

HISTORIC AND DESIGN REVIEW COMMISSION

March 21, 2018

HDRC CASE NO: 2017-431
ADDRESS: 1610 E HOUSTON ST
1602 E HOUSTON ST
LEGAL DESCRIPTION: NCB 577 BLK 16 LOT 4
NCB 577 BLK 16 LOT 1- 2 & 3
ZONING: C-2, H
CITY COUNCIL DIST.: 2
DISTRICT: Dignowity Hill Historic District
APPLICANT: Laurence Seiterle
OWNER: Laurence Seiterle/Rex Corporation
TYPE OF WORK: Exterior modifications, site work, rehabilitation
APPLICATION RECEIVED: March 02, 2018
60-DAY REVIEW: May 01, 2018
REQUEST:

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

1. Perform exterior modifications to the existing structure including exterior modifications and the installation of storefront systems.
2. Install a canopy on the east façade of the existing structure.
3. Perform site work including the configuration of onsite parking and the installation of landscaped areas.
4. Install signage including wall signs and a monument sign on E Houston.
5. Receive Historic Tax Certification.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 2, Guidelines for Exterior Maintenance and Alterations

10. Commercial Facades

A. MAINTENANCE (PRESERVATION)

- i. Character-defining features*—Preserve character-defining features such as cornice molding, upper-story windows, transoms, display windows, kickplates, entryways, tiled paving at entryways, parapet walls, bulkheads, and other features that contribute to the character of the building.
- ii. Windows and doors*—Use clear glass in display windows. See Guidelines for Architectural Features: Doors, Windows, and Screens for additional guidance.
- iii. Missing features*—Replace missing features in-kind based on evidence such as photographs, or match the style of the building and the period in which it was designed.
- iv. Materials*—Use in-kind materials or materials appropriate to the time period of the original commercial facade when making repairs.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

- i. New features*—Do not introduce new facade elements that alter or destroy the historic building character, such as adding inappropriate materials; altering the size or shape of windows, doors, bulkheads, and transom openings; or altering the façade from commercial to residential. Alterations should not disrupt the rhythm of the commercial block.

11. Canopies and Awnings

A. MAINTENANCE (PRESERVATION)

- i. Existing canopies and awnings*—Preserve existing historic awnings and canopies through regular cleaning and periodic inspections of the support system to ensure they are secure.

B. ALTERATIONS (REHABILITATION, RESTORATION, AND RECONSTRUCTION)

- i. *Replacement canopies and awnings*—Replace canopies and awnings in-kind whenever possible.
- ii. *New canopies and awnings*—Add canopies and awnings based on accurate evidence of the original, such as photographs. If no such evidence exists, the design of new canopies and awnings should be based on the architectural style of the building and be proportionate in shape and size to the scale of the building façade to which they will be attached. See UDC Section 35-609(j).
- iii. *Lighting*—Do not internally illuminate awnings; however, lighting may be concealed in an awning to provide illumination to sidewalks or storefronts.
- iv. *Awning materials*—Use fire-resistant canvas awnings that are striped or solid in a color that is appropriate to the period of the building.
- v. *Building features*—Avoid obscuring building features such as arched transom windows with new canopies or awnings.
- vi. *Support structure*—Support awnings with metal or wood frames, matching the historic support system whenever possible. Minimize damage to historic materials when anchoring the support system. For example, anchors should be inserted into mortar rather than brick. Ensure that the support structure is integrated into the structure of the building as to avoid stress on the structural stability of the façade.

Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

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.

Historic Design Guidelines, Chapter 6, Guidelines for Signage

1. General

A. GENERAL

- i. *Number and size*—Each building will be allowed one major and two minor signs. Total requested signage should not exceed 50 square feet.

ii. New signs—Select the type of sign to be used based on evidence of historic signs or sign attachment parts along the building storefront where possible. Design signs to respect and respond to the character and/or period of the area in which they are being placed. Signs should identify the tenant without creating visual clutter or distracting from building features and historic districts.

iii. Scale—Design signage to be in proportion to the facade, respecting the building's size, scale and mass, height, and rhythms and sizes of window and door openings. Scale signage (in terms of its height and width) to be subordinate to the overall building composition.

B. HISTORIC SIGNS

i. Preservation—Preserve historic signs, such as ghost signs or other signs characteristic of the building's or district's period of significance, whenever possible.

ii. Maintenance—Repair historic signs and replace historic parts in-kind when deteriorated beyond repair.

C. PLACEMENT AND INSTALLATION

i. Location—Place signs where historically located and reuse sign attachment parts where they exist. Do not erect signs above the cornice line or uppermost portion of a facade wall, or where they will disfigure or conceal architectural details, window openings, doors, or other significant details.

ii. Obstruction of historic features—Avoid obscuring historic building features such as cornices, gables, porches, balconies, or other decorative elements with new signs.

iii. Damage—Avoid irreversible damage caused by installing a sign. For example, mount a sign to the mortar rather than the historic masonry.

iv. Pedestrian orientation—Orient signs toward the sidewalk to maintain the pedestrian oriented nature of the historic districts.

D. DESIGN

i. Inappropriate materials—Do not use plastic, fiberglass, highly reflective materials that will be difficult to read, or other synthetic materials not historically used in the district.

ii. Appropriate materials—Construct signs of durable materials used for signs during the period of the building's construction, such as wood, wrought iron, steel, aluminum, and metal grill work.

iii. Color—Limit the number of colors used on a sign to three. Select a dark background with light lettering to make signs more legible.

iv. Typefaces—Select letter styles and sizes that complement the overall character of the building façade. Avoid hard-to-read or overly intricate styles.

E. LIGHTING

i. Lighting sources—Use only indirect or bare-bulb sources that do not produce glare to illuminate signs. All illumination shall be steady and stationary. Internal illumination should not be used.

ii. Neon lighting—Incorporate neon lighting as an integral architectural element or artwork appropriate to the site, if used.

3. Projecting and Wall-Mounted Signs

A. GENERAL

i. Mounting devices—Construct sign frames and panels that will be used to be attach signs to the wall of a building of wood, metal, or other durable materials appropriate to the building's period of construction.

ii. Structural supports—Utilize sign hooks, expansion bolts, or through bolts with washers on the inside of the wall depending upon the weight and area of the sign, and the condition of the wall to which it is to be attached.

iii. Appropriate usage—Limit the use of projecting and wall-mounted signs to building forms that historically used these types of signs, most typically commercial storefronts. To a lesser degree, these signage types may also be appropriate in areas where residential building forms have been adapted for office or retail uses, if sized accordingly.

B. PROJECTING SIGNS

i. Placement—Mount projecting signs perpendicularly to a building or column while allowing eight feet of overhead clearance above public walkways. *ii. Public right-of-way*—Limit the extension of projecting signs from the building facade into the public right-of-way for a maximum distance of eight feet or a distance equal to two-thirds the width of the abutting sidewalk, whichever distance is greater. *iii. Area-Projecting signs* should be scaled appropriately in response to

the building façade and number of tenants.

C. WALL-MOUNTED SIGNS

- i. Area*—Limit the aggregate area of all wall-mounted signs to twenty-five percent of a building facade.
- ii. Projection*—Limit the projection of wall-mounted signs to less than twelve inches from the building wall.
- iii. Placement*—Locate wall signs on existing signboards—the area above the storefront windows and below the second story windows—when available. Mount wall signs to align with others on the block if an existing signboard is not available.
- iv. Channel letters*—Avoid using internally-illuminated, wall-mounted channel letters for new signs unless historic precedent exists. Reverse channel letters may be permitted.

4. Freestanding Signs

A. GENERAL

- i. Appropriate usage*—Freestanding signs are most appropriate in locations where building forms are set back from the street, such as in areas where historic residences have been adapted for office or retail uses, or in commercial districts where they may be used to identify parking areas or other accessory uses.
- ii. Placement*—Place freestanding signs near the public right-of-way where they are clearly visible to passing pedestrians and motorists, a minimum of five feet from the street right-of-way and ten feet from all interior side lot lines. No freestanding sign should be placed in a manner that obstructs the pedestrian walkway.
- iii. Number*—Limit the number of freestanding signs per platted lot to one, unless the lot fronts more than one street, in which case, one sign is allowed on each street on which the lot has frontage.
- iv. Monument signs*—Do not use —suburban-style monument signs or electronic messaging signs not historically found in San Antonio's historic districts.

B. DESIGN

- i. Height*—Limit the height of freestanding signs to no more than six feet.
- ii. Area*—The size of new signs should be appropriate within the historic context, and should not exceed 25 square feet on either side, for a total of 50 square feet. Appropriate size shall be determined by considering historic precedent, sign patterns within historic districts, and conditions specific to individual properties.
- iii. Structural supports*—Use subtle structural elements (in terms of their scale and mass) with historically compatible materials to support a freestanding sign.

FINDINGS:

- a. The commercial structure at the corner of E Houston and N Hackberry was constructed circa 1950 and appears on the 1951 Sanborn Map as a burlap bag manufacturing facility. This lot also featured a Colored Mechanics School which was demolished for the construction of surface parking. The structure has undergone various façade modifications in its existence including the installation of a metal façade.
- b. This request received conceptual approval at the September 6, 2017, Historic and Design Review Commission hearing with the following stipulations:
 - i. That a detailed landscaping plan be submitted at the time of final approval along with detailed construction documents.
 - ii. That the proposed monument sign be eliminated as it is not consistent with a residential historic district.
 - iii. That a master signage plan be submitted at the time of final approval for the location and size of all tenant signage.
- c. EXTERIOR MODIFICATIONS – The applicant has proposed exterior modifications that generally include the installation of façade openings on the E Houston (north) and east facades. The applicant has proposed aluminum storefront systems on these facades and the installation of windows. The N Hackberry facades will feature the removal of the existing aluminum façade and restoration of the existing brick. Staff finds that no character defining features will be removed or modified in the proposed alterations and finds the proposed alterations appropriate.
- d. CANOPY INSTALLATION – The applicant has proposed to install an entrance canopy to span the length of the east façade to feature varying heights and be offset from the roofline of the existing structure. The Guidelines for Exterior Maintenance and Alterations 11.B.ii. notes that new canopies should be based on the architectural style of the building and be proportionate in shape and size to the scale of the building façade. Generally, staff finds the

proposed canopy to be consistent with the Guidelines.

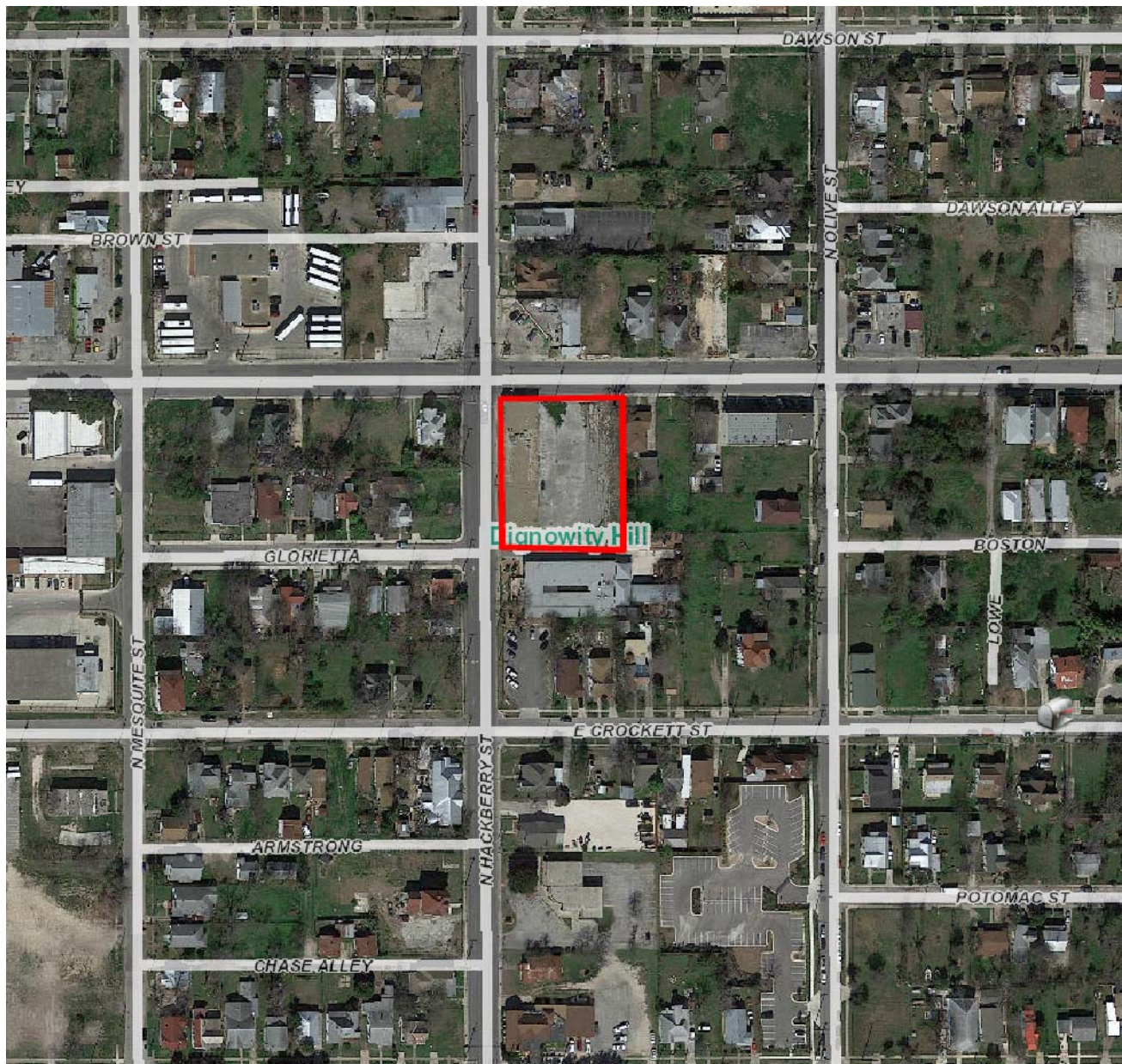
- e. **SITE WORK** – The existing site features surface parking with no existing buffers to buffer automobile parking from the sidewalk at the public right of way. The applicant has proposed to install landscape buffers along E Houston and at each property line. The applicant has also proposed to install a number of landscaping materials include low plantings, shrubs and small trees and large trees on the lot.
- f. **LANDSCAPING** – Regarding landscaping, the applicant has proposed to install benches, planters, concrete paving, low walls, decomposed granite paving, two live oaks, three cedar elms and numerous shrubs to buffer the parking lot from the eastern property line. Staff finds the proposed landscaping plan to be appropriate.
- g. **SIGNAGE** –The applicant has proposed to install six, 4x8 business signs on the west elevation (Hackberry) to be indirectly lit; six, 2x4 business sign on the east elevation, facing parking lot, to be indirectly lit; and a monument sign (4' – 6" tall, 14' long), to feature indirectly lit signage panels for each retail tenant. Generally, staff finds the proposed signage locations to be appropriate; however, staff finds that the Hackberry signage should be reduced to approximately (4x6) 24 square feet each.
- h. **HISTORIC TAX CERTIFICATION** – The applicant is requesting Historic Tax Certification for repair work to the historic structure at 502 E Mulberry. Scopes of work include interior renovations; mechanical, electrical and plumbing upgrades; wood window repair and foundation repair. The requirements for Historic Tax Certification outlined in UDC Section 35-618 have been met and the applicant has provided evidence to that effect to the Historic Preservation Officer.

RECOMMENDATION:

Staff recommends approval of items #1 through #5 based on findings a through h with the stipulation that wall signage on N Hackberry be reduced to approximately twenty-four (24) square feet each.

CASE MANAGER:

Edward Hall



Flex Viewer

Powered by ArcGIS Server

Printed: Aug 28, 2017

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129

EX. 138

133

E. HOUSTON (STARR)

1602-1610

127

GLORIETTA (GLORIETH)

E. CROCKETT

128

N. MESQUITE

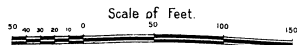
N. HACKBERRY

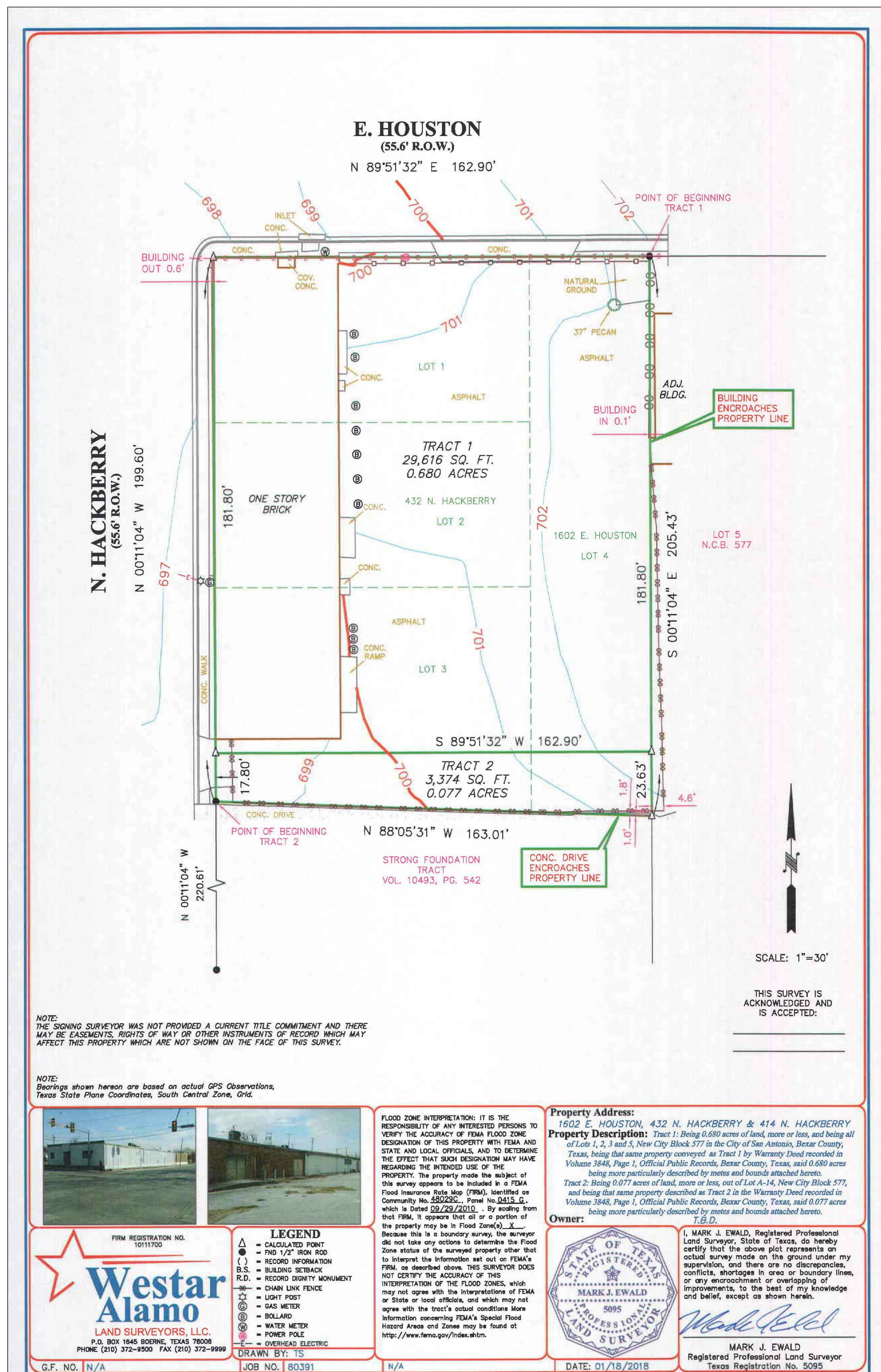
N. OLIVE

STATE ST

N. CENTRE

130





9510 TIoga, SUITE 202
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FAX: 210-853-0232
VEC JOB NO. 18-008



TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY: SEI	PROJECT NUMBER: 1711
DWN BY: SEI	DATE: JANUARY 2018
FILE NAME: Existing Conditions.dwg	
DESIGN PHASE SCHEMATIC DESIGN	

ZÜRICH INTERNATIONAL
ADAPTIVE REUSE

1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

EXISTING CONDITIONS SURVEY

SHEET NUMBER

SHEET C1
Sheet C1 of 8

D

C

B

A

D

C

B

A

1

2

3

4

5

1

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5

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JOSE VILLAGOMEZ, P.E.
LICENSE NO. 105199
02/14/18



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TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY: SEI

1711

DATE: JANUARY 2018

DWN BY: SEI

FILE NAME: Dimensional Plan.dwg

DESIGN PHASE: SCHEMATIC DESIGN

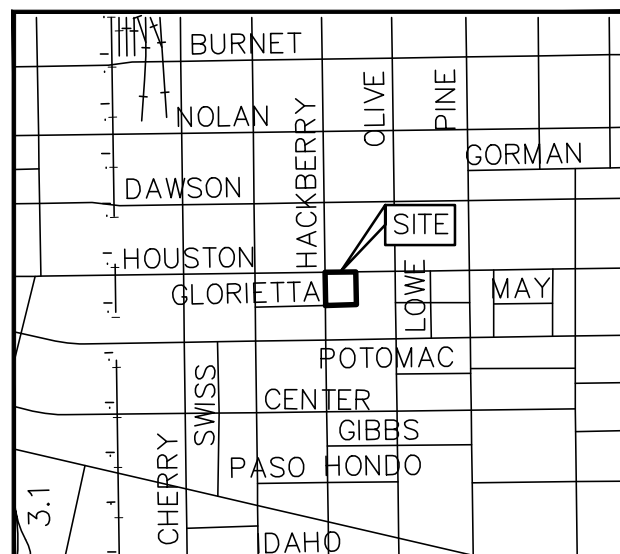
ZURICH INTERNATIONAL
ADAPTIVE REUSE
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

DIMENSIONAL CONTROL PLAN

SHEET NUMBER

SHEET C2

Sheet C2 of 8



LOCATION MAP

NOT TO SCALE

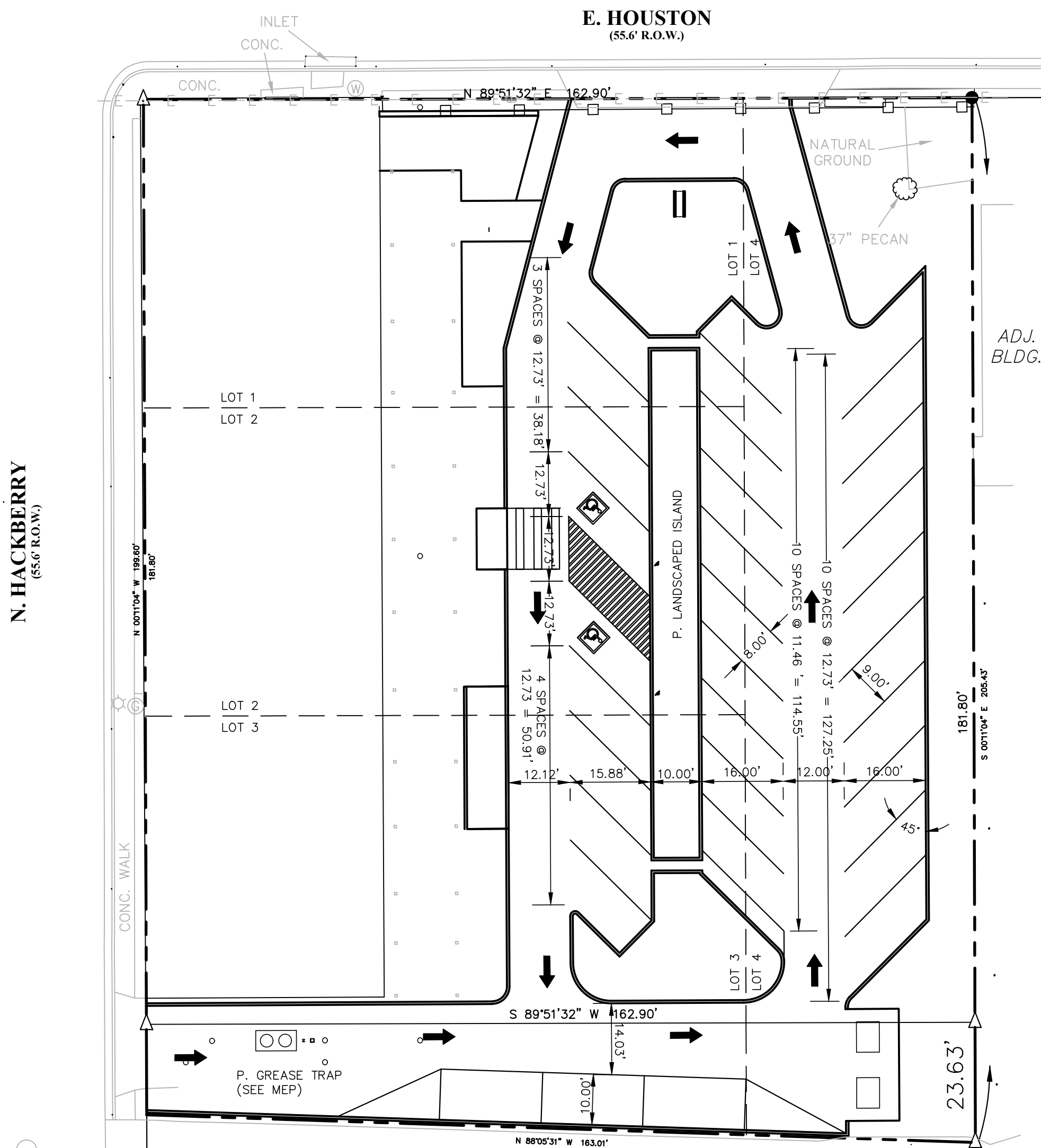
GENERAL NOTES

- ALL PHASES OF WORK UNDER THIS CONTRACT SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE ITEMS OF THE STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION SPECIFICATIONS AND LOCAL STANDARD SPECIFICATIONS FOR CONSTRUCTION. FINAL DECISIONS OR JUDGEMENTS ON MATTERS NOT SPECIFICALLY COVERED BY THE ABOVE DOCUMENTS SHALL BE MADE BY THE ENGINEER.
- CONTRACTOR SHALL COMPLY WITH ALL LOCAL BUILDING CODES AND REGULATIONS, AS WELL AS OTHER SAFETY CODES AND INSPECTION PROVISIONS APPLICABLE TO THIS PROJECT.
- CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR CONSTRUCTION AND SHALL NOTIFY ALL RESPECTIVE GOVERNMENTAL OR UTILITY AGENCIES AFFECTED BY CONSTRUCTION.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT. EXCEPTIONS FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, NATURAL GAS PURVEYOR MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
- BIDDERS ARE HEREBY NOTIFIED TO MAKE A THOROUGH REVIEW OF THE JOB SITE AND SOIL BORING INFORMATION PROVIDED BY OWNER. NO ADDITIONAL PAYMENT SHALL BE MADE FOR ROCK, SAND, GRAVEL, OR OTHER UNSTABLE CONDITIONS ENCOUNTERED IN ANY WORK IMPLIED BY THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY LINE LOCATOR FOR EACH RESPECTIVE UTILITY IN THE PROJECT AREA 48 HOURS PRIOR TO STARTING EXCAVATION.
- CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.
- FOR LOCATION OF UNDERGROUND ELECTRIC, GAS, TELEPHONE AND WATER FACILITIES, CALL THE LOCAL UTILITY LOCATOR 48 HOURS BEFORE BEGINNING ANY EXCAVATION.
- ALL WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND IT SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE SITE TO PROPERTY WHERE THE CONTRACTOR HAS THE CONSENT OF THE OWNERS. NO WASTE MATERIALS SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER THE FLOW LIMITS OF EXISTING NATURAL DRAINAGE.
- OMITTED
- CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. STARTING ANY WORK CONSTITUTES THE APPROVAL OF THE EXISTING CONDITIONS SHOWN.
- EXISTING ABOVE GROUND UTILITIES HAVE BEEN PLOTTED BY DIRECT FIELD INVESTIGATION (ON SURVEY PERFORMED BY OTHERS). UNDERGROUND UTILITIES HAVE BEEN COMPILED FROM VARIOUS SOURCES AND REQUIRE VERIFICATION BY THE CONTRACTOR TO ESTABLISH THEIR EXACT LOCATION AND DEPTH PRIOR TO SETTING ANY FINISH CONCRETE GRADE. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING ABOVE GROUND OR UNDERGROUND UTILITIES, INCLUDING THOSE NOT SHOWN ON DRAWINGS. DEAD UTILITY LINES SHALL BE SUITABLY CAPPED.
- ANY EXISTING SITE IMPROVEMENT OR UTILITY REMOVED, DAMAGED OR UNDERCUT BY CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE OWNER AND APPROVED BY THE RESPECTIVE UTILITY AT THE CONTRACTOR'S EXPENSE.
- WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE DEPARTMENT OF HEALTH "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEM." (LATEST REVISION)
- (A) HEAD-IN PARKING PLACES SHALL BE 9' X 18' WITH 4" WIDE WHITE LINE
(B) PARALLEL PARKING PLACES SHALL BE 10' X 22' STRIPED WITH WHITE PAINT.
- ALL DIMENSIONS ARE TO BE MEASURED FROM BACK OF CURB. (UNLESS OTHERWISE SPECIFIED)
- BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND GENERALLY BE LOCATED TO AFFORD MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT AND TO ASSURE AN EXPEDITIOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE SIGNS SHALL BE COORDINATED WITH SEQUENCE OF CONSTRUCTION AND DETOUR PLAN. DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL PROVIDE ACCESS FOR LOCAL TRAFFIC.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF BUILDING DIMENSIONS AND INGRESS/EGRESS LOCATIONS.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND REPLACEMENT, IF NECESSARY, OF ALL DISTURBED PROPERTY CORNERS.
- CONTRACTOR SHALL COORDINATE CONSTRUCTION MATERIALS TESTING WITH THE SELECTED TESTING COMPANY. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE ALL TESTS ARE COMPLETED AS SPECIFIED IN THE AGREEMENT BETWEEN THE OWNER AND TESTING COMPANY.

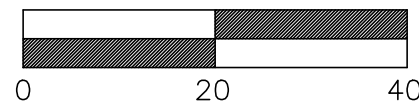
LEGEND

—	O.H.U.	—	EXISTING OVERHEAD ELECTRIC
—	E 8" W	—	EXISTING WATER LINE
—	E 8" SS	—	EXISTING SANITARY SEWER LINE
—	E U/G T	—	EXISTING UNDERGROUND TELEPHONE
—	E 2" G	—	EXISTING NATURAL GAS
—	WM	—	EXISTING WATER METER
—	WV	—	EXISTING WATER VALVE
—	FH	—	EXISTING FIRE HYDRANT
—	MH	—	EXISTING MANHOLE
—	PP	—	EXISTING POWER POLE
—	TSP	—	EXISTING TRAFFIC SIGNAL POLE
—	TSB	—	EXISTING TRAFFIC SIGNAL BOX
—	LS	—	EXISTING LUMINAIRE STANDARD
—	EB	—	EXISTING ELECTRIC BOX
—	CNDE	—	EXISTING ELECTRIC CONDUIT
—	SV	—	EXISTING SPRINKLER VALVE
—	CO	—	EXISTING CLEAN OUT
86.60		—	PROPOSED SPOT ELEVATION
W86.60		—	EXISTING ELEVATION
D86.60		—	SIDEWALK ELEVATION
T86.60		—	DRIVEWAY ELEVATION
G86.60		—	TOP OF CURB ELEVATION
		—	GUTTER ELEVATION

PROPOSED CONCRETE PAVEMENT

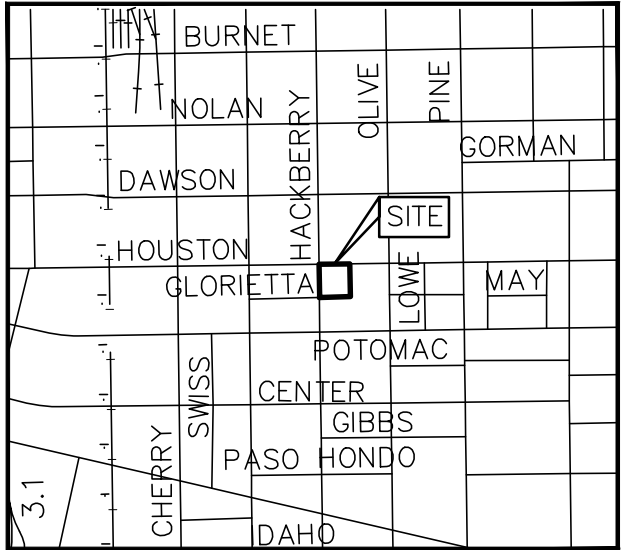
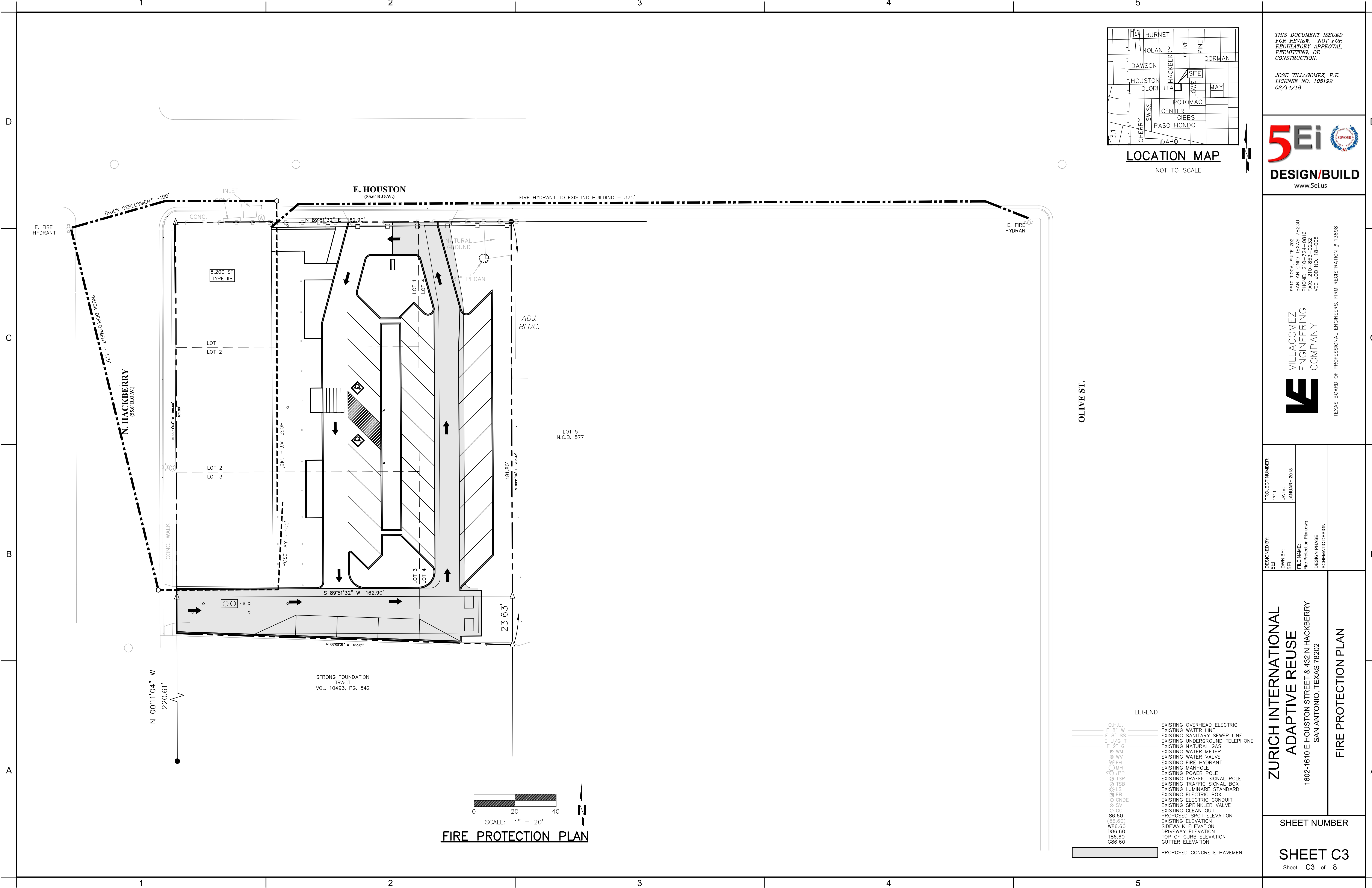


STRONG FOUNDATION
TRACT
VOL. 10493, PG. 542




SCALE: 1" = 20'

DIMENSIONAL CONTROL PLAN



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JOSE VILLAGOMEZ, P.E.
LICENSE NO. 105199
02/14/18

5Ei 
DESIGN/BUILD
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



















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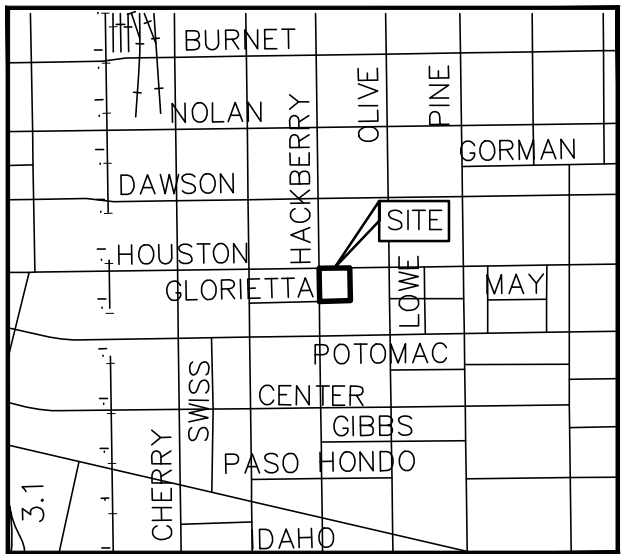
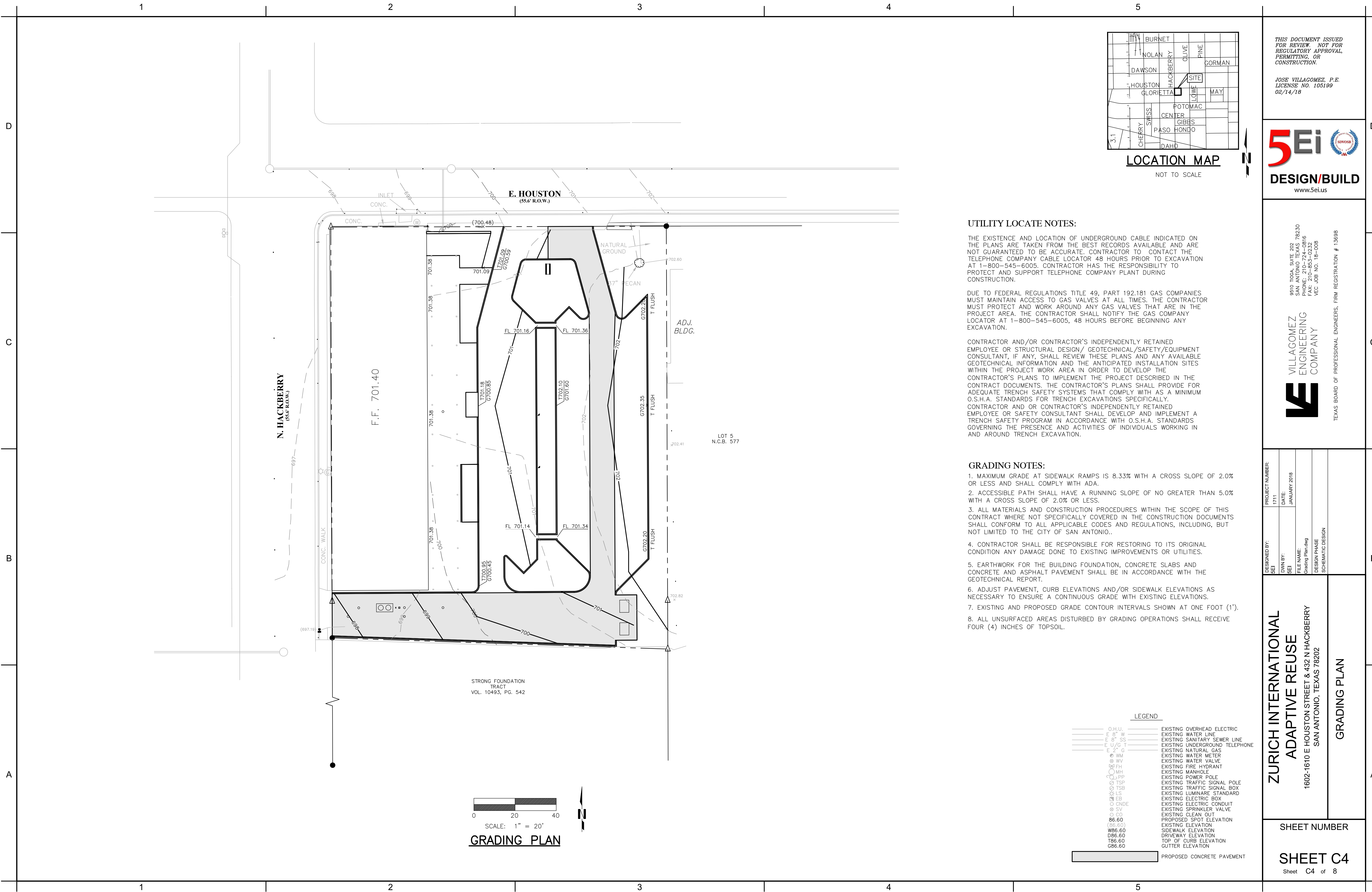
VILLAGOMEZ ENGINEERING COMPANY

TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY: SEI	PROJECT NUMBER: 1711
DWN BY: SEI	DATE: JANUARY 2018
FILE NAME: Fire Protection Plan.dwg	
DESIGN PHASE: SCHEMATIC DESIGN	

ZURICH INTERNATIONAL ADAPTIVE REUSE 1602-1610 E HOUSTON STREET & 432 N HACKBERRY SAN ANTONIO, TEXAS 78202	FIRE PROTECTION PLAN
----------------------------------------------------------------------------------------------------------------------------	-----------------------------

- LEGEND**
- | | |
|---------------------------------------------------------------------------------------|--------------------------------|
|  | EXISTING OVERHEAD ELECTRIC |
|  | EXISTING WATER LINE |
|  | EXISTING SANITARY SEWER LINE |
|  | EXISTING UNDERGROUND TELEPHONE |
|  | EXISTING NATURAL GAS |
|  | EXISTING WATER METER |
|  | EXISTING WATER VALVE |
|  | EXISTING FIRE HYDRANT |
|  | EXISTING MANHOLE |
|  | EXISTING POWER POLE |
|  | EXISTING TRAFFIC SIGNAL POLE |
|  | EXISTING TRAFFIC SIGNAL BOX |
|  | EXISTING LUMINAIRE STANDARD |
|  | EXISTING ELECTRIC BOX |
|  | EXISTING ELECTRIC CONDUIT |
|  | EXISTING SPRINKLER VALVE |
|  | EXISTING CLEAN OUT |
|  | PROPOSED SPOT ELEVATION |
|  | EXISTING ELEVATION |
| | W86.60 |
| | D86.60 |
| | T86.60 |
| | G86.60 |
-  PROPOSED CONCRETE PAVEMENT



LOCATION MAP

NOT TO SCALE

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JOSE VILLAGOMEZ, P.E.
LICENSE NO. 105199
02/14/18



9510 TOSCA SUITE 202
SAN ANTONIO TEXAS 78230
PHONE: 210-724-0816
FAX: 210-853-0232
VEC JOB NO. 18-008



TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

UTILITY LOCATE NOTES:

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-545-6005. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 GAS COMPANIES MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA. THE CONTRACTOR SHALL NOTIFY THE GAS COMPANY LOCATOR AT 1-800-545-6005, 48 HOURS BEFORE BEGINNING ANY EXCAVATION.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO DEVELOP THE CONTRACTOR'S PLANS TO IMPLEMENT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S PLANS SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY SYSTEMS THAT COMPLY WITH AS A MINIMUM O.S.H.A. STANDARDS FOR TRENCH EXCAVATIONS SPECIFICALLY. CONTRACTOR AND OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH O.S.H.A. STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

GRADING NOTES:

1. MAXIMUM GRADE AT SIDEWALK RAMPS IS 8.33% WITH A CROSS SLOPE OF 2.0% OR LESS AND SHALL COMPLY WITH ADA.
2. ACCESSIBLE PATH SHALL HAVE A RUNNING SLOPE OF NO GREATER THAN 5.0% WITH A CROSS SLOPE OF 2.0% OR LESS.
3. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE CONSTRUCTION DOCUMENTS SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO THE CITY OF SAN ANTONIO..
4. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL CONDITION ANY DAMAGE DONE TO EXISTING IMPROVEMENTS OR UTILITIES.
5. EARTHWORK FOR THE BUILDING FOUNDATION, CONCRETE SLABS AND CONCRETE AND ASPHALT PAVEMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
6. ADJUST PAVEMENT, CURB ELEVATIONS AND/OR SIDEWALK ELEVATIONS AS NECESSARY TO ENSURE A CONTINUOUS GRADE WITH EXISTING ELEVATIONS.
7. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT ONE FOOT (1').
8. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL.

LEGEND

- | | | | |
|---------|---------|---|--------------------------------|
| — | O.H.U. | — | EXISTING OVERHEAD ELECTRIC |
| — | E 8" W | — | EXISTING WATER LINE |
| — | E 8" SS | — | EXISTING SANITARY SEWER LINE |
| — | E U/G T | — | EXISTING UNDERGROUND TELEPHONE |
| — | E 2" G | — | EXISTING NATURAL GAS |
| ⊙ | WM | — | EXISTING WATER METER |
| ⊙ | WV | — | EXISTING WATER VALVE |
| ⊙ | FH | — | EXISTING FIRE HYDRANT |
| ⊙ | MH | — | EXISTING MANHOLE |
| ⊙ | PP | — | EXISTING POWER POLE |
| ⊙ | TSP | — | EXISTING TRAFFIC SIGNAL POLE |
| ⊙ | TSB | — | EXISTING TRAFFIC SIGNAL BOX |
| ⊙ | LS | — | EXISTING LUMINAIRE STANDARD |
| ⊙ | EB | — | EXISTING ELECTRIC BOX |
| ⊙ | CNDE | — | EXISTING ELECTRIC CONDUIT |
| ⊙ | SV | — | EXISTING SPRINKLER VALVE |
| ⊙ | CO | — | EXISTING CLEAN OUT |
| 86.60 | | — | PROPOSED SPOT ELEVATION |
| (86.60) | | — | EXISTING ELEVATION |
| W86.60 | | — | SIDEWALK ELEVATION |
| D86.60 | | — | DRIVEWAY ELEVATION |
| T86.60 | | — | TOP OF CURB ELEVATION |
| G86.60 | | — | GUTTER ELEVATION |

PROPOSED CONCRETE PAVEMENT

ZURICH INTERNATIONAL
ADAPTIVE REUSE

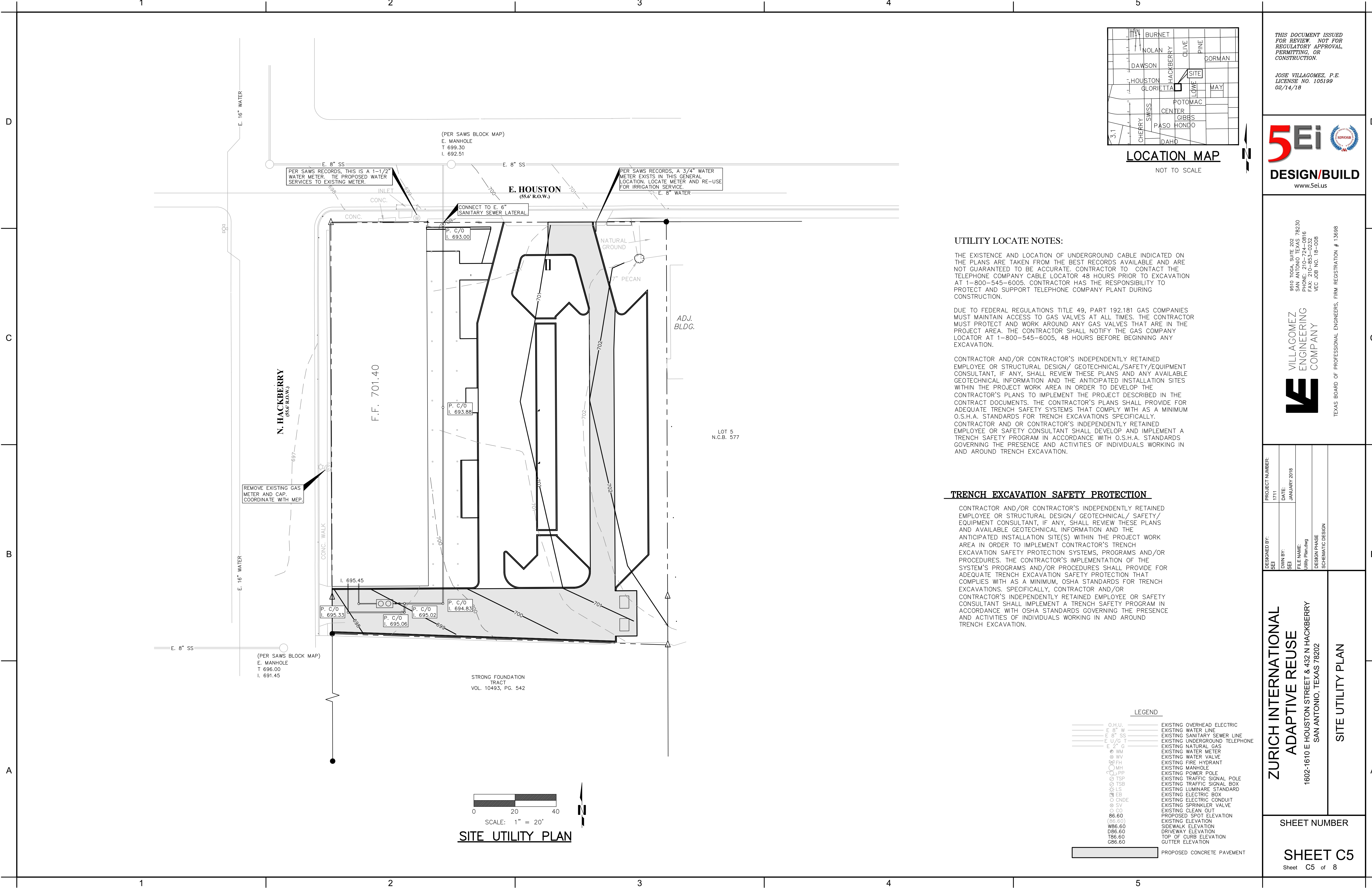
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

GRADING PLAN

SHEET NUMBER

SHEET C4

Sheet C4 of 8



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02/14/18

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VEC JOB NO. 18-008

VILLAGOMEZ
ENGINEERING
COMPANY

TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY:	PROJECT NUMBER:
SEI	1711
DWN BY:	DATE:
SEI	JANUARY 2018
FILE NAME:	
Utility Plan.dwg	
DESIGN PHASE	
SCHEMATIC DESIGN	

ZURICH INTERNATIONAL
ADAPTIVE REUSE

1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

SITE UTILITY PLAN

D

C

B

A

D

C

B

A

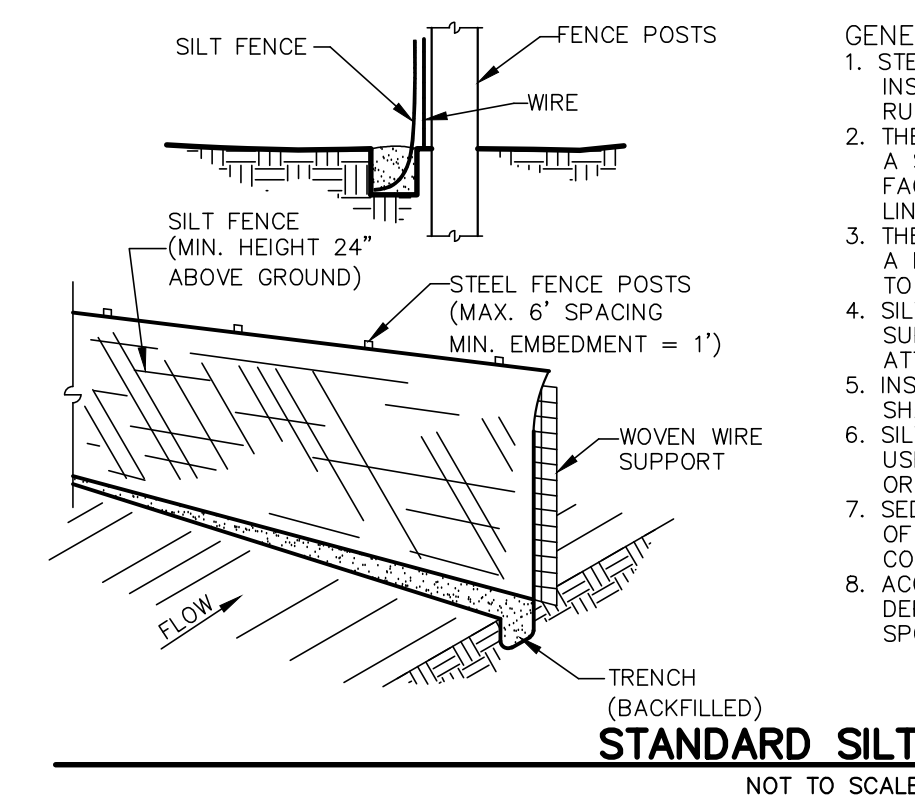
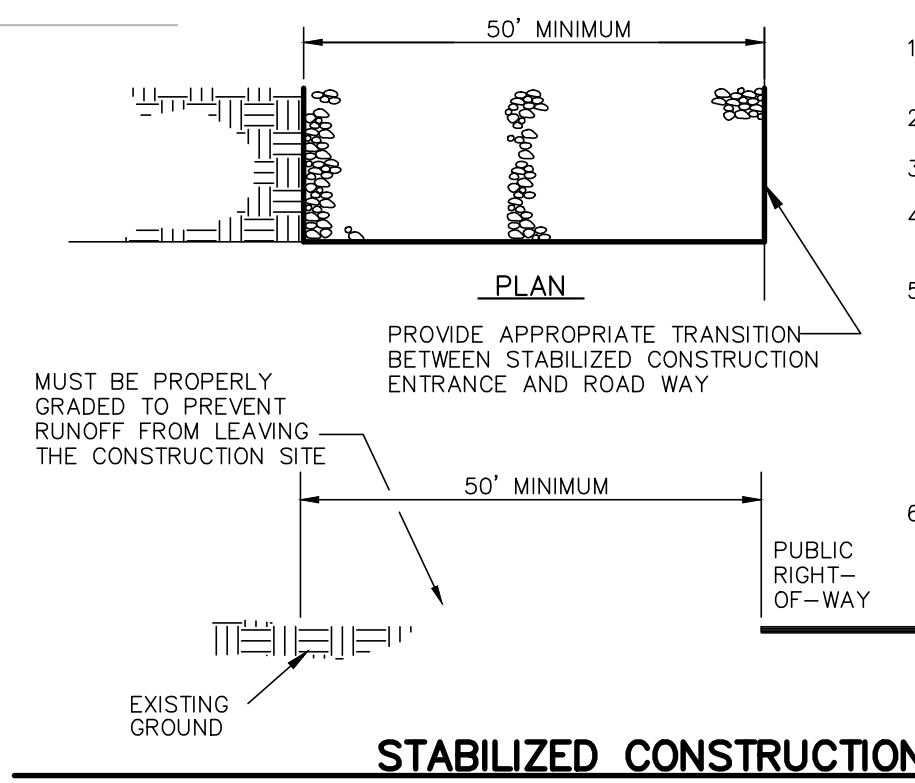
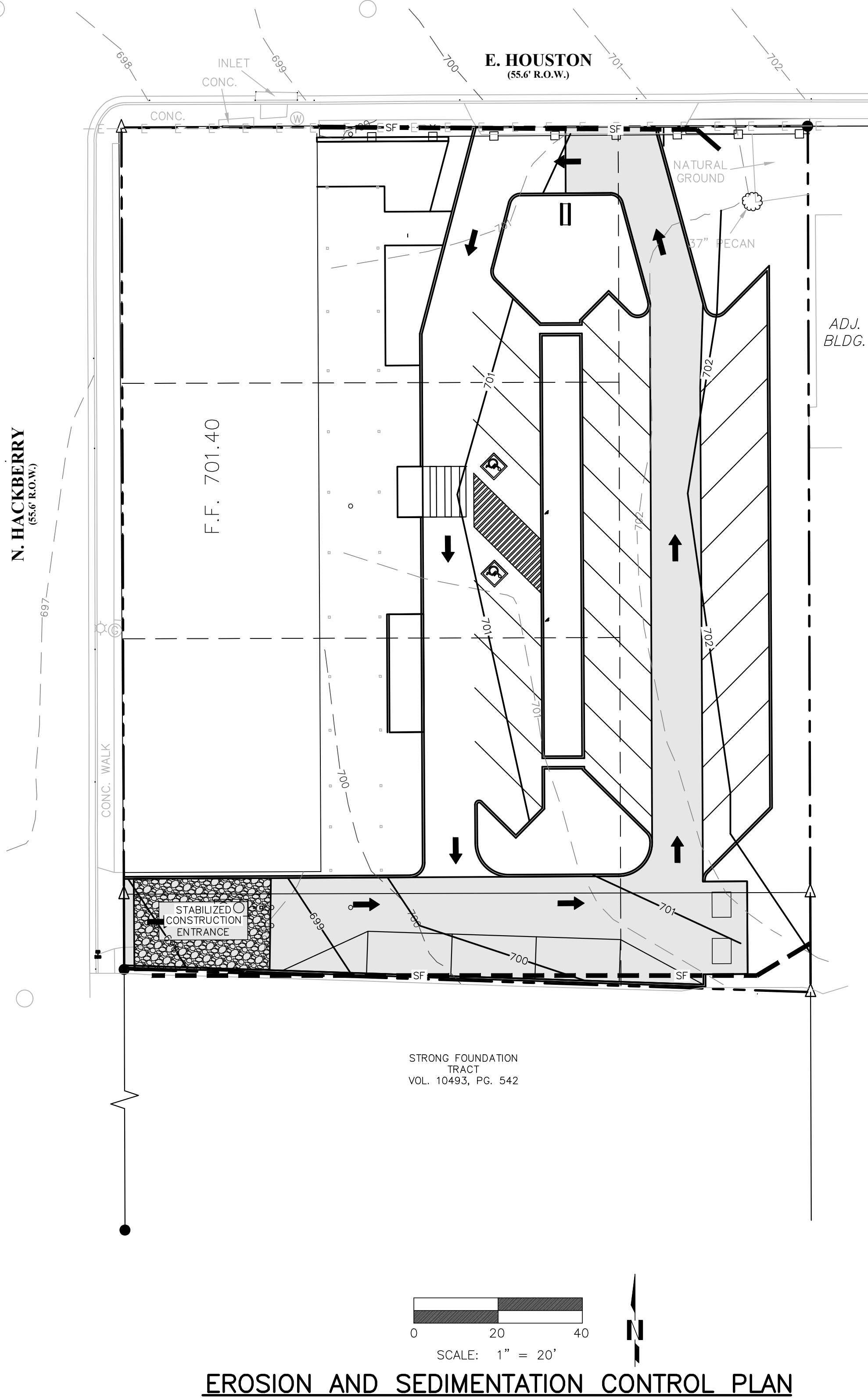
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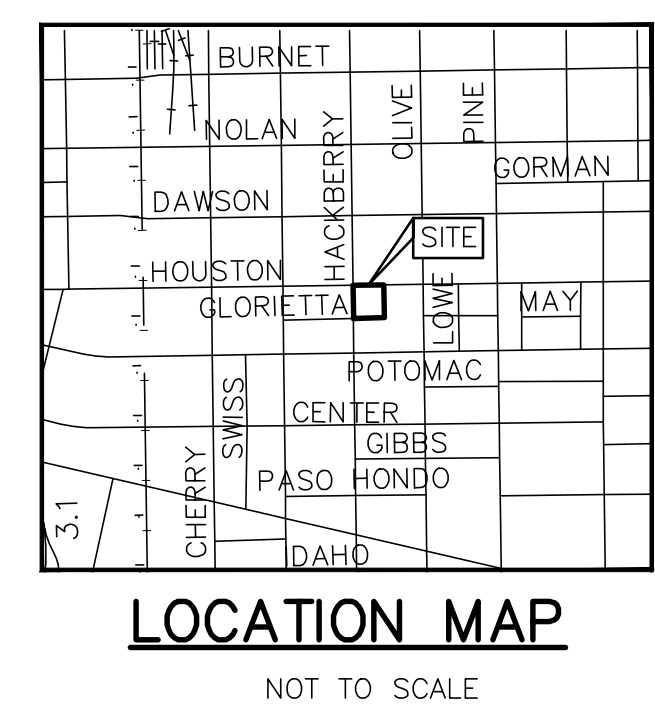
4

5



- SEQUENCE OF CONSTRUCTION
1. PLACE SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE AS SHOWN.
 2. PERFORM CLEARING, GRUBBING, AND EARTHWORK FOR THE SITE.
 3. PERFORM INITIAL SITE GRADING AND BUILDING SUBGRADE PAD PREPARATION PER PLANS.
 4. CONSTRUCTION OF PROPOSED BUILDING, WALKWAYS, DRIVEWAYS, AND PAVEMENT.
 5. REMOVE TEMPORARY BMP'S AFTER PAVING IS IN PLACE AND/OR AFTER ESTABLISHING VEGETATION.
- NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE TEMPORARY BMP'S ARE IN PLACE AND FUNCTIONING AT ALL TIMES. NOTIFY ENGINEER IF SAWS/COSA INSPECTION OFFICIALS REQUEST REVISIONS OR MODIFICATIONS TO THE PLAN.

LEGEND	
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING WATER LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING UNDERGROUND TELEPHONE
---	EXISTING NATURAL GAS
---	EXISTING WATER METER
---	EXISTING WATER VALVE
---	EXISTING FIRE HYDRANT
---	EXISTING MANHOLE
---	EXISTING POWER POLE
---	EXISTING TRAFFIC SIGNAL POLE
---	EXISTING TRAFFIC SIGNAL BOX
---	EXISTING LUMINAIRE STANDARD
---	EXISTING ELECTRIC BOX
---	EXISTING ELECTRIC CONDUIT
---	EXISTING SPRINKLER VALVE
---	EXISTING CLEAN OUT
---	PROPOSED SPOT ELEVATION
---	EXISTING ELEVATION
---	SIDEWALK ELEVATION
---	DRIVEWAY ELEVATION
---	TOP OF CURB ELEVATION
---	GUTTER ELEVATION
---	SILT FENCE



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02/14/18

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DESIGN/BUILD

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FAX: 210-853-0232
VEC JOB NO. 18-008

VILLAGOMEZ ENGINEERING COMPANY

TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY:	PROJECT NUMBER:
SEI	1711
DWN BY:	DATE:
SEI	JANUARY 2018
FILE NAME:	
Erosion Control Plan.dwg	
DESIGN PHASE	
SCHEMATIC DESIGN	

ZURICH INTERNATIONAL ADAPTIVE REUSE

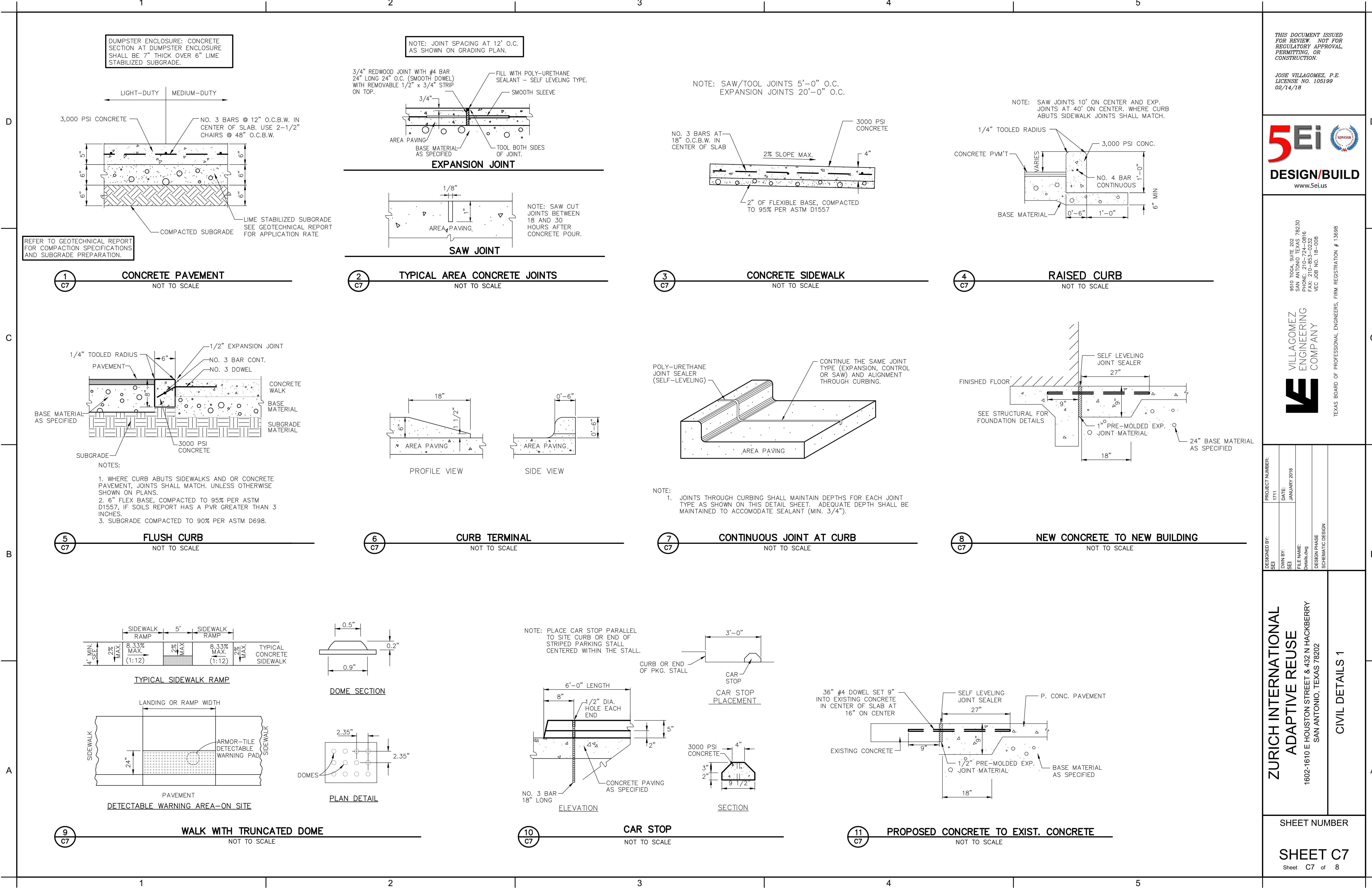
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

EROSION AND SEDIMENTATION CONTROL PLAN

SHEET NUMBER

SHEET C6

Sheet C6 of 8



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VEC JOB NO. 18-008



TEXAS BOARD OF PROFESSIONAL ENGINEERS, FIRM REGISTRATION # 13698

DESIGNED BY:	PROJECT NUMBER:
SEI	1711
DWN BY:	DATE:
SEI	JANUARY 2018
FILE NAME:	
Details.dwg	
DESIGN PHASE:	
SCHEMATIC DESIGN	

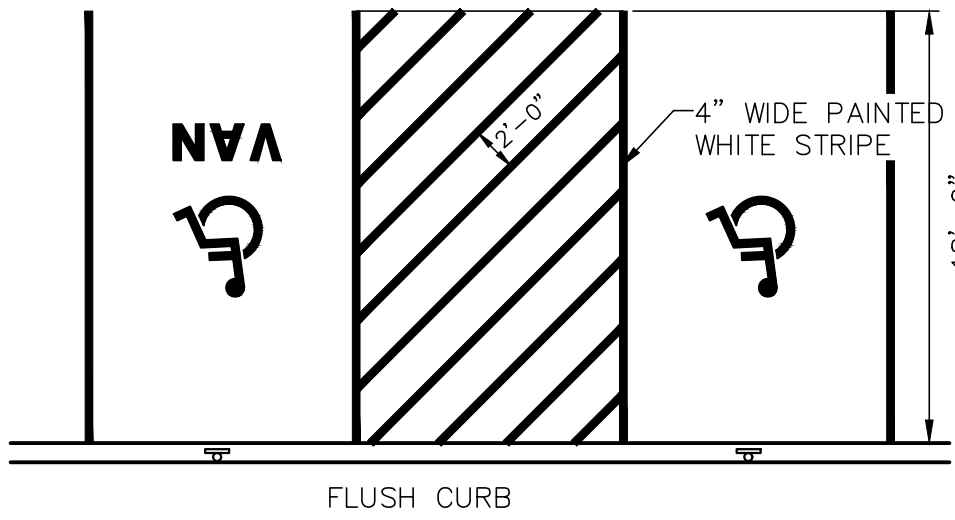
ZURICH INTERNATIONAL
ADAPTIVE REUSE
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

CIVIL DETAILS 1

SHEET NUMBER

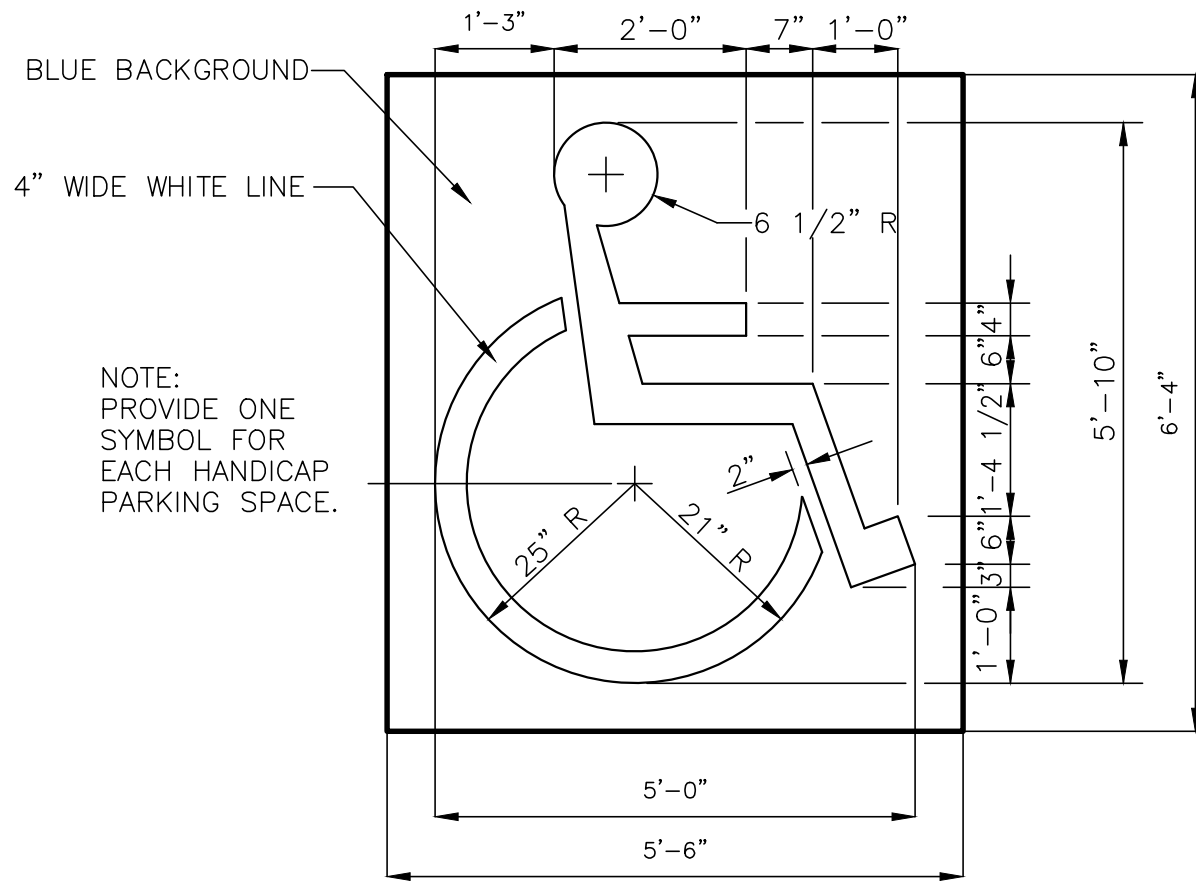
SHEET C7
Sheet C7 of 8

D



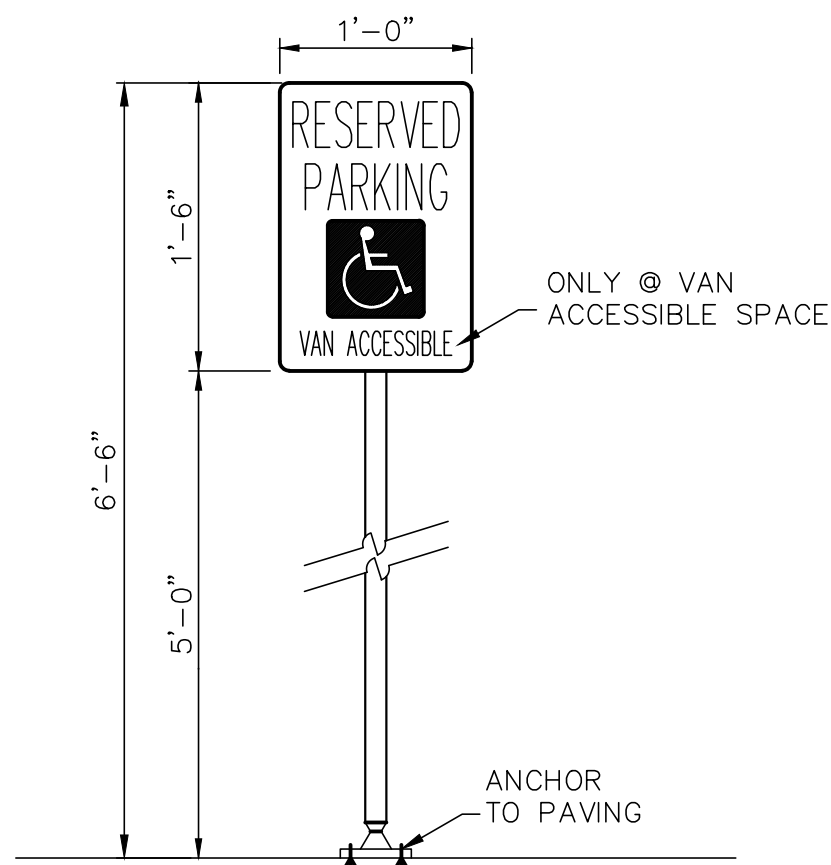
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C8

ACCESSIBLE PARKING
NOT TO SCALE



2
C8

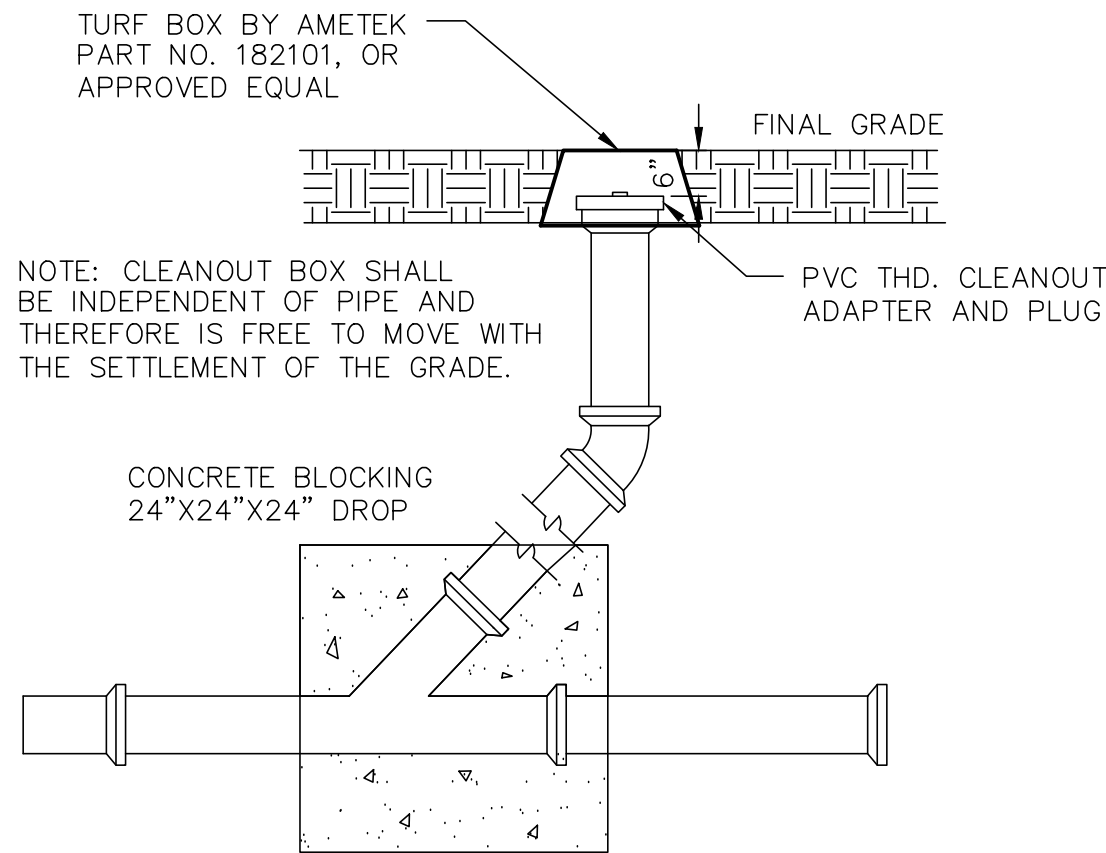
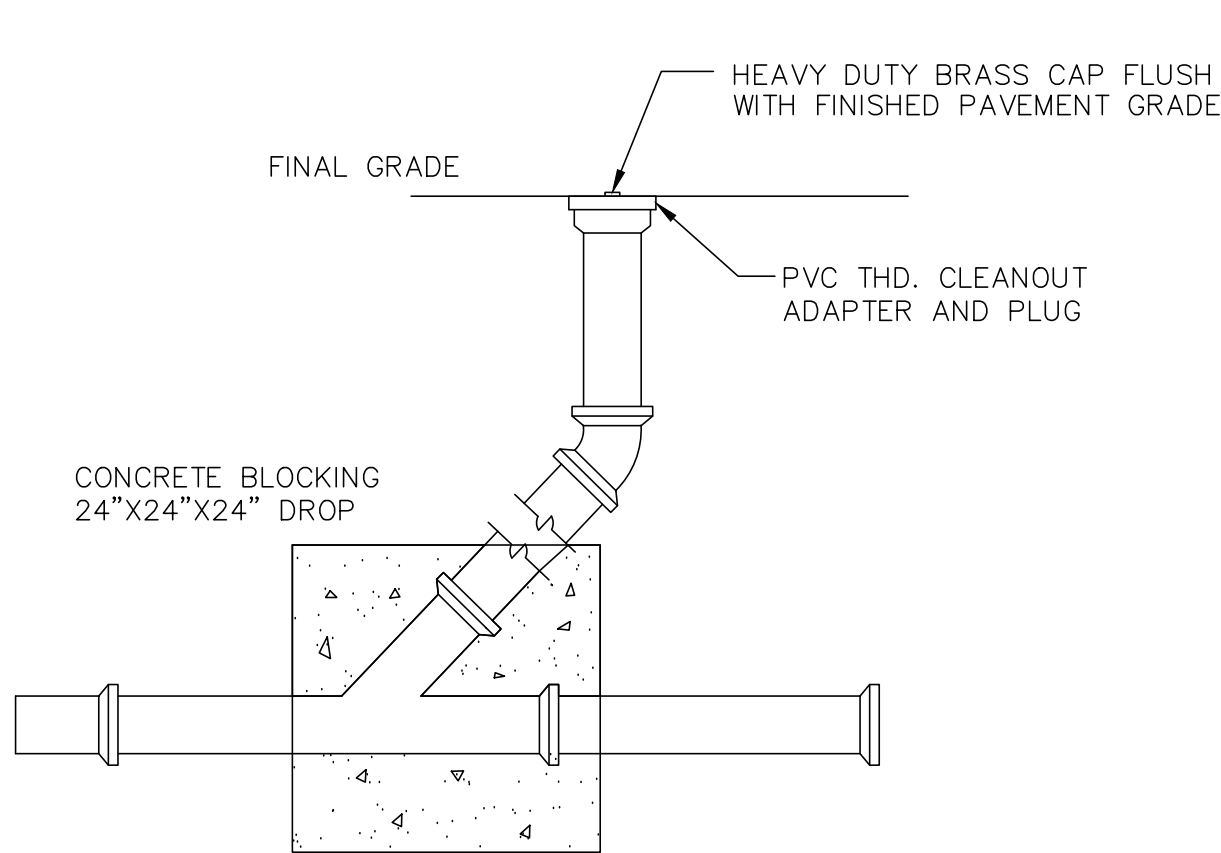
PAINTED HANDICAP SYMBOL
NOT TO SCALE



3
C8

RESERVED PARKING SIGN
NOT TO SCALE

C



CLEANOUT IN PAVING/FLATWORK

CLEANOUT IN NATURAL GROUND

4
C8

SANITARY SEWER CLEANOUT
NOT TO SCALE

A

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02/14/18



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PHONE: 210-724-0816
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DESIGNED BY:	PROJECT NUMBER:
SEI	1711
DWN BY:	DATE:
SEI	JANUARY 2018
FILE NAME:	
Details.dwg	
DESIGN PHASE:	
SCHEMATIC DESIGN	

**ZURICH INTERNATIONAL
ADAPTIVE REUSE**
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

CIVIL DETAILS 2

SHEET NUMBER

SHEET C8
Sheet C8 of 8

D

C

B

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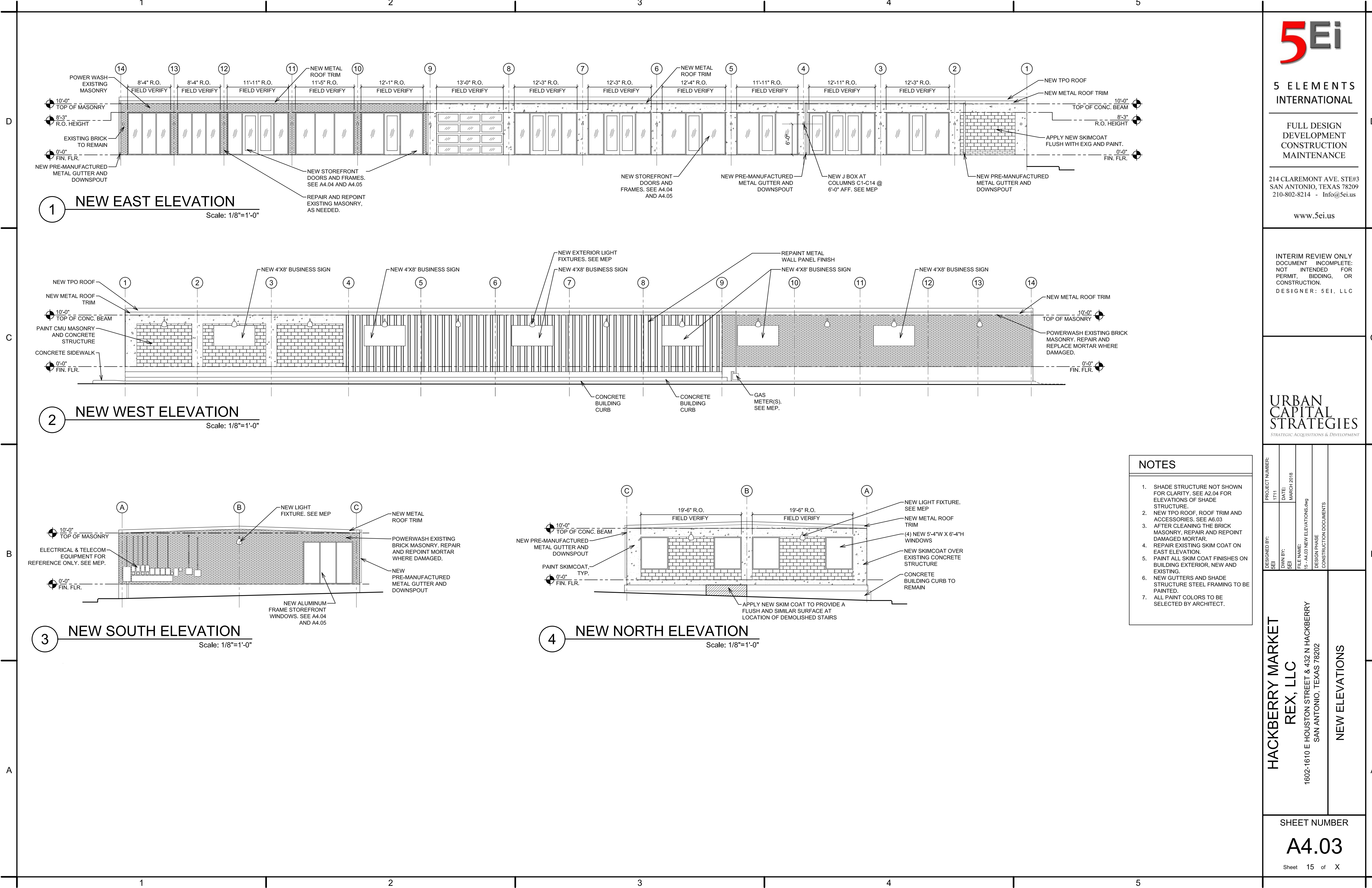
1

2

3

4

5



5Ei

5 ELEMENTS INTERNATIONAL

FULL DESIGN
DEVELOPMENT
CONSTRUCTION
MAINTENANCE

214 CLAREMONT AVE. STE#3
SAN ANTONIO, TEXAS 78209
210-802-8214 - Info@5ei.us

www.5ei.us

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DESIGNER: 5EI, LLC

URBAN
CAPITAL
STRATEGIES
STRATEGIC ACQUISITIONS & DEVELOPMENT

- NOTES
1. SHADE STRUCTURE NOT SHOWN FOR CLARITY. SEE A2.04 FOR ELEVATIONS OF SHADE STRUCTURE.

2. NEW TPO ROOF, ROOF TRIM AND ACCESSORIES. SEE A6.03

3. AFTER CLEANING THE BRICK MASONRY, REPAIR AND REPOINT DAMAGED MORTAR.

4. REPAIR EXISTING SKIM COAT ON EAST ELEVATION.

5. PAINT ALL SKIM COAT FINISHES ON BUILDING EXTERIOR, NEW AND EXISTING.

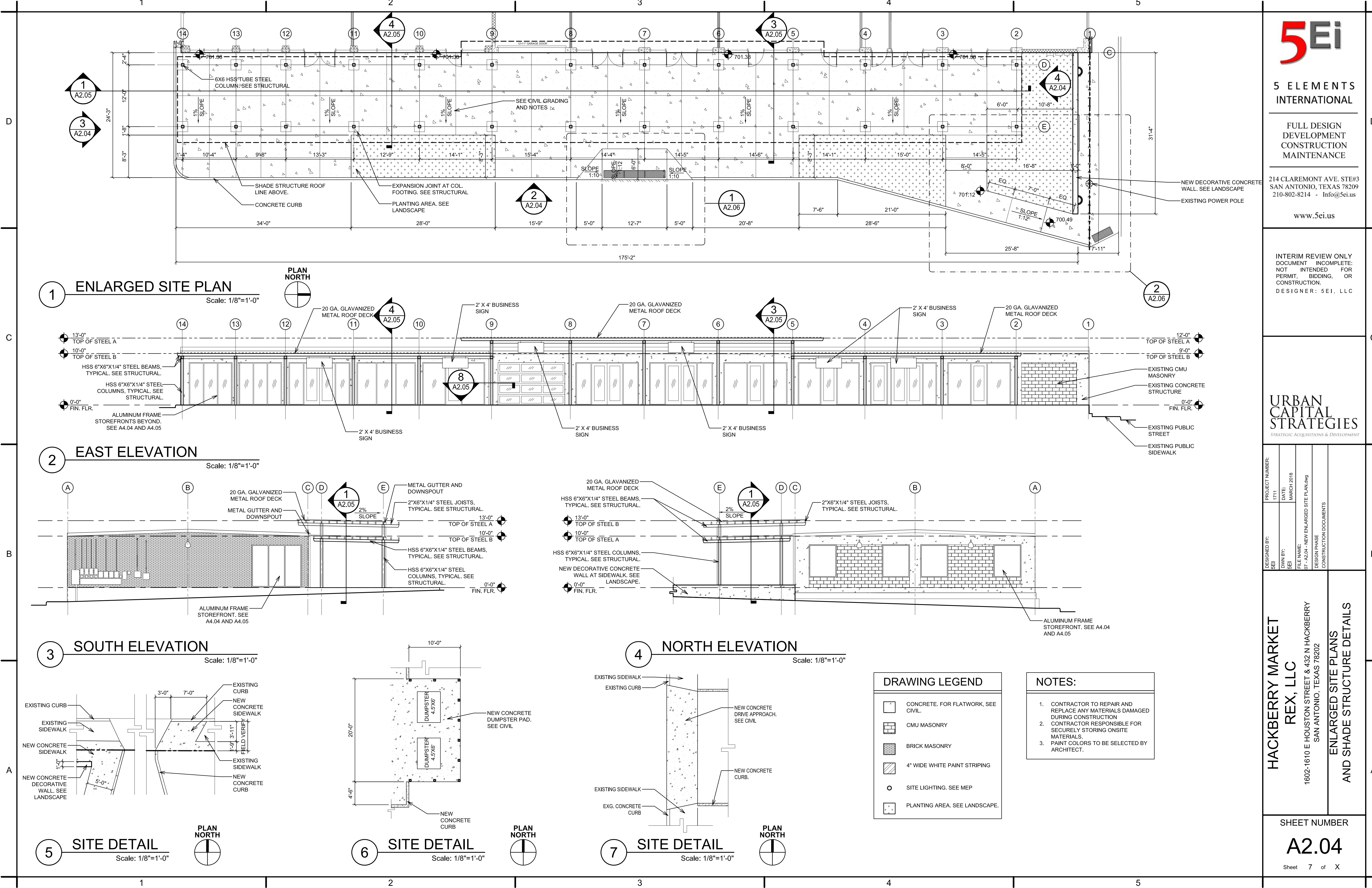
6. NEW GUTTERS AND SHADE STRUCTURE STEEL FRAMING TO BE PAINTED.

7. ALL PAINT COLORS TO BE SELECTED BY ARCHITECT.

HACKBERRY MARKET
REX, LLC

1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

NEW ELEVATIONS



5Ei

5 ELEMENTS INTERNATIONAL

FULL DESIGN
DEVELOPMENT
CONSTRUCTION
MAINTENANCE

214 CLAREMONT AVE. STE#3
SAN ANTONIO, TEXAS 78209
210-802-8214 - Info@5ei.us

www.5ei.us

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DESIGNER: 5EI, LLC

URBAN
CAPITAL
STRATEGIES

STRATEGIC ACQUISITIONS & DEVELOPMENT

PROJECT NUMBER:	1711	DATE:	MARCH 2018
DESIGNED BY:	SEI	DRAWN BY:	SEI
FILE NAME:	07-A2.04-NEW ENLARGED SITE PLAN.dwg		
DESIGN PHASE	CONSTRUCTION DOCUMENTS		

HACKBERRY MARKET
REX, LLC

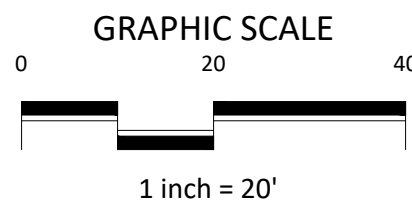
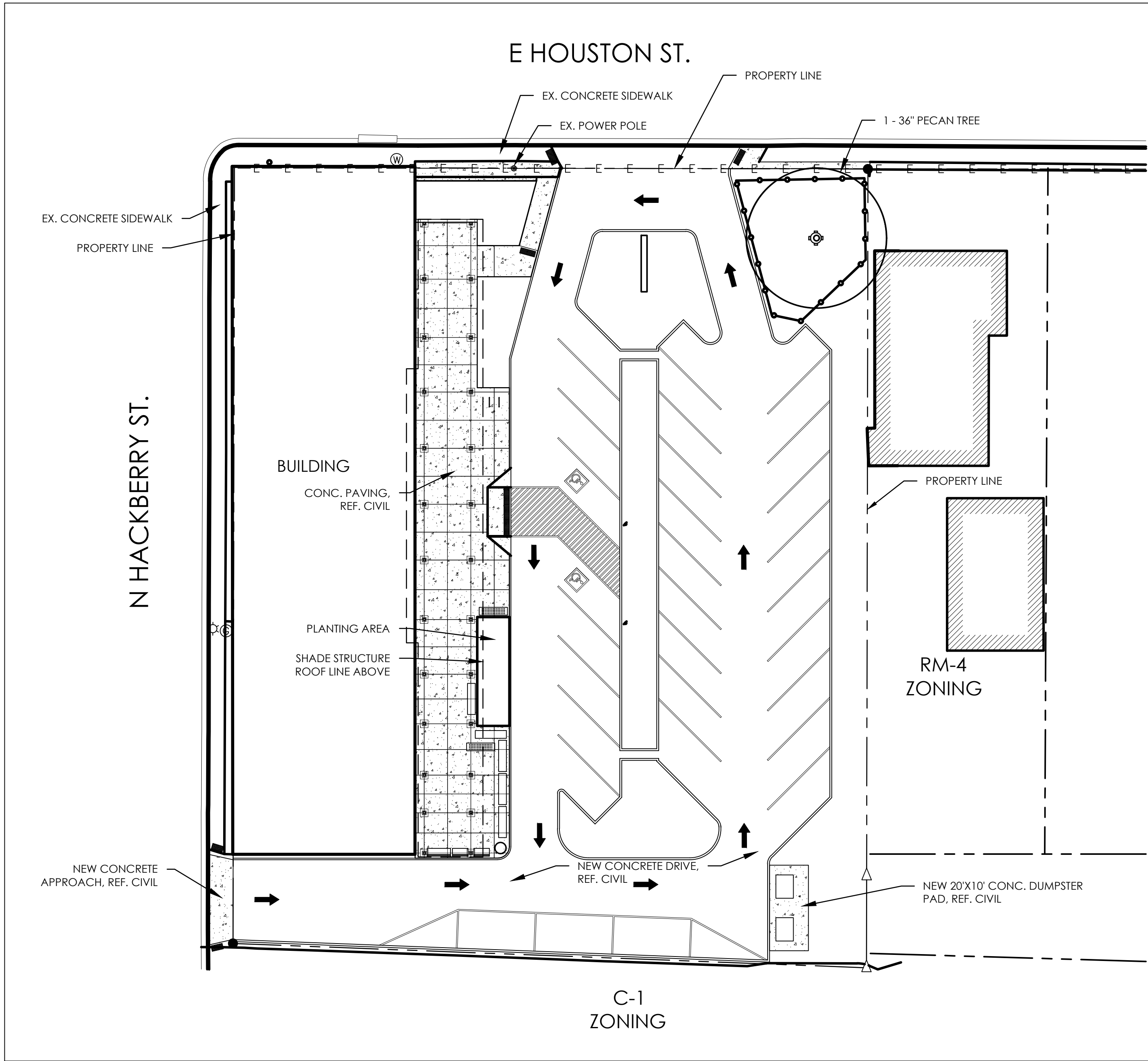
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

ENLARGED SITE PLANS
AND SHADE STRUCTURE DETAILS

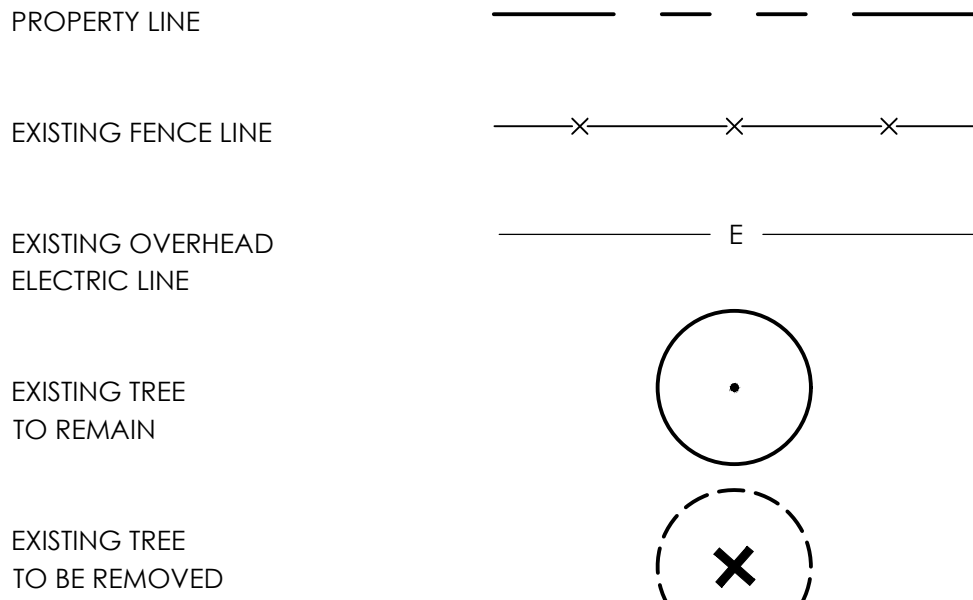
SHEET NUMBER

A2.04

Sheet 7 of X

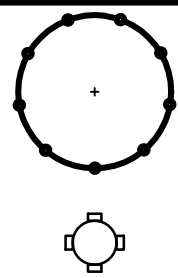


LEGEND



TREE PROTECTION FENCING
SEE DETAIL: 1/L1.00

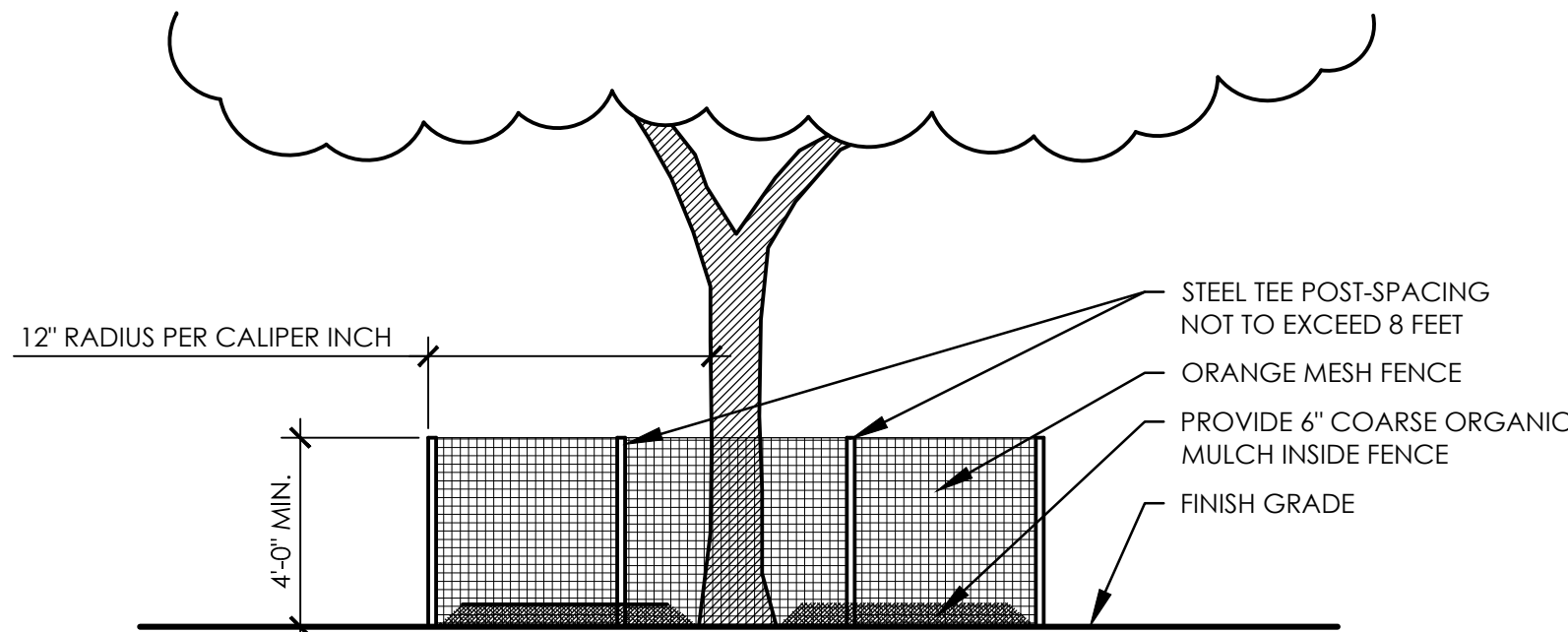
TRUNK PROTECTION FENCING
SEE DETAIL: 2/L1.00



TREE PROTECTION NOTES

- ALL EXISTING TREES DEPICTED TO REMAIN SHALL BE PROTECTED AT THE ROOT PROTECTION ZONE(RPZ). THE RPZ SHALL BE DETERMINED BY TREE SIZE (RECOMMENDED 12" RADIUS FROM TRUNK FOR EVERY 1" IN DIAMETER OF TRUNK AT 4.5' FROM GROUND) WITH A MINIMUM 5' RADIUS FROM THE TRUNK.
- AN ORANGE MESH FENCE DELINEATING THE RPZ SHALL BE ERECTED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETED.
- RPZ SHALL BE SUSTAINED IN A NATURAL STATE AND SHALL BE FREE FROM VEHICULAR OR MECHANICAL TRAFFIC.
- THE RPZ SHALL BE COVERED WITH MULCH TO REDUCE MOISTURE STRESS.
- DURING CONSTRUCTION, NO EXCESS SOIL, ADDITIONAL FILL MATERIAL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED INSIDE THE PROTECTION BARRIER, NOR SHALL ANY SOIL BE REMOVED FROM WITHIN THE BARRIER.
- ANY DAMAGE DONE TO EXISTING TREE LIMBS OR ROOT SYSTEMS SHALL BE CUT CLEANLY IMMEDIATELY AFTER INJURY. ALL WOUNDS TO LIVE OAKS SHALL BE PAINTED WITH PRUNING PAINT WITHIN 30 MINUTES AFTER DAMAGE. ROOTS EXPOSED DURING CONSTRUCTION OPERATIONS WILL BE CUT CLEANLY.
- THE PROPOSED FINISH GRADE AND ELEVATION OF LAND WITHIN THE RPZ OF ANY TREE TO BE PRESERVED SHALL NOT BE RAISED OR LOWERED MORE THAN THREE INCHES. WELLING AND RETAINING METHODS ARE ALLOWED OUTSIDE THE RPZ.
- THE RPZ SHALL REMAIN PERVIOUS, I.E. GROUND COVER OR TURF AT COMPLETION OF LANDSCAPE INSTALLATION.
- THE ASSOCIATED TREE PROTECTION DETAIL COMPLIES WITH THE MINIMUM TREE PROTECTION GUIDELINES FROM THE CITY OF SAN ANTONIO. WHERE POSSIBLE, PROVIDE FENCE TO TREE DRIP LINE OR GROUP TREES IN FENCE PERIMETER TO PROVIDE INCREASED PROTECTION.
- SHRED (DOUBLE GRIND) TREES AND UNDERSTORY VEGETATION TO BE REMOVED FOR USE AS SHREDDED NATIVE BARK MULCH. IMPORT SHREDDED NATIVE BARK MULCH AS NECESSARY TO FULFILL THE REQUIREMENTS OF THE CONTRACT.
- NO WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED PER UDC 35-523 (F) MITIGATION.
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE BUT IS NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- ROOTS SHALL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.

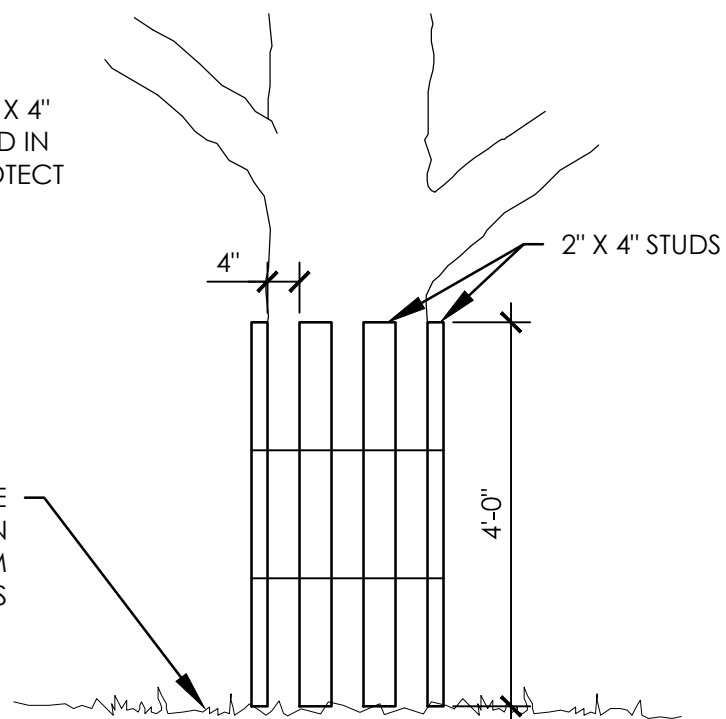
NOTE:
WHERE POSSIBLE, EXTEND FENCE TO TREE DRIP LINE. IN CASES WHERE TREES ARE CLOSELY-SPACED, A COMMON FENCE PERIMETER MAY BE PROVIDED.



1 DETAIL: TREE PROTECTION FENCING
SCALE: 1/4" = 1'-0"

NOTES:
WRAP TREE TRUNK WITH 2" X 4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT IN WORK AREAS.

6" MULCH UNDER DRIP LINE
AS MINIMAL PROTECTION
FOR ROOTS FROM
CONSTRUCTION ACTIVITIES



2 DETAIL: TRUNK PROTECTION FENCING
SCALE: 1/2" = 1'-0"

TREE INVENTORY

PT#	Species	Understory Species* 5.0" - 11.5"		Significant Tree 6" - 23.5"		Significant Tree** 10.0" - 23.5"		Heritage 3:1		Heritage 1:1		Additional Inches Preserved for Mitigation ***
		Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	
0	Pecan								36			
Sub. Tot. Inches		0	0	0	0	0	0	0	36	0	0	0
Total inches by category=			0		0		0		36		0	0
Preservation percentage=		#DIV/0!		Significant		#DIV/0!		Heritage Preservation		100%		0
Mitigation required (Commercial) =		0		Commercial (inches)		0		Heritage Mitigation (inches)		0		
Mitigation required (Capital Imp.) =		0		Capital Imp. (inches)		0		Heritage Mitigation (inches)		0		

No category to fall below 10% preservation;
Preserved- Tree to remain that meets root protection zone requirements described in section 35-523 of the UDC.
Mitigation 1:1 for significant trees below minimum preservation requirements; 3:1 for heritage trees below 100%
* Small species: Condalia, Redbud, Tx. Mountain Laurel, Tx. Persimmon, Hawthorn, Possumhaw - these are mitigated at 1:1 for Heritage Trees
** Ashe Juniper, Huisache, Mesquite, Arizona Ash, Hackberry protected at 10" dbh and mitigated at 1:1 for heritage trees
*** Mitigation Trees: Unprotected-sized trees to be used for mitigation calculations; subtract inches from mitigation owed

FINAL CANOPY COVERAGE

Developments of all site must provide a minimum final tree canopy cover as listed below for the entire gross project area outside the regulatory floodplain.

A. Single Family Residential	38%
B. Multi-Family and Nonresidential	25%
C. CRAG Area	15%
Lot Size	33,163 S.F.
Canopy Required (15%)	4,974 S.F.
Existing Trees	
1. Pecan (1200 SF/Each)	1,200
Total Canopy Provided	1,200 S.F.
New Canopy Required	3,774 S.F.
New Trees	
2. Live Oak (875 SF/Each)	1,750
3. Cedar Elm (875 SF/Each)	2,625
New Canopy Provided	4,375 S.F.

NOTE:

REF. SHEET L4.00 FOR ALL NEWLY PLANTED TREES USED TO FULFILL TREE CANOPY COVERAGE REQUIREMENTS.

REVISION DESCRIPTION

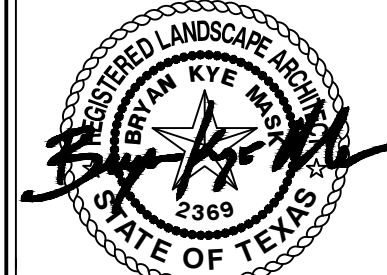
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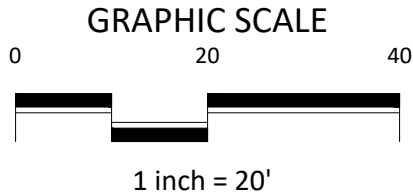
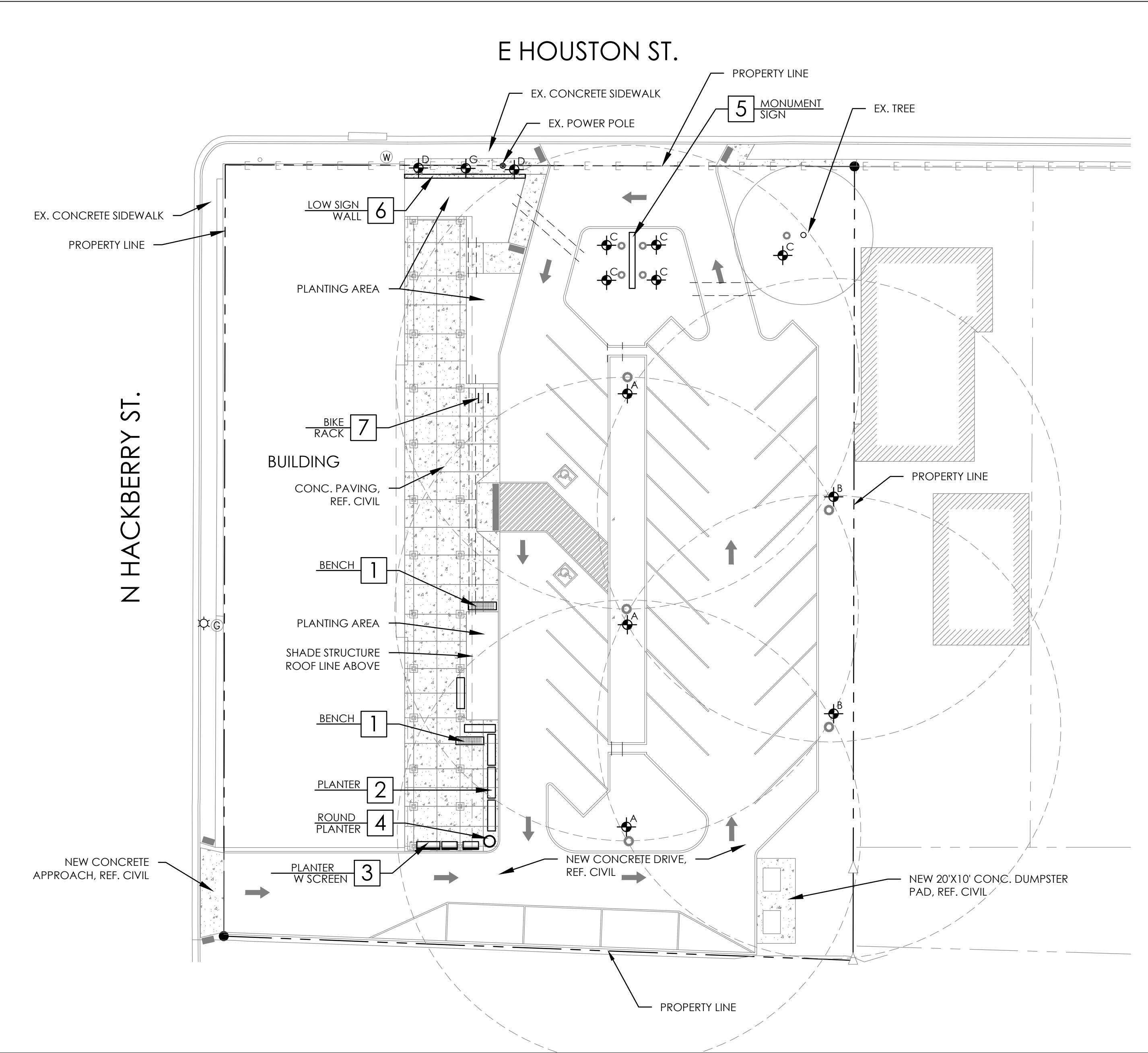
TREE PRESERVATION PLAN



HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



JOB No.	3788
DRAWN BY:	TL
DESIGNED BY:	TL
CHECKED BY:	BKM
DATE:	03.14.2018
SHEET:	L1.00



LANDSCAPE CONSTRUCTION LEGEND

KEY	DESCRIPTION / MODEL NUMBER	MATERIAL REFERENCE:	DETAIL NO:	DETAIL SHEET:
1	BENCH		3	L3.00
2	PLANTER		1	L3.00
3	PLANTER W SCREEN		2	L3.00
4	ROUND PLANTER		4	L3.00
5	MONUMENT SIGN		3	L3.01
6	LOW SIGN WALL		1	L3.01
7	BIKE RACK		8	L3.00
8				
9				
10				

LEGEND

PROPERTY LINE	---
OVERHEAD ELECTRIC	—E—
TREE TRUNK LOCATION	○
EXISTING CONCRETE CURB	=====
LIGHT FIXTURE	⊙
IRRIGATION PIPE SLEEVE	----

NOTES

1. WRITTEN DIMENSIONS AND COORDINATES SHALL GOVERN OVER SCALED DRAWINGS.
2. ALL IMPROVEMENTS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
3. ALL CONSTRUCTION WILL CONFORM TO CITY OF SAN ANTONIO STANDARDS AND SPECIFICATIONS.
4. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB, FACE OF WALL, OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL VERIFY ALL BUILDING SETBACK LINES, EASEMENT LINES, AND VISIBILITY LINES IN THE FIELD PRIOR TO CONSTRUCTION.
6. TREE TRUNK LOCATIONS SHOWN ARE APPROXIMATE. IF LOCATIONS CONFLICT WITH ANY PROPOSED IMPROVEMENT, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR DIRECTION PRIOR TO ANY CONSTRUCTION.

LIGHTING SCHEDULE

HACKBERRY MARKET LIGHTING SCHEDULE						
SYMBOL	QTY	MANUFACTURER	SPECIFICATION	DESCRIPTION	INSTALLATION	CONTROLS
A	3	Lumenpulse	ALG7204-120-CSL-S60-30K-CRI-70-4-BK-TM-CS6	ALLEGRA 60W LED lighting - install with CS6 Arm in black	Install per manufacturer's instructions.	See MEP drawings for further information.
	3	Lumenpulse	PL-4-AL-R-15-H-BK-QJ6	Lumenarea decorative light pole QJ6 in black, 20' tall.	Install per manufacturer's instructions. See Structural plans for light pole footing.	
B	2	Lumenpulse	ALG7204-120-CSL-S60-30K-CRI-70-5S-BK-TM-CS6	ALLEGRA 60W LED lighting - install with CS6 Arm in black	Install per manufacturer's instructions.	See MEP drawings for further information.
	2	Lumenpulse	PL-4-AL-R-15-H-BK-QJ6	Lumenarea decorative light pole QJ6 in black, 20' tall.	Install per manufacturer's instructions. See Structural plans for light pole footing.	
C	5	Lumenpulse	LBS-120-30K-WFL-SI-NO-SK-CRC-UL-10FT	LUMENBEAM SMALL - High performance Flood Light in silver, stake mounted.	Install per manufacturer's instructions.	
D	2	Lumenpulse	ELMM30-RO-120-30K-S120-0-SI-DIM	Element Surface Mount	Install per manufacturer's instructions.	
E			LED Strips attached to letters (See Detail)	Reverse Channel Stainless Steel LED Letters	Install per manufacturer's instructions.	

NOTE: CONTACT JOE ARIZOLA AT SPECTRUM LIGHTING FOR ORDERING INFORMATION. CELL: 210-618-6365/TEL: 210-822-6140/EMAIL: JARIZOLA@SPECTRUMUSA.COM

REVISION DESCRIPTION

DATE

No.

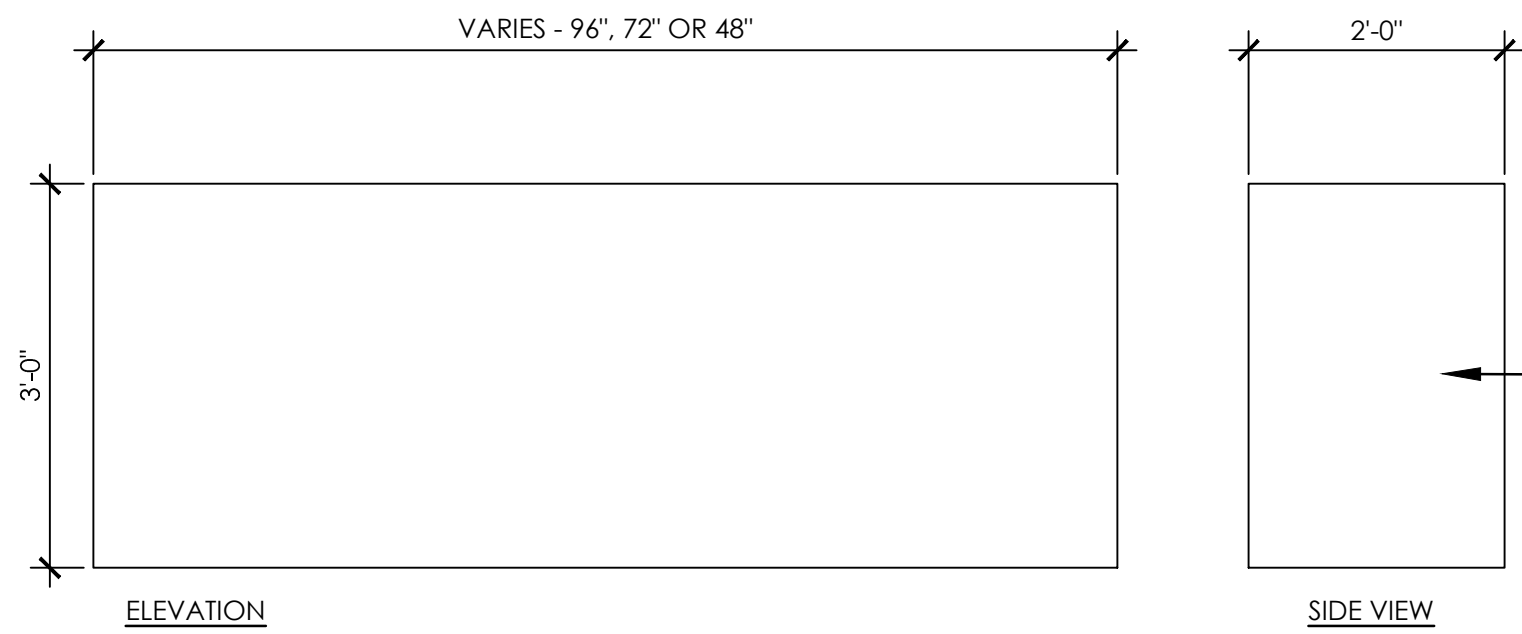
SITE SIGNAGE/FURNITURE PLAN



HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



JOB No.	3788
DRAWN BY:	TL
DESIGNED BY:	TL
CHECKED BY:	BKM
DATE:	03.14.2018
SHEET:	L2.00



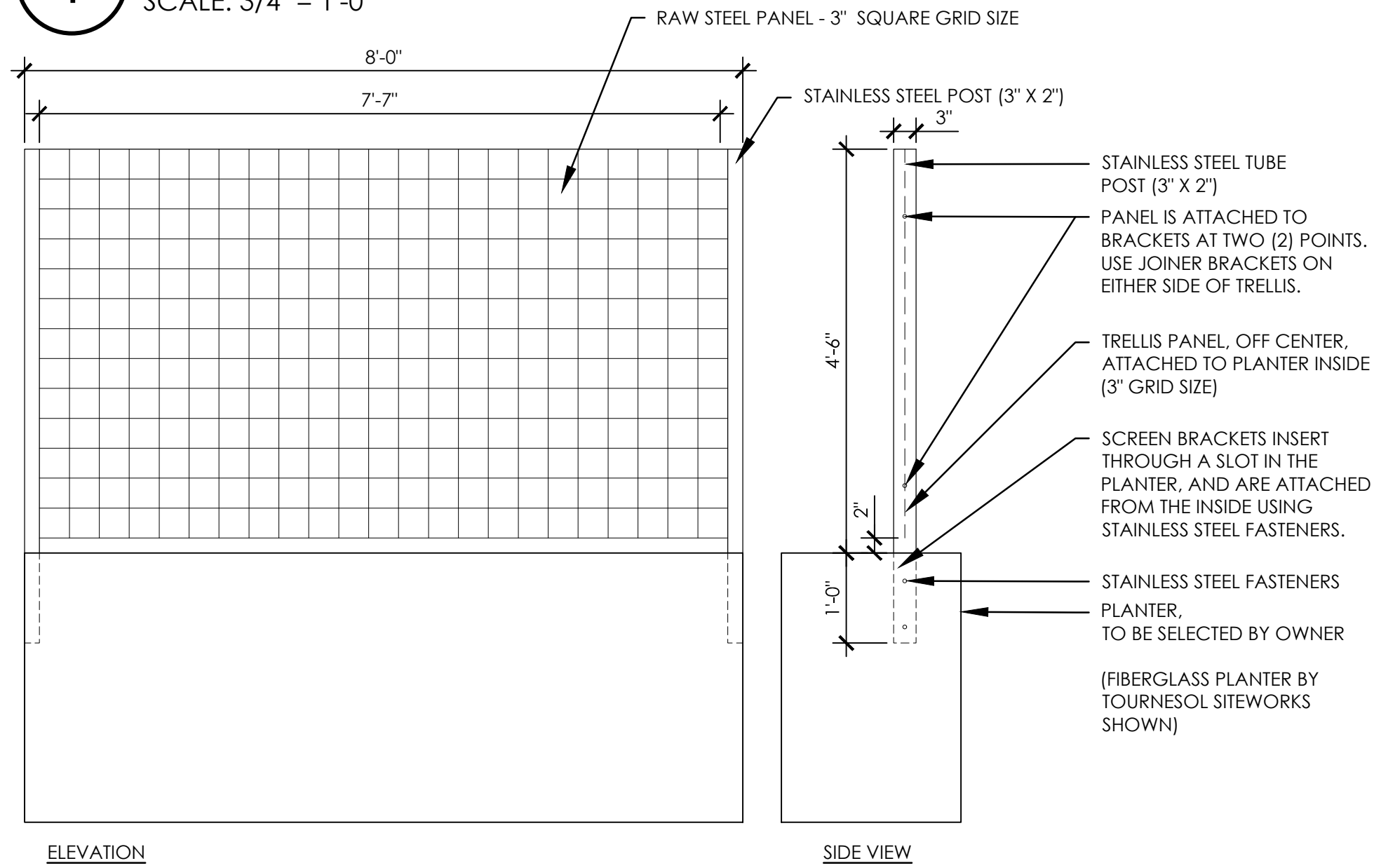
- NOTES:
1. COORDINATE PLANTER INSTALL WITH LANDSCAPE ARCHITECT FOR PLANT MATERIAL AND SOIL.
 2. CONTRACTOR TO VERIFY PLANTERS WILL BE IRRIGATED, IN THAT CASE, REF. TOURNESOL SITE WORKS FOR IRRIGATION DETAILS - TOURNESOLSITEWORKS.COM

PLANTER, TO BE SELECTED BY OWNER

(FIBERGLASS PLANTER BY TOURNESOL SITEWORKS SHOWN)

1 DETAIL: PLANTER

SCALE: 3/4" = 1'-0"

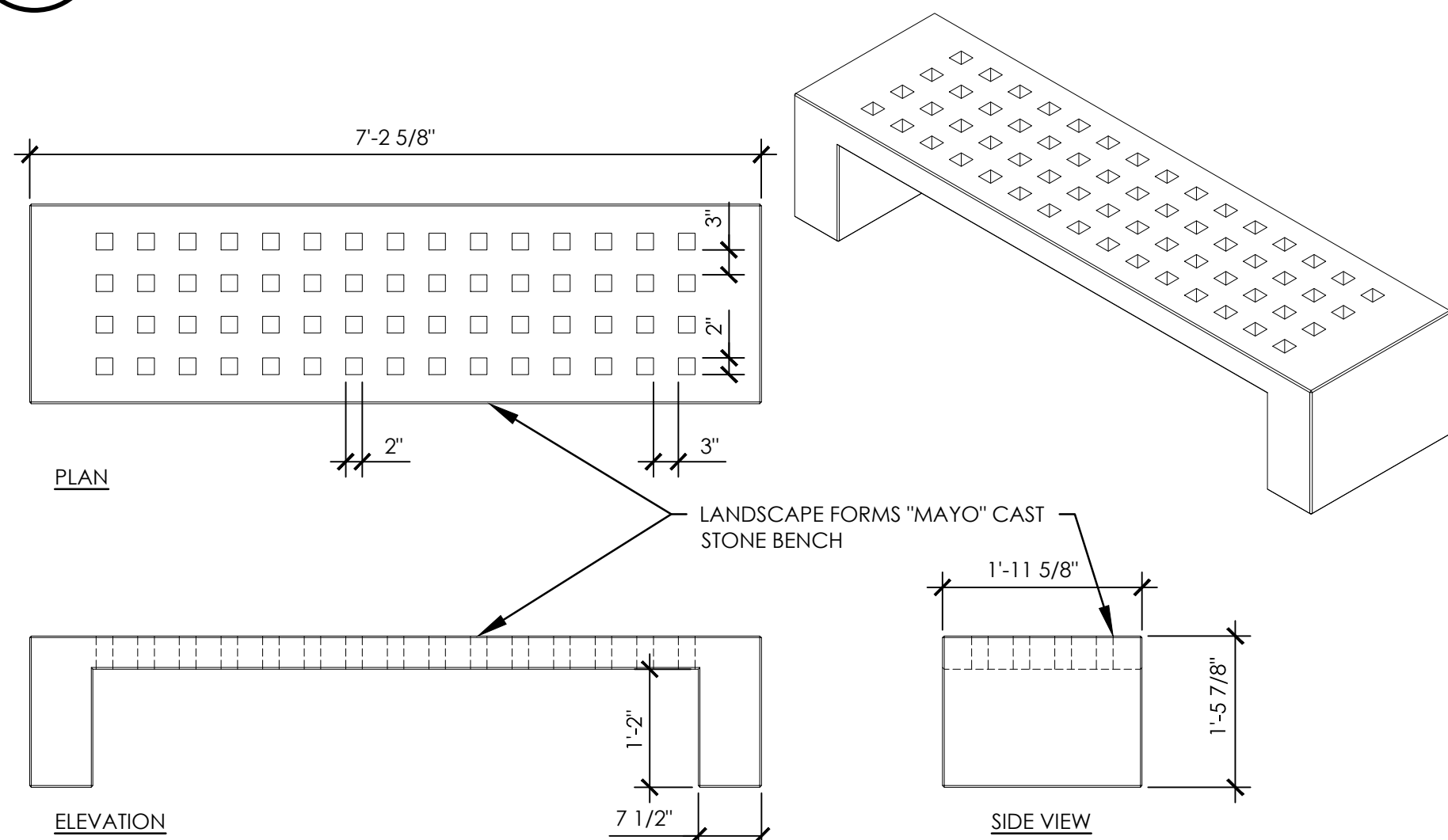


ELEVATION

SIDE VIEW

2 DETAIL: PLANTER W SCREEN (OPTIONAL)

SCALE: 3/4" = 1'-0"



PLAN

SIDE VIEW

landscape forms

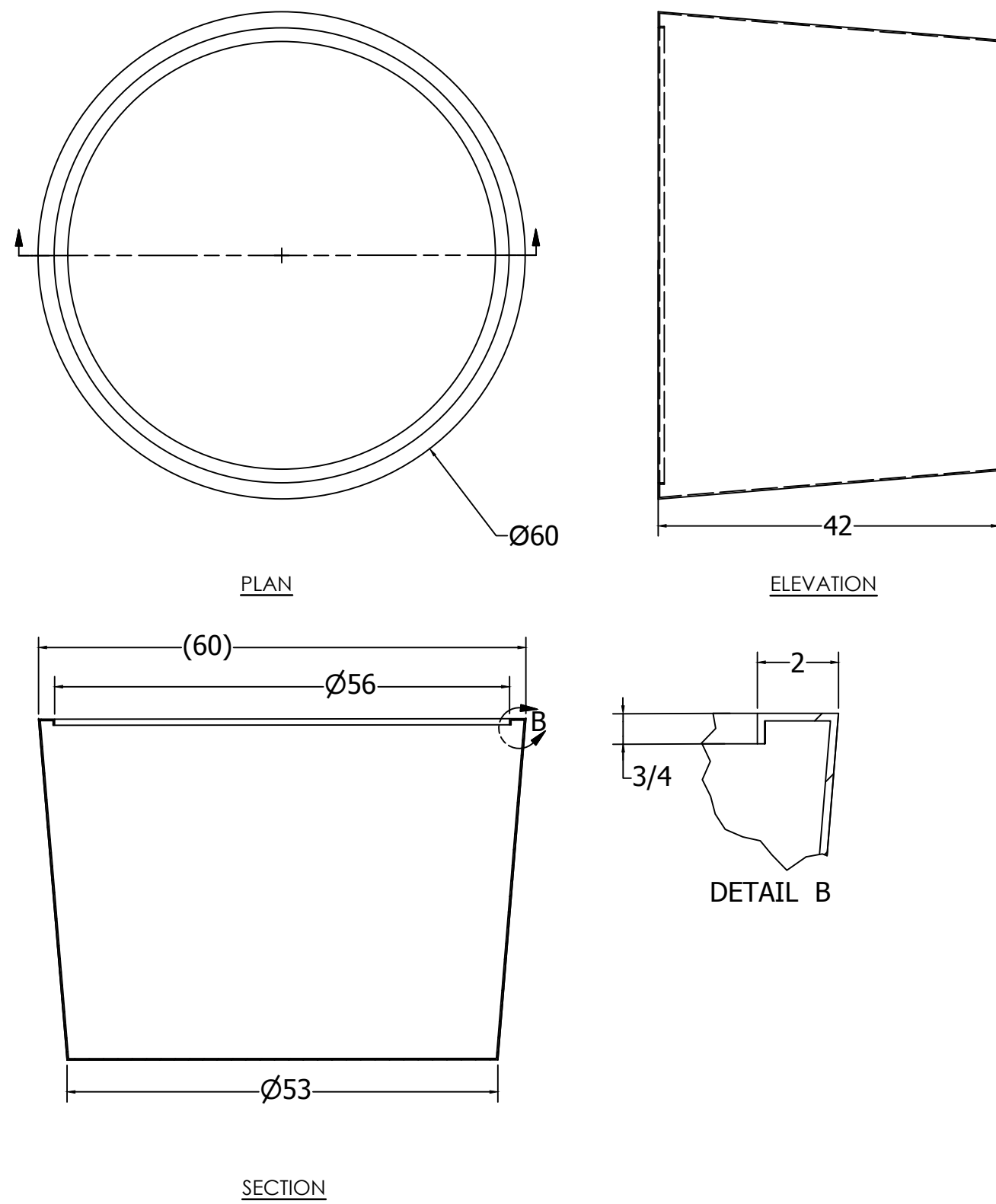
431 LAWDALE AVE.
KALAMAZOO, MI 49048

PHONE: 800-521-2546
FAX: 269-381-3455

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3 DETAIL: BENCH (OPTIONAL)

SCALE: 3/4" = 1'-0"



PLAN

ELEVATION

SECTION

NOTES: UNLESS OTHERWISE SPECIFIED

- 1) MATERIAL: 0.125" - 0.187" THK FIBERGLASS REINFORCED PLASTIC (FRP)
- 2) FINISH: TBD
- 3) COLOR: TBD
- 4) ALL DIMENSIONS ARE NOMINAL, ACTUAL SIZE MAY VARY.

DRAWN	4/16/2012	Tournesol Siteworks	
CHECKED		30955 San Antonio Street, Hayward, CA 94544	
QA		(800) 542-2292	
RFI		US-6000	
APPROVED		SIZE	LOWE NO
		C	US-6000
		SCALE	
			SHEET 1 OF 1

4 DETAIL: ROUND PLANTER

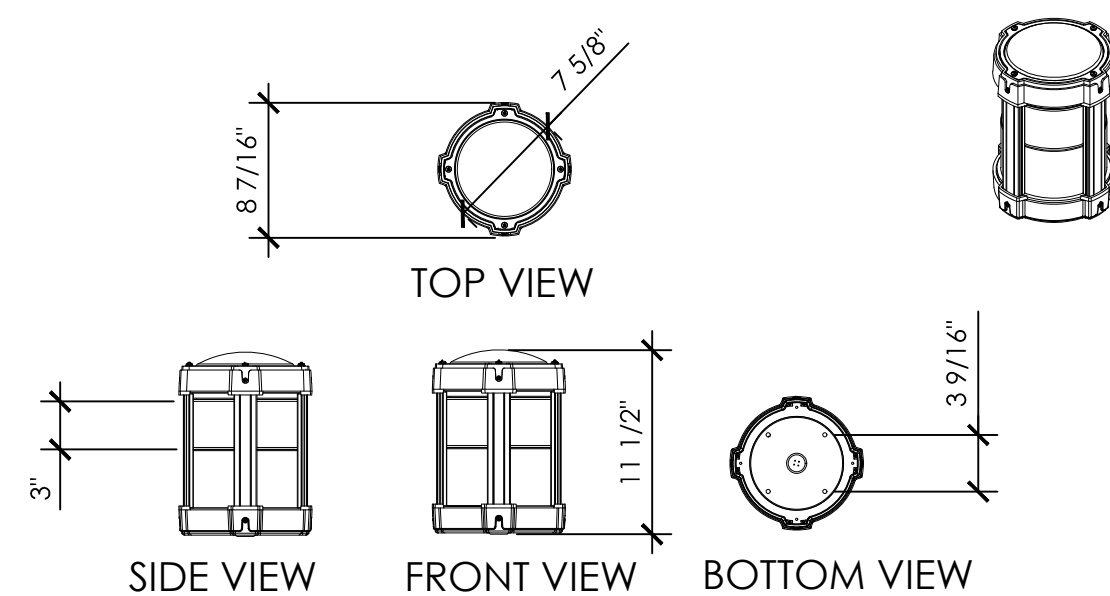
SCALE: 3/4" = 1'-0"

ELEMENT SURFACE MOUNT LIGHT

ELMM30

DIMENSIONS

PERSPECTIVE VIEW



TOP VIEW

SIDE VIEW

FRONT VIEW

BOTTOM VIEW

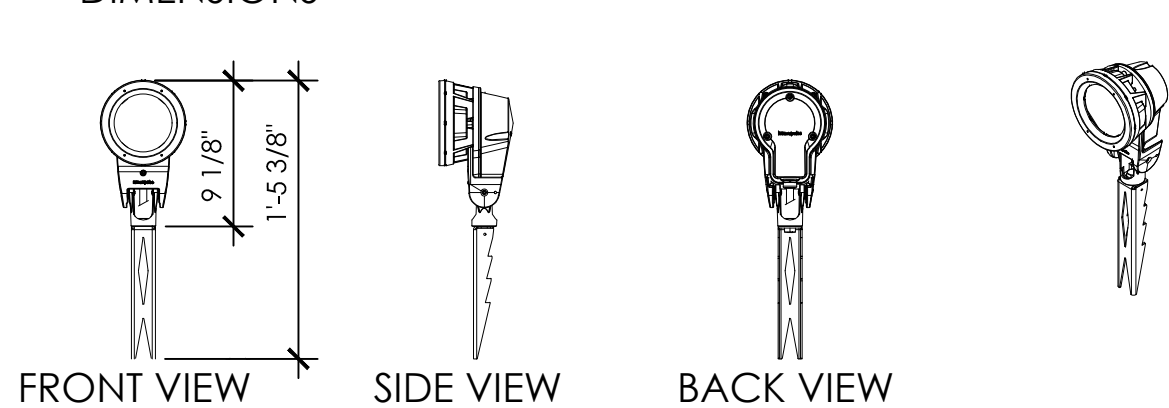
5 DETAIL: LOW SIGN WALL LIGHT

SCALE: 1" = 1'-0"

LUMENBEAM SMALL FLOOD LIGHT

DIMENSIONS

PERSPECTIVE VIEW



FRONT VIEW

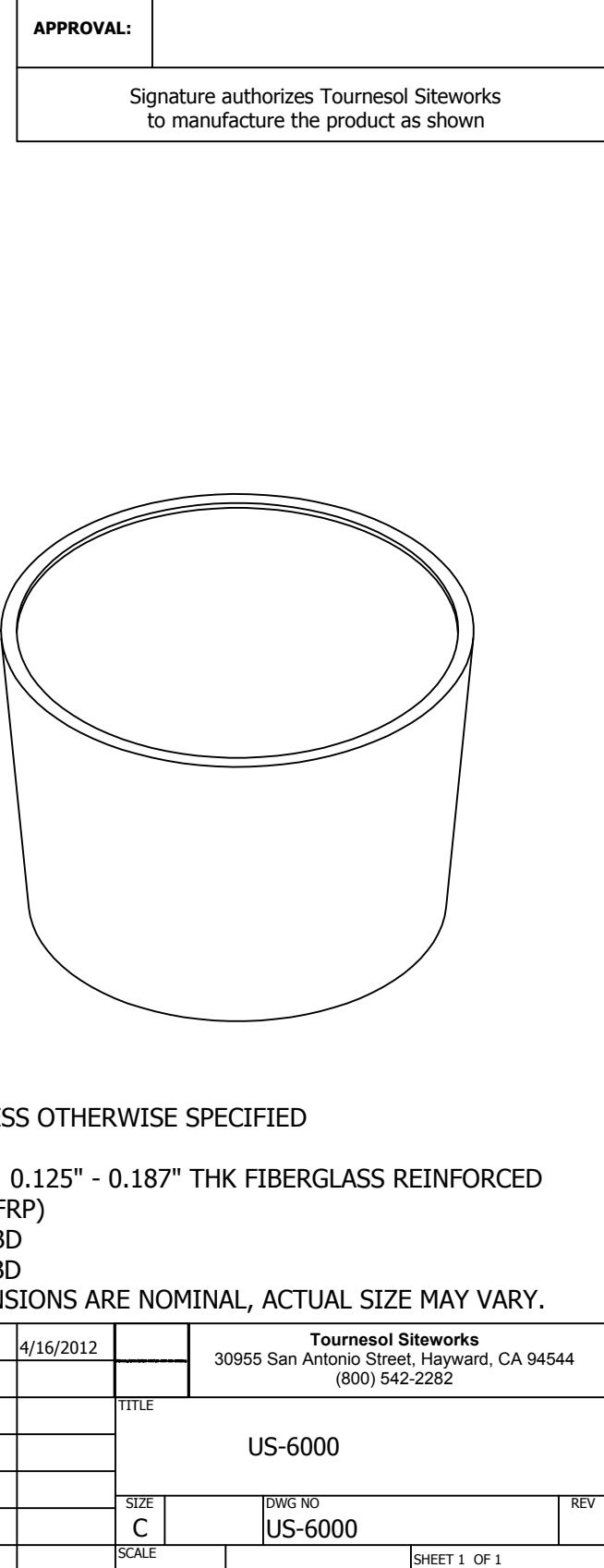
SIDE VIEW

BACK VIEW

STAKE MOUNTING

6 DETAIL: MONUMENT SIGN LIGHT

SCALE: 1" = 1'-0"



LUMENAREA ARM - CS6 (BLACK)

REF. L2.0 FOR LIGHT SCHEDULE



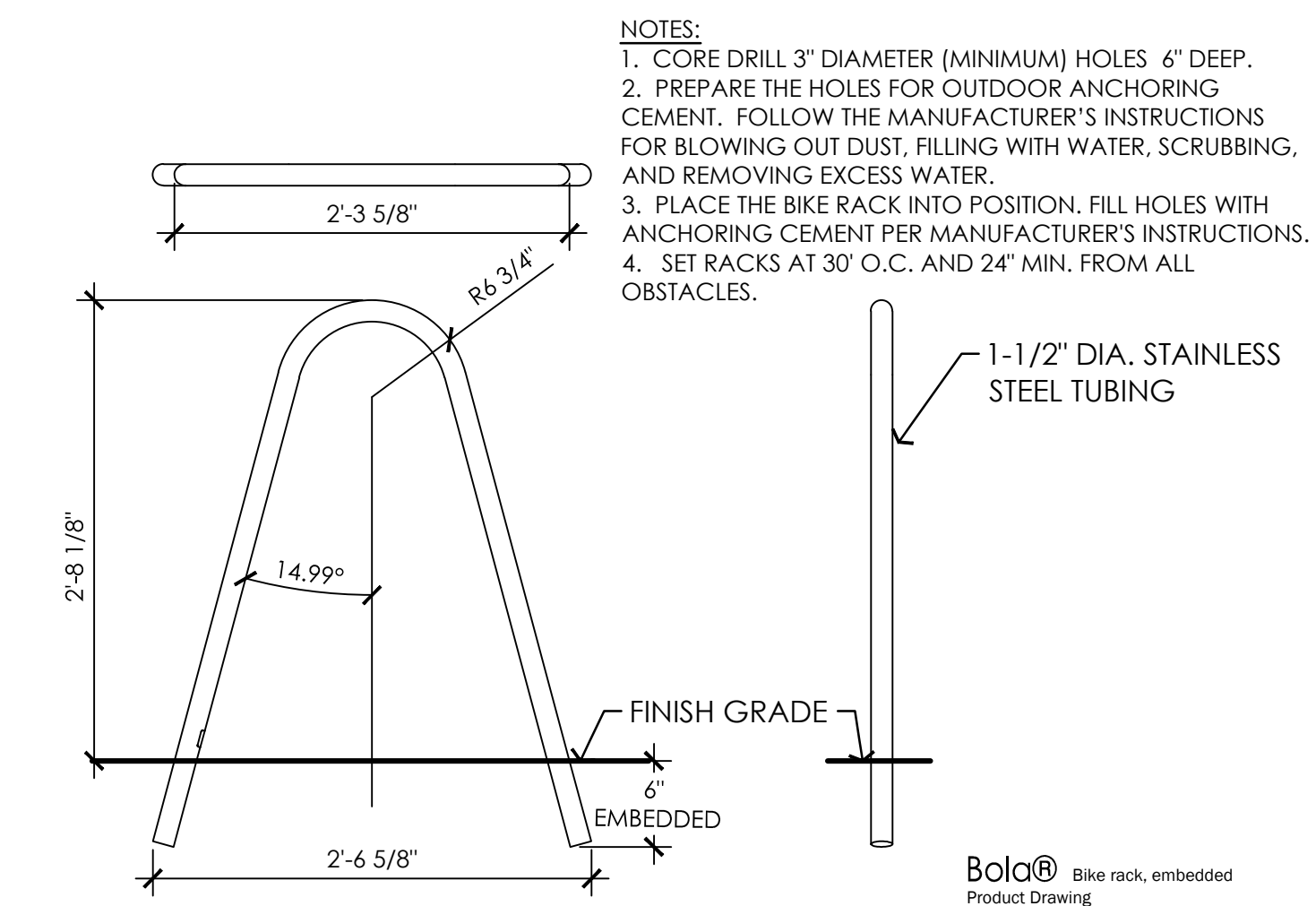
LUMENAREA ALLEGRA FIXTURE - ALG-7204 (BLACK)



LUMENAREA ALUMINUM POLE - QJ6 (BLACK)

7 DETAIL: PARKING LIGHT & POLE

N.T.S.



Bola® Bike rack, embedded
Product Drawing

landscape forms

431 LAWDALE AVE.
KALAMAZOO, MI 49048

PHONE: 800-521-2546
FAX: 269-381-3455

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8 DETAIL: BIKE RACK

SCALE: 1"=1'-0"

REVISION DESCRIPTION

DATE

No.

DETAILS SITE FURNITURE

DUNAWAY
118 Broadway Suite 201 • San Antonio, Texas 78205
Tel: 210.267.5546
(TX REG. 12-14)

HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



JOB No. 3788

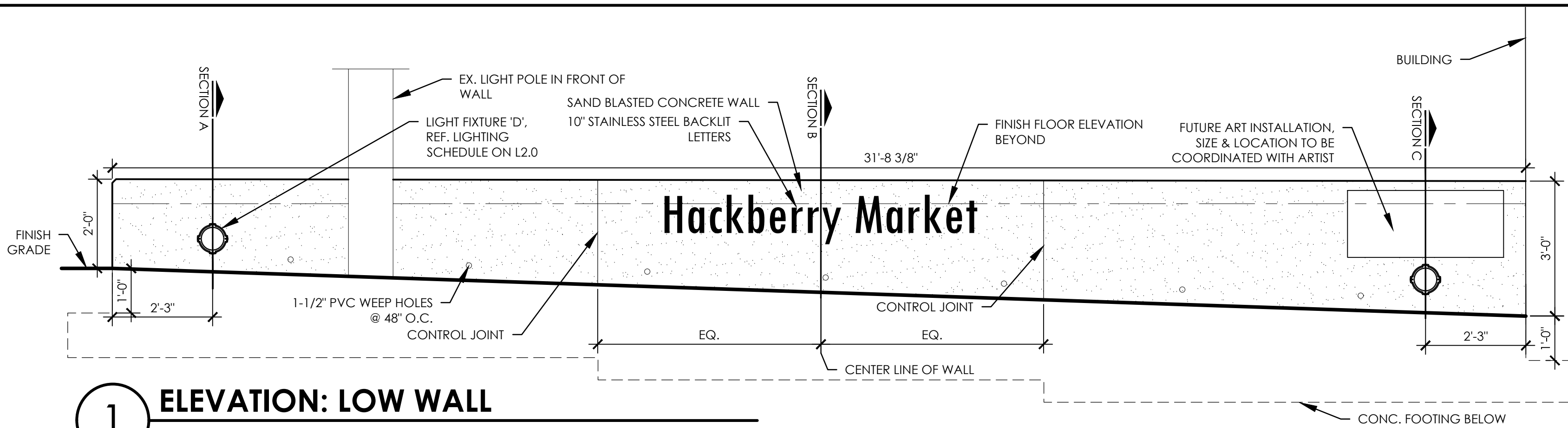
DRAWN BY: TL

DESIGNED BY: TL

CHECKED BY: BKM

DATE: 03.14.2018

SHEET: L3.00

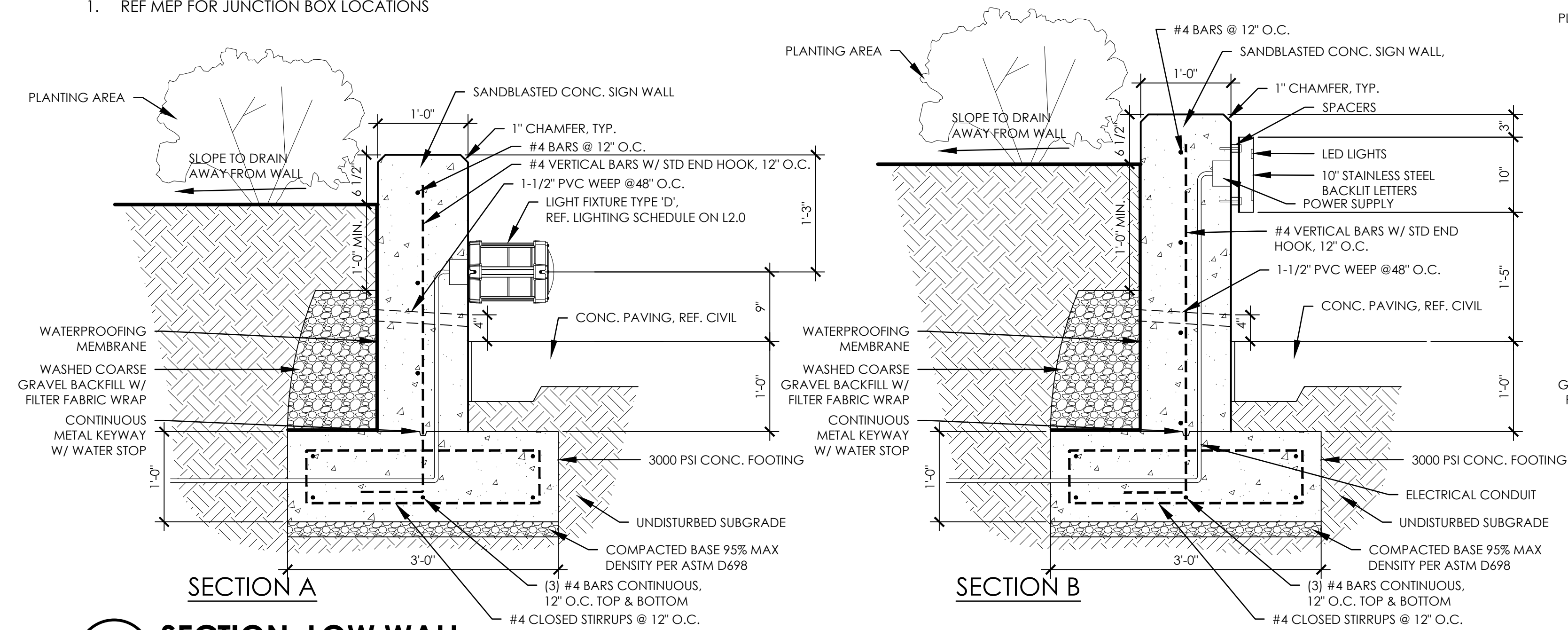


NOTE:
CONTRACTOR TO PROVIDE MOCK-UP SAMPLE OF ALL CONCRETE FINISHES FOR OWNER FOR APPROVAL.

1 ELEVATION: LOW WALL

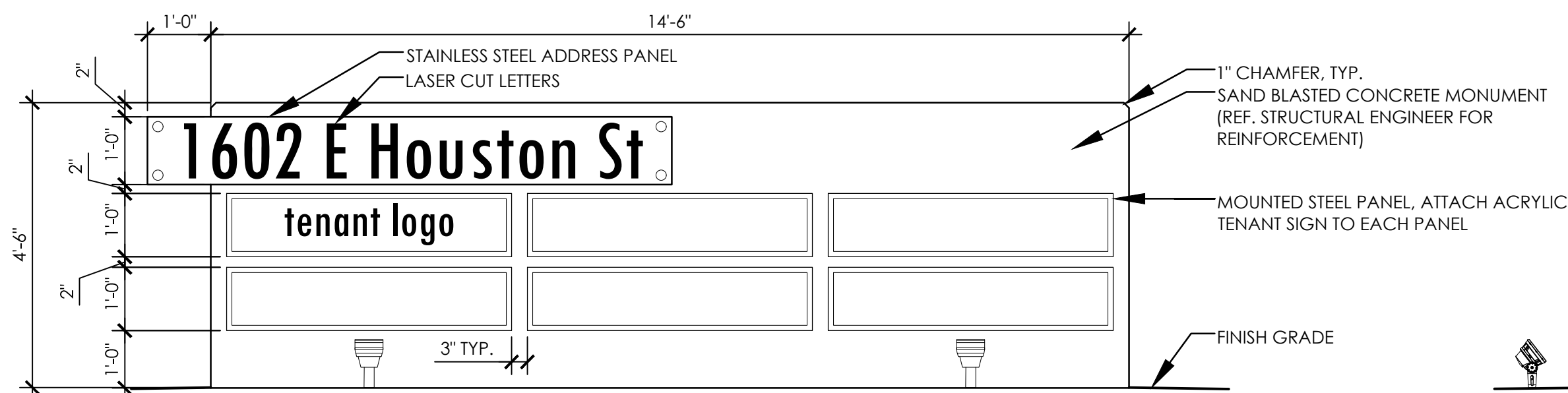
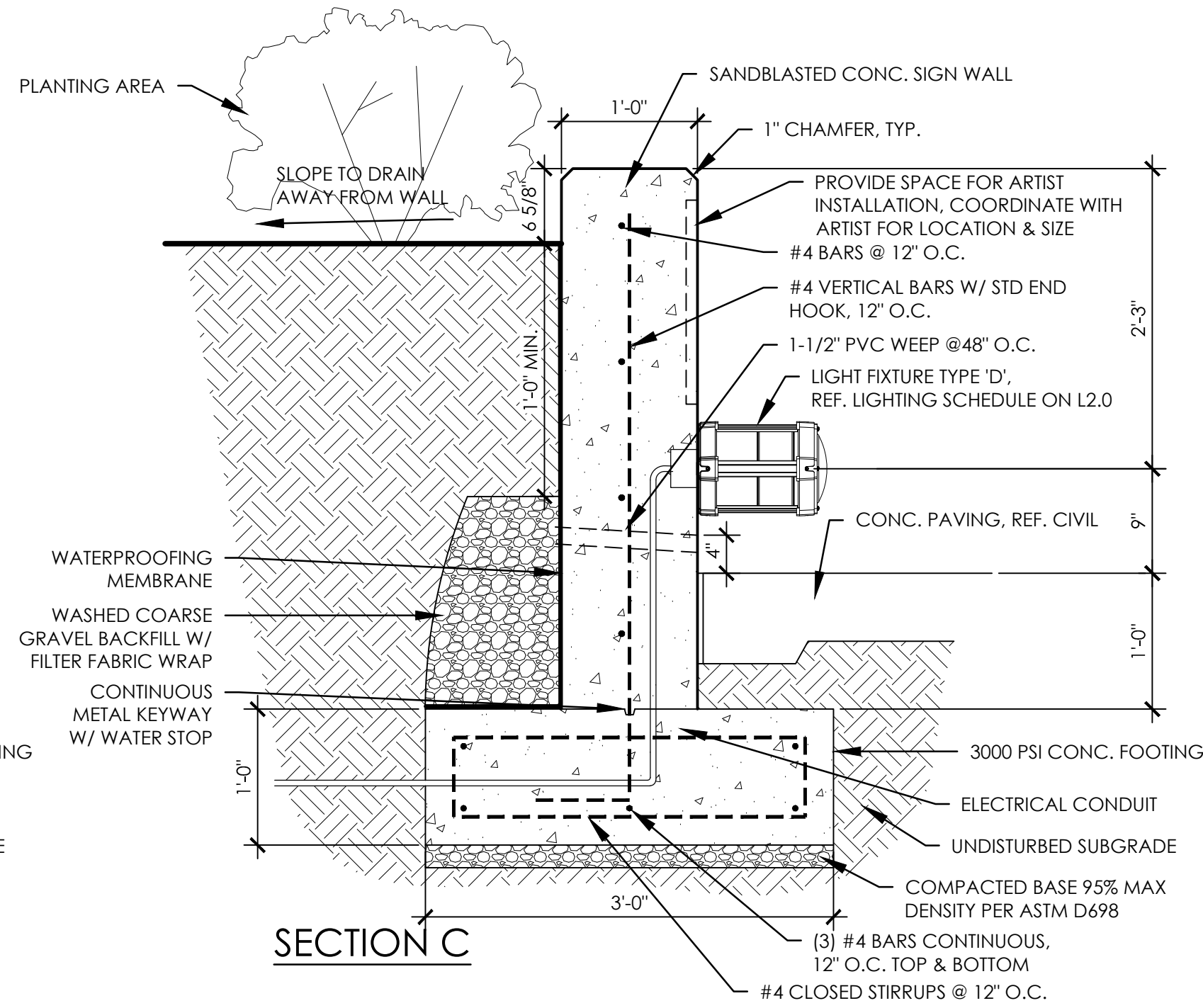
SCALE: 1/2" = 1'-0"

- NOTES:
- REF MEP FOR JUNCTION BOX LOCATIONS



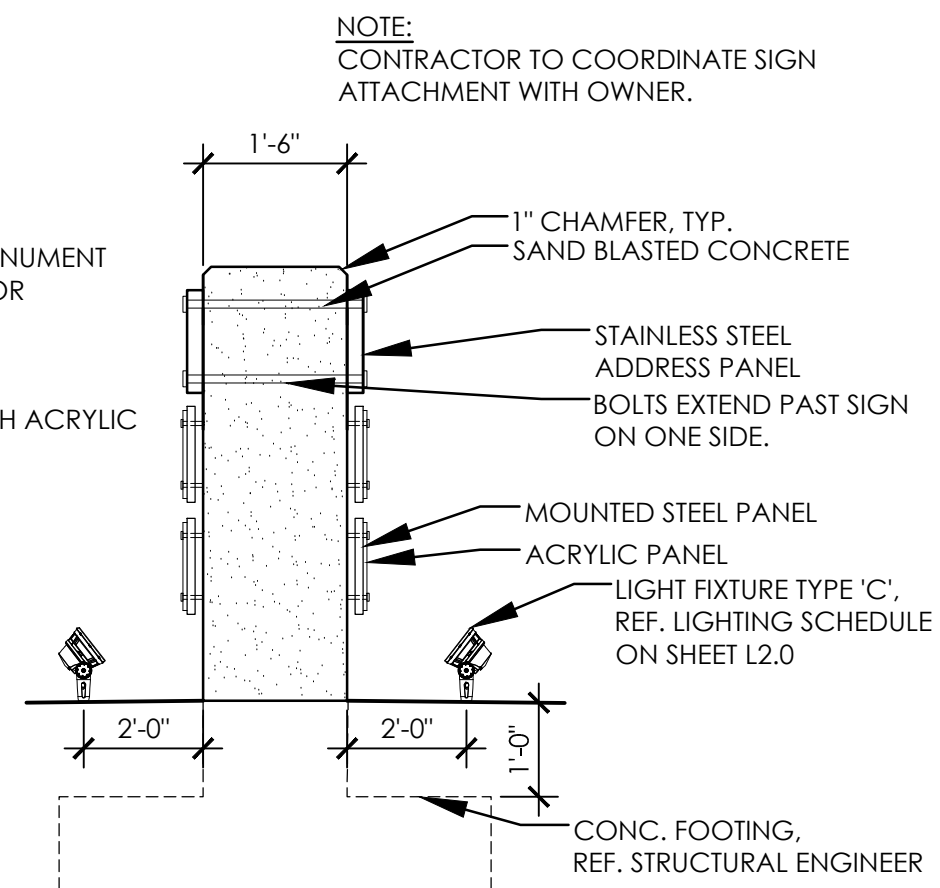
2 SECTION: LOW WALL

SCALE: 1" = 1'-0"



3 DETAIL: LARGE MONUMENT SIGN

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



REVISION DESCRIPTION

DATE

No.

DETAILS SIGNAGE

DUNAWAY

118 Broadway Suite 201 • San Antonio, Texas 78205
Tel 210.267.5246
(TX REG. 1-114)

HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS

REGISTERED LANDSCAPE ARCHITECT
BRIAN KYE
2369
STATE OF TEXAS
3/14/18

JOB No. 3788

DRAWN BY: TL

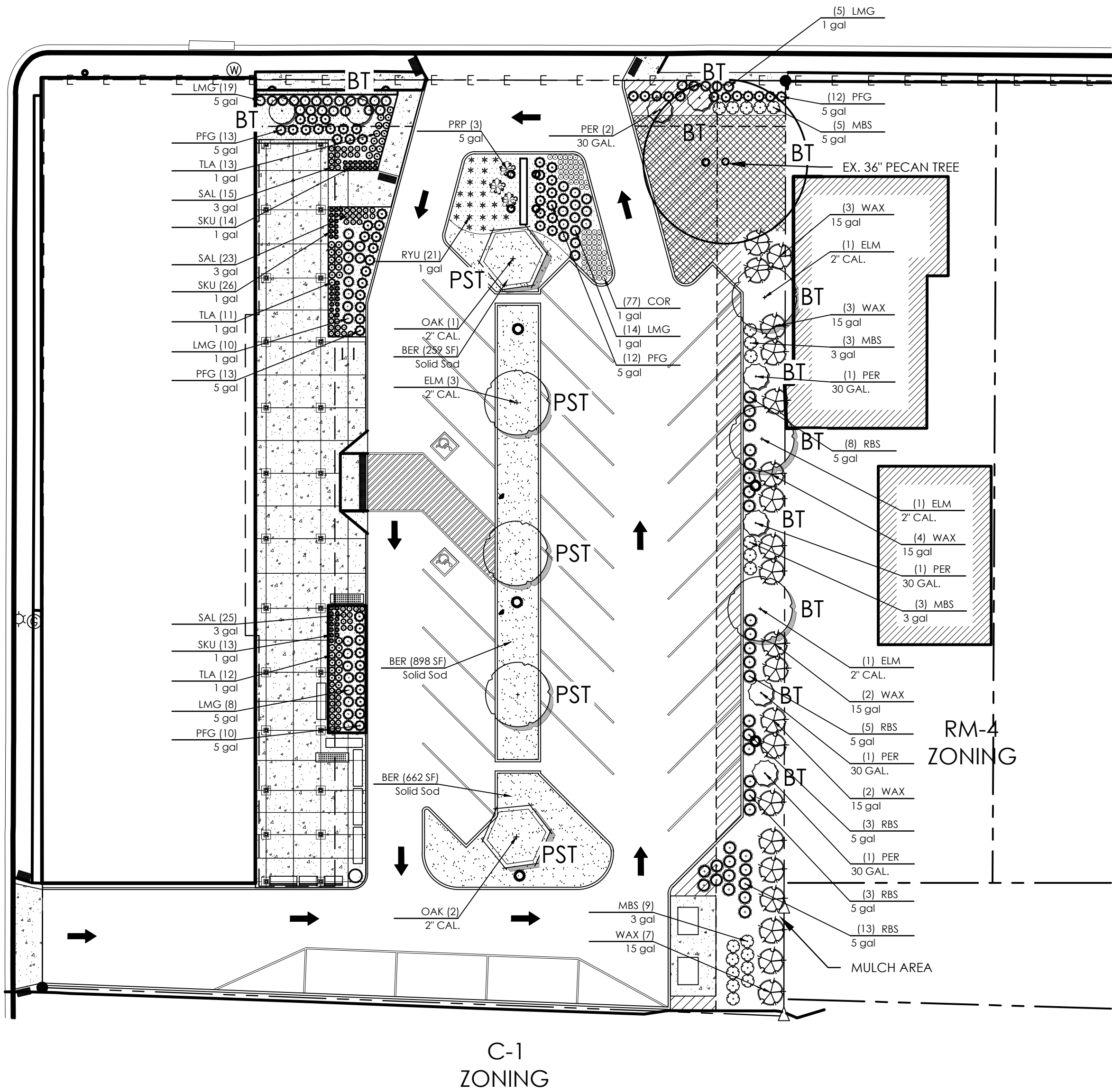
DESIGNED BY: TL

CHECKED BY: BKM

DATE: 03.14.2018

SHEET:

L3.01



LEGEND

- PST PARKING LOT SHADE TREE
- BT BUFFER TREE
- BUFFER ZONE ALLOCATION
- DECOMPOSED GRANITE (REF. DETAIL 3/L4.01)
- SOD AREAS
- MULCH AREAS

NOTE:

ALL NEWLY PLANTED TREES USED TO FULFILL TREE CANOPY COVERAGE REQUIREMENTS ON SHEET L1.00. (CANOPY REQUIRED - 3,774 SF - 2 LIVE OAK TREES (875 EACH) AND 3 CEDAR ELM TREES (875 EACH).)

Mandatory Criteria

Parking Lot Shading

Total Paved Area	8835 SF		
Square Feet of Shaded Area for 25%	2208.75 SF	Minimum required	20 Points
Square Feet of Shaded Area for 35%	2650.5 SF	Additional	5 Points
Square Feet of Shaded Area for 50%	4417.5 SF	Additional	15 Points

Existing Tree Shade Credits	SF Required	1200	
Proposed Tree Shade Credits		3280	
Expansion of 15% to Existing Building 50% Shaded Area Proposed	Total Shade Credits	4480	
		662.625	
Parking Lot Shading Points Earned		40	

QTY	Species	ShadeCredit	Total	Location
2	Live Oak	656	1312	Island
3	Cedar Elm	656	1968	Island
		Total SF Shade	3280	

Landscape Points	PTS
Existing Trees	8
Parking Lot Shading	40
Screening of Surface Parking	25
Street Trees	0
Understory Preservation	0
Total Points	73

BUFFER REQUIREMENTS:

- BUFFER PLANTS REQUIRED PER 100 LF OF BUFFER TYPE 'B' - 2 CANOPY TREES, 2 UNDERSTORY TREES, 8 LARGE SHRUBS & 12 MEDIUM SHRUBS. (202 LF)
- TYPE 'B' BUFFER AREA ALLOCATED TO ENDS OF BUFFER AREA. TOTAL AREA COVERED TO EQUAL 15' OFFSET FROM PROPERTY LINE.
- BUFFER PLANTS REQUIRED PER 100 LF OF BUFFER TYPE 'A' - 2 CANOPY TREES, 2 UNDERSTORY TREES, & 8 MEDIUM SHRUBS. (66 LF)
- WHERE EXISTING OR PROPOSED OVERHEAD ELECTRIC LINES CONFLICT WITH TREE CANOPIES, SMALL TO MEDIUM TREES MAY SUBSTITUTE FOR CANOPY TREES.

LANDSCAPE PLAN



HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



JOB No.	3788
DRAWN BY:	TL
DESIGNED BY:	TL
CHECKED BY:	BKM
DATE:	03.14.2018
SHEET:	L4.00

LANDSCAPE NOTES:

1. ORDINANCE PLAN MAY REQUIRE REVISIONS WHEN TREE SURVEY IS PROVIDED.
2. ALL PLANTED AREAS SHALL BE WATERED WITH AN UNDERGROUND IRRIGATION SYSTEM. THE IRRIGATION SYSTEM SHALL BE AUTOMATICALLY CONTROLLED WITH A FULLY PROGRAMMABLE ET BASED CONTROLLER WITH RAIN AND FREEZE SENSORS. THE IRRIGATION SYSTEM, AND INSTALLATION SHALL MEET ALL OF THE APPROPRIATE REQUIREMENTS OF THE LOCAL MUNICIPALITY.
3. ISOLATED PLANT MATERIAL TO RECEIVE DRIP TUBING IN A RING PATTERN AROUND THE ROOT BALL. WHERE POSSIBLE, ELIMINATE DRIP TUBING FROM LARGE AREAS VOID OF PLANT MATERIAL.
4. SOIL MIX FOR ALL PLANTING AREAS SHALL BE MANUFACTURED SOIL, CONSISTING OF MANUFACTURER'S BASIC TOPSOIL, BLENDED IN A MANUFACTURING FACILITY WITH SAND, STABILIZED ORGANIC SOIL AMENDMENTS, AND OTHER MATERIALS TO PRODUCE VIABLE PLANTING SOIL. MANUFACTURED SOIL SHOULD ACHIEVE PH OF 5 TO 7.5 AND MINIMUM OF 4 PERCENT ORGANIC-MATTER CONTENT, FRIABLE, AND WITH SUFFICIENT STRUCTURE TO GIVE GOOD TILL AND AERATION.
5. AMEND MANUFACTURER'S BASIC SOIL WITH SULFUR (1-1/2 POUNDS PER CUBIC YARD), AND COMMERCIAL FERTILIZER (1/2 POUND PER CUBIC YARD).
6. IN TREE AND SHRUB PLANTINGS, APPLY AMENDED SOIL TO MINIMUM DEPTH OF 12 INCHES. FOR TURF AREAS, TILL 2" OF AMENDED MANUFACTURER'S SOIL MIX INTO EXISTING SUBGRADE.

A) CONTRACTOR SHALL PREPARE AND FURNISH PROPER SUBGRADE ELEVATIONS FOR USE BY THE LANDSCAPE CONTRACTOR.

B) ALL TOPSOIL SHALL BE FREE OF STONES, ROOTS, CLOUDS, CONCRETE, BASE, CALICHE, CONSTRUCTION DEBRIS, AND ANY OTHER FOREIGN MATERIAL NOT BENEFICIAL FOR PLANT GROWTH
5. ALL TREES AND SHRUB AREAS TO BE MULCHED TO A DEPTH OF 4 INCHES WITH SHREDDED TEXAS NATIVE MULCH. MAINTAIN A 1FT CLEAR AREA FROM THE BASE OF THE TREE FREE OF MULCH TO ALLOW OXYGEN EXCHANGE.
6. LAY SOD WITHIN 24 HOURS OF HARVESTING. DO NOT LAY SOD IF DORMANT OR IF GROUND IS FROZEN OR MUDDY.
7. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD; DO NOT STRETCH OR OVERLAP. STAGGER SOD STRIPS OR PADS TO OFFSET JOINTS IN ADJACENT COURSES. AVOID DAMAGE TO SOIL OR SOD DURING INSTALLATION. TAMP AND ROLL LIGHTLY TO ENSURE CONTACT WITH SOIL, ELIMINATE AIR POCKETS, AND FORM A SMOOTH SURFACE. WORK SIFTED SOIL OR FINE SAND INTO CRACKS BETWEEN PIECES OF SOD; REMOVE EXCESS TO AVOID SMOTHERING SOD AND ADJACENT GRASS.

A) LAY SOD ACROSS SLOPES EXCEEDING 1:3.

B) ANCHOR SOD ON SLOPES EXCEEDING 1:6 WITH WOOD PEGS OR STEEL STAPLES SPACED AS RECOMMENDED BY SOD MANUFACTURER BUT NOT LESS THAN TWO ANCHORS PER SOD STRIP TO PREVENT SLIPPAGE.
8. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF 1-1/2 INCHES BELOW SOD.
9. GENERAL: MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION. MAINTENANCE PERIOD FOR TURF AREAS ONLY IS 60 DAYS PAST SUBSTANTIAL COMPLETION.
10. MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS.
11. TURF INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA AS DETERMINED BY LANDSCAPE ARCHITECT:

A) SATISFACTORY SODDED TURF: AT END OF MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF HAS BEEN ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.

B) SATISFACTORY SEEDED TURF: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.
12. USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.
13. SPECIAL WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD.

A) FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

A)A) DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE, OR NEGLECTED BY OWNER.


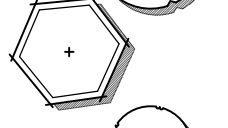

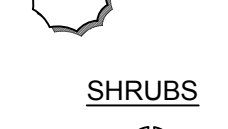
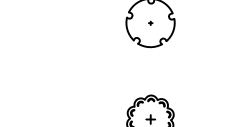
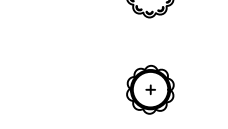


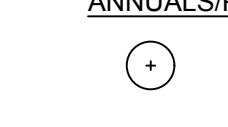





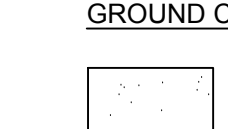
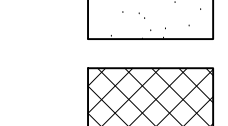
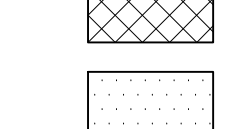
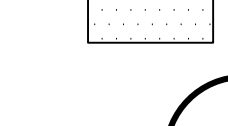
A)B) STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.

B) WARRANTY PERIODS: FROM DATE OF SUBSTANTIAL COMPLETION.

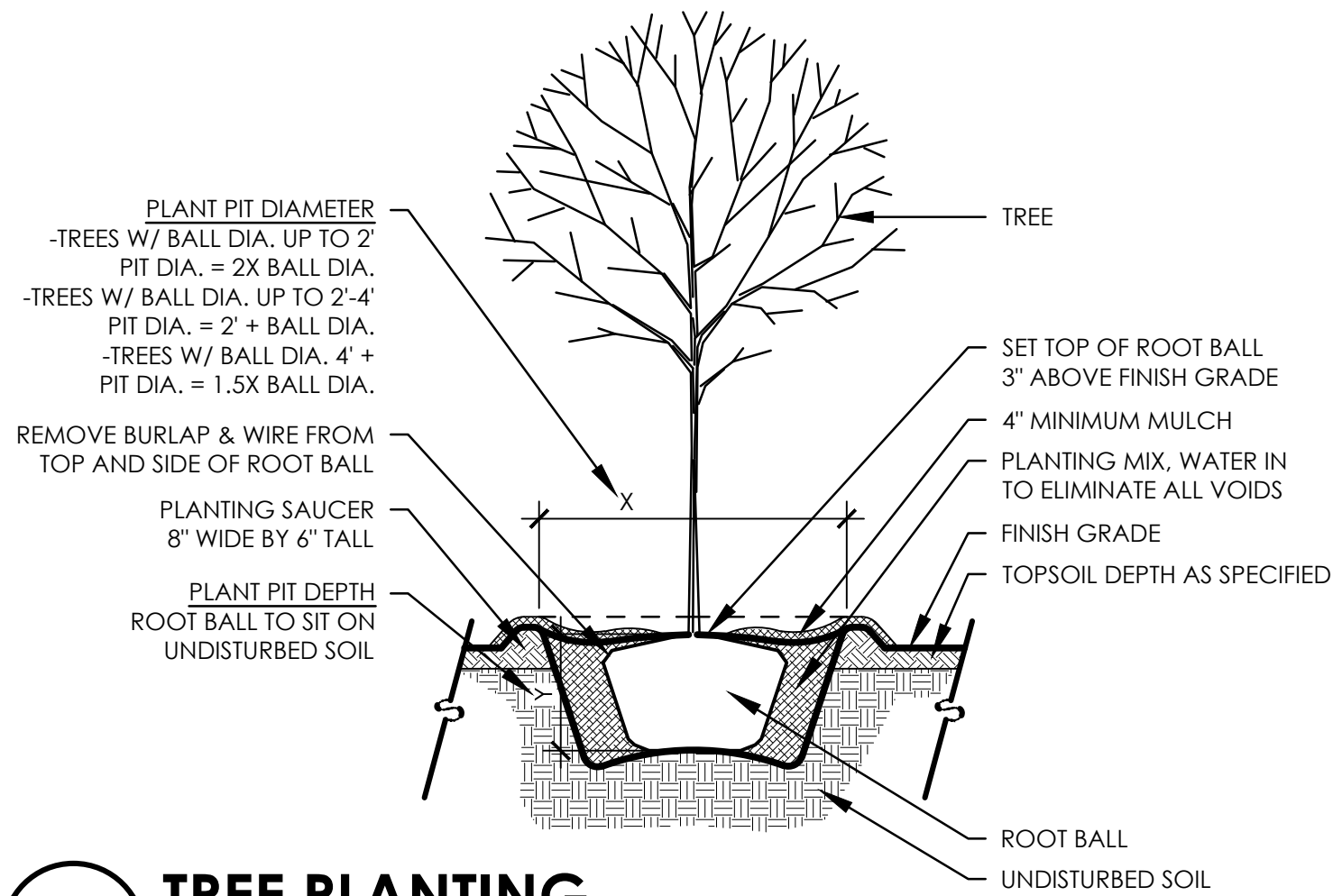
B)A) TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS.

B)B) GROUNDCOVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS.
14. LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY QUESTIONS REGARDING APPLICATION OF PROPOSED PLANT MATERIAL PRIOR TO INSTALLATION - ESPECIALLY QUESTIONS THAT MAY AFFECT OR ALTER THE WARRANTY OF SAID MATERIAL.
15. STAKE OR GUY TREES ONLY IF THEY ARE NOT ABLE TO STAND VERTICAL ON THEIR OWN.
16. REMOVE ALL STONES AND DEBRIS LARGER THAN 1 INCH IN ANY DIMENSION ON THE SURFACE IN AREAS WHERE TURF IS APPLIED.
17. ALL QUANTITIES SHOWN ON PLANS TO BE VERIFIED BY LANDSCAPE CONTRACTOR. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL LABELED PLANT MATERIAL ON PLANS.
18. ALL FINAL SHAPING AND RAKING OF THE TOPSOIL/FINISH GRADES SHALL BE REVIEWED BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO APPLICATION OF PLANT MATERIAL. BERMS, IF REQUIRED SHALL BE INSTALLED IN 12 INCH LAYERS/LIFTS AND COMPACTED. EXCESSIVE SLOPES ON BERMS WHICH MAY CAUSE MAINTENANCE PROBLEMS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT.
19. VERIFY EXISTENCE OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR SITE WORK AND PLANTING.
20. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT EXISTING UTILITIES AT ALL TIMES.
21. INSTALL IRRIGATION SYSTEM PRIOR TO APPLICATION OF TOPSOIL OR PLANTING SOIL MIX.
22. ANY EXISTING SITE IMPROVEMENT OR UTILITY REMOVED, DAMAGED, OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE AND APPROVED BY THE RESPECTIVE UTILITY AT THE CONTRACTOR'S EXPENSE.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGES DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, TREES, DRIVEWAYS, ETC., SCHEDULE TO REMAIN (NO SEPARATE PAY ITEM).
24. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED AND REPLACED AT CONTRACTOR'S EXPENSE.
25. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT IS NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS, AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
26. ALL DISTURBED AREAS WITHIN LIMITS OF CONSTRUCTION SHALL BE HYDROMULCHED AS DESCRIBED ON PLANS.
27. ROOTS SHALL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
28. METAL EDGER: COL-MET COMMERCIAL GRADE STEEL EDGING 3⁄8" THICK. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

PLANT SCHEDULE

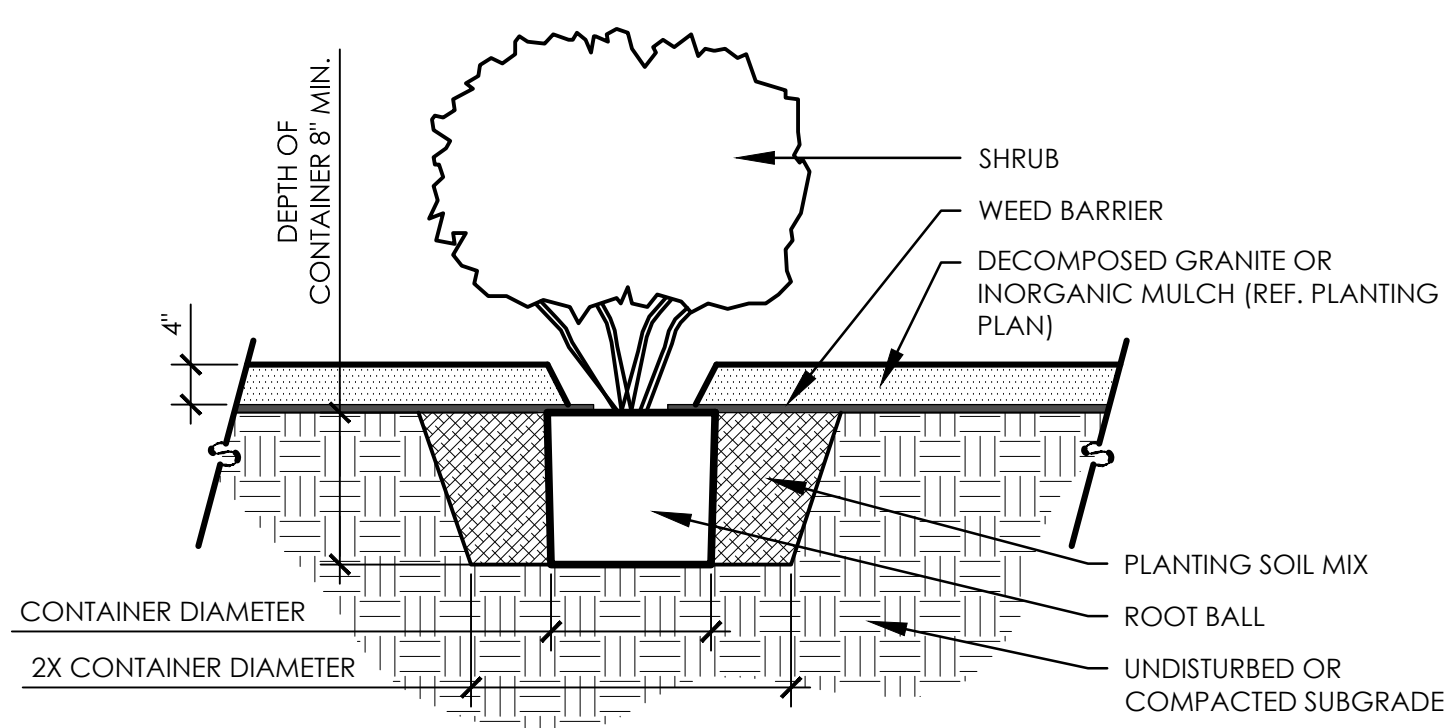
TREES	QTY	COMMON NAME	BOTANICAL NAME	CALIPER	CONT.	HEIGHT	SPREAD	REMARKS
	6	CEDAR ELM	ULMUS CRASSIFOLIA	2" CAL.		6'-8'	3'	
	2	LIVE OAK	QUERCUS VIRGINIANA	2" CAL.		8'-10'	4'	
	2	RETAMA	PARKINSONIA ACULEATA	2"		8'-10'	5'- 6'	
	6	TEXAS PERSIMMON	DIOSPYROS TEXANA	30 GAL.		4'- 5'	3'- 4'	
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	CONT.	HEIGHT	SPACING	REMARKS
	20	MEXICAN BUSH SAGE	SALVIA LEUCANTHA	3 GAL		14"-16"	12"-14"	36" OC
	63	PINK SALVIA	SALVIA GREGGII 'PINK'	3 GAL		12"	12"	24" OC.
	32	RIO BRAVO SAGE	LEUCOPHYLLUM LANGMANIAE 'RIO BRAVO' TM	5 GAL		12"-14"	10"-12"	36" OC
	36	TRAILING NEW GOLD LANTANA	LANTANA HYBRIDA 'NEW GOLD'	1 GAL		8"	8"-10"	36" OC 14"-18", YEL/GOLD BLOOMS SP/SU/FA, TRAILING
	21	WAX MYRTLE	MYRICA CERIFERA	15 GAL		36"-48"	24"- 36"	5'
ANNUALS/PERENNIALS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	CONT.	HEIGHT	SPACING	REMARKS
	77	COREOPSIS	COREOPSIS VERTICILLATA	1 GAL		4" - 6"	FULL	12" OC. 1' - 2' FINE TEXTURED, LT. YELLOW BLOOM SU/FALL
	53	SKULLCAP	SCUTELLARIA SUFFRUTESCENS	1 GAL		6"	FULL	18" OC.
GRASSES	QTY	COMMON NAME	BOTANICAL NAME	SIZE	CONT.	HEIGHT	SPACING	REMARKS
	56	LINDHEIMER'S MUHLY	MUHLENBERGIA LINDHEIMERI	1 GAL		12"-15"	FULL	18" OC.
	60	PINK FLAMINGO MUHLY	MUHLENBERGIA CAPILLARIS 'PINK FLAMINGOS'	5 GAL				
SUCCULENTS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	CONT.	HEIGHT	SPACING	REMARKS
	3	PURPLE PRICKLYPEAR	OPUNTIA SANTA-RITA	5 GAL		14"-16"	18"-24"	48" OC.
	21	RED YUCCA	HESPERALOE PARVIFLORA	1 GAL		8"-10"	FULL	24" OC.
GROUND COVERS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	HEIGHT	SPREAD		
	1,819 SF	BERMUDA GRASS	CYNODON DACTYLON 'TIF 419'	SOLID SOD				
	888 SF	MULCH	NA	NATIVE, DOUBLE-SHREDDED				
	1,485 SF	DECOMPOSED GRANITE	NA					

1 PLANT MATERIALS LIST



2 TREE PLANTING

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



- NOTES:
1. CUT 'X' IN WEED BARRIER SAME DIAMETER AS PLANT CONTAINER TO ALLOW SHRUB PLANTING
2. RE-COVER PLANT PIT WITH WEED BARRIER AFTER PLANT PLACEMENT AND APPLY INORGANIC MULCH

3 SHRUB PLANTING

SCALE: 1"=1'-0"

REVISION DESCRIPTION

DATE

No.

LANDSCAPE NOTES&DETAILS



HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



3/14/18

JOB No. 3788

DRAWN BY: TL

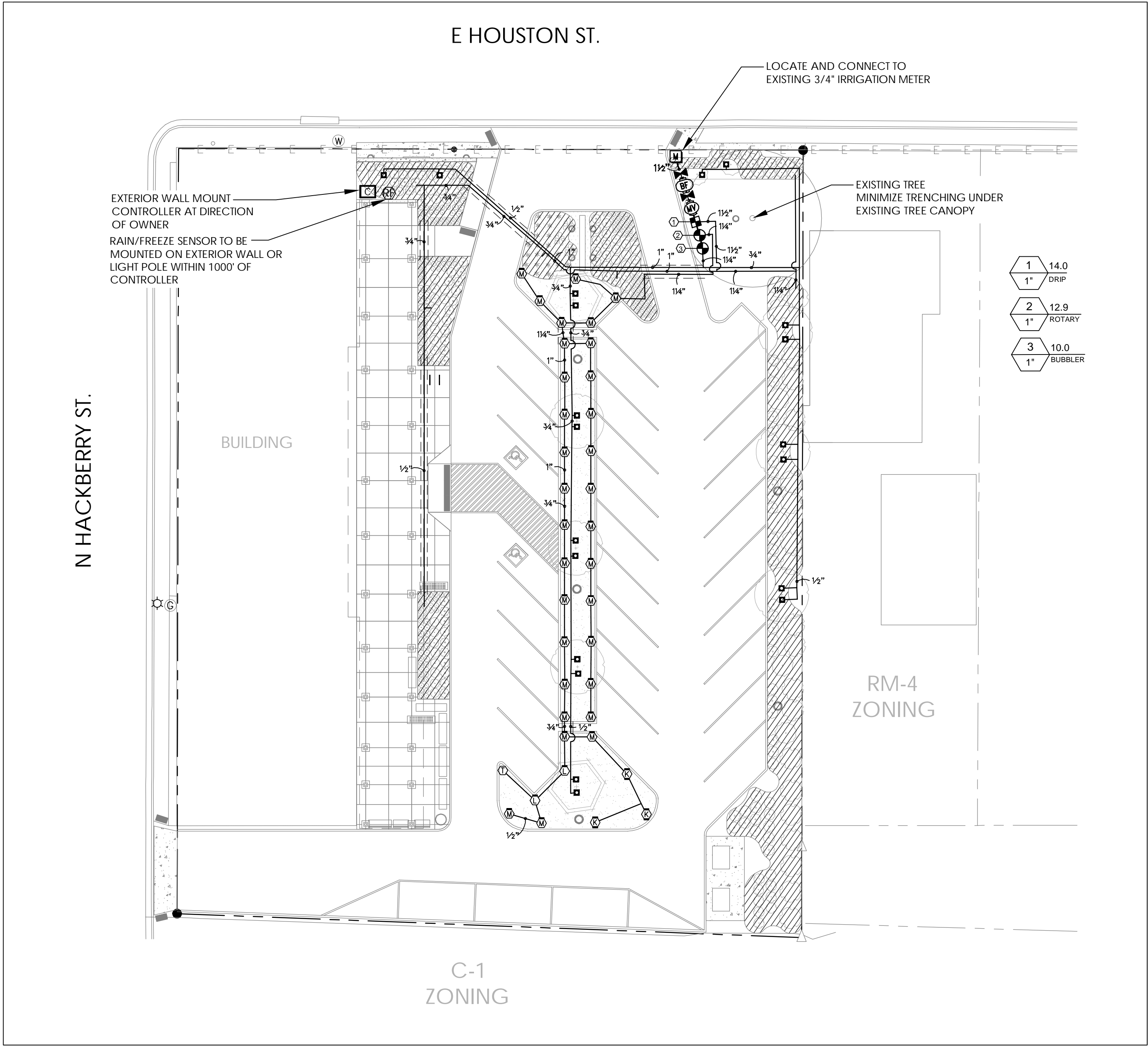
DESIGNED BY: TL

CHECKED BY: BKM

DATE: 03.14.2018

SHEET:

L4.01



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	ROTARY: HUNTER MP1000 PROS-04-PRS40-CV TURF ROTATOR, 4" (10.16 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE ON PRS40 BODY. M-MAROON ADJ ARC 90 TO 210, L-LIGHT BLUE 210 TO 270 ARC, O-OLIVE 360 ARC.
	ROTARY: HUNTER MP2000 PROS-04-PRS40-CV TURF ROTATOR, 4" (10.16 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE ON PRS40 BODY. K-BLACK ADJ ARC 90-210, G-GREEN ADJ ARC 210-270, R-RED 360 ARC.
	ROTARY: HUNTER MP CORNER PROS-04-PRS40-CV TURF ROTATOR, 4" (10.16 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE. T-TURQUOISE ADJ ARC 45-105 ON PRS40 BODY.
	BUBBLER: RAIN BIRD RWS-B-SOCK ROOT WATERING SYSTEM WITH 4" DIAMETER X 36" LONG WITH LOCKING GRATE, SEMI-RIGID MESH TUBE WITH SAND SOCK, AND RAIN BIRD BUBBLER OPTION AS INDICATED: 1401 (0.25GPM), 1402 (0.5GPM), 1404 (1.0GPM), 1408 (2.0GPM).
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	CONTROL VALVE: RAIN BIRD XC2-100-PBB-COM DRIP CONTROL KIT, 1" PEBB VALVE, 1" BASKET FILTER, AND 40PSI PRESSURE REGULATOR, 1" BALL VALVE.
	AREA TO RECEIVE DRIPLINE NETAFIM TDL-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, SURFACE AND SUB SURFACE INSTALLATIONS. UV RESISTANT.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	REMOTE CONTROL VALVE: RAIN BIRD PEB ELECTRIC REMOTE CONTROL VALVE.
	SHUT OFF VALVE PVC SCHEDULE 40 BALL VALVE
	MASTER VALVE: RAIN BIRD PEB 1" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY. GLOBE CONFIGURATION. WITH PRESSURE REGULATOR MODULE.
	BACKFLOW: FBECO 825Y 3/4" REDUCED PRESSURE BACKFLOW PREVENTER
	CONTROLLER: HUNTER PHC-600 WI-FI ENABLED, FULL-FUNCTIONING CONTROLLER WITH TOUCHSCREEN, 6-STATION FIXED CONTROLLER, 120 VAC, OUTDOOR MODEL.
	RAIN/FREEZE SENSOR: HUNTER WRF-CLK RAIN/FREEZE SENSOR, INSTALL WITHIN 1000 FT OF CONTROLLER, IN LINE OF SIGHT. 22-28 VAC/VDC 100 MA POWER FROM TIMER TRANSFORMER. MOUNT AS NOTED. INCLUDES GUTTER MOUNT.
	WATER METER 3/4" EXISTING 3/4" METER
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 40 MAINLINE SIZE 1 1/2"
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.
	Valve Callout Valve Number Valve Flow Valve Size

HYDRAULIC CALCULATION NOTES:

TEN DAYS PRIOR TO COMMENCING WORK, VERIFY STATIC PRESSURE. IF STATIC PRESSURE IS LESS THAN THE ASSUMED STATIC PRESSURE DO NOT START WORK UNTIL NOTIFIED IN WRITING TO PROCEED BY OWNER. IF CONTRACTOR PROCEEDS WITH WORK WITHOUT AUTHORIZATION FROM OWNER, THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE TO CORRECT, MODIFY OR REPAIR ANY ITEMS OR MATERIALS THAT MAY BE REQUIRED TO PROVIDE A FULLY FUNCTIONING AND OPERATIONAL IRRIGATION SYSTEM IN COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. HYDRAULIC CALCULATIONS FOR THIS SYSTEM ARE BASED ON THE STATIC PRESSURE AS STATED ABOVE. THE STATIC PRESSURE SHOWN IS AN ASSUMED PRESSURE, A PRESSURE MEASURED AT THE SITE, OR AN ESTIMATED PRESSURE PROVIDED BY THE UTILITY PROVIDER.

HYDRAULIC CALCULATIONS FOR CRITICAL ZONE

ITEM	SIZE	PSI	NOTES
ZONE 2 - 12.9 GPM			FITTING LOSS ACCOUNTED BY ADDING 10% TO FLOW SHOWN IN MANUF. NOZZLE CHART.
SERVICE	1 1/4"	1.05	TYPE "K" COPPER
WATER METER	3/4"	2.62	
BALL VALVE	3/4"	.01	
WYE FILTER	3/4"	0.33	
BACKFLOW PREVENTER	3/4"	12.72	
MASTER VALVE	1"	2.12	
MAIN LINE	1-1/2"	.11	
STATION VALVE	1"	3.33	
CRITICAL HEAD 'A'		35.00	
TOTAL LOSS		58.35	
ASSUMED STATIC PRESSURE		60.00	
PRESSURE DIFFERENTIAL		1.65	

IRRIGATOR'S STATEMENT:

This irrigation plan complies with the requirements of chapter 344, 344.72-344.77 of the Texas Administrative Code.

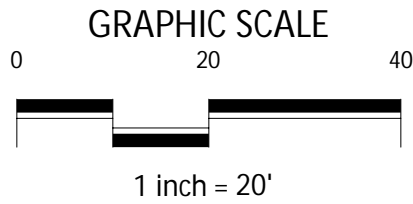
The irrigation system does not provides 100% coverage of the site. The drawings may be diagrammatic in nature for clarity. Some piping or components may be shown larger than scale or appear to be in hardscape areas. The installer should take this into consideration and interpret the design to provide full coverage of the areas shown with all piping in sleeves, common trenches, at the back of curbs or in other planted areas. The installer is responsible for providing all work contained in the drawings, notes, specifications and details. The installer is required by law to notify at least two (2) working days prior to any excavation one of the following:

- Lone Star Notification Center 1-900-669-8344
- Texas One Call 1-800-245-4545
- DigTess 1-800-344-8377

The installer shall verify that static water supply pressure exceeds the design pressure by a minimum of 10%. If less, notify in writing this office, the owner, or owner's representative for a resolution. Installer shall hold harmless this office, the owner, or owner's representative for failure to make such notification prior to starting construction and thereby accepts all costs and obligations for system supply pressure corrections.

Janel Moody
Licensed Irrigator #20529
Dunaway Associates
118 Broadway, Suite 201, San Antonio, Texas 78205 817.632.4783

ZONE PERFORMANCE DATA (RUN TIMES @ 80% E.T.)											
ZONE NO.	APPLICATION	VALVE SIZE	FLOW RATE	CROP COEFFICIENT	AVE. PREC. RATE	MINUTES FOR 1"	MINUTES FOR 1/2"	MINUTES FOR 1/3"	CROP EVAPOTRANSPIRATION	MINS/WEEK - JULY (W/ CROP E.T.)	
1	TURF ROTATOR	1"	12.89	0.60	0.39 IN./HR	154	77	51	3.51	135	
5	TREE BUBBLER	1"	10.00	0.30	1.00 IN./HR	60	30	20	1.76	26	
14	DRIP	1 1/2"	22.29	0.30	0.60 IN./HR	100	50	33	1.76	44	
NOTE: This is intended to serve as a guide only. Contractor should evaluate actual water needs and schedule each zone to ensure proper plant growth and development.											



REVISION DESCRIPTION

DATE

No.

IRRIGATION PLAN



HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



3/14/2018

JOB No. 3788

DRAWN BY: JMM

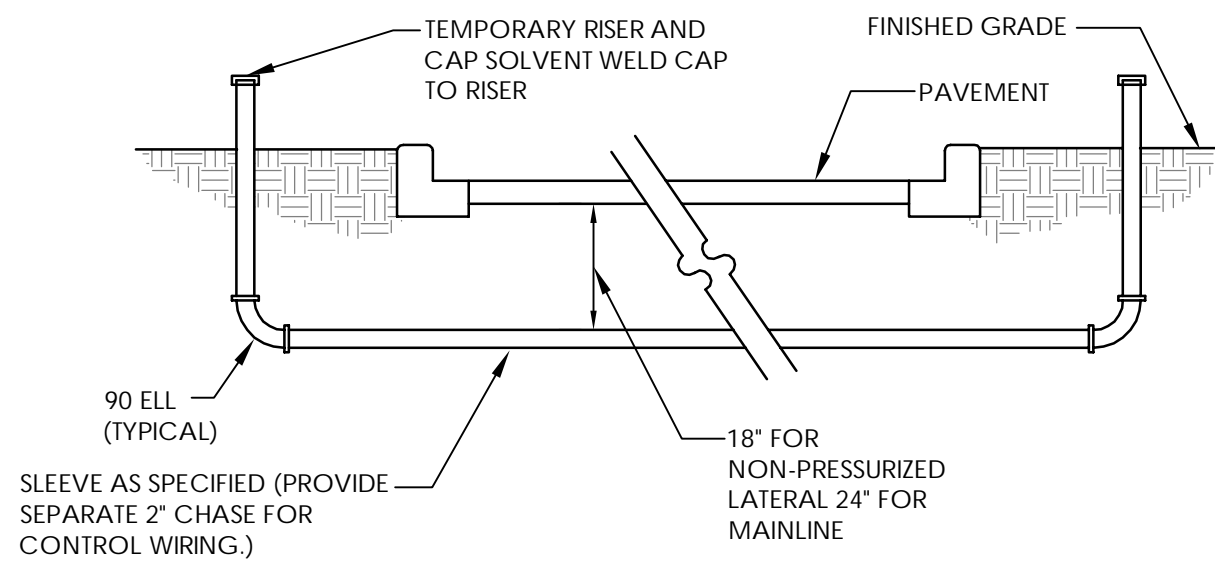
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CHECKED BY: BKM

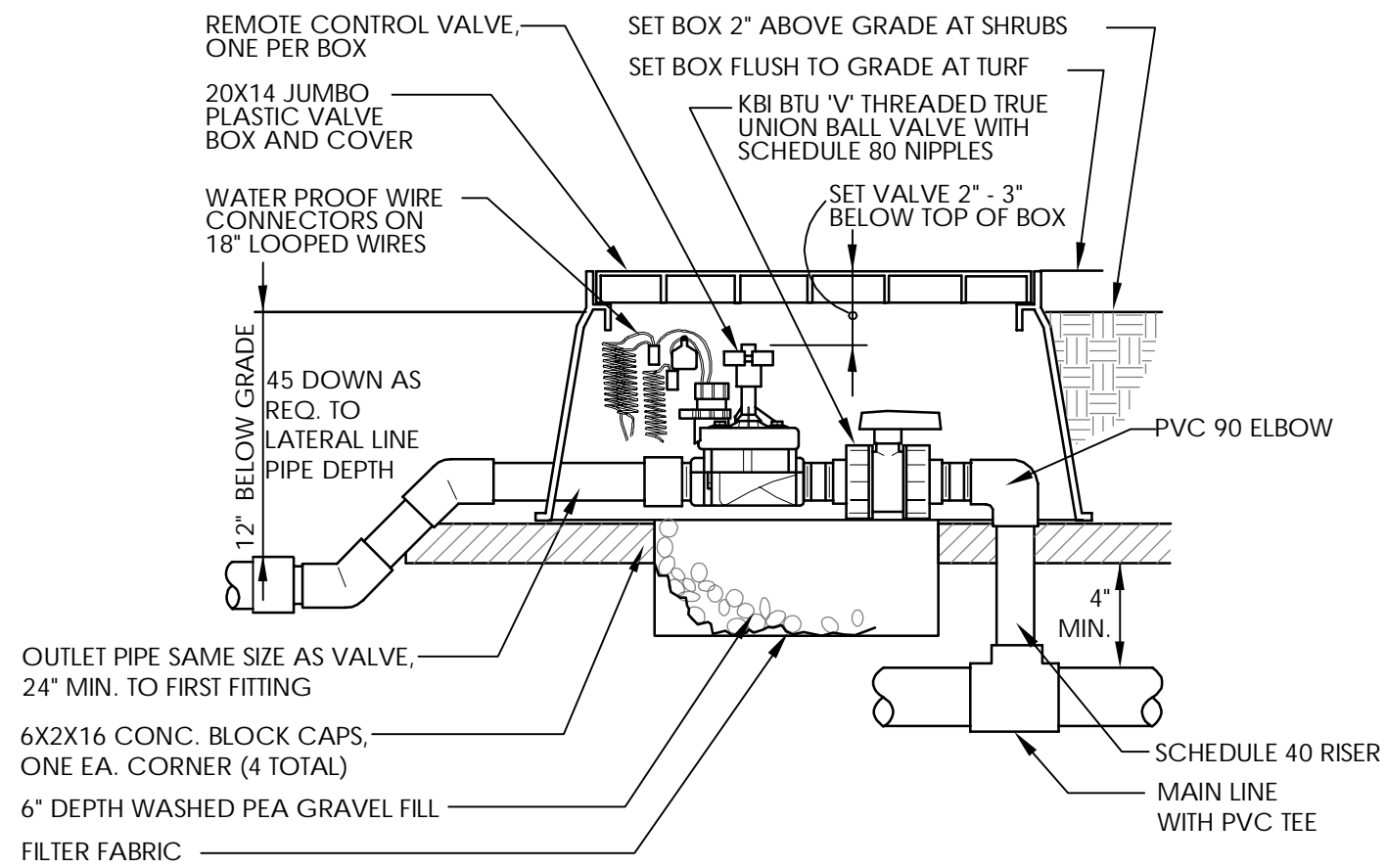
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SHEET:

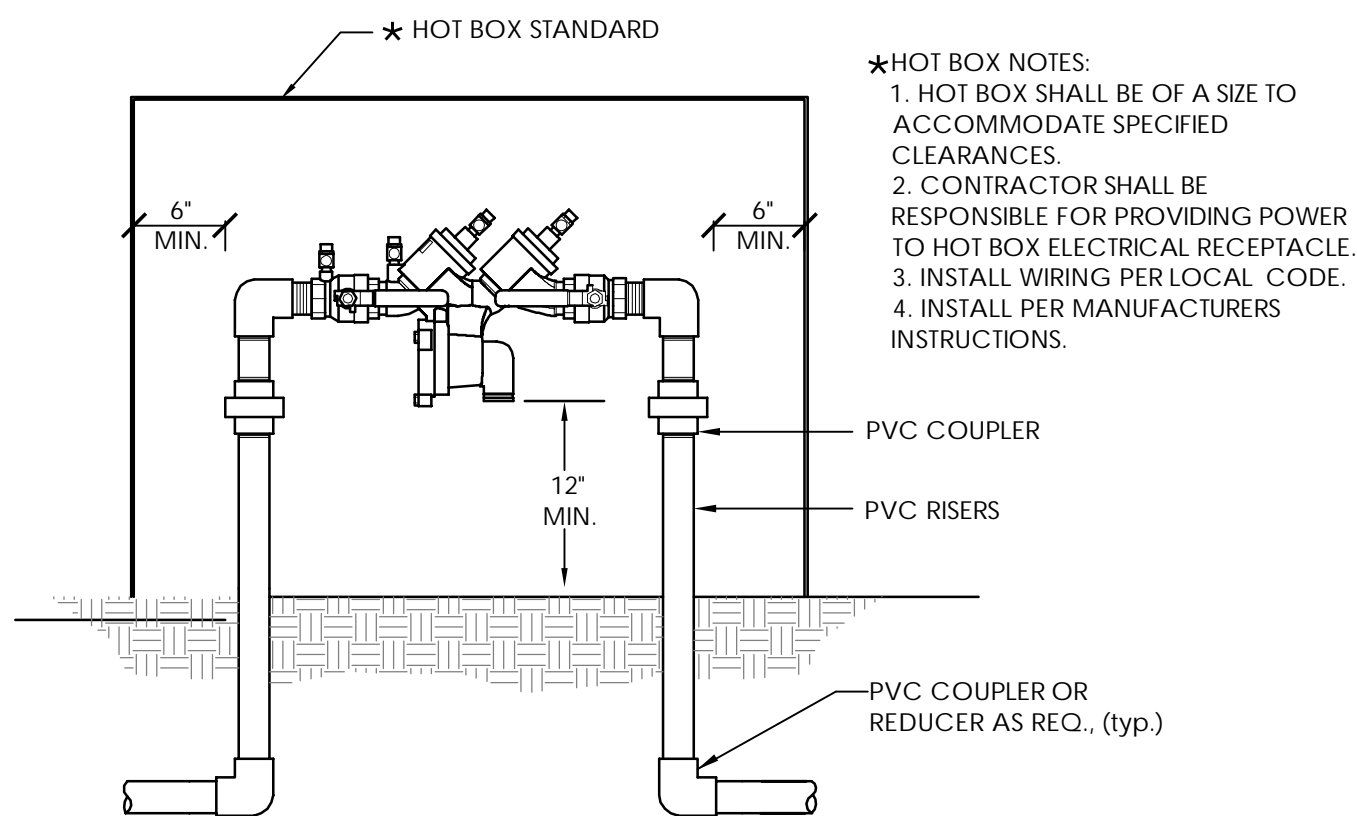
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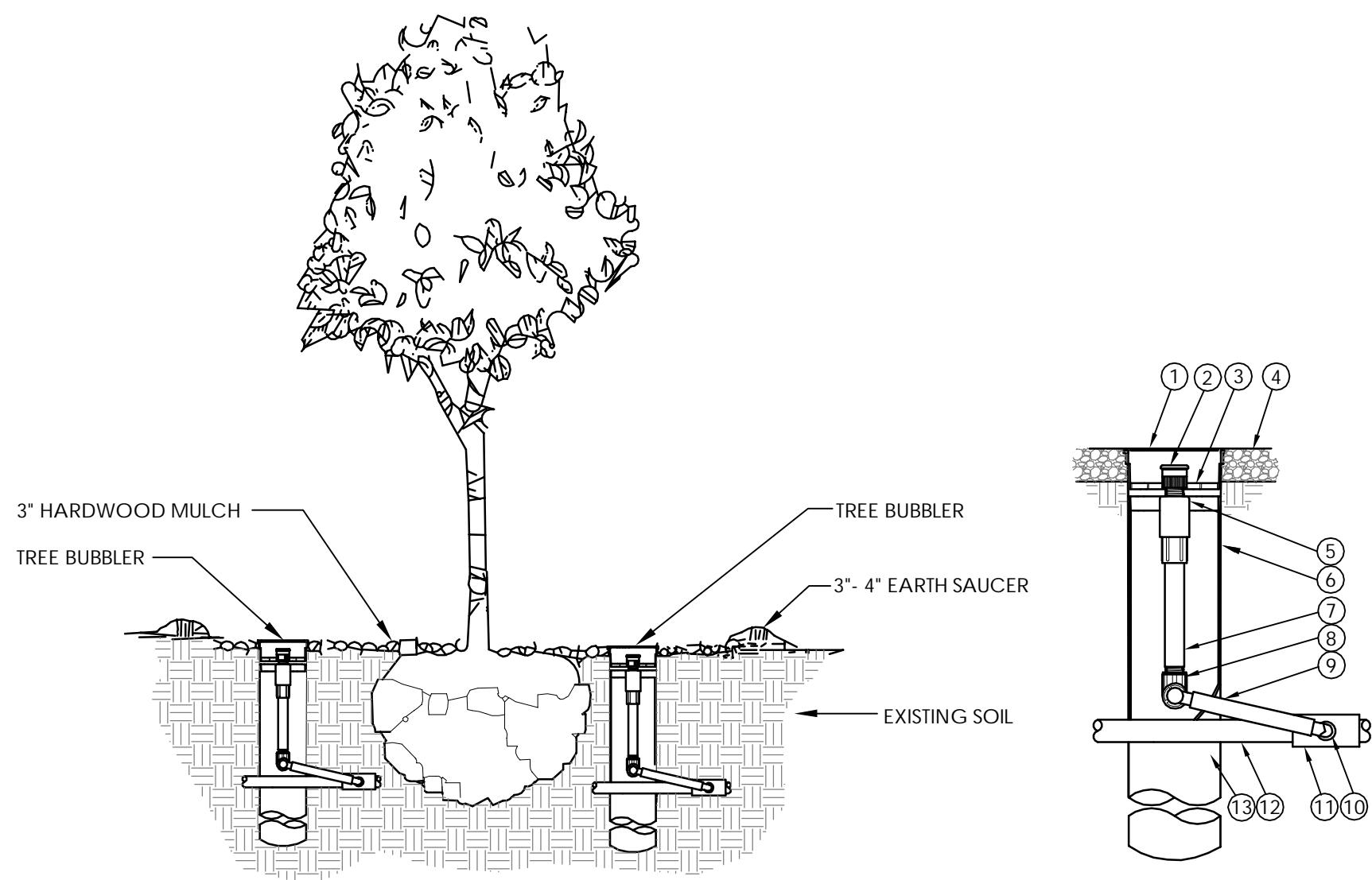
1 SLEEVE INSTALLATION
NOT TO SCALE



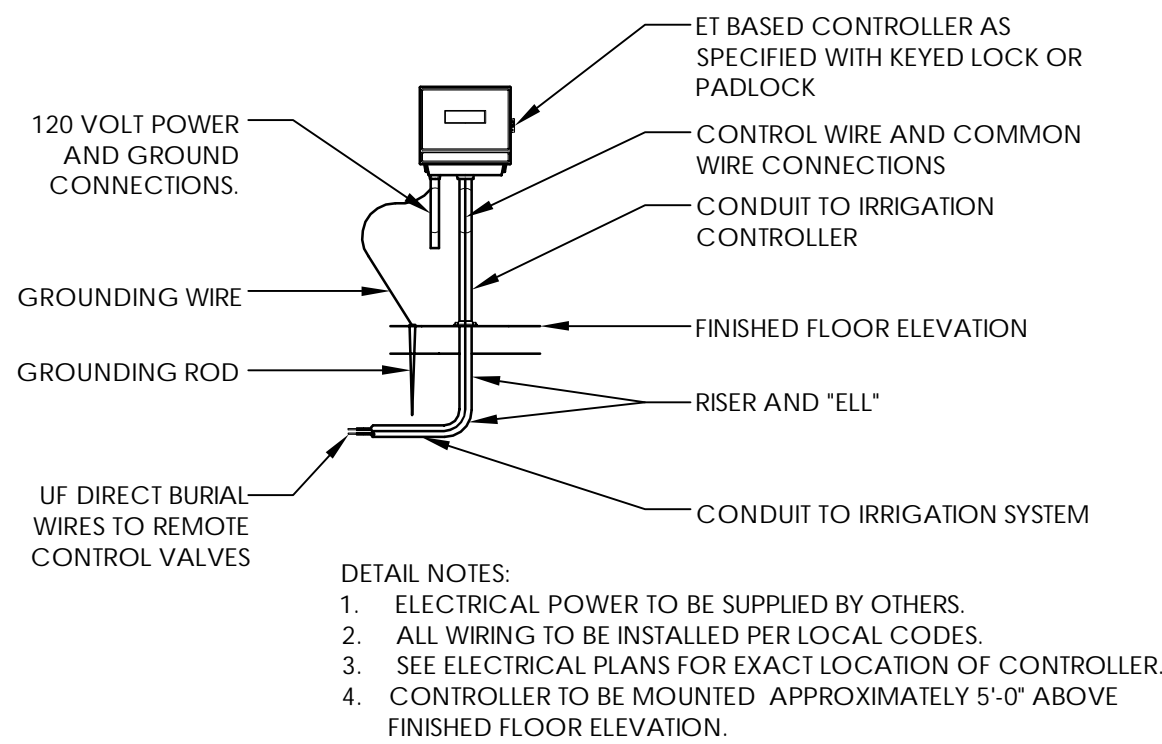
3 REMOTE CONTROL VALVE
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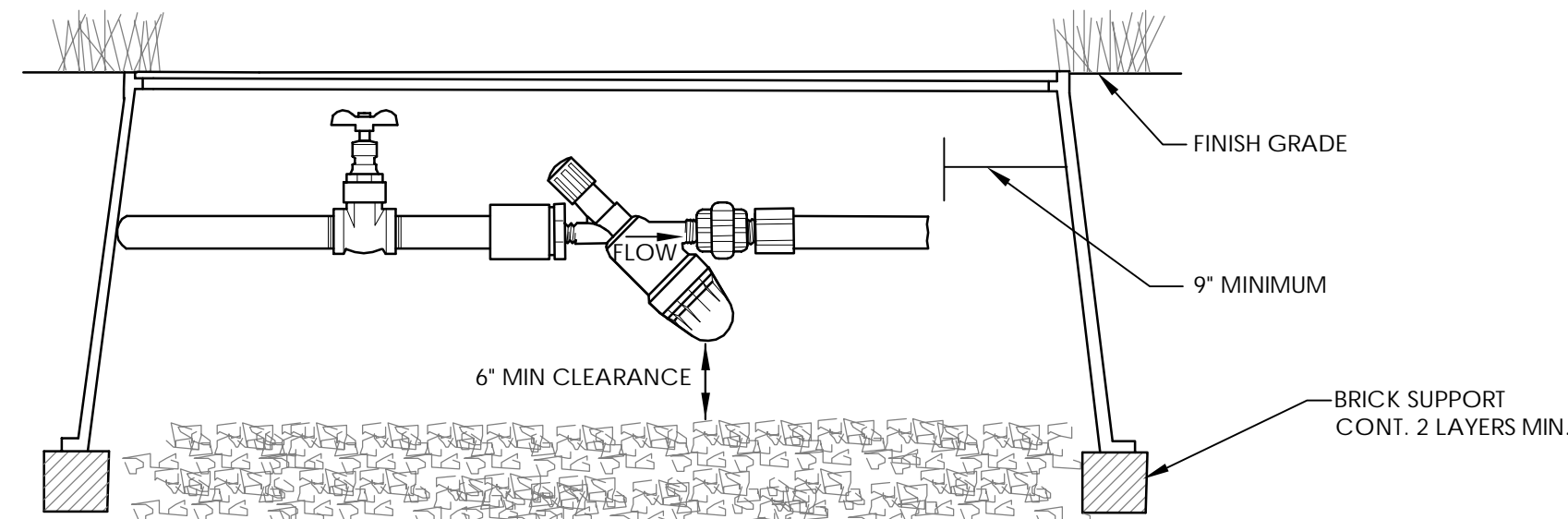
6 REDUCED PRESSURE ZONE ASSEMBLY
NOT TO SCALE



2 ROOT WATERING SYSTEM-TREE BUBBLER
NOT TO SCALE

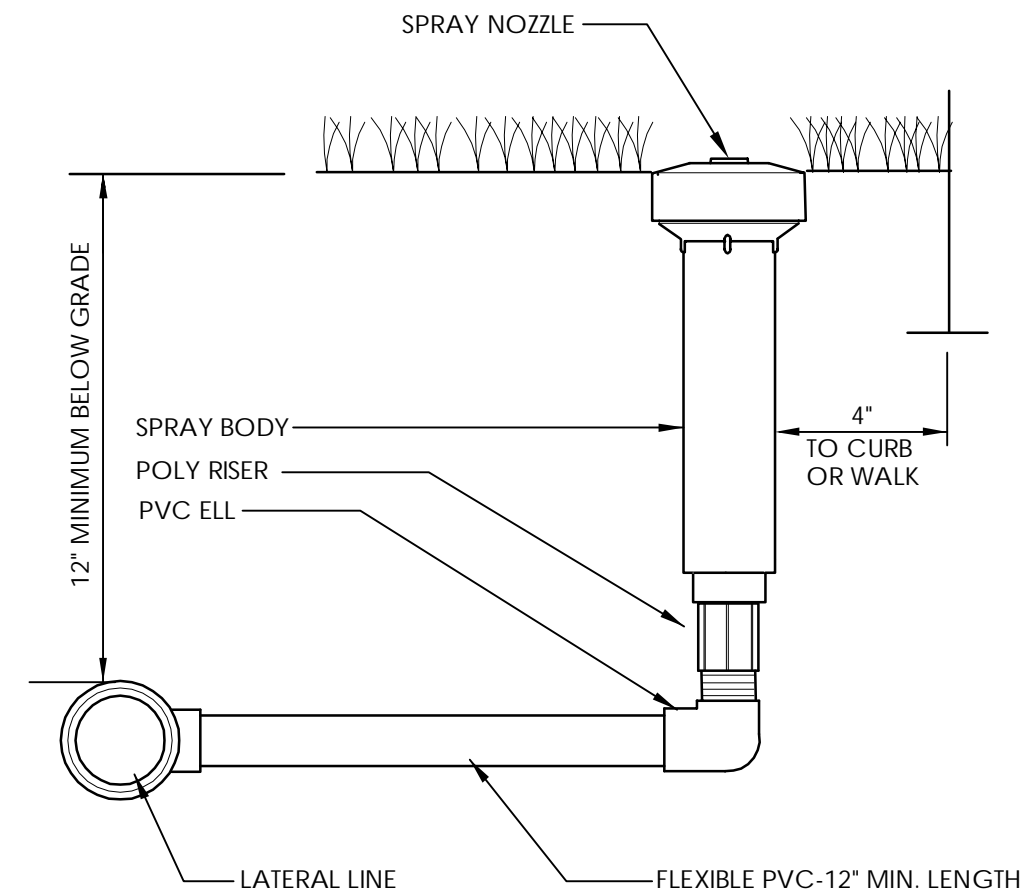


4 EXTERIOR WALL MOUNT CONTROLLER
NOT TO SCALE



7 Y-STRAINER
NOT TO SCALE

- 1 4-INCH GRATE (INCLUDED)
- 2 BUBBLER: RAIN BIRD 1401 0.25 GPM (INCLUDED)
- 3 ROOT WATERING SYSTEM: RAIN BIRD RWS-BCG (INCLUDES 1401 0.25 GPM BUBBLER WITH RISER, CHECK VALVE, GRATE, SWING ASSEMBLY, 1/2\"/>
- 4 FINISH GRADE - TOP OF MULCH
- 5 CHECK VALVE (INCLUDED)
- 6 RWS SAND SOCK (RWS-SOCK) FOR SANDY SOILS
- 7 1/2-INCH PVC SCH 80 NIPPLE (INCLUDED)
- 8 1/2-INCH 90-DEGREE ELBOW (INCLUDED)
- 9 12-INCH SWING ASSEMBLY (INCLUDED)
- 10 1/2-INCH MALE NPT INLET (INCLUDED)
- 11 PVC SCH 40 TEE OR EL
- 12 LATERAL PIPE
- 13 4-INCH BASKET WEAVE CANISTER (INCLUDED)



5 ROTARY SPRAY
NOT TO SCALE

REVISION DESCRIPTION

No. DATE

IRRIGATION DETAILS 1

DUNAWAY
118 Broadway Suite 201 • San Antonio, Texas 78203
Tel: 210.267.2946
(TX REG-1114)

HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS

STATE OF TEXAS
JANEL WOODY
20529
LICENSED IRRIGATOR
3/14/2018

JOB No. 3788

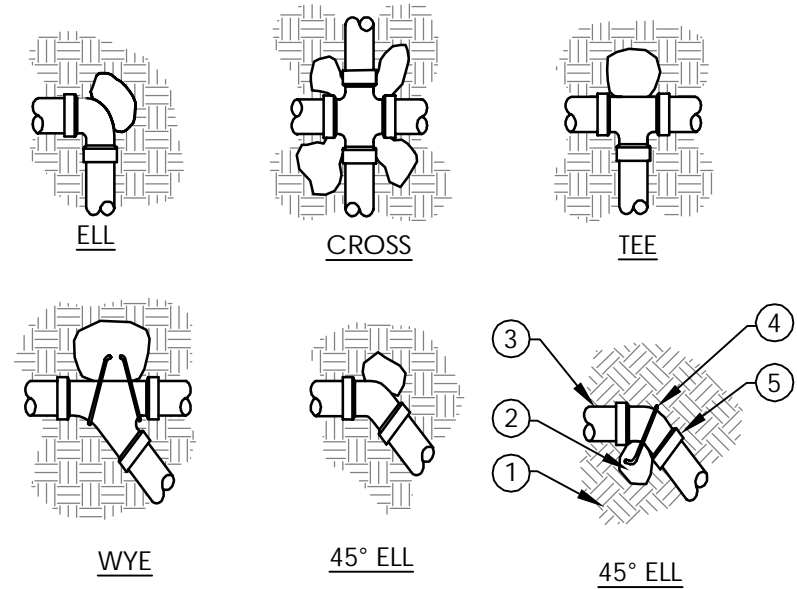
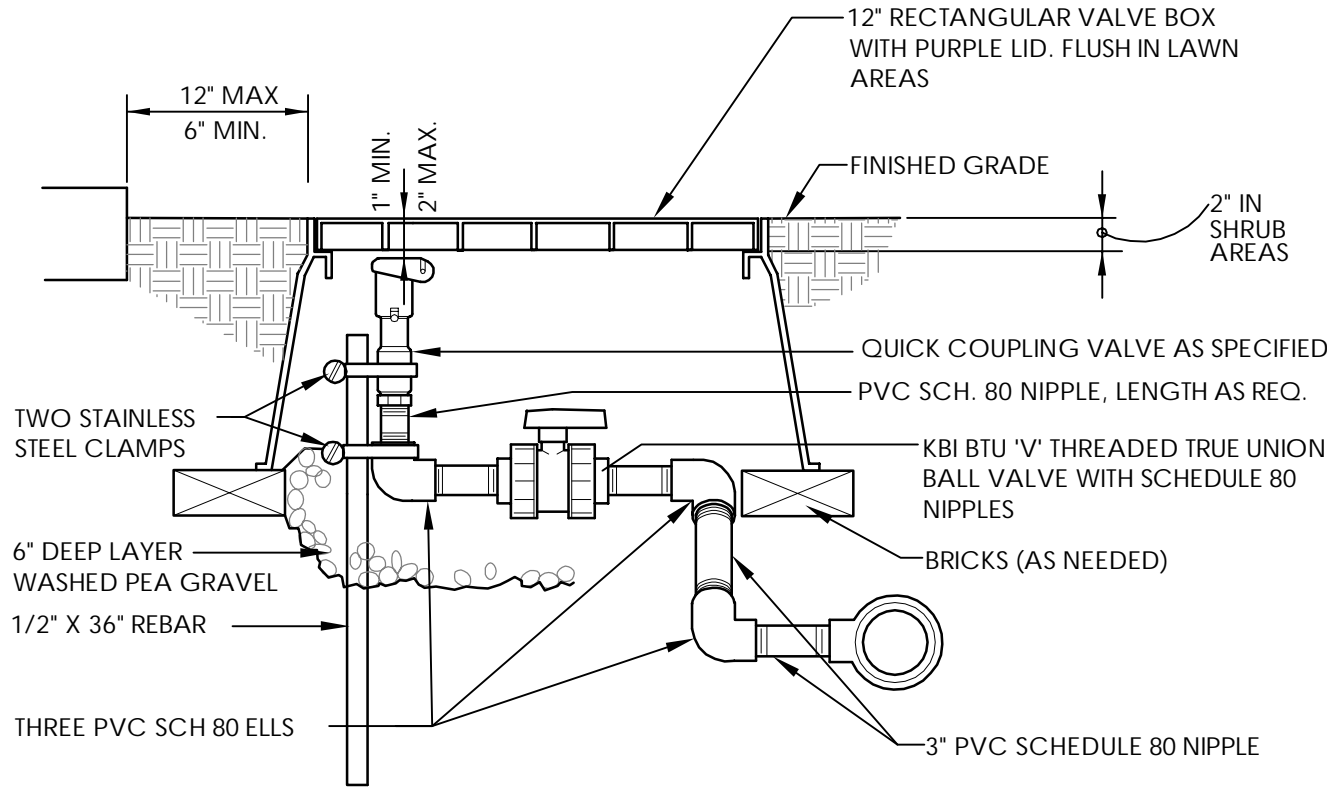
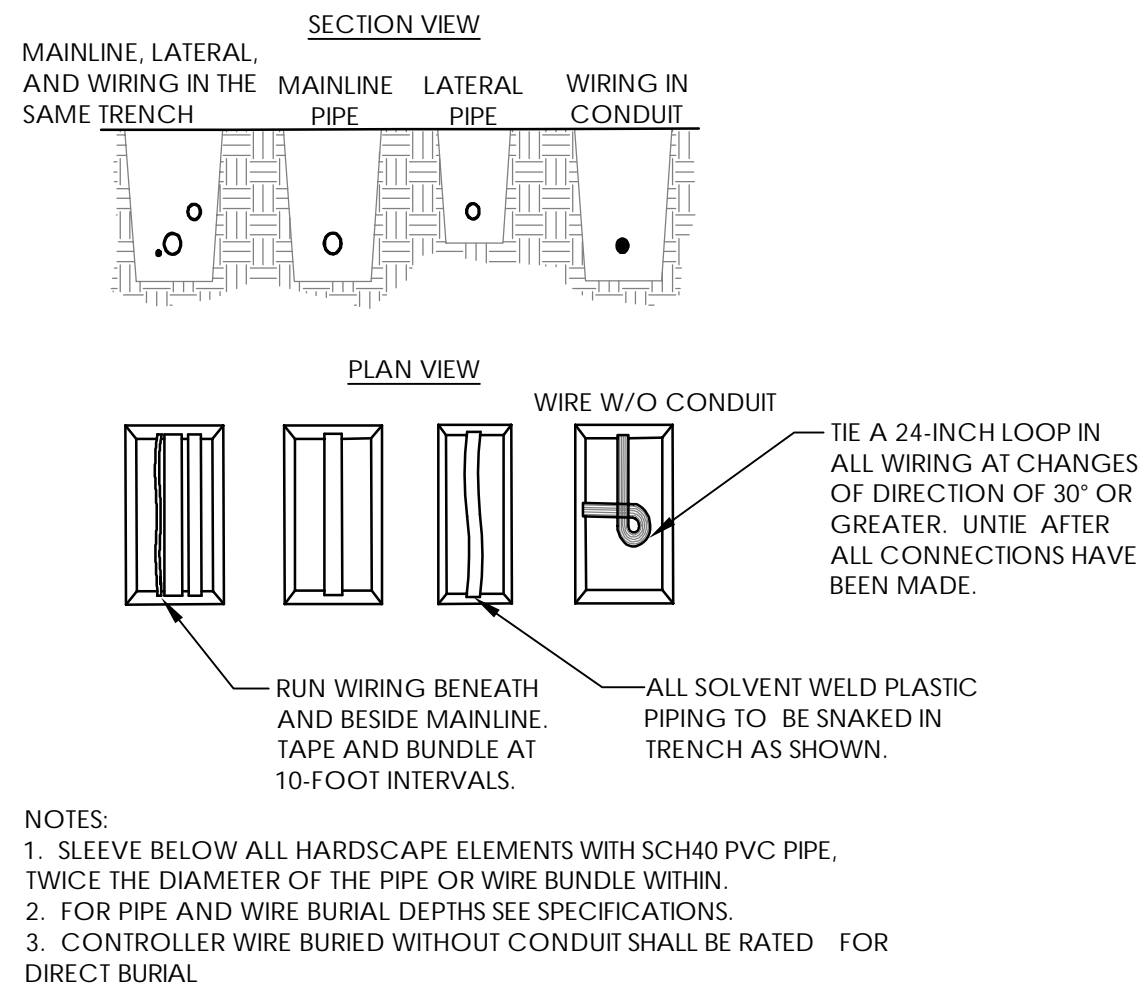
DRAWN BY: JMM

DESIGNED BY: JMM

CHECKED BY: BKM

DATE: 03.14.2018

SHEET: IR1.01



- NOTES:
1. SUPPLY LINES 2½-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
 2. SEE SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.
- ① UNDISTURBED SOIL (TYP.)
 - ② CONCRETE THRUST BLOCK (TYP.)
 - ③ PIPE (TYP.)
 - ④ REBAR BENT AROUND FITTING (TYP.)
 - ⑤ FITTING (TYP.)

1 PIPE AND WIRE TRENCHING

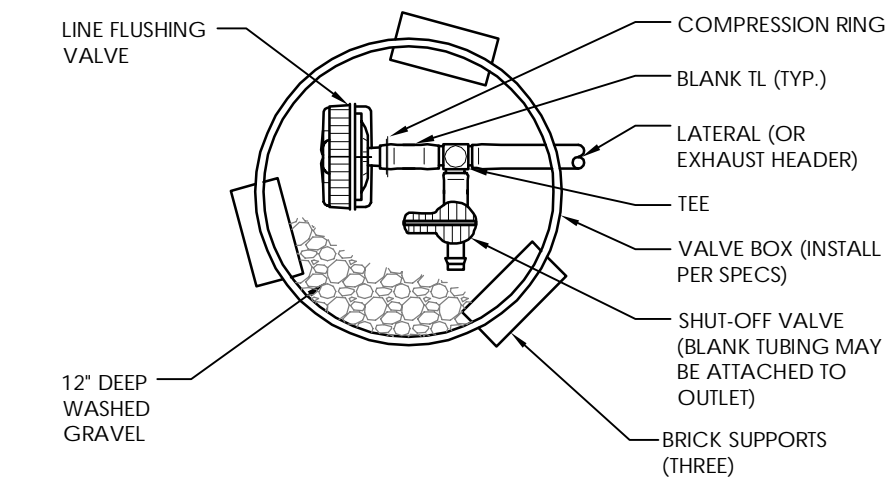
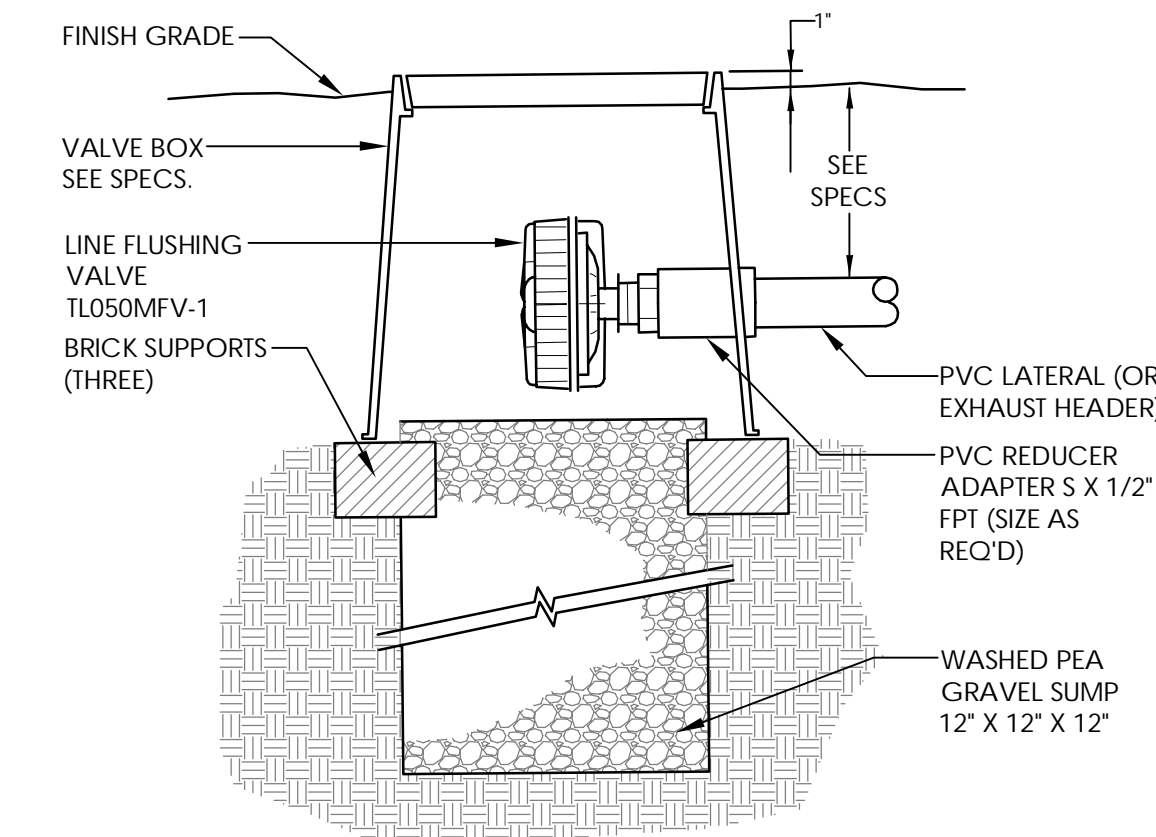
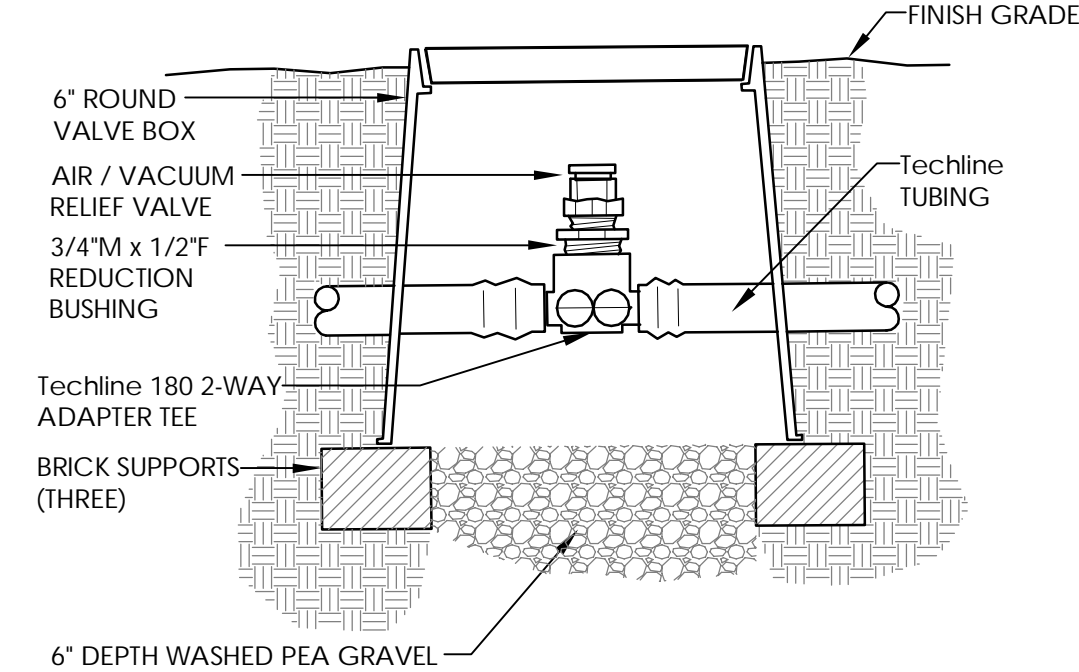
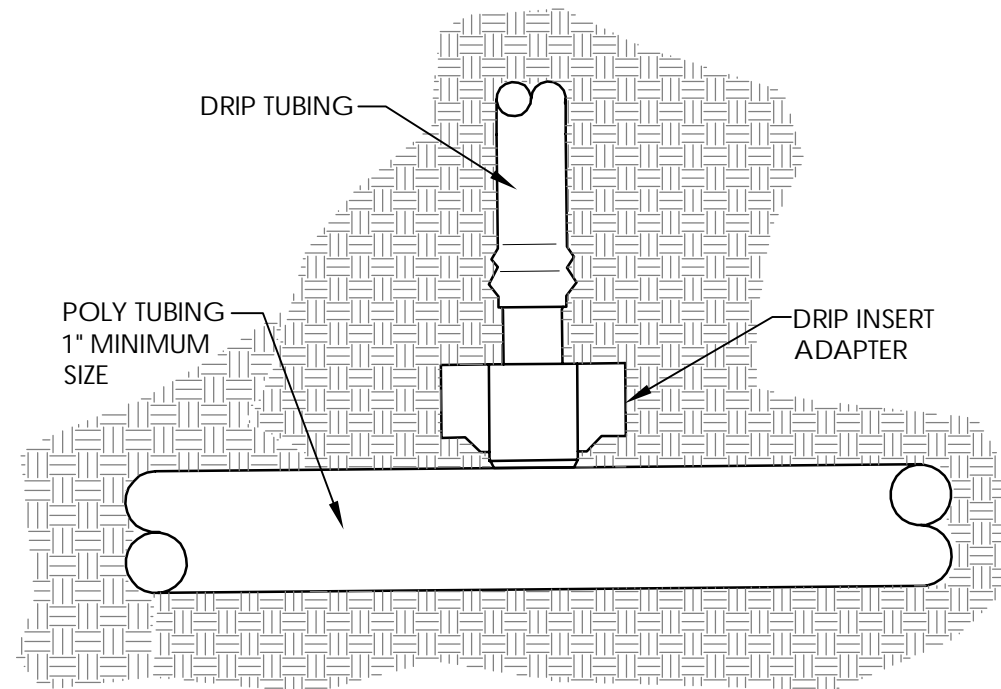
NOT TO SCALE

2 QUICK COUPLER

NOT TO SCALE

3 THRUST BLOCK

NOT TO SCALE



4 DRIP START CONNECTION

NOT TO SCALE

5 DRIP AIR/VACUUM RELIEF

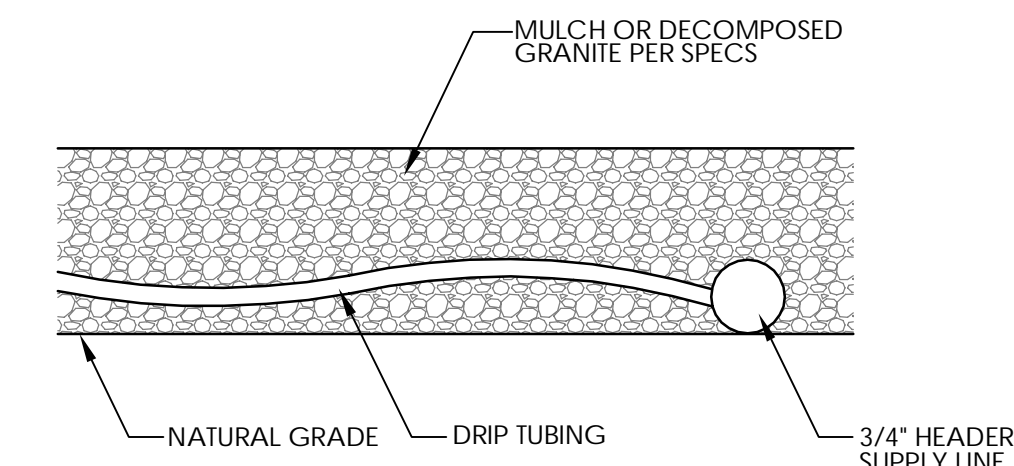
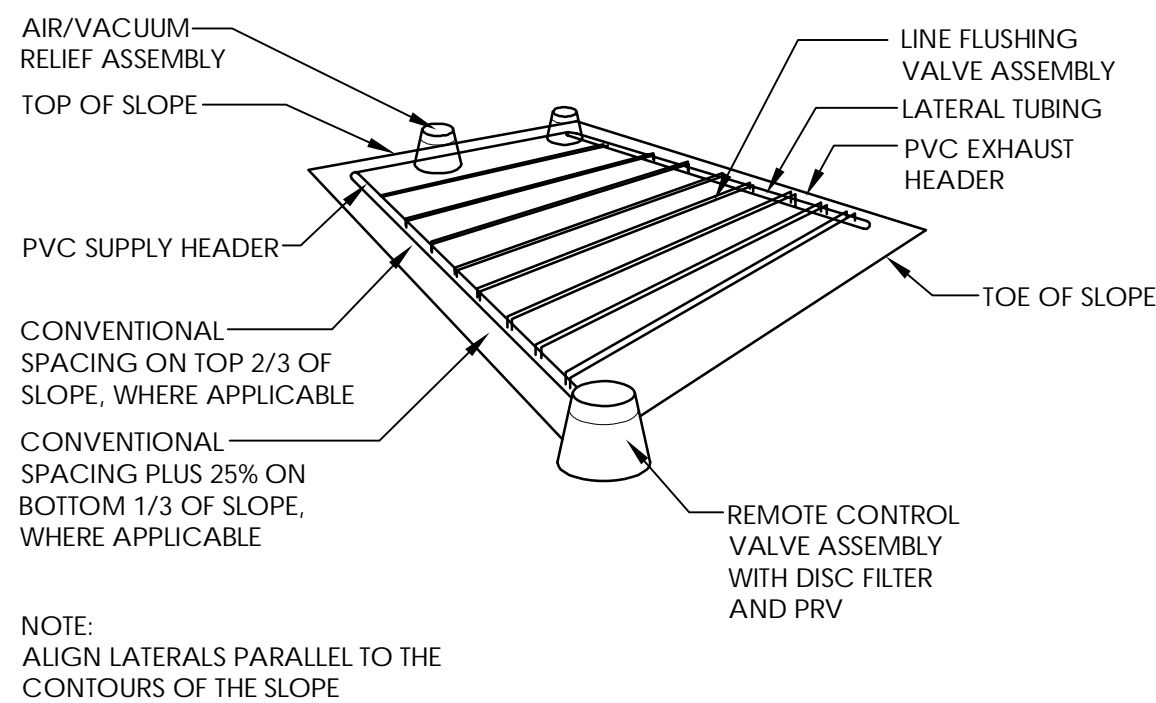
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6 DRIP LINE FLUSHING VALVE-PVC

NOT TO SCALE

7 DRIP FLUSHING VALVE-SHUT OFF

NOT TO SCALE

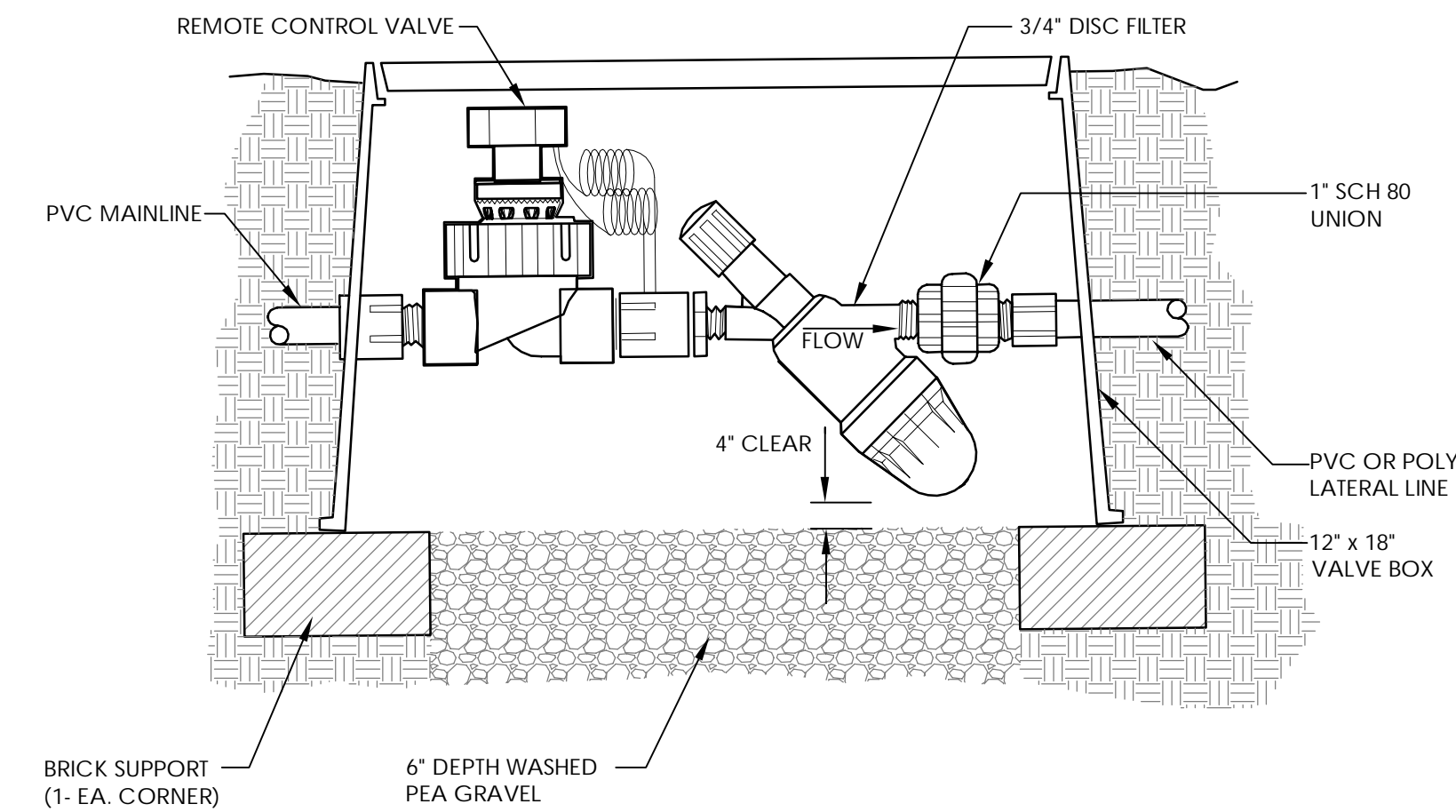


8 TYPICAL DRIP TUBING SECTION

NOT TO SCALE

9 DRIP TUBING LAYOUT

NOT TO SCALE



10 DRIP VALVE

NOT TO SCALE

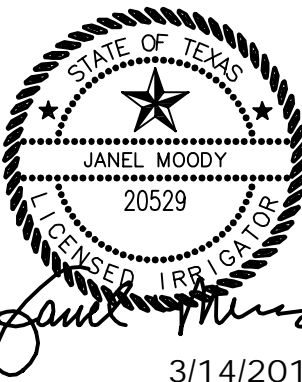
REVISION DESCRIPTION

No. DATE

IRRIGATION DETAILS 2

DUNAWAY
118 Broadway Suite 201 • San Antonio, Texas 78205
Tel: 210.267.2946
(TX REG-11174)

HACKBERRY MARKET
1602 HOUSTON ST
SAN ANTONIO TEXAS



JOB No.	3788
DRAWN BY:	JMM
DESIGNED BY:	JMM
CHECKED BY:	BKM
DATE:	03.14.2018
SHEET:	IR1.02

IRRIGATION PERFORMANCE SPECIFICATIONS:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR THE INSTALLATION OF AN AUTOMATIC IRRIGATION SYSTEM AS DESCRIBED IN THE DETAILS AND WITHIN THESE NOTES. DRAWINGS ARE TO BE SEALED BY A LICENSED IRRIGATOR WITHIN THE STATE OF TEXAS. SUBMIT SHOP DRAWINGS TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO INSTALL ALL BACKFLOW PREVENTION DEVICES AND ALL PIPING BETWEEN THE POINT OF CONNECTION AND THE BACKFLOW PREVENTER AS PER LOCAL AND GOVERNING AUTHORITIES.
3. FINAL LOCATION OF THE BACKFLOW PREVENTER AND AUTOMATIC CONTROLLER SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
4. 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER. ALL CONNECTIONS SHALL BE IN CONDUIT AND SECURED PER LOCAL ELECTRICAL CODES.
5. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED. HEADS SHALL BE BLACK IN COLOR. ADD PURPLE CAPS IF NON-POTABLE WATER IS BEING USED.
6. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVERSPRAY ONTO WALKS, STREETS, WALLS, ETC.
7. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES OF THE CITY IN WHICH THE WORK IS BEING INSTALLED AND THE NATIONAL ELECTRICAL CODE AND ALL GOVERNING AUTHORITIES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PLANT MATERIAL DUE TO SYSTEM FAILURE DURING INSTALLATION OF PLANTS AND DURING MAINTENANCE PERIOD.
9. ALL CONTROL WIRE SHALL BE DIRECT BURIAL 600 VOLT, SINGLE CONDUCTOR SOLID COPPER, PLASTIC INSULATED CABLE RATED FOR DIRECT BURIAL APPLICATIONS, U.F., U.L. APPROVED 12 GAUGE A.W.G. (MINIMUM) PILOT AND COMMON GROUND RETURN WIRE. USE HUNTER ID-WIRE 12 AGW TWO WIRE TWISTED PAIR. *EXTRA WIRES - ORANGE
10. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
11. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
12. THE IRRIGATION CONTRACTOR SHALL INSTALL SERVICEABLE CHECK VALVES ON ALL HEADS IN AREAS WHERE FINISH GRADE EXCEEDS 4:1, WHERE POST VALVE SHUT-OFF DRAINING OF THE IRRIGATION HEAD OCCURS OR AS DIRECTED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
13. THE CONTRACTOR SHALL BE A REGISTERED LICENSE IRRIGATOR IN THE STATE OF TEXAS. CONTRACTOR MUST CONFORM TO ALL CODES AS STATED IN SECTION 34 OF THE TEXAS WATER CODE AND TCEQ.
14. ALL REMOTE CONTROL VALVES, GATE VALVES, QUICK COUPLERS, CONTROL WIRE AND COMPUTER CABLE PULL POINTS SHALL BE INSTALLED IN APPROVED VALVES BOXES WITH LOCKING COVERS. ADD PURPLE COVERS IF USING NON-POTABLE WATER SOURCE.
15. WATERPROOF CONNECTORS TO BE USED ON ALL WIRE CONNECTIONS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT.
16. IRRIGATION CONTRACTOR SHALL PROCURE ALL PERMITS LICENSE, AND PAY ALL CHARGES AND FEES AND GIVE ALL NECESSARY NOTICES FOR THE COMPLETION OF WORK.
17. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.
18. ALL VALVES TO BE ADJUSTED TO MANUFACTURER'S RECOMMENDED WORKING PRESSURE TO MINIMIZE FOGGING AND MAXIMIZED COVERAGE. DO NOT ADJUST AT THE HEAD/NOZZLE UNLESS ABSOLUTELY NECESSARY.
19. CONTRACTOR SHALL NOT DISTURB ROOTS OF EXISTING TREES. THERE SHALL BE NO MACHINE TRENCHING BELOW THE DRIPLINE OF EXISTING TREES.
20. EXTREME CARE SHALL BE EXERCISED IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL VERIFY THE LOCATION AND CONDITION OF ALL UTILITIES AND BE RESPONSIBLE FOR DAMAGE TO ANY UTILITIES.
21. CONTRACTOR SHALL CLEARLY MARK ALL EXPOSED EXCAVATIONS, MATERIALS AND EQUIPMENT. COVER OR BARRICADE TRENCHES WHEN THE CONTRACTOR IS NOT ON THE SITE. TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PREVENT INJURY TO ANY PERSONS ON THE SITE.
22. 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.
23. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A PRESSURE REDUCING VALVE SHALL BE INSTALLED. SEE SPECIFICATIONS.
24. PRESSURE AT ANY POINT WITHIN A ZONE SHALL NOT VARY BY MORE THAN 10% FROM THE DESIGN SPRINKLER OPERATING PRESSURE. SEE SPECIFICATIONS FOR TESTING.
25. OBTAIN COVERAGE TEST APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO PLANTING, SODDING OR SEEDING.
26. ALL UNDESIGNATED END LATERAL PIPING SHALL BE 1/2" IN SPRAY ZONES AND 3/4" IN ROTOR ZONES.
27. IRRIGATION CONTRACTOR IS TO PROVIDE 10-SPRAY HEADS, 5-ROTOR HEADS AND ASSOCIATED FITTINGS AND PIPING FOR USE ON IRRIGATION ZONE(S) AS DIRECTED IN THE FIELD BY OWNER'S REPRESENTATIVE.
28. SPRINKLER HEAD SPACING SHALL NOT EXCEED 50% OF SPRAY DIAMETER BASED ON MANUFACTURERS OPERATING SPECIFICATIONS (HEAD-TO-HEAD SPACING).
29. ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE, ALL SPRAY HEADS SHALL BE LOCATED 6" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE OR PER LOCAL CODES. DRIP TUBING SHOULD BE LOCATED 4" MINIMUM FROM PAVEMENT, CURBS, OR EDGE OF STRUCTURE.
30. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM STATIC PRESSURE ON SITE PRIOR TO STARTING WORK.
31. 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.
32. 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 OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.

IRRIGATION NOTES & SPECIFICATIONS

GENERAL PROVISIONS

1. DESCRIPTION OF WORK:

1.1. PROVIDE A COMPLETE, FUNCTIONING AUTOMATIC IRRIGATION SYSTEM INCLUDING LABOR, MATERIALS, FEES, TAXES, EQUIPMENT, AND OTHER COSTS INCIDENTAL TO ACCOMPLISHING WORK, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1.1.1. TRENCHING AND BACKFILL

1.1.2. FURNISH AND INSTALL IRRIGATION MAIN, LATERALS, AND FITTINGS

1.1.3. FURNISH AND INSTALL ELECTRIC CONTROLLERS, BACKFLOW DEVICES, GATE VALVES, AND SECURITY BOXES (IF REQUIRED)

1.1.4. FURNISH AND INSTALL ALL IRRIGATION HEADS AND NOZZLES

1.1.5. FURNISH AND INSTALL ALL ELECTRIC VALVES AND WIRING

1.1.6. BORE OR SLEEVE UNDER PAVING AREAS IF REQUIRED

1.1.7. WORK BY OTHERS:

1.1.1. ELECTRICAL STUBOUTS FOR IRRIGATION CONTROLLERS

1.1.2. WATER METER AND WATER STUBOUTS FOR IRRIGATION SYSTEM

2. INSPECTION OF CONDITIONS:

IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS AND PAVING, ETC.

3. REGULATORY REQUIREMENTS:

3.1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES AS PER LOCAL AND GOVERNING AUTHORITIES AND THE NATIONAL ELECTRICAL CODE AND ITS GOVERNING AUTHORITIES.

3.2. ALL STATE OF TEXAS LAWS/RULES AND ALL LOCAL CODES/ORDINANCES AREA MADE PART OF THESE PLANS AND SPECIFICATIONS WHETHER SHOWN OR NOT. THESE LAWS AND ORDINANCES WILL SUPERCEDE THE PLANS, DETAILS, AND/OR SPECIFICATIONS FOR THIS PROJECT. THE IRRIGATION CONTRACTOR IS CAUTIONED THAT HE/SHE IS TO INCLUDE ANY AND ALL COST NECESSARY TO MEET OR EXCEED THE LAWS OF THE STATE OF TEXAS AND LOCAL CODES CONCERNING LANDSCAPE IRRIGATION.

3.3. IRRIGATION CONTRACTOR SHALL PROCURE ALL PERMITS, LICENSES, TESTS AND INSPECTIONS, AND PAY ALL CHARGES AND FEES AND GIVE ALL NECESSARY NOTICES FOR THE COMPLETION OF WORK.

3.4. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN THE STATE OF TEXAS. CONTRACTOR MUST CONFORM TO ALL CODES AS STATED IN SECTION 34 OF THE TEXAS WATER CODE AND TNRCC.

3.5. IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) - MC-178, P.O. BOX 13087, AUSTIN, TX, 78711

4. DRAWINGS:

ANY DRAWINGS SHOWN ARE DIAGRAMMATIC. EXACT LOCATIONS OF IRRIGATION MAINS, LATERALS, HEADS, AND RELATED ITEMS SHALL BE STOKED IN THE FIELD PRIOR TO THE EXECUTION OF THE WORK.

5. SUBSTITUTIONS:

PRODUCTS SPECIFIED ARE TO BE USED AS STANDARDS. CONTRACTOR MAY REQUEST APPROVAL OF EQUIVALENT PRODUCT SUBSTITUTION FROM OWNER OR LANDSCAPE ARCHITECT, AT NO ADDITIONAL COST TO OWNER. USE OF APPROVED SUBSTITUTE MATERIAL MAY REQUIRE RECALCULATION OF HYDRAULICS AND LINE SIZING BY CONTRACTOR, AND DOES NOT WAIVE THE REQUIREMENTS OF THESE NOTES, THE SPECIFICATIONS, LOCAL CODES/ORDINANCES, OR ANY OTHER REGULATORY REQUIREMENT.

6. PROTECTION OF EXISTING CONDITIONS:

6.1. CONTRACTOR SHALL NOT DISTURB ROOTS OF EXISTING TREES. THERE SHALL BE NO MACHINE TRENCHING INSIDE THE DRIPLINE OF EXISTING TREES.

6.2. EXTREME CARE SHALL BE EXERCISED IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL VERIFY THE LOCATION AND CONDITION OF ALL UTILITIES AND BE RESPONSIBLE FOR DAMAGE TO ANY UTILITIES.

7. PRODUCT HANDLING

PROTECT WORK AND MATERIALS UNDER THIS SECTION FROM DAMAGE DURING CONSTRUCTION AND STORAGE. PROTECT PVC PIPE AND FITTINGS FROM DIRECT SUNLIGHT. BEDS ON WHICH PIPE IS STORED MUST BE FULL LENGTH PIPE. DO NOT USE PIPE OR FITTINGS WHICH HAVE BEEN DAMAGED OR DENTED.

8. SAMPLES

OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO TAKE AND ANALYZE SAMPLES OF MATERIALS FOR CONFORMITY TO THE SPECIFICATIONS AT ANY TIME. CONTRACTOR SHALL FURNISH SAMPLES UPON REQUEST BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT CONTRACTOR'S EXPENSE. COST OF TESTING OF MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.

9. INSPECTIONS AND TESTS:

9.1. SUBMIT WRITTEN REQUESTS FOR INSPECTIONS TO OWNERS REPRESENTATIVE OR LANDSCAPE ARCHITECT AT LEAST 48 HOURS PRIOR TO ANTICIPATED INSPECTION.

9.2. INSPECTION OF COMPLETED INSTALLATION WILL BE MADE DURING HYDROSTATIC TESTING BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO BACKFILLING OF TRENCHES

10. AS-BUILT DRAWINGS:

10.1. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS ACCURATELY DEPICTING ALL MAINLINES, VALVES, PIPING, SPRAY HEADS, DRIP ZONES, AND TREE BUBBLERS TO OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT UPON PROJECT COMPLETION.

10.2. AS-BUILT DRAWINGS SHOULD ALSO INCLUDE ZONE NUMBERS AND RUN TIMES.

11. CLEAN UP:

ALL AREAS SHOULD BE KEPT CLEAN AND ORDERLY AT ALL TIMES DURING CONSTRUCTION. AFTER CONSTRUCTION, ALL DEBRIS, WASTE, AND MATERIAL SHALL BE REMOVED AND THE SITE DELIVERED IN CLEAN CONDITION PRIOR TO FINAL ACCEPTANCE.

12. FINAL ACCEPTANCE:

WORK WILL BE ACCEPTED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT UPON SATISFACTORY COMPLETION OF ALL WORK.

13. WARRANTY:

IN ADDITION TO MANUFACTURER'S GUARANTEES OR WARRANTIES, ALL IRRIGATION WORK SHALL BE WARRANTIED FOR ONE YEAR FROM FINAL ACCEPTANCE. WARRANTY SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES RESULTING FROM LEAKS, DEFECTS IN WORKMANSHIP, MATERIALS, AND EQUIPMENT.

MATERIALS

14. MATERIAL AND EQUIPMENT SELECTIONS:

REFERENCE PLANS, MATERIALS SCHEDULE, AND DETAILS FOR EQUIPMENT SELECTIONS AND INSTALLATION DETAILS
15. PIPING:

15.1. LATERAL LINES SHALL BE CLASS 200 PVC, MINIMUM 1/2", SIZED NOT TO EXCEED 5 FPS VELOCITY IN ANY LENGTH OF PIPE

15.2. MAIN LINES SHALL BE SCHEDULE 40 PVC, SIZED NOT TO EXCEED 5 FPS VELOCITY IN ANY LENGTH OF PIPE
16. PIPE FITTINGS:

PVC PIPE AND FITTINGS ARE TO BE PRIMED WITH PURPLE PVC PRIMER SOLVENT BEFORE APPLYING PVC CEMENT IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
17. SLEEVES:

17.1. COORDINATE SLEEVE AND CONDUIT REQUIREMENTS WITH GENERAL CONTRACTOR. IRRIGATION SLEEVES SHALL BE AS FOLLOWS:

17.2. SLEEVES INTENDED FOR LATERAL LINES ARE TO BE ONE-FOUR INCH SLEEVE AND ARE TO BE NO MORE THAN A DEPTH OF TWO FEET BELOW TOP OF CURB. SLEEVES SHOULD EXTEND A MINIMUM OF 2'-0" BEYOND BACK OF CURB.

17.3. SLEEVES INTENDED FOR THE MAINLINE ARE TO BE TWO-FOUR INCH SLEEVES SIDE BY SIDE AND ARE TO BE NO MORE THAN A DEPTH OF TWO FEET BELOW TOP OF CURB. SLEEVES SHOULD EXTEND A MINIMUM OF 2'-0" BEYOND BACK OF CURB.

17.4. LOCATE EACH END OF IRRIGATION SLEEVES DIMENSIONALLY ON THE RECORD 'AS BUILT' DRAWINGS.
18. CONTROL WIRE:

18.1. CONTROL WIRE SHALL BE DIRECT BURIAL, 24 VOLT, SINGLE CONDUCTOR, SOLID COPPER, PLASTIC INSULATED CABLE, RATED FOR DIRECT BURIAL APPLICATIONS, U.F., UL., APPROVED, 14 GAUGE MINIMUM LEAD AND COMMON GROUND RETURN WIRE UNLESS NOTED OTHERWISE ON PLANS. COLOR OF INSULATION AS FOLLOWS:

18.1.1. LEAD WIRE: RED (COLOR)

18.1.2. COMMON GROUND WIRE: WHITE (COLOR)

18.1.3. EXTRA CONTROL WIRE: ORANGE (COLOR) - INSTALL TWO.

18.1.4. CONTRACTOR TO INSTALL SIX (6) WIRES (THREE GREEN, THREE BLUE) TO MASTER VALVE/FLOW METER.

19. CONTROLLER:

19.1. THE OWNER AND/OR LANDSCAPE ARCHITECT SHALL DETERMINE THE FINAL CONTROLLER LOCATION. THE IRRIGATION CONTRACTOR SHALL MAKE FINAL ELECTRICAL CONNECTION OF CONTROLLER PER LOCAL ELECTRICAL CODE. PROVIDE ALL NECESSARY FUSE BOXES, CONDUIT, FITTINGS, CONNECTORS OR OTHER ELECTRICAL DEVICES TO MAKE CONNECTION. OWNER SHALL PROVIDE ELECTRICAL SERVICE WITHIN 10 LINEAR FEET OF CONTROLLER LOCATION UNLESS NOTED OTHERWISE ON DRAWINGS.

19.2. CONNECT REMOTE SENSORS TO CONTROLLER WITH GROUND WIRE IN SERIES PRIOR TO CONNECTING TO REMOTE CONTROL VALVES.

WORK PROCEDURE

20. LAYOUT

20.1. FULL AND COMPLETE COVERAGE IS REQUIRED. CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS TO LAYOUT REQUIRED TO ACHIEVE FULL HEAD-TO-HEAD COVERAGE OF IRRIGATED AREAS AT NO ADDITIONAL COST TO OWNER

20.2. ANY MAIN LINES, ZONE VALVES, LATERAL LINES, OR IRRIGATION HEADS SHOWN IN PAVING AREAS ARE FOR CLARITY PURPOSES ONLY. ALL ITEMS SHOULD BE INSTALLED IN LANDSCAPE BED UNLESS DIRECTED OTHERWISE BY DETAILS
21. EXCAVATION AND TRENCHING:

21.1. CONTRACTOR SHALL CLEARLY MARK ALL EXPOSED EXCAVATIONS, MATERIALS AND EQUIPMENT. COVER OR BARRICADE TRENCHES WHEN THE CONTRACTOR IS NOT ON THE SITE. TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PREVENT INJURY TO ANY PERSONS ON THE SITE.

21.2. REFERENCE TRENCHING DETAIL FOR APPROPRIATE TRENCHING AND BACKFILL PROCEDURE AND DIMENSIONS

21.3. IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION
22. PIPE LINE ASSEMBLY:

22.1. THE MINIMUM DISTANCE BETWEEN THE MAINLINE AND LATERAL LINE FITTINGS (EXCEPT FOR REDUCER BUSHINGS) SHALL BE 18".

22.2. ALL PIPE AND FITTINGS SHOULD BE CLEAN AND FREE OF DIRT AND MOISTURE BEFORE ASSEMBLY
23. IRRIGATION CONTROL VALVES:

23.1. THE MINIMUM HORIZONTAL DISTANCE OF 36" SHALL BE MAINTAINED BETWEEN ANY VALVES THAT ARE INSTALLED SIDE BY SIDE.

23.2. LOCATE VALVES NO CLOSER THAN 12 INCHES FROM WALK EDGES, BUILDINGS, AND WALLS

23.3. INSTALL VALVE BOXES PER SCHEDULE AND DETAILS FLUSH WITH FINISH GRADE
24. QUICK COUPLING VALVES:

24.1. INSTALL QUICK COUPLING VALVES IN 12"x17" AMETEK VALVE BOXES PER DETAIL SHOWN. CONNECT QUICK COUPLING VALVES TO MAINLINE PIPE WITH LASCO UNITIZED, O-RING SWING JOINTS PER DETAIL SHOWN, #T722-22.

24.2. SUPPLY OWNER WITH THREE COUPLER KEYS WITH SWIVEL HOSE BIBB EACH, #33DK-10 AND #SH-0 RESPECTIVELY. VALVES TO BE INSTALLED SO THAT THE TOP OF THE QUICK COUPLER IS 2" BELOW BOTTOM OF VALVE BOX LID. PURPLE LID SHALL READ "NON-POTABLE, NOT SAFE FOR DRINKING" IN ENGLISH AND SPANISH.
25. SPRINKLER HEADS AND DRIP TUBING:

INSTALL ALL SPRAY, ROTOR, ROTATOR HEADS, TREE BUBBLERS, AND ALL

DRIP TUBING PER SCHEDULE AND DETAILS

26. CONTROL WIRING:

26.1. INSTALL CONTROL WIRING WITH MAIN LINES AND LATERALS PER DETAIL. PROVIDE LOOPED SLACK AT VALVES AND SNAKE WIRES IN TRENCH TO ALLOW FOR WIRE CONTRACTION. TIE WIRES IN BUNDLES AT TEN (10) FOOT INTERVALS

26.2. CONTROL WIRE SPLICES AT REMOTE CONTROL VALVES TO BE CRIMPED AND SEALED WITH SPECIFIED SPLICING MATERIALS. LINE SPLICES WILL BE ALLOWED ONLY ON RUNS OF MORE THAN 500 (500) FEET. LINE SPLICES TO BE MARCONITYPE TAPED AND SEALED WITH SCOTCHKOTE SEALER.

26.3. CONTRACTOR SHALL RUN TWO (2) EXTRA WIRES OF A FUGITIVE COLOR TO FARTHEST VALVE FROM CONTROLLER, IN EVERY DIRECTION
27. CLOSING OF PIPE AND FLUSHING OF LINES:

27.1. CONTRACTOR TO CAP OR PLUG ALL OPENINGS AS SOON AS LINES HAVE BEEN INSTALLED TO PREVENT ENTRANCE OF MATERIALS THAT WOULD OBSTRUCT THE PIPE.

27.2. THOROUGHLY FLUSH OUT ALL WATER LINES BEFORE INSTALLING HEADS, VALVES, AND OTHER HYDRANTS

27.3. TEST AS SPECIFIED

27.4. UPON COMPLETION OF TESTING, COMPLETE ASSEMBLY AND ADJUST SPRINKLER HEADS FOR PROPER DISTRIBUTION
28. TESTING:

28.1. MAKE HYDROSTATIC TESTS WITH RISERS CAPPED WHEN WELDED PVC JOINTS HAVE CURED AT LEAST 24 HOURS. CENTER LOAD PIPING WITH BACKFILL TO PREVENT PIPE FROM MOVING UNDER PRESSURE. ALL COUPLINGS AND FITTINGS SHALL BE EXPOSED. APPLY CONTINUOUS STATIC WATER PRESSURE OF 100 PSI AS FOLLOWS:

28.1.1. ALL PIPING ON THE PRESSURE SIDE (MAIN) OF CONTROL VALVES SHALL BE TESTED FOR FOUR (4) HOURS

28.1.2. ALL PIPING ON THE NON-PRESSURE SIDE OF CONTROL VALVES (LATERALS) SHALL BE TESTED FOR TWO (2) HOURS.

28.2. LEAKS RESULTING FROM TESTS SHALL BE REPAIRED AND TESTS REPEATED UNTIL SYSTEM PASSES TESTS.
29. STATIC PRESSURE:



THE CONTRACTOR SHALL VERIFY THE ON-SITE STATIC PRESSURE BY SUBMITTING A LETTER CERTIFYING THAT ON-SITE PRESSURE EXCEEDS DESIGN PRESSURE BY 10%. IF ON-SITE PRESSURE DOES NOT EXCEED DESIGN PRESSURE BY 10%, CONTACT THE OWNER'S REPRESENTATIVE FOR RESOLUTION. IF CONSTRUCTION WORK IS STARTED PRIOR TO RECEIVING CERTIFICATION LETTER, THE CONTRACTOR ASSUMES ALL COSTS FOR CHANGES REQUIRED TO MEET ON-SITE PRESSURE.
30. BACKFILL AND COMPACTING:

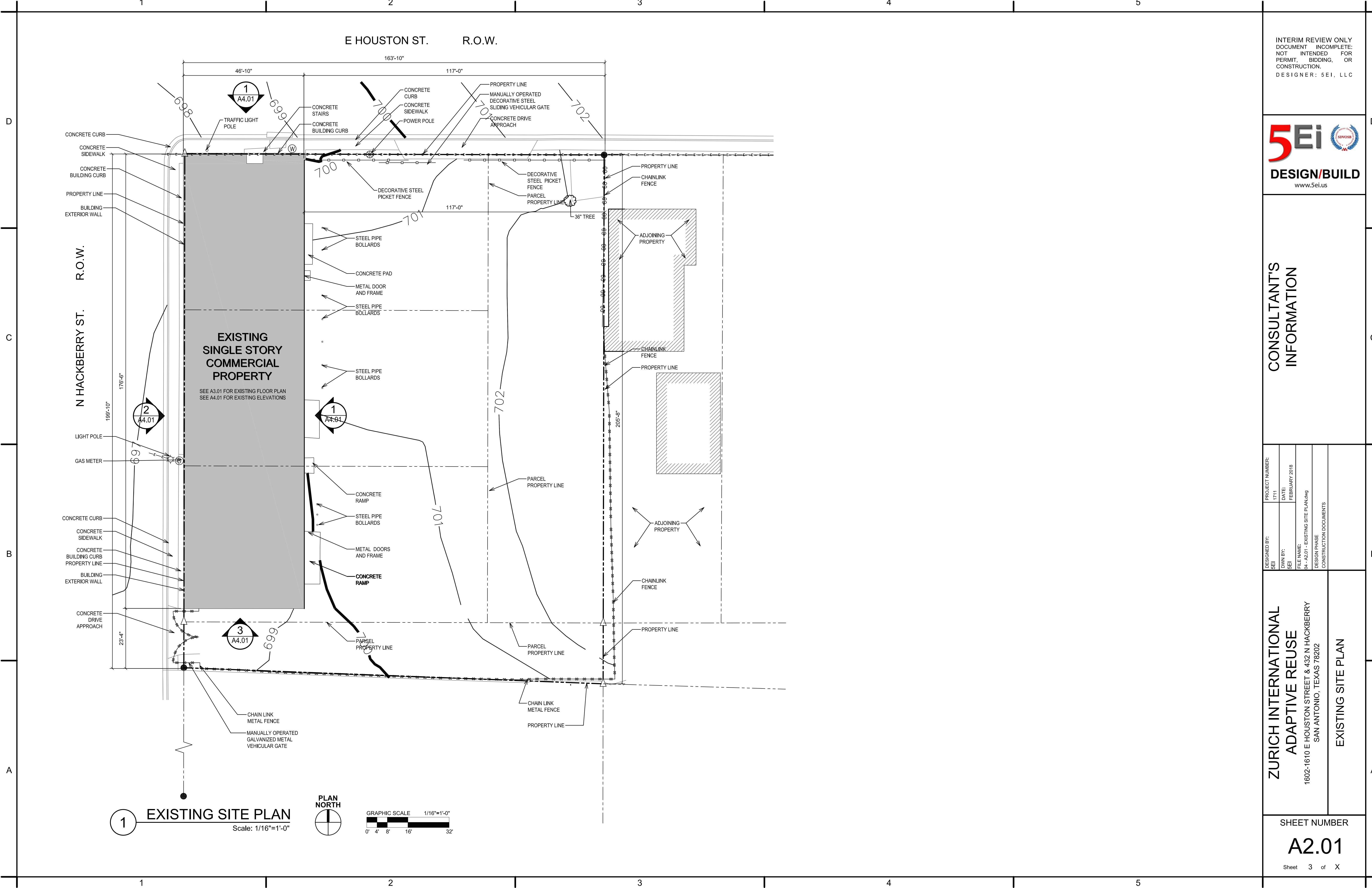
30.1. AFTER SYSTEM IS OPERATING AND REQUIRED TESTS AND INSPECTIONS HAVE BEEN MADE, BACKFILL EXCAVATIONS AND TRENCHES WITH APPROVED FILL MATERIAL, FREE OF DEBRIS

30.2. BACKFILL FOR ALL TRENCHES, SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY UNDER PAVING, AND 75% UNDER PLANTED AREAS

30.3. COMPACT TRENCHES IN PLANTING AREA BY THOROUGHLY FLOODING THE BACKFILL. JETTING PROCESS MAY BE USED IN THOSE AREAS

30.4. ALL BACKFILL MUST MEET FLUSH WITH FINISH GRADE OR SUBGRADE (IF IN PLANTING AREAS, TO BE TILLED AND TREATED BY LANDSCAPE CONTRACTOR)

REVISION DESCRIPTION					
No.	DATE				
IRRIGATION NOTES					
<div><div><div><div>118 Broadway Suite 201 • San Antonio, Texas 78205 Tel: 210.227.2946 (TX REG-11114)</div></div><div><div>HACKBERRY MARKET</div><div>1602 HOUSTON ST</div><div>SAN ANTONIO TEXAS</div></div></div></div>					
<div><div><div>3/14/2018</div></div><div>JOB No. 3788</div><div>DRAWN BY: JMM</div><div>DESIGNED BY: JMM</div><div>CHECKED BY: BKM</div><div>DATE: 03.14.2018</div><div>SHEET: IR1.03</div></div>					



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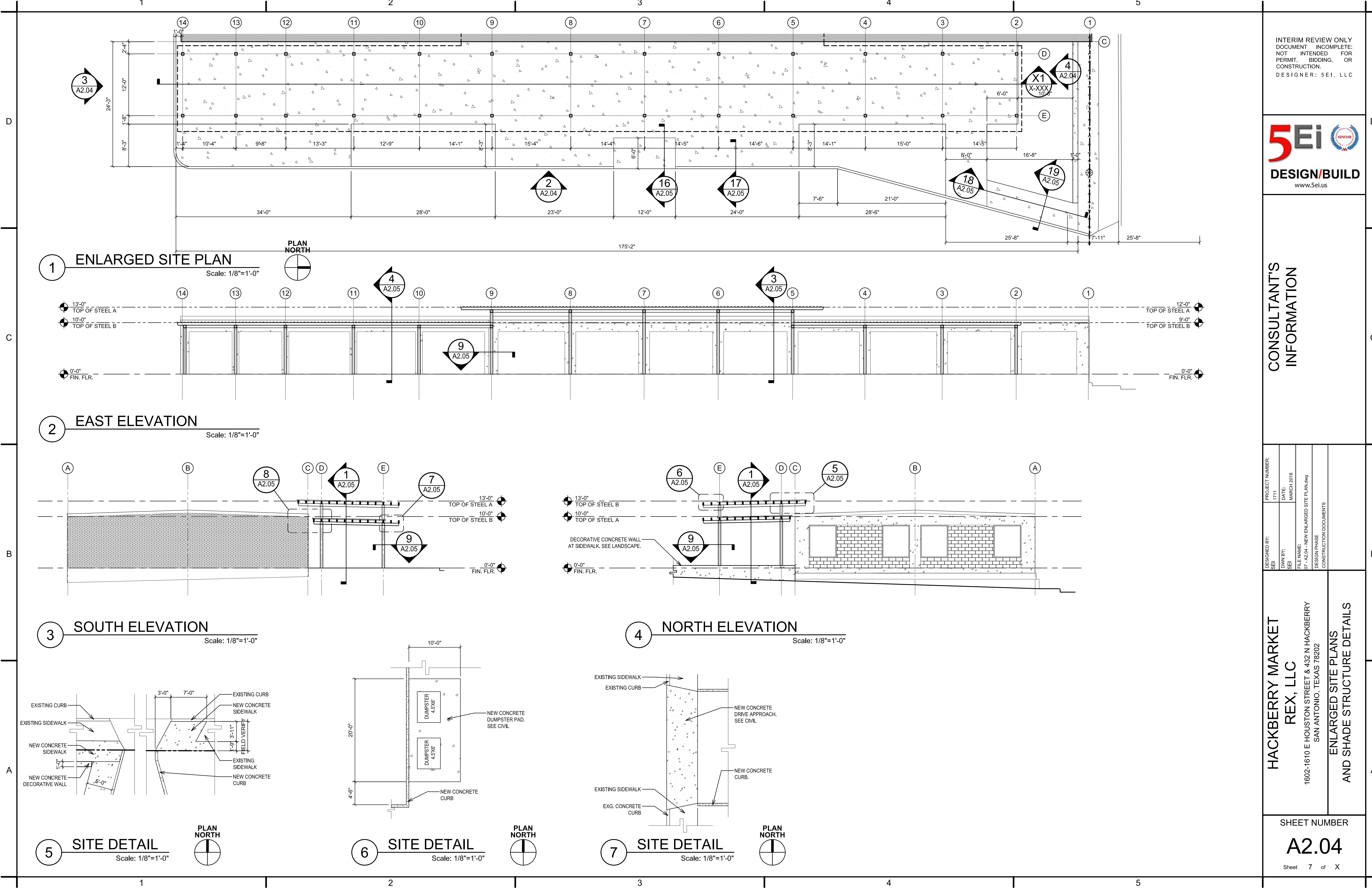
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EXISTING SITE PLAN

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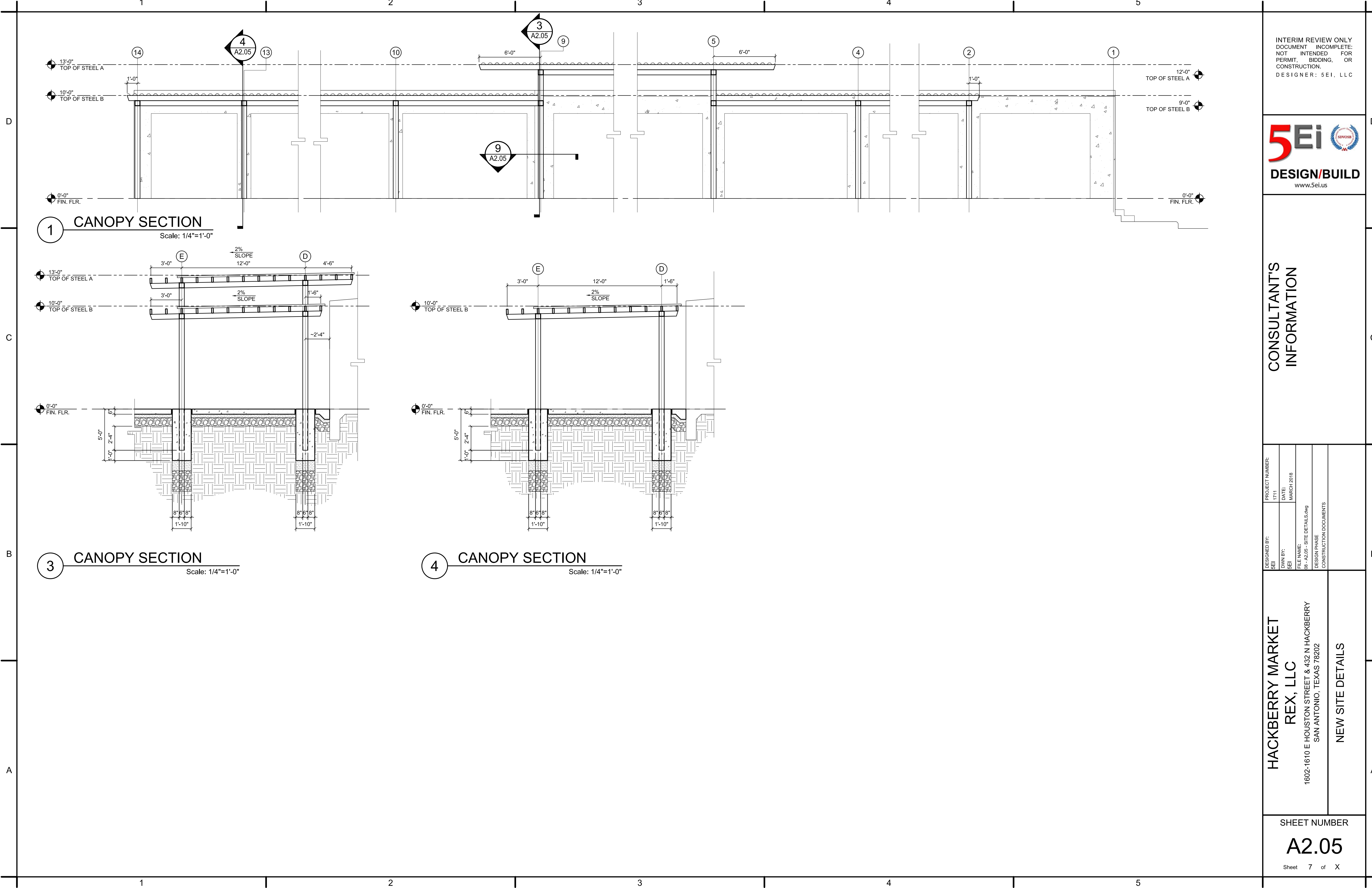
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ENLARGED SITE PLANS
AND SHADE STRUCTURE DETAILS

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NEW SITE DETAILS

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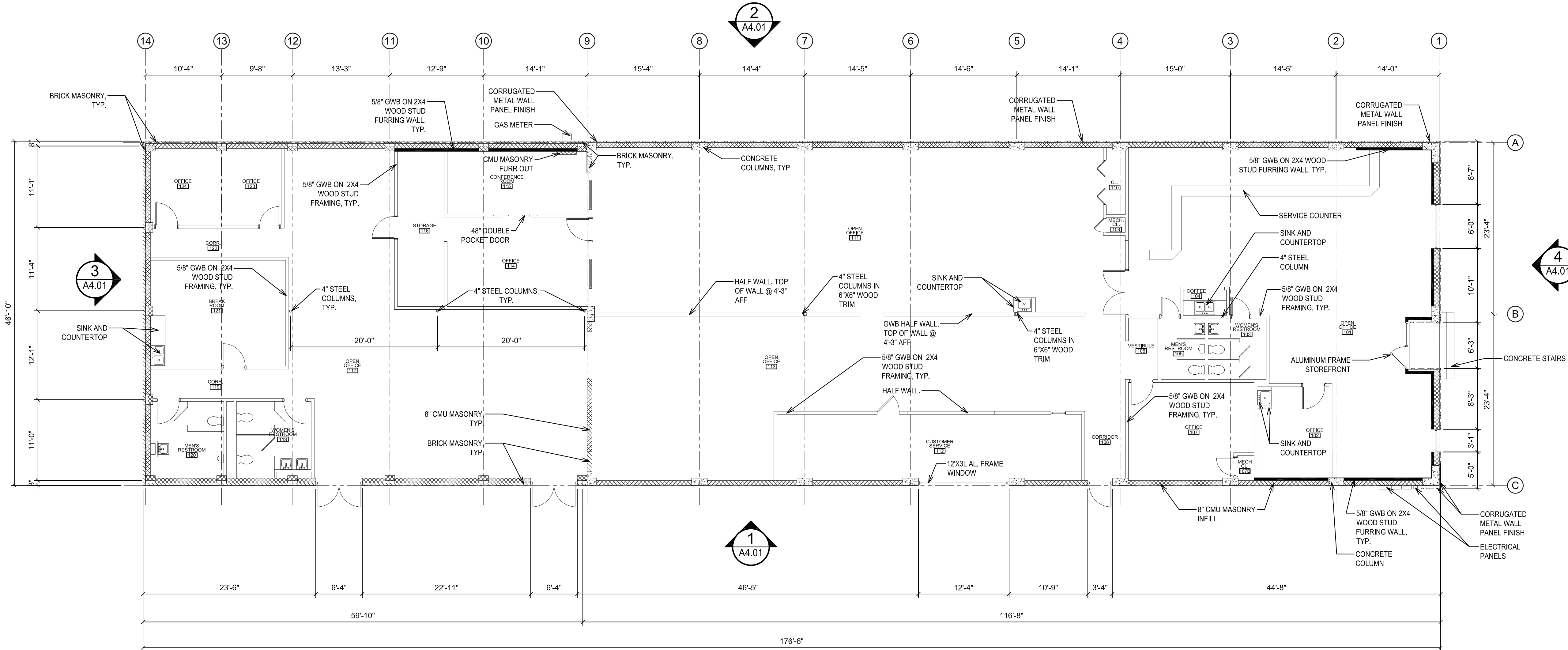
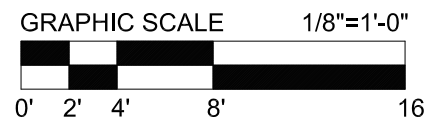
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Sheet 9 of X

1

EXISTING FLOOR PLAN

Scale: 1/8"=1'-0"



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DEMOLITION NOTES

1. ASBESTOS/HAZARDOUS MATERIALS HAVE BEEN IDENTIFIED IN THE BUILDING. REVIEW THE ENVIRONMENTAL SITE ASSESSMENT FOR FURTHER INFORMATION. THIRD PARTY AIR MONITORING WILL BE REQUIRED FOR ABATEMENT.

2. REMOVE EXISTING ROOF.

3. REMOVE EXISTING CEILING, INSULATION AND SUSPENDED CEILING GRID.

4. CAP AND ABANDON EXISTING INTERIOR PLUMBING LINES. SEAL 1" BELOW FINISH FLOOR.

5. REMOVE ALL INTERIOR PARTITIONS.

6. REMOVE ALL INTERIOR PLUMBING FIXTURES.

7. REMOVE ALL INTERIOR DOORS.

8. REMOVE INTERIOR AND EXTERIOR WINDOWS.

9. INTERIOR MASONRY WALLS TO REMAIN.

10. REMOVE AND RELOCATE EXISTING LIGHT FIXTURES TO PROVIDE TEMPORARY LIGHTING. SEE MEP.

11. INTERIOR LOAD BEARING STRUCTURAL STEEL COLUMNS TO REMAIN

12.

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10-43.02-DEMO FLOOR PLAN.dwg	
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DEMOLITION FLOOR PLAN

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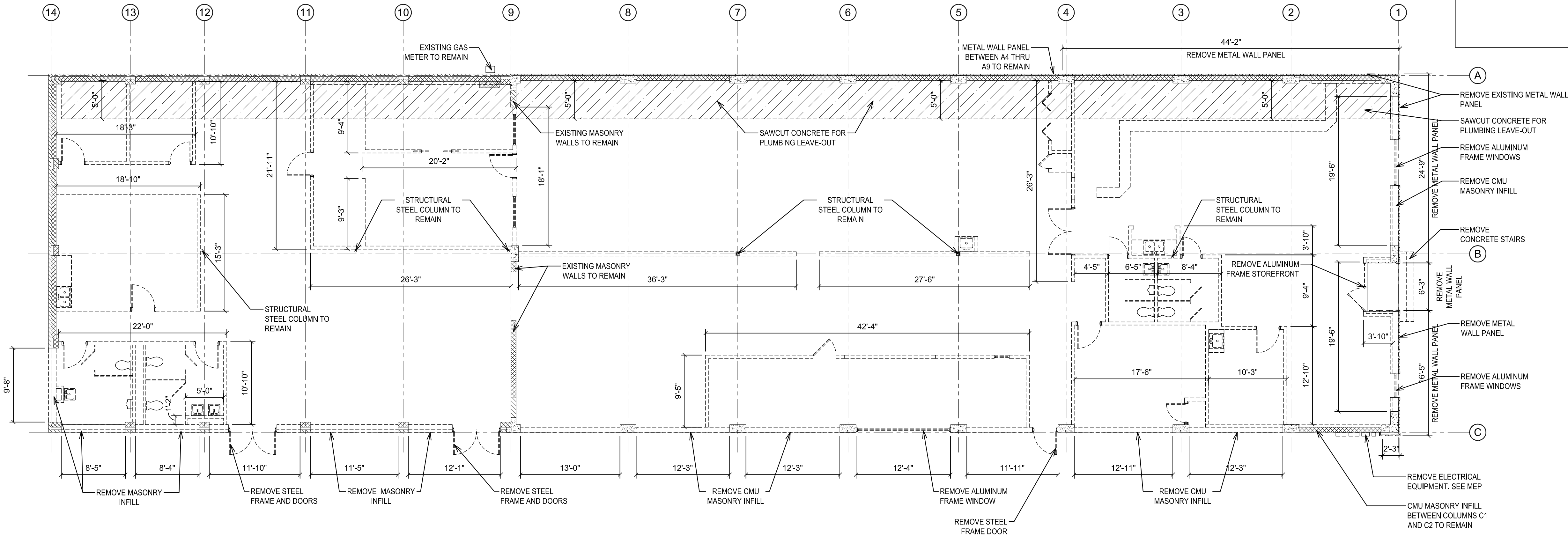
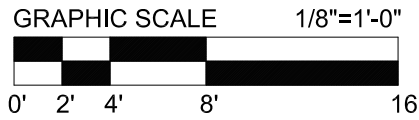
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DEMOLITION FLOOR PLAN

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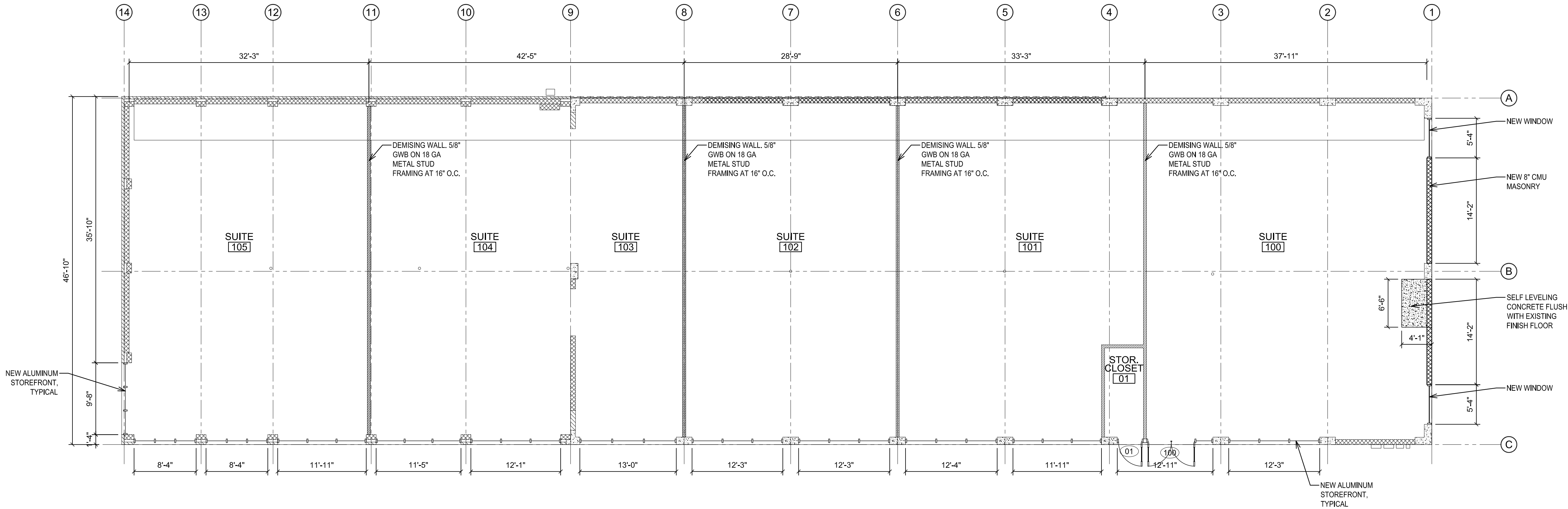
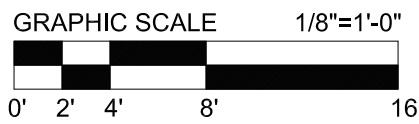
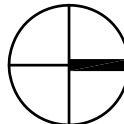
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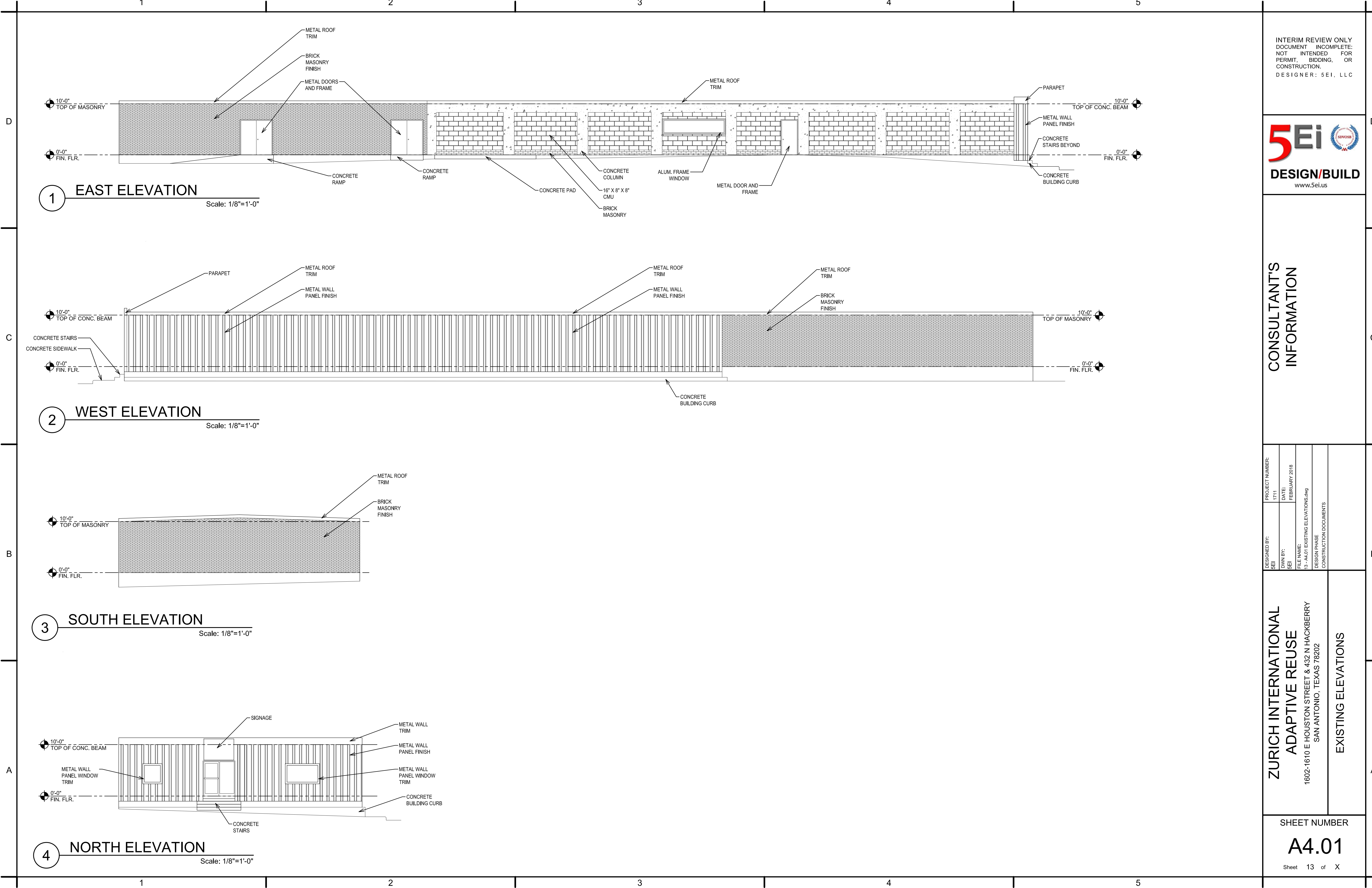
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NEW FLOOR PLAN

Scale: 1/8"=1'-0"

PLAN
NORTH





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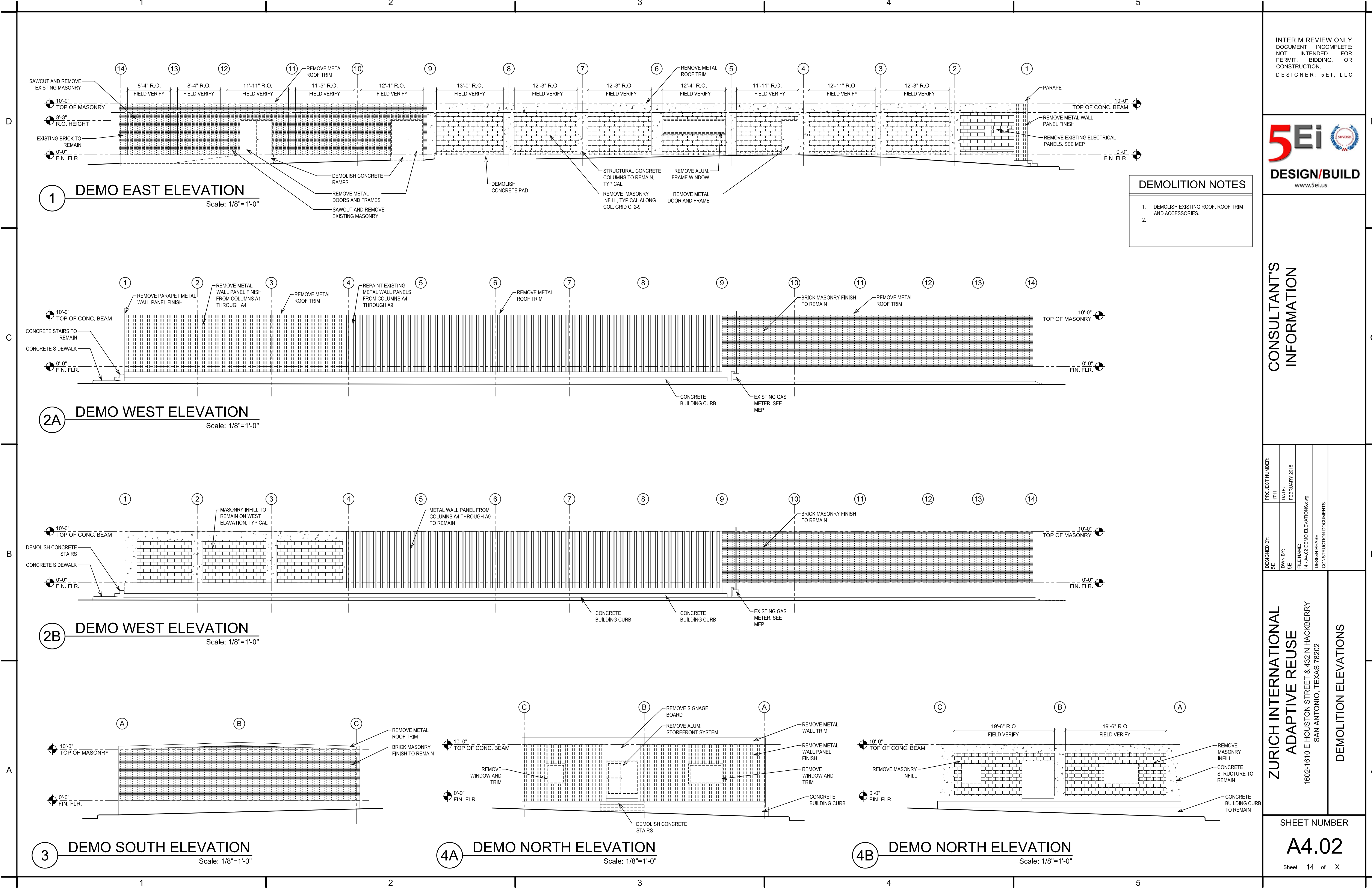
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EXISTING ELEVATIONS



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SEI	FEBRUARY 2018
FILE NAME:	
14-A4.02 DEMO ELEVATIONS.dwg	
DESIGN PHASE	
CONSTRUCTION DOCUMENTS	

ZURICH INTERNATIONAL
ADAPTIVE REUSE
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

DEMOLITION ELEVATIONS

DRAWING LEGEND

NEW TPO ROOFING SYSTEM ON 6" POLYISO RIGID INSULATION BOARD FASTENED TO METAL DECK.

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DESIGNER: 5EI, LLC

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DESIGN/BUILD

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CONSULTANT'S
INFORMATION

DESIGNED BY: SEI	PROJECT NUMBER: 1711
DWN BY: SEI	DATE: FEBRUARY 2018
FILE NAME: 19-A6.02-NEW ROOF PLAN.dwg	
DESIGN PHASE: CONSTRUCTION DOCUMENTS	
REX, LLC HACKBERRY MARKET 1602-1610 E HOUSTON STREET & 432 N HACKBERRY SAN ANTONIO, TEXAS 78202	NEW ROOF PLAN

SHEET NUMBER

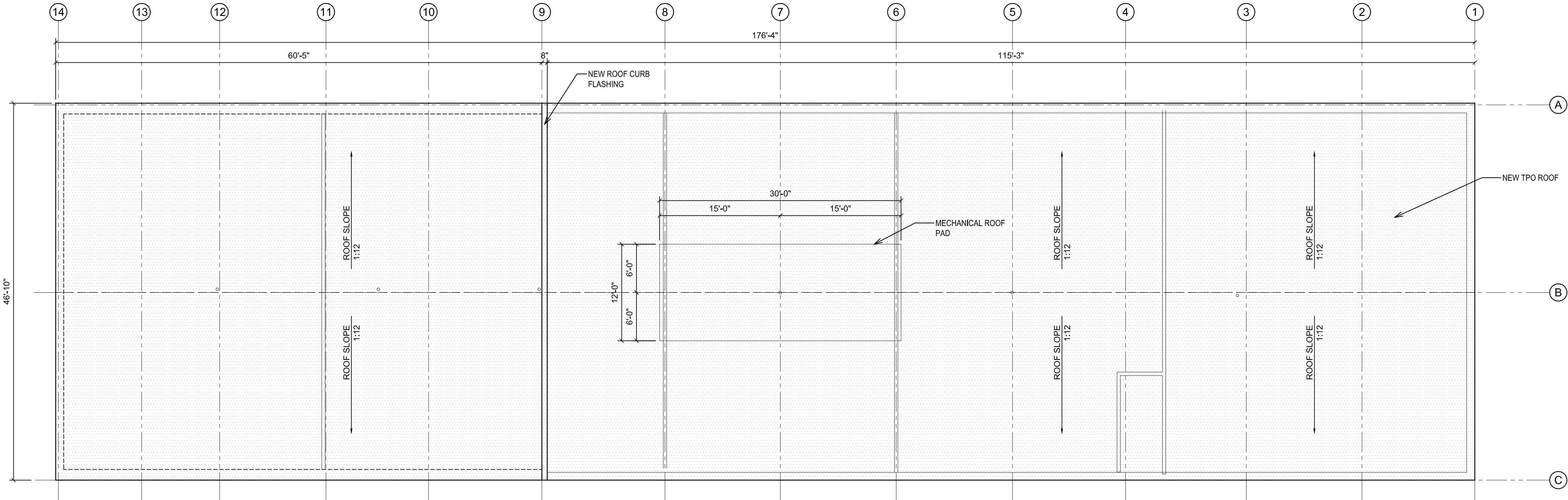
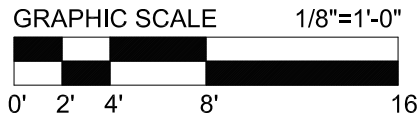
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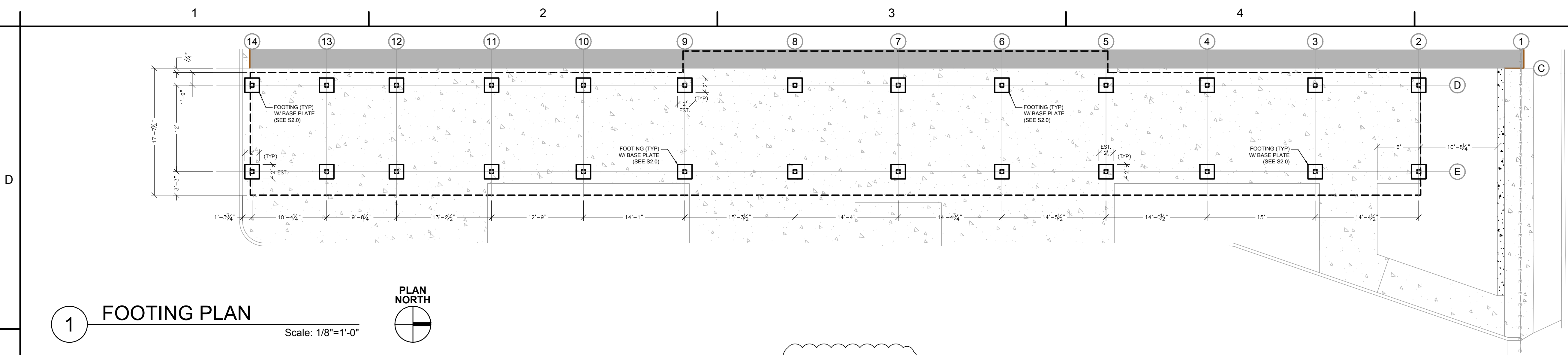
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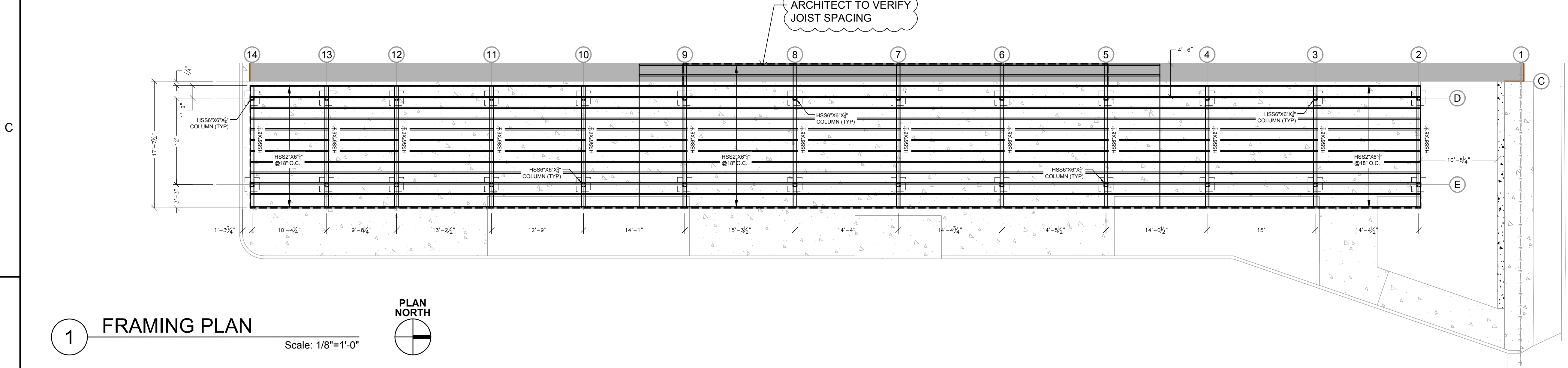
NEW ROOF PLAN

Scale: 1/8"=1'-0"

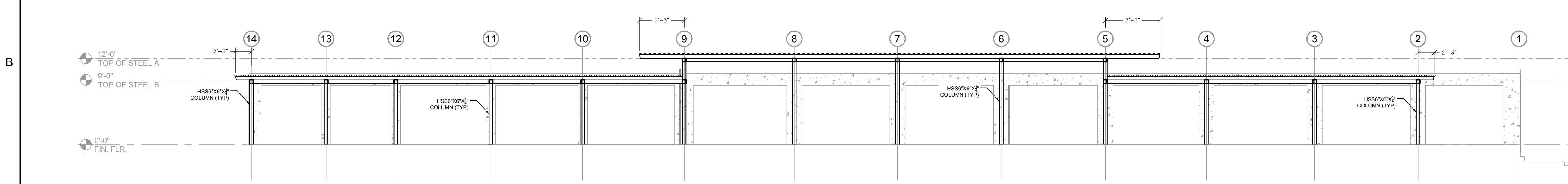




1 FOOTING PLAN
Scale: 1/8"=1'-0"



1 FRAMING PLAN
Scale: 1/8"=1'-0"



2 EAST ELEVATION
Scale: 1/8"=1'-0"



3 SOUTH ELEVATION
Scale: 1/8"=1'-0"



4 NORTH ELEVATION
Scale: 1/8"=1'-0"

50% PROGRESS SET

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M&S ENGINEERING
CIVIL ELECTRICAL STRUCTURAL MEP
TEXAS PROFESSIONAL ENGINEERING FIRM #F-1394
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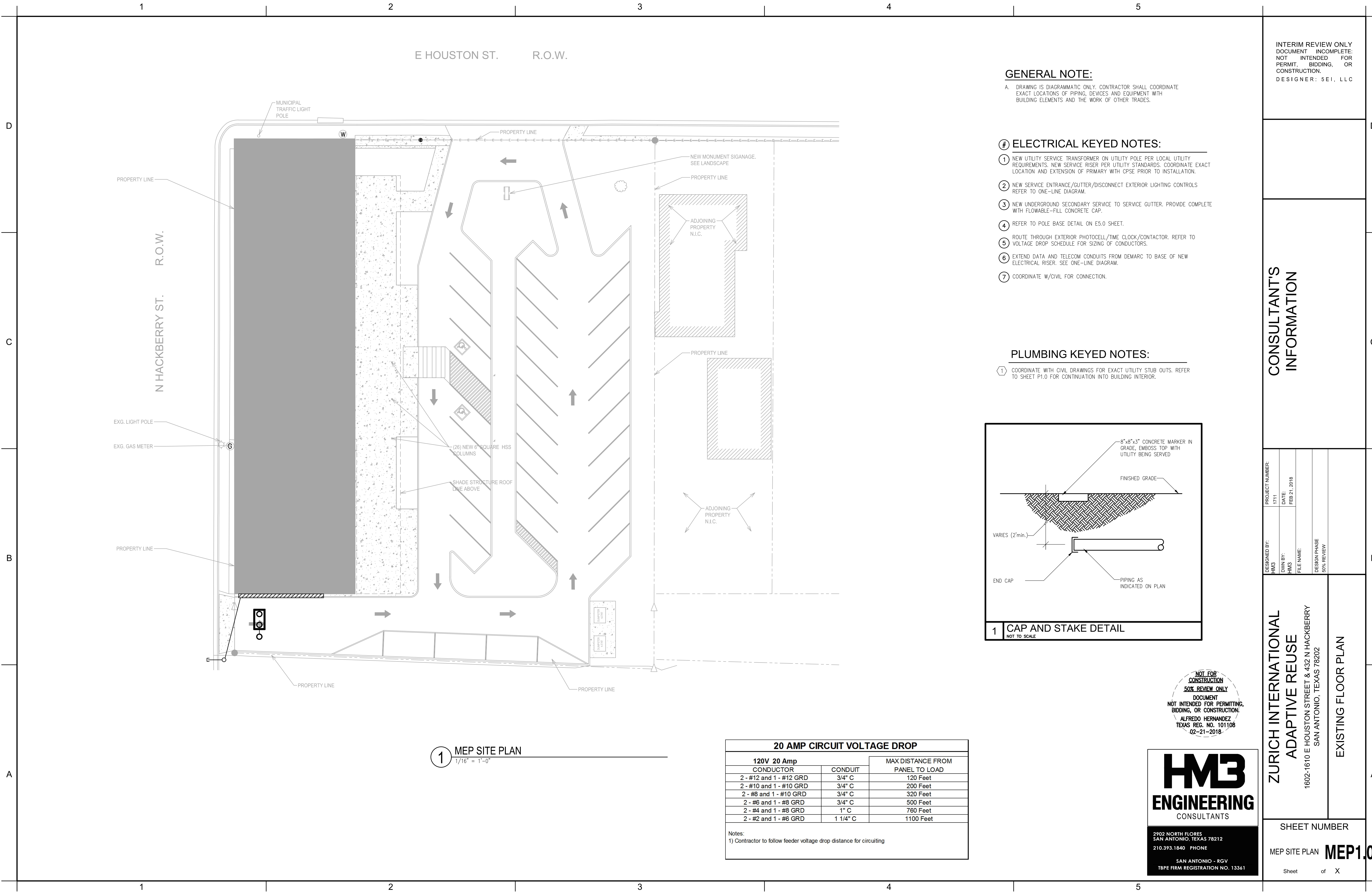
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DWN BY: SEL	DATE: FEBRUARY 2018
FILE NAME: 751BEI00.001 Shade Structure.dwg	DESIGN PHASE: CONSTRUCTION DOCUMENTS

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SAN ANTONIO, TEXAS 78202

STRUCTURAL DESIGN

SHEET NUMBER
S1.0
Sheet 7 of X



1 MEP SITE PLAN
1/16" = 1'-0"

20 AMP CIRCUIT VOLTAGE DROP		
120V 20 Amp		MAX DISTANCE FROM PANEL TO LOAD
CONDUCTOR	CONDUIT	
2 - #12 and 1 - #12 GRD	3/4" C	120 Feet
2 - #10 and 1 - #10 GRD	3/4" C	200 Feet
2 - #8 and 1 - #10 GRD	3/4" C	320 Feet
2 - #6 and 1 - #8 GRD	3/4" C	500 Feet
2 - #4 and 1 - #8 GRD	1" C	760 Feet
2 - #2 and 1 - #6 GRD	1 1/4" C	1100 Feet
Notes: 1) Contractor to follow feeder voltage drop distance for circuiting		

GENERAL NOTE:

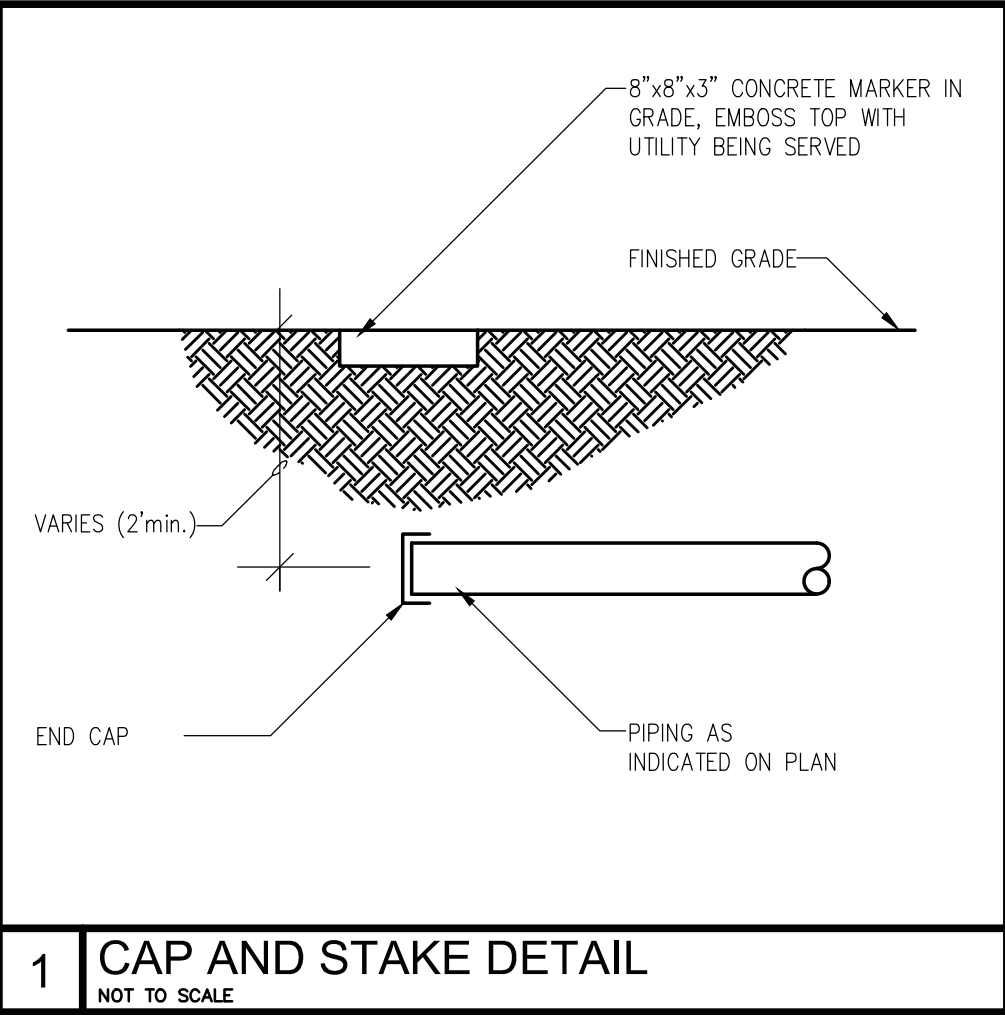
A. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

ELECTRICAL KEYED NOTES:

- 1 NEW UTILITY SERVICE TRANSFORMER ON UTILITY POLE PER LOCAL UTILITY REQUIREMENTS. NEW SERVICE RISER PER UTILITY STANDARDS. COORDINATE EXACT LOCATION AND EXTENSION OF PRIMARY WITH CPSE PRIOR TO INSTALLATION.
- 2 NEW SERVICE ENTRANCE/GUTTER/DISCONNECT EXTERIOR LIGHTING CONTROLS REFER TO ONE-LINE DIAGRAM.
- 3 NEW UNDERGROUND SECONDARY SERVICE TO SERVICE GUTTER. PROVIDE COMPLETE WITH FLOWABLE-FILL CONCRETE CAP.
- 4 REFER TO POLE BASE DETAIL ON E5.0 SHEET.
- 5 ROUTE THROUGH EXTERIOR PHOTOCELL/TIME CLOCK/CONTACTOR. REFER TO VOLTAGE DROP SCHEDULE FOR SIZING OF CONDUCTORS.
- 6 EXTEND DATA AND TELECOM CONDUITS FROM DEMARC TO BASE OF NEW ELECTRICAL RISER. SEE ONE-LINE DIAGRAM.
- 7 COORDINATE W/CIVIL FOR CONNECTION.

PLUMBING KEYED NOTES:

- 1 COORDINATE WITH CIVIL DRAWINGS FOR EXACT UTILITY STUB OUTS. REFER TO SHEET P1.0 FOR CONTINUATION INTO BUILDING INTERIOR.



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02-21-2018

HM3
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SAN ANTONIO - RGV
TBPE FIRM REGISTRATION NO. 13341

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FILE NAME:	
DESIGN PHASE 50% REVIEW	

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EXISTING FLOOR PLAN

SHEET NUMBER

MEP SITE PLAN **MEP1.0**

Sheet of X

D	ABBREVIATIONS			ELECTRICAL SYMBOLS			RACEWAYS AND WIRING			MISCELLANEOUS			INTERIM REVIEW ONLY DOCUMENT - INCOMPLETE: NOT INTENDED FOR PERMIT, BIDDING, OR CONSTRUCTION. DESIGNER: 5E1, LLC		
	A			G			P			MOTORS AND CONTROLS			FIRE ALARM		
	B			H			Q			RECEPTACLES AND OUTLETS			CONSULTANT'S INFORMATION		
	C			I			S			ELECTRICAL EQUIPMENT			DESIGNED BY: HM3 DWN BY: HM3 FILE NAME: DESIGN PHASE 50% REVIEW		
C	D			J			T			COMMUNICATIONS			ZURICH INTERNATIONAL ADAPTIVE REUSE DOCUMENT NOT INTENDED FOR PERMITTING, BIDDING, OR CONSTRUCTION! ALFREDO HERNANDEZ TEXAS REG. NO. 101108 02-21-2018		
	E			K			U			DRAWING/DETAIL REFERENCE KEY			EXISTING FLOOR PLAN		
	F			L			W			GENERAL NOTES			SHEET NUMBER		
	O			M			X			A. NOT ALL SYMBOLS SHOWN ON THIS SYMBOL LIST ARE USED IN THE CONTRACT DOCUMENTS.			E0.0		
B	N			O			Z			FIRE ALARM			SAN ANTONIO - RGV T8PE FIRM REGISTRATION NO. 13361		
	P			R			V			MISCELLANEOUS			ELECTRICAL SYMBOLS & ABBREVIATIONS		
	Q			S			T			CONSULTANT'S INFORMATION			Sheet of X		
	R			U			V			INTERIM REVIEW ONLY DOCUMENT - INCOMPLETE: NOT INTENDED FOR PERMIT, BIDDING, OR CONSTRUCTION. DESIGNER: 5E1, LLC					
A	S			T			V			ELECTRICAL EQUIPMENT			SHEET NUMBER		
	T			U			W			DRAWING/DETAIL REFERENCE KEY			E0.0		
	V			X			Z			GENERAL NOTES			SAN ANTONIO - RGV T8PE FIRM REGISTRATION NO. 13361		
	W			Y			Z			MISCELLANEOUS			ELECTRICAL SYMBOLS & ABBREVIATIONS		

D

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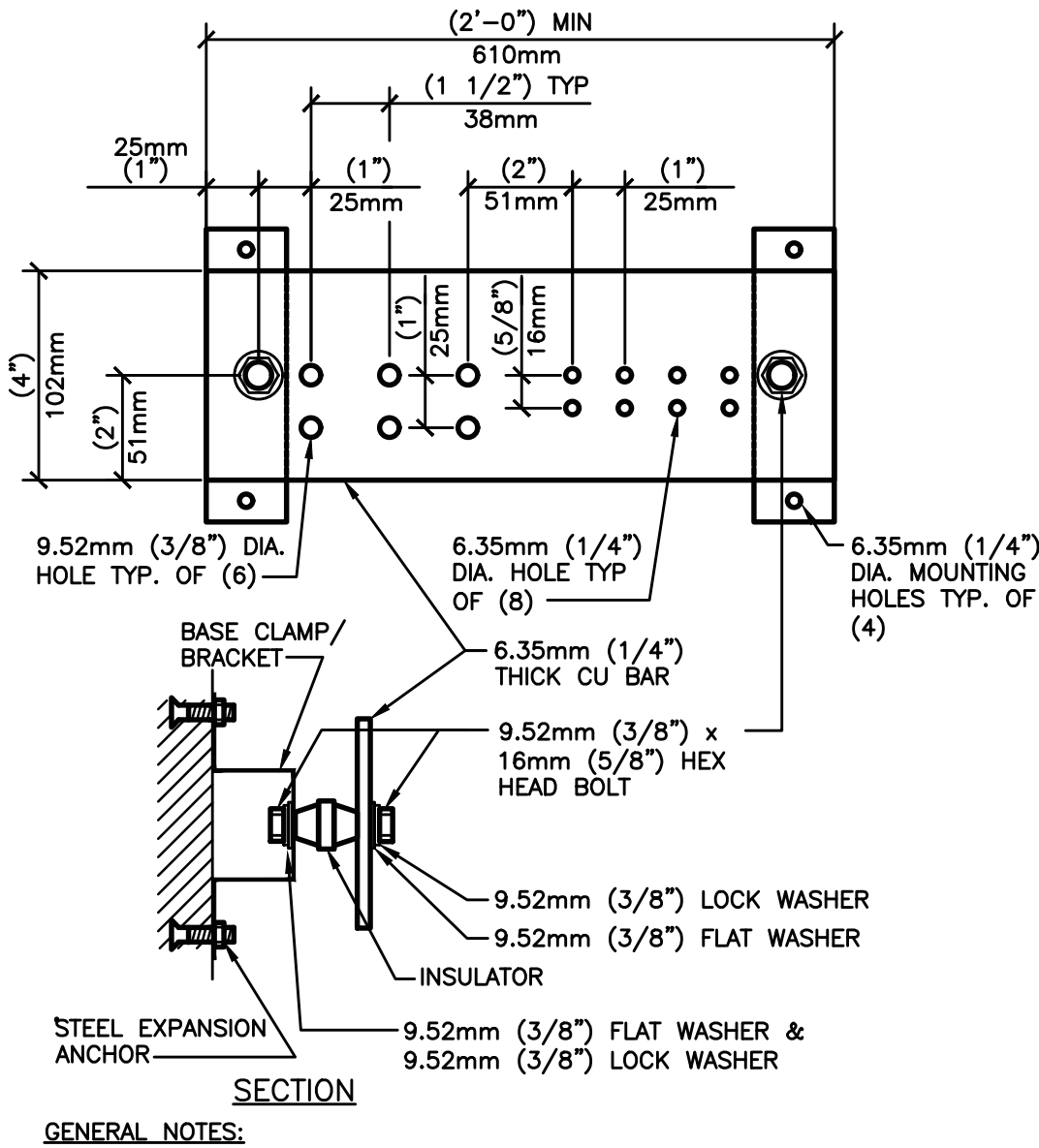
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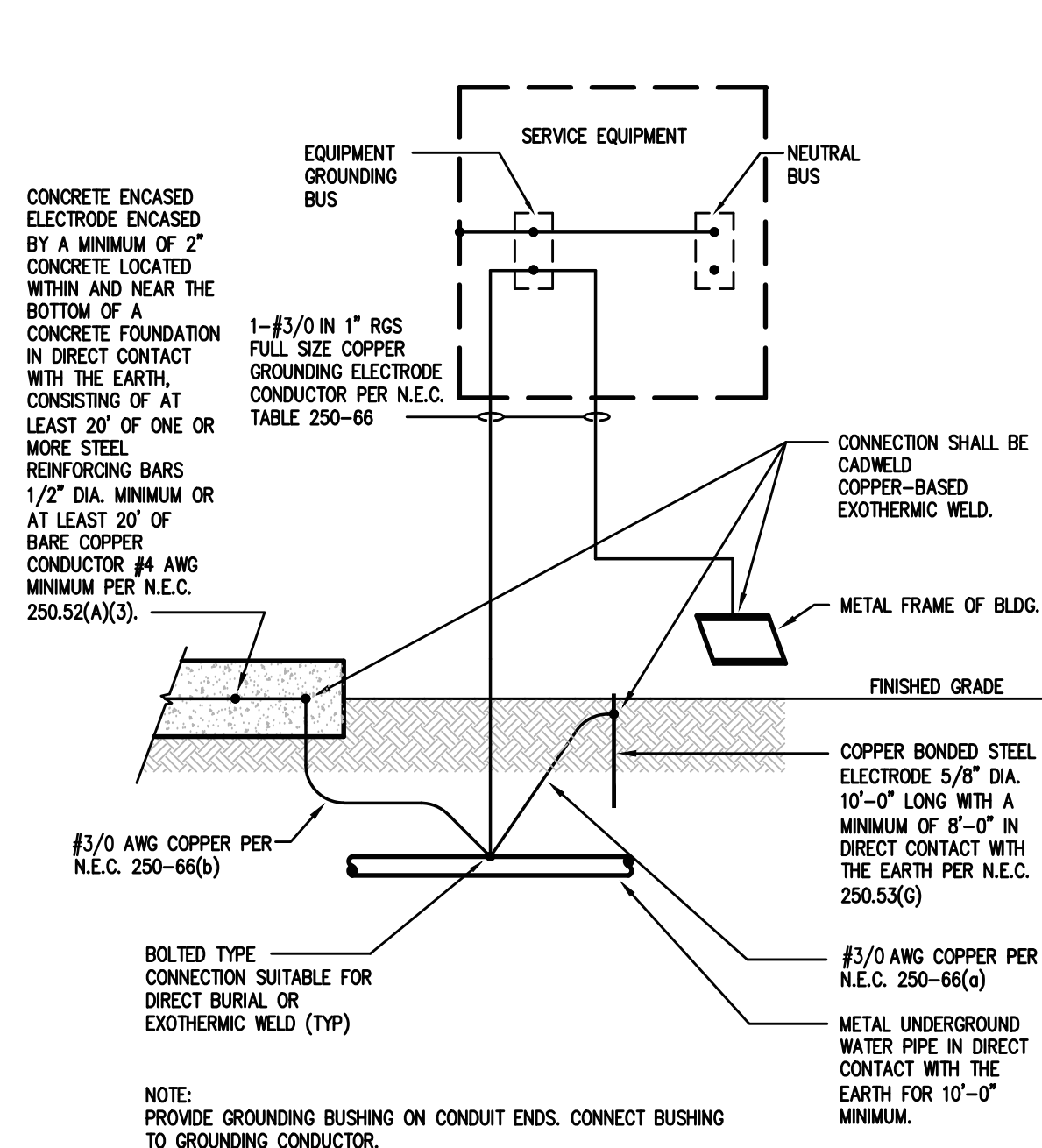
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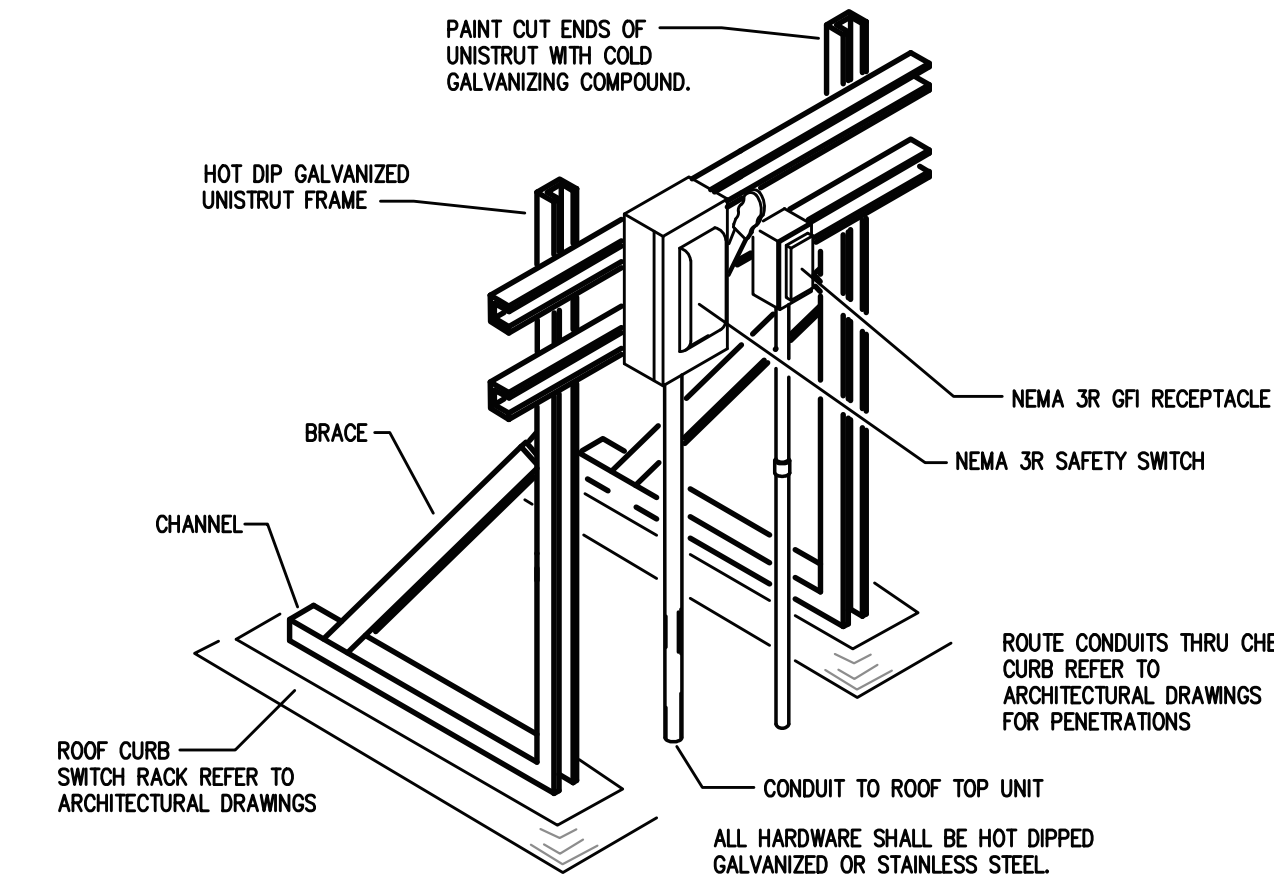


- GENERAL NOTES:**
- ALL HARDWARE SHALL BE STAINLESS STEEL.
 - PROVIDE 1 MOUNTING POINT PER 305mm (12") OF BAR LENGTH.
 - HOLES MAY BE ADDED IF REQUIRED.

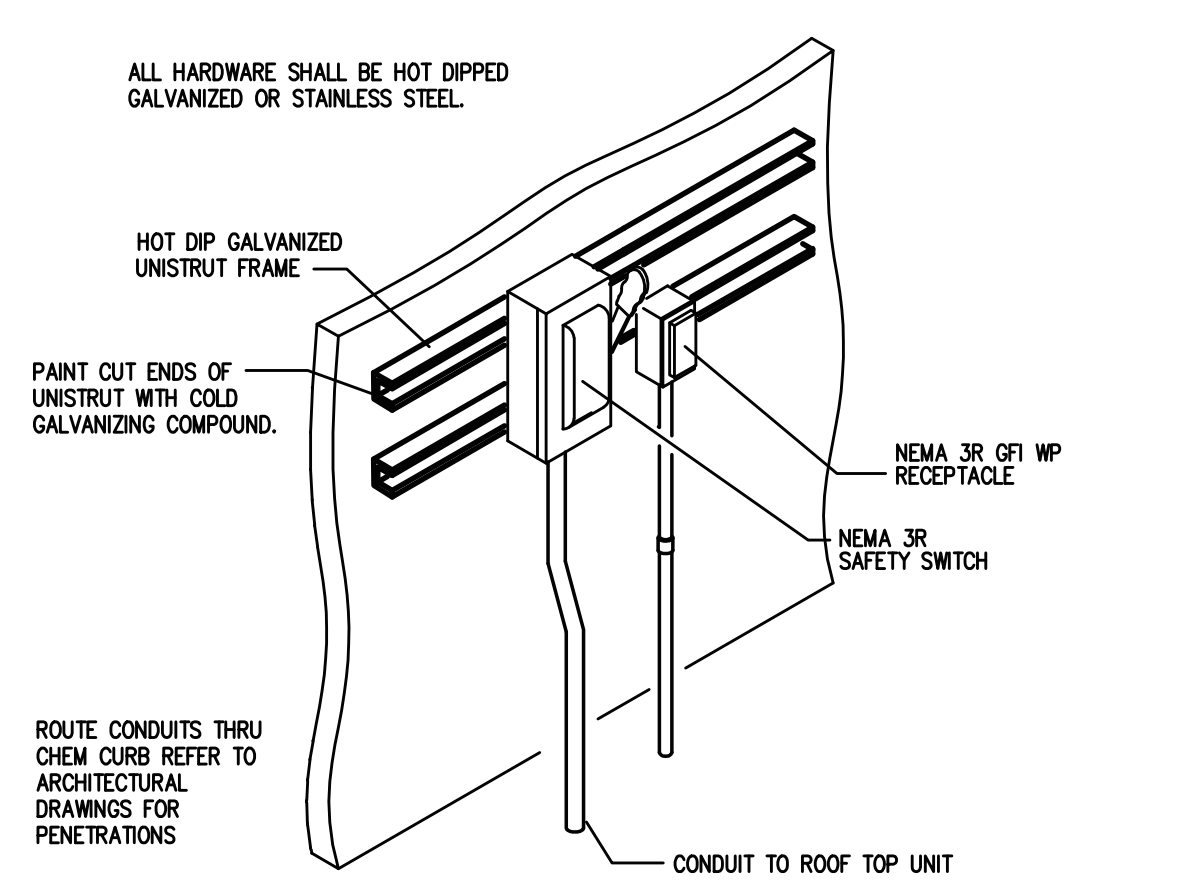
1 GROUNDING BAR DETAIL
NTS SD260526-01



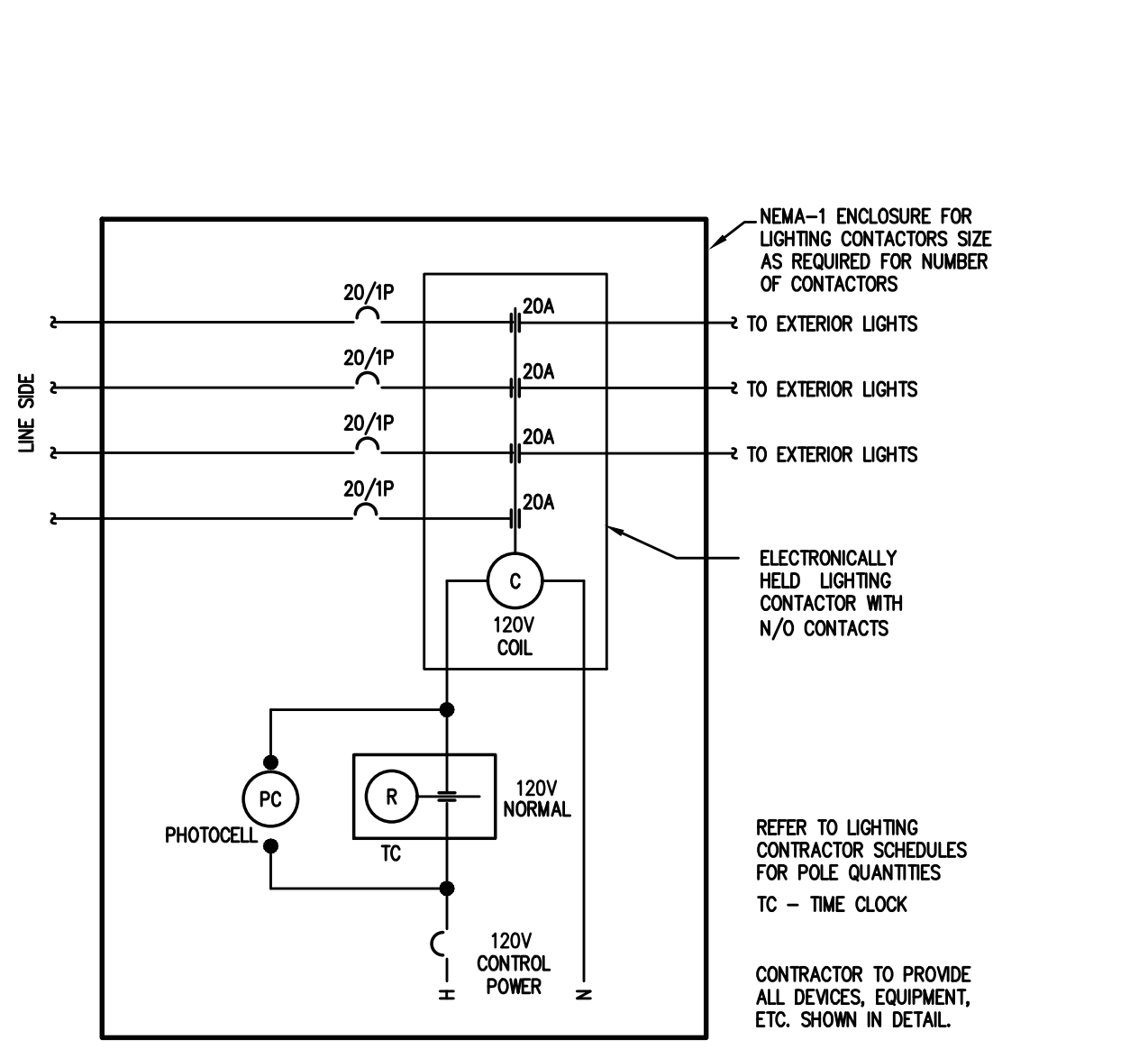
2 GROUNDING ELECTRODE SYSTEM
NTS



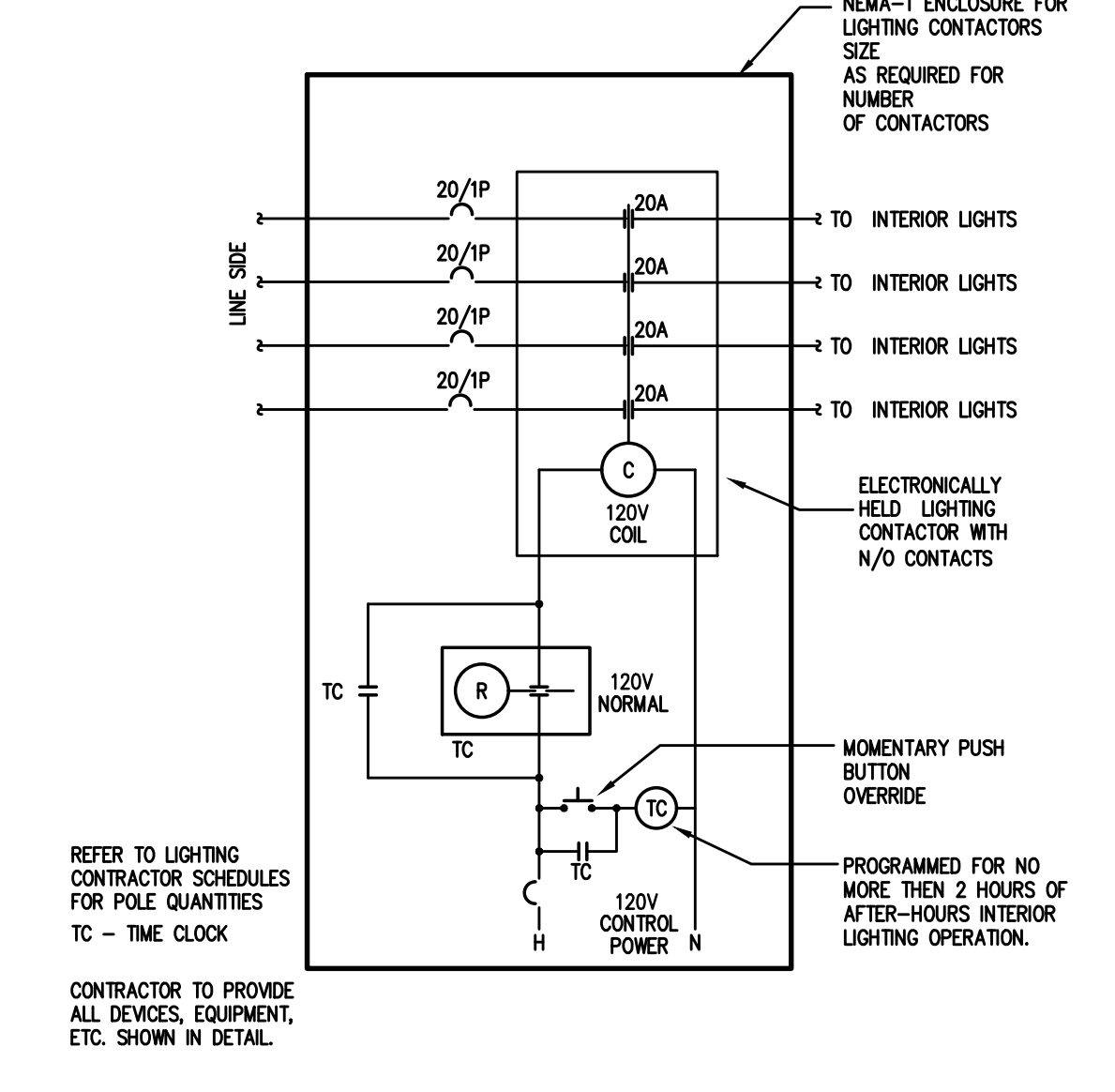
4 ROOF DISCONNECT RACK DETAIL
NTS



5 EXTERIOR WALL DISCONNECT DETAIL
NTS



6 EXTERIOR LIGHTING CONTACTOR DETAIL
NTS



3 INTERIOR LIGHTING CONTACTOR DETAIL
NTS

GENERAL SITE GROUNDING NOTES:

- ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE CURRENT NEC WITH ALL CITY AMENDMENTS.
- THE PERIMETER GROUND LOOP CONDUCTOR SHALL BE MINIMUM 4/0 STRANDED BARE COPPER, BURIED NOT LESS THAN 24 INCHES BELOW GRADE AND 36 INCHES FROM THE BUILDING. IT SHALL BE EXOTHERMICALLY WELDED (CAD) TO COLUMN GROUNDS AND PERIMETER GROUND RODS.
- PERIMETER GROUND RODS SHALL BE MINIMUM 3/4 INCH AND 8 FOOT LONG COPPER OR COPPER CLAD, BURIED VERTICALLY TO A MINIMUM DEPTH OF 8 FOOT 6 INCH BELOW GRADE. DRIVE ALL GROUND RODS INTO EXPOSED EARTH. IF DUE TO CONSTRUCTION, THE EARTH HAS BEEN DISTURBED AT THE GROUND ROD POINT, COMPACT THE LOCATION AND INSTALL GROUND ROD.
- EXPOSED GROUNDING CONDUCTORS SHALL BE SUPPORTED BY MECHANICAL MEANS AND PROPERLY PROTECTED FROM DAMAGE. ALL GROUNDING CONDUCTORS SHALL BE SLEEVED THROUGH BUILDING WALLS.
- BOND THE GROUNDING SYSTEM TO THE WATER PIPE SYSTEM. IF THE WATER PIPING IS SUSPENDED BELOW THE STRUCTURE, BOND THE GROUND TO THE WATER PIPE AT THE GRADE POINT.
- BOND THE GROUND LOOP TO THE BUILDING COLUMN CASINGS. EXOTHERMICALLY WELD THE CONNECTIONS. IF THE COLUMN STEEL DOES NOT PENETRATE THE EARTH MORE THAN 4 FEET, PROVIDE COPPER BONDING JUMPER FROM THE CASING TO THE COLUMN.
- BOND BUILDING GROUND SYSTEM TO ALL BUILDING STEEL, TO INCLUDE BAR JOISTS OFF MASONRY WALLS. MECHANICAL BONDING CLAMPS ARE PERMITTED. ALL CONDUCTORS ON BEAMS SHALL BE SECURED 48" INTERVALS WITH MALLEABLE CABLE STRAPS. SAND AND CLEAN ALL BOLT-ON CONNECTIONS.
- PROVIDE GROUNDING SYSTEM PER NEC 250.32 FOR ALL STANDALONE STRUCTURES.

**GENERAL NOTES POWER SHEETS:
(APPLIES TO ALL POWER SHEETS)**

- SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES. SOME POWER CIRCUITING MAY BE ON OTHER PLANS. COORDINATE THE LOCATIONS OF DATA/CATV JACKS WITH THE RECEPTACLES. MOUNT ADJACENT TO EACH OTHER.
- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF.
- MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT FOR INDIVIDUAL CIRCUITS, 3/4" CONDUIT FOR MULTIPLE CIRCUITS. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER THHN, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SWEEP WINGS.
- PROVIDE #10 AWG MIN NEUTRAL FOR ALL MULTIWIRE BRANCH CIRCUITS AND PROVIDE HANDLE TIES FOR CIRCUIT BREAKERS AS REQUIRED BY NEC 210.4
- CONDUCTOR SIZES INDICATED ASSUME NO MORE THAN (3) SINGLE POLE BRANCH CIRCUITS IN EACH CONDUIT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DE-RATE CONDUCTORS PER NEC TABLE 310.15(B)(2)(c) FOR CONDUITS WITH MORE THAN (3) CURRENT "CARRYING CONDUCTORS". THE NEUTRAL CONDUCTOR SHALL BE CONSIDERED "CURRENT CARRYING" FOR ALL BRANCH CIRCUITS SERVING MORE THAN (4) COMPUTERS.
- REFER TO VOLTAGE DROP FEEDER SCHEDULE FOR BRANCH CIRCUITS EXCEEDING 100' IN LENGTH.
- COORDINATE RECEPTACLE LOCATIONS WITH MILLWORK AND COUNTERS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT. REVIEW ARCHITECTURAL ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. SEE ARCH. ELEVATIONS IN BREAKROOMS FOR APPLIANCES AND RECEPTACLE MOUNTING LOCATIONS.
- MOUNT RECEPTACLES 18" AFF, 6" ABOVE BACKSPLASH AT COUNTERS, 48" IN TOILET ROOMS, AT EQUIPMENT ROUGH-IN LOCATIONS FOR APPLIANCES, AND 96" FOR TV'S. PROVIDE GFI RECEPTACLES AT/LOCATED ALL SINKS, ROOFTOP RECEPTACLES, KITCHEN RECEPTACLES, BATHROOM/TOLIT ROOMS, EXTERIOR RECEPTACLES, AND UNDERCOUNTER EQUIPMENT. ALSO, ALL RECEPTACLES SERVING DRINKING FOUNTAINS SHALL HAVE GFI.
- ALL RECEPTACLES NOT DEDICATED TO EQUIPMENT WITHIN 6' OF SINK, MOP SINK, DRINKING FOUNTAIN OR OTHER USER WATER SOURCE SHALL BE GFI PROTECTED.
- ALL RECEPTACLES IN KITCHENS SHALL BE GFI PROTECTED.
- ALL EQUIPMENT SHALL HAVE A LOCAL DISCONNECTING MEANS, EITHER CORDED PLUG AND RECEPTACLE OR SWITCHED DISCONNECT. VERIFY FROM EQUIPMENT SUBMITTED OR RELOCATED IF DIRECT CONNECT OR RECEPTACLE. IF DIRECT CONNECT, PROVIDE SWITCH AS PER NEC OTHERWISE, PROVIDE RECEPTACLE, CORD PLUG AS REQUIRED BY EQUIPMENT SUBMITAL.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
- PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- PROVIDE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN SIDE OF ALL RTU'S, AHU'S, AND FCU'S RATED AT 2000 CFM SUPPLY AND OVER. PROVIDE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN AND SUPPLY SIDE OF ALL MECHANICAL EQUIPMENT RATED AT 10,000 CFM AND OVER. CONNECT FOR AUTOMATIC SHUTDOWN OF UNIT AND ALARM TO FACP (WHERE APPLICABLE). REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR CFM RATINGS.
- PROVIDE A MINIMUM OF (10) SPARE 20A/1P BREAKERS AND (3) 20A/1P SPACES IN EACH PANEL WHETHER SHOWN ON SCHEDULE OR NOT.

**GENERAL NOTES LIGHTING SHEETS:
(APPLIES TO ALL LIGHTING SHEETS)**

- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF. COORDINATE SWITCH LOCATIONS IN ROOMS WITH ARCHITECT AND OTHER DEVICES (THERMOSTATS, FIRE ALARM, AND CALL BUTTONS).
- MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT. MAXIMUM FIXTURE WHIP LENGTH FROM ANY J-BOX 6 FEET. LIGHTING CIRCUITS JOINTS SHALL BE MADE UP IN OVERHEAD J-BOXES SECURED TO STRUCTURE WITH LIGHTING WHIPS FROM THE J-BOXES. FIXTURES DESIGNED TO BE QUICK-CLIPPED TOGETHER SHALL BE CONNECTED AS PER MANUFACTURER.
- COORDINATE LIGHT LOCATIONS WITH OTHER CEILING ITEMS OR JOIST ITEMS PRIOR TO INSTALLATION. LIGHT LOCATIONS TAKE PRECEDENCE OVER AIR DEVICES.
- PROVIDE SECONDARY SUPPORT WIRES FROM ALL FOUR (4) CORNERS OF THE LAY-IN FIXTURES TO THE STRUCTURE ABOVE. DO NOT SUPPORT FIXTURES FROM CEILING GRID WIRE SUPPORTS, PIPING, CONDUIT, SIDE WALLS, OR MECHANICAL EQUIPMENT. CEILING SPECIFICATIONS DO NOT SUPERCEDE THIS REQUIREMENT.
- PROVIDE INTEGRAL BATTERY BACK-UP W/INTEGRAL BATTERY BACK-UP & TEST SWITCH FOR ALL FIXTURES WITH AN "E" SUFFIX.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- CONTRACTOR TO VERIFY FIXTURE VOLTAGE PRIOR TO INSTALLING ANY RELOCATED FIXTURE. COORDINATE WITH RCP FOR FIXTURE LOCATIONS.
- ALL ROOMS AND HALLWAYS SHALL HAVE SWITCHES WHETHER SHOWN ON PLAN OR NOT. ALL SPACES WITH MORE THAN ONE FIXTURE SHALL HAVE DUAL SWITCHING UNLESS OTHERWISE NOTED. ALL HALLWAYS SHALL HAVE AT LEAST (2) 3-WAY SWITCHES.
- PROVIDE AN EXTRA UNSWITCHED HOT LEG FOR EXITS LIGHTS, NIGHTLIGHTS AND EMERGENCY LIGHTS. PROVIDE THE EXTRA UNSWITCHED HOT LEG FROM THE LINE SIDE OF THE CONTACTOR TO EACH EXIT AND EMERGENCY LIGHT AS INDICATED ON DRAWINGS. DO NOT ROUTE A SWITCHED (EITHER BY SWITCH OR CONTACTOR) HOT LEG TO EMERGENCY LIGHTS AND BALLASTS AS THIS WILL NOT ALLOW FOR PROPER OPERATION OF THE EMERGENCY/EXIT FIXTURE.
- PROVIDE (2) CONTACTORS ADJACENT TO NEW TENANT PANEL. (1) 8 POLE CONTACTOR SHALL BE PROVIDED WITH PROGRAMMABLE ASTRONOMICAL TIME CLOCK WITH HOLIDAY SCHEDULE FOR "ON/OFF" CONTROL OF ALL INTERIOR LIGHTS COMPLETE WITH (3) 20 MINUTE MANUAL OVERRIDE SWITCHES. COORDINATE OVERRIDE SWITCH LOCATIONS WITH OWNER PRIOR TO INSTALLATION. THE SECOND CONTACTOR SHALL ALSO BE MOUNTED ADJACENT TO THE TENANT PANEL AND SHALL BE 4 POLE FOR CONTROL OF EXTERIOR LIGHTING AS NOTED. PROVIDE 120V FROM TENANT PANEL SPARE 20A/1P C.B.

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EXISTING FLOOR PLAN

SHEET NUMBER
ELECTRICAL
GENERAL NOTES
& DETAILS
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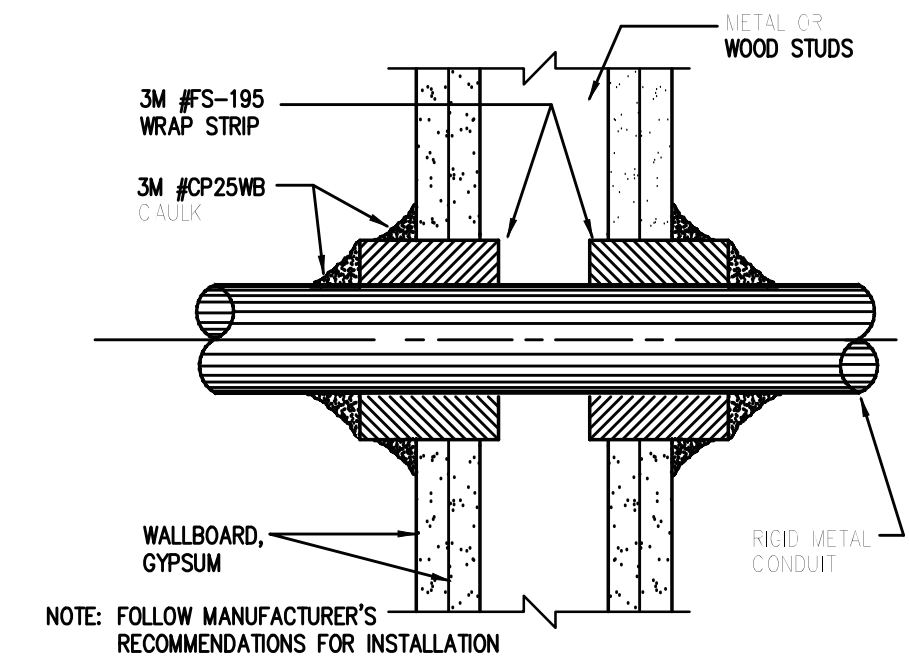
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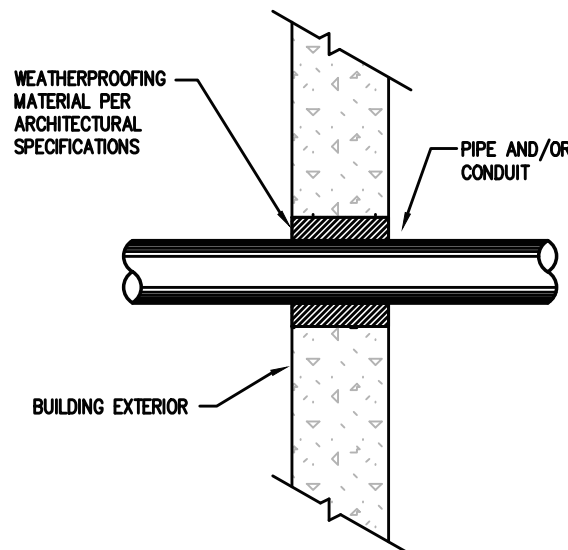
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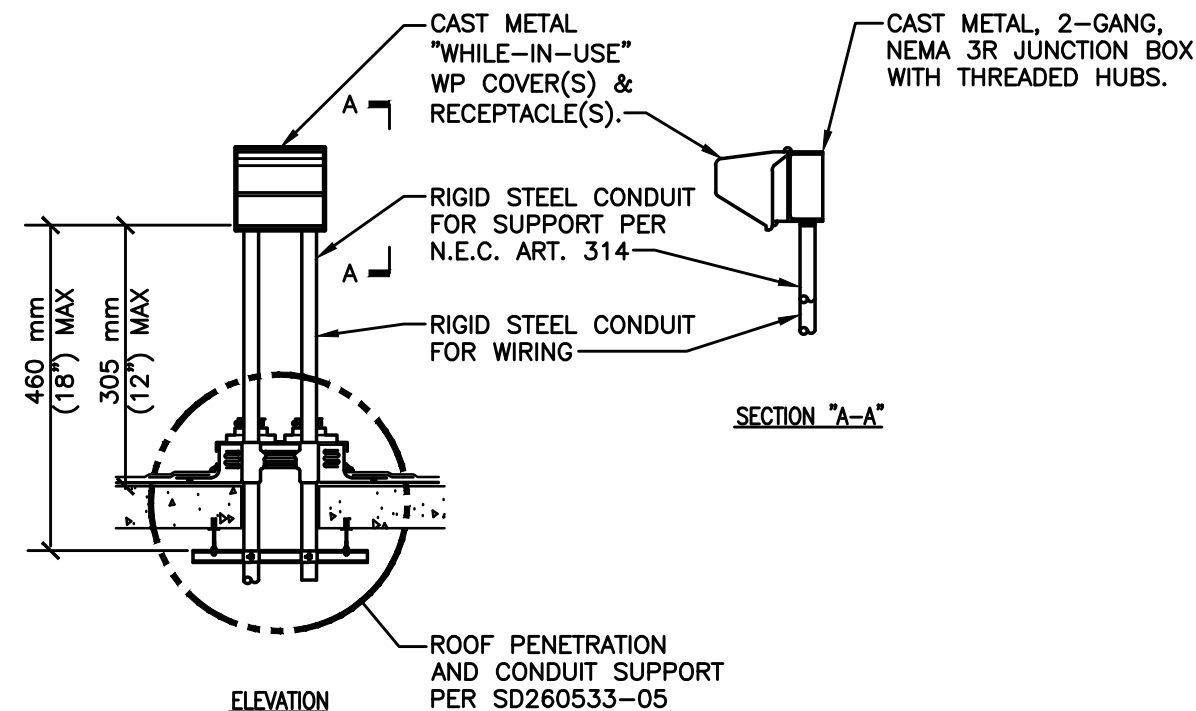
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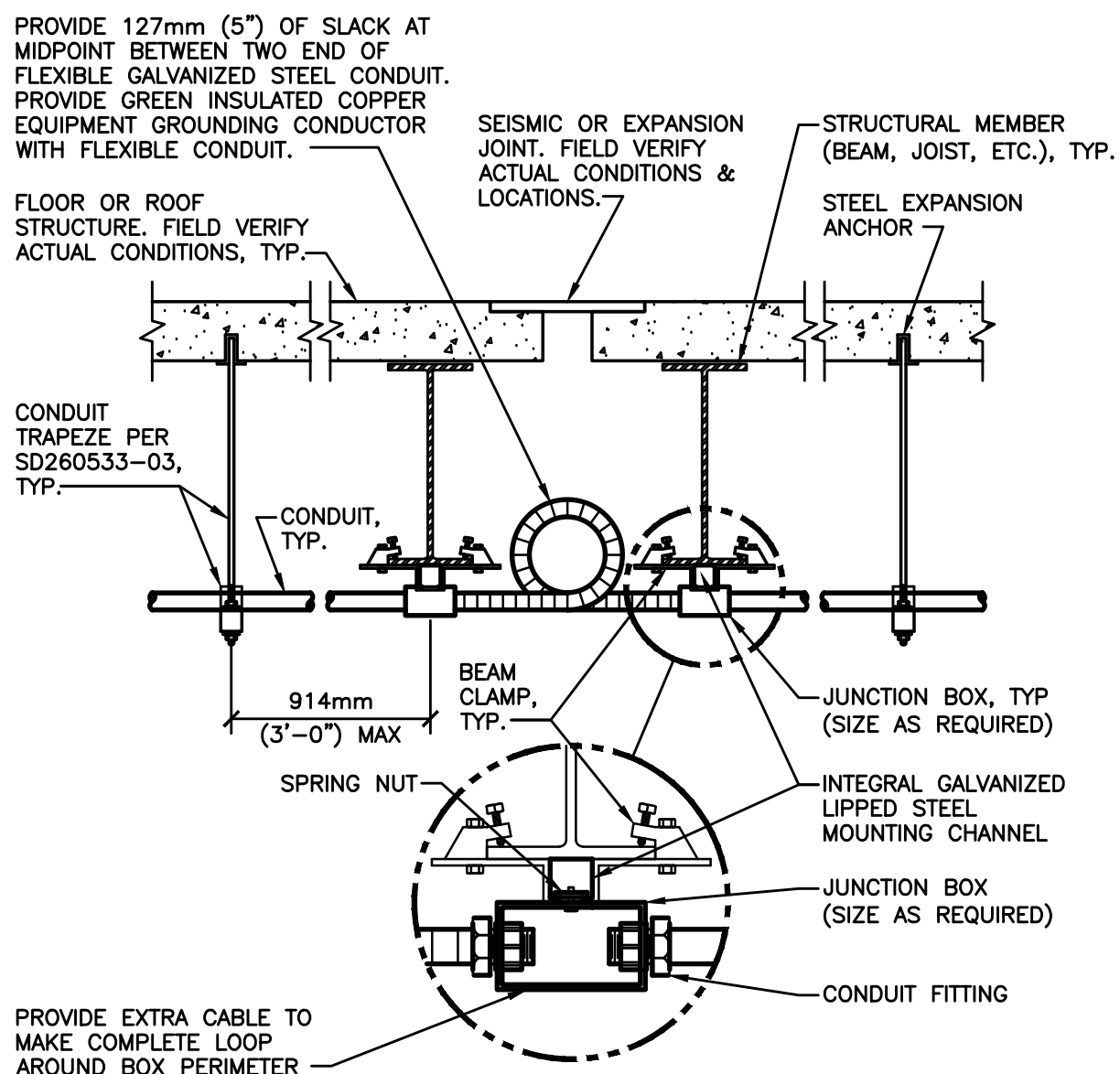
1 AND 2 HR. GYPSUM/WALLBOARD PENETRATION DETAIL
NTS



PIPE AND/OR CONDUIT PENETRATION
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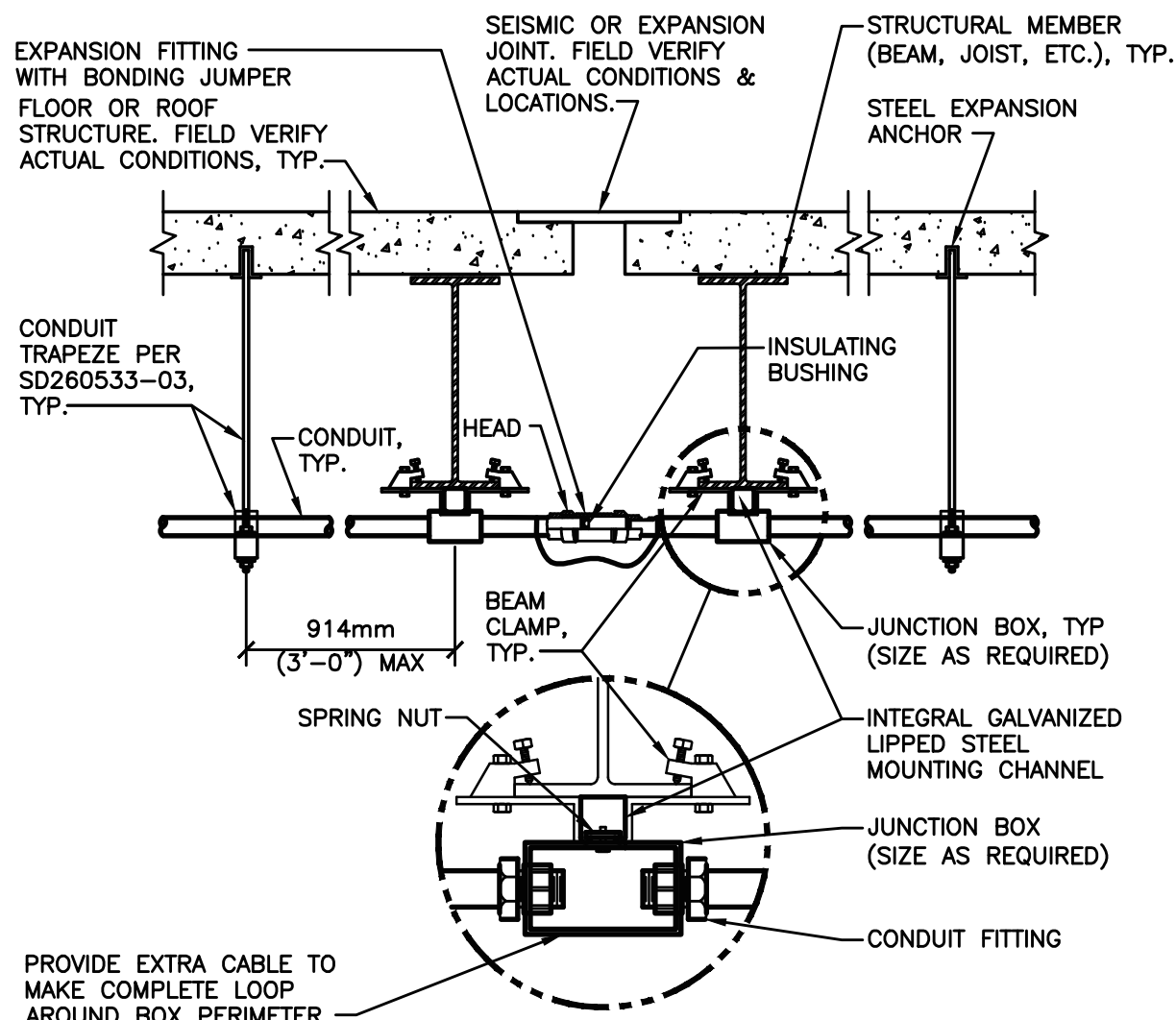


RECEPTACLE ROOF MOUNTING DETAIL
NTS SD262726-01



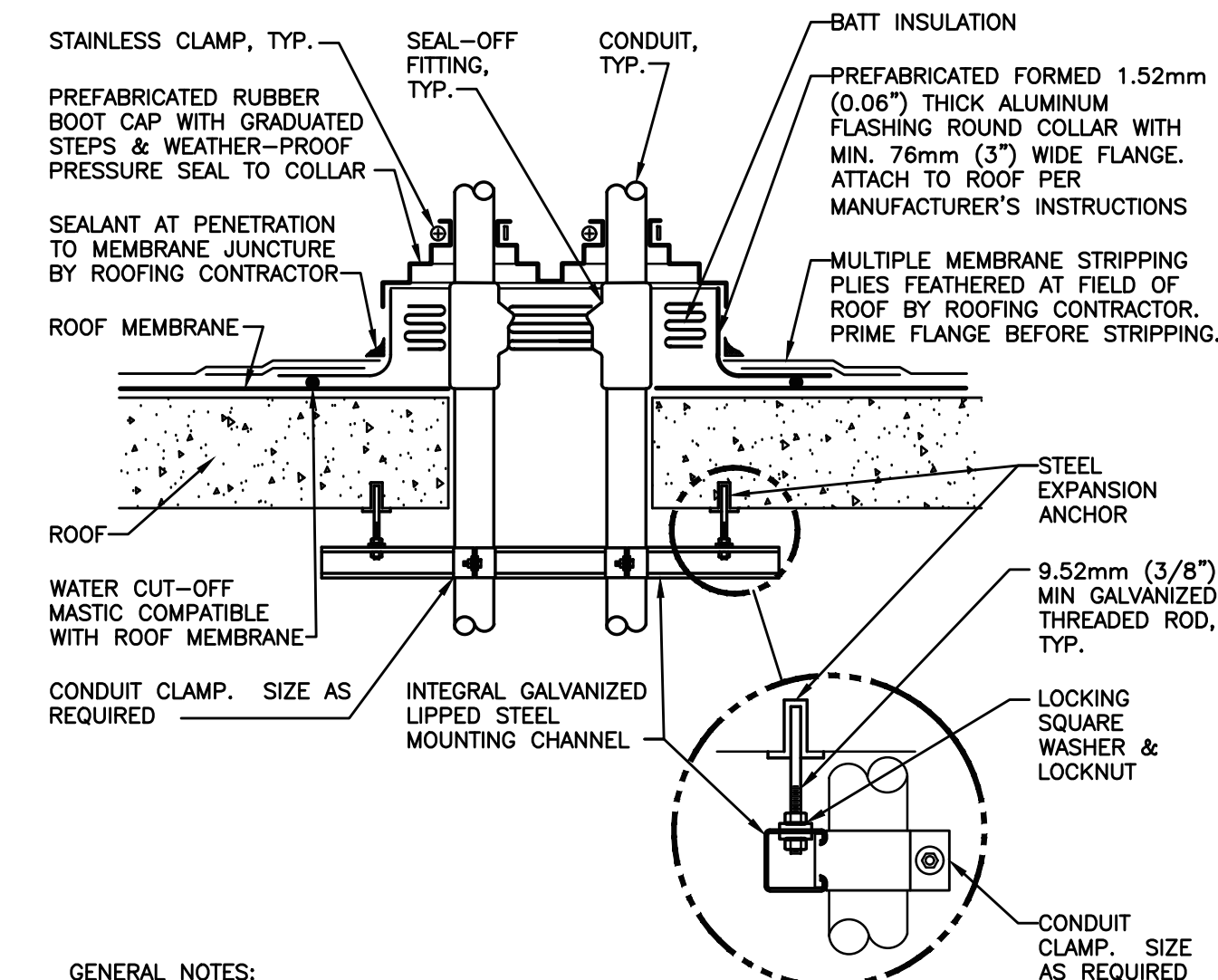
CONDUIT EXPANSION JOINT CROSSING DETAIL - FLEXIBLE CONDUIT
NTS SD260533-01

GENERAL NOTE:
1. DETAIL IS APPLICABLE ONLY FOR CONDUIT SMALLER THAN 76mm (3").



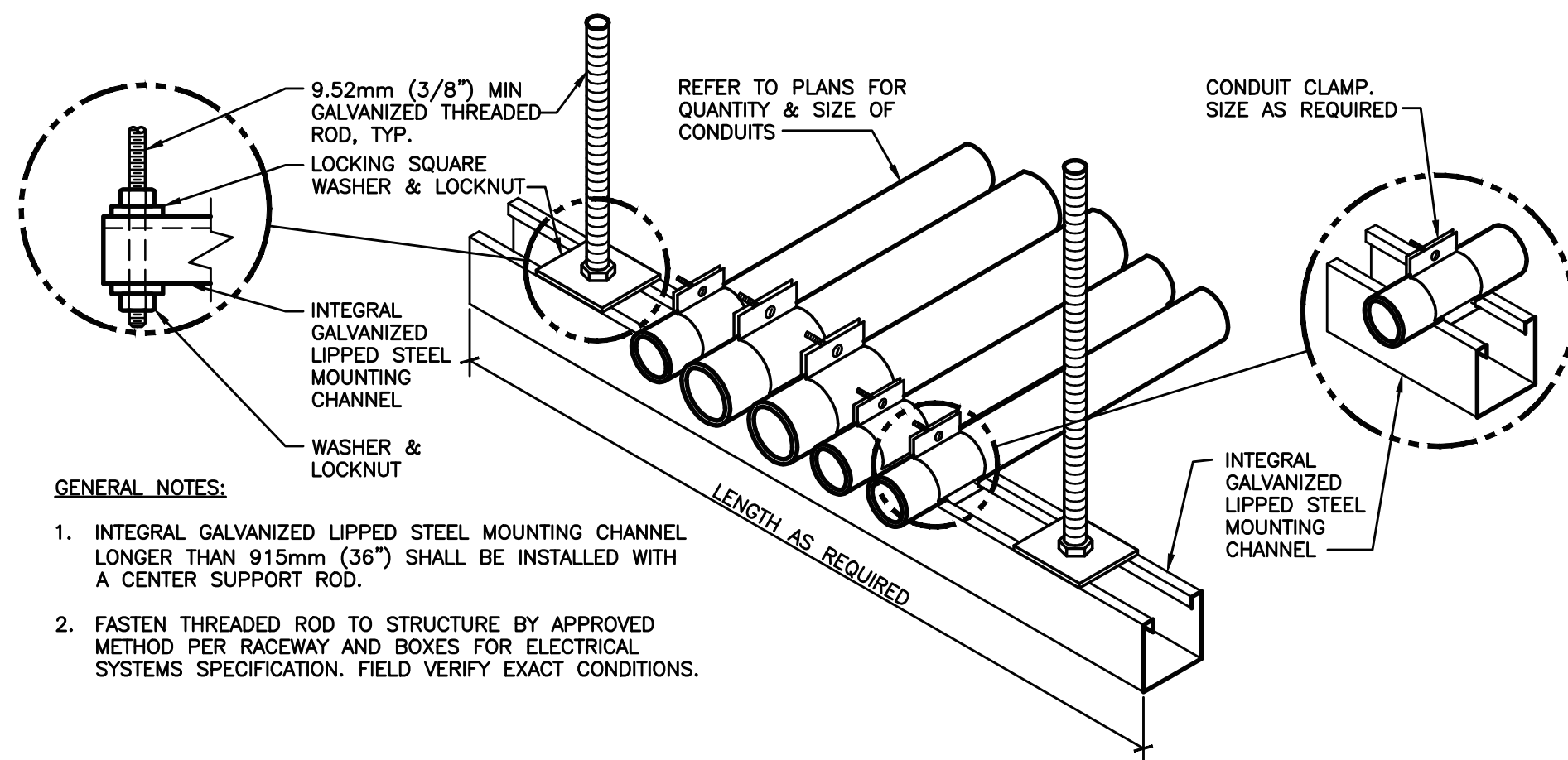
CONDUIT EXPANSION JOINT CROSSING DETAIL - EXPANSION FITTING
NTS SD260533-02

GENERAL NOTES:
1. INSTALLATION IS ACCEPTABLE ALTERNATE TO DETAIL SD260533-01.
2. INSTALLATION IS REQUIRED FOR CONDUIT 76mm (3") AND LARGER.

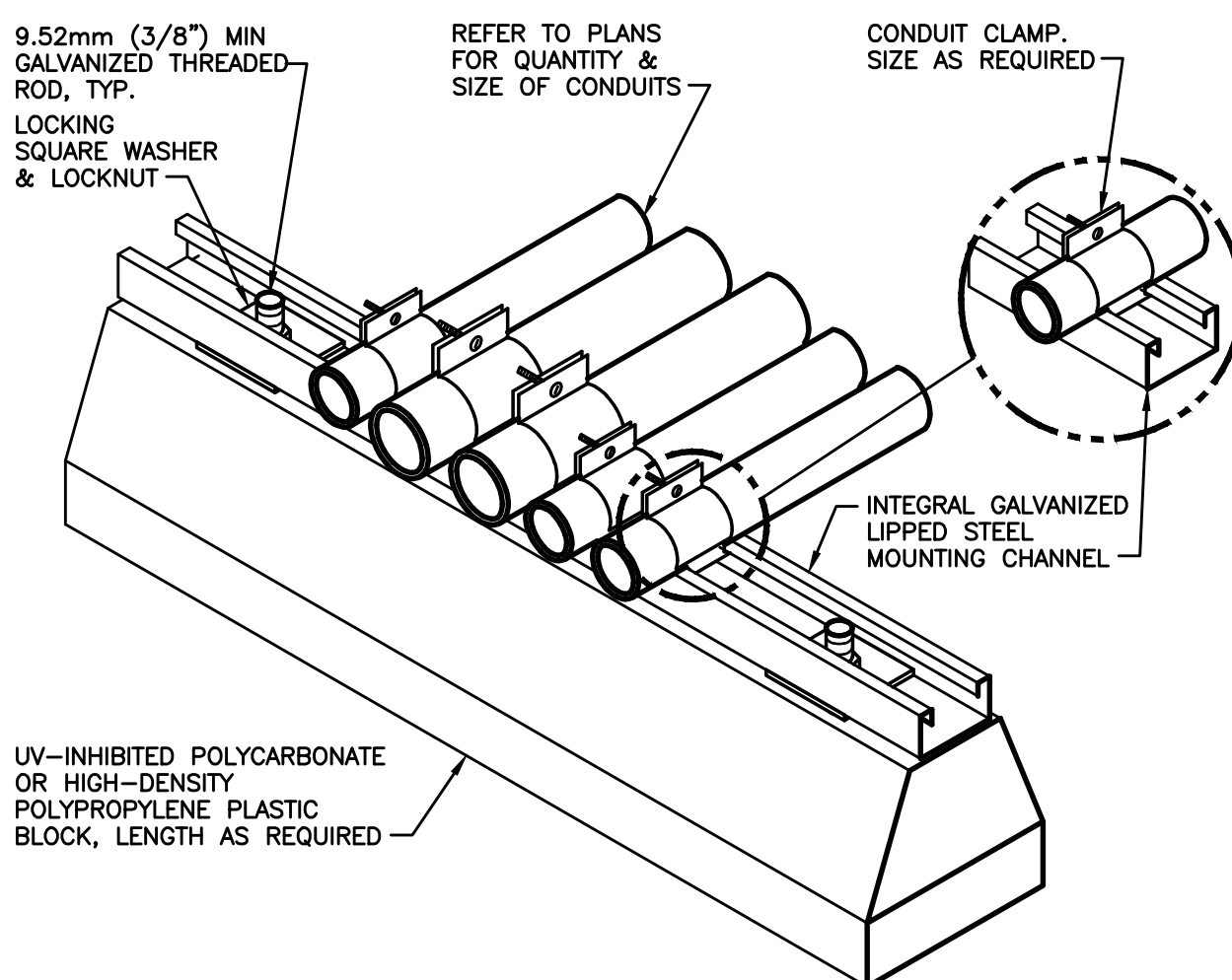


CONDUIT ROOF PENETRATION DETAIL
NTS SD260533-05

GENERAL NOTES:
1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.



CONDUIT TRAPEZE MOUNTING DETAIL
NTS SD260533-03



ROOF CONDUIT SUPPORT DETAIL
NTS SD260533-04

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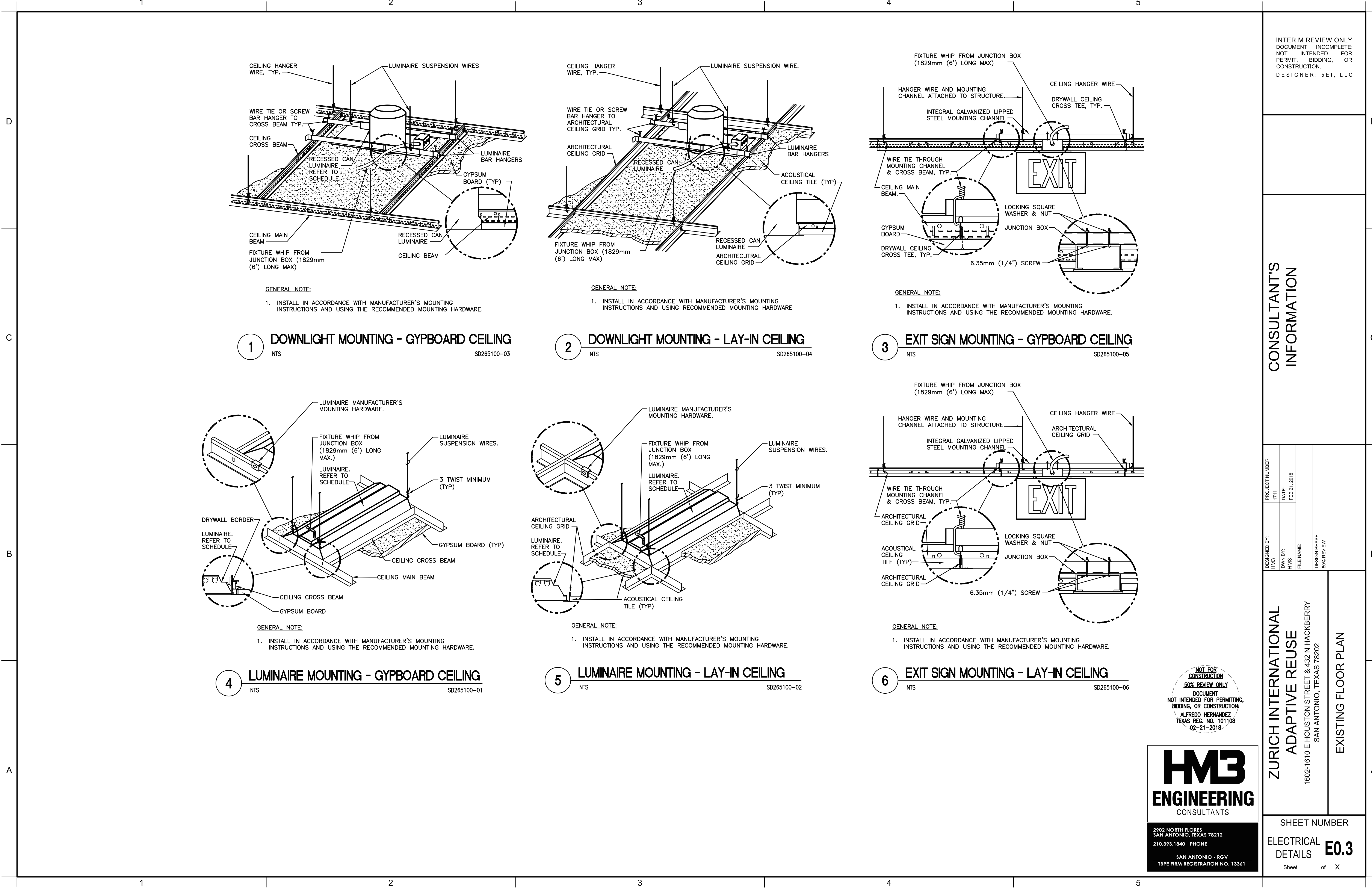
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1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202
EXISTING FLOOR PLAN

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ALFREDO HERNANDEZ
TEXAS REG. NO. 101108
02-21-2018

HM3
ENGINEERING
CONSULTANTS
2902 NORTH FLORES
SAN ANTONIO, TEXAS 78212
210.393.1840 PHONE
SAN ANTONIO - RGV
TBPE FIRM REGISTRATION NO. 13341

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DETAILS
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HM3	1711
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HM3	FEB 21, 2018
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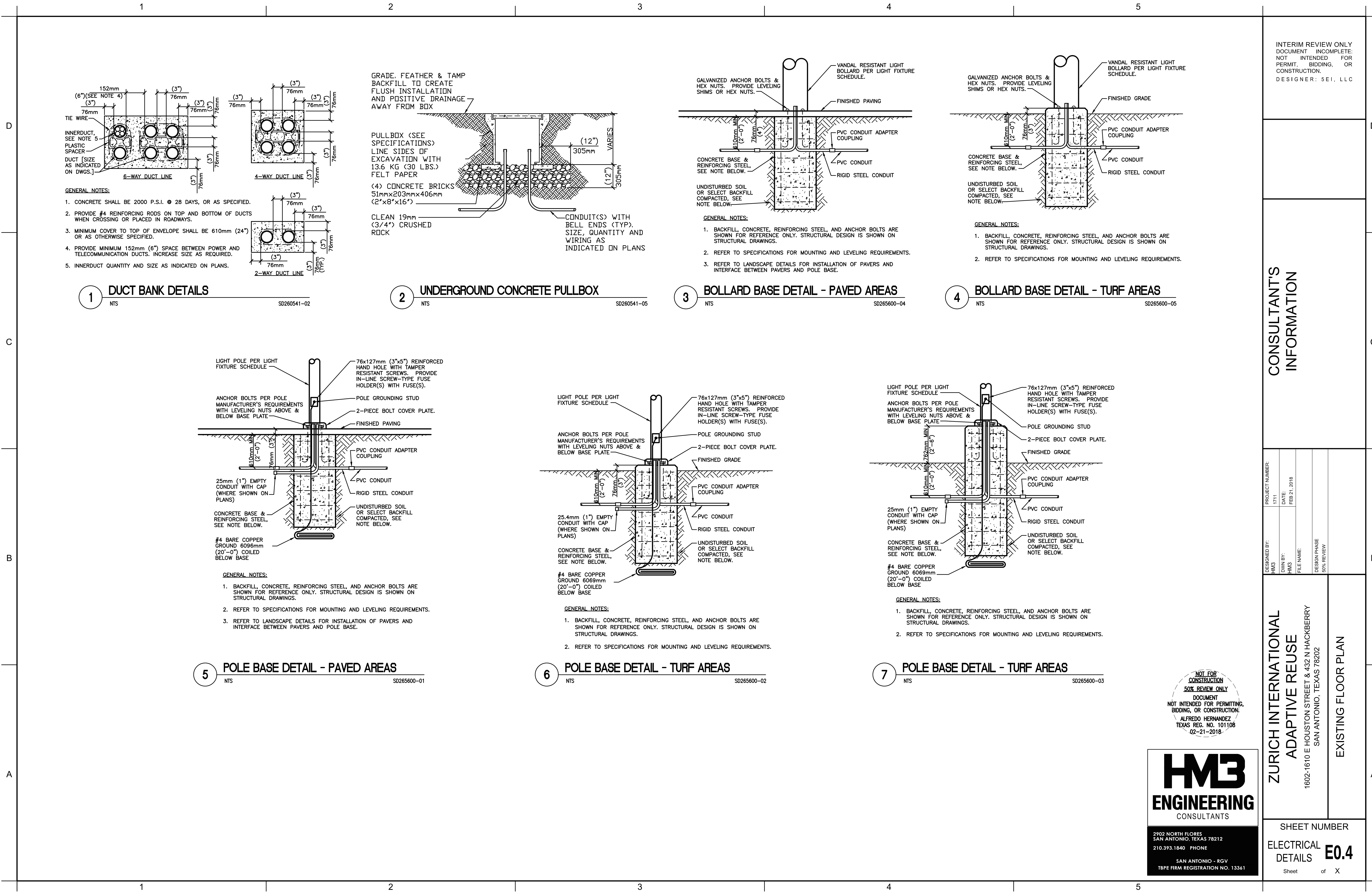
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DETAILS **E0.4**

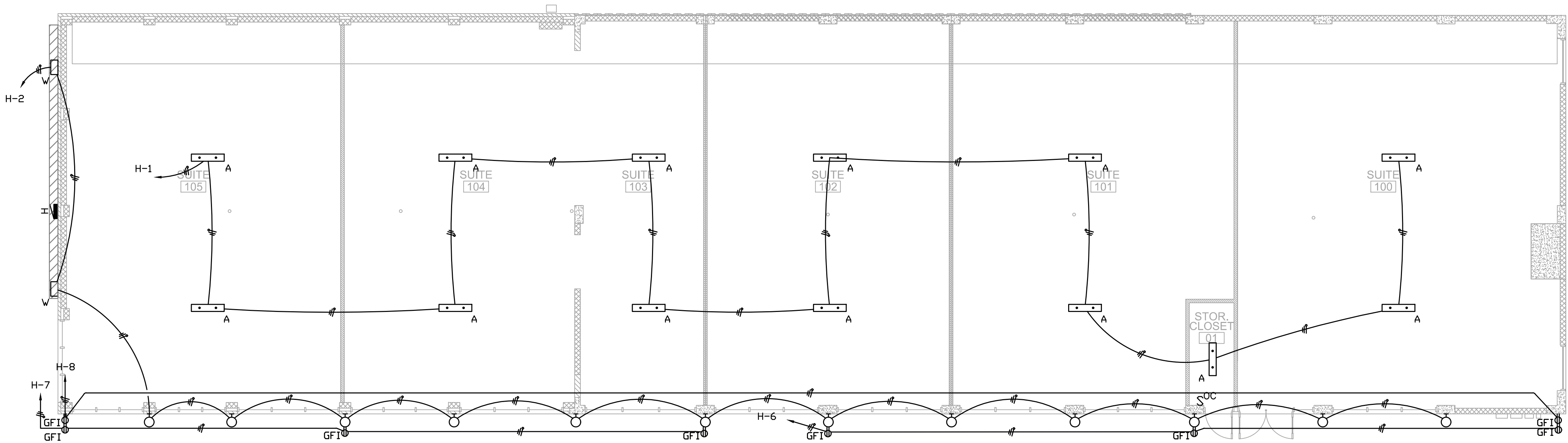
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1 ELECTRICAL PLAN
1/8" = 1'-0"

ELECTRICAL LOAD ANALYSIS				
208' / 120', 3-PHASE, 4-WIRE				
DESCRIPTION	LOAD	DIV.	NEC	KVA
LIGHTING:				
INTERIOR =	832 VA	X 125%	210.20(a)	1.0
TENANT GENERAL LIGHTING =	23,400 VA		220.12	23.4
TENANT SIGN LIGHTING =	7,200 VA		220.14(f)	7.2
TENANT SHOW WINDOW =	1,980 VA		220.14(g), 220.42	2.0
EXTERIOR =	1,600 VA	X 125%	210.20(a)	2.0
POWER:				
RECEPTACLES =	360 VA		220.44	0.4
TENANT RECEPTACLES =	7,800 VA		220.14(k), 220.44	7.8
HVAC:				
TENANT HVAC	124,800 VA		220.60	124.8
HEATING =	0 VA		220.60	0.0
FANS =	0 VA		220.60	0.0
25% LARGEST MOTOR =	0 VA		430.24	0.0
PLUMBING:				
TENANT WATER HEATER =	60,000 VA			60.0
			TOTAL =	228.6
			TOTAL AMPS:	634.5
			SERVICE SIZE:	800.0
			SPARE AMPACITY:	165.5

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ELECTRICAL KEYED NOTES:

- 1 ROUTE THROUGH EXTERIOR PHOTOCELL/TIME CLOCK/CONTACTOR FOR PHOTOCELL "ON"/TIME CLOCK "OFF" OPERATION. PROVIDE 120V CIRCUIT FROM PANEL "H" SPARE. REFER TO ARCHITECTURAL ELEVATION FOR EXACT LOCATION/QUANTITY OF ALL EXTERIOR LIGHT FIXTURES.
- 2 REFER TO MEP2.0 FOR SERVICE ENTRANCE EQUIPMENT LOCATION AND REFER TO E4.0 FOR ADDITIONAL INFORMATION.
- 3 PROVIDE JBOX ABOVE SHOW WINDOW FOR FUTURE LIGHTING BY TENANT. PROVIDE (1)-1/2" CONDUIT STUBBED UP ABOVE CEILING WITH PULL STRING.
- 4 PROVIDE JBOX WITH COVER AND PULL STRING FOR FUTURE SIGNAGE BY TENANT.

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VALVE</td><td>PRV</td></tr><tr><td></td><td>PRESSURE--RELIEF VALVE</td><td>RV</td></tr><tr><td></td><td>TEMPERATURE--PRESSURE--RELIEF VALVE</td><td>TPV</td></tr><tr><td></td><td>REDUCED ZONE BACKFLOW PREVENTER</td><td>RZBP</td></tr><tr><td></td><td>DOUBLE-CHECK BACKFLOW PREVENTER</td><td>DCBP</td></tr><tr><td></td><td>HOSE BIBB</td><td>HB</td></tr><tr><td></td><td>RECESSED--BOX HOSE BIBB OR WALL HYDRANT</td><td>WH</td></tr><tr><td></td><td>VALVE IN YARD BOX (VALVE TYPE SYMBOL AS REQUIRED FOR VALVE USE)</td><td>YB</td></tr><tr><td></td><td>UNION (SCREW)</td><td>-</td></tr><tr><td></td><td>UNION (FLANGED)</td><td>-</td></tr><tr><td></td><td>STRAINER (SPECIFY TYPE)</td><td>-</td></tr><tr><td></td><td>PIPE ANCHOR</td><td>PA</td></tr><tr><td></td><td>PIPE GUIDE</td><td>-</td></tr><tr><td></td><td>EXPANSION JOINT</td><td>EJ</td></tr><tr><td></td><td>FLEXIBLE CONNECTOR</td><td>FC</td></tr><tr><td></td><td>TEE</td><td>-</td></tr><tr><td></td><td>SIAMESE FIRE DEPARTMENT 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P--TRAP	FD		PITCH DOWN OR UP--IN DIRECTION OF ARROW	-		FLOW--IN DIRECTION OF ARROW	-		POINT OF CONNECTION	POC		STEAM TRAP (ALL TYPES)	-		FUNNEL FLOOR DRAIN	FDD		FLOOR SINK (3/4 GRATE)	FS		FLOOR SINK (1/2 GRATE)	FS		SOIL/VENT STACK DESIGNATION	-		REFERENCE: DETAIL NUMBER	-		REFERENCE: SHEET NUMBER	-		UPRIGHT SPRINKLER	-		PENDENT SPRINKLER	-		UPRIGHT SPRINKLER, NIPPED UP	-		PENDENT SPRINKLER, ON DROP NIPPLE	-		SIDEWALL SPRINKLER	-		PIPE HANGER	-		ALARM CHECK VALVE ASSEMBLY	-		DRY PIPE VALVE ASSEMBLY	-		DELUGE VALVE ASSEMBLY	-		PREACTION VALVE ASSEMBLY	-		EXISTING FIRE HYDRANT	-		NEW FIRE HYDRANT	-		WALL HYDRANT, TWO HOSE OUTLETS	-	<table><tr><th>ABBREVIATIONS</th><th>ABBREVIATIONS</th></tr><tr><td>A AFF ABOVE FINISHED FLOOR AC ABOVE CEILING ACU AIR--CONDITIONING UNIT(S) AHU AIR HANDLING UNIT AHP AIR HORSEPOWER AC ALTERNATING CURRENT ALT ALTITUDE AMB AMBIENT ANSI AMERICAN NATIONAL STANDARDS INSTITUTE AWS AMERICAN WIRE GAUGE AMP AMPERE (AMP, AMPS) ANG ANGLE ANGI ANGLE OF INCIDENCE ADP APPARATUS DEW POINT APPROX APPROXIMATE A AREA ATM ATMOSPHERE AVG AVERAGE</td><td>M MAX MAXIMUM MPS MEDIUM--PRESSURE STEAM MTHW MEDIUM--TEMPERATURE HOT WATER HG MERCURY MPH MILES PER HOUR MIN MINIMUM N NC NORMALLY CLOSED NO NORMALLY OPEN NA NOT APPLICABLE NIC NOT IN CONTRACT NTS NOT TO SCALE NO. 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- # PLUMBING KEYED NOTES:
- 1

GREASE WASTE AND VENT FOR PROPOSED GREASE TRAP.
- 2

DCW LINE FOR FUTURE TENANT SPACE.
- 3

CONTRACTOR TO PROVIDE SLEEVES AT EVERY PERPENDICULAR CROSSING OF ANY GRADE BEAM. INVERT IS FROM TOP OF FINISH FLOOR.
- 4

COORDINATE WITH CIVIL FOR CONNECTION.

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR
PERMIT, BIDDING, OR
CONSTRUCTION.
DESIGNER: 5EI, LLC

CONSULTANT'S
INFORMATION

DESIGNED BY: HM3	PROJECT NUMBER: 1711
DWN BY: HM3	DATE: FEB 21, 2018
FILE NAME:	
DESIGN PHASE 50% REVIEW	

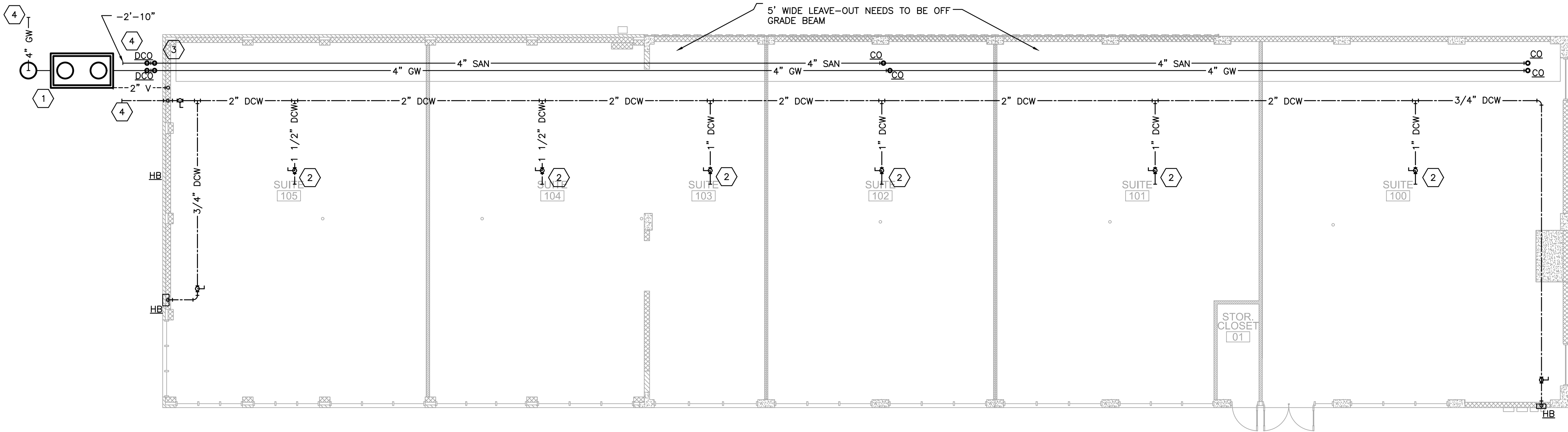
ZURICH INTERNATIONAL
ADAPTIVE REUSE
1602-1610 E HOUSTON STREET & 432 N HACKBERRY
SAN ANTONIO, TEXAS 78202

EXISTING FLOOR PLAN

SHEET NUMBER

PLUMBING PLAN **P1.0**

Sheet of X



1 PLUMBING PLAN
1/8" = 1'-0"

COLD WATER RISER

3/4" TO HB-1 AND TP-2 WITH DISTRIBUTION UNIT TO PRIME ALL FD&FS IN MECH RM.

EXTERIOR WALL REF: ARCH. DWG'S FOR DETAILS

WH-1

GATE VALVE WITH RISING STEM

DIELECTRIC UNION REQ'D FOR DIS-SIMILAR METALS

FINISHED GRADE REF: CIVIL DWG'S

FIN. FLOOR

24" MIN. 42" MAX.

SLEEVE FLOOR OPENING AND SEAL WATERTIGHT

6" MINIMUM REFER TO PLAN FOR SIZE

FLOOR DRAIN AS SPECIFIED

FINISH FLOOR

"PROSET TRAP GUARD" SHALL BE PROVIDED TO MATCH TYPE OF DRAIN INSTALLED AND SHALL BE SEALED WITH SILICONE ADHESIVE CAULKING.

SIZE PER PLAN

NOTE: INSTALL PER MANUFACTURE RECOMMENDATION FOR WATERTIGHT SEAL.

1 DOMESTIC WATER ENTRY DETAIL
NOT TO SCALE

2 TRAPGUARD DETAIL
NOT TO SCALE

PLUMBING FIXTURE & PIPE CONNECTION SCHEDULE									
TAG	DESCRIPTION	BASIS OF DESIGN		CONNECTION SIZE					
		MANUFACTURER	CATALOG NUMBER	CW INCHES	HW INCHES	TW INCHES	WASTE INCHES	INDIRECT WASTE INCHES	VENT INCHES
HB	EXPOSED WALL HYDRANT NON REMOVEABLE COMBINED CHECK VALVE AND VACUUM BREAKER AND LOOSE KEY OPERATING HANDLE	WADE	8600	3/4"	-	-	-	-	-
CO	CAST IRON C/O WITH COUNTER SUNK LUG AND SUITED FOR THE INSTALLATION REQUIRED. VERIFY TOP FINISHES WITH ARCHITECT.	WADE	6000 SERIES	-	-	-	REFER TO PLANS	-	-
GT	GREASE TROOPER 1000 GALLONS 2300LBS OF GREASE CAPACITY. CLASS II CONCRETE 4500 PSI. PROVIDE SAMPLE WELL GREASE TRAP. TRAP DESIGN SHALL ACCORDING TO COSA REQ.	PARK	"GREASE TROOPER"				4"		2"

NOT FOR CONSTRUCTION
50% REVIEW ONLY
DOCUMENT
NOT INTENDED FOR PERMITTING,
BIDDING, OR CONSTRUCTION.
ALFREDO HERNANDEZ
TEXAS REG. NO. 101108
02-21-2018

HM3
ENGINEERING
CONSULTANTS

2902 NORTH FLORES
SAN ANTONIO, TEXAS 78212
210.393.1840 PHONE

SAN ANTONIO - RGV
TBPE FIRM REGISTRATION NO. 13341