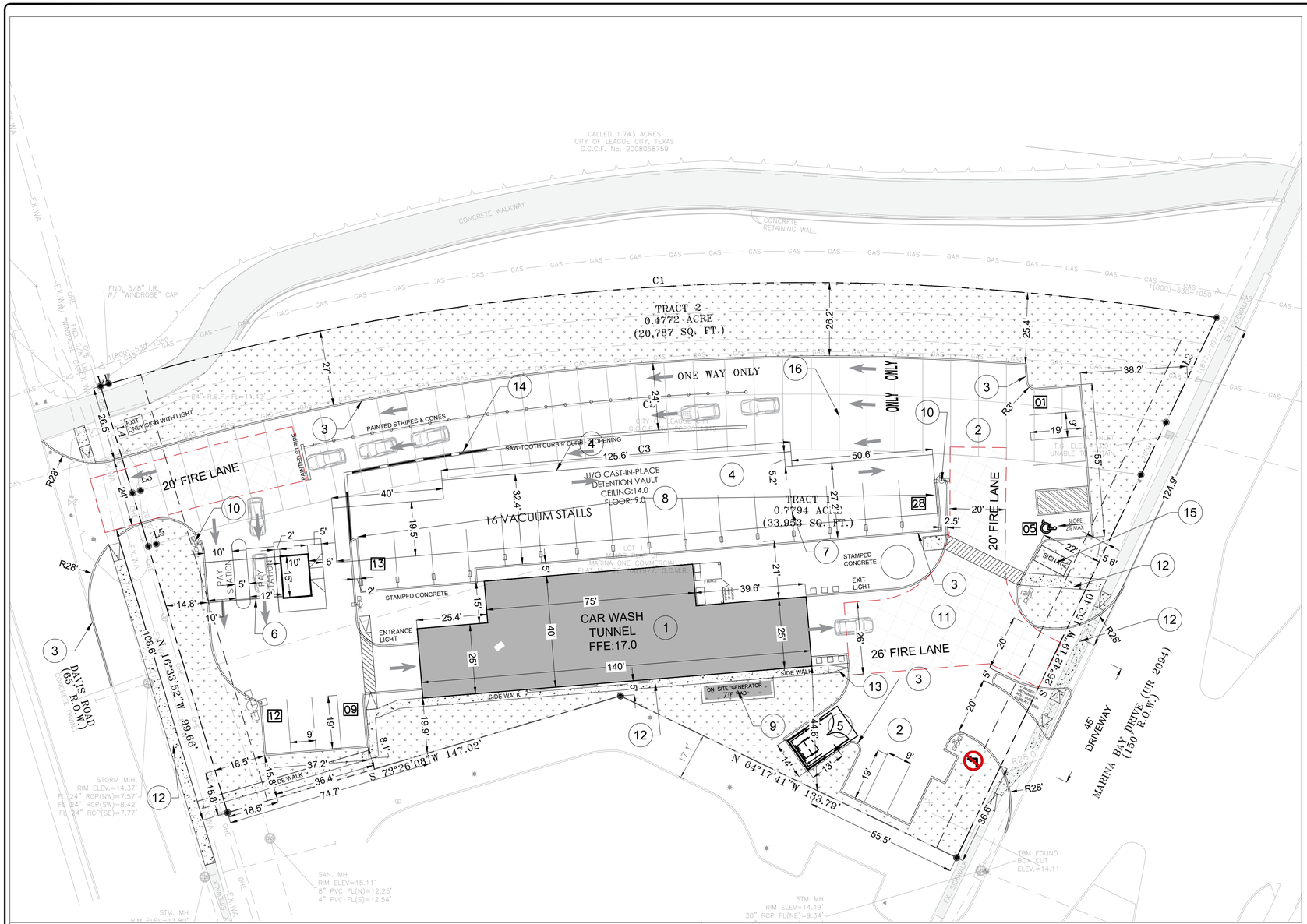
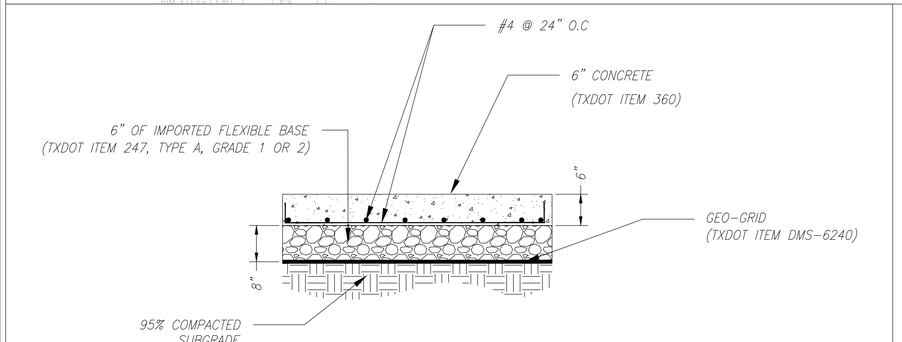
Attachment #4





PROPOSED SIDEWALK

EXISTING SIDEWALK

DIMENSION LAYOUT NOTES:

1. THE CONTRACTOR SHALL LAYOUT AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION AND RESOLUTION OF DISCREPANCIES PRIOR TO PROCEEDING.
2. VERIFY LOCATIONS OF ALL SITE IMPROVEMENTS INSTALLED AUNDER OTHER SECTIONS. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE ENGINEER FOR INSTRUCTION PRIOR TO COMMENCING WORK.
3. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
4. WHERE DIMENSIONS ARE CALLED AS "EQUAL", ALL REFERENCED ITEMS SHALL BE SPACED EQUALLY, MEASURED TO THEIR CENTER LINES.
5. ALL DIMENSIONS ARE PERPENDICULAR TO FACE OF BUILDING, WALL OR OTHER FIXED SITE IMPROVEMENT AND DIMENSIONS AT CURB ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
6. INSTALL ALL INTERSECTING ELEMENTS AT 90 DEGREES TO EACH OTHER UNLESS OTHERWISE NOTED.

(#) SITE PLAN CALLOUTS:-

(1) PROPOSED CAR WASH TUNNEL BUILDING(4,625 SFT), SEE PLAN BY OTHERS
(2) CONCRETE PAVEMENT (6" WITH #4 BARS @ 24" O.C)
(3) 6" CURB
(4) CAST IN PLACE CONCRETE DETENTION VAULT (STRUCTURAL DESIGN BY OTHERS)
(5) DUMPSTER PAD (7" WITH #5 BARS @ 12" O.C.)
(6) PAY STATION
(7) VACCUM STALLS
(8) 4" INCH WHITE EPOXY PAVEMENT MARKING AT 18" OC
(9) GENERATOR / TRANSFORMER PAD
(10) LIGHT POLE
(11) 20 FT FIRE LANE
(12) PROPOSED SIDEWALK
(13) RAMP
(14) SAW-TOOTH CURB (9' CURB, 3' OPENING ALTERNATE)
(15) MONUMENT SIGNAGE
(16) SAW CUT EVERY 10 FT AT EASEMENTS

IMPERVIOUS COVERAGE TABLE	
PROPOSED IMPERVIOUS AREA	39,285 SF
EXISTING IMPERVIOUS AREA	0 SF

SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS | ALL DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE

CARS RECOMMENDED:		
DRIVE THRU LANE :	350 FT /25	= 14 CARS
CAR WASH TUNNEL		= 1 CAR
VACCUME STATIONS:		= 16 CARS
REGULAR PARKING STALLS:		= 12 CARS
TOTAL:		= 43 CARS

Texas 811

NORTH

20 10 0 20'-0" 20 40

SCALE

ISSUE FOR:

FOR INTER REVIEW ONLY	
BID ONLY	
PERMITS SET	☑
CONSTRUCTION SET	

REVISIIONS:

NO.	DATE	DESCRIPTION
1.	09-26-2024	PERMIT SET
2.	02-13-2025	CITY/TXDOT COMMENTS
3.	03-14-2025	CITY COMMENTS

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED CAR WASH
LOCATED AT
2464 MARINA BAY DR, LEAGUE CITY, TX 77573

CIVIL ENGINEER :
ZAHOOR AHMAD
TX PE# 145509

SEAL :

ZAHOOR AHMAD 145509 LICENSED PROFESSIONAL ENGINEER 03/14/2025

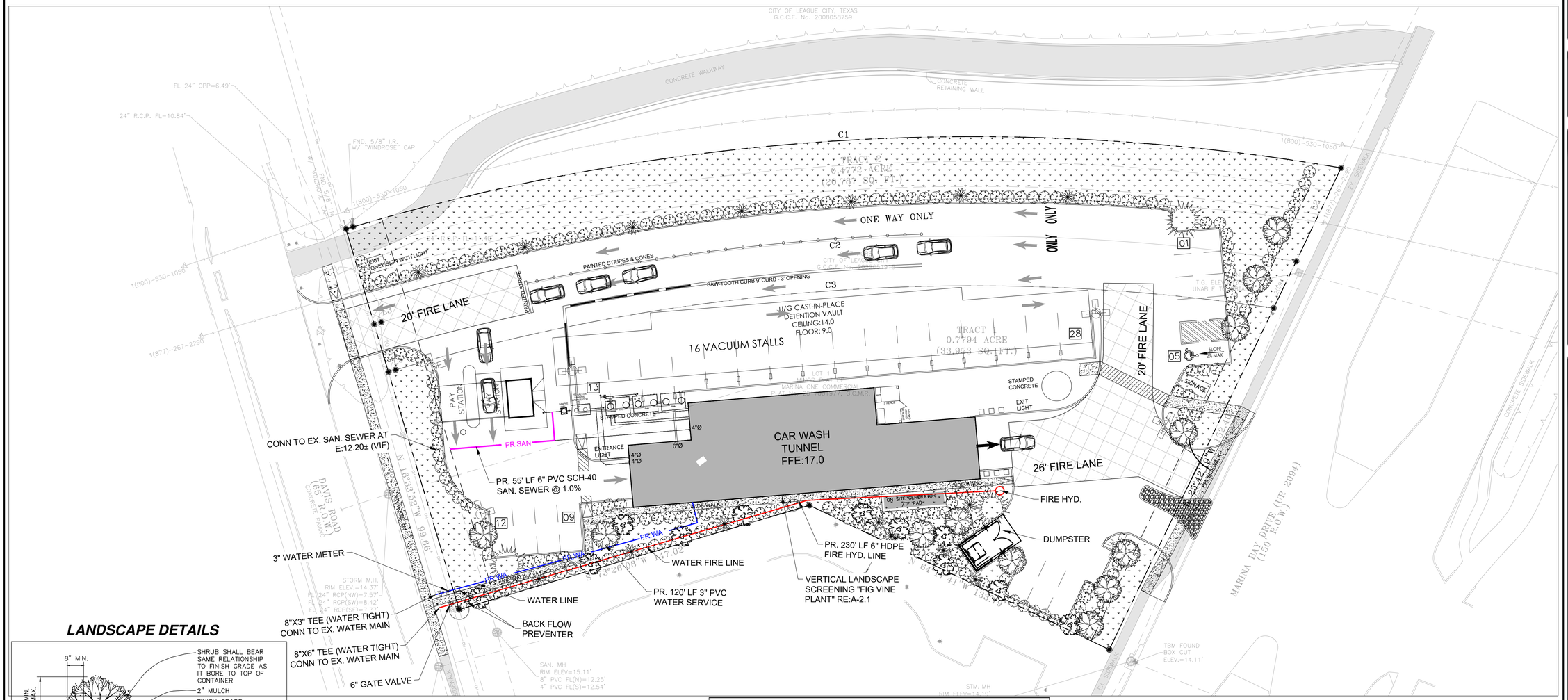
DATE: 03/14/2025

PROJECT NUMBER :	24-000
SCALE :	1"=20'
DRAWN BY :	Z.AHMAD
CHECKED BY:	Z.AHMAD
SHEET TITLE :	

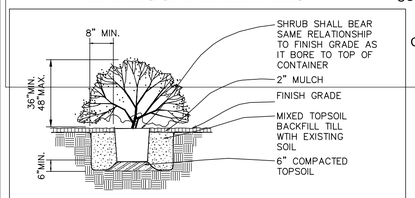
SITE PLAN

DRAWING NUMBER:

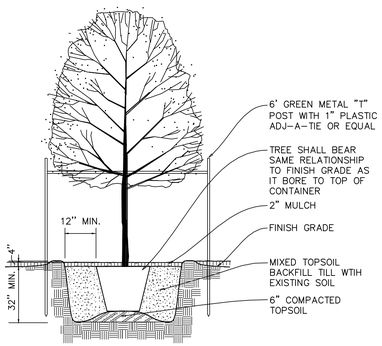
C-200



LANDSCAPE DETAILS



SHRUB DETAIL



TREE DETAIL

MIN. TRUNK HEIGHT 6" UPON INSTALLATION

IRRIGATION NOTE:
AN IRRIGATION SYSTEM TO SERVICE ALL NEW PLANTING WILL BE INSTALLED BY A CERTIFIED INSTALLER BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED.

LEGEND

- – INDICATES EXISTING CONCRETE SIDEWALK
- – INDICATES PROPOSED CONCRETE SIDEWALK
- – GRASS/ LANDSCAPE BED SOD.
- LO – STREET TREES
  1 1/2" HIGHRISE OAK TREE (15 GAL.)
  (QUERCUS VIRGINIANA 'HIGHRISE')
- CM – PARKING LOT TREES
  1 1/2" LITTLE GEM MAGNOLIA– WHITE (15 GAL.)
  (MAGNOLIA GRANDIFLORA 'LITTLE GEM')
- – BUFFER YARD TREES
  1 1/2" RIVER BIRCH (15 GAL.)
  (BETULA NIGRA 'RIVER BIRCH')
- – SHRUBS MAXIMUM SPACING 36" ON CENTER (5 GAL.)
  ILEX CORNUTA "BURFORD HOLLY" MIN 3' HEIGHT FOR SCREENING
- – SHRUBS MAXIMUM SPACING 36" ON CENTER (5 GAL.)
  MYRICA CERIFERA "WAX MYRTLE" MIN 3' HEIGHT FOR SCREENING
- F.H. – INDICATES FIRE HYDRANT
- FDC – INDICATES FIRE DEPARTMENT CONNECTION
- (#) – NUMBER OF PARKING SPACES
- – HANDICAP PARKING SPACE
- – PROPERTY LINE
- – BUILDING LINE
- – LIGHT POLE . RE: ELECTRICAL SITE PLAN

LANDSCAPING ANALYSIS

– STREET TREES REQUIRED	1 PER 30 L.F.	374.6'/30=12
– STREET TREES PROVIDED		12
– PARKING LOT TREES REQUIRED	1 PER 8 PARKING SPACES	25/8=3
– PARKING LOT TREES PROVIDED		3
– BUFFER YARD TREE REQUIRED	4 PER 100 L.F.	(280'/100)X4=11
– BUFFER YARD TREE PROVIDED		11
– SHRUB PROVIDED		120
– LANDSCAPED AREA REQUIRED		15%
– LANDSCAPED AREA PROVIDED		41%
– IMPERVIOUS AREA REQUIRED		MAX. 80%
– IMPERVIOUS AREA PROVIDED		59%

NOTE:

CONTRACTOR SHALL COMPLY WITH THE LEAGUE CITY DEVELOPMENT HANDBOOK AND THE UNIFIED DEVELOPMENT CODE (U.D.C.) FOR ALL APPLICABLE PROCEDURES, APPLICATIONS, AND REGULATIONS.

REFER TO TABLE 3.9.6.C.2 OF THE U.D.C. FOR MINIMUM STREET TREE PLANTING CLEARANCES, INCLUDING ADJUSTMENTS WHERE SPECIAL CONDITIONS EXIST.

PARKING NOTES

1. CONTRACTOR TO PAINT STRIPING, ARROWS ETC. AS SPECIFIED AND AS SHOWN ON THE PLAN.
2. PROVIDE 4" WIDE WHITE PARKING STRIPS. PAINT STRIPING, ARROWS ETC.

NORTH

20 10 0 20 40
SCALE

ISSUE FOR:

FOR INTER REVIEW ONLY	
BID ONLY	
PERMITS SET	☑
CONSTRUCTION SET	

REVISIIONS:

NO.	DATE	DESCRIPTION
1.	09-26-2024	PERMIT SET

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM. # 21236

PROPOSED CAR WASH LOCATED AT 2464 MARINA BAY DR, LEAGUE CITY, TX 77573

CIVIL ENGINEER :
ZAHOOR AHMAD
TX PE# 145509

SEAL :

ZAHOOR AHMAD 145509 LICENSED PROFESSIONAL ENGINEER

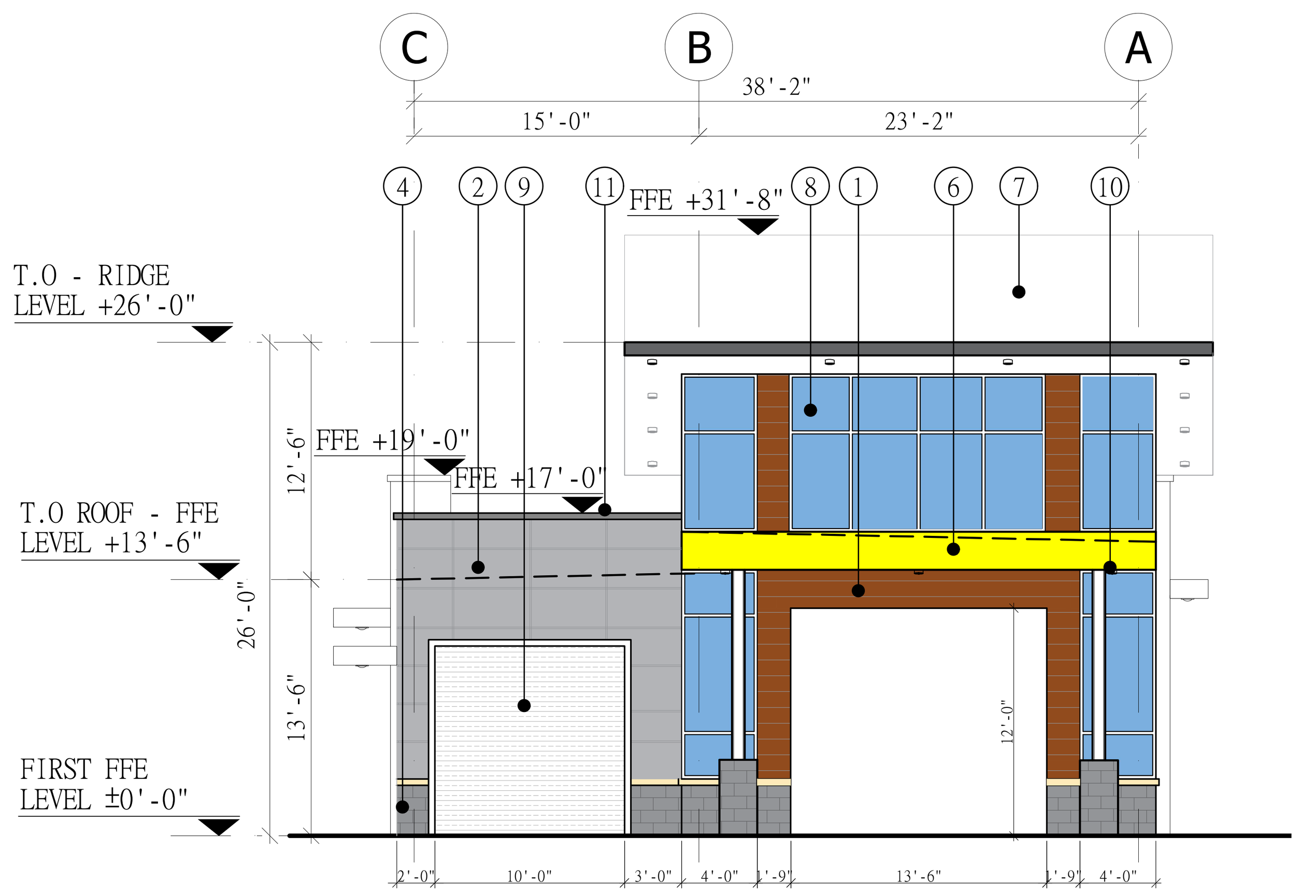
DATE: 09/26/2024

PROJECT NUMBER :	24-000
SCALE :	1"=20'
DRAWN BY :	Z.AHMAD
CHECKED BY:	Z.AHMAD
SHEET TITLE :	

LANDSCAPING PLAN

DRAWING NUMBER:
L-100

Attachment #4



ELEVATION -WEST FACING DAVIS RD

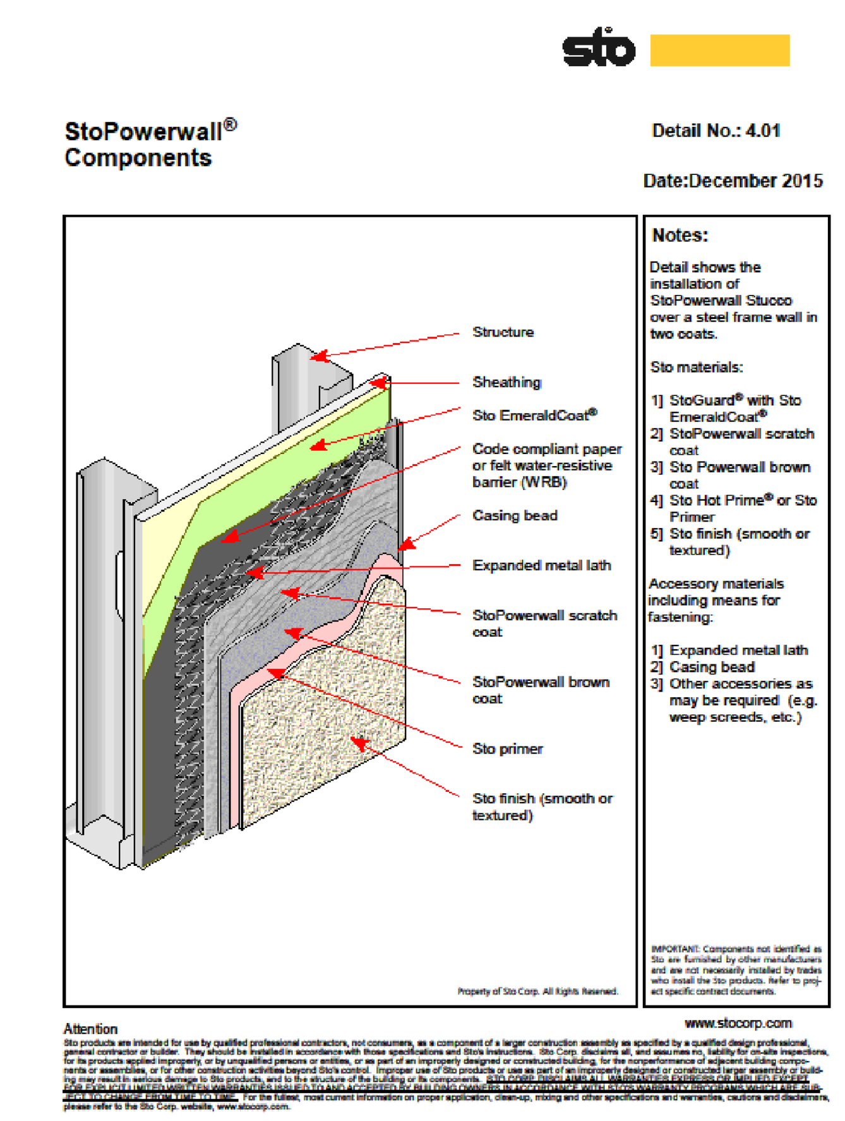
Scale: 1/8"=1'0"

KEYED NOTES

1 NICHIHA PANEL OVER POLYURETHANE BOARD & ALUMINUM FOIL
2 STUCCO FINISH OVER 5/8" DENSGLASS SHEATHING
3 CEMENT FIBER BOARD PAINTED FINISH OVER 5/8" DENSGLASS SHEATHING\
DESIGN PANEL MATERIAL OPTIONAL
4 12"x24", 1 3/16" THICK BUFF LIMESTONE OVER 5/8" DENSGLASS / METAL STUDS
5 ALUMINUM PANEL #2 ENTRANCE CANOPY (BY APPROVED SUPPLIER)
6 ALUMINUM PANEL #3 CANOPY (BY APPROVED SUPPLIER)
7 ALUMINUM PANEL #4 ROOF PANEL (BY APPROVED SUPPLIER)
8 ALUMINUM STOREFRONT SYSTEM WITH 1" THICK INSULATING TEMPERED
LOW-E GLASS (RE: WINDOW SCHEDULE)
9 METAL ROLLING SHUTTER
10 LED DROP LIGHT / SPOT LIGHT
11 PARAPET WALL WITH METAL CAP COPING
12 EXTERIOR SIGN BY OWNERS TO BE DESIGNED AS PER CITY REQUIREMENT
13 STRUCTURAL STEEL COLUMN PAINTED FINISH
14 EXTERIOR HOLLOW CORE METAL DOOR (RE: DOOR SCHEDULE)
15 DOWNSPOUT (RE: PLUMBING DRAWINGS)
16 WALL PACK LIGHT (RE: ELECTRICAL DRAWINGS)
17 CAT LADDER
18 EMERGENCY EXIT LIGHT
19 HONED LIMESTONE SILL
20 ROOF TOP A/C UNIT
21 VERTICAL LANDSCAPE SCREENING WITH LED STRIPE LIGHTS ON LANDSCAPE
22 WALL SCONCE, UP/DOWN LIGHT

MATERIAL LEGEND

SYMBOL	DESCRIPTION	COLOR
	NICHIHA PANEL	
	FIBER CEMENT BOARD	
	STUCCO FINISH	
	BUFF LIMESTONE	
	ALUMINUM PANEL	
	ALUMINUM PANEL	


sto
StoPowerwall® Components
Detail No.: 4.01
Date:December 2015

Notes:
Detail shows the installation of StoPowerwall Stucco over a steel frame wall in two coats.

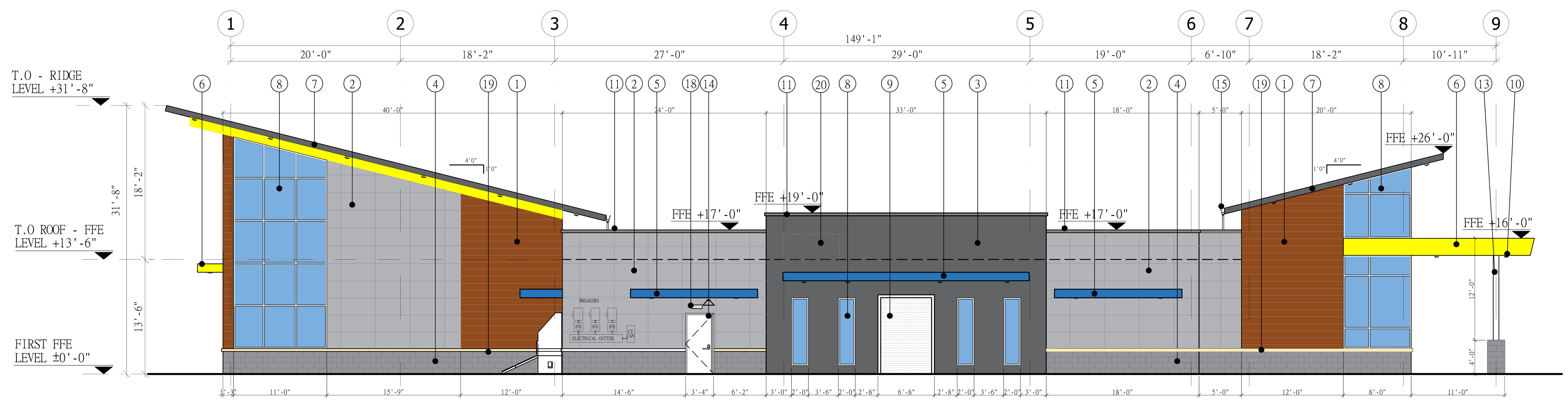
Sto materials:
1] StoGuard® with Sto EmeraldCoat®
2] StoPowerwall scratch coat
3] Sto Powerwall brown coat
4] Sto Hot Prime® or Sto Primer
5] Sto finish (smooth or textured)

Accessory materials including means for fastening:
1] Expanded metal lath
2] Casing bead
3] Other accessories as may be required (e.g. weep screeds, etc.)

www.stocorp.com

STUCCO DETAIL

Scale: N.T.S.



ELEVATION -1 NORTH

Scale: 1/8"=1'0"

IMPORTANT NOTES

A. "ANY SUBSTITUTION OF EXTERIOR MATERIALS MUST BE APPROVED BY THE CITY PRIOR TO INSTALLATION."

B. "SOLID DOORS, INCLUDING ANY OVERHEAD DOORS, SERVICE AND UTILITY BOXES, GUTTERS AND DOWNSPOUTS WILL BE PAINTED EITHER A COMPLEMENTARY TRIM OR ACCENT COLOR, OR THE SURROUNDING PREDOMINATE COLOR TO BLEND."

C. "ALL COPING WILL EITHER MATCH A COMPLEMENTARY TRIM OR ACCENT COLOR, OR MATCH THE SURROUNDING PREDOMINATE COLOR TO BLEND."

D. "ANY VENTILATION LOUVERS WILL BE UNIFORMLY PAINTED EITHER A COMPLEMENTARY TRIM OR ACCENT COLOR, OR MATCH THE SURROUNDING PREDOMINATE COLOR TO BLEND."

E. "ALL ROOF-TOP EQUIPMENT WILL BE SCREENED BY PARAPET WALLS, GROUND-MOUNTED EQUIPMENT WILL BE SCREENED BY MASONRY WALLS OR LANDSCAPING, ALL TRANSFORMERS WILL BE SCREENED BY MASONRY WALLS, AND ALL WALL-MOUNTED EQUIPMENT WILL BE PAINTED TO MATCH THE BUILDING."

F. "THE ZONING INSPECTOR WILL MAKE THE FINAL DETERMINATION DURING CONSTRUCTION AND PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY REGARDING COMPLIANCE WITH MECHANICAL EQUIPMENT SCREENING STANDARDS."

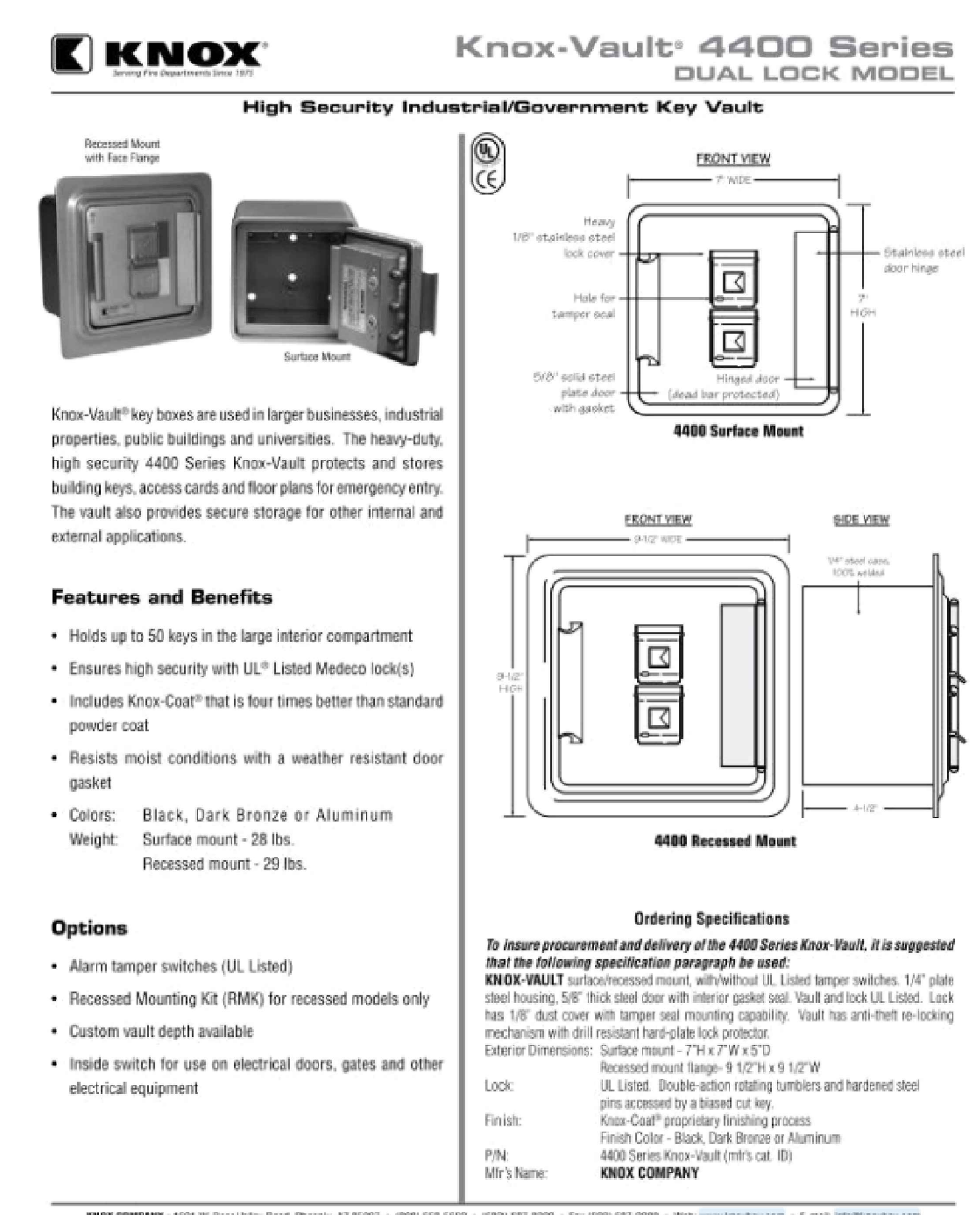
DESIGN CRITERIA:

1. THE BUILDING CODE USED FOR THE BASIS ON TABLE 1604.5, 1607.1, 2015 INTERNATIONAL CODES WITH CITY OF LEAGUE CITY AMENDMENTS
2. STRUCTURAL DESIGN CRITERIA:
   A. GRAVITY LOAD
   1. DESIGN LOADS

ROOF - LIVE LOAD ------------ 20 PSF
DEAD LOAD ------------ SELF WT. OF
STRUCTURAL ELEMENTS
FLOOR - LIVE/DEAD ------------ 100 PSF/ 20 PSF

B. WIND LATERAL
1. WIND LOAD CRITERIA (AS PER ASCE 7)
ULTIMATE DESIGN WIND SPEED, V(ult)= 150 MPH
RISK CATEGORY - II
IMPORTANCE FACTOR - 1.0
EXPOSURE CLASSIFICATION - B

AWNINGS AND CANOPIES ARE DESIGNED FOR A MINIMUM UNIFORM LIVE LOAD OF 20 PSF AS PER TABLE 1607.1 AS WELL AS FOR THE REQUIRED ULTIMATE DESIGN WIND SPEED, V(ULT).


KNOX
Knox-Vault® 4400 Series
DUAL LOCK MODEL
High Security Industrial/Government Key Vault

Knox-Vault® key boxes are used in larger businesses, industrial properties, public buildings and universities. The heavy-duty, high security 4400 Series Knox-Vault protects and stores building keys, access cards and floor plans for emergency entry. The vault also provides secure storage for other internal and external applications.

Features and Benefits
- Holds up to 50 keys in the large interior compartment
- Ensures high security with UL® Listed Medeco lock(s)
- Includes Knox-Coat® that is four times better than standard powder coat
- Resists moist conditions with a weather resistant door gasket
- Colors: Black, Dark Bronze or Aluminum
  Weight: Surface mount - 28 lbs. Recessed mount - 29 lbs.

Options
- Alarm tamper switches (UL Listed)
- Recessed Mounting Kit (RMK) for recessed models only
- Custom vault depth available
- Inside switch for use on electrical doors, gates and other electrical equipment

Ordering Specifications
To insure procurement and delivery of the 4400 Series Knox-Vault, it is suggested that the following specification paragraph be used:
KNOX-VAULT surface/recessed mount, with/without UL Listed tamper switches. 1/4" plate steel housing, 5/8" thick steel door with interior gasket seal. Vault and lock UL Listed. Lock has 1/8" dust cover with tamper seal mounting capability. Vault has anti-theft re-locking mechanism with drill resistant hard-plate lock protector.
Exterior Dimensions: Surface mount - 7"H x 7"W x 5"D; Recessed mount flange- 9 1/2"H x 9 1/2"W
Lock: UL Listed. Double-action rotating tumblers and hardened steel pins accessed by a biased cut key.
Finish: Knox-Coat® proprietary finishing process. Finish Color - Black, Dark Bronze or Aluminum
P/N: 4400 Series Knox-Vault (mfr's cat. ID)
Mfr's Name: KNOX COMPANY

KNOX BOX DETAIL

Scale: N.T.S.

ISSUE FOR:

FOR INTER REVIEW ONLY	
BID ONLY	
PERMITS SET	
CONSTRUCTION SET	✓

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED ORCA TUNNEL CAR WASH
LOCATED AT
2464 MARINA BAY DR LEAGUE CITY TX 77573

SEAL :
STATE OF TEXAS
ASHLEY BICE
134060
LICENSED PROFESSIONAL ENGINEER
6/9/25

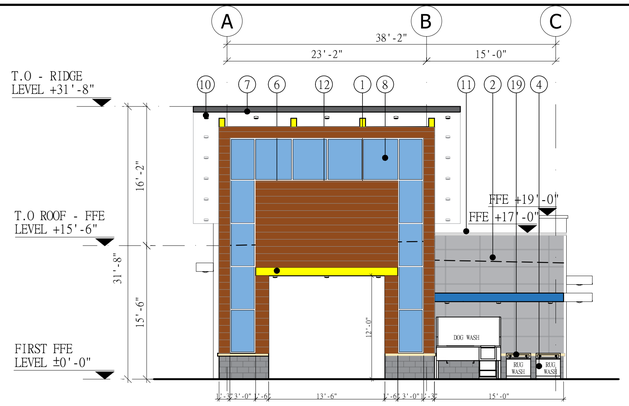
DATE: 08/21/2024

PROJECT NUMBER	:	24-034
SCALE	:	1/8"=1'-0"
DRAWN BY	:	A.Z
CHECKED BY	:	A.Z
SHEET TITLE	:	

ELEVATION 1 & 2

DRAWING NUMBER:
A-2.0

Attachment #4



ELEVATION - EAST FACING MARINA BAY DR

Scale: 1/8"=1'0"

KEYED NOTES

1 NICHIHA PANEL OVER POLYURETHANE BOARD & ALUMINUM FOIL
2 STUCCO FINISH OVER 5/8" DENSGLASS SHEATHING
3 CEMENT FIBER BOARD PAINTED FINISH OVER 5/8" DENSGLASS SHEATHING\ DESIGN PANEL MATERIAL OPTIONAL
4 12"x24", 1 3/16" THICK BUFF LIMESTONE OVER 5/8" DENSGLASS / METAL STUDS
5 ALUMINUM PANEL #2 ENTRANCE CANOPY (BY APPROVED SUPPLIER)
6 ALUMINUM PANEL #3 CANOPY (BY APPROVED SUPPLIER)
7 ALUMINUM PANEL #4 ROOF PANEL (BY APPROVED SUPPLIER)
8 ALUMINUM STOREFRONT SYSTEM WITH 1" THICK INSULATING TEMPERED LOW-E GLASS (RE: WINDOW SCHEDULE)
9 METAL ROLLING SHUTTER
10 LED DROP LIGHT / SPOT LIGHT
11 PARAPET WALL WITH METAL CAP COPING
12 EXTERIOR SIGN BY OWNERS TO BE DESIGNED AS PER CITY REQUIREMENT
13 STRUCTURAL STEEL COLUMN PAINTED FINISH
14 EXTERIOR HOLLOW CORE METAL DOOR (RE: DOOR SCHEDULE)
15 DOWNSPOUT (RE: PLUMBING DRAWINGS)
16 WALL PACK LIGHT (RE: ELECTRICAL DRAWINGS)
17 CAT LADDER
18 EMERGENCY EXIT LIGHT
19 HONED LIMESTONE SILL
20 ROOF TOP A/C UNIT
21 VERTICAL LANDSCAPE SCREENING WITH LED STRIPE LIGHTS ON LANDSCAPE
22 WALL SCONCE, UP/DOWN LIGHT

NOTE:

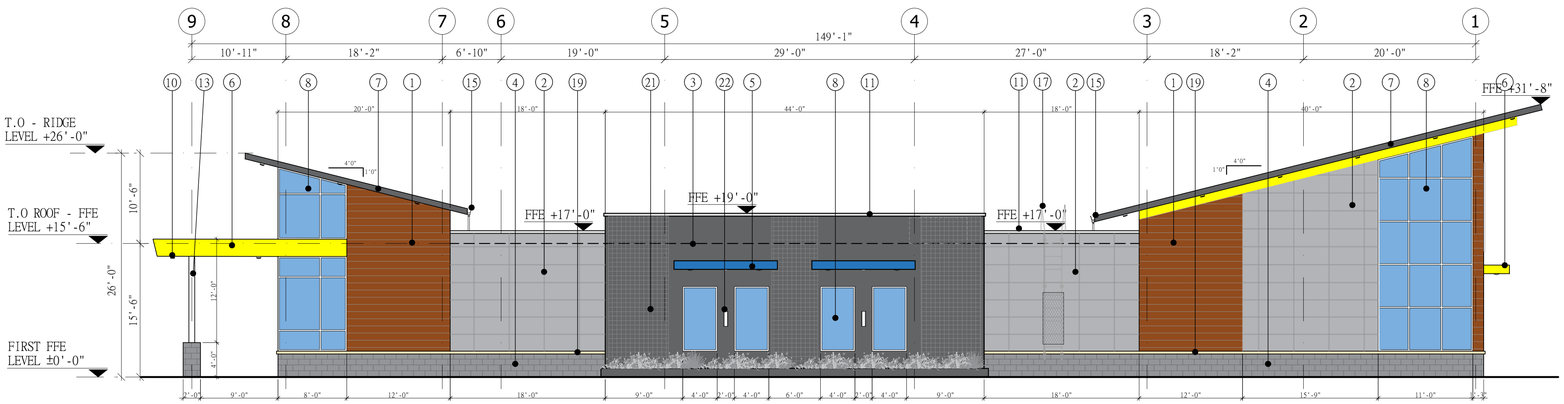
WALL SIGN ALLOWANCE IS 1.5 SQUARE FEET PER LINEAR FOOT OF BUSINESS FRONTAGE. WITH A BUILDING FRONTAGE OF 38'-2", THE SIGN MUST BE 57 SQUARE FEET TO COMPLY WITH THE CITY OF LEAGUE CITY REQUIREMENTS.

MATERIAL LEGEND

SYMBOL	DESCRIPTION	COLOR
	NICHIHA PANEL	
	FIBER CEMENT BOARD	
	STUCCO FINISH	
	BUFF LIMESTONE	
	ALUMINUM PANEL	
	ALUMINUM PANEL	

MONUMENT SIGNAGE-MARINA BAY DR

Scale: 3/8"=1'0"



ELEVATION -SOUTH

Scale: 1/8"=1'0"

LIGHT GAUGE METAL FRAMING NOTES:

1. ALL STUDS AND / OR JOIST AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS.
2. ALL STRUCTURAL MEMBERS AND CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
3. ALL STUDS,RUNNERS, JOISTS AND TRUSSES SHELL BE FORMED FROM GALVANIZED STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR .097, .068, .054 THICK MEMBERS AND 33 KSI FOR .043 AND .033 THICK MEMBERS AND FLAT STRAP BRACING.
4. PRIOR TO FABRICATION THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
5. PREFABRICATED PANELS SHALL BE SQUARE, WITH COMPONENTS ATTACHED IN A MANNER AS TO PREVENT RACKING. HANDLING AND LIFTING SHALL BE DONE IN A MANNER SO AS NOT CAUSE DISTORTION IN ANY MANNER
6. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR, AS REQUIRED, FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.
7. AXIALLY LOADED STUDS SHALL BE INSTALLED IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF TRACK WEB PRIOR TO FASTENING.
8. FASTENING OF COMPONENTS SHALL BE WITH SELF - DRILLING SCREWS OR WELDS. SCREW OR WELDS SHALL BE OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED.ALL WELDS SHALL BE TOUCHED - UP WITH A ZINC - RICH PAINT.
9. RUNNER SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE. PROPOSED CONNECTION TO BE SUBMITTED FOR APPROVAL.
10. ABUTTING LENGTHS OF TRACK SHALL EACH BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, BUTT - WELDED, OR SPLICED.
11. STUDS SHALL BE PLUMB, ALIGNED AND SECURELY ATTACHED TO FLANGES OF BOTH UPPER AND LOWER TRACKS.
12. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS, ABOVE WINDOW AND DOOR HEADERS, AND WHERE NEEDED TO FURNISH SUPPORT, AND SHALL BE SECURELY ATTACHED TO CONNECTING MEMBERS.
13. RESISTANCE TO MINOR AXIS BENDING AND ROTATION SHALL BE PROVIDED BY GYPSUM BOARD OR GYPSUM SHEATHING AND BY HORIZONTAL STRAP AND BLOCKING OR COLD - ROLLED CHANNEL BRACING AT THIRD POINTS.
14. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED.
15. PROVIDE A MINIMUM OF (3) #12 SCREWS FOR ALL STUD CONNECTIONS.
16. BRIDGING SHALL BE INSTALLED IMMEDIATELY AFTER JOISTS ARE ERECTED AND BEFORE CONSTRUCTION LOADS ARE APPLIED TO PREVENT FLANGE ROTATION AND TO SUPPORT FLANGES IN COMPRESSION.BRIDGING SHALL CONSIST OF SOLID BLOCKING PLUS STRAP BRACING OR 1 1/2 " COLD - ROLLED CHANNELS SCREW - ATTACHED OR WELDED TO BOTTOM JOIST FLANGES. BRIDGING SHALL BE INSTALLED AT MID SPAN FOR SPAN 16'-0" OR LESS AND AT 8' - 0" O.C. MAX. FOR SPANS GREATER THAN 16'-0" U.N.O SOLID BLOCKING, OF FIELD - CUT TRACK OR JOIST SECTION, SHALL BE PROVIDED, WELDED OR SCREW - ATTACHED BETWEEN OUTER JOISTS, OVER ALL INTERIOR SUPPORTS AND ADJACENT TO OPENING AT 10' - 0" O.C. MAX. COLD - ROLLED CHANNELS OR STRAP BRACING OF 1 1/2 " X 33 MIL (0.033") CORROSION - RESISTANT STEEL SHALL BE SCREW - ATTACHED TO BOTTOM JOIST FLANGE BETWEEN SOLID BLOCKING. REFERENCE MANUFACTURER INSTALLATION INSTRUCTIONS.

STUCCO COMPOSITION NOTES:

SECTION 2512: EXTERIOR PLASTER:

2512.1 GENERAL.
Plastering with cement plaster shall not be less than three coats where applied over metal lath or wire fabric lath and shall not be less than two coats where applied over masonry, concrete or gypsum board backing as specified in Section 2510.5. If the plaster surface is to be completely covered by veneer or other facing material, or is completely concealed by another wall, plaster application need be only two coats, provided the total thickness is as set forth in ASTM C 926.

2512.1.1 ON-GRADE FLOOR SLAB.
On wood-framed or steel stud construction with an on-grade concrete floor slab sys- tem, exterior plaster shall be applied in such a manner as to cover, but not to extend below, the lath and paper. The application of lath, paper, and flashing or drip screeds shall comply with ASTM C 1063.

2512.1.2 WEEP SCREEDS.
A minimum 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed with a minimum vertical attachment flange of 3-1/2 inches (89 mm) shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 926. The weep screed shall be placed a minimum of 4 inches (102 mm) above the earth or 2 inch- es (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the building. The weather-resistant barrier shall lap the attach- ment flange. The exterior lath shall cover and terminate on the attachment flange of the weep screed.

2512.2 PLASTICITY AGENTS.
Only approved plasticity agents and approved amounts thereof shall be added to Portland cement. When plastic cement or masonry cement is used, no additional lime or plasticizers shall be added. Hydrated lime or the equivalent amount of lime putty used as a plasticizers is permitted to be added to cement plaster or cement and lime plaster in an amount not to exceed that set forth in two coats, provided the total thickness is as set forth in ASTM C 926.

2512.3 LIMITATIONS.
Gypsum plaster shall not be used on exterior surfaces.

2512.4 CEMENT PLASTER.
Plaster coats shall be protected from freezing for a period of not less than 24 hours after set has occurred. Plaster shall be applied when the ambient temperature is higher than 40° F (4° C), unless provisions are made to keep cement plaster work above 40° F (4° C) during application and 48 hours thereafter.

2512.5 SECOND COAT APPLICATION.
The second coat shall be brought out to proper thickness, rodded and floated sufficiently rough to provide adequate bond for the finish coat. The second coat shall have no variation greater than 1/4 inch (6.4 mm) in any direction under a 5-foot (1524 mm) straight edge.

2512.6 CURING AND INTERVAL
First and second coats of cement plaster shall be applied and moist cured as set forth in ASTM C 926 and Table 2512.6.

TABLE 2512.6 CEMENT PLASTERS[c]

COAT	MINIMUM PERIOD MOIST CURING	MINIMUM INTERVAL BETWEEN COATS
FIRST	48 HOURS[a]	48 HOURS[b]
SECOND	48 HOURS	7 DAYS[c]
FINISH	—	NOTE C

a. The first two coats shall be as required for the first coats of exterior plaster, except that the moist-curing time period between the first and second coats shall not be less than 24 hours. Moist curing shall not be required where job and weather conditions are favorable to the retention of moisture in the cement plaster for the required time period.

b. Twenty-four-hour minimum interval between coats of interior cement plaster. For alternate method of application, see Section 2512.8.

c. Finish coat plaster is permitted to be applied to interior Portland cement base coats after a 48-hour period.

2512.7 APPLICATION TO SOLID BACKINGS
Where applied over gypsum backing as specified in Section 2510.5 or directly to unit masonry surfaces, the second coat is permitted to be applied as soon as the first coat has attained sufficient hard- ness.

2512.8 ALTERNATE METHOD OF APPLICATION.
The second coat is permitted to be applied as soon as the first coat has attained sufficiently rigidity to receive the second coat.

2512.8.1 ADMIXTURES.
When using this method of application, calcium aluminate cement up to 15 percent of the weight of the Portland cement is permitted to be added to THE MIX.

2512.8.2 CURING.
Curing of the first coat is permitted to be omitted and the second coat shall be cured as set forth in ASTM C 926 and Table 2512.6.

2512.9 FINISH COATS
Cement plaster finish coats shall be applied over base coats that have been in place for the time periods set forth in ASTM C 926. The third or finish coat shall be applied with sufficient material and pressure to bond and to cover the brown coat and shall be of sufficient thick- ness to conceal the brown coat.

These notes were obtained from 2015 IBC.

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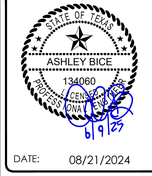
MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED ORCA TUNNEL CAR WASH
LOCATED AT
2464 MARINA BAY DR LEAGUE CITY TX 77573

SEAL :



DATE: 08/21/2024

PROJECT NUMBER	:	24-034
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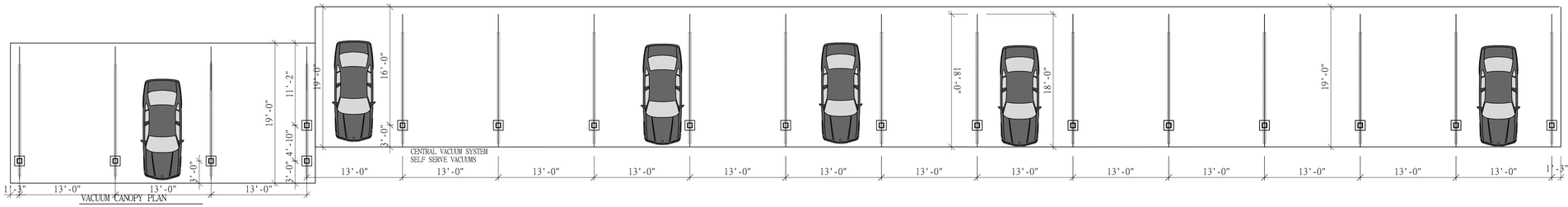
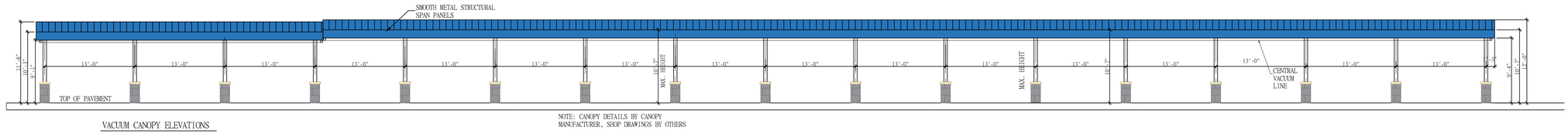
CHECKED BY	:	A.Z
SHEET TITLE	:	

ELEVATION 3 & 4

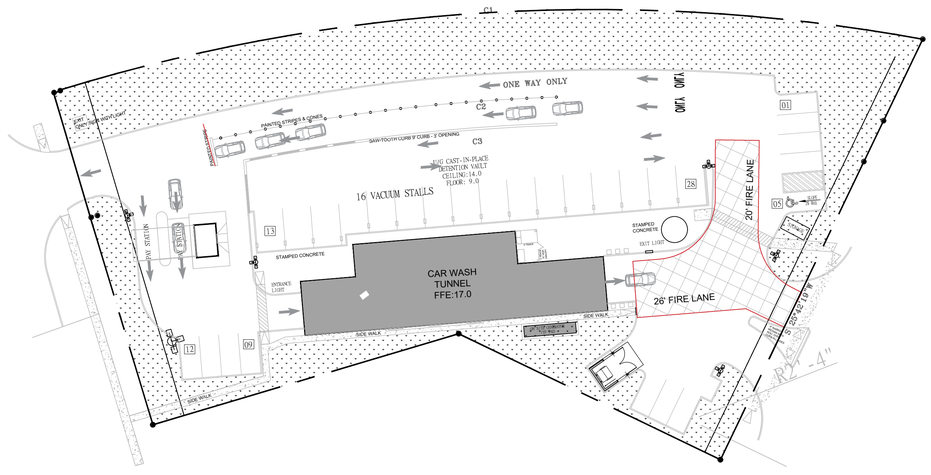
DRAWING NUMBER:
A-2.1





VACUUM CANOPY PLAN & ELEVATION

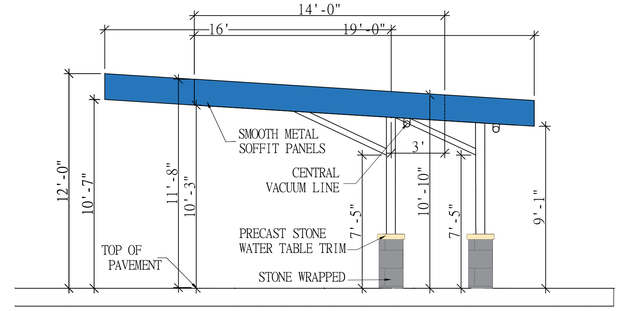
Scale: 1/8"=1'0"



SITE PLAN FOR VACUUM LOCATION

NOTES:

CENTRAL VACUUM SYSTEM EQUIPMENT WILL BE INSIDE THE MAIN CAR WASH BUILDING



VACUUM CANOPY SIDE ELEVATION

Scale: 1/4"=1'0"

1. ALL STUDS AND / OR JOIST AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS.
2. ALL STRUCTURAL MEMBERS AND CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
3. ALL STUDS,RUNNERS, JOISTS AND TRUSSES SHELL BE FORMED FROM GALVANIZED STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR .097, .068, .054 THICK MEMBERS AND 33 KSI FOR .043 AND .033 THICK MEMBERS AND FLAT STRAP BRACING.
4. PRIOR TO FABRICATION THE CONTRACTOR SHALL SUBMIT ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR APPROVAL.
5. PREFABRICATED PANELS SHALL BE SQUARE, WITH COMPONENTS ATTACHED IN A MANNER AS TO PREVENT RACKING. HANDLING AND LIFTING SHALL BE DONE IN A MANNER SO AS NOT CAUSE DISTORTION IN ANY MANNER
6. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR, AS REQUIRED, FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.
7. AXIALLY LOADED STUDS SHALL BE INSTALLED IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF TRACK WEB PRIOR TO FASTENING.
8. FASTENING OF COMPONENTS SHALL BE WITH SELF - DRILLING SCREWS OR WELDS. SCREW OR WELDS SHALL BE OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED.ALL WELDS SHALL BE TOUCHED - UP WITH A ZINC - RICH PAINT.
9. RUNNER SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE. PROPOSED CONNECTION TO BE SUBMITTED FOR APPROVAL.
10. ABUTTING LENGTHS OF TRACK SHALL EACH BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, BUTT - WELDED, OR SPLICED.
11. STUDS SHALL BE PLUMB, ALIGNED AND SECURELY ATTACHED TO FLANGES OF BOTH UPPER AND LOWER TRACKS.
12. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS, ABOVE WINDOW AND DOOR HEADERS, AND WHERE NEEDED TO FURNISH SUPPORT, AND SHALL BE SECURELY ATTACHED TO CONNECTING MEMBERS.
13. RESISTANCE TO MINOR AXIS BENDING AND ROTATION SHALL BE PROVIDED BY GYPSUM BOARD OR GYPSUM SHEATHING AND BY HORIZONTAL STRAP AND BLOCKING OR COLD - ROLLED CHANNEL BRACING AT THIRD POINTS.
14. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED.
15. PROVIDE A MINIMUM OF (3) #12 SCREWS FOR ALL STUD CONNECTIONS.
16. BRIDGING SHALL BE INSTALLED IMMEDIATELY AFTER JOISTS ARE ERECTED AND BEFORE CONSTRUCTION LOADS ARE APPLIED TO PREVENT FLANGE ROTATION AND TO SUPPORT FLANGES IN COMPRESSION.BRIDGING SHALL CONSIST OF SOLID BLOCKING PLUS STRAP BRACING OR 1 1/2 " COLD - ROLLED CHANNELS SCREW - ATTACHED OR WELDED TO BOTTOM JOIST FLANGES. BRIDGING SHALL BE INSTALLED AT MID SPAN FOR SPAN 16'-0" OR LESS AND AT 8' - 0" O.C. MAX. FOR SPANS GREATER THAN 16'-0" U.N.O SOLID BLOCKING, OF FIELD - CUT TRACK OR JOIST SECTION, SHALL BE PROVIDED, WELDED OR SCREW - ATTACHED BETWEEN OUTER JOISTS, OVER ALL INTERIOR SUPPORTS AND ADJACENT TO OPENING AT 10' - 0" O.C. MAX. COLD - ROLLED CHANNELS OR STRAP BRACING OF 1 1/2 " X 33 MIL (0.033") CORROSION - RESISTANT STEEL SHALL BE SCREW - ATTACHED TO BOTTOM JOIST FLANGE BETWEEN SOLID BLOCKING. REFERENCE MANUFACTURER INSTALLATION INSTRUCTIONS.

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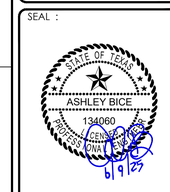

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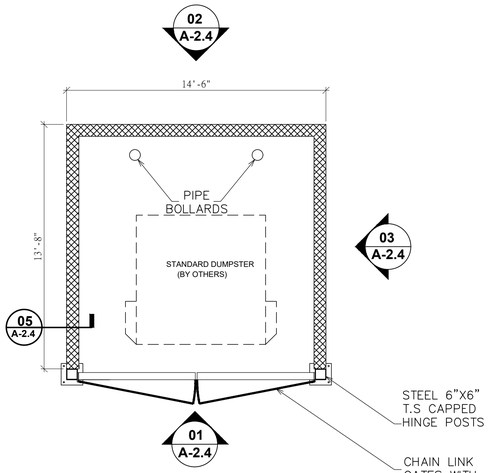
CHECKED BY	:	A.Z
SHEET TITLE	:	

1/8"=1'-0"

VACUUM CANOPY

DRAWING NUMBER:

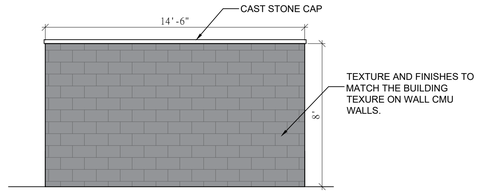
A-2.2



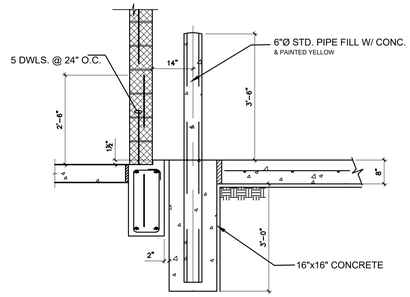
DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"

NOTES:

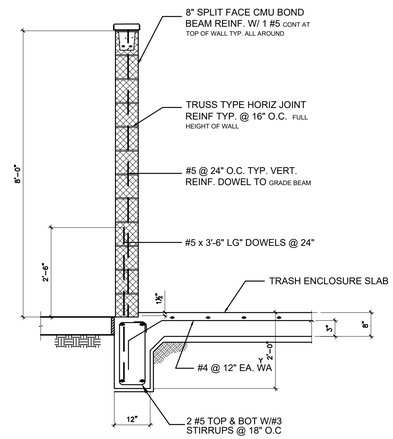
1. INSTALL GATE TO SWING CLEAR OF PAVEMENT.
2. PROVIDE BOLTS TO SECURE GATES IN FULL OPEN OR CLOSED POSITION.
3. SEAL AND PAINT TO MATCH BUILDING.
4. ENCLOSURE HEIGHT: MIN 6' , MAX 8'.
5. MATERIALS MUST BE COMPATIBLE WITH PRINCIPAL BUILDING.
6. DUMPSTER TO REMAIN FULLY SCREENED FROM PUBLIC VIEW.
7. ENCLOSURE MUST BE MAINTAINED IN CLEAN, SECURE CONDITION.



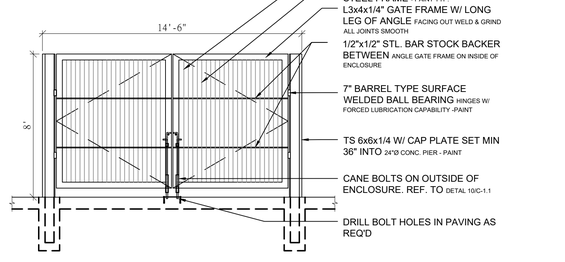
02 ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



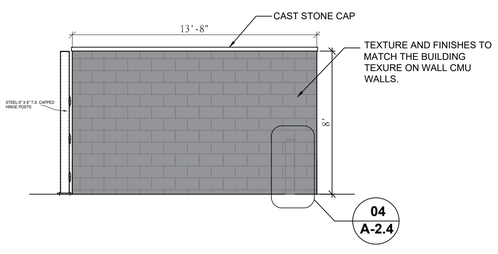
04 ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



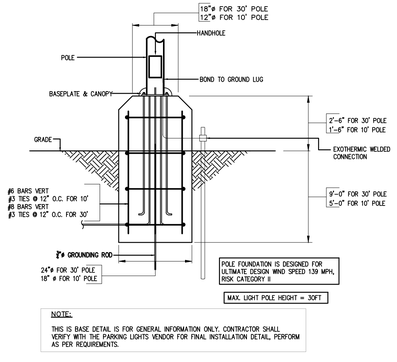
05 SECTION : DUMPSTER WALLS
SCALE: 1/4" = 1'-0"



01 DUMPSTER ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



03 ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



06 DETAIL : LIGHT POLE FOUNDATION SECTION
SCALE: 1/4" = 1'-0"

DUMPSTER DETAIL
Scale: 1/4"=1'0"

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DUMPSTER DETAIL

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A-2.4