PSJA ISD -
CARMAN ELEM. & SANTOS LIVAS ELEM.
PLAYGROUND IMPROVEMENTS

PROJECT # 18-19-049 APRIL 2019

TRADE DESIGNATION
CAMPUS DESIGNATION
SHEET NUMBER
SHEET NUMBER

SHEET NUMBER LEGEND

	M	C	1. 1	CARMAN ELEM.
	M	S	1. 1	SANTOS LIVAS ELEM.

INDEX OF DRAWINGS

ARCHITECTURAL

A1.0	COVER SHEET
A1.1	ADA SHEET
A1.2	SITE DETAILS
A1.3	SCHEDULES AND RESTROOM PLANS
A1.4	ROOF DETAILS
A2.1	BUILDING AND WALL SECTIONS
AC1.0	CARMAN ELEM. SURVEY
AC1.1	CARMAN ELEM. PORPOSED SITE PLAN & LIST OF ALTERNATES
AC1.2	CARMAN ELEM. ENLARGEMENTS
AS1.0	SANTOS LIVAS ELEM. EXISTING SURVEY
AS1.0	SANTOS LIVAS ELEM. PROPOSED SITE PLAN & LIST OF ALTERNATES

CIVIL

CC1.0	CARMAN ELEM. EXISTING
CC2.0	CARMAN ELEM. SITE PLAN
CC3.0	CARMAN ELEM. UTILITIES PLAN
CC4.0	CARMAN ELEM. PAVING PLAN
CC5.0	CARMAN ELEM. DETAILS
CC6.0	CARMAN ELEM. EROSION
CS1.0	SANTOS LIVAS ELEM. EXISTING
CS2.0	SANTOS LIVAS ELEM. SITE PLAN
CS3.0	SANTOS LIVAS ELEM. UTILITIES PLAN
CS4.0	SANTOS LIVAS ELEM. PAVING PLAN
CS5.0	SANTOS LIVAS ELEM. DETAILS
CS6.0	SANTOS LIVAS ELEM. EROSION

STRUCTURAL

S1.0	GENERAL NOTES
S1.1	GENERAL NOTES
S1.2	EXCAVATION PLAN
S1.3	ROOF UPLIFT PLAN
S2.0	FOUNDATION/ WALL LAYOUT AND ROOF FRAMING PLAN
S3.0	DETAIL
S3.1	DETAIL
S4.0	DETAIL

ELECTRICAL

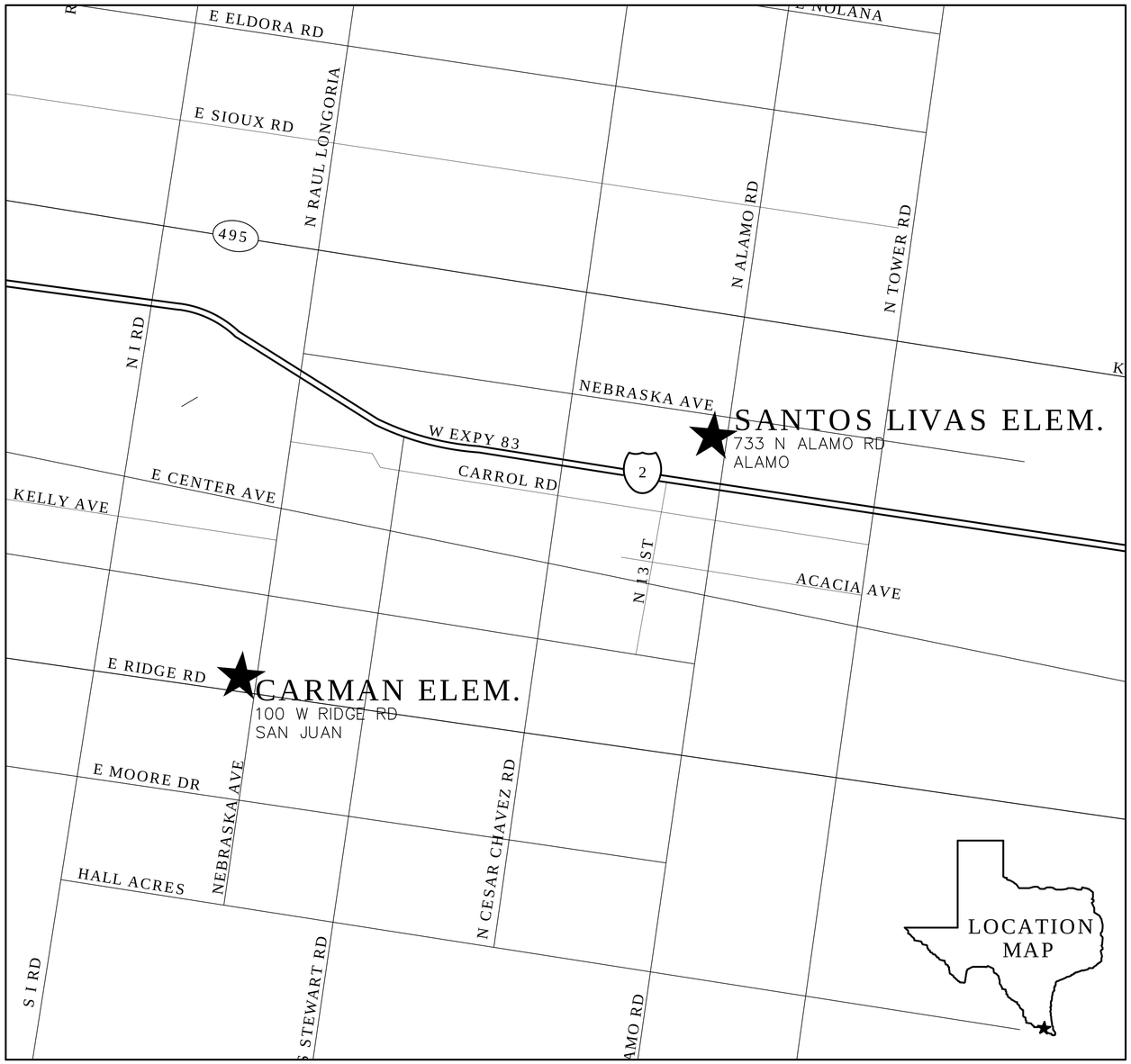
EC1.1	ELECTRICAL SITE PLAN – CARMAN ELEMENTARY
EC2.1	ELECTRICAL LEGEND – CARMAN ELEMENTARY
EC3.1	ELECTRICAL RISER – CARMAN ELEMENTARY
EC4.1	ELECTRICAL DETAILS – CARMAN ELEMENTARY
ES1.1	ELECTRICAL SITE PLAN – SANTOS LIVAS ELEMENTARY
ES2.1	ELECTRICAL LEGEND – SANTOS LIVAS ELEMENTARY
ES3.1	ELECTRICAL RISER – SANTOS LIVAS ELEMENTARY
ES4.1	ELECTRICAL DETAILS – SANTOS LIVAS ELEMENTARY

PLUMBING

PC1.1	PLUMBING SEWER & DOMESTIC WATER – CARMAN ELEMENTARY
PC2.1	PLUMBING LEGEND & SCHEDULES – CARMAN ELEMENTARY
PC3.1	PLUMBING DETAILS – CARMAN ELEMENTARY
PS1.1	PLUMBING SEWER & DOMESTIC WATER – SANTOS LIVAS ELEMENTARY
PS2.1	PLUMBING LEGEND & SCHEDULES – SANTOS LIVAS ELEMENTARY
PS3.1	PLUMBING DETAILS – SANTOS LIVAS ELEMENTARY

LANDSCAPE

L1	CARMAN ELEM. SITE PLAN
L2	SANTOS LIVAS ELEM. SITE PLAN
L3	LANDSCAPE DETAILS
L4	LANDSCAPE DETAILS
IR1	SANTOS LIVAS ELEM. IRRIGATION PLAN
IR2	CARMAN ELEM. IRRIGATION PLAN
IR3	SANTOS LIVAS ELEM. IRRIGATION PLAN
IR4	CARMAN ELEM. IRRIGATION SCHEDULE AND NOTES
IR5	CARMAN ELEM. IRRIGATION DETAILS



N 1 VICINITY MAP PSJA

EGV ARCHITECTS, INC.
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PO BOX 8627
HIDALGO, TX 78557
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EGV ARCHITECTS, INC.

REGISTERED ARCHITECT EDUARDO G. VELA 14407 STATE OF TEXAS

APR 17 2019

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

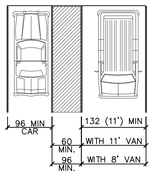
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjo/playgrounds

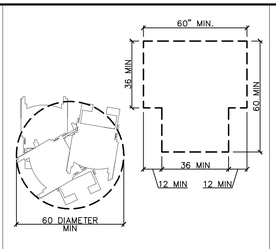
A1.0 SHEET OF 11

TABLE 208.2 PARKING SPACES	
TOTAL # OF PARKING SPACES*	MIN. # OF REQ. ADA SPACES
1:25	1
26:50	2
51:75	3
76:100	4
101:150	5
151:200	6
201:300	7
301:400	8
401:500	9
501:1000	2% OF TOTAL
1001+	20+ 1:100 ABOVE 1000

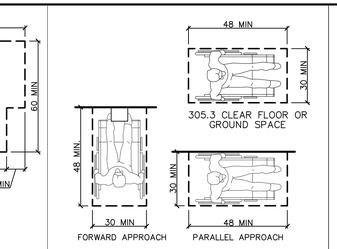
*208.2.4 VAN PARKING SPACES: FOR EVERY 6 OR FRACTION OF SIX AT LEAST 1 SHALL BE VAN



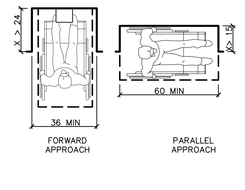
1 502.2 VEHICLE PARKING SPACES



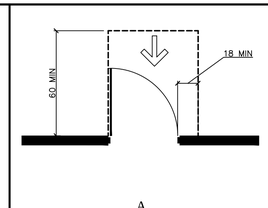
2g 304.3.2 TURNING SPACE (T-SHAPED SPACE TURNING SPACE)



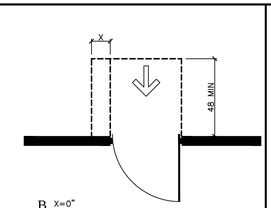
2b 305.5 CLEAR FLOOR OR GROUND SPACE (POSITION OF CLEAR FLOOR OR GROUND SPACE)



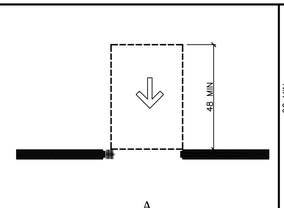
3 305.7.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH



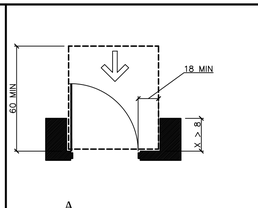
4 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (FRONT APPROACH, PULL SIDE)



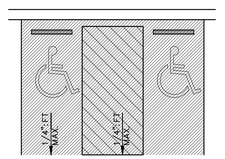
5 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (FRONT APPROACH, PUSH SIDE)



6 404.2.4.2 MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES, AND FOLDING DOORS (FRONT APPROACH)

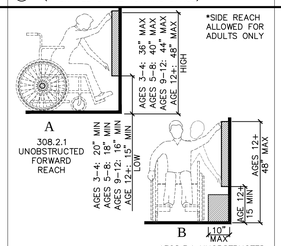


7 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES (PULL SIDE)

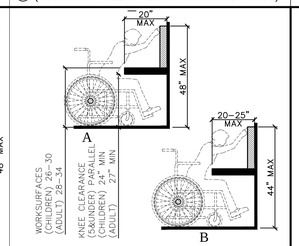


8 PARKING LOT TYP.

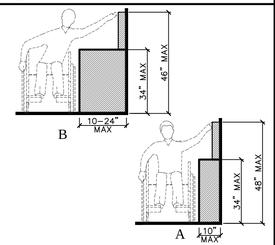
1/4":FT MAX. SLOPE IN ANY DIRECTION TYPICAL AT H/C PARKING SPACES & ACCESS AISLE



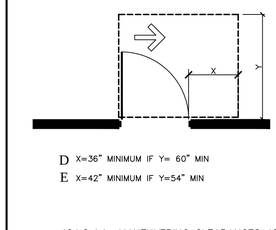
9 308 REACH RANGES (UNOBSTRUCTED REACH)



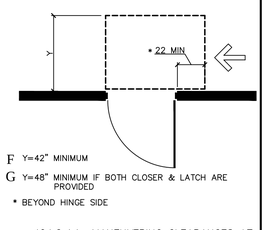
10 308.2.2 REACH RANGES (OBSTRUCTED HIGH FOWARD REACH)



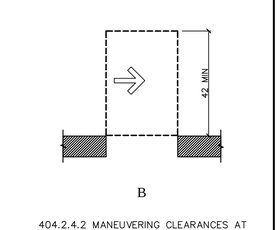
11 *308.3.2 REACH RANGES (UNOBSTRUCTED HIGH SIDE REACH)



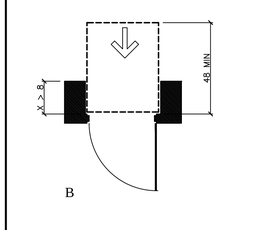
13 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (HINGE APPROACH, PULL SIDE)



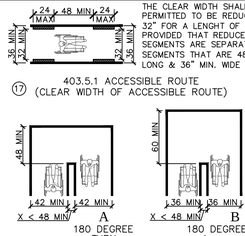
14 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (HINGE APPROACH, PUSH SIDE)



15 404.2.4.2 MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES, AND FOLDING DOORS (SIDE APPROACH)

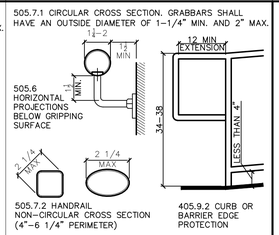


16 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES (PUSH SIDE)

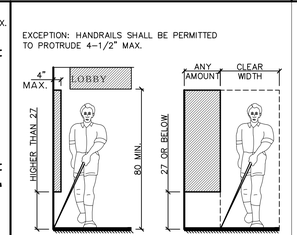


17 403.5.1 ACCESSIBLE ROUTE (CLEAR WIDTH OF ACCESSIBLE ROUTE)

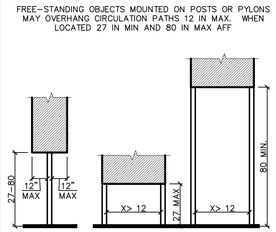
17 403.5.2 ACCESSIBLE ROUTE (CLEAR WIDTH AT TURN)



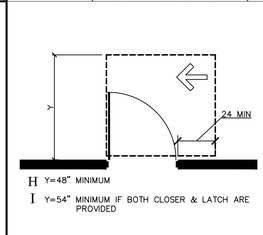
18 505 HANDRAILS (@ RAMPS & STAIRS)



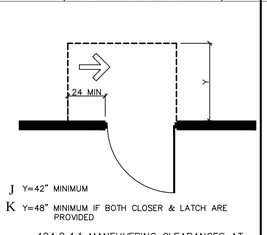
19 307 PROTRUDING OBJECTS (LIMITS OF PROTRUDING OBJECTS)



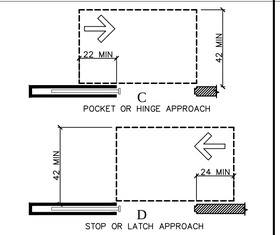
20 307.3 POST–MOUNTED PROTRUDING OBJECTS



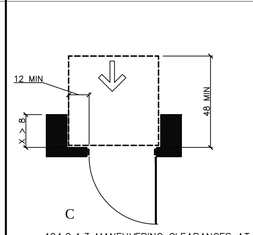
21 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (LATCH APPROACH, PULL SIDE)



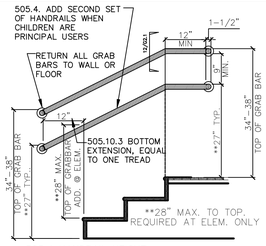
22 404.2.4.1 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES (LATCH APPROACH, PUSH SIDE)



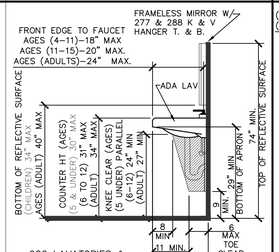
23 404.2.4.2 MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES, AND FOLDING DOORS



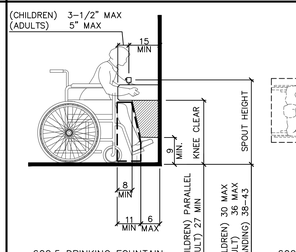
24 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES (PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH)



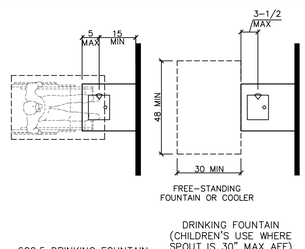
25 505.4 HANDRAIL HEIGHT (@ RAMPS & STAIRS)



26 606 LAVATORIES & SINKS CLEARANCES

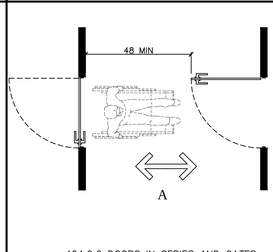


27 602.5 DRINKING FOUNTAIN (SPOUT LOCATION)

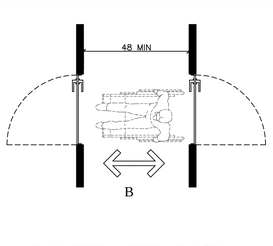


28 602.5 DRINKING FOUNTAIN (SPOUT LOCATION)

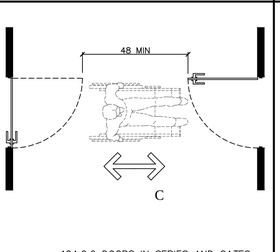
DRINKING FOUNTAIN (CHILDREN'S USE WHERE SPOUT IS 30" MAX AFF)



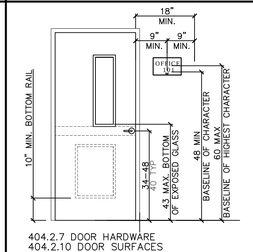
30 404.2.6 DOORS IN SERIES AND GATES IN SERIES



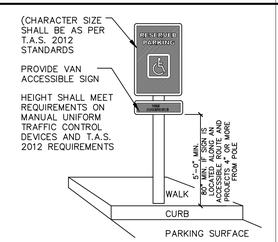
31 404.2.6 DOORS IN SERIES AND GATES IN SERIES



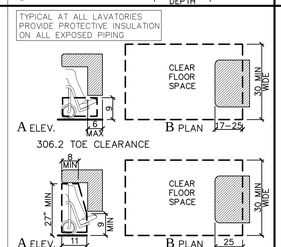
32 404.2.6 DOORS IN SERIES AND GATES IN SERIES



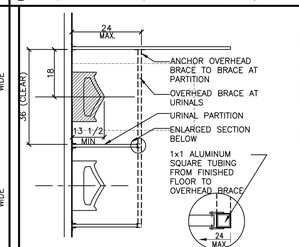
33 404.2.7 DOOR HARDWARE
404.2.10 DOOR SURFACES
404.2.11 VISION LIGHTS
703 SIGNAGE MOUNTING LOCATION/HEIGHT



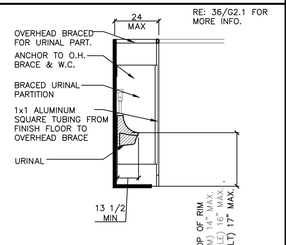
34 502.6 IDENTIFICATION



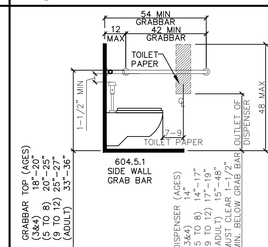
35 306.3 KNEE CLEARANCE



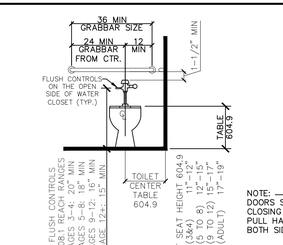
36 605.2 URINALS PARTITIONS (PLAN VIEW)



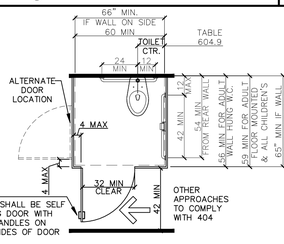
37 605.2 URINALS PARTITIONS (TYPICAL HEIGHTS)



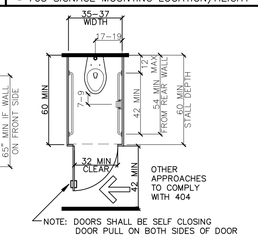
38 604 WATER CLOSETS & TOILET COMPARTMENTS



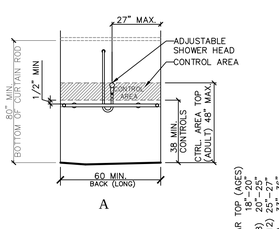
39 604.5.2 REAR WALL GRAB BAR



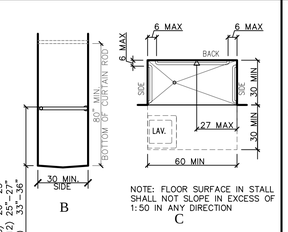
40 604.8.1.2 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS



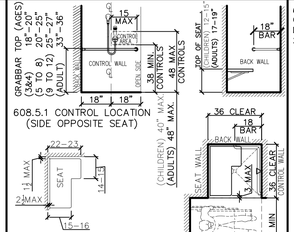
41 604.8.2 AMBULATORY ACCESSIBLE TOILET COMPARTMENT



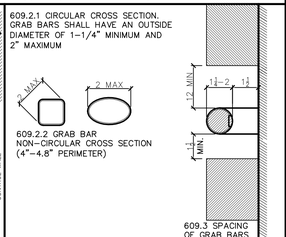
42 608.2.2 STANDARD ROLL–IN TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE



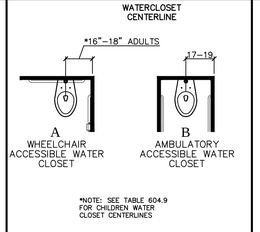
43 608.3.2 GRAB BARS FOR STANDARD ROLL–IN TYPE SHOWER



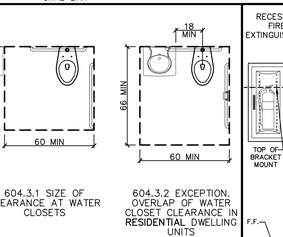
44 608.2.1 TRANSFER TYPE SHOWER COMPARTMENT SIZE AND CLEARANCE



45 609 GRAB BARS (@ SHOWERS, TOILETS..)



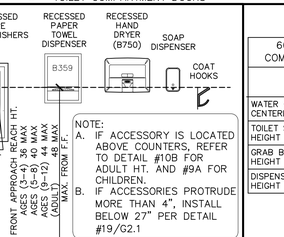
46 604.2 WATER CLOSET LOCATION



47 604.3.1 SIZE OF CLEARANCE AT WATER CLOSETS

604.3.2 EXCEPTION. OVERLAP OF WATER CLOSET CLEARANCE IN **RESIDENTIAL** DWELLING UNITS

WATER CLOSETS AND TOILET COMPARTMENTS



NOTE:
A. IF ACCESSORY IS LOCATED ABOVE COUNTERS, REFER TO DETAIL #10B FOR ADULT HT. AND #9A FOR CHILDREN.
B. IF ACCESSORIES PROTRUDE MORE THAN 4", INSTALL BELOW 27" PER DETAIL #19/G2.1

48 ACCESSORIES MOUNTING HEIGHTS SEE: 308 REACH RANGES

604.9 WATER CLOSETS & TOILET COMPARTMENTS FOR CHILDREN'S USE				
	AGES 3 & 4	AGES 5 TO 8	AGES 9 TO 12	ADULT
WATER CLOSET CENTERLINE	12"	12 TO 15"	15 TO 18"	16 TO 18"
TOILET SEAT HEIGHT	11 TO 12"	12 TO 15"	15 TO 17"	17 TO 19"
GRAB BAR HEIGHT	18 TO 20"	20 TO 25"	25 TO 27"	33 TO 36"
DISPENSER HEIGHT	14"	14 TO 17"	17 TO 19"	15 TO 48"

49

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL.: (956) 843-2987
FAX.: (956) 843-9726

EGV ARCHITECTS, INC.

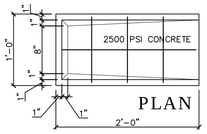
REGISTERED ARCHITECT EDUARDO G. VELA 14401 STATE OF TEXAS

APR 17 2019

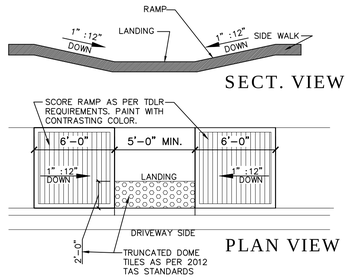
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

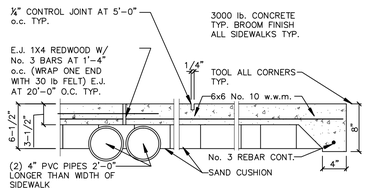
A1.1 SHEET OF 11



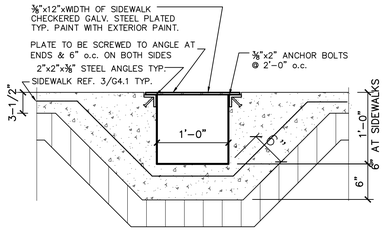
1 CONC. SPLASH
SCALE: 1"=1'-0"



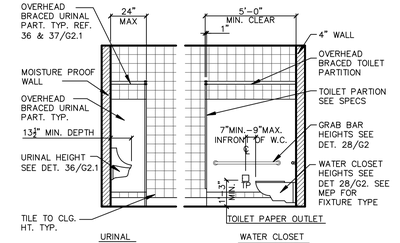
2 TYP. RAMP DET.
SCALE: 3/16"=1'-0"



3 SIDEWALK & A/C PAD DET.
SCALE: 1"=1'-0"

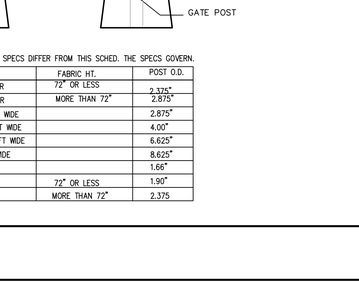


4 GUTTER DETAIL
SCALE: 1"=1'-0"

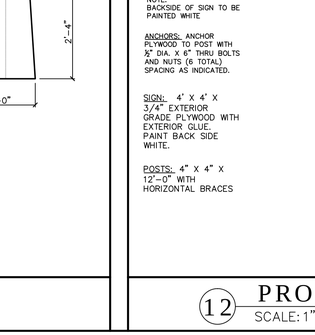


5 TYP. W.C.
SCALE: 1/4"=1'-0"

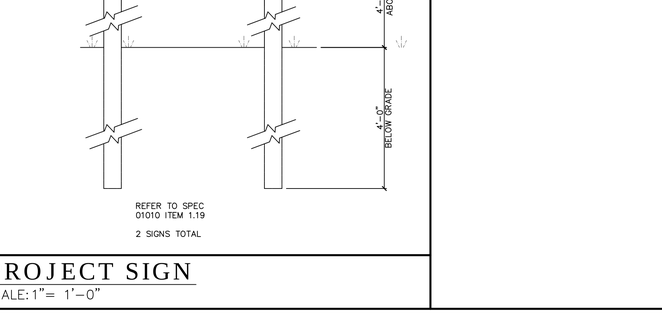
6 WALL E.J. EXPANSION JOINT AT CMU WALLS
SCALE: 1"=1'-0"



7 WALL REINF. (INT. & EXT.)
SCALE: 1"=1'-0"

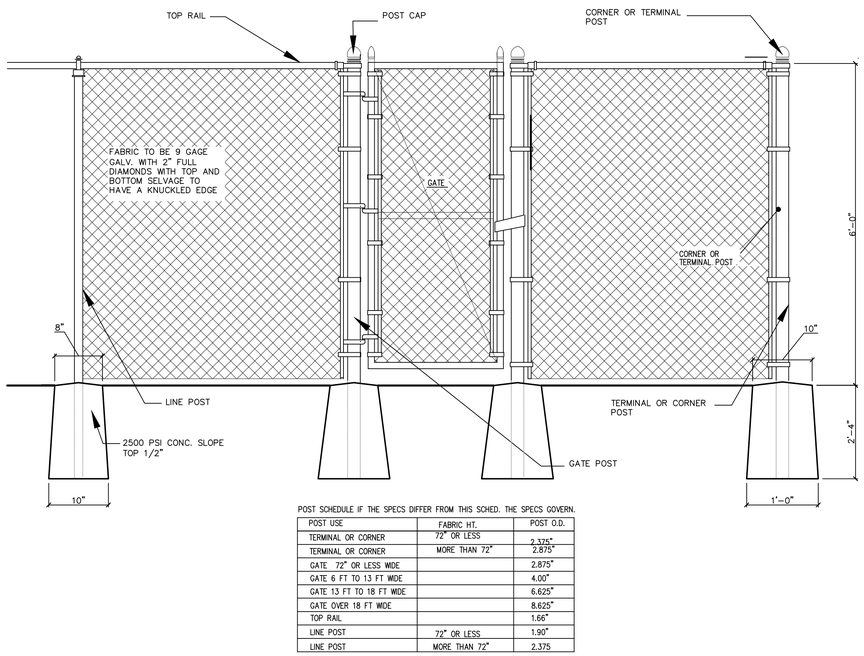


8 TOP OF WALL REINF.
SCALE: 1"=1'-0"



9 WALKING TRAIL DETAIL
SCALE: 1"=1'-0"

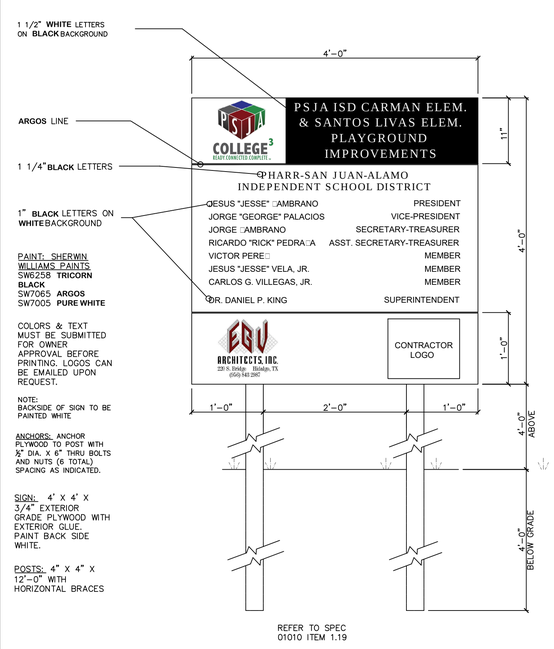
10 H/C SIGNAGE DET.
NTS



POST SCHEDULE IF THE SPECS DIFFER FROM THIS SCHED. THE SPECS GOVERN.

POST USE	FABRIC HT.	POST O.D.
TERMINAL OR CORNER	72" OR LESS	2.375"
TERMINAL OR CORNER	MORE THAN 72"	2.875"
GATE 72" OR LESS WIDE		2.875"
GATE 6 FT TO 13 FT WIDE		4.00"
GATE 13 FT TO 18 FT WIDE		6.625"
GATE OVER 18 FT WIDE		8.625"
TOP RAIL		1.66"
LINE POST	72" OR LESS	1.90"
LINE POST	MORE THAN 72"	2.375

11 CHAINLINK
SCALE: 3/4": 1'-0"



REFER TO SPEC 01010 ITEM 1.19

2 SIGNS TOTAL

12 PROJECT SIGN
SCALE: 1"= 1'-0"

EGV ARCHITECTS, INC.
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FAX: (956) 843-9726

EGV ARCHITECTS, INC.

REGISTERED ARCHITECT EDUARDO G. VELA 14407 STATE OF TEXAS

APR 17 2019

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

A1.2 SHEET OF 11

NO.	SIZE	LBL.	THK.	TYPE	MATERIAL			DETAILS			REMARKS
					DOOR	FRAME	VENEER	HEAD	JAMB	SILL	NOTES: 1. SEE SPECIFICATION 8710 FOR DOOR HARDWARE 2. DOOR WITH TRANSOM
CARMAN ELEM. & SANTOS LIVAS ELEM.											
01	3'-0"x7'-0"		–	A	H.M.	H.M.	H.M.	3A/A1.3	3B/A1.3	3C/A1.3	MEN'S R.R. 101 (QTY 2; CARMAN & SANTOS LIVAS ELEM.)
02	3'-0"x7'-0"		–	A	H.M.	H.M.	H.M.	3A/A1.3	3B/A1.3	3C/A1.3	WOMEN'S R.R. 102 (QTY 2; CARMAN & SANTOS LIVAS ELEM.
03	2'-0"x7'-0"		–	B	H.M.	H.M.	H.M.	3A/A1.3	3B/A1.3	3C/A1.3	CHASE 103 (QTY 2; CARMAN & SANTOS LIVAS ELEM.)
04–08	3'-0"x7'-0"			C	CHAINLINK	CHAINLINK	CHAINLINK	8C/A1.3	8C/A1.3	8C/A1.3	ACCESS GATES AT CARMAN ELEM.
09	6'-0"x7'-0"			D	CHAINLINK	CHAINLINK	CHAINLINK	8D/A1.3	8D/A1.3	8D/A1.3	ACCESS GATE AT SOFTBALL FIELD AT CARMAN ELEM.
10–11	6'-0"x7'-0"			E	CHAINLINK	CHAINLINK	CHAINLINK	8E/A1.3	8E/A1.3	8E/A1.3	ROLLING GATE AT PARKING LOT AT SANTOS LIVAS
12	3'-0"x7'-0"		–	C	CHAINLINK	CHAINLINK	CHAINLINK	8C/A1.3	8C/A1.3	8C/A1.3	ACCESS GATE AT SANTOS LIVAS ELEM.

1 DOOR SCHEDULE

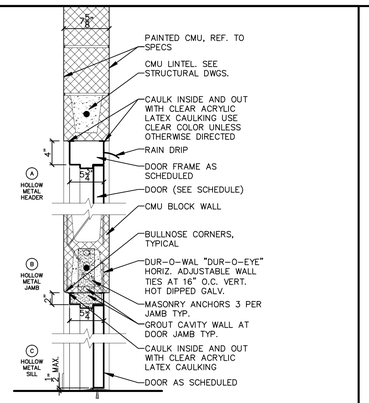
CARMAN ELEM. & SANTOS LIVAS ELEM.

NO.	NAME	FLOOR						BASE				WALL					CLG.				HT.	REMARKS
		EXPOSED CONCRETE (BROOMED)	CONCRETE (EPOXY PAINT W/ GRIT)	1'X1' VINYL COMPOSITION TILE (V.C.T.)	CERAMIC TILE	CARPET TILE		6" CERAMIC COVE BASE	4" OAK WOOD BASE (VARNISHED)	4" RESILIENT BASE	4" PAINTED BASE (EPOXY PAINT)	MOISTURE RESISTANT GYP. BD.	CERAMIC TILE 7'-0" A.F.F.	T.F.T. & P. GYP. BD.	STUCCO FINISH ON METAL LATH	CHAINLINK FENCE	PAINTED CMU	2'X2' SUSPENDED ACOUST. CLG.	5/8" TYPE "X" GYP. BD.(T.F.T.& P.) PAINTED BOX AROUND STRUCTURE ABOVE	STUCCO ON METAL LATH	BEADED PLYWOOD		
ROOMS	RESTROOMS											W N E S										
101	MEN'S RESTROOMS		○								○						■			○	10'–6"	REMARK 3
102	WOMEN'S RESTROOM		○								○						■			○	10'–6"	REMARK 3
103	CHASE		○								○						■		○		10'–6"	REMARK 3
104	E.D.F		○								○						■			○	10'–6"	REMARK 3

NOTES:
1. DO NOT INSTALL MATERIAL THAT CONTAINS ASBESTOS OR P.C.B.'S
2. TWO SETS OF RESTROOMS, CARMAN ELEM. AND SANTOS LIVAS ELEM.
3. CEILING VARIES WITH ROOF SLOPE

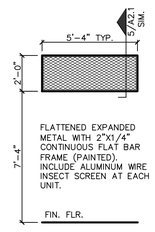
2 ROOM FINISH SCHEDULE

CARMAN ELEM. & SANTOS LIVAS ELEM.



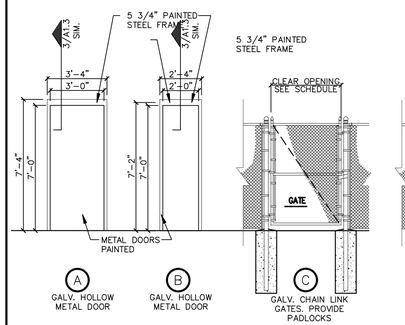
3 EXT. H.M. FRAME

SCALE: 1"=1'–0"



10 WINDOW ELEVATION

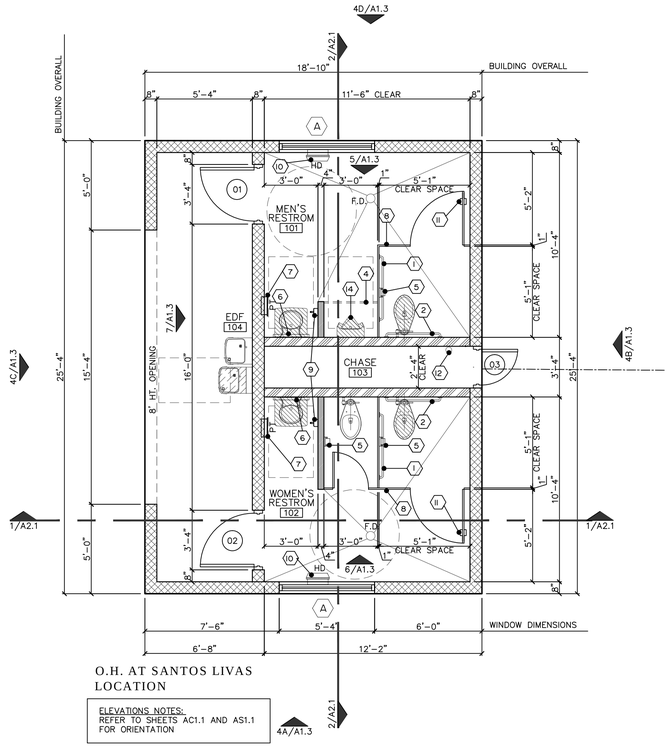
SCALE: 1/4"=1'–0" CARMANv& SANTOS LIVAS ELEM.



GENERAL NOTES:
1. FIELD VERIFY ALL DIMENSIONS BEFORE PRODUCTION OF DOORS & WINDOWS.
2. PROVIDE BEVELED FRAME AT ALL VISION LIGHTS INSTALLED ON DOORS
3. HARDWARE ON DOOR SHALL BE INSTALLED AS PER TAS 2012 REACH RANGES
4. VERIFY THAT PANIC HARDWARE ON DOORS DOES NOT INTERFERE WITH VISION LIGHTS
5. REFER TO SHEET A1.4 FOR EXTERIOR WINDOW & DOOR FLASHING DETAILS

8 DOOR ELEVATION

SCALE: 1/4"=1'–0" CARMANv& SANTOS LIVAS ELEM.



O.H. AT SANTOS LIVAS LOCATION

ELEVATIONS NOTES:
REFER TO SHEETS AC1.1 AND AS1.1 FOR ORIENTATION

NOTES TO CONTRACTOR:

1. PROVIDE BULLNOSE CMU AT ALL OUTSIDE CORNERS
2. TYP. 6" WALLS BEHIND FIRE EXTINGUISHERS & PAPER TOWEL DISPENSERS. SEE LEGEND FOR WALL TYPES AND SIZES. COORDINATE WALL TYPES AND SIZES WITH STRUCTURAL DRAWINGS
3. FURR ALL COLUMNS WHETHER SHOWN OR NOT MIN. 2" CLEARANCE BETWEEN STEEL AND CMU. ALL FURRING SHALL BE 4"CMU. WITH COLUMN ANCHORS AT 2'–0" O.C. VERTICALLY.
4. ALL WALLS (CMU AND OTHERWISE) SHALL BE 8" MIN. ABOVE ADJACENT HIGHEST CEILING TYP. UNLESS OTHERWISE SPECIFIED.
5. CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS NOT TO INSTALL MATERIALS THAT CONTAIN ASBESTOS, P.C.B.'s OR OTHER HAZARDOUS MATERIALS.
6. ALL WORK WHETHER SHOWN OR NOT SHALL CONFORM TO 2012 TAS (TEXAS ACCESSIBILITY SANDARDS). RE: SHEET G2.1
7. PAINT ALL EXPOSED STRUCTURES, PURLINS, CONDUITS, A/C DUCTWORK, ETC.
8. SEAL TOP OF WALLS & WALL PENETRATIONS WITH FIRE CAULKING AT ALL FIRE RATED WALLS
9. ALL SIDEWALKS/PORCHES/CONCRETE STOOPS SHALL SLOPE MIN. 1/8":12" AWAY FROM ENTRANCES.

LEGEND

- NEW DOOR NUMBER (1)
- NEW WINDOW NUMBER (A)
- ROOM NAME & NUMBER: ROOM A101
- HANDICAPPED
- OPPOSITE HAND: O.H.
- FIRE EXTINGUISHER: F.E.
- PAPER TOWEL DISPENSER
- HAND DRYER
- ELEVATION MARKER: Sheet No.
- 8" CMU EXTERIOR WALL
- 6" CMU INTERIOR WALLS
- 4" CMU INTERIOR WALLS

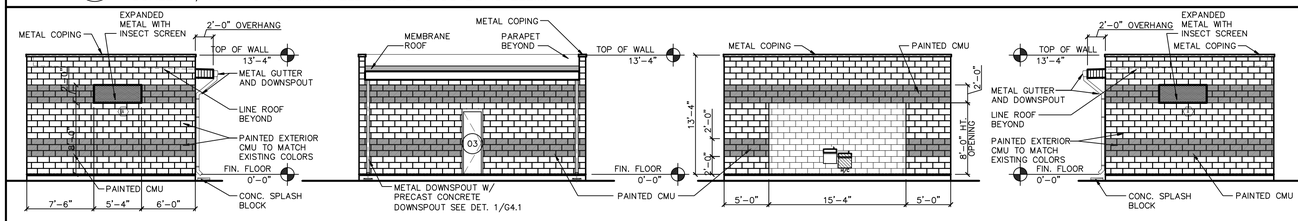
(COORDINATE WALL TYPES AND SIZES WITH STRUCTURAL DRAWINGS)

RESTROOM LEGEND

1. 42" GRAB BAR
2. 36" GRAB BAR
3. 24" GRAB BAR
4. OVERHEAD BRACED URINAL
5. TOILET PAPER DISPENSER. OWNER PROVIDED, CONTRACTOR INSTALLED
6. STAINLESS STEEL MIRROR
7. PAPER TOWEL DISPENSER. OWNER PROVIDED, CONTRACTOR INSTALLED
8. TOILET PARTITION
9. SOAP DISPENSER. OWNER PROVIDED, CONTRACTOR INSTALLED
10. HAND DRYER
11. SELF CLOSING DOOR WITH DOOR HANDLE BOTH SIDES
12. 2" SLEEVE FOR IRRIGATION, REF. TO LANDSCAPE & MEP DRAWINGS

9 ENLARGED R.R.

SCALE: 1/4"=1'–0" CARMAN ELEM. & SANTOS LIVAS ELEM.



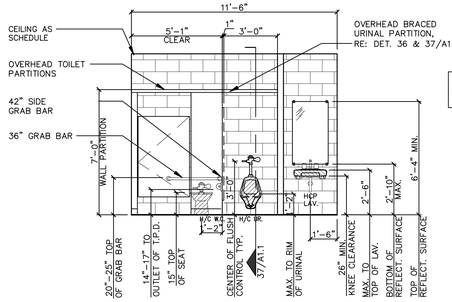
O.H. AT SANTOS LIVAS

O.H. AT SANTOS LIVAS

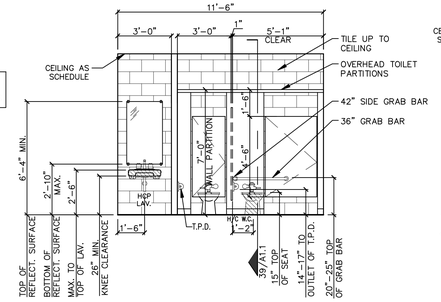
NORTH ELEVATION A | WEST ELEVATION B | EAST ELEVATION C | SOUTH ELEVATION D

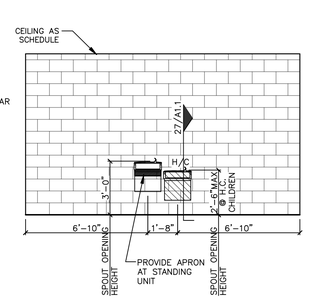
4 EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'– 0" CARMAN ELEM. & SANTOS LIVAS ELEM.



NOTE: FIELD VERIFY ALL DIMENSIONS





5 MEN'S R.R ELEV.

SCALE: 1/4"=1'–0" CARMAN & SANTOS LIVAS ELEM.

6 WOMEN'S R.R ELEV.

SCALE: 1/4"=1'–0" CARMAN & SANTOS LIVAS ELEM.

7 E.D.F. ELEV.

SCALE: 1/4"=1'–0"

DATE APPROVED | NO. REVISIONS | DATE: | DESIGNED: | DRAWN: | CHECKED: | SCALE:

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REGISTERED ARCHITECT EDUARDO G. VELA 14401 STATE OF TEXAS

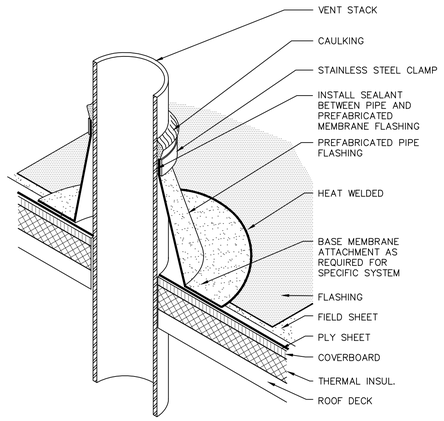
APR 17 2019

P.S.J.A. ISD

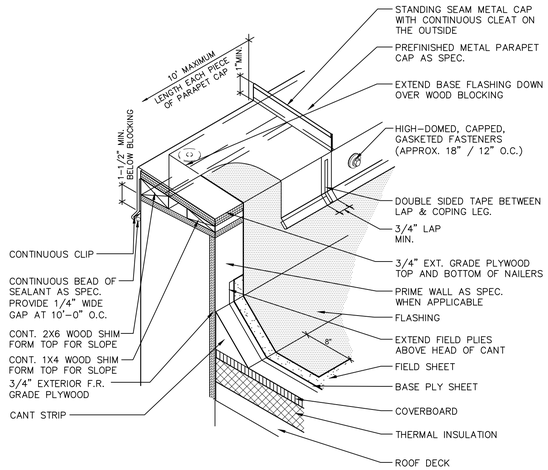
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjo/playgrounds

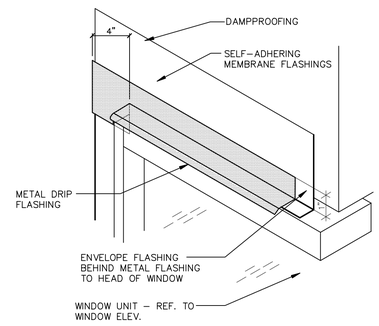
A1.3 SHEET OF 11



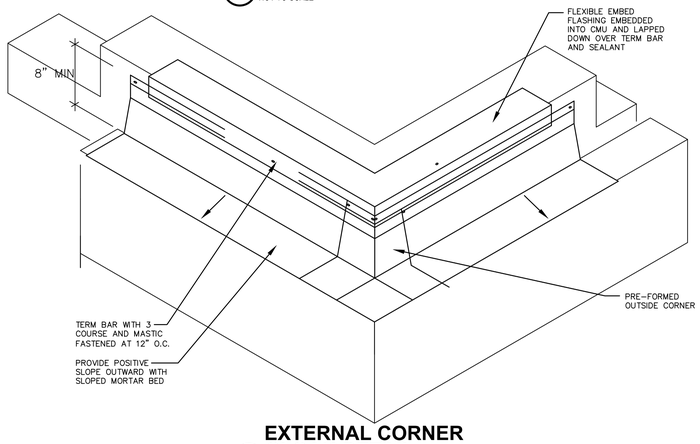
4 VENT FLASHING DETAIL
NOT TO SCALE



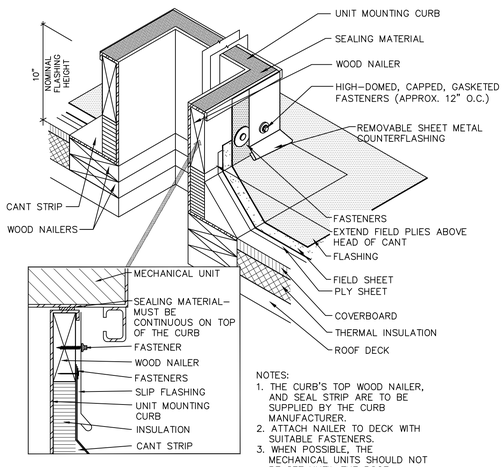
3 LOW PARAPET WALL DETAIL
NOT TO SCALE



5 METAL EDGE AT CORNER DETAIL
NOT TO SCALE

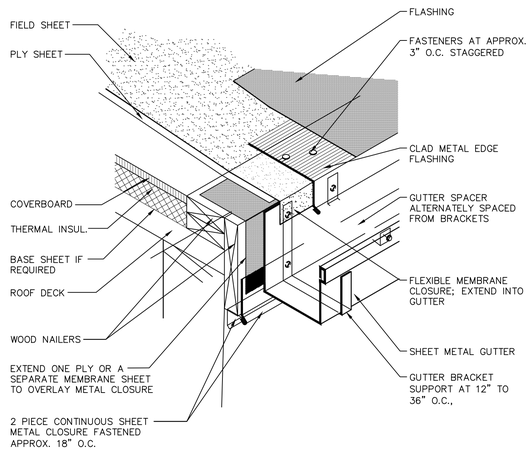


6 EXTERNAL CORNER CLOAK DETAIL
NOT TO SCALE

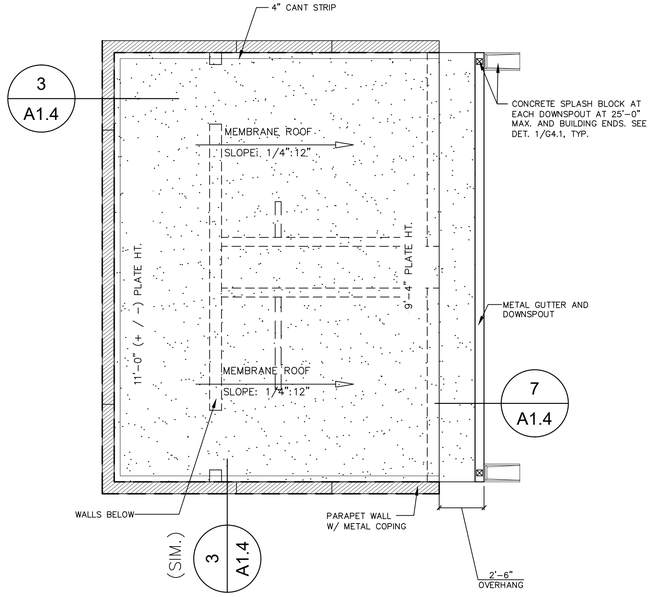


NOTES:
1. THE CURB'S TOP WOOD NAILER, AND SEAL STRIP ARE TO BE SUPPLIED BY THE CURB MANUFACTURER.
2. ATTACH NAILER TO DECK WITH SUITABLE FASTENERS.
3. WHEN POSSIBLE, THE MECHANICAL UNITS SHOULD NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED.

8 CURB FLASHING DETAIL
NOT TO SCALE



7 ROOF EDGE GUTTER DETAIL
NOT TO SCALE



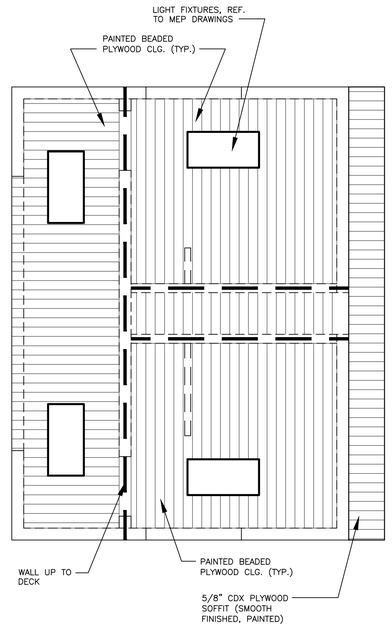
ROOF LEGEND
LOW SLOPE MEMBRANE ROOFING AS PER SPEC.:

METAL COPING AS PER SPEC.

GENERAL ROOF NOTES:

A. PROVIDE ALL REQUIRED UTILITY / STRUCTURAL COMPONENTS AND/OR CONNECTIONS FOR THE FUNCTIONAL USE OF ALL CONTRACTOR SUPPLIED EQUIPMENT OR APPLIANCES, REGARDLESS OF ANY OMISSIONS OR INCONSISTENCIES ENCOUNTERED IN THE CONSTRUCTION DOCUMENTS.
B. THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY TO USE.'
C. IF DISCREPANCIES APPEAR BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE HIGHER QUALITY, QUANTITY, AND PRICE SHALL SUPERSEDE.
D. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BECOME FAMILIAR WITH THE PROJECT AND THE ON-SITE / OFF-SITE CONDITIONS PRIOR TO BIDDING OR COMMENCING WORK.
E. PROVIDE METAL END CLOSURE ON EXPANSION JOINTS WHERE THEY OCCUR AT THE EDGE OF THE ROOF.
F. ROOF SLOPES SHOWN ON DRAWING ARE GENERAL AND CONCEPTUAL ONLY. PROVIDE POSITIVE DRAINAGE TO ALL ROOF DRAINS AND/OR GUTTERS. VERIFY TAPER IN SHOP DRAWINGS.
G. PROVIDE TAPERED INSULATION CRICKETS (1/2"/FT. MIN. SLOPE) AT HIGH SIDE OF ALL MECHANICAL UNITS SMOKE VENTS, ROOF HATCHES & OTHER MISC. ROOF PENETRATIONS, TO SHED WATER AROUND & TO ENSURE POSITIVE ROOF DRAINAGE.
H. PROVIDE ADDITIONAL FULLY ADHERED MEMBRANES AS PROTECTION AT "SERVICE SIDE" OF ALL MECH. EQUIPMENT -- FIELD VERIFY LOCATIONS, TO INCLUDE, AT "ACCESS SIDE" OF ALL ROOF HATCHES, ROOF ACCESS LADDERS AND AT DOWNSPOUT LOCATIONS. FIELD VERIFY ALL LOCATIONS.
I. ALL WOOD BLOCKING AT ROOF EDGES ARE TO BE FABRICATED FROM CONT. 2X FR-WD BOARDS. PROVIDE LARGER 2X FR-WD AS REQUIRED PER DIMENSIONED DETAILED OR AS FIELD CONDITIONS DICTATE. ALL COPING TO BE SLOPED TOWARD THE INTERIOR.
J. ALL EXPOSED FLASHING, COPING (IF APPLICABLE) AND THEIR ACCESSORIES SHALL BE AS SPECIFIED. PAINT ALL METAL FLASHING THAT IS NOT PREFINISHED (TYP) AND VISIBLE FROM THE GROUND.
K. HEIGHT OF ALL NAILERS SHALL BE FLUSH WITH NEW INSULATION THICKNESS.
L. ALL THROUGH FLASHING SYSTEMS TO ACCOMMODATE 8" MINIMUM FLASHING HEIGHT FROM FINISHED ROOF SURFACE. PROVIDE END DAMS AS CONDITIONS ALLOW. ALL FLASHING TO HAVE 4" LAP MINIMUM AND OR STEP.
M. ALL PITCH PANS SHALL BE SOLDERED CLAD METAL AND RECEIVE EITHER MECHANICALLY ATTACHED GOOSENECK OR METAL BONNETS. METAL BONNETS SHALL BE SECURED WITH CLAMPING RING AND SEALANT. SPECIAL CARE GIVEN TO WASH ALL METAL PRIOR TO INSTALLATION.
N. ALL INFIELD EXPANSION JOINTS SHALL HAVE LOW SLOPED STANDING SEAM JOINTS AND SHALL BE CHAMFERED AT TERMINATION AT ROOF EDGE TO MEET PROFILE OF PERIMETER.
O. ANY CRACKS OR VOIDS IN RISE WALLS ABOVE COUNTER FLASHING SHALL BE REPAIRED WITH COMPATIBLE SEALANT.
P. ALL VERTICAL MEMBRANE FLASHING SHALL BE MECHANICALLY FASTENED AND INSTALLED WITH NEW METAL COUNTER FLASHING UTILIZING A CONTINUOUS CLIP. SLIDE METAL COVER PLATE DOWN OVER VERTICAL CLIP AND SEAL.
Q. PROVIDE NEW CONCRETE SPLASH BLOCKS ON ROOF ELEVATION SUPPORTED BY A WALK PAD WHERE DOWN SPOUTS OCCUR.
R. ALL PIPE AND CONDUIT SHALL RECEIVE PIPE SUPPORTS AND RELATED SHIMS, AND SHALL BE PLACED ON AN ADDITIONAL FULLY ADHERED ROOF MEMBRANE UNDER SPECIFIED WALK PAD PRIOR TO SURFACE APPLICATION. SUPPORTS TO OCCUR AT 10'-0" O.C. AND WITHIN 2'-0" OF ALL SLOPES, TEES AND CORNERS. ALL PIPE TO BE PAINTED PER BUILDING CODE REQUIREMENTS.
S. ALL METAL FLASHING SHALL EXTEND BEYOND ROOF EDGE MIN. 8" WHERE FLASHING ABUTS VERTICAL WALL SURFACE AS DETAILED. ALL FLASHING SHALL BE INSTALLED IN SHINGLE FASHION.
T. AT ALL LOCATIONS WHERE CONVERGENCE OF MULTIPLE PLANE OF ROOFING TO WALL, INTERSECTING PARAPETS AND EDGES TO RISE WALL, ETC OCCURS, FIELD FABRICATE THERMOPLASTIC BOOT AS AN EXTENSION OF THE ROOFING SYSTEM BASE FLASHING TO BE INSTALLED OVER THE NEW ROOFING, COMPLETELY OVERLAYING THE TRANSITIONS OF ALL ROOF TO WALL, ELEVATIONS, INSIDE / OUTSIDE 90'S ETC. PRIOR TO COPING AND WALL FINISH INSTALLATIONS. PROPERLY TERMINATE AND SEAL WITH THREE COURSE FLASHING AS DETAILED. CONTRACTOR TO COORDINATE WITH ALL TRADES FOR PROPER SEQUENCING OF WORK.
U. ALL EQUIPMENT CURBS TO BE SET AS NECESSARY TO MAINTAIN 10" MINIMUM HEIGHT ABOVE FINISHED ROOF SURFACE.

1 ROOF PLAN
SCALE: 1/4": 1'-0"



CEILING LEGEND
PAINTED BEADED PLYWOOD CEILING

WALL TO DECK

PAINTED BEADED PLYWOOD SOFFIT

NOTES
PAINT ALL EXPOSED STRUCTURES, PURLINS, CONDUITS, A/C DUCTWORK ETC.

ALL WALLS (CMU AND OTHERWISE SHALL BE MIN. 8" ABOVE ADJACENT HIGHEST CEILING. UNLESS OTHERWISE SPECIFIED).

FURR ALL COLUMNS WHETHER SHOWN OR NOT.

CORDINATE TYPES & LOCATION OF ALL LIGHT FIXTURES WITH MEP

2 REF. CLG. PLAN
SCALE: 1/4": 1'-0"

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

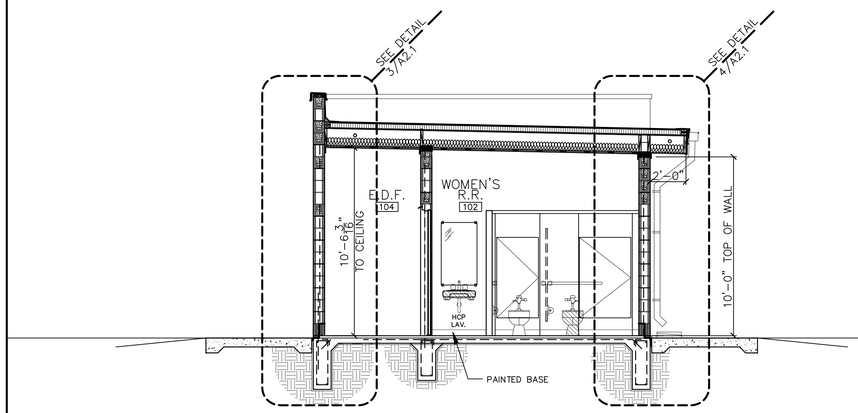
REGISTERED ARCHITECT EDUARDO G. VELA 14407 STATE OF TEXAS

APR 17 2019

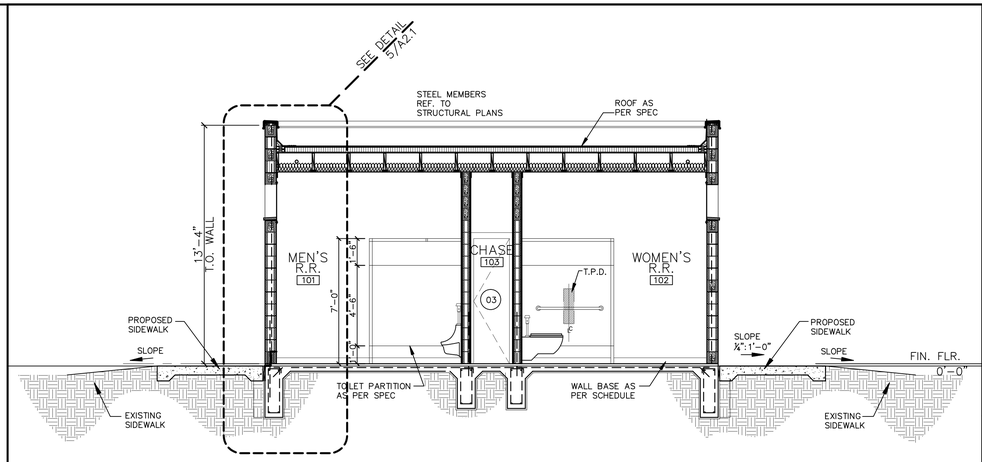
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

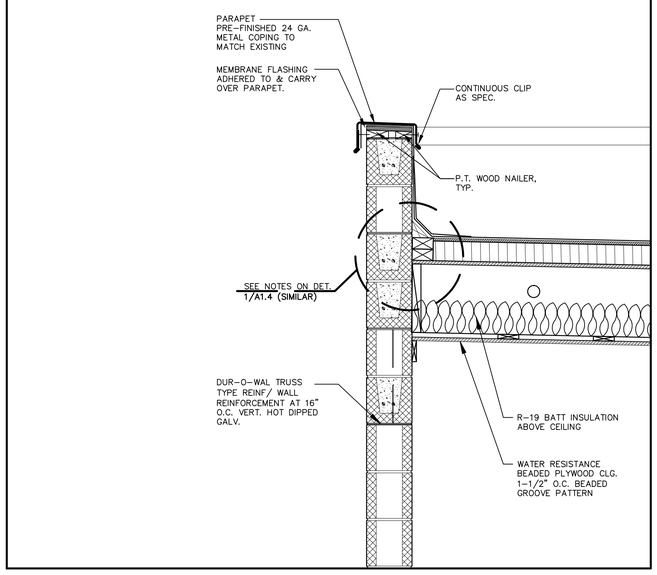
A1.4 SHEET OF 11

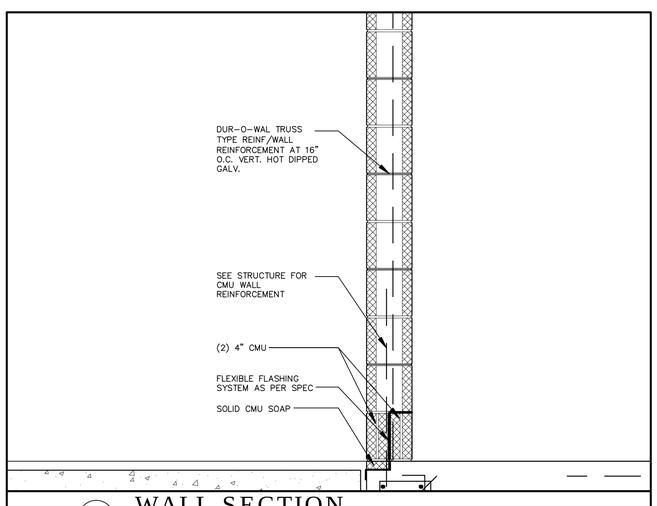


1 BUILDING SECTION
SCALE: 1/4" = 1'- 0"

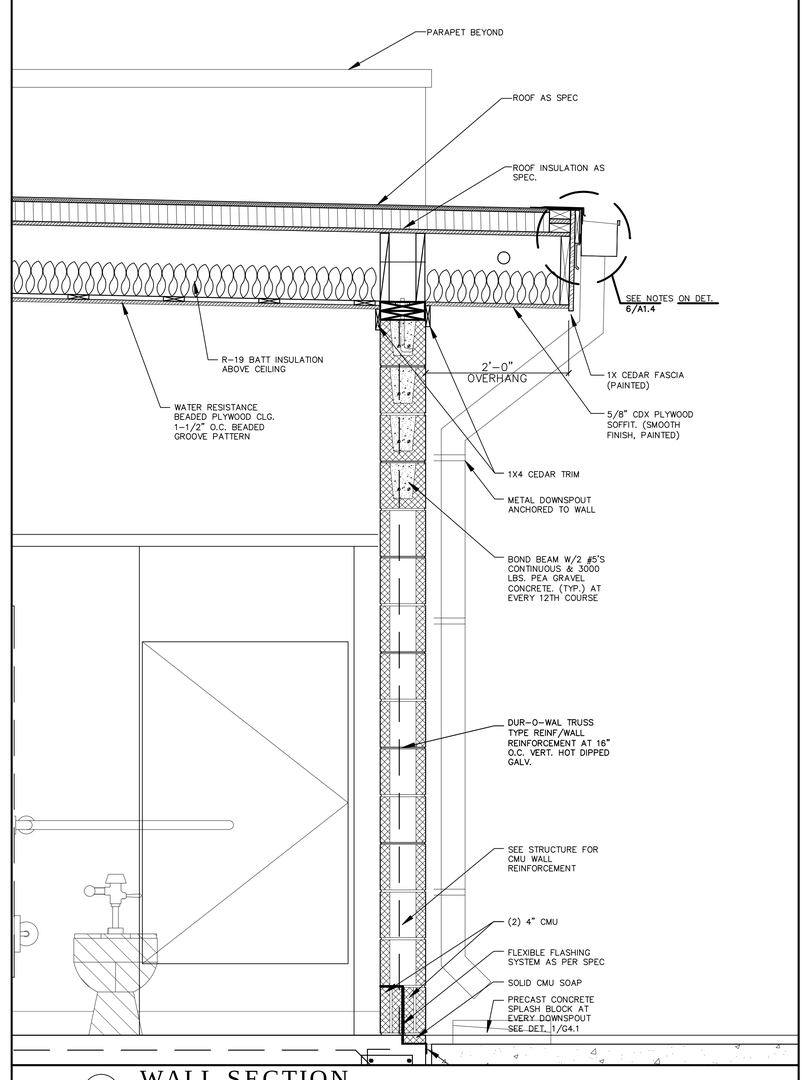


2 BUILDING SECTION
SCALE: 1/4" = 1'- 0"

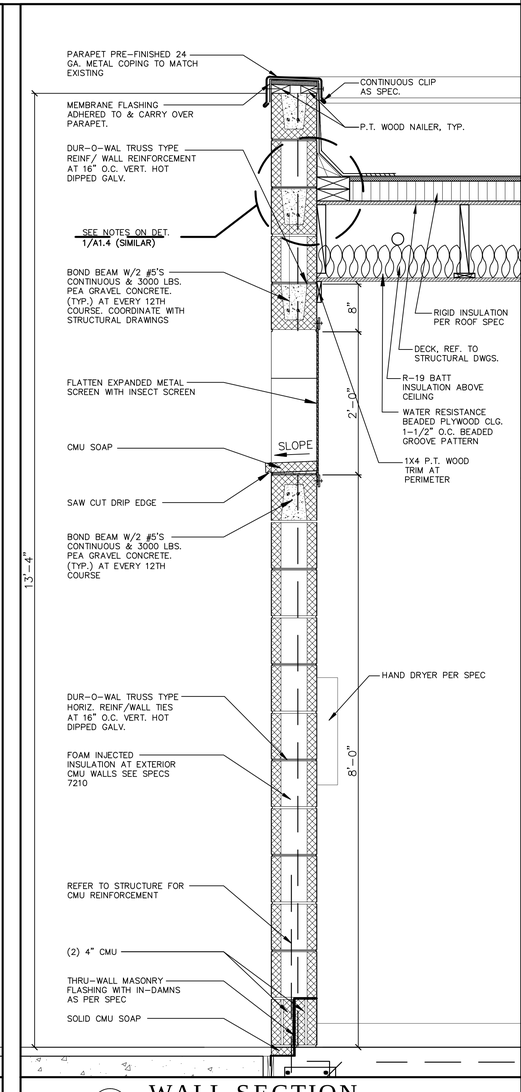




3 WALL SECTION
SCALE: 1" = 1'- 0"



4 WALL SECTION
SCALE: 1" = 1'- 0"



5 WALL SECTION
SCALE: 1" = 1'- 0"

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

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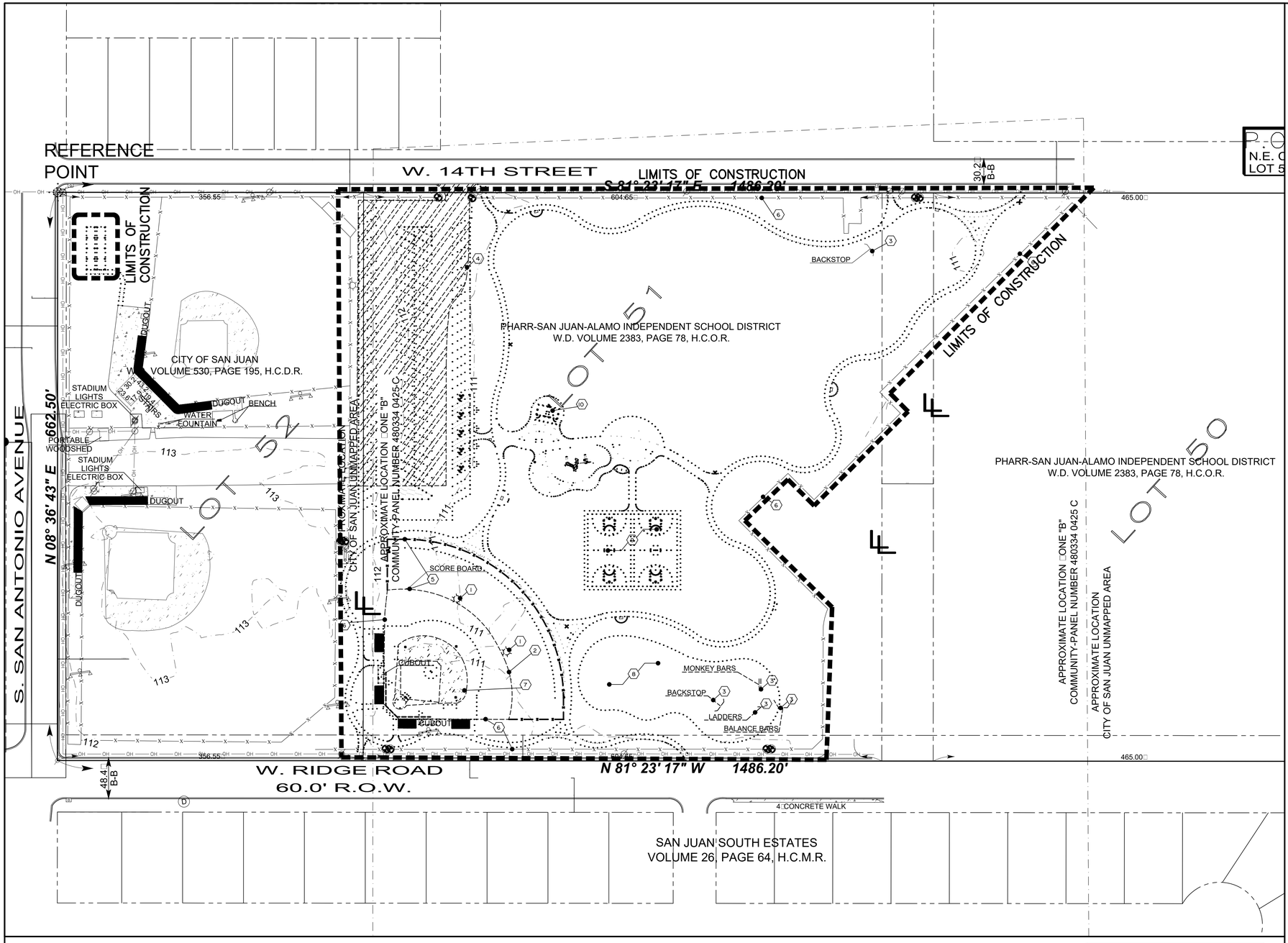
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

A2.1 SHEET OF 11



1. EXISTING LIGHTS AT SOFTBALL FIELD TO BE REMOVED.
2. REMOVE EXISTING FENCE AROUND SOFTBALL FIELD.
3. REMOVE EXISTING PLAYGROUND EQUIPMENT.
4. EXISTING PARKING LOT TO BE RESURFACE AND EXPANDED, REFER TO CIVIL SHEETS.
5. SCOREBOARD TO BE RELOCATED FROM EXISTING LOCATION. PROVIDE POWER PER MEP DRAWINGS.
6. EXISTING FENCE TO REMAIN.
7. EXISTING SOFTBALL FIELD TO BE REGRADED. SEE LANDSCAPE DRAWINGS.
8. PROPOSED DETENTION POND.
9. PROPOSED BASKETBALL COURTS.
10. PROPOSED RESTROOMS.

LEGEND

ITEMS TO BE DEMOLISHED	⊏⊐⊏⊐⊏⊐⊏⊐
PROPOSED BLDG	·····
FUTURE IMPROVEMENTS	— — — —
EXISTING GROUND ELEVATION	X 102.5

NOTE:
REFER TO CIVIL AND MEP DRAWINGS FOR ADDITIONAL ITEMS TO DEMOLISH

N

1 CARMAN ELEM - EXISTING SURVEY
SCALE: 1"=60' (REFER TO CIVIL DRAWINGS)

3 **DEMOLITION KEY**
N.T.S.

1. P.S.J.A. I.S.D. SHALL RETAIN THE RIGHT OF FIRST REFUSAL ON ALL REMOVED ITEMS, MATERIAL & EQUIPMENT. IF P.S.J.A. I.S.D. DOES NOT ELECT TO KEEP ANY REMOVED ITEMS, MATERIAL AND EQUIPMENT, IT SHALL THEN BECOME THE PROPERTY & RESPONSIBILITY OF THE CONTRACTOR.

2. ALL ITEMS INDICATED TO BE SALVAGED, REPOSITIONED, OR REPLACED SHALL BE CAREFULLY REMOVED, SAFELY STORED AND DELIVERED IN GOOD CONDITION TO OWNER'S MAINTENANCE STORAGE FACILITY LOCATED AT P.S.J.A. I.S.D. REPAIR ALL SUCH ITEMS IF DAMAGED OR REPLACE TO THE SATISFACTION OF THE OWNER.

3. GENERAL CONTRACTOR SHALL VISIT SITE AND GET FAMILIARIZED WITH ALL EXISTING CONDITIONS AND CONTRACT DOCUMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, QUANTITIES, ETC. CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES OR IRREGULARITIES THAT MAY EXIST PRIOR TO SUBMITTING A BID.

4. CONTRACTOR SHALL NOTIFY THE ARCHITECT & THE OWNER IMMEDIATELY SHOULD UNANTICIPATED HAZARDOUS MATERIALS BE SUSPECTED OR DISCOVERED.

5. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, & ORDINANCES HAVING JURISDICTION.

6. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATION & SCHEDULING OF THE CONSTRUCTION WORK, PROVISION & CONTROL OF ALL MEANS & METHODS OF CONSTRUCTION, FIRE PREVENTION, COORDINATION, ORDERING, DELIVERY & STORAGE OF MATERIALS, REMOVAL OF DEBRIS, & ALL ASPECTS OF JOB SAFETY.

7. SWEEP DEBRIS FROM SELECTIVE DEMOLITION DAILY; NO ACCUMULATION OF TRASH AND DEBRIS MATERIALS WILL BE ALLOWED. APPROPRIATE TRASH DUMPSTERS PROVIDED BY CONTRACTOR ARE TO BE USED FOR SELECTIVE DEMOLITION WORKS. CONTRACTOR SHALL REMOVE ALL DEBRIS AND CONSTRUCTION MATERIAL OFF SITE AND DISPOSE ON APPROPRIATE DUMPSITE. VERIFY WITH OWNER LOCATION OF DUST CONTAINMENT BARRIERS FOR DEMOLITION.

8. CONTRACTOR SHALL TAKE EXTREME CARE ON WORKING WITH EXISTING ITEMS (BUILDING & SITE) THAT ARE TO REMAIN. PROTECT ALL WALLS & FLOOR FINISHES AS NEEDED IN ORDER TO PREVENT DAMAGE TO THOSE SURFACES FROM DEMOLITION MATERIALS & DISPOSAL OPERATIONS. DAMAGE CAUSED BY THE CONSTRUCTION PROCESS WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

9. G.C. SHALL PATCH & REPAIR EXISTING MATERIALS AT ALL AREAS AS REQUIRED TO MATCH WITH EXISTING.

10. REPAIR AND LEVEL ANY FLOOR & CONCRETE AREAS BEFORE INSTALLING NEW FLOORING SYSTEMS.

11. CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS NOT TO INSTALL MATERIALS THAT CONTAIN ASBESTOS, P.C.B.'s OR OTHER HAZARDOUS MATERIALS.

12. THOROUGHLY CLEAN EXISTING (STRUCTURES, WALL, FLOOR, ROOF, ETC.) SCHEDULED TO RECEIVE NEW FINISHES.

*13. INSTALL ALL NEW OUTLETS, CONDUITS, & DATA BOXES INSIDE EXISTING OR NEW WALLS. ABSOLUTELY NO EXPOSED CONDUITS. REFER TO M.E.P. DRAWINGS FOR LOCATION OF NEW ELECTRICAL OUTLETS & MECHANICAL CONTROLS. IF CONDUITS ARE TO BE INSTALLED ON EXISTING MASONRY WALLS, CMU FACE MUST BE SAW CUT AND REPLACED TO CONCEAL CONDUITS

14. REFER TO MEP DEMOLITION PLANS, NOTES, & SPECIFICATIONS FOR INFORMATION ON OTHER EXISTING MECHANICAL, ELECTRICAL & PLUMBING EQUIPMENT.

15. REMOVE ALL ITEMS AS REQUIRED TO ACCOMPLISH THE FINAL CONSTRUCTION REQUIREMENTS EVEN IF NOT SHOWN ON THE CONTRACT DOCUMENTS.

16. CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF MECHANICAL, ELECTRICAL, & PLUMBING WITH THE OWNER DURING THE COURSE OF CONSTRUCTION.

17. ADJACENT BUILDINGS WILL REMAIN IN USE. NOTIFY OWNER & ARCHITECT 24 HR IN ADVANCE BEFORE INTERRUPTION OF POWER OR ANY UTILITIES

4 NOTES TO G.C.
N.T.S.

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

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EGV ARCHITECTS, INC.

REGISTERED ARCHITECT
EDUARDO G. VELA
14401
STATE OF TEXAS
APR 17 2019

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjo/playgrounds

AC1.0 SHEET 11 OF

REFERENCE POINT

W. 14TH STREET

LIMITS OF CONSTRUCTION

S 81° 23' 17" E 1486.20'

356.55

604.65

NEW GATE

NEW GATE

EXERCISE STATION

MATCH F.F.

NEW EXERCISE STATION AS PER SPEC.

NEW DECOMPOSED GRANITE WALKING TRAIL (2,750 LINEAR FEET)

9/A1.2

NEW GATE

NEW WALKING TRAIL

LIMITS OF CONSTRUCTION

EXISTING BASEBALL FIELD & DUGOUTS

EXISTING PARKING LOT TO BE RESURFACE

EXISTING FENCE

2 AC1.1

PLAYING FIELD

65'-0"

65'-0"

9/A1.2

9 A1.3

NEW RESTROOMS

F.F.

2 AC1.2

NEW OUTDOOR FITNESS AREA

NEW PLAYGROUND

5 AC1.2

4 AC1.2

NEW CANOPY WITH PICNIC TABLE AS PER SPEC.

NEW EXERCISE STATION AS PER SPEC.

1 AC1.2

F.F.

NEW BASKETBALL COURTS ADD ALT. #3

NEW EXERCISE STATION AS PER SPEC.

EXISTING FENCE

EXISTING ELEMENTARY SCHOOL

N 08° 36' 43" E 662.50'

LIMITS OF CONSTRUCTION

EXISTING BASEBALL FIELD & DUGOUTS

RESURFACE SOFTBALL FIELD SHEET AC1.2

NEW BENCH

9/A1.2

NEW EXERCISE STATION AS PER SPEC.

NEW DETENTION POND AND FENCE

NEW CHAINLINK FENCE 4' HIGH APROX 41 FEET AS PER DETAIL 11/A1.2

NEW GATE

NEW CHAINLINK GATE

EXISTING FENCE

356.55

604.65

N 81° 23' 17" W 1486.20'

W. RIDGE ROAD

60.0' R.O.W.

4 CONCRETE WALK

SAN JUAN SOUTH ESTATES

LEGEND

1. NEW SIDEWALK W/ GUTTER RE: DET. 5/G4.1
2. NEW SIDEWALK WITH PIPES BELOW PAVING RE: 3/G4.1
3. SIDEWALK H/C RAMP SEE DETAIL 2/G4.1 TYP.
4. H/C SIGN AT EACH H/C SPACE REFER TO DET. 7/G4.1 TYP.
5. PAINT/STRIPE ACCESSIBLE ROUTE PER ADA STANDARDS
6. MAX. 1/4":FT SLOPE
7. NEW WHEEL STOP
8. SAW CUT & REPLACE EXISTING CONCRETE CURB AND GUTTER
9. PAINT H/C LOGO, PARKING SPACE LINES & ACCESS AISLE PER ADA STANDARSD.
10. MATCH EXISTING ELEVATION
11. MATCH EXISTING ASPHALT ELEVATION
12.
13. TYP. PAINTED CURB: PAINT CURB RED & PROVIDE THE PRASE:"NO PARKING TOW AWAY ZONE & FIRE LANE" AT ENDS AND 50' o.c. TYP. ALL STRIPING TO BE DONE AS PER LOCAL FIRE DEPARTMENT CODE.
14. NEW CHAINLINK FENCE PER DETAIL 11/A1.2
15.

NEW SPOT ELEV.

LIMITS OF CONSTRUCTION

NOTE:
1. CONTACT CIVIL ENGINEER & ARCHITECT TO CHECK FLATWORK FORM BEFORE POURING CONCRETE. REFER TO SHEET G3.1 FOR EXISTING GRADES.
2. ALL SIDEWALKS /PORCHES / CONCRETE STOOPS SHALL SLOPE MIN. ¼":12" AWAY FROM ENTRANCES

ALTERNATE LIST

ADD ALTERNATE #1: CARMAN ELEMENTARY PLAYGROUND
ADD ADDITIONAL IRRIGATION AS DETAILED IN LANDSCAPING SHEETS.

ADD ALTERNATE #2: CARMAN ELEMENTARY PLAYGROUND
ADD ADDITIONAL HYDROMULCH AS DETAILED IN LANDSCAPING SHEETS.

ADD ALTERNATE #3: CARMAN ELEMENTARY PLAYGROUND
ADD BASKETBALL COURT, BASKETBALL EQUIPMENT AND LIGHTING. DEDUCT IRRIGATION AND HYDROMULCH IF ADD ALTERNATE #3 IS ACCEPTED.

ADD ALTERNATE #4: CARMAN ELEMENTARY PLAYGROUND
ADD SOFTBALL FIELD LIGHTING. CONDUITS AND PULL STRINGS TO BE INCLUDED IN BASE BID.

ADD ALTERNATE #5: CARMAN ELEMENTARY PLAYGROUND
ADD FIELD LIGHTING AT OPEN PLAYING FIELD. CONDUITS AND PULL STRINGS TO BE INCLUDED IN BASE BID.

ADD ALTERNATE #6: SANTOS LIVAS ELEMENTARY PLAYGROUND
ADD BASKETBALL COURT, BASKETBALL EQUIPMENT AND LIGHTING. DEDUCT IRRIGATION AND HYDROMULCH IF ADD ALTERNATE #5 IS ACCEPTED.

N 1 PROPOSED SITE PLAN
SCALE: 1":40' (CARMAN ELEMENTARY)

NO.	REVISIONS	DATE	APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
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EGV ARCHITECTS, INC.

REGISTERED ARCHITECT EDUARDO G. VELA 14401 STATE OF TEXAS

APR 17 2019

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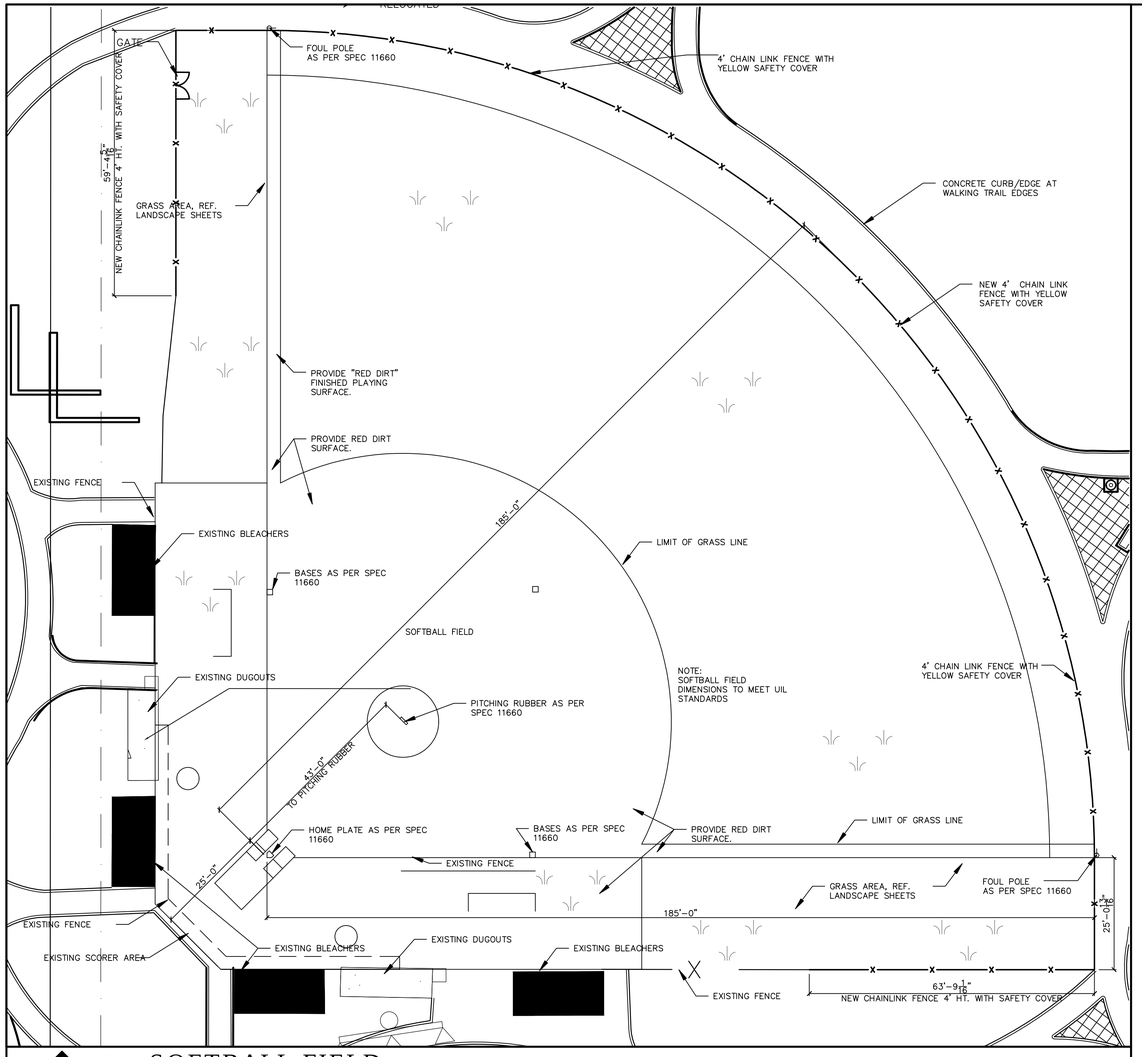
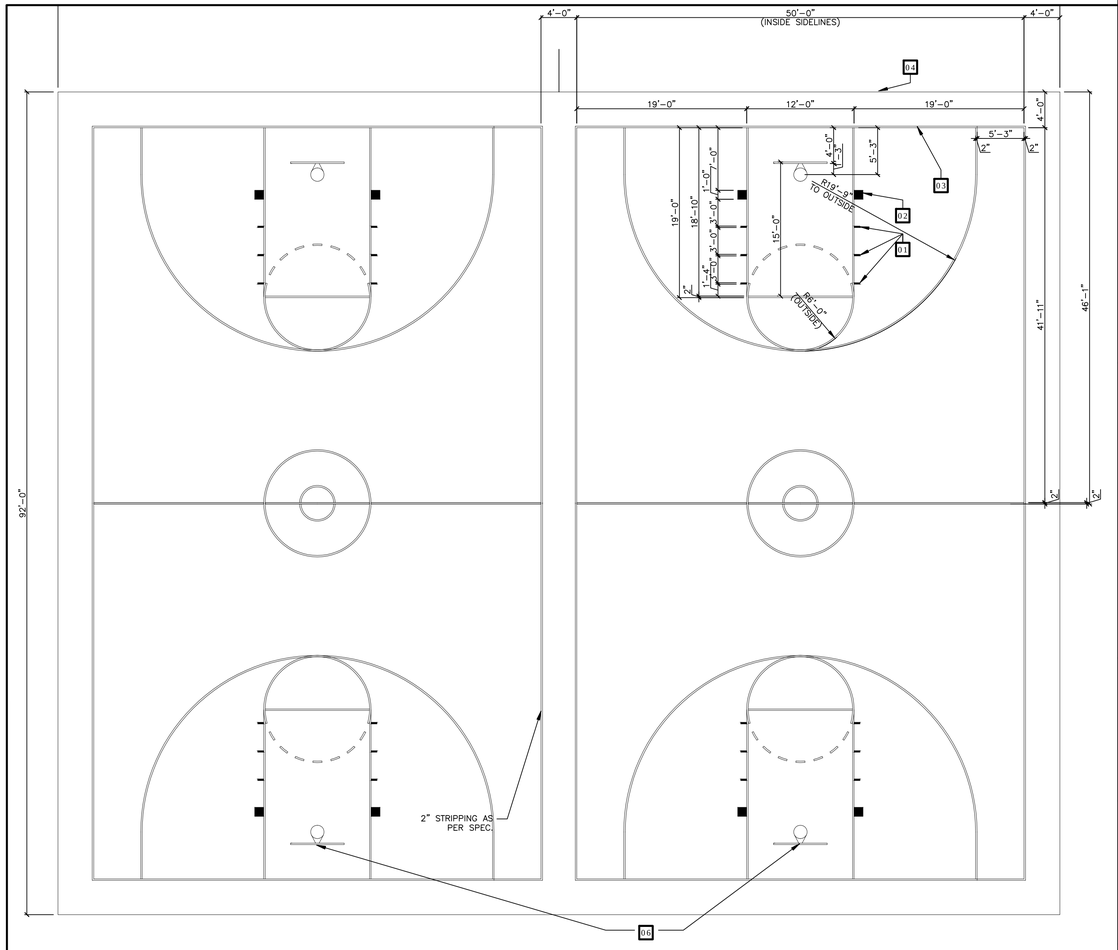
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjp/playgrounds

AC1.1 SHEET OF 11



N 1 SOFTBALL FIELD
SCALE: 1/16" = 1'-0"



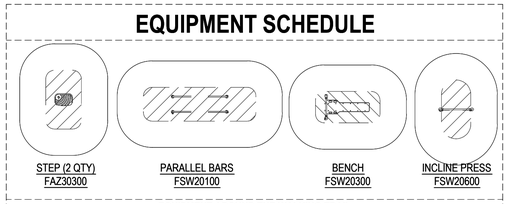
N 4 BASKETBALL COURTS
SCALE: 1/8" = 1'-0" ADD ALTERNATE #3

KEYNOTE:

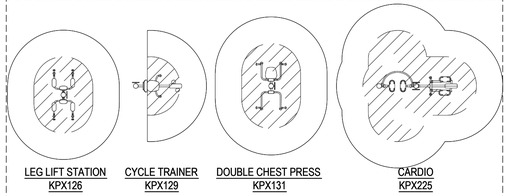
- 01 2" WIDE x 8" DEEP STRIPING
- 02 12" WIDE x 8" DEEP STRIPING
- 03 2" BASKETBALL STRIPING TYP.
- 04 EDGE OF FOUNDATION
- 06 BASKETBALL HOOP REFER TO SPECIFICATION 11682

NOTE: THE COLORS OF THE LANE SPACE MARKS AND NEUTRAL ZONE MARKS SHALL CONTRAST WITH THE COLOR OF THE LANE BOUNDARY LINES

EQUIPMENT SCHEDULE

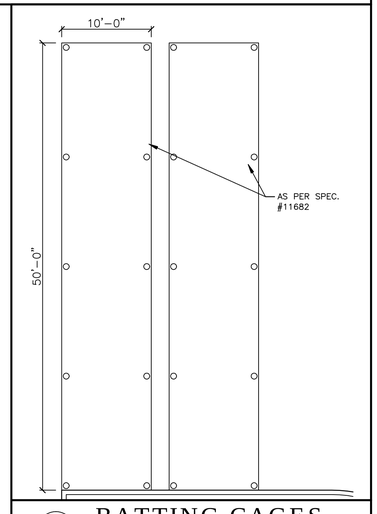


EQUIPMENT AROUND THE WALKING TRAIL

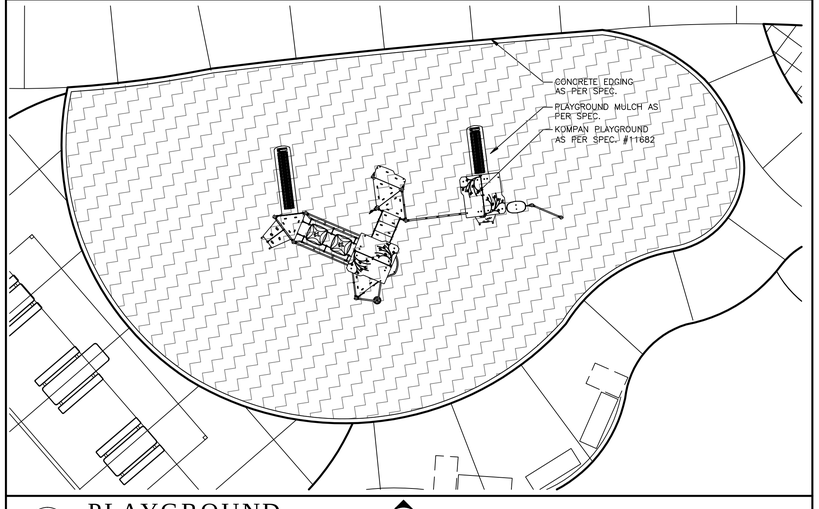


EQUIPMENT AT THE SAME LOCATION

2 OUTDOOR FITNESS
SCALE: 1/8" = 1'-0" REFER TO SPEC #11682



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



5 PLAYGROUND
SCALE: 1/8" = 1'-0"
N

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EGV ARCHITECTS, INC.

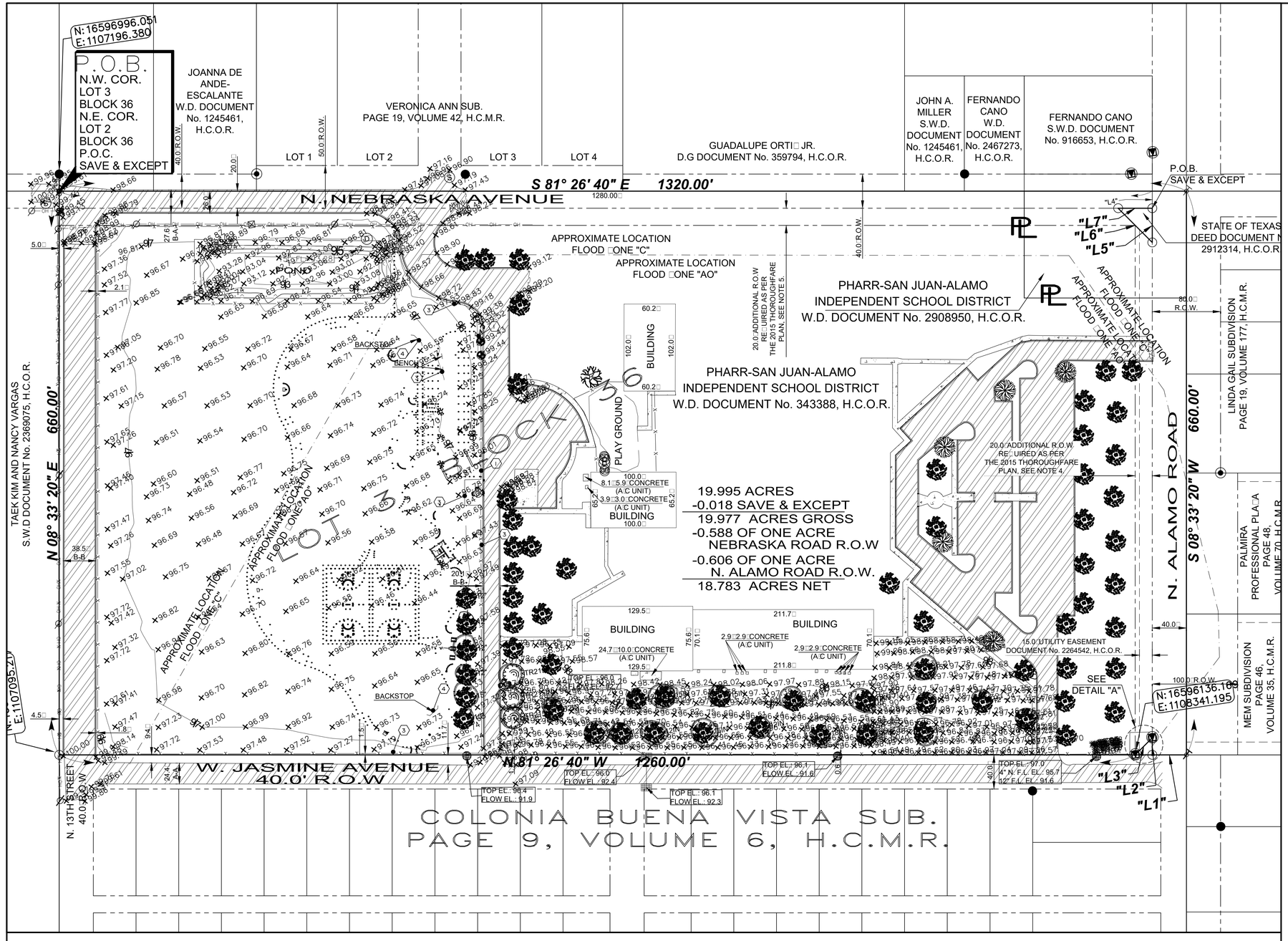
REGISTERED ARCHITECT EDUARDO G. VELA 14407 STATE OF TEXAS
APR 17 2019

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

AC1.2 SHEET OF 11



LEGEND

ITEMS TO BE DEMOLISHED	⊏⊏⊏⊏⊏⊏⊐
PROPOSED BLDG	.....
FUTURE IMPROVEMENTS	— — — —
EXISTING GROUND ELEVATION X 102.5	

NOTE:
REFER TO CIVIL AND MEP DRAWINGS FOR ADDITIONAL ITEMS TO DEMOLISH

N 1 SANTOS LIVAS PARK-SURVEY
SCALE: 1"=60' REFER TO SURVEY BY CIVIL ENGINEER

1. DEMOLISH SECTION OF EXISTING CHAINLINK FENCE TO ALLOW FOR A NEW GATE OPENING
2. RELOCATE EXISTING TREE NOT SHOWN ON EXISTING SURVEY.
3. EXISTING FENCE TO REMAIN
4. EXISTING BACKSTOP FENCE TO BE REMOVED
5. EXISTING BENCH TO BE REMOVED

3 DEMOLITION KEY
N.T.S.

1. P.S.J.A. I.S.D. SHALL RETAIN THE RIGHT OF FIRST REFUSAL ON ALL REMOVED ITEMS, MATERIAL & EQUIPMENT. IF P.S.J.A. I.S.D. DOES NOT ELECT TO KEEP ANY REMOVED ITEMS, MATERIAL AND EQUIPMENT, IT SHALL THEN BECOME THE PROPERTY & RESPONSIBILITY OF THE CONTRACTOR.

2. ALL ITEMS INDICATED TO BE SALVAGED, REPOSITIONED, OR REPLACED SHALL BE CAREFULLY REMOVED, SAFELY STORED AND DELIVERED IN GOOD CONDITION TO OWNER'S MAINTENANCE STORAGE FACILITY LOCATED AT P.S.J.A. I.S.D. REPAIR ALL SUCH ITEMS IF DAMAGED OR REPLACE TO THE SATISFACTION OF THE OWNER.

3. GENERAL CONTRACTOR SHALL VISIT SITE AND GET FAMILIARIZED WITH ALL EXISTING CONDITIONS AND CONTRACT DOCUMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, QUANTITIES, ETC. CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES OR IRREGULARITIES THAT MAY EXIST PRIOR TO SUBMITTING A BID.

4. CONTRACTOR SHALL NOTIFY THE ARCHITECT & THE OWNER IMMEDIATELY SHOULD UNANTICIPATED HAZARDOUS MATERIALS BE SUSPECTED OR DISCOVERED.

5. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, & ORDINANCES HAVING JURISDICTION.

6. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATION & SCHEDULING OF THE CONSTRUCTION WORK, PROVISION & CONTROL OF ALL MEANS & METHODS OF CONSTRUCTION, FIRE PREVENTION, COORDINATION, ORDERING, DELIVERY & STORAGE OF MATERIALS, REMOVAL OF DEBRIS, & ALL ASPECTS OF JOB SAFETY.

7. SWEEP DEBRIS FROM SELECTIVE DEMOLITION DAILY; NO ACCUMULATION OF TRASH AND DEBRIS MATERIALS WILL BE ALLOWED. APPROPRIATE TRASH DUMPSTERS PROVIDED BY CONTRACTOR ARE TO BE USED FOR SELECTIVE DEMOLITION WORKS. CONTRACTOR SHALL REMOVE ALL DEBRIS AND CONSTRUCTION MATERIAL OFF SITE AND DISPOSE ON APPROPRIATE DUMPSITE. VERIFY WITH OWNER LOCATION OF DUST CONTAINMENT BARRIERS FOR DEMOLITION.

8. CONTRACTOR SHALL TAKE EXTREME CARE ON WORKING WITH EXISTING ITEMS (BUILDING & SITE) THAT ARE TO REMAIN. PROTECT ALL WALLS & FLOOR FINISHES AS NEEDED IN ORDER TO PREVENT DAMAGE TO THOSE SURFACES FROM DEMOLITION MATERIALS & DISPOSAL OPERATIONS. DAMAGE CAUSED BY THE CONSTRUCTION PROCESS WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

9. G.C. SHALL PATCH & REPAIR EXISTING MATERIALS AT ALL AREAS AS REQUIRED TO MATCH WITH EXISTING.

10. REPAIR AND LEVEL ANY FLOOR & CONCRETE AREAS BEFORE INSTALLING NEW FLOORING SYSTEMS.

11. CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS NOT TO INSTALL MATERIALS THAT CONTAIN ASBESTOS, P.C.B.'s OR OTHER HAZARDOUS MATERIALS.

12. THOROUGHLY CLEAN EXISTING (STRUCTURES, WALL, FLOOR, ROOF, ETC.) SCHEDULED TO RECEIVE NEW FINISHES.

*13. INSTALL ALL NEW OUTLETS, CONDUITS, & DATA BOXES INSIDE EXISTING OR NEW WALLS. ABSOLUTELY NO EXPOSED CONDUITS. REFER TO M.E.P. DRAWINGS FOR LOCATION OF NEW ELECTRICAL OUTLETS & MECHANICAL CONTROLS. IF CONDUITS ARE TO BE INSTALLED ON EXISTING MASONRY WALLS, CMU FACE MUST BE SAW CUT AND REPLACED TO CONCEAL CONDUITS

14. REFER TO MEP DEMOLITION PLANS, NOTES, & SPECIFICATIONS FOR INFORMATION ON OTHER EXISTING MECHANICAL, ELECTRICAL & PLUMBING EQUIPMENT.

15. REMOVE ALL ITEMS AS REQUIRED TO ACCOMPLISH THE FINAL CONSTRUCTION REQUIREMENTS EVEN IF NOT SHOWN ON THE CONTRACT DOCUMENTS.

16. CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF MECHANICAL, ELECTRICAL, & PLUMBING WITH THE OWNER DURING THE COURSE OF CONSTRUCTION.

17. ADJACENT BUILDINGS WILL REMAIN IN USE. NOTIFY OWNER & ARCHITECT 24 HR IN ADVANCE BEFORE INTERRUPTION OF POWER OR ANY UTILITIES

4 NOTES TO G.C.
N.T.S.

DATE: DESIGNED: DRAWN: CHECKED: SCALE:
NO. REVISIONS DATE APPROVED

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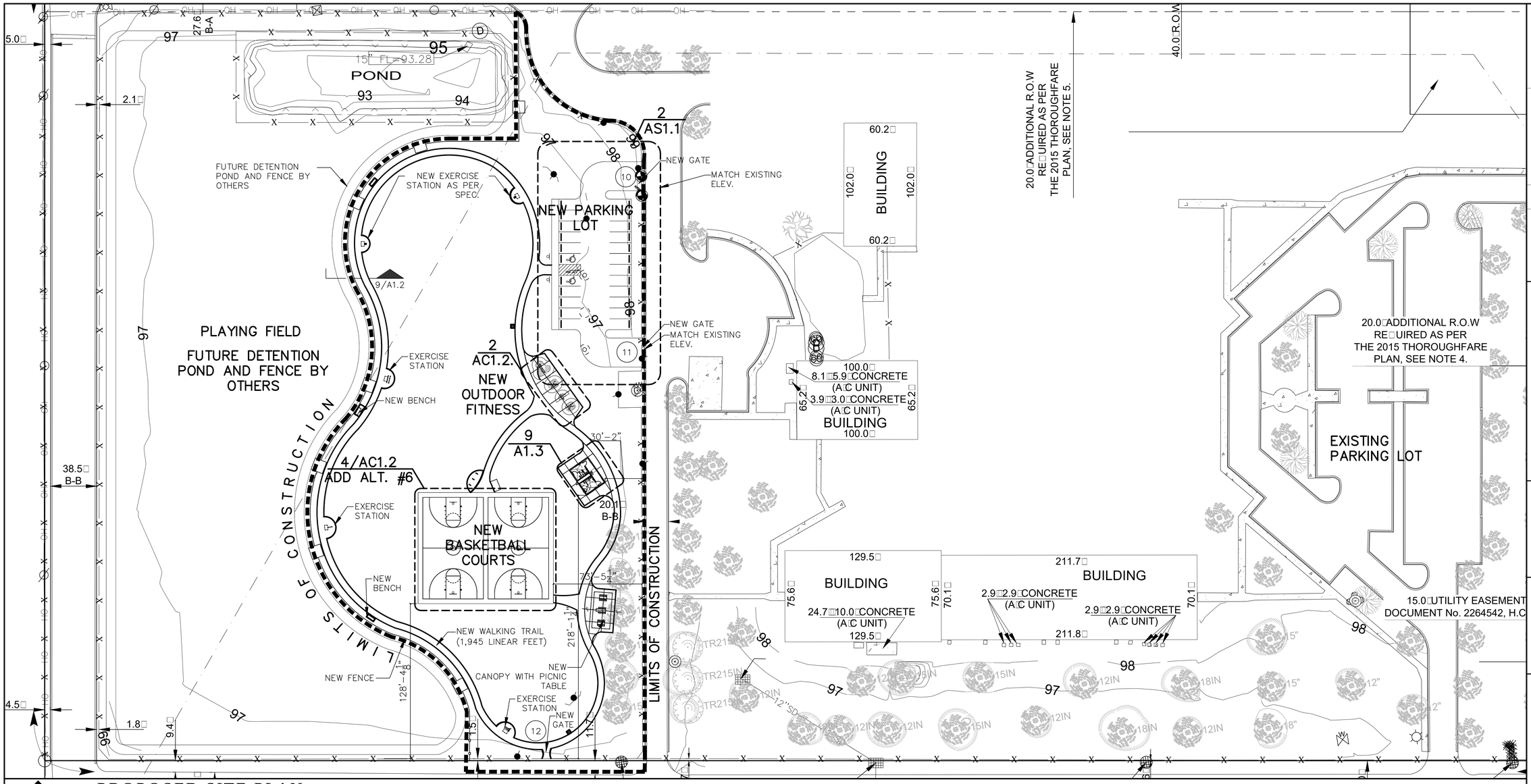
REGISTERED ARCHITECT
EDUARDO G. IVES
14401
STATE OF TEXAS
APR 17 2019

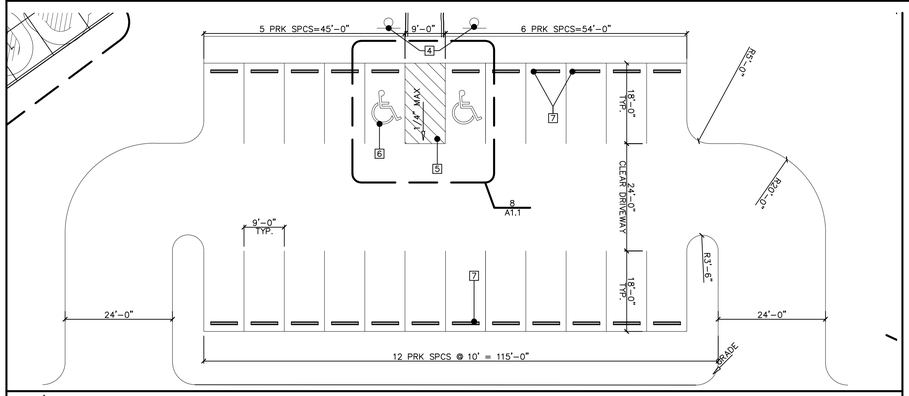
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/playgrounds

AS1.0 SHEET OF 11



N 1 PROPOSED SITE PLAN
SCALE: 1" = 60' (SANTOS–LIVAS ELEMENTARY)



N 2 PROPOSED PARKING LOT
SCALE: 1/16" = 1'– 0"

ALTERNATE LIST

ADD ALTERNATE #1: CARMAN ELEMENTARY PLAYGROUND
ADD ADDITIONAL IRRIGATION AS DETAILED IN LANDSCAPING SHEETS.

ADD ALTERNATE #2: CARMAN ELEMENTARY PLAYGROUND
ADD ADDITIONAL HYDROMULCH AS DETAILED IN LANDSCAPING SHEETS.

ADD ALTERNATE #3: CARMAN ELEMENTARY PLAYGROUND
ADD BASKETBALL COURT, BASKETBALL EQUIPMENT AND LIGHTING. DEDUCT IRRIGATION AND HYDROMULCH IF ADD ALTERNATE #3 IS ACCEPTED.

ADD ALTERNATE #4: CARMAN ELEMENTARY PLAYGROUND
ADD SOFTBALL FIELD LIGHTING. CONDUITS AND PULL STRINGS TO BE INCLUDED IN BASE BID.

ADD ALTERNATE #5: CARMAN ELEMENTARY PLAYGROUND
ADD FIELD LIGHTING AT OPEN PLAYING FIELD. CONDUITS AND PULL STRINGS TO BE INCLUDED IN BASE BID.

ADD ALTERNATE #6: SANTOS LIVAS ELEMENTARY PLAYGROUND
ADD BASKETBALL COURT, BASKETBALL EQUIPMENT AND LIGHTING. DEDUCT IRRIGATION AND HYDROMULCH IF ADD ALTERNATE #5 IS ACCEPTED.

LEGEND

1. NEW SIDEWALK W/ GUTTER RE: DET. 5/G4.1
2. NEW SIDEWALK WITH PIPES BELOW PAVING RE: 3/G4.1
3. SIDEWALK H/C RAMP SEE DETAIL 2/G4.1 TYP.
4. H/C SIGN AT EACH H/C SPACE REFER TO DET. 7/G4.1 TYP.
5. PAINT/STRIPE ACCESSIBLE ROUTE PER ADA STANDARDS
6. MAX. 1/4":FT SLOPE
7. NEW WHEEL STOP
8. SAW CUT & REPLACE EXISTING CONCRETE CURB AND GUTTER
9. PAINT H/C LOGO, PARKING SPACE LINES & ACCESS AISLE PER ADA STANDARSD.
10. MATCH EXISTING ELEVATION
11. MATCH EXISTING ASPHALT ELEVATION
12.
13. TYP. PAINTED CURB: PAINT CURB RED & PROVIDE THE PRASE: "NO PARKING TOW AWAY ZONE & FIRE LANE" AT ENDS AND 50' o.c. TYP. ALL STRIPING TO BE DONE AS PER LOCAL FIRE DEPARTMENT CODE.
14. NEW CHAINLINK FENCE AROUND PROPERTY SEE SHEET A1.01
15.

NEW SPOT ELEV. 100.0

LIMITS OF CONSTRUCTION

NOTE:
1. CONTACT CIVIL ENGINEER & ARCHITECT TO CHECK FLATWORK FORM BEFORE POURING CONCRETE. REFER TO SHEET G3.1 FOR EXISTING GRADES.
2. ALL SIDEWALKS /PORCHES / CONCRETE STOOPS SHALL SLOPE MIN. ¼":12" AWAY FROM ENTRANCES

NO.	REVISIONS	DATE APPROVED

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APR 17 2019

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjo/playgrounds

AS1.1 SHEET OF 11

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ESTABLISHED 1947 - www.meldenandhunt.com
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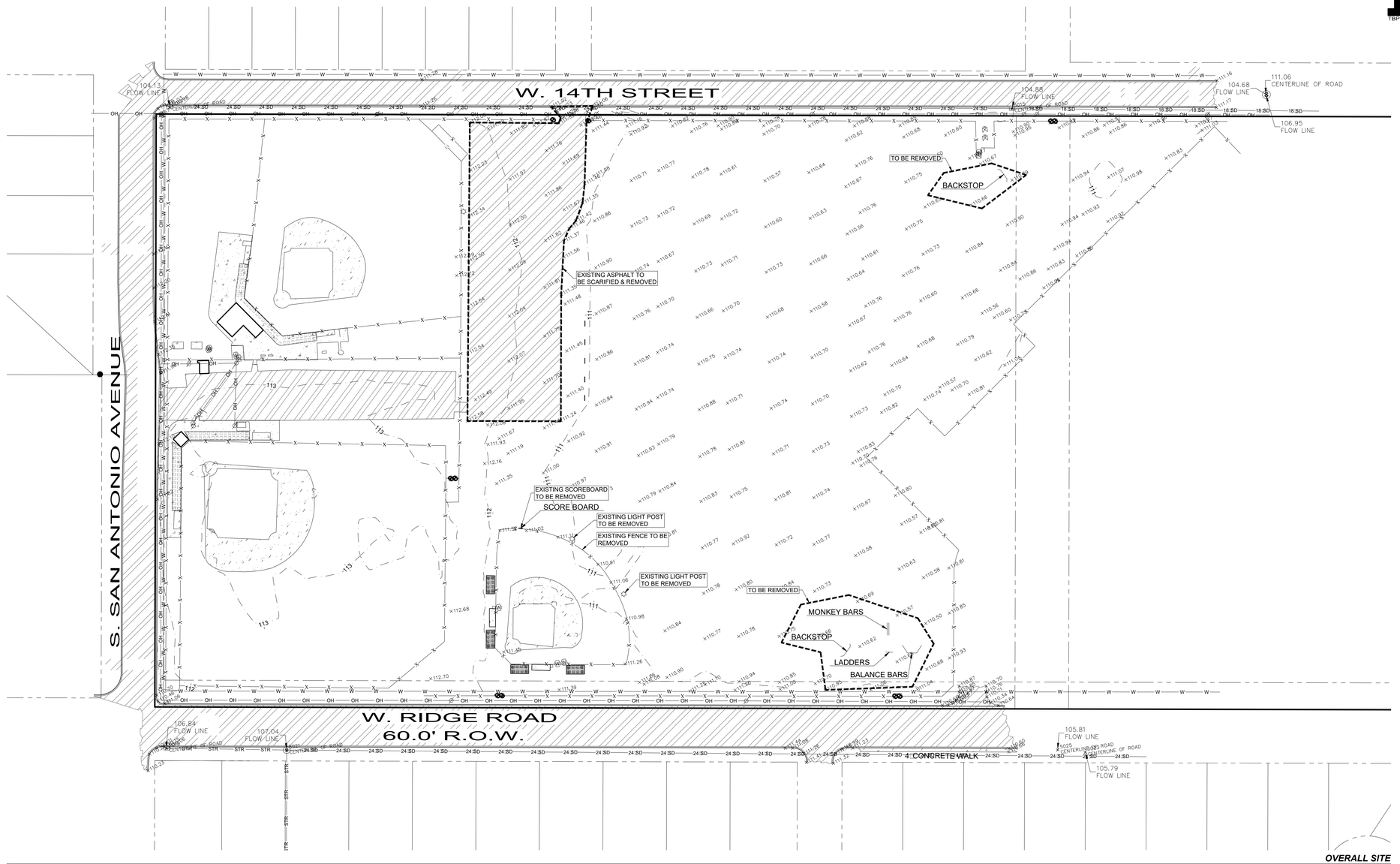

SCALE: 1" = 60'

OVERALL SITE
SCALE: 1" = 60'

LEGEND

- FOUND No.4 REBAR
- FOUND No.5 REBAR
- FOUND 3" DISK
- SET "X" MARK ON CONCRETE
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
- LIGHT POLE
- STADIUM LIGHT
- SCORE BOARD
- TELEPHONE PEDESTAL
- STORM SEWER MANHOLE
- WATER METER
- WATER VALVE
- TYPE "A" INLET
- GATE POST
- CHAIN LINK FENCE
- WOOD FENCE
- OVERHEAD POWER LINE
- ASPHALT AREA
- CONCRETE AREA
- INFIELD BASEBALL AREA
- COVERED BLEACHERS

B-B - BACK OF CURB TO BACK OF CURB
R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.D.R. - HIDALGO COUNTY DEED RECORDS
H.C.O.R. - HIDALGO COUNTY OFFICIAL RECORDS
N.E. COR. - NORTHEAST CORNER
P.O.B. - POINT OF BEGINNING
W.D. - WARRANTY DEED
LOT LINE

CIVIL GENERAL 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 SI□ES 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, □UALITIES AND SI□ES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE, SI□E 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 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 HA□ARDOUS AREAS SHALL BE ADE□UATELY 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 AND/OR BY THE CITY OF SAN JUAN. THE CONTRACTOR SHALL FURNISH INCIDENTAL LABOR AND E□UIPMENT TO ALLOW FOR 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 RE□UIRED 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 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.
12. 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 RE□UIRED, 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.
13. AS SOON AS PRACTICAL, ALL PORTIONS OF EXCAVATIONS NOT OCCUPIED BY THE PERMANENT STRUCTURE SHALL BE BACKFILLED.
14. WHERE WATER LINE 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, PER TCE□ RE□UIREMENTS.
15. CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS, MAILBOXES, FENCES, CULVERTS AND OTHER ITEMS IN WAY OF THE WORK.
16. CONTRACTOR SHALL REPAIR ALL OPEN CUTS OF PAVED AREAS BACK TO BETTER THAN □AS-IS□ CONDITION WITH LIKE MATERIALS.
17. PROVIDE INTERIM DRAINAGE DURING CONSTRUCTION AS RE□UIRED. USE PUMPS, TEMPORARY DITCHES, ETC. TO MAINTAIN A WELL DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS.
18. ANCHOR ALL UNDERGROUND PRESSURE PIPING AS NECESSARY TO PREVENT MOVEMENT UNDER PRESSURE TEST AND SERVICES.
19. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A-165, GRADE 60. ALL BARS SHALL CONFORM TO ASTM SPECIFICATION A-305.
20. ALL CONCRETE AND FORM WORK SHALL CONFORM TO CURRENT ACI CODE RE□UIREMENTS.
21. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS, PIPELINES, UTILITIES, ETC., WHETHER PUBLICLY OR PRIVATELY OWNED.
21. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, AND ACCEPTANCE BY THE PROPER UTILITY PROVIDER, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, OF ALL THE DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS ACCEPTANCE.
22. NO OPEN TRENCHES OR EXCAVATION SHALL BE LEFT OPEN OVERNIGHT.
23. ALL WATERLINE TAPS AND WATER METERS SHALL BE INSTALLED BY CONTRACTOR, IN THE CASE THE CONTRACTOR WILL NOT BE INSTALLING SUCH IMPROVEMENTS, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF SAN JUAN BEFORE COMMENCING ANY UTILITY WORK. ALL WATER SERVICE CONNECTIONS TO CITY MAIN LINES WILL RE□UIRE BACKFLOW PREVENTERS. CONTRACTOR TO COORDINATE INSTALLATION AND TESTING WITH CITY.
24. COORDINATE ALL UTILITY WORK WITH THE PLUMBING PLANS BEFORE COMMENCING ANY UTILITY WORK. REFER TO PLUMBING PLANS FOR CONTINUATION.
25. COORDINATE WITH GRADING PLANS FOR WATER LINE, STORM AND SANITARY SEWER LINES INSTALLATION.
26. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING THOSE FROM THE CITY OF SAN JUAN PRIOR TO THE START OF CONSTRUCTION.
27. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED PAVEMENT GRADE. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN GRASSED AREAS SHALL BE SIX INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED ON PLANS).
28. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS.
29. CONTRACTOR TO LEAVE OPENINGS IN CURB AT SIDEWALK RAMPS LOCATIONS.
30. REFER TO GEOTECH REPORT BEFORE INSTALLATION OF DRIVES AND PARKING AREAS.
31. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS (LOCATIONS & ELEVATIONS) PRIOR TO START OF CONSTRUCTION.
32. PERMIT NEEDED FROM THE CITY OF SAN JUAN BUILDING DEPARTMENT AND PRE-CONSTRUCTION CONFERENCE NEEDED BEFORE CONSTRUCTION CAN BEGIN.
33. CONSULT WITH PROPERTY OWNER BEFORE RELOCATING EXISTING FENCES THAT MIGHT BE IN THE WAY OF THE CONSTRUCTION AREA AND OR CONSTRUCTION PLANS.
34. BOTH SITE AND BUILDING CONTRACTORS TO VERIFY EXISTING SITE ELEVATIONS PRIOR TO POURING CONCRETE TO VERIFY ACCESIBILITY.
35. ALL PROPOSED STORM R.C.P. TO BE INSTALLED AT PLACES OTHER THAN EXISTING OR PROPOSED STRUCTURES SHALL INCLUDE SAFETY ENDS TREATMENT.
36. CONTRACTOR TO INSTALL METALLIC TAPE THE LENGTH OF WATER AND SANITARY SEWER LINES FOR EASE OF FUTURE LOCATION.
37. SIDEWALK SLOPE IS NOT TO EXCEED 1:20 WITH A CROSS SLOPE OF 1:50 AT ANY INSTANCE.
38. AT ALL OF ENTRIES TO BUILDING, WARP CONCRETE SIDEWALKS SO AS TO PROVIDE A FLAT SURFACE WITH FINISHED FLOOR.

EXISTING CONDITIONS/ DEMOLITION PLAN

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

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TEXAS REGISTRATION F-1435

STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORI□ED BY
MARIO A. REYNA, P.E. 117368

04-18-2019

ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE LAW

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC1 SHEET OF 6

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TBPLS No. 10096900
115 W. McINTYRE - EDINBURG, TX 78541
PH: (956) 381-0981 - FAX: (956) 381-1839
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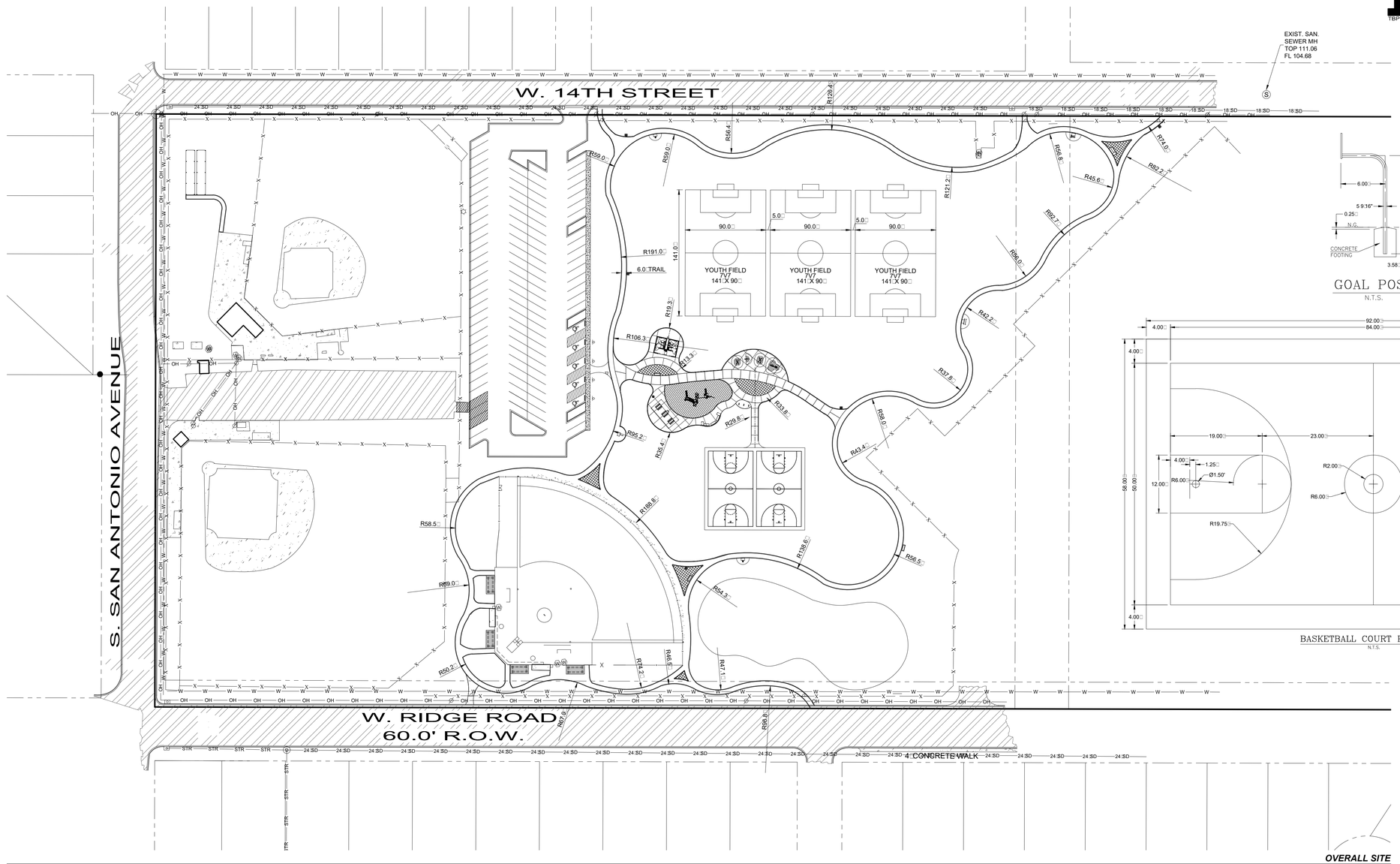
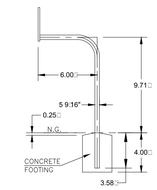
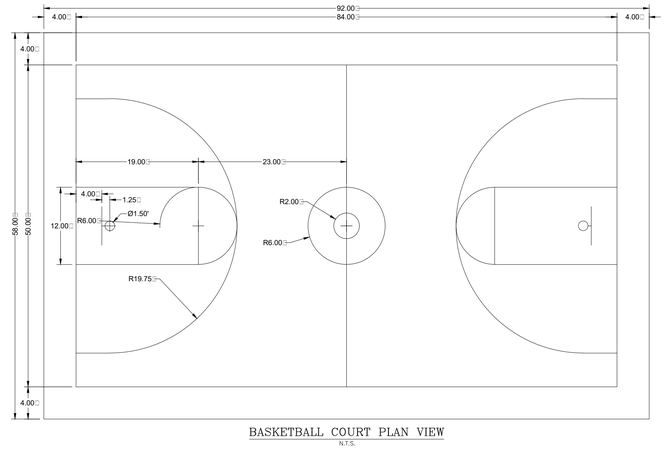


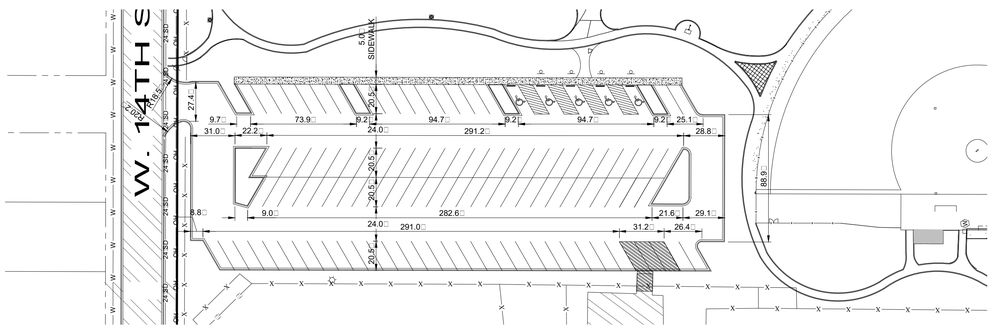
OVERALL SITE
SCALE: 1" = 60'



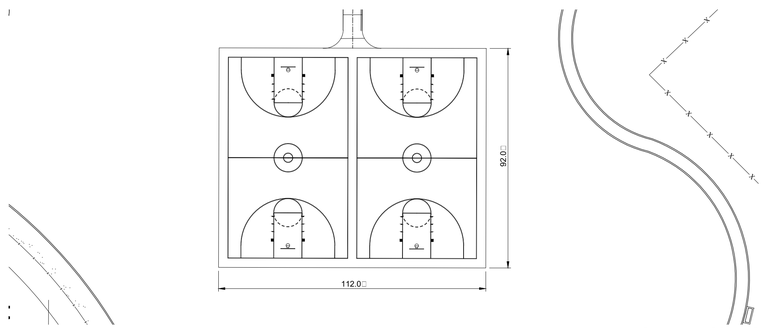
GOAL POST
N.T.S.



BASKETBALL COURT PLAN VIEW
N.T.S.



PARKING LOT AREA
SCALE: 1" = 50'



BASKETBALL COURTS
SCALE: 1" = 30'

LEGEND

- FOUND No.4 REBAR
- FOUND No.5 REBAR
- FOUND 3" DISK
- SET "X" MARK ON CONCRETE
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
- LIGHT POLE
- STADIUM LIGHT
- SCORE BOARD
- TELEPHONE PEDESTAL
- STORM SEWER MANHOLE
- WATER METER
- WATER VALVE
- TYPE "A" INLET
- GATE POST
- CHAIN LINK FENCE
- WOOD FENCE
- OVERHEAD POWER LINE
- ASPHALT AREA
- CONCRETE AREA
- INFIELD BASEBALL AREA
- COVERED BLEACHERS

B-B - BACK OF CURB TO BACK OF CURB
R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.D.R. - HIDALGO COUNTY DEED RECORDS
H.C.O.R. - HIDALGO COUNTY OFFICIAL RECORDS
N.E. COR. - NORTHEAST CORNER
P.O.B. - POINT OF BEGINNING
W.D. - WARRANTY DEED
LL - LOT LINE

CIVIL SITE PLAN

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

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

04-18-2019

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P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC2 SHEET OF 6

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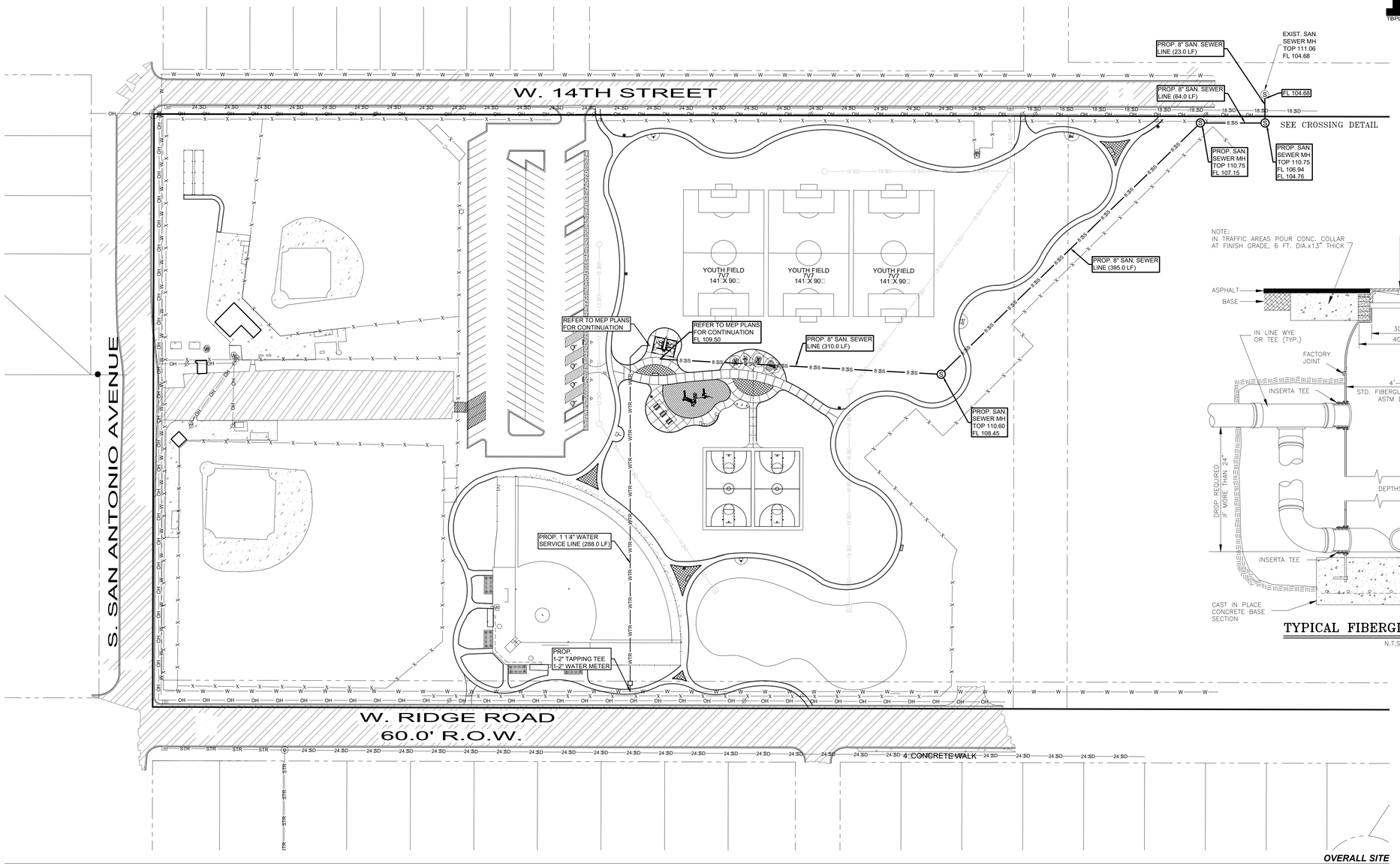
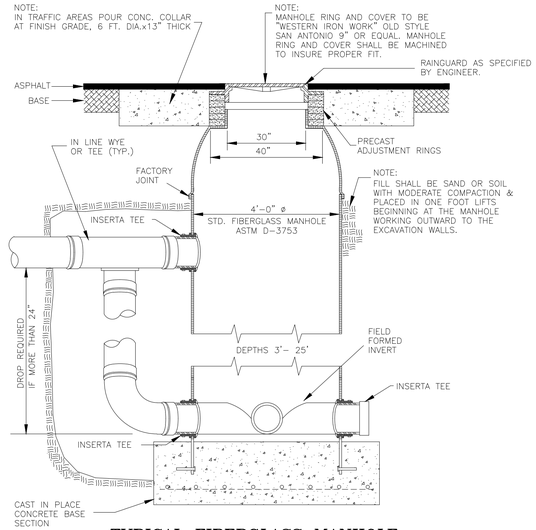


OVERALL SITE
SCALE: 1" = 60'



TYPICAL FIBERGLASS MANHOLE
N.T.S.

LEGEND

- FOUND No.4 REBAR
- FOUND No.5 REBAR
- FOUND 3" DISK
- SET "X" MARK ON CONCRETE
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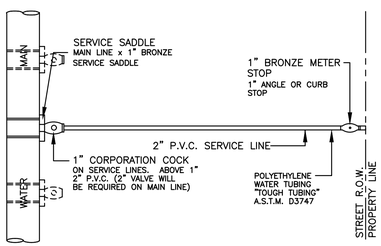
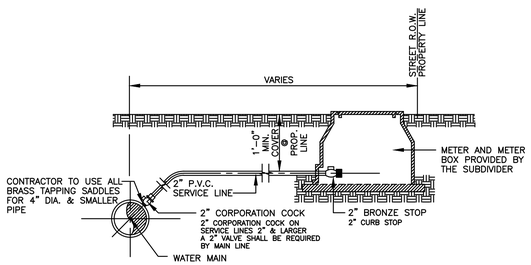
N.E. COR. - NORTHEAST CORNER
P.O.B. - POINT OF BEGINNING
W.D. - WARRANTY DEED
LOT LINE



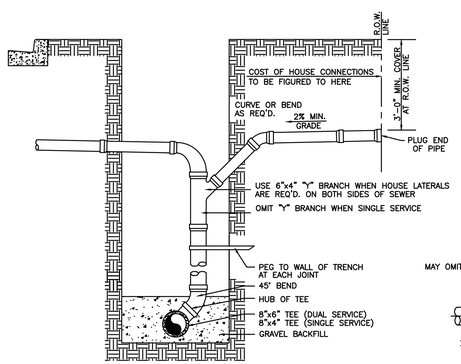
SINGLE WATER SERVICE CONNECTION



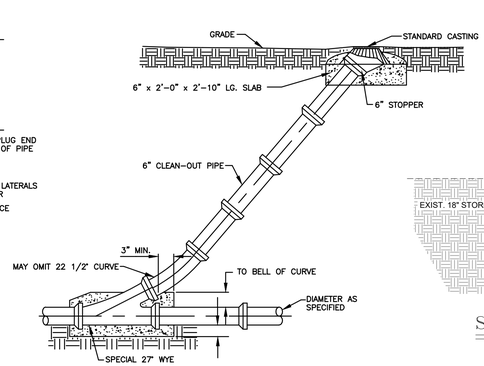
GENERAL NOTES :

1. DRAWINGS INDICATE COPPER SERVICE LINES.
2. FOR P.V.C. SERVICE LINES REFER TO SMALLER TYPE NOTES.
3. ALL COMPRESSION OR PACK TYPE FITTINGS & JOINTS REQUIRE STAINLESS STEEL INSERTS OF REQUIRED SIZE.
4. WATER SERVICE CONNECTIONS CROSSING A STREET SHALL BE ENCASED IN A 2" P.V.C. SHC40 CASING. LENGTH OF CASING SHALL BE WIDTH OF STREET PLUS 10.0 FEET.

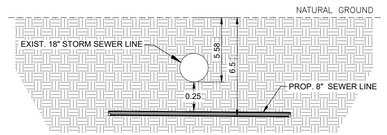
TYPICAL WATER SERVICE CONNECTIONS



SANITARY SEWER SERVICE CONNECTION



STANDARD CLEANOUT



SAN. SEWER CROSSING

UTILITIES LAYOUT

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

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PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC3 SHEET OF 6

Y:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\13080.01 - EGV Arch-Playground upgrades-S Links & Carman Exh\DWG\Carman Exh\13080.01.dwg, 4/18/2019 10:26:28 AM

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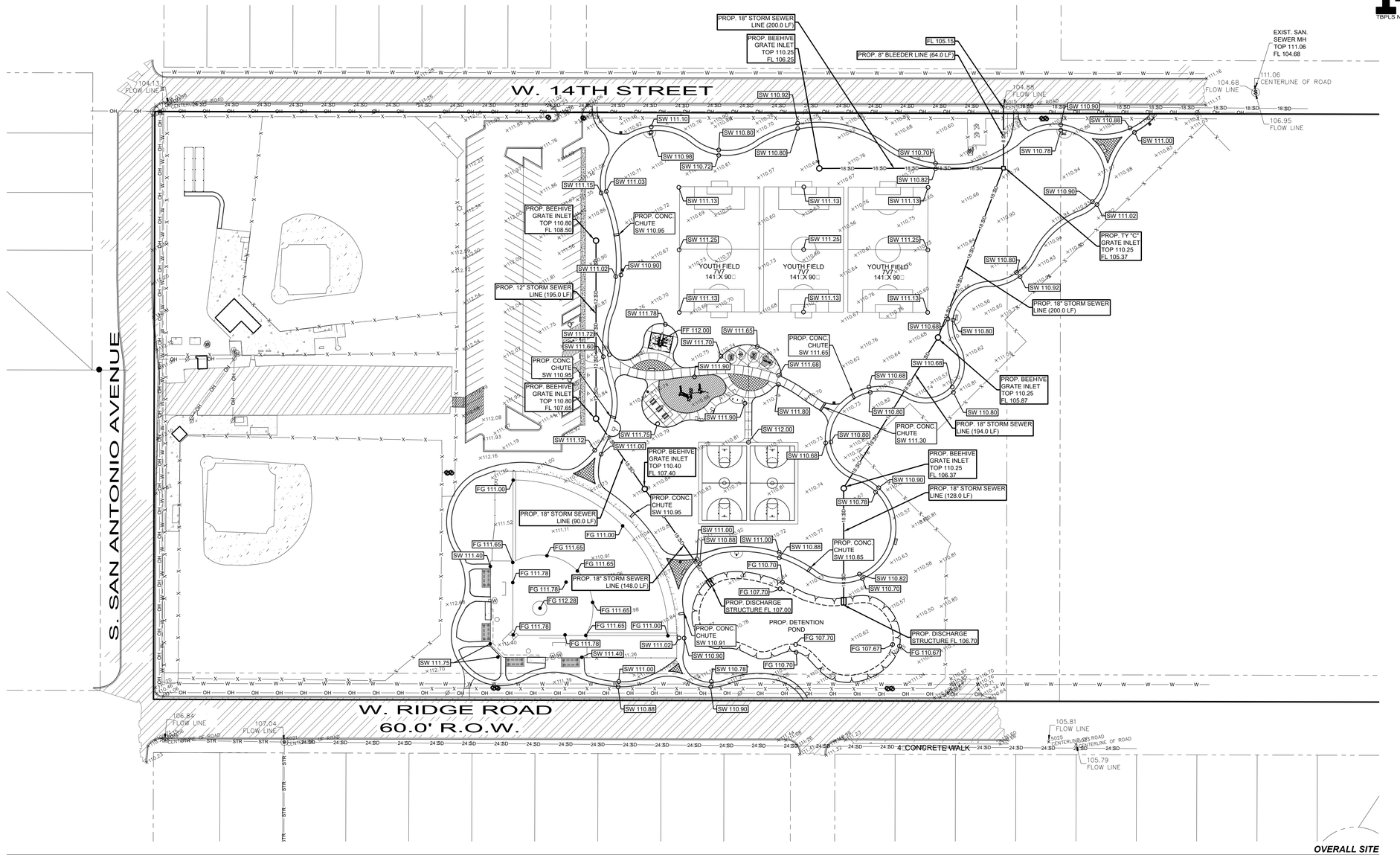

OVERALL SITE
SCALE: 1" = 60'

PARKING LOT AREA
SCALE: 1" = 50'

BASKETBALL COURTS
SCALE: 1" = 30'

LEGEND

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P.O.B. - POINT OF BEGINNING
W.D. - WARRANTY DEED
LOT LINE

NOTE:
ALL GREEN AREAS TO BE GRATED TOWARD INLETS.

PAVING & DRAINAGE

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

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PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC4 SHEET OF 6

I:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\135830.00 - EGV Arch Playgrounds Upgrades-3 Livas & Carman Elem\CMG\Carman Elem\135830.00.dwg, 4/22/2019 9:59:46 AM

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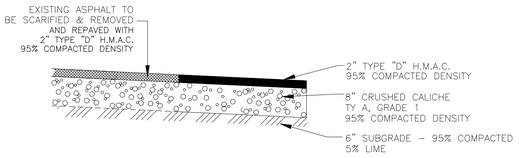


NEW ASPHALT MEETING EXISTING PAVEMENT

SIDEWALK NOTES:

MINIMUM 5'–0" WIDE SIDEWALK.

SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.

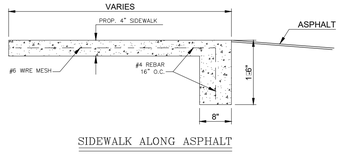
SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.

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

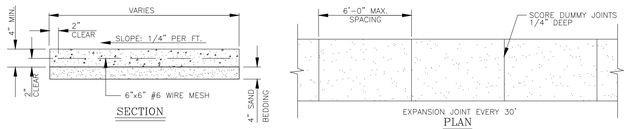
PROVIDE DROP CURBS AT INTERSECTIONS.

4" SAND BEDDING

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

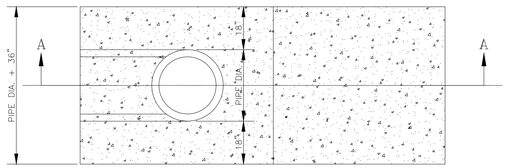


SIDEWALK ALONG ASPHALT

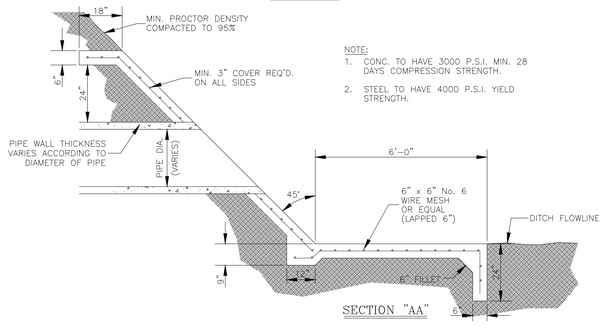


SIDEWALK DETAILS

N.T.S.



PLAN VIEW

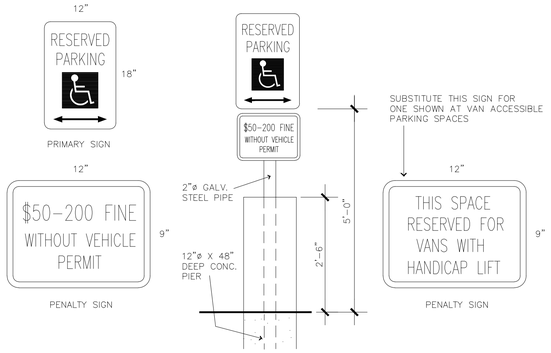


NOTE:
1. CONC. TO HAVE 3000 P.S.I. MIN. 28 DAYS COMPRESSION STRENGTH.
2. STEEL TO HAVE 4000 P.S.I. YIELD STRENGTH.

SECTION "AA"

STORM DISCHARGE STRUCTURE

N.T.S.

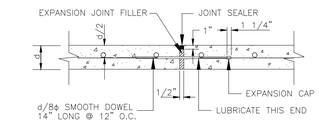


PARKING SIGNAGE: HANDICAPPED

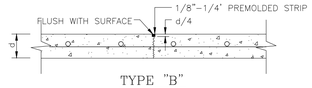
N.T.S.

GENERAL NOTES:
1. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 5".
2. REINFORCING SHALL BE INTERMEDIATE GRADE DEFORMED BARS CONFORMING TO SPECIFICATION ASTM A615–60.
3. PROVIDE 1 1/2" MINIMUM CLEAR COVER ON ALL BEAM STEEL AND 3/4" CLEAR COVER ON ALL SLAB STEEL. PROVIDE BRICK BATS OR OTHER SUITABLE SUPPORTS TO MAINTAIN IT IN THE POSITIONS CALLED FOR IN THESE PLANS AND SPECIFICATIONS.
4. MEMBRANE WATERPROOFING SHALL BE COMPRISED OF 6 MIL POLYETHYLENE MEMBRANE.
5. THE BUILDING AREA SHALL BE CLEARED OF DEBRIS AND ORGANIC MATERIAL PRIOR TO FOUNDATION CONSTRUCTION.
6. PROVIDE A MINIMUM OF 40 DIAMETER SPLICE FOR ALL BEAM AND SLAB STEEL. RUN STEEL FULL STOCK LENGTHS. HOOK ALL BEAMS AT DISCONTINUOUS ENDS WITH A 90 DEGREE HOOK 6" LONG (BOTTOM BARS ONLY). STAGGER TOP AND BOTTOM BEAM SPLICES.
7. GRADE BEAM TO SET A MINIMUM OF 12" INTO UNDISTURBED SOIL.

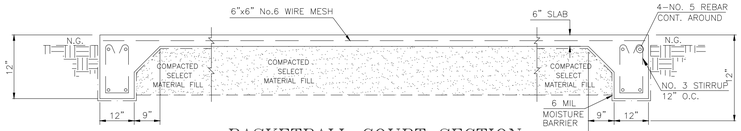
DESIGN STANDARDS:
1)FOUNDATION DESIGN IN ACCORDANCE WITH THE FOLLOWING:
A) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, 318 AMERICAN BUILDING INSTITUTE.
2)SOILS INFORMATION FURNISHEDBY: NONE ASSUMED DIFFERENTIAL SWELL, YM=1.0" & ASSUMED MAX. PI=15%. MATERIALS:
1) CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI @ 28 DAYS. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED AS ADDITIVES. ADDITIONAL PROVISIONS FOR CONCRETE SHALL CONFORM TO APPLICABLE REQUIREMENTS OF ACI 302 " RECOMMENDED PRACTICE FOR FLOOR AND SLAB CONSTRUCTION".
2) REINFORCING BARS SHALL CONFORM TO ASTM A–615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM–185. CONSTRUCTION
1) SITE GRADING SHALL BE PERFORMED IN SUCH A MANNER THAT SURFACE OR GROUND WATER WILL NOT COLLECT UNDER OR ADJACENT TO SLAB.
2) ALL FILL UNDER SLABS SHALL BE CLAYEY SAND HAVING A PI OF BETWEEN 10& TO 15% & PLACED IN 8" MAX. LAYERS & COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3) ALL SLABS SHALL HAVE A 4" MINIMUM CUSHION OF GRANULAR SELECT FILL (CLAYEY SAND) HAVING PI BETWEEN 10% TO 15%.
4) FORMING, CONCRETE PLACEMENT, & CURING SHALL CONFORM TO THE REQUIREMENTS OF ACI 302.
5) NATIVE SOIL & FILL UNDER FOUNDATION SHALL HAVE MOISTURE CONTENT OF –2 TO + 3 OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY A REPUTABLE SOILS LABORATORY.



TYPE "A"
ALTERNATE EXPANSION JOINT

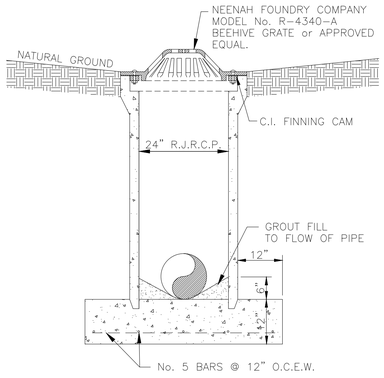


TYPE "B"
SAWED OR PREMOLDED STRIP
LONGITUDINAL OR TRAVERSE



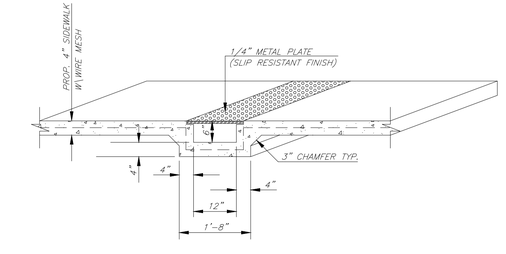
BASKETBALL COURT SECTION

N.T.S.



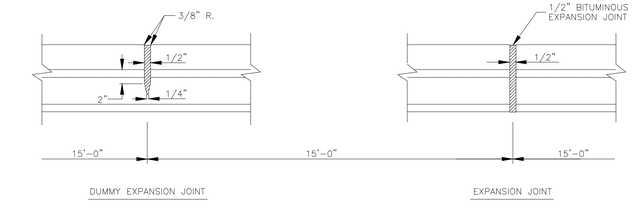
BEEHIVE INLET DETAIL

N.T.S.



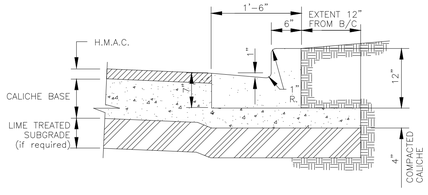
SIDEWALK CHUTE DETAIL

N.T.S.



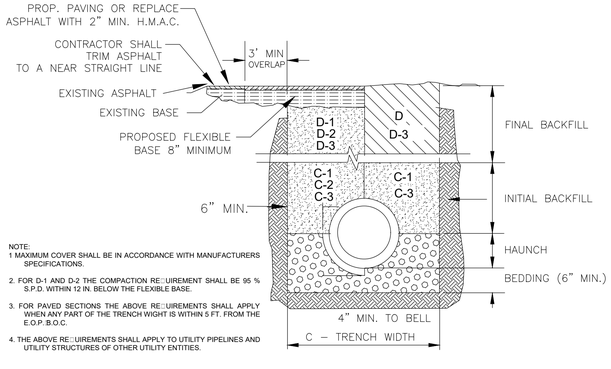
CURB EXPANSION JOINT DETAIL

N.T.S.



SECTION "AA" – CONCRETE CURB & GUTTER

N.T.S.



NOTE:
1 MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION RE□UIREMENT SHALL BE 95 % S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE RE□UIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIGHT IS WITHIN 5 FT. FROM THE E.O.P. B.O.C.
4. THE ABOVE RE□UIREMENTS 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□ MIX SI□E.

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 E□UAL 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 STABILI□ED 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.

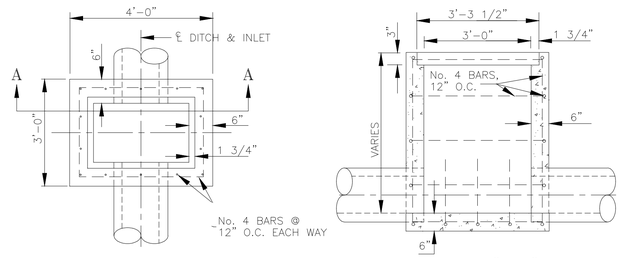
D. FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE UNDER UNPAVED SECTIONS - SHALL BE CLASS I, II, III, OR IV, COMPACTED TO 92% S.P.D., (12" LOOSE LIFTS, MECHANICAL COMPACTION).

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 STABILI□ED 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 STABILI□ATION, OR APPROVED SUBSTITUTE) SHALL BE RE□UIRED WHEN TRENCH BOTTOM IS UNSTABLE. BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS RE□UIRED 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".

OPTION: (SEE SPECIFICATIONS) WELD TO TOP OF GRATE 1 5/8 x 3 7/16 x 10 GUAGE CARBON STEEL REGULAR MESH EXPANDED METAL



TYPE "C" GRATED INLET

N.T.S.

DETAILS

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORI□ED BY MARIO A. REYNA, P.E. 117368

04-18-2019

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DATE:
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SCALE:

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC5 SHEET OF 6

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MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS
TBPLS No. 10096900
115 W. McINTYRE - EDINBURG, TX 78541
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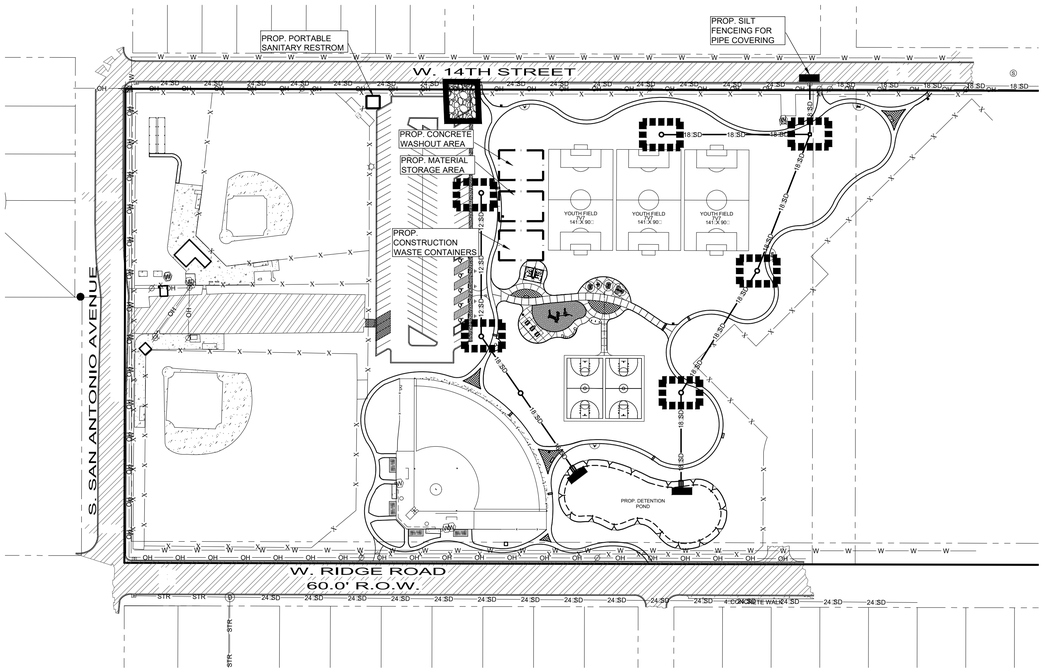
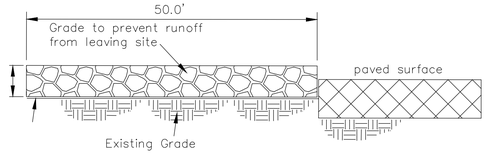
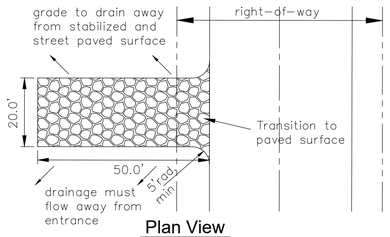


SCALE: 1" = 100'



Profile View



Plan View

LEGEND
- SEDIMENT CONTROL FENCE
- CONSTRUCTION ENTRANCE
-SOCK FOR INLET

GENERAL NOTES :

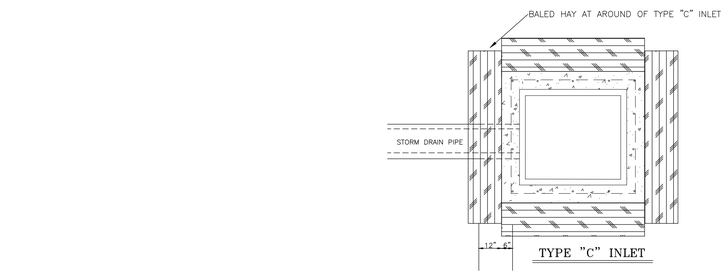
1. The guidelines shown hereon are suggestions only and may be modified by the engineer.
2. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 lbs.
3. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
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.

2 C9 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 4 to 8 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.



TYPE "C" INLET

NOTE:

1. NO OFFICE TRAILER ON SITE.

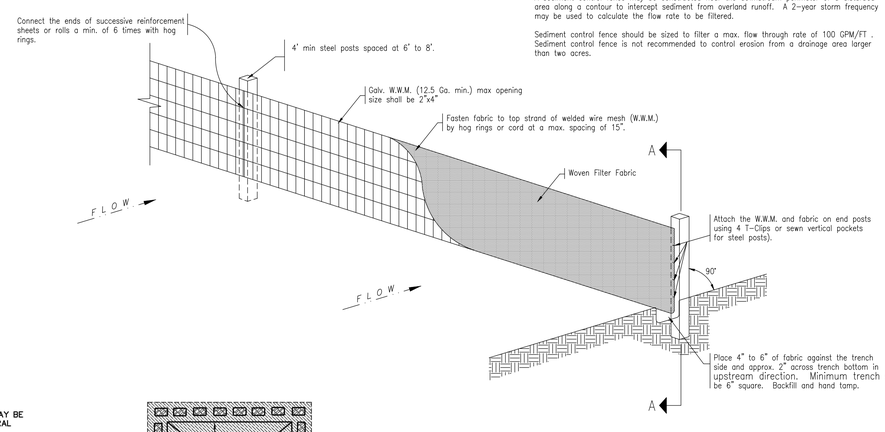
GENERAL NOTES :

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

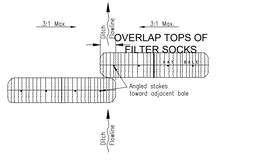
SEDIMENT CONTROL FENCE USAGE GUIDELINES

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.

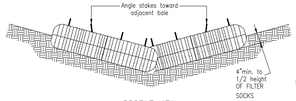
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT . Sediment control fence is not recommended to control erosion from a drainage area larger than two acres.



TEMPORARY SEDIMENT CONTROL FENCE



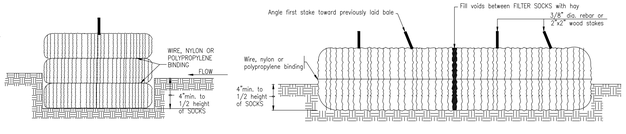
PLAN VIEW



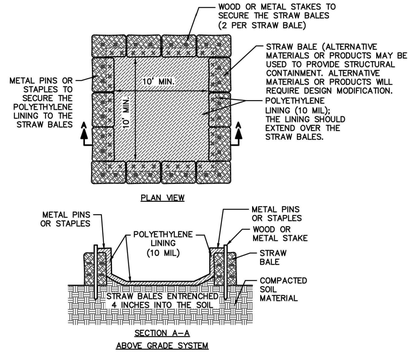
PROFILE VIEW

GENERAL NOTES :

1. Filter socks shall be a minimum of 8" diameter.
2. Filter shall be bound by either wire nylo or polypropylene string. the filter socks shall be composed entirely of vegetable matter.
3. Filter socks shall be embedded in the soil a minimum of 4" and where possible height of the hay sock.
4. Filter socks shall be placed in a row with ends tightly abutting the adjacent socks. the socks shall be placed with bindings parallel to the ground.
5. Filter socks shall be securely anchored in place with 3/8" dia. rebar or 2"x2" wood stakes, driven through the filter socks. The first stake shall be angled towards the previously laid sock to force the hay socks together.
6. The guidelines shown hereon are suggestion only any may be modified by the engineer.
7. No hay bales are allowed.
8. Grate inlet protection for inlet located off cypress street may be required the construction process if deemed necessary by the city of Pharr public Works Department.

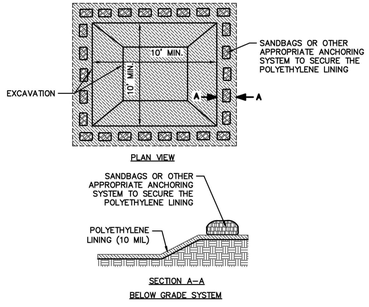


BALED HAY FOR EROSION CONTROL



PLAN VIEW

SECTION A-A
ABOVE GRADE SYSTEM



PLAN VIEW

SECTION A-A
BELOW GRADE SYSTEM

CONCRETE WASH OUT

EROSION & SEDIMENT CONTROL PLAN

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435
STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER
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PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CC6 SHEET OF 6

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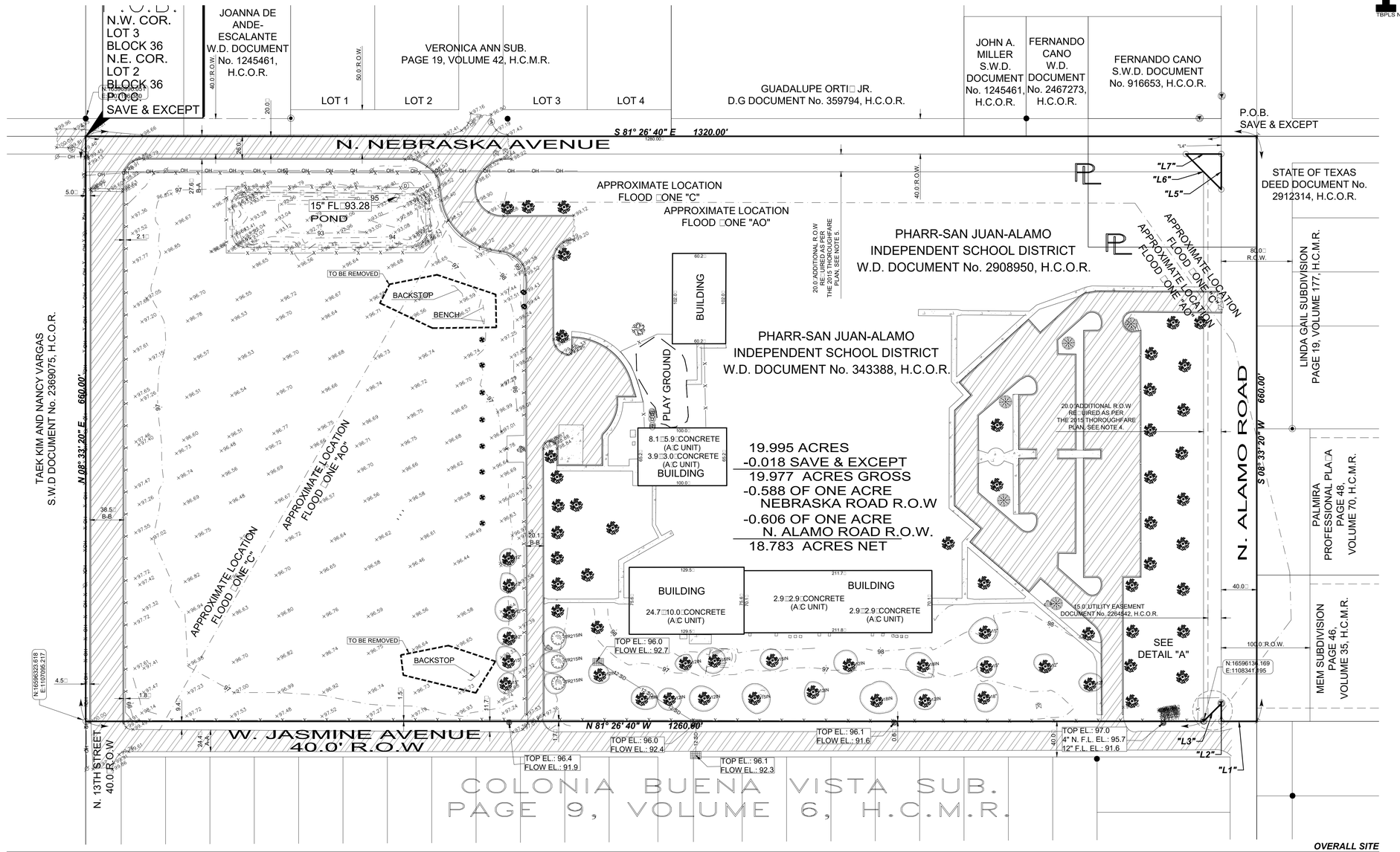

OVERALL SITE
SCALE: 1" □60□

LEGEND

- FOUND No.4 REBAR
- FOUND PIPE (SI□E AS NOTED)
- FOUND 3" DISK
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- WATER VALVE
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- TYPE "C□INLET
- IRRIGATION VALVE (SI□E AS NOTED)
- 2" PIPE IN CONCRETE
- GATE POST
- X X CHAIN LINK FENCE
- □ □ □ □ EDGE OF POND
- OH OH OVERHEAD POWER LINE
- 12"SD STORM SEWER LINE
- ASPHALT AREA
- CONCRETE AREA

B-A - BACK OF CURB TO EDGE OF ASPHALT
A-A - EDGE OF ASPHALT TO EDGE OF ASPHALT
B-B - BACK OF CURB TO BACK OF CURB
R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.D.R. - HIDALGO COUNTY DEED 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
W.D. - WARRANTY DEED
D.G. - DEED OF GIFT
S.W.D. - SPECIAL WARRANTY DEED
N.T.S. - NOT TO SCALE
PL PROPERTY LINE

Line Ta□le		
Line □	Direction	Length
"L1"	N 81° 26' 40" W	40.00□
"L2"	N 08° 33' 20" E	20.00□
"L3"	S 53° 33' 20" W	28.28□
"L4"	S 08° 33' 20" W	20.00□
"L5"	S 08° 33' 20" W	40.00□
"L6"	N 36° 26' 40" W	56.57□
"L7"	S 81° 26' 40" E	40.00□
"L8"	N 08° 33' 20" E	20.00□

CIVIL GENERAL 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 SI□ES 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, □UALITIES AND SI□ES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE, SI□E 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 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 HA□ARDOUS AREAS SHALL BE ADE□UATELY 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 AND□OR BY THE CITY OF ALAMO. THE CONTRACTOR SHALL FURNISH INCIDENTAL LABOR AND E□UIPMENT TO ALLOW FOR 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 RE□UIRED 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 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.
12. 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 RE□UIRED, 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.
13. AS SOON AS PRACTICAL, ALL PORTIONS OF EXCAVATIONS NOT OCCUPIED BY THE PERMANENT STRUCTURE SHALL BE BACKFILLED.
14. WHERE WATER LINE 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, PER TCE□ RE□UIREMENTS.
15. CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS, MAILBOXES, FENCES, CULVERTS AND OTHER ITEMS IN WAY OF THE WORK.
16. CONTRACTOR SHALL REPAIR ALL OPEN CUTS OF PAVED AREAS BACK TO BETTER THAN □AS-IS□ CONDITION WITH LIKE MATERIALS.
17. PROVIDE INTERIM DRAINAGE DURING CONSTRUCTION AS RE□UIRED. USE PUMPS, TEMPORARY DITCHES, ETC. TO MAINTAIN A WELL DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS.
18. ANCHOR ALL UNDERGROUND PRESSURE PIPING AS NECESSARY TO PREVENT MOVEMENT UNDER PRESSURE TEST AND SERVICES.
19. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A-165, GRADE 60. ALL BARS SHALL CONFORM TO ASTM SPECIFICATION A-305.
20. ALL CONCRETE AND FORM WORK SHALL CONFORM TO CURRENT ACI CODE RE□UIREMENTS.
21. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS, PIPELINES, UTILITIES, ETC., WHETHER PUBLICLY OR PRIVATELY OWNED.
21. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, AND ACCEPTANCE BY THE PROPER UTILITY PROVIDER, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, OF ALL THE DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS ACCEPTANCE.
22. NO OPEN TRENCHES OR EXCAVATION SHALL BE LEFT OPEN OVERNIGHT.
23. ALL WATERLINE TAPS AND WATER METERS SHALL BE INSTALLED BY CONTRACTOR, IN THE CASE THE CONTRACTOR WILL NOT BE INSTALLING SUCH IMPROVEMENTS, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF ALAMO BEFORE COMMENCING ANY UTILITY WORK. ALL WATER SERVICE CONNECTIONS TO CITY MAIN LINES WILL RE□UIRE BACKFLOW PREVENTERS. CONTRACTOR TO COORDINATE INSTALLATION AND TESTING WITH CITY.
24. COORDINATE ALL UTILITY WORK WITH THE PLUMBING PLANS BEFORE COMMENCING ANY UTILITY WORK. REFER TO PLUMBING PLANS FOR CONTINUATION.
25. COORDINATE WITH GRADING PLANS FOR WATER LINE, STORM AND SANITARY SEWER LINES INSTALLATION.
26. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING THOSE FROM THE CITY OF ALAMO PRIOR TO THE START OF CONSTRUCTION.
27. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED PAVEMENT GRADE. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN GRASSED AREAS SHALL BE SIX INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED ON PLANS).
28. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS.
29. CONTRACTOR TO LEAVE OPENINGS IN CURB AT SIDEWALK RAMPS LOCATIONS.
30. REFER TO GEOTECH REPORT BEFORE INSTALLATION OF DRIVES AND PARKING AREAS.
31. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS (LOCATIONS & ELEVATIONS) PRIOR TO START OF CONSTRUCTION.
32. PERMIT NEEDED FROM THE CITY OF ALAMO BUILDING DEPARTMENT AND PRE-CONSTRUCTION CONFERENCE NEEDED BEFORE CONSTRUCTION CAN BEGIN.
33. CONSULT WITH PROPERTY OWNER BEFORE RELOCATING EXISTING FENCES THAT MIGHT BE IN THE WAY OF THE CONSTRUCTION AREA AND□OR CONSTRUCTION PLANS.
34. BOTH SITE AND BUILDING CONTRACTORS TO VERIFY EXISTING SITE ELEVATIONS PRIOR TO POURING CONCRETE TO VERIFY ACCESIBILITY.
35. ALL PROPOSED STORM R.C.P. TO BE INSTALLED AT PLACES OTHER THAN EXISTING OR PROPOSED STRUCTURES SHALL INCLUDE SAFETY ENDS TREATMENT.
36. CONTRACTOR TO INSTALL METALLIC TAPE THE LENGTH OF WATER AND SANITARY SEWER LINES FOR EASE OF FUTURE LOCATION.
37. SIDEWALK SLOPE IS NOT TO EXCEED 1:20 WITH A CROSS SLOPE OF 1:50 AT ANY INSTANCE.
38. AT ALL OF ENTRIES TO BUILDING, WARP CONCRETE SIDEWALKS SO AS TO PROVIDE A FLAT SURFACE WITH FINISHED FLOOR.

EXISTING CONDITIONS/ DEMOLITION PLAN

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435
STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORI□ED BY MARIO A. REYNA, P.E. 117368

04-18-2019

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P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CS1 SHEET OF 6

MELDEN & HUNT INC.
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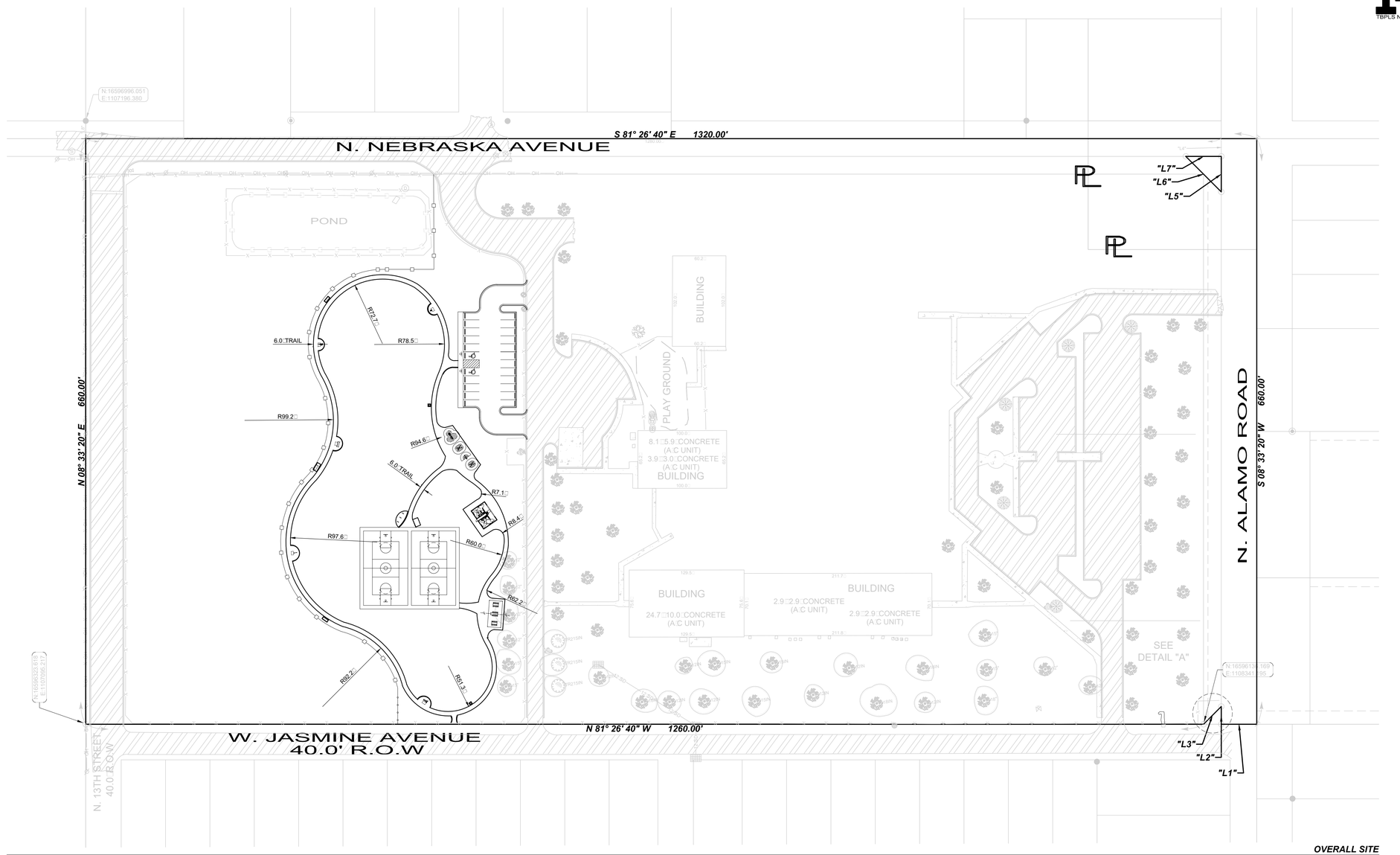
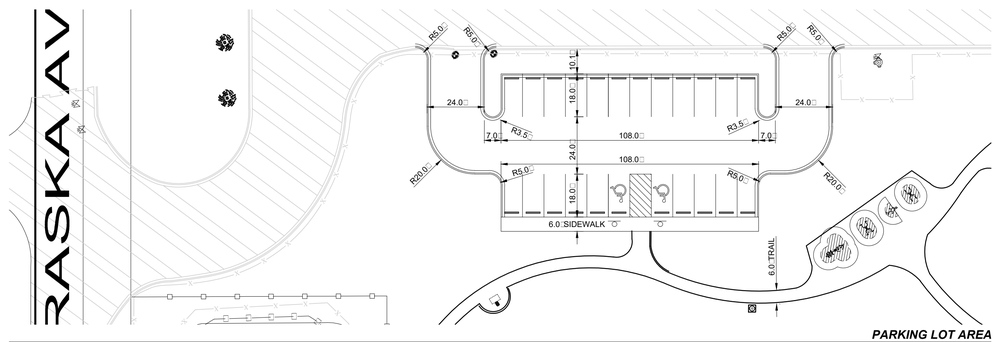
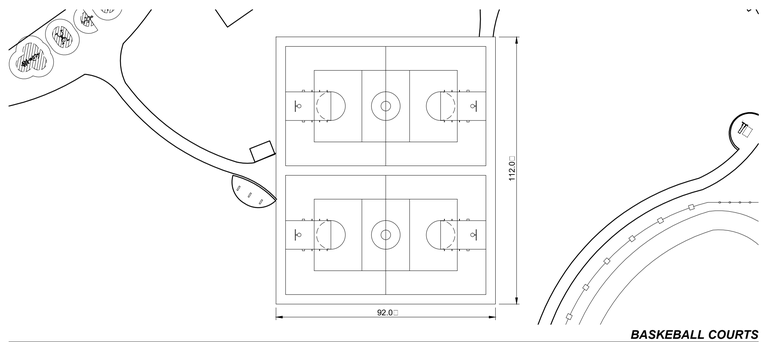


OVERALL SITE
SCALE: 1" □60□



PARKING LOT AREA
SCALE: 1" □30□



BASKEBALL COURTS
SCALE: 1" □30□

DETAIL "A"
N.T.S.

SCALE: 1" □60□

BEARING BASIS: AS PER TEXAS COORDINATE SYSTEM OF 1983, TEXAS SOUTH

LEGEND

- FOUND No.4 REBAR
- FOUND PIPE (SI□E AS NOTED)
- FOUND 3" DISK
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- WATER VALVE
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- TYPE "C"□INLET
- IRRIGATION VALVE (SI□E AS NOTED)
- 2" PIPE IN CONCRETE
- GATE POST
- CHAIN LINK FENCE
- EDGE OF POND
- OVERHEAD POWER LINE
- STORM SEWER LINE
- ASPHALT AREA
- CONCRETE AREA

B-A - BACK OF CURB TO EDGE OF ASPHALT
A-A - EDGE OF ASPHALT TO EDGE OF ASPHALT
B-B - BACK OF CURB TO BACK OF CURB
R.O.W. - RIGHT OF WAY
H.C.M.R. - HIDALGO COUNTY MAP RECORDS
H.C.D.R. - HIDALGO COUNTY DEED 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
W.D. - WARRANTY DEED
D.G. - DEED OF GIFT
S.W.D. - SPECIAL WARRANTY DEED
N.T.S. - NOT TO SCALE
PE - PROPERTY LINE

Line Ta□le

Line □	Direction	Length
"L1"	N 81° 26' 40" W	40.00□
"L2"	N 08° 33' 20" E	20.00□
"L3"	S 53° 33' 20" W	28.28□
"L4"	S 08° 33' 20" W	20.00□
"L5"	S 08° 33' 20" W	40.00□
"L6"	N 36° 26' 40" W	56.57□
"L7"	S 81° 26' 40" E	40.00□
"L8"	N 08° 33' 20" E	20.00□

CIVIL SITE PLAN

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

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PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CS2 SHEET OF 6

I:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\19085.01 - EGV Arch-Playground Upgrades-S Livas & Carman Elem\CAD\CS Livas Elem19085.01.dwg, 4/18/2019 4:14:13 PM

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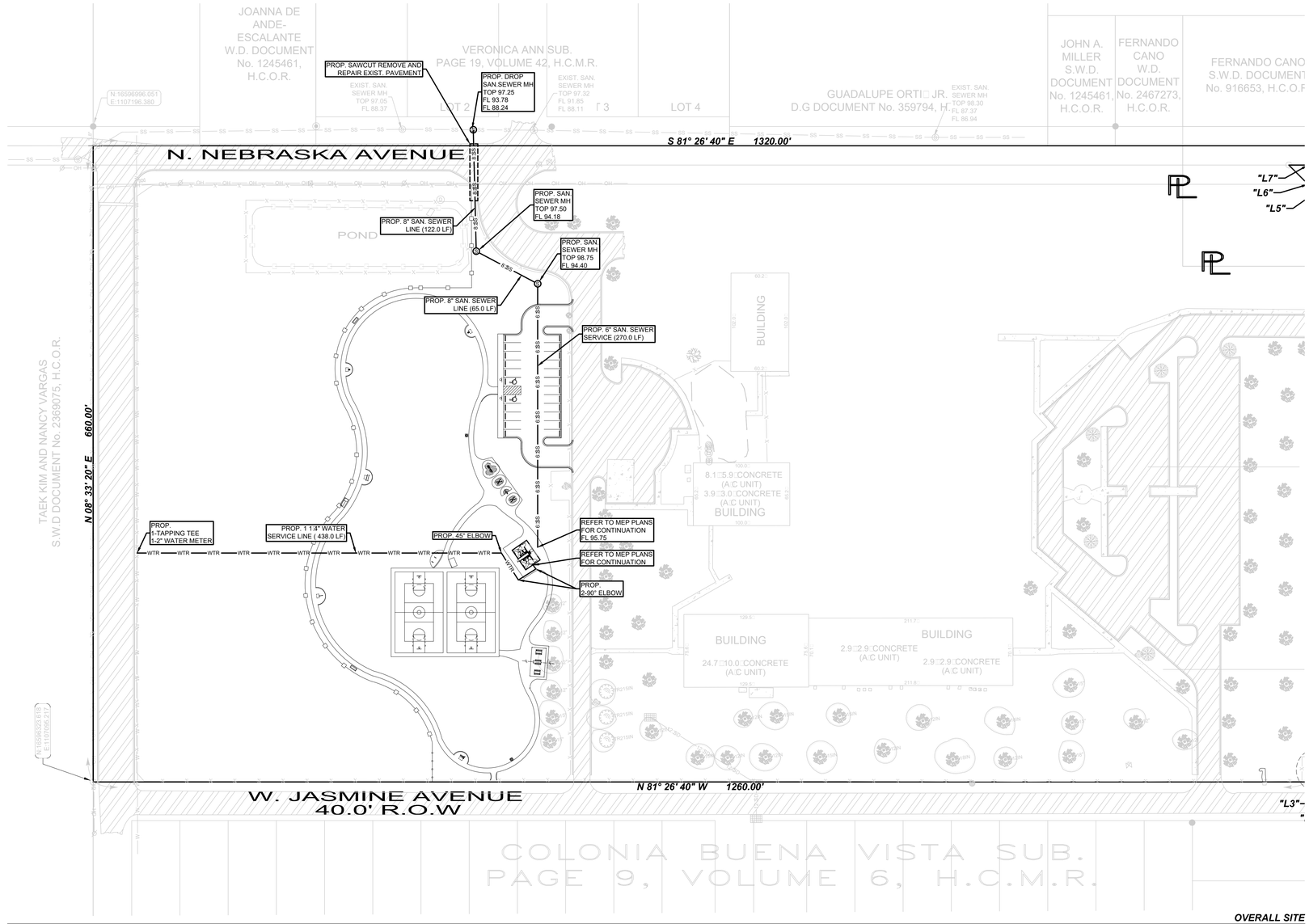
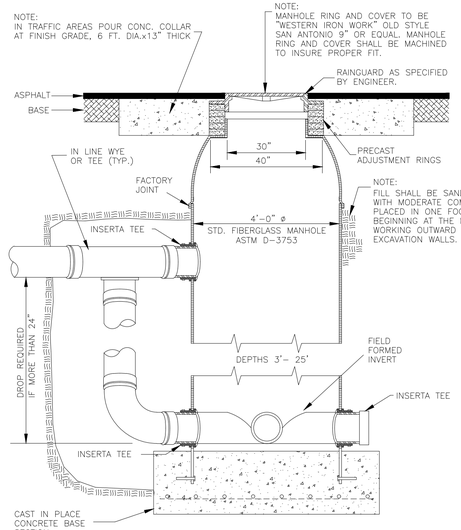


OVERALL SITE
SCALE: 1" □60□

SCALE: 1" □60□



TYPICAL FIBERGLASS MANHOLE
N.T.S.

LEGEND
- FOUND No.4 REBAR
- FOUND PIPE (SI□E AS NOTED)
- FOUND 3" DISK
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
- TELEPHONE PEDESTAL
- FIRE HYDRANT
- WATER VALVE
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- TYPE "C□INLET
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- GATE POST
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N.T.S. - NOT TO SCALE
PROPERTY LINE

Line Ta□le

Line □	Direction	Length
"L1"	N 81° 26' 40" W	40.00□
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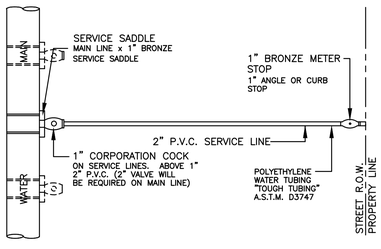
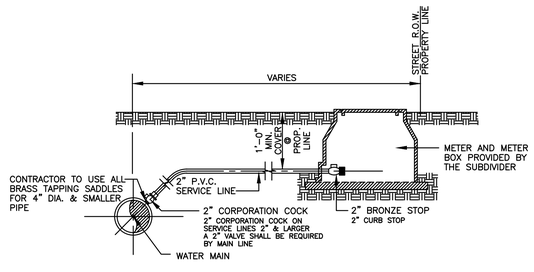
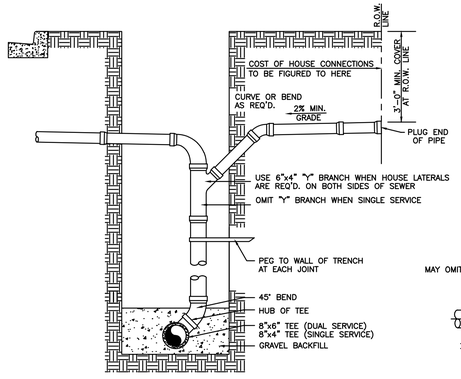


SINGLE WATER SERVICE CONNECTION

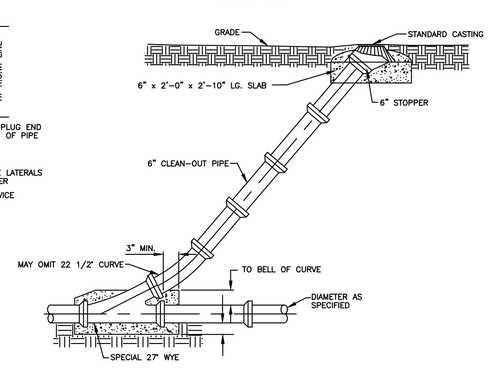


GENERAL NOTES :
1. DRAWINGS INDICATE COPPER SERVICE LINES.
2. FOR P.V.C. SERVICE LINES REFER TO SMALLER TYPE NOTES.
3. ALL COMPRESSION OR PACK TYPE FITTINGS & JOINTS REQUIRE STAINLESS STEEL INSERTS OF REQUIRED SIZE.
4. WATER SERVICE CONNECTIONS CROSSING A STREET SHALL BE ENCASED IN A 2" P.V.C. SHC40 CASING. LENGTH OF CASING SHALL BE WIDTH OF STREET PLUS 10.0 FEET.

TYPICAL WATER SERVICE CONNECTIONS



SANITARY SEWER SERVICE CONNECTION



STANDARD CLEANOUT

UTILITIES LAYOUT

DATE	NO.	REVISIONS	DATE APPROVED

DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
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JOB NO.
FILE NO.

CS3 SHEET OF 6

T:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\190803.01 - EGV Archi-Playground Upgrades-1 Livas & Carman Elem\DWG\3 Livas Elem\190803.01-dwg, 4/22/2019 9:22:11 AM

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TBPLS No. 10096900 ESTABLISHED 1947 - www.meldenandhunt.com

P.O.B.
N.W. COR.
LOT 3
BLOCK 36
N.E. COR.
LOT 2
BLOCK 36
P.O.C.
SAVE & EXCEPT

N. NEBRASKA AVENUE

S 81° 26' 40" E 1320.00'

N 08° 33' 20" E 660.00'

S 08° 33' 20" W 660.00'

N. ALAMO ROAD

N 81° 26' 40" W 1260.00'

W. JASMINE AVENUE
40.0' R.O.W

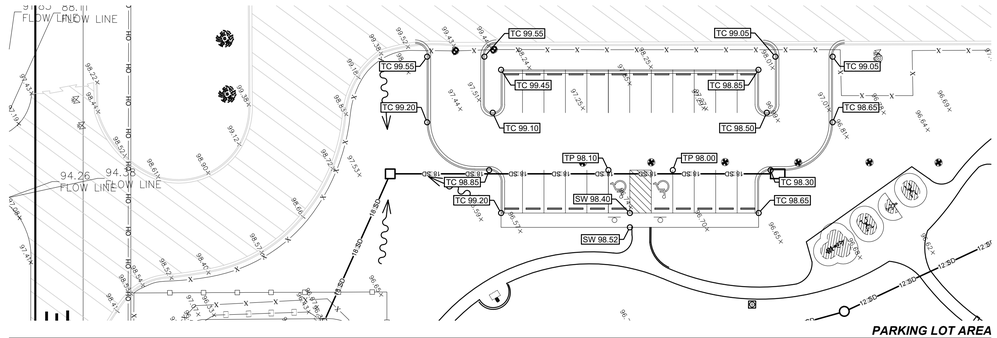
N. 13TH STREET
40.0' R.O.W

N:16596202.618
E:1107066.217

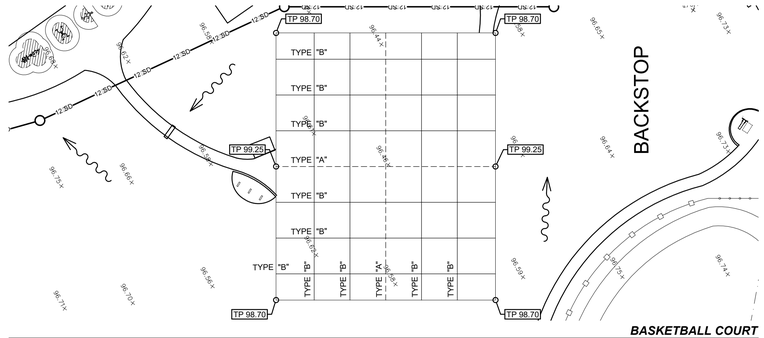
N:16596136.169
E:1108341.195

PROP. DISCHARGE STRUCTURE FL 93.55
PROP. 18" STORM SEWER LINE (82 LF)
PROP. 12" STORM SEWER LINE (48 LF
PROP. BEEHIVE GRATE INLET TOP 97.50 FL 93.75
PROP. TY "C" GRATE INLET TOP 97.50 FL 93.75
PROP. 18" STORM SEWER LINE RCP RJ(157 LF)
PROP. 12" STORM SEWER LINE (176 LF)
PROP. TY "A" CURB INLET TOP 98.30 FL 94.15
PROP. BEEHIVE GRATE INLET TOP 97.50 FL 94.50
PROP. CONC. CHUTE
PROP. 12" STORM SEWER LINE (107 LF)
PROP. BEEHIVE GRATE INLET TOP 98.00 FL 94.95
PROP. 12" STORM SEWER LINE (109 LF)
PROP. CONC CHUTE
PROP. BEEHIVE GRATE INLET TOP 97.70 FL 95.40
15" FL 93.28
SW 98.50
SW 98.38
SW 98.48
SW 98.60
SW 99.18
SW 98.30
SW 98.75
SW 98.00
SW 97.88
SW 98.12
FG 97.80
FG 98.05
FG 98.25
FG 98.00
FF 98.75
PLAY GROUND
BUILDING
8.1□5.9□CONCRETE (A/C UNIT)
3.9□3.0□CONCRETE (A/C UNIT)
24.7□10.0□CONCRETE (A/C UNIT)
2.9□2.9□CONCRETE (A/C UNIT)
TOP EL.: 96.0 FLOW EL.: 92.7
TOP EL.: 96.0 FLOW EL.: 92.4
TOP EL.: 96.4 FLOW EL.: 91.9
TOP EL.: 96.1 FLOW EL.: 92.3
TOP EL.: 96.1 FLOW EL.: 91.8
TOP EL.: 97.0 4" N. F.L. EL.: 95.7 12" F.L. EL.: 91.6
SEE DETAIL "A"
"L7" "L6" "L5" "L3" "L2" "L1"

OVERALL SITE
SCALE: 1" □60□

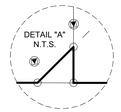


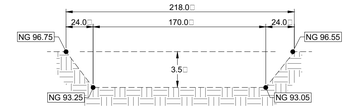
PARKING LOT AREA
SCALE: 1" □30□



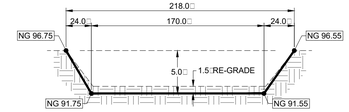
BASKETBALL COURT
SCALE: 1" □30□

SCALE: 1" □60□





EXISTING POND A–A
N.T.S.



RE–GRADE POND A–A
N.T.S.

LEGEND

- FOUND No.4 REBAR
- FOUND PIPE (SI□E AS NOTED)
- FOUND 3" DISK
- SET No.4 REBAR WITH PLASTIC CAP STAMPED MELDEN & HUNT
- SET NAIL
- POWER POLE
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PROPERTY LINE

Line Ta□le

Line □	Direction	Length
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PAVING & DRAINAGE

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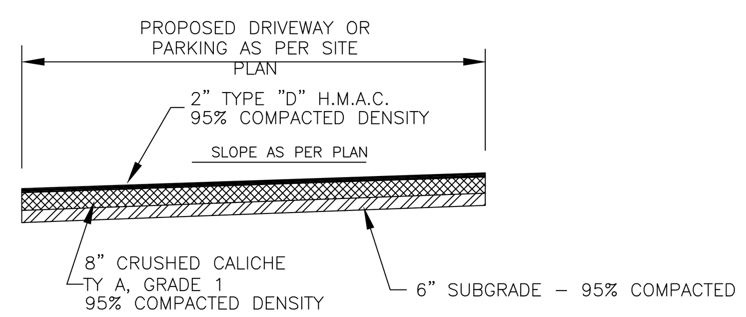
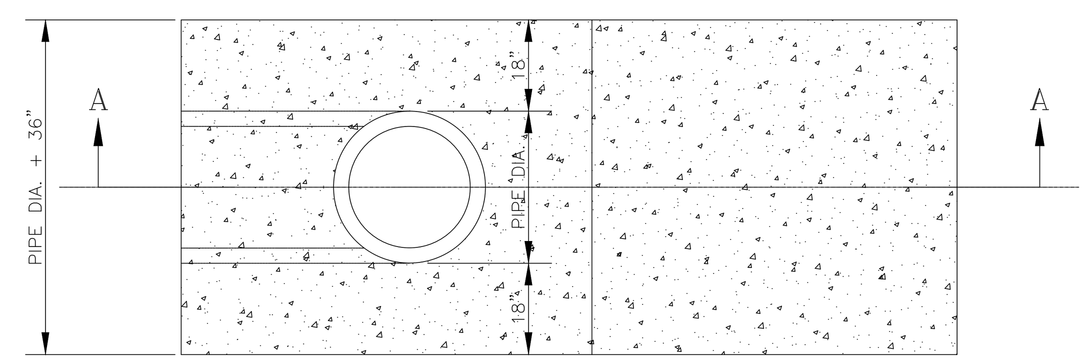
T:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\19585.01 - EGV Arch\Playground Upgrades\S Livas & Carman Elem\19585D1.dwg, 4/22/2019 10:12:56 AM

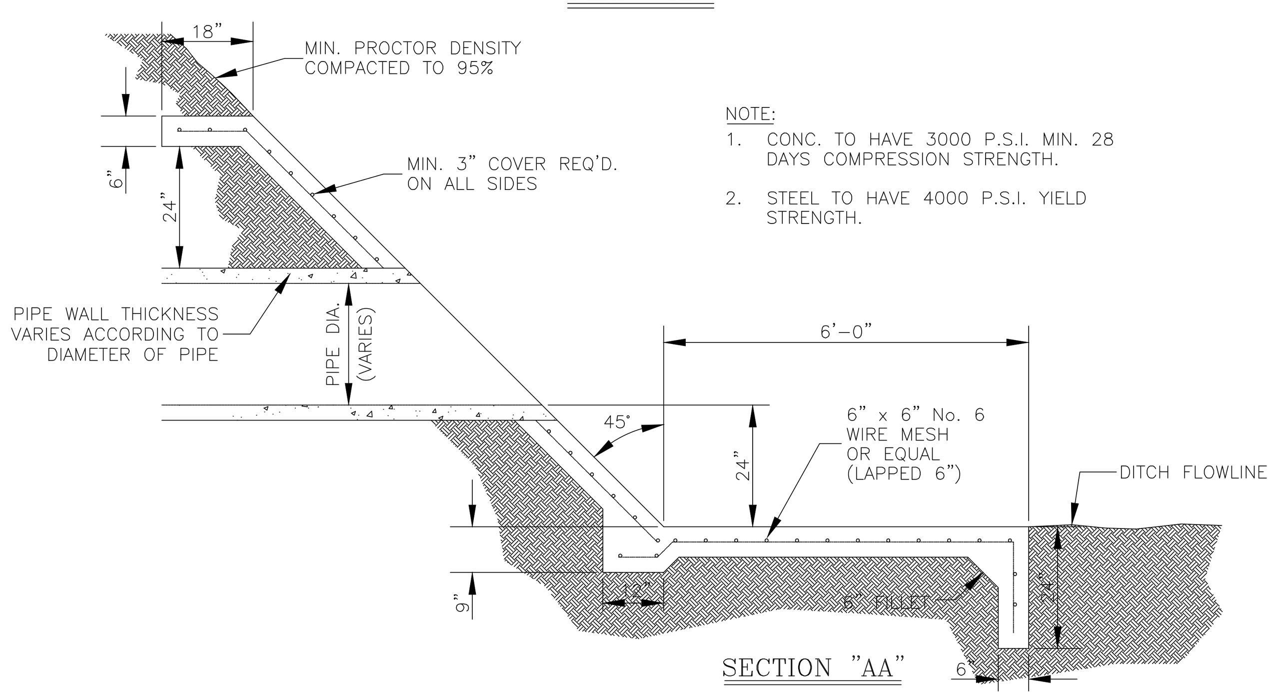


FLEXIBLE PAVEMENT SYSTEM (AUTOMOBILE PARKING AREA)

N.T.S.



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.

SIDEWALK NOTES:

MINIMUM 5'-0" WIDE SIDEWALK.

SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.

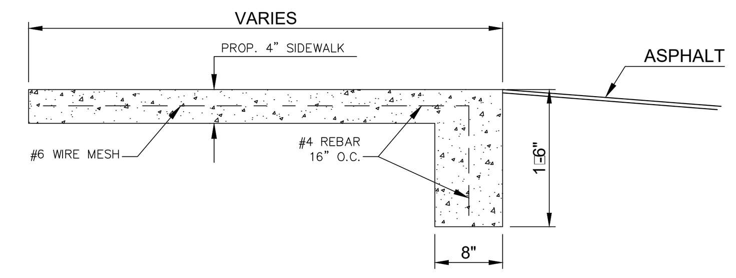
SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.

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

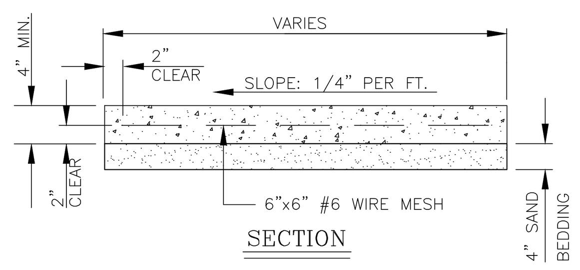
PROVIDE DROP CURBS AT INTERSECTIONS.

4" SAND BEDDING

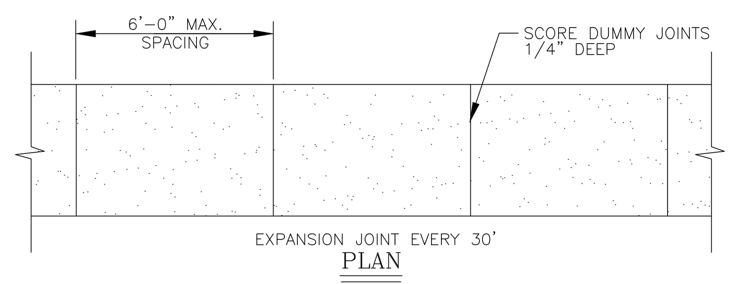
CONTRACTOR SHALL COMPLY WITH LATEST REGULATIONS AS SET FORTH IN AMERICANS WITH DISABILITIES ACT (ADA).



SIDEWALK ALONG ASPHALT



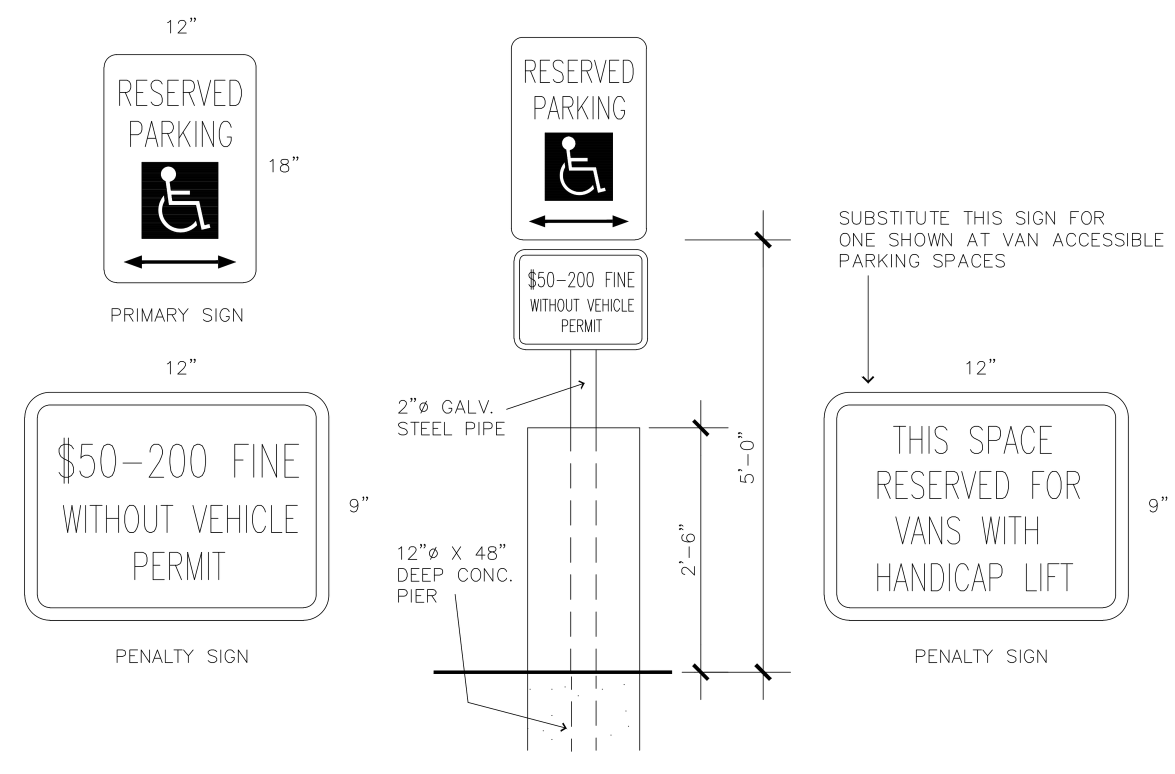
SECTION



PLAN

SIDEWALK DETAILS

N.T.S.



PARKING SIGNAGE: HANDICAPPED

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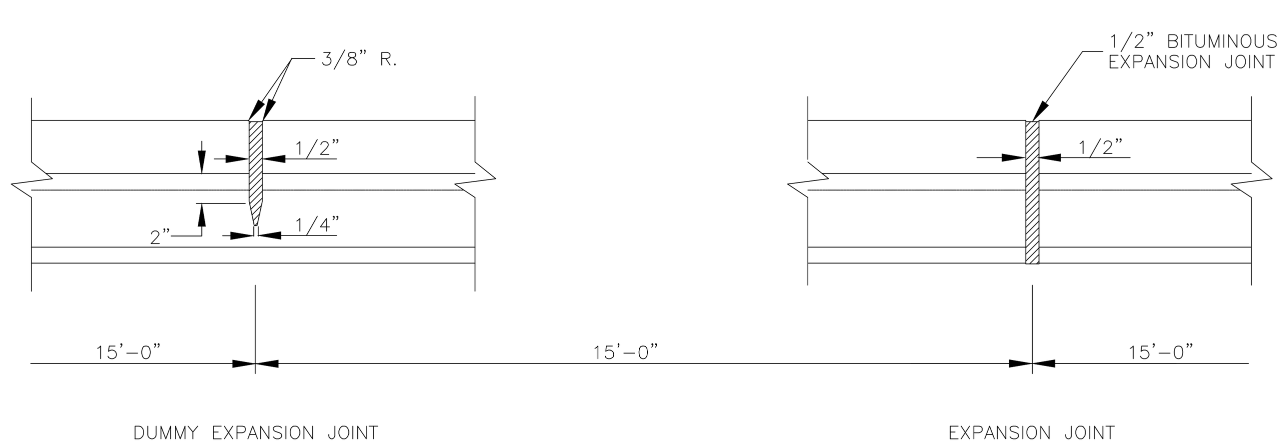
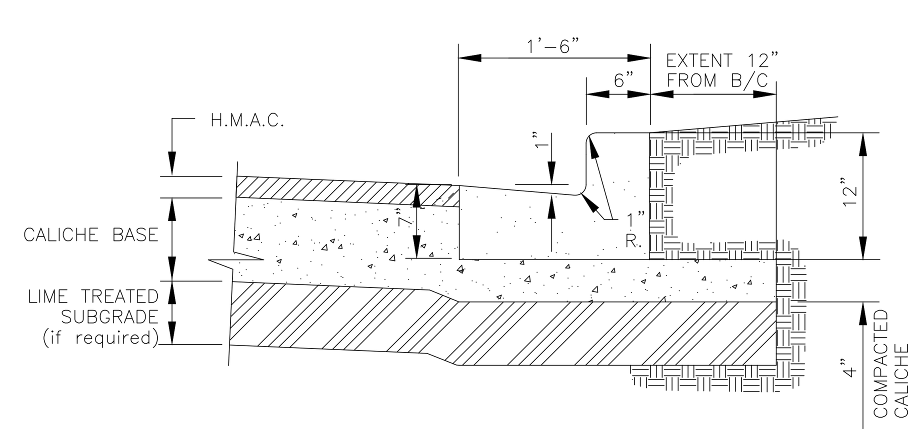


CURB EXPANSION JOINT DETAIL

N.T.S.

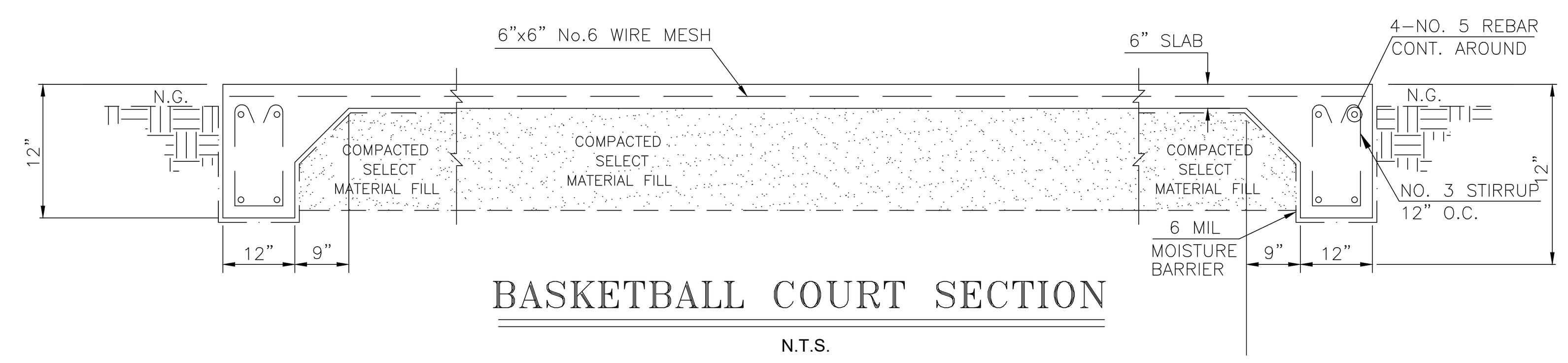


SECTION "AA" – CONCRETE CURB & GUTTER

N.T.S.

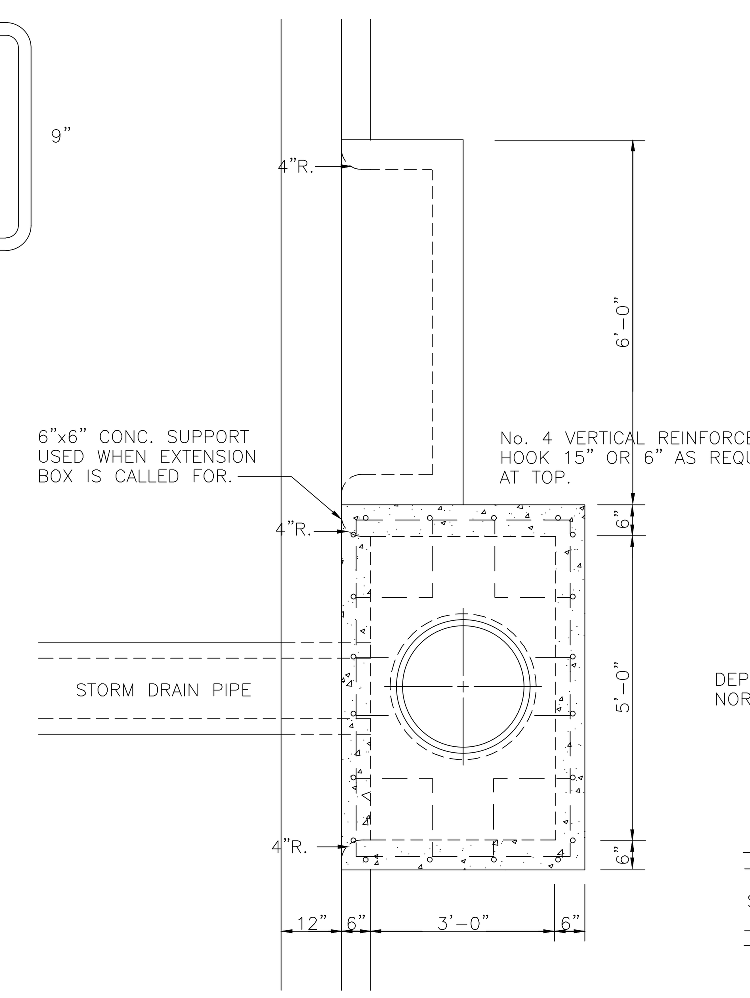
GENERAL NOTES:
1. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 5".
2. REINFORCING SHALL BE INTERMEDIATE GRADE DEFORMED BARS CONFORMING TO SPECIFICATION ASTM A615-60.
3. PROVIDE 1 1/2" MINIMUM CLEAR COVER ON ALL BEAM STEEL AND 3/4" CLEAR COVER ON ALL SLAB STEEL. PROVIDE BRICK BATS OR OTHER SUITABLE SUPPORTS TO MAINTAIN IT IN THE POSITIONS CALLED FOR IN THESE PLANS AND SPECIFICATIONS.
4. MEMBRANE WATERPROOFING SHALL BE COMPRISED OF 6 MIL POLYETHYLENE MEMBRANE.
5. THE BUILDING AREA SHALL BE CLEARED OF DEBRIS AND ORGANIC MATERIAL PRIOR TO FOUNDATION CONSTRUCTION.
6. PROVIDE A MINIMUM OF 40 DIAMETER SPLICE FOR ALL BEAM AND SLAB STEEL. RUN STEEL FULL STOCK LENGTHS. HOOK ALL BEAMS AT DISCONTINUOUS ENDS WITH A 90 DEGREE HOOK 6" LONG (BOTTOM BARS ONLY). STAGGER TOP AND BOTTOM BEAM SPLICES.
7. GRADE BEAM TO SET A MINIMUM OF 12" INTO UNDISTURBED SOIL.

DESIGN STANDARDS:
1)FOUNDATION DESIGN IN ACCORDANCE WITH THE FOLLOWING:
A) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, 318 AMERICAN BUILDING INSTITUTE.
2)SOILS INFORMATION FURNISHEDBY: NONE ASSUMED DIFFERENTIAL SWELL, YM=1.0" & ASSUMED MAX. PI=15%. MATERIALS:
1) CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI @ 28 DAYS. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED AS ADDITIVES. ADDITIONAL PROVISIONS FOR CONCRETE SHALL CONFORM TO APPLICABLE REQUIREMENTS OF ACI 302 " RECOMMENDED PRACTICE FOR FLOOR AND SLAB CONSTRUCTION".
2) REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM-185. CONSTRUCTION
1) SITE GRADING SHALL BE PERFORMED IN SUCH A MANNER THAT SURFACE OR GROUND WATER WILL NOT COLLECT UNDER OR ADJACENT TO SLAB.
2) ALL FILL UNDER SLABS SHALL BE CLAYEY SAND HAVING A PI OF BETWEEN 10& TO 15% & PLACED IN 8" MAX. LAYERS & COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3) ALL SLABS SHALL HAVE A 4" MINIMUM CUSHION OF GRANULAR SELECT FILL (CLAYEY SAND) HAVING PI BETWEEN 10% TO 15%.
4) FORMING, CONCRETE PLACEMENT, & CURING SHALL CONFORM TO THE REQUIREMENTS OF ACI 302.
5) NATIVE SOIL & FILL UNDER FOUNDATION SHALL HAVE MOISTURE CONTENT OF -2 TO + 3 OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY A REPUTABLE SOILS LABORATORY.



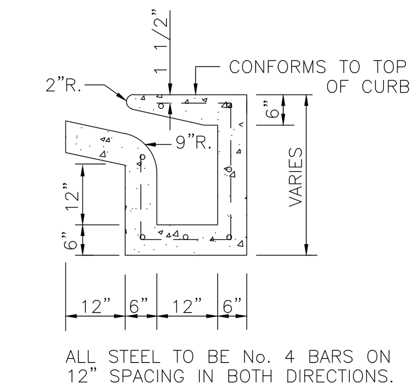
BASKETBALL COURT SECTION

N.T.S.



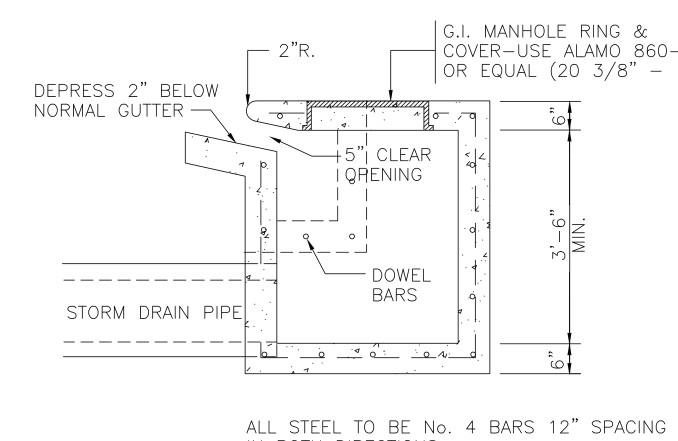
SLOPE BOTTOM OF INLET EXTENSION 1/2" / 1'-0" TOWARD INLET
EXTENSION TO INLET TO BE MADE IN INCREMENTS OF 3'-0" OR 6'-0" ONLY.
TRANSITION NORMAL GUTTER TO INLET SLOPE APPROXIMATELY 3'-0".

PLAN



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

INLET EXTENSION

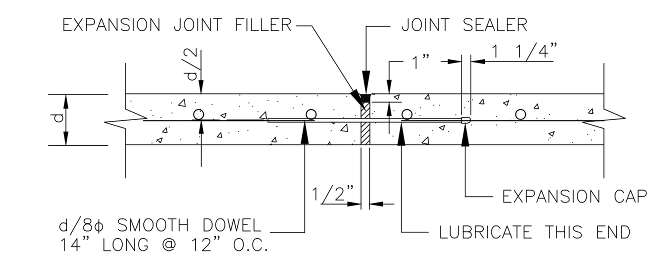


ALL STEEL TO BE No. 4 BARS 12" SPACING IN BOTH DIRECTIONS.

SECTION

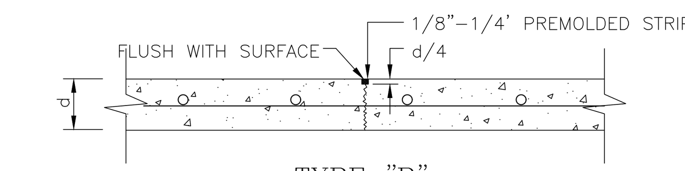
TYPE "A" INLET

N.T.S.



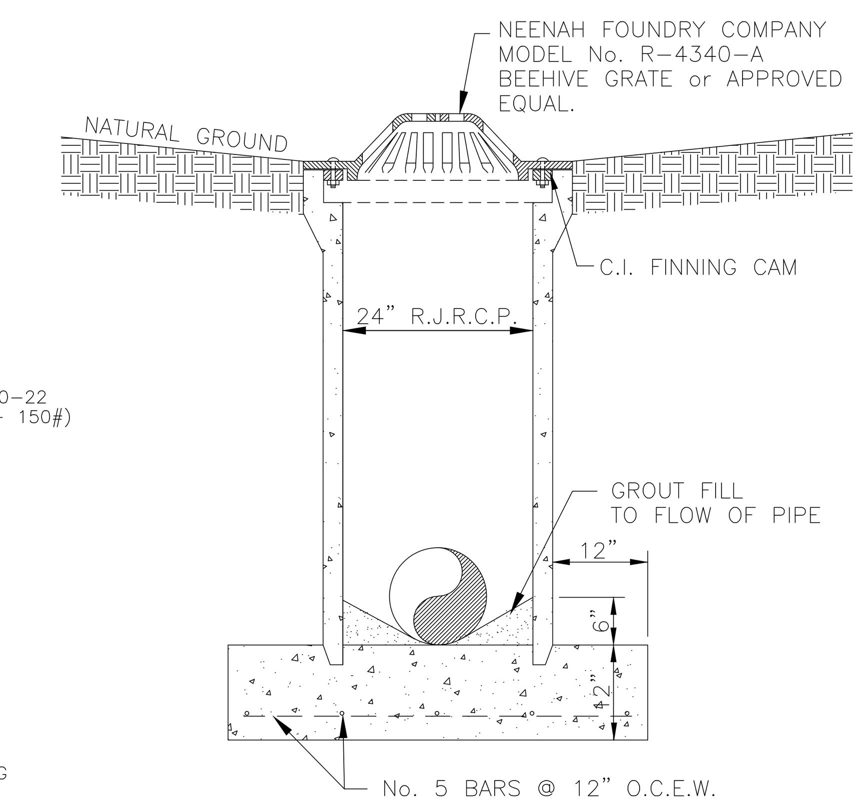
TYPE "A"

ALTERNATE EXPANSION JOINT



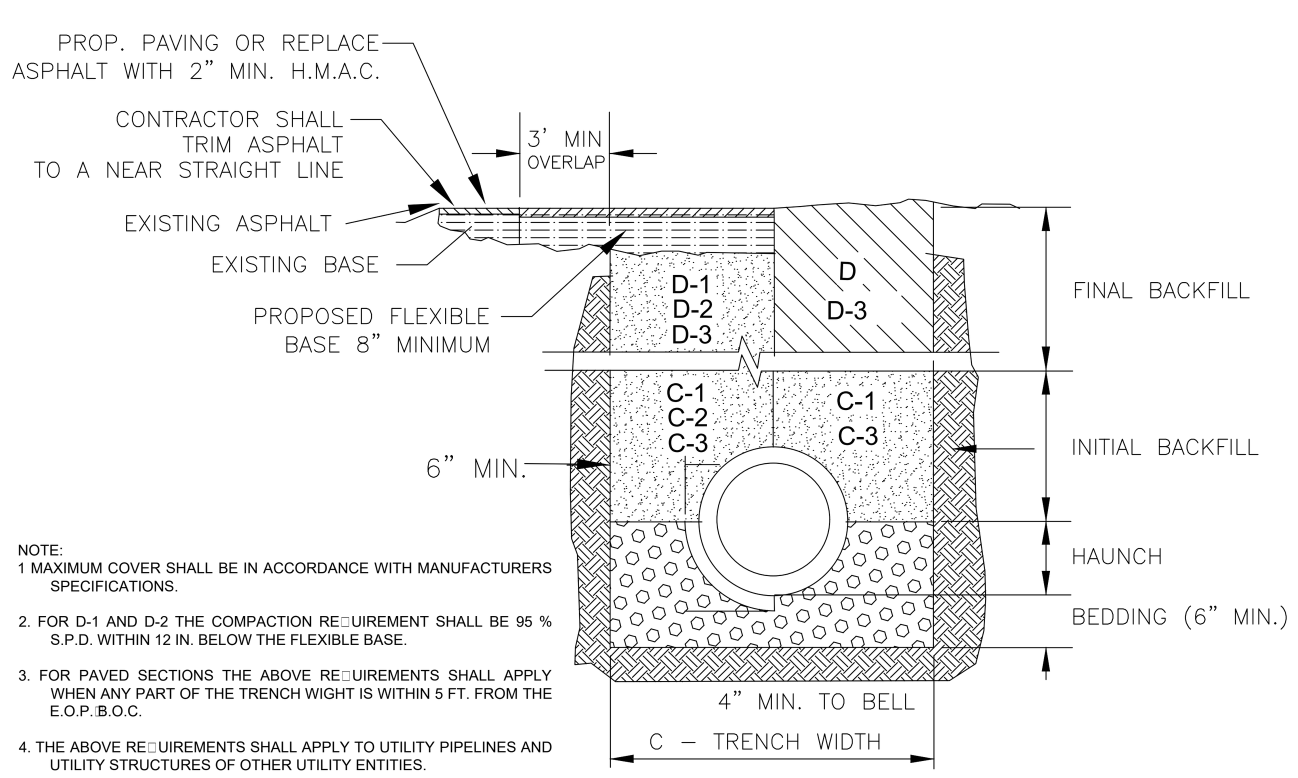
TYPE "B"

SAWED OR PREMOLDED STRIP LONGITUDINAL OR TRAVERSE



BEEHIVE INLET DETAIL

N.T.S.



NOTE:
1 MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION RE□UIREMENT SHALL BE 95 % S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE RE□UIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIGHT IS WITHIN 5 FT. FROM THE E.O.P.□B.O.C.
4. THE ABOVE RE□UIREMENTS 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 ¾" MIX SI□E.

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 E□UAL 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 STABILI□ED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D., AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.

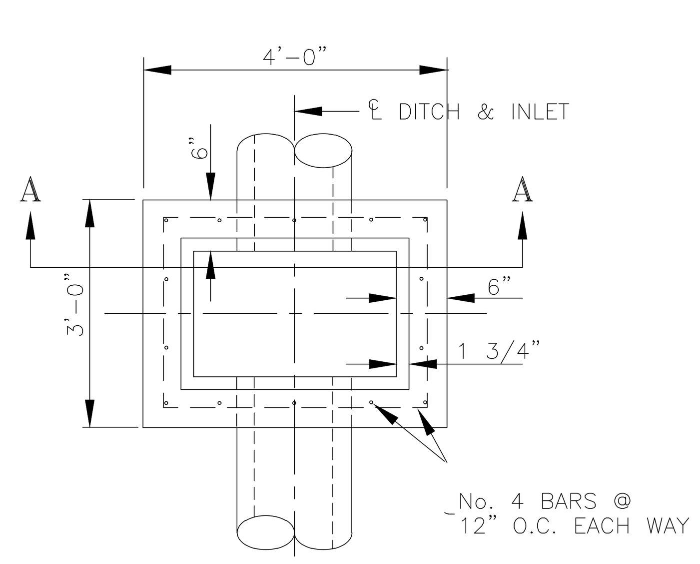
C-3 INITIAL BACKFILL FOR HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II WITH A MAXIMUM P.I. OF 19 (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

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).

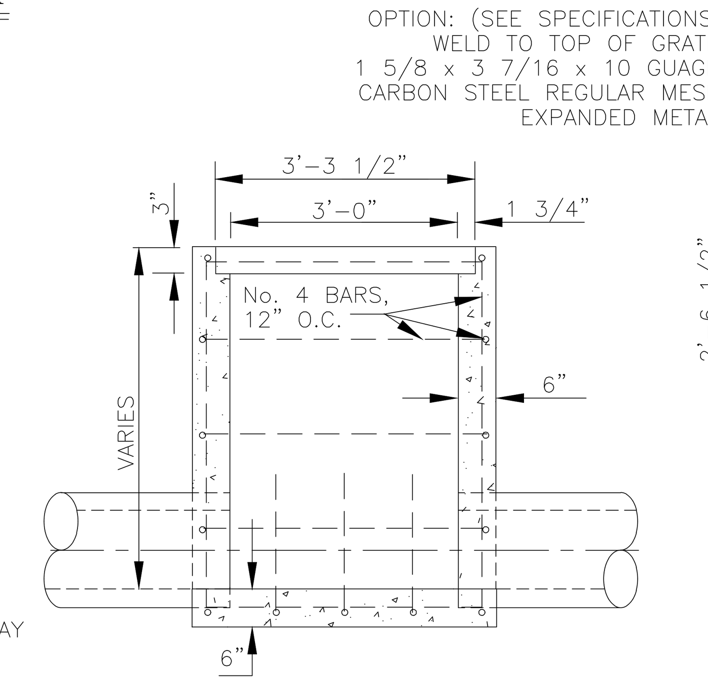
D-1 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND COUNTY ROADS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (AASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

D-2 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON STATE MAINTAINED ROADWAY - COMPACTED SAND□CEMENT STABILI□ED 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 STABILI□ATION, OR APPROVED SUBSTITUTE) SHALL BE RE□UIRED WHEN TRENCH BOTTOM IS UNSTABLE. BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS RE□UIRED 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".

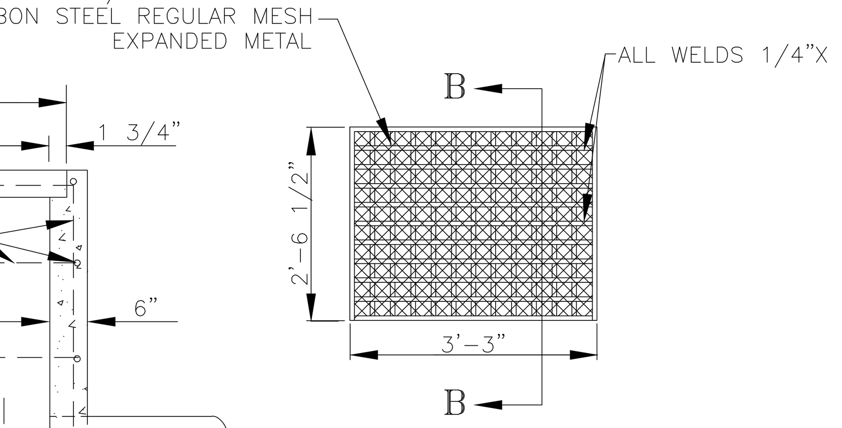


TOP VIEW OF INLET

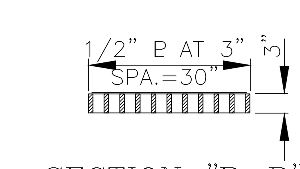


SECTION "A–A"

OPTION: (SEE SPECIFICATIONS) WELD TO TOP OF GRATE 1 5/8 x 3 7/16 x 10 GUAGE CARBON STEEL REGULAR MESH EXPANDED METAL



TOP VIEW OF GRATE



SECTION "B–B"

TYPE "C" GRATED INLET

N.T.S.

MELDEN & HUNT INC.
CONSULTANTS • ENGINEERS • SURVEYORS
TBPLS No. 10096900
115 W. McINTYRE - EDINBURG, TX 78541
PH: (956) 381-0981 - FAX: (956) 381-1839
ESTABLISHED 1947 - www.meldenandhunt.com

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
MARIO A. REYNA
117368
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORI□ED BY MARIO A. REYNA, P.E. 117368

04-18-2019

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P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

DETAILS

CS5 SHEET 6 OF

Y:\Miscellaneous Engineering\Educational Institutions\PSJA ISD\19085.01 - EGV Arch-Playground Upgrades-S Livas & Carmen Elem\DWG\S Livas Elem\19085.01.dwg, 4/18/2019 4:17:34 PM

MELDEN & HUNT INC.
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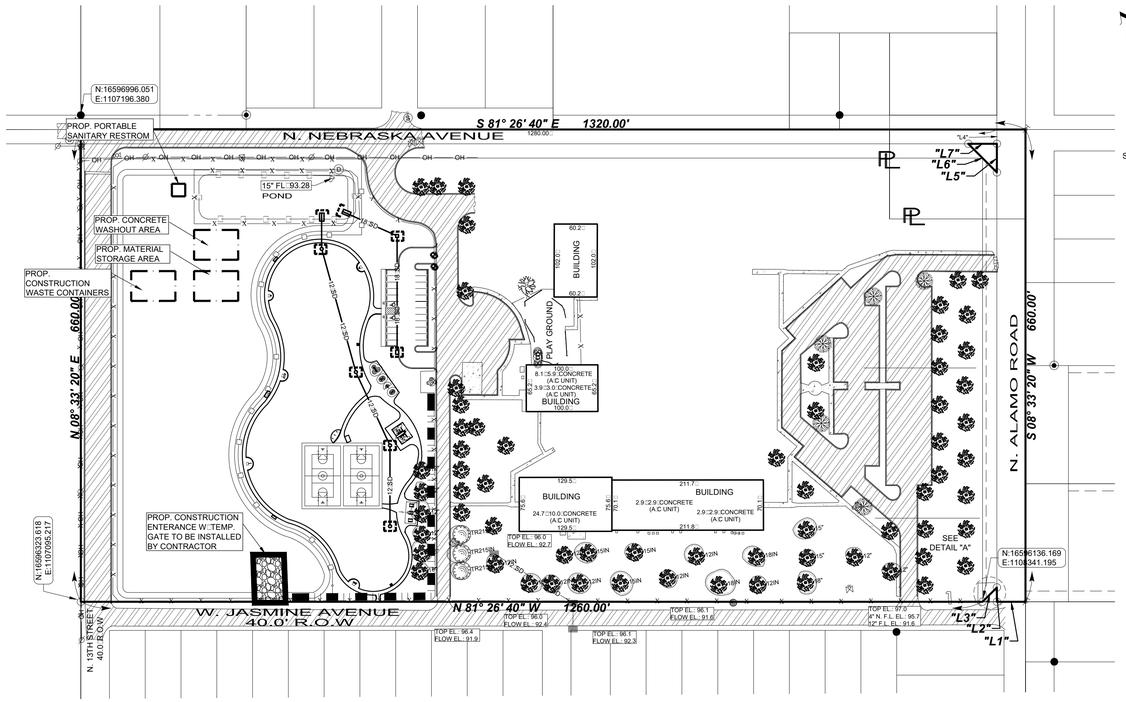
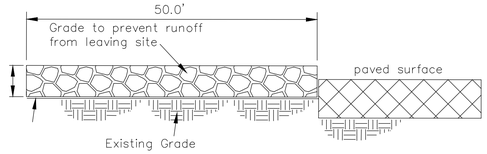
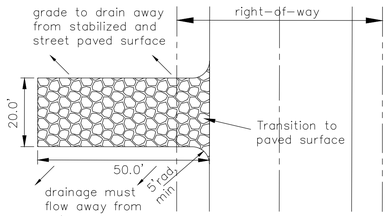
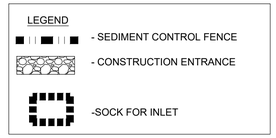




Profile View



Plan View



GENERAL NOTES :

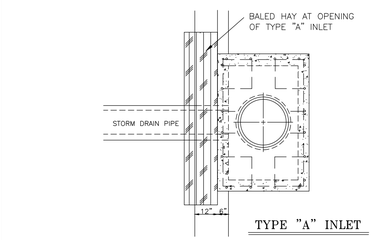
1. The guidelines shown hereon are suggestions only and may be modified by the engineer.
2. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 lbs.
3. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetable matter.
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.

2/C9 STABILIZED CONSTRUCTION ENTRANCE

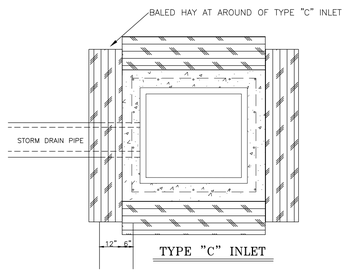
SCALE: NOT TO SCALE

Notes :

1. Contruction entrance(s) shall be locted at the time of pre-contruction meeting.
2. Stone shall be 4 to 8 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.



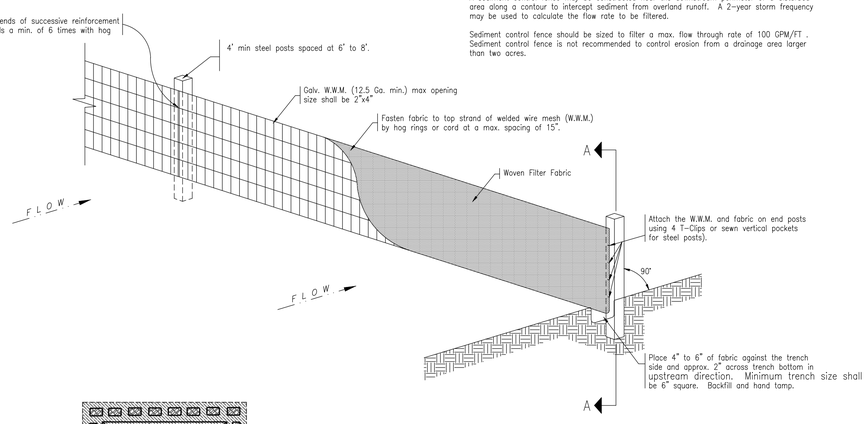
TYPE "A" INLET



TYPE "C" INLET

NOTE:

1. **NO OFFICE TRAILER ON SITE.**



TEMPORARY SEDIMENT CONTROL FENCE

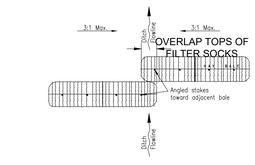
GENERAL NOTES :

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

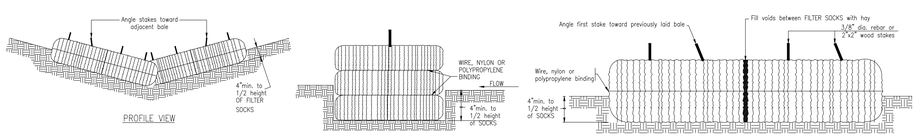
SEDIMENT CONTROL FENCE USAGE GUIDELINES

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.

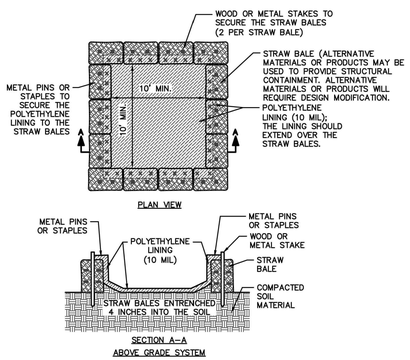
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT . Sediment control fence is not recommended to control erosion from a drainage area larger than two acres.



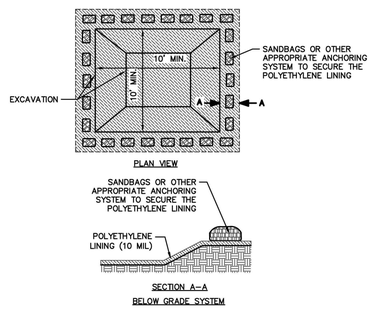
PLAN VIEW



BALED HAY FOR EROSION CONTROL



CONCRETE WASH OUT



EROSION & SEDIMENT CONTROL PLAN

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726

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

04-18-2019

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NO. | REVISIONS | DATE APPROVED

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO.

CS6 SHEET OF 6

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GENERAL NOTES

STRUCTURAL TESTS AND SPECIAL INSPECTION

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THIS SECTION.

2. THE FOLLOWING TERMS AND PHRASES SHALL HAVE THE MEANINGS SHOWN BELOW AS IT PERTAINS TO THIS SECTION.
   A. APPROVED AGENCY - AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING AND FURNISHING SPECIAL INSPECTION SERVICES.
   B. APPROVED FABRICATOR - AN ESTABLISHED AND QUALIFIED FIRM APPROVED BY BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHEN WORK IS PERFORMED ON THE PREMISES OF AN APPROVED FABRICATOR.
   C. SPECIAL INSPECTION, CONTINUOUS - THE FULL TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.
   D. SPECIAL INSPECTION, PERIODIC - THE PART TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.

3. SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED THEY SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

4. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION.

5. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.

TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[a]	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	——	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	——	——	AWS D1.4 ACI 318: 3.5.2	——
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	——	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	——	X	ACI 318. 3.86, 8.1.3, 21.2.8	1909.1
5. VERIFYING USE OF REQUIRED DESIGN MIX.	——	X	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	——	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	——	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	——	X	ACI 318: 5.11-5.13	1910.9
9. INSPECTION OF PRESTRESSED CONCRETE: a. APPLICATION OF PRESTRESSING FORCES. b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X X	——	ACI 318: 18.20 ACI 318: 18.18.4	——
10. ERECTION OF PRECAST CONCRETE MEMBERS.	——	X	ACI 318: Ch.16	——
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	——	X	ACI 318: 6.2	——
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	——	X	ACI 318: 6.1.1	——

TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	——	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	——	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	——	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	——
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	——	X

LEVEL 1 REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION

INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA		
	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	IBC SECTION	ACI 530/ ASCE 5/ TMS 402[a]	ACI 530.1/ ASCE 6/ TMS 602[a]
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR.	——	X	——	——	Art. 2.6A
b. CONSTRUCTION OF MORTAR JOINTS.	——	X	——	——	Art. 3.3B
c. LOCATION OF REINFORCEMENT , CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	——	Art. 3.4, 3.6A
d. PRESTRESSING TECHNIQUE.	——	X	——	——	Art. 3.6B
e. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	——	Art. 2.4B, 2.4H
2. THE INSPECTION PROGRAM SHALL VERIFY:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	——	X	——	——	Art. 3.3G
b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.	——	X	——	Sec. 1.2.2(e), 2.1.4, 3.1.6	——
c. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT	——	X	——	Sec. 1.13	Art. 2.4, 3.4
d. WELDING OF REINFORCING BARS.	X	——	——	Sec. 2.1.10.7.2, 3.3.3.4(b)	——
e. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	——	X	——	——	Art. 1.8C, 1.8D
f. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	——	X	——	——	Art. 3.6B
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. GROUT SPACE IS CLEAN.	——	X	——	——	Art. 3.2D
b. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES.	——	X	——	Sec. 1.13	Art. 3.4
c. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	——	X	——	——	Art. 2.6B
d. CONSTRUCTION OF MORTAR JOINTS.	——	X	——	——	Art. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	X	——	——	——	Art. 3.5
a. GROUTING OF PRESTRESSING BONDED TENDONS.	X	——	——	——	Art. 3.6C
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	X	——	——	——	Art. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	——	X	——	——	Art. 1.5

DATE APPROVED

DATE: 04-17-19 NO. REVISIONS

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FILE NO. dwg/psja/reroofing 17-18

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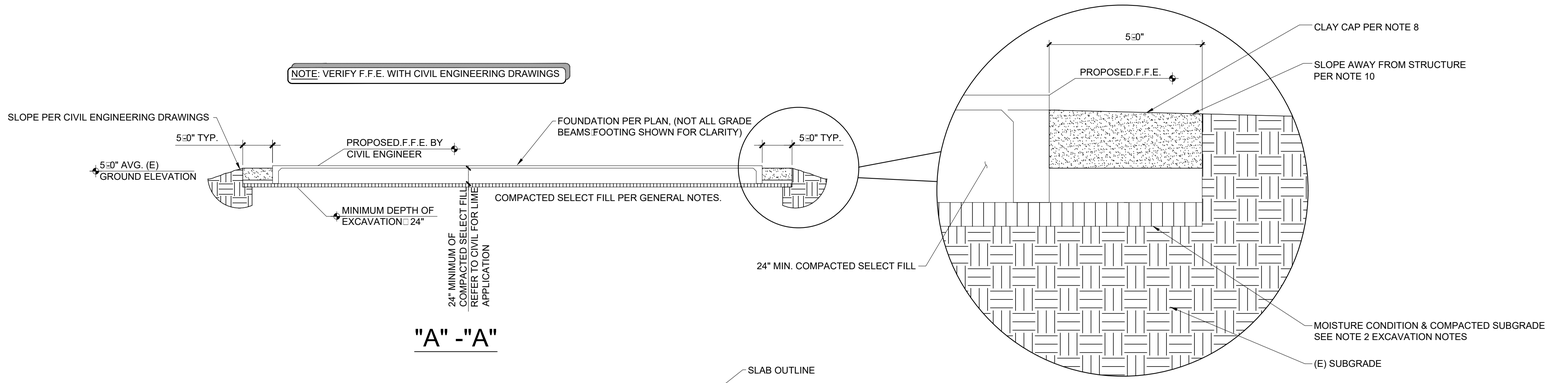

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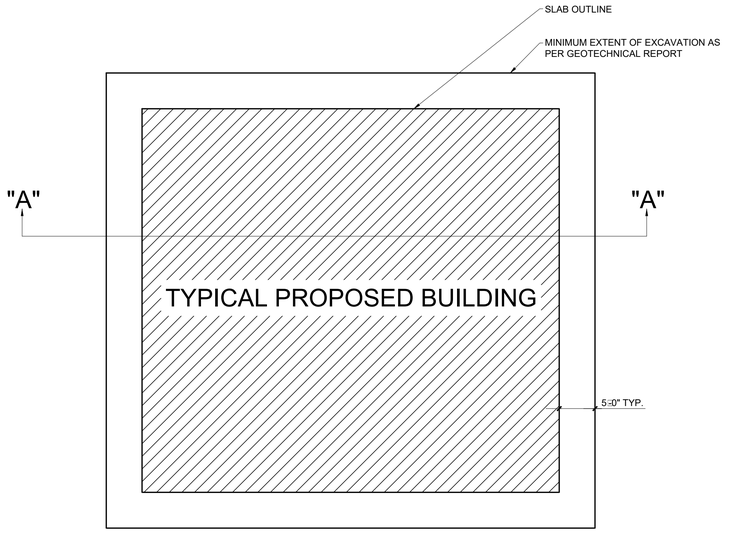

TYPICAL PROFILE

SCALE: NTS

EXCAVATION NOTES

1. CONSTRUCTION AREAS REMOVE AT LEAST 6 INCHES OF TOP SOIL, VEGETATION, DEBRIS, ETC., FROM THE PROPOSED BUILDING AREA TO A DISTANCE OF 3'-0" OUTSIDE THE BUILDING LINE PROPOSED. FURTHER, REMOVE SOILS WITHIN THE BUILDING PAD TO A DEPTH OF 24 INCHES BELOW NATURAL GRADE.

2. EXPOSED SUBGRADE SHOULD BE CAREFULLY PROOF ROLLED WITH A 15 TON ROLLER OR FULLY LOADED DUMP TRUCK IN ORDER TO LOCATE AND DENSIFY ANY WEAK, COMPRESSIBLE ZONES. A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHOULD OBSERVE PROOFROLLING TO AID IN LOCATING UNSTABLE SUBGRADE MATERIAL. UNSTABLE MATERIAL SHOULD BE STABALIZED AS DIRECTED BY THE GEOTECHNICAL ENGINEER BASED ON CONDITIONS OBSERVED DURING CONSTRUCTION. PRIOR TO FILL PLACEMENT, THE EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED FROM OPTIMUM TO 4% WET OF OPTIMUM MOISTURE CONTENT. AND RECOMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED FROM THE ASTM D698 COMPACTION TEST.

3. FILL BACK TO REQUIRED GRADE (A MINIMUM OF 24" OF SELECT FILL IS REQUIRED. REFER TO CIVIL PLANS FOR FINISHED FLOOR ELEVATION TO DETERMINE ADDITIONAL AMOUNT OF SELECT FILL NEEDED) WITH MATERIAL SELECTED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW.

4. SELECT FILL, WHEN PROPERLY SLAKED AND TESTED BY STANDARD LABORATORY METHODS, SHALL MEET THE FOLLOWING REQUIREMENTS:

A. AGGREGATE BASE COURSE- TOP SIX (6) INCHES OF BUILDING PAD SHALL CONSIST OF SOILS CLASSIFIED AS SC, GC, CALICHE, CRUSHED LIMESTONE, OR CRUSHED CONCRETE BY THE USCS CLASSIFICATION. THE CLAYEY GRAVEL AND CALICHE MATERIALS SHOULD MEET THE GRADATION REQUIREMENTS OF ITEM 247, TYPE B, GRADES 1 THROUGH 3 AS SPECIFIED IN THE 2014 TxDOT STANDARD SPECIFICATIONS MANUAL AND HAVE A PLASTICITY INDEX BETWEEN 7 AND 20. CRUSHED LIMESTONE OR CRUSHED CONCRETE MATERIAL SHOULD MEET THE REQUIREMENTS OF 2014 TxDOT ITEM 247, TYPE A OR D, GRADE 1 THROUGH 3. THE SELECT FILL MATERIALS SHOULD BE FREE OF ORGANIC MATERIAL AND DEBRIS, AND SHOULD NOT CONTAIN STONES LARGER THAN 2 INCHES IN THE MAXIMUM DIMENSION.

B. THE FOLLOWING SOILS, AS CLASSIFIED ACCORDING TO THE USCS, MAY BE CONSIDERED SATISFACTORY FOR USE AS SELECT FILL MATERIALS AT THIS SITE: CL, SC, AND COMBINATIONS OF THESE SOILS. IN ADDITION TO THE USCS CLASSIFICATION, SELECT FILL MATERIALS SHALL HAVE A MAXIMUM LIQUID LIMIT OF 35 PERCENT, A PLASTICITY INDEX BETWEEN 7 AND 20 PERCENT, AND A MAXIMUM PARTICLE SIZE NOT EXCEEDING 2 INCHES OR ONE-HALF THE LOOSE LIFT THICKNESS, WHICHEVER IS SMALLER.

5. 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 APPROVAL.

6. SELECT FILL UNDER ALL FLOORS AND WALKS SHALL BE COMPACTED IN THE FIELD IN LOOSE LIFTS NOT TO EXCEED 8" TO 95% OF THE MAXIMUM DENSITY, TO WITHIN TO 2% OF THE OPTIMUM MOISTURE CONTENT, AS DETERMINED BY TEST METHOD ASTM D-698

7. SITE PREPARATION TESTING SHALL BE AS FOLLOWS:
A. ATTERBERG LIMITS OF SELECT FILL MATERIAL:
(1) ONE TEST PER 5,000 CY
B. COMPACTION TEST:
TO BE PERFORMED PER LIFT ON TEST PER 3,000 SF MINIMUM
OF (4) FOUR TEST PER LIFT

8. IF 3' PERIMETER OVER EXCAVATION IS NOT COVERED BY CONCRETE FLATWORK, PROVIDE 2' THICK CLAY CAP IN OVER EXCAVATED ZONE. CLAY CAP SHALL CONSIST OF MATERIAL WITH P.I. RANGE OF 20-35.

9. FINAL SITE GRADING TO SLOPE AWAY FROM THE STRUCTURE AND SHALL PREVENT WATER FROM PONDING IN THE AREAS ADJACENT TO THE STRUCTURE FOR A MINIMUM DISTANCE OF 10'-0". ANY PONDING CLOSE TO THE STRUCTURE MAY CREATE VOLUMETRIC CHANGES IN THE SOIL AND MAY LEAD TO LESS THAN OPTIMUM PERFORMANCE OF THE BUILDING FOUNDATION.

EXCAVATION PLAN (CARMAN)

SCALE: NTS

DATE APPROVED

DATE: 04-17-19 NO. REVISIONS

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FILE NO. dwg/psja/reroofing 17-18

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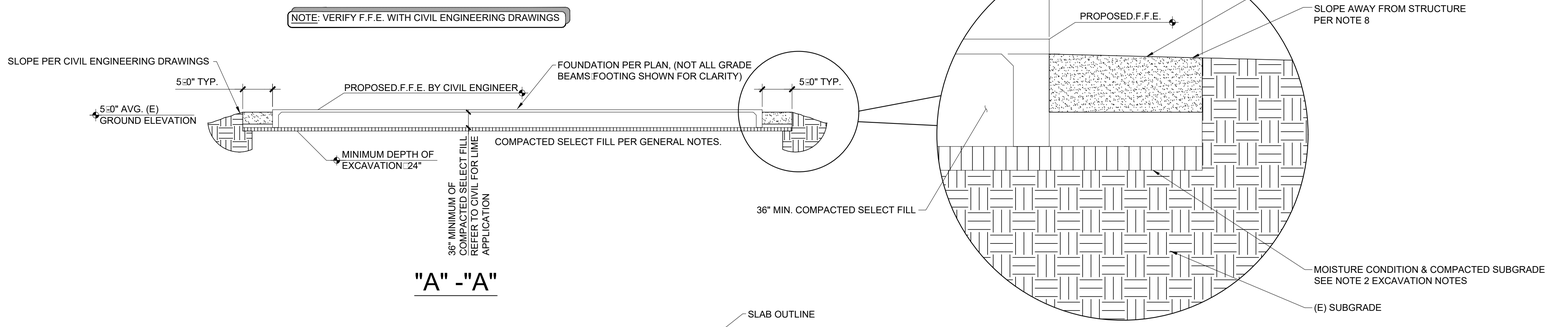

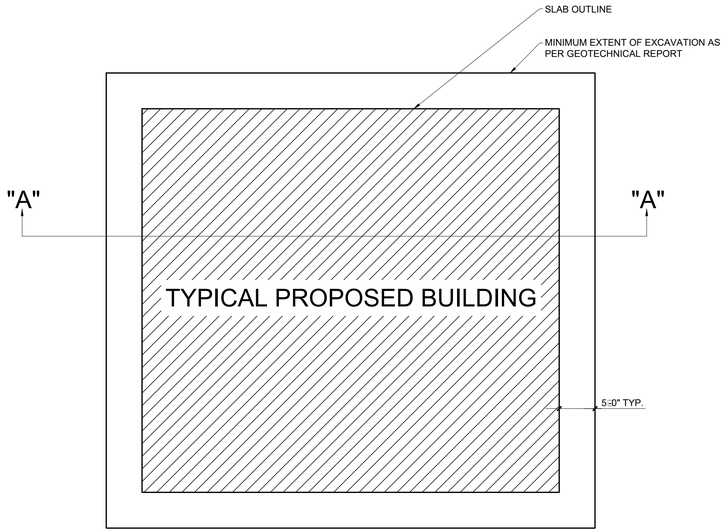

N
PLAN NORTH

TYPICAL PROFILE

SCALE: NTS

FOUNDATION NOTES

1. CONSTRUCTION AREAS REMOVE AT LEAST 24 INCHES OF TOP SOIL, VEGETATION, DEBRIS, ETC., FROM THE PROPOSED BUILDING AREA TO A DISTANCE OF 5'-0" OUTSIDE THE BUILDING LINE PROPOSED.

2. EXPOSED SUBGRADE SHOULD BE THOROUGHLY PROOF ROLLED BY A MINIMUM OF 5 PASSES WITH A 20 TON PNEUMATIC ROLLER OR A FULLY LOADED DUMP TRUCK IN ORDER TO LOCATE AND DENSIFY ANY WEAK, COMPRESSIBLE ZONES. WEAK OR SOFT AREAS IDENTIFIED DURING PROOF ROLLING SHOULD BE REMOVED AND REPLACED WITH A SUITABLE, COMPACTED SELECT FILL IN ACCORDANCE WITH THE REQUIREMENTS BELOW. PRIOR TO FILL PLACEMENT, THE EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED BY SCARIFYING TO A MINIMUM DEPTH OF 12" AND RECOMPACTING TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED FROM THE ASTM D698 COMPACTION TEST. THE MOISTURE CONTENT SHOULD BE MAINTAINED AT OPTIMUM TO FOUR PERCENTAGE POINTS ABOVE OPTIMUM.

3. FILL BACK TO REQUIRED GRADE (A MINIMUM OF 36" OF SELECT FILL IS REQUIRED. REFER TO CIVIL PLANS FOR FINISHED FLOOR ELEVATION TO DETERMINE ADDITIONAL AMOUNT OF SELECT FILL NEEDED) WITH MATERIAL SELECTED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW.

4. SELECT FILL, WHEN PROPERLY SLAKED AND TESTED BY STANDARD LABORATORY METHODS, SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS:
   A. MATERIAL SHALL CONFORM TO TxDOT 1993 SPECIFICATION ITEM 247, FLEXIBLE BASE, TYPE A, GRADES 1 THROUGH 5.
   B. MATERIAL SHALL CONFORM TO TxDOT 1993 SPECIFICATION ITEM 247, FLEXIBLE BASE, TYPE B OR C, GRADES 1 THROUGH 5 WITH MINIMUM PLASTICITY INDEX OF 7.
   C. MATERIAL SHALL CONFORM TO TxDOT 1993 SPECIFICATION ITEM 247, FLEXIBLE BASE, TYPE D MATERIAL SHALL BE DEFINED AS CALICHE (ARGILLACEOUS LIMESTONE, CALCAREOUS OR CALCAREOUS CLAY PARTICLES) AND MAY CONTAIN STONE, CONGLOMERATE, GRAVEL SAND OR GRANULAR MATERIALS WHEN THESE MATERIALS ARE IN SITU WITH THE CALICHE. FLEXIBLE BASE (TYPE D, GRADE 6) SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

RETAINED ON Sq. SIEVE	PERCENT RETAINED
2"	0
1/2"	20-60
No. 4	40-75
No. 40	70-90
Max. PI:	15
Max. WET BALL PI:	15
WET BALL MILL Max AMOUNT:	50
WET BALL INCREASE, Max PASSING No. 40 SIEVE	20

   D. SOILS CLASSIFIED ACCORDING TO USCS AS SM, SC, GM, CL, ML, AND COMBINATIONS OF THESE SOILS. THE SOILS SHALL BE RELATIVELY FREE OF ORGANIC MATTER. IN ADDITION TO THE USCS CLASSIFICATION, SELECT MATERIALS SHALL HAVE A LIQUID LIMIT OF LESS THAN 40 AND PLASTICITY INDEX BETWEEN AND INCLUSIVE OF 10 AND 17.
   E. SOILS CLASSIFIED, AS CH, MH, OH, OL, AND PT, UNDER THE USCS ARE NOT CONSIDERED SUITABLE FOR USE AS SELECT FILL MATERIALS AT THIS SITE.

5. 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 APPROVAL.

6. SELECT FILL UNDER ALL FLOORS AND WALKS SHALL BE COMPACTED IN THE FIELD IN LIFTS NOT TO EXCEED 8" TO 95% OF THE MAXIMUM DENSITY, 2% BELOW TO 2% ABOVE OF THE OPTIMUM MOISTURE CONTENT, AS DETERMINED BY TEST METHOD ASTM D-698

7. SITE PREPARATION TESTING SHALL BE AS FOLLOWS:
   A. ATTERBERG LIMITS OF SELECT FILL MATERIAL:
      (1) ONE TEST PER 5,000 CY
   B. COMPACTION TEST:
      TO BE PERFORMED PER LIFT ON TEST PER 3,000 SF MINIMUM
      OF (4) FOUR TEST PER LIFT

8. FINAL SITE GRADING TO SLOPE AWAY FROM THE STRUCTURE AND SHALL PREVENT WATER FROM PONDING IN THE AREAS ADJACENT TO THE STRUCTURE FOR A MINIMUM DISTANCE OF 10'-0". ANY PONDING CLOSE TO THE STRUCTURE MAY CREATE VOLUMETRIC CHANGES IN THE SOIL AND MAY LEAD TO LESS THAN OPTIMUM PERFORMANCE OF THE BUILDING FOUNDATION.

9. IT IS ALSO IMPORTANT TO MINIMIZE CHANGES IN MOISTURE CONTENT CREATED BY ROOF DRAINAGE, PLUMBING LEAKS, LANDSCAPING / IRRIGATION, AND DOWNSPOUT OUTFALLS. ANY PLUMBING LEAKS SHALL BE REPAIRED AS SOON AS POSSIBLE AND PROPER DRAINAGE PROVIDED AWAY FROM THE BUILDING. LARGE BUSHES AND TREES SHALL NOT BE PLACED IN AREAS DIRECTLY ADJACENT TO THE FOUNDATION AS THEIR ROOT SYSTEM MAY CREATE SUBSTANTIAL MOISTURE DIFFERENTIALS THAT MAY LEAD TO VOLUME CHANGES IN THE SOIL. LARGE BUSHES AND TREES SHOULD BE LOCATED AT A REASONABLE DISTANCE FROM THE FOUNDATION.

N
PLAN NORTH

EXCAVATION PLAN (SANTOS)

SCALE: NTS

DATE APPROVED

DATE: 04-17-19 NO. REVISIONS

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JOB NO. 19154
FILE NO. dwg/psja/reroofing 17-18

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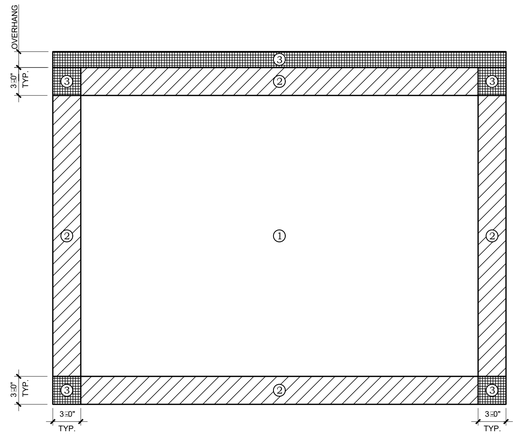


ALLOWABLE STRESS DESIGN

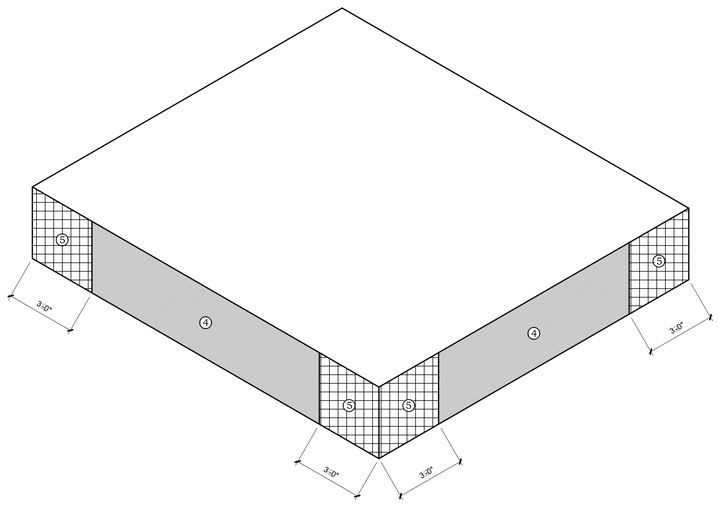
EFFECTIVE WIND AREA	ZONE	GROSS	NET
10	1	- 25.6 psf	- 19.6 psf
20	1	- 25.0 psf	- 19.0 psf
50	1	- 24.1 psf	- 18.1 psf
10	2	- 43.0 psf	- 37.0 psf
20	2	- 38.4 psf	- 32.4 psf
50	2	- 32.3 psf	- 26.3 psf
10	3 (CORNER)	- 64.6 psf	- 58.6 psf
20	3	- 53.6 psf	- 47.6psf
50	3	- 38.8psf	- 32.8 psf

WIND LOAD PLAN NOTES:
1. NEGATIVE PRESSURES DENOTE FORCE ACTING AWAY FROM BUILDING SURFACE (SUCTION).
2. PRESSURES FOR TRIBUTARY AREAS IN BETWEEN THE LISTED VALUES MAY BE LINEARLY INTERPOLATED.

PLAN NORTH

ROOF UPLIFT PLAN

SCALE: NTS



ALLOWABLE STRESS DESIGN

EFFECTIVE WIND AREA	ZONE	MAX PRESSURE
10	4	± 27.7 psf
20	4	± 26.6 psf
50	4	± 25.1 psf
10	5	± 34.3 psf
20	5	± 31.9 psf
50	5	± 28.9 psf

WIND LOAD PLAN NOTES:
1. NEGATIVE PRESSURES DENOTE FORCE ACTING AWAY FROM BUILDING SURFACE (SUCTION).
2. PRESSURES FOR TRIBUTARY AREAS IN BETWEEN THE LISTED VALUES MAY BE LINEARLY INTERPOLATED.

COMPONENTS AND CLADDING

SCALE: NTS

DATE APPROVED

DATE: 04-17-19 NO. REVISIONS

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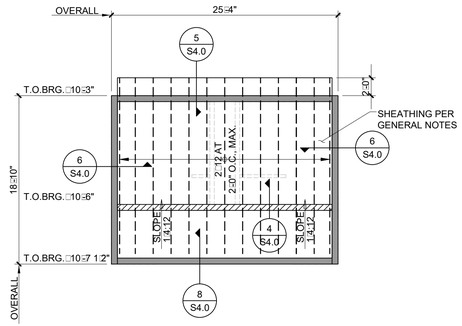
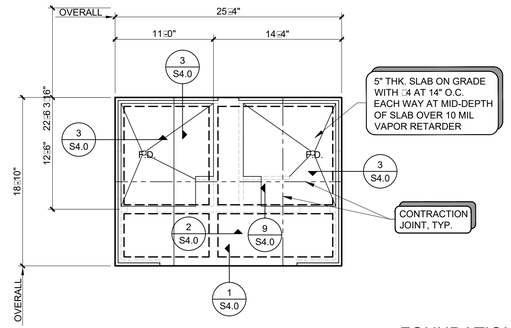


FRAMING NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL DIMENSIONS.
3. REFER TO ARCH'L PLANS FOR ROOF OVERHANG DIMENSION.
4. CONTRACTOR TO COORDINATE ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SUPPORTED BY THE STRUCTURE.
5. 8" CMU WALL IS A NOMINAL DIMENSION, ACTUAL WIDTH IS 7 5/8".

ROOF FRAMING PLAN

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

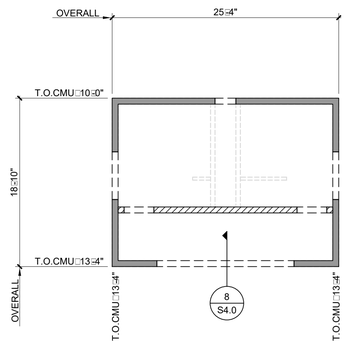


FOUNDATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. CONTRACTOR TO VERIFY LOCATION OF ANY ALL DROPS AND DRAINS IN SLAB WITH ARCHITECTURAL DRAWINGS.
3. CONTRACTOR TO VERIFY REQUIRED F.F.E. WITH CIVIL ENGINEERING DRAWINGS.
4. REFER TO DETAIL 11/S3.0 FOR THICKENED SLAB UNDERNEATH ALL CMU WALLS

FOUNDATION PLAN

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



CMU WALL LAYOUT NOTES:

1. IF ANY DISCREPANCIES ARE FOUND BETWEEN THESE DRAWINGS AND THE ARCHITECTURAL DRAWINGS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER BEFORE COMMENCING CONSTRUCTION.
2. FOR TYPICAL CMU WALL CONSTRUCTION SEE SHEET S3.1
3. ▬ INDICATES EXTERIOR 8" CMU WALL WITH #5 (V) AT 48" O.C. AND #5 (H) AT 8'-0" O.C., U.N.O.
4. ▨ INDICATES INTERIOR 8" CMU WALL WITH #5 (V) AT 48" O.C. AND #5 (H) AT 8'-0" O.C., U.N.O.
5. ═ ═ INDICATES LINTEL, SEE DETAIL 7/S3.1
6. FOR SPECIAL INSPECTION REQUIREMENTS SEE GENERAL NOTES.
7. ALL TOP OF WALLS FROM FINISH FLOOR ELEVATION 0'-0".
8. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION, LENGTH, AND HEIGHT OF ALL OPENINGS IN CMU WALLS.
9. FOR CONTROL JOINT LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
10. PROVIDE CMU LINTEL OVER ALL MECHANICAL SYSTEM PENETRATIONS IN CMU WALL. COORDINATE WITH MEP DRAWINGS FOR ALL LOCATIONS.
11. 8" CMU WALL IS A NOMINAL DIMENSION, ACTUAL WIDTH IS 7 5/8".

WALL LAYOUT PLAN

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

DATE APPROVED

DATE: 04-17-19 NO. REVISIONS

DESIGNED: E.F.S.
DRAWN: M.C.
CHECKED: PER PLAN
SCALE:

EGV ARCHITECTS, INC.
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PLAYGROUD IMPROVEMENTS

JOB NO. 19154
FILE NO. dwg/psja/reroofing 17-18

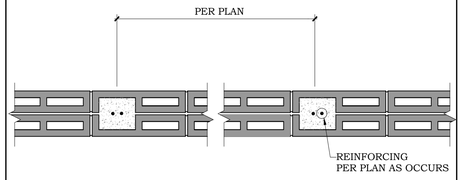
S2.0 SHEET OF X

NOT USED 17

NOT USED 18

NOT USED 19

NOT USED 20

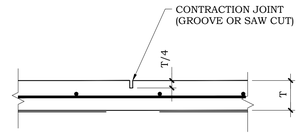


CMU WALL REINFORCING 13

NOT USED 14

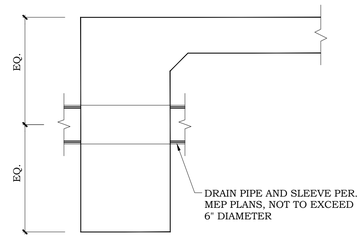
NOT USED 15

NOT USED 16

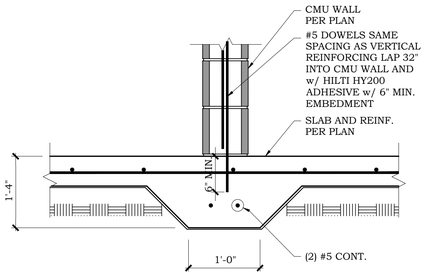


1. JOINT PATTERN SHALL BE NEARLY SQUARE
2. JOINT SPACING SHALL NOT EXCEED 15'-0"

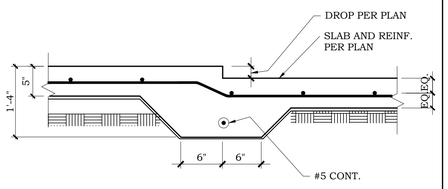
CONTRACTION JOINT DETAIL 9



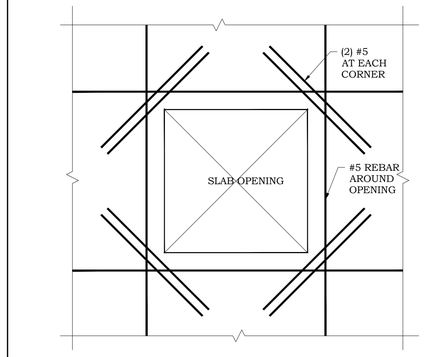
PIPE EXTERIOR FOOTING 10



THICKENED SLAB AT NON BEARING CMU WALL 11

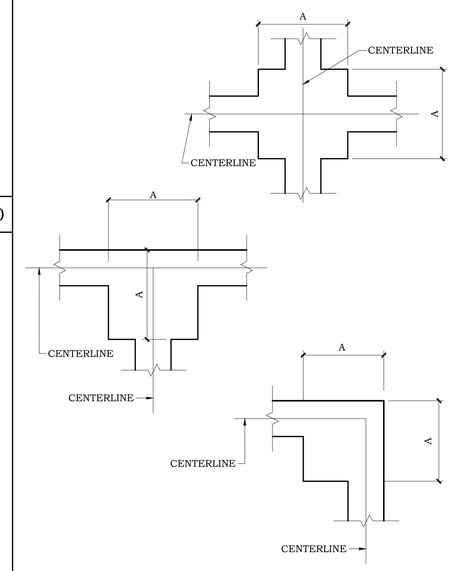


DROP AT SLAB ON GRADE 12

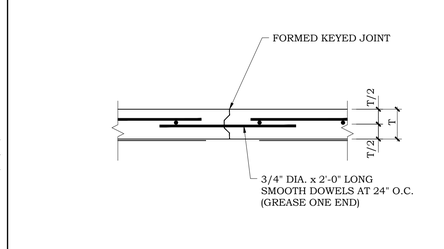


OPENINGS IN SLAB 5

FOOTING SCHEDULE AT STEEL COLUMNS			
TYPE	A	DEPTH	REBAR REINFORCEMENT
S2	2'-6"	3'-0"	#5'S @ 12" O.C. E.W. TOP & BOTTOM

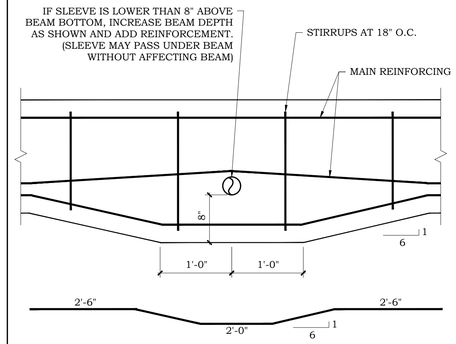


FOOTING SCHEDULE 7

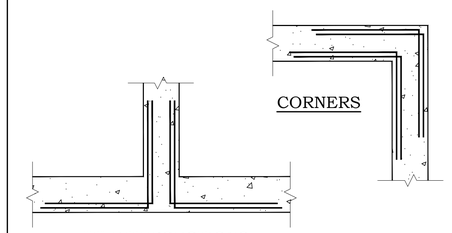


1. CONTRACTOR TO SUBMIT ANY PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO STRUCTURAL ENGINEER BEFORE COMMENCING WORK.
2. GRADE BEAM REINFORCING SHALL BE CONTINUOUS THRU JOINT

CONSTRUCTION JOINT DETAIL 8

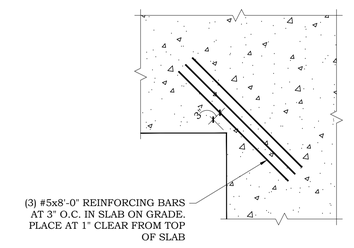


TYPICAL SLEEVE IN GRADE BEAM 1

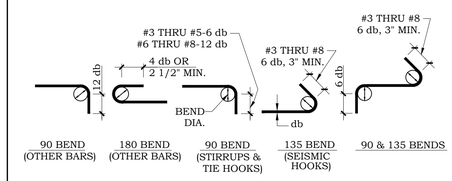


NOTE:
PROVIDE (4) #6 x 6'-0" CORNER BARS
(2-TOP & 2-BOTTOM) AS SHOWN IN DETAILS ABOVE

TYPICAL CORNER BARS 2



TYPICAL SLAB REINFORCING 3



DIAMETER OF BENDS	
STIRRUPS AND TIES	4 db FOR #3 THRU #5 BARS
	6 db FOR #6 THRU #8 BARS
ALL OTHERS	6 db FOR #3 THRU #8 BARS
	8 db FOR #9 THRU #11 BARS
	10 db FOR #14 THRU #18 BARS

STANDARD HOOKS 4

DATE APPROVED
NO. REVISIONS
DATE: 04-17-19
DESIGNED: E.F.S.
DRAWN: M.C.
CHECKED: M.C.
SCALE: PER PLAN

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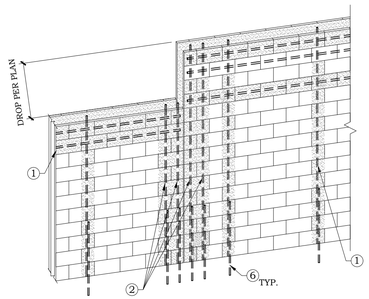
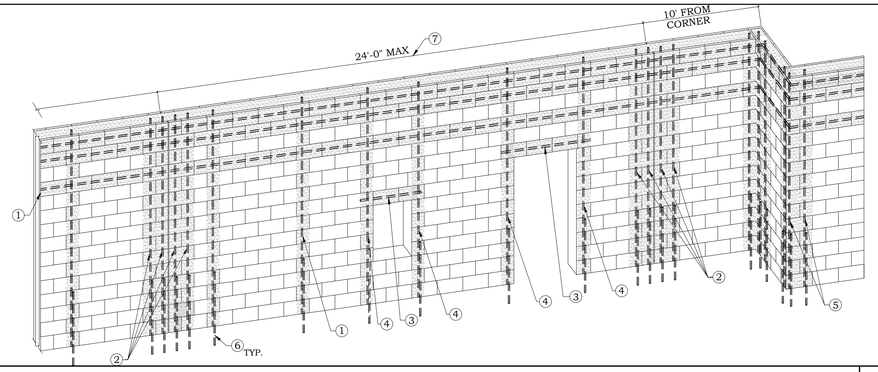
PLAYGROUD IMPROVEMENTS

JOB NO. 19154
FILE NO. dwg/psja/reroofing 17-18

S3.0 SHEET OF X

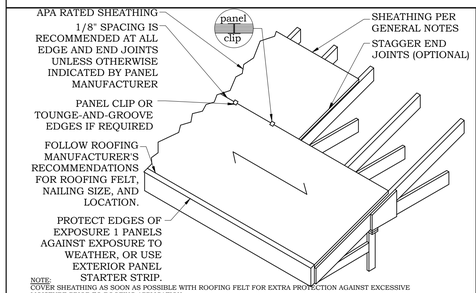
① TYPICAL WALL REINFORCING AS CALLED OUT IN PLANS AND GENERAL NOTES.
② VERTICAL REINFORCING AT CONTROL JOINTS, REFER TO DETAIL 8/S3.1
③ LINTELS PER LINTEL SCHEDULE, REFER TO DETAIL 7/S3.1
④ ADDITIONAL VERTICAL REINFORCING AT JAMBS OF ALL OPENINGS
⑤ WALL CORNER REINFORCING, REFER TO DETAIL 2,3,4/S3.1
⑥ DOWELS TO MATCH VERTICAL REINFORCEMENT PER PLAN, TYPICAL
⑦ CONTROL JOINT SPACING AS NOTED IS MAXIMUM ALLOWED, COORDINATE CONTROL JOINT LOCATIONS w/ARCHITECTURAL PLANS.





TYPICAL CMU WALL CONSTRUCTION | 5

NOT USED | 1

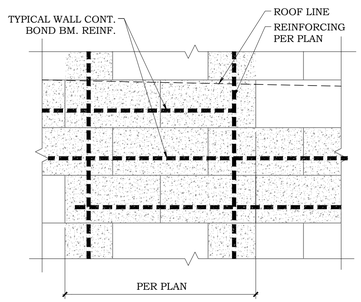


NOTE:
COVER SHEATHING AS SOON AS POSSIBLE WITH ROOFING FELT FOR EXTRA PROTECTION AGAINST EXCESSIVE MOISTURE PRIOR TO ROOFING APPLICATION

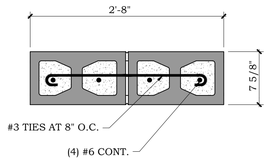
SCREENED SURFACE OR SIDE WITH SKID RESISTANT COATING UP IF OSB PANELS ARE USED. KEEP ROOF SURFACE FREE OF DIRT, SAWDUST AND DEBRIS, AND WEAR SKID-RESISTANT SHOES WHEN INSTALLING ROOF SHEATHING.

FOR BUILDINGS WITH CONVENTIONALLY FRAMED ROOFS (TRUSSES OR RAFTERS), LIMIT THE LENGTH OF CONTINUOUS SECTIONS OF ROOF AREA TO 80 FEET MAXIMUM DURING CONSTRUCTION, TO ALLOW FOR ACCUMULATED EXPANSION IN WET WEATHER CONDITIONS. OMIT ROOF SHEATHING PANELS IN EACH COURSE OF SHEATHING BETWEEN SECTIONS, AND INSTALL 'FILL IN' PANELS LATER TO COMPLETE ROOF DECK INSTALLATION PRIOR TO APPLYING ROOFING.

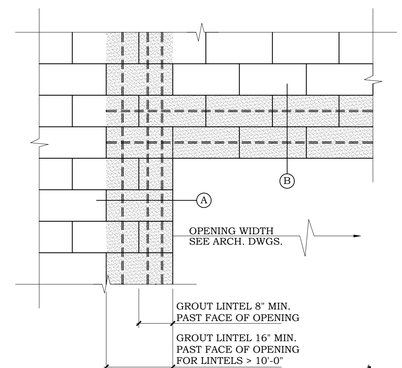
TYPICAL ROOF SHEATHING | 18

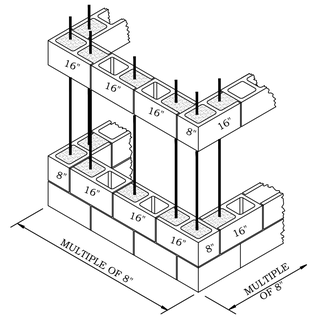


STEP IN BOND BEAM DETAIL (TYP.) | 14



8" PILASTER "P1" | 10

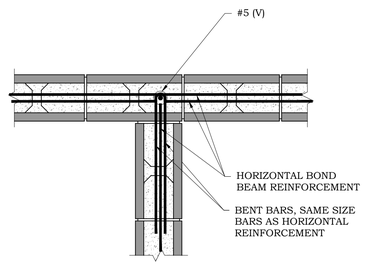




TYPICAL CMU CORNER DETAIL | 2

CONNECTION	FASTENING	LOCATION
JOIST TO SILL OR GIRDER	3-8d COMMON (2 1/2" x 0.131")	TOE NAIL
BRIDGING TO JOIST	2-8d COMMON (2 1/2" x 0.131")	TOE NAIL EACH END
TOP PLATE TO STUD	2-16d COMMON (3 1/2" x 0.162")	END NAIL
STUD TO SOLE PLATE	4-8d COMMON (2 1/2" x 0.131")	TOE NAIL
	2-16d COMMON (3 1/2" x 0.162")	END NAIL
DOUBLE STUDS	16d (3 1/2" x 0.135") AT 24" O.C.	FACE NAIL
DOUBLE TOP PLATES	16d (3 1/2" x 0.135") AT 16" O.C.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	8-16d COMMON (3 1/2" x 0.162")	LAP SPLICE
BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE	3-8d COMMON (2 1/2" x 0.131")	TOE NAIL
TOP PLATES, LAPS AND INTERSECTIONS	2-16d COMMON (3 1/2" x 0.162")	FACE NAIL
CEILING JOIST TO PLATE	3-8d COMMON (2 1/2" x 0.131")	TOE NAIL
CEILING JOIST, LAPS OVER PARTITIONS	3-16d COMMON (3 1/2" x 0.162") MIN.	FACE NAIL
CEILING JOIST TO PARALLEL RAFTERS	3-16d COMMON (3 1/2" x 0.162") MIN.	FACE NAIL
RAFTER TO PLATE	3-8d COMMON (2 1/2" x 0.131")	TOE NAIL
BUILT-UP CORNER STUDS	16d COMMON (3 1/2" x 0.162")	24" O.C.
BUILT-UP GIRDER AND BEAMS	20d COMMON (4" x 0.192") 32" O.C.	FACE NAIL AT TOP AND BOTTOM ON OPPOSITE SIDES
	2-20d COMMON (4" x 0.192")	FACE NAIL AT ENDS AND AT EACH SIDE
COLLAR TIE TO RAFTER	3-10d COMMON (3" x 0.148")	FACE NAIL
JACK RAFTER TO HIP	3-10d COMMON (3" x 0.148")	TOE NAIL
	2-16d COMMON (3 1/2" x 0.162")	FACE NAIL
ROOF RAFTER TO 2-BY RIDGE BEAM	4-16d COMMON (3 1/2" x 0.162")	TOE NAIL
	4-16d COMMON (3 1/2" x 0.162")	FACE NAIL
JOIST TO BAND JOIST	3-16d COMMON (3 1/2" x 0.162")	FACE NAIL
LEDGER STRIP	3-16d COMMON (3 1/2" x 0.162")	FACE NAIL

FASTENING SCHEDULE | 16



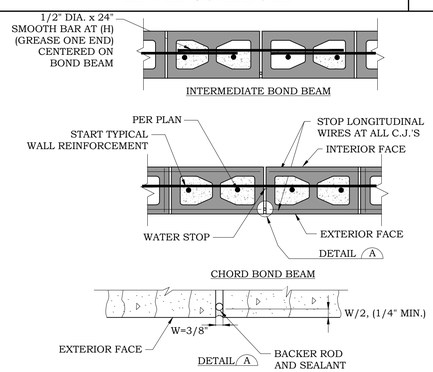
TYPICAL BOND BEAM INTERSECTION | 11

NOT USED | 12

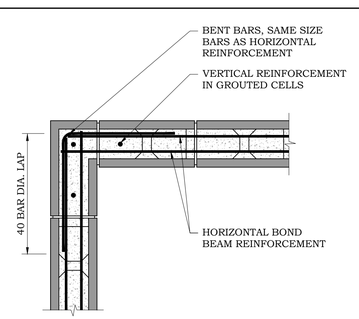
LINTEL SCHEDULE

CLEAR SPAN	WIDTH	DEPTH	REINFORCING	#3 TIES AT:	REMARKS
<3'-4"	8"	8"	(1)#5		
<4'-8"	8"	16"	(1)#5 (T) & (B)	8"	
<6'-8"	8"	16"	(1)#6 (T) & (B)	8"	
<10'-0"	8"	24"	(1)#6 (T) & (B)	8"	
<12'-0"	8"	24"	(1)#7 (T) & (B)	8"	

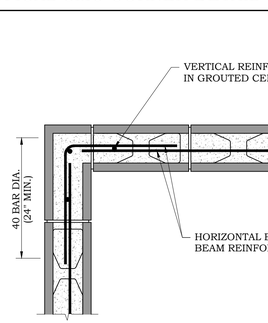
LINTEL SCHEDULE | 7



CMU CONTROL JOINT (C.J.) | 8



TYPICAL BOND BEAM CORNER | 4



TYPICAL BOND BEAM CORNER | 3

DATE: 04-17-19 NO. REVISIONS DATE APPROVED
DESIGNED: E.F.S.
DRAWN: M.C.
CHECKED: PER PLAN
SCALE:

EGV ARCHITECTS, INC.
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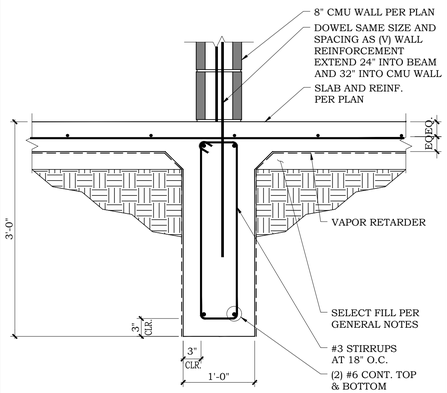
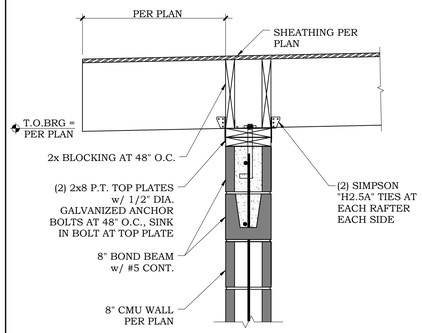
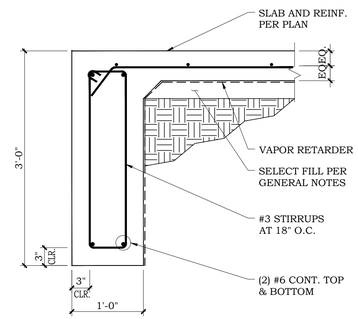
JOB NO. 19154
FILE NO. dwg/psja/reroofing 17-18

S3.1 SHEET OF X

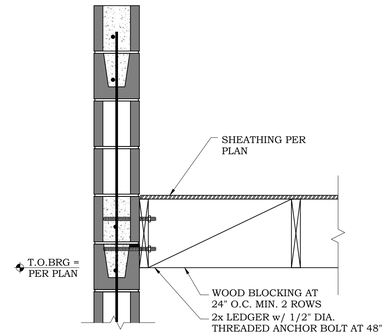
										EXTERIOR GRADE BEAM	1
										RAFTER TO CMU WALL	5
				NOT USED	9						
		NOT USED	13								
NOT USED	17										

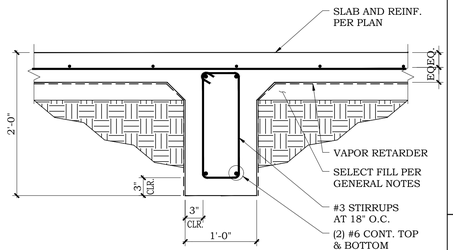




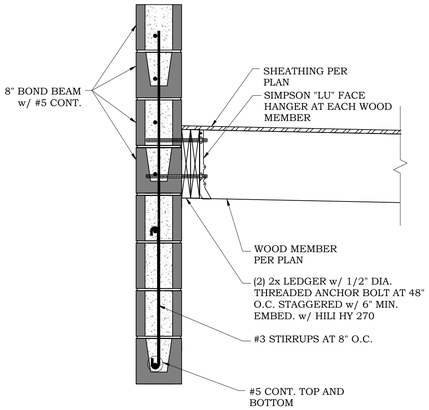


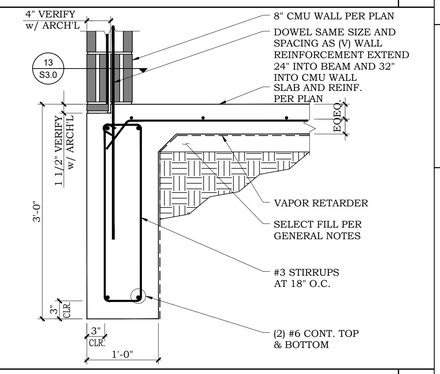
										INTERIOR GRADE BEAM	2
										RAFTER TO CMU WALL	6
				NOT USED	10						
		NOT USED	14								
NOT USED	18										





										EXTERIOR GRADE BEAM	3
										RAFTER TO CMU WALL	7
				NOT USED	11						
		NOT USED	15								
NOT USED	19										





										RAFTER TO CMU WALL	4
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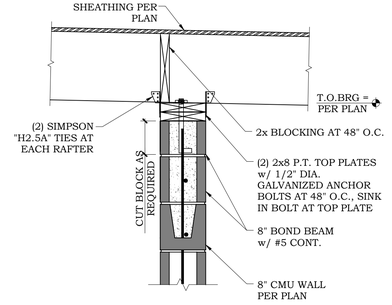

DATE APPROVED

NO. REVISIONS

DATE: 04-17-19
DESIGNED: E.F.S.
DRAWN: M.C.
CHECKED: M.C.
SCALE: PER PLAN

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PROFESSIONAL ENGINEER
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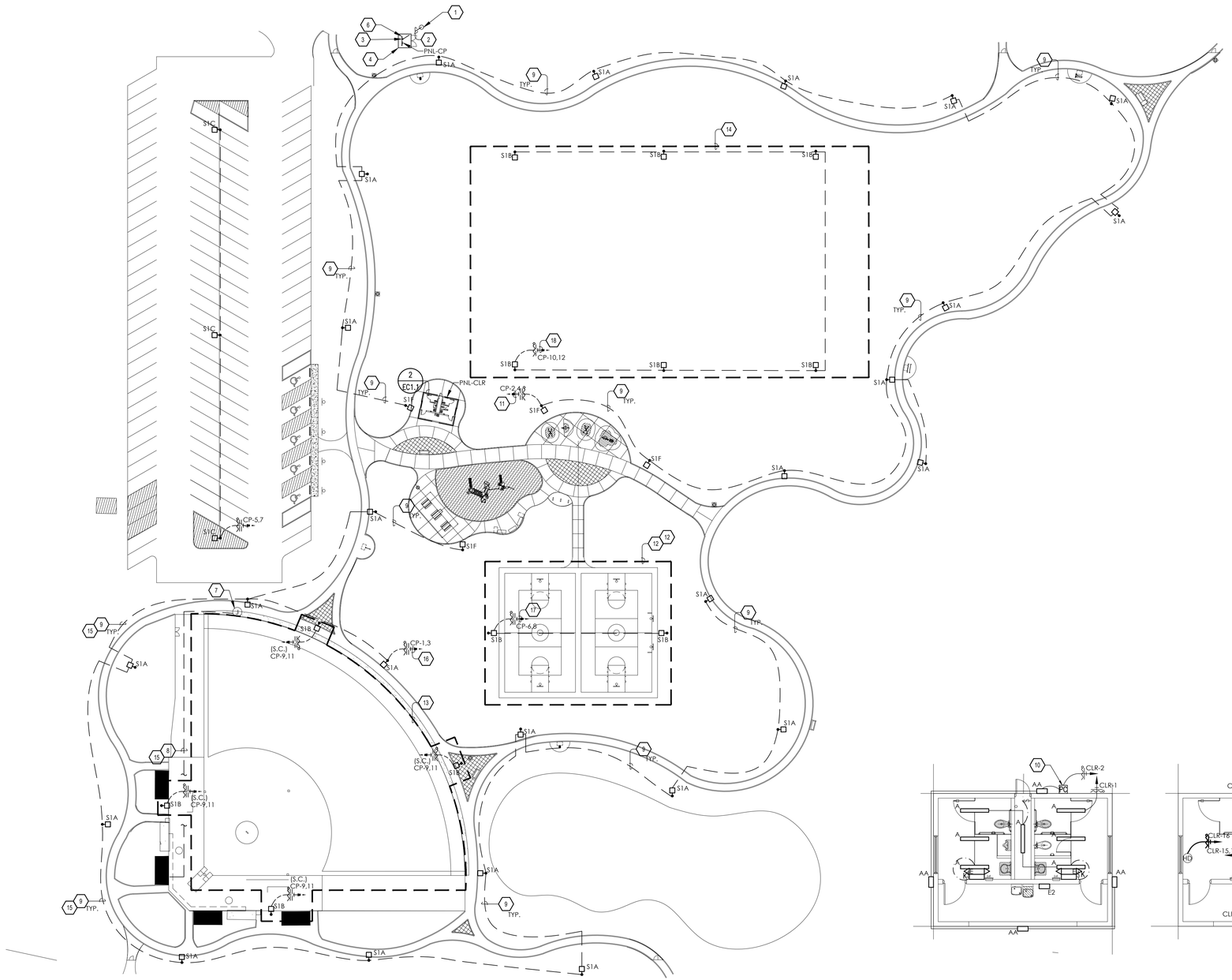
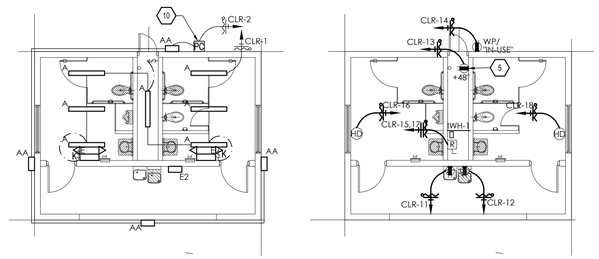
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO. 19154
FILE NO. dwg/psja/reroofing 17-18

S4.0 SHEET OF X



1 CARMAN ELEM.
ELECTRICAL SITE PLAN
1"=40'-0"



2 RESTROOM ENLARGEMENT
1/8"=1'-0"

GENERAL ELECTRICAL NOTES (TO ALL SHEETS)

A. CONTRACTOR TO VERIFY ALL EXISTING MAIN POWER SERVICES AND COORDINATE WITH POWER COMPANY FOR ALL NEW REQUIREMENTS AND ALL COST ASSOCIATED. CONTRACTOR SHALL INCLUDE ANY COST FOR THE NEW TRANSFORMER AND OTHER ASSOCIATED FEES IN BID. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL FEES WITH POWER COMPANY AND TO INCLUDE IN BID. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH POWER COMPANY AS SOON THE CONTRACT IS AWARDED TO ORDER TRANSFORMER AND THE RELATED ELECTRICAL SERVICE EQUIPMENT AS SOON AS POSSIBLE.

B. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING AND BACKFILLING. COORDINATE WITH ALL UTILITIES PRIOR TO EXCAVATION.

C. CONTRACTOR TO VERIFY ALL EXISTING MAIN TELEPHONE SERVICES AND COORDINATE WITH TELEPHONE COMPANY FOR ALL REQUIREMENTS AND ALL COST ASSOCIATED, INCLUDE ALL COST IN BID. CONDUIT FROM MAIN TELEPHONE RISER SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

D. ALL ELECTRICAL EQUIPMENT OUTDOORS SHALL BE RATED TYPE NEMA 3R UNLESS OTHERWISE NOTED.

E. CONTRACTOR SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES AND ALL OTHER AUTHORITY HAVING JURISDICTION. OBTAIN PERMITS AND PAY ALL FEES. PERFORM MODIFICATIONS TO MEET CODE AND ORDINANCE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER. ARCHITECT OR ENGINEER. VERIFY PRIOR TO BID DATE.

F. VERIFY AT JOB SITE THE EXACT LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS, COLUMNS, ETC. TO LOCATE EQUIPMENT CONDUIT, PANELS AND DEVICES. IF DEVIATIONS FROM THE DRAWING ARE NECESSARY TO MEET STRUCTURAL CONDITIONS MAKE DEVIATIONS WITHOUT ADDITIONAL COST, TO OWNER, ARCHITECT, OR ENGINEER.

G. IN COOPERATION WITH OTHER CONTRACTORS, DETERMINE THE EXACT LOCATION OF EQUIPMENT AND DEVICES AND CONNECTIONS THERETO BY REFERENCE TO THE SUBMITTALS AND ROUGH-IN DRAWINGS, AND BY MEASUREMENTS AT THE SITE. REFER TO ALL OTHER TRADES SUBMITTAL FOR ELECTRICAL INFORMATION.

H. GROUND ENTIRE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

I. VERIFY AT JOB SITE GENERAL WORK TO BE DONE AS SPECIFIED, AS NOTED, OR AS REQUIRED FOR INSTALLATION ELECTRICAL SYSTEMS PRIOR TO SUBMISSION OF BIDS.

J. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND EQUIPMENT TO BE REMOVED AND REPLACED BEFORE SUBMITTING HIS BID.

K. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SMALL SCALE ONLY. THEY CONVEY THE INTENT OF THE WORK BUT DO NOT SHOW DETAIL SUCH AS JUNCTION AND PULL BOXES REQUIRED BY THE SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE(NEC). PROVIDE ALL MATERIALS AND METHODS CALLED FOR IN THE SPECIFICATIONS AND AS REQUIRED IN THE NEC TO PROVIDE A COMPLETE INSTALLATION OF ALL WORK.

L. ALL WIRING SHALL BE COPPER.

M. ALL SLEEVES, PENETRATIONS, ETC. SHALL BE SEALED SOLID NON-SHRINKING MATERIAL IMMEDIATELY UPON FILLING OF THE OPENING WITH PIPE OR CONDUIT.

N. ARRANGE FOR SOURCES OF TEMPORARY CONSTRUCTION SERVICES. SUCH SERVICES SHALL BE NOMINALLY 120/240V, 1-PHASE, 3-WIRE FROM WHICH A COMPLETE SYSTEM OF TEMPORARY POWER AND LIGHTING SHALL BE PROVIDED FOR ALL CONSTRUCTION NEEDS.

O. CONTRACTOR IS RESPONSIBLE TO VERIFY AND COORDINATE WITH EXISTING/NEW UNDERGROUND UTILITIES PRIOR TO ANY WORK.

P. CONTRACTOR IS RESPONSIBLE CALL DIG-TESS; 1-1800-DIG-TESS 2-BUSINESS DAYS IN ADVANCE.

KEYED NOTES: ELECTRICAL

1. NEW POWER COMPANY POWER POLE WITH NEW POLE MOUNTED TRANSFORMER AND DIP POLE RISER. COORDINATE WITH UTILITY ELECTRICAL COMPANY. INCLUDE ALL COST IN BID.
2. CONTRACTOR TO PROVIDE AND INSTALL (1)-4" PVC CONDUIT FROM NEW POWER COMPANY POLE MOUNTED TRANSFORMER TO NEW SERVICE EQUIPMENT . ALL UNDERGROUND WORK SHALL BE ACCORDING TO POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS WITH THE POWER COMPANY BEFORE ANY ROUGH-IN. COORDINATE LOCATION, COST, AND INSTALLATION WITH POWER COMPANY PRIOR TO BID.
3. NEW 120/240V, 1Ø, 3W, ELECTRICAL SERVICE METER.
4. PROVIDE CHAIN LINK ENCLOSURE FOR ELECTRICAL SERVICE EQUIPMENT.
5. PROVIDE RECEPTACLE FOR IRRIGATION CONTROLS. REFER TO DETAIL.
6. GALVANIZED 3" PIPE AND GALVANIZED UNISTRUT STAND.
7. PROVIDE WEATHER-PROOF NEMA-3R J-BOX FOR SCORE BOARD CONTROLS. COORDINATE EXACT LOCATION WITH EQUIPMENT SUPPLIER/OWNER PRIOR TO ROUGH-INS.
8. PROVIDE 1-2"C WITH PULLSTRING FOR SCORE BOARD CONTROLS. COORDINATE CONDUIT ROUTE AND LOCATION WITH OWNER TO SCORE KEEPER STRUCTURAL.
9. LINE REPRESENTS PROPOSED EACH CONDUITS PATH. FIELD VERIFY EXACT ROUTE. PROVIDE ALL TRENCHING AND BACK FILLING FOR NEW CONDUITS. REFER TO PANEL ELECTRICAL PANEL SCHEDULES FOR CIRCUIT SIZE.
10. 120V PHOTOCELL. LOCATE AS DIRECTED BY MANUFACTURER.
11. VIA LIGHTING CONTACTOR 'LC1'.
12. **ALTERNATE #3**-IF ALTERNATE IS ACCEPTED, PROVIDE LIGHTING AS SHOWN FOR BASKETBALL COURTS. ALL CONDUITS WITH PULLSTRINGS SHALL BE INCLUDED IN BASE BID.
13. **ALTERNATE #4**-IF ALTERNATE IS ACCEPTED, PROVIDE LIGHTING AS SHOWN FOR SOFTBALL FIELD. ALL CONDUITS WITH PULLSTRINGS SHALL BE INCLUDED IN BASE BID.
14. **ALTERNATE #5**-IF ALTERNATE IS ACCEPTED, PROVIDE LIGHTING AS SHOWN FOR OPEN PLAYING FIELD. ALL CONDUITS WITH PULLSTRINGS SHALL BE INCLUDED IN BASE BID.
15. CONTRACTOR SHALL FIELD IDENTIFY AND COORDINATE WITH ANY EXISTING UTILITIES PRIOR TO ANY WORK.
16. VIA LIGHTING CONTACTOR 'LC2'.
17. VIA LIGHTING CONTACTOR 'LC3'.
18. VIA LIGHTING CONTACTOR 'LC4'.

NO.	REVISIONS	DATE	APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

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EGV ARCHITECTS, INC.

04/15/19

STATE OF TEXAS
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97157
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www.trinitymep.com I Copyright 2019
Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

EC1.1 SHEET

ELECTRICAL LEGEND-LIGHTING

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

SYMBOL	DESCRIPTION
	2'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'X4' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'X2' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	1'X4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	TRACK LIGHT WITH HEADS AS INDICATED
	INCANDESCENT, LED, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD, REFER TO LUMINAIRE SCHEDULE
	INCANDESCENT, LED, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	LED, FLUORESCENT, OR HID FIXTURE WITH EMERGENCY BATTERY PACK. CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT, CEILING OR WALL MOUNTED - SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT SAME AS ABOVE, EXCEPT WITH AN EMERGENCY UNIT AS A COMBO, REFER TO LUMINAIRE SCHEDULE
	CEILING FAN
	STRIP UTILITY LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	STRIP UTILITY STRIP LIGHT WITH EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
$	WALL SWITCH SPST, 20A,120/277V
$2	DOUBLE POLE TOGGLE SWITCH, 20A/120/277V
$3	3-WAY WALL SWITCH, 20A,120/277V
$4	4-WAY WALL SWITCH, 20A,120/277V
$D	WALL DIMMER SWITCH
$P	WALL SWITCH SPST, 20A,120/277V - PILOT LIGHT SWITCH
$K X	WALL SWITCH SPST, 20A,120/277V - KEYED SWITCH, X = 3 OR 4 WAY

ELECTRICAL LEGEND-SPECIAL SYSTEMS

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

SYMBOL	DESCRIPTION	
	WALL MOUNTED TELEPHONE/DATA OUTLET. FURNISH AND INSTALL 1.25"C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
	WALL MOUNTED TELEPHONE OUTLET. FURNISH AND INSTALL 1"C , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
	WALL MOUNTED DATA OUTLET. FURNISH AND INSTALL 1.25"C , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
P	PUBLIC TELEPHONE OUTLET.: J-BOX & 1"C	
TV ⊢TV	TELEVISION OUTLET. CLG. OR WALL MOUNTED - STUB 1" C. ABOVE CEILING FROM OUTLET BOX	
	PUSHBUTTON WALL MOUNTED.	
av	AUDIO VIDEO DROP, REFER TO DETAIL	
IC ⊢IC	INTERCOM - CALL SWITCH- JBOX WITH 3/4"C	
S	INTERCOM/PAGING LAY-IN SPEAKER	
I	PA EXTERIOR SPEAKER	10'-6" AFF
DC	SECURITY DOOR CONTACT SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
MD	SECURITY MOTION DETECTOR SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
G	SECURITY GLASS BREAK SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
KP	SECURITY KEY PAD - STUB 3/4"C ABOVE CEILING FROM OUTLET BOX	
SEC	SECURITY PANEL JUNCTION BOX	54"
ACC	ACCESS CONTROL PANEL JUNCTION BOX - BY OTHERS	54"
CR	CARD READER BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
ML	MAGNETIC LOCK BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
S	INTRUSION EXTERIOR SPEAKER	10'-6" AFF
©	SINGLE SIDED CLOCK, J-BOX W/3/4"C	96" AFF MIN.
©⊣	DOUBLE SIDED CLOCK,J-BOX W/3/4"C	96" AFF MIN.
	CAMERA J-BOX W/ 3/4" CONDUIT	----
	TELEPHONE BOARD- 3/4"x8' FIRE RATED	

ELECTRICAL LEGEND-FIRE ALARM

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
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SYMBOL	DESCRIPTION
F	FIRE ALARM PULL STATION: STUB 3/4"C ABOVE CEILING FROM J-BOX
AV	FIRE ALARM AUDIBLE/VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
V	FIRE ALARM VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
V S	FIRE ALARM CEILING MOUNT SPEAKER STROBE, UL LISTED, : J-BOX WITH 3/4"C
VS	FIRE ALARM CEILING WALL MOUNT OUTDOOR SPEAKER STROBE, UL LISTED, : J-BOX WITH 3/4"C
SD ⊢SD	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
H	HEAT DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
SD D	DUCT SMOKE DETECTOR: STUB 3/4"C ABOVE CEILING FROM J-BOX
SD A	SMOKE DETECTOR WITH AN AUDIBLE BASE: STUB 3/4"C ABOVE CEILING FROM J-BOX
FACP	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
FACP-EVS	FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM, ADDRESSABLE, FLUSH MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
EVES	FIRE ALARM EMERGENCY VOICE EVACUATION SYSTEM, FLUSH OR SURFACE.
FAAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL, FLUSH MOUNTED UNO
PAD-X	POWER SUPPLY, DEDICATED 110V
DH	DOOR HOLDER DEVICE: STUB 3/4"C ABOVE CEILING FROM J-BOX
TS	TAMPER SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
FS	FLOW SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
F	FIRE ALARM OUTDOOR SPEAKER, WEATHER PROOF: STUB 3/4"C ABOVE CEILING FROM J-BOX

ELECTRICAL LEGEND-GENERAL

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
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SYMBOL	DESCRIPTION
	HEAVY DUTY DISCONNECT SWITCH FUSED
	HEAVY DUTY DISCONNECT SWITCH NONFUSED
	HEAVY DUTY COMBINATION DISCONNECT/MOTOR STARTER
	HEAVY DUTY MOTOR STARTER
	ENCLOSED BREAKER, RE: TO SCH. FOR MORE INFO.
R	ROTARY TYPE DISCONNECT SWITCH
$M	120/277-208/480V,20AMP, MOTOR RATED SWITCH, NEMA-1(INTERIOR) ENCLOSURE, NEMA-3R(EXTERIOR) ENCLOSURE. VOLTAGE TO BE SELECTED PER EQUIPMENT CIRCUIT REQUIREMENTS.
	MOTOR
	PANELBOARD, CLEARANCE AS PER LATEST NEC
	SWITCH LEG
	ELECTRICAL CONDUIT
	UNDERGROUND ELECTRICAL CONDUIT
	COMMUNICATION CONDUIT AND WIRING
X, X, X	MULTI-POLE DEVICE CIRCUIT NUMBERS
X/X/X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS
A-1	CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATES OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
A-1	UNDERGROUND CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
#	DETAIL NUMBER
#	SHEET NUMBER
T	THERMOSTAT WALL MOUNTED - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX. COORDINATE EXACT LOCATION AND HEIGHT WITH MECHANCIAL DIVISION.
J ⊢J	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED MINIMUM OF 4" SQUARE
PC	PHOTO CELL(MFR.INTERMATIC #K4136M)
LC	LIGHTING CONTACTOR, NEMA-1, W/H.O.A. SWITCH
TC	TIME CLOCK (MFR.TORK#7202Z)
CP-1	CIRCULATING PUMP
$	ELECTRICAL DEVICE AS SHOWN ON PLANS SURFACE MOUNT RACEWAY. SURFACE MOUNT RACEWAY SHALL BE WIREMOLD #V700 SERIES. PROVIDE ALL RELATED #V700 SERIES ACCESSORIES FOR AN OPERABLE SYSTEM.

ELECTRICAL ABBREVIATIONS:

ABBV:	DESCRIPTION	ABBV:	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	MFR.	MANUFACTURER
BFC	BELOW FINISHED CEILING	(S.C.)	SHARE CIRCUIT
C	CONDUIT	QRCPT(S)	QUAD RECEPTACLE(S)
CB	CIRCUIT BREAKER	RCPT(S)	DUPLEX RECEPTACLE(S)
EC	EMPTY CONDUIT	CRCPT(S)	I.G. RECEPTACLE(S)
EX	EXISTING	QCRCPT(S)	QUAD I.G. RECEPTACLE(S)
F	FUSE	PNL	PANEL
G	GROUND (EQUIPMENT)	SO (S.O.)	SPACE ONLY
GFI	GROUND FAULT INTERRUPTER	SP	SPARE
MTD	MOUNT OR MOUNTED	ST (S.T.)	SHUNT TRIP
NF	NONFUSED	SW	SWITCH
NIC	NOT IN CONTRACT	UF	UNDERFLOOR
H.D	HEAVY DUTY	UG	UNDERGROUND
NL	NIGHT LIGHT	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
AC	ABOVE COUNTER	WG	WIRE GUARD
HT.	HEIGHT	WP	WEATHERPROOF
MTD.	MOUNTING	XFMR	TRANSFORMER
FDR.	FEEDER	MB	MAIN BREAKER
CKT.	CIRCUIT	MLO	MAIN LUGS ONLY
LTG.	LIGHTING	RMC	RIGID METAL CONDUIT
LC	LIGHTING CONTACTOR	RNC	RIGID NONMETALLIC CONDUIT
IG	ISOLATED GROUND	EMT	ELECTRICAL METALLIC TUBING CONDUIT
EA.	EACH	S/N	SOLID NEUTRAL
N1	NEMA-1	AC	ABOVE COUNTER
N3R	NEMA-3R	AHJ	AHUTHORITY HAVING JURISDICTION
N4X	NEMA-4X	T	TAMPER PROOF
SS	STAINLESS STEEL		

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.
AC INDICATES 6" ABOVE COUNTER TO BOTTOM OF DEVICE.

ELECTRICAL LEGEND - WIRING DEVICES

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
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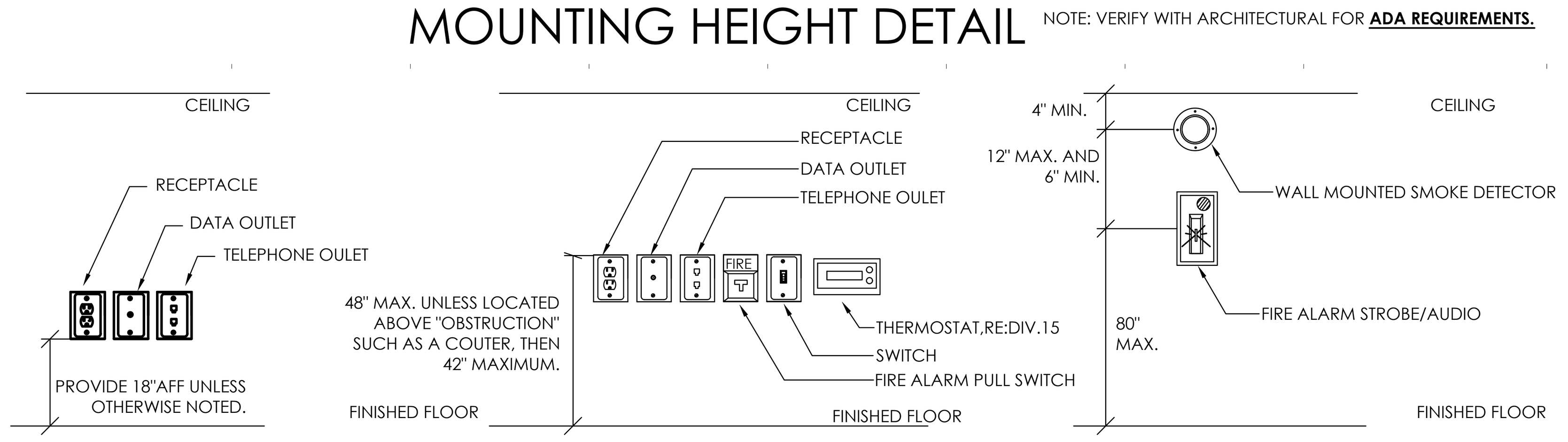
SYMBOL	DESCRIPTION
	SINGLE RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
T	DUPLEX RECEPTACLE TAMPER RESISTANT - 20A/125V/2P/3W/G NEMA 5-20R
H / H	HOSPITAL GRADE DUPLEX RECEPTACLE/GFI - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RCPT. GFI - 20A/125V/2P/3W/G NEMA 5-20R
WP/ "IN-USE"	DUPLEX RCPT.,WEATHER RESISTANT "WR", GFI INSTALLED IN A "IN-USE" WEATHER PROOF STEEL ENCLOSURE- 20A/125V/2P/3W/G NEMA 5-20R WP/"IN-USE" SHALL BE EQUAL TO MFR. CARLON, METALLIC SERIES SINGLE GANG, VERTICAL MOUNT #ME9UVMG DOUBLE GANG, VERTICAL MOUNT #ME9U2VMG
	QUADRAPLEX RECEPTACLE
	ISOLATED GROUND QUADPLEX RECEPTACLE
	ISOLATED GROUND DUPLEX RECEPTACLE - 20A/125V NEMA 5-20R
	208V RECEPTACLE, VERIFY NEMA NO. WITH EQUIPMENT SUPPLIER
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)
HD	J-BOX - AIR HAND DRYER: (RECESSED HAND DRYERS TO BE PROVIDED BY DIVISION 16, ELECTRICAL)#B-750 AUTOMATIC HANDCRAFT AS MANUFACTURER BY BOBRICK. (COLOR WHITE) QUANTITY: REFER TO DRAWINGS (MIN. ONE PER LAV. COMPLETE W/ ELE. CONNECTIONS TYP.)
	4-GANG FLOOR MOUNTED BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)/2-GANG FOR DATA - FLUSH MOUNTED UNO FLOOR BOX = MFR.-HUBBELL MODEL#CFB4G30CR-24GCVRNK(COVER)-(2)FBMPDUP-FBMP6KS -CFBHB2(MULTISERVICE STEEL RECESSED FLOOR BOX-VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6G	6-GANG FLOOR MOUNTED BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)/2-GANG FOR DATA - FLUSH MOUNTED UNO FLOOR BOX = MFR.-HUBBELL MODEL#CFB6G30CR-CFBS1R8CVRALU(COVER)-(3)FBMPDUP-FBMP6KS -CFBHB2(MULTISERVICE STEEL RECESSED FLOOR BOX-VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6P	6" FIRE RATED POKE-TRHOUGHS BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)- MFR.-HUBBELL MODEL#S1R6PTFIT-S1R6SPE-S1R6SPL-S1R6SPH(50/50 DEVICE PLATE COMBINATION)-S1R6CVRALU(COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6JP	6" FIRE RATED POKE-TRHOUGHS BOX, FURNITURE FEED,- MFR.-HUBBELL MODEL#S1R6PTFFALU(ALUMINUM COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER.
8P	8" FIRE RATED POKE-TRHOUGHS BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)- MFR.-HUBBELL MODEL#S1R8PTFIT3-S1R8CSPK-S1R8CSPK-S1R8PSPZ(50/50 DEVICE PLATE COMBINATION)-S1R8CVRALU(COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.

MOUNTING HEIGHT DETAIL

NOTE: VERIFY WITH ARCHITECTURAL FOR **ADA REQUIREMENTS.**



GENERAL ELECTRICAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
2. USE DIRECTIONAL ARROW ON EXIT SIGNS AS REQUIRED.
3. IEEE STANDARD C37.2-1991, ELECTRICAL POWER SYSTEM DEVICE FUNCTION NUMBERS.
4. CONTRACTOR SHALL NOT INSTALL MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY. IF CONTRACTOR IS PLANNING ON GROUPING MULTIPLE CIRCUITS IN A SINGLE RACEWAY, THE CONTRCATOR MUST SUBMIT ALL DERATING CALCULATIONS FOR THE PROPOSED INSTALLATION IN ACCORDANCE WITH NEC ARTICLE 310.15 (B) (2) FOR APPROVAL PRIOR TO INSTALLATION. NON APPROVED INSTALLATIONS WILL BE REMOVED AND REINSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE NEC AT NO ADDITIONAL COST TO THE OWNER.
5. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF THREE 90° BENDS (270 DEGREES TOTAL) BETWEEN PULL POINTS. WHERE THERE ARE MORE THAN THREE QUARTER BENDS, CONTRACTOR SHALL PROVIDE PULL BOXES AS SPECIFIED AND SIZED IN ACCORDANCE WITH NEC.
6. COMPLY WITH NEC REQUIREMENTS FOR ELECTRICAL INSTALLATIONS. ALL ELECTRICAL EQUIPMENT AND MATERIAL TO BE APPROVED, LISTED, LABELED, IDENTIFIED AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SERVED BY EMERGENCY BRANCH CIRCUITS SHALL BE "RED" IN COLOR. COVERPLATES SHALL BE LABELED IN ACCORDANCE WITH SPECIFICATIONS TO INDICATE PANELBOARD AND CIRCUIT NO. (IE: ET*LA-3).

ELECTRICAL: LIGHTING FUNCTIONAL TESTING / COMMISSIONING PLAN:

CONTRACTOR SHALL PERFORM THE TASK BELOW TO COMMISSION THE LIGHTING CONTROL SYSTEM. CONTRACTOR SHALL SUBMIT A DOCUMENTATION DETAILING THE LIGHTING CONTROL SYSTEM, SETTING/CONDITION, ACTIONS PERFORMED AND FINAL SETTING CONDITION. SUBMIT DOCUMENTATION AT OR BEFORE SUBSTANTIAL COMPLETION TO FACILITATE OBTAINING THE CERTIFICATE OF OCCUPANCY.

A. ENSURE ALL LIGHTING FIXTURES FIXTURES HAVE LAMPS INSTALLED AND ARE FUNCTIONAL.
B. TEST ALL EXIT SIGNS, EMERGENCY LIGHTING FIXTURES, AND EMERGENCY BALLASTS FURNISHED INTEGRAL TO FIXTURES.
C. ENSURE ALL OCCUPANCY SENSORS HAVE BEEN INSTALLED AND ARE OPERATIONAL.
D. VERIFY ALL WALLBOX AND SCENE CONTROLLERS ARE INSTALLED AND OPERATIONAL.
E. TEST EACH INDIVIDUAL DEVICE FOR OCCUPANCY SENSOR TYPES OS1, OS2 AND TEST THE LIGHTING CONTROL RELAY PANEL SYSTEM.
F. TEST 10% OF ALL THE DEVICES FOR OCCUPANCY SENSOR TYPE: WSX-PDT-SA.
G. VERIFY THE FOLLOWING:
1. ALL SENSORS ARE LOCATED AND AIMED PER THE MANUFACTURER'S RECOMMENDATIONS.
2. STATUS INDICATORS ON DEVICES ARE OPERATIONAL AND CORRECT.
3. DEVICES CONTROL LIGHTING FIXTURES AS INDICATED ON DRAWINGS.
4. TIME DELAYS HAVE BEEN SET AS PER CODE AND PER OWNERS DIRECTIONS.
5. MOVEMENT IN ADJACENT AREAS AND/ CYCLING OF HVAC SYSTEMS DOES NOT FALSE TRIGGER SENSORS.
6. PHOTOCELL LOCATION AND AIMED PER MANUFACTURERS RECOMMENDATIONS.
7. PROGRAM INTERIOR RELAYS WITH A TIME FUNCTION ACCEPTABLE TO OWNER.
8. PROGRAM INTERIOR OVERRIDE SWITCH WITH A TIME FUNCTIONAL ACCEPTABLE BY OWNER.

LUMINAIRE SCHEDULE

MARK	VOLTAGE	LAMP	MOUNTING	DESCRIPTION	MODEL NO.
A	120V	LED 4000 LM 3500K 33W	SURFACE	4' LINEAR, VAPOR TIGHT, VANDAL RESISTANT FIXTURE, UL LISTED HIGH EFFICIENCY 0-10V DRIVER	LITHONIA VAP 4000LM PCL WD MVOLT GZ10 35K 80CRI
E	120V	INCLUDED	SURFACE	EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	LITHONIA ELM2 LED SD
E2	120V	INCLUDED	SURFACE	EXTERIOR EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	LITHONIA AFO DB MVOLT N SD
AA	120V	LED 5,551 LM 4000K 49W	SURFACE	LED WALL LUMINAIRE, WET LOCATION RATED, UL LISTED	LITHONIA TWR1 LED P4 40K MVOLT DDBTXD
S1A	MVOLT	1-LED FIXTURE 8,473 LM 4000K 71W	18'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 110 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX0 LED P3 40K T2M MVOLT POLE MFR. KW INDUSTRIES #RSP18-5.0-7-NA-DM10-BC-VD
S1B	MVOLT	1-LED FIXTURE 37,951 LM 4000K 321W	28'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX2 LED P5 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RSP28-5.0-7-NA-DM10-BC-VD
S1C	MVOLT	1-LED FIXTURE 39,144 LM 4000K 321W	28'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX2 LED P5 40K T5W MVOLT POLE MFR. KW INDUSTRIES #RSP28-5.0-7-NA-DM10-BC-VD
S1F	MVOLT	1-LED FIXTURE 8,268 LM 4000K 71W	18'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 110 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX0 LED P3 40K T4M MVOLT POLE MFR. KW INDUSTRIES #RSP18-5.0-7-NA-DM10-BC-VD

NOTE:

1.) EQUAL MANUFACTURER SHALL BE ACCEPTABLE WITH EQUAL PERFORMANCE OF SPECIFIED EQUIPMENT AND APPROVED BY ENGINEER.
2.) SUBMIT EQUAL MANUFACTURERS TO ENGINEER 10 DAYS PRIOR TO BID DATE.
3.) SUBMIT LIGHT FIXTURES CUTSHEETS TO OWNER FOR APPROVAL PRIOR TO ORDER.
4.) CONTRACTOR SHALL VERIFY THAT ANY IRRIGATION SPRINKLER HEAD IS AWAY FROM ANY LIGHT POLE A MINIMUM OF 75' TO AVOID CONSISTENT WATER TO LIGHT POLE. COORDINATE WITH IRRIGATION CONTRACTOR PRIOR TO ANY WORK.
5.) CONTRACTOR SHALL VERIFY THAT ANY LIGHT POLES ON COMMON AREAS AND SIDE WALKS, THAT THE LOCATION OF THE POLE TO MEET THE ADA REQUIREMENTS.
6.) CONTRACTOR SHALL FIELD VERIFY FOR EXISTING/NEW UNDERGROUND UTILITIES PRIOR TO ANY WORK.

DATE	APPROVED
NO.	REVISIONS

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
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EGV ARCHITECTS, INC.

04/15/19
STATE OF TEXAS
LEONARDO MUNOZ
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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17–18

SHEET OF
EC2.1

120/240V, 1Ø, 3W ELECTRICAL LOAD ANALYSIS	
DESCRIPTION	TOTAL KVA
LIGHTING	11
GENERAL POWER	11
WATER HEATER	5
TOTAL WATTS:	27 KVA
TOTAL AMPS:	112 AMPS
TOTAL AMPS+25%:	140 AMPS
WIRE SIZE AMPS:	150 AMPS

GENERAL NOTES:

A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.

B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS, LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC., BY ELECTRICAL CONTRACTOR.

C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.

D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.

E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.

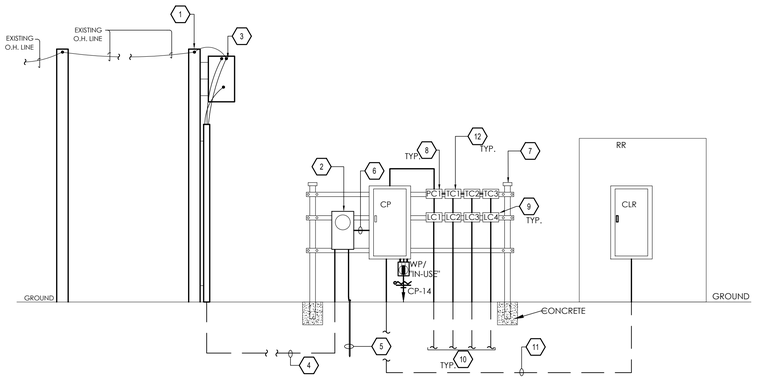
F. PROVIDE 4"CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS.

G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.

H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN WEEKENDS OR HOLIDAYS, INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.

ELECTRICAL RISER DIAGRAM KEYED NOTES:

1. NEW POWER COMPANY POLE WITH RISER DIP POLE. COORDINATE WITH POWER COMPANY FOR ALL REQUIREMENTS.
2. NEW ELECTRICAL SERVICE METER 120/240V, 1Ø, 3W. CONTRACTOR SHALL PROVIDE METER BASE. VERIFY WITH POWER FOR METER BASE REQUIREMENTS PRIOR TO BID DATE. INCLUDE ALL COST IN BID. COORDINATE ALLOCATION OF METER SOCKET AND WIRING WITH POWER COMPANY.
3. COORDINATE WITH POWER COMPANY FOR 120/240V, 1Ø, 3W NEW POWER CO. POLE MOUNTED XFMR AT NEW POWER CO. POWER POLE LOCATION. FIELD VERIFY EXACT LOCATION.
4. PROVIDE 1-RUN OF 3#2/0, 2"C.
5. 1#3/0G IN 1"C, 3/4"X10' COPPER CLAD RODS. PROVIDE GROUNDING AS PER NEC REQUIREMENTS.
6. PROVIDE 1-RUN OF 3#2/0, 1#6G, 2"C.
7. 3"GALVANIZED PIPE WITH UNISTRUT STAND FOR ELECTRICAL SERVICE EQUIPMENT. COORDINATE WITH UTILITY COMPANY PRIOR TO ANY WORK.
8. 120V PHOTOCELL. LOCATE AS DIRECTED BY MANUFACTURER.
9. LIGHTING CONTACTOR SHALL BE 120V, 20AMP, ELEC.HELD, HOA, 8-POLE IN A NEMA-3R ENCLOSURE.
10. ROUTE TO EXTERIOR LIGHTING.
11. PROVIDE 1-RUN OF 3#2, 1#6G, 2"C.
12. TIME CLOCK, REFER TO TIME CLOCK SCHEDULE.



1 ELECTRICAL SCHEMATIC DIAGRAM
SCALE: NTS

PANEL-CP	AMP	LUGS	NEMA	V(LL)		(P)	(W)		V(LN)	MNT	KAIC	FDR	
LOCATION-	125	MB	3R	240		1	3		120	S	10	1-RUN 3#1, 1#6G, 1 1/2"C	
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	FEEDER/BRANCH CIRCUIT SIZE	POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED
TRAIL LIGHTING	1	0.5	20	2	3#8, 1#10G,3/4"C	*		3#8, 1#10G,3/4"C	2	20	0.6	2	TRAIL LIGHTING
"	3	0.5			-		*	-			0.6	4	"
PARKING LOT LIGHTING	5	0.5	20	2	3#8, 1#10G,3/4"C	*		3#8, 1#10G,3/4"C	2	20	0.4	6	B-BALL COURTS
"	7	0.5			-		*	-			0.4	8	"
SOFTBALL FIELD	9	0.7	20	2	3#8, 1#10G,3/4"C	*		3#10, 1#10G,1/2"C	2	20	1	10	MULTI-USE FIELD
"	11	0.7			-		*	-			1	12	"
PC1/LC1	13	0.6	20	1	2#10, 1#10G,3/4"C	*		2#12, 1#12G,1/2"C	1	20	1.5	14	1 RCPT
TC1/LC2	15	0.6	20	1	2#10, 1#10G,3/4"C		*	-				16	SPACE
TC2/LC3	17	0.6	20	1	2#10, 1#10G,3/4"C	*		-				18	SPACE
TC3/LC4	19	0.6	20	1	2#10, 1#10G,3/4"C		*	-				20	SPACE
SPACE	21				-	*		-				22	SPACE
SPACE	23				-		*	-				24	SPACE
SPACE	25				-	*		-				26	SPACE
SPACE	27				-		*	-				28	SPACE
SPACE	29				-	*		-				30	SPACE
SPACE	31				-		*	-				32	SPACE
SPACE	33				-	*		-				34	SPACE
SPACE	35				-		*	-				36	SPACE
SPARE	37		20	1	-	*		-				38	SPARE
SPARE	39		20	1	-		*	3#3, 1#8G,1 1/2"C	2	100	8	40	PANEL-CLR
SPARE	41		20	1	-	*		-			7	42	"
LOADS	-	(KVA)				14	13				(KVA)	-	DESCRIPTIVE LOADS
CONNECTED LOAD	-	27				KVA/PHASE					10	-	LIGHTING
RESERVE	0	0									2	-	RECEPTACLES
TOTAL LOAD	-	**27**									0	-	COOLING
											0	-	HEATING
TOTAL AMPS	-	**111**									15	-	OTHER

NOTES:
1)
2)
3)

PANEL-CLR	AMP	LUGS	NEMA	V(LL)		(P)	(W)		V(LN)	MNT	KAIC	FDR	
LOCATION-	100	MLO	3R	240		1	3		120	S	10	1-RUN 3#3, 1#8G, 1 1/2"C	
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	FEEDER/BRANCH CIRCUIT SIZE	POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED
LIGHTING	1	0.6	20	1	2#12, 1#12G,1/2"C	*		2#12, 1#12G,1/2"C	1	20	0.6	2	EXTERIOR LIGHTING
SPACE	3				-		*	-				4	SPACE
SPACE	5				-	*		-				6	SPACE
SPACE	7				-		*	-				8	SPACE
SPACE	9				-	*		-				10	SPACE
1)E.D.F.	11	1.2	20	1	2#12, 1#12G,1/2"C		*	2#12, 1#12G,1/2"C	1	20	1.2	12	1)E.D.F
IRRIGATION CONTROLS	13	0.6	20	1	2#12, 1#12G,1/2"C	*		2#12, 1#12G,1/2"C	1	20	1.5	14	1 RCPT
IWH-1	15	2.4	25	2	3#10, 1#10G,1/2"C		*	2#10, 1#10G,3/4"C	1	25	2.4	16	HAND DRYER
"	17	2.4			-	*		2#10, 1#10G,3/4"C	1	25	2.4	18	HAND DRYER
SPACE	19				-		*	-				20	SPACE
SPACE	21				-	*		-				22	SPACE
SPACE	23				-		*	-				24	SPACE
SPACE	25				-	*		-				26	SPACE
SPACE	27				-		*	-				28	SPACE
SPACE	29				-	*		-				30	SPACE
SPACE	31				-		*	-				32	SPACE
SPACE	33				-	*		-				34	SPACE
SPACE	35				-		*	-				36	SPACE
SPARE	37		20	1	-	*		-	1	20		38	SPARE
SPARE	39		20	1	-		*	-	1	20		40	SPARE
SPARE	41		20	1	-	*		-	1	20		42	SPARE
LOADS	-	(KVA)				8	7				(KVA)	-	DESCRIPTIVE LOADS
CONNECTED LOAD	-	15				KVA/PHASE					1	-	LIGHTING
RESERVE	0	0									9	-	RECEPTACLES
TOTAL LOAD	-	**15**									0	-	COOLING
											0	-	HEATING
TOTAL AMPS	-	**64**									5	-	OTHER

NOTES:
1)PROVIDE WITH GFI BREAKER.
2)
3)

LIGHTING CONTACTOR SCHEDULE

ID	CONTACTOR DESCRIPTION	CONTROL SWITCH
LC1	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 8-POLE IN A NEMA-3R ENCLOSURE	PHOTOCELL
LC2	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 8-POLE IN A NEMA-3R ENCLOSURE	TIME CLOCK - TC1
LC3	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 8-POLE IN A NEMA-3R ENCLOSURE	TIME CLOCK - TC2
LC4	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 8-POLE IN A NEMA-3R ENCLOSURE	TIME CLOCK - TC3

NOTE: VERIFY POLES QUANTITIES.

DISCONNECT SCHEDULE

LABEL	DESCRIPTION
IWH-1	30AMP, 1Ø, 3W, N1,240V, S/N, N.F., H.D. ROTARY TYPE DISCONNECT

NOTE: 1. REFER TO BREAKER SIZE FOR FUSE SIZE.
2. REFER TO PANELBOARD FOR DISCONNECT PHASES AND VOLTAGE.

TIME CLOCK SCHEDULE

ID	TIME CLOCK DESCRIPTION	CIRCUIT
TC1	STEEL COVER,240V, 20AMP, SPST/DPST, EQUAL TO INTERMATIC #T100 SERIES	CP-15
TC2	STEEL COVER,240V, 20AMP, SPST/DPST, EQUAL TO INTERMATIC #T100 SERIES	CP-17
TC3	STEEL COVER,240V, 20AMP, SPST/DPST, EQUAL TO INTERMATIC #T100 SERIES	CP-19

NOTE: COORDINATE WITH OWNER TIME SEQUENCE.

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726

EGV ARCHITECTS, INC.

04/15/19

STATE OF TEXAS
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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

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CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

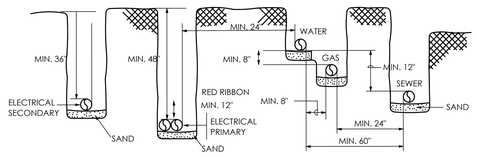
01

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

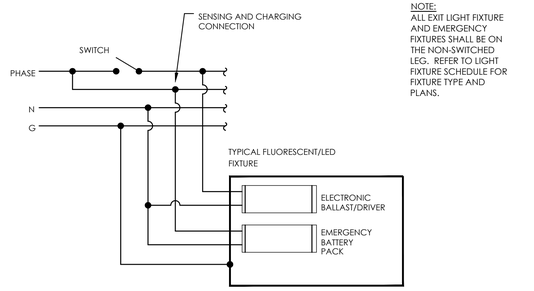
MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



TRENCH DETAIL
NO SCALE

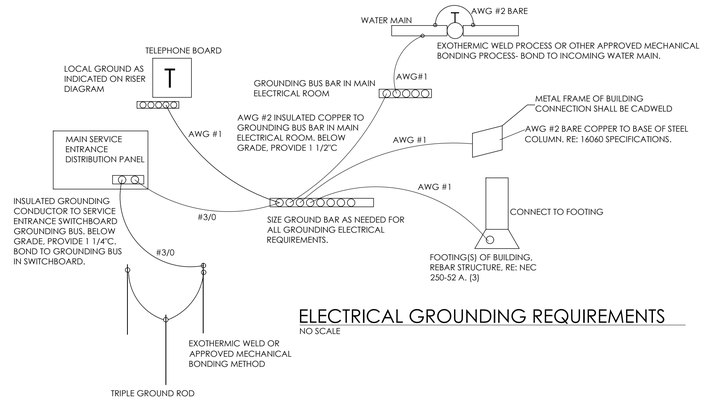
02



NOTE:
ALL EXIT LIGHT FIXTURE AND EMERGENCY FIXTURES SHALL BE ON THE NON-SWITCHED LEG. REFER TO LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPE AND PLANS.

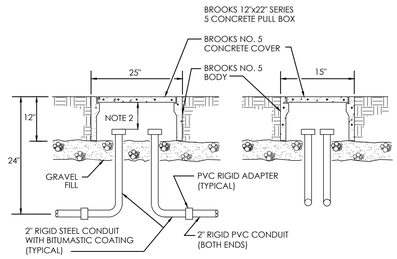
TYPICAL EMERGENCY LIGHT FIXTURE SCHEMATIC
NO SCALE

03



ELECTRICAL GROUNDING REQUIREMENTS
NO SCALE

04



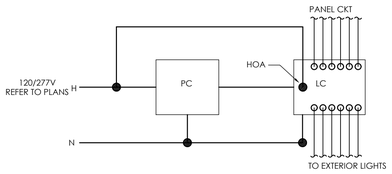
NOTES:
1. SEE PLAN FOR CONDUIT ORIENTATION
2. VARIES - MIN. 6", MAX-9"

TYPICAL PULLBOX DETAIL
NO SCALE

05

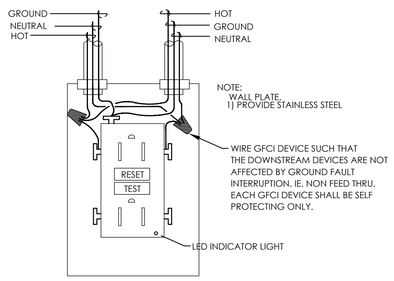
GENERAL NOTE:
ALL CONDUITS FROM PANEL TO BE CONCEALED IN WALL. NO EXPOSED CONDUITS.
ALL CONDUITS FROM LIGHTING CONTACTOR TO LIGHTS SHALL BE CONCEALED IN WALL. NO EXPOSED CONDUITS.

LIGHTING CONTACTOR-LC: 120/277V(REFER TO PLANS), 20AMP, ELEC.HELD,HOA,12-POLE IN A NEMA-3R ENCLOSURE
PHOTO CELL-PC: 120V, 20AMP EQUAL TO MFR.INTERMATIC, MODEL K4221C



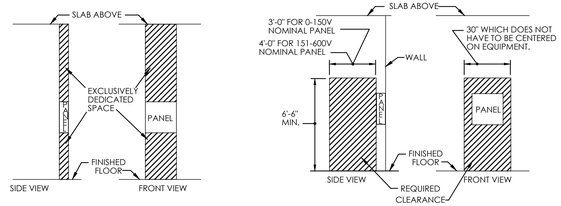
EXTERIOR LIGHTING CONTROL DETAIL
NO SCALE

06



GFI RECEPTACLE- WIRING DIAGRAM
NO SCALE

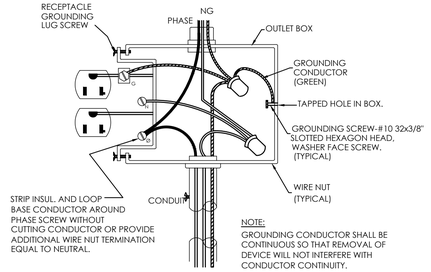
07



NOTE:
REFER TO THE LATEST NATIONAL ELECTRICAL CODE AND LOCAL CODES.

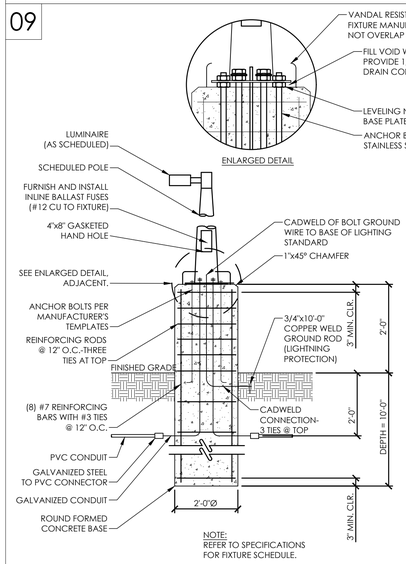
TYPICAL PANEL BOARD REQUIRED CLEARANCE
NO SCALE

08



TYPICAL RECEPTACLE GROUNDING DETAIL
NO SCALE

09

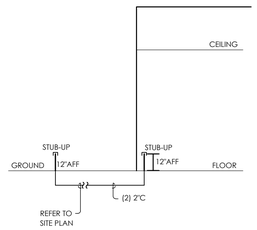


NOTE:
REFER TO SPECIFICATIONS FOR FIXTURE SCHEDULE.

PARKING LOT LIGHT POLE BASE
NO SCALE

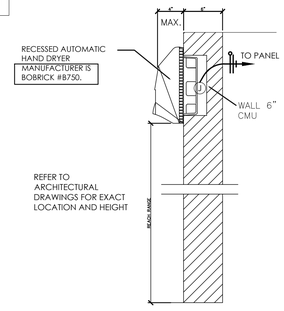
10

NOTE:
COORDINATE WITH IRRIGATION CONTRACTOR FOR STUB-UP LOCATION PRIOR TO ANY WORK. ALL CONDUIT SHALL BE CONCEALED UNDERGROUND.



IRRIGATION CONDUIT DETAIL
NO SCALE

11



HAND DRYER DETAIL
NO SCALE

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
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ARCHITECTS, INC.

04/15/19

STATE OF TEXAS
LEONARDO MUNOZ
97457
REGISTERED ARCHITECT

TRINITY
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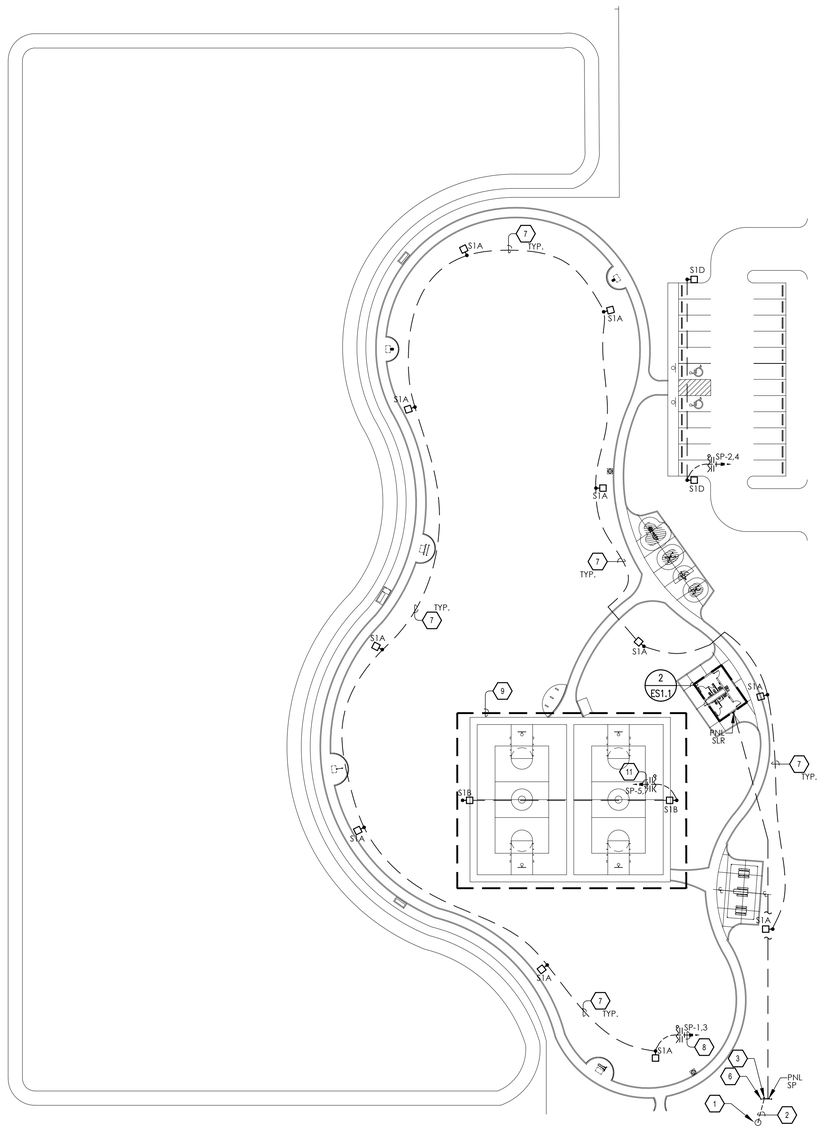
Project number: 19.1.32

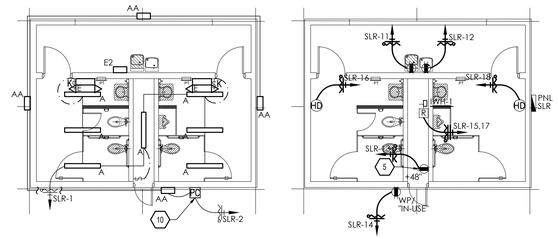
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

EC4.1 SHEET 1 OF



1 SANTOS LIVAS ELEM.
ELECTRICAL SITE PLAN
1"=40'-0"



2 RR ENLARGEMENT
1/8"=1'-0"

GENERAL ELECTRICAL NOTES (TO ALL SHEETS)

A. CONTRACTOR TO VERIFY ALL EXISTING MAIN POWER SERVICES AND COORDINATE WITH POWER COMPANY FOR ALL NEW REQUIREMENTS AND ALL COST ASSOCIATED. CONTRACTOR SHALL INCLUDE ANY COST FOR THE NEW TRANSFORMER AND OTHER ASSOCIATED FEES IN BID. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL FEES WITH POWER COMPANY AND TO INCLUDE IN BID. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH POWER COMPANY AS SOON THE CONTRACT IS AWARDED TO ORDER TRANSFORMER AND THE RELATED ELECTRICAL SERVICE EQUIPMENT AS SOON AS POSSIBLE.

B. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING AND BACKFILLING. COORDINATE WITH ALL UTILITIES PRIOR TO EXCAVATION.

C. CONTRACTOR TO VERIFY ALL EXISTING MAIN TELEPHONE SERVICES AND COORDINATE WITH TELEPHONE COMPANY FOR ALL REQUIREMENTS AND ALL COST ASSOCIATED, INCLUDE ALL COST IN BID. CONDUIT FROM MAIN TELEPHONE RISER SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

D. ALL ELECTRICAL EQUIPMENT OUTDOORS SHALL BE RATED TYPE NEMA 3R UNLESS OTHERWISE NOTED.

E. CONTRACTOR SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES AND ALL OTHER AUTHORITY HAVING JURISDICTION. OBTAIN PERMITS AND PAY ALL FEES. PERFORM MODIFICATIONS TO MEET CODE AND ORDINANCE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER, ARCHITECT OR ENGINEER. VERIFY PRIOR TO BID DATE.

F. VERIFY AT JOB SITE THE EXACT LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS, COLUMNS, ETC. TO LOCATE EQUIPMENT CONDUIT, PANELS AND DEVICES. IF DEVIATIONS FROM THE DRAWING ARE NECESSARY TO MEET STRUCTURAL CONDITIONS MAKE DEVIATIONS WITHOUT ADDITIONAL COST, TO OWNER, ARCHITECT, OR ENGINEER.

G. IN COOPERATION WITH OTHER CONTRACTORS, DETERMINE THE EXACT LOCATION OF EQUIPMENT AND DEVICES AND CONNECTIONS THERETO BY REFERENCE TO THE SUBMITTALS AND ROUGH-IN DRAWINGS, AND BY MEASUREMENTS AT THE SITE. REFER TO ALL OTHER TRADES SUBMITTAL FOR ELECTRICAL INFORMATION.

H. GROUND ENTIRE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

I. VERIFY AT JOB SITE GENERAL WORK TO BE DONE AS SPECIFIED, AS NOTED, OR AS REQUIRED FOR INSTALLATION ELECTRICAL SYSTEMS PRIOR TO SUBMISSION OF BIDS.

J. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND EQUIPMENT TO BE REMOVED AND REPLACED BEFORE SUBMITTING HIS BID.

K. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SMALL SCALE ONLY. THEY CONVEY THE INTENT OF THE WORK BUT DO NOT SHOW DETAIL SUCH AS JUNCTION AND PULL BOXES REQUIRED BY THE SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE(NEC). PROVIDE ALL MATERIALS AND METHODS CALLED FOR IN THE SPECIFICATIONS AND AS REQUIRED IN THE NEC TO PROVIDE A COMPLETE INSTALLATION OF ALL WORK.

L. ALL WIRING SHALL BE COPPER.

M. ALL SLEEVES, PENETRATIONS, ETC. SHALL BE SEALED SOLID NON-SHRINKING MATERIAL IMMEDIATELY UPON FILLING OF THE OPENING WITH PIPE OR CONDUIT.

N. ARRANGE FOR SOURCES OF TEMPORARY CONSTRUCTION SERVICES. SUCH SERVICES SHALL BE NOMINALLY 120/240V, 1-PHASE, 3-WIRE FROM WHICH A COMPLETE SYSTEM OF TEMPORARY POWER AND LIGHTING SHALL BE PROVIDED FOR ALL CONSTRUCTION NEEDS.

O. CONTRACTOR IS RESPONSIBLE TO VERIFY AND COORDINATE WITH EXISTING/NEW UNDERGROUND UTILITIES PRIOR TO ANY WORK.

P. CONTRACTOR IS RESPONSIBLE CALL DIG-TESS; 1-1800-DIG-TESS 2-BUSINESS DAYS IN ADVANCE.

KEYED NOTES: ELECTRICAL

1. NEW POWER COMPANY POWER POLE WITH NEW POLE MOUNTED TRANSFORMER AND DIP POLE RISER. COORDINATE WITH UTILITY ELECTRICAL COMPANY. INCLUDE ALL COST IN BID.
2. CONTRACTOR TO PROVIDE AND INSTALL (1)-4" PVC CONDUIT FROM NEW POWER COMPANY POLE MOUNTED TRANSFORMER TO NEW SERVICE EQUIPMENT . ALL UNDERGROUND WORK SHALL BE ACCORDING TO POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS WITH THE POWER COMPANY BEFORE ANY ROUGH-IN. COORDINATE LOCATION, COST, AND INSTALLATION WITH POWER COMPANY PRIOR TO BID.
3. NEW 120/240V, 1Ø, 3W, ELECTRICAL SERVICE METER.
4. PROVIDE CHAIN LINK ENCLOSURE FOR ELECTRICAL SERVICE EQUIPMENT.
5. PROVIDE RECEPTACLE FOR IRRIGATION CONTROLS. REFER TO DETAIL.
6. GALVANIZED 3" PIPE AND GALVANIZED UNISTRUT STAND.
7. LINE REPRESENTS PROPOSED EACH CONDUITS PATH. FIELD VERIFY EXACT ROUTE. PROVIDE ALL TRENCHING AND BACK FILLING FOR NEW CONDUITS. REFER TO PANEL ELECTRICAL PANEL SCHEDULES FOR CIRCUIT SIZE.
8. VIA LIGHTING CONTACTOR 'LC1'.
9. **ALTERNATE #6**-IF ALTERNATE IS ACCEPTED, PROVIDE LIGHTING AS SHOWN FOR BASKETBALL COURTS.
10. 120V PHOTOCELL. LOCATE AS DIRECTED BY MANUFACTURER.
11. VIA LIGHTING CONTACTOR 'LC2'.

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
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EGV ARCHITECTS, INC.

04/15/19

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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

ES1.1 SHEET OF

ELECTRICAL LEGEND-LIGHTING

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

SYMBOL	DESCRIPTION
	2'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'X4' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'X2' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	1'X4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	TRACK LIGHT WITH HEADS AS INDICATED
	INCANDESCENT, LED, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD, REFER TO LUMINAIRE SCHEDULE
	INCANDESCENT, LED, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	LED, FLUORESCENT, OR HID FIXTURE WITH EMERGENCY BATTERY PACK. CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT, CEILING OR WALL MOUNTED - SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT SAME AS ABOVE, EXCEPT WITH AN EMERGENCY UNIT AS A COMBO, REFER TO LUMINAIRE SCHEDULE
	CEILING FAN
	STRIP UTILITY LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	STRIP UTILITY STRIP LIGHT WITH EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
$	WALL SWITCH SPST, 20A,120/277V
$2	DOUBLE POLE TOGGLE SWITCH, 20A/120/277V
$3	3-WAY WALL SWITCH, 20A,120/277V
$4	4-WAY WALL SWITCH, 20A,120/277V
$D	WALL DIMMER SWITCH
$P	WALL SWITCH SPST, 20A,120/277V - PILOT LIGHT SWITCH
$K X	WALL SWITCH SPST, 20A,120/277V - KEYED SWITCH, X = 3 OR 4 WAY

ELECTRICAL LEGEND-SPECIAL SYSTEMS

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

SYMBOL	DESCRIPTION	
	WALL MOUNTED TELEPHONE/DATA OUTLET. FURNISH AND INSTALL 1.25"C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
	WALL MOUNTED TELEPHONE OUTLET. FURNISH AND INSTALL 1"C , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
	WALL MOUNTED DATA OUTLET. FURNISH AND INSTALL 1.25"C , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.	
P	PUBLIC TELEPHONE OUTLET.: J-BOX & 1"C	
TV	TELEVISION OUTLET. CLG. OR WALL MOUNTED - STUB 1" C. ABOVE CEILING FROM OUTLET BOX	
	PUSHBUTTON WALL MOUNTED.	
av	AUDIO VIDEO DROP, REFER TO DETAIL	
IC	INTERCOM - CALL SWITCH- JBOX WITH 3/4"C	
S	INTERCOM/PAGING LAY-IN SPEAKER	
I	PA EXTERIOR SPEAKER	10'-6" AFF
DC	SECURITY DOOR CONTACT SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
MD	SECURITY MOTION DETECTOR SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
G	SECURITY GLASS BREAK SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
KP	SECURITY KEY PAD - STUB 3/4"C ABOVE CEILING FROM OUTLET BOX	
SEC	SECURITY PANEL JUNCTION BOX	54"
ACC	ACCESS CONTROL PANEL JUNCTION BOX - BY OTHERS	54"
CR	CARD READER BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
ML	MAGNETIC LOCK BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
S	INTRUSION EXTERIOR SPEAKER	10'-6" AFF
©	SINGLE SIDED CLOCK, J-BOX W/3/4"C	96" AFF MIN.
©	DOUBLE SIDED CLOCK,J-BOX W/3/4"C	96" AFF MIN.
	CAMERA J-BOX W/ 3/4" CONDUIT	----
	TELEPHONE BOARD- 3/4"x8' FIRE RATED	

ELECTRICAL LEGEND-FIRE ALARM

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

SYMBOL	DESCRIPTION
F	FIRE ALARM PULL STATION: STUB 3/4"C ABOVE CEILING FROM J-BOX
AV	FIRE ALARM AUDIBLE/VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
V	FIRE ALARM VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
V S	FIRE ALARM CEILING MOUNT SPEAKER STROBE, UL LISTED, : J-BOX WITH 3/4"C
VS	FIRE ALARM CEILING WALL MOUNT OUTDOOR SPEAKER STROBE, UL LISTED, : J-BOX WITH 3/4"C
SD	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
H	HEAT DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
SD D	DUCT SMOKE DETECTOR: STUB 3/4"C ABOVE CEILING FROM J-BOX
SD A	SMOKE DETECTOR WITH AN AUDIBLE BASE: STUB 3/4"C ABOVE CEILING FROM J-BOX
FACP	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
FACP-EVS	FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM, ADDRESSABLE, FLUSH MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
EVES	FIRE ALARM EMERGENCY VOICE EVACUATION SYSTEM, FLUSH OR SURFACE.
FAAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL, FLUSH MOUNTED UNO
PAD-X	POWER SUPPLY, DEDICATED 110V
DH	DOOR HOLDER DEVICE: STUB 3/4"C ABOVE CEILING FROM J-BOX
TS	TAMPER SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
FS	FLOW SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
F	FIRE ALARM OUTDOOR SPEAKER, WEATHER PROOF: STUB 3/4"C ABOVE CEILING FROM J-BOX

ELECTRICAL LEGEND-GENERAL

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

SYMBOL	DESCRIPTION
	HEAVY DUTY DISCONNECT SWITCH FUSED
	HEAVY DUTY DISCONNECT SWITCH NONFUSED
	HEAVY DUTY COMBINATION DISCONNECT/MOTOR STARTER
	HEAVY DUTY MOTOR STARTER
	ENCLOSED BREAKER, RE: TO SCH. FOR MORE INFO.
R	ROTARY TYPE DISCONNECT SWITCH
$M	120/277-208/480V,20AMP, MOTOR RATED SWITCH, NEMA-1(INTERIOR) ENCLOSURE, NEMA-3R(EXTERIOR) ENCLOSURE. VOLTAGE TO BE SELECTED PER EQUIPMENT CIRCUIT REQUIREMENTS.
	MOTOR
	PANELBOARD, CLEARANCE AS PER LATEST NEC
	SWITCH LEG
	ELECTRICAL CONDUIT
	UNDERGROUND ELECTRICAL CONDUIT
	COMMUNICATION CONDUIT AND WIRING
X, X, X	MULTI-POLE DEVICE CIRCUIT NUMBERS
X/X/X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS
A-1	CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATES OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
A-1	UNDERGROUND CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
#	DETAIL NUMBER
#	SHEET NUMBER
T	THERMOSTAT WALL MOUNTED - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX. COORDINATE EXACT LOCATION AND HEIGHT WITH MECHANCIAL DIVISION.
J	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED MINIMUM OF 4" SQUARE
PC	PHOTO CELL(MFR.INTERMATIC #K4136M)
LC	LIGHTING CONTACTOR, NEMA-1, W/H.O.A. SWITCH
TC	TIME CLOCK (MFR.TORK#7202Z)
CP-1	CIRCULATING PUMP
$	ELECTRICAL DEVICE AS SHOWN ON PLANS SURFACE MOUNT RACEWAY. SURFACE MOUNT RACEWAY SHALL BE WIREMOLD #V700 SERIES. PROVIDE ALL RELATED #V700 SERIES ACCESSORIES FOR AN OPERABLE SYSTEM.

ELECTRICAL ABBREVIATIONS:

ABBV:	DESCRIPTION	ABBV:	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	MFR.	MANUFACTURER
BFC	BELOW FINISHED CEILING	(S.C.)	SHARE CIRCUIT
C	CONDUIT	QRCPT(S)	QUAD RECEPTACLE(S)
		RCPT(S)	DUPLEX RECEPTACLE(S)
CB	CIRCUIT BREAKER	CRCPT(S)	I.G. RECEPTACLE(S)
EC	EMPTY CONDUIT	QCRCPT(S)	QUAD I.G. RECEPTACLE(S)
EX	EXISTING	PNL	PANEL
F	FUSE	SO (S.O.)	SPACE ONLY
G	GROUND (EQUIPMENT)	SP	SPARE
GFI	GROUND FAULT INTERRUPTER	ST (S.T.)	SHUNT TRIP
MTD	MOUNT OR MOUNTED	SW	SWITCH
NF	NONFUSED	UF	UNDERFLOOR
NIC	NOT IN CONTRACT	UG	UNDERGROUND
H.D	HEAVY DUTY		
NL	NIGHT LIGHT	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
AC	ABOVE COUNTER	WG	WIRE GUARD
HT.	HEIGHT		
MTD.	MOUNTING	WP	WEATHERPROOF
FDR.	FEEDER	XFMR	TRANSFORMER
CKT.	CIRCUIT	MB	MAIN BREAKER
LTG.	LIGHTING	MLO	MAIN LUGS ONLY
LC	LIGHTING CONTACTOR	RMC	RIGID METAL CONDUIT
IG	ISOLATED GROUND	RNC	RIGID NONMETALLIC CONDUIT
EA.	EACH	EMT	ELECTRICAL METALLIC TUBING CONDUIT
N1	NEMA-1		
N3R	NEMA-3R	S/N	SOLID NEUTRAL
N4X	NEMA-4X		
SS	STAINLESS STEEL	AC	ABOVE COUNTER
		AHJ	AHUTHORITY HAVING JURISDICTION
		T	TAMPER PROOF

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.
AC INDICATES 6" ABOVE COUNTER TO BOTTOM OF DEVICE.

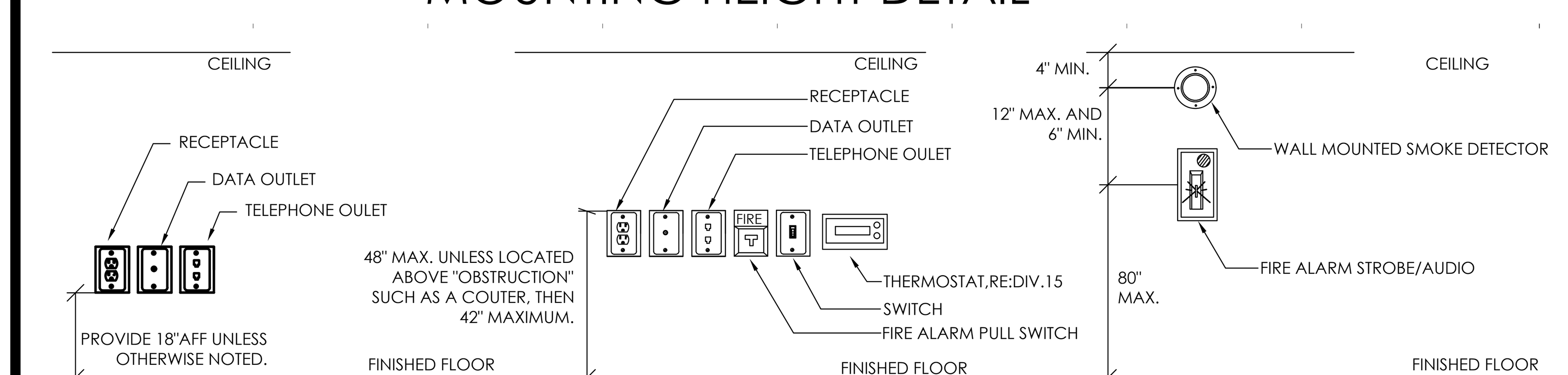
ELECTRICAL LEGEND - WIRING DEVICES

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

SYMBOL	DESCRIPTION
	SINGLE RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
T	DUPLEX RECEPTACLE TAMPER RESISTANT - 20A/125V/2P/3W/G NEMA 5-20R
H / H	HOSPITAL GRADE DUPLEX RECEPTACLE/GFI - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RCPT. GFI - 20A/125V/2P/3W/G NEMA 5-20R
WP/ "IN-USE"	DUPLEX RCPT.,WEATHER RESISTANT "WR", GFI INSTALLED IN A "IN-USE" WEATHER PROOF STEEL ENCLOSURE- 20A/125V/2P/3W/G NEMA 5-20R WP/"IN-USE" SHALL BE EQUAL TO MFR. CARLON, METALLIC SERIES SINGLE GANG, VERTICAL MOUNT #ME9UVMG DOUBLE GANG, VERTICAL MOUNT #ME9U2VMG
	QUADRAPLEX RECEPTACLE
	ISOLATED GROUND QUADPLEX RECEPTACLE
	ISOLATED GROUND DUPLEX RECEPTACLE - 20A/125V NEMA 5-20R
	208V RECEPTACLE, VERIFY NEMA NO. WITH EQUIPMENT SUPPLIER
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)
HD	J-BOX - AIR HAND DRYER: (RECESSED HAND DRYERS TO BE PROVIDED BY DIVISION 16, ELECTRICAL)#B-750 AUTOMATIC HANDCRAFT AS MANUFACTURER BY BOBRICK. (COLOR WHITE) QUANTITY: REFER TO DRAWINGS (MIN. ONE PER LAV. COMPLETE W/ ELE. CONNECTIONS TYP.)
	4-GANG FLOOR MOUNTED BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)/2-GANG FOR DATA - FLUSH MOUNTED UNO FLOOR BOX = MFR.-HUBBELL MODEL#CFB4G30CR-24GCVRNK(COVER)-(2)FBMPDUP-FBMP6KS -CFBHB2(MULTISERVICE STEEL RECESSED FLOOR BOX-VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6G	6-GANG FLOOR MOUNTED BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)/2-GANG FOR DATA - FLUSH MOUNTED UNO FLOOR BOX = MFR.-HUBBELL MODEL#CFB6G30CR-CFBS1R8CVRALU(COVER)-(3)FBMPDUP-FBMP6KS -CFBHB2(MULTISERVICE STEEL RECESSED FLOOR BOX-VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6P	6" FIRE RATED POKE-TRHOUGHS BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)- MFR.-HUBBELL MODEL#S1R6PTFIT-S1R6SPE-S1R6SPL-S1R6SPH(50/50 DEVICE PLATE COMBINATION)-S1R6CVRALU(COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6JP	6" FIRE RATED POKE-TRHOUGHS BOX, FURNITURE FEED,- MFR.-HUBBELL MODEL#S1R6PTFFALU(ALUMINUM COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER.
8P	8" FIRE RATED POKE-TRHOUGHS BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)- MFR.-HUBBELL MODEL#S1R8PTFIT3-S1R8CSPK-S1R8CSPK-S1R8PSPZ(50/50 DEVICE PLATE COMBINATION)-S1R8CVRALU(COVER) -VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.

MOUNTING HEIGHT DETAIL

NOTE: VERIFY WITH ARCHITECTURAL FOR **ADA REQUIREMENTS.**



GENERAL ELECTRICAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
2. USE DIRECTIONAL ARROW ON EXIT SIGNS AS REQUIRED.
3. IEEE STANDARD C37.2-1991, ELECTRICAL POWER SYSTEM DEVICE FUNCTION NUMBERS.
4. CONTRACTOR SHALL NOT INSTALL MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY. IF CONTRACTOR IS PLANNING ON GROUPING MULTIPLE CIRCUITS IN A SINGLE RACEWAY, THE CONTRCATOR MUST SUBMIT ALL DERATING CALCULATIONS FOR THE PROPOSED INSTALLATION IN ACCORDANCE WITH NEC ARTICLE 310.15 (B) (2) FOR APPROVAL PRIOR TO INSTALLATION. NON APPROVED INSTALLATIONS WILL BE REMOVED AND REINSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE NEC AT NO ADDITIONAL COST TO THE OWNER.
5. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF THREE 90° BENDS (270 DEGREES TOTAL) BETWEEN PULL POINTS. WHERE THERE ARE MORE THAN THREE QUARTER BENDS, CONTRACTOR SHALL PROVIDE PULL BOXES AS SPECIFIED AND SIZED IN ACCORDANCE WITH NEC.
6. COMPLY WITH NEC REQUIREMENTS FOR ELECTRICAL INSTALLATIONS. ALL ELECTRICAL EQUIPMENT AND MATERIAL TO BE APPROVED, LISTED, LABELED, IDENTIFIED AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SERVED BY EMERGENCY BRANCH CIRCUITS SHALL BE "RED" IN COLOR. COVERPLATES SHALL BE LABELED IN ACCORDANCE WITH SPECIFICATIONS TO INDICATE PANELBOARD AND CIRCUIT NO. (IE: ET*LA-3).

ELECTRICAL: LIGHTING FUNCTIONAL TESTING / COMMISSIONING PLAN:

CONTRACTOR SHALL PERFORM THE TASK BELOW TO COMMISSION THE LIGHTING CONTROL SYSTEM. CONTRACTOR SHALL SUBMIT A DOCUMENTATION DETAILING THE LIGHTING CONTROL SYSTEM, SETTING/CONDITION, ACTIONS PERFORMED AND FINAL SETTING CONDITION. SUBMIT DOCUMENTATION AT OR BEFORE SUBSTANTIAL COMPLETION TO FACILITATE OBTAINING THE CERTIFICATE OF OCCUPANCY.

A. ENSURE ALL LIGHTING FIXTURES FIXTURES HAVE LAMPS INSTALLED AND ARE FUNCTIONAL.
B. TEST ALL EXIT SIGNS, EMERGENCY LIGHTING FIXTURES, AND EMERGENCY BALLASTS FURNISHED INTEGRAL TO FIXTURES.
C. ENSURE ALL OCCUPANCY SENSORS HAVE BEEN INSTALLED AND ARE OPERATIONAL.
D. VERIFY ALL WALLBOX AND SCENE CONTROLLERS ARE INSTALLED AND OPERATIONAL.
E. TEST EACH INDIVIDUAL DEVICE FOR OCCUPANCY SENSOR TYPES OS1, OS2 AND TEST THE LIGHTING CONTROL RELAY PANEL SYSTEM.
F. TEST 10% OF ALL THE DEVICES FOR OCCUPANCY SENSOR TYPE: WSX-PDT-SA.
G. VERIFY THE FOLLOWING:
1. ALL SENSORS ARE LOCATED AND AIMED PER THE MANUFACTURER'S RECOMMENDATIONS.
2. STATUS INDICATORS ON DEVICES ARE OPERATIONAL AND CORRECT.
3. DEVICES CONTROL LIGHTING FIXTURES AS INDICATED ON DRAWINGS.
4. TIME DELAYS HAVE BEEN SET AS PER CODE AND PER OWNERS DIRECTIONS.
5. MOVEMENT IN ADJACENT AREAS AND/ CYCLING OF HVAC SYSTEMS DOES NOT FALSE TRIGGER SENSORS.
6. PHOTOCELL LOCATION AND AIMED PER MANUFACTURERS RECOMMENDATIONS.
7. PROGRAM INTERIOR RELAYS WITH A TIME FUNCTION ACCEPTABLE TO OWNER.
8. PROGRAM INTERIOR OVERRIDE SWITCH WITH A TIME FUNCTIONAL ACCEPTABLE BY OWNER.

LUMINAIRE SCHEDULE

MARK	VOLTAGE	LAMP	MOUNTING	DESCRIPTION	MODEL NO.
A	120V	LED 4000 LM 3500K 33W	SURFACE	4' LINEAR, VAPOR TIGHT, VANDAL RESISTANT FIXTURE, UL LISTED HIGH EFFICIENCY 0-10V DRIVER	LITHONIA VAP 4000LM PCL WD MVOLT GZ10 35K 80CRI
E	120V	INCLUDED	SURFACE	EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	LITHONIA ELM2 LED SD
E2	120V	INCLUDED	SURFACE	EXTERIOR EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	LITHONIA AFO DB MVOLT N SD
AA	120V	LED 5,551 LM 4000K 49W	SURFACE	LED WALL LUMINAIRE, WET LOCATION RATED, UL LISTED	LITHONIA TWR1 LED P4 40K MVOLT DDBTXD
S1A	208V	1-LED FIXTURE 8,473 LM 4000K 71W	18'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 110 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX0 LED P3 40K T2M MVOLT POLE MFR. KW INDUSTRIES #RSP18-5.0-7-NA-DM10-BC-VD
S1B	208V	1-LED FIXTURE 37,951 LM 4000K 321W	28'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX2 LED P5 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RSP28-5.0-7-NA-DM10-BC-VD
S1D	208V	1-LED FIXTURE 24,054 LM 4000K 185W	28'POLE	LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS	FIXTURE MFR. LITHONIA DSX2 LED P2 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RSP28-5.0-7-NA-DM10-BC-VD

NOTE:

1.) EQUAL MANUFACTURER SHALL BE ACCEPTABLE WITH EQUAL PERFORMANCE OF SPECIFIED EQUIPMENT AND APPROVED BY ENGINEER.
2.) SUBMIT EQUAL MANUFACTURERS TO ENGINEER 10 DAYS PRIOR TO BID DATE.
3.) SUBMIT LIGHT FIXTURES CUTSHEETS TO OWNER FOR APPROVAL PRIOR TO ORDER.
4.) CONTRACTOR SHALL VERIFY THAT ANY IRRIGATION SPRINKLER HEAD IS AWAY FROM ANY LIGHT POLE A MINIMUM OF 75' TO AVOID CONSISTENT WATER TO LIGHT POLE. COORDINATE WITH IRRIGATION CONTRACTOR PRIOR TO ANY WORK.
5.) CONTRACTOR SHALL VERIFY THAT ANY LIGHT POLES ON COMMON AREAS AND SIDE WALKS, THAT THE LOCATION OF THE POLE TO MEET THE ADA REQUIREMENTS.
6.) CONTRACTOR SHALL FIELD VERIFY FOR EXISTING/NEW UNDERGROUND UTILITIES PRIOR TO ANY WORK.

DATE	APPROVED	NO.	REVISIONS

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

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04/15/19

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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM. PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

SHEET ES2.1 OF

120/240V, 1Ø, 3W ELECTRICAL LOAD ANALYSIS	
DESCRIPTION	TOTAL KVA
LIGHTING	5
GENERAL POWER	11
WATER HEATER	5
TOTAL WATTS:	21 KVA
TOTAL AMPS:	87 AMPS
TOTAL AMPS+25%:	108 AMPS
WIRE SIZE AMPS:	125 AMPS

GENERAL NOTES:

A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.

B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS, LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC., BY ELECTRICAL CONTRACTOR.

C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.

D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.

E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.

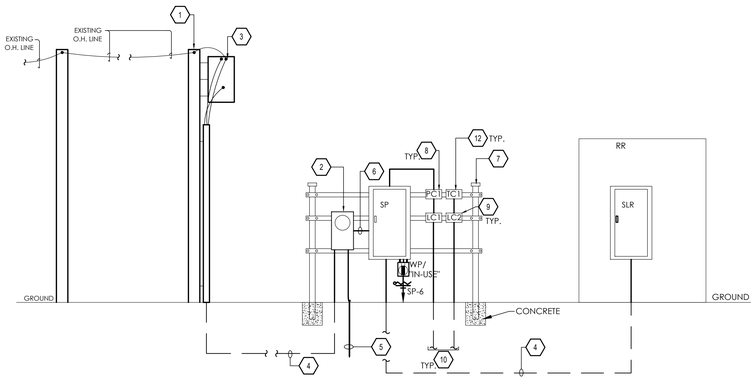
F. PROVIDE 4"CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS.

G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.

H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN WEEKENDS OR HOLIDAYS, INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.

ELECTRICAL RISER DIAGRAM KEYED NOTES:

1. NEW POWER COMPANY POLE WITH RISER DIP POLE. COORDINATE WITH POWER COMPANY FOR ALL REQUIREMENTS.
2. NEW ELECTRICAL SERVICE METER 120/240V, 1Ø, 3W. CONTRACTOR SHALL PROVIDE METER BASE. VERIFY WITH POWER FOR METER BASE REQUIREMENTS PRIOR TO BID DATE. INCLUDE ALL COST IN BID. COORDINATE ALLOCATION OF METER SOCKET AND WIRING WITH POWER COMPANY.
3. COORDINATE WITH POWER COMPANY FOR 120/240V, 1Ø, 3W NEW POWER CO. POLE MOUNTED XFMR AT NEW POWER CO. POWER POLE LOCATION. FIELD VERIFY EXACT LOCATION.
4. PROVIDE 1-RUN OF 3#1, 2"C.
5. 1#3/0G IN 1"C, 3/4"X10' COPPER CLAD RODS. PROVIDE GROUNDING AS PER NEC REQUIREMENTS.
6. PROVIDE 1-RUN OF 3#1, 1#6G, 2"C.
7. 3"GALVANIZED PIPE WITH UNISTRUT STAND FOR ELECTRICAL SERVICE EQUIPMENT. COORDINATE WITH UTILITY COMPANY PRIOR TO ANY WORK.
8. 120V PHOTOCELL. LOCATE AS DIRECTED BY MANUFACTURER.
9. LIGHTING CONTACTOR SHALL BE 120V, 20AMP, ELEC.HELD, HOA, 8-POLE IN A NEMA-3R ENCLOSURE.
10. ROUTE TO EXTERIOR LIGHTING.
11. PROVIDE 1-RUN OF 3#2, 1#8G, 2"C.
12. TIME CLOCK, REFER TO TIME CLOCK SCHEDULE.



1 ELECTRICAL SCHEMATIC DIAGRAM
SCALE: NTS

LIGHTING CONTACTOR SCHEDULE		
ID	CONTACTOR DESCRIPTION	CONTROL SWITCH
LC1	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 6-POLE IN A NEMA-3R ENCLOSURE	PHOTOCELL
LC2	CONTACTOR - 240V COIL, 20AMP, ELEC.HELD.HOA, 6-POLE IN A NEMA-3R ENCLOSURE	TIME CLOCK - TC1

NOTE: VERIFY POLES QUANTITIES.

TIME CLOCK SCHEDULE		
ID	TIME CLOCK DESCRIPTION	CIRCUIT
TC1	STEEL COVER,240V, 20AMP, SPST/DPST, EQUAL TO INTERMATIC #T100 SERIES	SP-11

NOTE: COORDINATE WITH OWNER TIME SEQUENCE.

DISCONNECT SCHEDULE	
LABEL	DESCRIPTION
IWH-1	30AMP, 1Ø, 3W, N1,240V, S/N, N.F., H.D. ROTARY TYPE DISCONNECT

NOTE: 1. REFER TO BREAKER SIZE FOR FUSE SIZE.
2. REFER TO PANELBOARD FOR DISCONNECT PHASES AND VOLTAGE.

PANEL-SP	AMP	LUGS	NEMA	V(LL)		(P)	(W)		V(LN)	MNT	KAIC	FDR	
LOCATION-	100	MB	3R	240		1	3		120	S	10	1-RUN 3#3, 1#8G, 1 1/2"C	
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	FEEDER/BRANCH CIRCUIT SIZE	POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED
TRAIL LIGHTING	1	0.4	20	2	3#8, 1#10G,3/4"C	*		3#10, 1#10G,1/2"C	2	20	0.4	2	PARKING LOT LIGHTING
"	3	0.4			-		*	-			0.4	4	"
B-BALL COURTS	5	0.4	20	2	3#10, 1#10G,1/2"C	*		2#12, 1#12G,1/2"C	1	20	1.5	6	1 RCPT
"	7	0.4			-		*	-				8	SPACE
PC1/LC1	9	0.6	20	1	2#10, 1#10G,3/4"C	*		-				10	SPACE
TC1/LC2	11	0.6	20	1	2#10, 1#10G,3/4"C		*	-				12	SPACE
SPACE	13				-	*		-				14	SPACE
SPACE	15				-		*	-				16	SPACE
SPACE	17				-	*		-				18	SPACE
SPACE	19				-		*	-				20	SPACE
SPACE	21				-	*		-				22	SPACE
SPACE	23				-		*	-				24	SPACE
SPACE	25				-	*		-				26	SPACE
SPACE	27				-		*	-				28	SPACE
SPACE	29				-	*		-				30	SPACE
SPACE	31				-		*	-				32	SPACE
SPACE	33				-	*		-				34	SPACE
SPACE	35				-		*	-				36	SPACE
SPARE	37		20	1	-	*		-				38	SPACE
SPARE	39		20	1	-		*	3#3, 1#8G,1 1/2"C	2	100	8	40	PANEL-SLR
SPARE	41		20	1	-	*		-			7	42	"
LOADS	-	(KVA)				11	10				(KVA)	-	DESCRIPTIVE LOADS
CONNECTED LOAD	-	20				KVA/PHASE					4	-	LIGHTING
RESERVE	0	0									2	-	RECEPTACLES
TOTAL LOAD	-	**20**									0	-	COOLING
											0	-	HEATING
TOTAL AMPS	-	**85**									15	-	OTHER

NOTES:
1)
2)
3)

PANEL-SLR	AMP	LUGS	NEMA	V(LL)		(P)	(W)		V(LN)	MNT	KAIC	FDR	
LOCATION-	100	MLO	3R	240		1	3		120	S	10	1-RUN 3#3, 1#8G, 1 1/2"C	
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	FEEDER/BRANCH CIRCUIT SIZE	POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED
LIGHTING	1	0.6	20	1	2#12, 1#12G,1/2"C	*		2#12, 1#12G,1/2"C	1	20	0.6	2	EXTERIOR LIGHTING
SPACE	3				-		*	-				4	SPACE
SPACE	5				-	*		-				6	SPACE
SPACE	7				-		*	-				8	SPACE
SPACE	9				-	*		-				10	SPACE
1.)E.D.F.	11	1.2	20	1	2#12, 1#12G,1/2"C		*	2#12, 1#12G,1/2"C	1	20	1.2	12	1.)E.D.F
IRRIGATION CONTROLS	13	0.6	20	1	2#12, 1#12G,1/2"C	*		2#12, 1#12G,1/2"C	1	20	1.5	14	1 RCPT
IWH-1	15	2.4	25	2	3#10, 1#10G,1/2"C		*	2#10, 1#10G,3/4"C	1	25	2.4	16	HAND DRYER
"	17	2.4			-	*		2#10, 1#10G,3/4"C	1	25	2.4	18	HAND DRYER
SPACE	19				-		*	-				20	SPACE
SPACE	21				-	*		-				22	SPACE
SPACE	23				-		*	-				24	SPACE
SPACE	25				-	*		-				26	SPACE
SPACE	27				-		*	-				28	SPACE
SPACE	29				-	*		-				30	SPACE
SPACE	31				-		*	-				32	SPACE
SPACE	33				-	*		-				34	SPACE
SPACE	35				-		*	-				36	SPACE
SPARE	37		20	1	-	*		-	1	20		38	SPARE
SPARE	39		20	1	-		*	-	1	20		40	SPARE
SPARE	41		20	1	-	*		-	1	20		42	SPARE
LOADS	-	(KVA)				8	7				(KVA)	-	DESCRIPTIVE LOADS
CONNECTED LOAD	-	15				KVA/PHASE					1	-	LIGHTING
RESERVE	0	0									9	-	RECEPTACLES
TOTAL LOAD	-	**15**									0	-	COOLING
											0	-	HEATING
TOTAL AMPS	-	**64**									5	-	OTHER

NOTES:
1)
2)
3)

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

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04/15/19

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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

ES3.1 SHEET OF

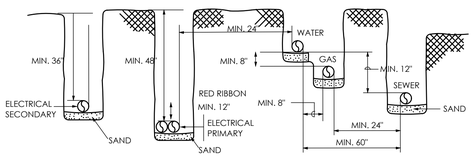
01

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

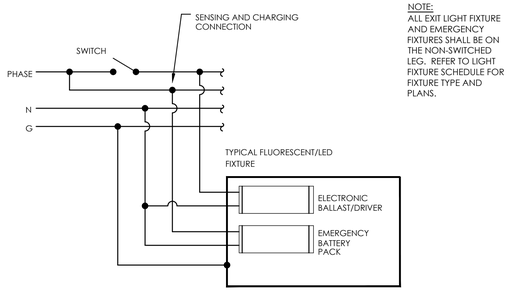
MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



TRENCH DETAIL
NO SCALE

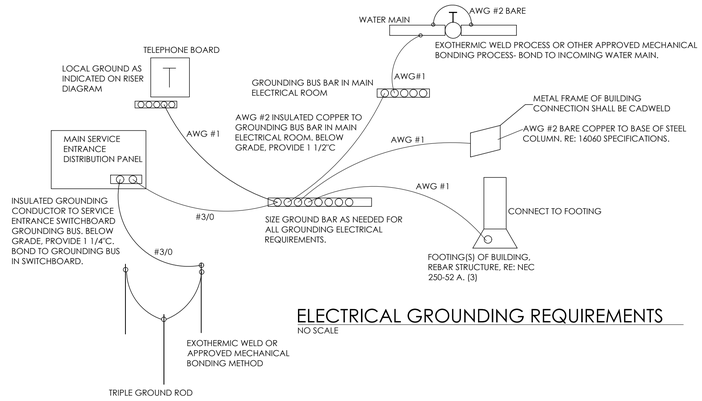
02



NOTE:
ALL EXIT LIGHT FIXTURE AND EMERGENCY FIXTURES SHALL BE ON THE NON-SWITCHED LEG. REFER TO LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPE AND PLANS.

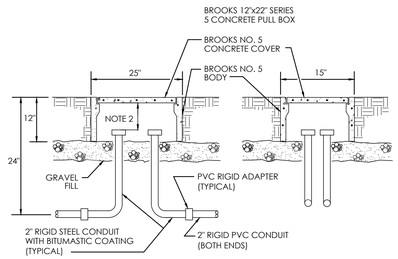
TYPICAL EMERGENCY LIGHT FIXTURE SCHEMATIC
NO SCALE

03



ELECTRICAL GROUNDING REQUIREMENTS
NO SCALE

04



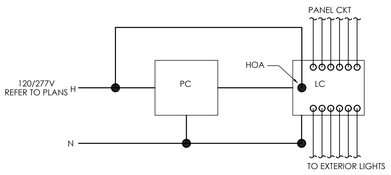
NOTES:
1. SEE PLAN FOR CONDUIT ORIENTATION
2. VARIES - MIN. 6", MAX-9"

TYPICAL PULLBOX DETAIL
NO SCALE

05

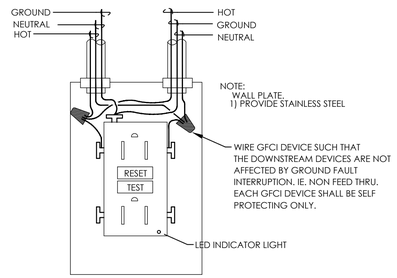
GENERAL NOTE:
ALL CONDUITS FROM PANEL TO BE CONCEALED IN WALL. NO EXPOSED CONDUITS.
ALL CONDUITS FROM LIGHTING CONTACTOR TO LIGHTS SHALL BE CONCEALED IN WALL. NO EXPOSED CONDUITS.

LIGHTING CONTACTOR-LC: 120/277V(REFER TO PLANS), 20AMP, ELEC.HELD.HOA,12-POLE IN A NEMA-3R ENCLOSURE
PHOTO CELL-PC: 120V, 20AMP EQUAL TO MFR.INTERMATIC, MODEL K4221C



EXTERIOR LIGHTING CONTROL DETAIL
NO SCALE

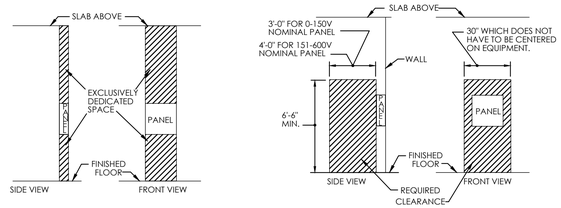
06



NOTE:
WALL PLATE.
1) PROVIDE STAINLESS STEEL

GFI RECEPTACLE- WIRING DIAGRAM
NO SCALE

07

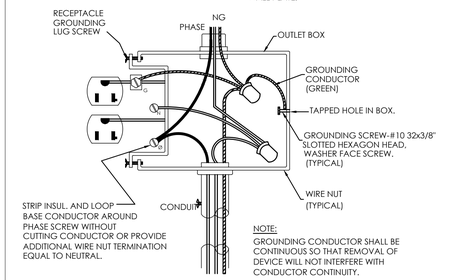


NOTE:
REFER TO THE LATEST NATIONAL ELECTRICAL CODE AND LOCAL CODES.

TYPICAL PANEL BOARD REQUIRED CLEARANCE
NO SCALE

08

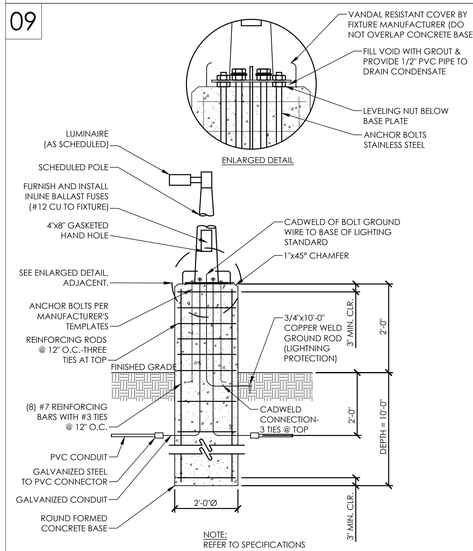
NOTE:
1) PROVIDE STAINLESS STEEL WALL PLATE.



NOTE:
GROUNDING CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICE WILL NOT INTERFERE WITH CONDUCTOR CONTINUITY.

TYPICAL RECEPTACLE GROUNDING DETAIL
NO SCALE

09

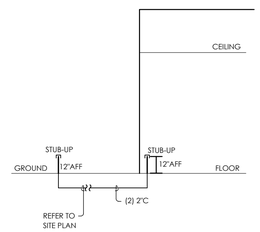


NOTE:
REFER TO SPECIFICATIONS FOR FIXTURE SCHEDULE.

PARKING LOT LIGHT POLE BASE
NO SCALE

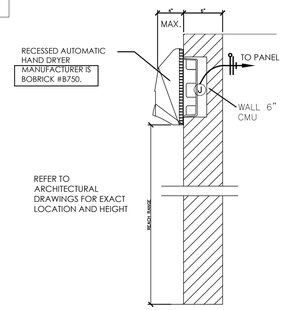
10

NOTE:
COORDINATE WITH IRRIGATION CONTRACTOR FOR STUB-UP LOCATION PRIOR TO ANY WORK. ALL CONDUIT SHALL BE CONCEALED UNDERGROUND.



IRRIGATION CONDUIT DETAIL
NO SCALE

11



HAND DRYER DETAIL
NO SCALE

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
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ARCHITECTS, INC.

04/15/19

STATE OF TEXAS
LEONARDO MUNOZ
97457
REGISTERED ARCHITECT

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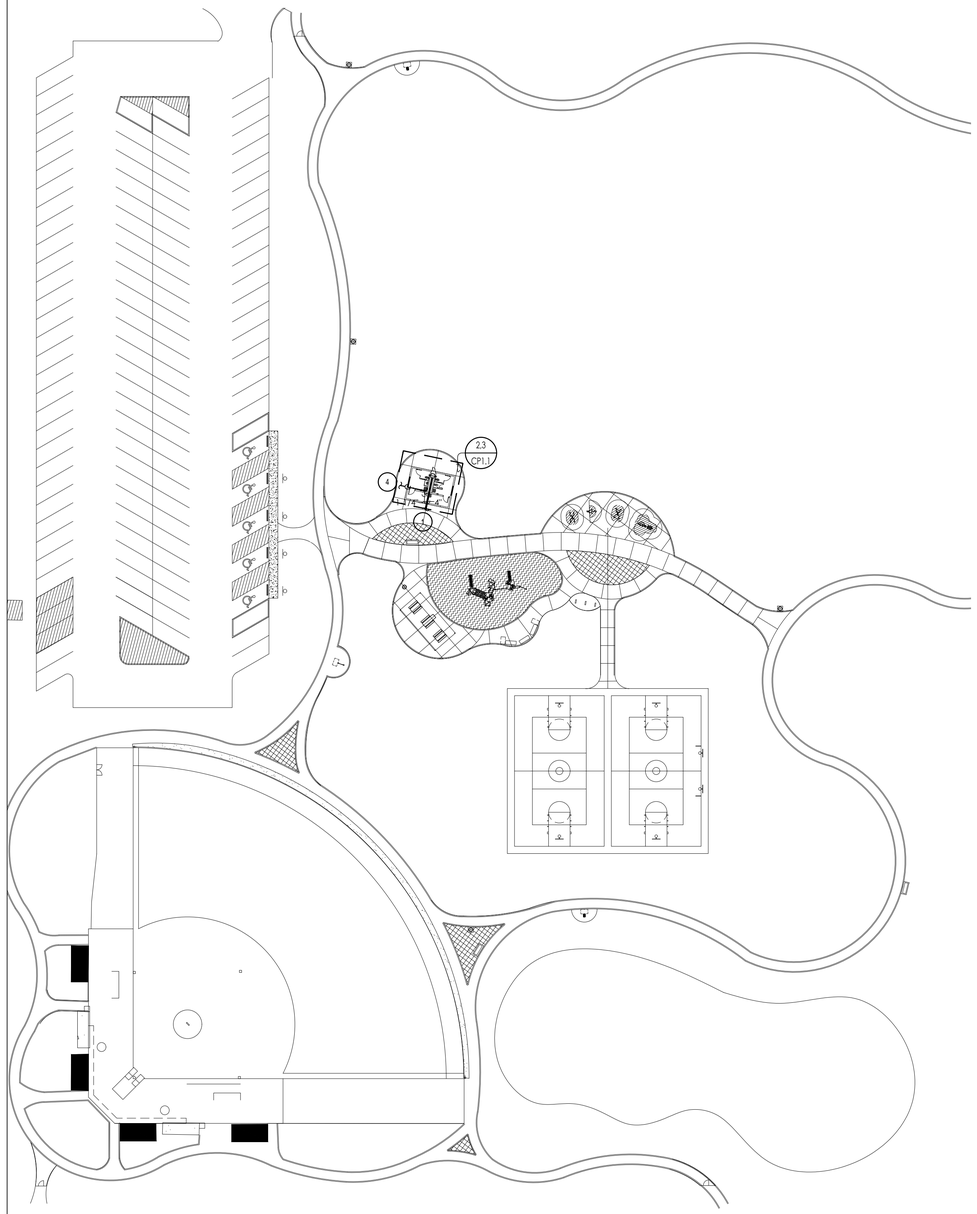
Project number: 19.1.32

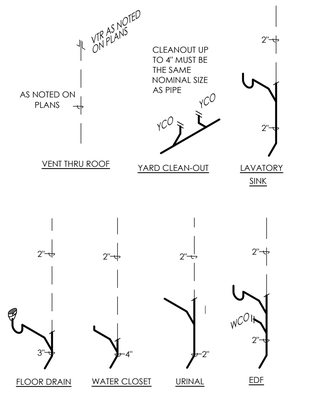
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

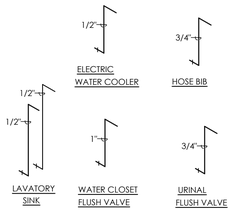
ES4 SHEET 1 OF



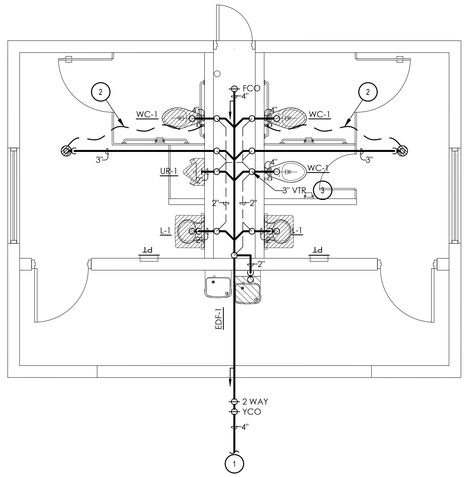
CARMAN ELEM.
1 PLUMBING SITE PLAN
1"=40'-0"



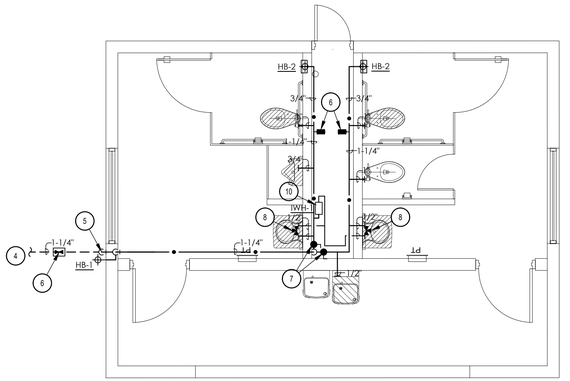
SEWER & VENT
4 TYPICAL RISER SCHEMATIC
NTS



DOMESTIC WATER
5 TYPICAL RISER SCHEMATIC
NTS



SEWER & VENT
2 PLUMBING FLOOR PLAN
1/4"=1'-0"



DOMESTIC WATER
3 PLUMBING FLOOR PLAN
1/4"=1'-0"

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

KEYED NOTES: PLUMBING

1. REFER TO CIVIL SITE PLAN FOR CONTINUATION OF PLUMBING FIVE FEET AWAY FROM BUILDING. PLUMBING CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION, VERIFICATION AND CONNECTION OF ALL UTILITIES TO SITE UTILITY STUB-OUTS. CONTRACTOR SHALL VERIFY LOCATIONS, INVERT SLOPE, ELEVATION, AND DIRECTION OF FLOW WITH CIVIL ENGINEERING DRAWINGS.
2. 1/2" COPPER FROM TRAP PRIMER COVER WITH POLYETHYLENE SLEEVE "POLY SLEEVE" OR EQUAL. PROVIDE FLUSHVALVE TRAP SEAL PRIMER EQUAL TO SLOAN VBF-72-A. SEE DETAIL 08/CP3.1.
3. KEEP ALL VENT THRU ROOF (VTR) AT LEAST 10 FEET AWAY OR 5 FEET ABOVE FROM ANY FRESH AIR INTAKE COORDINATE LOCATION OF ALL VTRs WITH HVAC CONTRACTOR.
4. REFER TO CIVIL SITE PLAN FOR CONTINUATION OF OF PLUMBING FIVE FEET AWAY FROM BUILDING. PLUMBING CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION, VERIFICATION AND CONNECTION OF ALL UTILITIES TO SITE UTILITY STUB-OUTS. PROVIDE 1" WATER METER AND BACKFLOW PREVENTER AS REQUIRED.
5. WATER SERVICE ENTRANCE. REFER TO DETAIL 01/CP3.1.
6. CUT-OFF VALVE IN CAST IRON BOX. SET BOX FLUSH WITH FINISHED FLOOR.
7. BRONZE CUT-OFF VALVE.
8. PROVIDE SINK/LAV WITH SINGLE OUTLET THERMOSTATIC MIXING VALVE (TMV). WATTS LFMMV-US-M1. SET TEMPERATURE AS PER LOCAL JURISDICTION.
9. WATER HAMMER ARRESTOR (HYDRA-RESTER). SIOUX CHIEF OR EQUAL FOR FIXTURES IN CHASE. WATER HAMMER ARRESTOR, SIZE AS PER MANUFACTURER'S SIZING TABLE.
10. PROVIDE POINT OF USE INSTANTANEOUS WATER HEATER IN CHASE TO SERVE 2 LAVATORIES.

NO.	REVISIONS	DATE APPROVED

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PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

PC1.1 SHEET

ABBREV. DESCRIPTION

AC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
ASA	AMERICAN STANDARDS ASSOCIATION
ASME	AMERICAN SOICIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AW	ACID WASTE
AWWA	AMERICAN WATER WORKS ASSOCIATION
AV	ACID VENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMPRESSED AIR
CI	CAST IRON
CO	CLEANOUT
CU	COPPER
DN	DOWN
EQ	EQUAL
FCO	FLOOR CLEANOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
GAL	GALLON(S)
GALV	GALVANIZED
GW	GREASE WASTE
HB	HOSE BIBB
HP	HORESPOWER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
RD	ROOF DRAIN(S)
RE:4/P6	REFER TO DETAIL 4 DRAWING P-6
RO	REVERSE OSMOSIS
SD	STORM DRAIN
SPEC	SPECIFICATION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
VTR	VENT THRU ROOF
V	VACUUM
W/	WITH
WCO	WALL CLEAN OUT
YCO	YARD CLEAN OUT

PLUMBING PIPING MATERIAL:

1. SANITARY DRAIN & VENT INSIDE BUILDING BELOW GRADE:
   SCHEDULE 40 PVC
2. SANITARY DRAIN OUTSIDE BUILDING:
   SCHEDULE 40 PVC
3. SANITARY DRAIN & VENT INSIDE BUILDING ABOVE GRADE:
   SCHEDULE 40 PVC
4. SANITARY DRAIN & VENT IN PLENUM CEILING:
   NO-HUB CAST IRON
5. DOMESTIC HOT & COLD WATER:
   COPPER, TYPE "L" HARD DRAWN
6. DOMESTIC WATER BELOW GRADE:
   COPPER, TYPE "K" SOFT ANNEALED
7. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING 2" SIZE AND SMALLER:
   COPPER, TYPE "L" HARD DRAWN
8. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING OVER 2" SIZE:
   SDR 26 CLASS 160 PVC

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
		San. Sewer	Vent	Cold Water	Hot Water	
WC-1	WATER CLOSET HANDICAPPED	4"	2"	1"	-	STAINLESS STEEL, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD, ACORN DURA WARE SIPHON JET TOILET MODEL " 2120-T-3-HS" COMPLETE WITH 1.6 GPF, WITH SLOAN "ROYAL" FLUSH MODEL "111" WITH TRAP PRIMER CONNECTION WHERE REQUIRED AND ADA INTEGRAL SEAT TO MEET HANDICAPPED HEIGHT.
UR-1	URINAL STD & HANDICAPPED REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	3"	2"	3/4"	-	STAINLESS STEEL, WALL HUNG, WITH 3/4" TOP SPUD AND WALL HANGERS. MINIMUM 14" RIM TO WALL DISTANCE. EQUAL TO ACORN DURA WARE MODEL # "2167-T-1-ADA". WITH EXPOSED SLOAN ROYAL "186-1" FLUSH VALVE. WITH APPROVED CARRIER.
L-1	STAINLESS STEEL LAVATORY WALL HUNG REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	2"	2"	1/2"	-	STAINLESS STEEL, WALL-HUNG LAVATORY WITH CENTER FAUCET HOLE EQUAL TO ACORN DURA WARE MODEL "1953-ADA-H1-LC-1PT-GT", COMPLETE WITH LAVATORY FAUCET "333-665", CHROME PLATED PUSH HANDLE, COLD INDEX ON HANDLE, 2.0 GPM FLOW, ADA APPROVED, WITH CARRIER, AND PROTECTIVE COVER ON P-TRAP.
EDF-1	ELECTRIC WATER COOLER REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	2"	2"	1/2"	-	ELKAY COOLER WALL MOUNT BI-LEVEL ADA VANDAL-RESISTANT, FROST RESISTANT, NON-FILTERED 8 GPH STAINLESS MODEL VRCTLFR8SC. SELF-CONTAINED, DOUBLE WALL HUNG ELECTRIC REFRIGERATED, WATER VANDAL-RESISTANT UNIT FOR USE IN HIGH DEMAND LOCATIONS WHERE VANDALISM MAY OCCUR, RATED FOR INDOOR OR OUTDOOR USE. COMPLETE WITH EWF172WATERSENTRY VII FILTER KIT AND IN WALL CARRIER MOUNTING SYSTEM MODEL MLP200.
FD-1	GENERAL DUTY FLOOR DRAIN	3"	2"	-	-	CAST IRON FLOOR DRAIN EQUAL TO WADE "1100". COMPLETE WITH NICKEL BRONZE STRAINER, AND 1/2" TRAP PRIMER CONNECTION.
HB-1	WALL HYDRANT	-	-	3/4"	-	ANTI-SIPHON, FREESELESS, WALL HYDRANT EQUAL TO WOODFORD "B65". COMPLETE WITH CHROME FINISH BOX AND DOOR, OPERATING LOOSE TEE KEY HANDLE, AND 3/4" INLET CONNECTION.
HB-2	HOSE BIB	-	-	3/4"	-	BACKFLOW PROTECTED, EXPOSED, WALL FAUCET EQUAL TO WOODFORD "B24". COMPLETE WITH BRASS FINISH, OPERATING LOOSE TEE KEY HANDLE, AND 3/4" INLET CONNECTION AT RESTROOMS.
FCO	FLOOR CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C1100-R-1" ADJUSTABLE FLOOR CLEANOUT, COMPLETE WITH NICKEL BRONZE TOP ASSEMBLY, LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, AND PRIMARY GASKET SEAL.
YCO	YARD CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C-1220" LACQUERED CAST IRON CLEANOUT, THREADED BRONZE PLUG FOR AIR TIGHT SEAL AND STANDARD REINFORCED SATIN FINISHED NICKEL BRONZE ADJUSTABLE TOP ASSEMBLY.

NOTES:

1.) INSULATE ALL WATER AND WASTE PIPING UNDER LAVATORIES WITH HANDY-SHIELD JACKET BY PLUMBEREX.

2.) PROVIDE SINGLE FIXTURE WATER HAMMER ARRESTORS EQUAL TO MINI-RESTER, HYDRA-RESTER SIOUX CHIEF. FOR ALL PLUMBING FIXTURES IN THE WATER SUPPLY SYSTEM.

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE

MARK	MODEL	VOLTAGE	KW	AMPS	DEGREE RISE AT 0.5 GPM	WATER INLET	WATER OUTLET	MANUFACTURER
IWH-1	EX48T ML	240/1Ø	4.8	20	64	3/8"	3/8"	EEMAX "SINGLE POINT" WATER HEATER

PLUMBING GENERAL NOTES: (ALL SHEETS)

A. ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.

B. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH ALL ELECTRICAL WORK, MECH'L WORK AND STRUCTURAL MEMBERS. COORDINATE WITH MECHANICAL, ELEC'L AND STRUCTURAL FOR PROPER CLEARANCES.

C. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION OF WORK.

D. SLEEVE ALL OUTSIDE WALL, FLOOR SLAB, AND GRADE BEAM PENETRATIONS PER DETAILS AND PER CODE.

E. LOCATE ALL PLUMBING VENTS TO ROOF (VTR) SO THAT THEY TERMINATE A MINIMUM OF 1'-0" AWAY FROM ANY VERTICAL SURFACE AND 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKES.

F. RECORD INVERT ELEVATIONS OF ALL YCO'S ON "AS-BUILT" DRAWINGS.

G. MINIMUM 3" WASTE LINE BELOW FLOOR AND MINIMUM 2" WASTE RISER. UNLESS NOTED OTHERWISE (UNO).

S. PLUMBING CONTRACTOR SHALL PAY FOR ALL UTILITY CONNECTIONS FEES, PERMITS, TESTS AND INSPECTIONS. FURNISH 3 COPIES OF INSPECTION CERTIFICATE BEFORE REQUESTING FINAL PAYMENT.

I. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIRING ALL AREAS WHICH ARE DAMAGED BY HIS OPERATIONS.

J. CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS.

K. PRESSURE TEST ALL INSTALLATIONS PRIOR TO CONNECTING EQUIPMENTS.

L. LABEL ALL PIPING PER ANSI STANDARD.

M. PROVIDE PROPER INSULATION ON ALL HOT WATER PIPING, STORM PIPING AND CONDENSATE PIPING.

N. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.

O. PROVIDE ANY BACK FLOW PREVENTION DEVICE REQUIRED BY CODE OR GOVERNING AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY OR LOCAL AGENCIES AND INCLUDE COST OF SAME IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.

P. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.

Q. ALL EXPOSED PIPING FOR DESIGNATED DISABLED ACCESS FIXTURES SHALL BE COVERED OR OTHERWISE WRAPPED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND LOCAL AUTHORITY.

R. ALTERNATE MATERIALS NOT IDENTIFIED IN SPECIFICATIONS/DRAWINGS BUT APPROVED BY LOCAL AUTHORITY SHALL BE SUBMITTED TO ARCHITECT AND PLUMBING ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

S. ISOMETRIC DIAGRAMS ARE FOR SIZING PURPOSES ONLY AND SHALL NOT BE USED FOR MATERIAL TAKE-OFFS, OR BE CONSTRUED TO INDICATE ACTUAL SITE INSTALLATION.

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

U. EVERY FLOOR DRAIN, FLOOR SINK OR HUB DRAIN SHALL BE SERVED BY AN AUTOMATIC TRAP PRIMER, UNO.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BALL VALVE		DOMESTIC COLD WATER
	CHECK VALVE		DOMESTIC HOT WATER
	GATE VALVE		DOMESTIC HOT WATER RETURN
	UNION		SANITARY SEWER VENT
	DIRECTION OF FLOW		SANITARY WASTE LINE
	WALL CLEANOUT	140°	140° HOT WATER
	FLOOR CLEANOUT YARD CLEANOUT		SANITARY DIRECTION OF FLOW
	FLOOR SINK		BRANCH - TOP CONNECTION
	FLOOR DRAIN		PIPE RISER
	WALL HYDRANT OR HOSE BIBB		PIPE DROP
WHA	WATER HAMMER ARRESTOR		POINT OF CONNECTION (APPROXIMATED FIELD VERIFY EXACT POINT OF CONNECTION)

NOTE: 1. NOT ALL SYMBOLS USED ON THIS PROJECT
2. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDER SIDE OF WATER CLOSET OR DOOR OPENING.
3. INSTALL ADA APPROVED FLUSH VALVE HANDLE FOR ADA PLUMBING FIXTURES.

NO.	REVISIONS	DATE	APPROVED

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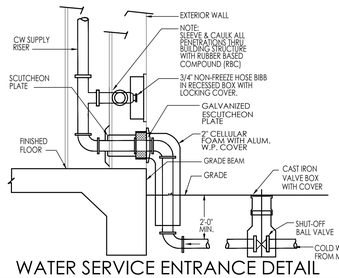
JOB NO.
FILE NO. dwg/psjs/reroofing 17-18

PC2.1 SHEET NO.

01



WATER SERVICE ENTRANCE DETAIL

NO SCALE

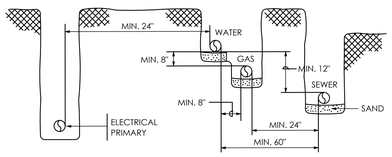
02

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



TRENCHING DETAIL

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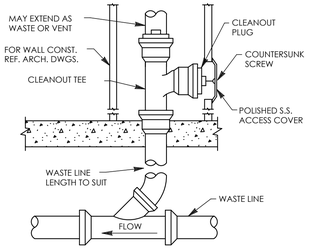
03



WALL CLEANOUT DETAIL

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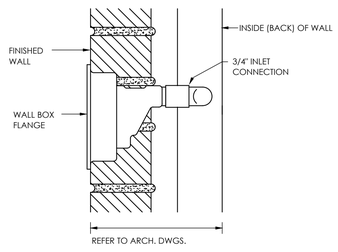
04



WALL HYDRANT DETAIL

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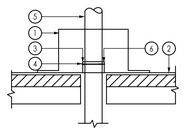
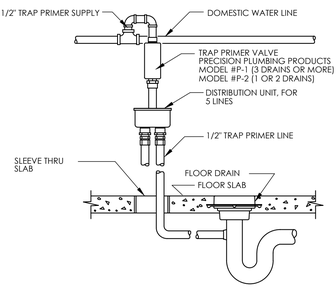


1. PREFABRICATED ROOF CURB. FURNISHED & INSTALLED BY ROOFING CONTR. (COORDINATE)
2. METAL ROOFING
3. STAINLESS STEEL CLAMP
4. SLEEVE PIPE BY ROOFING CONTR.
5. VTR
6. PROVIDE CAULKING GROVE
7. LOCATE MIN. 10'-0" FROM A/C AIR INTAKES

VENT THRU ROOF DETAIL

NO SCALE

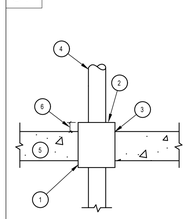
06



TRAP SEAL PRIMER DETAIL

NO SCALE

07

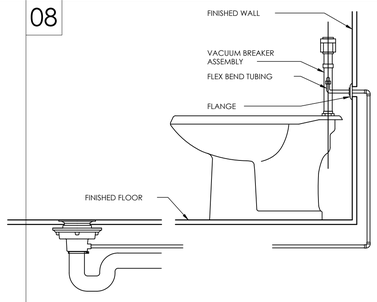


1. METAL SLEEVE TWO SIZES LARGER THAN PIPE
2. FILL VOID WITH NON-SHRINKING WATERPROOF, VERMIN PROOF MATERIAL
3. ALL PLUMBING PIPE PENETRATIONS THROUGH GROUND FLOOR, AND GRADE BEAMS SHALL BE SLEEVED
4. PIPE
5. CONCRETE SLAB
6. MINIMUM 2"

FLOOR PENETRATION DETAIL

NO SCALE

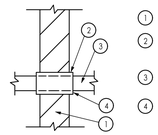
08



FLUSH VALVE TRAP SEAL PRIMER

NO SCALE

09

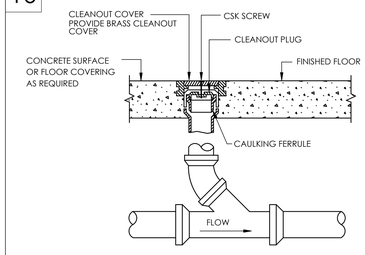


1. MASONRY WALL
2. GALVANIZED SCHEDULE 40 STEEL OR COPPER SLEEVE, SIZE TO BE MINIMUM 3/8" LARGER IN DIAMETER THAN PIPE AND INSULATION.
3. PLUMBING PIPE (RELIER LINES, DOMESTIC WATER, AIR, AND GAS PIPING).
4. FILL VOID WITH MINERAL WOOL AND CAULK VERMIN TIGHT.

WALL SLEEVE DETAIL

NO SCALE

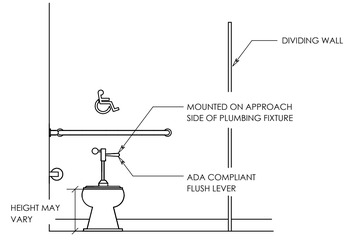
10



FLOOR CLEANOUT DETAIL

NO SCALE

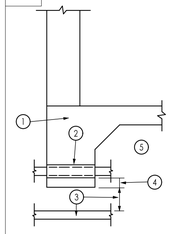
11



ADA WATER CLOSET DETAIL

NO SCALE

12

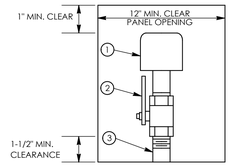


1. GRADE BEAM
2. GALVANIZED SCH 40 STEEL SLEEVE. SIZE PER SPECS. CENTER PIPE IN SLEEVE.
3. PIPING PASSING HORIZONTALLY UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
4. PIPING PASSING HORIZONTALLY THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
5. COORDINATE LOCATIONS OF PIPING IN 3,4,5 ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.

GRADE BEAM SLEEVE DETAIL

NO SCALE

13



1. WATER HAMMER ARRESTOR
2. BALL VALVE, SAME NOMINAL SIZE AS PIPE BRANCH, OPENING IN BALL VALVE TO MATCH PIPE I.D.
3. PIPE SAME SIZE AS BRANCH LINE TO WHICH IT IS ATTACHED.

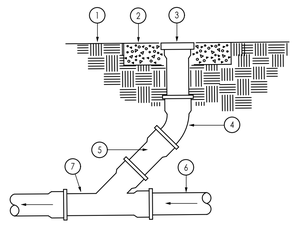
NOTE: PROVIDE REDUCER IF REQUIRED BETWEEN VALVE AND WATER HAMMER ARRESTOR.

DIMENSIONS FOR MIN. PANEL SIZE AND OPENING IF WATER HAMMER ARRESTOR IS LOCATED IN WALL. LOCKING PANEL COLOR TO BE DETERMINED BY ARCHITECT.

WATER HAMMER ARRESTOR DETAIL

NO SCALE

15

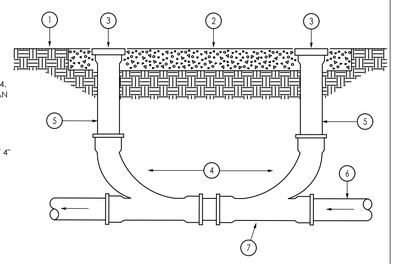


1. GRADE LEVEL
2. 24" X 24" X 6" CONCRETE PAD.
3. CLEANOUT FITTING ZURN ZN-1400-4, (SEE SPECS.) PROVIDE BRASS CLEAN OUT COVER.
4. 1/8 BEND.
5. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED.
6. SEWER LINE.
7. 1/8 BEND (END OF LINE) OR "Y" FITTING.

YARD CLEANOUT DETAIL

NO SCALE

16

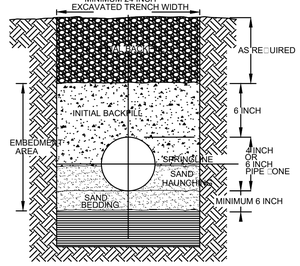


1. GRADE LEVEL
2. 24" X 6" X LENGTH AS REQUIRED CONCRETE PAD.
3. CLEANOUT FITTING ZURN ZN-1400-4, (SEE SPECS.) PROVIDE BRASS CLEAN OUT COVER.
4. LONG SWEEP.
5. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED.
6. SEWER LINE.
7. 1/8 BEND (END OF LINE) OR "Y" FITTING.

2-WAY YARD CLEANOUT DETAIL

NO SCALE

17



UNDERGROUND INSTALLATION OF PLASTIC PIPE

PLASTIC PIPE SHOULD ALWAYS BE BURIED IN STRICT ACCORDANCE WITH THE ASTM STANDARD RELEVANT TO THE TYPE OF PLASTIC PIPING SYSTEM BEING INSTALLED. THOSE STANDARDS ARE:

ASTM D2321 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS.
ASTM D2774 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING.

NOTE: IN ADDITION TO THESE STANDARDS, PIPE SHOULD ALWAYS BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODE REQUIREMENTS.

RECOMMENDATIONS FOR UNDERGROUND INSTALLATION OF PLASTIC DRAINAGE PIPE:

1. THE MINIMUM WIDTH OF THE TRENCH SHOULD BE THE PIPE OD (OUTSIDE DIAMETER) PLUS 16 INCHES OR THE PIPE OUTSIDE DIAMETER TIMES 1.25 PLUS 12 INCHES. THIS WILL ALLOW ADE□UATE ROOM FOR JOINING THE PIPE, SNAKING THE PIPE IN THE TRENCH TO ALLOW FOR EXPANSION AND CONTRACTION WHERE APPROPRIATE AND SPACE FOR BACKFILLING AND COMPACTION OF BACKFILL. THE SPACE BETWEEN THE PIPE AND TRENCH WALL MUST BE WIDER THAN THE COMPACTION E□UIPMENT USED TO COMPACT THE BACKFILL.
2. PROVIDE A MINIMUM OF 6 INCHES OF FIRM, STABLE AND UNIFORM SAND BEDDING IN THE TRENCH BOTTOM. IF ROCK OR UNYIELDING MATERIAL IS ENCOUNTERED, A MINIMUM OF 8 INCHES OF SAND BEDDING SHALL BE USED. BLOCKING SHOULD NOT BE USED TO CHANGE PIPE GRADE OR TO INTERMITTENTLY SUPPORT PIPE OVER LOW SECTIONS IN THE TRENCH.
3. THE PIPE SHOULD BE SURROUNDED WITH AN AGGREGATE MATERIAL WHICH CAN BE EASILY WORKED AROUND THE SIDES OF THE PIPE. BACKFILLING SHOULD BE PERFORMED IN LAYERS OF 6 INCHES WITH EACH LAYER BEING SUFFICIENTLY COMPACTED TO 85% TO 95% COMPACTION.
4. A MECHANICAL TAMPER IS RECOMMENDED FOR COMPACTING SAND AND GRAVEL. THESE MATERIALS CONTAIN FINE-GRAINS, SUCH AS SILT AND CLAY. IF A TAMPER IS NOT AVAILABLE, COMPACTING SHOULD BE DONE BY HAND.
5. THE TRENCH SHOULD BE COMPLETELY FILLED. THE BACKFILL SHOULD BE PLACED AND SPREAD IN UNIFORM LAYERS TO PREVENT ANY UNFILLED SPACES OR VOIDS. LARGE ROCKS, STONES, FRO□EN CLODS, OR OTHER LARGE DEBRIS SHOULD BE REMOVED. STONE BACKFILL SHALL PASS THROUGH AN 1-1/2" SIEVE. ROCK SI□E ONE-TENTH OF THE PIPE OUTSIDE DIAMETER. HEAVY TAMPERS OR ROLLING E□UIPMENT SHOULD SHOULD BE ABOUT ONLY BE USED TO CONSOLIDATE THE FINAL BACKFILL.
6. TO PREVENT DAMAGE TO THE PIPE AND DISTURBANCE TO PIPE EMBEDMENT, A MINIMUM DEPTH OF BACKFILL ABOVE THE PIPE SHOULD BE MAINTAINED. PIPE SHOULD ALWAYS BE INSTALLED BELOW THE FROST LEVEL. TYPICALLY, IT IS NOT ADVISABLE TO ALLOW VEHICULAR TRAFFIC OR HEAVY CONSTRUCTION E□UIPMENT TO TRAVERSE THE PIPE TRENCH.

UNDERGROUND INSTALLATION DETAIL OF PLASTIC PIPING SYSTEMS

NO SCALE

NO.	REVISIONS	DATE APPROVED

DATE:
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SCALE:

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Texas Registered Engineering Firm - F10362
Project number: 19.1.32

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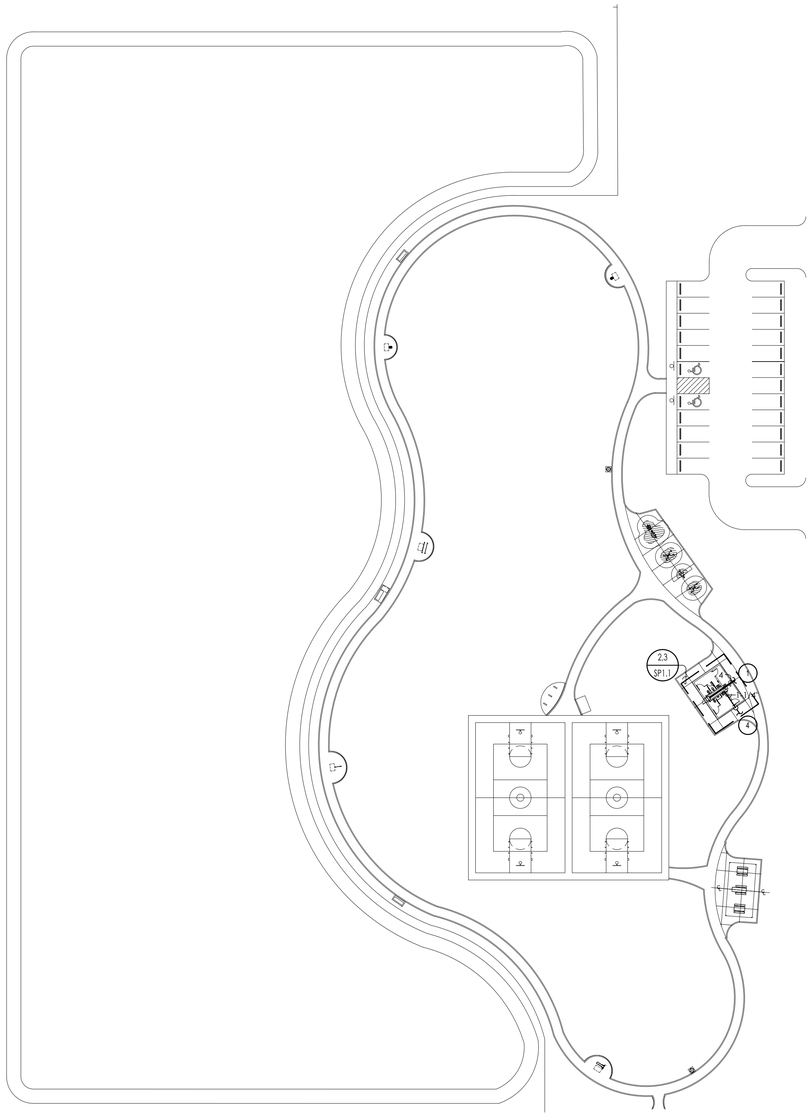
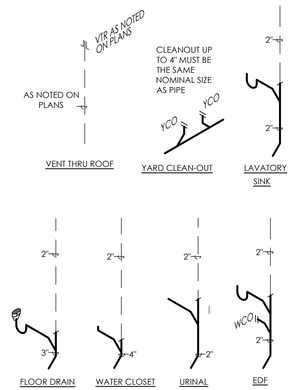
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjs/reroofing 17-18

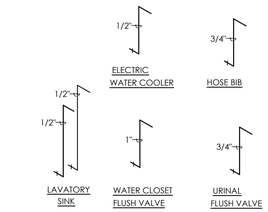
PC3



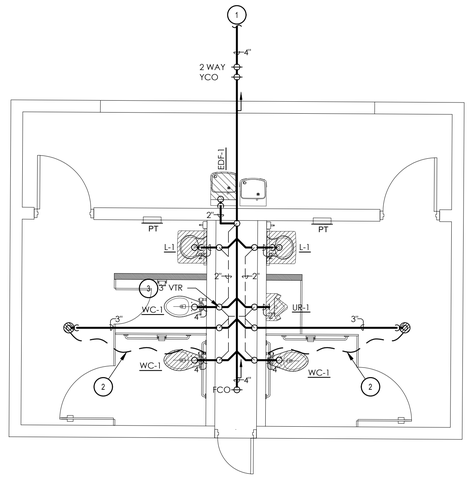
SANTOS LIVAS ELEM.
PLUMBING SITE PLAN
1 1"=40'-0"



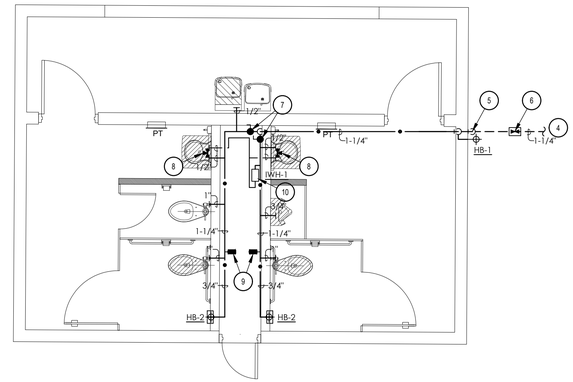
SEWER & VENT
TYPICAL RISER SCHEMATIC
4 NTS



DOMESTIC WATER
TYPICAL RISER SCHEMATIC
5 NTS



SEWER & VENT
PLUMBING FLOOR PLAN
2 1/4"=1'-0"



DOMESTIC WATER
PLUMBING FLOOR PLAN
3 1/4"=1'-0"

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

KEYED NOTES: PLUMBING

1. REFER TO CIVIL SITE PLAN FOR CONTINUATION OF PLUMBING FIVE FEET AWAY FROM BUILDING. PLUMBING CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION, VERIFICATION AND CONNECTION OF ALL UTILITIES TO SITE UTILITY STUB-OUTS. CONTRACTOR SHALL VERIFY LOCATIONS, INVERT SLOPE, ELEVATION, AND DIRECTION OF FLOW WITH CIVIL ENGINEERING DRAWINGS.
2. 1/2" COPPER FROM TRAP PRIMER COVER WITH POLYETHYLENE SLEEVE "POLY SLEEVE" OR EQUAL. PROVIDE FLUSHVALVE TRAP SEAL PRIMER EQUAL TO SLOAN V8F-72-A. SEE DETAIL 08/CP3.1.
3. KEEP ALL VENT THRU ROOF (VTR) AT LEAST 10 FEET AWAY OR 5 FEET ABOVE FROM ANY FRESH AIR INTAKE COORDINATE LOCATION OF ALL VTRs WITH HVAC CONTRACTOR.
4. REFER TO CIVIL SITE PLAN FOR CONTINUATION OF OF PLUMBING FIVE FEET AWAY FROM BUILDING. PLUMBING CONTRACTOR TO BE RESPONSIBLE FOR COORDINATION, VERIFICATION AND CONNECTION OF ALL UTILITIES TO SITE UTILITY STUB-OUTS. PROVIDE 1" WATER METER AND BACKFLOW PREVENTER AS REQUIRED.
5. WATER SERVICE ENTRANCE. REFER TO DETAIL 01/SP3.1.
6. CUT-OFF VALVE IN CAST IRON BOX. SET BOX FLUSH WITH FINISHED FLOOR.
7. BRONZE CUT-OFF VALVE.
8. PROVIDE SINK/LAV WITH SINGLE OUTLET THERMOSTATIC MIXING VALVE (TMV). WATTS LFMMV-US-M1. SET TEMPERATURE AS PER LOCAL JURISDICTION.
9. WATER HAMMER ARRESTOR (HYDRA-RESTER), SIOUX CHIEF OR EQUAL FOR FIXTURES IN CHASE. WATER HAMMER ARRESTOR, SIZE AS PER MANUFACTURER'S SIZING TABLE.
10. PROVIDE POINT OF USE INSTANTANEOUS WATER HEATER IN CHASE TO SERVE 2 LAVATORIES.

NO.	REVISIONS	DATE APPROVED

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CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

PS1.1 SHEET OF

ABBREV. DESCRIPTION

AC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
ASA	AMERICAN STANDARDS ASSOCIATION
ASME	AMERICAN SOICIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AW	ACID WASTE
AWWA	AMERICAN WATER WORKS ASSOCIATION
AV	ACID VENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMPRESSED AIR
CI	CAST IRON
CO	CLEANOUT
CU	COPPER
DN	DOWN
EQ	EQUAL
FCO	FLOOR CLEANOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
GAL	GALLON(S)
GALV	GALVANIZED
GW	GREASE WASTE
HB	HOSE BIBB
HP	HORESPOWER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
RD	ROOF DRAIN(S)
RE:4/P6	REFER TO DETAIL 4 DRAWING P-6
RO	REVERSE OSMOSIS
SD	STORM DRAIN
SPEC	SPECIFICATION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
VTR	VENT THRU ROOF
V	VACUUM
W/	WITH
WCO	WALL CLEAN OUT
YCO	YARD CLEAN OUT

PLUMBING PIPING MATERIAL:

1. SANITARY DRAIN & VENT INSIDE BUILDING BELOW GRADE: SCHEDULE 40 PVC
2. SANITARY DRAIN OUTSIDE BUILDING: SCHEDULE 40 PVC
3. SANITARY DRAIN & VENT INSIDE BUILDING ABOVE GRADE: SCHEDULE 40 PVC
4. SANITARY DRAIN & VENT IN PLENUM CEILING: NO-HUB CAST IRON
5. DOMESTIC HOT & COLD WATER: COPPER, TYPE "L" HARD DRAWN
6. DOMESTIC WATER BELOW GRADE: COPPER, TYPE "K" SOFT ANNEALED
7. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING 2" SIZE AND SMALLER: COPPER, TYPE "L" HARD DRAWN
8. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING OVER 2" SIZE: SDR 26 CLASS 160 PVC

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
		San. Sewer	Vent	Cold Water	Hot Water	
WC-1	WATER CLOSET HANDICAPPED	4"	2"	1"	-	STAINLESS STEEL, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD, ACORN DURA WARE SIPHON JET TOILET MODEL " 2120-T-3-HS" COMPLETE WITH 1.6 GPF, WITH SLOAN "ROYAL" FLUSH MODEL "111" WITH TRAP PRIMER CONNECTION WHERE REQUIRED AND ADA INTEGRAL SEAT TO MEET HANDICAPPED HEIGHT.
UR-1	URINAL STD & HANDICAPPED REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	3"	2"	3/4"	-	STAINLESS STEEL, WALL HUNG, WITH 3/4" TOP SPUD AND WALL HANGERS. MINIMUM 14" RIM TO WALL DISTANCE. EQUAL TO ACORN DURA WARE MODEL # "2167-T-1-ADA", WITH EXPOSED SLOAN ROYAL "186-1" FLUSH VALVE. WITH APPROVED CARRIER.
L-1	STAINLESS STEEL LAVATORY WALL HUNG REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	2"	2"	1/2"	-	STAINLESS STEEL, WALL-HUNG LAVATORY WITH CENTER FAUCET HOLE EQUAL TO ACORN DURA WARE MODEL "1953-ADA-H1-LC-1PT-GT", COMPLETE WITH LAVATORY FAUCET "333-665", CHROME PLATED PUSH HANDLE, COLD INDEX ON HANDLE, 2.0 GPM FLOW, ADA APPROVED, WITH CARRIER, AND PROTECTIVE COVER ON P-TRAP.
EDF-1	ELECTRIC WATER COOLER REFER TO ARCH'L DWG FOR MOUNTING HEIGHT	2"	2"	1/2"	-	ELKAY COOLER WALL MOUNT BI-LEVEL ADA VANDAL-RESISTANT, FROST RESISTANT, NON-FILTERED 8 GPH STAINLESS MODEL VRCTLFR8SC, SELF-CONTAINED, DOUBLE WALL HUNG ELECTRIC REFRIGERATED, WATER VANDAL-RESISTANT UNIT FOR USE IN HIGH DEMAND LOCATIONS WHERE VANDALISM MAY OCCUR, RATED FOR INDOOR OR OUTDOOR USE. COMPLETE WITH EWF172WATERSENTRY VII FILTER KIT AND IN WALL CARRIER MOUNTING SYSTEM MODEL MLP200.
FD-1	GENERAL DUTY FLOOR DRAIN	3"	2"	-	-	CAST IRON FLOOR DRAIN EQUAL TO WADE "1100", COMPLETE WITH NICKEL BRONZE STRAINER, AND 1/2" TRAP PRIMER CONNECTION.
HB-1	WALL HYDRANT	-	-	3/4"	-	ANTI-SIPHON, FREESELESS, WALL HYDRANT EQUAL TO WOODFORD "B65", COMPLETE WITH CHROME FINISH BOX AND DOOR, OPERATING LOOSE TEE KEY HANDLE, AND 3/4" INLET CONNECTION.
HB-2	HOSE BIB	-	-	3/4"	-	BACKFLOW PROTECTED, EXPOSED, WALL FAUCET EQUAL TO WOODFORD "B24". COMPLETE WITH BRASS FINISH, OPERATING LOOSE TEE KEY HANDLE, AND 3/4" INLET CONNECTION AT RESTROOMS.
FCO	FLOOR CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C1100-R-1" ADJUSTABLE FLOOR CLEANOUT, COMPLETE WITH NICKEL BRONZE TOP ASSEMBLY, LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, AND PRIMARY GASKET SEAL.
YCO	YARD CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C-1220" LACQUERED CAST IRON CLEANOUT, THREADED BRONZE PLUG FOR AIR TIGHT SEAL AND STANDARD REINFORCED SATIN FINISHED NICKEL BRONZE ADJUSTABLE TOP ASSEMBLY.

NOTES:

1.) INSULATE ALL WATER AND WASTE PIPING UNDER LAVATORIES WITH HANDY-SHIELD JACKET BY PLUMBEREX.

2.) PROVIDE SINGLE FIXTURE WATER HAMMER ARRESTORS EQUAL TO MINI-RESTER, HYDRA-RESTER SIOUX CHIEF, FOR ALL PLUMBING FIXTURES IN THE WATER SUPPLY SYSTEM.

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE

MARK	MODEL	VOLTAGE	KW	AMPS	DEGREE RISE AT 0.5 GPM	WATER INLET	WATER OUTLET	MANUFACTURER
IWH-1	EX48T ML	240/1Ø	4.8	20	64	3/8"	3/8"	EEMAX "SINGLE POINT" WATER HEATER

PLUMBING GENERAL NOTES: (ALL SHEETS)

A. ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.

B. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH ALL ELECTRICAL WORK, MECH'L WORK AND STRUCTURAL MEMBERS. COORDINATE WITH MECHANICAL, ELEC'L AND STRUCTURAL FOR PROPER CLEARANCES.

C. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION OF WORK.

D. SLEEVE ALL OUTSIDE WALL, FLOOR SLAB, AND GRADE BEAM PENETRATIONS PER DETAILS AND PER CODE.

E. LOCATE ALL PLUMBING VENTS TO ROOF (VTR) SO THAT THEY TERMINATE A MINIMUM OF 1'-0" AWAY FROM ANY VERTICAL SURFACE AND 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKES.

F. RECORD INVERT ELEVATIONS OF ALL YCO'S ON "AS-BUILT" DRAWINGS.

G. MINIMUM 3" WASTE LINE BELOW FLOOR AND MINIMUM 2" WASTE RISER. UNLESS NOTED OTHERWISE (UNO).

S. PLUMBING CONTRACTOR SHALL PAY FOR ALL UTILITY CONNECTIONS FEES, PERMITS, TESTS AND INSPECTIONS. FURNISH 3 COPIES OF INSPECTION CERTIFICATE BEFORE REQUESTING FINAL PAYMENT.

I. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIRING ALL AREAS WHICH ARE DAMAGED BY HIS OPERATIONS.

J. CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW, HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS.

K. PRESSURE TEST ALL INSTALLATIONS PRIOR TO CONNECTING EQUIPMENTS.

L. LABEL ALL PIPING PER ANSI STANDARD.

M. PROVIDE PROPER INSULATION ON ALL HOT WATER PIPING, STORM PIPING AND CONDENSATE PIPING.

N. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.

O. PROVIDE ANY BACK FLOW PREVENTION DEVICE REQUIRED BY CODE OR GOVERNING AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY OR LOCAL AGENCIES AND INCLUDE COST OF SAME IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.

P. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.

Q. ALL EXPOSED PIPING FOR DESIGNATED DISABLED ACCESS FIXTURES SHALL BE COVERED OR OTHERWISE WRAPPED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND LOCAL AUTHORITY.

R. ALTERNATE MATERIALS NOT IDENTIFIED IN SPECIFICATIONS/DRAWINGS BUT APPROVED BY LOCAL AUTHORITY SHALL BE SUBMITTED TO ARCHITECT AND PLUMBING ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

S. ISOMETRIC DIAGRAMS ARE FOR SIZING PURPOSES ONLY AND SHALL NOT BE USED FOR MATERIAL TAKE-OFFS, OR BE CONSTRUED TO INDICATE ACTUAL SITE INSTALLATION.

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

U. EVERY FLOOR DRAIN, FLOOR SINK OR HUB DRAIN SHALL BE SERVED BY AN AUTOMATIC TRAP PRIMER, UNO.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BALL VALVE		DOMESTIC COLD WATER
	CHECK VALVE		DOMESTIC HOT WATER
	GATE VALVE		DOMESTIC HOT WATER RETURN
	UNION		SANITARY SEWER VENT
	DIRECTION OF FLOW		SANITARY WASTE LINE
	WALL CLEANOUT	140°	140° HOT WATER
	FLOOR CLEANOUT YARD CLEANOUT		SANITARY DIRECTION OF FLOW
	FLOOR SINK		BRANCH - TOP CONNECTION
	FLOOR DRAIN		PIPE RISER
	WALL HYDRANT OR HOSE BIBB		PIPE DROP
WHA	WATER HAMMER ARRESTOR		POINT OF CONNECTION (APPROXIMATED FIELD VERIFY EXACT POINT OF CONNECTION)

NOTE: 1. NOT ALL SYMBOLS USED ON THIS PROJECT
2. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDER SIDE OF WATER CLOSET OR DOOR OPENING.
3. INSTALL ADA APPROVED FLUSH VALVE HANDLE FOR ADA PLUMBING FIXTURES.

NO.	REVISIONS	DATE	APPROVED

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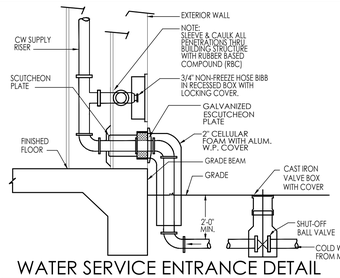
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

PS2.1 SHEET OF

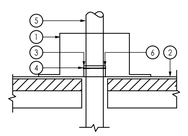
01



WATER SERVICE ENTRANCE DETAIL

NO SCALE

05

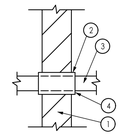


1. PREFABRICATED ROOF CURB, FURNISHED & INSTALLED BY ROOFING CONTR. (COORDINATE)
2. METAL ROOFING
3. STAINLESS STEEL CLAMP
4. SLEEVE PIPE BY ROOFING CONTR.
5. VTR
6. PROVIDE CAULKING GROVE
7. LOCATE MIN. 10'-0" FROM A/C AIR INTAKES

VENT THRU ROOF DETAIL

NO SCALE

09

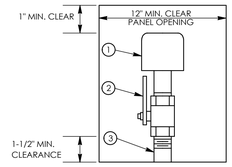


1. MASONRY WALL
2. GALVANIZED SCHEDULE 40 STEEL OR COPPER SLEEVE. SIZE TO BE MINIMUM 3/8" LARGER IN DIAMETER THAN PIPE AND INSULATION.
3. PLUMBING PIPE (RELIER LINES, DOMESTIC WATER, AIR, AND GAS PIPING).
4. FILL VOID WITH MINERAL WOOL AND CAULK VERMIN TIGHT.

WALL SLEEVE DETAIL

NO SCALE

13



1. WATER HAMMER ARRESTOR
2. BALL VALVE, SAME NOMINAL SIZE AS PIPE BRANCH. OPENING IN BALL VALVE TO MATCH PIPE I.D.
3. PIPE SAME SIZE AS BRANCH LINE TO WHICH IT IS ATTACHED.

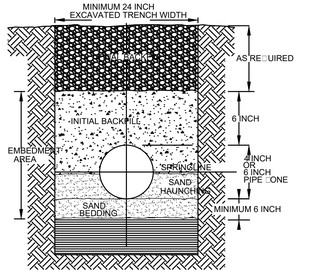
NOTE: PROVIDE REDUCER IF REQUIRED BETWEEN VALVE AND WATER HAMMER ARRESTOR.

DIMENSIONS FOR MIN. PANEL SIZE AND OPENING IF WATER HAMMER ARRESTOR IS LOCATED IN WALL. LOCKING PANEL COLOR TO BE DETERMINED BY ARCHITECT.

WATER HAMMER ARRESTOR DETAIL

NO SCALE

17



UNDERGROUND INSTALLATION OF PLASTIC PIPE

PLASTIC PIPE SHOULD ALWAYS BE BURIED IN STRICT ACCORDANCE WITH THE ASTM STANDARD RELEVANT TO THE TYPE OF PLASTIC PIPING SYSTEM BEING INSTALLED. THOSE STANDARDS ARE:

ASTM D2321 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS.

ASTM D2774 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING.

NOTE: IN ADDITION TO THESE STANDARDS, PIPE SHOULD ALWAYS BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODE REQUIREMENTS.

RECOMMENDATIONS FOR UNDERGROUND INSTALLATION OF PLASTIC DRAINAGE PIPE:

1. THE MINIMUM WIDTH OF THE TRENCH SHOULD BE THE PIPE OD (OUTSIDE DIAMETER) PLUS 16 INCHES OR THE PIPE OUTSIDE DIAMETER TIMES 1.25 PLUS 12 INCHES. THIS WILL ALLOW ADE□UATE ROOM FOR JOINING THE PIPE, SNAKING THE PIPE IN THE TRENCH TO ALLOW FOR EXPANSION AND CONTRACTION WHERE APPROPRIATE AND SPACE FOR BACKFILLING AND COMPACTION OF BACKFILL. THE SPACE BETWEEN THE PIPE AND TRENCH WALL MUST BE WIDER THAN THE COMPACTION E□UIPMENT USED TO COMPACT THE BACKFILL.
2. PROVIDE A MINIMUM OF 6 INCHES OF FIRM, STABLE AND UNIFORM SAND BEDDING IN THE TRENCH BOTTOM. IF ROCK OR UNYIELDING MATERIAL IS ENCOUNTERED, A MINIMUM OF 8 INCHES OF SAND BEDDING SHALL BE USED. BLOCKING SHOULD NOT BE USED TO CHANGE PIPE GRADE OR TO INTERMITTENTLY SUPPORT PIPE OVER LOW SECTIONS IN THE TRENCH.
3. THE PIPE SHOULD BE SURROUNDED WITH AN AGGREGATE MATERIAL WHICH CAN BE EASILY WORKED AROUND THE SIDES OF THE PIPE. BACKFILLING SHOULD BE PERFORMED IN LAYERS OF 6 INCHES WITH EACH LAYER BEING SUFFICIENTLY COMPACTED TO 85% TO 95% COMPACTION.
4. A MECHANICAL TAMPER IS RECOMMENDED FOR COMPACTING SAND AND GRAVEL. THESE MATERIALS CONTAIN FINE-GRAINS, SUCH AS SILT AND CLAY. IF A TAMPER IS NOT AVAILABLE, COMPACTING SHOULD BE DONE BY HAND.
5. THE TRENCH SHOULD BE COMPLETELY FILLED. THE BACKFILL SHOULD BE PLACED AND SPREAD IN UNIFORM LAYERS TO PREVENT ANY UNFILLED SPACES OR VOIDS. LARGE ROCKS, STONES, FRO□EN CLODS, OR OTHER LARGE DEBRIS SHOULD BE REMOVED. STONE BACKFILL SHALL PASS THROUGH AN 1-1.2" SIEVE. ROCK SI□E ONE-TENTH OF THE PIPE OUTSIDE DIAMETER. HEAVY TAMPERS OR ROLLING E□UIPMENT SHOULD SHOULD BE ABOUT ONLY BE USED TO CONSOLIDATE THE FINAL BACKFILL.
6. TO PREVENT DAMAGE TO THE PIPE AND DISTURBANCE TO PIPE EMBEDMENT, A MINIMUM DEPTH OF BACKFILL ABOVE THE PIPE SHOULD BE MAINTAINED. PIPE SHOULD ALWAYS BE INSTALLED BELOW THE FROST LEVEL. TYPICALLY, IT IS NOT ADVISABLE TO ALLOW VEHICULAR TRAFFIC OR HEAVY CONSTRUCTION E□UIPMENT TO TRAVERSE THE PIPE TRENCH.

UNDERGROUND INSTALLATION DETAIL OF PLASTIC PIPING SYSTEMS

NO SCALE

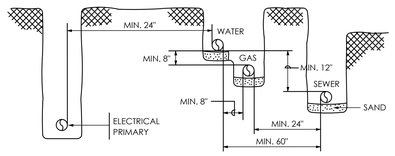
02

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

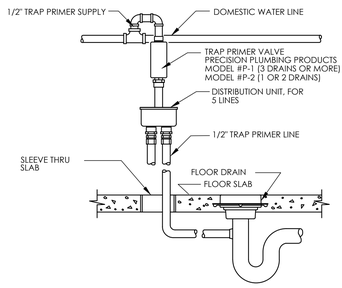
MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



TRENCHING DETAIL

NO SCALE

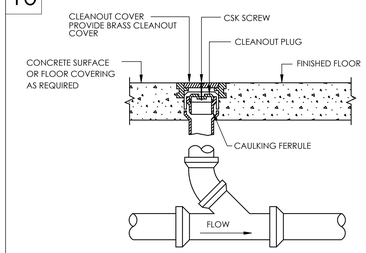
06



TRAP SEAL PRIMER DETAIL

NO SCALE

10

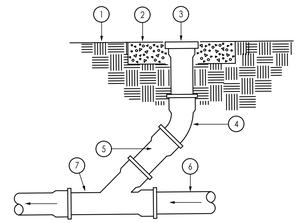


FLOOR CLEANOUT DETAIL

NO SCALE

15

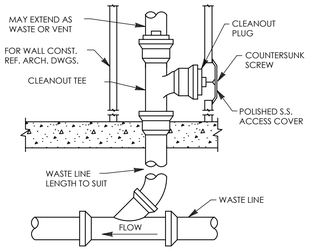
1. GRADE LEVEL
2. 24" X 24" X 6" CONCRETE PAD.
3. CLEANOUT FITTING ZURN ZN-1400-4, (SEE SPECS.) PROVIDE BRASS CLEAN OUT COVER.
4. 1/8 BEND.
5. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED.
6. SEWER LINE.
7. 1/8 BEND (END OF LINE) OR "Y" FITTING.



YARD CLEANOUT DETAIL

NO SCALE

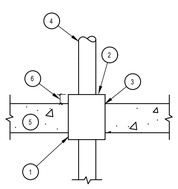
03



WALL CLEANOUT DETAIL

NO SCALE

07

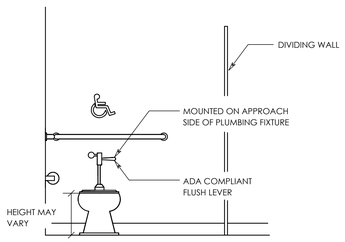


1. METAL SLEEVE TWO SIZES LARGER THAN PIPE
2. FILL VOID WITH NON-SHRINKING WATERPROOF, VERMIN PROOF MATERIAL
3. ALL PLUMBING PIPE PENETRATIONS THROUGH GROUND FLOOR, AND GRADE BEAMS SHALL BE SLEEVED
4. PIPE
5. CONCRETE SLAB
6. MINIMUM 2"

FLOOR PENETRATION DETAIL

NO SCALE

11

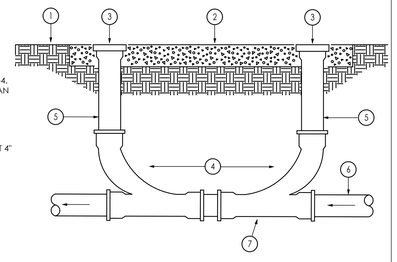


ADA WATER CLOSET DETAIL

NO SCALE

16

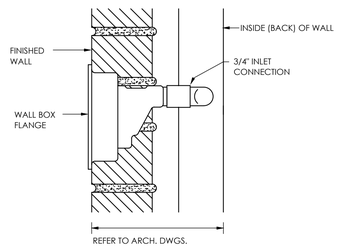
1. GRADE LEVEL
2. 24" X 6" X LENGTH AS REQUIRED CONCRETE PAD.
3. CLEANOUT FITTING ZURN ZN-1400-4, (SEE SPECS.) PROVIDE BRASS CLEAN OUT COVER.
4. LONG SWEEP.
5. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED.
6. SEWER LINE.
7. 1/8 BEND (END OF LINE) OR "Y" FITTING.



2-WAY YARD CLEANOUT DETAIL

NO SCALE

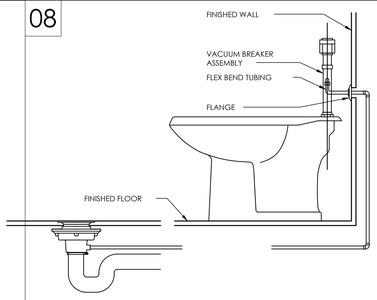
04



WALL HYDRANT DETAIL

NO SCALE

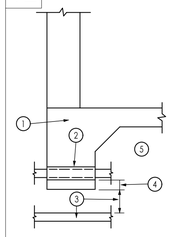
08



FLUSH VALVE TRAP SEAL PRIMER

NO SCALE

12



1. GRADE BEAM
2. GALVANIZED SCH 40 STEEL SLEEVE. SIZE PER SPECS. CENTER PIPE IN SLEEVE.
3. PIPING PASSING HORIZONTALLY UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
4. PIPING PASSING HORIZONTALLY THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
5. COORDINATE LOCATIONS OF PIPING IN 3,4,5 ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.

GRADE BEAM SLEEVE DETAIL

NO SCALE

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:			
DRAWN:			
CHECKED:			
SCALE:			

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
P.O.BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726

ARCHITECTS, INC.

04/15/19

STATE OF TEXAS
LEONARDO MUNOZ
97457
LICENSED ARCHITECT

TRINITY
MEP ENGINEERING
3533 Moreland Dr. Ste A. I Weslaco, Tx 78596
p:956.973.0500 I f:956-351-5750
www.trinitymep.com I Copyright 2019
Texas Registered Engineering Firm - F10362
Project number: 19.1.32

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.

FILE NO. dwg/psja/reroofing 17-18

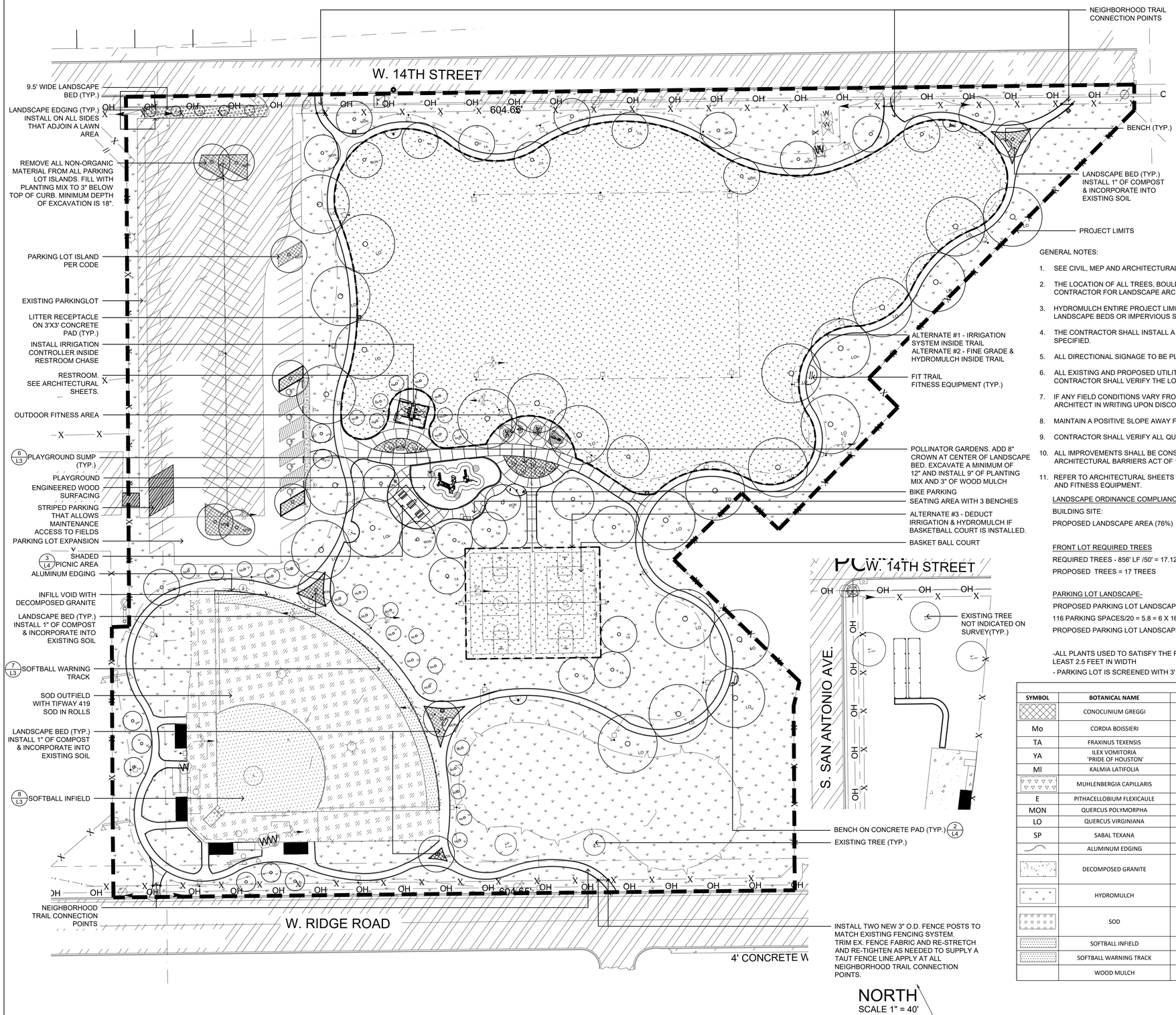
PS3.1 SHEET OF

PSJA ISD
CARMAN ELEM. & SANTOS LIVAS ELEM.
PLAYGROUND IMPROVEMENTS

CARMAN ELEMENTARY
100 W RIDGE ROAD
SAN JUAN, TX

SANTOS LIVAS ELEMENTARY
7399 NORTH ALAMO ROAD
ALAMO, TX

4-17-19 100% CONSTRUCTION DOCUMENTS



LANDSCAPE & IRRIGATION DRAWING INDEX

L1	CARMAN ELEMENTARY SITE PLAN
L2	SANTOS LIVAS ELEMENTARY SITE PLAN
L3	LANDSCAPE DETAILS
L4	LANDSCAPE DETAILS
IR1	SANTOS LIVAS IRRIGATION PLAN
IR2	CARMAN IRRIGATION PLAN
IR3	SANTOS LIVAS SCHEDULE & NOTES
IR4	CARMAN SCHEDULE & NOTES
IR5	IRRIGATION DETAILS

GENERAL NOTES:

1. SEE CIVIL, MEP AND ARCHITECTURAL SHEETS FOR ALL CIVIL, MEP AND ARCHITECTURAL IMPROVEMENTS.
2. THE LOCATION OF ALL TREES, BOULDERS, SHRUBS AND EDGING SHALL BE STAKED OR MARKED IN THE FIELD BY THE CONTRACTOR FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION.
3. HYDROMULCH ENTIRE PROJECT LIMITS AND ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. DO NOT HYDROMULCH LANDSCAPE BEDS OR IMPERVIOUS SURFACES.
4. THE CONTRACTOR SHALL INSTALL A 3" LAYER OF WOOD MULCH TO ALL LANDSCAPE BEDS, UNLESS ANOTHER MATERIAL IS SPECIFIED.
5. ALL DIRECTIONAL SIGNAGE TO BE PLACED INSIDE LANDSCAPE BEDS. SEE ARCHITECTURAL SHEETS FOR SIGNAGE.
6. ALL EXISTING AND PROPOSED UTILITIES ARE SHOWN SCHEMATICALLY AND ARE FOR THE CONTRACTORS REFERENCE. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK.
7. IF ANY FIELD CONDITIONS VARY FROM THE CONTRACT DOCUMENTS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING UPON DISCOVERY.
8. MAINTAIN A POSITIVE SLOPE AWAY FROM THE BUILDING FOUNDATION.
9. CONTRACTOR SHALL VERIFY ALL QUANTITIES AND NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
10. ALL IMPROVEMENTS SHALL BE CONSTRUCTED TO COMPLY WITH THE TEXAS ARCHITECTURAL BARRIERS ACTS AND THE ARCHITECTURAL BARRIERS ACT OF 1968.
11. REFER TO ARCHITECTURAL SHEETS FOR INFORMATION REGARDING PLAYGROUND EQUIPMENT & SURFACING, SHADE STRUCTURE, AND FITNESS EQUIPMENT.

LANDSCAPE ORDINANCE COMPLIANCE SCHEDULE

BUILDING SITE:	412,450 SF
PROPOSED LANDSCAPE AREA (76%)	313,084 SF

FRONT LOT REQUIRED TREES

REQUIRED TREES - 856' LF /50' = 17.12 = 17 TREES

PROPOSED TREES = 17 TREES

PARKING LOT LANDSCAPE-

PROPOSED PARKING LOT LANDSCAPING = 1,655 SF

116 PARKING SPACES/20 = 5.8 = 6 X 162 SF = 972 SF REQUIRED PARKING LOT LANDSCAPING

PROPOSED PARKING LOT LANDSCAPING = 1,655 SF

-ALL PLANTS USED TO SATISFY THE REQUIREMENTS OF THIS SECTION SHALL BE LOCATED IN LANDSCAPE AREAS THAT ARE LEAST 2.5 FEET IN WIDTH

- PARKING LOT IS SCREENED WITH 3' TALL PLANTINGS

LANDSCAPE MATERIAL SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	APPROX. QTY.	COMMENTS
	CONOCLINIUM GREGGI	GREGG'S MISTFLOWER	464	1 GALLON, 36" O.C. SPACING
Mo	CORDIA BOISSIERI	MEXICAN OLIVE TREE	28	2" CALIPER, B&B, UNIFORM SIZE & SHAPE
TA	FRAXINUS TEXENSIS	TEXAS ASH	14	3" CALIPER, B&B, 7' TALL
YA	ILEX VOMITORIA 'PRIDE OF HOUSTON'	PRIDE OF HOUSTON YAUPON HOLLY	5	15 GALLON, 1.5" CALIPER, 5' HT.
MI	KALMIA LATIFOLIA	MOUNTAIN LAUREL	8	5' HT., GRO-BAG
	MUHLENBERGIA CAPILLARIS	GULF MUHLY GRASS	181	1 GALLON, 30" O.C. SPACING
E	PITHACELLOBIUM FLEXICAULE	EBONY	3	2" CALIPER, B&B, 7' TALL
MON	QUERCUS POLYMORPHA	MONTERREY OAK	21	3" CALIPER, B&B, 7' TALL
LO	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	26	2" CALIPER, B&B, 7' TALL
SP	SABAL TEXANA	TEXAS SABAL PALM	8	6' CLR. TRUNK, FULLY BOOTED
	ALUMINUM EDGING		430 LF	4", MILL FINISH
	DECOMPOSED GRANITE		977 SF	AREA BETWEEN TRAIL AND WARNING TRACK. APPLY PRE-EMERGENT TO THE FINISHED SURFACE.
	HYDROMULCH	BERMUDA GRASS	BASE BID -174,431 SF ALTERNATE # 2- 117,888 SF	APPLY 1" OF COMPOST INCORPORATED INTO TOP 3" OF EX. SOIL
	SOD		9,280 SF	APPLY 5" OF TOPSOIL AND 1" OF COMPOST IN PREPARATION FOR SOD. LIGHTLY MIX AND ROLL TO COMPACT.BERMUDA GRASS TIF 419 - MUST BE IN ROLLS
	SOFTBALL INFIELD		7,351 SF	SEE DETAIL
	SOFTBALL WARNING TRACK		2,834 SF	SEE DETAIL
	WOOD MULCH	PREMIUM CYPRESS	4, 662 SF	3" LAYER WITHOUT A LAYER OF LANDSCAPE FABRIC

CARMAN ELEMENTARY SITE PLAN

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726

ARCHITECTS, INC.

REGISTERED LANDSCAPE ARCHITECT
ANDREW T. HEFFNER
2528
STATE OF TEXAS

HEFFNER DESIGN TEAM, PLLC
aheffner@heffnerdesignteam.com
4814 N. 11th St. Suite E
McALLEN, TX. 78504
(956) 540-7850

DATE: 4-17-19

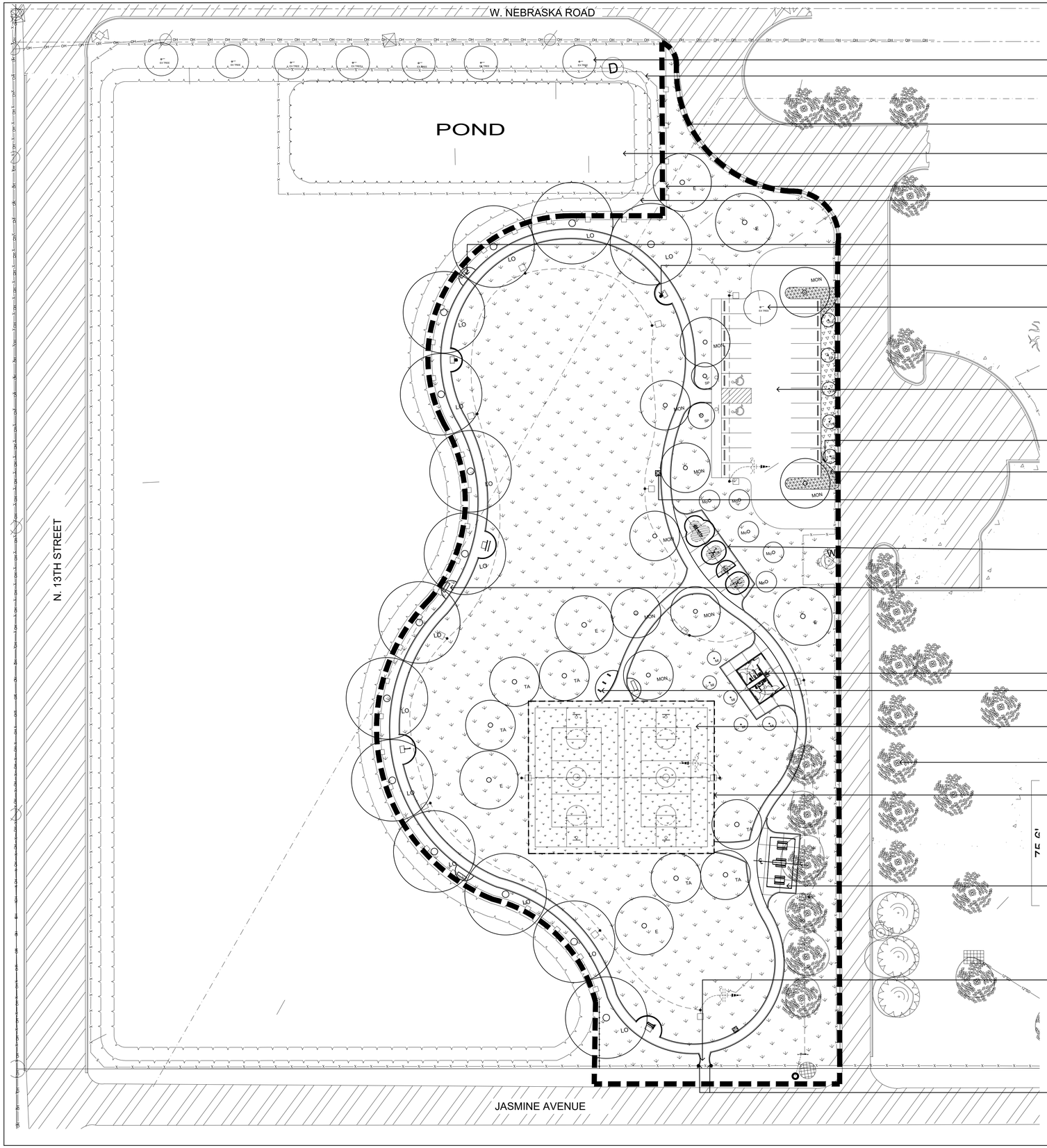
NO.	REVISIONS	DATE	APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

SHEET L1
OF



LANDSCAPE ORDINANCE COMPLIANCE SCHEDULE

BUILDING SITE: 119,795 SF

PROPOSED LANDSCAPE AREA (77%) 91,853 SF

FRONT LOT REQUIRED TREES

REQUIRED TREES - 350 LF /50' = 7 TREES

EXISTING TREES = 7 TREES

SIDE YARD PARKING AND VEHICLE AREA SCREENING

REQUIRED 115 LF X 25% = 29 LF

PROPOSED LENGTH OF SCREENING (100%) = 115 LF

29 LF OF REQUIRED SCREENING/50' = 0.58=1 TREES REQUIRED. 2 TREES PROPOSED.

PARKING LOT LANDSCAPE-

PROPOSED PARKING LOT LANDSCAPING = 1,720 SF

23 PARKING SPACES/20 = 1.15= 2 X 162 SF = 324 SF REQUIRED PARKING LOT LANDSCAPING

PROPOSED PARKING LOT LANDSCAPING = 1,700 SF

-ALL PLANTS USED TO SATISFY THE REQUIREMENTS OF THIS SECTION SHALL BE LOCATED IN LANDSCAPE AREAS THAT ARE LEAST 2.5 FEET IN WIDTH

-PARKING LOT IS SCREENED WITH 3' TALL PLANTING

LANDSCAPE MATERIAL SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	APPROX. QTY.	COMMENTS
Mo	CORDIA BOISSIERI	MEXICAN OLIVE TREE	5	2" CALIPER, B&B, UNIFORM SIZE & SHAPE
TA	FRAXINUS TEXENSIS	TEXAS ASH	6	3" CALIPER, B&B, 7' TALL
YA	ILEX VOMITORIA 'PRIDE OF HOUSTON'	PRIDE OF HOUSTON YAUPON HOLLY	5	15 GALLON, 1.5" CALIPER, 5' HT.
MI	KALMIA LATIFOLIA	MOUNTAIN LAUREL	5	5' HT., GRO-BAG
	MUHLENBERGIA CAPILLARIS	GULF MUHLY GRASS	176	1 GALLON, 30" O.C. SPACING
	PHYLA NODIFLORA	FROG FRUIT	72	6" POT, 36" O.C. SPACING
E	PITHACELLOBIUM FLEXICAULE	EBONY	6	2" CALIPER, B&B, 7' TALL
MON	QUERCUS POLYMORPHA	MONTERREY OAK	9	3" CALIPER, B&B, 7' TALL
LO	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	14	2" CALIPER, B&B, 7' TALL
SP	SABAL TEXANA	TEXAS SABAL PALM	2	6' CLR. TRUNK, FULLY BOOTED
	ALUMINUM EDGING		60 LF	4", MILL FINISH
	HYDROMULCH		BASE BID- 97,116 SF	APPLY 1" OF COMPOST INCORPORATED INTO TOP 3" OF EX. SOIL
	WOOD MULCH	PREMIUM CYPRESS	1,515 SF	3" LAYER WITHOUT A LAYER OF LANDSCAPE FABRIC

NORTH
SCALE 1" = 30'

SANTOS LIVAS ELEMENTARY SITE PLAN

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aheffner@heffnerdesignteam.com
4814 N. 11th St. Suite E
McALLEN, TX. 78504
(956) 540-7850

4-17-19 100% CONSTRUCTION DOCUMENTS

NO.	REVISIONS	DATE APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726

EGV ARCHITECTS, INC.

REGISTERED LANDSCAPE ARCHITECT ANDREW T. HEFFNER 2526 STATE OF TEXAS

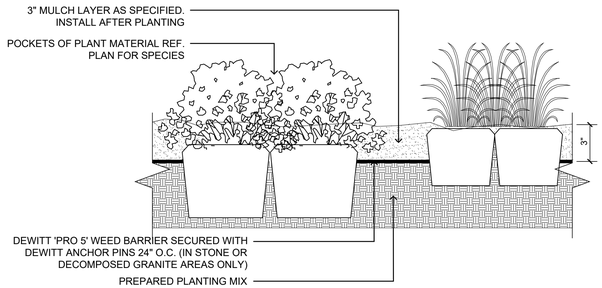
DATE: 4-17-19

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psjo/reroofing 17-18

SHEET L2
OF

PLANT MATERIAL SPACING AND GROUP VARY



1 L3 — 1 & 3 GALLON SHRUB PLANTING

N.T.S.

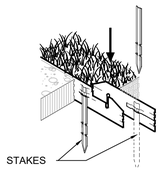
SIZE:

1/8" X 4" (3.2MM X 102MM), 0.050" (1.27 MM) THICK
W/ 0.125" (3.18MM) EXPOSED TOP LIP

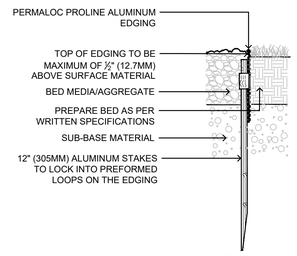
FINISH LEGEND:

ARCHITECT NOTE: CHECK OFF APPLICABLE FINISH DESIRED

- ☒ (MF) MILL FINISH-NATURAL ALUMINUM
- ☐ (BL) BLACK DUROFLEX-ELECTROSTATICALLY APPLIED BAKED ON PAINT, MEETS AAMA 2603
- ☐ (GR) GREEN-ELECTROSTATICALLY APPLIED BAKED ON PAINT, MEETS AAMA 2603
- ☐ (BR) BRONZE-ELECTROSTATICALLY APPLIED BAKED ON PAINT, MEETS AAMA 2603



ISOMETRIC VIEW
SCALE: NTS

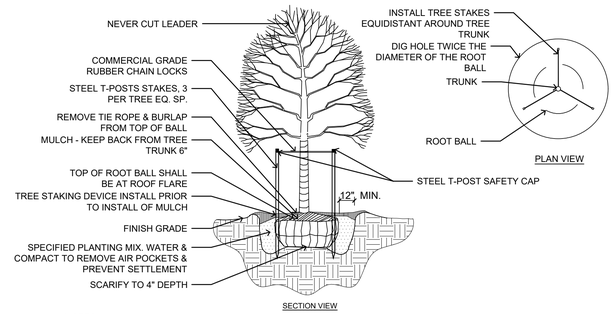


NOTES:

1. INSTALL PER MANUFACTURER'S "INSTALLATION GUIDELINES".
2. 8'-0" (2.44 M) SECTIONS TO INCLUDE (3) 12" (305 MM) ALUMINUM STAKES.
3. 16'-0" (4.88 M) SECTIONS TO INCLUDE (5) 12" (305 MM) ALUMINUM STAKES.
4. CORNERS - CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER.
5. PERMALOC PROLINE AS MANUFACTURED BY PERMALOC CORPORATION, HOLLAND MI. (800) 356-9660, (616) 399-9600 OR APPROVED EQUAL.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT:WWW.PERMALOC.COM

2 L3 — PERMALOC ALUMINUM EDGING

N.T.S.

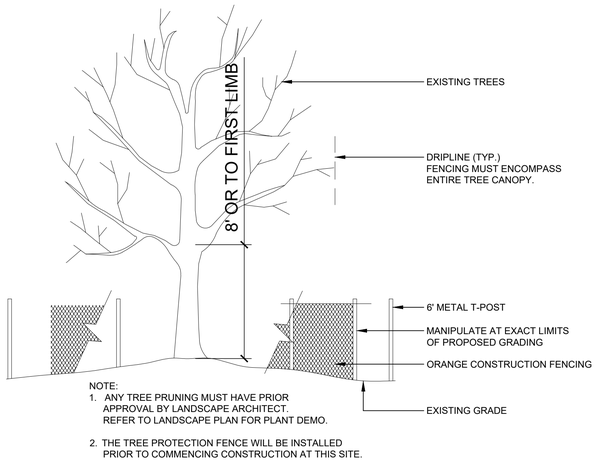


SECTION VIEW

NOTES:
1. FOR EACH ONE (1) INCH CALIPER OF TREE TRUNK DIAMETER INSTALL ONE 21 GRAM AGRIFORM PLANTING TABLET. INSTALL HALF-WAY UP THE ROOTBALL 1" FROM ROOT TIPS.
2. SET TOP OF ROOT CROWN 1" ABOVE FINISHED GRADE WHERE APPLICABLE. TRIM FABRIC AROUND TRUNK OF TREE.
3. REMOVE ALL PLASTIC OR POLYETHYLENE MESH FROM ROOT BALLS.
4. REMOVE ALL NYLON TYING STRING.
5. STEEL CAGING TO BE REMOVED BY 2/3rds.
6. USE MULCH TREE RING IF TREE IS IN MULCHED LANDSCAPE BED ONLY OR LAWN.

3 L3 — TREE & PALM PLANTING

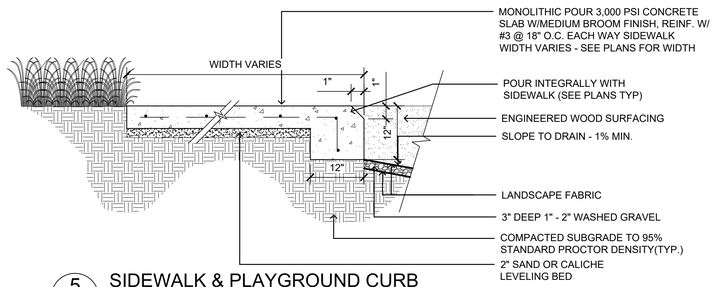
N.T.S.



NOTE:
1. ANY TREE PRUNING MUST HAVE PRIOR APPROVAL BY LANDSCAPE ARCHITECT. REFER TO LANDSCAPE PLAN FOR PLANT DEMO.
2. THE TREE PROTECTION FENCE WILL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION AT THIS SITE.

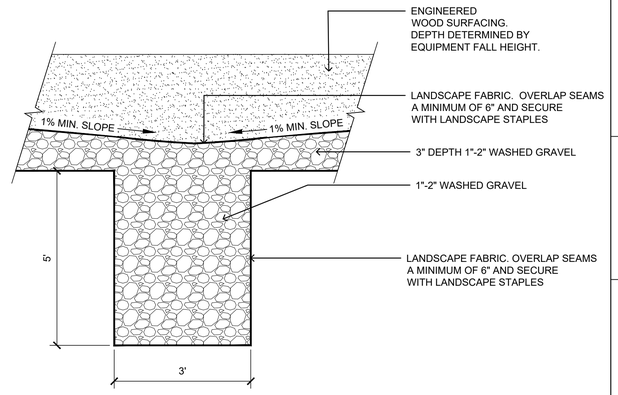
4 L3 — LANDSCAPE TREE PROTECTION FENCING

N.T.S.



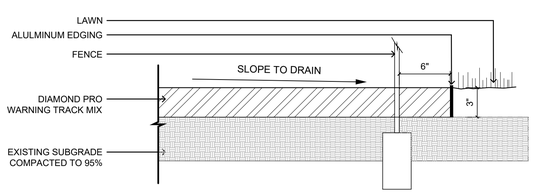
5 L3 — SIDEWALK & PLAYGROUND CURB

N.T.S.



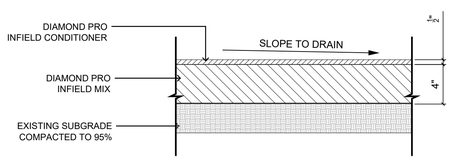
6 L3 — PLAYGROUND DRAINAGE SUMP

N.T.S.



7 L3 — SOFTBALL WARNING TRACK

N.T.S.



8 L3 — SOFTBALL INFIELD

N.T.S.

LANDSCAPE DETAILS

HEFFNER DESIGN TEAM, PLLC
aheffner@heffnerdesignteam.com
4814 N. 11th St. Suite E
McALLEN, TX. 78504
(956) 540-7850

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TEL: (956) 843-2987
FAX: (956) 843-9726

EGV ARCHITECTS, INC.

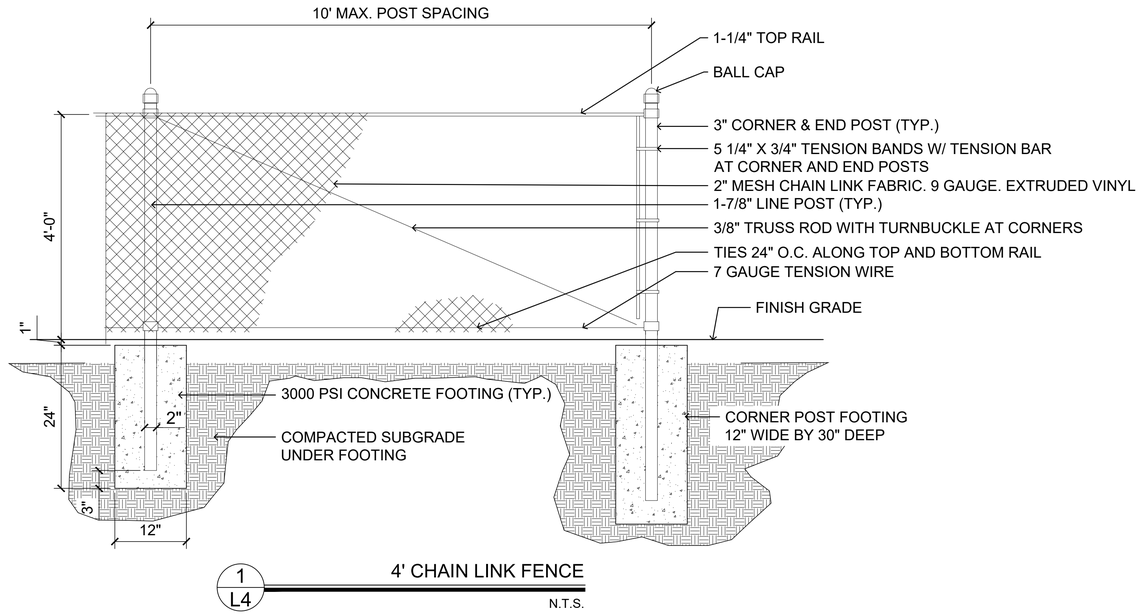
REGISTERED LANDSCAPE ARCHITECT
ANDREW T. HEFFNER
2528
STATE OF TEXAS

DATE: 4-17-19

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

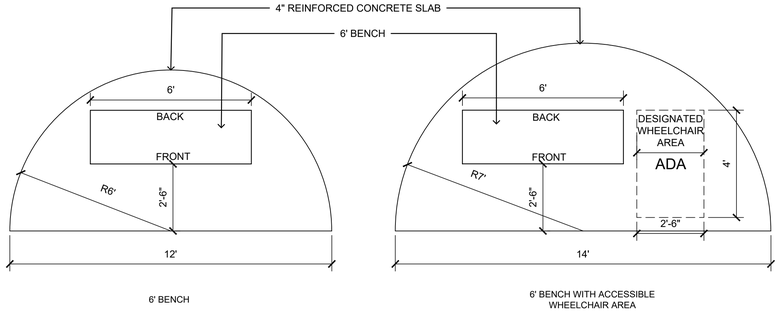
JOB NO.
FILE NO. dwg/psja/reroofing 17-18

SHEET L3
OF



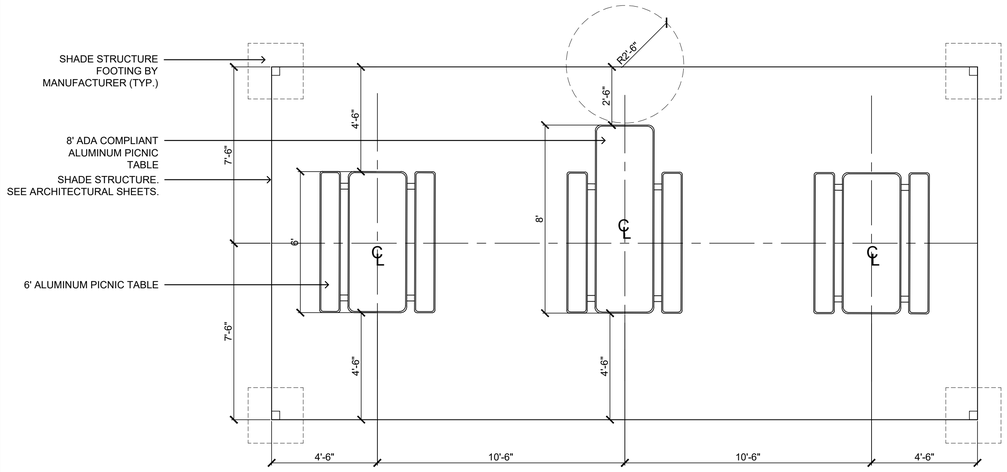
1 L4 — 4' CHAIN LINK FENCE

N.T.S.



2 L4 — 6' BENCH DETAIL

N.T.S.



3 L4 — SHADED PICNIC AREA

N.T.S.

SITE EQUIPMENT SCHEDULE

ITEM	MANUFACTURER	MODEL NUMBER	COLOR	APPROX. QTY.	COMMENTS
8' ADA COMPLIANT ALUMINUM PICNIC TABLE	PARK WAREHOUSE	129-1215-1		2	WITH GALVANIZED STEEL FRAMES.
6' ALUMINUM PICNIC TABLE	PARK WAREHOUSE	123-1113-1		4	WITH GALVANIZED STEEL FRAMES.
PICNIC TABLE SURFACE MOUNT CAMPSET	PARK WAREHOUSE	745AC210-1		6	ONE SET PER TABLE. INSTALL PER MANUFACTURE'S RECOMMENDATIONS.
HERITAGE 6' BENCH	WABASH VALLEY	HR310		11	STRAIGHT BACK.
HERITAGE SURFACE MOUNT PACKAGE	WABASH VALLEY	HR315		11	
32 GAL. RECEPTACLE	WABASH VALLEY	LR300(S)		9	
32 GAL. RECEPTACLE LINER	WABASH VALLEY	LR310		9	DRILL TWO DRAINAGE HOLES AT THE BOTTOM OF THE LINER
8" FLAT LID - INWARD SLOPE FOR STANDARD RECEPTACLE	WABASH VALLEY	FT100		9	
SURFACE-MOUNT POST PACKAGE FOR STD. RECEPTACLE	WABASH VALLEY	LR105		9	
BIKE LOOP - SURFACE MOUNT	WABASH VALLEY	BRH538S		6	

NOTES: ALL INSTALLATION HARDWARE SHALL BE SUPPLIED BY THE CONTRACTOR. ALL HARDWARE SHALL BE HOT DIPPED GALVANIZED. APPLY LOCTITE 243 TO ALL MOUNTING HARDWARE.

4-17-19 100% CONSTRUCTION DOCUMENTS

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ARCHITECTS, INC.

REGISTERED LANDSCAPE ARCHITECT
ANDREW T. HEFFNER
2528
STATE OF TEXAS

DATE: 4-17-19

LANDSCAPE DETAILS

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

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JOB NO.
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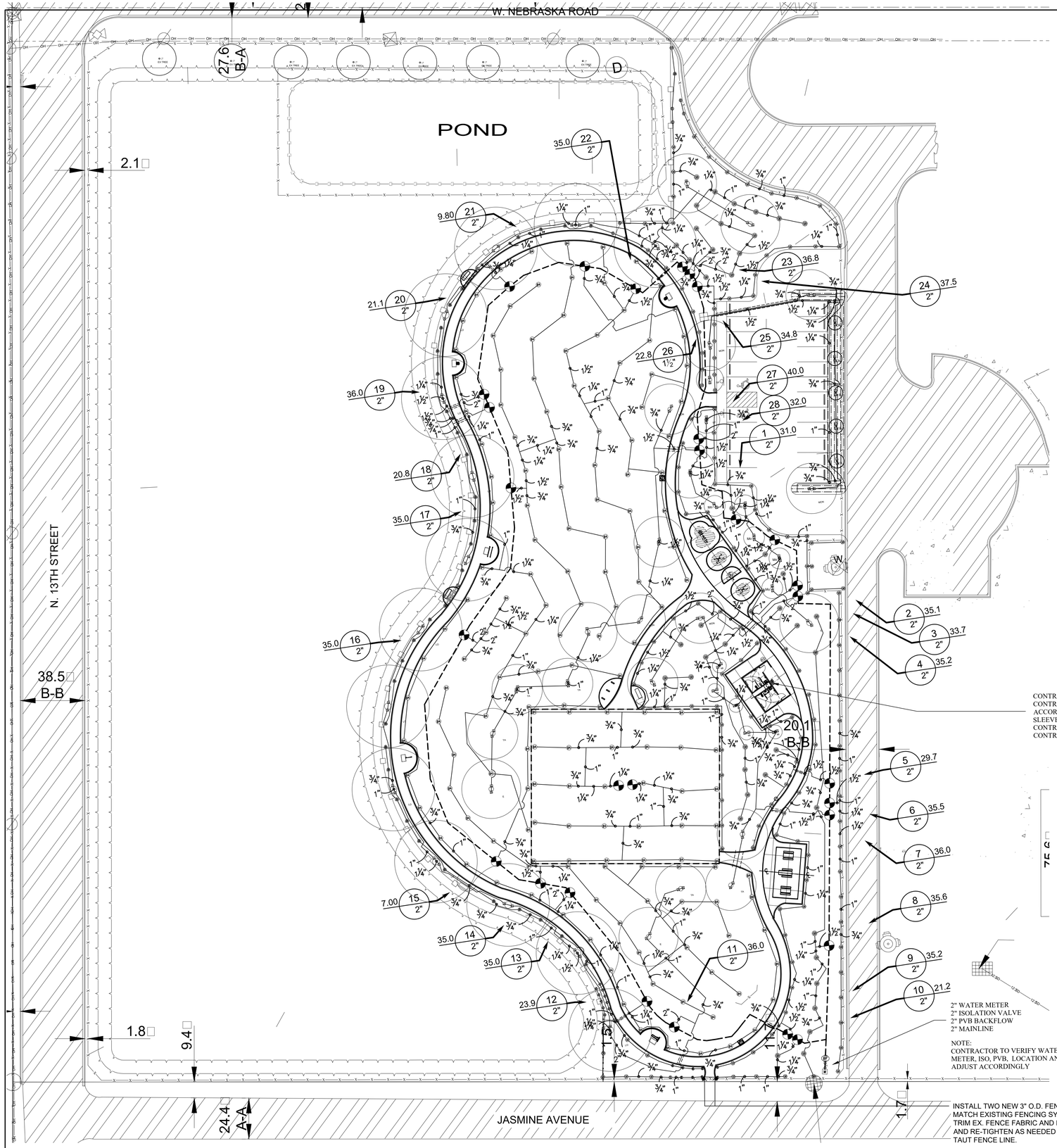
SHEET L4
OF



4-17-19 100%
CONSTRUCTION DOCUMENTS

NORTH
SCALE 1" □ 30□

SANTOS LIVAS ELEMENTARY
IRRIGATION PLAN

HEFFNER DESIGN TEAM, PLLC
aheffner@heffnerdesignteam.com
4814 N. 11th St. Suite E
McALLEN, TX. 78504
(956) 540-7850

DATE:	NO.	REVISIONS	DATE	APPROVED
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220 S. BRIDGE STREET
PO BOX 8627
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TEL: (956) 843-2987
FAX: (956) 843-9726
ARCHITECTS, INC.

DATE: 04-17-19

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

IR1
SHEET
OF

W. 14TH STREET

50.0 R.O.W.

60.0 R.O.W.

60.0 R.O.W.
AS PER PLAT

S. SAN ANTONIO AVE.

30.0 ADDITIONAL R.O.W.
SEE NOTE 5.

W. RIDGE ROAD

4 CONCRETE WALK

CONTRACTOR TO VERIFY EXISTING IRRIGATION CONTROLLER RAIN SENSOR LOCATION AND ADJUST ACCORDINGLY. CONTRACTOR RESPONSIBLE FOR SLEEVE TO IRRIGATION CONTROLLER WIRES TO CONTROLLER PROVIDE OUTLET TO PLUG IN CONTROLLER.

2" WATER METER
2" ISOLATION VALVE
2" PVB BACKFLOW
2" MAINLINE

NOTE:
CONTRACTOR TO VERIFY WATER METER, ISO, PVB, LOCATION AND ADJUST ACCORDINGLY

NORTH
SCALE 1" = 40'

4-17-19 100% CONSTRUCTION DOCUMENTS

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EGV ARCHITECTS, INC.

DATE: 04-17-19

CARMAN ELEMENTARY
IRRIGATION PLAN

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

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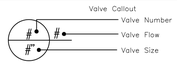
JOB NO.
FILE NO. dwg/psja/reroofing 17-18

IR2
SHEET
OF

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI			DETAIL
LCS RCS CS	Hunter PROS-04-PRS30 5' strip spray Turf Spray, 30 psi regulated 4.0" Pop-Up. Co-molded wiper seal with UV Resistant Material.	36	30			
Q F	Hunter PROS-04-PRS30 15' radius Turf Spray, 30 psi regulated 4.0" Pop-Up. Co-molded wiper seal with UV Resistant Material.	58	30			
	Hunter PROS-04-PRS30 adjustable arc Turf Spray, 30 psi regulated 4.0" Pop-Up. Co-molded wiper seal with UV Resistant Material.	158	30			
2ØF	Hunter PROS-04-CV-MSBN Multi-Stream Bubbler, 4" pop-up, factory installed drain check valve, 25'-25gpm, 50'-0.5gpm, 10'-1.0gpm, 20'-2.0gpm.	104	30			
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS	DETAIL
04	Hunter PGP-ADJ-LA Turf Rotor, 4.0" Pop-Up. Adjustable and Full Circle. Low Angle Nozzle.	167	30	1.40	22'	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY				DETAIL
	Hunter ICV-151-40 1-1/2" Drip Control Zone Kit. 1-1/2" ICV Globe Valve with 1" HY100 filter system. Pressure Regulation: 40psi. Flow Range: 20 GPM to 60 GPM. 120 mesh stainless steel screen. 1-1/2" inlet dual 1" outlets	1				
	Area to Receive Dripline Rain Bird XFS-09-12 XFS Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.9 GPH emitters at 12" O.C. Laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	1,522 l.f.				
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY				DETAIL
	Hunter ICV-G 2" 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	29				
	Shut Off Valve	1				
BF	Febco 765 2" Pressure Vacuum Breaker, Brass with Ball Valve SOV. Install 12" (305MM) above the highest downstream outlet and the highest point in the downstream piping.	1				
C	Hunter ACC-99D 2-Wire Decoder Controller with 99 station capacity, metal cabinet.	1				
RS	Hunter Solar-Sync (2) Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10 year lithium batter and rubber module cover, and gutter mount bracket. Wired.	1				
M	Water Meter 2"	1				
	Irrigation Lateral Line: PVC Class 200 SDR 21	224.6 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	5,665 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	1,697 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	1,336 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	734.1 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	264.3 l.f.				
	Irrigation Mainline: PVC Schedule 40 2"	1,298 l.f.				
	Pipe Sleeve: PVC Schedule 40 4"	161.3 l.f.				



VALVE SCHEDULE					
NUMBER	MODEL	SIZE	TYPE	GPM	PRECIP
1	Hunter ICV-G	2"	Turf Spray	30.95	0.88 in/h
2	Hunter ICV-G	2"	Turf Spray	35.06	0.94 in/h
3	Hunter ICV-G	2"	Turf Spray	33.75	0.79 in/h
4	Hunter ICV-G	2"	Turf Spray	35.19	0.91 in/h
5	Hunter ICV-G	2"	Turf Spray	29.71	0.95 in/h
6	Hunter ICV-G	2"	Turf Spray	35.46	0.82 in/h
7	Hunter ICV-G	2"	Bubbler	36.00	8.61 in/h
8	Hunter ICV-G	2"	Turf Spray	35.60	0.70 in/h
9	Hunter ICV-G	2"	Turf Spray	35.21	0.80 in/h
10	Hunter ICV-G	2"	Turf Spray	21.21	1.12 in/h
11	Hunter ICV-G	2"	Bubbler	36.00	7.38 in/h
12	Hunter ICV-G	2"	Turf Spray	23.94	1.12 in/h
13	Hunter ICV-G	2"	Turf Rotor	35.00	0.81 in/h
14	Hunter ICV-G	2"	Turf Rotor	35.00	0.36 in/h
15	Hunter ICV-G	2"	Turf Rotor	7.00	0.65 in/h
16	Hunter ICV-G	2"	Turf Rotor	35.00	0.60 in/h
17	Hunter ICV-G	2"	Turf Rotor	35.00	0.30 in/h
18	Hunter ICV-G	2"	Turf Spray	20.80	1.30 in/h
19	Hunter ICV-G	2"	Bubbler	36.00	7.46 in/h
20	Hunter ICV-G	2"	Turf Spray	21.11	0.95 in/h
21	Hunter ICV-G	2"	Turf Rotor	9.80	0.67 in/h
22	Hunter ICV-G	2"	Turf Rotor	35.00	0.41 in/h
23	Hunter ICV-G	2"	Turf Spray	36.75	0.94 in/h
24	Hunter ICV-G	2"	Turf Spray	37.50	0.90 in/h
25	Hunter ICV-G	2"	Turf Spray	34.82	0.88 in/h
26	Hunter ICV-151-40	1-1/2"	Area for Dripline	22.83	1.44 in/h
27	Hunter ICV-G	2"	Bubbler	40.00	8.50 in/h
28	Hunter ICV-G	2"	Bubbler	32.00	8.19 in/h

NOTES

1.- ALL IRRIGATION WORK TO BE PERFORMED BY A TEXAS LICENSED IRRIGATOR.
2.- INSTALL ALL VALVES IN AN ARMOR VALVE BOX WITH COVER OR EQUAL. VALVE SHOULD BE CENTERED IN BOX TO FACILITATE ACCESS TO SOLENOID ASSEMBLY AND MANUAL OPERATORS.
3.- PIPE AS SHOWN IS DIAGRAMMATIC BUT SHOULD BE REASONABLY FOLLOWED. LOCATION OF SPRINKLER HEADS SHALL BE ESTABLISHED BY THE CONTRACTOR BUT DESIGN SPACING MAY NOT BE EXCEEDED WITHOUT AUTHORIZATION FROM THE OWNER.
4.- ALLOW A MINIMUM OF 6" CLEARANCE FROM ANY STRUCTURE, INCLUDING SIDEWALKS, CURBS, BUILDINGS, ETC. WHEN INSTALLING SPRINKLER HEADS
5.- ALL SLEEVES SHALL BE SCH. 40 PVC, SHALL EXTEND 12" BEYOND EDGE OF PAVEMENT OR STRUCTURE, SHALL BE PLACED 24" BELOW TOP OF PAVEMENT AND SHALL BE CAPPED WITH PVC CAPS. DO NOT PENETRATE STRUCTURES WITHOUT PRIOR APPROVAL. LOCATION OF SLEEVES TO BE MARKED IN PAVEMENT WITH AN "S" CONCRETE STAMP.
6.- AFTER INSTALLATION, SYSTEM MUST BE BALANCED BY ADJUSTING PRESSURE REGULATOR CONTROLS ON VALVES.
7.- SYSTEM SHALL REQUIRE A MINIMUM OF 50 LBS. STATIC PRESSURE FOR SYSTEM TO OPERATE PROPERLY. IRRIGATION CONTRACTOR SHALL NOTIFY THE OWNER OF PRESSURE DEFICIENCIES OR IF THE PRIMARY WATER SUPPLY LINES ARE SMALLER THAN 4" AND/OR LONGER THAN 120' FROM THE SOURCE. NOTIFY THE OWNER OF ANY OTHER SITE PROBLEMS THAT MAY ALTER THE EFFECTIVENESS OF THE SYSTEM.
8.- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SPECIFICATIONS FOR THE LANDSCAPE IRRIGATION SYSTEM.
9.- THE CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS IN AN AUTOCAD FORMAT WHICH SHALL SHOW LOCATIONS OF MAIN LINES, VALVES, CONTROLLERS AND SLEEVES. THE AUTOCAD DRAWINGS SHALL BE DELIVERED ON DISC TO THE OWNERS REPRESENTATIVE FOR REVIEW AND APPROVAL.
10.- ALL SPLICES ARE TO BE CAPPED WITH TAN KING LOW VOLTAGE CONNECTORS. NO FIELD SPLICES WILL BE PERMITTED. WHERE SPLICES ARE NECESSARY ALL MUST BE IN VALVE BOXES.
11.- NO PIPE CROSSES ARE PERMITTED.
12.- HAND DIG TRENCHES WITHIN THE DRIP LINE OF EXISTING TREES.
13.- ALL MAIN & LATERAL LINES SHALL BE SET AT A MINIMUM DEPTH OF 18" TO THE TOP OF THE PIPE. ALL LATERAL LINES SHALL BE SET AT A MINIMUM DEPTH OF 18" TO THE TOP OF THE PIPE. ALL ELECTRIC VALVES SHALL BE SET TO A DEPTH OF 18" TO THE TOP OF ADJACENT PIPE.
14.- ALL PIPING TO BE LAID WITH LETTERING UP.
15.- ALL 3/4" - 2" LATERAL PIPING SHALL BE CLASS 200 SOLVENT WELD PVC.
16.- PROVIDE THRUST BLOCKS AS PER DETAILS . ALL THRUST BLOCKING SHALL BE INSPECTED AND APPROVED BY THE OWNER PRIOR TO BACKFILL.
17.- ALL VALVE WIRING SHALL BE #14 UF.
18.- PROVIDE PRESSURE GAUGE ON INLET AND OUTLET.
19.- PROVIDE QUICK COUPLERS AS INDICATED.
20.- DO NOT LOCATE VALVE BOXES IN MULTI-USE ATHLETIC FIELD AREAS. ALL PIPES GOING TO AND FROM RP AND PUMP SHALL BE SCH. 80 PVC PIPE. WRAP PIPE WITH 1 1/8" - 2" INSULATION TAPE #4217-W3 BY NU-CALGON WHOLESALE INC. ST. LOUIS, MO. 63146.
21.- ALL SPRINKLER HEADS SHALL BE SET LEVEL TO FINISH GRADES, PLACED VERTICAL IN THE GROUND, ADJUSTED TO COVER HEAD TO HEAD WITH MINIMAL SPRAY IN AREAS NOT IRRIGATED.
22.- TEN (10) DAYS PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE WATER STATIC PRESSURE. CONFIRM WITH OWNER THE WATER STATIC PRESSURE BEFORE COMMENCING WORK.
23.- THE CONTRACTOR SHALL PROVIDE TWO QUICK COUPLER KEYS TO MATCH QUICK COUPLER SPECIFIED.
24.- THE CONTRACTOR SHALL OBTAIN THE PROPER PERMIT FOR IRRIGATION WORK FROM THE CITY OF PHARR PRIOR TO COMMENCING WORK.
25.- ALL MATERIAL SHOULD BE CONSIDERED OR APPROVED EQUAL.

4-17-19 100%
CONSTRUCTION DOCUMENTS

SANTOS LIVAS ELEMENTARY
IRRIGATION PLAN

HEFFNER DESIGN TEAM, PLLC
aheffner@heffnerdesignteam.com
4814 N. 11th St. Suite E
McALLEN, TX. 78504
(956) 540-7850

NO.	REVISIONS	DATE	APPROVED

DATE:
DESIGNED:
DRAWN:
CHECKED:
SCALE:

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557
TEL: (956) 843-2987
FAX: (956) 843-9726
EGV ARCHITECTS, INC.

DATE: 04-17-19

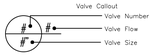
P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

IR3
SHEET
OF

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER□MODEL□DESCRIPTION	□TY	PSI			DETAIL
	Hunter PROS-04-PRS30-CV 12□radius Turf Spra□; 30 psi regulated 4.0" Pop-Up. With factor□installed Drain Chec□Val□e. Co-molded wiper seal with UV Resistant Material.	7	30			
	Hunter PROS-04-PRS30-CV 15□radius Turf Spra□; 30 psi regulated 4.0" Pop-Up. With factor□installed Drain Chec□Val□e. Co-molded wiper seal with UV Resistant Material.	89	30			
	Hunter PROS-04-PRS30-CV ad□usta□le arc Turf Spra□; 30 psi regulated 4.0" Pop-Up. With factor□installed Drain Chec□Val□e. Co-molded wiper seal with UV Resistant Material.	490	30			
2BF	Hunter PROS-04-CV-MSBN Multi-Stream Bu□□er, 4" pop-up, factor□installed drain chec□ □al□e, 25□25gpm, 50□0.5gpm, 10□1.0gpm, 20□2.0gpm.	174	30			
SYMBOL	MANUFACTURER□MODEL□DESCRIPTION	□TY	PSI	GPM	RADIUS	DETAIL
04	Hunter I-25-04 Turf Rotor, 4.0" Pop-Up. Ad□usta□le and Full Circle. Plastic Riser. Drain Chec□Val□e. Standard No□□le.	233	40	3.80	40□	
SYMBOL	MANUFACTURER□MODEL□DESCRIPTION	□TY				DETAIL
	Area to Rece□e Dripline Rain Bird XFS-09-12 XFS Su□-Surface Pressure Compensating Dripline w□Copper Shield Technolog□. 0.9 GPH emitters at 12" O.C. Laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specif□□XF insert fittings.	4,527 l.f.				
SYMBOL	MANUFACTURER□MODEL□DESCRIPTION	□TY				DETAIL
	Hunter ICV-G 2" 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Val□es, Glo□e Configuration, with NPT Threaded Inlet□Outlet, for Commercial□Municipal Use.	78				
	Shut Off Val□e	1				
BF	Fe□co 765 2" Pressure Vacuum Brea□er, □rass with □all □al□e SOV. Install 12" (305MM) a□o□e highest downstream outlet and the highest point in the downstream piping.	1				
C	Hunter ACC-99D 2-Wire Decoder Controller with 99 station capacit□, metal ca□inet.	1				
RS	Hunter Solar-S□nc Solar, rain free□e sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10□aar lithium □atter□and ru□□er module co□er, and gutter mount □rac□et. Wired.	1				
M	Water Meter 2"	1				
	Irrigation Lateral Line: PVC Class 200 SDR 21	39.6 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 3□4"	10,271 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	5,741 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1□4"	5,220 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1□2"	3,237 l.f.				
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	1,056 l.f.				
	Irrigation Mainline: PVC Schedule 40 2"	3,272 l.f.				
	Pipe Slee□e: PVC Schedule 40 4"	660.8 l.f.				



VALVE SCHEDULE					
NUMBER	MODEL	SI□E	TYPE	GPM	PRECIP
1	Hunter ICV-G	2"	Bu□□ler	38.00	7.62 in□h
2	Hunter ICV-G	2"	Area for Dripline	34.36	1.44 in□h
3	Hunter ICV-G	2"	Turf Spra□	19.07	1.43 in□h
4	Hunter ICV-G	2"	Turf Spra□	30.08	0.92 in□h
5	Hunter ICV-G	2"	Turf Spra□	35.25	0.80 in□h
6	Hunter ICV-G	2"	Area for Dripline	26.86	1.44 in□h
7	Hunter ICV-G	2"	Turf Spra□	35.10	0.76 in□h
8	Hunter ICV-G	2"	Turf Spra□	36.00	0.80 in□h
9	Hunter ICV-G	2"	Bu□□ler	38.00	7.19 in□h
10	Hunter ICV-G	2"	Turf Spra□	26.35	0.85 in□h
11	Hunter ICV-G	2"	Turf Rotor	34.20	0.60 in□h
12	Hunter ICV-G	2"	Turf Spra□	31.74	0.89 in□h
13	Hunter ICV-G	2"	Turf Spra□	33.75	0.75 in□h
14	Hunter ICV-G	2"	Turf Spra□	34.75	0.78 in□h
15	Hunter ICV-G	2"	Turf Spra□	36.32	0.83 in□h
16	Hunter ICV-G	2"	Turf Spra□	31.57	1.21 in□h
17	Hunter ICV-G	2"	Bu□□ler	42.00	7.64 in□h
18	Hunter ICV-G	2"	Turf Rotor	38.00	0.39 in□h
19	Hunter ICV-G	2"	Turf Rotor	34.20	0.34 in□h
20	Hunter ICV-G	2"	Turf Spra□	30.86	1.52 in□h
21	Hunter ICV-G	2"	Turf Spra□	29.53	1.10 in□h
22	Hunter ICV-G	2"	Turf Spra□	35.02	0.81 in□h
23	Hunter ICV-G	2"	Turf Spra□	34.39	0.80 in□h
24	Hunter ICV-G	2"	Turf Rotor	30.40	0.68 in□h
25	Hunter ICV-G	2"	Turf Rotor	30.40	0.29 in□h
26	Hunter ICV-G	2"	Turf Rotor	30.40	0.30 in□h
27	Hunter ICV-G	2"	Turf Rotor	34.20	0.57 in□h
28	Hunter ICV-G	2"	Turf Rotor	34.20	0.64 in□h
29	Hunter ICV-G	2"	Turf Rotor	34.20	0.71 in□h
30	Hunter ICV-G	2"	Bu□□ler	36.00	7.02 in□h
31	Hunter ICV-G	2"	Turf Rotor	38.00	0.72 in□h
32	Hunter ICV-G	2"	Turf Spra□	34.96	0.88 in□h
33	Hunter ICV-G	2"	Turf Spra□	26.25	0.86 in□h
34	Hunter ICV-G	2"	Turf Spra□	34.66	0.81 in□h
35	Hunter ICV-G	2"	Turf Spra□	35.80	0.77 in□h
36	Hunter ICV-G	2"	Turf Spra□	26.25	0.82 in□h
37	Hunter ICV-G	2"	Turf Spra□	22.50	0.83 in□h
38	Hunter ICV-G	2"	Turf Spra□	35.23	1.23 in□h
39	Hunter ICV-G	2"	Turf Spra□	30.00	1.16 in□h
40	Hunter ICV-G	2"	Bu□□ler	16.00	7.20 in□h
41	Hunter ICV-G	2"	Turf Spra□	31.99	1.39 in□h
42	Hunter ICV-G	2"	Turf Spra□	30.00	0.83 in□h
43	Hunter ICV-G	2"	Turf Spra□	22.50	0.83 in□h
44	Hunter ICV-G	2"	Turf Spra□	35.54	0.80 in□h
45	Hunter ICV-G	2"	Turf Spra□	28.73	0.93 in□h
46	Hunter ICV-G	2"	Turf Rotor	34.20	1.01 in□h
47	Hunter ICV-G	2"	Area for Dripline	17.62	1.44 in□h
48	Hunter ICV-G	2"	Bu□□ler	32.00	7.27 in□h
49	Hunter ICV-G	2"	Turf Rotor	34.20	0.35 in□h
50	Hunter ICV-G	2"	Turf Rotor	30.40	0.57 in□h
51	Hunter ICV-G	2"	Turf Rotor	19.00	0.59 in□h
52	Hunter ICV-G	2"	Turf Rotor	34.20	0.31 in□h
53	Hunter ICV-G	2"	Turf Rotor	34.20	0.33 in□h
54	Hunter ICV-G	2"	Turf Rotor	34.20	0.25 in□h
55	Hunter ICV-G	2"	Turf Spra□	35.13	0.78 in□h
56	Hunter ICV-G	2"	Turf Spra□	15.00	0.71 in□h
57	Hunter ICV-G	2"	Turf Spra□	36.06	0.84 in□h
58	Hunter ICV-G	2"	Turf Spra□	29.40	0.75 in□h
59	Hunter ICV-G	2"	Bu□□ler	32.00	7.77 in□h
60	Hunter ICV-G	2"	Turf Rotor	15.20	0.25 in□h
61	Hunter ICV-G	2"	Turf Rotor	26.60	0.64 in□h
62	Hunter ICV-G	2"	Bu□□ler	38.00	7.18 in□h
63	Hunter ICV-G	2"	Turf Spra□	34.34	0.81 in□h
64	Hunter ICV-G	2"	Turf Spra□	34.22	0.83 in□h
65	Hunter ICV-G	2"	Turf Spra□	26.25	0.76 in□h
66	Hunter ICV-G	2"	Turf Spra□	34.11	0.80 in□h
67	Hunter ICV-G	2"	Turf Spra□	18.75	0.73 in□h
68	Hunter ICV-G	2"	Turf Rotor	38.00	1.12 in□h
69	Hunter ICV-G	2"	Turf Rotor	34.20	0.89 in□h
70	Hunter ICV-G	2"	Bu□□ler	38.00	7.44 in□h
71	Hunter ICV-G	2"	Turf Rotor	34.20	0.77 in□h
72	Hunter ICV-G	2"	Turf Rotor	19.00	0.71 in□h
73	Hunter ICV-G	2"	Turf Rotor	22.80	0.60 in□h
74	Hunter ICV-G	2"	Turf Rotor	34.20	0.73 in□h
75	Hunter ICV-G	2"	Turf Rotor	34.20	0.28 in□h
76	Hunter ICV-G	2"	Turf Rotor	34.20	0.30 in□h
77	Hunter ICV-G	2"	Turf Rotor	34.20	0.28 in□h
78	Hunter ICV-G	2"	Bu□□ler	34.00	7.38 in□h

NOTES

1.- ALL IRRIGATION WORK TO BE PERFORMED BY A TEXAS LICENSED IRRIGATOR.
2.- INSTALL ALL VALVES IN AN ARMOR VALVE BOX WITH COVER OR E□UAL. VALVE SHOULD BE CENTERED IN BOX TO FACILITATE ACCESS TO SOLENOID ASSEMBLY AND MANUAL OPERATORS.
3.- PIPE AS SHOWN IS DIAGRAMMATIC BUT SHOULD BE REASONABLY FOLLOWED. LOCATION OF SPRINKLER HEADS SHALL BE ESTABLISHED BY THE CONTRACTOR BUT DESIGN SPACING MAY NOT BE EXCEEDED WITHOUT AUTHORI□ATION FROM THE OWNER.
4.- ALLOW A MINIMUM OF 6" CLEARANCE FROM ANY STRUCTURE, INCLUDING SIDEWALKS, CURBS, BUILDINGS, ETC. WHEN INSTALLING SPRINKLER HEADS
5.- ALL SLEEVES SHALL BE SCH. 40 PVC, SHALL EXTEND 12" BEYOND EDGE OF PAVEMENT OR STRUCTURE, SHALL BE PLACED 24" BELOW TOP OF PAVEMENT AND SHALL BE CAPPED WITH PVC CAPS. DO NOT PENETRATE STRUCTURES WITHOUT PRIOR APPROVAL. LOCATION OF SLEEVES TO BE MARKED IN PAVEMENT WITH AN "S" CONCRETE STAMP.
6.- AFTER INSTALLATION, SYSTEM MUST BE BALANCED BY ADJUSTING PRESSURE REGULATOR CONTROLS ON VALVES.
7.- SYSTEM SHALL RE□UIRE A MINIMUM OF 50 LBS. STATIC PRESSURE FOR SYSTEM TO OPERATE PROPERLY. IRRIGATION CONTRACTOR SHALL NOTIFY THE OWNER OF PRESSURE DEFICIENCIES OR IF THE PRIMARY WATER SUPPLY LINES ARE SMALLER THAN 4" AND□OR LONGER THAN 120□FROM THE SOURCE. NOTIFY THE OWNER OF ANY OTHER SITE PROBLEMS THAT MAY ALTER THE EFFECTIVENESS OF THE SYSTEM.
8.- THE CONTRACTOR SHALL FAMILIARI□E HIMSELF WITH THE SPECIFICATIONS FOR THE LANDSCAPE IRRIGATION SYSTEM.
9.- THE CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS IN AN AUTOCAD FORMAT WHICH SHALL SHOW LOCATIONS OF MAIN LINES, VALVES, CONTROLLERS AND SLEEVES. THE AUTOCAD DRAWINGS SHALL BE DELIVERED ON DISC TO THE OWNERS REPRESENTATIVE FOR REVIEW AND APPROVAL.
10.- ALL SPLICES ARE TO BE CAPPED WITH TAN KING LOW VOLTAGE CONNECTORS. NO FIELD SPLICES WILL BE PERMITTED. WHERE SPLICES ARE NECESSARY ALL MUST BE IN VALVE BOXES.
11.- NO PIPE CROSSES ARE PERMITTED.
12.- HAND DIG TRENCHES WITHIN THE DRIP LINE OF EXISTING TREES.
13.- ALL MAIN & LATERAL LINES SHALL BE SET AT A MINIMUM DEPTH OF 18" TO THE TOP OF THE PIPE. ALL LATERAL LINES SHALL BE SET AT A MINIMUM DEPTH OF 18" TO THE TOP OF THE PIPE. ALL ELECTRIC VALVES SHALL BE SET TO A DEPTH OF 18" TO THE TOP OF ADJACENT PIPE.
14.- ALL PIPING TO BE LAID WITH LETTERING UP.
15.- ALL 3□4" - 2" LATERAL PIPING SHALL BE CLASS 200 SOLVENT WELD PVC.
16.- PROVIDE THRUST BLOCKS AS PER DETAILS . ALL THRUST BLOCKING SHALL BE INSPECTED AND APPROVED BY THE OWNER PRIOR TO BACKFILL.
17.- ALL VALVE WIRING SHALL BE □14 UF.
18.- PROVIDE PRESSURE GAUGE ON INLET AND OUTLET.
19.- PROVIDE □UICK COUPLERS AS INDICATED.
20.- DO NOT LOCATE VALVE BOXES IN MULTI-USE ATHLETIC FIELD AREAS. ALL PIPES GOING TO AND FROM RP AND PUMP SHALL BE SCH. 80 PVC PIPE. WRAP PIPE WITH 1□8"□2" INSULATION TAPE □4217-W3 BY NU-CALGON WHOLESALE INC. ST. LOUIS, MO. 63146.
21.- ALL SPRINKLER HEADS SHALL BE SET LEVEL TO FINISH GRADES, PLACED VERTICAL IN THE GROUND, ADJUSTED TO COVER HEAD TO HEAD WITH MINIMAL SPRAY IN AREAS NOT IRRIGATED.
22.- TEN (10) DAYS PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE WATER STATIC PRESSURE. CONFIRM WITH OWNER THE WATER STATIC PRESSURE BEFORE COMMENCING WORK.
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CARMAN ELEMENTARY
IRRIGATION SCHEDULE & NOTES

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

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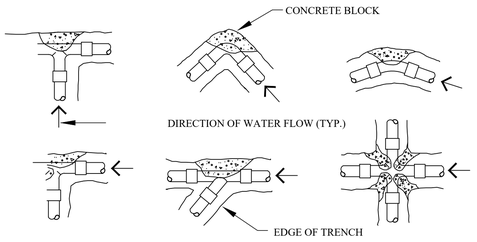
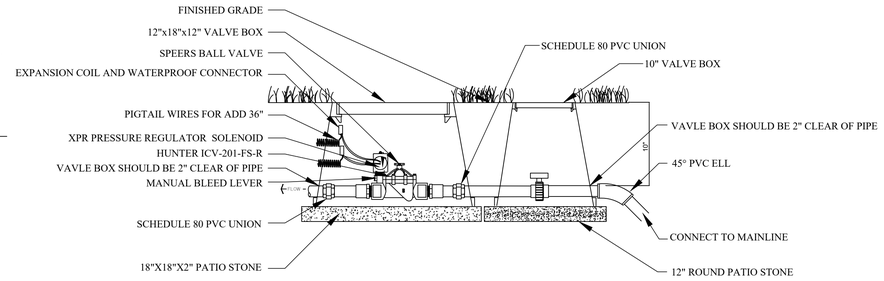


THRUST BLOCK REQUIREMENTS VS. FITTING TYPE				
	1 1/4" – 2 1/2"	3"	4"	6"
TEES/ELLS	1.00	1.00	1.40	3.2
90° BEND	1.00	1.25	2.00	4.5
45° BEND	1.00	1.00	1.00	2.4

NOTES:
1. THRUST BLOCKING TO BE PLACED AT ALL DEAD ENDS, TEES, BENDS, WYES AND REDUCERS AND ANY OTHER AREA AS DETERMINED BY THE ENGINEER/ARCHITECT.
2. MINIMUM AREAS SHOWN ARE IN SQUARE FEET.
3. BEARING MUST BE ON UNDISTURBED EARTH.
4. THRUST BLOCK SHALL BEAR ON FULL 180° OF PIPE CIRCUMFERENCE.
5. USE A MINIMUM OF ONE (1) CU. FT OF 3000 PSI CONCRETE.

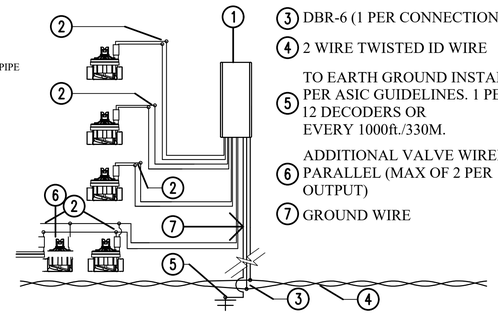
A THRUST BLOCKS



NOTES:
1. MAINTAIN A 2"-3" GAP BETWEEN THE BOTTOM OF THE VALVE AND THE TOP OF THE PATIO STONE.
2. PROVIDE 36" OF SLACK FOR CONTROL WIRES AND NEATLY COIL.
3. PROVIDE ONE EXTRA 14 GA. RED WIRE AT EACH VALVE FOR FUTURE USE.

B HUNTER ICV-201-FS-R

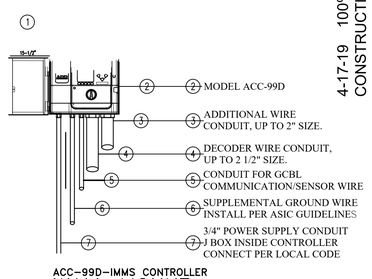
NOTE: All ICD 400 DECODERS SHALL HAVE THE FOLLOWING ADDRESS AND CORRESPONDING COLOR
ADDRESS 1 = Black
ADDRESS 2 = Yellow
ADDRESS 3 = Green
ADDRESS 4 = White



3 DBR-6 (1 PER CONNECTION)
4 2 WIRE TWISTED ID WIRE
5 TO EARTH GROUND INSTALLED PER ASIC GUIDELINES. 1 PER 12 DECODERS OR EVERY 1000ft./330M.
6 ADDITIONAL VALVE WIRED IN PARALLEL (MAX OF 2 PER OUTPUT)
7 GROUND WIRE

ACC-99D-IMMS CONTROLLER
WALL MOUNT

C HUNTER ACC-99D-IMMS



ACC-99D-IMMS CONTROLLER
WALL MOUNT

D ACC-99D CONTROLLER

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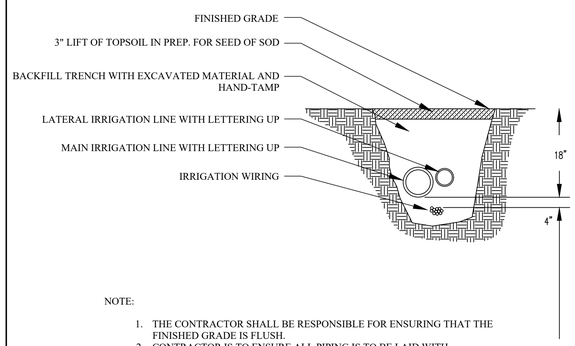
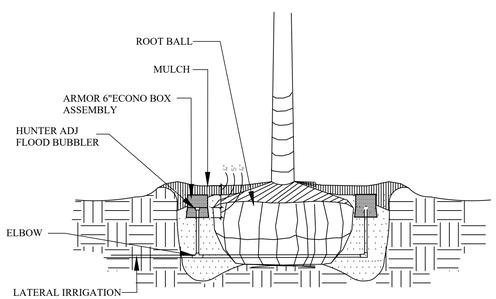
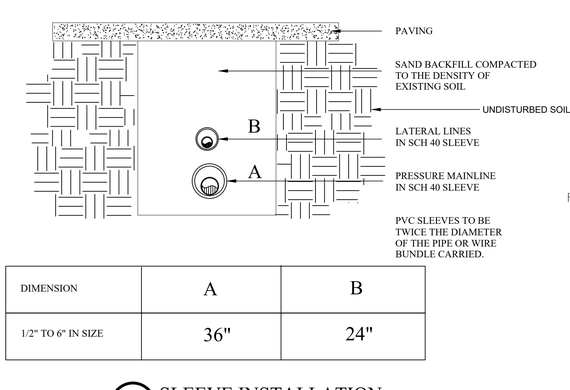


NOTE:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE FINISHED GRADE IS FLUSH.
2. CONTRACTOR IS TO ENSURE ALL PIPING IS TO BE LAID WITH LETTERING UP.

E IRRIGATION MAINLINE, LATERAL LINE, AND WIRES

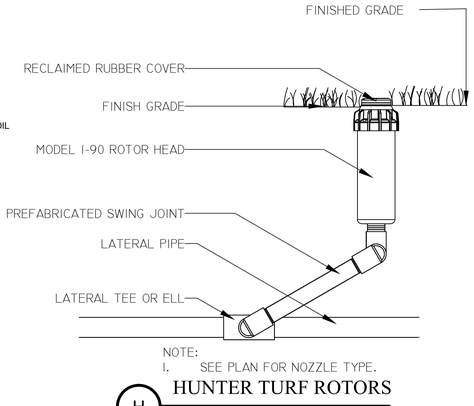


F HUNTER ADJ FLOOD BUBBLER



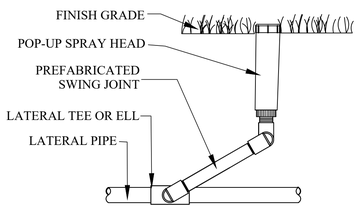
DIMENSION	A	B
1/2" TO 6" IN SIZE	36"	24"

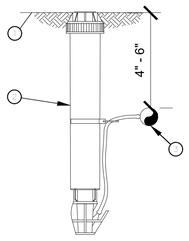
G SLEEVE INSTALLATION



NOTE:
I. SEE PLAN FOR NOZZLE TYPE.

H HUNTER TURF ROTORS



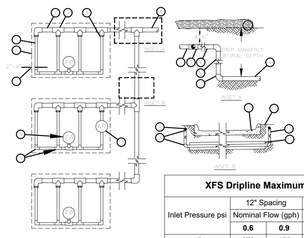


- ○ FINISH GRADE/TURF
- ○ OPERATION INDICATOR RAIN BIRD MODEL: OPERIND
- ○ SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE

NOTE:
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO ¼ PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

I HUNTER TURF SPRAYS

J XFS SUB-SURFACE DRIPLINE OPERATION INDICATOR



XFS Dripline Maximum Lateral Lengths (Feet)

Inlet Pressure psi	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (gph)		Nominal Flow (gph)		Nominal Flow (gph)	
	0.6	0.9	0.6	0.9	0.6	0.9
15	273	155	314	250	424	322
20	318	169	353	294	508	368
30	360	230	413	350	586	414
40	395	255	465	402	652	474
50	417	285	528	420	720	488
60	460	290	596	455	780	514

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
3. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.
4. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENMDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.
5. DRIP SHALL BE PLACED UNDER LANDSCAPE FABRIC IN LANDSCAPE BEDS WITH DECOMPOSED GRANITE.

K XFS SUB-SURFACE DRIPLINE

- ○ PVC SUPPLY HEADER
- ○ PVC SCH 40 TEE OR EL (TYPICAL)
- ○ BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
- ○ PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- ○ SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
- ○ PERIMETER OF AREA
- ○ PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
- ○ FLUSH POINT (TYPICAL) - SEE RAIN BIRD XFS DETAILS FOR FLUSH POINT INSTALLATION
- ○ BARB X BARB INSERT TEE OR EL: RAIN BIRD XFF-TEE OR RAIN BIRD XFF-ELBOW (TYPICAL)
- ○ PVC RISER PIPE
- ○ PVC SUPPLY MANIFOLD
- ○ PVC SCH 40 SLEEVE PIPE SIZED TWICE THE SIZE OF MANIFOLD PIPE SIZE

PAVEMENT AND CURB

TURF OR MULCH

FINISH GRADE

½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050
SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

CARMAN ELEMENTARY
IRRIGATION DETAILS

HEFFNER DESIGN TEAM, PLLC
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DATE: 04-17-19

P.S.J.A. ISD
CARMAN ELEM.& SANTOS LIVAS ELEM.
PLAYGROUD IMPROVEMENTS

JOB NO.
FILE NO. dwg/psja/reroofing 17-18

IR5
SHEET
OF