforced handhole with grounding provision is provided at 1'-6" from the base end of the pole assembly. Each handhole includes a cover and the cover attachment hardware. Poles with a 5.25" or 6.00" base square are supplied with a 3" X 5" rectangular handhole. All other pole assemblies are provided with a 4" X 6.5" ovalized handhole. Handhole dimensions are nominal.

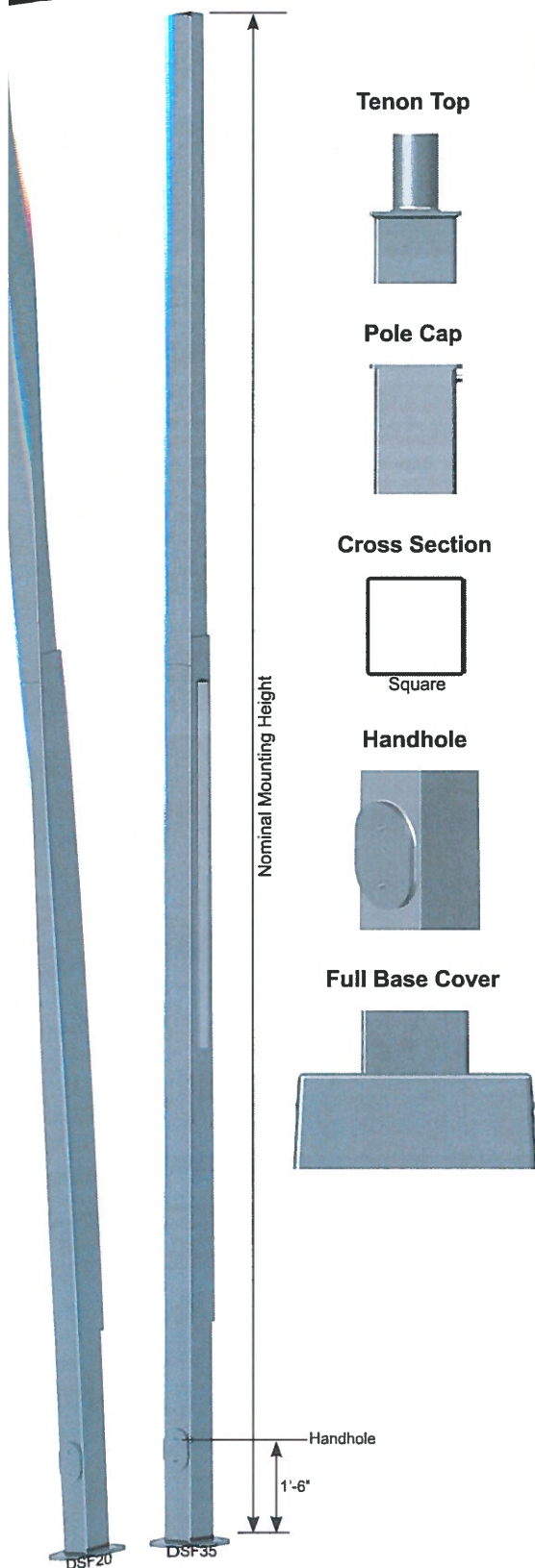
Full Base Cover - Optional two-piece full base cover is fabricated from ABS plastic. Valmont reserves the right to provide a two-piece steel full base cover on some applications depending upon the finish requirement and/or pole base square.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

Hardware - All structural fasteners are galvanized high strength carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

Finish - Standard finish is Finish Painted (FP). Additional finish options including V-PRO™ 30, V-PRO™ 53 or V-PRO™ 100 are available upon request. See the product ordering code for color options.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.





BALD CYPRESS / *Taxodium distichum*



CEDAR ELM / *Ulmus crassifolia*



TIFWAY 419 BERMUDA / *Cynodon dactylon* '419'

RVK

FIELDS AND PARKING LOT RENOVATIONS

SAISD Fox Tech Campus

637 N. Main Ave
San Antonio, Texas
78205

RVK

architect interior design landscape architect
san antonio, texas

PAPE-DAWSON ENGINEERS
civil engineer
san antonio, texas

DATUM ENGINEERS
structural engineer
san antonio, texas

CNG ENGINEERING
mep engineer
san antonio, texas

11-16-2018

set # _____

CONSTRUCTION DOCUMENT ORGANIZATION

This set of CONSTRUCTION DOCUMENTS is presented in two parts:
a set of technical SPECIFICATIONS and a set of DRAWINGS

1. DRAWINGS

DRAWINGS are organized according to disciplines, with each discipline describing a general aspect of the construction. Disciplines are arranged in the order of typical construction sequence as follows:

- C - CIVIL
Work relating to site grading, parking, and utilities.
- A - ARCHITECTURAL
Work required to produce the basic building envelope, including:
Floor plan(s), roof plan(s), exterior elevations, building sections, wall sections, stair details, exterior enclosure details, interior floor plan(s), enlarged plans, interior elevations, interior partition sections, interior details, cabinets, millwork, equipment details, ceilings and floor finishes.
- S - STRUCTURAL
Work related to the building structure.
- M - MECHANICAL
Work related to heating, ventilating and cooling systems.
- P - PLUMBING
Work related to plumbing systems.
- E - ELECTRICAL
Work related to the electrical system.
- L - LANDSCAPING
Work relating to tree preservation, landscape and irrigation.

2. DRAWING NUMBERING

16 JAMB DETAIL

Each drawing is numbered preceding the drawing title. In this example, drawing 16 represents the sixteenth drawing on a sheet of the architectural discipline, a JAMB DETAIL.

3. SYMBOLS



This symbol (with solid black arrow) represents the direction of true north for this set of drawings. The symbol (with outlined arrow) represents the direction of "project" north for this set of drawings.



This symbol is a key to a building section drawing taken along the straight line of the symbol. The arrow points in the direction of the view for the section. The number is a reference to the section drawing. In this example, drawing 2, sheet A-305.



This symbol is a key to a section drawing taken along the straight line of the symbol. The arrow points in the direction of the view for the section. The number is a reference to the section drawing. In this example, drawing 2, sheet A-305.



This symbol is a key to a detail drawing of the area within the dashed line. The number is a reference to the detail drawing. In this example, drawing 5, sheet A-402.

3. SYMBOLS (continued)



This symbol is a key to an elevation drawing. The arrow points in the direction of view for the elevation. The number is a reference to the elevation drawing. In this example, drawing 5, sheet A-203.



This symbol is a key to a partition type. The number is a reference to the partition drawing. In this example, partition type 'T4'.



This symbol is a key to the door schedule. All doors are keyed with a letter 'D' and the room number. If more than one door, 'A', 'B', etc. is added. See door 'D103A' in the Door Schedule.



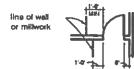
This symbol is a key to the window schedule. Windows are keyed with a pre-fix 'W'. In this example, see 'W1' in the Window Schedule.

4. DIMENSIONS

All plan dimensions are to the face of stud framing or face of masonry unless otherwise noted.

5. TYPICAL DOOR PLACEMENT

All doors are to be installed with the clearances indicated below unless otherwise noted.



GENERAL NOTES

All Subcontractors and Construction Workers must read the written Specifications contained in the Project Manual. The Specifications contain additional surface preparation or installation requirements for the building materials, products or components that are being placed or installed.

The installation / application information shown on the Drawings is not complete without the written Specifications. If the Specifications / Project Manual is not with these Drawings, ask the General Contractor for a copy to review before beginning your work.

The word PROVIDE when used in any document relating to this project, including but not limited to Drawings, Specifications, proposal requests, change orders and other similar documents, shall mean to furnish, install in place, connect, finish and complete, ready for use for its intended purpose.

CODE REVIEW SUMMARY

LOCATION
537 N. MAIN AVE, SAN ANTONIO, TX 78205
32.33 SITE ACRES
N.C.B. 788 LOT 10 BLOCK 2

ZONING
D

BUILDING AREA
N/A

CODE BASIS
2018 INTERNATIONAL BUILDING CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2018 INTERNATIONAL EXISTING BUILDING CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2018 INTERNATIONAL FIRE CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2018 INTERNATIONAL MECHANICAL CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2018 INTERNATIONAL PLUMBING CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2017 NATIONAL ELECTRIC CODE
WITH CITY OF SAN ANTONIO AMENDMENTS
2012 TEXAS ACCESSIBILITY STANDARDS

SPECIAL INSPECTIONS REQUIREMENT

- CONCRETE CONSTRUCTION
- PIER FOUNDATIONS

INDEX OF DRAWINGS

COVER/INDEX SHEET

CIVIL DRAWINGS

- EX1 CAMPUS PROJECTS EXHIBIT
- EX2 PHASE 1 PARKING AND FIELD PROJECT
- EX3 BASEBALL FIELD TEMPORARY PARKING PROJECT

STRUCTURAL DRAWINGS

- S100 SITE STRUCTURES

ARCHITECTURAL DRAWINGS

- AD-101 DEMO SITE PLAN
- AS-101 OVERALL SITE PLAN
- AS-102 ENLARGED SITE PLAN
- AS-103 ENLARGED SITE PLAN
- AS-104 SITE DETAILS
- AS-105 TEMPORARY PARKING LOT PLAN

ELECTRICAL DRAWINGS

- E-000 ELECTRICAL GENERAL NOTES AND LEGEND
- E-001 ELECTRICAL ENERGY COMPLIANCE
- E-101 ELECTRICAL SITE PLAN
- E-201 ELECTRICAL DEMOLITION PLAN
- E-301 ELECTRICAL RISER DIAGRAM
- E-401 ELECTRICAL SCHEDULES

LANDSCAPE DRAWINGS

- L-100 LANDSCAPE PLAN
- TP-100 TREE PRESERVATION PLAN
- TP-101 TREE PRESERVATION PLAN
- TP-102 TREE PRESERVATION PLAN
- IR-100 IRRIGATION PLAN
- IR-101 IRRIGATION NOTES
- IR-301 IRRIGATION DETAILS
- IR-302 IRRIGATION DETAILS

LEGAL DESCRIPTION:
LOT 10, BLOCK 2, NCB 788
(VOL. 9551, PG. 120 D.P.R.)



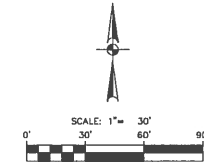
**PAPE-DAWSON
ENGINEERS**
SAN ANTONIO • AUSTIN • HOUSTON • FORT WORTH • DALLAS
2620 NW LOOP #18 | SAN ANTONIO, TX 78213 | 214 376 9820
TYPE FIRM REGISTRATION #478 | TRIPLE FIRM REGISTRATION 11628660

SAISD-PARKING AND ADMINISTRATION BUILDING
SAN ANTONIO, TEXAS
CAMPUS PROJECTS EXHIBIT

PLAT NO. _____
JOB NO. 11704-00
DATE NOVEMBER 2018
DESIGNER SW
CHECKED SW DRAWN JF
SHEET EX1

Date: Nov 15, 2018, 5:49pm User ID: jfligueroa
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LEGAL DESCRIPTION:
LOT 10, BLOCK 2, NCB 788
(VOL. 9561, PG. 120 D.P.R.)

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**PAPE-DAWSON
ENGINEERS**

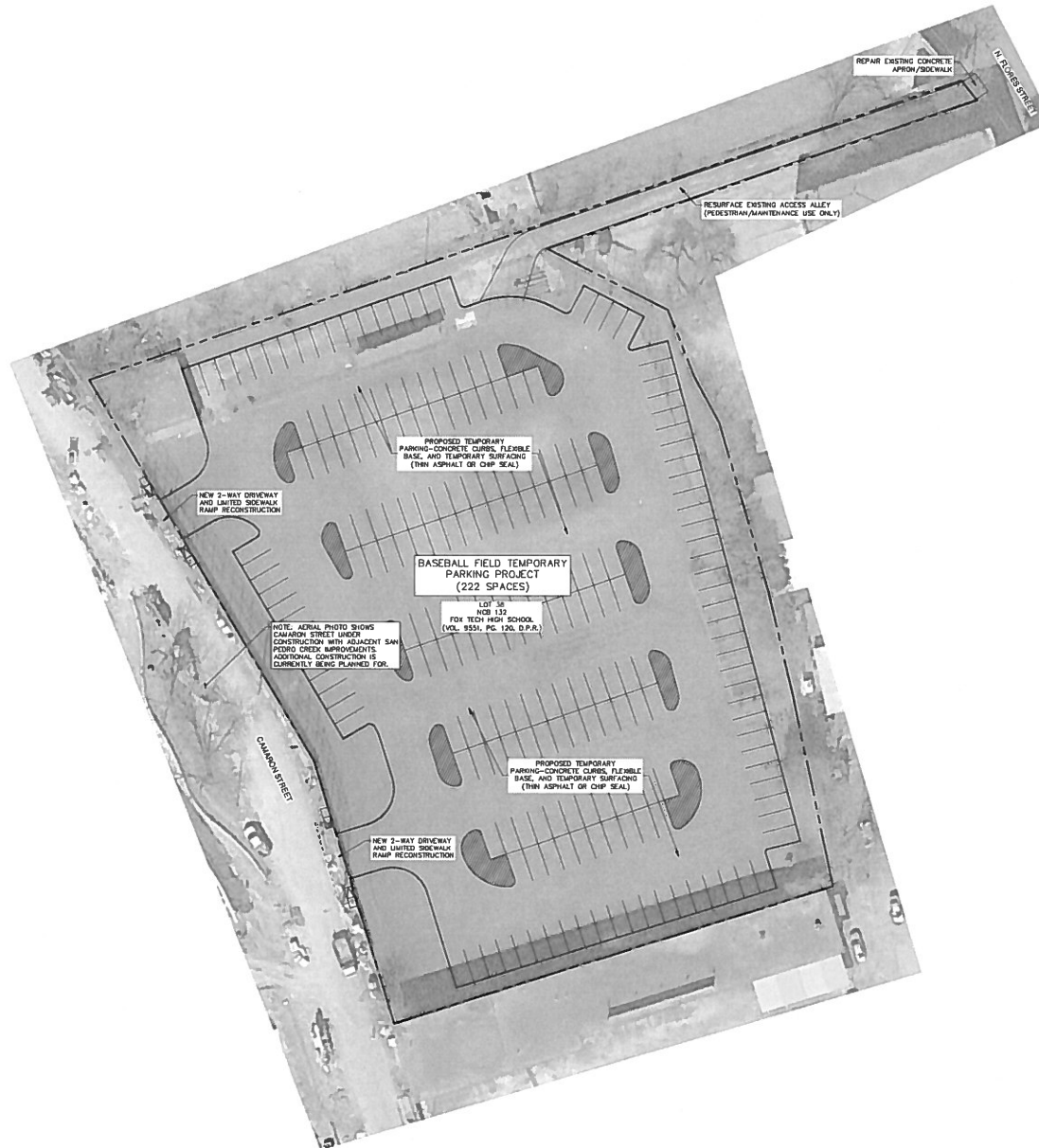
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2505 RIT. LOOP 110 | SAN ANTONIO, TX 78211 | 210.375.9000
TYPE F.A.M. REGISTRATION #4378 | TYPE F.P.M. REG. STATUS #10328996

SAISD-PARKING AND ADMINISTRATION BUILDING
SAN ANTONIO, TEXAS
PHASE 1 PARKING AND FIELD PROJECT

PLAT NO. _____
JOB NO. 11704-00
DATE NOVEMBER 2018
DESIGNER SW
CHECKED SW DRAWN JF
SHEET EX2

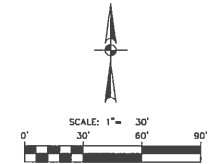
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File: P:\117\04\00\Design\Exhibits\181115-PH 1 P



ADDRESS:
177 BUFFALO BLVD.
SAN ANTONIO, TX 78205

LEGAL DESCRIPTION:
LOT 18, BLOCK 2, NCB 132
(VOL. 9551, PG. 120 D.P.R.)



NO.	REVISION	DATE

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PAPE-DAWSON ENGINEERS
SAN ANTONIO, TEXAS
1000 W. LOOP 418, SUITE 100
SAN ANTONIO, TEXAS 78207
TEL: 214.345.1000
FAX: 214.345.1001

SAISD-PARKING AND ADMINISTRATION BUILDING
SAN ANTONIO, TEXAS

BASEBALL FIELD TEMPORARY PARKING PROJECT

PLAT NO. _____
JOB NO. 11724-00
DATE NOVEMBER 2018
DESIGNER SW
CHECKED SW DRAWN JF
SHEET EX3

CODES & DESIGNS SPECIFICATIONS

- BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE, WITH AMENDMENTS ADOPTED BY THE CITY OF SAN ANTONIO.
- STRUCTURAL CONCRETE: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-11)," THE AMERICAN CONCRETE INSTITUTE.

SUBMITTALS

- THE CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND SHALL CERTIFY THAT HE HAS DONE SO BY A STAMP NOTING THAT THE DRAWINGS HAVE BEEN APPROVED AND WHICH BEARS THE SIGNATURE OF AN AUTHORIZED REPRESENTATIVE OF THE CONTRACTOR AND THE DATE. SUBMITTALS WHICH DO NOT REFLECT THE CONTRACTORS APPROVAL, SIGNATURE AND DATE WILL BE RETURNED WITHOUT REVIEW.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELAYS CAUSED BY REJECTION OF INADEQUATE OR INCORRECT SHOP DRAWINGS.
- WHERE REVIEW AND RETURN OF SHOP DRAWINGS IS REQUIRED OR REQUESTED, THE ENGINEER WILL REVIEW EACH SUBMITTAL AND, WHERE POSSIBLE, RETURN WITHIN TWO WEEK(S) OF RECEIPT.
- CORRECTIONS OR COMMENTS ON SHOP DRAWINGS OR MANUFACTURERS' DATA SHEETS DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. THE ENGINEER'S REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRECTING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER CONTRACTORS AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

SPECIAL INSPECTION REQUIREMENTS

- PERIODIC SITE OBSERVATIONS BY THE ENGINEER OF RECORD ARE SOLELY FOR THE PURPOSE OF DETERMINING GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. THOSE LIMITED OBSERVATIONS ARE NOT A SUBSTITUTE FOR INSPECTIONS AND TESTING PERFORMED BY THE OWNER'S QUALIFIED, INDEPENDENT TESTING LABORATORY, NOR ARE THEY INTENDED TO IDENTIFY ALL DEFECTS AND DEFICIENCIES IN THE WORK BY THE CONTRACTOR. THOSE OBSERVATIONS DO NOT FULFILL ANY PART OF THE SPECIAL INSPECTIONS REQUIREMENTS GIVEN IN THE SPECIFICATIONS. THE DESIGNATED SPECIAL INSPECTOR IS SOLELY RESPONSIBLE FOR FULFILLING THE SPECIAL INSPECTION REQUIREMENTS AS OUTLINED HERE AND DEFINED IN THE SPECIFICATIONS.
- ITEMS OF STRUCTURAL CONSTRUCTION WHICH REQUIRE SPECIAL INSPECTION INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - INSTALLATION OF DRILLED CONCRETE PIERS AND FOOTINGS
 - PLACEMENT OF STRUCTURAL CONCRETE
 - PLACEMENT OF CONCRETE REINFORCING
 - PLACEMENT OF ANCHOR BOLTS PLACED IN CONCRETE OR MASONRY
- ARCHITECTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS REQUIRING SPECIAL INSPECTIONS PER SECTION 1705 OF THE IBC HAVE NOT BEEN LISTED HERE. REFER TO ARCHAMP FOR SPECIAL INSPECTION REQUIREMENTS FOR THESE COMPONENTS.

SUBSTITUTIONS

- ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. ONCE BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THEY ARE OFFICIALLY SUBMITTED WITH AN IDENTIFIED SAVINGS TO BE DEDUCTED FROM THE CONTRACT.

CONCRETE MIX

- PROVIDE CONCRETE HAVING THE FOLLOWING GENERAL CHARACTERISTICS:

CLASS	(PSI)	(N)	SLUMP	ADG.	MAX. SIZE
A	3000	4.6	HDRK	1 1/2	
- WORKABILITY ADJUSTMENTS MAY BE UTILIZED, PROVIDED THAT BATCH PROPORTIONS ARE DETERMINED IN THE MANNER DESCRIBED IN THE SPECIFICATIONS.
- FLY ASH WILL NOT BE PERMITTED IN ARCHITECTUALLY EXPOSED CONCRETE. FLY ASH MAY BE USED ELSEWHERE, WITHIN THE SPECIFIED PROPORTION LIMITS, BUT THE CONTRACTOR SHALL FIRST VERIFY COMPATIBILITY WITH CURING COMPOUNDS, SEALERS, BOND BRACKER, FLOORING ADHESIVES AND OTHER MATERIALS PROPOSED TO BE IN CONTACT WITH THE CONCRETE.
- USE OF ACCELERATING OR SET-RETARDING ADJUSTURES REQUIRES PRIOR APPROVAL OF THE ARCHITECT. IN GENERAL, USE OF CALCIUM CHLORIDE WILL NOT BE PERMITTED.
- CEMENT SHALL BE TYPE I OR TYPE II (ASTM C 150).
- SLUMP LIMITS APPLY AT THE TRUCK AT THE TIME OF DISCHARGE EXCEPT THAT PUMPED CONCRETE SHALL BE SAMPLED AT THE DISCHARGE END OF THE HOSE. WHEN A SUPERPLASTICIZER IS USED, THE SLUMP SHALL BE MEASURED TRUCK BEFORE INTRODUCING THE SUPERPLASTICIZER. STRENGTH TESTS SHALL BE MADE ON CONCRETE AS PLACED WITH ALL ADJUSTERS.

CAST-IN-PLACE CONCRETE

- SUBMIT A DIAGRAM OF ALL PROPOSED CONSTRUCTION JOINTS WHICH ARE NOT SPECIFICALLY SHOWN ON THESE DRAWINGS.
- SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND ALL EMBEDDED ITEMS SHALL BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6". INSTALLATION OF THESE ITEMS SHALL BE COORDINATED WITH SHOP DRAWINGS OF TRADES REQUIRING THESE ITEMS.
- ALL CONDUITS AND PIPES EMBEDDED IN CONCRETE SHALL COMPLY WITH ALL PROVISIONS SPECIFIED IN ACI 318, SECTION 8.3, WITH THE FOLLOWING SPECIFIC REQUIREMENTS:
 - A. THE MAXIMUM OUTSIDE DIAMETER OF THE CONDUITS AND PIPES SHALL BE 1 1/2". NONE PERMITTED IN SLABS THINNER THAN 4" IN.
 - B. THE MINIMUM CLEAR DISTANCE BETWEEN CONDUITS AND PIPES SHALL BE 6".
 - DO NOT DISPLACE REINFORCING STEEL FROM ITS PROPER POSITION.

DEFERRED SUBMITTALS

- DEFERRED SUBMITTALS TO BE REVIEWED BY DATUM ENGINEERS, INC. FOLLOWED BY STRUCTURAL OBSERVATIONS AND/OR DIRECTIONS FOR SPECIAL INSPECTIONS DURING CONSTRUCTION:
 - SP JOISTS
 - PREFABRICATED CANOPY
- DEFERRED SUBMITTALS WHICH WILL NOT BE REVIEWED BY DATUM ENGINEERS, INC.:
 - NONE

CONCRETE REINFORCING

- REINFORCING STEEL SHALL BE NEW OR RECYCLED DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60.
- REINFORCING STEEL SHOWN IN SECTIONS OF BEAMS, WALLS AND COLUMNS IS SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES, AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.
- DETAIL REINFORCING BARS AND PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH THE ACI DETAILING MANUAL.
- WHERE BAR TYPES FROM THE BAR BENDING DIAGRAM ARE SPECIFIED, PROVIDE BARS ACCORDINGLY. OTHERWISE, DETAIL BARS IN BEAMS, COLUMNS, SLABS, AND WALLS AS FOLLOWS:
 - A. SPLICE VERTICAL BARS IN COLUMNS ONLY AT FLOOR LINES, UNLESS NOTED OTHERWISE. COLUMN BAR SPLICES SHALL BE 88 BAR DIAMETERS, MINIMUM, UNLESS SCHEDULED OR DETAILD OTHERWISE.
 - B. PLACE A COLUMN TIE 3" ABOVE THE TOP OF THE FOUNDATION OR INTERSECTING SLAB AT ANY LEVEL AND 3" BELOW THE LOWEST HORIZONTAL REINFORCING IN THE SLAB OF THE FLOOR OR ROOF FRAMING ABOVE AND SPACE TIES AS REQUIRED IN BETWEEN. WHERE BEAMS FRAME FROM FOUR DIFFERENT DIRECTIONS INTO A COLUMN, TIES MAY BE TERMINATED WITHIN THE FLOOR FRAMING 3" BELOW THE LOWEST HORIZONTAL REINFORCING IN THE SHALLOWEST BEAM. TOP OF COLUMNS SUPPORTING STRUCTURAL STEEL SHALL HAVE 3 TIES AT 3" O.C. STARTING 3" BELOW THE TOP OF THE COLUMN.
- CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS, MEASURED TO NEAREST BAR, STIRRUP OR TIE:
 - B. AT FORMED FACES OF BEAMS, COLUMNS AND WALLS EXPOSED TO RAIN OR IN CONTACT WITH THE GROUND, 2"
 - D. AT FORMED FACES OF COLUMNS NOT EXPOSED TO RAIN OR SOIL, 1 3/4"
- MAINTAIN THE SPECIFIED COVER DIMENSION WITHIN A TOLERANCE OF PLUS OR MINUS 3/8" EXCEPT FOR SOIL-FORMED MEMBERS, WHERE 5/8" TOLERANCE IS PERMITTED. EXTRA COVER WEAKENS THE MEMBER AND REDUCED COVER LEADS TO CORROSION.

DESIGN LOADS

- DEAD LOADS INCLUDE THE WEIGHT OF THE STRUCTURAL COMPONENTS AND ALLOWANCES FOR PERMANENT PARTITIONS, PERMANENT FIXTURES, FINISHES, ROOFING, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION MATERIALS SHOWN OR SPECIFIED.

2. DESIGN LIVE LOADS ARE AS FOLLOWS:

ROOF 20 PSF

- LIVE LOAD REDUCTIONS, WHERE PERMISSIBLE, ARE COMPUTED IN ACCORDANCE WITH THE BUILDING CODE.

4. DESIGN WIND LOADS ARE AS FOLLOWS:

WIND DESIGN OPTION

BASIC WIND SPEED (3-SECOND GUST)
WIND RISK CATEGORY
EXPOSURE CATEGORY
INTERNAL PRESSURE COEFFICIENT
LOW ROOF LOADS (NET-INCLUDING INTERNAL PRESSURE)
INTERIOR ZONES-MORE THAN 7.5' FROM EDGE, HIP,
OR RIDGE (ZONE 1)
END ZONES-WITHIN 7.5' OF EDGE, HIP,
OR RIDGE (ZONE 2)
CORNER ZONES-WITHIN 7.5' OF CORNER (ZONE 3)
CURTAIN WALL DESIGN PRESSURE/SUCKTION
INTERIOR ZONE (ZONE 4)
EXTERIOR ZONE (ZONE 5)

METHOD 2-ANALYTICAL PROCEDURE

120 MPH
B
+/- 0.18
(10 SQ FT, 100 SQ FT)
-28 PSF, -24 PSF
-44 PSF, -28 PSF
-45 PSF, -28 PSF
(10 SQ FT, 100 SQ FT)
+28/-28 PSF, +22/-24 PSF
+28/-35 PSF, +22/-27 PSF

HIGH ROOF LOADS (NET-INCLUDING INTERNAL PRESSURE)

INTERIOR ZONES-MORE THAN 7.5' FROM EDGE, HIP,
OR RIDGE (ZONE 1)
END ZONES-WITHIN 7.5' OF EDGE, HIP,
OR RIDGE (ZONE 2)
CORNER ZONES-WITHIN 15' OF CORNER (ZONE 3)
CURTAIN WALL DESIGN PRESSURE/SUCKTION
INTERIOR ZONE (ZONE 4)
EXTERIOR ZONE (ZONE 5)
POSITIVE PRESSURE INDICATES PRESSURE TOWARD THE BUILDING
INTERIOR PRESSURE ON STRUCTURAL ELEMENTS
ON CANOPIES AND OVERHANGS
ON OVERHANGS: COMBINE WALL AND ROOF PRESSURES AT APPLICABLE ZONES
ON DETACHED ROOF CANOPIES
INTERIOR ZONE (MORE THAN 7' FROM EDGE)
SECONDARY PERIMETER MORE THAN 3' FROM EDGE
PERIMETER, WITHIN 3' OF EDGE

(10 SQ FT, 100 SQ FT)
-28 PSF, -28 PSF
-47 PSF, -31 PSF
(10 SQ FT, 100 SQ FT)
+28/-31 PSF, +24/-28 PSF
+28/-38 PSF, +24/-29 PSF
10 PSF
(10 SQ FT, 100 SQ FT)
+18/-17, +18/-17 PSF
+27/-26, +18/-17 PSF
+38/-30, +18/-17 PSF

5. SEISMIC DESIGN DATA (IRC)

SEISMIC IMPORTANCE FACTOR
OCCUPANCY CATEGORY
HAPPED SPECTRAL RESPONSE ACCELERATIONS, SS & S1
SITE CLASS
SPECTRAL RESPONSE COEFFICIENTS SDS/S1
SEISMIC DESIGN CATEGORY
BASIC SEISMIC FORCE-RESISTING SYSTEM
DESIGN BASE SHEAR
SEISMIC RESPONSE COEFFICIENT, CS
RESPONSE MODIFICATION FACTOR, R
ANALYSIS PROCEDURE USED
DEFLECTION AMPLIFICATION FACTOR

1.25
III
0.8740 0.31
D
0.06240 0.3513
A
ORDINARY C.B.F.
15K
0.910
3.25
DDC-A
3.25

6. SNOW LOADING (ASCE 7, SECTION 7.2):

GROUND SNOW LOAD 5 PSF

- STACKS OF MATERIALS OR OTHER CONSTRUCTION LOADS PLACED ON THE STRUCTURE SHALL NOT EXCEED THE STATED DESIGN LIVE LOAD FOR THE AREA AFFECTED UNLESS ADEQUATELY SHORED.

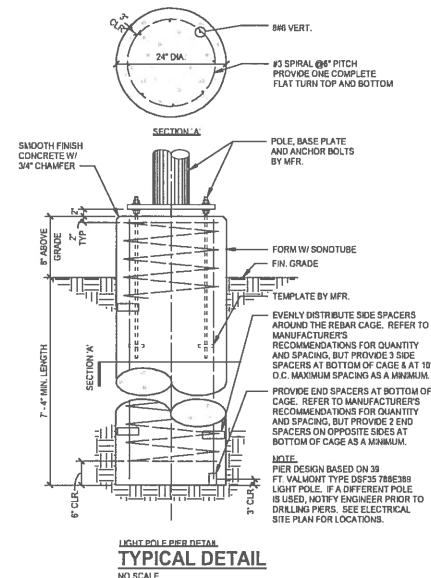
8. LOAD COMBINATIONS:

1. DEAD LOAD COMBINATIONS:

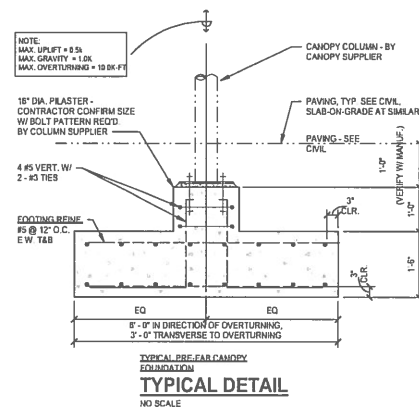
A. 1.4(D+F)
B. 1.2(D+F) + 1.6(L+Q) + 0.5(Lr or S or R)
C. 1.2(D+F) + 1.6(Lr or S or R) + 1.6H + (0.5Lr or S or R)
D. 1.2(D+F) + 1.6W + 0.5L + 1.6H + 0.5(Lr or S or R)
E. 1.2(D+F) + 1.6E + 0.5L + 1.6H + 0.25
F. 0.9D + 1.6W + 1.6H
G. 0.9(D+F) + 1.6E + 1.6H

2. ASD LOAD COMBINATIONS:

A. D + F
B. D + F + L
C. D + F + F + (Lr or S or R)
D. D + F + F + 0.75(Lr or S or R)
E. D + F + F + (0.6W or 0.7E)
F. D + F + 0.75(0.6W) + 0.75L + 0.75(Lr or S or R)
G. D + F + 0.75(0.7E) + 0.75L + 0.75L
H. 0.9D + 0.6W + H
I. 0.9(D + F) + 0.7E + H



3/4" = 1'-0" 1



3/4" = 1'-0" 2



DATUM
ENGINEERS, INC.
210.733.3535
www.rvk-architects.com
Datum Project No. 1839

FIELDS AND PARKING LOT REVISIONS

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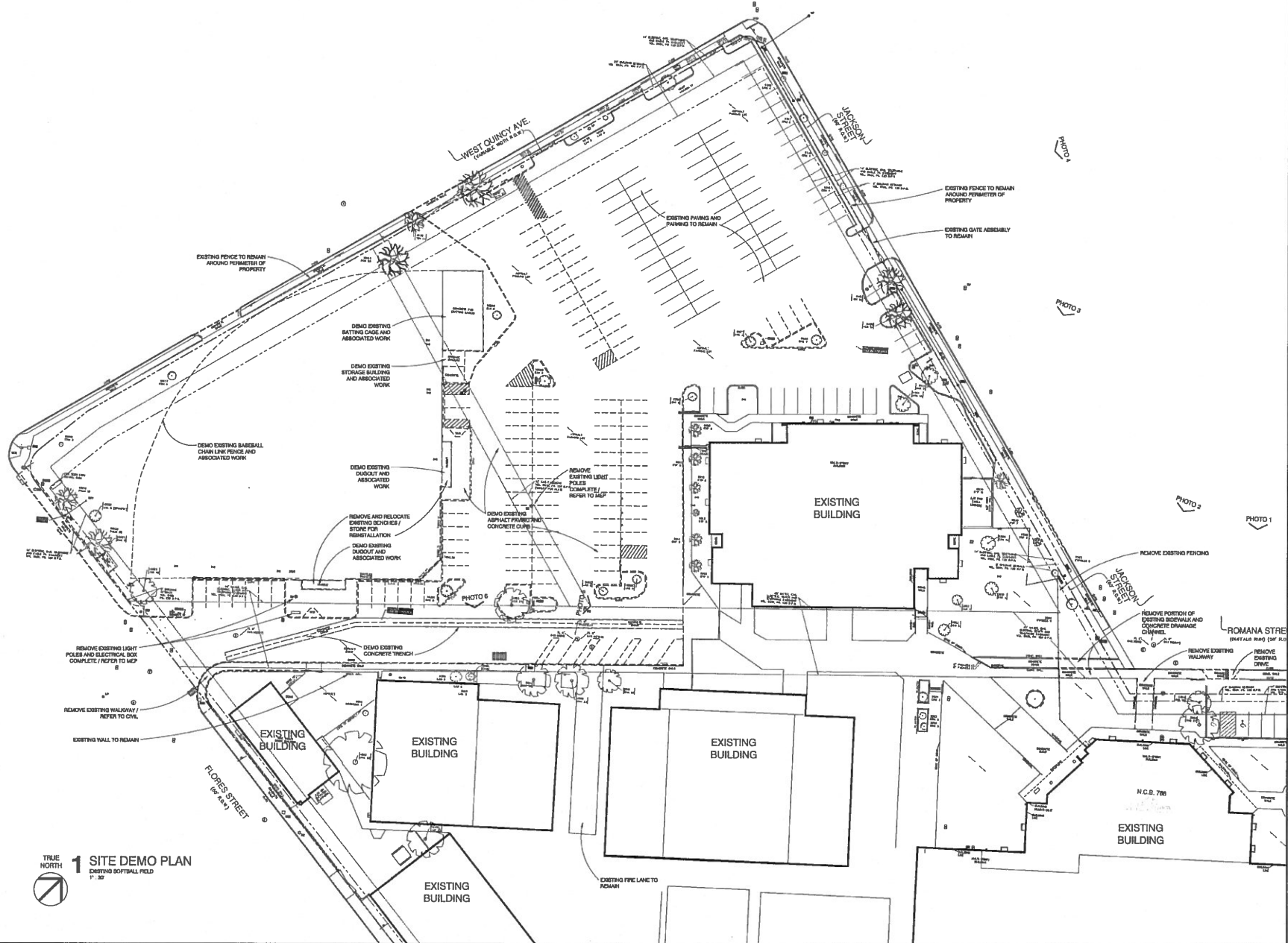
revision date

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web: www.rvk-architects.com

CONSTRUCTION DOCUMENTS

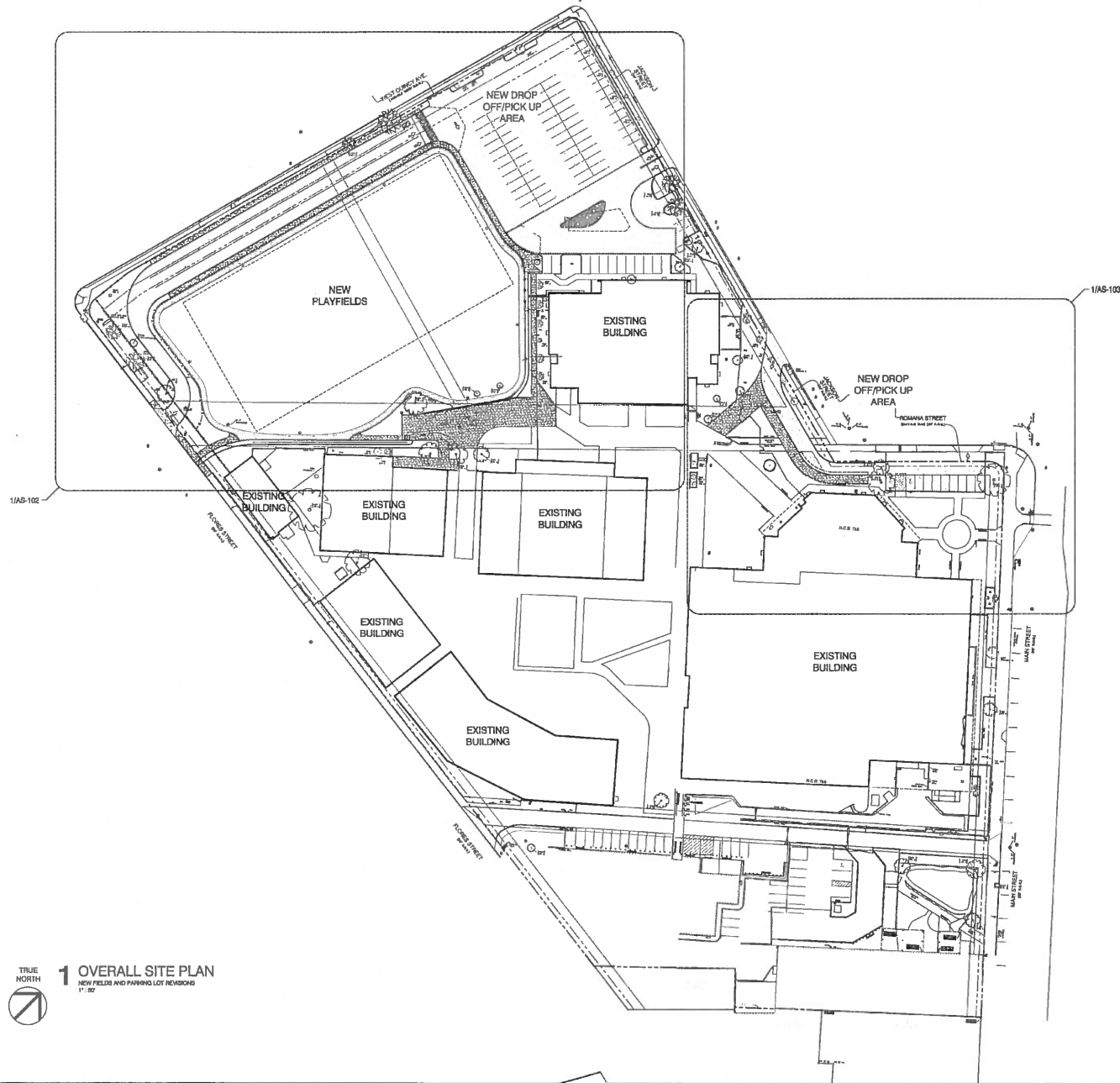
S100
SITE STRUCTURES



1 SITE DEMO PLAN
 EXISTING FOOTBALL FIELD
 1" = 30'



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1 OVERALL SITE PLAN
NEW FIELDS AND PARKING LOT REVISIONS
1" = 30'

FIELDS AND PARKING LOT REVISIONS

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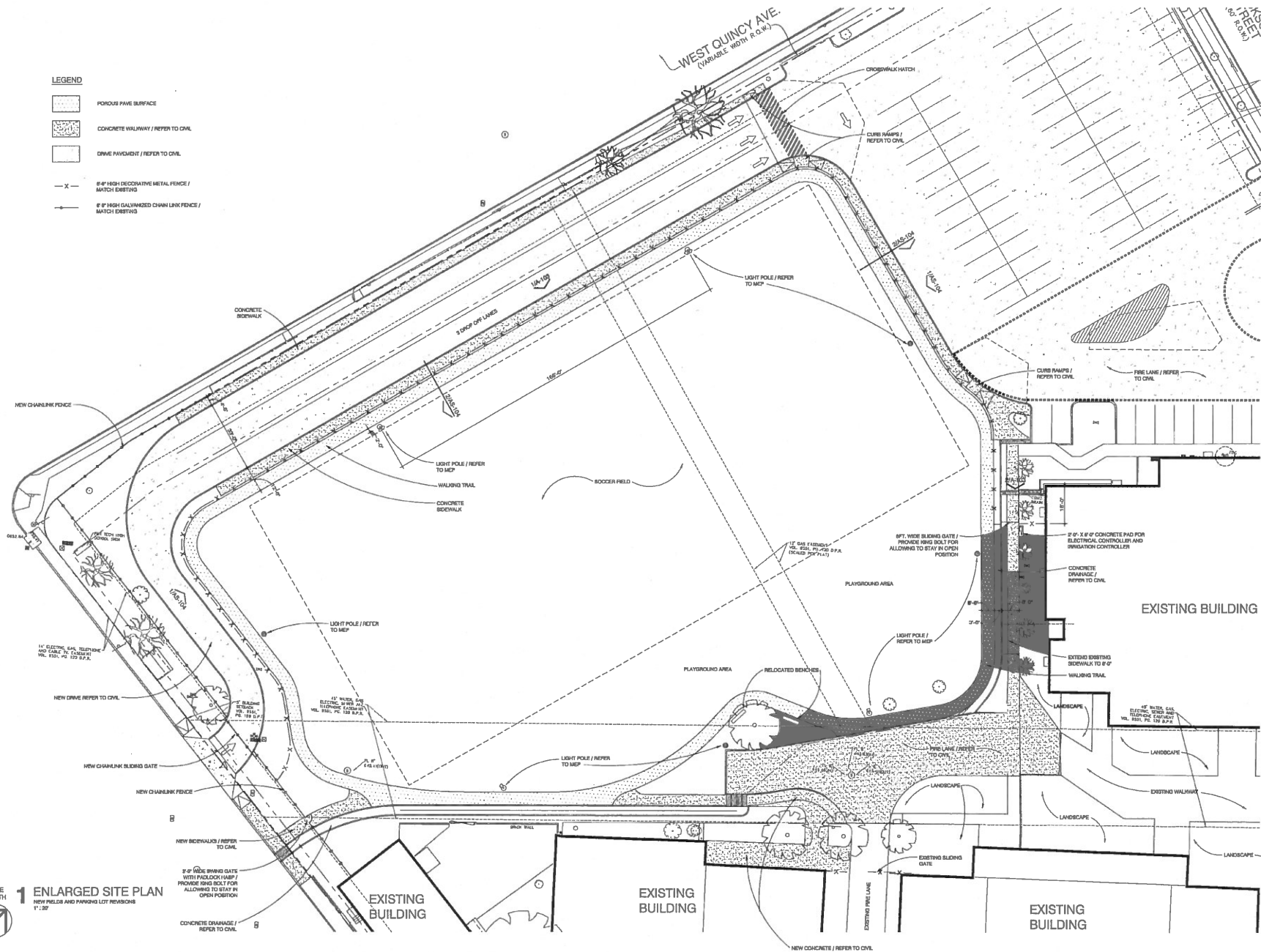
AS-101
OVERALL SITE PLAN



date 1/11/2018
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LEGEND

- POROUS PAVE SURFACE
- CONCRETE WALKWAY / REFER TO CIVIL
- DRIVE PAVEMENT / REFER TO CIVIL
- 8' HIGH DECORATIVE METAL FENCE / MATCH EXISTING
- 8' HIGH GALVANIZED CHAIN LINK FENCE / MATCH EXISTING



1 ENLARGED SITE PLAN NEW FIELDS AND PARKING LOT REVISIONS 1" = 20'

FIELDS AND PARKING LOT REVISIONS

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

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AS-102
ENLARGED SITE PLAN



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LEGEND

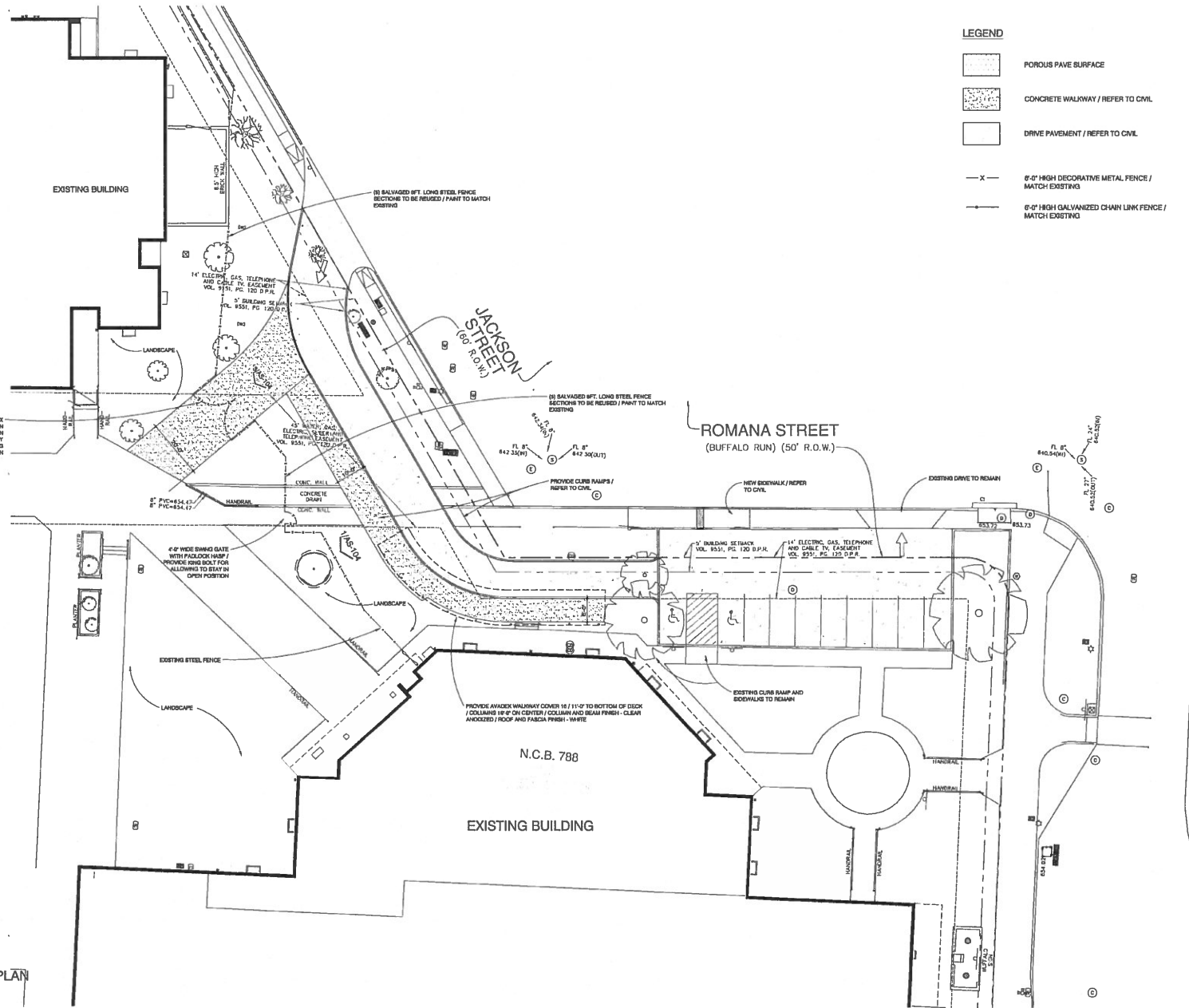
-  POROUS PAVE SURFACE
-  CONCRETE WALKWAY / REFER TO CIVIL
-  DRIVE PAVEMENT / REFER TO CIVIL
-  6'-0" HIGH DECORATIVE METAL FENCE / MATCH EXISTING
-  6'-0" HIGH GALVANIZED CHAIN LINK FENCE / MATCH EXISTING

TRUE NORTH



1 ENLARGED SITE PLAN

ORIG. CIVIL
1/16" = 1'



FIELDS AND PARKING LOT REVISIONS

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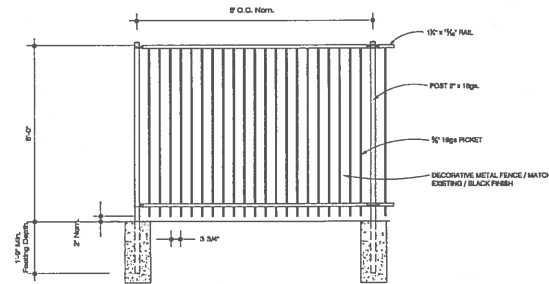
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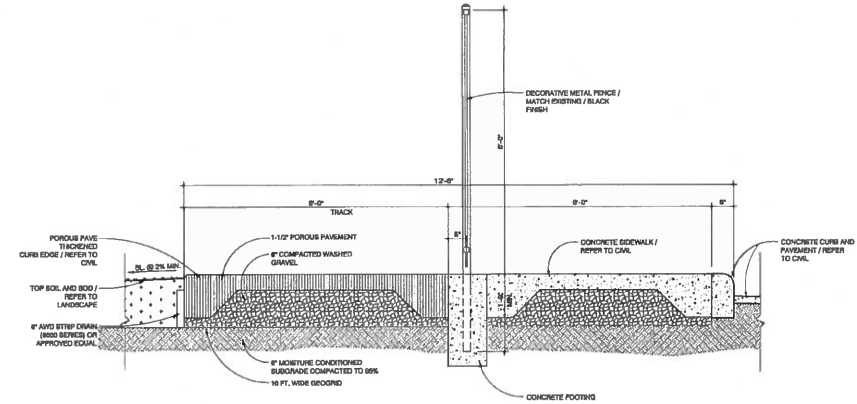
AS-103
ENLARGED SITE PLAN



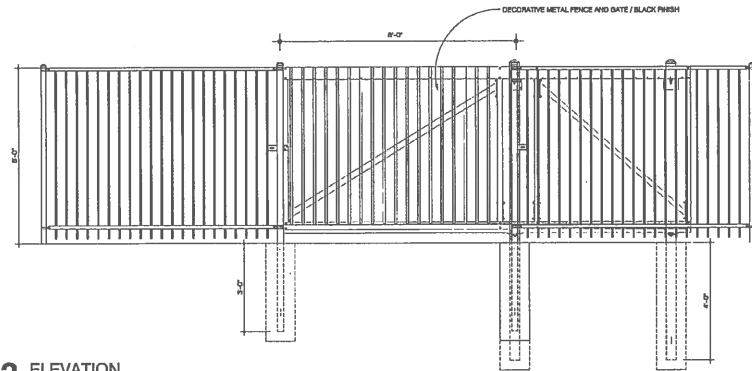
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1 FENCE ELEVATION
AT TRACK AREA
1/2" = 1'



2 SECTION DETAIL
RUNWAYS THICK
3/4" = 1'



3 ELEVATION
PEDESTRIAN GATE
1/2" = 1'

FIELDS AND PARKING LOT REVISIONS

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AS-104
SITE DETAILS



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AS-105
 TEMPORARY PARKING LOT



TRUE NORTH
1 SITE PLAN
 TEMPORARY PARKING LOT
 1\"/>

SOME SYMBOLS MAY NOT BE USED ON THIS PROJECT

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and the other

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an arborio texas 78212
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E-000

ELECTRICAL GENERAL
NOTES AND LEGEND



1917 R. New Grange Avenue
Suite 201
San Antonio, TX 78205
(210) 334-4641, (210) 334-4641 FAX
TYPE REGISTRATION No.
-F-7954



IECC 2018 LIGHTING COMPLIANCE SUMMARY									
PROJECT:	Fox Tech Phase 1		New playing field with walkway for Fox Tech school						
PROJECT NO:	0045-18								
PROJECT TYPE:	New Construction								
TYPE OF BUILDING USE:	N/A								
ADDRESS:	177 Buffalo Run								
CITY/STATE:	San Antonio, Texas 78205								
GROSS SQUARE FOOTAGE:	N/A								
METHOD OF COMPLIANCE:	Prescriptive Method								
CODE COMPLIANCE PER	IECC 2018 Comcheck								
EXTERIOR LIGHTING BUILDING POWER COMPUTATIONS:	TYPE of EXTERIOR LIGHTING ZONE =		2		Neighborhood Business District				
REF: IECC 2018, C408.3.2 and TABLE C408.3.2(1).									
COMPONENT	LAMPS/FIXTURE (B)	QTY. (C)	x	FIXTURE WATTAGE (D)	TOTAL WATTS	FIXTURE ID	AREA SQ. FEET		
1. Pole Light (A1)	2	2	x	1100	Exempt	A1	109833		
2. Pole Light (A2)	2	2	x	1100	Exempt	A2	109833		
3. Pedestrian Lighting (B)	1	8	x	129	1181	B	109833		
				TOTAL NON-TRADEABLE WATTS	4393				
				TOTAL TRADEABLE PROP. WATTS	4393				
EXTERIOR LIGHTING BUILDING POWER COMPUTATIONS:	AREA SQ. FT.	ALLOWED							
1. Sports Field Lighting	109833	0.64							
				TRADEABLE WATTAGE	ALLOWED W.	PROP. WATTS	NOTES		
				No	4393	1181	See * below for tradeable		
				TOTAL TRADEABLE WATTS	4393	1181	= TOTAL PROP WATTS		
				TOTAL ALLOWED WATTS	4393				
				TOTAL ALLOWED SUPPLEMENTAL**	400				
* Wattage tradeable are only allowed between tradeable areas/surfaces.									
** A supplemental allowance of 400 watts may be applied toward compliance of both non-tradeable or tradeable areas/surfaces.									
COMPLIANCE STATEMENT:		The Exterior Lighting Passes without applying the allowed supplemental wattage.							
EXTERIOR LIGHTING		The Proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations, submitted with this permit application. The proposed lighting is 81% better than code and has been designed to meet the 2018 IECC requirements to comply with the mandatory requirements in the Requirements Checklist.							
Per Table 9.4.2-2		Name - Title: <u>Don M. Duster/Graduate Electrical Engineer</u> Date: <u>November 12, 2018</u>							

IECC 2018 LIGHTING COMPLIANCE - LIGHTING CONTROLS NARRATIVE		
PROJECT:	Fox Tech Phase 1	New playing field and walkway for Fox Tech School
PROJECT NO:	0045-18	
TYPE OF BUILDING:	N/A	
GROSS SQUARE FOOTAGE:		
METHOD OF COMPLIANCE	Building Method	
CODE COMPLIANCE	IECC 2018	
REF. CODE COMPLIANCE	LIGHTING CONTROL EQUIP.	
C408.5.1/Exception 5	TIME SWITCH/PHOTOCELL	PLAYING FIELD IS EXEMPT FROM CONTROL DEVICES PER IECC 2018. DUE TO BEING USED FOR SECURITY LIGHTING, THE PEDESTRIAN LIGHTING IS ALSO EXEMPT PER IECC 2018.

IECC 2018 LIGHTING COMPLIANCE - GENERAL NOTES TO COMPLIANCE SUMMARY		
PROJECT:	Fox Tech Phase 1	
PROJECT NO:	0045-18	
PROJECT TYPE:	New Construction	
TYPE OF BUILDING:	N/A	
GROSS SQ. FOOTAGE:	N/A	
GENERAL NOTES:	See Below	
Note 1	THE EXEMPTION TAKEN IS PER IECC 2018, C408.5.1 AND EXCEPTION 1 FOR SPECIALIZED LIGHTING. THE WATTAGE IS SHOWN BUT IS NOT APPLIED TO TOTAL TRADEABLE WATTAGE.	

IECC 2018 EXTERIOR COMPLIANCE - REQUIREMENTS CHECKLIST		
PROJECT:	Fox Tech Phase 1	
PROJECT NO:	0045-18	
PROJECT TYPE:	New Construction	
TYPE OF BUILDING:	N/A	
GROSS SQ. FT.:	N/A	
Checklist Notes		
Note #	Complies	Exterior Lighting Requirements Checklist per IECC 2015
C405.1	Yes	Plans, Specifications, and for calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.
C405.1	No	Automatic lighting controls for exterior lighting installed.
	Yes	Exterior lighting over 100W provides less than or equal to 80 lumen/watt unless on motion sensor or fixture is exempt from scope or code or from external LPD.
C405.1	Yes	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.
C408.3	N/A	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.

SECTION C408 - LIGHTING SYSTEM COMMISSIONING PLAN	
PROJECT:	Fox Tech Phase 1
PROJECT NO:	0045-18
PROJECT TYPE:	New Construction
TYPE OF BUILDING:	N/A
GROSS SQ. FT.:	N/A
C408.3	LIGHTING SYSTEM FUNCTIONING TESTING:
	CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY WITH SECTION C408.3
C408.3.1	FUNCTIONAL TESTING:
	TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
	THE CONTRACTOR SHALL HIRE A CERTIFIED COMMISSIONING AGENT TO PERFORM THE COMMISSIONING AND PROVIDE THE PRELIMINARY REPORT OF COMMISSIONING TO THE CITY OF SAN ANTONIO.
C408.3.1.3	FUNCTIONAL TESTING FOR DAYLIGHT RESPONSIVE CONTROLS:
	1. CONTROL DEVICES SHALL BE PROPERLY LOCATED, FIELD CALIBRATED AND SET FOR ACCURATE SETPOINTS AND THRESHOLD LIGHT LEVELS.
	2. DAYLIGHT CONTROLLED LIGHTING LOADS ADJUST TO LIGHT LEVEL SETPOINTS IN RESPONSE TO AVAILABLE DAYLIGHT.
	3. THE LOCATIONS OF CALIBRATION ADJUSTMENT EQUIPMENT ARE READILY ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
	WHERE OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTOSENSORS OR DAYLIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:
	1. CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIMEOUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.
	2. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.
	3. CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTOSENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE SPECIFIED.
	4. DAYLIGHT RESPONSIVE CONTROLS WITHIN EACH SPACE SHALL BE CONFIGURED SO THAT THEY CAN BE CALIBRATED FROM WITHIN THE SPACE BY AUTHORIZED PERSONNEL.
C408.3.2	DOCUMENTATION REQUIREMENTS.
	1. THE CONSTRUCTION DOCUMENTS SHALL SPECIFY THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OF SECTION C408 ARE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY

FIELDS AND PARKING LOT REVISIONS

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San Antonio, Texas 78205

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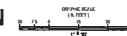
construction document

E-001
ELECTRICAL ENERGY
COMPLIANCE

1. WALKWAY/SECURITY LIGHTING, FIXTURE TYPE "B", SHALL BE CIRCUITED THROUGH RELAY FOR PHOTOCELL CONTROL. EXEMPT FROM CODE FOR SECURITY PURPOSES. REFER TO 1E-301.
2. SPORTS FIELD LIGHTING, FIXTURE TYPES "A1 AND A2", SHALL BE CONTROLLED BY TIMER SWITCH THROUGH CONTACTOR. REFER TO 1E-301.

1. PROVIDE CONNECTION AS SHOWN IN PARTIAL RISER DIAGRAM ON SHEET E-301. EXACT LOCATION TO BE DETERMINED IN FIELD.
2. APPROXIMATE LOCATION OF ACCESS DOOR TO UNDERFLOOR CRAWL SPACE.
3. ROUTE CONDUIT TO BOTTOM OF FLOOR STRUCTURE AND RISE VERTICALLY WITHIN UTILITY SPACE TO SECOND FLOOR PLENUM, THEN HORIZONTALLY TO LOCATION OF PANEL 24. VERIFY COORDINATE ROUTING WITH OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION.
4. MOUNT ENCLOSURE REAR INDICATED LOCATION, CONFIRM LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
5. EXISTING SERVICE ENTRANCE. REFER TO PARTIAL RISER DIAGRAM ON SHEET E-301.
6. PANEL 24N LOCATED ON THE SECOND FLOOR IN APPROXIMATE LOCATION SHOWN. CONFIRM EXACT LOCATION IN FIELD.

1 ELECTRICAL OVERALL SITE PLAN



FIELDS AND PARKING LOT REVISIONS

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end of one

ANK

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san antonio texas 78212
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E-101

ELECTRICAL SITE PLAN



1517 N. New Braunfels Avenue
Suite 201
San Antonio, TX 78208
(210) 224-4841, (210) 224-4824 FAX
TSP# REGISTRATION NO.
: F-7964



date 1/18/2018

KEYED NOTES: (THIS SHEET ONLY)

1. EXISTING LIGHT POLE TO BE REMOVED (TYPICAL).
2. EXISTING LIGHT POLE TO REMAIN (TYPICAL).
3. EXISTING SERVICE ENTRANCE TO REMAIN.
4. EXISTING CPSE RISER POLE TO REMAIN.
5. REFER TO SHEET 201 FOR DEMOLITION INSTRUCTIONS.

LIGHTING CONTROL PANEL

TRANSFORMER

DISCONNECT

WP/GFCI RECEPTACLES

BRANCH CIRCUITS

REMOVE ALL ABOVE-GRADE CONDUITS AND WIRING



NOTES:
REMOVE LIGHTING CONTROL PANEL, TRANSFORMER, GROUNDING, RECEPTACLE, DISCONNECT, AND UNISTRUT. DEMOLISH CONNECTIONS AND ASSOCIATED EQUIPMENT BACK TO SOURCE.

2 EXISTING EQUIPMENT

SCALE: NA



ACADEMIC BUILDING

EXISTING UNDERGROUND ELECTRICAL LINE

1 ELECTRICAL OVERALL DEMO PLAN

SCALE: 1" = 30'



FIELDS AND PARKING LOT REVISIONS

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1/18/2018

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E-201

ELECTRICAL DEMOLITION
PLAN



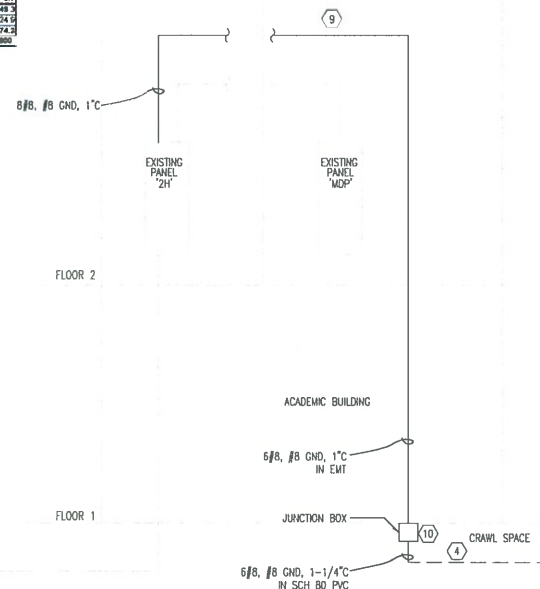
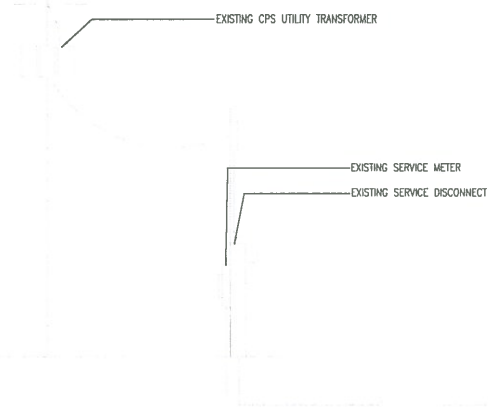
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Suite 201
San Antonio, TX 78208
(714) 681-1111 or (714) 681-1112
TXPE REGISTRATION #0
2-P-7964



ANALYSIS OF PROJECTED ELECTRICAL LOAD Fox Tech Phase 1

11/15/2018

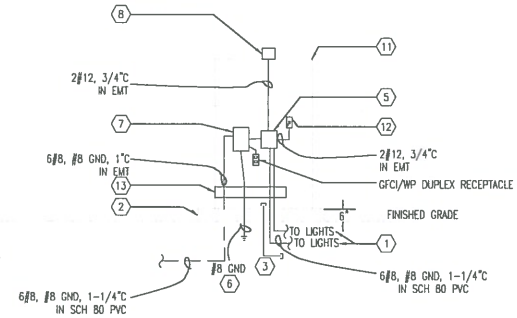
SERVICE VOLTAGE: 480/277V, 3 Ph, 4W			
LOAD DESCRIPTION	CONNECTED LOAD VA	WVA	AMPERES
EXISTING LOADS (FROM UTILITY DEMANDS)			
PRIOR 12 MONTH PEAK DEMAND (JANUARY, 2018)	144 kW @ 0.8 PF		
NEW OR ADDED LOADS			
GENERAL PURPOSE RECEPTILES			
EXTERIOR LIGHTING EQUIPMENT			
CONNECTED NEW LOADS SUBTOTAL			
NET SUBTOTAL OF EXISTING DEMO AND NEW LOADS			
LOAD GROWTH ALLOWANCE			
TOTAL			
SERVICE ENTRANCE DESIGN (TRANSFORMER MAIN PANEL)			



1 PARTIAL ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.

KEYED NOTES:

- REFER TO SHEET E-101 FOR SITE LIGHTING LAYOUTS AND REQUIREMENTS.
- EQUIPMENT PAD FOR ELECTRICAL ENCLOSURE. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- SPARE 1-1/4" CONDUIT STUBBED UP AND CAPPED.
- FEEDER SHALL BE BURIED A MINIMUM OF 24" BELOW GRADE. SIEMENS MODEL LCE20004120A CONTRACTOR. REFER TO GENERAL NOTES ON SHEET E-101 FOR INSTRUCTIONS ON LIGHTING CONTROLS.
- BOND GROUND TO GROUND ROD AND REINFORCING STEEL FOR EQUIPMENT PAD USING THE INDICATED WIRE PER NEC 250.66.
- SQUARE D MODEL WP2334055 MINI POWER ZONE SHALL INCLUDE 15A/2P PRIMARY BREAKER, 3KVA 480-240/120V SECONDARY ENCAPSULATED TRANSFORMER AND LOAD CENTER WITH 30A/2P MAIN. LOAD CENTER SHALL INCLUDE (2) 20A/1P BRANCH BREAKERS IN A NEMA 3R STAINLESS STEEL ENCLOSURE.
- AW TORK MODEL 2125A PHOTOCELL TO NORTH SKY AND ADJUST FOR PROPER OPERATION TO TURN ON LIGHTING AT DUSK. PHOTOCELL INCLUDES METAL ENCLOSURE IN DESIGN. SEAL OPENING OF MOUNTING ENCLOSURE USING MYERS HUB AT CONDUIT PENETRATION.
- ROUTE FOR CONDUIT IS TO BE DETERMINED. CONTRACTOR SHALL REPLACE CEILING IF DAMAGED, AND RESTORE TO PROPER CONDITION PRIOR TO START OF WORK.
- MINIMUM 6"X6" NEMA 1 JUNCTION BOX. REFER TO SHEET E-101 FOR ADDITIONAL DETAILS ON ROUTING.
- OMEGA MODEL SCE-60EL2418FS ELECTRICAL ENCLOSURE. ENCLOSURE SHALL BE NEMA 3R AND 4 TYPE FREE-STANDING, PAD-MOUNTED .104" CARBON STEEL. ENCLOSURE SHALL BE 60"x24"x18" WITH PADLOCKING HANDLE AND KEY-LOCK. ENCLOSURE SHALL HAVE REMOVABLE PRINT POCKET IN DOOR AND 3-POINT LOCKING MECHANISM.
- TORK TIMER SWITCH MODEL 4JNK4. PROVIDE LABEL FOR TIMER SWITCH WITH TEXT STATING "SPORTS FIELD LIGHTING" IN METALLIC BLACK TAPE WITH WHITE TEXT. MOUNT SWITCH AT APPROXIMATELY EYE LEVEL AND ENSURE LABEL IS VISIBLE.
- WIREWAY SHALL BE NEMA 3R RATED, AND MINIMUM 6"x6"x12"



FIELDS AND PARKING LOT REVISIONS

SAISD - Fox Tech Campus

637 N. Main Ave.
San Antonio, Texas 78205

R/VK

745 E. Mulberry Ave. Suite 801
San Antonio, Texas 78211
Telephone: 210.733.3531
Web: www.rvk-engineers.com

construction document

E-301
ELECTRICAL RISER
DIAGRAM



The user of this drawing agrees to assume all responsibility for any and all conditions or use of this drawing. The user shall be responsible for the accuracy of the information provided to the drafter. The drafter shall not be responsible for the accuracy of the information provided to the drafter. The drafter shall not be responsible for the accuracy of the information provided to the drafter. The drafter shall not be responsible for the accuracy of the information provided to the drafter.

PLANT SCHEDULE

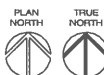
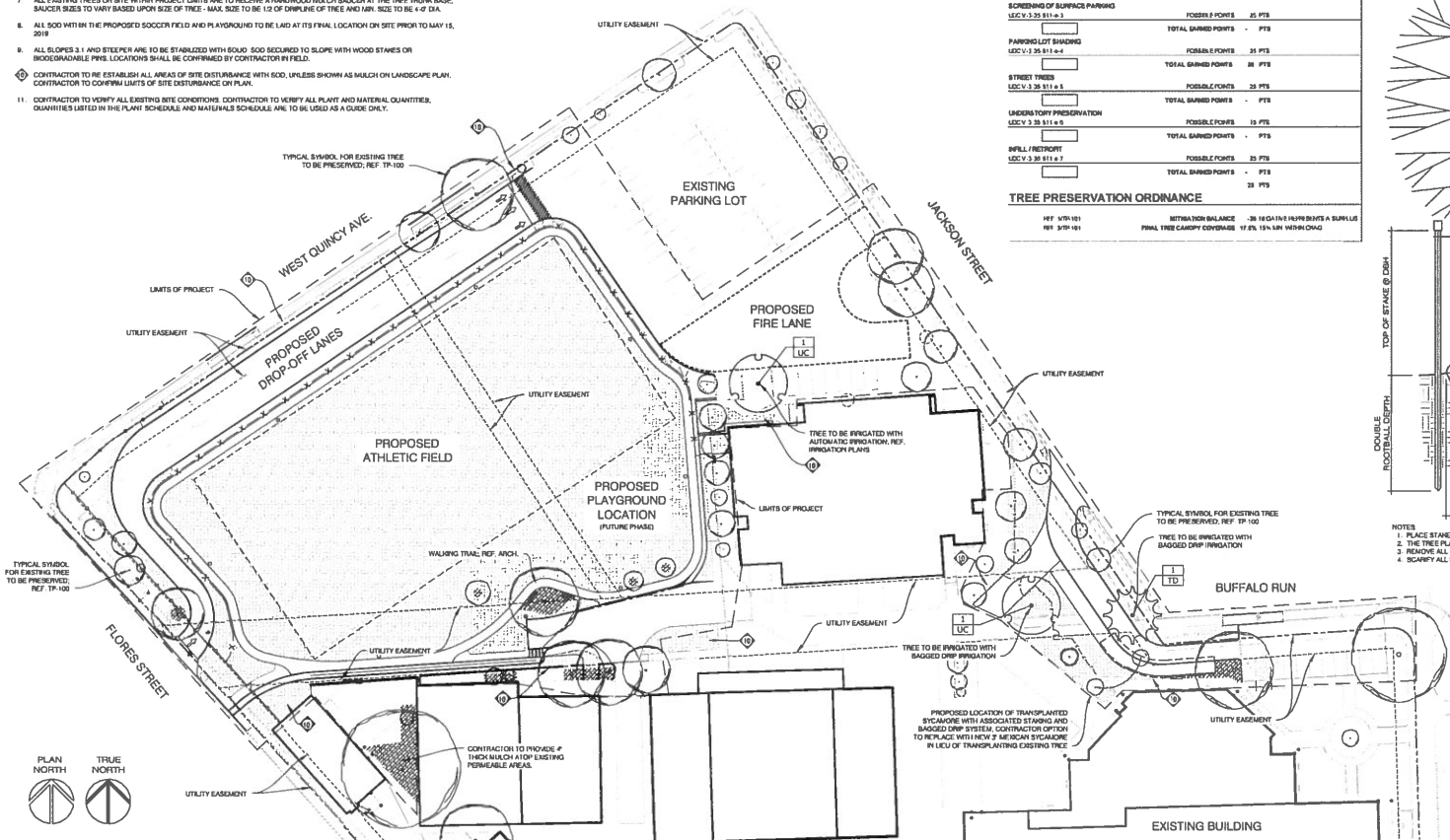
TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	H X S	D/E	COND.
	TD	1	TAXODIUM DISTICHUM / BALD CYPRESS	3" CAL	10-15' X 10-15'	DECIDUOUS	CONTAINER
	UC	2	ULMUS CRASSIFOLIA / CEDAR ELM	2" CAL	10' X 5'	DECIDUOUS	CONTAINER
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	COND.	H	D/E	
	CD2	81,406 SF	CYNODON DACTYLON / TIF 419 / TIF 419 BERMUDA GRASS	SOLID SOO	LOW - <12"	SEMI-EVERGREEN	

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
	HARDWOOD MULCH

LANDSCAPE NOTES (Keyed on Plan)

- PLANTING DETAILS: REFER TO SHEET L-100 FOR LANDSCAPE PLANTING RELATED DETAILS.
- STAKES OF ALL TREES TO BE APPROVED BY LANDSCAPE ARCHITECT BEFORE PLANTING.
- PLANT SCHEDULE: REFER TO SHEET L-100 FOR PLANT SCHEDULE.
- CONTRACTOR TO CONFIRM LOCATIONS OF TREES AT CORNERS OF INTERSECTIONS OF STREETS & CAMPUS DRIVE(S) ARE PLACED OUTSIDE OF CLEAR VISION AREA AS DET. BY CITY OF SAN ANTONIO.
- ALL AREAS NOT IRRIGATED WITH THE AUTOMATIC IRRIGATION SYSTEM ARE TO BE WATERED BY CONTRACTOR WITH TEMPORARY IRRIGATION FOR ESTABLISHMENT THROUGH FINAL ACCEPTANCE OF TURF AREAS.
- ALL NEW TREES LOCATED ALONG EDGES OF PARKING (CONCRETE WALKS AND ASPHALT PAVING) CONCRETE CURBS ARE TO BE SET A MINIMUM OF 5' FROM EDGE OF PARKING TO CUTTER OF TREE TRUNK, UNLESS OTHERWISE NOTED.
- ALL EXISTING TREES ON SITE WITH PROJECT LIMITS ARE TO RECEIVE A HARDWOOD MULCH SAUCER AT THE TREE TRUNK BASE. SAUCER SIZES TO VARY BASED UPON SIZE OF TREE - MAX. SIZE TO BE 1/2 OF DIAPHRANE OF TREE AND MIN. SIZE TO BE 4" DIA.
- ALL SOO WITHIN THE PROPOSED SOOCH FIELD AND PLAYGROUND TO BE Laid AT ITS FINAL LOCATION ON SITE PRIOR TO MAY 15, 2019.
- ALL SLOPES 3:1 AND STEEPER ARE TO BE STABILIZED WITH SOO SECURED TO SLOPE WITH WOOD STAKES OR BIOERODABLE PILES. LOCATIONS SHALL BE CONFIRMED BY CONTRACTOR IN FIELD.
- CONTRACTOR TO RE-ESTABLISH ALL AREAS OF SITE DISTURBANCE WITH SOO, UNLESS SHOWN AS MULCH ON LANDSCAPE PLAN. CONTRACTOR TO CONFIRM LIMITS OF SITE DISTURBANCE ON PLAN.
- CONTRACTOR TO VERIFY ALL EXISTING SITE CONDITIONS. CONTRACTOR TO VERIFY ALL PLANT AND MATERIAL QUANTITIES. QUANTITIES LISTED IN THE PLANT SCHEDULE AND MATERIALS SCHEDULE ARE TO BE USED AS A GUIDE ONLY.



1 LANDSCAPE PLAN

1" = 40'

Final Tree Canopy Cover

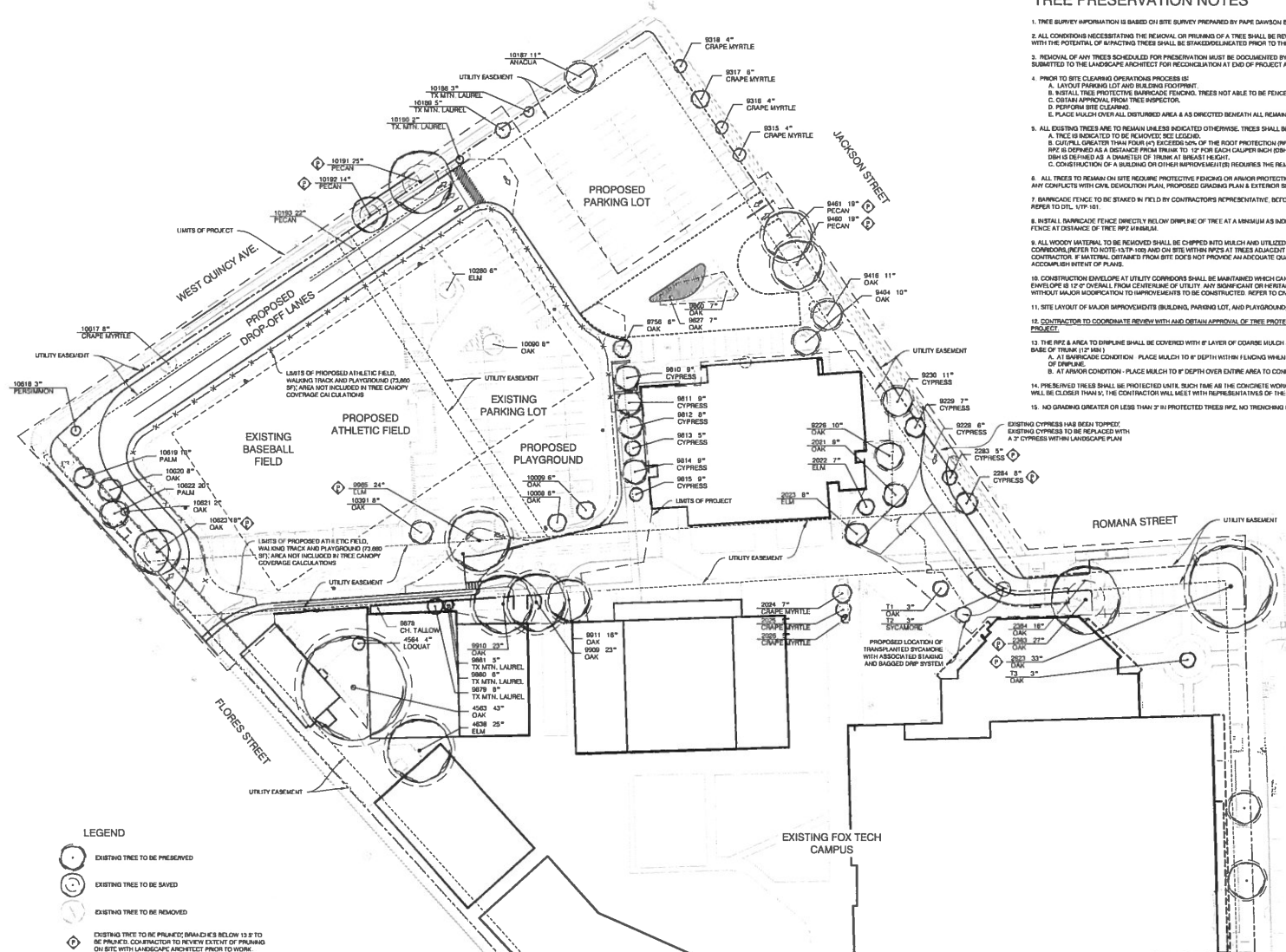
CITY OF SAN ANTONIO - LEC V-30-511-4 (BIRM OBI)		11/16/2018 BY	
TOTAL PROJECT AREA		101,647 SF	
TOTAL CANOPY REQUIRED		30,782 SF	
CANOPY MET WITH PRESERVED TREES - REFERENCE TP SERIES		TAD 9	
CITY	QTY	SPICES	NOTES
1	1,000	100%	2017 2023 TOTAL CANOPY 17,811 SF
2	624	100%	1011 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 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TREE PRESERVATION NOTES

1. TREE SURVEY INFORMATION IS BASED ON SITE SURVEY PREPARED BY PAUL DAWSON ENGINEERS OF SAN ANTONIO, TX (512) 375-7000.
2. ALL CONDITIONS NECESSITATING THE REMOVAL OR PRESERVATION OF A TREE SHALL BE REVIEWED BY LANDSCAPE ARCHITECT & OWNER'S REPRESENTATIVE. THE LOCATIONS OF ANY IMPROVEMENTS WITH THE POTENTIAL OF IMPACTING TREES SHALL BE STAKE-DELIMITED PRIOR TO THE FIELD REVIEW AND ANY CONSTRUCTION ACTIVITY.
3. REMOVAL OF ANY TREES SCHEDULED FOR PRESERVATION MUST BE DOCUMENTED BY CONTRACTOR DURING PROGRESS OF CONSTRUCTION. INFORMATION DOCUMENTED BY CONTRACTOR TO BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR RECONCILIATION AT END OF PROJECT AS COORDINATION FOR APPROVAL OF CITY ARBORIST AND CERTIFICATE OF OCCUPANCY PROCESS.
4. PRIOR TO SITE CLEARING OPERATIONS PROCESS IS:
 - A. LAYOUT PARKING LOT AND BUILDING FOOTPRINT.
 - B. INSTALL TREE PROTECTIVE BARRICADE FENCING. TREES NOT ABLE TO BE FENCED-OFF DUE TO WORK CLEARANCE NEEDED ARE TO BE PROTECTED WITH TREE ARNOR.
 - C. OBTAIN APPROVAL FROM TREE INSPECTOR.
 - D. PERFORM SITE CLEARING.
 - E. PLACE MULCH OVER ALL DISTURBED AREA & A DIRECTED BENEATH ALL REMAINING TREE CANOPIES.
5. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE INDICATED. TREES SHALL BE REMOVED ONLY UNDER THE FOLLOWING CONDITIONS:
 - A. TREE IS INDICATED TO BE REMOVED (SEE LEGEND).
 - B. CROWN GREATER THAN FOUR (4) TIMES MIN. OF THE ROOT PROTECTION (RPP). RPP IS DEFINED AS A DISTANCE FROM TRUNK TO 12" FOR EACH CALIPER INCH (CIN) OF TRUNK. DBH IS DEFINED AS A DIAMETER OF TRUNK AT BREAST HEIGHT.
 - C. CONSTRUCTION OF A BUILDING OR OTHER IMPROVEMENT(S) REQUIRES THE REMOVAL OF MORE THAN 30% OF THE VISIBLE PORTION OF THE TREE CROWN.
6. ALL TREES TO REMAIN ON SITE REQUIRE PROTECTIVE FENCING OR ARNOR PROTECTION, MULCHING, PRUNING, WATERING, AND FERTILIZATION AS DIRECTED BY A QUALIFIED ARBORIST. REPORT ANY CONFLICTS WITH ONE DIRECTION PLAN, PROPOSED GRADING PLAN & EXISTING SITE PLAN TO LANDSCAPE ARCHITECT FOR RESOLUTION.
7. BARRICADE FENCE TO BE STAKED IN FIELD BY CONTRACTOR'S REPRESENTATIVE, BEFORE ANY CONSTRUCTION RELATED ACTIVITY BEGINS, ON ALL TREES WITHIN 100' OF ANY CONSTRUCTION. REFER TO DTL, UTP-101.
8. INSTALL BARRICADE FENCE DIRECTLY BELOW DIAPHRANE OF TREE AT A MINIMUM AS INDICATED IN DTL, UTP-101. IN CONDITIONS WHERE CONSTRUCTION MATERIALS WITHIN DIAPHRANE OF TREE, PLACE FENCE AT DISTANCE OF TREE RPP MINIMUM.
9. ALL WOODY MATERIAL TO BE REMOVED SHALL BE CHIPPED INTO MULCH AND UTILIZED ON SITE. SUBSEQUENT MULCH MATERIAL IS TO BE PLACED ON SITE WITHIN AREAS DISTURBED ALONG UTILITY CORRIDORS (REFER TO NOTE 13TP-103) AND ON SITE WITHIN RPPS AT TREES ADJACENT TO CONSTRUCTION MATERIAL NOT USED ON SITE IS TO BE REMOVED AND PROPERLY DISPOSED OF BY CONTRACTOR. IF MATERIAL OBTAINED FROM SITE DOES NOT PROVIDE AN ADEQUATE QUANTITY OF MULCH, CONTRACTOR TO PROVIDE THE QUANTITY OF SUPPLEMENTAL MULCH REQUIRED TO ACCOMPLISH INTENT OF PLANS.
10. CONSTRUCTION DEVELOPE AT UTILITY CORRIDORS SHALL BE COMPLETELY DISTURBED BY INSTALLATION OF UTILITIES ONLY. MAXIMUM WIDTH TO CONSTRUCTION DEVELOPE IS 12" OF OVERALL FROM CENTERLINE OF UTILITY ANY BOMF CAN OR OVERHEAD WIRE (THAT ARE TO BE REMOVED) ON AN INDIVIDUAL BASIS TO DETERMINE IF TREE MAY REMAIN WITHOUT MAJOR MODIFICATION TO IMPROVEMENTS TO BE CONSTRUCTED. REFER TO CIVIL ARCHITECTURAL AND MEP PLANS FOR ALL WORK RELATING TO UTILITY CORRIDORS.
11. SITE LAYOUT OF MAJOR IMPROVEMENTS (BUILDING, PARKING LOT, AND PLAYGROUND) IS TO BE COMPLETED BEFORE ANY DEMOLITION OF EXISTING TREES OR VEGETATION IS STARTED.
12. CONTRACTOR TO COORDINATE REVIEW WITH AND OBTAIN APPROVAL OF TREE PROTECTION BY CODE TREE INSPECTOR, ENVIRONMENTAL REVIEW DEPT. PRIOR TO INITIATING ANY WORK ON PROJECT.
13. THE RPP & AREA TO DIAPHRANE SHALL BE COVERED WITH 8" LAYER OF COARSE MULCH FOR MOISTURE CONSERVATION & PROTECTION AGAINST COMPACTION. KEEP MULCH OFF ROOT FLAMES AT BASE OF TRUNK (12" MIN).
 - A. AT BARRICADE CONDITION: PLACE MULCH TO 8" DEPTH WITHIN FENCING WHEN BARE GRADE AND SURFACE VEGETATION AND TO 8" DEPTH OUTSIDE OF FENCING COORDINATING WITH LIMITS OF DIAPHRANE.
 - B. AT ARNOR CONDITION: PLACE MULCH TO 8" DEPTH OVER ENTIRE AREA TO CONFORM WITH LIMITS OF DIAPHRANE.
14. PRESERVED TREES SHALL BE PROTECTED UNTIL SUCH TIME AS THE CONCRETE WORK CAN BE STAKED TO DETERMINE ITS DISTANCE FROM TREE TRUNK. IF FOUND THAT THE CONCRETE WORK WOULD BE CLOSER THAN 5', THE CONTRACTOR SHALL MEET WITH REPRESENTATIVES OF THE ENVIRONMENTAL REVIEW DEPARTMENT TO BARRICADE (RPPX).
15. NO GRADING GREATER OR LESS THAN 3" IN PROTECTED TREES RPP, NO TRIMMING IN PROTECTED TREES RPP EXCEPT BY HAND WITH CLEAN CUTTING TOOLS LARGER THAN 2" IN DIAMETER.



LEGEND

- EXISTING TREES TO BE PRESERVED
- EXISTING TREES TO BE SAVED
- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE PLANTED; DIMENSIONS BELOW 12\"/>

PLAN NORTH **TRUE NORTH**

1 TREE PRESERVATION PLAN

1\"/>

Site Modifications to
Fox Tech Campus
 177 Buffalo Run
 San Antonio, Texas 78205

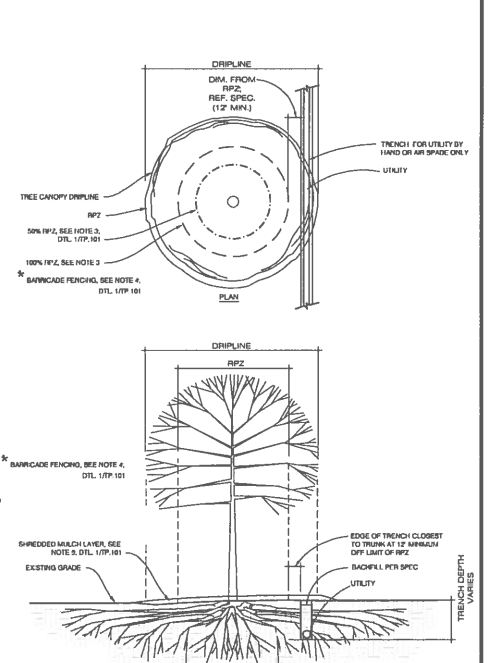


745 e mulberry ave suite 101
 san antonio texas 78211
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 web: www.rvk-architects.com

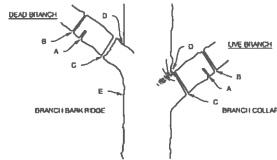
TP-100

TREE PRESERVATION PLAN





4 TRENCHING ADJACENT RPZ



- FIRST CUT - TO PREVENT THE BARK FROM BEING POOLED WHEN THE BRANCH FALLS.
- SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
- FINAL CUT - TO ALLOW FOR HEALING COLLAR AND NO STUMS.
- BRANCH PROGES - PROPERLY IDENT BRANCH PROGES WHICH ARE SITE FOR DECAY
- E. MAIN TRUNK OF TREE

5 BRANCH PRUNING DETAIL

[illegible]

RVK

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TP-101

TRICE PRESERVATION DETAILS



date 11/15/2018

The user of this drawing agrees to assume all responsibility for any modifications to or use of the drawing for any purpose other than the original purpose of the drawing. The user of this drawing agrees to indemnify and hold R/VK, LLC harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, arising out of or from the use of this drawing for any purpose other than the original purpose of the drawing.

CITY OF SAN ANTONIO - UDC V 3.28.532 (2016 Ordinance)

AP-9

11/15/2018 13:14

TREE PRESERVATION INVENTORY - SAISD FOX TECH

TAG #	SPECIES	DBH	CODE	SMALL TREES 2.5' - 9.9'		SHORT LIVED 10' - 19'		SIGNIFICANT SMALL SPECIES 20' - 11.9'		SIGNIFICANT TREES 12' - 33.9'		HERITAGE SMALL SPECIES 12' +		HERITAGE SHORT LIVED 11' 24' +		HERITAGE TREES 3:1 24' +		NOTES
				PRESERVED	REMOVED	PRESERVED	REMOVED	PRESERVED	REMOVED	PRESERVED	REMOVED	PRESERVED	REMOVED	PRESERVED	REMOVED	PRESERVED		
2021 OAK		9	P								9							not counted - below minimum
2022 ELM		7	P								7							not counted - in easement
2023 ELM		8	E															not counted - outside property line
2024 ORANGE MYRTLE		7	O															not counted - outside property line
2025 ORANGE MYRTLE		8	O															not counted - outside property line
2026 ORANGE MYRTLE		5	O															not counted - outside property line
2383 CYPRESS		5	E															not counted - in easement
2284 CYPRESS		8	E															not counted - in easement
2383 OAK		27	B													27		Tree Inventory Label Provided
2384 OAK		18	E															not counted - in easement
2623 OAK		33	E															not counted - in easement
4584 OAK		43	P														43	
4583 LOCUST		4	P			4												
4838 ELM		35	O															not counted - outside property line
9228 OAK		10	P								10							
9228 CYPRESS		6	E															not counted - in easement
9229 CYPRESS		7	E															not counted - in easement
9230 CYPRESS		11	E															not counted - in easement
9318 ORANGE MYRTLE		4	O															not counted - outside property line
9318 ORANGE MYRTLE		4	O															not counted - outside property line
9317 ORANGE MYRTLE		8	O															not counted - outside property line
9318 ORANGE MYRTLE		4	O															not counted - outside property line
9404 OAK		10	P								10							
9418 OAK		11	E															not counted - in easement
9405 PECAN		18	E															not counted - in easement
9481 PECAN		19	E															not counted - in easement
9627 OAK		7	R							7								
9650 OAK		7	R							7								
9758 OAK		6	P								6							
9810 CYPRESS		8	P								8							
9811 CYPRESS		8	P								8							
9812 CYPRESS		8	P								8							
9813 CYPRESS		5	P															
9814 CYPRESS		9	P															
9815 CYPRESS		9	P															
9878 CHINESE YALLO		2	R															not counted - under 10' to 12' height
9879 TEXAS MTH LAUREL		8	P						8									
9880 TEXAS MTH LAUREL		8	P						8									
9881 TEXAS MTH LAUREL		5	P															
9882 OAK		23	P								23							
9910 OAK		23	P								23							
9911 OAK		18	P								18							
9905 ELM		24	P														24	
10009 OAK		8	P								8							
10009 OAK		8	P								8							
10009 OAK		8	P								8							
10181 ANACUA		11	E															not counted - in easement
10186 TEXAS MTH LAUREL		3	E															not counted - in easement
10186 TEXAS MTH LAUREL		5	E															not counted - in easement
10186 TEXAS MTH LAUREL		2	E															not counted - in easement
10191 PECAN		25	E															not counted - in easement
10182 PECAN		14	E															not counted - in easement
10183 PECAN		22	E															not counted - in easement
10208 ELM		8	R								8							
10381 OAK		8	P								8							
10617 ORANGE MYRTLE		8	E															not counted - in easement
10618 PERSIMMON		3	E															not counted - in easement
10618 PALM		18	E															not counted - palm tree
10620 OAK		8	P								8							
10621 OAK		2	P															not counted - below minimum
10622 PALM		20	E															not counted - palm tree
10623 OAK		18	E															not counted - in easement
111 OAK		3	T															Tree to be Transplanted On-site
1115 CAMORE		3	T															Tree to be Transplanted On-site
13 OAK		3	P			3												
TOTAL TREE COUNT (Trees)				3	0	0	0	0	3	4	17	0	0	0	0	1	3	30 TREES COUNTED ON SITE
SUBTOTALS (Inches)				12	0	0	0	0	19	33	176	0	0	0	0	27	87	TOTAL INCHES
TOTAL PER CATEGORY (Inches)				12	0	0	0	0	19	33	176	0	0	0	0	27	84	
PERCENT PRESERVED				0					100%		88%		0		0		71%	88% AVERAGE PRESERVATION RATE
NON RECLAIMABLE				40%					40%		100%		100%		100%	25	TREES PRESERVED	
REPLACEMENT REQUIRED (Inches)				0					-11		-94		0		0		81	5 TREES REMOVED
MITIGATION RATE									1.1		1.1		1.1		1.1		3.1	
TOTAL REPLACEMENT REQUIRED (Inches)									-29	A negative value represents a surplus								
ARE SMALL TREES UTILIZED IN MITIGATION?				NO					0	MITIGATION PROVIDED AS SMALL TREE PRESERVATION								
									0	MITIGATION PROVIDED AS PROPOSED PLANTINGS (SEE PLANTING PLAN)								
									0	MITIGATION PROVIDED AS PAYMENT								
MITIGATION BALANCE									-29	A negative value represents a surplus								

Site Modifications to

Fox Tech Campus
177 Buffalo Run
San Antonio, Texas 78205

18127

R/VK

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not for construction

TP-102

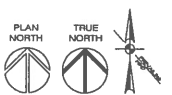
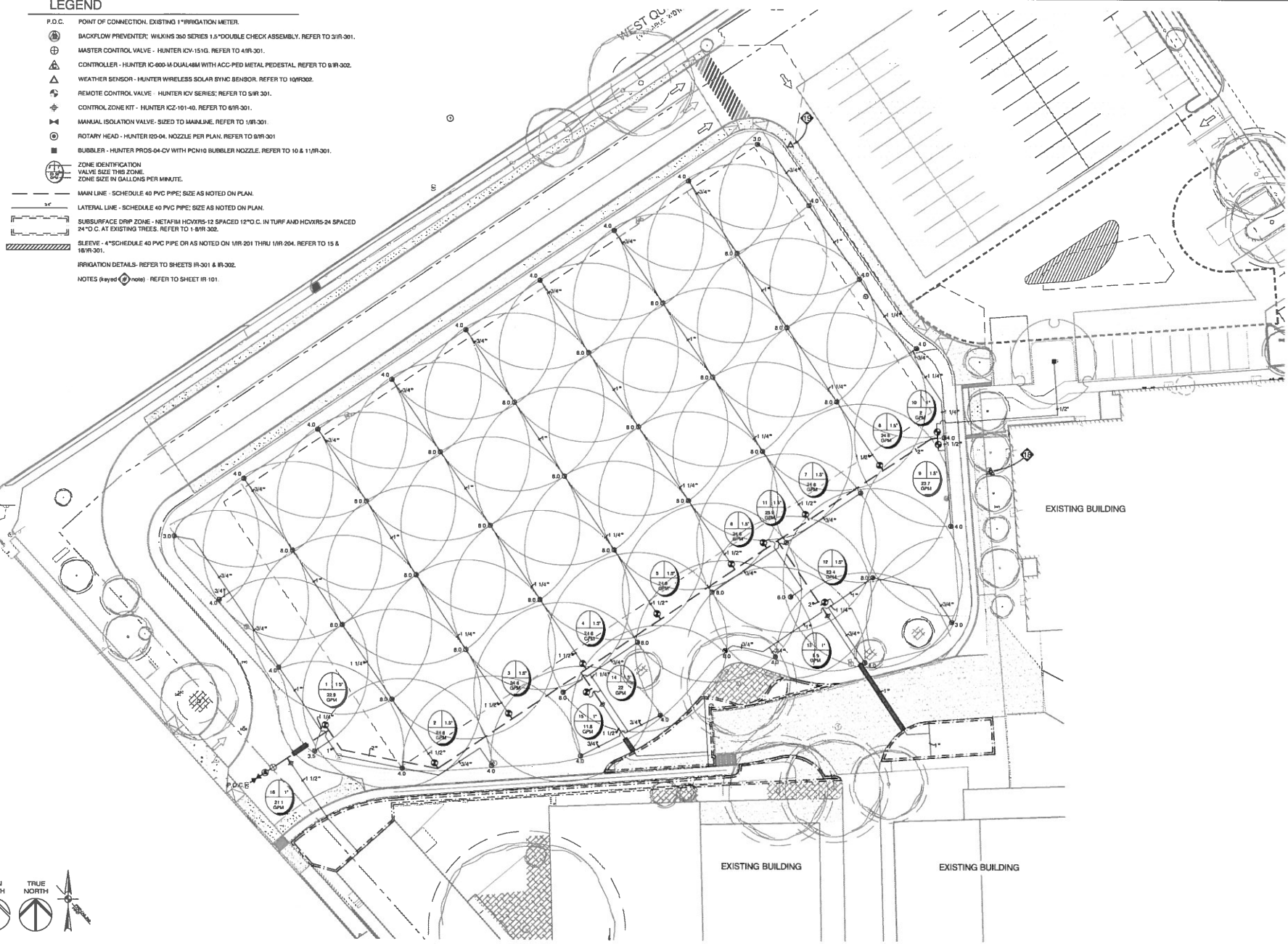
TREE PRESERVATION INVENTORY



The user of this file agrees to assume all responsibility for any modifications to or use of the drawings for the project. The user agrees to indemnify and hold R/VK, Inc. harmless from all claims, damages, costs and expenses, including reasonable attorneys' fees, arising out of or from the use of the drawings for the project. The user agrees to release R/VK, Inc. from all claims, damages, costs and expenses, including reasonable attorneys' fees, arising out of or from the use of the drawings for the project.

LEGEND

- P.O.C. POINT OF CONNECTION, EXISTING 1" IRRIGATION METER.
- BACKFLOW PREVENTER - WILKINS 350 SERIES 1.5" DOUBLE CHECK ASSEMBLY, REFER TO 3/IR-301.
- MASTER CONTROL VALVE - HUNTER KCV-1510, REFER TO 4/IR-301.
- CONTROLLER - HUNTER IC-600-M DUAL-ARM WITH ACC-PED METAL PEDESTAL, REFER TO 5/IR-302.
- WEATHER SENSOR - HUNTER WIRELESS SOLAR B/MC SENSOR, REFER TO 10/IR-302.
- REMOTE CONTROL VALVE - HUNTER KCV SERIES, REFER TO 5/IR-301.
- CONTROL ZONE KIT - HUNTER KCV-101-40, REFER TO 5/IR-301.
- MANUAL ISOLATION VALVE - SIZED TO MAINLINE, REFER TO 1/IR-301.
- ROTARY HEAD - HUNTER IR-04, NOZZLE PER PLAN, REFER TO 5/IR-301.
- BUBBLER - HUNTER PROS-04-CV WITH PCN10 BUBBLER NOZZLE, REFER TO 10 & 11/IR-301.
- ZONE IDENTIFICATION VALVE SIZE THIS ZONE. ZONE SIZE IN GALLONS PER MINUTE.
- MAIN LINE - SCHEDULE 40 PVC PIPE, SIZE AS NOTED ON PLAN.
- LATERAL LINE - SCHEDULE 40 PVC PIPE, SIZE AS NOTED ON PLAN.
- SUBSURFACE DRP ZONE - NETAFIM HOV/R5-12 SPACED 12" O.C. IN TURF AND HOV/R5-24 SPACED 24" O.C. AT EXISTING TREES, REFER TO 1-5/IR-302.
- SLEEVE - 4" SCHEDULE 40 PVC PIPE OR AS NOTED ON 1/IR-201 THRU 1/IR-204, REFER TO 15 & 16/IR-301.
- IRRIGATION DETAILS - REFER TO SHEETS IR-301 & IR-302.
- NOTES (Keyed #) REFER TO SHEET IR-101.



1 IRRIGATION PLAN
1" = 20'-0"

Site Modifications to

Fox Tech Campus
177 Buffalo Run
San Antonio, Texas 78205

REVISED:



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San Antonio, Texas 78211
Telephone: 210.723.2631
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construction document

IR-100

IRRIGATION PLAN

NOTES (keyed Φ note)

1. Irrigation contractor shall be responsible for making himself familiar with the specifications and all submittal requirements. It is the responsibility of the irrigation contractor to notify the Owner's Representative for site inspections as specified in the specifications. Failure to notify the Owner's Representative does not relieve the contractor from inspection approval and will require the contractor to uncover work as required for approval at the cost of the contractor. Irrigation contractor is to inform Owner's Representative of the start date of work.
2. All irrigation work shall be installed under the supervision of a Texas Licensed Irrigator.
3. The irrigation contractor is required by law to notify Texas One Call (800-245-4545) 72 hours prior to any excavation. Irrigation contractor shall be responsible for making himself familiar with all underground utilities, pipes and structures. Irrigation contractor shall take sole responsibility for any cost incurred due to damage to said utilities whether or not Texas One Call is notified.
4. Do not willfully proceed with construction as designed without verifying actual on-site water pressure from the source. Do not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Owner's Representative. The irrigation contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.
5. Irrigation contractor shall be responsible for any coordination with other contractors as required to accomplish irrigation installation.
6. Due to scale of drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. Irrigation contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan his work accordingly, furnishing such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and reference of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting and architectural features. This design is diagrammatic. All piping, valves, etc., shown with in paved areas is for design clarification only and shall be installed in planting areas and within property lines.
7. It is the irrigation contractor's responsibility to coordinate piping with the landscape subcontractor to avoid conflict with planting beds. It will be the responsibility of the irrigation subcontractor to move piping to allow proper placement of plant material.
8. NO MACHINE TRENCHING IS TO BE DONE WITHIN DRIP LINE OF TREES. Trenching is to be done by hand or by tamping under root system by hand. Do not trench under root system by hand. Do not trench more than 40% of the tree RPD when trenching parallel. For lateral piping within the RPD, trench to reach head location approaching on surface with trenching structure of root system. Piping layout is diagrammatic and piping shall be routed around existing plant material to avoid damage. Do not cut any root over 3/4" diameter. Any cuts made shall be clean and without frayed ends.
9. Irrigation contractor shall be responsible for sleeves and chases whenever piping or conduit passes, under all paving, through walls, etc. All sleeve locations may not be shown on plan, coordinate with architectural and civil drawings, general contractor and other subcontractors as required. All sleeve and chase locations are not noted on plan.
10. All sleeves shall be Schedule 40 PVC sized per plan or minimum twice the diameter of pipe or combination of pipes enclosed within the sleeve. Refer to sheets IR-201 thru IR-203 for sleeving plan.
11. Do not run field wiring and pipe in common sleeve. Provide a separate 2" Schedule 40 PVC sleeve where field wiring passes under paving.
12. Provide minimum clearance of 4" between parallel lines when two or more pipes or sleeves are installed in a common trench.
13. Maximum depth to control valve flow control handle not to exceed 12" below finish grade.
14. Provide minimum clearance of five feet (5') between control valve boxes and walks, curbs and paving.
15. All un-designated end lateral piping shall be 3/4" in rotary and tree bubbler zones and 3/4" in subsurface drip zones.
16. All sprinkler heads shall have flexible attachment via swing joint; unitized, factory assembled constructed of polyethylene tubing with swivel ends on each end.
17. All sprinkler heads and tree bubblers shall have a factory installed check valve.
18. Install the Hunter K100-M-DUAL-16 with ACC-PED metal pedestal where shown on plan. Orient the pedestal and controller doors facing east. Coordinate installation of pedestal mounting template and electrical conduit as required.
19. Install Wireless Solar Sync sensor on a fence post in line of sight of the irrigation controller. Select a mounting location for the sensor unit that is aesthetically pleasing where the rain sensor will receive direct rainfall and orient it in an unobstructed southeast exposure. Confirm optimum signal strength before permanently securing to structure. Confirm final location with owner's representative before permanently securing to structure.
20. Ground control wire per Section 32.84.42 of the specifications and the manufacturer's recommendations. Do not connect control wire to the irrigation controller until the grounding is in place.
21. Obtain coverage test approval from Owner's Representative prior to planting, sodding or seeding.
22. Design provides coverage only in the areas indicated.
23. Refer to civil drawings for grading plan.
24. Contractor to maintain soil moisture at existing trees by hand watering or temporary irrigation during times of insufficient rainfall for the duration of the project.

SPECIAL NOTES - HUNTER DUAL TWO-WIRE

1. For typical installations with 2-wire path runs that are not excessively long, the recommended layout for the 2-wire path is the START configuration. The distance of the farthest decoder from controller measured along the 2-wire path is considered the Critical Path. The maximum distance for the Critical Path is 5,000 feet for 14 AWG 10/10WV and 7,500 feet for 12 AWG 10/10WV.
2. A LOOP configuration may be used only if the installation requires longer wire runs than are possible with the START configuration. A LOOP configuration will not be allowed without prior approval by the Landscape Architect.
3. Only materials conforming to these specifications shall be used in the work. No substitution of wire and/or wire splice kits will be allowed without prior approval by the Landscape Architect.
4. Hunter requires twisted wire on all wire paths. It is important to always use a solid core, color-coded, twisted pair suitable for direct burial for operation up to 800 volts.
5. The wire shall be solid drawn bare copper meeting the requirements of ASTM specification B-2 or B-8. Insulation shall be low density high molecular weight polyethylene and a thickness of 0.045". The two conductors, one red and one blue, shall be twisted with a minimum lay of 4" and covered with a solid core, high density, sunlight resistant polyethylene (HDPE) outer jacket with a thickness of 0.035".
6. Color coding is mandatory and is a convenience for matching the wires to Hunter decoders. Each Hunter decoder has one red wire and one blue wire. These are always for connection to the two-wire path. The single station decoder has a single pair of black wires for connection to the solenoid. For secondary wire runs, the distance between the field decoder and the solenoid valve cannot exceed 100 feet using 14 AWG. Single conductor copper wire with 400V PVC insulation approved for direct burial per NEC Class II conduit may be used on secondary wire runs less than 20'. Use twisted wire if the decoder-to-solenoid distance is over 20'.
7. Use only 3M DBRY-6 splice kits for all electrical wiring connections to the 2-wire path.
8. Decoder-to-solenoid connections may be made with standard 3M DBY splice kits or an approved substitute.
9. All splices should be made at valves or in splice boxes.
10. Allow adequate slack for splices. Each splice should be able to be withdrawn from the valve box for above ground inspection and service.
11. Hunter ICD series of decoders feature integrated surge suppression and each decoder module is equipped with a bare copper wire for connection to earth ground hardware.
12. DUAL decoders do not include integrated surge suppression. Instead, install the DUAL-S surge arrestors where earth grounding is required and utilizing DUAL decoders.
13. Install the grounding wire and earth ground hardware at right angles from the two-wire path.
14. The earth ground hardware must be installed at least 8' away from the two-wire path.
15. Earth ground should be connected at every 12th decoder, or 1000 feet of wire run, whichever is shorter.
16. The final decoder in any wire run should be grounded.
17. Never connect a wire path from one controller to the wire path from another controller.
18. Avoid running power cables and decoder cables in a common trench or parallel in close proximity. If a high voltage cable must be crossed, it is best to cross at right angles.
19. Use the PWM terminal in the i-Core controller for Master Valve operation. Do not connect the master valve to the 2-wire path.
20. Refer to the manufacturer for additional information i.e. Decoder Systems Design Guide, UT-528 V11, Owners Manual for i-Core Dual Controller, UT-533 Rev11/15, etc.

SPECIAL NOTES - SUBSURFACE DRIP

1. Provide Netatm HCVXRS 12 spaced 12" O.C. in turf areas.
2. Provide Netatm HCVXRS-24 spaced 24" O.C. under the canopy of existing trees.
3. Size laterals and headers per plan. Do not to exceed (3) three (F.P.S.) feet per section.
4. When installing sub-surface drip tubing in pre-graded applications, remove the soil to the depth required to provide the specified cover and place tubing on soil surface.
5. When installing sub-surface drip tubing in applications where final grade has been established, dig trenches to the depth required to provide the specified cover and place tubing in trench.
6. Place the drip line grid on a uniform grade that is free of rocks and other objects that may damage tubing.
7. Maintain the specified row spacing and uniform depth throughout the grid. Make minor adjustments to avoid conflicts with plantings and architectural features both new and existing.
8. Do not install tubing from turf or planting bed zones within tree saucer of new or existing trees.
9. Place the first row of tubing 4" from the edge in planting beds planted against a hardscape or curb.
10. Use tie-down stakes to keep tubing in place while replacing backfill, stake or pin tubing at changes in direction and as required maintaining tubing placement. Do not exceed 2' O.C. spacing between stakes. Stakes are not required when pouring or pulling tubing.
11. Keep all drip tubing, headers (manholes), and maintain free of soil, rocks and debris during installation.
12. Allow for expansion and contraction of tubing.
13. Check laterals, headers and drip tubing for leaks prior to covering tubing.
14. Provide uniform soil compaction throughout site after installation to facilitate water movement through the capillaries in the soil.

PRESSURE REQUIREMENT CALCULATIONS @ ZONE No. 4			
DESIGN STATISTICS FOR CALCULATIONS			
Static Pressure (P.S.I.)			72.0
Total Zone Flow (G.P.M.)			25.9
ACCUMULATIVE LOSSES			
Service	Type	Length	Loss
Ingresson Meter	Dedicated	1'	4.0
Backflow Preventer	Double Check Assembly	1.5'	4.8
Master Valve		1.5'	1.5
System Main Line	Sch 40 PVC	2' x 280'	1.5
Zone Valve		1.5'	1.5
Zone Pipe / Fittings			1.5
Friction (R.L.)	Lateral/Man		0.0
TOTAL NET LOSSES			16.8
SPRINKLER HEAD REQUIREMENT (P.S.I.)			48.0
DESIGN PRESSURE			61.8
MINIMUM PRESSURE REQUIREMENT			68.0

NOTE:
System requires the minimum static pressure shown above for the system to operate properly. The Irrigation Contractor shall verify Owner's Representative of pressure deficiencies or any other site problems that may affect the system's performance.

STATEMENT OF IRRIGATION DESIGN STANDARDS COMPLIANCE
This plan is complete and conforms to the design and installation parameters of the irrigation design standards set out in 35-510(i) and 35-511(i)(8) of the City of San Antonio UDC.

1. PRESSURE REQUIREMENT CALCULATION
GREATEST QUANTITATIVE LOSS

BASE IRRIGATION SCHEDULE										
Zone #	Plant Material	Sprinkler Type	Valve Size	GPM	Precip Rate (in/hr)	Demand (in/hr)	Run Time (min)	Cycles per Week	Minimum per Cycle (minutes)	Split Cycle (minutes)
1	Turf	Rotator	1.5	22.9	0.45	1.32	178	2	86	44
2	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
3	Turf	Rotator	1.5	23.6	0.38	1.32	209	2	104	52
4	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
5	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
6	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
7	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
8	Turf	Rotator	1.5	24.6	0.58	1.32	209	2	104	52
9	Turf	Rotator	1.5	23.7	0.42	1.32	180	2	84	47
10	Tree	Bubbler	1	2.0	3.40	0.85	15	2	7	4
11	Turf	Rotator	1.5	25.9	0.44	1.32	180	2	86	45
12	Turf	Rotator	1.5	25.4	0.48	1.32	182	2	87	46
13	Subsurface	Subsurface	1	8.5	0.85	1.32	83	2	47	23
14	Turf	Rotator	1.5	22.0	0.41	1.32	183	2	87	46
15	Turf	Subsurface	1	11.8	0.85	1.32	93	2	47	23
16	Turf	Subsurface	1	21.1	0.85	1.32	93	2	47	23
Weekly Run Time Expressed in Hours							44.2		22.1	11.1
Monthly Seasonal Adjustments										
January	33%	May	89%	September	80%					
February	44%	June	99%	October	61%					
March	60%	July	100%	November	40%					
April	81%	August	98%	December	20%					
*Watering schedules are calculated from historic monthly evapotranspiration averages for San Antonio, TX. Variation in seasonal weather may require irrigation run times to be adjusted.										

2. BASE IRRIGATION PROGRAM
NOT TO SCALE

project no. 18127.4



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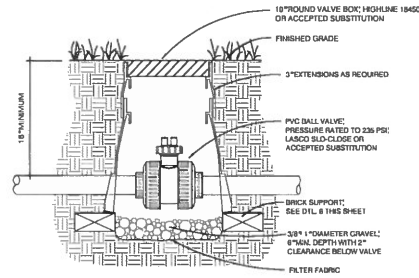
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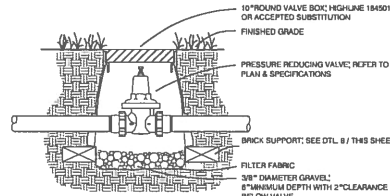
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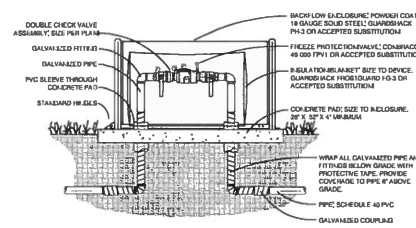


1 MAINLINE ISOLATION VALVE; PVC BALL VALVE
(R-301) NOT TO SCALE

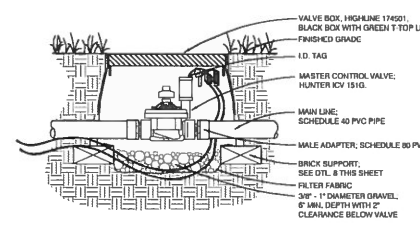


NOTE:
REFER TO SPECIFICATIONS FOR PRESSURE REDUCING VALVE REQUIREMENTS.

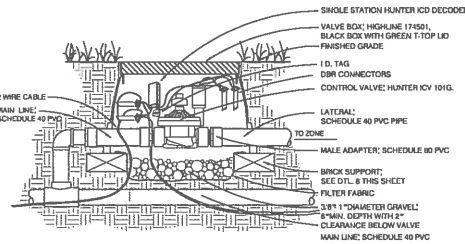
2 PRESSURE REDUCING VALVE
(R-301) NOT TO SCALE



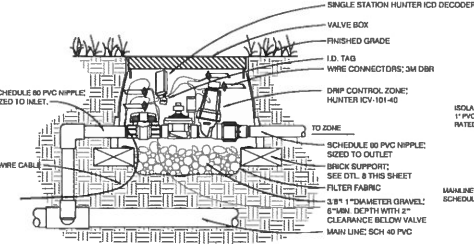
3 BACKFLOW PREVENTION DEVICE
(R-301) NOT TO SCALE



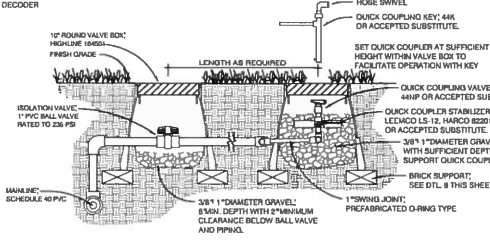
4 MASTER VALVE
(R-301) NOT TO SCALE



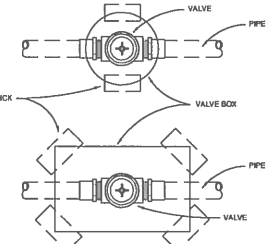
5 CONTROL VALVE
(R-301) NOT TO SCALE



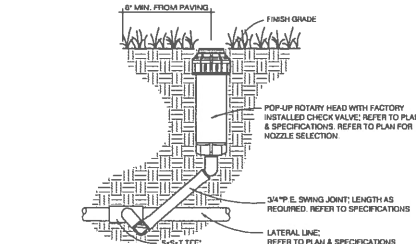
6 CONTROL VALVE - SUBSURFACE DRIP ZONE
(R-301) NOT TO SCALE



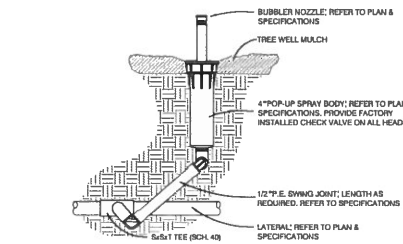
7 QUICK COUPLE VALVE
(R-301) NOT TO SCALE



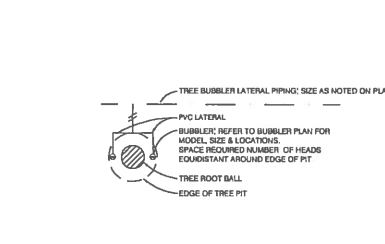
8 BRICK SUPPORT - PLAN VIEW
(R-301) NOT TO SCALE



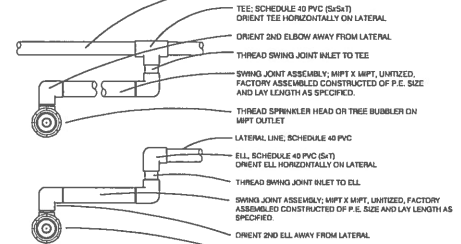
9 TURF ROTOR - MIDSIZE WITH 3/4\"/>



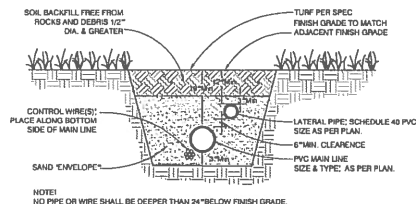
10 TREE BUBBLER - POP-UP
(R-301) NOT TO SCALE



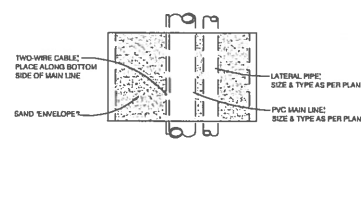
11 TREE BUBBLER ASSEMBLY
(R-301) NOT TO SCALE



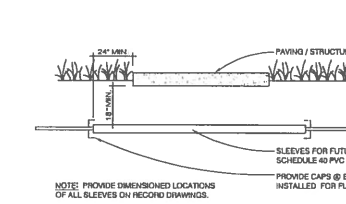
12 SWING JOINT - PLAN
(R-301) NOT TO SCALE



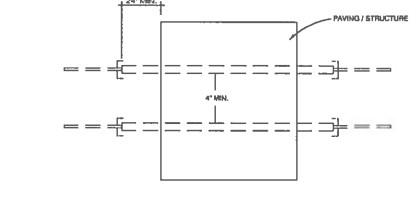
13 TRENCH CROSS SECTION
(R-301) NOT TO SCALE



14 TRENCH - PLAN VIEW
(R-301) NOT TO SCALE



15 IRRIGATION SLEEVE
(R-301) NOT TO SCALE



16 IRRIGATION SLEEVE - PLAN VIEW
(R-301) NOT TO SCALE

Site Modifications to
Fox Tech Campus
177 Buffalo Run
San Antonio, Texas 78205

revisions

R/VK
INC.

745 E. Mulberry Ave Suite 601
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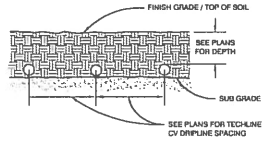
construction document

IR-301

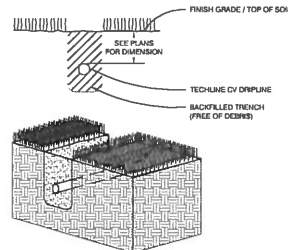
IRRIGATION DETAILS



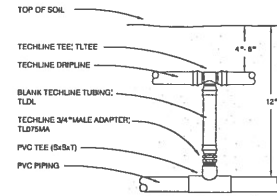
The user of this life agrees to assume all responsibility for any modifications to or use of this drawing that is not in accordance with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. The user of this life agrees to indemnify and hold the architect harmless from any and all claims, damages, costs and expenses, including reasonable attorney's fees, that may be asserted against the architect by a third party as a result of the user's modifications to or use of this drawing.



1 TECHLINE CV SUBGRADE INSTALLATION
IR-302 NOT TO SCALE

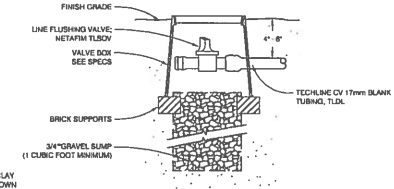


2 TECHLINE CV TRENCHING
IR-302 NOT TO SCALE

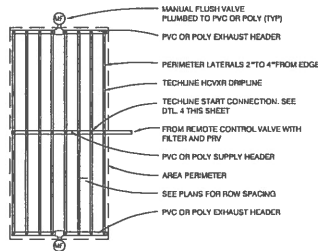


- NOTES:
1. PLACE THE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY
 2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE THE DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

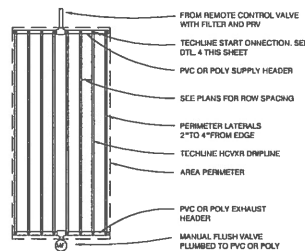
3 SUB-SURFACE DRIPLINE RISER ASSEMBLY
IR-302 NOT TO SCALE



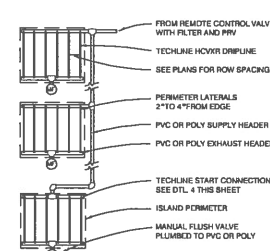
4 MANUAL LINE FLUSHING VALVE TL50V
IR-302 NOT TO SCALE



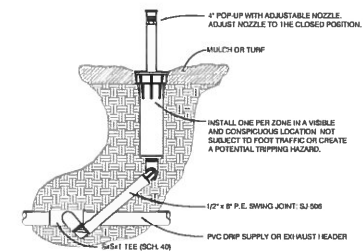
5 TECHLINE HCVXR CENTER FEED LAYOUT
IR-302 NOT TO SCALE



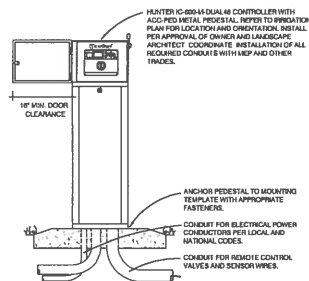
6 TECHLINE HCVXR END FEED LAYOUT
IR-302 NOT TO SCALE



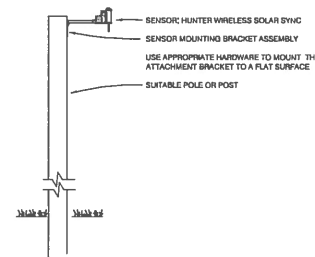
7 TECHLINE HCVXR ISLAND LAYOUT
IR-302 NOT TO SCALE



8 DRIPLINE OPERATION INDICATOR
IR-302 NOT TO SCALE



9 IRRIGATION CONTROLLER
IR-302 NOT TO SCALE



- NOTES:
1. SELECT A MOUNTING LOCATION WHERE THE SENSOR WILL RECEIVE FULL SUN AND DIRECT RAINFALL AND ORIENT WITH AN UNOBSTRUCTED SOUTHEAST EXPOSURE.
 2. SELECT A MOUNTING LOCATION THAT IS NOT AESTHETICALLY OBJECTIONABLE. CONFIRM FINAL LOCATION WITH OWNER'S REPRESENTATIVE BEFORE PERMANENTLY SECURING TO STRUCTURE.
 3. CONFIRM OPTIMUM SIGNAL STRENGTH BEFORE PERMANENTLY SECURING TO STRUCTURE.

10 SENSOR - HUNTER WIRELESS SOLAR SYNC
IR-302 NOT TO SCALE

Site Modifications to
Fox Tech Campus
177 Buffalo Run
San Antonio, Texas 78205

REVISIONS:

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Architectural & Engineering
745 E. Mulberry Suite 601
San Antonio Texas 78212
Telephone: 210.733.3531
www.rvk-architects.com

construction documents

IR-302

IRRIGATION DETAILS