PSJA AGRICULTURAL FACILITY

PHARR - SAN JUAN - ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

ABBREVIATIONS

THIS IS A GENERAL LIST. ALL ABBREVIATIONS MAY NOT APPLY.

A

@	AT
A, AMP	AMPERES
AB	ANCHOR BOLT
ABV	ABOVE
A/C	AIR CONDITIONING
ACOU	ACOUSTICAL
ADJ.	ADJUSTABLE
ADMIN	ADMINISTRATIVE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
ALT	ALTERNATE
∠	ANGLE
ANOD	ANODIZED
AP	ACCESS PANEL
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATELY
ARCH, ARCHL	ARCHITECTURAL
ASS'Y	ASSEMBLY
AUX	AUXILIARY
AWI	ARCHITECTURAL WOODWORK INSTITUTE
AWP	ACOUSTICAL WALL PANEL

B

BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOS	BOTTOM OF STEEL
B, BOTT	BOTTOM
BRZ	BRONZE
BTU	BRITISH THERMAL UNIT
BUR	BUILT-UP ROOF

C

C	CENTIGRADE
CAB	CABINET
CFMF	COLD-FORMED METAL FRAMING
CH	COAT HOOK
CHBD	CHALK BOARD
CI	CAST IRON
CJ	CONTROL JOINT
CL, ℄	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONNX	CONNECTION
CONST.	CONSTRUCTION
CONT	CONTINUOUS
CRDR	CORRIDOR
CRS	COURSE
CT	CERAMIC TILE
CTK	CURTAIN TRACK
CU	CUBIC
CUST	CUSTODIAN
CWFP	CEMENTITIOUS WOOD FIBER PLANK

D

DBL	DOUBLE
DEF	DEFORMED
DIA, ø	DIAMETER
DIAG	DIAGRAM
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DN	DOWN
DP	DAMPPROOFING
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
DWLS	DOWELS
DWR	DRAWER

E

E, ELEC	ELECTRICAL
EA	EACH
EF	EXHAUST FLUE
EGSB	EXTERIOR GYPSUM SOFFIT BOARD
EIFS	EXTERIOR INSULATED FINISH SYSTEM
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXGR	EXISTING GRADE
EXH	EXHAUST
EXIST, EXG	EXISTING
EXP	EXPANSION
EXPD	EXPOSED
EXT	EXTERIOR

F

F	FAHRENHEIT
FA	FIRE ALARM
FC	FIRE CODE
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FGD	FINISH GRADE
FHC	FIRE HOSE CABINET
FIN.	FINISH
FLASH	FLASHING
FLR	FLOOR
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOLD PART	FOLDING PARTITION
FRP	FIBER REINFORCED PLASTIC
FR-WD	FIRE-RETARDANT TREATED WOOD
FS	FOOT SCRAPER
FT	FEET
Fy	YIELD STRESS
FUR	FURRING

G

G	GAS
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GD	GRADE
GDW, GYP.BD.	GYPSUM DRYWALL
GEN	GENERAL
GL	GLASS
GND	GROUND
GSFT	GLAZED STRUCTURAL FACING TILE
GWP	GYPSUM WALLBOARD
GYP	GYPSUM

H

HB	HOSE BIBB
HC	HANDICAPPED, HOLLOW CORE
HCFV	HOLLOW CORE FINISH VENEER
HD	HEAD, HEADED, HEAVY DUTY
HDG	HOT-DIPPED GALVANIZED
HDWR	HARDWARE
HEWC	HANDICAP ELECTRIC WATER COOLER
HM	HOLLOW METAL
HORIZ, H	HORIZONTAL
HR, HRS	HOUR, HOURS
HT	HEIGHT
HWD	HARD WOOD

I

IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER, DIMENSION
IG	INSULATING GLASS
IN	INCH, INCHES
INC	INCANDESCENT
INCL	INCLUDING
INSUL	INSULATION
INT	INTERIOR

J

JAN	JANITOR
JST	JOIST
JT	JOINT

L

L	ANGLE SHAPE
LAM	LAMINATE
LAV	LAVATORY
LB	POUND
LF	LINEAR FOOT
LG	LENGTH
LIB	LIBRARY
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSD	LIQUID SOAP DISPENSER
LVR	LOUVER
LW	LIGHTWEIGHT

M

MAS	MASONRY
MAINT	MAINTENANCE
MAX	MAXIMUM
MB	MARKER BOARD
MC	MEDICINE CABINET
MECH, MECH'L	MECHANICAL
MFR	MANUFACTURER
MGR	MANAGER
MH	MANHOLE
MID	MIDDLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MM	MILLIMETER
MMB	MEMBRANE
MO	MASONRY OPENING
MPH	MILES PER HOUR
MTCS	MULTI-TONE COLOR SYSTEM
MTL,MET	METAL
MULL	MULLION

N

NA	NOT APPLICABLE
NEG	NEGATIVE
NIC	NOT IN CONTRACT
NO, #	NUMBER
NTS	NOT TO SCALE

O

OC	ON CENTER
OD	OUTSIDE DIAMETER/DIMENSION
OFF	OFFICE
OH	OVERHEAD
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN

P

PA	PUBLIC ADDRESS
PAR	PARALLEL
PCP	PORTLAND CEMENT PLASTER
PEN	PENETRATION
PERP	PERPENDICULAR
PG	PLATE GLASS
PL, ℔	PLATE
PLAS LAM	PLASTIC LAMINATE
PLAS	PLASTER
PLT	PLASTIC
PLYWD	PLYWOOD
PNL	PANEL
POS	POSITIVE
PR	PAIR
PREFAB	PREFABRICATED
PREFIN, PF	PREFINISHED
PNT	PAINT, PAINTED
PNTGR	PAINT GRADE
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT

Q

QA	QUALITY ASSURANCE
QT	QUARRY TILE

R

R	RADIUS
RA	RETURN AIR
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REINF	REINFORCED, REINFORCEMENT
REF	REFER, REFERENCE
REP	REPRESENTATIVE
REQD	REQUIRED
RO	ROUGH OPENING
RM	ROOM
RV	ROOF VENT

S

SB	SPLASH BLOCK
SC	SOLID CORE
SCFV	SOLID CORE FLUSH VENEER
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SEC	SECONDARY
SF	SQUARE FEET
SGFT	STRUCTURAL GLAZED FACING TILE
SGL	SINGLE
SH, SHT	SHEET
SHR	SHOWER
SIM	SIMILAR
SJ	SAWN CONTROL JOINT
SLD	SEALED
SND	SANITARY NAPKIN DISPOSAL UNIT
SNT	SEALANT
SNV	SANITARY NAPKIN VENDOR
SPA	SPACES
SQ	SQUARE
SR	SHOWER ROD
SS	STAINLESS STEEL
SSK	SERVICE SINK
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT,STRCT	STRUCTURE, STRUCTURAL
SUS	SUSPENDED

T

T, TEL	TELEPHONE
T	TOP
TB	TACKBOARD
TC	TEACHER CABINET
TECH	TECHNICAL
TEMP	TEMPERATURE
TKBD	TACKBOARD
TKS	TACK STRIP
TKSF	TACK SURFACE
TLT	TOILET
TOC	TOP OF CURB
TOD	TOP OF DRAIN
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TP	TOILET PARTITION
TTD	TOILET TISSUE DISPENSER
TYP	TYPICAL

U

UBC	UNIFORM BUILDING CODE
UON	UNLESS OTHERWISE NOTED
URS	URINAL SCREEN
UTIL	UTILITY

V

V	VOLTS
V, VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VEND	VENDING
VEST	VESTIBULE
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING

W

W	WATTS
W/	WITH
WB	WIND BRACE
WBBP	WIND BRACE BASEPLATE
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WNDW	WINDOW
WO	WITHOUT
WOM	WOMEN
WP	WEATHERPROOF
WPG	WATERPROOFING
WR	WASTE RECEPTICLE
WRGD	WATER RESISTANT GYPSUM DRYWALL
WR-WD	WATER-RESISTIVE TREATED WOOD
WSTRIP	WEATHER-STRIP
WT	WEIGHT
WWF	WELDED-WIRE FABRIC

ALTERNATES

ALTERERNATE 1:
EXERCISE ARENA, ASSOCIATED FLATWORK, CHAIN LINK FENCING, BLEACHERS, LIGHTING, PARKING, ETC.

ALTERNATE 2:
CONCRETE PAVING IN LIEU OF ASPHALT WHERE INDICATED ON CIVIL DRAWINGS.

MATERIAL LEGEND

THIS IS A GENERAL LEGEND. ALL SYMBOLS MAY NOT APPLY.

- EARTH (UNDISTURBED)
- EARTH (COMPACTED)
- POROUS FILL (STONE OR GRAVEL, ETC.)
- ROCK
- STRUCTURAL CONCRETE
- BRICK (COMMON OR FACE)
- CONCRETE MASONRY UNITS (CMU)
- GLAZED STRUCTURAL FACING TILE (GSFT)
- CUT STONE
- METAL (LARGE SCALE)
- METAL (SMALL SCALE)
- ACOUSTICAL CEILING TILE
- PLASTER, SAND, CEMENT, GROUT
- GYPSUM DRYWALL
- GLASS
- RIGID INSULATION
- BATT INSULATION
- ROUGH WOOD (CONTINUOUS)
- ROUGH WOOD (NON-CONTINUOUS)
- FINISH WOOD
- PLYWOOD

SYMBOL LEGEND

THIS IS A GENERAL LEGEND. ALL SYMBOLS MAY NOT APPLY

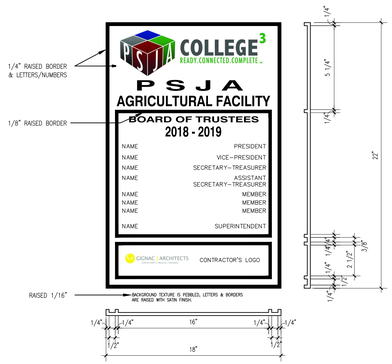
- 5 / A5 — SECTION
- 3 / A2 — DETAIL
- 1 — CONSTRUCTION NOTE
- 3 — DEMOLITION NOTE
- 8/A1.13 — DETAIL NUMBER
- 01 — DOOR NUMBER
- 1 — EQUIPMENT NOTE
- 8 — GLAZING TYPE
- 1/A2.1 — INTERIOR ELEVATION
- 3 — REVISION NUMBER
- OFFICE 100 — ROOM NAME & NUMBER
- 10 — TOILET NOTE
- B — PARTITION TYPE
- WINDOW TYPE
- NEW CONSTRUCTION

LOCATION MAP

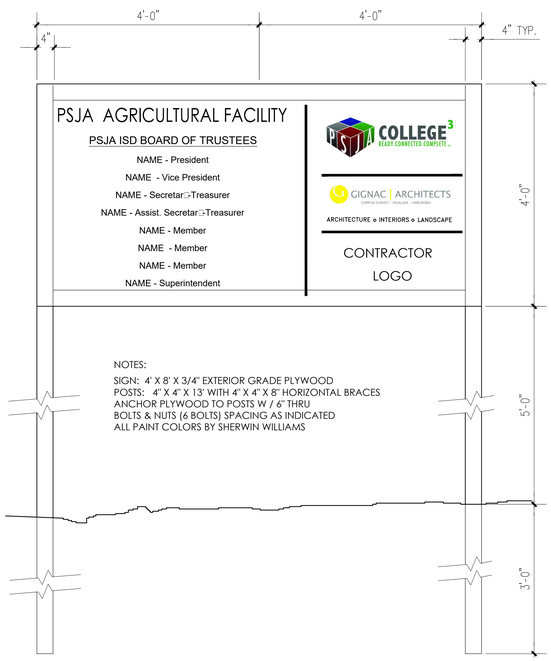


PROJECT ADDRESS:
South of Moore on "I" Road
Pharr, Texas

CAST PLAQUE



PROJECT SIGN



NOTES:
SIGN: 4' X 8' X 3/4" EXTERIOR GRADE PLYWOOD
POSTS: 4" X 4" X 13' WITH 4" X 4" X 8" HORIZONTAL BRACES
ANCHOR PLYWOOD TO POSTS W / 6" THRU
BOLTS & NUTS (6 BOLTS) SPACING AS INDICATED
ALL PAINT COLORS BY SHERWIN WILLIAMS

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G-101 CODE REVIEW SHEET
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C-2 DIMENSIONAL CONTROL SITE PLAN
C-3 WATER AND SEWER LAYOUT
C-4 PAVING AND DRAINAGE PLAN
C-5 PAVING AND DRAINAGE DETAILS
C-6 EROSION AND SEDIMENT CONTROL PLAN
C-7 ALTERNATIVE A

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S1.2 GENERAL STRUCTURAL NOTES

S2.1 FOUNDATION PLAN – BASE BID
S2.1C CONTROL JOINT PLAN – BASE BID
S2.1S SLAB SLOPE PLAN – BASE BID
S2.2 FOUNDATION PLAN – ALT 1
S2.3 FOUNDATION DETAILS
S2.4 COMPOST STORAGE FOUNDATION PLAN

S3.1 ROOF FRAMING PLAN – BASE BID
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S3.3 ROOF FRAMING PLAN – ALT 1

S4.1 FRAMING DETAILS
S4.2 FRAMING DETAILS

EXISTING SITE CONDITIONS / DEMOLTION

SD-100 SITE PLAN DEMOLITION

ARCHITECTURAL SITE

AS-100 OVERALL SITEPLAN & ENLARGED SITE PLANS
AS-101 OVERALL SITEPLAN – ALTERNATE 1 SITE DETAILS
AS-102 SITE DETAILS

ARCHITECTURAL

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A-300 BUILDING SECTIONS
A-301 WALL SECTIONS
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A-400 ROOF PLAN & DETAILS
A-500 DOOR & WINDOW TYPES & DETAILS

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MEP-100 MEP GENERAL NOTES

MECHANICAL

M-100 MECHANICAL PLAN
M-200 MECHANICAL DETAILS
M-300 MECHANICAL SCHEDULES

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E-102 TELECOMMUNICATION ELECTRONIC SAFETY & SECURITY
E-103 ELECTRICAL MECHANICAL CONNECTION PLAN

E-200 ELECTRICAL PANEL SCHEDULE
E-201 ELECTRICAL DETAILS
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E-203 ELECTRICAL DETAILS

E-300 ELECTRICAL GENERAL LEGEND

PLUMBING

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P-200 PLUMBING DETAILS
P-300 PLUMBING SCHEDULE AND PLUMBING RISERS

FP-100 CONCEPTUAL FIRE PROTECTION PLAN
FP-200 FIRE SPRINKLER SPECS

GIGNAC | ARCHITECTS

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(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
RAUL D. GIGNAC
22961
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

COLLEGE3 READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	CQ/AL
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Scale:	N/A
ACAD File:	COVER SHEET

Revisions:
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Sheet Title:

COVER SHEET

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GENERAL INFORMATION

LOCATION: PHARR, TEXAS
ARCHITECT: GIGNAC & ASSOCIATES
OWNER: PSJA ISD

PROJECT DESCRIPTION

AGRICULTURAL FACILTY

APPLICABLE CODES

2012 - INTERNATIONAL BUILDING CODE
2012 - INTERNATIONAL MECHANICAL CODE
2012 - INTERNATIONAL PLUMBING CODE
2012 - NATIONAL ELECTRIC CODE
2012 - INTERNATIONAL FIRE CODE
2012 - INTERNATIONAL ENERGY CONSERVATION CODE
2012 - TEXAS ACCESSIBILITY STANDARDS

BUILDING HEIGHTS AND AREAS

CONSTRUCTION TYPE: I B
BASIC ALLOWABLE AREA FOR "U" OCCUPANCY
PER STORY: UNLIMITED

BASIC ALLOWABLE HEIGHT:
ALLOWABLE STORIES: 5 (TABLE 503)
ACTUAL STORIES: 1
ALLOWABLE HEIGHT: 160 FT
ACTUAL HEIGHT: 14 FT

SQUARE FOOTAGE OF AGRICULTURAL FACILITY: 37,685 SF
SQUARE FOOTAGE OF ALT. 1, EXERCISE ARENA: 8,085 SF
TOTAL SQUARE FOOTAGE OF BASE BID AND ALT. 1 = 45,770 SF

OCCUPANCY LOAD AND EXIT REQUIREMENTS

PRINCIPAL OCCUPANCY CLASSIFICATION
"U" OCCUPANCY LOAD :TABLE 1004.2□300 GROSS FOR 37,685 SF = 126

SECONDARY OCCUPANCY CLASSIFICATION
"A-5" OCCUPANCY LOAD: :TABLE 1004.2□7 NET FOR 1,000 SF = 143

TOTAL = 269 PERSONS (135 MEN & 135 WOMEN)

PLUMBING REQUIREMENTS

PLUMBING FIXTURE COUNT:

TOTAL LAVATORIES REQUIRED FOR BOYS / MEN:	1	TOTAL PROVIDED:	1
TOTAL LAVATORIES REQUIRED FOR GIRLS / WOMEN:	1	TOTAL PROVIDED:	1
TOTAL WC / URINALS REQUIRED FOR BOYS / MEN:	2	TOTAL PROVIDED:	3
TOTAL WC'S REQUIRED FOR GIRLS / WOMEN:	2	TOTAL PROVIDED:	3
TOTAL DRINKING FOUNTAINS REQUIRED:	1	TOTAL PROVIDED:	2

STRUCTURAL FIRE RATINGS

(2009 IBC Table 601)

STRUCTURAL FRAME INCLUDING COLUMNS, GIRDERS, & TRUSSES	NR
BEARING EXTERIOR WALLS	NR
BEARING INTERIOR WALLS	NR
NON-BEARING EXTERIOR WALLS & PARTITIONS	SEE TABLE 602
NON-BEARING INTERIOR WALLS & PARTITIONS	NR
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	NR
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS	NR

FIRE PROTECTION SYSTEM

NFPA 13 AUTOMATIC SPRINKLER SYSTEM THROUGHOUT
NFPA 72 FIRE ALARM SYSTEM

GENERAL NOTES:

1. SEPARATE REVIEW, APPROVAL, AND PERMITS ARE REQUIRED FOR GRADING, ACCESSORY BUILDINGS AND STRUCTURES, SIGNS, TRASH ENCLOSURES, BLOCK WALLS, RETAINING WALLS NOT SUPPORTING BUILDINGS, AND DEMOLITION WORK. CONTACT CITY FOR PROCEDURAL INFORMATION.

2. OVERALL PLAN SHEET IS INTENDED FOR CODE COMPLIANCE SUCH AS OVERALL OCCUPANCY, EGRESS INFORMATION, FIRE SEPARATION AND GENERAL INFORMATION.

3. A FIRE SYSTEM APPROVED BY THE FIRE MARSHALL SHALL BE PROVIDED. AUDIBLE ALARM DEVICES SHALL BE USED IN ALL AREAS.

4. AN OCCUPANT LOAD SIGN SHALL BE POSTED IN ANY ROOM WITH AN OCCUPANT LOAD OVER 50. THE SIGN IS REQUIRED TO BE POSTED AT OR NEAR THE MAIN EXIT.

5. PROVIDE PANIC HARDWARE FOR GROUP "A" OCCUPANCIES WITH AN OCCUPANT LOAD OF 50 OR MORE.

6. MARKING OF FIRE RATED AND SMOKE STOP PARTITIONS. ALL SMOKE STOP PARTITIONS, HORIZONTAL EXIT ENCLOSURES, AND IRE WALLS MUST BE PERMANENT MARKED ABOVE CEILINGS AS FOLLOWS: "FIRE AND SMOKE BARRIER - PROTECT ALL OPENINGS." LETTERS SHALL BE 2 1/2" IN HEIGHT AND PAINTED RED. PROVIDE ONE LABEL PER STRUCTURAL BAY.

CODE PLAN LEGEND

- EXIT PATH
- EXIT FROM BUILDING
- FEC — FIRE EXTINGUISHERS (1 FEC PER 11,250SF OR 75 FT FROM MOST REMOTE POINT. F.E. TYPE 10□ABC AMEREX MODEL □ 419 OR EQUAL. INSTALLED IN SEMI-RECESSED CABINET)
- 1 HOUR FIRE BARRIER (1-HR FIRE BARRIER CONSTRUCTION. 1/3 HOUR RATED DOOR ASSEMBLY. FIRE DAMPERS.)
- 2 HOUR FIRE WALL (2-HR FIRE WALL CONSTRUCTION. 1 1/2 RATED DOOR ASSEMBLY. FIRE DAMPERS.)
- 1 HOUR SHAFT (1-HR FIRE BARRIER WALL CONSTRUCTION. 1 HR RATED DOOR ASSEMBLY. FIRE DAMPERS.)
- SMOKE PARTITION (NON RATED. WALL SHALL BE CONSTRUCTED TO LIMIT THE PASSAGE OF SMOKE. REFER TO IBC SECTION 710 AND NFPA 101 SECTION 8.4 FOR REQUIREMENTS.)
- 196 / 39.6" / 68" — ACCUMULATED EXIT WIDTH AT REQUIRED EXIT (CLEAR WIDTH)
- ACCUMULATED OCCUPANT LOADS FOR COMPLEX EXIT PATHS
- MOST REMOST POINT

N

1 FLOOR PLAN
3/32" = 1'-0"

PLAN

GIGNAC | ARCHITECTS

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CIVIL:
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STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT — JAMES M. GIGNAC — 6245 — STATE OF TEXAS

EXPIRATION DATE
11/30/2018

DATE SIGNED: 9-6-18

COLLEGE 3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
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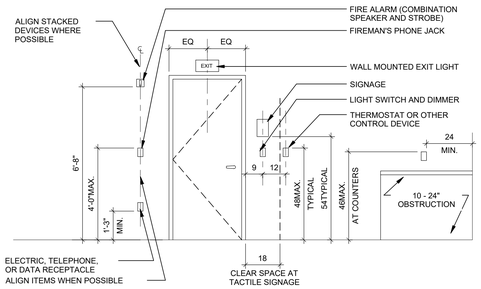
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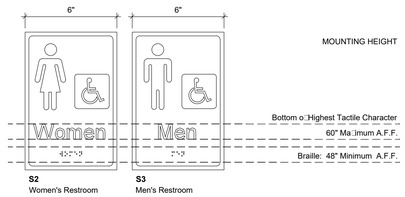
CODE REVIEW BASE BID & ALT 1

G-101

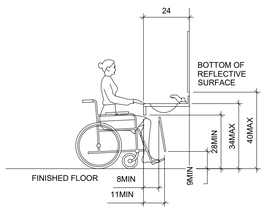
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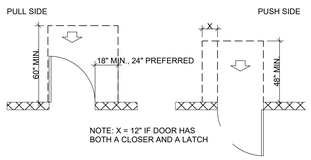
7 MISCELLANEOUS HEIGHTS
SCALE: 3/8" = 1'-0"



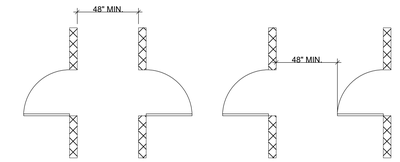
8 REQUIRED SIGNAGE
SCALE: 3" = 1'-0"



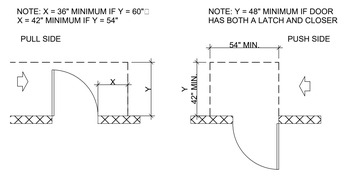
2 LAVATORY CLEARANCES
SCALE: 3/8" = 1'-0"



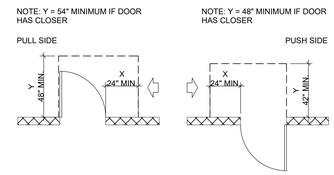
3 FRONT DOOR APPROACH
SCALE: 1/4" = 1'-0"



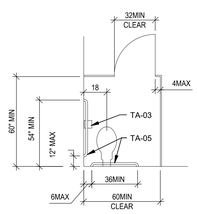
4 TWO HINGED DOORS IN SERIES
SCALE: 1/4" = 1'-0"



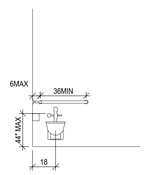
5 HINGE SIDE DOOR APPROACH
SCALE: 1/4" = 1'-0"



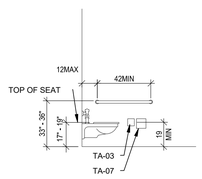
6 LATCH SIDE DOOR APPROACH
SCALE: 1/4" = 1'-0"



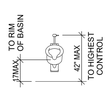
ACCESSIBLE TOILET STALL



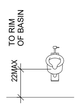
ACCESSIBLE TOILET W/ GRAB BARS TOILET PAPER DISPENSER



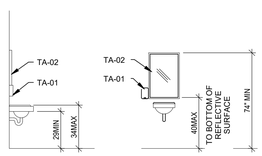
ACCESSIBLE TOILET W/ GRAB BARS TOILET PAPER DISPENSER, AND SANITARY NAPKIN DISPOSAL



ACCESSIBLE URINAL

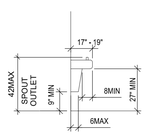


STANDARD URINAL

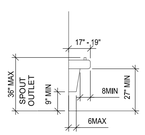


ACCESSIBLE LAVATORY

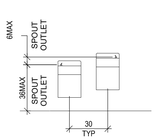
ACCESSIBLE MIRROR



STANDARD DRINKING FOUNTAIN



ACCESSIBLE DRINKING FOUNTAIN



ACCESSIBLE AND STANDARD DRINKING FOUNTAINS (COMBINED)



ACCESSIBLE SANITARY NAPKIN DISPOSAL



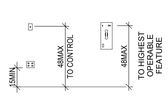
ACCESSIBLE PAPER TOWEL DISPENSER



ACCESSIBLE SOAP DISPENSER



ACCESSIBLE FIRE EXTINGUISHER CABINET



ACCESSIBLE WALL SWITCH, OUTLET AND TELEPHONE

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

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(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
DAVID P. GIGNAC
8295
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

PSJA COLLEGE 3 READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
Scale:	VARIOUS
ACAD File:	ADA

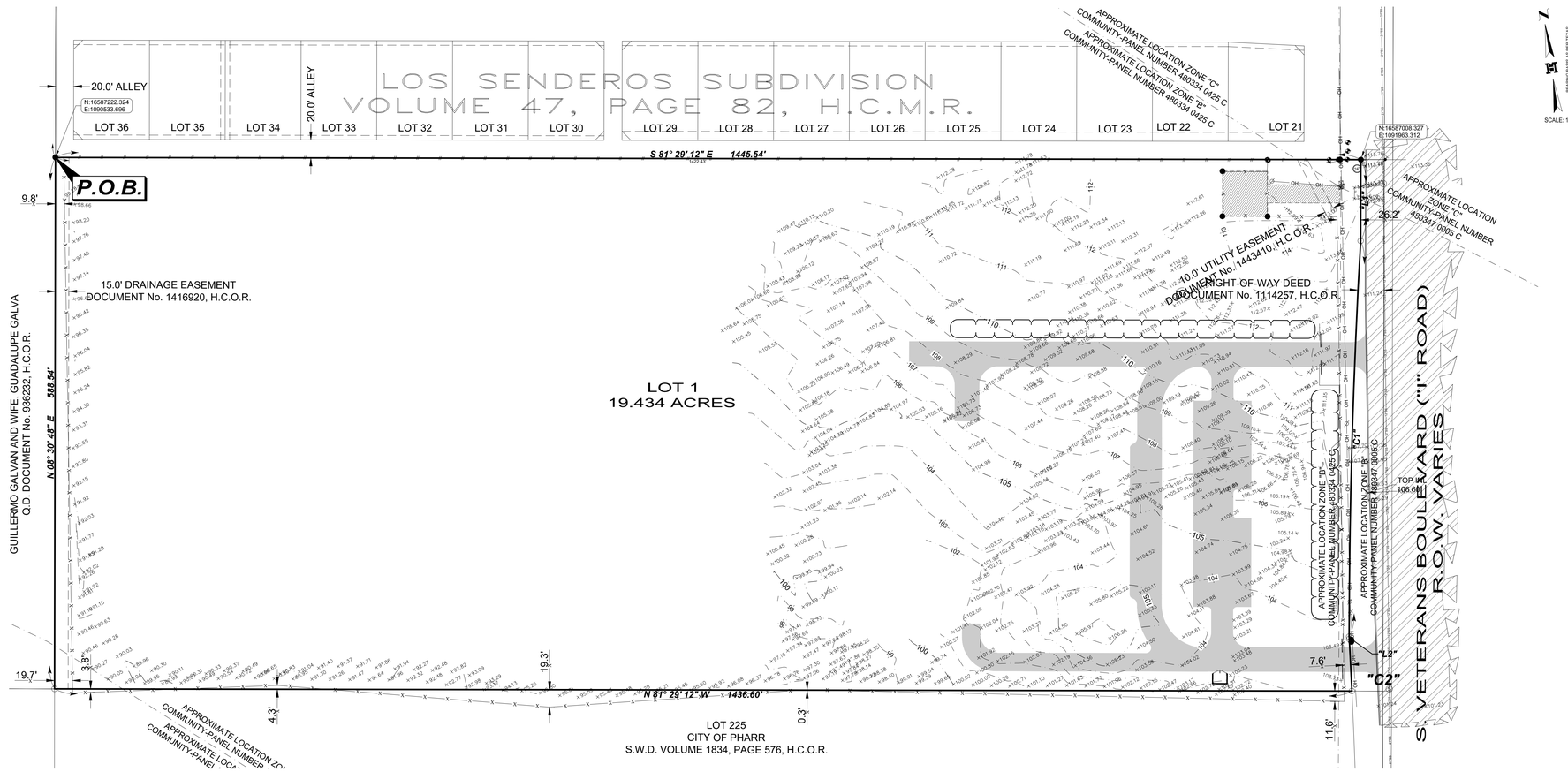
Revisions:
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Sheet Title:

ADA GUIDELINES

G-102

Sep 07, 2018 - 12:34pm User: cquezada
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GENERAL CONSTRUCTION NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND ELECTRICAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE LOCATIONS AND SIZES HAVE BEEN TAKEN FROM EXISTING RECORDS AND THE BEST AS-BUILT INFORMATION AVAILABLE; HOWEVER, IT IS EXPECTED THAT THERE MAY BE SOME DISCREPANCIES AND OMISSIONS IN THE LOCATIONS, QUALITIES AND SIZES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE, SIZE AND LOCATION OF ALL UTILITIES AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ARRANGE FOR THE REPAIR AND RESTORATION OF CONTRACTOR DAMAGED UTILITIES. THE COST OF ANY REPAIR OR REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CURRENT LINE SPOTTING TOLL FREE NUMBER AND COORDINATE WITH ALL THE UTILITY COMPANIES FOR ACTUAL LOCATING AND UNCOVERING OF EXISTING LINES PRIOR TO EXCAVATION OPERATIONS.
2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY UNREPORTED OBSTACLES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THIS PROJECT.
3. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPLICABLE STATE STATUES AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (OSHA). COPIES OF THE O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AT 611 EAST 6TH STREET, ROOM 303, AUSTIN, TEXAS.
4. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT AND WORKMAN LIKE MANNER AT ALL TIMES. JOB SAFETY SHALL NOT BE COMPROMISED. ANY UNSAFE OR UNATTRACTIVE NUISANCE SHALL BE REMOVED OR OTHERWISE TAKEN CARE OF BY THE CONTRACTOR WHEN DIRECTED BY THE OWNER OR PROJECT ENGINEER.
5. EXCAVATIONS, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.
6. CONSTRUCTION OF THIS PROJECT WILL BE SUBJECT TO INSPECTIONS AND TESTING AS DEEMED NECESSARY OR APPROPRIATE BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH INCIDENTAL LABOR AND EQUIPMENT TO ALLOW THE TESTING PERSONAL ACCESS TO THE WORK AND WILL COOPERATE FULLY WITH THE PERSONS CONDUCTING THE TESTING AND INSPECTION PROGRAM.
7. A PART OF THE WORK THAT IS NECESSARY OR REQUIRED TO MAKE EACH SYSTEM OR INSTALLATION SATISFACTORY AND OPERABLE FOR ITS INTENDED PURPOSE, EVEN THOUGH IT IS NOT SPECIFICALLY INCLUDED IN THE SPECIFICATIONS OR DRAWINGS, SHALL BE PERFORMED AS INCIDENTAL WORK AS IF IT WERE DESCRIBED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS.
8. THE DRAWINGS DO NOT ALWAYS INDICATE ALL VERTICAL BENDS AND TRANSITIONS. WHEN NECESSARY, MAKE VERTICAL TRANSITIONS BY A DEFLECTION AT THE JOINTS OR THE INSTALLATION OF FITTINGS. DO NOT DEFLECT PIPE JOINTS MORE THAN 80% OF THE MANUFACTURERS RECOMMENDATION.
9. ALL PIPING MUST BE INSTALLED WITH A MINIMUM OF 36-INCHES OF COVER UNLESS OTHERWISE NOTED ON THE PLANS.
10. ALL EXCAVATION FOR THIS PROJECT SHALL BE UNCLASSIFIED.
11. ALL PIPES, VALVES, FITTINGS AND OTHER APPURTENANCES SHALL BE RATED FOR 150 PSI, UNLESS OTHER WISE NOTED.
12. ALL UTILITIES WHICH ARE TO REMAIN AND WHICH ARE DAMAGED OR REMOVED WILL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
13. PIPE SHALL BE BACKFILLED WITH JOINTS EXPOSED FOR TESTING, BEFORE NEW JOINTS ARE COVERED. PRESSURE LINES ARE TO BE HYDROSTATICALLY TESTED AT NOT LESS THAN 150 PSIG FOR A PERIOD OF TWO HOURS. THE OWNER SHALL OBSERVE AND APPROVE OR REJECT THE TEST. REPAIRS, IF REQUIRED, SHALL BE MADE AND THE LINE SHALL BE RETESTED UNTIL APPROVED. TEST SHALL NOT BEGIN UNTIL THRUST BLOCKS HAVE AGED A MINIMUM OF 24 HOURS.
14. AS SOON AS PRACTICAL, ALL PORTIONS OF EXCAVATIONS NOT OCCUPIED BY THE PERMANENT STRUCTURE SHALL BE BACKFILLED.
15. AREAS USED FOR THE CONTRACTOR'S JOB TRAILER, PERSONEL PARKING, MATERIAL STORAGE, SPOILS STOCKPILE, MATERIAL FABRICATION AND RELATED CONSTRUCTION USES MUST BE APPROVED BY THE PROJECT ENGINEER.
16. WHERE THE WATER TRANSFER LINE INSTALLATION INTERSECTS SANITARY SEWER SYSTEM MAINS AT LESS THAN 9.0 FEET SEPARATION, THE CONTRACTOR SHALL INSTALL A 20 FOOT SECTION OF C-900 PVC PRESSURE PIPE CENTERED ON THE POINT OF INTERSECTION.
17. CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS, MAILBOXES, FENCES, CULVERTS AND OTHER ITEMS IN WAY OF THE WORK.
18. CONTRACTOR SHALL REPAIR ALL OPEN CUTS OF PAVED AREAS BACK TO BETTER THAN "AS-IS" CONDITION WITH LIKE MATERIALS.
19. PROVIDE INTERIM DRAINAGE DURING CONSTRUCTION AS REQUIRED. USE PUMPS, TEMPORARY DITCHES, ETC. TO MAINTAIN A WELL DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS.
20. ANCHOR ALL UNDERGROUND PRESSURE PIPING AS NECESSARY TO PREVENT MOVEMENT UNDER PRESSURE TEST AND SERVICES.
21. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A-165, GRADE 60. ALL BARS SHALL CONFORM TO ASTM SPECIFICATION A-305.
22. ALL CONCRETE AND FORM WORK SHALL CONFORM TO CURRENT ACI CODE REQUIREMENTS.

LEGEND

- ● FOUND No.4 REBAR
- ✦ FOUND PK NAIL
- ○ SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- LEASE AGREEMENT AREA DOCUMENT No. 1439845, H.C.O.R.
- ASPHALT AREA
- Ⓢ SANITARY SEWER MANHOLE
- —W—W— WATER LINE
- —SS—SS— SANITARY SEWER LINE

R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.O.R. - HIDALGO COUNTY OFFICIAL RECORDS
N.E. COR. - NORTHEAST CORNER
N.W. COR. - NORTHWEST CORNER
P.O.B. - POINT OF BEGINNING
P.O.C. - POINT OF COMMENCING
Q.D. - QUITCLAIM DEED
S.W.D. - SPECIAL WARRANTY DEED
N.T.S. - NOT TO SCALE

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227 N. F.M. 3167
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FAX: (956) 488-8591
www.meldenandhunt.com
TBPLS No. 10066900

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY IO A. REYNA, P.E. 117368
09-07-18
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STRUCTURAL:
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MEP:
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LANDSCAPE:
LAN Scapes

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: AUG. 28, 2018
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Revisions:
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C-1

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SCALE: 1" = 30'

BEARINGS ARE BASED ON TEXAS COORDINATE SYSTEM OF 1983, TEXAS ZONE (SOUTH CENTRAL ZONE) AS REVISED (EPOCH 2010)

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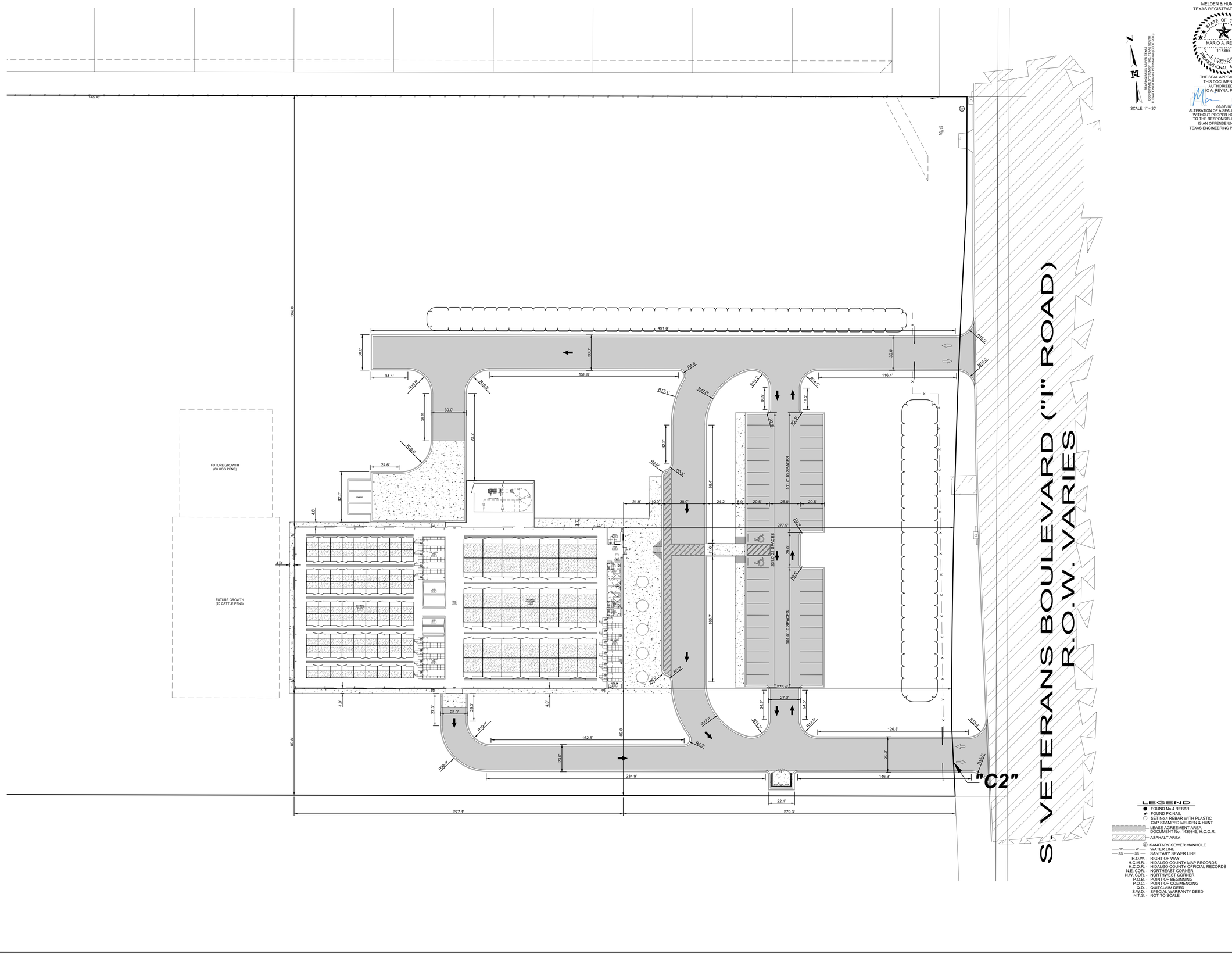
PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

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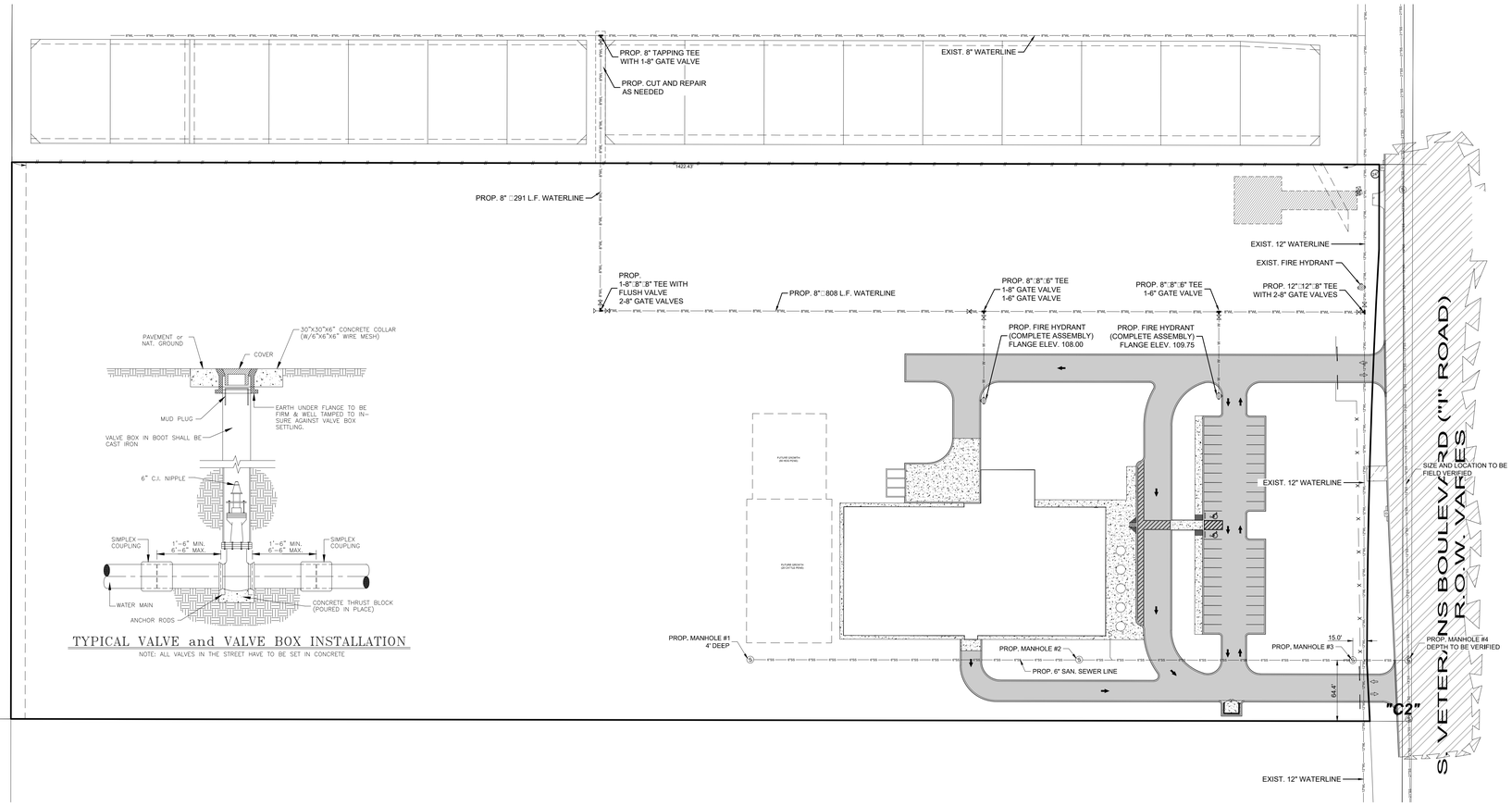
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Sheet Title:
DIMENSIONAL CONTROL SITE PLAN



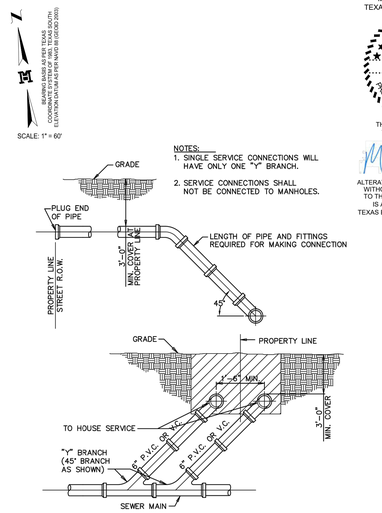
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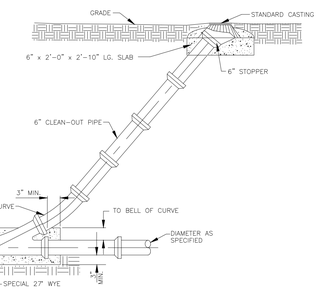
TYPICAL VALVE and VALVE BOX INSTALLATION

NOTE: ALL VALVES IN THE STREET HAVE TO BE SET IN CONCRETE



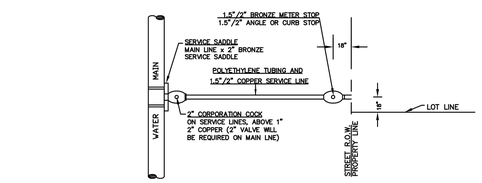
SANITARY SEWER SERVICE CONNECTION

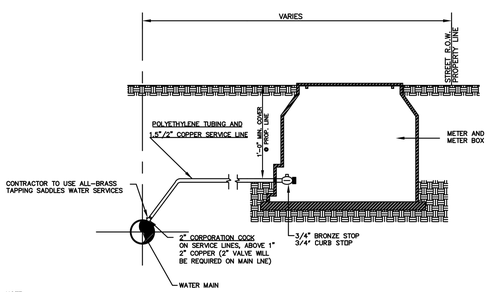
NOT TO SCALE



STANDARD CLEANOUT

N.T.S.





NOTE:
1. CASING REQUIRED ON ALL SERVICES EXTENDING ACROSS RIGHT-OF-WAY.
2. FOR METER SIZES SEE SECTION IV.

SINGLE WATER SERVICE CONNECTION

NOT TO SCALE

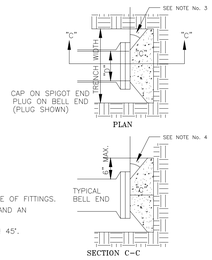
TABLE OF CASING SIZES		
NORMAL PIPE SIZE	CASING SIZE (INSIDE DIA.)	CASING MINIMUM WALL THICKNESS
16"	24"	0.25

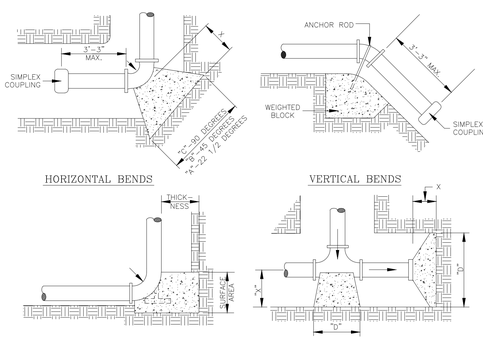
HORIZONTAL BLOCKING TABLE

PIPE SIZE	"X" DIM. FT.	22 1/2° BENDS "A"	22 1/2° BENDS MIN. AREA	45° BENDS "B"	45° BENDS MIN. AREA	90° BENDS "C"	90° BENDS MIN. AREA	TEES & DEAD ENDS "D"	TEES & DEAD ENDS MIN. AREA
4"	1.50	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.06
6"	1.50	1.00	1.00	1.14	1.30	1.55	2.40	1.30	1.79
8"	1.50	1.08	1.18	1.52	2.31	2.07	4.27	1.74	3.02
10"	1.50	1.35	1.84	1.90	3.61	2.58	6.66	2.17	4.71
12"	1.50	1.63	2.65	1.86	5.19	3.10	9.60	2.61	6.79

GENERAL NOTES :

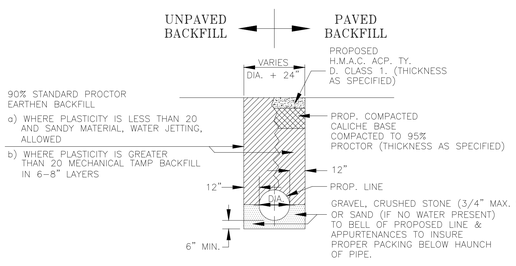
1. THE LOCATIN OF THRUST BLOCKS DEPENDS UPON THE DIRECTION OF THRUST AND TYPE OF FITTINGS.
2. THRUST BLOCK CALCUATIONS ARE BASED ON A WATER LINE PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING VALVE OF 2,500 POUNDS PER SQUARE FOOT.
3. "C" DIMENSIONS SHALL BE LARGE ENOUGH TO MAKE ANGLE ø EQUAL TO LARGER THAN 45°.
4. ANGLE ø SHALL BE EQUAL TO OR LARGER THAN 45°.





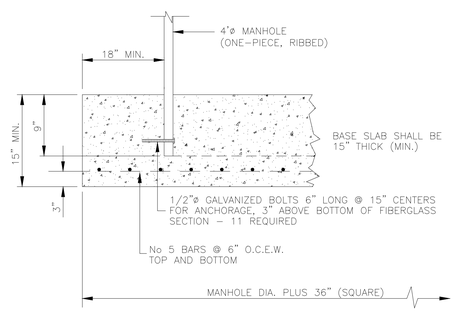
THRUST BLOCK DETAILS

N.T.S.



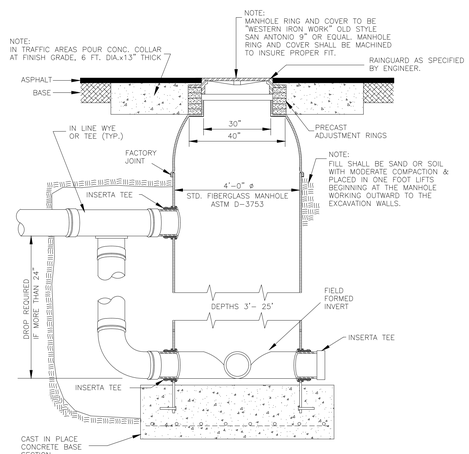
PIPE BEDDING DETAILS

N.T.S.



TYPICAL FIBERGLASS MANHOLE BASE

N.T.S.



TYPICAL FIBERGLASS MANHOLE

N.T.S.

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TEXAS REGISTRATION F-1435

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WATER AND SEWER LAYOUT

C-3

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ESTABLISHED 1947
227 N. F.M. 3167
RIO GRANDE CITY, TX. 78582
PH: (956) 487-8256
FAX: (956) 488-8591
www.meldenandhunt.com

SCALE: 1" = 30'

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MARIO A. REYNA, P.E. 117368
09-07-18

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Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: AUG. 28, 2018
Drawn:
Checked:
Scale:
ACAD File:

Revisions:
1
2
3

Sheet Title:
PAVING AND DRAINAGE PLAN

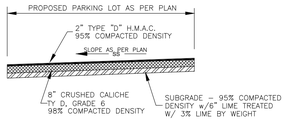
"C1" ROAD
SOUTH VETERANS BOULEVARD
R.O.W. VARIES

"C2"

FF 108.00

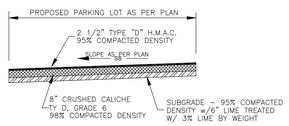
PROP. STORM DISCHARGE FL 105.20
PROP. 12" STORM SEWER LINE (84.0 LF)
PROP. 18" STORM SEWER LINE (80.0 LF)
PROP. 18" STORM SEWER LINE (114.0 LF)
PROP. 18" STORM SEWER LINE (29.0 LF)
PROP. BEEHIVE GRATE INLET TOP 106.50 FL 104.85 N FL 103.90 W,E
PROP. TY "A" GRATE INLET TOP 107.00 FL 104.20
PROP. TY "A" GRATE INLET TOP 107.00 FL 104.10
PROP. TY "A" GRATE INLET TOP 108.50 FL 103.60
PROP. TY "C-C" GRATE INLET TOP 107.65 FL 103.40
PROP. TY "C-C" GRATE INLET TOP 105.00 FL 102.95
PROP. TY "A" GRATE INLET TOP 105.85 FL 102.85
PROP. TY "A" GRATE INLET TOP 105.25 FL 102.70
PROP. 18" STORM SEWER LINE (73.0 LF)
PROP. 18" RCP STORM SEWER LINE (222.0 LF)
PROP. 18" RCP STORM SEWER LINE (72.0 LF)
PROP. 24" STORM SEWER LINE (91.0 LF)
PROP. 12" RCP STORM SEWER LINE (53.0 LF)
PROP. STORM DISCHARGE FL 102.28
PROP. STORM DISCHARGE FL 102.60
PROP. 8" BLEEDER LINE (44.0 LF)
PROP. FL 102.13
TOP INL 106.60
FUTURE GROWTH (60 HOG PENS)
FUTURE GROWTH (20 CATTLE PENS)

LEGEND
- FOUND No.4 REBAR
- FOUND PK NAIL
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- LEASE AGREEMENT AREA, DOCUMENT No. 1439845, H.C.O.R.
- ASPHALT AREA
- SANITARY SEWER MANHOLE
- WATER LINE
- SANITARY SEWER LINE
- R.O.W. - RIGHT OF WAY
- H.C.M.R. - HIDALGO COUNTY MAP RECORDS
- H.C.O.R. - HIDALGO COUNTY OFFICIAL RECORDS
- N.E. COR. - NORTHEAST CORNER
- N.W. COR. - NORTHWEST CORNER
- P.O.B. - POINT OF BEGINNING
- P.O.C. - POINT OF COMMENCING
- Q.D. - QUITCLAIM DEED
- S.W.D. - SPECIAL WARRANTY DEED
- N.T.S. - NOT TO SCALE



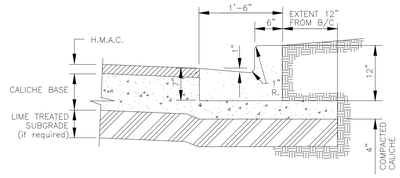
RE-USE SALVAGED H.M.A.C. & CALICHE MATERIAL
REFER TO TERRACON GEOTECHNICAL ENGINNERING REPORT

LIGHT TRAFFIC PAVING
N.T.S.



RE-USE SALVAGED H.M.A.C. & CALICHE MATERIAL
REFER TO TERRACON GEOTECHNICAL ENGINNERING REPORT

MEDIUM TRAFFIC PAVING
N.T.S.



SECTION "AA" – CONCRETE CURB & GUTTER

SIDEWALK NOTES:

MINIMUM 5'-0" WIDE SIDEWALK.

SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.

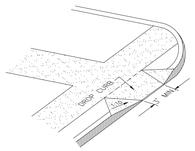
SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.

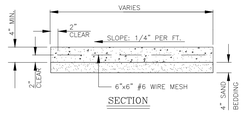
CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF EXISTING UTILITY LINES WITH APPROPRIATE COMPANIES TO AVOID PLACING SIDEWALKS ON TOP OF LINES.

PROVIDE DROP CURBS AT INTERSECTIONS.

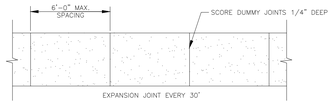
4" SAND BEDDING

CONTRACTOR SHALL COMPLY WITH LATEST REGULATIONS AS SET FORTH IN AMERICANS WITH DISABILITIES ACT (ADA).



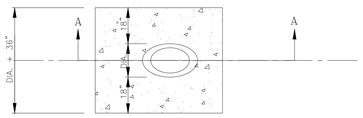


SECTION

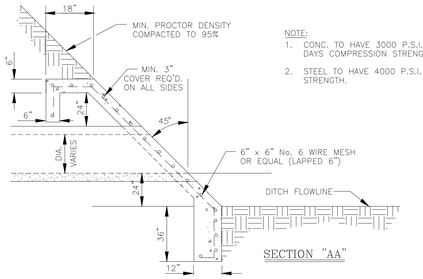


PLAN

SIDEWALK DETAILS



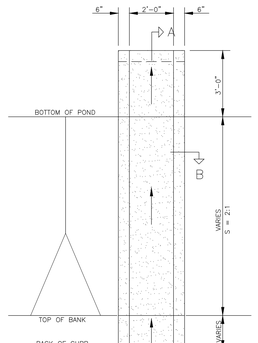
PLAN VIEW



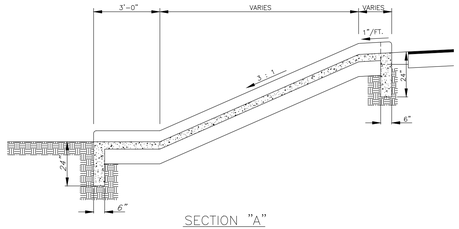
NOTE:
1. CONC. TO HAVE 3000 P.S.I. MIN. 28 DAYS COMPRESSION STRENGTH.
2. STEEL TO HAVE 4000 P.S.I. YIELD STRENGTH.

SECTION "AA"

STORM DISCHARGE STRUCTURE
N.T.S.

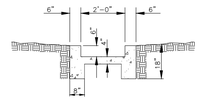


PLAN VIEW



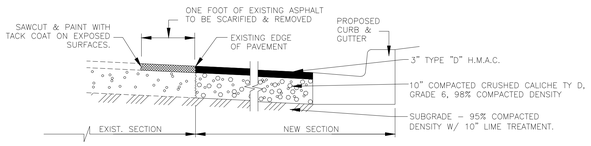
SECTION "A"

GENERAL NOTES :
1. CONCRETE SHALL HAVE 3,500 P.S.I. AT MINIMUM 28 DAYS COMPRESSION STRENGTH.
2. 6"x6" No. 6 WIRE MESH OR EQUAL LAPPED 6".
3. ALL STEEL TO HAVE 4,000 P.S.I. YIELD STRENGTH.

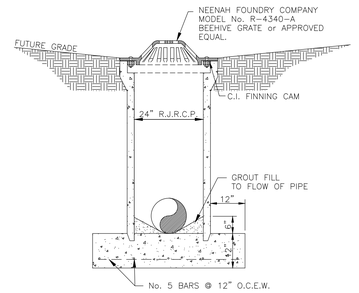


SECTION "B"

CONCRETE FLUME/CHUTE DETAIL



NEW ASPHALT MEETING EXISTING PAVEMENT

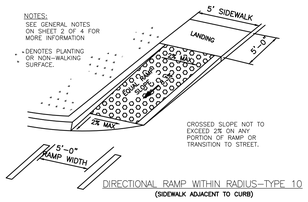


BEEHIVE INLET DETAIL

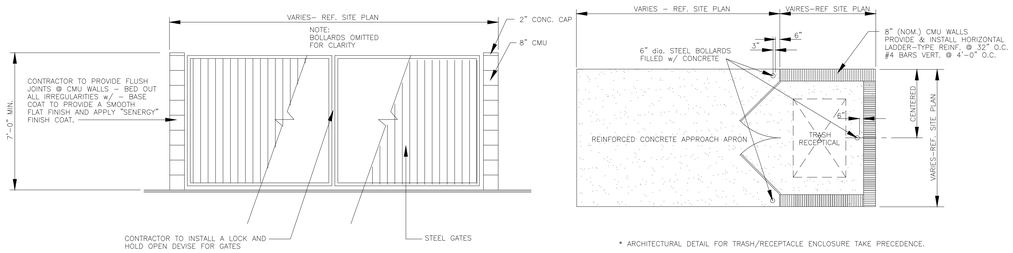
GENERAL NOTES:

NOTES: ▨ DENOTES PLANTING OR NON-WALKING SURFACE.

1. WHEELCHAIR RAMPS ARE TO BE LOCATED AT CROSSWALK AREAS AS DESIGNATED ON THE PLAN. ENGINEER CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
2. SURFACE TEXTURE OF WHEELCHAIR RAMP SHALL BE TRUNCATED DOMES.
3. SLOPES SHALL BE UNIFORM WITH NO ABRUPT CHANGES IN GRADES, NORMAL GUTTER LINE PROFILE SHOULD BE MAINTAINED THROUGH THE AREA OF THE RAMP.
4. WHEEL CHAIR RAMPS SHALL BE MEASURED AND PAID AS CONCRETE SIDEWALK AND CONCRETE CURB AND GUTTER, AS APPLICABLE.
5. SIDEWALK CONCRETE SHALL BE 5 SACK MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.
6. ALL CONCRETE WORK SHALL BE TREATED WITH MEMBRANE CURING COMPOUND AFTER SURFACE TEXTURE HAS BEEN COMPLETED.
7. 6" X 6" No. 6 WIRE MESH SHALL BE USED FOR REINFORCING.
8. ALL RAMPS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, DARK VERSUS LIGHT. THE MATERIAL USED TO PROVIDE THE CONTRAST SHALL BE AN INTEGRAL PART OF THE RAMP.



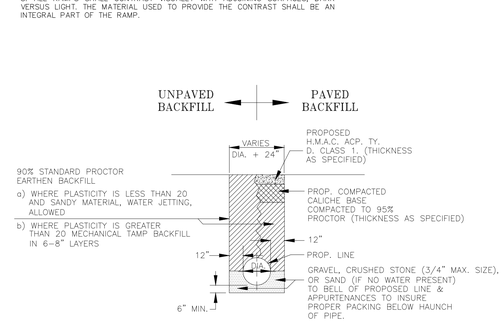
DIRECTIONAL RAMP WITHIN RADIUS–TYPE 10
(SIDEWALK ADJACENT TO CURB)



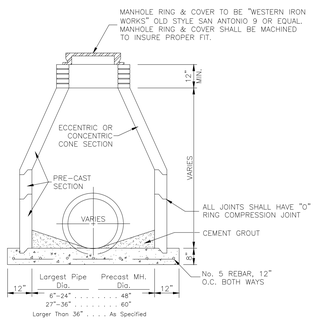
TRASH ENCLOSURE ELEVATION

* ARCHITECTURAL DETAIL FOR TRASH/RECEPTACLE ENCLOSURE TAKE PRECEDENCE.

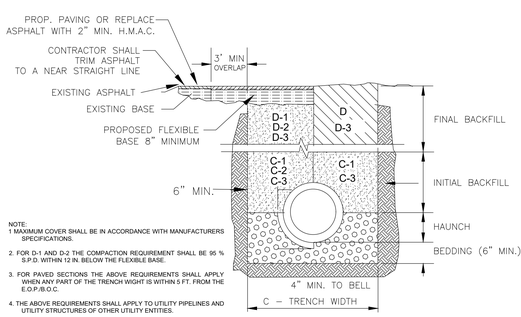
LARGE SCALE RECEPTACLE PLAN



PIPE BEDDING DETAILS
N.T.S.



STANDARD STORM SEWER PRE–CAST CONCRETE MANHOLE
N.T.S.



NOTE:
1 MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION REQUIREMENT SHALL BE 95 % S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE REQUIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIGHT IS WITHIN 5 FT. FROM THE E.O.P./B.O.C.
4. THE ABOVE REQUIREMENTS SHALL APPLY TO UTILITY PIPELINES AND UTILITY STRUCTURES OF OTHER UTILITY ENTITIES.

STORM TRENCH BEDDING AND BACKFILL DETAILS
N.T.S.

A. BEDDING FOR RCP CLASS III HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SAND AND/OR GRAVEL MIX BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW OF PIPE (MIN. COMPACTED THICKNESS = 6") - PIT RUN GRAVEL ⅜" MIX SIZE.

B. HAUNCH FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS 1 OR CLASS II (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

C. TRENCH WIDTH - SHALL BE BELL O.D. X 1.5 □ 12". MINIMUM TRENCH WIDTH SHALL EQUAL STRUCTURE WIDTH □ 4FT. THROUGHOUT THE HEIGHT OF THE STRUCTURE.

C-1 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON CITY STREET, PARKING AREAS, DRIVEWAYS, COUNTY ROADS & UNPAVED AREAS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (AASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

C-2 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON STATE MAINTAINED ROADWAY - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D., AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.

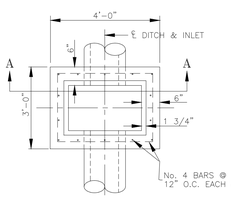
C-3 INITIAL BACKFILL FOR HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II WITH A MAXIMUM P.I. OF 19 (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

D. FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE UNDER UNPAVED SECTIONS - SHALL BE CLASS I, II, III, OR IV, COMPACTED TO 92% S.P.D., (12" LOOSE LIFTS, MECHANICAL COMPACTION).

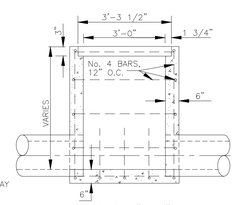
D-1 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND COUNTY ROADS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (AASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

D-2 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON STATE MAINTAINED ROADWAY – COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D., AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.

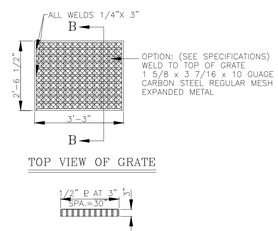
D-3 FINAL BACKFILL OR STRUCTURES (INLETS, MANHOLES, ETC.) - STRUCTURES UNDER THE ROADWAY AND UP TO 5 FT BEYOND THE EDGE OF PAVEMNTT/BACK OF CURB SHALL HAVE CLASS 1 OR CLASS II (ASTM D2321 OR SOIL TYPE 1A, A2, OR A3 (AASHTO M145) WITH A MAXIMUM P.I. OF 19 BACKFILL MATERIAL STRUCTURES BEYOND 5 FT FROM THE E.O.P/B.O.C. SHALL HAVE CLASS I, II, III OR IV (ASTM D2321) BACKFILL MATERIAL. FOUNDATION PREPARATION (WILLPOINTS, MINIMUM 4" GRAVEL OR CEMENTS STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE. BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% S.P.D (USE RELATIVE DENSITY TEST PER ASTM D4253 & ASTM D698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 8".



TOP VIEW OF INLET



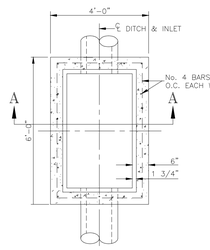
SECTION "A–A"



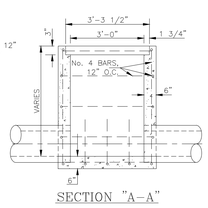
TOP VIEW OF GRATE

SECTION "B–B"

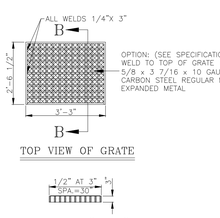
TYPE "C" GRATED INLET



TOP VIEW OF INLET



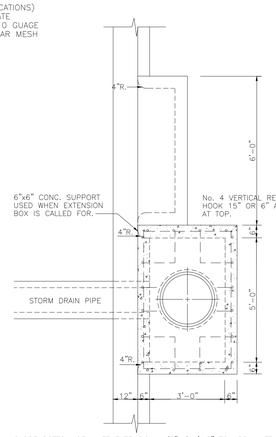
SECTION "A–A"



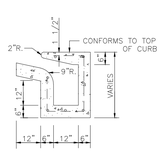
TOP VIEW OF GRATE

SECTION "B–B"

TYPE "C–C" GRATED INLET
(TWO GRATES PER INLET)
N.T.S.

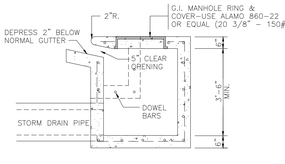


PLAN



ALL STEEL TO BE No. 4 BARS ON 12" SPACING IN BOTH DIRECTIONS.

INLET EXTENSION



ALL STEEL TO BE No. 4 BARS 12" SPACING IN BOTH DIRECTIONS.

SECTION

TYPE "A" INLET
N.T.S.

MELDEN & HUNT, INC.
CONSULTANTS • ENGINEERS • SURVEYORS
115 W. McINTYRE, EDINBURG, TX 78541, PH: (956) 381-0981, FAX: (956) 381-1839, ESTABLISHED 1947
227 N. F.M. 3167, RIO GRANDE CITY, TX. 78582, PH: (956) 487-8256, FAX: (956) 488-8591
www.meldenandhunt.com
TBPLS No. 10066900

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

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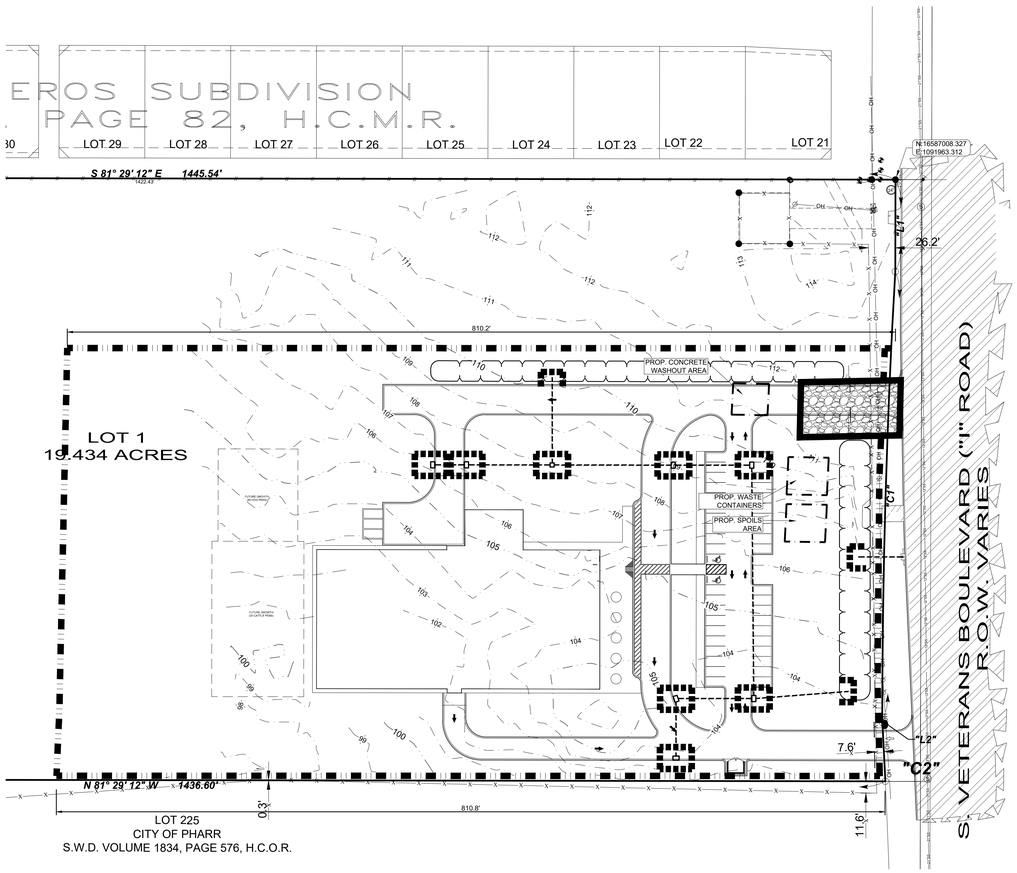
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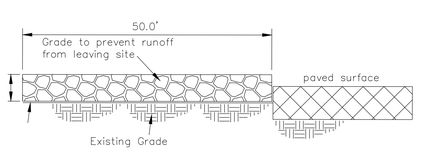
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Sheet Title:
PAVING AND DRAINAGE DETAILS

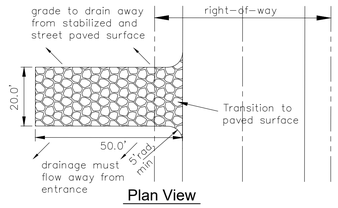


SCALE: 1" = 60'

NO OFFICE AND STORAGE AREA ON SITE



Profile View



Plan View

*** ADDITIONAL NOTES ***

TXDOT WILL ALLOW TEMPORARY CONSTRUCTION ENTRANCE SUBJECT TO:

1. DRIVEWAY WILL BE TEMPORARY AND THE RIGHT-OF-WAY WILL BE RETURNED TO ITS ORIGINAL CONDITION AS SOON AS POSSIBLE AFTER CONSTRUCTION IS COMPLETE.
2. DRIVEWAY WILL BE MAINTAINED AS A CONSTRUCTION EXIT (OVERSIZE ROCK, ETC.) TO PREVENT ANY TRACKING CONSTRUCTION MATERIAL ONTO 27TH.
3. THE CURB WILL NOT BE CUT FOR ACCESS BUT SAND BAGS OR TEMPORARY RAMP, WHICH CAN BE REMOVED IN CASE OF RAIN, SHALL BE MAINTAINED IN ORDER TO PREVENT ANY OBSTRUCTION TO THE TRAVELING PUBLIC. IF THE EXISTING CURB & GUTTER IS DAMAGED BECAUSE OF THIS CONSTRUCTION ACTIVITY, IT WILL NEED TO BE REPAIRED OR REPLACED IN ACCORDANCE WITH TXDOT SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT TXDOT, 48 HOURS PRIOR TO COMMENCING ANY ACTIVITY WITHIN THE RIGHT-OF-WAY.

LEGEND

- SEDIMENT CONTROL FENCE
- CONSTRUCTION ENTRANCE
- 12' X 12' BALED HAY

2/CS STABILIZED CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE

Notes :

1. Contruction entrance(s) shall be locted at the time of pre-contruction meeting.
2. Stone shall be 3 to 5 inch diameter crushed rock or acceptable crushed Portland Cement Concrete.
3. When necessary, vehicles shall be cleaned to remove sediment prior to entrance onto a public roadway. When washing is required, it shall be done on a area stabilized with crushed stone with drainage flowing away form both the street and the stabilized entrance. All sediment shall be prevented from entering any storm drain, ditch or watercourse using approved methods.
4. The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto paved surfaces. This may require periodic top dressing with additional stone as conditions demand. All sediment spilled, dropped, washed or tracked onto paved surfaces, must be removed immediately.
5. The entrance must be properly graded or incorporate a drainage swale to prevent runoff from leaving the construction site.

- CONTRACTOR SHALL PRESENT SWP3 INSPECTION SCHEDULE TO ENGINEER AT PRE CONSTRUCTION MEETING.
- CONTRACTOR SHALL MAINTAIN SWPPP (SWP3) ON-SITE AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL SUBMIT N.O.I. TO T.C.E.Q. AND KEEP ON SITE AT ALL TIMES.
- "NOI" SHALL ALSO BE ONSITE AT ALL TIMES.
- CONTRACTOR SHALL ABIDE BY TPDES REQUIREMENTS.

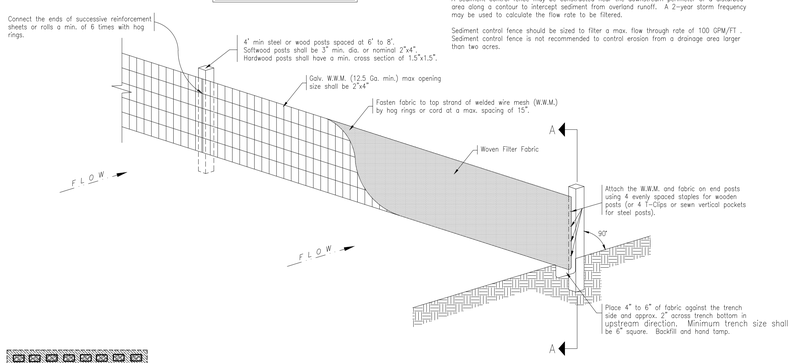
GENERAL NOTES :

1. The guidelines shown hereon are suggestions only and may be modified by the engineer.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2-year storm frequency may be used to calculate the flow rate to be filtered.

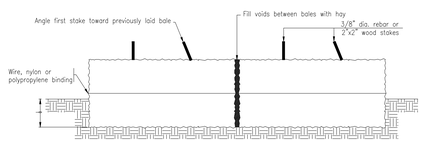
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT . Sediment control fence is not recommended to control erosion from a drainage area larger than two acres.



TEMPORARY SEDIMENT CONTROL FENCE

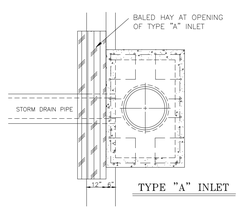
GENERAL NOTES :

1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
4. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
5. Hay bales shall be place in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
6. Hay bales shall be securely anchored in place with 3/8" dia. rebar or 2"x2" wood stakes driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.

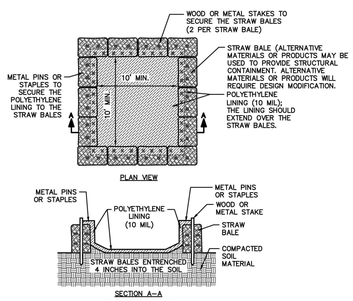


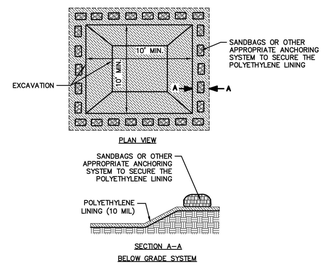
BALED HAY FOR EROSION CONTROL

PLAN SHEET LEGEND



TYPE "A" INLET





CONCRETE WASH OUT

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MELDEN & HUNT, INC.
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09-07-18

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CIVIL:
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STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
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PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: AUG. 28, 2018
Drawn:
Checked:
Scale:
ACAD File:

Revisions:
1
2
3

Sheet Title:
EROSION AND SEDIMENT CONTROL PLAN

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SCALE: 1" = 30'

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117368
LICENSED PROFESSIONAL ENGINEER

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3

Sheet Title:
ALTERNATIVE A

C-7

"C2"

SOUTH VETERANS BOULEVARD ("I" ROAD)
R.O.W. VARIES

LEGEND
- FOUND No.4 REBAR
- FOUND PK NAIL
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- LEASE AGREEMENT AREA, DOCUMENT No. 1439845, H.C.O.R.
- ASPHALT AREA
- SANITARY SEWER MANHOLE
- WATER LINE
- SANITARY SEWER LINE

R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.O.R. - HIDALGO COUNTY OFFICIAL RECORDS
N.E. COR. - NORTHEAST CORNER
N.W. COR. - NORTHWEST CORNER
P.O.B. - POINT OF BEGINNING
P.O.C. - POINT OF COMMENCING
Q.D. - QUITCLAIM DEED
S.W.D. - SPECIAL WARRANTY DEED
N.T.S. - NOT TO SCALE

GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2012 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC).**

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

   A. GOVERNING BUILDING CODE....................IBC 2012 EDITION

2. WIND DESIGN

   A. ASCE 7–10 REQUIREMENTS
   ULTIMATE WIND SPEED....................131 MPH (Vasd=102 MPH)
   RISK CATEGORY....................II
   WIND EXPOSURE CATEGORY....................C
   INTERNAL PRESSURE COEFFICIENT (GCpi)....................+/–0.18
   Kzt....................1.0
   Kd....................0.85

3. GRAVITY DESIGN
   A. ROOF:
   DEAD LOAD....................SELF–WEIGHT OF STRUCTURE & ROOFING SYSTEM
   COLLATERAL LOAD....................5 PSF
   LIVE LOAD....................20 PSF (REDUCIBLE)

4. DRIFT LIMIT (PRE–ENGINEERED METAL BUILDING)....................H/300

5. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7–10 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS.

FOUNDATION DESIGN CRITERIA

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, AND IS BASED ON THE GEOTECHNICAL REPORT NO. AMA18–039–00 PREPARED BY RABA KISTNER CONSULTANTS INC., McALLEN, TEXAS, DATED AUGUST 22, 2018.

   A. BEARING CAPACITY:
   GRADE BEAMS & CONTINUOUS FOOTINGS (TOTAL LOAD) ....1.9 KSF
   SPREAD FOOTINGS....................2.3 KSF

   B. POTENTIAL VERTICAL RISE (PVR) ....1 INCH

2. GROUNDWATER WAS NOT ENCOUNTERED DURING DRILLING OPERATIONS (MAY FLUCTUATE WITH SEASON). CONTRACTOR SHALL DETERMINE ACTUAL GROUNDWATER LEVELS JUST PRIOR TO CONSTRUCTION EXCAVATION ACTIVITIES.

3. THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE RETAINED TO PERFORM TESTING AND INSPECTIONS DURING SITE PREPARATION AND PLACEMENT OF BUILDING PAD FILL AS REQUIRED BY SPECIFICATIONS AND GENERAL STRUCTURAL NOTES.

FOUNDATION NOTES

1. REMOVE **AT LEAST 12 INCHES,** OR AS REQUIRED TO REACH AN **ELEVATION OF 104.5 FT.,** OF THE EXISTING SITE SOIL, VEGETATION, TREE ROOTS, DEBRIS, ETC., FROM THE PROPOSED BUILDING AREA TO A DISTANCE OF 5'–0" OUTSIDE THE BUILDING AREA (EXTERIOR OF THE FOUNDATION, INCLUDING ATTACHED IMPROVEMENTS SUCH AS SIDE WALKS AND CANOPIES). DEPTH OF REMOVAL SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION.

2. AFTER TOP SOIL HAS BEEN REMOVED, THE SUBGRADE SHALL BE PROOF–ROLLED WITH APPROPRIATE CONSTRUCTION EQUIPMENT WEIGHING AT LEAST 15 TONS UNTIL THE GRADE OFFERS A RELATIVELY UNYIELDING SURFACE. SOFT SOIL AND YIELDING AREAS, AND AREAS CONTAINING ORGANIC MATTER AND/OR DEBRIS, SHALL BE OVER EXCAVATED AND REPLACED WITH COMPACTED SELECT FILL IN ACCORDANCE WITH THE REQUIREMENTS BELOW.

3. PROOFROLLING OPERATIONS AND EXCAVATION/BACKFILL ACTIVITIES SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER AND OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE TO DOCUMENT SUBGRADE CONDITIONS AND PREPARATION. IF SUBGRADE SOILS ARE ALLOWED TO BECOME WET OR SATURATED, REMOVAL AND REPLACEMENT OF SOFT SOILS OR CHEMICAL TREATMENT PROCEDURES SUCH AS LIME STABILIZATION SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED FOR ADDITIONAL RECOMMENDATIONS, IF REQUIRED.

4. SCARIFY, MOISTURE CONDITION, AND COMPACT THE TOP 8" OF THE EXPOSED SUBGRADE TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY AT OPTIMUM TO +3% ABOVE THE OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH TEST METHOD ASTM D–698. MOISTURE CONTENT SHALL BE AS NOTED IMMEDIATELY PRIOR TO PLACING SELECT FILL.

5. RESTORE GRADE USING SELECT FILL, **MINIMUM OF 36 INCHES** OR AS REQUIRED TO PROVIDE THE SPECIFIED **FINISH FLOOR ELEVATION OF 107.50 FT.** WHICHEVER IS GREATER, AND PROPER SITE DRAINAGE, COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW. FINISH FLOOR ELEVATIONS SHALL BE VERIFIED WITH ARCHITECT AND CIVIL ENGINEER.

6. SELECT FILL SHALL BE COMPACTED IN THE FIELD IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE (6″ COMPACTED LIFT) TO A MINIMUM OF 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY AT –2% TO +2% OF THE OPTIMUM MOISTURE CONTENT, AS EVALUATED BY ASTM D–698.

7. SELECT FILL SHALL BE FREE OF ORGANIC OR OTHER DELETERIOUS MATERIALS, HAVE A MAXIMUM PARTICLE SIZE OF 4" AND A PLASTICITY INDEX (PI) BETWEEN 7–18. SOILS PROPOSED FOR USE SHOULD BE CLASSIFIED IN ACCORDANCE WITH USCS ASTM D2487 AND WILL BE CONSIDERED SATISFACTORY WHEN CLASSIFIED AS: **SC, GC,** OR **CL.** IF BLENDED OF MIXED SOILS ARE INTENDED FOR USE, THE GEOTECHNICAL ENGINEER SHOULD BE CONTRACTED TO PROVIDE ADDITIONAL RECOMMENDATIONS AND REQUIREMENTS.

8. FOUNDATION CONCRETE SHALL NOT BE PLACED ON SELECT FILL SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR WATER SEEPAGE. IF BEARING SOILS ARE SOFTENED BY WATER INTRUSION, OR BY DESICCATION, THE UNSUITABLE SOILS SHALL BE REMOVED FROM THE FOUNDATION EXCAVATION AND BE REPLACED WITH PROPERLY COMPACTED SELECT FILL PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. ALL SOIL REMOVAL AND REPLACEMENT COSTS, INCLUDING ASSOCIATED COSTS TO REMOVE AND REINSTALL REINFORCEMENT AND VAPOR BARRIER MATERIALS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. DEPTH OF SOIL REMOVAL AND RECOMPACTION REQUIREMENTS SHALL BE COORDINATED WITH THE GEOTECHNICAL ENGINEER.

9. SAMPLES OF PROPOSED SELECT FILL SHALL BE FURNISHED TO THE TESTING LABORATORY 7 DAYS PRIOR TO INSTALLATION TO PERMIT TIME FOR SPECIFICATION COMPLIANCE INSPECTION AND REVIEW BY THE GEOTECHNICAL ENGINEER.

10. LABORATORY MOISTURE–DENSITY CURVES SHALL BE DEVELOPED FOR SUBGRADE AND FILL. PROCTOR CURVES AND FIELD DENSITY TESTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. A MINIMUM OF ONE (1) IN PLACE DENSITY TEST PER 2,000 SQUARE FEET OF SLAB AREA SHALL BE TAKEN ON EACH LIFT DURING PLACEMENT OF SELECT FILL. DENSITY REPORTS SHALL BE TRANSMITTED TO ENGINEER WITHIN 3 DAYS AFTER TESTS ARE MADE.

11. GRAIN SIZE ANALYSIS AND ATTERBERG LIMITS TESTS SHALL BE PERFORMED DURING FILL PLACEMENT AT A RATE OF ONE TEST PER 2,000 CUBIC YARDS OF FILL BROUGHT TO THE SITE. SAMPLES FOR TEST SHALL BE TAKEN FROM JOBSITE MATERIALS.

12. SITE SHALL BE GRADED SO THAT WATER DOES NOT POND WITHIN 10 FEET OF THE PERIMETER FOUNDATION BEAM DURING OR AFTER CONSTRUCTION. THE SLOPE OF THE GROUND SURFACE AWAY FROM THE STRUCTURE SHOULD BE A MINIMUM OF THREE (3%) PERCENT FOR A DISTANCE OF AT LEAST TEN (10') FEET. ELEVATION OF GROUND SURFACE ADJACENT TO THE FOUNDATION SHOULD BE AT LEAST 6 INCHES BELOW FINISH FLOOR.

13. FINAL DRAINAGE IS VERY IMPORTANT TO THE PERFORMANCE OF THE FOUNDATION. LANDSCAPING, PLUMBING, AND DOWNSPOUT DRAINAGE ARE ALSO VERY IMPORTANT. IT IS VITAL THAT ALL ROOF DRAINAGE BE TRANSPORTED AWAY FROM BUILDINGS SO THAT NO AREAS OF WATER POND AROUND BUILDINGS, WHICH CAN RESULT IN SOIL VOLUME CHANGE UNDER THE FOUNDATION. PLUMBING LEAKS SHOULD BE REPAIRED AS SOON AS POSSIBLE IN ORDER TO MINIMIZE THE MAGNITUDE OF MOISTURE CHANGE UNDER THE SLAB. LARGE TREES AND SHRUBS SHOULD NOT BE PLANTED IN THE IMMEDIATE VICINITY OF THE STRUCTURE, SINCE THE ROOT SYSTEMS CAN CAUSE A SUBSTANTIAL REDUCTION IN SOIL VOLUME IN THE VICINITY OF THE TREE DURING DRY PERIODS. BUSHES AND TREES SHOULD BE PLANTED A REASONABLE DISTANCE AWAY FROM THE STRUCTURE SO THAT THEIR CANOPY OR "DRIP LINE" DOES NOT EXTEND BEYOND THE PERIMETER OF THE FOUNDATION. WATERING OF VEGETATION SHOULD BE PERFORMED IN A TIMELY AND CONTROLLED MANNER. PROLONGED WATERING SHOULD BE AVOIDED.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.

4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.6 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). AGGREGATE SHALL BE WELL–GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE, 1" MAXIMUM FOR CAST–IN–PLACE BEAMS AND ABOVE GRADE SLABS. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YD3 OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED.

5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.

6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A–615, GRADE 60. #3 BARS MAY BE GRADE 40.

7. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

   WHERE CAST AGAINST DIRT OR FILL .... 3 IN.
   EXPOSED TO EARTH OR WEATHER .... 2 IN.
   SLABS AND WALLS .... 1 IN.
   OTHER .... 1–1/2 IN.

8. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

CONCRETE CONTINUED:

9. SLAB MAT TO BE SUPPORTED BY MASONRY BRICK BATTS (MIN OF 1/2 BRICK) SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY BATTS AT 4 FEET ON CENTER.

10. VERTICAL CONSTRUCTION JOINTS IN FLOOR SHALL BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO FORMING SLAB. CRACK CONTROL JOINTS SHALL BE PROVIDED AT LOCATIONS SHOWN ON THE PLANS. CONTROL JOINTS SHALL BE SAWCUT (IMMEDIATELY SUBSEQUENT TO FINISHING SLAB) WITH "SOFF–CUT" SYSTEM. JOINTS SHALL BE CLEANED AND FILLED WITH "SONOLASTIC SL1" WITHIN TWO (2) DAYS AFTER SAWCUTTING. NO HORIZONTAL JOINTS WILL BE PERMITTED IN SLABS OR BEAMS UNLESS APPROVED BY THE ENGINEER.

11. PROVIDE 2 TOP & BOTTOM CORNER BARS AT ALL DISCONTINUOUS GRADE BEAMS AND FOUNDATION CORNERS. CORNER BARS SHALL BE 4'–0" IN LENGTH (2'–0" LEGS). SIZE OF THE CORNER BARS SHALL MATCH THE SIZE OF THE GRADE BEAM REINFORCING AS SHOWN BY STRUCTURAL DRAWINGS.

12. MAINTAIN A MINIMUM OF ONE AND ONE–HALF (1–1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).

13. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 40 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED.

14. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, SUCH AS FOR FINISH PAINTING OR STUCCO DASH, THE FORMS SHALL BE COMMERCIAL STANDARD DOUGLAS FIR, MOISTURE–RESISTANT CONCRETE FORM PLYWOOD; MINIMUM 5–PLY AND AT LEAST 9/16" THICK, OR FORMS LINED WITH COMMERCIAL STANDARD DOUGLAS FIR, CONCRETE FORM EXTERIOR, 3–PLY, NOT LESS THAN 1/4" THICK. WHERE CONCRETE IS EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

15. EXPOSED SURFACES OF CONCRETE AT THE PERIMETER OF THE FOUNDATION SHALL BE FORMED WITH 2X10 #2 LUMBER OR BETTER. A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

16. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.

17. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

18. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:

    A. COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN

    B. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.

    C. MAXIMUM WATER CEMENT RATIO SHALL BE 7–1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.

    D. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.

    E. REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.

    F. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.

    G. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

19. FLOOR FINISH (TOLERANCES)

    A. STEEL TROWEL FINISH 1/8" IN 10'

    B. FLOAT FINISH 1/4" IN 10'

    C. SCRATCH FINISH 1/2" IN 10'

20. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

21. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL INCLUDE ELECTRONIC (PDF) COPIES OF EACH DRAWING. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

22. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

23. ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE TO SCHEDULE REQUIRED OBSERVATIONS.

24. INCLUDE IN BID AN ALLOWANCE FOR **3.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **$2,000.00 PER TON** (LABOR FOR PLACING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

CONCRETE MASONRY

1. **THE GENERAL CONTRACTOR, PROJECT SUPERINTENDENT, TESTING LABORATORY AND THE MASONRY FOREMAN** SHALL MEET WITH THE STRUCTURAL ENGINEER PRIOR TO THE START OF MASONRY WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.

2. AN INDEPENDENT TESTING LAB SHALL VERIFY PLACEMENT OF VERTICAL REINFORCING IN WALLS AND HORIZONTAL REINFORCING IN BOND BEAMS AND LINTELS PRIOR TO PLACEMENT OF GROUT. INDEPENDENT TESTING LAB SHALL PROVIDE CONTINUOUS VISUAL OBSERVATIONS OF GROUTING PROCEDURES, REBAR PLACEMENT, SITE MIXING OF MORTAR, INSTALLATION OF EMBEDED STEEL CONNECTORS, AND GENERAL PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS. INSPECTION REPORTS ARE TO BE GENERATED DAILY BY THE TESTING LAB. INSPECTION SUMMARY REPORTS SHALL BE EMAILED TO THE STRUCTURAL ENGINEER IN ELECTRONIC (PDF) FORMAT.

3. ALL CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODES AND THE AMERICAN CONCRETE INSTITUTE (ACI 530–02/ ASCE 5–02/ TMS 402–02). DESIGN IS BASED ON MASONRY COMPRESSIVE STRENGTH (f'm) OF 2,150 PSI.

4. HOT AND COLD WEATHER CONSTRUCTION PROCEDURES SHALL BE UTILIZED AS REQUIRED BY THE SPECIFICATIONS AND ACI 530.1.

5. HOLLOW CONCRETE MASONRY UNITS SHALL BE DOMESTIC LIGHTWEIGHT MOISTURE CONTROLLED TYPE I UNITS, CONFORMING TO ASTM C–90–97.

6. MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 1,900 PSI (NET AREA) WHEN TESTED IN ACCORDANCE WITH ASTM C–140, "METHODS OF SAMPLING AND TESTING CONCRETE MASONRY UNITS" .

7. MORTAR PROPORTIONS FOR REINFORCED MASONRY SHALL BE ESTABLISHED PER ASTM C270 PROPORTION SPECIFICATIONS, TYPE S USING MASONRY CEMENT. FIELD TESTS OF MORTAR SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY IN ACCORDANCE WITH ASTM C780 AT A RATE OF ONE TEST PER 2,000 SF OF WALL SURFACE TO DETERMINE BATCH–TO–BATCH UNIFORMITY OF MORTAR. REFERENCE SPECIFICATIONS FOR NON REINFORCED MASONRY.

8. GROUT FOR ALL REINFORCED HOLLOW MASONRY UNIT WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITH A MAXIMUM 3/8" AGGREGATE. A MID RANGE WATER REDUCING AGENT SUCH AS "POLYHEED" (MASTER BUILDERS) SHALL BE USED. SLUMP TO BE BETWEEN 8 AND 11 INCHES. **ALL GROUT SHALL BE PUMPED.** PLACING OF GROUT TO FOLLOW AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS REGARDING **LOW & HIGH LIFT GROUTING.** MAXIMUM LIFT OF GROUT SHALL NOT EXCEED 5'–0" UNLESS APPROVED BY THE ENGINEER PRIOR TO START OF GROUTING. GROUT TO BE TESTED BY A QUALIFIED TESTING LABORATORY AT A RATE OF ONE TEST PER 25 CY OF GROUT IN ACCORDANCE WITH ASTM C1019.

9. REINFORCING STEEL SHALL CONFORM TO ASTM A–615, GRADE 60. ALL BAR REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS (MIN). BARS SHALL BE PLACED WITHIN 1/2" (CENTERLINE OF BAR TO FACE OF MASONRY) OF LOCATION SHOWN IN STRUCTURAL PLANS. BARS SHALL BE HELD IN POSITION DURING GROUTING WITH BAR POSITIONERS. POSITIONERS SHALL BE LOCATED AT THE BOTTOM AND TOP OF THE WALL AND AT 8 TO 10 FOOT INTERVALS. BARS SPLICED BY NON–CONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN ONE–FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8 INCHES.

10. VERTICAL BARS SHALL EXTEND TO THE TOP OF THE PARAPET WALL OR BOND BEAM WHEN A 16" DEEP BEAM IS SPECIFIED. HOOKED DOWELS SHALL BE PROVIDED AT ROOF BOND BEAMS (w/o PARAPETS) LESS THAN 16" DEEP. DOWELS SHALL BE 30" LONG WITH 12" HOOKS.

11. ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH 9 GA. HOT DIPPED GALVANIZED HORIZONTAL WIRE REINFORCEMENT (LADDER TYPE) EMBEDDED IN MORTAR JOINTS AT 16" O.C. NOMINAL WIDTH OF JOINT REINFORCING SHALL EQUAL WALL THICKNESS. (INTERIOR WALLS MAY BE MILL GALVANIZED). WIRE REINFORCEMENT SHALL CONFORM TO ASTM DESIGNATION A–82, AND SHALL BE LAPPED AT LEAST 8" WITH AT LEAST ONE CROSS WIRE WITHIN THE LAP. JOINT REINFORCING SHALL BE INSTALLED IN THE FIRST AND SECOND MORTAR BED JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS. WIRE REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS.

12. EXTERIOR WALLS SHALL BE BONDED WITH CONCRETE MASONRY UNITS AT BUILDING CORNERS.

13. ONE GROUTED #5 BAR SHALL BE PROVIDED AROUND THE PERIMETER OF ALL WALL OPENINGS AND AT BUILDING CORNERS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS.

14. NEATLY TOOL INTERIOR AND EXTERIOR JOINTS IN MASONRY TO FORM A SLIGHTLY CONCAVE PROFILE WHEN MORTAR IS THUMBPRINT HARD UNLESS SHOWN OTHERWISE. ALL MORTAR JOINTS SHALL BE TOOLED THE ENTIRE HEIGHT OF WALL.

15. BOND BEAMS SHALL BE REINFORCED WITH TWO CONTINUOUS #5 BARS UNLESS NOTED OTHERWISE ON THE STRUCTURAL PLANS. REINFORCING SHALL BE CONTINUOUS AT ALL CORNERS AND INTERSECTING WALLS. (PROVIDE CORNER BARS). WHERE SIDE WALL AND END WALL BOND BEAMS DO NOT COURSE CONTINUE THE LOWER BOND BEAM AROUND THE BUILDING CORNER TO THE FIRST VERTICAL REINFORCED CELL.

16. CONTROL JOINTS SHALL BE CONSTRUCTED WITH SLOTTED MASONRY UNITS AND FACTORY MOLDED JOINT FILLER. JOINTS SHALL BE CAULKED WITH AN APPROVED MATERIAL. JOINTS SHALL BE PROVIDED AT MAXIMUM SPACING OF 22 FT. AND AT ALL LOCATIONS WHERE COLUMNS ARE PLACED IN CMU CELLS. (EXTERIOR AND INTERIOR WALLS). JOINT LOCATIONS, IF NOT SHOWN ON PLANS, SHALL BE COORDINATED WITH ARCHITECT.

17. CONTROL JOINTS **SHALL NOT** EXTEND THROUGH BOND BEAMS UNLESS INDICATED ON THE STRUCTURAL PLANS.

18. CONTROL JOINTS IN CMU WALLS SHALL NOT BE LOCATED CLOSER THAN 2'–0" FROM AN EDGE OF OPENING WITHOUT REVIEW OF STRUCTURAL ENGINEER.

19. COLUMNS WHICH EXTEND THROUGH BOND BEAMS SHALL BE WRAPPED WITH 2 LAYERS OF 30# BUILDING PAPER. REINFORCING SHALL BE CONTINUOUS PAST COLUMNS WHEN ADEQUATE CLEARANCE EXISTS.

CONCRETE MASONRY CONTINUED:

20. LINTELS OVER ALL OPENINGS IN INTERIOR MASONRY PARTITIONS, NOT OTHERWISE COVERED, ARE TO BE OF STANDARD CMU LINTEL BLOCK WITH THICKNESS EQUAL TO WALL THICKNESS. DEPTH SHALL BE 8" FOR OPENINGS UP TO 6'–0", REINFORCED WITH TWO #5's, LOCATED 2–1/2" ABOVE THE BOTTOM EXTERIOR FACE OF THE UNIT.

21. INCLUDE IN BID AN ALLOWANCE OF **2.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **$2,000.00 PER TON** (LABOR AND GROUT FOR PLACING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.

2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).

3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A–500, GRADE B (Fy=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy=35 KSI).

4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

5. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.

6. REFER TO ARCHITECTURAL & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.

7. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.

8. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D–1.1).

9. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1–72 CODE AND SERIES E 70XX.

10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

11. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH A.W.S. D–1.1. ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X–RAYED WELDS SHALL BE GROUND SMOOTH.

12. THE FABRICATOR SHALL SUPPLY BACK–UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.

13. ALL STEEL MEMBERS INCLUDING SECONDARY COMPONENTS, FASTENERS AND ASSOCIATED ACCESSORIES, SHALL BE HOT–DIPPED GALVANIZED.

14. WELDED HEADED STUDS (WHS) SHALL BE "NELSON ANCHORS", OR EQUAL, Fs = 60 KSI, DIAMETER AND LENGTH AS SHOWN ON PLANS. STUDS TO BE WELDED& SHOP TESTED IN ACCORDANCE W/ THE MANUFACTURER'S RECOMMENDATIONS.

15. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH SHOP COAT. GALVANIZED SURFACES (HOT DIPPED OR COLD) SHALL BE CLEANED AND PAINTED WITH "ZRC".

16. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.

17. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

19. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATION IMMEDIATELY AFTER ROOF PANELS ARE INSTALLED AND BEFORE INSTALLATION OF THE CEILING.

20. INCLUDE IN BID AN ALLOWANCE FOR **1.0 TON** OF FABRICATED AND PRIMED STRUCTURAL STEEL TO BE USED AS DIRECTED IN THE FIELD FOR SPECIAL CONDITIONS AT A COST OF **$4,000.00 PER TON** (LABOR FOR ERECTING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

PRE–ENGINEERED METAL BUILDING

1. REFERENCE SCHEMATIC ROOF FRAMING PLAN AND DESIGN CRITERIA FOR DESIGN LOAD REQUIREMENTS AND SPECIFICATIONS FOR PERTINENT INFORMATION REGARDING THE PRE–ENGINEERED STRUCTURE. SPECIFICATIONS FOR THE PRE–ENGINEERED BUILDING, OTHER THAN LOAD AND CODE SPECIFICATIONS, ARE NOT IN THE SCOPE OF SERVICE PROVIDED BY THE PROJECT STRUCTURAL ENGINEER.

2. THE BUILDING MANUFACTURER SHALL FURNISH DESIGN CERTIFICATION SIGNED AND SEALED BY A STATE OF TEXAS REGISTERED PROFESSIONAL ENGINEER FOR THE STRUCTURAL FRAMING AND COVERING PANELS OF THE METAL BUILDING SYSTEM. CERTIFICATION TO SPECIFICALLY STATE THAT THE DESIGN MEETS OR EXCEEDS THE APPLICABLE REQUIREMENTS OF THE IBC.

3. THE ABOVE REFERENCED CERTIFICATION BY THE PRE–ENGINEERED BUILDING DESIGN ENGINEER SHALL BE INCLUDED WITH THE SEALED BUILDING ERECTION AND FABRICATION DRAWINGS WHEN SUBMITTED FOR REVIEW BY THE DESIGN TEAM. A REVIEW PACKAGE WITHOUT THE SIGNED AND SEALED CERTIFICATION FORMS AND SEALED BUILDING PLANS WILL NOT BE REVIEWED FOR THE RECORD BY THE STRUCTURAL ENGINEER.

4. THESE BUILDINGS ARE SPECIFIED TO BE ENCLOSED BUILDINGS AS DEFINED BY ASCE 7. ACCESSORIES (DOORS, WINDOWS, ETC.) MUST BE DESIGNED AS COMPONENTS AND CLADDING IN ACCORDANCE TO THE SPECIFIC WIND CODE DESIGNATED IN THE GENERAL STRUCTURAL NOTES.

5. ALL COMPONENTS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND THE METAL BUILDING MANUFACTURER ASSOCIATION.

6. ALL COMPONENTS SHALL BE SIZED FOR ALL DEAD LOADS, LIVE LOADS, WIND LOADS AS OUTLINED IN DESIGN CRITERIA AND/OR SPECIFIED ON PLANS.

7. ROOF SYSTEM INCLUDING PANELS, FASTENERS, AND TRIM MATERIALS SHALL MEET OR EXCEED UPLIFT REQUIREMENTS OF ASTM E 1592 AND UL 580 CLASS 90. FASTENERS SHALL BE SPACED TO MEET ASTM E 1592 UPLIFT LOADS AND THE WIND UPLIFT LOADS AS TABULATED AND INDICATED ON THE WIND DIAGRAMS ON THE STRUCTURAL PLANS.

8. SHOP DRAWINGS AND CALCULATIONS SHALL BE PERFORMED BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS. CALCULATIONS & SHOP DRAWINGS SHALL BE TRANSMITTED AS A SINGLE ELECTRONIC FILE (PDF FORMAT) TO THE A/E FOR REVIEW PRIOR TO FABRICATION OF COMPONENTS.

9. REFER TO ARCHITECTURAL & M.E.P. DRAWINGS FOR ROOF SUPPORTED ITEMS INCLUDING FANS, PLUMBING, LIGHTING, PIPING, DUCTWORK, ETC. AND PROVIDE SUPPORT FRAMING FOR ADDITIONAL LOADS AS REQUIRED.

10. PURLIN SPACING TO BE DETERMINED BY BUILDING SUPPLIER. TOTAL LOAD DEFLECTION SHALL NOT EXCEED OF L/240.

METAL BUILDING COMPONENTS

1. ALL COMPONENTS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS AND STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND THE LIGHT GAGE STRUCTURAL INSTITUTE.

2. PURLINS AND EAVE STRUTS SHALL BE FABRICATED FROM STEEL HAVING A MINIMUM YIELD OF 55 KSI. ALL MEMBERS SHALL BE PAINTED WITH ONE COAT OF RED OXIDE OR APPROVED SHOP COAT. PURLINS SHALL BE SHOP PUNCHED AND LAPPED AS SHOWN ON THE ROOF FRAMING PLANS. EAVE STRUTS SHALL BE INSTALLED WITH BOLTED CONNECTIONS. PURLINS AND EAVE STRUTS TO BE SECURED WITH MINIMUM 1/2 DIAMETER BOLTS (A307 GRADE).

3. SAG STRAPS SHALL BE LOCATED AS SHOWN ON THE PLANS. STRAPS SHALL BE FABRICATED FROM STEEL HAVING A MINIMUM YIELD OF 50 KSI. THE STRAPS SHALL BE SECURED TO THE TOP AND BOTTOM FLANGES OF ALL PURLINS WITH #14 TEK SCREWS.

FASTENERS

1. CAST–IN–PLACE AND POST–INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST–INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED. ALL ANCHORS SHALL BE HOT–DIPPED GALVANIZED PER ASTM A153

2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.

3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.

4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK BOLT III (ICC–ES ESR–2302) BY HILTI (CONCRETE)

   B. KWIK BOLT III (ICC–ES–ESR–1385) BY HILTI (MASONRY)

   C. STRONG–BOLT 2 (ICC–ES ESR–3037) BY SIMPSON STRONG–TIE (CONCRETE)

   D. WEDGE–ALL ANCHOR (ICC–ES ESR–1396) BY SIMPSON STRONG–TIE (MASONRY)

5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:

   A. HSL–3 (ICC–ES ESR–1545) BY HILTI (CONCRETE)

FASTENERS CONTINUED:

6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK HUS–EZ (ICC–ES ESR–3027) BY HILTI (CONCRETE)

   B. KWIK HUS–EZ (ICC–ES ESR–3056) BY HILTI (MASONRY)

   C. TITEN HD (ICC–ES ESR–2713) BY SIMPSON STRONG–TIE (CONCRETE)

   D. TAPCON ANCHORS (ICC–ES ESR–1671) (MASONRY)

   E. POWERS WEDGE BOLT (ICC–ES ESR–1678) (MASONRY)

FASTENERS CONTINUED:

7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:

   A. HDA (ICC–ES ESR–1546) BY HILTI (CONCRETE)

   B. TORQ–CUT (ICC–ES ESR–2705) BY SIMPSON STRONG–TIE (CONCRETE)

8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC–ES AC193. ACCEPTABLE PRODUCTS:

   A. X–U (ICC–ES ESR–2269) BY HILTI (CONCRETE/MASONRY)

   B. POWDER ACTUATED FASTENERS (ICC–ES ESR–2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)

9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC–ES AC308. ACCEPTABLE PRODUCTS:

   A. HIT–RE 500–SD (ICC–ES ESR–2322) BY HILTI (CONCRETE)

   B. HIT–HY 70 (ICC–ES ESR–1967) BY HILTI (MASONRY)

   C. SET–XP (ICC–ES ESR–2508) BY SIMPSON STRONG–TIE (CONCRETE)

   D. SET (ICC–ES ESR–1772) BY SIMPSON STRONG–TIE (MASONRY

10. J–BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J–BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.

11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, FY=36 KSI

12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC–ES OR IAPMO–ES) REPORT.

ROUGH CARPENTRY NOTES

1. ROUGH CARPENTRY SHALL COMPLY WITH THE PROVISIONS OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE AND THE 2005 NATIONAL DESIGN STANDARD, SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS).

2. ALL LUMBER USED FOR LOAD SUPPORTING PURPOSES SHALL BE IDENTIFIED BY THE GRADE MARK OF AN APPROVED LUMBER GRADING OR INSPECTION BUREAU OR AGENCY.

3. ALL LUMBER AND PLYWOOD REQUIRED TO BE PRESERVATIVELY TREATED SHALL BEAR AN APPROVED AWPB QUALITY MARK. THE QUALITY MARK SHALL BE ON A STAMP OR LABEL AFFIXED TO THE PRESERVATIVE–TREATED WOOD, AND SHALL INCLUDE THE FOLLOWING INFORMATION:

   A. IDENTIFICATION OF TREATING MANUFACTURER.

   B. TYPE OF PRESERVATIVE USED.

   C. MINIMUM PERSERVATIVE RETENSION (PCF).

   D. END USE FOR WHICH THE PRODUCT IS TREATED.

   E. AWPA STANDARD TO WHICH THE PRODUCT WAS TREATED.

   F. IDENTITY OF THE ACCREDITED INSPECTION AGENCY.

4. FRAMING LUMBER MOISTURE CONTENT SHALL NOT EXCEED 19 PERCENT AT TIME OF INSTALLATION.

5. MATERIALS

   A. FRAMING LUMBER

USE–ITEM	LUMBER SPECIES	MINIMUM GRADE	GRADING AGENCY
JOISTS, BEAMS	SOUTHERN YELLOW PINE	#2	SPIB
NAILERS, PLATES	SOUTHERN YELLOW PINE*	#2	SPIB

   * MEMBERS IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED.

   B. PLYWOOD

USE–ITEM	THICKNESS	EXPOSURE	SPAN RATING
FLOOR SHEATHING	3/4"	1	24/16

   C. FASTENERS

COMMON NAIL	SHANK DIAMETER	HEAD DIAMETER	LENGTH
20d	0.192"	0.406"	4"
16d	0.162"	0.344"	3.1/2"
10d	0.148"	0.312"	3"
8d	0.131"	0.281"	2.1/2"

   i. THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL BE NOT LESS THAN SPECIFIED IN TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION.

   ii. NAILS EXPOSED TO MOISTURE SHALL BE HOT–DIPPED GALVANIZED.

6. STRUCTURAL MEMBERS WHOSE STRENGTH IS IMPAIRED BY IMPROPER CUTTING, DRILLING, OR EXCESSIVE DEFECTS SHALL BE REPLACED OR REINFORCED IN A MANNER ACCEPTABLE TO THE ENGINEER.

7. SHEATHING SHALL BE INSTALLED CONTINUOUS OVER TWO OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND JOINTS STAGGERED. A 1/8" SPACE SHALL BE PROVIDED AT PANEL EDGES AND END JOINTS UNLESS RECOMMENDED OTHERWISE BY THE MANUFACTURER.

8. SHEATHING SHALL BE ATTACHED TO STRUCTURE AS SPECIFIED ON SHEATHING NAILING SCHEDULES.

9. ALL METAL ANCHORS, TIES, HOLD DOWNS AND ETC., SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE".

10. ENGINEER SHALL BE CONTACTED FOR FRAMING OBSERVATIONS PRIOR TO INSTALLING OF CEILINGS AND SOFFITS (INCLUDING BUILDING PAPER).

11. RAFTERS SHALL NOT BE NOTCH AT THE END SUPPORTS OR THE MIDDLE 1/3 OF THE RAFTER SPAN.

12. RAFTERS ARE PERMITTED TO BE NOTCHED IN THE TOP OR BOTTOM OF THE RAFTERS AT THE OUTER 1/3 OF THE SPAN. NOTCHES SHALL NOT EXCEED IN DEPTH 1/6 THE ACTUAL RAFTER DEPTH AND SHALL NOT EXCEED IN LENGTH 1/3 THE ACTUAL FASTER DEPTH. REFERENCE DETAIL 7/S1.3.

13. RAFTERS ARE PERMITTED TO BE BORED TO A DIAMETER NOT GREATER THAN 1/3 THE ACTUAL RAFTER DEPTH AND NOT BE CLOSER THAN 2 INCHES FROM THE TOP OR BOTTOM EDGE OF THE RAFTER. REFERENCE DETAIL 7/S1.3.

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PSJA COLLEGE3 READY.CONNECTED.COMPLETE

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

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1
2
3

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GENERAL STRUCTURAL NOTES

GENERAL STRUCTURAL NOTES

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2012. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2012.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF SELECT FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF SELECT FILL	X	
PRIOR TO PLACEMENT OF SELECT FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

REQUIRED VERIFICATION AND INSPECTION OF PIER FOUNDATIONS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS OF EACH PIER	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY	X	
FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS AS REQUIRED FOR CONCRETE CONSTRUCTION		

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED LEVEL 1 SPECIAL INSPECTION OF MASONRY CONSTRUCTION (OCCUPANCY CATEGORY I, II, III)

INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
PROPORTIONS OF SITE-PREPARED MORTAR		X
PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS		X
LOCATION OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
THE INSPECTION PROGRAM SHALL VERIFY:		
SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
GROUT SPACE IS CLEAN		X
PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS	X	
PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBITTALS SHALL BE VERIFIED		X

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

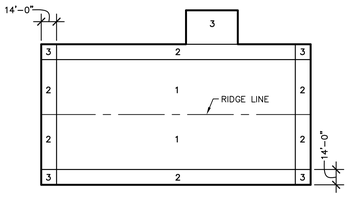
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT	

REQUIRED VERIFICATION AND INSPECTION OF WOOD CONSTRUCTION

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
LUMBER SPECIES & GRADE		X
FLOOR SHEATHING NAIL FASTENING		X
WALL SHEATHING NAIL FASTENING		X
HOLD DOWN ANCHORS	X	
HURRICANE STRAPS & TIES		X

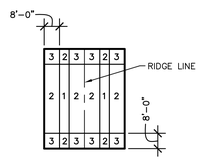


PSJA AGRICULTURE FACILITY
ROOF DESIGN WIND PRESSURE DIAGRAM

DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
1	-22 PSF
2	-38 PSF
3	-57 PSF

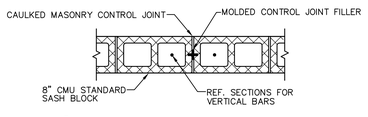
EXTERIOR FINISHES, DOORS, EXTERIOR WALL PANELS & LOUVERS MAXIMUM DESIGN WIND PRESSURES
P+ = +20 PSF TOWARDS THE SURFACE
P- = -25 PSF AWAY FROM THE SURFACE

OVERHEAD DOOR MAXIMUM DESIGN WIND PRESSURES
P+ = +18 PSF TOWARDS THE SURFACE
P- = -21 PSF AWAY FROM THE SURFACE

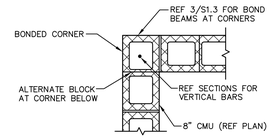


PSJA SHOW ARENA-ALTERNATE #1
ROOF DESIGN WIND PRESSURE DIAGRAM

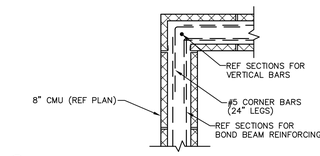
DESIGN WIND PRESSURE FOR ROOF COMPONENTS & CLADDING	
ZONE	P- (UPLIFT)
1	-17 PSF
2	-32 PSF
3	-49 PSF



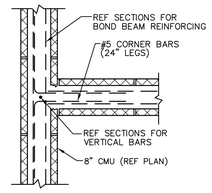
1 TYPICAL CRACK CONTROL JOINT



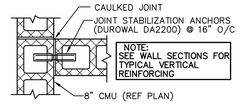
2 BONDED CORNER



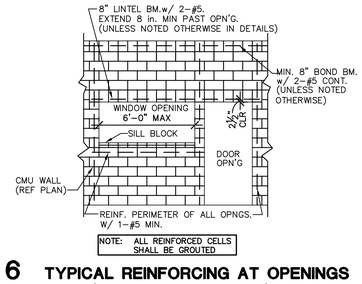
3 BOND BEAM AT EXTERIOR CORNERS



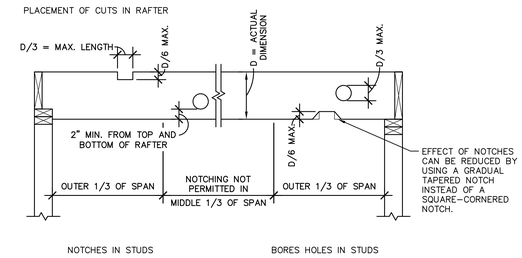
4 TYPICAL BOND BEAM AT INTERSECTING WALL

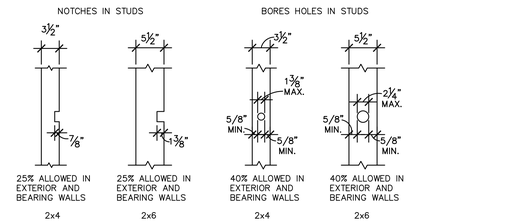


5 TYPICAL UNBONDED WALL INTERSECTION

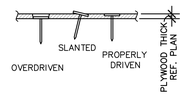


6 TYPICAL REINFORCING AT OPENINGS
(NONLOADBEARING INTERIOR WALLS ONLY)





7 TYPICAL NOTCH DETAILS



8 PROPER AND IMPROPERLY DRIVEN NAILS IN ROOF AND WALL PLYWOOD SHEATHING

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Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

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ROLANDO R. RUBIANO
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PROFESSIONAL ENGINEER
9-6-18

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 696-174
Drawing Date: 09-06-2018
Drawn: SP
Checked: BD,JS
Scale: AS SHOWN
ACAD File:

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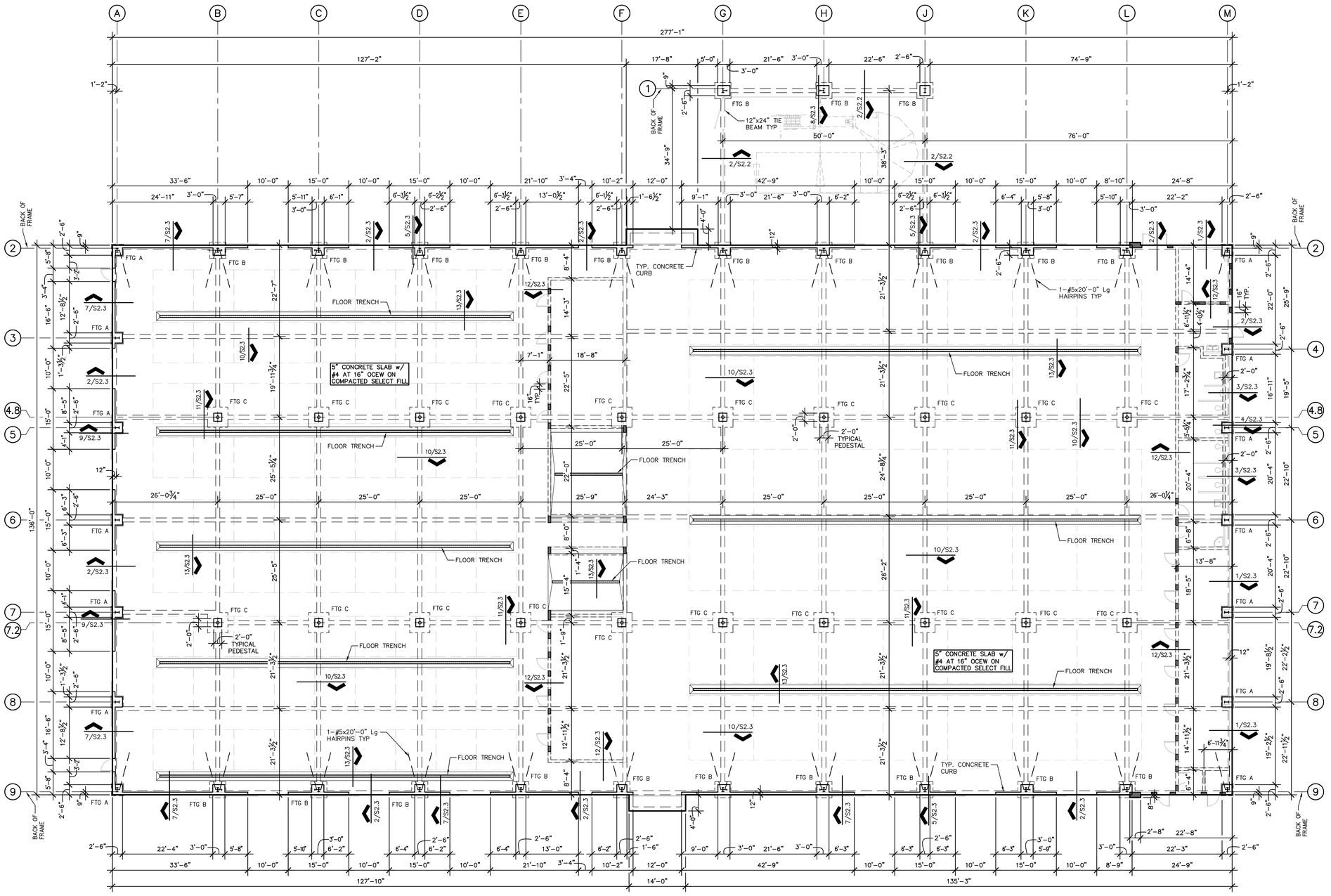
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GENERAL STRUCTURAL NOTES

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S1.2



1 FOUNDATION PLAN

3/32" = 1'-0" AG FACILITY

N

PLAN NORTH

NOTES:

1. REFERENCE PRE-ENGINEERED BUILDING ANCHOR BOLT PLAN FOR BOLT DIAMETER & LOCATION. COLUMN ANCHOR BOLT LENGTHS TO BE DETERMINED BY STRUCTURAL ENGINEER SUBSEQUENT TO RECEIPT & REVIEW OF THE BUILDING REACTION DIAGRAMS AND ANCHOR BOLT PLAN.
2. REFERENCE SCHEMATIC ROOF FRAMING PLAN FOR COLUMN LOCATIONS. FOUNDATION PLAN DIMENSIONS GENERALLY DENOTE GRADE BEAM CENTERLINE AND OUTSIDE FACE OF CONCRETE.
3. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
4. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
5. A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
6. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
7. PLUMBING LINES SHALL NOT BE PLACED IN BOTTOM OF GRADE BEAM TRENCHES.
8. PLUMBING LINES PASSING THROUGH GRADE BEAMS SHALL BE SLEEVED. BEAMS SHALL BE DEEPENED AND BENT REBAR PROVIDED IF LOCATION OF DRAIN LINES REQUIRES CUTTING BOTTOM BARS. REFERENCE 15/S2.3.
9. ALL JOINTS TO BE CLEANED AND FILLED w/ SONOLASTIC SL1 (SONNEBORN).
10. ▨ INDICATES 8" CMU WALL w/ #5 AT 8" o/c.
11. REFERENCE 1/S2.1C FOR CONTROL JOINT PLAN.
12. REFERENCE 1/S2.1S FOR SLAB SLOPE PLAN.

FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
FTG A	3'-0" x 3'-0"	#5 AT 12" O.C.E.W.
FTG B	4'-0" x 4'-0"	#5 AT 12" O.C.E.W.
FTG C	5'-0" x 5'-0"	#5 AT 12" O.C.E.W.

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COLLEGE 3 READY.CONNECTED.COMPLETE.

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PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 696-174
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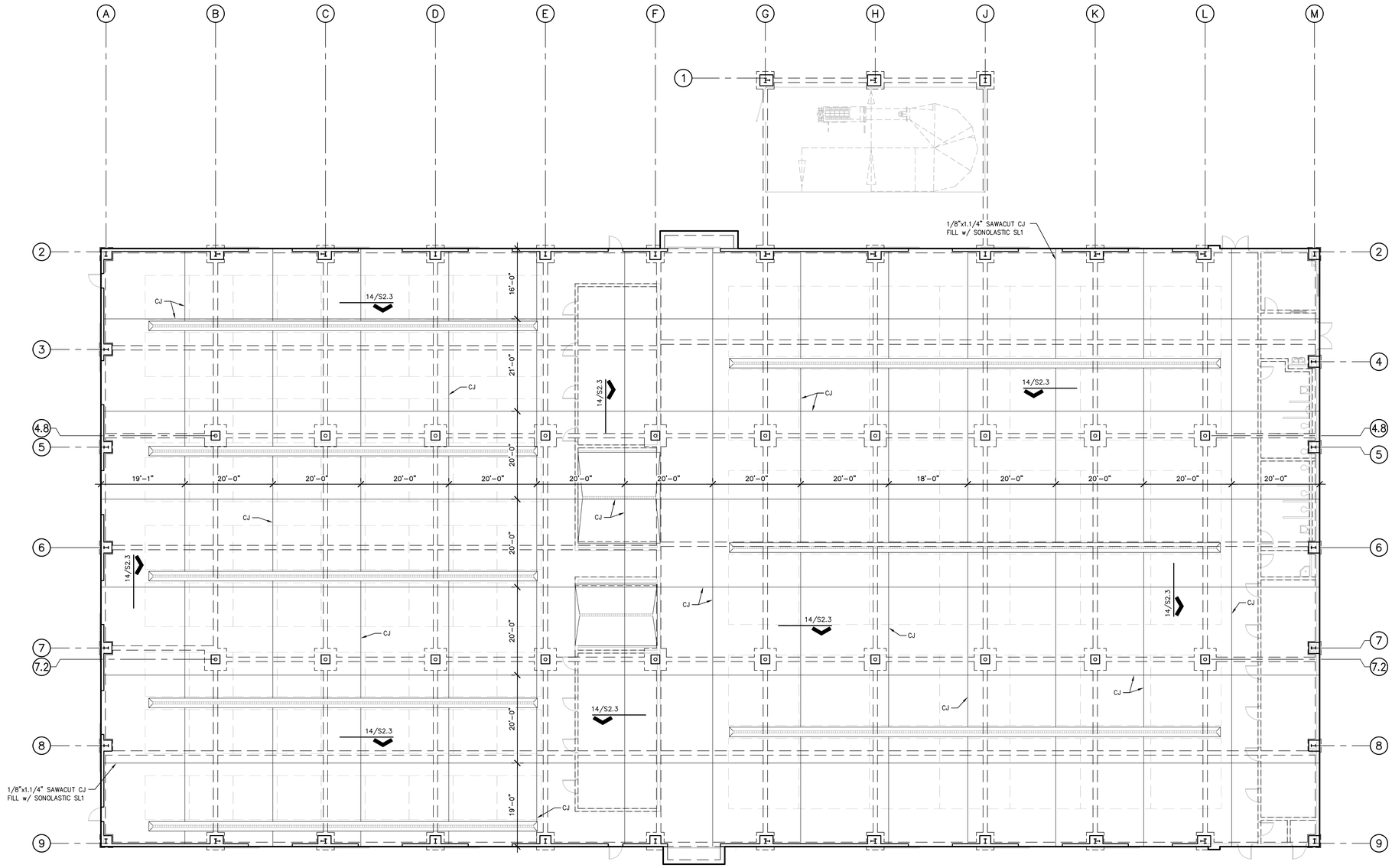
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FOUNDATION PLAN BASE BID

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S2.1



1 CONTROL JOINT PLAN

3/32" = 1'-0" AG FACILITY

N

PLAN NORTH

NOTES:

1. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
2. ALL JOINTS TO BE CLEANED AND FILLED w. SONOLASTIC SL1 (SONNEBORN).
3. REFERENCE 1/S2.1 FOR ADDITIONAL FOUNDATION NOTES AND DETAILS.

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PHARR, TEXAS

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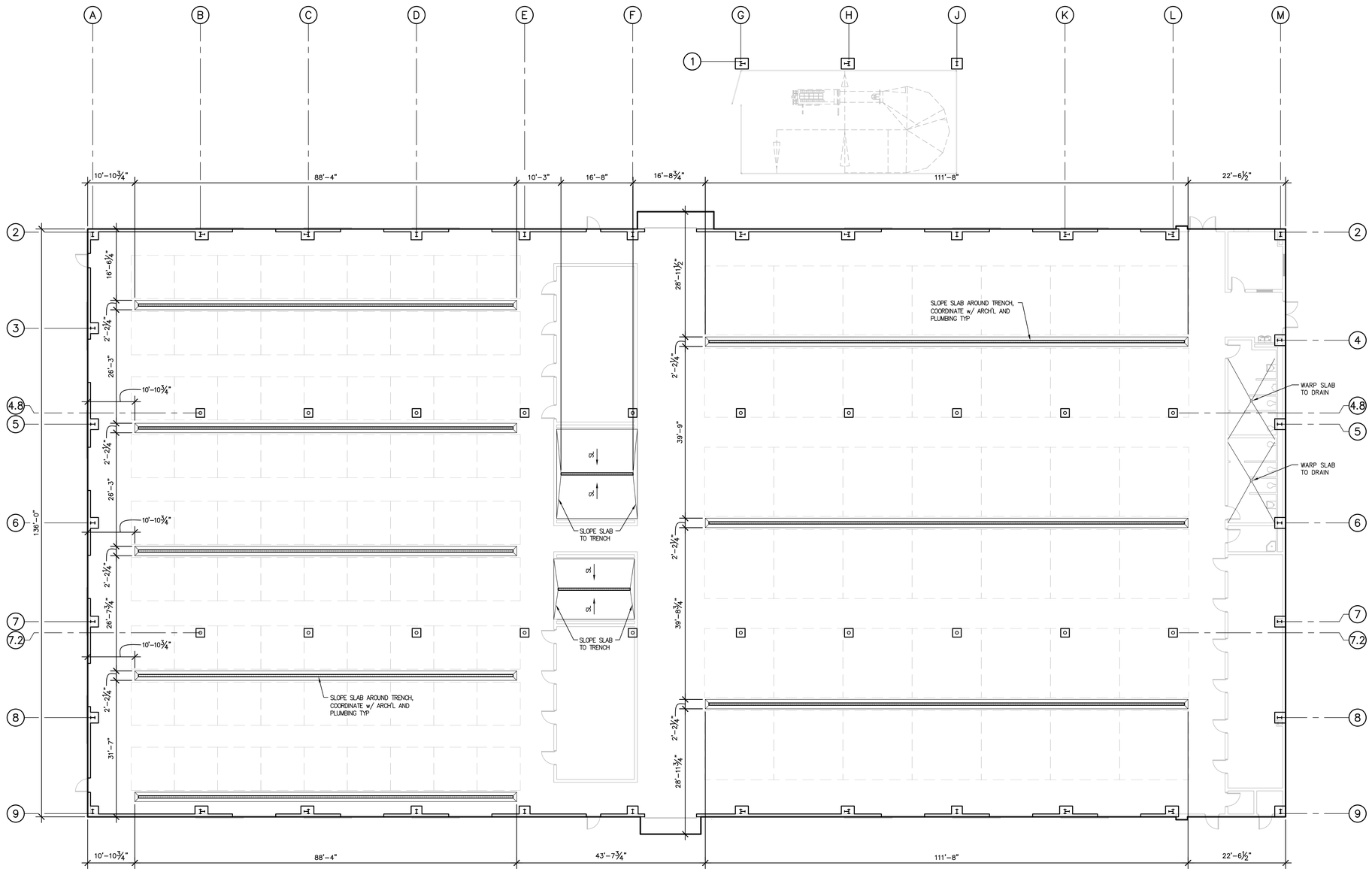
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CONTROL JOINT PLAN BASE BID

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S2.1C



1 SLAB SLOPE PLAN

3/32" = 1'-0" AG FACILITY

N

PLAN NORTH

NOTES:

1. CONTRACTOR SHALL HAVE A SLAB PRE-CONSTRUCTION MEETING WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO START OF REBAR PLACEMENT.
2. SLAB ELEVATION MARKS ARE PROVIDED FOR PROJECT PLANNING PURPOSES ONLY. CONTRACTOR SHALL CONFIRM ALL SLAB SLOPES, ELEVATIONS, AND DEPRESSES w/ ARCHITECTURAL DRAWINGS.
3. REFERENCE 1/S2.1 FOR FOUNDATION PLAN.
4. REFERENCE 1/S2.1C FOR CONTROL JOINT PLAN.

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Consultants:

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MEP:
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PHARR, TEXAS

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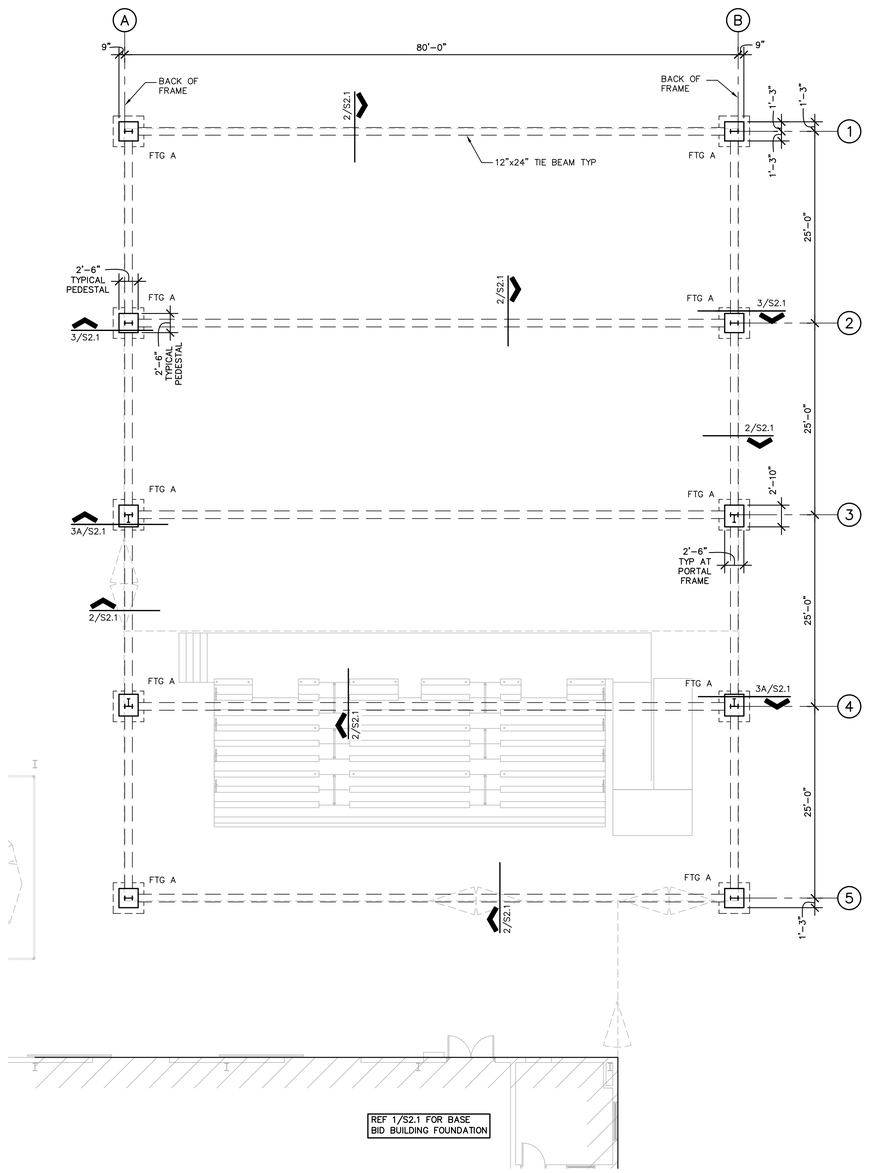
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SLAB SLOPE PLAN BASE BID

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S2.1S



1 FOUNDATION PLAN

1/8" = 1'-0" ALT #1

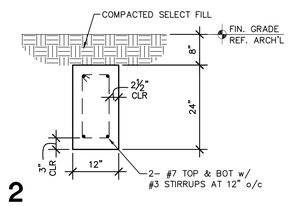
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PLAN NORTH

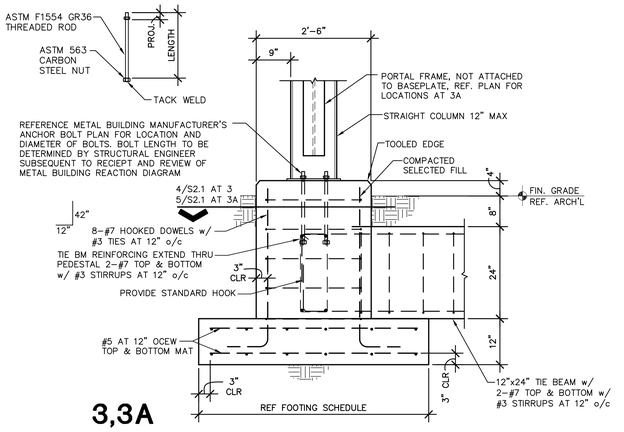
NOTES:

1. REFERENCE ROOF FRAMING PLAN FOR COLUMN BASEPLATE LOCATIONS. FOUNDATION PLAN DIMENSIONS GENERALLY DENOTE GRADE BEAM CENTERLINE AND OUTSIDE FACE OF CONCRETE.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
5. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
6. PLUMBING LINES SHALL NOT BE PLACED IN BOTTOM OF GRADE BEAM TRENCHES.
7. PLUMBING LINES PASSING THROUGH GRADE BEAMS SHALL BE SLEEVED. BEAMS SHALL BE DEEPENED AND BENT REBAR PROVIDED IF LOCATION OF DRAIN LINES REQUIRES CUTTING BOTTOM BARS. REFERENCE 15/S2.3.
8. ALL JOINTS TO BE CLEANED AND FILLED w/ SONOLASTIC SL1 (SONNEBORN).

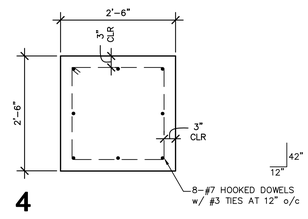
FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
FTG A	4'-0" x 4'-0"	#5 AT 12" O.C.E.W.



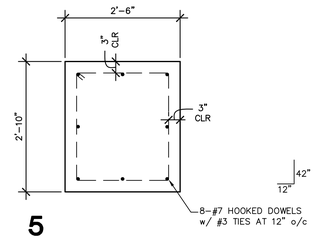
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5

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(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
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MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
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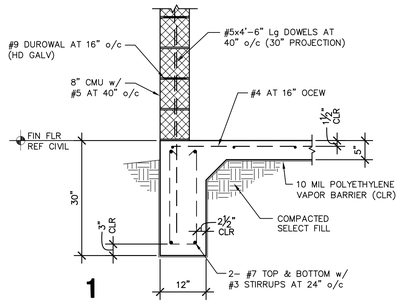
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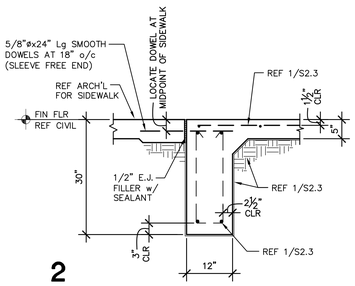
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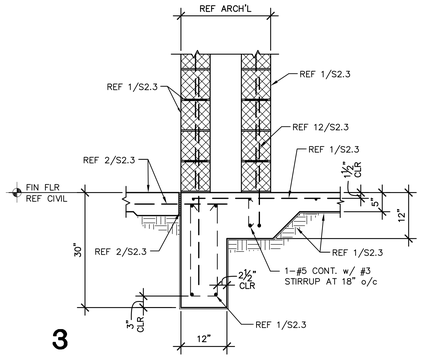
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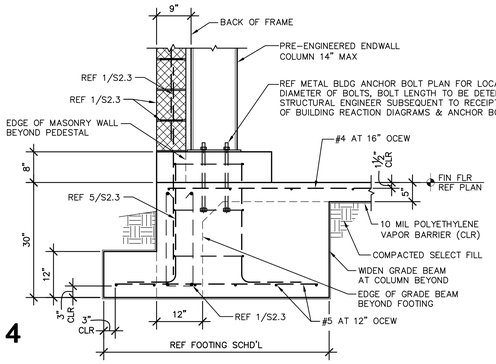
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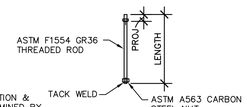
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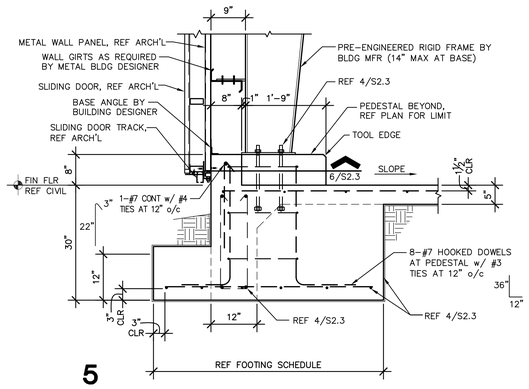


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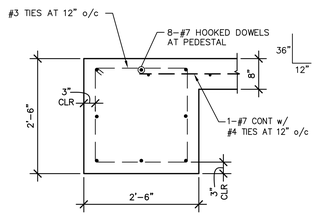


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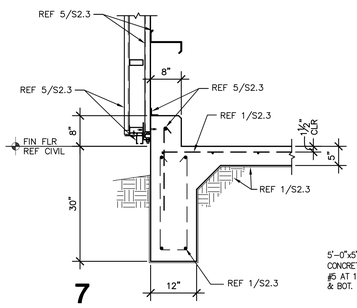




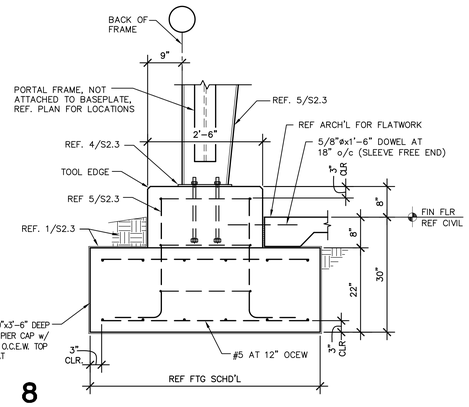
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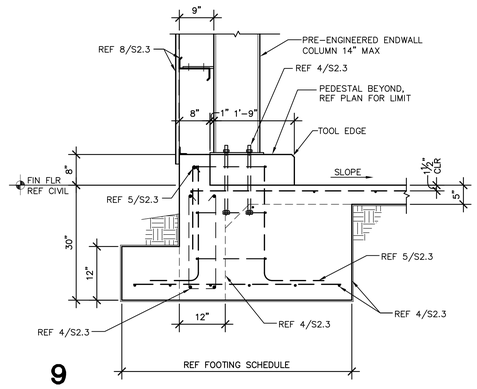
6 PLAN VIEW



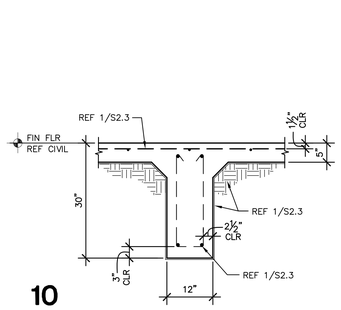
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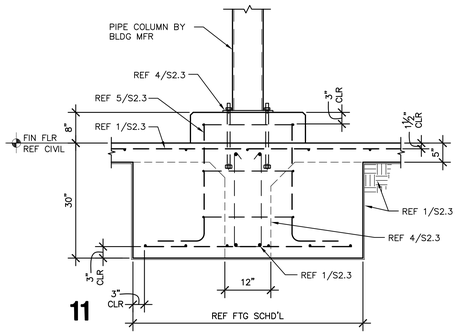
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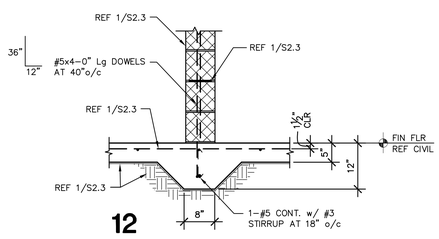
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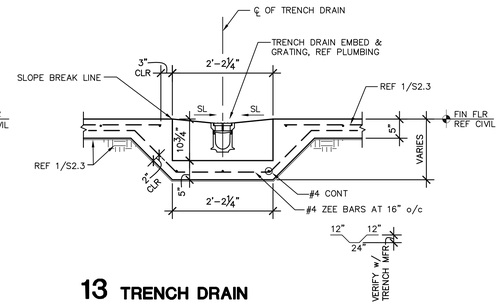
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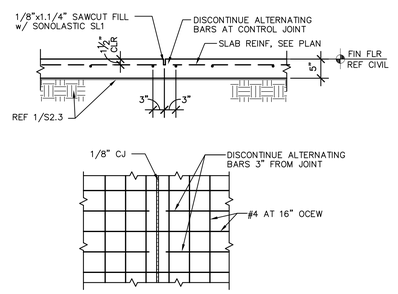
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13 TRENCH DRAIN

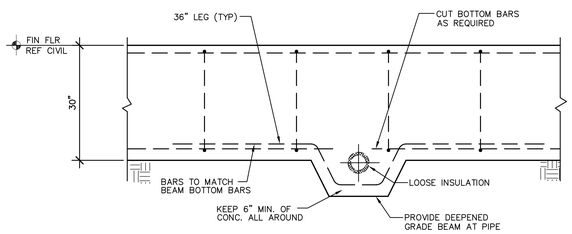
NOTES:

1. VERIFY SIZE & LOCATION WITH PLUMBING PRIOR TO POURING REFERENCE DETAIL.
2. COORDINATE SIZE OF BLOCK OUT FOR TRENCH WITH MFR PRIOR TO FORMING.



14 CONTROL JOINT

NOTE: ALL JOINTS ARE TO BE CLEANED AND FILLED WITH SONOLASTIC SL1 (SONNEBORN).



15 TOP OF SLEEVE INTERRUPTS REINFORCING

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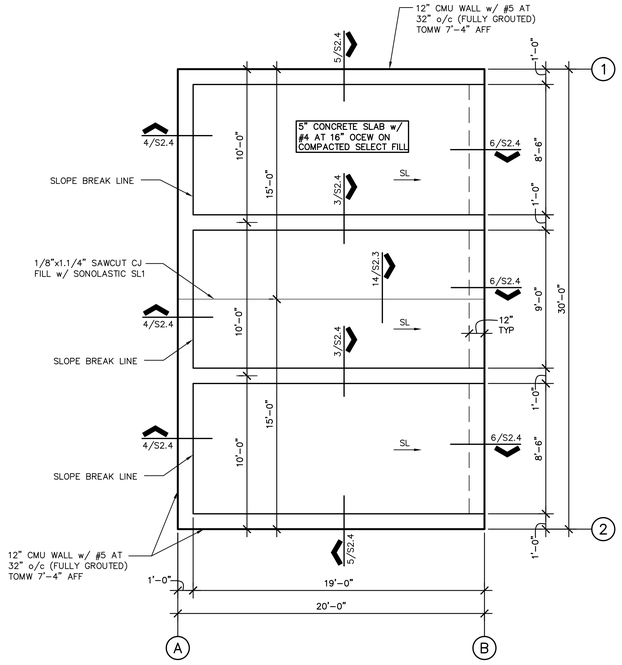
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FOUNDATION DETAILS

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S2.3



1 FOUNDATION PLAN

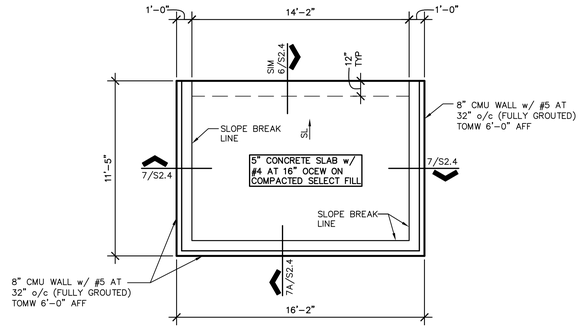
1/4" = 1'-0"

AGRICULTURE FACILITY
COMPOST STORAGE

N
PLAN NORTH

NOTES:

1. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
2. ALL JOINTS TO BE CLEANED AND FILLED w/ SONOLASTIC SL1 (SONNEBORN).



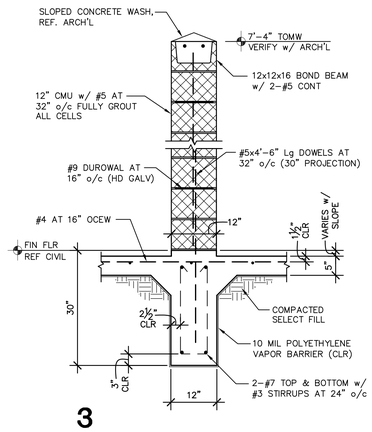
2 DUMPSTER PAD FOUNDATION PLAN

1/4" = 1'-0"

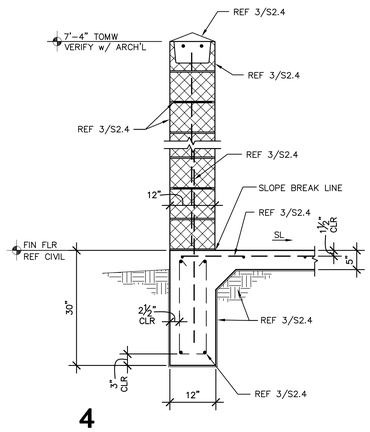
N
PLAN NORTH

NOTES:

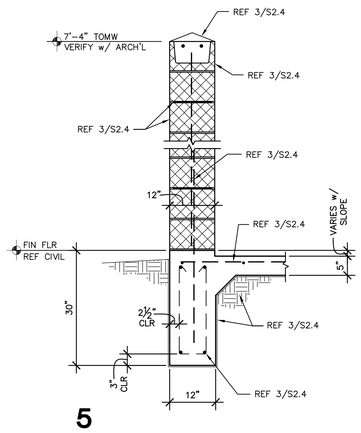
1. COORDINATE LOCATION & ORIENTATION OF DUMPSTER PAD WITH ARCHITECTURAL & CIVIL.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. A SINGLE CONDUIT (MAX. 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.



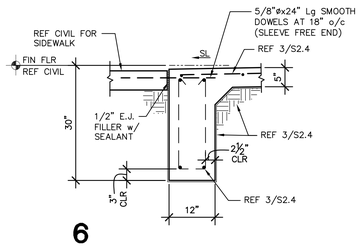
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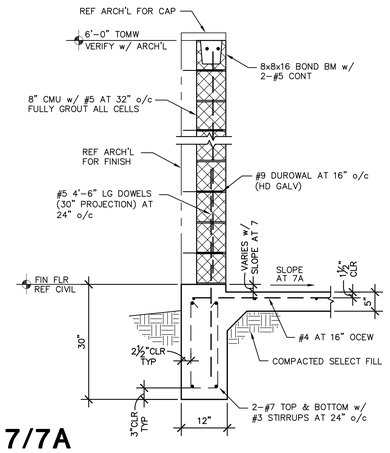
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5



6



7/7A

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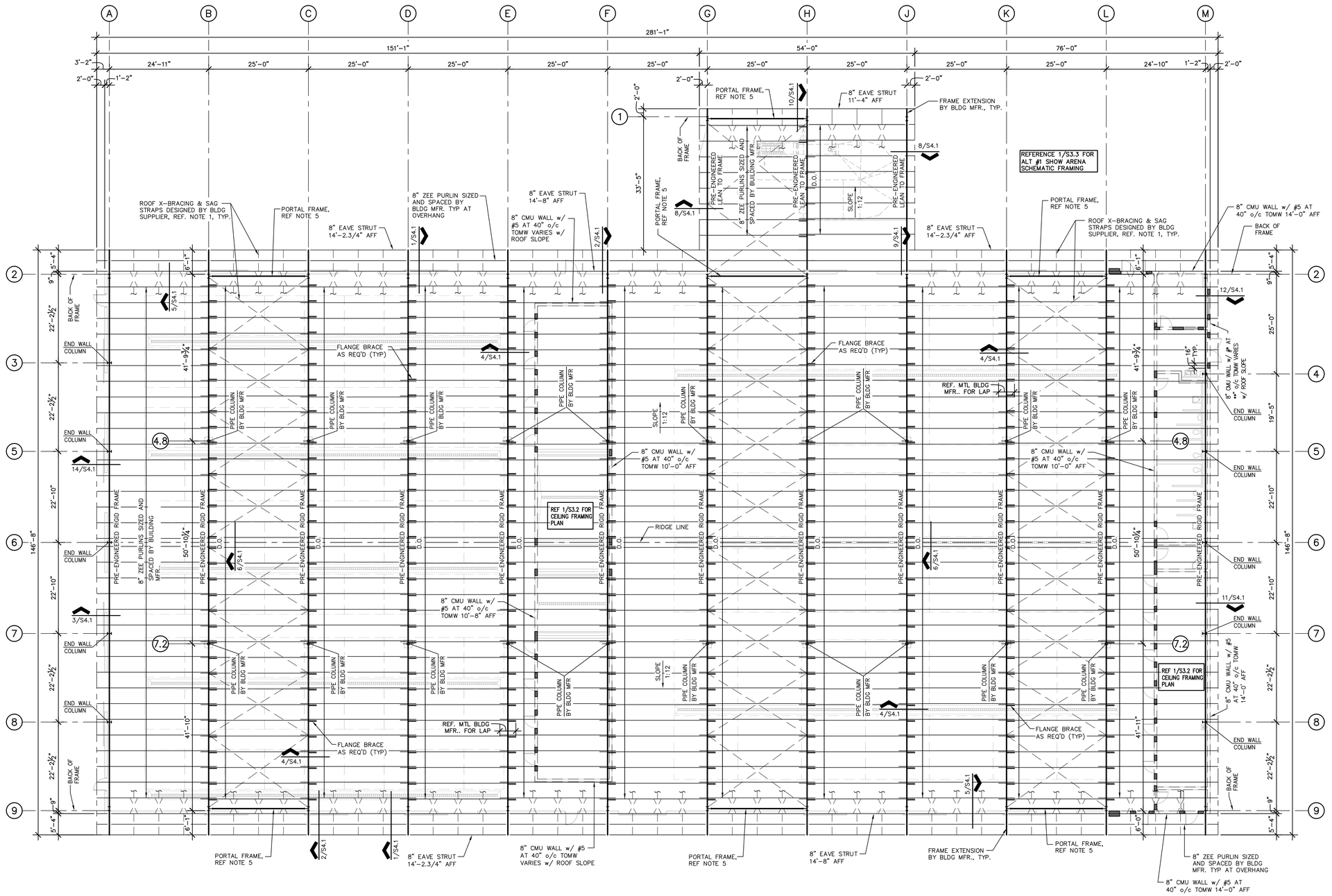
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COMPOST STORAGE & DUMPSTER PAD FDN PLAN

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S2.4



1 AGRICULTURE FACILITY SCHEMATIC ROOF FRAMING PLAN

3/32" = 1'-0" BASE BID

NOTES:

1. SCHEMATIC ROOF FRAMING PLAN DEPICTS PRE-ENGINEERED METAL BUILDING COMPONENTS AND INDICATES THE STRUCTURAL ENGINEER'S INTENT PERTAINING TO THE ESTABLISHMENT OF THE STRUCTURAL INTEGRITY OF THE BUILDING.
2. SUPPLIERS MAY UTILIZE STANDARD MEMBERS AND SPACING OF THE ROOF SYSTEM COMPONENTS TO MEET OR EXCEED THE SPECIFIED DESIGN REQUIREMENTS.
3. PRE-ENGINEERED BUILDING SUPPLER SHALL SUBMIT SHOP / ERECTION DRAWINGS AND BUILDING DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
4. ADDITIONAL PURLINS AND WALL GIRTS SHALL BE PROVIDED AS REQUIRED FOR SUPPORT OF METAL ROOF AND WALL PANELS TO SATISFY PROJECT DESIGN WIND PRESSURES.
5. METAL BUILDING DESIGNER TO COORDINATE PORTAL FRAME BEAM AND COLUMN DIMENSIONS WITH ARCHITECTURAL WRAPS AND SIZE TO FIT (12" MAX COLUMN DEPTH).
6. REFERENCE 7/S4.1 FOR TYPICAL FRAME OPENING DETAIL FOR LOUVER PENETRATION THROUGH METAL WALL PANEL.
7. ▨ INDICATES 8" CMU w/ #5 VERTICAL BARS AT 8" o/c.
8. REFERENCE 1/S3.2 FOR CEILING FRAMING PLAN.

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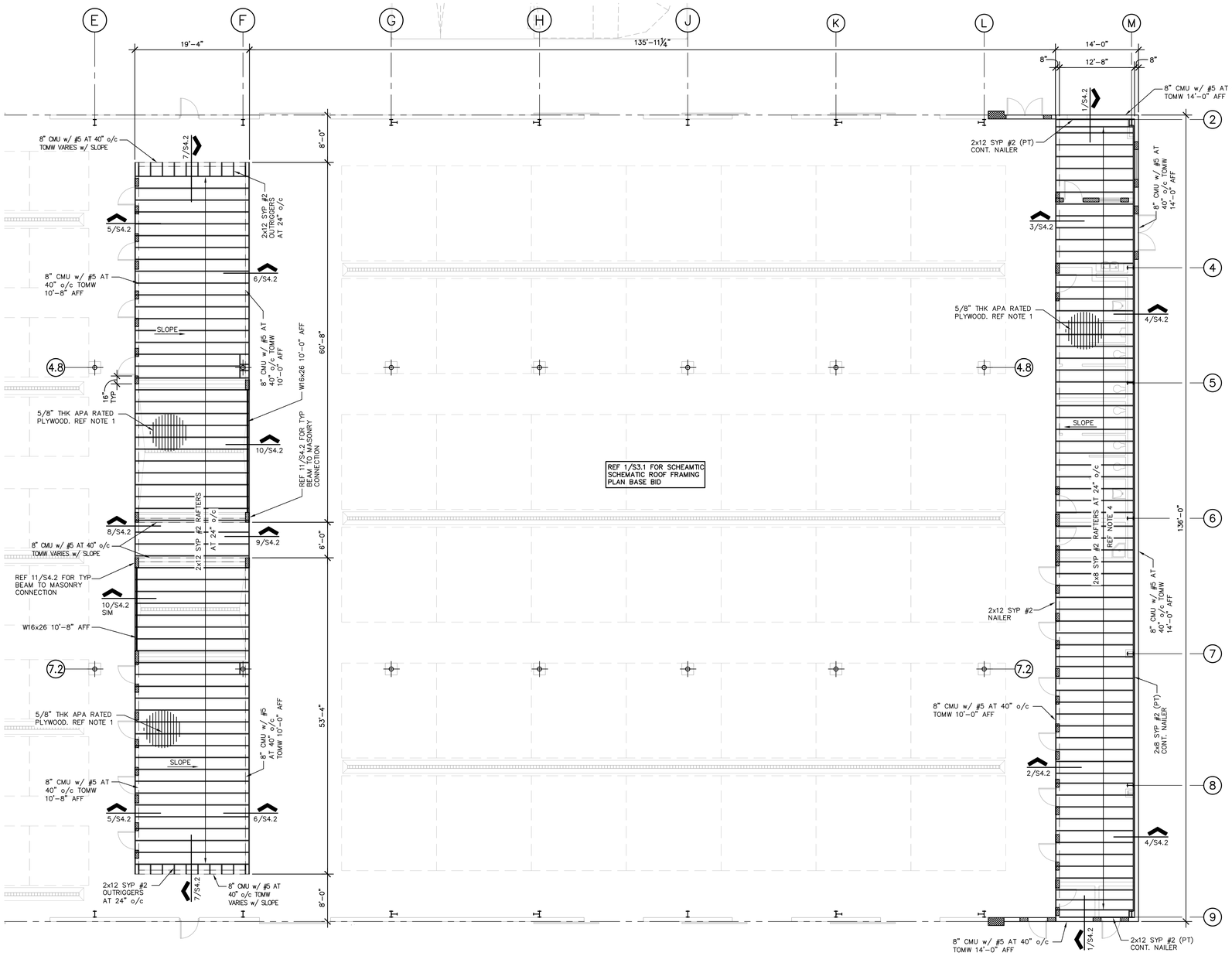
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SCHEMATIC ROOF FRAMING PLAN BASE BID

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S3.1



1 CEILING FRAMING PLAN

1/8" = 1'-0"

N

PLAN NORTH

NOTES:

1. ROOF SHEATHING SHALL BE 5/8" THK APA RATED EXP 1 PLYWOOD.
2. REFERENCE ROOF SHEATHING NAILING SCHEDULE FOR PROPER PLYWOOD ATTACHMENT.
3. ▨ INDICATES 8" CMU w/ #5 VERTICAL BAR AT 8" o/c.
4. PROVIDE SOLID BLOCKING BETWEEN ROOF RAFTERS AT MID-SPAN OF RAFTERS LONGER THAN 8'-0" OR AS NOTED. BLOCKING TO MATCH SIZE OF FRAMING MEMBER.

ROOF SHEATHING NAILING SCHEDULE
8d NAILS AT 6" o/c PERIMETER OF SHEET AND 12" o/c AT INTERIOR SUPPORTS

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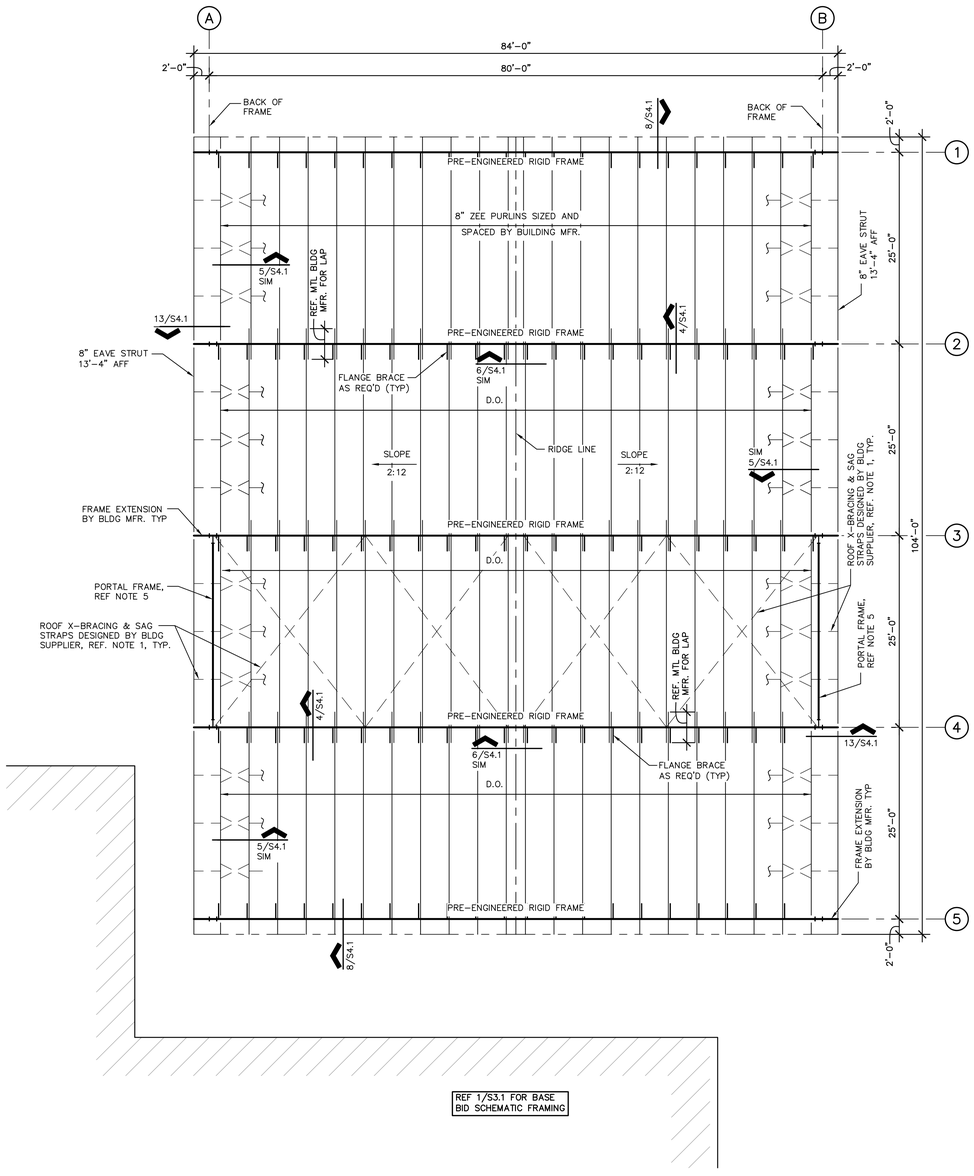
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CEILING FRAMING PLAN BASE BID

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S3.2



1 SHOW ARENA SCHEMATIC ROOF FRAMING PLAN

1/8" = 1'-0" ALTERNATE #1

NOTES:

1. SCHEMATIC ROOF FRAMING PLAN DEPICTS PRE-ENGINEERED METAL BUILDING COMPONENTS AND INDICATES THE STRUCTURAL ENGINEER'S INTENT PERTAINING TO THE ESTABLISHMENT OF THE STRUCTURAL INTEGRITY OF THE BUILDING.
2. SUPPLIERS MAY UTILIZE STANDARD MEMBERS AND SPACING OF THE ROOF SYSTEM COMPONENTS TO MEET OR EXCEED THE SPECIFIED DESIGN REQUIREMENTS.
3. PRE-ENGINEERED BUILDING SUPPLER SHALL SUBMIT SHOP / ERECTION DRAWINGS AND BUILDING DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
4. ADDITIONAL PURLINS AND WALL GIRTS SHALL BE PROVIDED AS REQUIRED FOR SUPPORT OF METAL ROOF AND WALL PANELS TO SATISFY PROJECT DESIGN WIND PRESSURES.
5. METAL BUILDING DESIGNER TO COORDINATE PORTAL FRAME BEAM AND COLUMN DIMENSIONS WITH ARCHITECTURAL WRAPS AND SIZE TO FIT (12" MAX COLUMN DEPTH).

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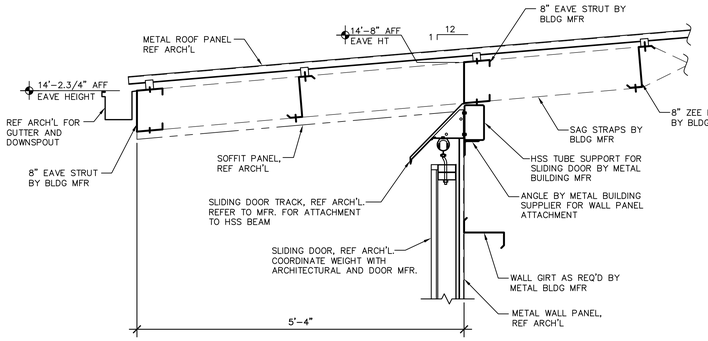
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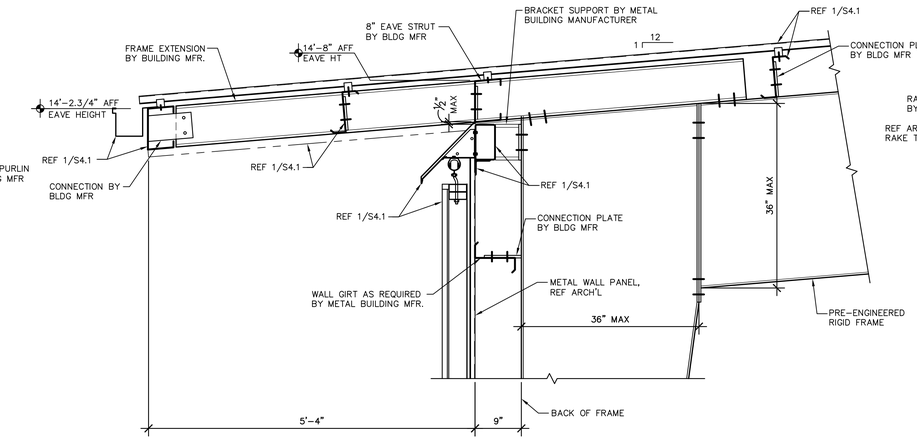
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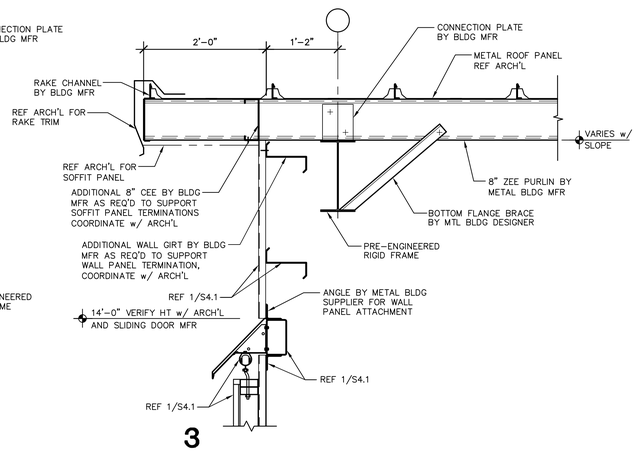
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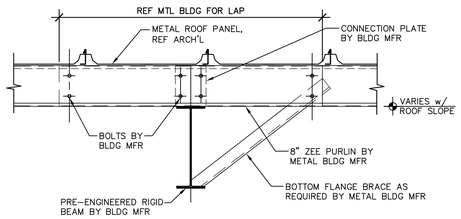
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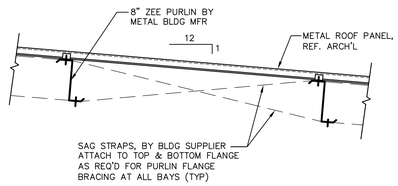
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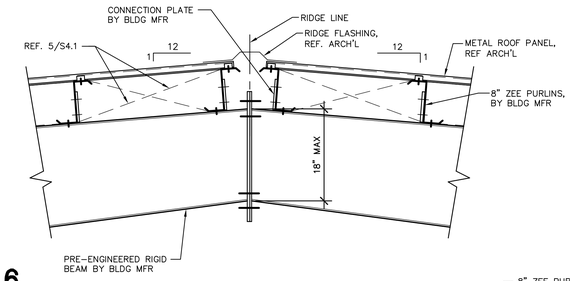
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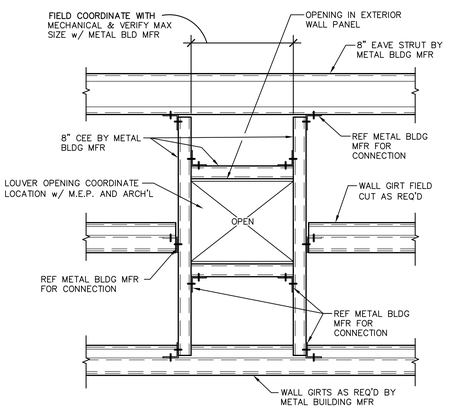
4 **FLANGE BRACE DETAIL**



5 **SAG STRAP DETAIL**

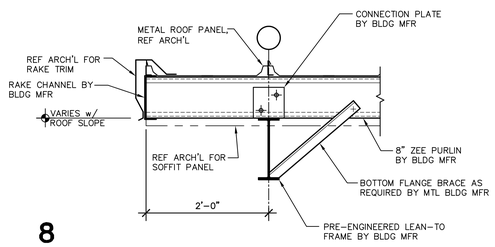


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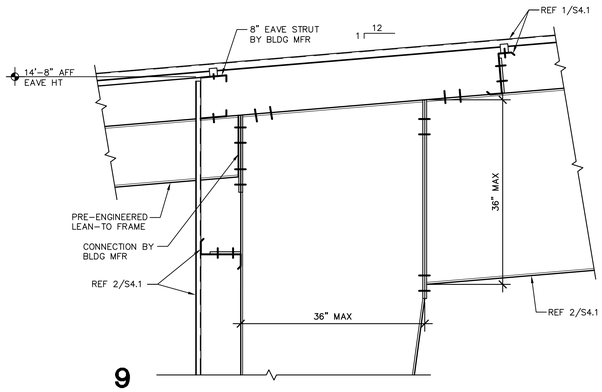


7 **TYPICAL LOUVER OPNG FRAMING DETAIL**

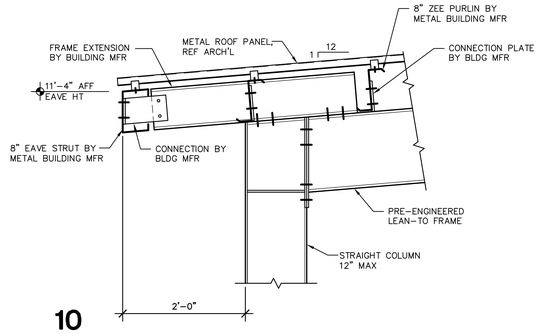
COORDINATE LOUVER OPENING HEIGHT & LOCATION w/ MECHANICAL & ARCHITECTURAL.



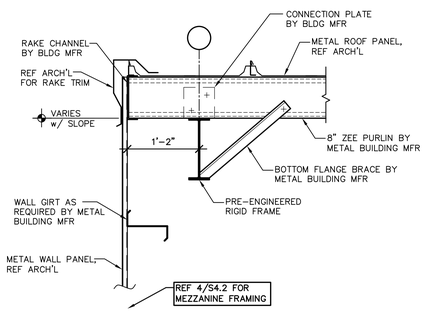
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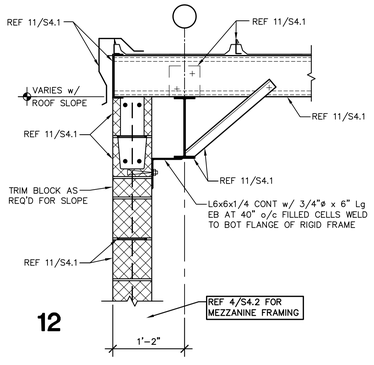
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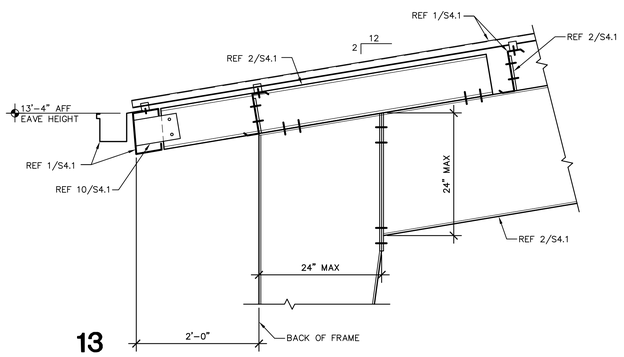
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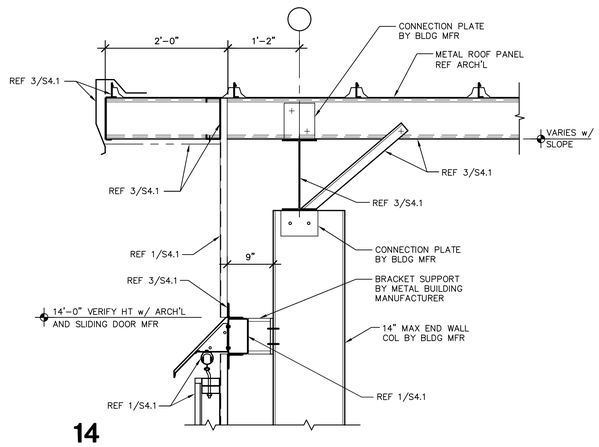
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13



14

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Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

STATE OF TEXAS
ROLANDO R. RUBIANO
86369
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PROFESSIONAL ENGINEER
9-6-18

COLLEGE 3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	696-174
Drawing Date:	09-06-2018
Drawn:	SP
Checked:	BD,JS
Scale:	AS SHOWN
ACAD File:	

Revisions:
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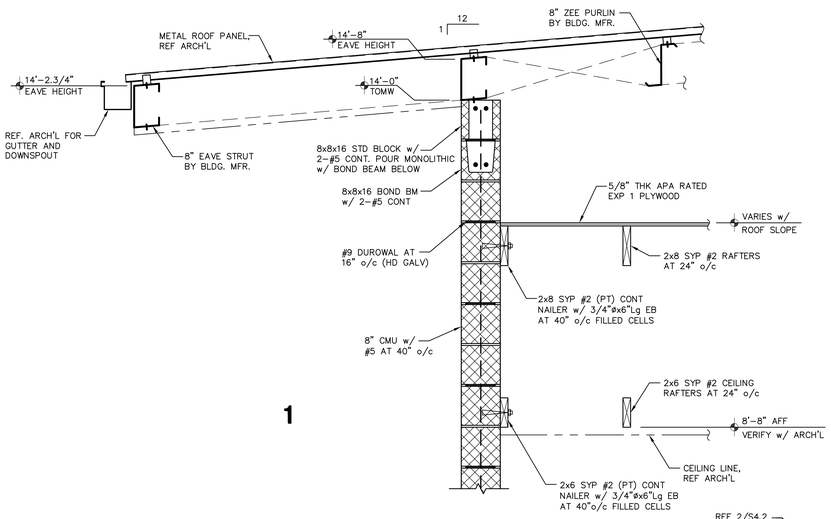
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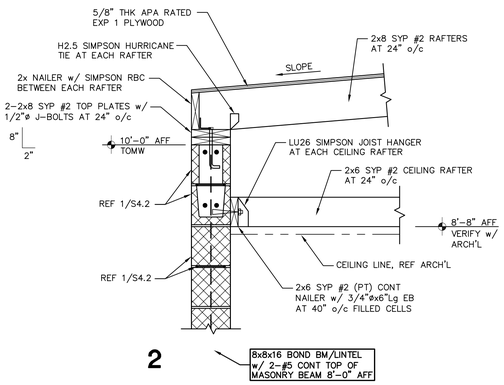
GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1230 WEST HARRISON
HARLINGEN, TEXAS 78550
(956)428-4481 (956)428-0287 FAX
FIRM REGISTRATION # F-9145

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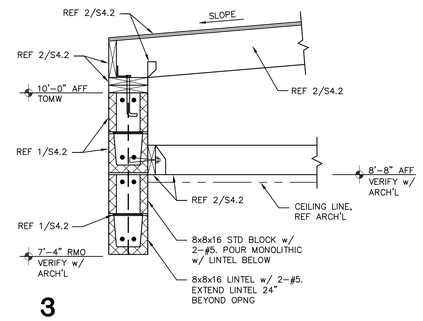
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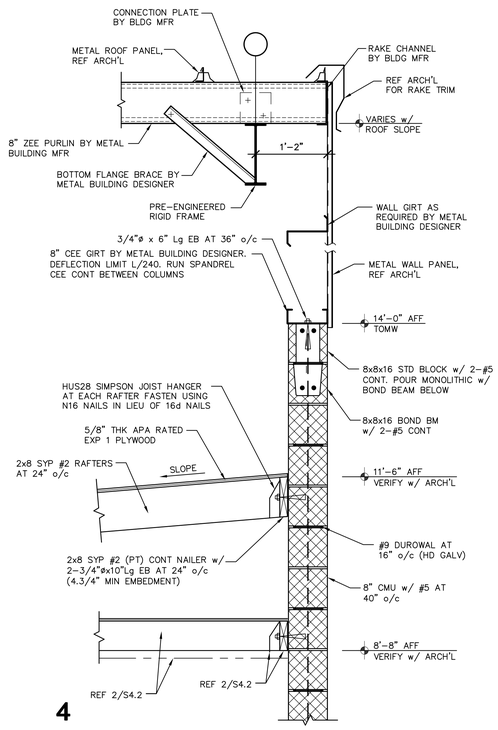
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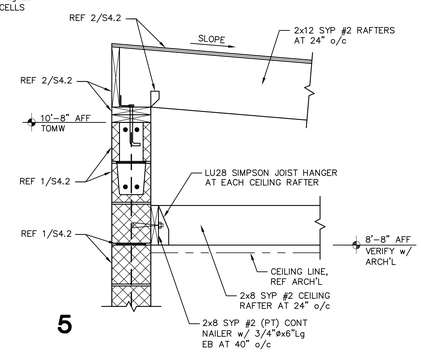
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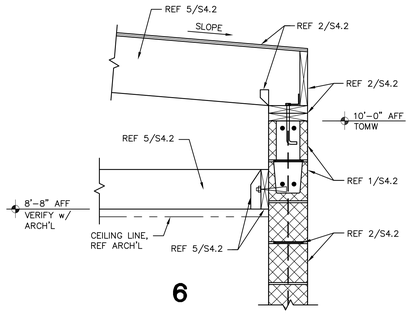
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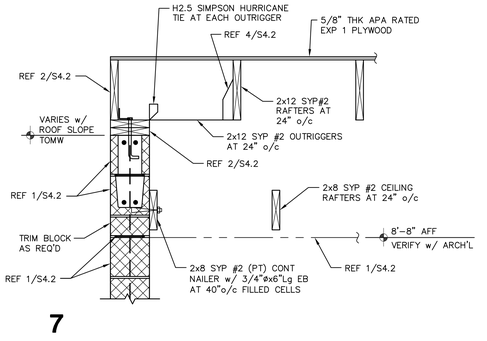
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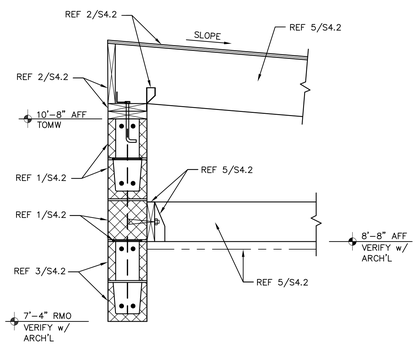
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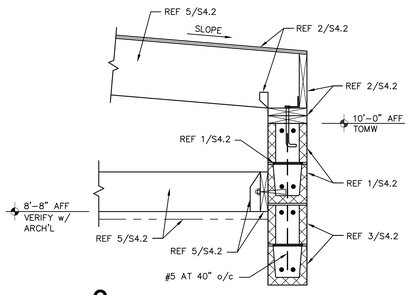
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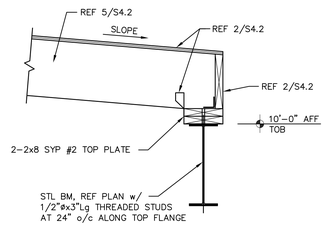
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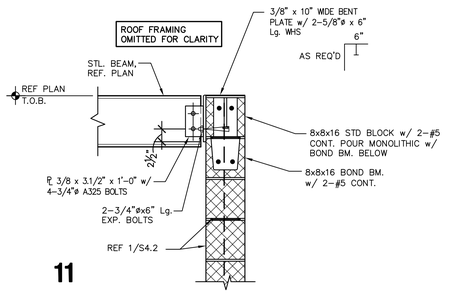
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10



11

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Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

STATE OF TEXAS
ROLANDO R. RUBIANO
86369
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9-6-18

COLLEGE 3
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PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 696-174
Drawing Date: 09-06-2018
Drawn: SP
Checked: BD,JS
Scale: AS SHOWN
ACAD File:

Revisions:
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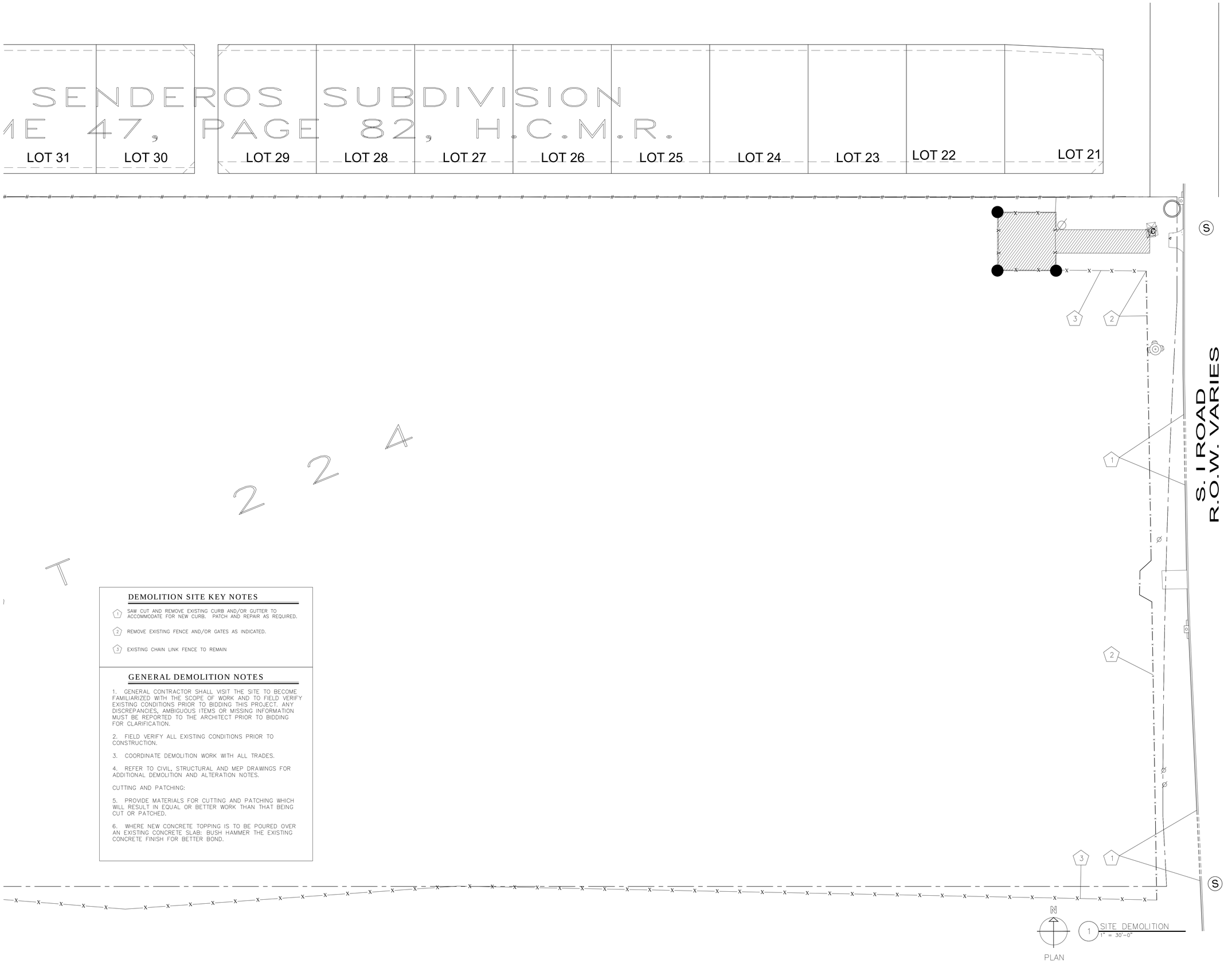
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FRAMING DETAILS

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
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FIRM REGISTRATION # F-4145

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S4.2



DEMOLITION SITE KEY NOTES

1. SAW CUT AND REMOVE EXISTING CURB AND/OR GUTTER TO ACCOMMODATE FOR NEW CURB. PATCH AND REPAIR AS REQUIRED.
2. REMOVE EXISTING FENCE AND/OR GATES AS INDICATED.
3. EXISTING CHAIN LINK FENCE TO REMAIN

GENERAL DEMOLITION NOTES

1. GENERAL CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES, AMBIGUOUS ITEMS OR MISSING INFORMATION MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION.

2. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

3. COORDINATE DEMOLITION WORK WITH ALL TRADES.

4. REFER TO CIVIL, STRUCTURAL AND MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.

CUTTING AND PATCHING:

5. PROVIDE MATERIALS FOR CUTTING AND PATCHING WHICH WILL RESULT IN EQUAL OR BETTER WORK THAN THAT BEING CUT OR PATCHED.

6. WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB: BUSH HAMMER THE EXISTING CONCRETE FINISH FOR BETTER BOND.

GIGNAC | ARCHITECTS

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Consultants:

CIVIL:
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STRUCTURAL:
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MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT JAMES MICHAEL GIGNAC 6235 STATE OF TEXAS

EXPIRATION DATE
11/30/2018

DATE SIGNED: 9-6-18

COLLEGE3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
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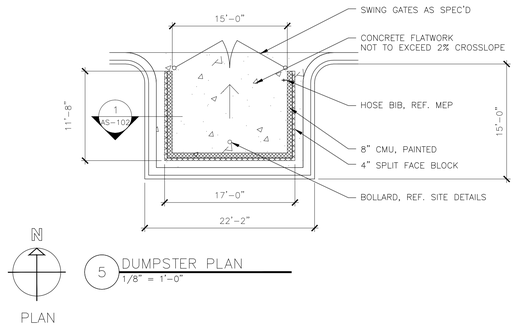
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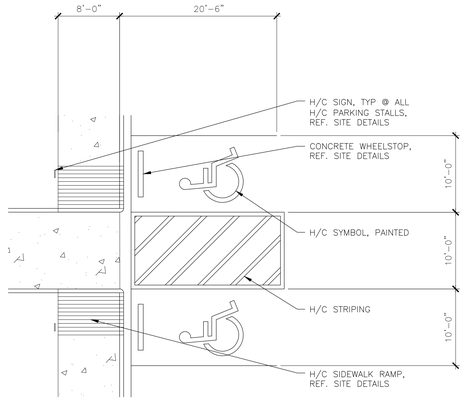
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SD-100

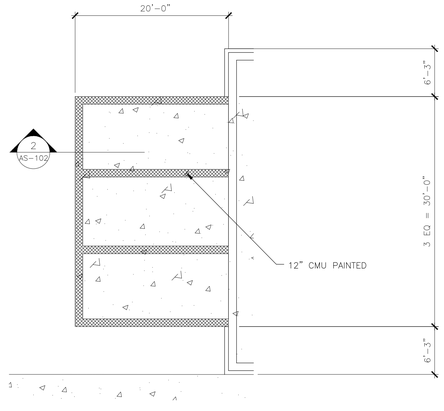
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5 DUMPSTER PLAN
1/8" = 1'-0"



4 H/C PARKING
1/8" = 1'-0"



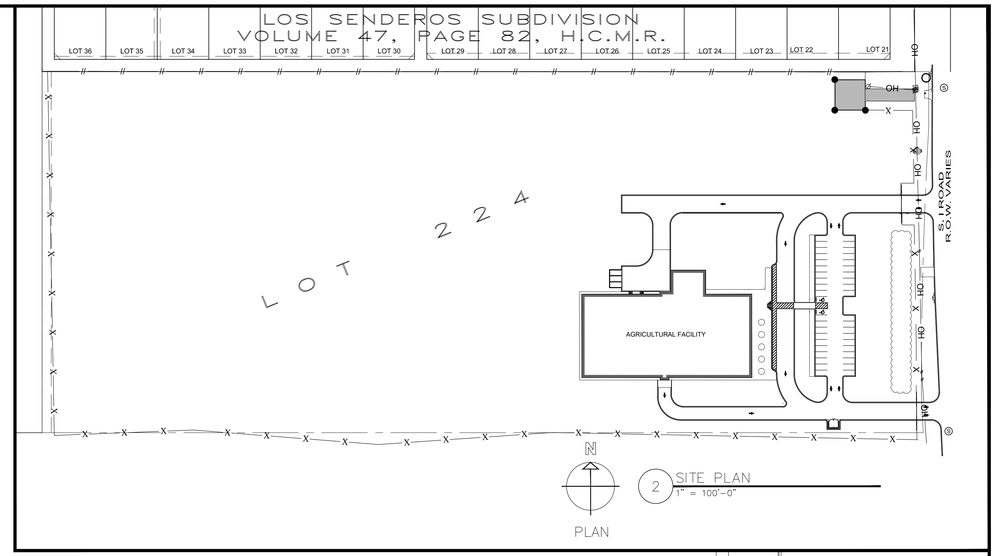
3 COMPOST PLAN
1/8" = 1'-0"

GENERAL SITE NOTES

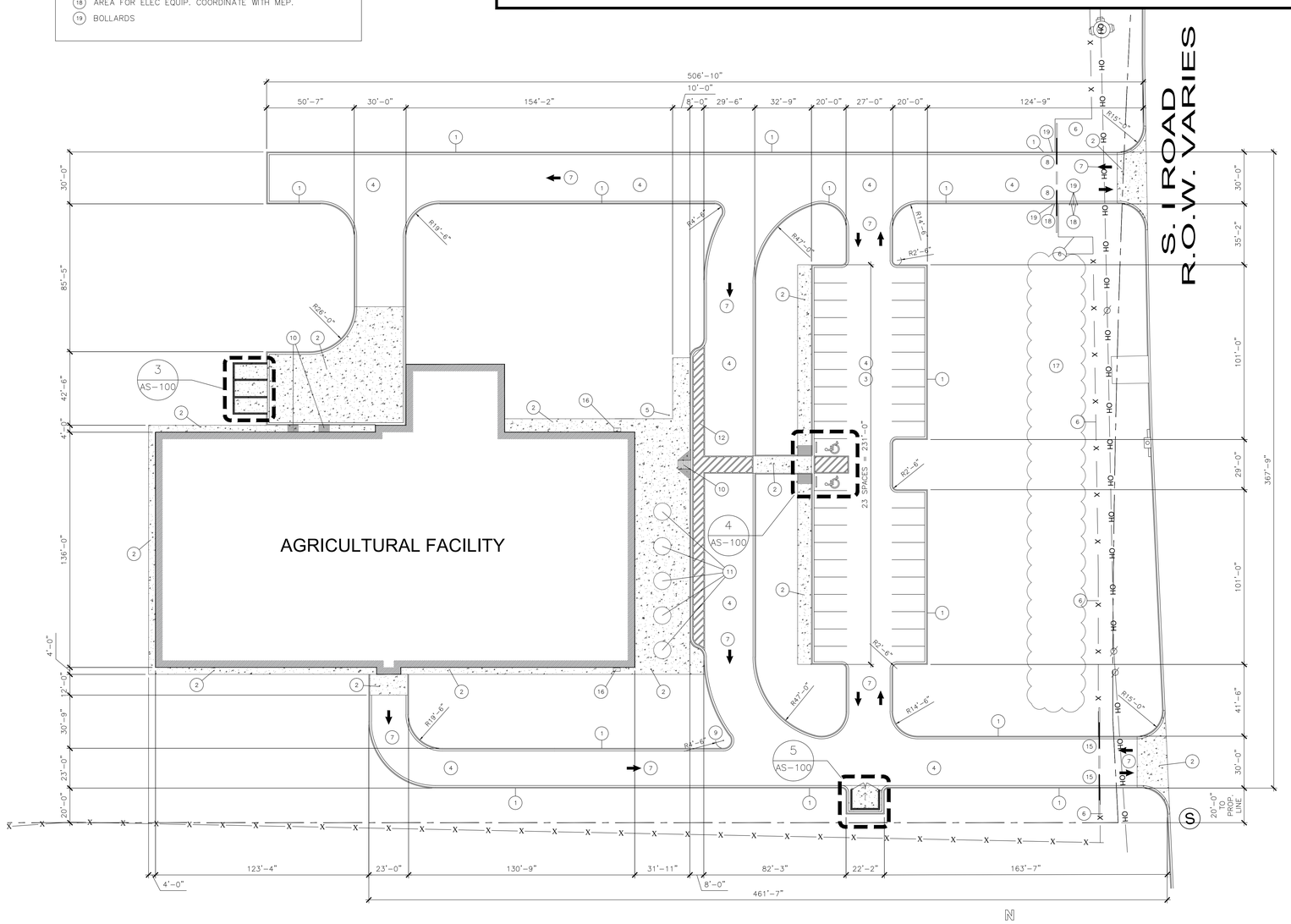
1. REFER TO TOPOGRAPHICAL SURVEY FOR UTILITY INFO.

SITE KEY NOTES

1. NEW CURB AND GUTTER. REFER CIVIL. PAINT CURB IN ACCORDANCE WITH LOCAL REGULATORY AUTHORITIES.
2. NEW CONCRETE FLATWORK. MAXIMUM SLOPE 2%, SURFACE TO BE FLUSH W/ ADJOINING FLATWORK, SLAB OR CURB. CONTROL JOINTS AT 5'-0" O.C.
3. NEW PARKING STALL LAYOUT.
4. ASPHALT; REFER CIVIL DRAWINGS.
5. FLAG POLE; REFER SITE DETAILS.
6. 6' HIGH CHAIN LINK FENCE. FIELD VERIFY EXISTING FENCE.
7. PAINTED TRAFFIC GRAPHICS
8. OPERABLE CHAIN LINK GATE. REFER SITE DETAILS.
9. "DO NOT ENTER" SIGN & POST.
10. NEW HANDICAP SIDEWALK RAMP. REFER SITE DETAILS.
11. CUT-OUTS IN CONCRETE FLATWORK; REF. LANDSCAPE.
12. PAINTED STRIPING.
13. (2) 4' WIDE CHAIN LINK SWING GATES
14. 4' WIDE CHAIN LINK SWING GATE
15. ROLLING CHAIN LINK GATE. REFER SITE DETAILS.
16. AREA FOR MECH EQUIP. COORDINATE WITH MEP.
17. DETENTION AREA; REF. CIVIL
18. AREA FOR ELEC EQUIP. COORDINATE WITH MEP.
19. BOLLARDS



2 SITE PLAN
1" = 100'-0"



1 SITE PLAN
1" = 30'-0"

GIGNAC | ARCHITECTS

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Consultants:

CIVIL:
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STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
JAIME MARTINEZ GIGNAC
6235
01
STATE OF TEXAS

EXPIRATION DATE
11/30/2018

DATE SIGNED: 9-6-18

COLLEGE 3
READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	CQ
Checked:	JM
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Revisions:

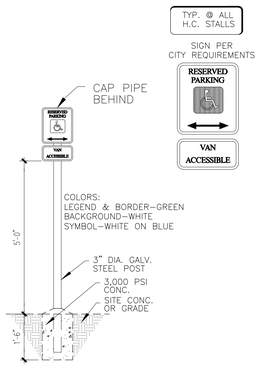
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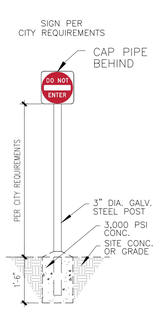
BASE BID OVERALL SITE PLAN

AS-100

Sep 07, 2018 - 11:57am User: cquezada
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5 HC PARKING SIGN
1/2" = 1'-0"



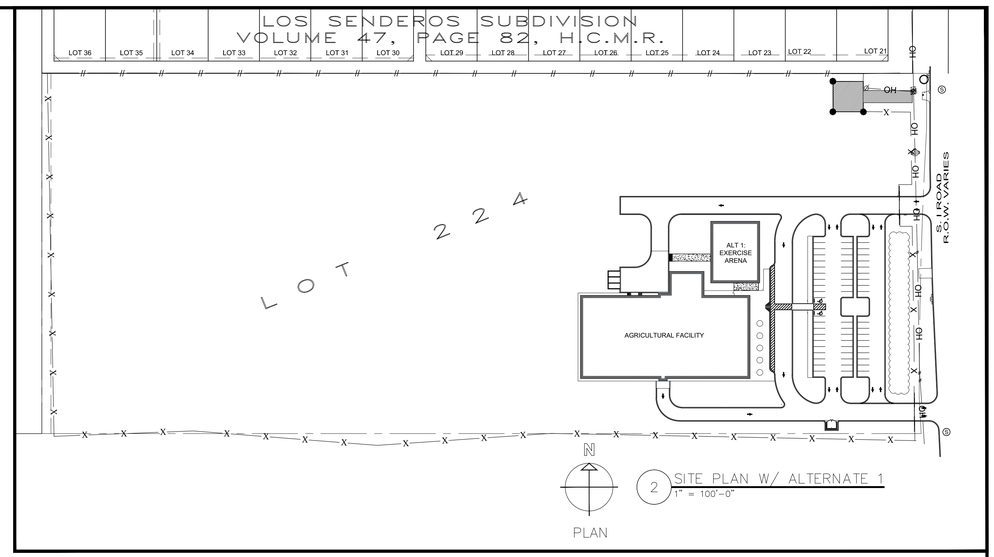
6 DO NOT ENTER SIGN
1/2" = 1'-0"

GENERAL SITE NOTES

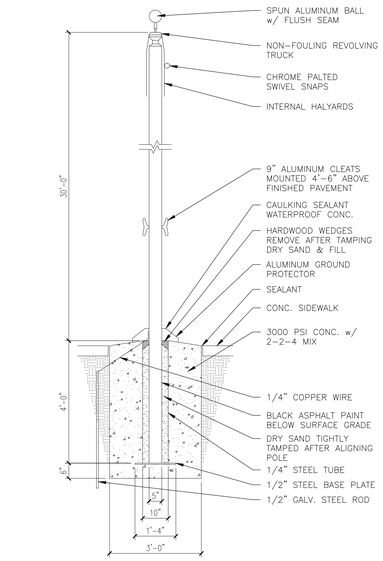
1. REFER TO TOPOGRAPHICAL SURVEY FOR UTILITY INFO.

SITE KEY NOTES

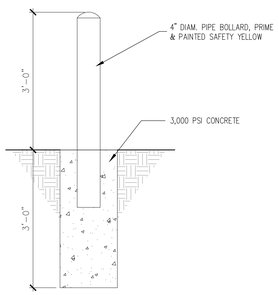
1. NEW CURB AND GUTTER. REFER CIVIL. PAINT CURB IN ACCORDANCE WITH LOCAL REGULATORY AUTHORITIES.
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17. DETENTION AREA; REF. CIVIL
18. AREA FOR ELEC EQUIP. COORDINATE WITH MEP.
19. BOLLARDS



2 SITE PLAN W/ ALTERNATE 1
1" = 100'-0"



4 FLAG POLE DETAIL
1/2" = 1'-0"



3 BOLLARD DTL – TYP.
3/4" = 1'-0"

1 SITE PLAN W/ ALTERNATE 1
1" = 30'-0"

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STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
JAIME D. GIGNAC
8295
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9–6–18

COLLEGE3 READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
Scale:	1" = 30'-0"
ACAD File:	SITE PLAN

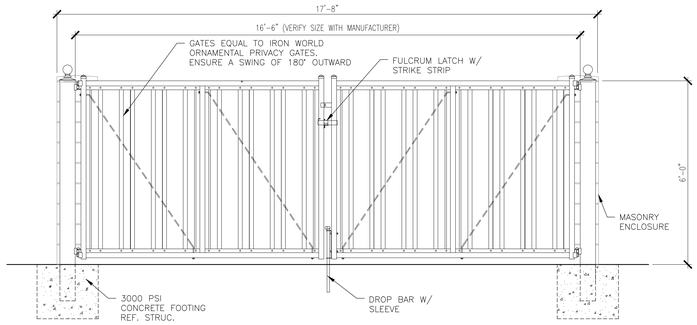
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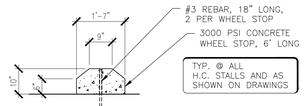
ALT 1 SITE PLAN SITE DTILS

AS-101

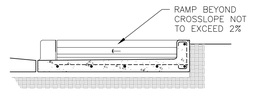
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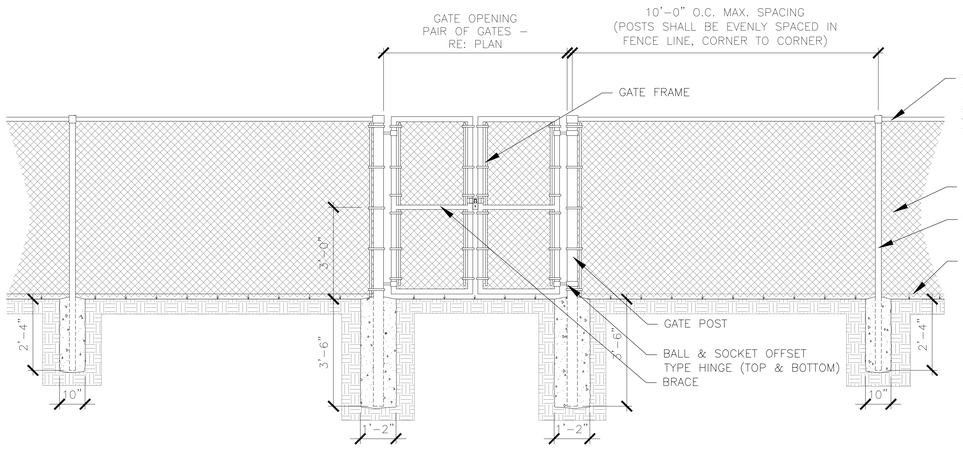
8 DUMPSTER GATE DETAIL
1/2" = 1'-0"



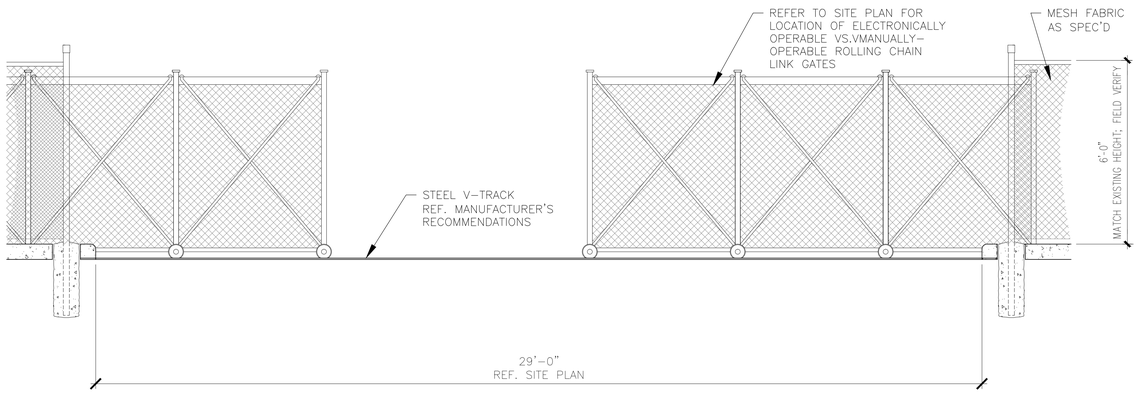
10 CONCRETE WHEELSTOP
1/2" = 1'-0"



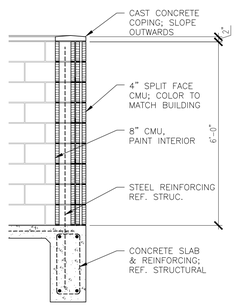
9 RAMP SECTION DETAIL
1/2" = 1'-0"



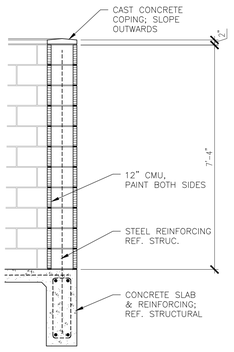
6 CHAIN LINK GATE DETAIL
1/2" = 1'-0"



7 ROLLING GATE DETAIL
1/2" = 1'-0"

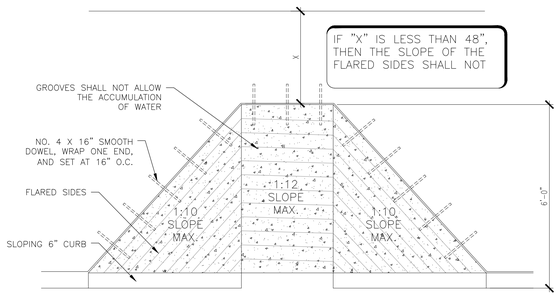


1 DUMPSTER WALL SECTION
1/2" = 1'-0"

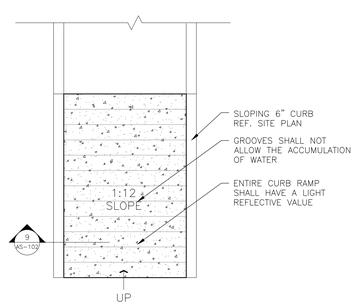


2 COMPOST WALL SECTION
1/2" = 1'-0"

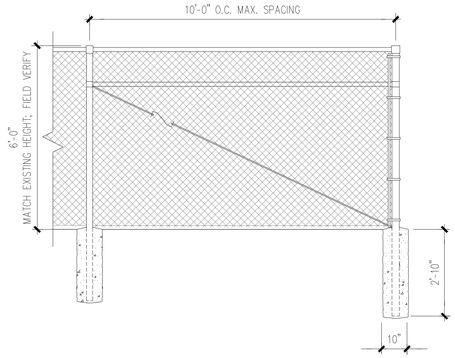
FOR PURPOSE OF WARNING, THE FULL WIDTH & DEPTH OF CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE & TEXTURE THAT SIGNIFICANTLY CONTRASTS W/ THAT OF ADJOINING PEDESTRIAN WALKWAY.



3 TYP. CURB RAMP
1/2" = 1'-0"



4 TYP. SIDEWALK RAMP
1/2" = 1'-0"



5 CHAIN LINK FENCE – TYP.
1/2" = 1'-0"

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(956) 365-4820
3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:
CIVIL:
Melden & Hunt, Inc.
STRUCTURAL:
Green, Rubiano & Associates, Inc.
MEP:
Sigma HN Engineers, PLLC
LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT JAMES D. MARTIN 8298 STATE OF TEXAS
EXPIRATION DATE 12/30/2018

DATE SIGNED: 9-6-18

PSJA COLLEGE3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
Scale:	VARIOUS
ACAD File:	ENL SITE

Revisions:
1
2
3

Sheet Title:

SITE PLANS

AS-102

Sep. 07, 2018 – 12:00pm User: cquezada
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DOOR SCHEDULE

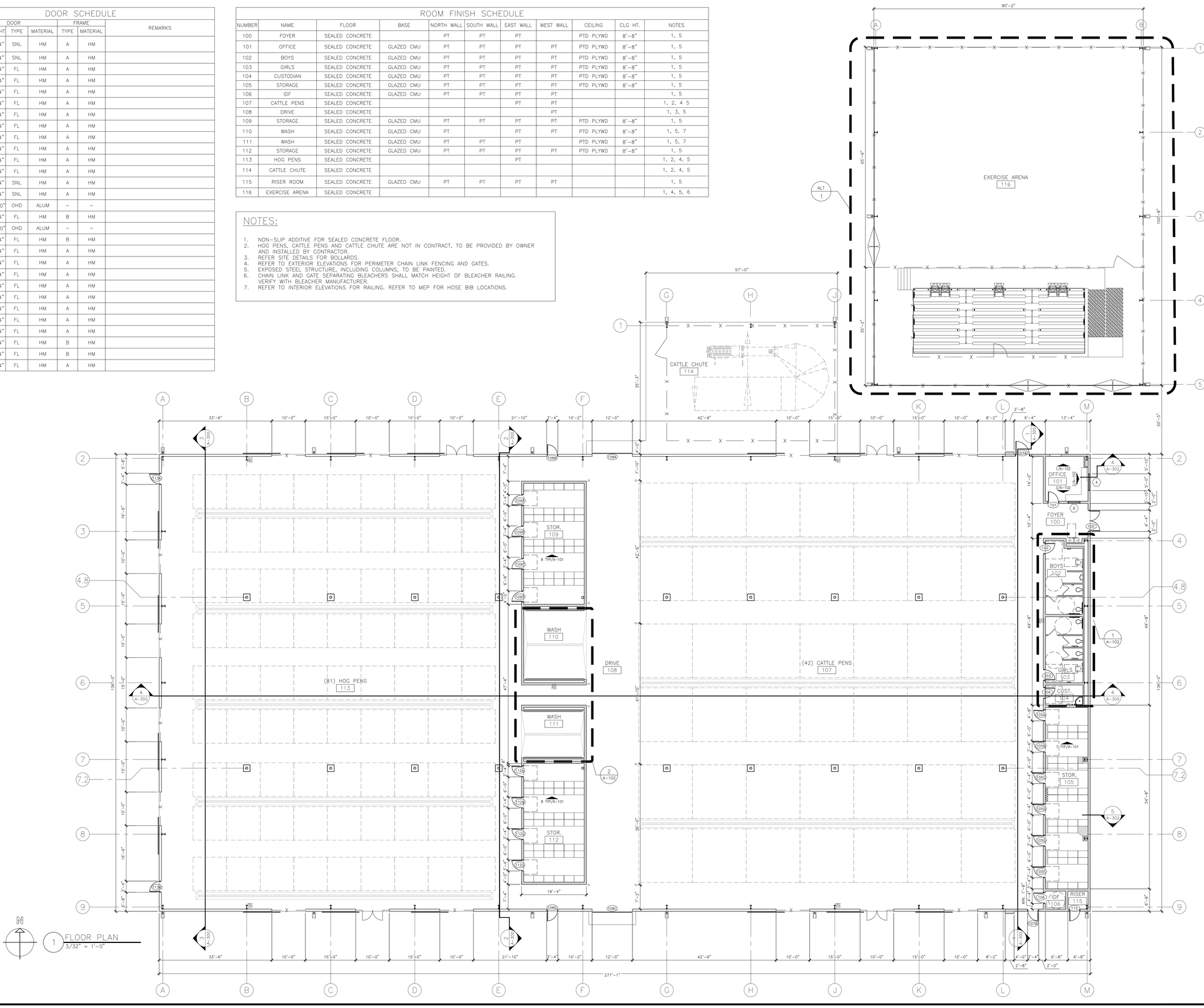
NUMBER	DOOR				FRAME		REMARKS
	WIDTH	HEIGHT	TYPE	MATERIAL	TYPE	MATERIAL	
100	6'-0"	7'-4"	SNL	HM	A	HM	
101	3'-0"	7'-4"	SNL	HM	A	HM	
102	3'-0"	7'-4"	FL	HM	A	HM	
103	3'-0"	7'-4"	FL	HM	A	HM	
104	3'-0"	7'-4"	FL	HM	A	HM	
105A	3'-0"	7'-4"	FL	HM	A	HM	
105B	3'-0"	7'-4"	FL	HM	A	HM	
105C	3'-0"	7'-4"	FL	HM	A	HM	
105D	3'-0"	7'-4"	FL	HM	A	HM	
105E	3'-0"	7'-4"	FL	HM	A	HM	
105F	3'-0"	7'-4"	FL	HM	A	HM	
106	3'-0"	7'-4"	FL	HM	A	HM	
107A	4'-0"	7'-4"	SNL	HM	A	HM	
107B	3'-0"	7'-4"	SNL	HM	A	HM	
108A	12'-0"	12'-0"	OHD	ALUM	–	–	
108B	3'-0"	7'-4"	FL	HM	B	HM	
108C	12'-0"	12'-0"	OHD	ALUM	–	–	
108D	3'-0"	7'-4"	FL	HM	B	HM	
109A	3'-0"	7'-4"	FL	HM	A	HM	
109B	3'-0"	7'-4"	FL	HM	A	HM	
109C	3'-0"	7'-4"	FL	HM	A	HM	
109D	3'-0"	7'-4"	FL	HM	A	HM	
112A	3'-0"	7'-4"	FL	HM	A	HM	
112B	3'-0"	7'-4"	FL	HM	A	HM	
112C	3'-0"	7'-4"	FL	HM	A	HM	
112D	3'-0"	7'-4"	FL	HM	A	HM	
113A	3'-0"	7'-4"	FL	HM	B	HM	
113B	3'-0"	7'-4"	FL	HM	B	HM	
115	3'-0"	7'-4"	FL	HM	A	HM	

ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR	BASE	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL	CEILING	CLG HT.	NOTES
100	FOYER	SEALED CONCRETE		PT	PT	PT		PTD PLYWD	8'-8"	1, 5
101	OFFICE	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
102	BOYS	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
103	GIRLS	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
104	CUSTODIAN	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
105	STORAGE	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
106	IDF	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT			1, 5
107	CATTLE PENS	SEALED CONCRETE				PT	PT			1, 2, 4 5
108	DRIVE	SEALED CONCRETE					PT			1, 3, 5
109	STORAGE	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
110	WASH	SEALED CONCRETE	GLAZED CMU	PT		PT	PT	PTD PLYWD	8'-8"	1, 5, 7
111	WASH	SEALED CONCRETE	GLAZED CMU	PT	PT	PT		PTD PLYWD	8'-8"	1, 5, 7
112	STORAGE	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT	PTD PLYWD	8'-8"	1, 5
113	HOG PENS	SEALED CONCRETE				PT				1, 2, 4, 5
114	CATTLE CHUTE	SEALED CONCRETE								1, 2, 4, 5
115	RISER ROOM	SEALED CONCRETE	GLAZED CMU	PT	PT	PT	PT			1, 5
116	EXERCISE ARENA	SEALED CONCRETE								1, 4, 5, 6

NOTES:

1. NON-SLIP ADDITIVE FOR SEALED CONCRETE FLOOR.
2. HOG PENS, CATTLE PENS AND CATTLE CHUTE ARE NOT IN CONTRACT, TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
3. REFER SITE DETAILS FOR BOLLARDS.
4. REFER TO EXTERIOR ELEVATIONS FOR PERIMETER CHAIN LINK FENCING AND GATES.
5. EXPOSED STEEL STRUCTURE, INCLUDING COLUMNS, TO BE PAINTED.
6. CHAIN LINK AND GATE SEPARATING BLEACHERS SHALL MATCH HEIGHT OF BLEACHER RAILING. VERIFY WITH BLEACHER MANUFACTURER.
7. REFER TO INTERIOR ELEVATIONS FOR RAILING. REFER TO MEP FOR HOSE BIB LOCATIONS.



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(956) 365-4820

3700 N. 10TH, SUITE 205
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(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT RAYMUNDO D. GIGNAC 8295 STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

PSJA COLLEGE3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	CQ
Checked:	JM
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ACAD File:	FLOOR PLAN

Revisions:

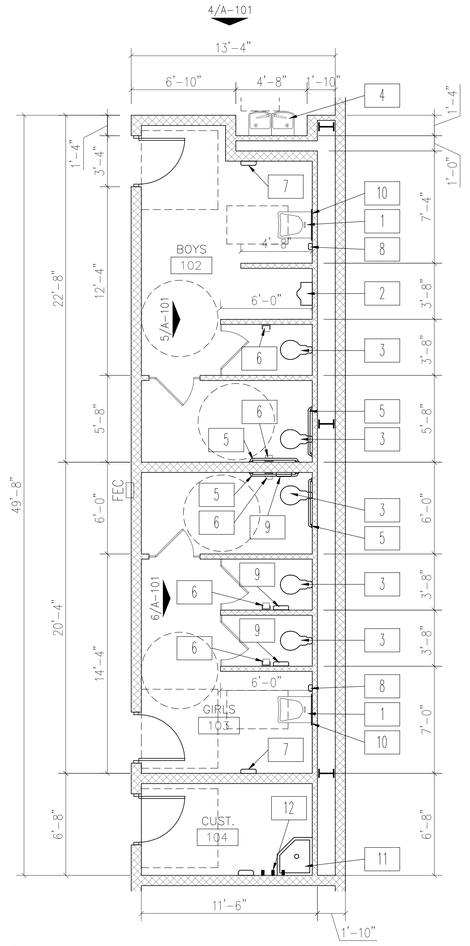
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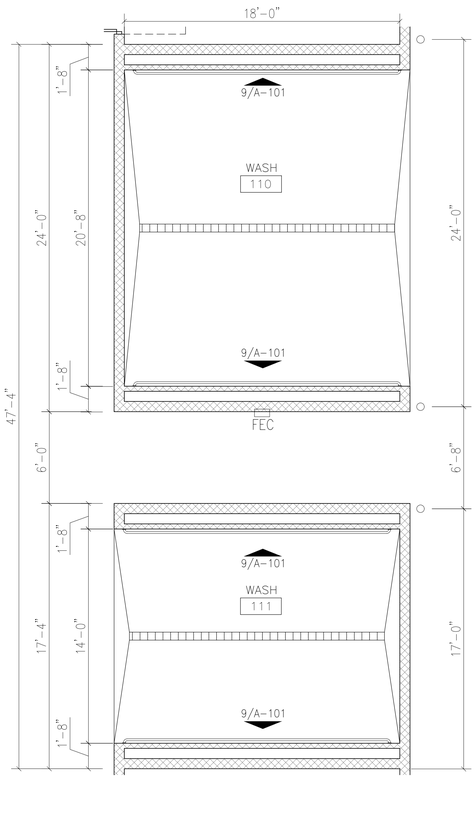
FLOOR PLAN BASE BID & ALT 1

A-100

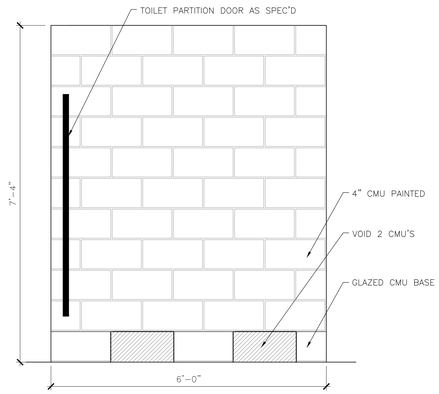
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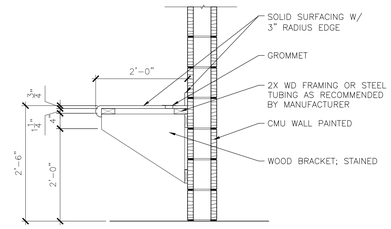
10 ENLARGED RESTROOM PLAN
1/4" = 1'-0"



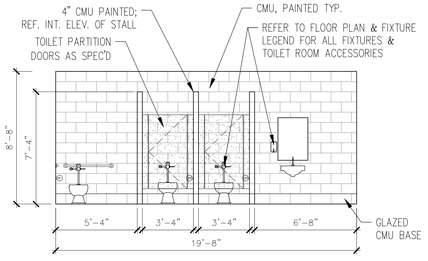
11 ENLARGED WASH STATION
1/4" = 1'-0"



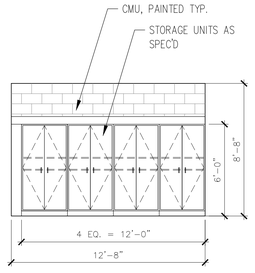
12 TYP. TOILET STALL SECTION
3/4" = 1'-0"



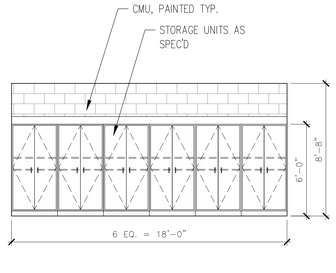
13 MILLWORK SECTION
3/4" = 1'-0"



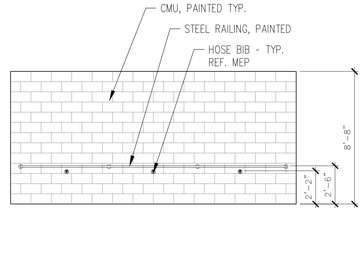
6 GIRLS – RM 103
1/4" = 1'-0"



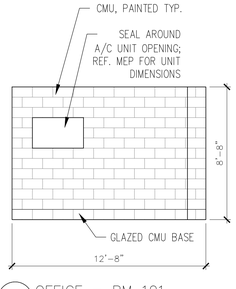
7 STORAGE – RM 105, TYP.
1/4" = 1'-0"



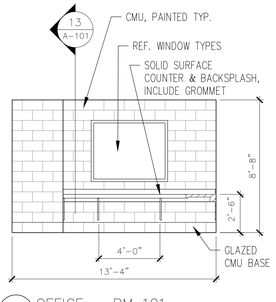
8 STORAGE – RM 109 & 112, TYP.
1/4" = 1'-0"



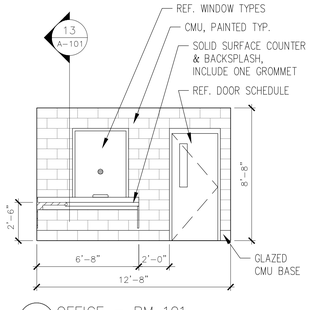
9 WASH – TYP.
1/4" = 1'-0"



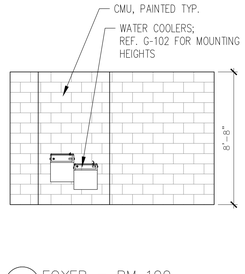
1 OFFICE – RM 101
1/4" = 1'-0"



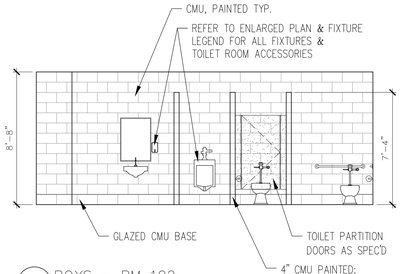
2 OFFICE – RM 101
1/4" = 1'-0"



3 OFFICE – RM 101
1/4" = 1'-0"



4 FOYER – RM 100
1/4" = 1'-0"



5 BOYS – RM 102
1/4" = 1'-0"

	FIXTURE MOUNTING HEIGHT SCHEDULE * REFER TO ADA GUIDELINES ON SHEET G-102.		ADULTS
1	1. LAVATORIES/SINK (MEASURED FROM FLOOR TO RIM)	STANDARD	32"
		ACCESSIBLE	34" MAX (29" MIN KNEESPACE)
2	2. URINALS (MEASURED FROM FLOOR TO RIM)	STANDARD	16" MAX
		ACCESSIBLE	17" MAX
3	3. WATER CLOSETS (MEASURED FROM FLOOR TO TOP OF SEAT)	STANDARD	15"
		ACCESSIBLE	17" TO 19"
4	4. DRINKING FOUNTAINS AND EWC's FRONTAL APPROACH (MEASURED FROM FLOOR TO SPOUT OUTLET)	STANDARD	42"
		ACCESSIBLE	36" MAX (27" MIN KNEESPACE)
5	5. GRAB BARS (MEASURED FROM FLOOR TO CENTERLINE OF BAR – 36" LONG @ REAR WALL & 42" LONG @ SIDE WALL OR 90 DEGRESS CONT. GRAB BAR WHERE INDICATED	STANDARD	
		ACCESSIBLE	33" TO 36"
6	6. TOILET TISSUE DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF ROLL)	STANDARD	20"
		ACCESSIBLE	19" MIN
7	7. ELECTRIC HAND DRYER (MEASURED FROM FLOOR TO CENTER OF CONTROL)	STANDARD	48"
		ACCESSIBLE	45" MAX
8	8. SOAP DISPENSER (MEASURED FROM FLOOR TO CENTERLINE OF PUSH BUTTON)	STANDARD	38"
		ACCESSIBLE	38"
9	9. SANITARY NAPKIN DISPOSAL UNIT (MEASURED FROM FLOOR TO TOP OF UNIT)	STANDARD	40"
		ACCESSIBLE	
10	10. MIRRORS 1 MIRROR PER LAVATORY (NOT NOTED FOR CLARITY). MEASURED FROM FLOOR TO BOTTOM OF REFLECTING SURFACE.	STANDARD	
		ACCESSIBLE	40" MAX
11	11. MOP BASIN / SERVICE SINK		
12	12. MOP HOLDER		48" MAX
13	13. TOILET PARTITION / URINAL SCREEN		NOT NOTED FOR CLARITY

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LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT JAIME D. GIGNAC 8295 STATE OF TEXAS
EXPIRATION DATE 1/30/2018

DATE SIGNED: 9-6-18

COLLEGE3 READY.CONNECTED.COMPLETE

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: 9-6-2018
Drawn: CQ
Checked: JM
Scale: VARIOUS
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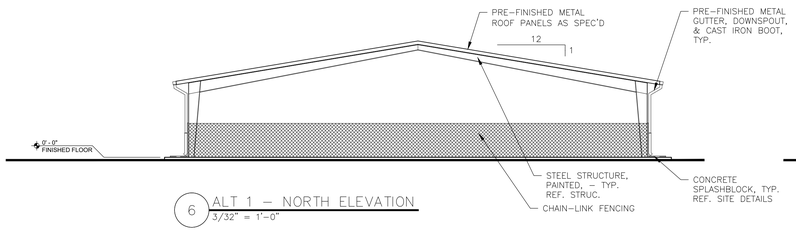
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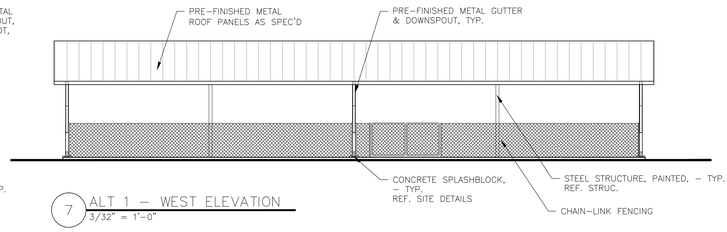
ENLARGED PLANS & INT. ELEVS.

A-101

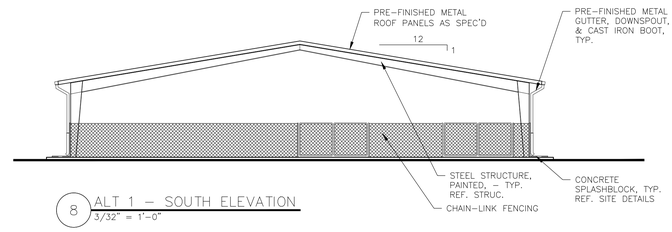
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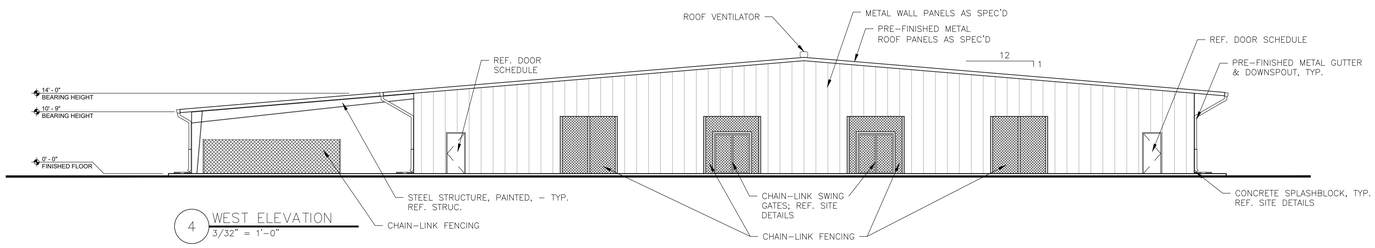
6 ALT 1 – NORTH ELEVATION
3/32" = 1'-0"



7 ALT 1 – WEST ELEVATION
3/32" = 1'-0"

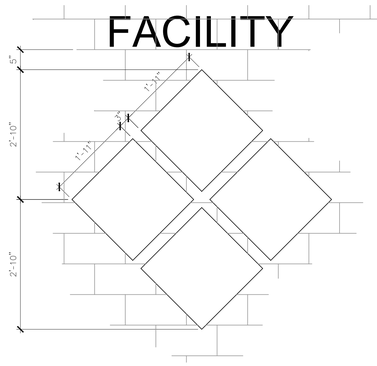


8 ALT 1 – SOUTH ELEVATION
3/32" = 1'-0"

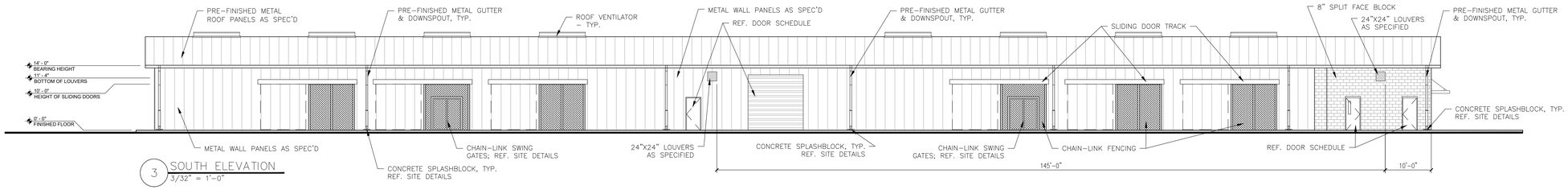


4 WEST ELEVATION
3/32" = 1'-0"

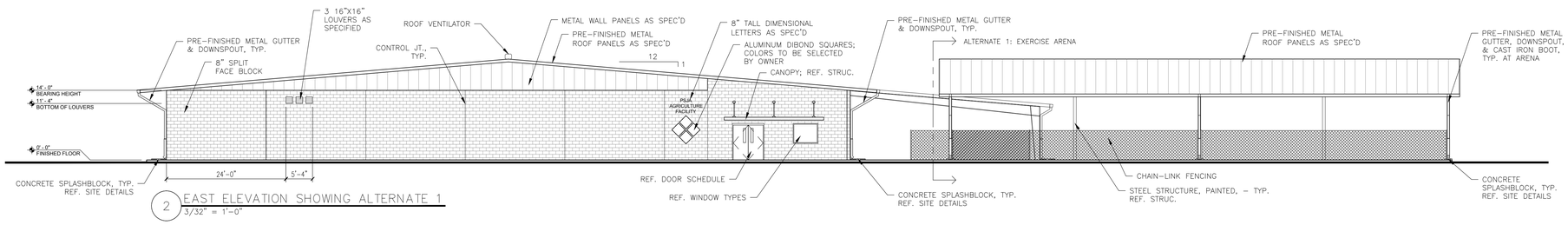
FACILITY



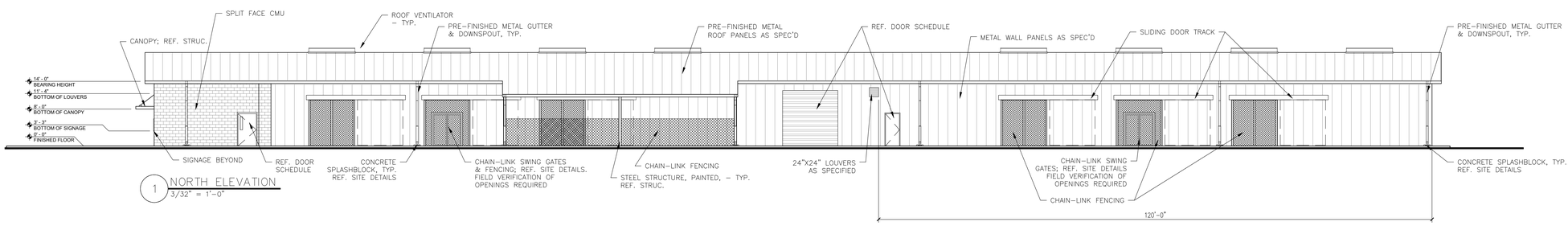
5 ALUMINUM SIGN DETAIL
3/4" = 1'-0"



3 SOUTH ELEVATION
3/32" = 1'-0"



2 EAST ELEVATION SHOWING ALTERNATE 1
3/32" = 1'-0"



1 NORTH ELEVATION
3/32" = 1'-0"

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
(361) 884-2661

222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
CHRISTOPHER D. QUEZADA
82985
STATE OF TEXAS

EXPIRATION DATE
11/30/2018

DATE SIGNED: 9-6-18

PSJA COLLEGE3 READY.CONNECTED.COMPLETE

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	CQ/AL
Checked:	JM
Scale:	3/32" = 1'-0"
ACAD File:	EXT ELEV

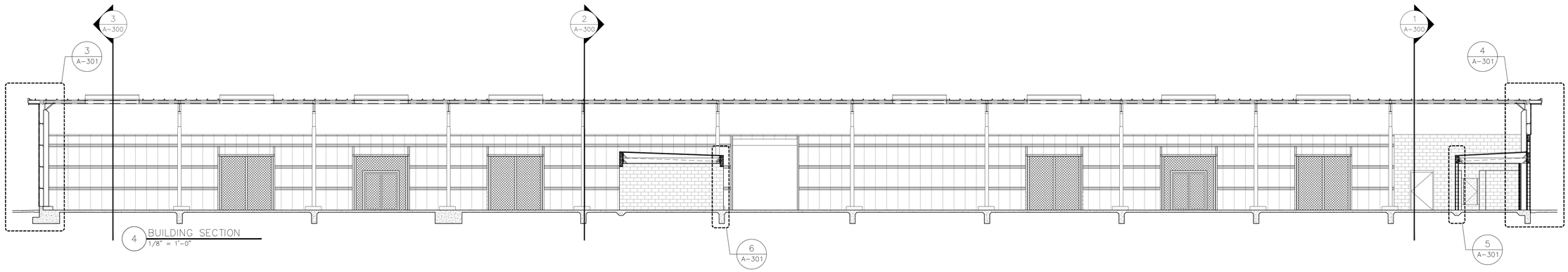
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1
2
3

Sheet Title:

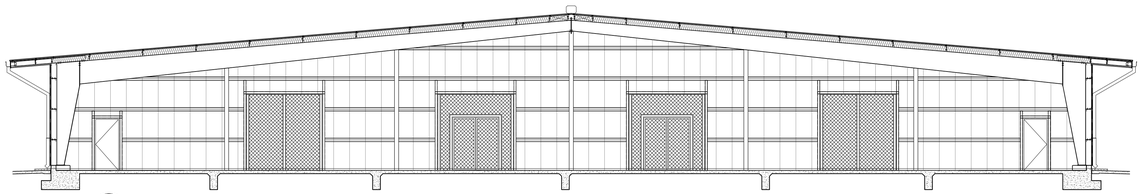
EXTERIOR ELEVATIONS

A-200

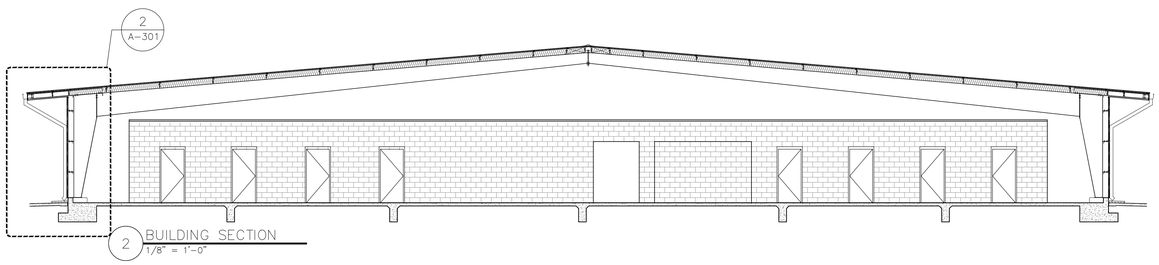
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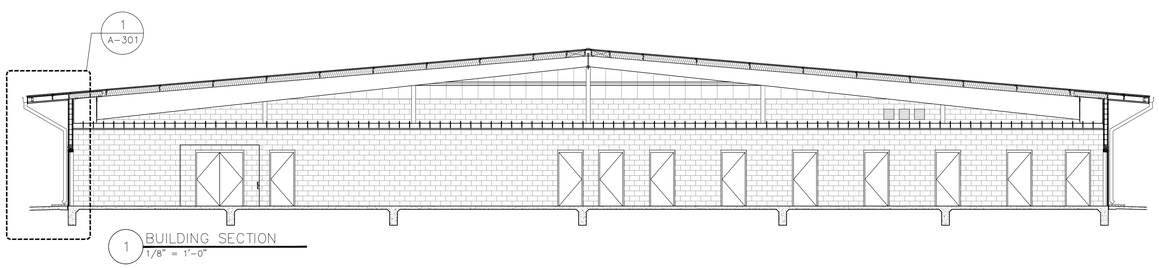
4 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



1 BUILDING SECTION
1/8" = 1'-0"

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
(361) 884-2661

222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
RAYMUNDO D. GIGNAC
8298
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

COLLEGE 3
READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: 9-6-2018
Drawn:
Checked:
Scale:
ACAD File:

Revisions:

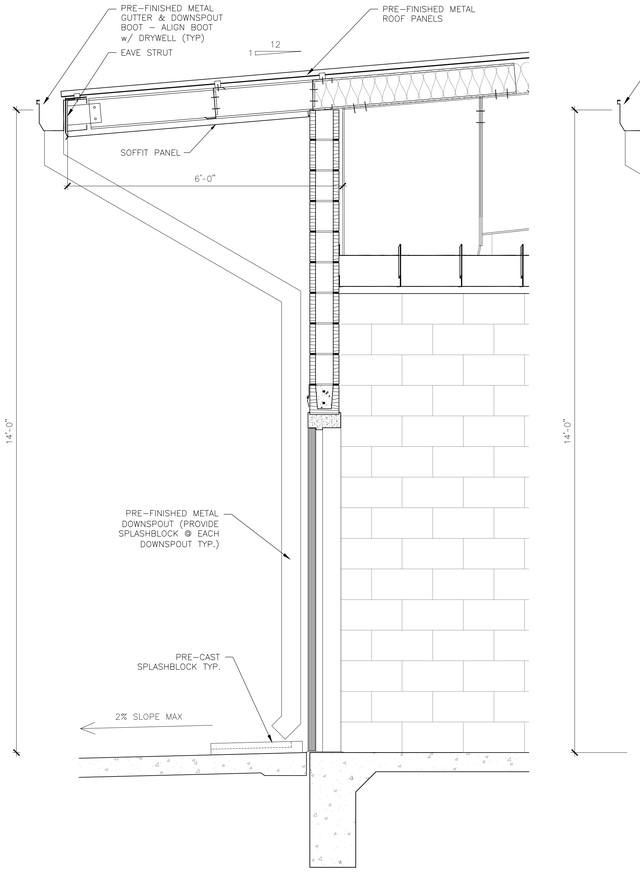
1	CQ
	JM
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3	

Sheet Title:

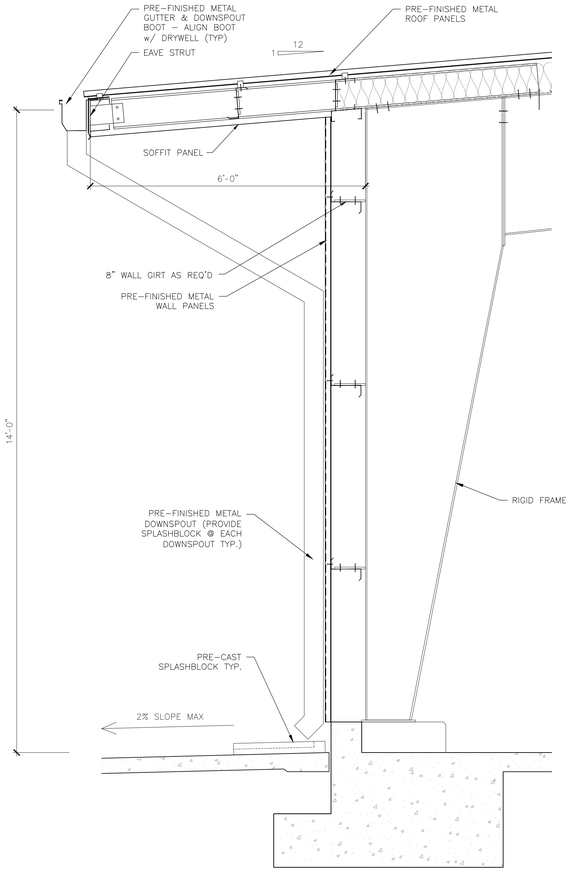
BUILDING SECTION

A-300

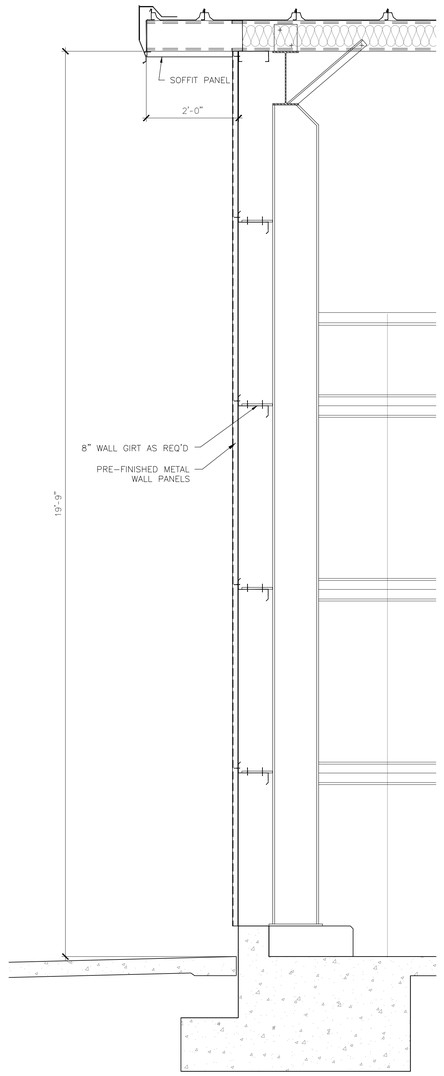
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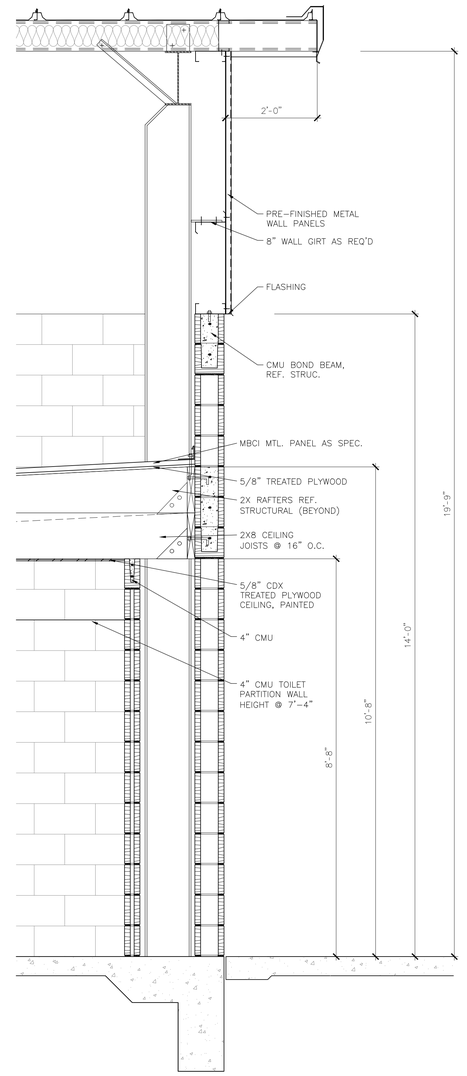
1 WALL SECTION
3/4" = 1'-0"



2 WALL SECTION
3/4" = 1'-0"



3 WALL SECTION
3/4" = 1'-0"



4 WALL SECTION
3/4" = 1'-0"

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
(361) 884-2661

222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
RAYMUNDO D. GIGNAC
8295
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

COLLEGE READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: 9-6-2018
Drawn:
Checked:
Scale:
ACAD File:

Revisions:

1	CQ
	JM
2	
3	

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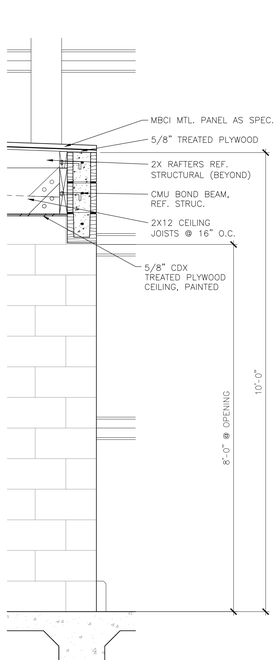
WALL SECTION DETAILS

A-301

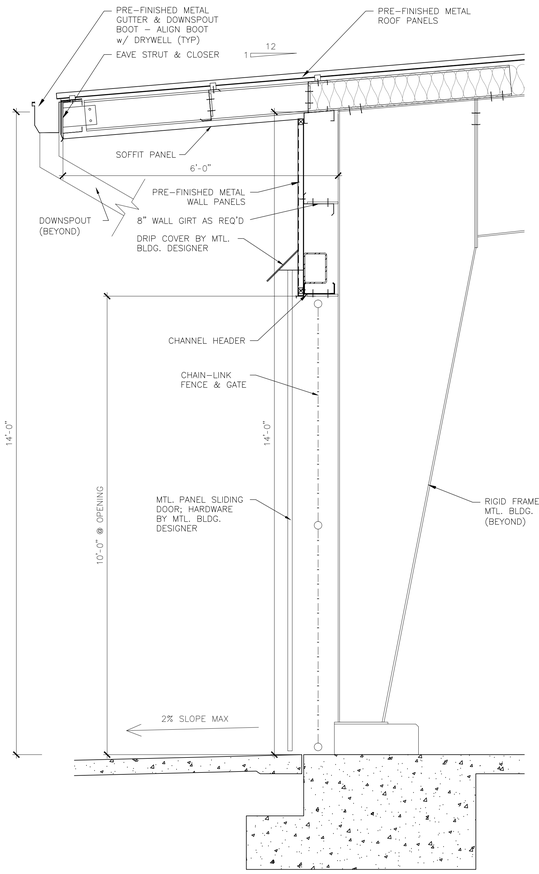
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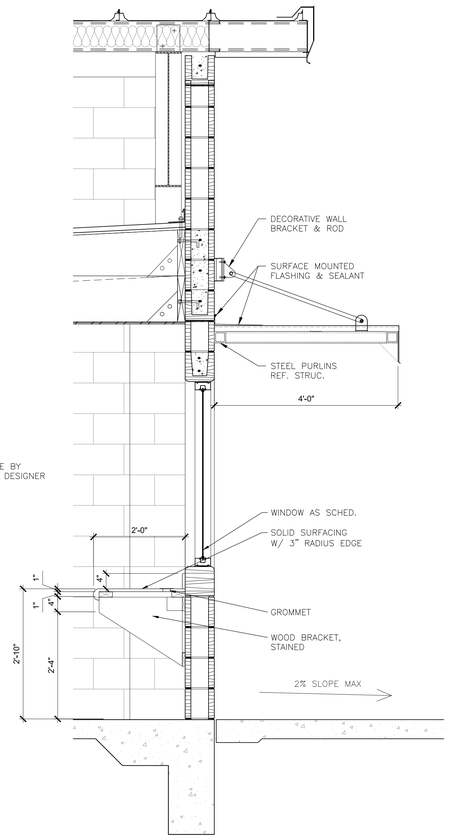
1 WALL SECTION
3/4" = 1'-0"



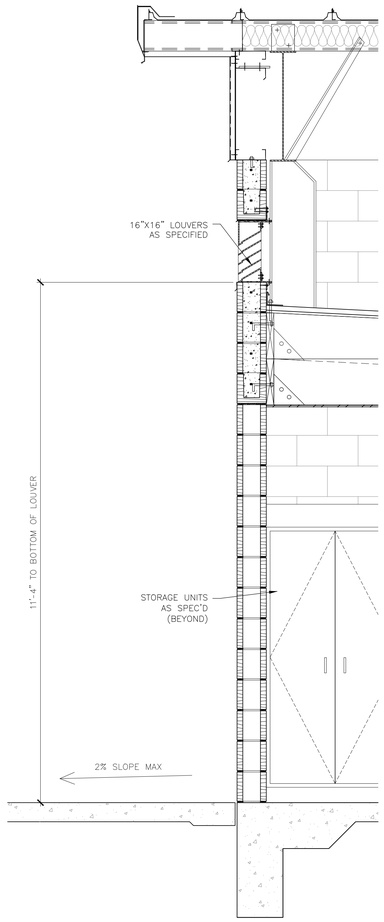
2 WALL SECTION
3/4" = 1'-0"



3 WALL SECTION
3/4" = 1'-0"



4 WALL SECTION
3/4" = 1'-0"



5 WALL SECTION
3/4" = 1'-0"

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
(361) 884-2661

222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
RAMIRO D. GIGNAC
8295
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

COLLEGE 3 READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number: 16.08
Drawing Date: 9-6-2018
Drawn:
Checked:
Scale:
ACAD File:

Revisions:

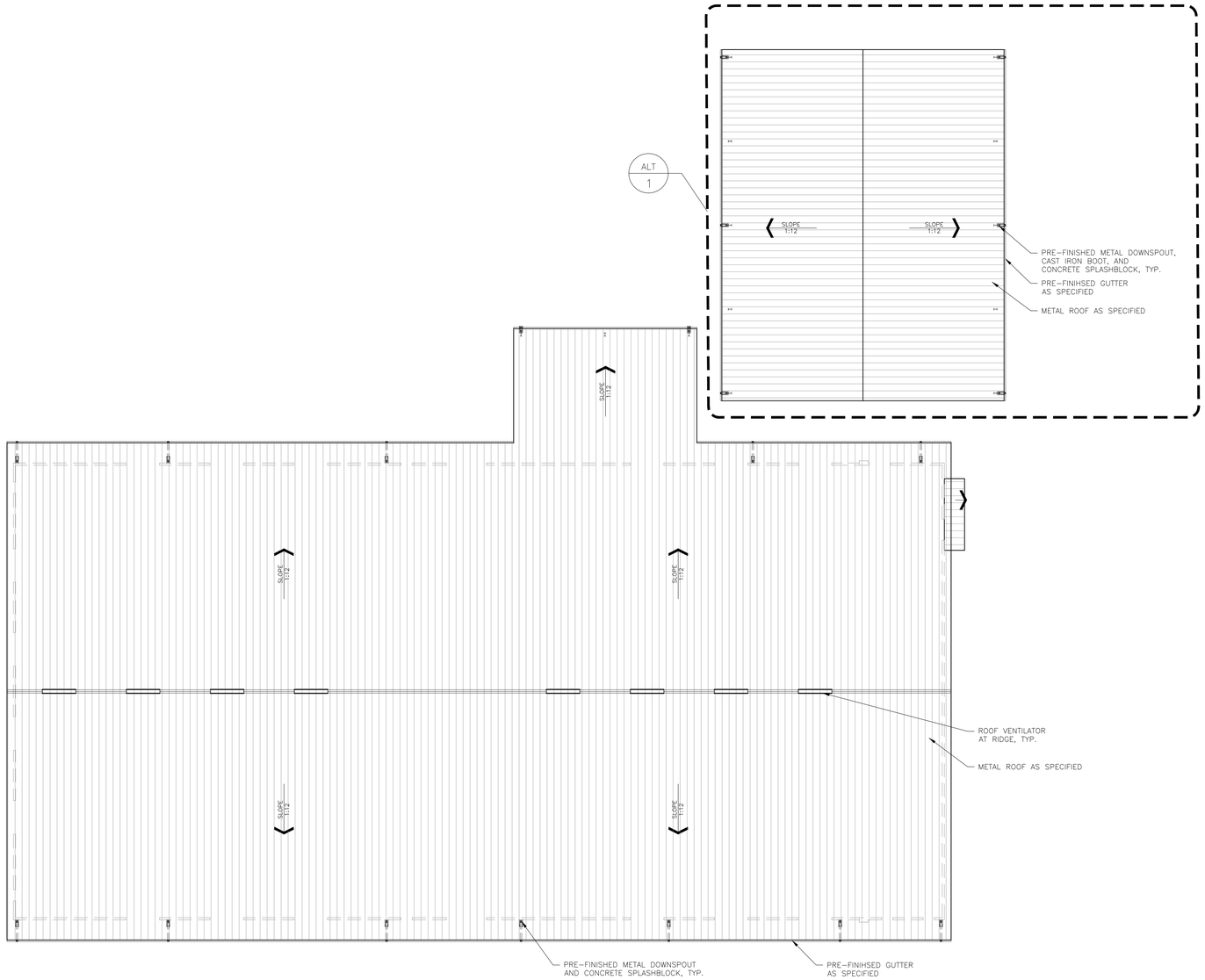
1	CQ JM
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3	

Sheet Title:

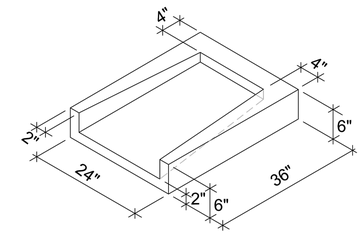
WALL SECTION DETAILS

A-302

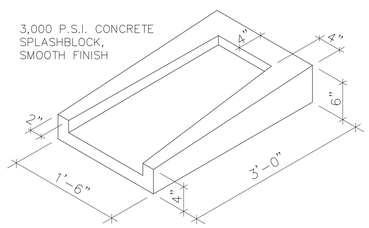
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1 ROOF PLAN
1/16" = 1'-0"



3 SPLASHBLOCK DETAIL AT ALL HOG/CATTLE PENS
NOT TO SCALE



2 SPLASHBLOCK DETAIL AT ALL DOWNSPOUTS
NOT TO SCALE

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
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222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
RAYMUNDO D. GIGNAC
8295
STATE OF TEXAS

EXPIRATION DATE
12/30/2018

DATE SIGNED: 9-6-18

COLLEGE 3 READY. CONNECTED. COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	CQ/AL
Checked:	JM
Scale:	VARIOUS
ACAD File:	ROOF PLAN

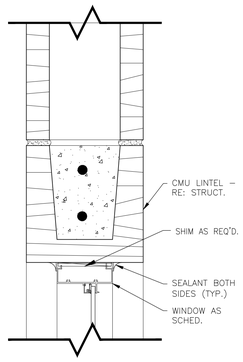
Revisions:
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3

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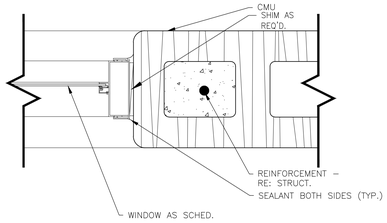
ROOF PLAN & DETAILS

A-400

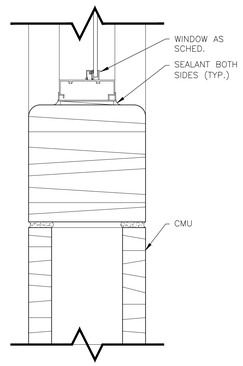
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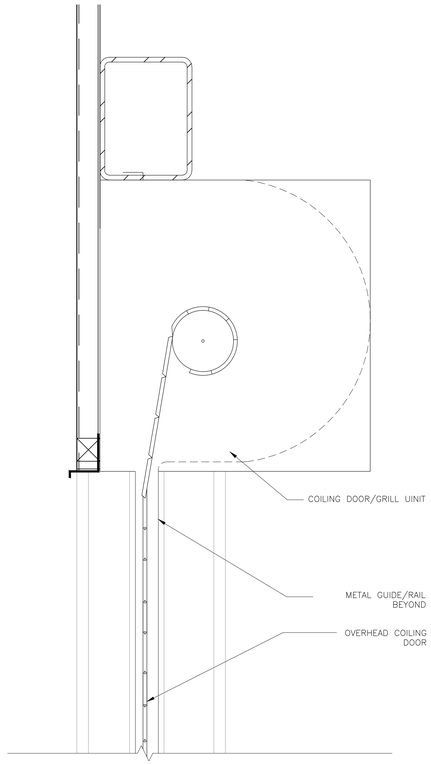
10 WINDOW HEAD DETAIL
3" = 1'-0"



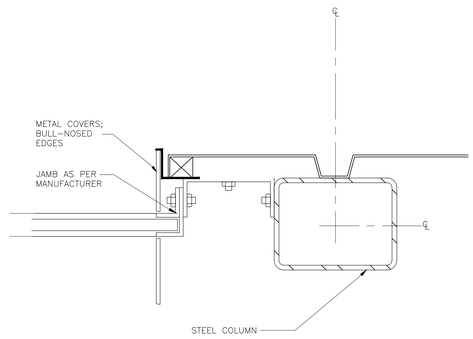
11 WINDOW JAMB DETAIL
3" = 1'-0"



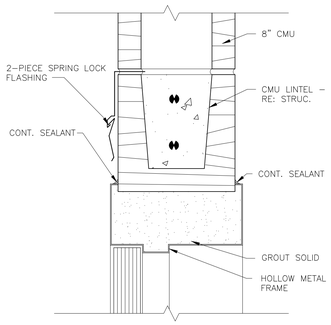
12 WINDOW SILL DETAIL
3" = 1'-0"



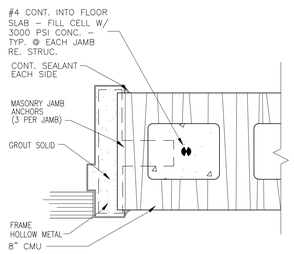
13 OVERHEAD DOOR HEAD DETAIL
3" = 1'-0"



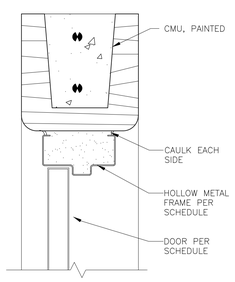
14 OVERHEAD DOOR JAMB DETAIL
3" = 1'-0"



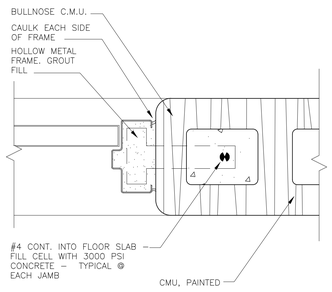
4 EXT. DOOR HEAD DETAIL
3" = 1'-0"



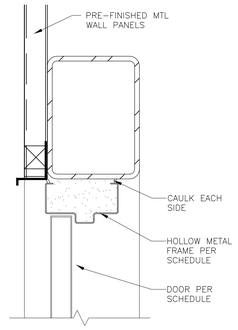
5 EXT. DOOR JAMB DETAIL
3" = 1'-0"



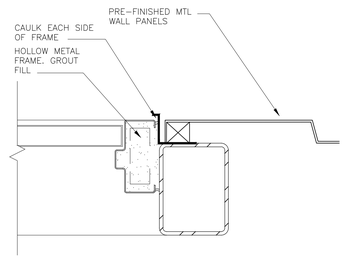
6 INT. DOOR HEAD DETAIL
3" = 1'-0"



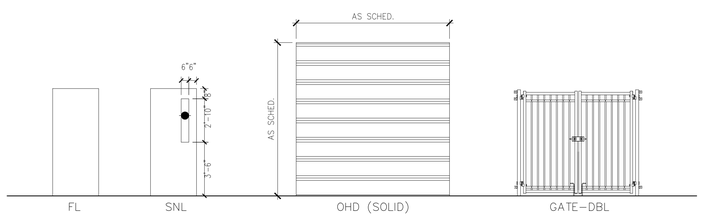
7 INT. DOOR JAMB DETAIL
3" = 1'-0"



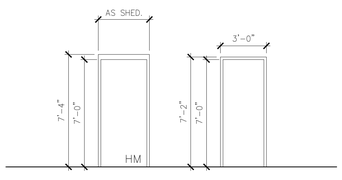
8 EXT. DOOR HEAD DETAIL
3" = 1'-0"



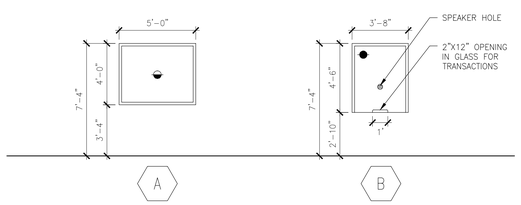
9 EXT. DOOR JAMB DETAIL
3" = 1'-0"



1 DOOR TYPES
1/4" = 1'-0"



2 DOOR FRAME TYPES
1/4" = 1'-0"



3 WINDOW TYPES
1/4" = 1'-0"

GLAZING SCHEDULE

- 1" TINTED PLATE INSULATED GLASS
- 1/4" CLEAR TEMPERED GLASS

GIGNAC | ARCHITECTS

416 STARR STREET
CORPUS CHRISTI, TEXS 78401
(361) 884-2661

222 E. VAN BUREN, SUITE 102
HARLINGEN, TEXAS 78550
(956) 365-4820

3700 N. 10TH, SUITE 205
McALLEN, TEXAS 78501
(956) 686-0100

Consultants:

CIVIL:
Melden & Hunt, Inc.

STRUCTURAL:
Green, Rubiano & Associates, Inc.

MEP:
Sigma HN Engineers, PLLC

LANDSCAPE:
LAN Scapes

REGISTERED ARCHITECT
STATE OF TEXAS
6235
01

EXPIRATION DATE
11/30/2018

DATE SIGNED: 9-6-18

COLLEGE3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

Project Number:	16.08
Drawing Date:	9-6-2018
Drawn:	AL
Checked:	JM
Scale:	VARIOUS
ACAD File:	DOORS

Revisions:
1
2
3

Sheet Title:

DOOR & WINDOW TYPES & DTLS

A-500

Sep. 06, 2018 - 8:00pm User: cquezada
P:\C&A Projects\16.08 PSJA AG Facilities\16.08 | ROAD SITE\16.08 CAD\16.08-A-500-doors and windows_recover.dwg

GENERAL LEGEND

MECHANICAL

GENERAL MECHANICAL NOTES:

A. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION EFFORTS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS AS REQUIRED BY FIELD CONDITIONS.

B. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR OWNER.

C. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE WORK IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES UNDER THIS SECTION OF THE CONTRACT. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE LOCAL CODES, HE SHALL INFORM THE OWNER PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET APPLICABLE LOCAL CODES, AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE.

D. CONTRACTOR SHALL HANG AND INSTALL ALL DUCTWORK TIGHT WITH THE BUILDING STRUCTURE TO ACCOMMODATE NEW CEILINGS. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WORK WITH ARCHITECTURAL AND ELECTRICAL DESIGN. ALL DUCTWORK SHALL BE MODIFIED AS NECESSARY AND REQUIRED TO FIT AROUND BUILDING STRUCTURES, ARCHITECTURAL BUILD-OUT. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

E. CONTRACTOR SHALL INSTALL ALL EXHAUST SYSTEMS, INCLUDING FANS AND EXHAUST DUCTS. PROVIDE COMPLETE NEW SYSTEMS AS INDICATED.

F. CONTRACTOR SHALL PROVIDE ALL CEILING DIFFUSERS AS SHOWN. CONNECT EACH DIFFUSER TO THE MAIN DISTRIBUTION DUCT WITH A FLEX-DUCT SECTION; CONNECTIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE DETAIL SHOWN IN THESE PLANS. EACH FLEX-DUCT CONNECTION SHALL INCLUDE A BUTTERFLY DAMPER TO BE INSTALLED AT THE TRUNK DUCT.

G. CONTRACTOR SHALL PROVIDE ALL DUCTWORK REQUIRED TO COMPLETE THE HVAC SYSTEM. TIE IN BRANCH DUCTS TO MAIN DUCTS WITH SHEET METAL FLANGES. FLANGE CONNECTION SHALL BE FASTENED WITH CRIMPED SHEET METAL STRIPS AND SEALED WITH SILICONE CAULK.

H. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS. CONTRACTOR SHALL REINFORCE ALL OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 6000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

I. ON ANY WORK SHOWN ON MECHANICAL DRAWINGS REQUIRING DEMOLITION OF EXISTING OR NEW BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH OWNER-APPROVED PATCHING MATERIALS. ALL REFINISHING SHALL BE APPROVED BY THE OWNER.

J. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE INSTALLATION OF THE AIR DISTRIBUTION SYSTEM SHOWN. DUCTWORK, DUCT ACCESSORIES AND CONTROLS SHOWN AND REQUIRED SHALL BE SUPPLIED AND INSTALLED. ALL INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CODES, INCLUDING NFPA 90A AND 90B.

K. CONTRACTOR SHALL BALANCE ALL AIR DISTRIBUTION SYSTEMS TO ACHIEVE THE AIR VOLUME REQUIREMENTS INDICATED. BALANCING SHALL INCLUDE ADJUSTMENT OF ALL MANUAL VOLUME DAMPERS, SPLITTER DAMPERS, ZONE DAMPERS (IF REQUIRED), BUTTERFLY DAMPERS AND INDIVIDUAL DIFFUSER VOLUME DAMPERS (FINAL BALANCING ONLY). CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A COMPLETE BALANCING REPORT WHICH INCLUDES VOLUME, ROOM REFERENCE AND ZONE VOLUME TOTALS.

L. MOUNT ALL THERMOSTATS (SENSORS) 48" ABOVE THE FINISHED FLOOR LEVEL UNLESS NOTED OTHERWISE THERMOSTATS SHOWN SHALL BE IN CONTROL OF THE ZONE SYSTEM WHICH IS SUPPLYING AIR TO THE AREA WHERE THE THERMOSTAT IS LOCATED. CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF EACH THERMOSTAT WITH THE ROOM FINISHES AND USES. CONTRACTOR SHALL SUPPLY AND INSTALL ALL CONTROL VOLTAGE WIRING AND CONDUIT FOR THERMOSTAT INSTALLATION.

M. CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF ALL CEILING DIFFUSERS WITH LIGHTING INSTALLATIONS AND ARCHITECTURAL REFLECTED CEILING PLANS. MOVE THE DIFFUSER LOCATIONS IF REQUIRED TO AVOID OBSTRUCTIONS FROM DUCTWORK AND LIGHT FIXTURES. COORDINATE RELOCATION WITH ENGINEER.

N. VERIFY THE LOCATION OF ALL WALLS, PARTITIONS, DOORS, CABINETS, AND CEILINGS FROM ACTUAL FIELD MEASUREMENTS.

O. PROVIDE SMOKE DETECTOR AND SHUTDOWN CONTROLS ON AIR HANDLERS AND SUPPLY FANS. SMOKE DETECTORS SHALL BE PROVIDED, INSTALLED AND WIRED FOR SHUT DOWN BY DIVISION 16. PROVIDE BOTH SUPPLY AND RETURN SIDE DEVICES.

P. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

ELECTRICAL

GENERAL ELECTRICAL SITE NOTES:

A. ELECTRICAL CONTRACTOR SHALL CONTACT UTILITY COMPANY SERVICE REPRESENTATIVE AND COORDINATE SERVICE INSTALLATION PRIOR TO COMMENCING WORK.

B. ELECTRICAL CONTRACTOR SHALL INCLUDE IN HIS BID TO OWNER ALL FEES AND CONSTRUCTION COSTS CHARGED BY THE POWER, TELEPHONE AND CABLE UTILITY PROVIDERS FOR MAIN LINE EXTENSIONS OF SERVICE FOR A NEW INSTALLATION.

C. ELECTRICAL CONTRACTOR SHALL INCLUDE IN HIS BID TO OWNER MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL POWER, TELEPHONE AND CABLE TO THE NEW FACILITY.

D. ELECTRICAL CONTRACTOR SHALL INSTALL ALL UNDERGROUND CONDUIT, CONDUCTORS AND CABLES AS SPECIFIED. REFER TO SPECIFICATION SECTIONS FOR REQUIREMENTS.

GENERAL ELECTRICAL LIGHTING NOTES:

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS (RCP) FOR EXACT LOCATION OF LIGHT FIXTURES. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED IN RCP.

B. CONNECT EXIT/EMERGENCY LIGHTS AND EMERGENCY BALLASTS IN EMERGENCY LIGHTS IN EACH SPACE TO UNSWITCHED HOT LEGS OF THE LOCAL LIGHTING CIRCUIT

C. COORDINATE PLACEMENT OF LIGHT FIXTURE WITH ACTUAL INSTALLATION OF MECHANICAL EQUIPMENT AND DUCTWORK.

D. COORDINATE LOCATIONS OF ALL WIRING SWITCHES AND MOUNTING HEIGHTS WITH OWNERS DRAWINGS PRIOR TO ROUGH IN.

E. COORDINATE INSTALLATION OF CONDUIT WITH OTHER TRADES PRIOR TO ROUGH-IN.

GENERAL ELECTRICAL POWER NOTES:

A. DIMENSIONS INDICATED ARE TO BE VERIFIED AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.

PLUMBING

GENERAL PLUMBING NOTES:

A. COORDINATE EXACT LOCATION OF ALL FLOOR DRAINS WITH MECHANICAL EQUIPMENT LOCATION AND CONDENSATE DRAIN REQUIREMENTS PRIOR TO ANY INSTALLATION.

B. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH TRAP PRIMER CONNECTION.

C. PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES AND OTHER STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

D. PLUMBING CONTRACTOR SHALL EXTEND ALL CONDENSATE AND INDIRECT DRAINS FROM EQUIPMENT TO FLOOR DRAINS.

E. PLUMBING CONTRACTOR SHALL TERMINATE ALL WATER ROUGH-IN WITH SHUT-OFF VALVES BEFORE CONNECTING TO EQUIPMENT AND RELATED FIXTURES.

F. PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION.

G. INSULATE "P" TRAPS AND SUPPLIES AT HANDICAP LAVATORIES WITH INSULATION KIT.

H. PROVIDE VACUUM BREAKER TO ALL FIXTURES WITH HOSE CONNECTION AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

I. REFER TO OWNERS DRAWINGS FOR MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.

J. ALL VENTS THROUGH ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE ROOF. ALL VENTS SHALL BE MINIMUM OF 10' AWAY FROM ANY OUTSIDE AIR INTAKE.

K. PROVIDE CEILING ACCESS PANEL FOR WATER ISOLATION VALVES, WATER HAMMER ARRESTORS AND TRAP PRIMER VALVES IN OTHERWISE INACCESSIBLE AREAS.

SPECIAL SYSTEMS

GENERAL SPECIAL SYSTEMS NOTES:

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL POWER SOURCE WIRING IN ACCORDANCE WITH MILLWORK. ALL INSTALLATIONS SHALL COMPLY WITH ADA REQUIREMENTS.

B. ELECTRICAL CONTRACTOR SHALL VERIFY ALL REQUIREMENTS BEFORE ANY ROUGH-IN IN ORDER TO COORDINATE MANUFACTURER'S DRAWINGS FOR EQUIPMENT LOCATION AND INSTALLATION ACCESSORIES.

C. COORDINATE RUNS FOR CONDUIT UP IN JOIST AND FOR SUSPENDING REQUIREMENTS IN ACCORDANCE WITH STRUCTURAL PLANS.

D. FURNISH DUCT SMOKE DETECTOR FOR RETURN DUCT. COORDINATE EXACT LOCATION IN ACCORDANCE MECHANICAL DRAWINGS.

E. ALL CABLES ABOVE CEILING SHALL BE PLENUM RATED.

F. SEAL PENETRATION WITH FIRE PROOF SEALANT UL LISTED FOR FIRE WALLS. BOTH ENDS SHALL BE CHAMFERED FOR A NON SHARP EDGES.

G. ALL DATA-CONDUITS SHALL STUB-UP, ACCESSIBLE, ABOVE LAY-IN CEILING.

H. CONDUITS SHALL BE REAMED AND COMPLETED WITH CONNECTORS AND INSULATED BUSHINGS AT BOTH ENDS.

I. BETWEEN ANY TWO PULL POINTS THERE SHALL BE NO CONDUIT WITH GREATER THAN 180 DEGREES OF BENDS OR EQUIVALENT.

J. WHERE CONDUIT LENGTH EXCEEDS 100FT AND/OR TWO 90 DEGREE BENDS OR EQUIVALENT PROVIDE PULL BOXES AS REQUIRED.

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STATE OF TEXAS — GABRIEL HINOJOSA — 96585 — LICENSED PROFESSIONAL ENGINEER — 07-06-2018

STATE OF TEXAS — JOSE ANTONIO NICANOR — 108783 — LICENSED PROFESSIONAL ENGINEER — 09-06-2018

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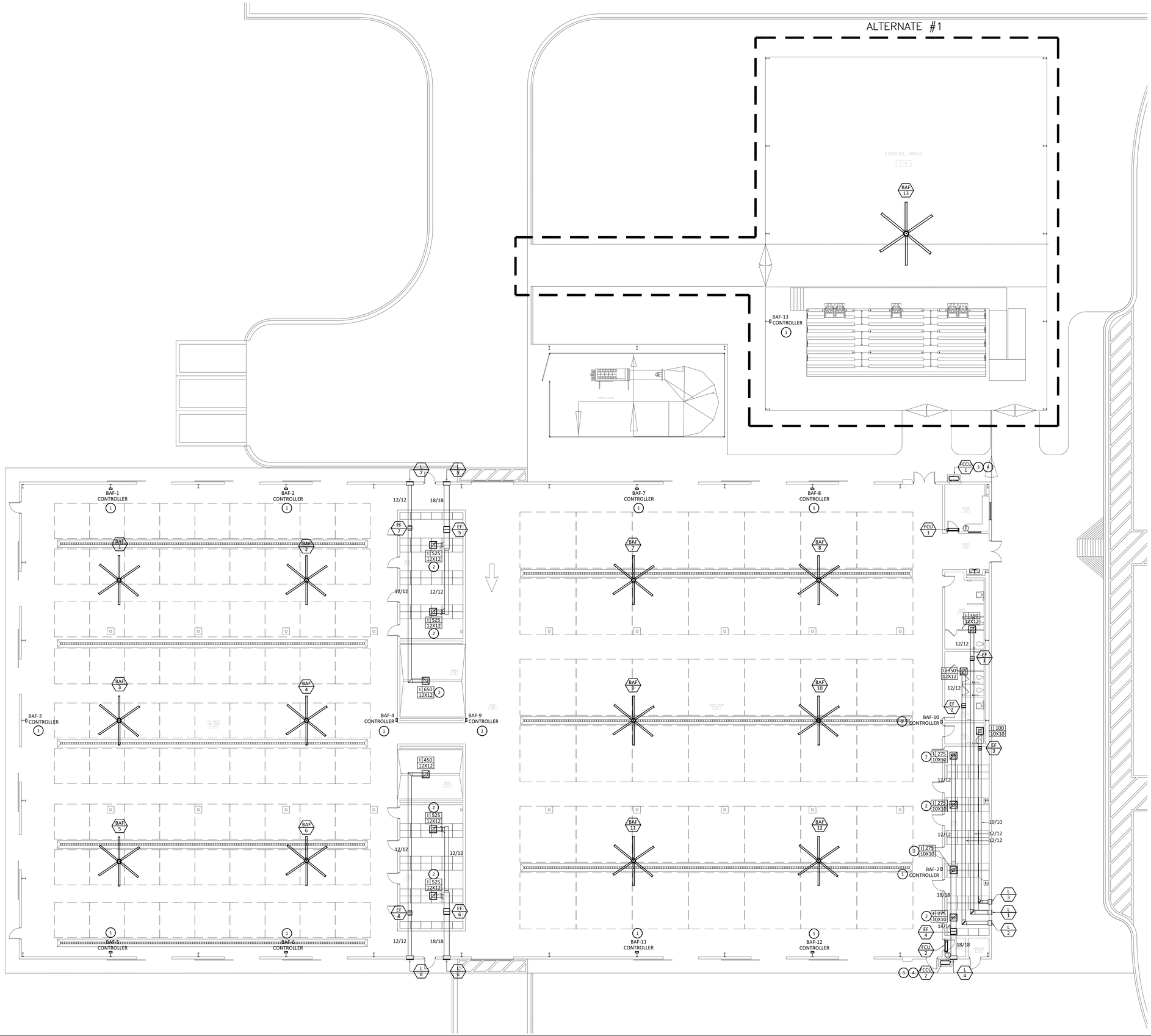
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MEP GENERAL NOTES

MEP-100



1 MECHANICAL PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET MEP-1.0 FOR GENERAL NOTES.
2. CONTRACTOR SHALL PROVIDE STEEL AS NECESSARY TO SUPPORT BIG ASS FANS. COORDINATE PLACEMENT AND ELEVATION OF BIG ASS FANS WITH LIGHTING, STRUCTURAL STEEL, AND OTHER TRADES.

KEY NOTES: (8)

1. APPROXIMATE LOCATION OF DIGITAL WALL KEYPAD FOR FAN CONTROLS. PROVIDE FAN ID TAG.
2. PROVIDE AND INSTALL OPPOSED BLADE BALANCING DAMPER IN DUCT RISE ACCESSIBLE BY REMOVING GRILLE.
3. PROVIDE 4" CONCRETE PAD FOR CONDENSING UNITS. ANCHOR UNITS TO CONCRETE PAD. COORDINATE PLACEMENT OF UNITS WITH MANUFACTURER MINIMUM SERVICE CLEARANCE REQUIREMENTS.
4. SIZE REFRIGERANT LINES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PROVIDE 1" FLEXIBLE ELASTOMERIC INSULATION ON BOTH SUCTION AND DISCHARGE LINES. WRAP OUTDOOR INSULATED REFRIGERANT PIPING WITH 0.020" ALUMINUM JACKET.

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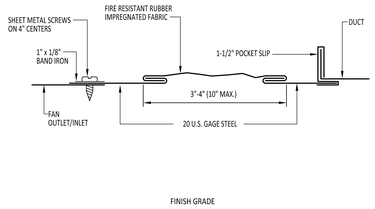
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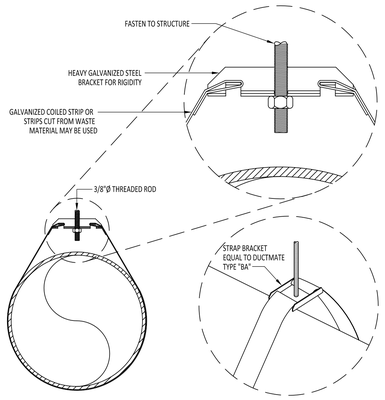
MECHANICAL PLAN

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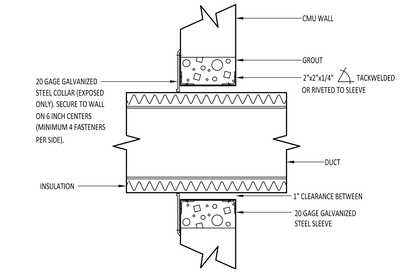
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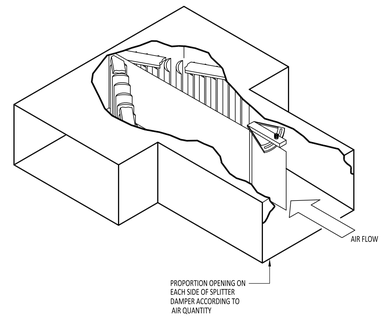
1 FLEXIBLE CONNECTION DETAILS
SCALE: N.T.S.



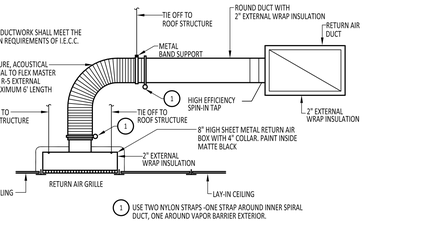
2 ROUND DUCT STRAP BRACKET
SCALE: N.T.S.



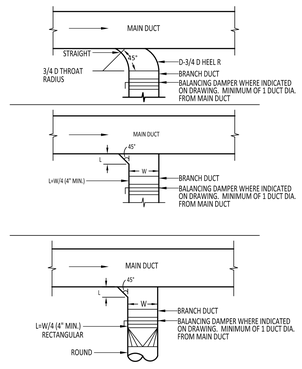
3 DUCT PENETRATION THRU WALL
SCALE: N.T.S.



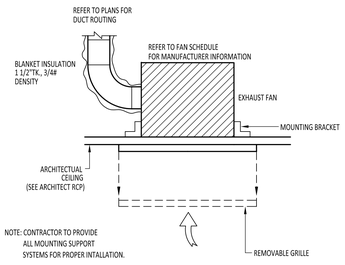
4 TYPICAL SPLITTER DAMPER
SCALE: N.T.S.



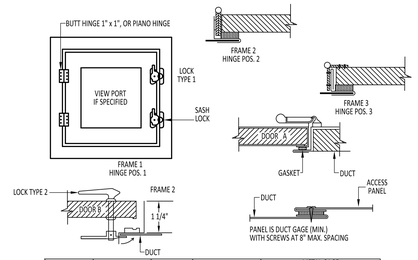
5 RADIUS DUCT ELBOW DETAIL
SCALE: N.T.S.



6 TYPICAL BRANCH CONNECTION
SCALE: N.T.S.



7 CEILING MOUNTED EXHAUST FAN
SCALE: N.T.S.

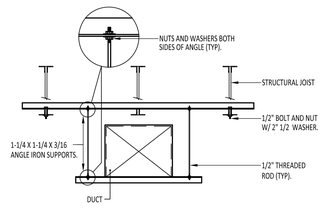


	DOOR SIZE	NO. HINGES	NO. LOCKS	METAL GAGE FRAME	METAL GAGE DOOR	METAL GAGE BACK
2" W.G. STATIC AND LESS	12" x 12"	2	1-S	24	26	26
	16" x 20"	2	2-S	22	24	26
	24" x 24"	3	2-S	22	22	26
3" W.G. STATIC	12" x 12"	2	1-S	22	22	26
	16" x 20"	2	1-S,1-T,1-B	20	20	26
	24" x 24"	3	2-S,1-T,1-B	20	20	24
4" W.G. TO 10" W.G.	12" x 12"	2	1-S,1-T,1-B	20	20	26
	16" x 20"	3	2-S,1-T,1-B	18	18	24
	24" x 24"	3	2-S,2-T,2-B	18	18	24

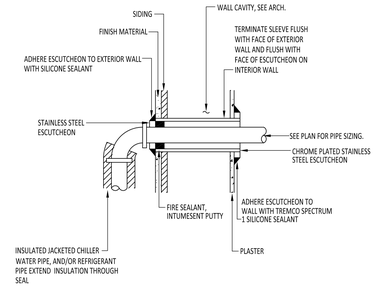
S = SIDE OPPOSITE HINGES, T = TOP, B = BOTTOM

8 DUCT ACCESS DOOR DETAIL
SCALE: N.T.S.

9 EXHAUST AIR GRILLE BOX CONNECTION
SCALE: N.T.S.



10 DUCT HANGER DETAIL
SCALE: N.T.S.



11 TYPICAL EXTERIOR WALL PENETRATION
SCALE: N.T.S.

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MECHANICAL DETAILS

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M-200

MECHANICAL GENERAL LEGEND DUCTWORK SYMBOLS

DESCRIPTION	SINGLE LINE	DOUBLE LINE
ACCESS DOOR	AD	AD
BACKDRAFT DAMPER	BDD	BDD
FIRE DAMPER	(F)	(F)
FLEXIBLE CONNECTION	FC	FC
MOTORIZED DAMPER	M	M
CONTROL DAMPER	CDM	CDM
VOLUME DAMPER, MANUAL	VD	VD
DUCT ELBOW WITH TURNING VANES		
DUCT SECTION - SUPPLY AIR		
DUCT SECTION - EXHAUST AIR		
DUCT SECTION - RETURN, OUTSIDE, OR RELIEF AIR		
DUCT, INCLINED DROP		
DUCT, INCLINED RISE		
FLEXIBLE DUCT - ROUND	8"Ø	
DUCT TRANSITION	14/10 → 10/10	14/10 → 10/10
DUCT TRANSITION (SQUARE OR RECTANGULAR TO ROUND)	10/10 → 8"Ø	12/12 → 8 8"Ø
RECTANGULAR DUCT, SIZE IN INCHES, FIRST DIMENSION IS SIDE SHOWN (NET CLEAR INSIDE DIMENSION)	10/14	10/14

DESCRIPTION	SINGLE LINE	DOUBLE LINE
ROUND DUCT, DIAMETER IN INCHES (NET CLEAR INSIDE DIMENSION)	8"Ø	8"Ø
AIR FLOW IN DIRECTION OF ARROW		
45ºBRANCH TAKE-OFFS		
CONICAL LATERAL BRANCH TAKE-OFFS		
CEILING SUPPLY DIFFUSERS		
DIRECTION SUPPLY GRILLE, HATCH INDICATES BLOCKED QUADRANT		
CEILING RETURN GRILLE/REGISTER		
CEILING EXHAUST FAN (EF-_)		EF-_
CEILING EXHAUST GRILLE/REGISTER		
SIDEWALL SUPPLY GRILLE/REGISTER		
SIDEWALL RETURN/EXHAUST GRILLE/REGISTER		
EXTRACTOR		
DUCT TEE WITH SPLITTER DAMPER		
DOOR UNDERCUT	UC	UC
DOOR LOUVER	L	L

MISCELLANEOUS SYMBOLS

(P)	DUCT STATIC PRESSURE SENSOR
SD	DUCT SMOKE DETECTOR
CO_2	CARBON DIOXIDE SENSOR
	NEW CONNECTION TO EXISTING
H	HUMIDISTAT
RH	RELATIVE HUMIDITY SENSOR
T	THERMOSTAT OR TEMPERATURE SENSOR (MOUNT 48" AFF)
T	DUCT TEMPERATURE SENSOR
TC	TIME CLOCK
F	FREEZESTAT

DIFFUSER, GRILLE OR REGISTER MARK

A - 200 / 12 X 8 — AIR FLOW (CFM) / RECTANGULAR FACE SIZE (WHERE APPLICABLE)

01 / M2.01 — DIRECTION OF SECTION; IDENTIFYING NUMBER OR LETTER FOR SECTIONS; NUMBER OF REFERENCE DRAWING WHERE SECTION IS SHOWN.

01 / M2.01 — IDENTIFYING NUMBER OR LETTER FOR DETAILS; NUMBER OF REFERENCE DRAWING WHERE DETAIL IS SHOWN.

ENLARGED DETAIL REFERENCE

MATCHLINE

LINE WITH HATCHING DESIGNATES DEMOLITION WORK

BIG ASS FAN SCHEDULE

TAG	MANUFACTURER	MODEL	AIRFOILS	DIAMETER	WEIGHT	SOUND LEVEL MAX	MOTOR	RPM	CONTROL	VOLT/PH	FLA	PHASE
BAF-1	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-2	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-3	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-4	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-5	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-6	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-7	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-8	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-9	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-10	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-11	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-12	BIGASS FANS	BASIC 6	6	14'	192 lb	55 dBA	1.5 hp	110	DIGITAL KEYPAD	208/3	5.0	BASE
BAF-13	BIGASS FANS	BASIC 6	6	18'	210Lb	55 dBA	2.0 hp	86	DIGITAL KEYPAD	208/3	8.1	ALTERNATE #1

NOTES:
1. SUPPLY WITH POWERFOIL AIRFOILS AND WINGLETS.
2. SUPPLY WITH WALL MOUNTED KEY PAD FULLY INTEGRATED WITH THE ONBOARD NEMA 4X VFD.
3. VERIFY EXTENISON TUBE LENGTH AND MOUNTING BRACKET WITH MANUFACTURER PRIOR TO ORDERING. FANS WILL HAVE VARYING EXTENSION TUBE LENGTHS.
4. EXTENSION TUBES 4' OR LONGER SHALL BE INSTALLED WITH GUY WIRES PER THE MANUFATCURER'S INSTALLATION REQUIREMENTS.
5. 14' DIAMETER FANS REQUIRE 5' FAN TO CEILING CLEARANCE,
6. 18' DIAMETER FAN REQUIRE 6' FAN TO CEILING CLEARANCE,
7. THERE SHALL BE AT LEAST A 2' HALO AROUND THE FAN FROM ALL OBSTRUCTIONS.
8. FANS SHALL BE INSTALLED AT LEAST 10' AFF.
9. FANS SHALL BE AT LEAST 2-1/2 TIMES THE DIAMETER OF THE LARGEST FAN AWAY FROM NEIGHBORING FANS.
10. FANS SHALL NOT BE MOUNTED WITHIN TWO TIMES THE FAN DIAMETER OF EXHAUST OR RETURN AIR INTAKES.
11. FANS SHALL NOT BE IN DIRECT LINE OF DISCHARGE OF HVAC EQUIPMENT.
12. INSTALL PER MANUFACTURE INSTALLATION AND CLEARANCE GUIDELINES.
13. CONTACT BIG ASS FANS AT 877-244-3267 FOR PRICING INFORMATION AND FACTORY INSTALLATION SCOPE OF WORK.

EXHAUST FAN SCHEDULE

MARK	CFM	SERVICE	LOCATION	TYPE	RPM	ESP	HP	DRIVE	VOLTAGE	SONES	CONTROL	MANUF.	MODEL	NOTES
EF-1	350	BOYS RESTROOM	ATTIC	INLINE	1549	0.4	1/6	DIRECT	115/1	8	LIGHTS	LOREN COOK	90SQN12D	ALL
EF-2	350	GIRLS RESTROOM	ATTIC	INLINE	1549	0.4	1/6	DIRECT	115/1	8	LIGHTS	LOREN COOK	90SQN12D	ALL
EF-3	100	CUST.	CEILING	INLINE	1656	0.4	1/20	DIRECT	115/1	5	LIGHTS	LOREN COOK	70SQN15D	ALL
EF-4	1100	STORAGE 105	ATTIC	INLINE	1091	0.4	1/6	DIRECT	115/1	7	LIGHTS	LOREN COOK	135SQN10D	ALL
EF-5	1050	STORAGE 109	ATTIC	INLINE	1064	0.4	1/6	DIRECT	115/1	7	LIGHTS	LOREN COOK	135SQN10D	ALL
EF-6	1050	STORAGE 112	ATTIC	INLINE	1064	0.4	1/6	DIRECT	115/1	7	LIGHTS	LOREN COOK	135SQN10D	ALL
EF-7	650	WASH 110	ATTIC	INLINE	1513	0.4	1/6	DIRECT	115/1	7	LIGHTS	LOREN COOK	100SQN15D	ALL
EF-8	450	WASH 111	ATTIC	INLINE	1693	0.4	1/6	DIRECT	115/1	10	LIGHTS	LOREN COOK	90SQN15D	ALL

NOTES:
1. INTEGRAL DISCONNECT SWITCH, PRE-WIRED AT FACTORY.
2. BACK DRAFT DAMPER.
3. FAN SPEED CONTROL, PRE-WIRED AT FACTORY.
4. SPRING HANGER VIBRATION ISOLATION DEVICES.
5. FLEX DUCT CONNECTIONS.

GRILLE/DIFFUSER/REGISTER SCHEDULE

MARK	SERVICE	DESCRIPTION	MANUFACTURER MODEL NO.	MAX. NC. LEVEL (1)	REMARKS
		24"X24" EGGCRATE FACE, CEILING RETURN GRILLE, SURFACE MOUNTED,	TITUS		WHITE
I	RETURN	ALUMINUM CONSTRUCTION.	50F	30	FINISH

(F) =THIS WILL DESIFNATE A STEEL FIRE RATED AIR DEVICE TYPE.

AIR OUTLET DESIGNATION ON PLANS

CBA = COLOR BY ARCHITECT

* = SEE ARCHITECTURAL DRAWINGS PROPER BORDER TYPES

MARK → A| 250 / 12"ø / 6 TYP. — AIR FLOW (CFM / NECK SIZE / RECTANGULAR FACE SIZE / NOTES / QUANTITY / NOTES (WHERE APPLICABLE)

NOTE: COORDINATE ALL AIR DEVICE TYPE WITH ARCHITECTURAL RCP.

LOUVER SCHEDULE

MARK	SERVES	CFM	WIDTH (IN)	HEIGHT (IN)	VELOCITY FPM	FREE AREA (FT2)	P.D. (IN w.g.)	MAKER	MODEL	NOTES
L-1	EF-1	350	16	16	644	0.54	0.04	RUSKIN	EME3625	ALL
L-2	EF-2	350	16	16	644	0.54	0.04	RUSKIN	EME3625	ALL
L-3	EF-3	100	16	16	184	0.54	0.00	RUSKIN	EME3625	ALL
L-4	EF-4	1100	24	24	732	1.5	0.05	RUSKIN	EME3625	ALL
L-5	EF-5	1050	24	24	699	1.5	0.05	RUSKIN	EME3625	ALL
L-6	EF-6	1050	24	24	699	1.5	0.05	RUSKIN	EME3625	ALL
L-7	EF-7	650	24	24	433	1.5	0.02	RUSKIN	EME3625	ALL
L-8	EF-8	450	24	24	300	1.5	0.01	RUSKIN	EME3625	ALL

NOTES:
1. FINISH SHALL BE KYNAR FINISH. PAINT COLOR BY ARCHITECT. COORDINATE FINAL ELEVATION LOCATION WITH ARCHITECT.
2. LOUVER SHALL PROVIDE MINIMUM 99% EFFECTIVENESS IN PREVENTING WATER PENETRATIONIN WIND DRIVEN RAIN TEST (29 mph, 3 in/hr).

HIGH EFF. WALL MOUNT SPLIT SYSTEM SCHEDULE

INDOOR UNIT	MARK	FCU-1
	NOMINAL TONS	1.25-TON
	INDOOR UNIT TYPE	WALL
	MAX SUPPLY CFM	568
	MINIMUM O/A (CFM)	N/A
	ENTERING AIR (DB/WB)	80/67
	TOTAL COOLING CAP. (BTUH)	15000
	SENSIBLE COOLING CAP. (BTUH)	13420
	HEATING CAPACITY (BTUH)	18000
	VOLTAGE/PHASE	208-230/1
	MCA	N/A
	MAX. FUSE SIZE	N/A
	MANUFACTURER	DAIKIN
	MODEL NO.	FTXS15LVJU
	WEIGHT (LBS)	31
CONDENSING UNIT	MARK	FCCU-1
	NOMINAL TONS	1.25-TON
	VOLTAGE/PHASE	208-230/1
	MCA	13.7
	MAX. FUSE SIZE (AMPS)	20
	AMB. AIR TEMP. (CLG°F/HTG°F)	95/47
	REFRIGERANT	R-410A
	COOLING AMBIENT RANGE (STD)	14°F - 115°F
	HEATING MODE OPER. RANGE	5°F - 64°F
	MANUFACTURER	DAIKIN
	MODEL NO.	RXS15LVJU
	WEIGHT (LBS)	104
	SEER	20.6
	HTG EFF. (HSPF)	11.6
	MAX EQUIV. LINE LENGTH (FT)	98
	MAX. VERTICAL RISE (FT)	65

NOTES:
1 ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.
2 PROVIDE INDOOR UNITS WITH MOUNTING BRACKETS IF REQUIRED.
3 PROVIDE CONDENSER COIL CORROSION PROTECTION.
4 CONTRACTOR TO PROVIDE 4" CONCRETE PAD FOR MOUNTING CONDENSING UNIT.
5 BOTH LIQUID AND SUCTION LINES MUST BE INSULATED (1/2" FLEXIBLE ELASTOMERIC IS ACCEPTABLE U.N.O. IN SPECS).
6 SIGHT GLASSES, FILTER DRYERS, AND FIELD SUPPLIED EXPANSION VALVES ARE NOT TO BE USED.
7 PROVIDE INVERTER DRIVEN COMPRESSOR FOR IMPROVED HUMIDITY CONTROL.
8 INSTALL PER MANUFACTURERS INSTRUCTIONS AND PIPING RECOMMENDATIONS.
9 PROVIDE WALL MOUNTED AND WIRED 7-DAY PROGRAMMABLE T-STAT IN LIEU OF WIRELESS REMOTE.
10 5 YEAR PARTS & 10 YEAR COMPRESSOR PARTS WARRANTY
11 PROVIDE CONDENSATE PUMP FACTORY MOUNTED OR FIELD WIRED TO INDOOR UNIT (SINGLE POINT POWER).
12 PROVIDE WIND BAFFLES FOR COOLING OPERATION TO 0F

HIGH WALL-COOL ONLY-MINI SPLIT

INDOOR UNIT	MARK	FCU-2
	INDOOR UNIT MARK	1-TON
	INDOOR UNIT TYPE	WALL
	MAX SUPPLY CFM	328
	MIN SUPPLY CFM	184
	ENTERING AIR (DB/WB)	80/67
	TOTAL COOLING CAP. (BTUH)	12000
	SENSIBLE COOLING CAP. (BTUH)	8240
	VOLTAGE/PHASE	208-230/1
	MCA	N/A
	MAX. FUSE SIZE	N/A
	MANUFACTURER	DAIKIN
	MODEL NO.	FTXN12KEVJU
	WEIGHT (LBS)	16
	MARK	FCCU-2
CONDENSING UNIT	CONDENSING UNIT MARK	1-TON
	VOLTAGE/PHASE	208-230/1
	MCA	7
	MAX. FUSE SIZE (AMPS)	15
	AMB. AIR TEMP.	95
	REFRIGERANT	R-410A
	AMBIENT RANGE (STD)	14°F - 115°F
	AMBIENT RANGE (W/ Baffles)	0°F - 115°F
	MANUFACTURER	DAIKIN
	MODEL NO.	RKN12KEVJU
	WEIGHT (LBS)	66
	SEER	18
	MAX EQUIV. LINE LENGTH (FT)	65.6
	MAX. VERTICAL RISE (FT)	49.2
	NOTES	ALL

NOTES:
1 ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT AND WIRE TO INDOOR UNIT.
2 PROVIDE INDOOR UNITS WITH MOUNTING BRACKETS IF REQUIRED.
3 PROVIDE CONDENSER COIL CORROSION PROTECTION.
4 CONTRACTOR TO PROVIDE 4" CONCRETE PAD FOR MOUNTING CONDENSING UNIT.
5 BOTH LIQUID AND SUCTION LINES MUST BE INSULATED (1/2" FLEXIBLE ELASTOMERIC IS ACCEPTABLE U.N.O. IN SPECS).
6 SIGHT GLASSES, FILTER DRYERS, AND FIELD SUPPLIED EXPANSION VALVES ARE NOT TO BE USED.
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STATE OF TEXAS — GABRIEL HINOJOSA — 96585 — LICENSED PROFESSIONAL ENGINEER — 07-06-2018

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PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

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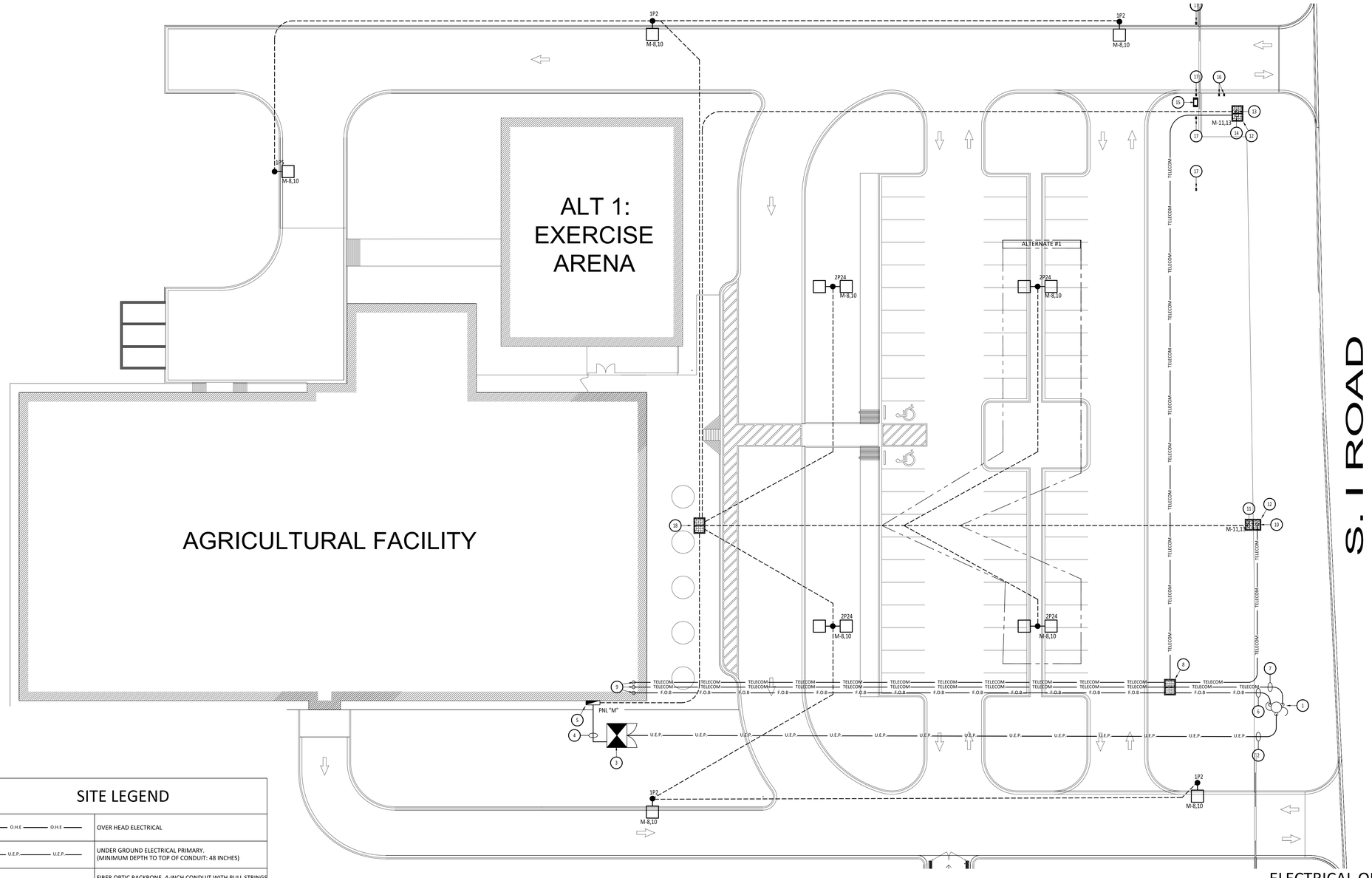
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MECHANICAL SCHEDULES

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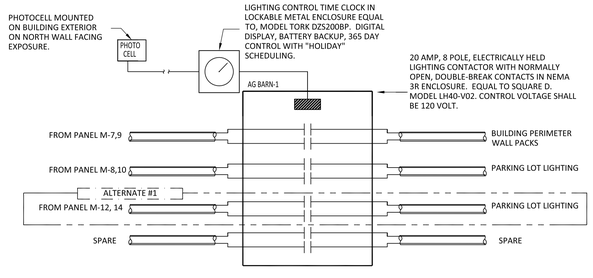
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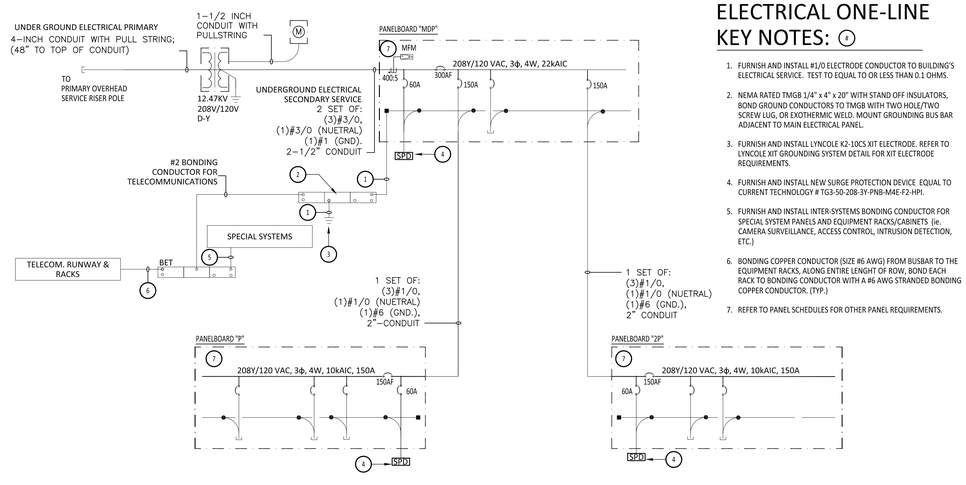
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SITE LEGEND

O.H.E	OVER HEAD ELECTRICAL
U.E.P.	UNDER GROUND ELECTRICAL PRIMARY. (MINIMUM DEPTH TO TOP OF CONDUIT: 48 INCHES)
F.O.B	FIBER OPTIC BACKBONE. 4-INCH CONDUIT WITH PULL STRINGS. (MINIMUM DEPTH TO TOP OF CONDUIT: 48 INCHES)
U.E.EM	UNDER GROUND ELECTRICAL EMERGENCY
TELECOM	TELECOMMUNICATIONS. CONDUIT WITH PULL STRINGS. SIZE TO BE SPECIFIED BY KEYNOTES
U.E.S.	UNDERGROUND ELECTRICAL SECONDARY SERVICE. (MINIMUM DEPTH TO TOP OF CONDUIT: 36")
	SITE: POWER OR LIGHTING BRANCH CIRCUIT (MINIMUM DEPTH TO TOP OF CONDUIT: 36")
	ELECTRICAL RISER POLE
	UTILITY POWER PAD MOUNTED TRANSFORMER
	TELECOMMUNICATION/ELECTRICAL PULLBOX
	SITE LIGHTING LIGHT FIXTURES





ELECTRICAL ONE-LINE KEY NOTES: (4)

1. FURNISH AND INSTALL #1/0 ELECTRODE CONDUCTOR TO BUILDING'S ELECTRICAL SERVICE. TEST TO EQUAL TO OR LESS THAN 0.1 OHMS.
2. NEMA RATED TMGB 1/4" x 4" x 20" WITH STAND OFF INSULATORS, BOND GROUND CONDUCTORS TO TMGB WITH TWO HOLE/TWO SCREW LUG, OR EXOTHERMIC WELD. MOUNT GROUNDING BUS BAR ADJACENT TO MAIN ELECTRICAL PANEL.
3. FURNISH AND INSTALL LYNCOLE K2-10CS XIT ELECTRODE. REFER TO LYNCOLE XIT GROUNDING SYSTEM DETAIL FOR XIT ELECTRODE REQUIREMENTS.
4. FURNISH AND INSTALL NEW SURGE PROTECTION DEVICE EQUAL TO CURRENT TECHNOLOGY # TG3-50-208-3Y-PNB-M4E-F2-HPI.
5. FURNISH AND INSTALL INTER-SYSTEMS BONDING CONDUCTOR FOR SPECIAL SYSTEM PANELS AND EQUIPMENT RACKS/CABINETS (ie. CAMERA SURVEILLANCE, ACCESS CONTROL, INTRUSION DETECTION, ETC.)
6. BONDING COPPER CONDUCTOR (SIZE #6 AWG) FROM BUSBAR TO THE EQUIPMENT RACKS, ALONG ENTIRE LENGHT OF ROW, BOND EACH RACK TO BONDING CONDUCTOR WITH A #6 AWG STRANDED BONDING COPPER CONDUCTOR. (TYP.)
7. REFER TO PANEL SCHEDULES FOR OTHER PANEL REQUIREMENTS.

GENERAL NOTES:

1. REFER TO SHEET MEP-1.0 FOR GENERAL NOTES.

SITE PLAN KEY NOTES: (4)

1. APPROXIMATE LOCATION OF PROPOSED ELECTRICAL RISER POLE.
2. PRIMARY ELECTRICAL SERVICE. REFER TO ONE-LINE DIAGRAM FOR REQUIREMENTS. DEPTH TO TOP OF CONDUITS SHALL BE 48-INCHES.
3. PRIMARY ELECTRICAL SERVICE. REFER TO ONE-LINE DIAGRAM FOR REQUIREMENTS. DEPTH TO TOP OF CONDUITS SHALL BE 36-INCHE3
4. APPROXIMATE LOCATION OF NEW PAD MOUNTED UTILITY TRANSFORMER.
5. APPROXIMATE LOCATION OF NEW DISTRIBUTION PANEL "M".
6. FURNISH AND INSTALL 4-INCH CONDUIT WITH PULL STRINGS FOR FIBER OPTIC CABLING.DEPTH TO TOP OF CONDUITS SHALL BE 48-INCHES.
7. FURNISH AND INSTALL 4-INCH CONDUIT WITH PULL STRINGS FOR TELECOMMUNICATION'S CABLING.DEPTH TO TOP OF CONDUITS SHALL BE 48-INCHES.
8. NEW TELECOMMUNICATIONS PULL BOX. REFER TO DETAILS FOR REQUIREMENTS. FURNISH PULL BOX WITH COVER TO READ "TELECOMMUNICATION'S PULLBOX".
9. APPROXIMATE LOCATION OF FIBER AND TELECOMMUNICATION CABLING STUB UP. REFER TO DETAILS FOR REQUIREMENTS.
10. FURNISH AND INSTALL QTY.(1) 2" CONDUIT FOR FUTURE MARQUEE COMMUNICATION CABLING.
11. FURNISH AND INSTALL BRANCH CIRCUIT FOR POWER TO FUTURE MARQUEE SIGN CONSISTING OF 3#8, 1#10EGC, 2-INCH CONDUIT.
12. FURNISH AND INSTALL TELECOM/ELECTRICAL PULLBOX. FURNISH WITH BOX DIVIDER TO SEPARATE THE TELECOM AND ELECTRICAL CABLING SYSTEM.
13. FURNISH AND INSTALL QTY.(1) 2" CONDUIT FOR FUTURE GATE CONTROL COMMUNICATION CABLING.
14. FURNISH AND INSTALL BRANCH CIRCUIT FOR POWER TO GATE MOTOR CONSISTING OF 3#8, 1#10EGC, 2-INCH CONDUIT.
15. APPROXIMATE LOCATION FOR GATE OPERATOR. REFER TO SHEET E-203 FOR GATE OPERATOR AND CONTROL REQUIREMENTS .
16. APPROXIMATE LOCATION FOR ACCESS CONTROL PEDESTAL MOUNTED KEYPADS. REFER TO SHEET E-203 FOR CONTROL REQUIREMENTS .
17. APPROXIMATE LOCATION OF PHOTO EYE EMITTER AND REFLECTOR.
18. FURNISH AND INSTALL PULLBOX FOR POWER BRANCH CIRCUITS AND SITE LIGHTING. REFER TO DETAILS FOR REQUIREMENTS.

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PHARR, TEXAS

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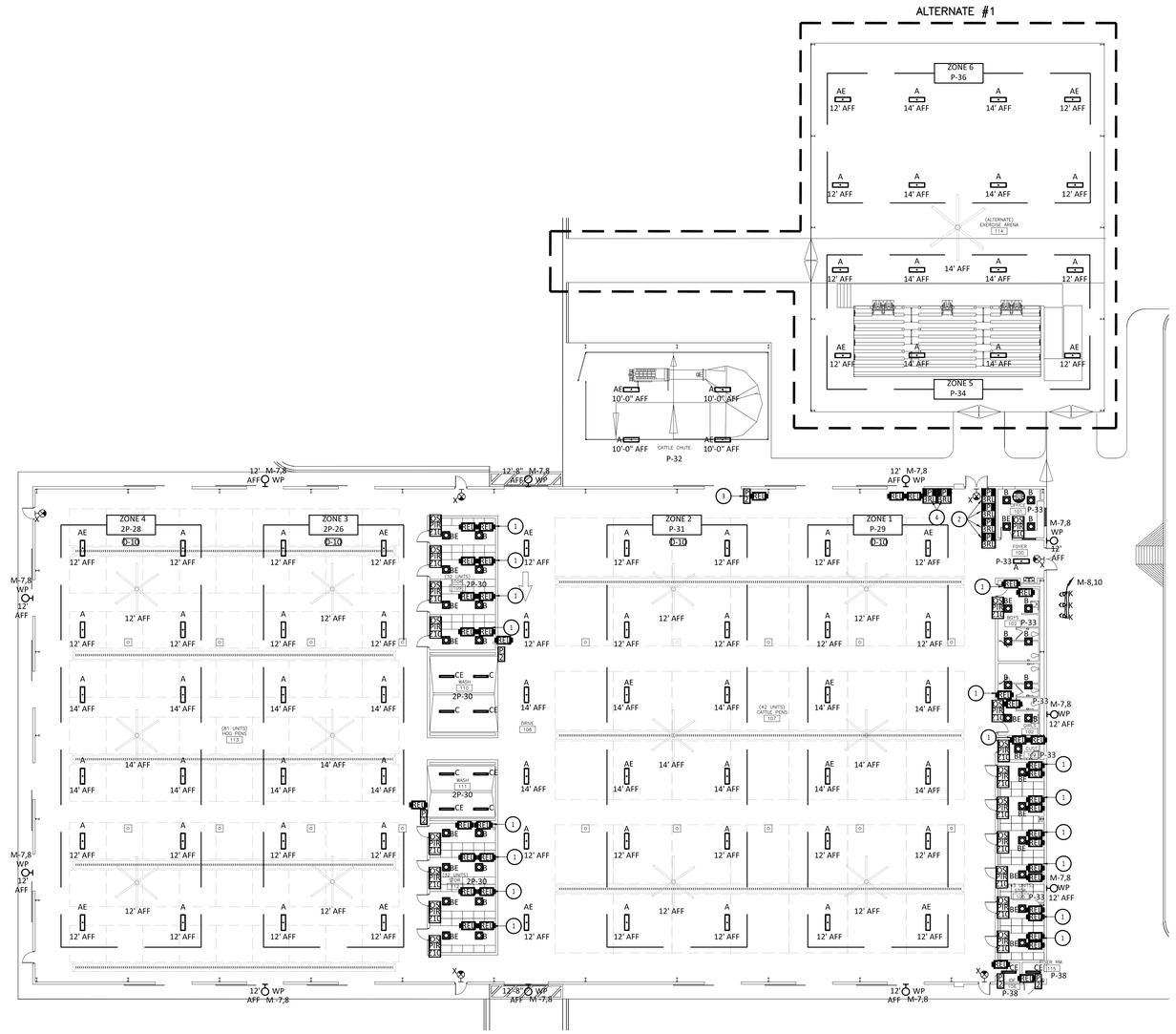
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ELECTRICAL SITE PLAN

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1 ELECTRICAL SITE PLAN, ONE-LINE, GENERAL LEGEND AND LIGHTING CONTROLS
SCALE: 1" = 20'-0"

N

ES-100



GENERAL NOTES:

1. REFER TO SHEET MEP-1.0 FOR GENERAL NOTES.

KEY NOTES: (1)

1. POWER PACKS TO BE USED TO CONTROL RESTROOMS EXHAUST FAN. FAN SHALL REMAIN ON 5 MINUTES.
2. FURNISH AND INSTALL LIGHTING CONTROL SWITCH TO CONTROL LIGHTING ZONES 1,2,3,4.
3. CONTROL SWITCH AND POWER PACK TO BE USED FOR CONTROL OF LIGHTING AT THE CATTLE CHUTE.
4. CONTROL SWITCH AND POWER PACK TO BE USED FOR CONTROL OF LIGHTING AT THE LIGHTING ZONES 5,6 AT EXERCISE ARENA (ALTERNATE #1).

LIGHTING CONTROLS LEGEND

P 2	PJ2-2B-GWH-L01 (CW-1-WH-PICOWBX-ADAPT)
P 3RL	PJ2-3BRL-GWH-L01 (CW-1-WH-PICOWBX-ADAPT
REL	RMJS-16R-DV-B
0-10	RMJS-8T-DV-B
OS PIR 2H	MS-OPS6M2-DV-WH
HUB	HJS-1-FM

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1 ELECTRICAL LIGHTING PLAN
SCALE: 1/16" = 1'-0"

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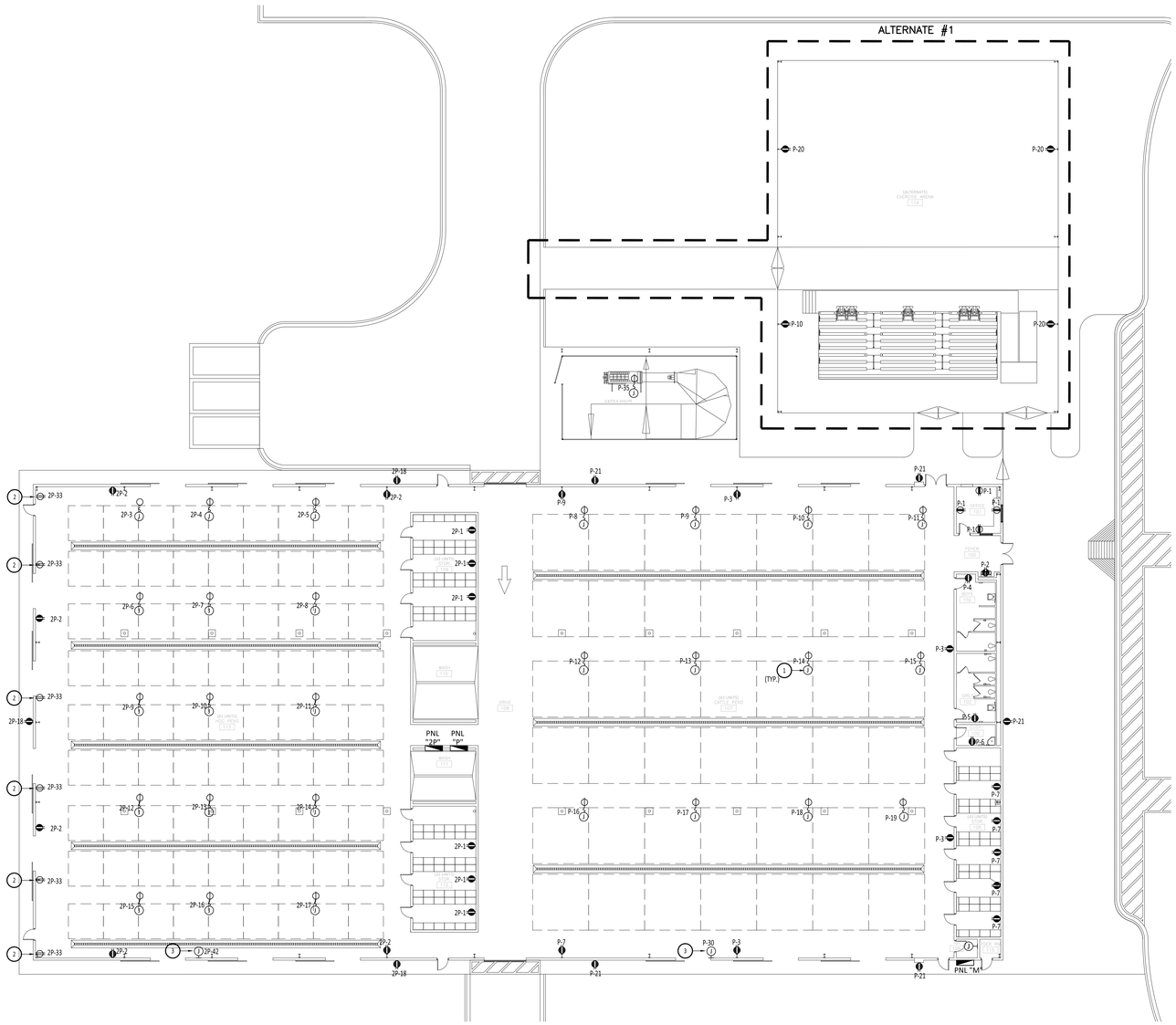
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ELECTRICAL LIGHTING PLAN

E-100



1 ELECTRICAL POWER AND SPECIAL SYSTEMS PLAN
SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET MEP-100 FOR GENERAL NOTES.

KEY NOTES: (#)

1. FURNISH AND INSTALL CEILING MOUNTED J-BOX FOR POWER TO DROP CORD RECEPTACLES. FURNISH AND INSTALL WITH THE FOLLOWING:
   - 1.A. JACKET OIL RESISTANT SJOOW-12/3 CORD.
   - 1.B. DELUX CORD GRIP, STRAIGHT BODY MALE THREAD, 3/4" NPT THREAD SIZE, .625-.73 " CABLE RANGE EQUAL TO COOPER #DC200625625.
   - 1.C. LOCKING WATER TIGHT, SINGLE RECEPTACLE EQUAL TO COOPER # L520RW. FURNISH WITH CLOSURE CAPS.
2. FURNISH AND INSTALL POWER FOR CAMERA SURVEILLANCE. MOUNT ADJACENT TO PULLBOX. COORDINATE MOUNTING REQUIREMENTS WITH OWNER PRIOR TO INSTALLATION.
3. FURNISH AND INSTALL POWER FOR SOLID INTERCEPTOR MONITORING PANEL. ROUTE CONTROL AND POWER TO SOLID INTERCEPTOR CONSISTING OF 2#12,1#12EGC, 1/2" CONDUIT FOR POWER AND 1#18/2 UNSHIELDED COMMUNICATION CABLING IN 1/2" CONDUIT. REFER PLUMBING SHEET P-100 FOR SOLID INTERCEPTOR LOCATIONS.

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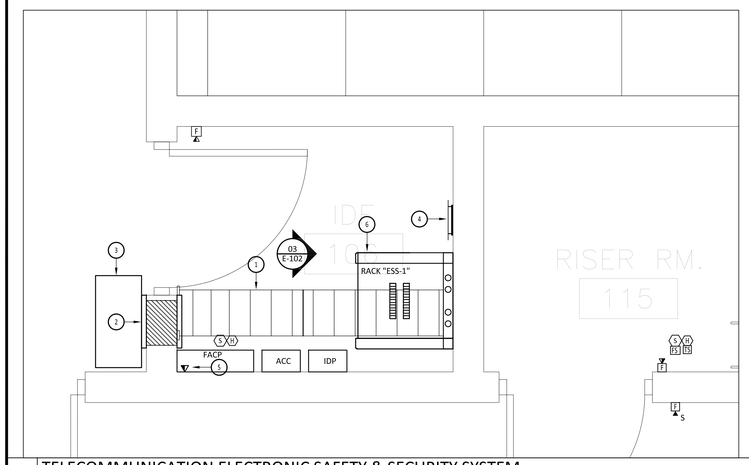
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E-101

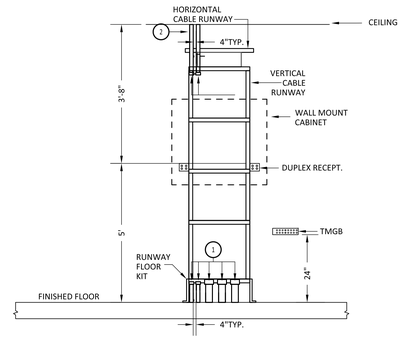


KEY NOTES:

1. FURNISH AND INSTALL 12" UNIVERSAL CABLE RUNWAY WITH THE FOLLOWING PRODUCTS:
   A. 12" W 9'-11.5"L UNIVERSAL CABLE RUNWAYS
   B. 12" CABLE RUNWAY E-BENDS
   C. THREADED CEILING KITS.
   D. 12" OUTSIDE RADIUS BEND
   E. 11" CROSS MEMBER RADIUS DROP (FURNISH AT EVERY DROP FROM THE CABLE RUNWAY TO THE RACKS AND CABINETS).
   F. BUTT-SPLICE KITS
   G. FLOOR KIT
   H. WALL TRIANGLE SUPPORT BRACKETS.
   I. CABLE MANAGEMENT RINGS
2. QTY (1) EZDG444 + FIRE STOP-EASY PATH COMPLETE KIT MODULE. SECURE WALL PLATES TO DEVICES PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.
3. CONTRACTOR SHALL FURNISH AND INSTALL 24"LX12"DX12W" NEMA 4 JUNCTION BOX, ACCESSIBLE FROM BELOW, WITH HINGED COVER.
4. APPROXIMATE LOCATION OF TELECOMMUNICATIONS MAIN GROUNDING BUS BAR. REFER TO DETAILS FOR REQUIREMENTS.
5. FURNISH AND INSTALL QTY.(2) TELEPHONE OUTLETS FOR FIRE ALARM.
6. FURNISH AND INSTALL WALL MOUNTED HINGED CABINET PERFORATED DOOR EQUAL TO PANDUIT #PZWMC12P WITH THE FOLLOWING:
   J. PANZONE HORIZONTAL SLACK MANAGER #PZCHSM2
   K. 12 FOOT COPPER VERTICAL GROUNDING BAR.
   L. GROUNDING AND BONDING KIT.

2 TELECOMMUNICATION ELECTRONIC SAFETY & SECURITY SYSTEM

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



KEY NOTES:

1. FURNISH AND INSTALL TELECOMMUNICATION CONDUITS WITH FIRE RATED PUDDING AND AT 12" ABOVE GRADE WITH THE FOLLOWING FINISHES::
   A. FIBER BACK BONE: YELLOW
   B. COPPER CABLING: BLUE
   C. COMMUNICATION CABLING FOR MARQUEE AND GATE CONTROLLER: GREEN
   D. SURVEILLANCE CAMERAS: CYAN
2. FURNISH AND INSTALL QTY. (2) 1-INCH CONDUITS FROM IDF TO OFFICE ACCESSIBLE ABOVE CEILING.

3 TELECOMMUNICATION ELECTRONIC SAFETY & SECURITY SYSTEM

SCALE: N.T.S

GENERAL NOTES:

1. REFER TO SHEET MEP-100 FOR GENERAL NOTES.

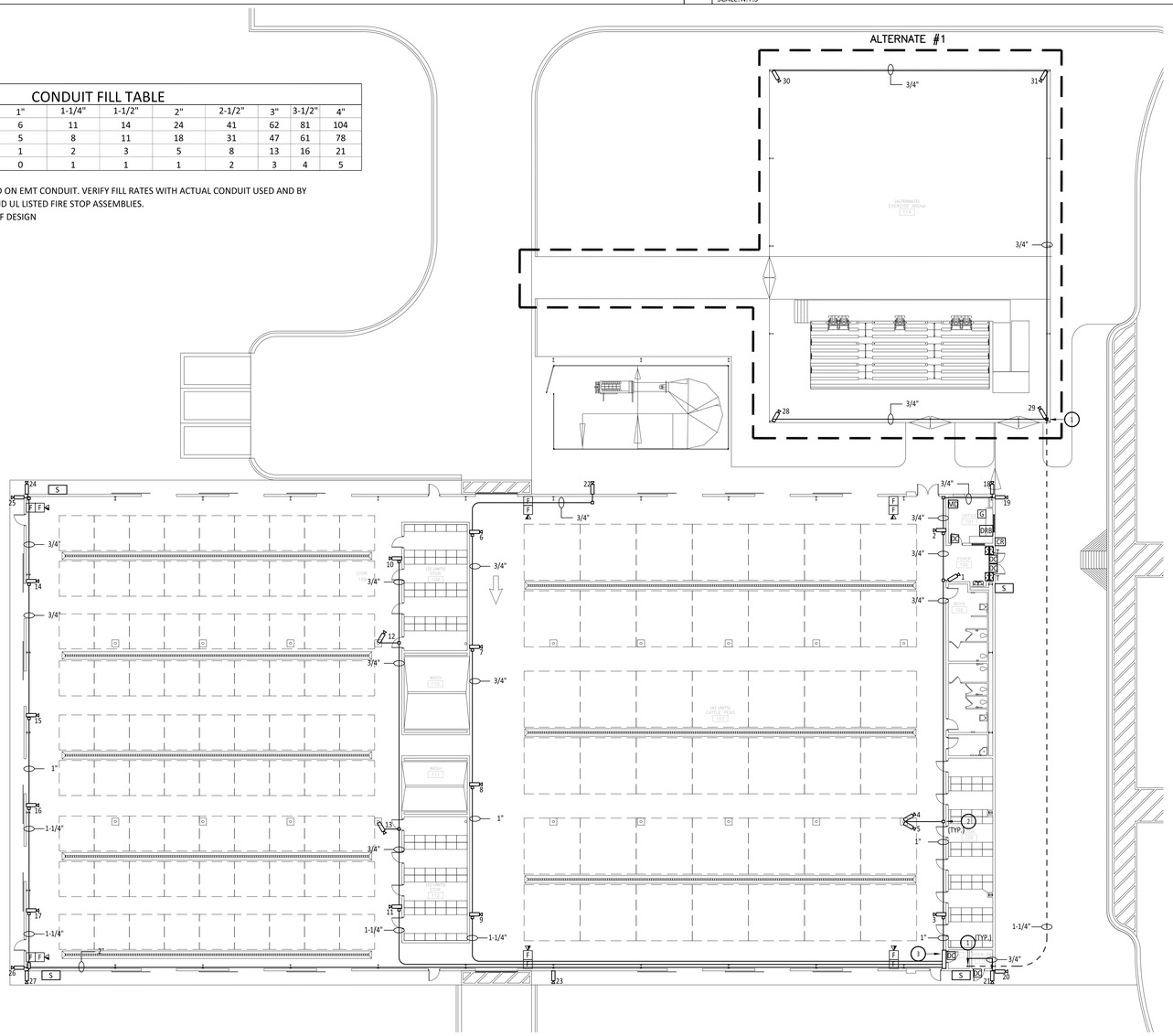
KEY NOTES:

1. APPROXIMATE LOCATION OF CAMERA SURVEILLANCE CONDUIT STUB UP.
2. FURNISH AND INSTALL 12"X12"X12" NEMA 4, JUNCTION BOX, ACCESSIBLE FROM BELOW WITH HINGED COVER AT EACH SURVEILLANCE.
3. CAMER.CAMERA SURVEILLANCE JUNCTION BOX. REFER TO DETAIL 02, THIS SHEET FOR REQUIREMENTS.

CONDUIT FILL TABLE

TRADE SIZE	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"
0.225 " OD CABLES***	4	6	11	14	24	41	62	81	104
0.26 " OD CABLES	3	5	8	11	18	31	47	61	78
0.5" OD CABLES	0	1	2	3	5	8	13	16	21
1" OD CABLES	0	0	1	1	1	2	3	4	5

NOTES:
CONDUIT FILL CALCULATIONS ARE BASED ON EMT CONDUIT. VERIFY FILL RATES WITH ACTUAL CONDUIT USED AND BY MANUFACTURER CABLE DIMENSIONS AND UL LISTED FIRE STOP ASSEMBLIES.
*** IDENTIFIES CABLE USED FOR BASIS OF DESIGN



SPECIAL SYSTEMS LEGEND

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
CR	SECURITY SYSTEM CARD READER
ET	EXIT DEVICE, (ELECTRIC STRIKE, ELECTROMAGNETIC)
	POWER TRANSFER HINGE
MC	MICROPHONE
PB	PANIC/DURESS BUTTON
KP	INTRUSION DETECTION KEYPAD
MS	MOTION DETECTION SENSOR
DC	DOOR STATUS SWITCH
G	GLASSBREAK SENSOR
ADO	AUTOMATIC DOOR OPERATOR
	CLOCKS - SINGLE OR DOUBLE FACE, IP BASED, DIGITAL CLOCKS
IDP	INTRUSION DETECTION PANEL
ACC	ACCESS CONTROL PANEL
AV	AUDIO AND VIDEO WALL WIRING DEVICE. FURNISH AND INSTALL LEGRAND EFSB4 WITH QTY.(3) 1-INCH CONDUITS WITH PULL STRINGS FROM BOX TO ACCESSIBLE ABOVE CEILING.
	CEILING MOUNTED PROJECTOR MOUNT HARDWARE, CEILING MOUNTED RECESSED AUDIO AND VIDEO DEVICES, AND CEILING MOUNTED RECESSED RECEPTACLE.
WAP X	WIRELESS ACCESS POINTS; X DENOTES ACCESS POINT ID# (FURNISH CEILING MOUNTED ENCLOSURE EQUAL TO LEGRAND # WAPENCL-24-24-4)
X DENOTES CAMERA # / CX / X DENOTES CAMERA TYPE / CX / X DENOTES CAMERA #	SURVEILLANCE CAMERAS (UNLESS OTHER WISE NOTED, ALL CAMERAS ARE FIXED) PTZ= (PAN-TILT-ZOOM) REFER TO MOUNTING DETAILS FOR MOUNTING HARDWARE REQUIREMENTS; FURNISH AND INSTALL 1-INCH CONDUIT WITH PULL STRINGS FROM CAMERA MOUNTING HARDWARE TO TELECOM/MDF RM. CONDUIT STUB OUT SHALL BE ABOVE TELECOMMUNICATION LADDER RUNWAY
S	INTRUSION DETECTION SIREN
MPFB	AUDIO, VIDEO, DATA, AND POWER FLOOR BOX WIRING DIVICE. FURNISH AND INSTALL EQUAL LEGRAND #EFB45S WIRING DEVICES; FURNISH WITH THE FOLLOWING: A. QTY.(1) MOUNTING BRACKET #EFB10-5GMB WITH QTY.(2) IG DUPLEX RECEPTACLES AND RECEPTACLE DEVICE FACE PLATES.(FURNISH WITH BLANK PLATES #EFB10-B FOR UNUSED SPACES). B. QTY.(1) TELECOM/AUDIO/VIDEO MOUNTING BRACKET # EFB10-23GMB WITH B.1. QTY.(2) COMMUNICATION DEVICES AND FACEPLATES (FURNISH WITH BLANK PLATES #EFB-B FOR UNUSED SPACES). B.2. QTY.(2) DATACOM INSERT FOUR-PORT- TRACKJACKS B.3. QTY.(3) AUDIO/VIDEO WIRING DEVICES. C. BOX COVER TO MATCH FINISH FLOOR TYPE (IE. CARPET, TILE, WOOD, ETC.)
DRB	DOOR RELEASE BUTTON
DH	MAGNETIC DOOR HOLDER, FLOOR MOUNTED OR WALL MOUNTED; HEIGHT AS REQD.
DC	DOOR STATUS SWITCH MOUNTING HEIGHT AS REQD.
ADO	AUTOMATIC DOOR OPERATOR MOUNTING HEIGHT AS REQD.
AP X	WIRELESS ACCESS POINTS; X DENOTES ACCESS POINT #; (FURNISH CEILING MOUNTED ENCLOSURE EQUAL TO LEGRAND # WAPENCL-24-24-4)
ARC	AREA OF RESCUE CALL
	TELEPHONE BOARD
	SPECIAL SYSTEM SUPPORT SYSTEM (J-HOOKS) FURNISH SIZE AS NOTED ON PLANS
#D,#V	DATA OR TELEPHONE OUTLET. WALL MOUNTED, #=NUMBER OF DROPS; D=DATA, V=VOICE
#D,#V,	DATA OR TELEPHONE OUTLET. C=CEILING MOUNTED,F=FLOOR OR POKE THROUGH-BOX MOUNTED, #=NUMBER OF DROPS; D=DATA, V=VOICE
XX	COMMUNICATION FLOOR OUTLET

1 TELECOMMUNICATION ELECTRONIC SAFETY & SECURITY SYSTEM

SCALE: 1/16" = 1'-0"

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Consultants:
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STRUCTURAL: Green, Rubiano & Associates, Inc.
MEP: Sigma HN Engineers, PLLC
LANDSCAPE: LAN Scapes

STATE OF TEXAS
JOSE ANTONIO NICANOR
108783
LICENSED
PROFESSIONAL ENGINEER
09-06-2018

COLLEGE 3 READY.CONNECTED.COMPLETE.

PSJA ISD AGRICULTURAL FACILITY

PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

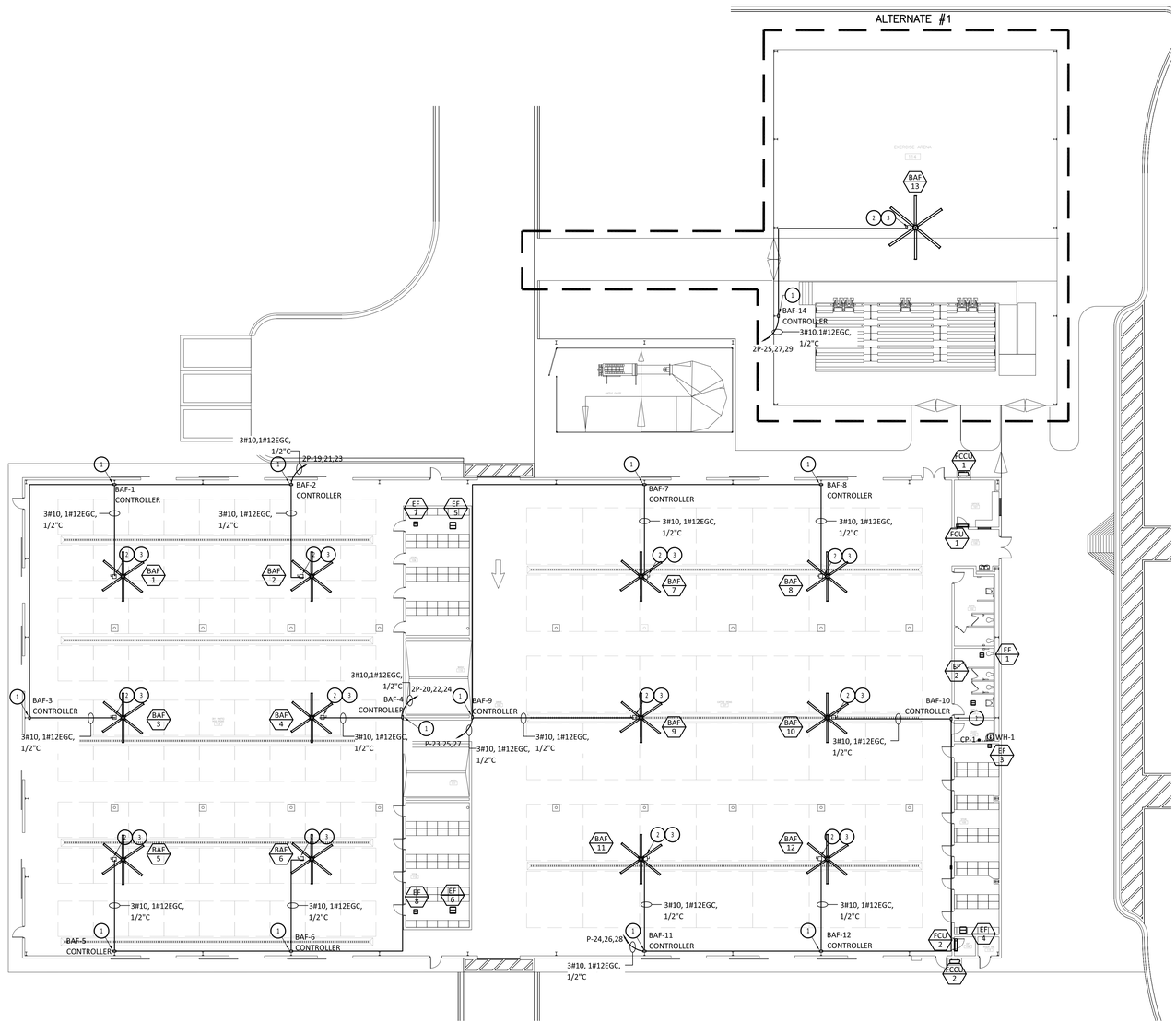
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Scale:
ACAD File:

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3

Sheet Title:
TELECOMMUNICATION ELECTRONIC SAFETY & SECURITY

SIGMA HN ENGINEERS, PLLC
TBPE Firm No. F-14767
701 S. 15th Street
McAllen, Texas 78501

E-102



MECHANICAL EQUIPMENT CONNECTION

BIGASS FANS		
UNIT MARK	BRANCH CIRCUIT	SAFETY DISCONNECT SWITCHES
BAF-1	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-2	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-3	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-4	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-5	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-6	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-7	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-8	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-6	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-9	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-10	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-11	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-12	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
BAF-13 (ALTERNATE #1)	3#10, 1#12G, 3/4"C	30/5AF/3P, NEMA 3R
EXHAUST FANS		
UNIT MARK	BRANCH CIRCUIT	SAFETY DISCONNECT SWITCHES
EF-1	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-2	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-3	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-4	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-5	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-6	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-7	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
EF-8	2#12, 1#12G, 1/2"C	FACTORY PROVIDED
AIR HANDLING UNITS		
FCU-1 & FCCU-1	2#12, 1#12G, 3/4"C	30/15AF/2P, NEMA 3R
FCU-2 & FCCU-2	2#12, 1#12G, 3/4"C	30/15AF/2P, NEMA 3R
CIRCULATING PUMP		
CP-1	2#10, 1#12G, 3/4"C	20/20AF/1P, NEMA 1
WATER HEATER		
WH-1	2#10, 1#12G, 3/4"C	30/25AF/3P, NEMA 1

NOTES:
A. REFER TO MECHANICAL & PLUMBING PLANS FOR LOCATION OF FANS,
B. EXHAUST FANS FOR RESTROOM ARE CONTROLLED WITH LIGHTS.
C. SAFETY DISCONNECT SWITCHES SHALL BE INSTALLED ON WITHIN 4-FEET OF
D. REFER TO PANELS FOR CIRCUIT DESIGNATIONS.

GENERAL NOTES:

1. REFER TO SHEET MEP-1.0 FOR GENERAL NOTES.

KEY NOTES: (4)

1. APPROXIMATE LOCATION OF DIGITAL WALL KEYPAD FOR FAN CONTROLS. CONTRACTOR SHALL INCLUDE IN HIS BID TO OWNER MATERIAL AND LABOR REQUIRED TO INSTALL POWER FOR CONTROLLER.
2. CONTRACTOR SHALL INCLUDE IN HIS BID TO OWNER MATERIAL AND LABOR REQUIRED TO INSTALL 1/2" EMT CONDUIT WITH PULL STRINGS FROM BIGASS FAN VFD TO WALL MOUNTED CONTROLLER.
3. APPROXIMATE LOCATION OF BIGASS FAN VFD. MOUNT SAFETY DISCONNECT 1-FOOT OUTSIDE OF THE BIG ASS FAN BLADES.

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PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

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ELECTRICAL MECHANICAL CONNECTION PLAN

SIGMA HN ENGINEERS, PLLC
TBPE Firm No. F-14767
701 S. 15th Street
McAllen, Texas 78501

1 ELECTRICAL MECHANICAL CONNECTION PLAN
SCALE: 1/16" = 1'-0"

N

E-103

PANELBOARD "M"

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: EXTERIOR
400 A MAIN BREAKER — MOUNTING: SURFACED; NEMA 3R ENCLOSURE
BUSES: MAIN - 400 NEUTRAL - 100% ; EQUIPMENT GROUND — Isc = 22,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
2392	2880	7258	PANEL "P"	150/3	1	A	2	150/3	PANEL "2P"	1640	2160	10690
2328	1800	9178	"	-	3	B	4	-	"	1640	1080	11573
2952	360	8938	"	-	5	C	6	-	"	1672	720	10725
400	0		LTG BLDG. WALL PACKS	20/2	7	A	8	20/2	LTG PARKING LOT	594	0	
400	0		"	-	9	B	10	-	"	594	0	
0	0	1920	GATE MOTOR OPERATOR	20/2	11	C	12	20/2	LTG PARKING LOT (ALTERNATE #1)	0	0	
0	0	1920	"	-	13	A	14	-	"	0	0	
0	0	1920	MARQUEE	20/2	15	B	16	20/3	SPARE	0	0	
0	0		"	-	17	C	18	-	"	0	0	
0	0	600	MONITORING PANEL (SOLID INTERCEPT)	20/1	19	A	20	-	"	0	0	
0	0		SPARE	20/1	21	B	22	20/1	SPARE	0	0	
0	0		SPARE	20/1	23	C	24	20/1	SPARE	0	0	
0	0		SPARE	20/1	25	A	26	20/1	SPARE	0	0	
0	0		SPARE	20/1	27	B	28	20/1	SPARE	0	0	
0	0		SPARE	20/1	29	C	30	20/1	SPARE	0	0	
0	0		SPARE	20/1	31	A	32	20/1	SPARE	0	0	
0	0		SPARE	20/1	33	B	34	20/1	SPARE	0	0	
0	0		SPARE	20/1	35	C	36	20/1	SPARE	0	0	
0	0		SPARE	20/1	37	A	38	20/1	SPARE	0	0	
0	0		SPARE	20/1	39	B	40	20/1	SPARE	0	0	
0	0		SPARE	20/1	41	C	42	20/1	SPARE	0	0	

VA:L (LIGHTING)	14612	CONNECTED	18265 DEMAND
VA:R (RECEPTACLES)	9000	CONNECTED	9000 DEMAND
VA:O (OTHER)	64721	CONNECTED	64721 DEMAND
VA: TOTAL	88333	CONNECTED	91986 DEMAND
AMPS: TOTAL	245	CONNECTED	255 DEMAND

L	R	O		TOTAL			
5026	5040	20468	VA CONNECTED TO A PHASE	30534	VA =	254	AMPS CONNECTED TO A PHASE @ 120 VOLTS
4962	2880	22670	VA CONNECTED TO B PHASE	30512	VA =	254	AMPS CONNECTED TO B PHASE @ 120 VOLTS
4624	1080	21583	VA CONNECTED TO C PHASE	27287	VA =	227	AMPS CONNECTED TO C PHASE @ 120 VOLTS
14612	9000	64721	**TOTAL**	88333	VA		

PANELBOARD P

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
150 A MAIN BREAKER — MOUNTING: SURFACE NEMA 3R
BUSES: MAIN - 150 A; NEUTRAL - 100%; EQUIPMENT GROUND — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
0	720		IG RCPT. OFFICE 101	20/1	1	A	2	20/1	GFCI RCPT.. EWC	0	540	
0	720		GFCI RCPT. CATTLE PENS 107	20/1	3	B	4	20/1	GFCI RCPT. BOYS R.R.	0	180	
0	180		GFCI RCPT. GIRLS R.R.	20/1	5	C	6	20/1	GFCI RCPT. CUSTODIAN	0	180	
0	900		GFCI RCPT. STORAGE 105	20/1	7	A	8	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	9	B	10	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	11	C	12	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	13	A	14	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	15	B	16	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	17	C	18	20/1	DROP CORD RCPT. CATTLE PENS 107	0	0	720
0	0	720	DROP CORD RCPT. CATTLE PENS 107	20/1	19	A	20	20/1	GFCI RCPT. EXERCISE ARENA (ALTERNATE #1)	0	720	
0	900		GFCI RCPT. BLDG PERIMETER	20/1	21	B	22	30/3	BAF-10,11,12	0	0	1800
0	0	1800	BAF-7,8,9	30/3	23	C	24	-	"	0	0	1800
0	0	1800	"	-	25	A	26	-	"	0	0	1800
0	0	1800	"	-	27	B	28	20/1	EF-1,2,3,4	0	0	1920
1640	0		LTG ZONE 1	20/1	29	C	30	20/1	SOLID INTERCEPT. MONITORING PANEL	0	0	600
1640	0		LTG ZONE 2	20/1	31	A	32	20/1	LTG CATTLE CHUTE	656	0	
1016	0		LIGHTING	20/1	33	B	34	20/1	LTG ZONE 5	1312	0	
0	0	720	DROP CORD RCPT. CATTLE CHUTE	20/1	35	C	36	20/1	LTG ZONE 6	1312	0	
0	0	778	BAF-13 (ALTERNATE #1)	30/3	37	A	38	20/1	LTG IDF 106 & RISER RM. 115	96	0	
0	0	778	"	-	39	B	40	20/1	SPARE	0	0	
0	0	778	"	-	41	C	42	20/1	FIRE ALARM CONTROL PANEL	0	0	360

VA:L (LIGHTING)	7672	CONNECTED	9590 DEMAND
VA:R (RECEPTACLES)	5040	CONNECTED	5040 DEMAND
VA:O (OTHER)	25373	CONNECTED	25373 DEMAND
VA: TOTAL	38085	CONNECTED	40003 DEMAND
AMPS: TOTAL	106	CONNECTED	111 DEMAND

L	R	O		TOTAL			
2392	2880	7258	VA CONNECTED TO A PHASE	12530	VA =	104	AMPS CONNECTED TO A PHASE @ 120 VOLTS
2328	1800	9178	VA CONNECTED TO B PHASE	13306	VA =	111	AMPS CONNECTED TO B PHASE @ 120 VOLTS
2952	360	8938	VA CONNECTED TO C PHASE	12250	VA =	102	AMPS CONNECTED TO C PHASE @ 120 VOLTS
7672	5040	25373	**TOTAL**	38085	VA		

PANELBOARD 2P

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
150 A MAIN BREAKER — MOUNTING: SURFACE NEMA 3R
BUSES: MAIN - 150 A; NEUTRAL - 100%; EQUIPMENT GROUND — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
0	1080		GFCI RECEPT. STOR. 109 & 112	20/1	1	A	2	20/1	GFCI RECEPT. HOG PENS 113	0	1080	
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	3	B	4	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	5	C	6	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	7	A	8	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	9	B	10	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	11	C	12	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	13	A	14	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	15	B	16	20/1	DROP CORD RCPT. HOG PENS 113	0	0	720
0	0	720	DROP CORD RCPT. HOG PENS 113	20/1	17	C	18	20/1	GFCI RCPT. BLDG. PERIMETER	0	720	
0	0	1800	BAF-1,2,3	30/3	19	A	20	30/3	BAF-4,5,6	0	0	1800
0	0	1800	"	-	21	B	22	-	"	0	0	1800
0	0	1800	"	-	23	C	24	-	"	0	0	1800
0	0	1500	WH-1	30/3	25	A	26	20/1	LTG ZONE 3	1640	0	
0	0	1500	"	-	27	B	28	20/1	LTG ZONE 4	1640	0	
0	0	1500	"	-	29	C	30	20/1	LIGHTING	1672	0	
0	0	1920	EF-5,6,7,8	20/1	31	A	32	20/1	CP-1	0	0	62
0	1080		GEN RCPT. BLDG. PERIMETER	20/1	33	B	34	20/2	FCU-1/FCCU-1	0	0	1425
0	0		SPARE	20/1	35	C	36	-	"	0	0	1425
0	0		SPARE	20/1	37	A	38	20/2	FCU-2/FCCU-2	0	0	728
0	0		SPARE	20/1	39	B	40	-	"	0	0	728
0	0		SPARE	20/1	41	C	42	20/1	SOLID INTERCEPT. MONITORING PANEL	0	0	600

VA:L (LIGHTING)	4952	CONNECTED	6190 DEMAND
VA:R (RECEPTACLES)	3960	CONNECTED	3960 DEMAND
VA:O (OTHER)	32988	CONNECTED	32988 DEMAND
VA: TOTAL	41900	CONNECTED	43138 DEMAND
AMPS: TOTAL	116	CONNECTED	120 DEMAND

L	R	O		TOTAL			
1640	2160	10690	VA CONNECTED TO A PHASE	14490	VA =	121	AMPS CONNECTED TO A PHASE @ 120 VOLTS
1640	1080	11573	VA CONNECTED TO B PHASE	14293	VA =	119	AMPS CONNECTED TO B PHASE @ 120 VOLTS
1672	720	10725	VA CONNECTED TO C PHASE	13117	VA =	109	AMPS CONNECTED TO C PHASE @ 120 VOLTS
4952	3960	32988	**TOTAL**	41900	VA		

LIGHTING FIXTURE SCHEDULE

TYPE	MANUF.	MODEL NUMBER	LAMPS	VA	VOLTAGE	DESCRIPTION
A	LSI INDUSTRIES INC.	EGW-4-S-LED-XHO-NW-CL-EGWVB CABLE HANGING SET WITH LOOP 10 FOOT (PAIR)	164W-LED 4000K 22005 LUMENS	164	120	14"X4' LED ENCLOSED & GASKETED
AE	LSI INDUSTRIES INC.	EGW-4-S-LED-XHO-NW-CL-EM-EGWVB CABLE HANGING SET WITH LOOP 10 FOOT (PAIR)	164W-LED 4000K 22005 LUMENS	164	120	14"X4' LED ENCLOSED & GASKETED WITH BATTERY BACK UP
B	LEDALUX	ECOPNL-2X2-40-U-40K FURNISH WITH FLANGE KIT FOR HARD CEILING FLK22	40W-LED 4000K 3363 LUMENS	40	120	2X2 FLAT PANEL LED
BE	LEDALUX	ECOPNL-2X2-40-U-40K-BU FURNISH WITH FLANGE KIT FOR HARD CEILING FLK22	40W-LED 4000K 3363 LUMENS	40	120	2X2 FLAT PANEL LED WITH BATTERY BACK UP
C	ILP	WTZ-48WLED-UNIV-50-RAFL FURNISH WITH MOUNTING BRACKET -SS	48W-LED 5000K 6676 LUMENS	48	120	LED LINEAR
CE	ILP	WTZ-48WLED-UNIV-50-RAFL-LEDBBCT FURNISH WITH MOUNTING BRACKET -SS	48W-LED 5000K 6676 LUMENS	48	120	LED LINEAR WITH EMERGENCY BATTERY PACK
K	ERCO	35070.023	16W-LED 4000K 2200 LUMENS	16	208	LED IN-GROUND LUMINAIRE
2P24	LSI INDUSTRIES INC.	SLM-LED-24SL-SIL-FT & LSI #SLM-LED-24L-SIL-2-BKA-QQNM FURNISH WITH METALLIC FINISH AND MOUNTING BRACKET FURNISH WITH CONCRETE, DIRECT BURIED POLE BALWIN 40' -TENON 401002	148.5W-LED 4000K 25126 LUMENS	189	208	OUTDOOR LED AREA LIGHTING
1P5	LSI INDUSTRIES INC.	SLM-LED-24L-SIL-SW-40-80CRI-BKA-QQNM FURNISH WITH METALLIC FINISH AND MOUNTING BRACKET FURNISH WITH CONCRETE, DIRECT BURIED POLE BALWIN 40' -TENON 401002	148.5W-LED 4000K 25126 LUMENS	189	208	OUTDOOR LED AREA LIGHTING
WP	ILP	WPLP-80WLED-UNIV-4000K-BKA-QQNM FURNISH WITH METALLIC FINISH	80W-LED 4000K 8142 LUMENS	80	208	LED WALL PACK
X	MULE LIGHTING	1-AC-RW-WH-U-SD	10W-LED	10	120	GENERAL PURPOSE EXIT LIGHT

1 ELECTRICAL PANEL SCHEDULES
SCALE:N.T.S

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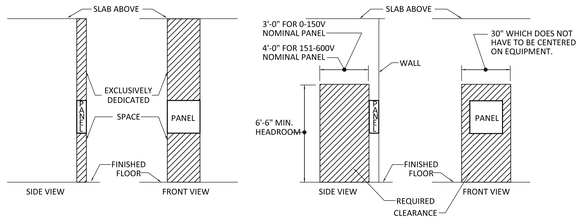
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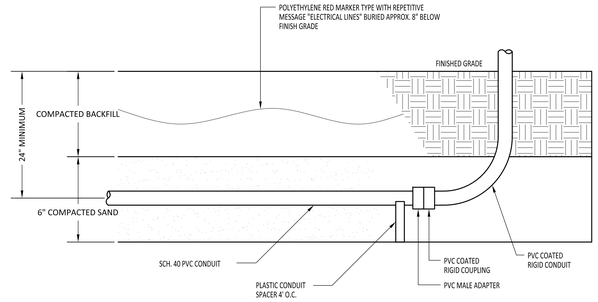
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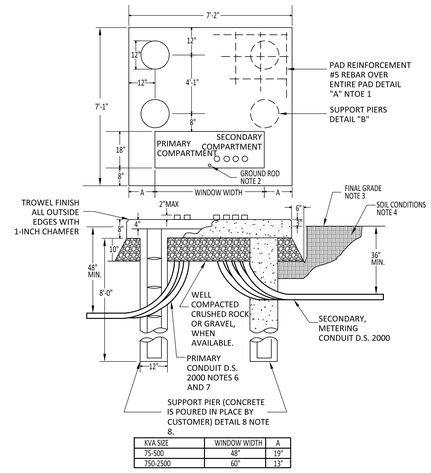
1 WIRING METHOD FOR ISOLATED GROUNG

SCALE:N.T.S.



2 TYPICAL UNDER GROUND CONDUIT DETAIL

SCALE:N.T.S.



KVA SIZE	WINDOW WIDTH	A
75-500	48"	19"
750-2500	60"	13"

CONCRETE PAD AND PIERS FOR THREE PHASE PAD-MOUNTED TRANSFORMER

GENERAL NOTES:

1. SLAB REINFORCEMENT SHALL BE #5 REBARS. ON CENTER (OC) SPACING TO FOLLOW DIMENSIONS SHOWN ON THE DRAWING WITH 4" COVER. REINFORCING BARS SHALL CONFORM TO ASTM A515 GRADE 60. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI/AFTER 28 DAYS.
2. FOR GROUND ROD PLACEMENT REFER TO DS 2235, 2236 OR 2237.
3. FINAL GRADE SHALL BE ESTABLISHED BEFORE INSTALLATION OF PAD.
4. CONCRETE PAD WITH PIERS IS TO BE INSTALLED ONLY WHEN HIGH VOLUME CLAY OR SAND TYPE SOILS ARE ENCOUNTERED. THESE SOIL TYPES ARE CHARACTERIZED BY EXTREME SURFACE CONDITION VARIATIONS OVER TIME. WHERE SOIL IS FOUND TO BE TOTALLY BEDROCK, SHALE, OR HARDPAN. ELIMINATE DRILLED PIERS AND REFER TO DS 2020 OR 2021.
5. THE NUMBER AND PLACEMENT OF SECONDARY CONDUITS TO BE DETERMINED BY ENGINEER. CONDUIT MAY EXTEND IN ANY DIRECTION AS REQUIRED BY THE CUSTOMER.
6. PRIMARY CONDUIT MEMBER, SIZE, LOCATION, AND DIRECTION TO BE SPECIFIED BY ENGINEER. CONDUIT CAN BE FLEXIBLE. TYPE EB, OR SCHEDULE 40 PVC CONDUIT WITH 90 DEGREE, 48-INCH RADIUS.
7. BURIAL DEPTH FOR DIRECT BURIED CABLE OR CONDUIT IS DEFINED AS THE DISTANCE BETWEEN FINAL GRADE AND THE TOP OF THE CABLE OR CONDUIT. UNLESS OTHERWISE DESIGNATED BY ENGINEER, DIRECT BURIED PRIMARY SUPPLY CABLES OR CONDUITS SHALL BE INSTALLED AT A BURIAL DEPTH OF NOT LESS THAN 4'-0" AND SECONDARY SUPPLY CABLES OR CONDUITS SHALL BE INSTALLED AT A BURIAL DEPTH OF NOT LESS THAN 3'-0" THESE INITIAL DEPTHS ARE TO ALLOW FOR CHANGES TO SURFACE CONDITIONS. LOCAL AGREEMENTS AND CODES MAY REQUIRE ADDITIONAL DEPTH. IF THERE ARE KNOWN, EXTENSIVE CHANGES TO THE FINAL GRADE SUCH THAT THESE DEPTHS ARE NOT MAINTAINED, CORRECTIVE ACTION SHALL BE TAKEN.
8. PIERS SHALL BE 12" MINIMUM DIAMETER, 8' DEEP WITH 4-#4 VERTICAL REBAR AND #3 TIES AT 12" ON CENTER (OC), AND PROVIDE A MINIMUM 3" COVER. THE #4 BEND BARS SHOULD BE 12" LONG IN THE HORIZONTAL DIRECTION.
9. PIER REBAR BENT IN THE HORIZONTAL DIRECTION SO THAT IT MAY TIE IN WITH PAD REBAR.

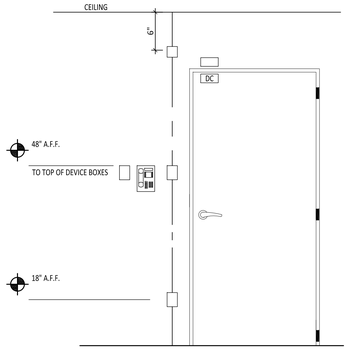
7 ELECTRICAL TRANSFORMER PAD DETAIL

SCALE:N.T.S.

GENERAL NOTES:

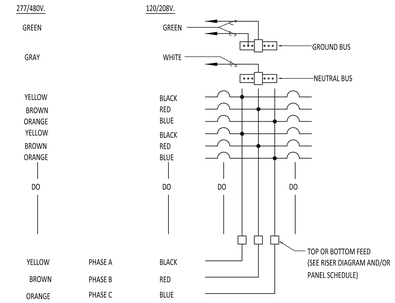
A. VIEW IS OF INTERIOR LOOKING OUT. IMAGE MAY BE MIRRORED.

B. WHEN POSSIBLE KEEP WALL DEVICES ALIGNED NEXT TO DOOR.



3 GENERAL DEVICE DETAIL

SCALE:N.T.S.

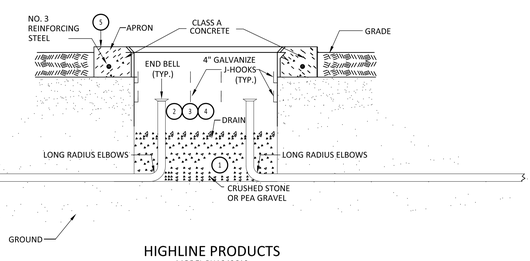


4 TYPICAL PANEL COLOR CODE DETAIL

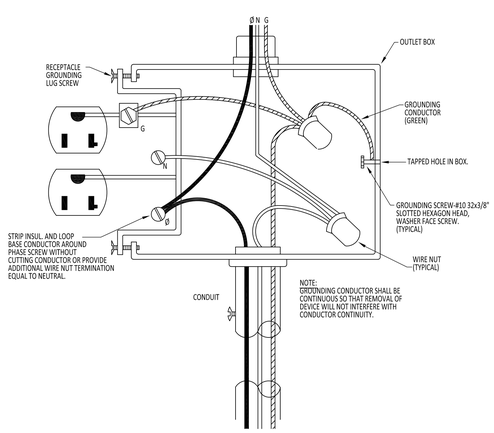
SCALE:N.T.S.

KEY NOTES:

1. PLACE GRAVEL "UNDER" THE BOX. NOT "IN" THE BOX. GRAVEL SHOULD NOT ENCROACH ON THE INTERIOR VOLUME OF THE BOX.FURNISH AND INSTALL 18"OF DEPTH BELOW JUNCTION BOX.
2. MAINTAIN SUFFICIENT SPACE BETWEEN ALL CONDUITS SO AS TO ALLOW FOR PROPER INSTALLATION OF BUSHINGS.
3. ALL CONDUITS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
4. ALL CONDUITS INSTALLED IN THE ELECTRICAL BOX SHALL BE SEALED AFTER COMPLETION OF CONDUCTOR INSTALLATION AND ANY REQUIRED PULL TESTS. SILICONE SHALL NOT BE USED AS SEALANT.
5. FURNISH AND INSTALL 4" HEIGHT CONCRETE APRON. HEIGHT SHALL BE ABOVE GRADE.

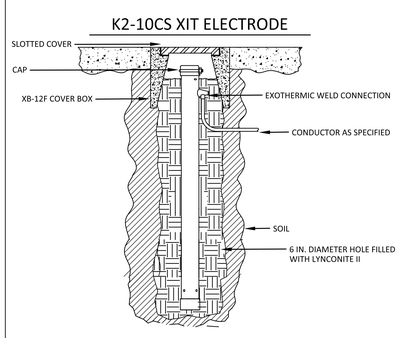


HIGHLINE PRODUCTS
MODEL PHA243618
24-1/8" WD. x 37-1/2" LG. x 18" H.



5 TYPICAL RECEPTACLE GROUNDING DETAIL

SCALE:N.T.S.



GENERAL NOTES:

STRAIGHT SHAFT MODEL: INFORMATION & SPECIFICATIONS

A. MANUFACTURER: LYNCOLE XIT GROUNDING, 3547 VOYAGER ST., TORRANCE, CA 90503, PHONE 800-962-2610. WWW.LYNCOLE.COM
B. SHAFT CONFIGURATION: STRAIGHT. STANDARD LENGTHS: 10', 12', & 20', OR CUSTOM.
C. UL AND CSA LISTING: 467.
D. LYNCONITE II BACKFILL MEETS ANSI/NSF ENVIROMENTAL STANDARD 60.
E. MATERIAL: TYPE K COPPER 0.083" NOMINAL WALL THICKNESS.
F. CONSTRUCTION: HOLLOW TUBE, 2.125" O.D., FILLED WITH NON-HAZARDOUS SALTS (CALSOLYTE).
G. WEIGHT: 3.5 LBS PER LINEAL FOOT.
H. GROUND WIRE TERMINATION: EXOTHERMIC CONNECTION TO CONDUCTORS FROM #2 SOLID AWG TO 750 MCM. U-BOLT WITH PRESSURE PLATE PROVIDED AS TEST POINT.
I. MINIMUM LIFE EXPECTANCY: 50 YEARS. WARRANTY: 30 YEARS.
J. STRAIGHT SHAFT MODEL NO: K2-10CS, K2-12CS, K2-20CS.
K. GSA CONTRACT PRICING AVAILABLE.

6 XIT GROUNDING SYSTEM

SCALE:N.T.S.

8 ELECTRICAL AND TELECOMMUNICATIONS PULL BOX

SCALE:N.T.S.

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LANDSCAPE:
LAN Scapes

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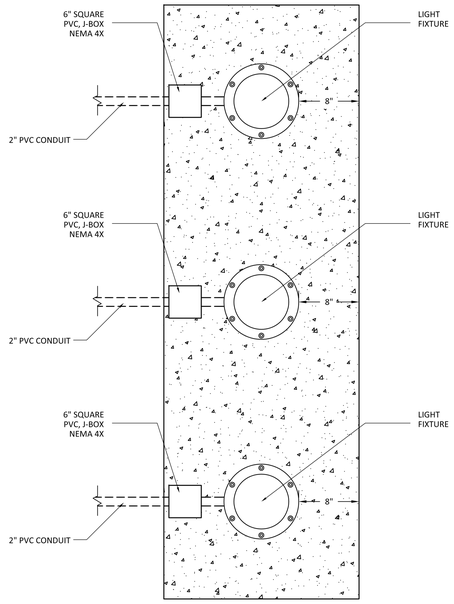
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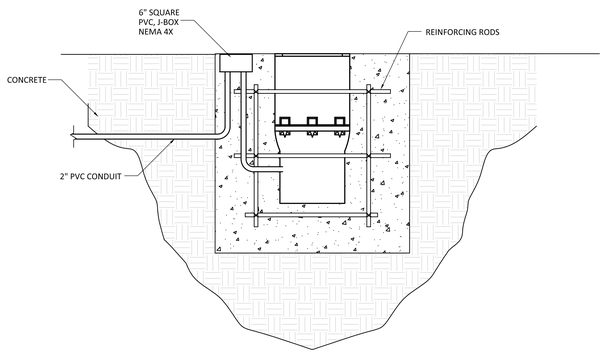
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E-201

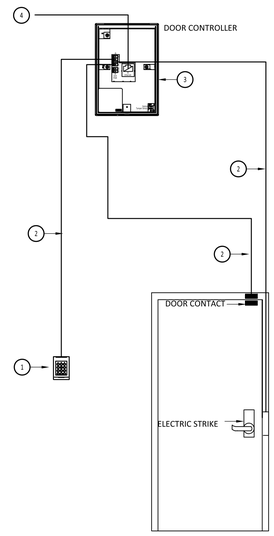


PLAN VIEW

1 IN-GRADE LUMINAIRE TYPE INSTALLATION DETAIL
SCALE:N.T.S.



SECTION VIEW

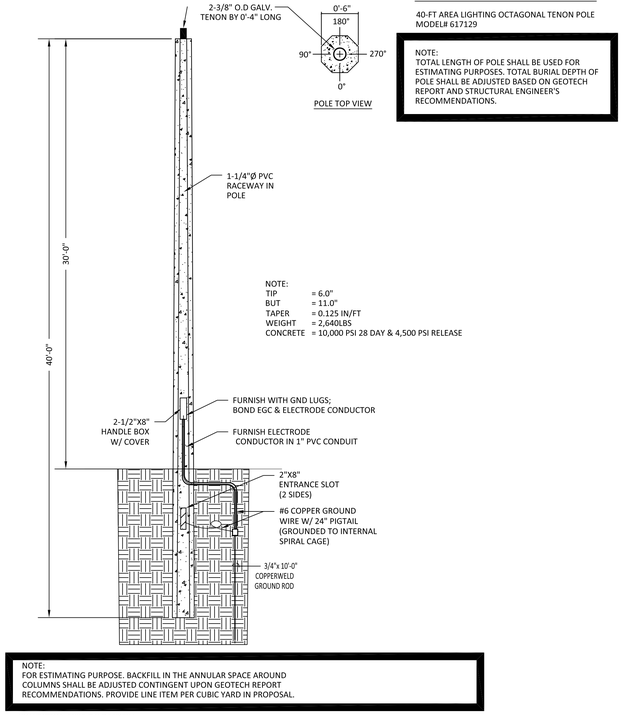


WIRING TABLE	
CONNECTOR	CIRCUIT FUNCTION
Hi-O CANbus CONNECT	
J5-1 / P1-1	CAN_V+
J5-2 / P1-2	GND
J5-3 / P1-3	CAN_H
J5-4 / P1-4	CAN_L
AUX POWER CONNECT	
J8-1	+DC
J8-2	GND
ETHERNET CONNECT	
J6	

KEY NOTES:

1. HID PROXIMITY CARD READER.
2. 18/2 PLENUM RATED WITH OVERALL SHIELD, WHITE JACKET WITH BROWN STRIPE.
3. DOOR CONTROLLER EQUAL TO HID GLOBAL # EHRP40.
4. FURNISH AND INSTALL DATA DROP WITH CATEGORY 6 CABLE; ROUTE TO IDF WALL MOUNTED RACK.

3 ACCESS CONTROL TRANSFER HINGE LOCK DOOR INSTALLATION DETAIL
SCALE:N.T.S



BALDWIN LIGHTING INC.

40-FT AREA LIGHTING OCTAGONAL TENON POLE
MODEL# 617129

NOTE:
TOTAL LENGTH OF POLE SHALL BE USED FOR ESTIMATING PURPOSES. TOTAL BURIAL DEPTH OF POLE SHALL BE ADJUSTED BASED ON GEOTECH REPORT AND STRUCTURAL ENGINEER'S RECOMMENDATIONS.

NOTE:
TIP = 6.0"
BUT = 11.0"
TAPER = 0.125 IN/FT
WEIGHT = 2,640LBS
CONCRETE = 10,000 PSI 28 DAY & 4,500 PSI RELEASE

NOTE:
FOR ESTIMATING PURPOSE. BACKFILL IN THE ANNULAR SPACE AROUND COLUMNS SHALL BE ADJUSTED CONTINGENT UPON GEOTECH REPORT RECOMMENDATIONS. PROVIDE LINE ITEM PER CUBIC YARD IN PROPOSAL.

IBC SECTION 1805.7.3 BACKFILL
THE BACKFILL IN THE ANNULAR SPACE AROUND COLUMNS NOT EMBEDDED ON POURED FOOTINGS SHALL BE AS FOLLOWS:

1. BACKFILL SHALL BE OF CONCRETE WITH AN ULTIMATE STRENGTH OF 2,000 PSI AT 28 DAYS. THE HOLE SHALL NOT BE LESS THAN 4 INCHES LARGER THAN THE DIAMETER OF THE COLUMN AT ITS BOTTOM OR 4 INCHES THAN THE DIAGONAL DIMENSION OF A SQUARE OR RECTANGULAR COLUMN.
2. BACKFILL SHALL BE OF CLEAN SAND. THE SAND SHALL BE THOROUGHLY COMPACTED BE TAMPING IN LAYERS NOT MORE THAN 8 INCHES IN DEPTH.
3. BACKFILL SHALL NOT BE OF CONTROLLED LOW-STRENGHT MATERIAL (CLSM).

2 30-FOOT PRE-STRESSED CONCRETE POLE
SCALE:N.T.S

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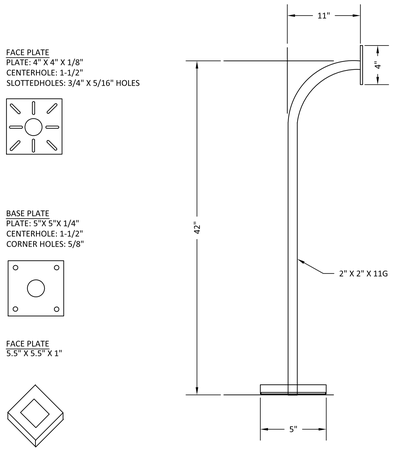
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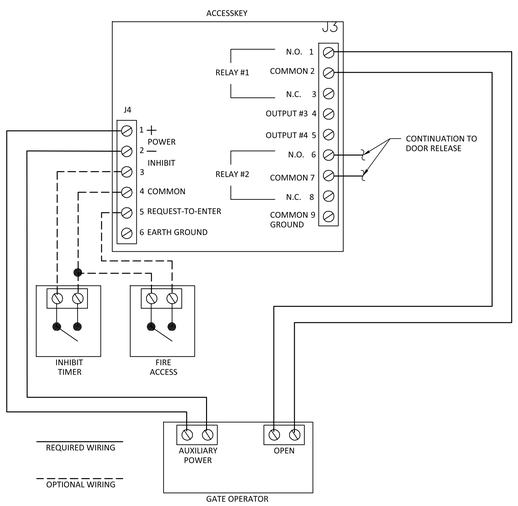
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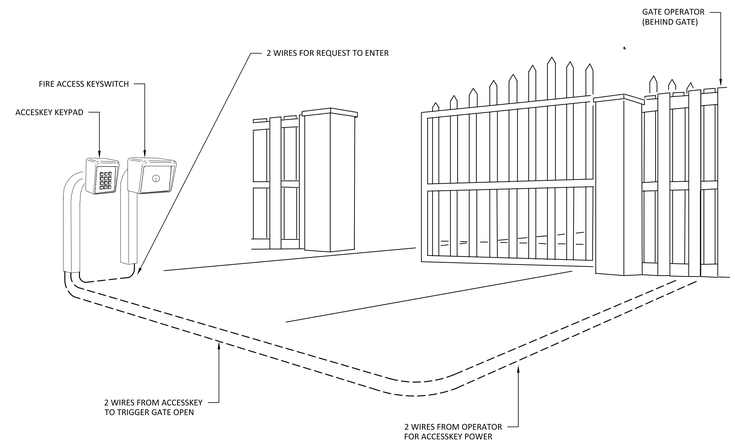
AXCESS LIMITED MODEL
#AL-PMRGN-42-S; FUNISH WITH
PEDESTAL MOUNTING & TRIM KITS
CONTACT INFO: 877-929-2377



1 KEY PAD PEDESTAL
SCALE:N.T.S



2 GATE OPERATOR WIRING DIAGRAM
SCALE:N.T.S



3 GATE INSTALLATION DETAIL
SCALE:N.T.S

GENERAL NOTES:

FURNISH AND INSTALL GATE MOTOR WITH THE FOLLOWING EQUIPMENT:

A. TELEPHONE ENTRY/ACCESS CONTROL SYSTEM: EL2000S.
B. SOFTWARE: VERSA XS 4.0 OR LATEST VERSION.
C. SLIDE GATE OPERATOR: SL585UL AT (208 V SINGLE PHASE; 2-HP)
D. 4"HX 48"LX24W" MAINTENANCE CONCRETE PAD.
E. MONITORED SMALL PROFILE RESISTIVE EDGE SS05AL, MONITORED THROUGH BEAM PHOTO EYES LMRRUL AND PLUG-IN LOOP DETECTOR LOOPDETLM; INCLUDE DEVICE QUANTITIES PER MANUFACTURER RECOMMENDATIONS. FURNISH AND INSTALL MOUNTING PEDESTALS FOR PHOTO EYES.

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ELECTRICAL GENERAL LEGEND

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)	SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	POWER			FIRE ALARM	
	DUPLEX RECEPTACLE - 20A/125V/1P/3W/G	15" AFF	(F)	FIRE ALARM VOICE EVACUATION SPEAKER.	-
	DUPLEX RECEPTACLE, 20A, GROUND FAULT INTERCEPTOR; C = CEILING MOUNTED.	15" AFF	F	FIRE ALARM PULL STATION	48" AFF
	DUPLEX RECEPTACLE, 20A, INSULATED GROUND DEVICE WITH INSULATED GROUNDING CONDUCTOR; CLG = CEILING MOUNTED.	15" AFF	F	FIRE ALARM AUDIBLE/VISUAL SIGNAL; WP = WEATHER PROOF; S = WITH INTEGRAL VOICE ACTIVATED SPEAKER.	80" AFF
	QUADPLEX RECEPTACLE, 20A, GROUND FAULT INTERCEPTOR; CLG = CEILING MOUNTED.	AS REQD.	F	FIRE ALARM AUDIBLE SIGNAL; WP = WEATHER PROOF; S = WITH INTEGRAL VOICE ACTIVATED SPEAKER.	80" AFF
	QUADPLEX RECEPTACLE, 20A, INSULATED GROUND DEVICE WITH INSULATED GROUNDING CONDUCTOR; CLG = CEILING MOUNTED.	AS REQD.	F	FIRE ALARM VISUAL SIGNAL; WP = WEATHER PROOF; S = WITH INTEGRAL VOICE ACTIVATED SPEAKER.	80" AFF
E	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT		FS	FIRE ALARM SPRINKLER FLOW SWITCH	-
	SPECIAL PURPOSE RECEPTACLE; MOTOR OR EQUIPMENT CONNECTION		TS	FIRE ALARM SPRINKLER TAMPER SWITCH	-
J	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED	15" AFF	S	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED	80" AFF
MPFB	AUDIO, VIDEO, DATA, AND POWER FLOOR BOX WIRING DIVICE . FURNISH AND INSTALL EQUAL LEGRAND #RBF11; FURNISH WITH THE FOLLOWING: QTY.(2) IG DUPLEX RECEPTACLES AND 6 PORT-DATA WIRING DEVICE PLATE TO ACCOMODATE CATEGORY 6A CABELING. FLOOR BOX CONVER TO MATCH FINISH FLOOR TYPE (IE. CARPET, TILE, WOOD, ETC.)	FLOOR	W	HEAT DETECTOR CEILING OR WALL MOUNTED	-
30/-/3	DISCONNECT SWITCH - 30/-/3 INDICATES 30A, 3-POLE, NONFUSED; 30/30/3 INDICATES 30A, 3-POLE, 30A FUSE	AS REQD.	D	DUCT SMOKE DETECTOR	-
CB 30/3	CIRCUIT BREAKER DISCONNECT SWITCH - THERMAL MAGNETIC CB IN NEMA 1 ENCL; AMPS/POLES AS INDICATED	AS REQD.	FACP	FIRE ALARM CONTROL PANEL	-
30/30/3	DISCONNECT SWITCH - 30/30/3 INDICATES 30A, 3-POLE, 30A FUSE	AS REQD.	FAAP	FIRE ALARM ANNUNCIATOR PANEL	-
2	MOTOR STARTER FVNR UNO; NUMBER INDICATES NEMA SIZE	AS REQD.	VAFP	VOICE ACTIVATED FIRE ALARM PANEL	80" AFF
CB	COMBINATION MOTOR CONTROLLER/DISCONNECT SWITCH	AS REQD.		SWITCH	
	PANELBOARD	-	3	3 WAY LIGHT SWITCH	
	MOTOR	-	4	4 WAY LIGHT SWITCH	
~	SINGLE LINE CONTINUATION	-	GENERAL ABBREVIATIONS		
GAAP	GENERATOR ANNUNCIATOR PANEL	-			
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	-			
X/X/X	MULTI-POLE DEVICE CIRCUIT NUMBERS	-			
	DATE OUTLET				
		-			
	TRANSFORMER				

ABS	ABOVE BACK SPLASH	NC (N.C.)	NORMALLY CLOSED
AFF	ABOVE FINISHED FLOOR	NF	NONFUSED
BFC	BELOW FINISHED CEILING	NIC	NOT IN CONTRACT
C	CONDUIT	NL	NIGHT LIGHT
CB	CIRCUIT BREAKER	NO (N.O.)	NORMALLY OPEN
CLG	CEILING	PNL	PANEL
EC	EMPTY CONDUIT	RCPT(S)	RECEPTACLE(S)
EP	ELECTRICAL PRIMARY	SO (S.O.)	SPACE ONLY
EX	EXISTING	SP	SPARE
F	FUSE	ST (S.T.)	SHUNT TRIP
G	GROUND (EQUIPMENT)	SW	SWITCH
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
HCC	HORIZONTAL CROSS CONNECT	UF	UNDERFLOOR
IC	INTERRUPTING CAPACITY	UG	UNDERGROUND
ICC	INTERMEDIATE CROSS CONNECT	UNO	UNLESS NOTED OTHERWISE
IG	ISOLATED GROUND	WG	WIRE GUARD
MTD	MOUNT OR MOUNTED	WP	WEATHERPROOF
		XFMR	TRANSFORMER

NOTES:
1. 48" AFF INDICATES TO TOP OF DEVICE; 15" AFF INDICATES TO BOTTOM OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

1 ELECTRICAL GENERAL LEGEND
SCALE: N.T.S

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MEP:
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LANDSCAPE:
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COLLEGE 3
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PHARR-SAN JUAN-ALAMO INDEPENDENT SCHOOL DISTRICT

PHARR, TEXAS

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Sheet Title:
ELECTRICAL GENERAL LEGEND

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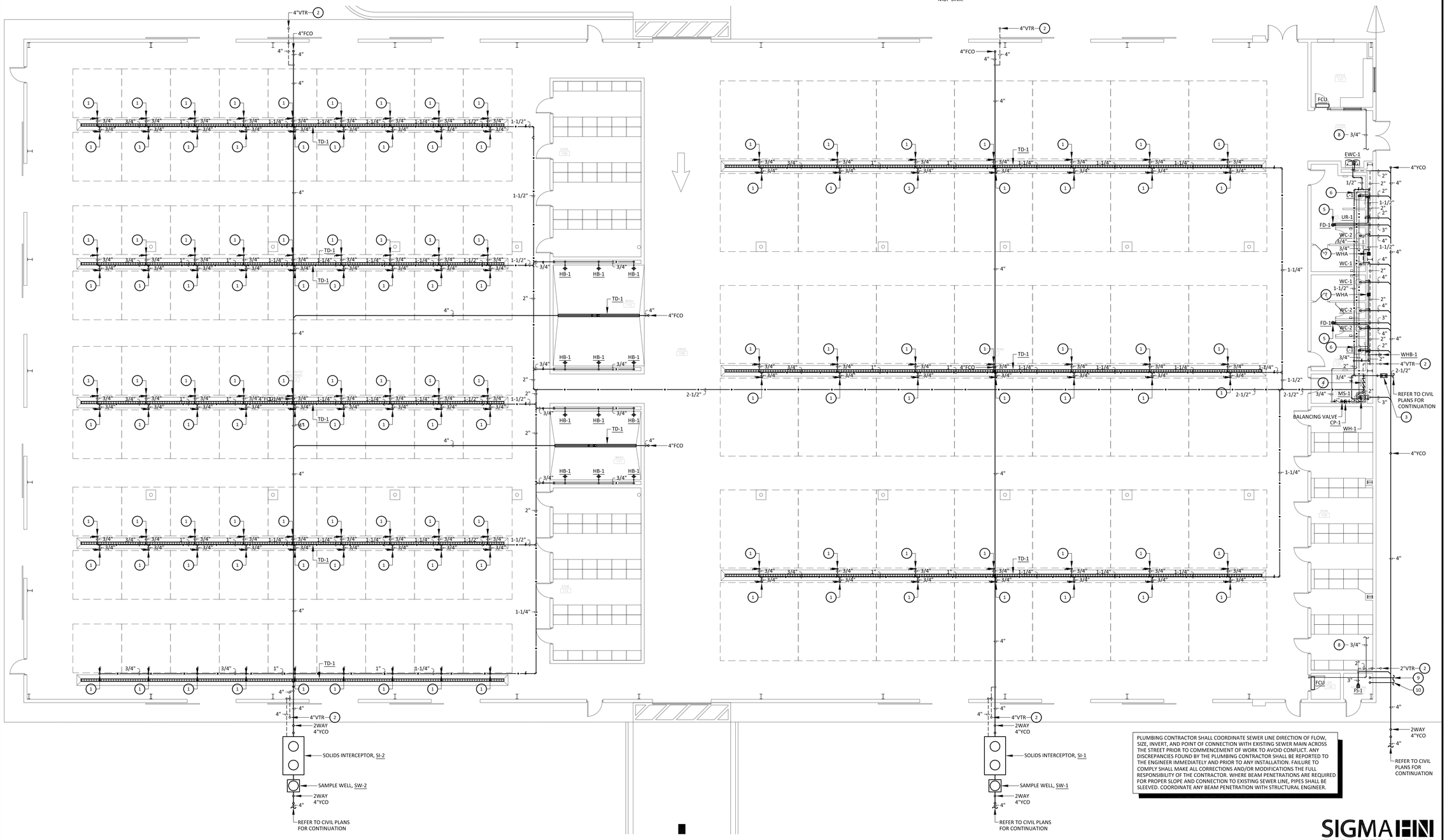
E-300

KEY NOTES: (9)

1. DROP PIPE FOUR FEET BELOW PIPE SUPPORT AND TRANSITION TO FLEXIBLE HOSE WHICH WILL SERVE ANIMAL PEN BELOW. PROVIDE SHUT-OFF VALVE ON VERTICAL PIPE. COORDINATE HOSE FINAL LOCATION, HOSE MATERIAL, LENGTH AND END CONNECTION REQUIREMENTS WITH OWNER PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICT.
2. ROUTE AND INSTALL VENT PIPING AS CLOSE AS POSSIBLE TO ROOF STRUCTURE. PIPING SHALL PENETRATE EXTERIOR WALL AND RISE AT THE EDGE OF ROOF EXPOSED. ROOF PENETRATIONS ARE NOT ACCEPTABLE. INSULATE AND JACKET EXPOSED PIPING.
3. SHUT-OFF VALVE IN CAST BOX, SET FLUSH WITH TOP OF SIDE WALK.
4. APPROVED REDUCED PRESSURE BACKFLOW PREVENTER. ROUTE DRAIN PIPE TO MOP SINK AND DRAIN INDIRECTLY.
5. FLOOR DRAIN SHALL BE PRIMED FROM LAVATORY P-TRAP TAILPIECE. REFER TO TRAP PRIMER TAILPIECE DETAIL FOR REQUIREMENTS.
6. PROVIDE AND INSTALL ASSE 1070 THERMOSTATIC MIXING VALVE UNDER LAVATORY. REFER TO MIXING VALVE UNDER LAVATORY DETAIL FOR REQUIREMENTS.
7. WATER HAMMER ARRESTOR IN CHASE. WHERE INACCESSIBLE PROVIDE AND INSTALL 12"X12" HINGED 16 GAUGE STEEL ACCESS PANEL WITH LOCKABLE KEYED DOOR. PRIME COATED WITH RUST INHIBITIVE ELECTROSTATIC POWDER, BAKED GREY ENAMEL AND SHALL BE PAINTED TO MATCH SURROUNDING AREAS.
8. PROVIDE AND INSTALL INSULATED COPPER CONDENSATE DRAIN LINE IN ATTIC SPACE. PROVIDE PIPE HANGER SUPPORTS MAXIMUM 5'-0" O.C. SPACING. SLOPE PIPING 1/8 INCH PER FOOT. ROUTE AND DRAIN CONDENSATE LINE INDIRECTLY INTO MOP SINK.
9. PROPOSED FIRE SPRINKLER SUPPLY LINE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING. PIPE AND BACK FLOW PREVENTION OF LINE SHALL BE SIZED BY A LICENSED FIRE SPRINKLER DESIGNER. CIVIL ENGINEER SHALL COORDINATE WITH FIRE SPRINKLER DESIGNER FOR WATER SUPPLY LINE REQUIREMENTS AND FIRE DEPARTMENT CONNECTION TO MEET NFPA 13 INSTALLATION REQUIREMENTS.
10. PROPOSED FIRE DEPARTMENT CONNECTION LINE. REFER TO UTILITY PLAN FOR CONTINUATION OF PIPING. PIPE SHALL BE SIZED BY A LICENSED FIRE SPRINKLER DESIGNER. CIVIL ENGINEER SHALL COORDINATE WITH FIRE SPRINKLER DESIGNER FOR WATER SUPPLY LINE REQUIREMENTS AND FIRE DEPARTMENT CONNECTION TO MEET NFPA 13 INSTALLATION REQUIREMENTS. ALL FIRE PROTECTION PIPE SYSTEMS (INCLUDING ALL UNDERGROUND SERVICE PIPING) SHALL BE INSTALLED BY A LICENSED FIRE PROTECTION CONTRACTOR.

GENERAL NOTES:

1. REFER TO SHEET MEP-100 FOR PLUMBING GENERAL NOTES.
2. EXPOSED DOMESTIC WATER PIPING INSULATION SHALL HAVE FACTORY APPLIED ASJ WRAPPED WITH SMOOTH 0.020" ALUMINUM JACKET.



PLUMBING CONTRACTOR SHALL COORDINATE SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING SEWER MAIN ACROSS THE STREET PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR. WHERE BEAM PENETRATIONS ARE REQUIRED FOR PROPER SLOPE AND CONNECTION TO EXISTING SEWER LINE, PIPES SHALL BE SLEEVED. COORDINATE ANY BEAM PENETRATION WITH STRUCTURAL ENGINEER.

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

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COLLEGE 3
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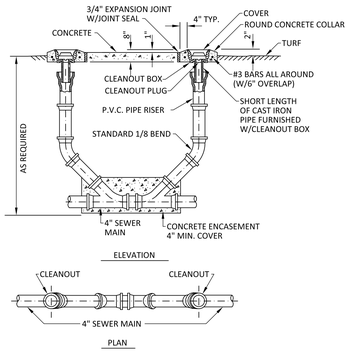
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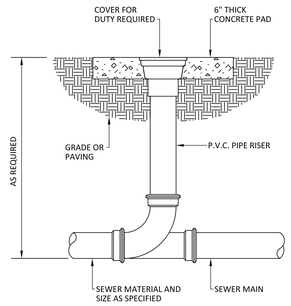
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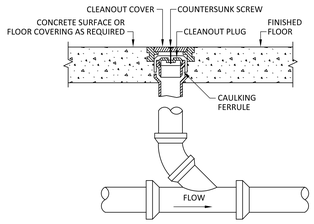
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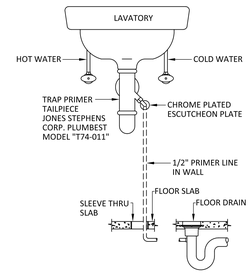
1 TYPICAL EXTERIOR TWO WAY CLEANOUT DETAIL
SCALE:N.T.S.



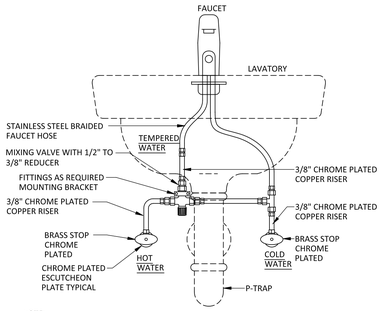
2 EXTERIOR CLEANOUT DETAIL
SCALE:N.T.S.



3 FLOOR CLEAN OUT DETAIL
SCALE:N.T.S.

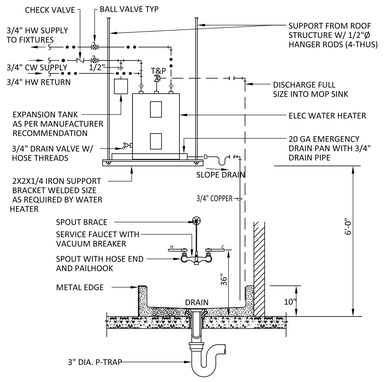


4 TRAP PRIMER TAILPIECE DETAIL
SCALE:N.T.S.



NOTE:
1. MIXING VALVE AND WATER LINES SHALL BE INSTALLED BETWEEN WALL AND P-TRAP TAILPIECE
2. PROVIDE AND INSTALL COVER KIT FOR P-TRAP AND STOPS.
3. FIELD INSULATE MIXING VALVE AND PIPING FROM MIXING VALVE TO FAUCET CONNECTION. JACKET INSULATION TO MATCH TRAP COVER KIT.
4. PROVIDE AND INSTALL REQUIRED 1/2" TO 3/8" REDUCERS AND CONNECTION FITTINGS.

5 MIXING VALVE UNDER LAVATORY DETAIL
SCALE:N.T.S.



6 WATER HEATER ON PLATFORM MOUNTING DETAIL
SCALE:N.T.S.

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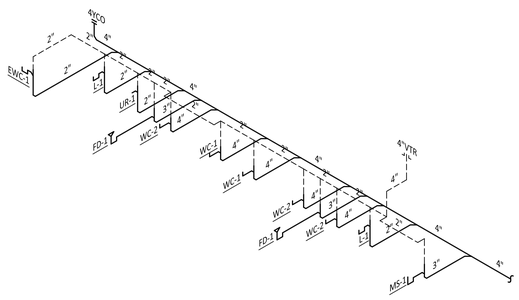
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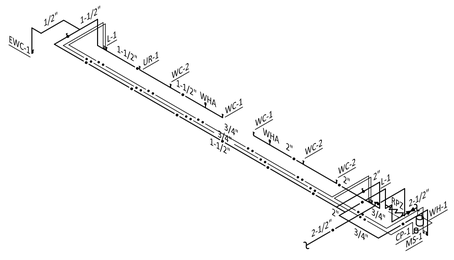
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Sheet Title:
PLUMBING DETAILS

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2 PLUMBING SEWER RISER
SCALE:N.T.S.



3 PLUMBING WATER RISER
SCALE:N.T.S.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER LINE		BALL VALVE	CW	COLD WATER
	DOMESTIC HOT WATER LINE		BALANCING VALVE	DN	DOWN
	SANITARY SEWER VENT LINE		CHECK VALVE	F.F.E.	FINISH FLOOR ELEVATION
	SANITARY WASTE LINE		GATE VALVE	FU	FIXTURE UNITS
CD	CONDENSATE LINE	CO	FLOOR CLEANOUT	GW	GREASE WASTE
GW	GREASE WASTE LINE	CO	YARD CLEANOUT	I.E.	INVERT ELEVATION
RD	ROOF DRAIN LINE		FLOOR SINK	HW	HOT WATER
OD	OVERFLOW DRAIN LINE		FLOOR DRAIN	SS	SANITARY SEWER
	PIPE RISER		ROOF DRAIN	TP	TRAP PRIMER
	PIPE DROP		POINT OF CONNECTION	TYP	TYPICAL
	THERMOMETER		WALL HYDRANT	UND. LAV.	UNDER LAVATORY
	DIRECTION OF FLOW		HOSE BIBB	V	VENT
HWCO	WALL CLEANOUT	WHA	WATER HAMMER ARRESTOR	VTR	VENT THRU ROOF
P-1	PLUMBING RISER DESIGNATION	ABV. CLG.	ABOVE CEILING	CO	CLEAN OUT
D2 P-3.1	PLUMBING DETAIL REFERENCE	B.F.F.	BELOW FINISH FLOOR		

NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

PLUMBING SCHEDULE

MARK	TYPE	CONNECTION				DESCRIPTION
		SS	V	CW	HW	
WC-1	WATER CLOSET FLOOR MOUNTED (HANDICAP)	4"	2"	1"	-	VITREOUS CHINA, ELONGATED RIM, SIPHON JET ACTION, 16-1/2" RIM HEIGHT 1.28GPF FLUSHOMETER FLOOR MOUNTED WATER CLOSET AND MANUAL FLUSH VALVE EQUAL TO AMERICAN STANDARD MADERA #2857.128. COMPLETE WITH AMERICAN STANDARD #5901.100 OPEN FRONT SEAT LESS COVER.
WC-2	WATER CLOSET FLOOR MOUNTED	4"	2"	1"	-	VITREOUS CHINA, ELONGATED RIM, SIPHON JET ACTION, 15" RIM HEIGHT 1.28GPF FLUSHOMETER FLOOR MOUNTED WATER CLOSET AND MANUAL FLUSH VALVE EQUAL TO AMERICAN STANDARD MADERA #2858.128. COMPLETE WITH AMERICAN STANDARD #5901.100 OPEN FRONT SEAT LESS COVER.
UR-1	URINAL WALL-MOUNTED (HANDICAP)	2"	2"	3/4"	-	VITREOUS CHINA, FLUSHING RIM, SIPHON JET ACTION, MINIMUM 14" RIM TO WALL DISTANCE, 0.5GPF HIGH EFFICIENCY WALL MOUNTED URINAL AND MANUAL FLUSH VALVE EQUAL TO AMERICAN STANDARD ALLBROOK #6550.501. COMPLETE WITH ALL HANGERS AND APPROVED CARRIER SYSTEM.
L-1	LAVATORY WALL-MOUNTED (HANDICAP)	2"	2"	1/2"	1/2"	VITREOUS CHINA, WALL MOUNTED, 4" CENTERS, ROUND LAVATORY EQUAL TO AMERICAN STANDARD "LUCERNE" MODEL #0355.012. COMPLETE WITH CHROME PLATED DECK MOUNTED FAUCET WITH 1/2"NPSM CONNECTIONS, 0.35GPM, VANDAL RESISTANT AERATOR EQUAL TO AMERICAN STANDARD FAUCET MODEL #5500.174. PROVIDE OFFSET TAILPIECE, GRID STRAINER, ANGLE STOPS, SUPPLY-LOOSE KEY, CHROME PLATED P-TRAP WITH CLEANOUT, PROTECTIVE COVERING AND UNDER LAVATORY THERMOSTATIC MIXING VALVE EQUAL TO POWER MODEL #LFG480-11.
MS-1	MOP SINK	2"	2"	3/4"	3/4"	FLOOR-MOUNTED TERRAZZO SQUARE SERVICE SINK EQUAL TO STERN-WILLIAMS MODEL "HL-1810". 24"X24"X12" WITH 6" DROP FRONT AND STAINLESS STEEL RIM GUARDS ON ALL SIDES. COMPLETE WITH SERVICE SINK FAUCET EQUAL TO CHICAGO MODEL "540-LD-8975-WXF" WITH 8" CENTERS, PAIL HOOK, WALL BRACKET, VACUUM BREAKER SPOUT, AND LEVER HANDLES. MOP HANGER AND 5' REINFORCED RUBBER HOSE.
EWC-1	ELECTRIC WATER COOLER WALL-MOUNTED (HANDICAP)	2"	2"	1/2"	-	VANDAL RESISTANT, FROST RESISTANT, BI-LEVEL SELF-CONTAINED WALL HUNG, REFRIGERATED WATER COOLER EQUAL TO ELKAY "VRCTL8SC". SELF CLOSING CONTROLS ON FRONT, STAINLESS STEEL BASIN. HEAVY DUTY BUBBLER CAPABLE OF DELIVERING 8.0GPH OF 50° F WATER WITH 80° F INLET WATER AND 90° F ROOM TEMPERATURE. COMPLETE WITH APPROVED CARRIER SYSTEM.
SI-1, SI-2	SOLIDS INTERCEPTOR	4"	4"	-	-	1500 GALLON SOLIDS INTERCEPTOR SHALL BE EQUAL TO PARK USA MODEL #STSC-1500. SOLIDS INTERCEPTOR SHALL BE TRAFFIC DUTY AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS.
SW-1, SW-2	SAMPLE WELL	4"	-	-	-	SAMPLE WELL SHALL BE EQUAL TO PARK EQUIPMENT MODEL #SWB-1 WITH CONSTANT FLOW LINE. SAMPLE WELL SHALL BE TRAFFIC DUTY AND INSTALLED AS PER MANUFACTURER RECOMMENDATIONS.
FD-1	FLOOR DRAIN	3"	2"	1/2"	-	ZURN MODEL Z-415-P, TYPE B STRAINER, LACQUERED CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, AND ROUND, ADJUSTABLE NICKLE-BRONZE STRAINER, TRAP PRIMER CONNECTION.
FS-1	FLOOR SINK	3"	2"	1/2"	-	ZURN MODEL #Z1900 SERIES, 12"X12"X6" DEEP CAST IRON BODY WITH FULL GRATE, ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER, ACID RESISTANT PORCELAIN ENAMEL INTERIOR. COMPLETE WITH PRO-SET TRAP GUARD SYSTEM ON DRAIN OUTLET.
TD-1	TRENCH DRAIN	4"	-	-	-	TRENCH DRAIN SYSTEM ZURN #Z886-U4-HPS-DB, BOTTOM OUTLET ADAPTERS, HEEL PROOF STAINLESS STEEL SLOTTED GRATE LOAD CLASS A, AND BOTTOM DOME STRAINER. COMPLETE WITH PRO-SET TRAP GUARD SYSTEM ON DRAIN PIPE.
FCO	FLOOR CLEAN OUT	4"	-	-	-	GALVANIZED CAST IRON BODY WITH ANCHOR FLANGE, THREADED TOP ASSEMBLY, AND ROUND SCORED COVER WITH GASKET IN SERVICE AREAS AND ROUND DEPRESSED COVER WITH GASKET TO ACCEPT FLOOR FINISH IN FINISHED FLOOR AREAS.
YCO	YARD CLEAN OUT	4"	-	-	-	GALVANIZED CAST IRON BODY WITH ANCHOR FLANGE, THREADED TOP ASSEMBLY, AND ROUND CAST NICKEL BRONZE ACCESS FRAME WITH NON-SKID COVER. CENTER CLEAN OUT ON 18"X18"X6" THICK CONCRETE BASE FLUSH WITH FINISH GRADE.
WH-1	WATER HEATER	-	-	3/4"	3/4"	RHEEM COMMERCIAL ELECTRIC WATER HEATER MODEL #EGSP20, 208/1Ø, 4.5KW, PROVIDE EXPANSION TANK AS PER MANUFACTURER RECOMMENDATIONS. SET TEMPERATURE TO 120°F.
CP-1	CIRCULATING PUMP	-	-	3/4"	3/4"	ITT BELL & GOSSETT SYSTEM LUBRICATED CIRCULATOR PUMP #NBF-25, 2950 RPM, 1/12HP, 115V/1PH,LEAD FREE BRONZE CONSTRUCTION WITH MAXIMUM WORKING PRESSURE OF 150 PSI AND MAXIMUM OPERATING TEMPERATURE OF 225°F. PUMP SHALL BE EQUIPPED WITH TIMECLOCK INPUT FOR SCHEDULING OPERATION OF RCP-365 DAY INPUT.
HB-1	HOSE BIB	-	-	3/4"	-	WALL MOUNTED FAUCET WOODFORD MODEL #26-P CHROME FINISH , WITH BACK FLOW PREVENTER.
WHB-1	WALL HYDRANT BIB	-	-	3/4"	-	ZURN MODEL #Z-1300 ENCASED ANTI SIPHON, NON FREEZE, AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH WALL INSTALLATION COMPLETE WITH BACK FLOW PREVENTER, CLOSURE VALVE, AND HINGED, KEY LOCKED COVER STAMPED "WATER".

1 PLUMBING SCHEDULES AND SYMBOL LEGEND
SCALE:N.T.S.

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PLUMBING SCHEDULE AND PLUMBING RISERS

P-300

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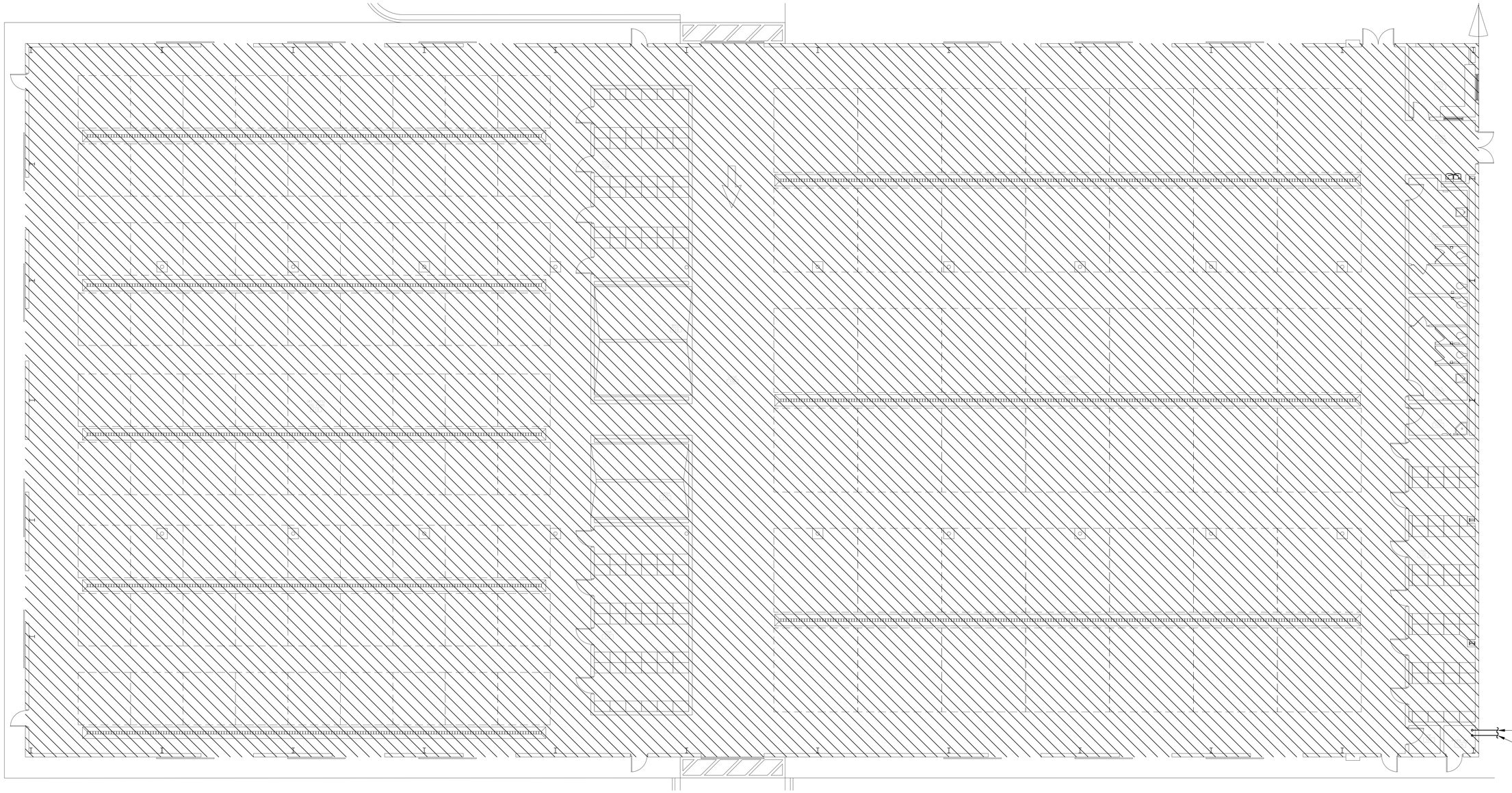
LIGHT HAZARD FOR CLASS ROOMS, OFFICES, CORRIDORS, GYMNASIUM, CAFETERIA, AUDITORIUM (EXCEPT STORAGE AREA), LIBRARY (EXCEPT LARGE STACK ROOM AREAS), DESIGN DENSITY IS 0.10 GPM/SQ.FT. 100 GPM HOSE ALLOWANCE DESIGN AREA=1500 SQ. FT.

GENERAL NOTES:

1. REFER TO SHEET FP-200 FOR AUTOMATIC FIRE SPRINKLER SYSTEM PERFORMANCE SPECIFICATIONS NOTES.

KEY NOTES: (#)

1. PROPOSED FIRE SPRINKLER SUPPLY LINE, REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING. PIPE AND BACK FLOW PREVENTION OF LINE SHALL BE SIZED BY A LICENSED FIRE SPRINKLER DESIGNER. CIVIL ENGINEER SHALL COORDINATE WITH FIRE SPRINKLER DESIGNER FOR WATER SUPPLY LINE REQUIREMENTS AND FIRE DEPARTMENT CONNECTION TO MEET NFPA 13 INSTALLATION REQUIREMENTS.
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THESE CONCEPTUAL FIRE SPRINKLER PROTECTION PLANS ARE FOR INFORMATION PURPOSES ONLY. ALL CIVIL AND FIRE SPRINKLER PLANS ARE TO BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW OF COMPLIANCE TO THE RESPECTIVE GOVERNING STANDARDS.

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1 CONCEPTUAL FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"

N

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Sheet Title:
CONCEPTUAL FIRE PROTECTION PLAN

FP-100

AUTOMATIC SPRINKLER SYSTEM PERFORMANCE SPECIFICATION NOTES:

PART 1 - GENERAL

1.01 SCOPE:
A. FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND RELATED ITEMS REQUIRED FOR THE COMPLETE DESIGN AND INSTALLATION OF AUTOMATIC SPRINKLER SYSTEM.
B. ALL AREAS OF THE BUILDING SHALL BE PROTECTED BY WET AUTOMATIC FIRE SPRINKLERS.THE SYSTEM SHALL BE HYDRAULICALLY CALCULATED. DENSITY SHALL BE IN ACCORDANCE WITH NFPA-13, NFPA 24 AND NFPA 231.
C. THE FIRE SPRINKLER CONTRACTOR SHALL OBTAIN A FLOW TEST, FROM THE CITY, PERFORMED WITHIN THE LAST 12 MONTHS TO VERIFY ADEQUATE WATER SUPPLY FOR THE FIRE SPRINKLER SYSTEM PRIOR TO BIDDING.
D. FIRE SPRINKLER CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DESIGNING AND INSTALLING SYSTEM.
E. WATER SUPPLY SHALL COME FROM A NEW FIRE LINE SERVICE COMPLETE WITH, DOUBLE CHECK BACKFLOW PREVENTER, AND VALVING AS REQUIRED BY THE CITY. THE FIRE SPRINKLER CONTRACTOR SHALL PAY ALL TAP FEES, PERMITS, AND CHARGES NECESSARY FOR A COMPLETE AND APPROVED INSTALLATION.
1.02 QUALITY ASSURANCE:
A. SPRINKLER SYSTEM SHALL COMPLY WITH ALL APPLICABLE STATE AND CITY CODES, NFPA REQUIREMENTS, AND OWNER'S INSURANCE COMPANY REQUIREMENTS: INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
1. UNIFORM BUILDING CODE.
2. NFPA CHAPTER 13, 24 & 231.
3. LIFE SAFETY CODE NFPA-101.
4. OWNER'S INSURANCE UNDERWRITER REQUIREMENTS.
5. INTERNATIONAL FIRE CODE.
1.03 SUBMITTALS:
A. PREPARE DETAILED WORKING DRAWINGS OF THE AUTOMATIC SPRINKLER SYSTEM.
B. SUBMIT DRAWINGS AND CALCULATIONS TO FIRE MARSHAL, AND OWNER'S INSURANCE UNDERWRITER AND OBTAIN THEIR APPROVAL.
C. SUBMIT FOUR (4) COPIES OF APPROVED DRAWINGS AND CALCULATIONS TO THE ARCHITECT AND TWO (2) COPIES TO THE FIRE MARSHALL FOR THEIR REVIEW AND APPROVAL.
D. SUBMIT "CUTSHEET" SAMPLES OF SPRINKLER HEADS TO ARCHITECT FOR APPROVAL.

PART 2 - PRODUCTS

2.01 GENERAL:
A. ALL MATERIALS, EQUIPMENT, VALVES AND DEVICES INSTALLED OR FURNISHED UNDER THIS CONTRACT SHALL BE UNDERWRITERS LABORATORIES (UL) LISTED AND FACTORY MUTUAL (FM) APPROVED FOR USE BY THE AUTHORITIES, AGENCIES, CODES AND STANDARDS CITED IN THIS SECTION OF THE SPECIFICATIONS.
2.02 PIPING:
A. SPRINKLER PIPING SMALLER THAN 4" SHALL BE SCHEDULE 40 (ASTM SPECIFICATIONS A-120 OR A-53) BLACK STEEL PIPE WHICH SHALL BE ASSEMBLED WITH 175 PSIG STANDARD CAST IRON, THREADED FITTINGS OR WITH FLANGED SPRINKLER TYPE FITTINGS OR GROOVED FITTINGS AS REQUIRED. PIPING 4" AND LARGER MAY BE UL APPROVED STEEL PIPE WITH GROOVED OR WELDED FITTINGS AS APPROVED BY THE LOCAL AUTHORITIES. GROOVED FITTINGS SHALL BE VICTAULIC OR APPROVED EQUAL. THE GROOVING MACHINE SHALL BE THE SAME AS THAT RECOMMENDED BY THE FITTINGS MANUFACTURER.
B. SCHEDULE 10 (THIN WALL) SPRINKLER PIPING MAY BE USED WHERE APPROVED BY THE AUTHORITIES.
C. PIPING FROM 5'-0" OUTSIDE BUILDING TO ALARM CHECK VALVE INSTALLATION SHALL BE DUCTILE IRON PIPING WRAPPED WITH 3 MIL POLYETHYLENE.
2.03 HANGERS:
A. PROVIDE NECESSARY UL APPROVED HANGERS TO SUPPORT THE SPRINKLER PIPINGS. HANGERS SHALL BE SPACED IN ACCORDANCE WITH REQUIREMENTS OF THE NFPA CHAPTER 13.
2.04 SPRINKLERS:
A. SPRINKLER HEADS IN AREAS WITH FINISHED CEILINGS SHALL BE PENDENT SPRAY TYPE, CHROME FINISH WITH CHROME ESCUTCHEON AND SHALL BE EQUAL TO GRINNELL ISSUE 'C' DURASPEED 1/2" ORIFICE AND UL AND FM LISTED.
B. HEADS IN AREAS WITHOUT CEILINGS AND WITH EXPOSED PIPING SHALL BE UPRIGHT TYPE, BRASS FINISH AND SHALL BE EQUAL TO GRINNELL QUICK RESPONSE MODEL "A" 1/2" ORIFICE AND UL AND FM LISTED.
C. HEAD IN VICINITY OF HEATING EQUIPMENT AND ELECTRICAL EQUIPMENT SHALL BE HIGH TEMPERATURE HEADS OF THE TYPE APPROVED BY FM AND UL.
2.05 FIRE DEPARTMENT SIAMESE:
A. SHALL BE EQUAL TO W.D. ALLEN NO. 231 UPRIGHT TWO WAY 2 1/2", 2-1/2" X 4" SIZE, CHROME PLATED, FRONT PLATE WITH RAISED LETTERING, "AUTOMATIC SPRINKLER", AND CHROME PLATED CAPS ATTACHED WITH SUFFICIENT AMOUNT OF CHAIN.
2.06 GATE VALVES:
A. GATE VALVES 2-1/2" AND LARGER SHALL BE UNDERWRITER'S APPROVAL EQUAL TO JENKINS 825A OR CRANE 467.
2.07 CHECK VALVES:
A. ALL CHECK VALVES SHALL BE EQUAL TO JENKINS 729, CRANE 375 OR WALWORTH 883F AND EQUIPPED WITH AN AUTOMATIC BALL DRIP TO DRAIN THE LINE BETWEEN THE FIRE DEPARTMENT CONNECTION AND THE CHECK VALVE.
2.08 FLOW SWITCHES:
A. PROVIDE A GRINNELL SERIES WFD FLOW SWITCH IN EACH SPRINKLER SYSTEM CONNECTION SERVING EACH SPRINKLER ZONE. SWITCHES SHALL BE SUITABLE FOR CONNECTION INTO THE FIRE ALARM SYSTEM.
2.09 MONITOR SWITCHES:
A. EACH MANUAL SECTIONALIZING VALVE AND SHUTOFF VALVE IN THE SPRINKLER SYSTEM SHALL BE PROVIDED WITH A GRINNELL F640 MONITORING SWITCH TO INDICATE WHETHER THE VALVE IS OPEN OR CLOSED. WIRING FROM SWITCHES TO THE FIRE ALARM SYSTEM WILL BE DONE UNDER DIVISION 16. THE SWITCH SHALL HAVE A TAMPER INDICATION IF REMOVED FROM ITS MOUNTING OR THE HOUSING COVER IS REMOVED; IT SHALL SIGNAL AN ALARM WHEN THE VALVE POSITION IS ALTERED.
2.10 ALARM VALVE ASSEMBLIES:
A. THE ALARM VALVE ASSEMBLY SHALL BE EQUAL TO GRINNELL MODEL A-3 CONSISTING OF A SERVICE SHUTOFF VALVE, A CLAPPER TYPE MAIN CHECK VALVE, AN AUXILIARY SEAT (ALARM OUTLET), A RETARDING CHAMBER, AND ELECTRIC CIRCUIT CLOSER, GAUGES, CHECK VALVES, GATE VALVES, GLOBE OR ANGLE VALVES AND COCKS.
2.11 WATER MOTOR GONG:
A. WATER POWERED GONG WITH CLAPPER ROLLER, CLAPPER, STRAINER, WATER WHEEL SHAFT, HOUSING, COVER PLATES AND OTHER STANDARD COMPONENTS.

2.12 SPARE SPRINKLERS:
A. PROVIDE A WALL MOUNTED SPRINKLER CABINET WITH A MINIMUM OF 12 SPRINKLERS OF EACH TYPE INSTALLED AND A SPRINKLER WRENCH. MOUNT CABINET NEXT TO SPRINKLER ALARM VALVE.
2.13 DOUBLE CHECK BACKFLOW PREVENTER:
A. FURNISH AND INSTALL A DOUBLE-CHECK BACKFLOW PREVENTER ASSEMBLY WITH POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION AS MANUFACTURED BY PARK EQUIPMENT, HOUSTON, TX. MODEL BPPF-1, OR APPROVED EQUAL.

PART 3 - EXECUTION
3.01 SCOPE:
A. FURNISH AND INSTALL WITH ALL RELATED ITEMS, A COMPLETELY DESIGNED FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM.
3.02 CERTIFIED CONTRACTORS:
A. FABRICATION AND INSTALLATION SHALL BE BY STATE LICENSED FIRE SPRINKLER COMPANY WITH EXPERIENCED, COMPETENT WORKMEN REGULARLY ENGAGED IN THE WORK.
3.03 COORDINATION:
A. WORK SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:
1. REQUIRED FITTINGS AND VALVES, ETC.
2. OVERHEAD SPRINKLER SYSTEM FOR ENTIRE BUILDING, INCLUDING ALL REQUIRED ITEMS, EXCEPT UNDER EXTERIOR CANOPIES AND/OR OVERHANGS OVER WALKWAYS.
3.04 DESIGN:
A. PIPING IN AREAS HAVING CEILINGS, OTHER THAN THE UNDERSIDE OF THE ROOF DECK, SHALL BE CONCEALED. PIPING IN STORAGE AND SERVICE AREAS MAY BE EXPOSED BUT KEPT AT A MINIMUM DISTANCE FROM CEILING. ALL PIPING SHALL BE NEW, CLEAN AND FREE FROM RUST.
B. THE SPRINKLER CONTRACTOR SHALL COORDINATE HIS WORK AND SERVICES WITH ALL OTHER CEILING MOUNTED, SUSPENDED OR OVERHEAD EQUIPMENT AND WITH STRUCTURAL SYSTEM. NO SPRINKLER LINES SHALL PASS THROUGH DUCTWORK.
C. DEEP ESCUTCHEONS MAY BE USED IN ORDER TO LOCATE HEADS CLOSE TO LIGHTING FIXTURES, WHERE SPRINKLER HEADS OCCUR UNDER OVERHANGS. ESCUTCHEONS OF LESSER DEPTH MAY BE USED WHERE ACCEPTABLE TO THE CITY FIRE MARSHAL AND NFPA 13.
D. RISERS SHALL BE LOCATED WHERE INDICATED ON THE DRAWINGS AND BE EQUIPPED WITH VARIABLE PRESSURE ALARM VALVES. VALVES SHALL BE COMPLETE WITH ALL NECESSARY ITEMS, FITTINGS, IDENTIFICATION TAGS OR PLATES, AND ACCESSORIES INCLUDING ALARM VALVE AND WATER MOTOR GONG. DESIGN SHALL ALLOW FOR SUITABLE VENTING AND DRAINAGE OF SAME. ALL TO MEET WITH THE APPROVAL OF THE CITY FIRE MARSHAL AND THE OWNER'S INSURANCE UNDERWRITER AND NFPA 13.
E. DESIGNS REQUIRING CUTTING OF STRUCTURAL MEMBERS FOR PASSAGE OF SPRINKLER PIPE AND HANGER SHALL BE AVOIDED. WHEN DESIGN, DUE TO ECONOMY, APPEARANCE AND SIMILAR ASPECTS, DENOTE THE NECESSITY OF CUTTING, IT SHALL BE HELD TO AN ABSOLUTE MINIMUM AND DONE ONLY WITH THE ARCHITECT'S WRITTEN APPROVAL.

F. IN ADDITION TO MEETING THE NATIONAL FIRE PROTECTION ASSOCIATION NO. 13 REQUIREMENTS, THE FOLLOWING WILL APPLY TO THE SPRINKLER SYSTEM:
1. THE SPRINKLER SYSTEM SHALL BE ELECTRICALLY INTER-CONNECTED TO THE BUILDING FIRE ALARM SYSTEM.
2. THE SPRINKLER SYSTEM MAIN CONTROL VALVE SHALL BE ELECTRICALLY SUPERVISED SO THAT AT LEAST A LOCAL ALARM WILL SOUND WHEN THE VALVE IS CLOSED.
3.05 DRAWINGS:
A. SHOP DRAWINGS CONSISTING OF THE FOLLOWING SHALL BE FURNISHED BY THE SPRINKLER SUB- CONTRACTOR:
1. LAYOUT DRAWING OF COMPLETE OVERHEAD AUTOMATIC SPRINKLER SYSTEM INDICATING RELATIONSHIP OF ALL OTHER OVERHEAD ITEMS INCLUDING LIGHT FIXTURES, LOCATION OF RISERS, PIPING, ETC. SHALL BE AS INCONSPICUOUS AS POSSIBLE, PROVIDE A PLEASING OVERHEAD APPEARANCE, AND STILL FULFILL ALL FUNCTIONAL REQUIREMENTS.
2. SPRINKLER CONTRACTOR SHALL OBTAIN A COPY OF APPROVED CEILING GRID SYSTEM FROM CEILING SUB-CONTRACTOR AND SHALL WORK TO THIS LAYOUT WHEN PREPARING SHOP DRAWINGS AND INSTALLING WORK. CUTTING OF CEILING RUNNERS WILL NOT BE PERMITTED.
3. PILOT PLAN INDICATING LOCATION OF ALL UNDERGROUND CONNECTIONS, CONTROL VALVES, PIPING AND ALL RELATED ITEMS, AND ANY OTHER ITEMS OF DATA DEEMED NECESSARY BY THE CITY FIRE MARSHAL AND NFPA 13.
4. COMPLETE DETAILS AND SECTIONS AS REQUIRED TO CLEARLY DEFINE AND CLARIFY THE DESIGN INDICATED BY THE AFOREMENTIONED LAYOUT AND PILOT PLAN.

5. ALL SHOP DRAWINGS, PRIOR TO BEING SENT TO THE ARCHITECT, MUST BEAR BOTH THE CITY FIRE ENGINEERING DEPT. STAMP OF ACCEPTANCE AND THE OWNER'S INSURANCE UNDERWRITER STAMP OF ACCEPTANCE.
B. FURNISH AND INSTALL, NEXT TO THE SPRINKLER RISER MAIN, A PRINTED SHEET, PROTECTED BY WOOD FRAMED GLASS COVER, GIVING BRIEF INSTRUCTIONS REGARDING CONTROL, EMERGENCY PROCEDURE AND OTHER DATA AS DEEMED NECESSARY BY THE CITY FIRE MARSHAL AND THE OWNER'S INSURANCE UNDERWRITER.
C. UPON COMPLETION OF THE WORK, ACCURATELY MARK ONE COPY OF SHOP DRAWINGS SHOWING LOCATION OF ALL UNDERGROUND FIRE PREVENTION SYSTEM PIPING, VALVES, ETC., AS FINALLY INSTALLED. SHOW LOCATION OF UNDERGROUND PIPING AND VALVES BY DIMENSION. ALSO, GIVE FLOW LINE ELEVATIONS OF UNDERGROUND PIPING FROM STREET MAIN TO BUILDING. UPON COMPLETION OF THE JOB, FURNISH OWNER ONE (1) NEAT LEGIBLE COPY OF "AS BUILT" DRAWINGS.

3.06 INSTALLATION:
A. SLEEVES SHALL BE PROVIDED FOR PIPING PASSING THROUGH CONCRETE SLABS, CONCRETE OR MASONRY WALLS AND PARTITIONS, THROUGH FLOORS, CEILINGS, WALLS, OR PARTITIONS OF OTHER BUILDING MATERIALS. WATERTIGHT SLEEVES CAULKED WITH MASTIC OR LEAD SHALL BE PROVIDED FOR FLOOR SLABS AND WALLS ON OR BELOW GRADE. STANDARD PIPE OR GALVANIZED SHEET METAL SLEEVES SHALL BE INSTALLED IN ABOVE GRADE CONSTRUCTION AS MAY BE REQUIRED. THE SLEEVES SHALL BE OF SUFFICIENT DIAMETER TO PASS PIPE LINES WITH COUPLINGS OR WITH INSULATION OR ANNULAR AREA FOR CAULKING WHERE REQUIRED. ESCUTCHEONS SHALL BE APPROVED FLOOR AND CEILING PLATES MADE OF STEEL OR BRASS, PLAIN OR CHROMIUM PLATE FINISH AND SHALL BE INSTALLED AROUND ALL EXPOSED PIPING PASSING THROUGH A FINISHED FLOOR, WALL OR CEILING. THE PLATES SHALL BE OF SUFFICIENT OUTSIDE DIAMETER TO COVER THE SLEEVE OPENING AND SHALL BE PROVIDED WITH SPRINGS OR SET SCREWS TO INSURE THEM FITTING SNUGLY AROUND THE PIPE.
B. ALL OPENINGS FOR PIPING SHOULD BE ANTICIPATED AND INDICATED ON THE APPROVED AND ACCEPTED SHOP DRAWINGS. ANY ADDITIONAL CUTTING OF OPENINGS MUST HAVE WRITTEN APPROVAL OF THE ARCHITECT.
C. THIS CONTRACTOR WILL NOT USE AIR CONDITIONING DUCT SUPPORTS, AIR DEVICE OUTLETS OR SUPPORTS, PIPING OR SUPPORTS AS A MEANS OF SUPPORT OF ANY MATERIAL, ACCESSORIES OR WORKMEN IN THE INSTALLATION OF THE SYSTEM.
3.07 GUARANTEE:
A. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE BUILDING ACCEPTANCE DATE.
3.08 TESTS:
A. PRIOR TO CONNECTING TO THE OVERHEAD SPRINKLER PIPING, THE UNDERGROUND MAIN SHALL BE FLUSHED PER THE REQUIREMENTS OF THE NFPA.
B. AFTER COMPLETION OF THE INSTALLATION, THE ENTIRE SYSTEM SHALL BE TESTED FOR ACCEPTANCE BY THE OWNER'S INSURANCE UNDERWRITER.
3.09 ACCEPTANCE:
A. THE OWNER'S INSURANCE UNDERWRITER, AFTER SATISFYING THEMSELVES THAT THE INSTALLATION IS SATISFACTORY IN ALL RESPECTS, WILL ISSUE A LETTER OF FINAL ACCEPTANCE. LETTER SHALL BE ADDRESSED TO THE SPRINKLER COMPANY RESPONSIBLE FOR THE INSTALLATION, PREPARED IN TRIPLICATE AND GIVEN TO THE OWNER.
B. AFTER COMPLETION OF ALL INSTALLATION, TESTS, ETC. AND PRIOR TO THE OPENING DATE THE SPRINKLER CONTRACTOR SHALL INSTRUCT THE OWNER IN THE OPERATION OF THE SPRINKLER SYSTEM. PROVIDE WRITTEN OPERATING INSTRUCTIONS AND MOUNT ON WALL IN A FRAME WITH GLASS FRONT, INCLUDE THE FOLLOWING SO THAT THE OWNER:
1. WILL IMMEDIATELY RECOGNIZE THE MAIN VALVES ARE IN OPEN OR CLOSED POSITION.
2. WILL KNOW HOW TO DRAIN THE SYSTEM.
3. WILL KNOW HOW TO RESET THE ALARM SYSTEM.
4. WILL KNOW NOW TO MAKE COMPLETE WEEKLY INSPECTION.
5. WILL KNOW HOW TO MAINTAIN SYSTEM IN ACCORDANCE WITH NFPA NO. 13.
3.10 PROTECTION DURING CONSTRUCTION: CONTRACTOR SHALL COMPLETE THE AUTOMATIC FIRE SPRINKLER SYSTEM A. READY FOR OPERATION, IN ALL RESPECTS, AS SOON AS POSSIBLE. WHEN THE SYSTEM IS COMPLETE AND READY FOR CONTINUOUS OPERATION, ACTIVATE THE SYSTEM FOR ITS INTENDED USE.

FIRE PROTECTION NOTES:

1. CONTRACTOR SHALL INSTALL AN AUTOMATIC SPRINKLER SYSTEM FOR THE BUILDING IN ACCORDANCE WITH NFPA 13. "INSTALLATION OF SPRINKLER SYSTEM" AS DESIGNED BY A LICENSED FIRE PROTECTION SPECIALIST, AND AS APPROVED BY THE LOCAL FIRE MARSHALL AND THE OWNER'S INSURANCE UNDERWRITER.
2. ALL SPRINKLERS LOCATED IN LIGHT HAZARD AND ORDINARY HAZARD GROUP 1 AREA SHALL BE "STANDARD ORIFICE TYPE" WITH 1/2 INCH DIAMETER NOMINAL ORIFICE SIZE, AND ALL SPRINKLERS LOCATED IN ORDINARY HAZARD GROUP 2 AREA SHALL BE "LARGE ORIFICE TYPE" WITH 17/32 INCH DIAMETER NOMINAL ORIFICE SIZE OR OTHER FM APPROVED AND UL LISTED SPRINKLERS AS APPROVED FOR THE PROPOSED APPLICATION.
3. CONTRACTOR SHALL INSTALL 10 POUND DRY CHEMICAL PORTABLE FIRE EXTINGUISHERS AND FIRE EXTINGUISHER CABINETS IN ACCORDANCE WITH NFPA 10, UNLESS OTHERWISE INDICATED BY THE CITY FIRE MARSHAL.
4. CONTRACTOR SHALL INSTALL A FIRE ALARM SYSTEM REQUIRED FOR LIFE SAFETY IN ACCORDANCE WITH NFPA 70, NFPA 72, FACTORY MUTUAL ENGINEERING DESIGN CRITERIA, UNIFORM FIRE CODE, CITY APPLICABLE BUILDING CODE, TEXAS ACCESSIBILITY STANDARDS, AND THE AMERICAN WITH DISABILITIES ACT REQUIREMENTS. CONTRACTOR SHALL SUBMIT FOR ENGINEER'S APPROVAL THE PROPOSED FIRE ALARM SYSTEM DESIGN AND PRODUCT INFORMATION, AS PREPARED BY A REGISTERED QUALIFIED FIRE ALARM SPECIALIST.
5. CONTRACTOR SHALL SUBMIT FOR ENGINEER'S REVIEW AND APPROVAL (BEFORE COMMENCEMENT OF WORK) A PROPOSED FIRE PROTECTION SPRINKLER SYSTEM PREPARED BY A LICENSED AND REGISTERED FIRE SPRINKLER SYSTEM PROFESSIONAL. THE SUBMITTAL SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING ELEMENTS:
A. CONSTRUCTION DRAWINGS OF THE PROPOSED FIRE PROTECTION SYSTEM, INCLUDING: PIPE LAYOUT, ALARM VALVE, DRAIN VALVES, TEST VALVES, ETC., AND THE CENTERLINE ELEVATIONS OF THE BRANCH LINES, CROSS MAINS FEED MAINS.
B. CONTRACTOR'S WORK PLAN AND SCHEDULING.
C. METHODS AND MATERIALS OF CONSTRUCTION. (THE LICENSED PROFESSIONAL MUST BE KNOWLEDGEABLE WITH AND IN COMPLIANCE WITH ALL APPROPRIATE UL LISTINGS AND FACTORY MUTUAL REQUIREMENTS. SYSTEM DESIGN, MATERIAL, FABRICATION AND INSTALLATION SHALL MEET MOST CURRENT EDITION OF NFPA 13, UNIFORM FIRE CODE, AND FACTORY MUTUAL DESIGN AND INSTALLATION REQUIREMENTS AND SHALL BE SUBMITTED FOR APPROVAL BY CITY FIRE MARSHAL, STATE AND THE OWNER'S INSURANCE UNDERWRITER.)
6. 3" AND LARGER PIPING SHALL BE BLACK CARBON STEEL SCH-40 ASTM A53 WITH CUT GROOVED FITTINGS. 2 1/2" AND SMALLER PIPING SHALL BE BLACK CARBON STEEL SCH-40 ASTM A53 WITH THREADED CLASS 125 FITTINGS. ALL PIPE HANGERS SHALL BE BLACK CARBON STEEL PIPING. FITTINGS AND PIPE HANGERS BE AS MANUFACTURED BY VICTAULIC, ITT GRINNEL, GRUVLOK OR APPROVED EQUAL. OR OTHER FM APPROVED AND UL LISTED PIPING AS APPROVED FOR THE PROPOSED APPLICATION.
7. ALL PIPE HANGER MATERIAL TO BE BLACK IRON.
8. NEW PIPING TO BE HYDROSTATICALLY TESTED AT 210 PSI FOR A MINIMUM 2 HOURS, TEST TO BE WITNESSED BY OWNER'S REPRESENTATIVE.
9. CONTRACTOR SHALL INSTALL FIRE PROTECTION SYSTEM PLUMB AND STRAIGHT WITH BUILDING VERTICAL AND HORIZONTAL.
10. ALL VALVES SUCH AS INSPECTOR TEST VALVES TO BE LOCATED AT LEAST 6' FROM FLOOR. INSPECTOR TEST VALVES SHALL BE INSTALLED AS PER 13 REQUIREMENTS.
11. CONTRACTOR SHALL PLACE THE SPRINKLER HEADS IN THE CENTERS OF CEILING TILES, AND SHALL ALIGN SPRINKLER HEADS.
12. CONTRACTOR SHALL INSTALL HIGH END TEST STATIONS AND LOW END AS REQUIRED BY NFPA
13. CONTRACTOR SHALL INSTALL ALL SPRINKLER PIPES AND FITTINGS LEVEL, SO THAT THE SYSTEM CAN BE DRAINED. TRAPPED PIPING SHALL BE THROUGH AUXILIARY DRAINS. THESE AUXILIARY DRAINS SHALL BE AT THE LOCATIONS WHERE A CHANGE IN PIPING DIRECTION DRAINAGE OF THE SYSTEM PIPING THROUGH THE MAIN DRAIN

1 AUTOMATIC SPRINKLER SYSTEM PERFORMANCE SPECIFICATION NOTES
SCALE: N.T.S.

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FIRE SPRINKLER SPECS.

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