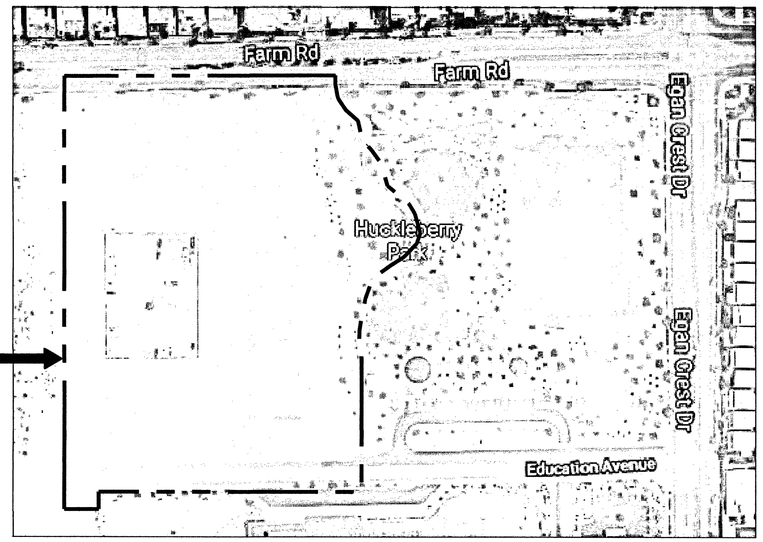
PROJECT LOCATION:
10325 Farm Road
Las Vegas, Nv.
126131010l5

Vicinity Map

NTS

Area of Construction
6.33 Acres



Construction Staging

1. Protect All Existing trees. See Tree Protection Plan Specifications.

General Notes:

1. THE DRAWINGS AND SPECIFICATIONS ARE PREPARED TO SHOW THE ARCHITECT'S INTENT IN THE DESIGN AND CONSTRUCTION FOR THIS PROJECT. IN ALL MATTERS RELATED TO THE USE OR INTERPRETATION OF THESE VARIOUS DRAWINGS AND SPECIFICATIONS, THE OWNER'S WRITTEN STATEMENT SHALL BE CONSIDERED FINAL.
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4. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK . THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES.
5. SHOULD A DISCREPANCY APPEAR IN SPECIFICATIONS OR DRAWINGS, OR IN WORK DONE BY OTHERS, THAT AFFECT THE WORK, NOTIFY THE GENERAL CONTRACTOR AND THE ARCHITECT AT ONCE FOR INSTRUCTION. IF THE CONTRACTOR PROCEEDS WITH THE WORK AFFECTED WITHOUT WRITTEN INSTRUCTION FROM THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY WORK RESULTING IN DAMAGE OR DEFECT.
6. THE GENERAL CONTRACTOR IS TO BE FAMILIAR WITH THE EXISTING JOB SITE AND CONDITIONS. HE OR SHE IS TO ACCEPT THOSE EXISTING CONDITIONS AS HE OR SHE FINDS THEM.
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8. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING OR PATCHING OF THEIR WORK THAT MAY BE REQUIRED AND SHALL NOT ENDANGER ANY WORK BY CUTTING, EXCAVATING, OR OTHERWISE ALTERING THE WORK OR ANY PART OF IT.
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11. ALL MATERIAL STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE AND DETERIORATION UNTIL USED. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.
12. INSTALL ALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS, UNLESS OTHERWISE SPECIFICALLY NOTED AND APPROVED BY THE OWNER.
13. ALL EXISTING TREES SHALL BE PROTECTED FROM ANY DAMAGE. THE TREES SHALL BE WATERED ADEQUATELY AND CARED FOR DURING CONSTRUCTION.

Code Analysis:

CODE YEAR / TYPE
APPLICABLE CODE-2018 INTERNATIONAL BUILDING CODE AND MODIFIED ORDINANCES
2018 UNIFORM MECHANICAL CODE AND MODIFIED ORDINANCES
2018 UNIFORM PLUMBING CODE AND MODIFIED ORDINANCES
2017 NATIONAL ELECTRICAL CODE AND MODIFIED ORDINANCES
2018 INTERNATIONAL FIRE CODE AND MODIFIED ORDINANCES

OCCUPANCY CLASSIFICATION IBC CHAPTER 3 U- FOUR NEW RAMADAS, EIGHT FABRIC CANOPIES

TYPE OF CONSTRUCTION IBC CHAPTER 6
RAMADAS AND FABRIC CANOPY - V-B

FIRE SPRINKLERS IBC CHAPTER 9
NO

FIRE ALARM
NO

HEIGHT / STORIES - ALLOWABLE IBC CHAPTER 503
40'

HEIGHT / STORIES IBC 503/504 - ACTUAL
1 STORY

AREA ALLOWABLE EXISTING RESTROOM/NEW RAMADAS IBC 503 - 507:

RAMADA

$A_a = (A_t + (A_t \times I_f) + (A_t \times I_o))$
A_t =5,500 s.f.
I_f = .15
I_o =0
9,125 s.f. =(5,500 + (5,500 x .15)

AREA ACTUAL:
RAMADA HEX 36= 832 s.f.(3) 8@12"=432 s.f. FABRIC CANOPY 3652 s.f.
Total : 4916 sf

ICC / ANSI A117.1-03 American National Standard. Accessible and Usable Buildings and Facilities

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S0.40 TYPICAL MASONRY DETAILS
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S3.00 SECTIONS

Roadway Plans in back

CITY OF LAS VEGAS NEVADA

REVISIONS
⚠ 6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Index of Drawings, Vicinity Map, General Notes, Code Analysis and Staging Area Plan

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	MSlaka / BBread
FILE	G-1 G-2
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	G1

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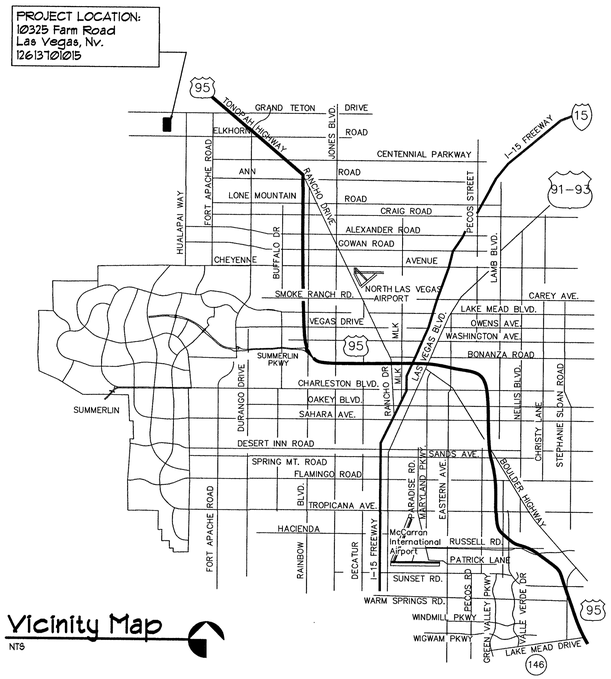

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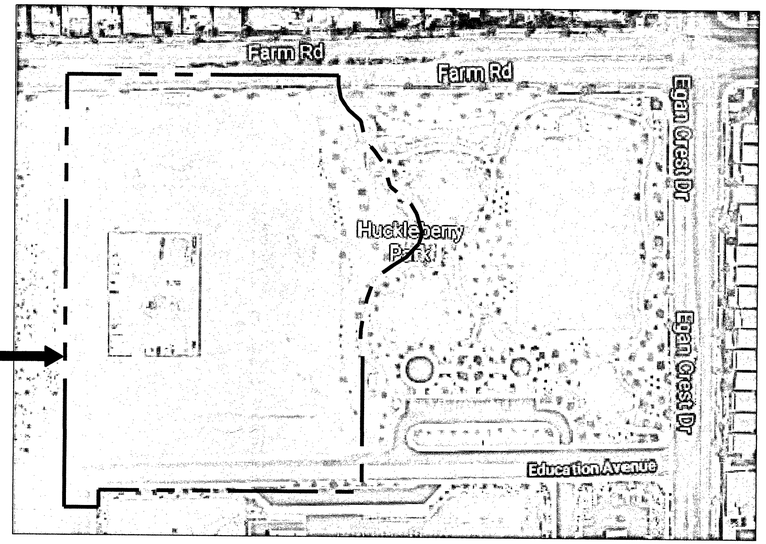

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NV Energy (Preliminary date 3/8/2019

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S2.00 TENNIS COURT PLAN
S2.10 TENNIS COURT SECTIONS
S2.20 MAINTENANCE YARD PLAN AND SECTIONS
S3.00 SECTIONS

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/K
Plan Review Comments X/X/X
CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

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STAMP
Volio

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	MBieka / BBread
FILE	G-1 G-2
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	G1

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PRODUCT LEGEND

Site Amenities

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
SA-1	PICNIC TABLES 6' AT RAMADA	4	MODEL T6RC REGAL BOLT DOWN 6' TABLE	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-2	PICNIC TABLE 46"	3	MODEL T46RCPED REGAL INGROUND MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-3	BENCHES	6	MODEL B6WBRC 6 FT BENCH WITH BACK, SURFACE MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-4	LAYOUT TABLE	3	OUTDOOR CREATIONS INC. MODEL # 102	PATTERSON-WILLIAMS		INSTALL PER MFR. REC'S.
SA-5	TRASH RECEPTACLES	10	MODEL TR32 - 32 GALLON TRASH RECEPTACLE. MODEL FLAT TOP 32 FLAT TOP LID FOR TRASH RECEPTACLE WITH RIDGID PLASTIC LINER. SURFACE MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-6	BAR-B-QUE GRILL INDIVIDUAL	2	BARBEQUE GRILL: INDIVIDUAL. MODEL #SB1635G 20" W x 15" D x 10" H IN GROUND MOUNTING OPTION. PROVIDE CONCRETE FOOTING PER MANUF REQ.	KAY PARK RECREATION		INSTALL PER MFR. REC'S.
SA-7	BAR-B-QUE GRILL GROUP	3	BARBEQUE GRILL: GROUP. MODEL #XB16 ONE PROVIDED AT HEX 48. IN GROUND MOUNTING OPTION. PROVIDE CONCRETE FOOTING PER MANUF REQ.	KAY PARK RECREATION		INSTALL PER MFR. REC'S.

Exercise Equipment

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
EX-1	DIP STATION	1	DIP STATION 160-016 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.
EX-2	HYPER EXTENTION	1	HYPER EXTENSION 160-018 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.
EX-3	SIT UP	1	SIT-UP 160-007 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.
EX-4	PARRALLEL BAR	1	PARALLEL-BARS 160-004 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.
EX-5	STEP UP	1	STEP UP 160-001 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.
EX-6	BODY CURL	1	BODY-CURL 160-003 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTL'S. PER MFR.	INSTALL PER MFR. REC'S.

Block type and colors

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
BLK-1	8" X 8" X 16" SPLIT FACE		SINGLE SPLIT FACE CMU COLOR: MOUNTAINS EDGE BROWN W/ CMU GROUT TRI-DELTA #214	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-2	8" X 4" X 16" TRIM BLOCK		FOUNDERS FINISH BLOCK COLOR: ANTHEM	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-3	8" X 2" X 16" BLOCK CAP		COLOR: MOUNTAINS EDGE BROWN	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-4	COLUMN CAP		MATCH COMMUNITY COLUMN CAP	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-5	8" X 8" X 16"		SMOOTH FACE CMU COLOR: MATCH MOUNTAINS EDGE BROWN W/ CMU GROUT TRI-DELTA #214	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL

Paint Colors

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
PC-1	MAINTENANCE GATES, RAILS / STAIRS & SP	1	RAL 8012 POWDER COAT / ROT BRAUN			SUBMIT SAMPLES FOR COLOR APPROVAL.

Park Signage

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
PS-1	TRAIL DISTANCE SIGN	X	TO BE DESIGNED BY CLV.			
PS-2	PARKING SIGNS	X	PARKING AND HANDICAP			

Shade Shelters

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS / SHT. REFER.	FOOTNOTES
SS-1	FABRIC SHADE SHELTER	1	NEW TENSILE SHADE FABRIC SAILS AT 2-5 OLD PLAY AREA - SHADE SAIL A	USA-SHADE	SHEETS A8.1 & A8.3	DEFERRED SUBMITTAL REQUIRED
SS-2	FABRIC SHADE SHELTER	4	NEW TENSILE SHADE FABRIC SAILS AT 5-12 OLD PLAY AREA - SHADE SAILS B,C,D AND E	USA-SHADE	SHEETS A8.1 THRU A8.4	DEFERRED SUBMITTAL REQUIRED
SS-3	FABRIC SHADE SHELTER	1	HORSESHOE PITS - HIPPED ROOF SHADE FABRIC SHELTERS	USA-SHADE	SHEET A7.1	DEFERRED SUBMITTAL REQUIRED
SS-4	FABRIC SHADE SHELTER	1	BOCCE COURTS - HIPPED ROOF SHADE FABRIC SHELTERS	USA-SHADE	SHEET A7.1	DEFERRED SUBMITTAL REQUIRED
SS-5	36' HEXAGON METAL SHADE SHELTER	1	MODEL: HEXAGON 36 - HXE-36-SS, STANDING SEAM DESIGN BASED ON "HEXAGON" SERIES BY POLIGON COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.1	DEFERRED SUBMITTAL REQUIRED
SS-6	12' SQUARE METAL SHADE SHELTER	1	MODEL: SUN SHELTER HIP ROOF 12- SSH-12, STANDING SEAM DESIGN BASED ON POLIGON. COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.2	DEFERRED SUBMITTAL REQUIRED
SS-7	8'X 9' METAL SHADE SHELTER	1	MODEL: SSG-8X9 DURAWOOD-BENCH W/ STANDING SEAM DESIGN BASED ON POLIGON. COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.2	DEFERRED SUBMITTAL REQUIRED

Playground Equipment

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
PE-1	EXISTING 2-5 TOT LOT	1	NEW 2-5 TOT LOT PLAY EQUIPMENT BASED ON MIRACLE SEE SPECIFICATIONS AND ENLARGED PLANS FOR EQUIPMENT LAYOUT AND COLORS.	MIRACLE	X	COLORS PICKED ON SUBMITTAL
PE-2	NEW 5-12 TOT LOT	1	NEW 5-12 TOT LOT BASED ON EQUIPMENT BY " MIRACLE" SEE SPECIFICATIONS AND ENLARGED PLANS FOR EQUIPMENT/ELEMENTS LAYOUT QUANITIES AND COLORS.	MIRACLE	X	COLORS PICKED ON SUBMITTAL
PE-3	NOT USED - DELETED					
PE-4	NOT USED - DELETED					
PE-5	CLIMBING NET CUBE	1	"THE CUBE" - FROM THE JOE BROWN COLLECTION. ART OBJECT, NET CLOMBER	BERLINER MFG.	X	TUBES AND NETS COLORS PICKED ON SUBMITTAL
PS1	SAFFETY SURFACE	1	EPDM - MATCH SISTER PARK COLOR.		X	

Turf and Synthetic Grass

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
SOD-1	GRASS	SEE PLANS	FESCUE			
SYN-1	SYNTHETIC GRASS SHORT	SEE PLANS	LEISURE PUTTING GREEN - ½" TO ⅝" PUTTING GREEN TURF W/ ENVIROFILL	US GREENTECH	DTL. 1/A4.2	PROVIDE SAMPLE
SYN-2	SYNTHETIC GRASS FRINGE	SEE PLANS	LEISURE PUTTING GREEN -1" PUTTING GREEN TURF W/ ENVIROFILL	US GREENTECH	DTL. 1/A4.2	PROVIDE SAMPLE
SYN-3	SYNTHETIC GRASS LONG	SEE PLANS	LAWN - 2" PILE WITH THATCH W/ ENVIROFILL	US GREENTECH	DTL. 2/A4.2	PROVIDE SAMPLE

Decomposed Granite

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
DG-1	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED ¼" MINUS	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-2	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED ¾"	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-3	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED 6" TO 8"	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-4	WALKING TRACK	SEE PLANS	NEW COMPACT DECOMPOSED GRANITE JOGGING PATH. ⅜" MINUS FINES TO A MINIMUM DEPTH OF 1" COMPACT TO 95%.	KALAMAZOO MINERAL PARK		
DG-5	MAINTENANCE YARD	SEE PLANS	CRUSHED STONE #3. WASHED (1" TO 2") 1-1/2" NOMINAL. 3" DEPTH			

Construction Notes

1) CONTRACTOR SHALL OBTAIN AND COORDINATE ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS REQUIRED FOR THIS WORK. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH TO LOCAL CODES AND ORDINANCES.
2) INSTALL ALL PARK EQUIPMENT AND COMPONENTS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS. INSTALL PARK EQUIPMENT AND COMPONENTS AT LOCATIONS SHOWN ON DRAWINGS;PROPERLY ALLIGNED AND SPACED;PLUMBED VERTICALLY, COMPLETE AND READY FOR USE. SEE ENLARGEMENT PLANS FOR ADDITIONAL SITE FURNITURE LOCATIONS. VERIFY WITH OWNER LOCATIONS PRIOR TO MOUNTING.
3) CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE LAYOUT OF THE PROJECT AND FOR ESTABLISHING ALL REFERENCE POINTS AND LINES SET FOR CONSTRUCTION. SEE CIVIL DRAWINGS FOR HORIZONTAL CONTROL ,GRADING AND UTILITIES. VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
4) SEE ELECTRICAL PLANS FOR ELECTRICAL INFORMATION.

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN mm bb
FILE G-1 G-2
DATE 12/17/2018
SCALE Full Scale
BID NO NA
CLV DWG NO 650.108-1
HANSEN NO 71157
SHT NO G2

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Product Legend

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PRODUCT LEGEND

Site Amenities

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
SA-1	PICNIC TABLES 6' AT RAMADA	4	MODEL T6RC REGAL BOLT DOWN 6' TABLE	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-2	PICNIC TABLE 46"	3	MODEL T46RCPED REGAL INGROUND MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-3	BENCHES	6	MODEL B6WBRC 6 FT BENCH WITH BACK, SURFACE MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-4	LAYOUT TABLE	3	OUTDOOR CREATIONS INC. MODEL # 102	PATTERSON-WILLIAMS		INSTALL PER MFR. REC'S.
SA-5	TRASH RECEPTACLES	10	MODEL TR32 - 32 GALLON TRASH RECEPTACLE. MODEL FLAT TOP 32 FLAT TOP LID FOR TRASH RECEPTACLE WITH RIDGID PLASTIC LINER. SURFACE MOUNT	SITE AMENITIES		INSTALL PER MFR. REC'S.
SA-6	BAR-B-QUE GRILL INDIVIDUAL	2	BARBEQUE GRILL: INDIVIDUAL, MODEL #SB1635G 20" W x 15" D x 10" H IN GROUND MOUNTING OPTION. PROVIDE CONCRETE FOOTING PER MANUF REQ.	KAY PARK RECREATION		INSTALL PER MFR. REC'S.
SA-7	BAR-B-QUE GRILL GROUP	3	BARBEQUE GRILL: GROUP, MODEL #XB16 ONE PROVIDED AT HEX 48. IN GROUND MOUNTING OPTION. PROVIDE CONCRETE FOOTING PER MANUF REQ.	KAY PARK RECREATION		INSTALL PER MFR. REC'S.

Exercise Equipment

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
EX-1	DIP STATION	1	DIP STATION 160-016 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.
EX-2	HYPER EXTENTION	1	HYPER EXTENSION 160-018 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.
EX-3	SIT UP	1	SIT-UP 160-007 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.
EX-4	PARRALLEL BAR	1	PARALLEL-BARS 160-004 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.
EX-5	STEP UP	1	STEP UP 160-001 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.
EX-6	BODY CURL	1	BODY-CURL 160-003 SIGN FRAME 160-200-1	MIRACLE INC.	IN-GROUND DTLS. PER MFR.	INSTALL PER MFR. REC'S.

Block type and colors

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
BLK-1	8" X 8" X 16" SPLIT FACE		SINGLE SPLIT FACE CMU COLOR: MOUNTAINS EDGE BROWN W CMU GROUT TRI-DELTA #214	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-2	8" X 4" X 16" TRIM BLOCK		FOUNDERS FINISH BLOCK COLOR: ANTHEM	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-3	8" X 2" X 16" BLOCK CAP		COLOR: MOUNTAINS EDGE BROWN	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-4	COLUMN CAP		MATCH COMMUNITY COLUMN CAP	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL
BLK-5	8" X 8" X 16"		SMOOTH FACE CMU COLOR: MATCH MOUNTAINS EDGE BROWN W CMU GROUT TRI-DELTA #214	MATCH COMMUNITY FOR TYPE, SIZE AND COLOR.		SUBMIT FOR APPROVAL

Paint Colors

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
PC-1	MAINTENANCE GATES, RAILS / STAIRS & SP	1	RAL 8012 POWDER COAT / ROT BRAUN			SUBMIT SAMPLES FOR COLOR APPROVAL

Park Signage

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES ANSI A117.1-03 ADA Access
PS-1	TRAIL DISTANCE SIGN	X	TO BE DESIGNED BY CLV.			
PS-2	PARKING SIGNS	X	PARKING AND HANDICAP			

Shade Shelters

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS / SHT. REFER.	FOOTNOTES
SS-1	FABRIC SHADE SHELTER	1	NEW TENSILE SHADE FABRIC SAILS AT 2-5 OLD PLAY AREA - SHADE SAIL A	USA-SHADE	SHEETS A8.1 & A8.3	DEFERRED SUBMITTAL REQUIRED
SS-2	FABRIC SHADE SHELTER	4	NEW TENSILE SHADE FABRIC SAILS AT 5-12 OLD PLAY AREA - SHADE SAILS B,C,D,E AND ~~F~~	USA-SHADE	SHEETS A8.1 THRU A8.4	DEFERRED SUBMITTAL REQUIRED
SS-3	FABRIC SHADE SHELTER	1	HORSESHOE PITS - HIPPED ROOF SHADE FABRIC SHELTERS	USA-SHADE	SHEET A7.1	DEFERRED SUBMITTAL REQUIRED
SS-4	FABRIC SHADE SHELTER	1	BOCCE COURTS - HIPPED ROOF SHADE FABRIC SHELTERS	USA-SHADE	SHEET A7.1	DEFERRED SUBMITTAL REQUIRED
SS-5	36' HEXAGON METAL SHADE SHELTER	1	MODEL: HEXAGON 36 - HXE-36-SS, STANDING SEAM DESIGN BASED ON "HEXAGON" SERIES BY POLIGON COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.1	DEFERRED SUBMITTAL REQUIRED
SS-6	12' SQUARE METAL SHADE SHELTER	1	MODEL: SUN SHELTER HIP ROOF 12- SSH-12, STANDING SEAM DESIGN BASED ON POLIGON. COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.2	DEFERRED SUBMITTAL REQUIRED
SS-7	8'X 9' METAL SHADE SHELTER	1	MODEL: SSG-8X9 DURAWOOD-BENCH W/ STANDING SEAM DESIGN BASED ON POLIGON. COLOR / FINISH: MATCH EXISTING ROOF AND FRAME COLORS WITH EXISTING RAMADAS.	POLIGON PROVIDE METAL COLOR SUBMITTAL	SHEET A6.2	DEFERRED SUBMITTAL REQUIRED

Playground Equipment

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
PE-1	EXISTING 2-5 TOT LOT	1	NEW 2-5 TOT LOT PLAY EQUIPMENT BASED ON MIRACLE SEE SPECIFICATIONS AND ENLARGED PLANS FOR EQUIPMENT LAYOUT AND COLORS.	MIRACLE	X	COLORS PICKED ON SUBMITTAL
PE-2	NEW 5-12 TOT LOT	1	NEW 5-12 TOT LOT BASED ON EQUIPMENT BY " MIRACLE". SEE SPECIFICATIONS AND ENLARGED PLANS FOR EQUIPMENT/ELEMENTS LAYOUT QUANITIES AND COLORS.	MIRACLE	X	COLORS PICKED ON SUBMITTAL
PE-3	PLAY BOOSTER	X	108" ROLLER SLIDE & TIGHTROPE CLIMBER (5-12 YRS. OLD)	EXERPLAY, INC.	X	COLORS PICKED ON SUBMITTAL
PE-4	ZIP LINE	X	GLIDEALONG MODEL # 682X	MIRACLE DISTRIBUTED	X	COLORS PICKED ON SUBMITTAL
PE-5	CLIMBING NET CUBE	1	"THE CUBE" - FROM THE JOE BROWN COLLECTION. ART OBJECT, NET CLOIMBER	BERLINER MFG.	X	TUBES AND NETS COLORS PICKED ON SUBMITTAL
PSI	SAFFETY SURFACE	1	EPDM - MATCH SISTER PARK COLOR.		X	

Turf and Synthetic Grass

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
SOD-1	GRASS	SEE PLANS	FESCUE			
SYN-1	SYNTHETIC GRASS SHORT	SEE PLANS	LEISURE PUTTING GREEN - ½" TO ⅝" PUTTING GREEN TURF W/ ENVIROFILL	US GREENTECH	DTL. 1/A4.2	PROVIDE SAMPLE
SYN-2	SYNTHETIC GRASS FRINGE	SEE PLANS	LEISURE PUTTING GREEN -1" PUTTING GREEN TURF W/ ENVIROFILL	US GREENTECH	DTL. 1/A4.2	PROVIDE SAMPLE
SYN-3	SYNTHETIC GRASS LONG	SEE PLANS	LAWN - 2" PILE WITH THATCH W/ ENVIROFILL	US GREENTECH	DTL 2/A4.2	PROVIDE SAMPLE

Decomposed Granite

KEY	ITEM	QUANITY	DESCRIPTION	MANUFACTURER	DETAILS	FOOTNOTES
DG-1	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED ¼" MINUS	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-2	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED ¾"	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-3	LANDSCAPE DECOMPOSED GRANITE	SEE PLANS	REBEL RED 6" TO 8"	KALAMAZOO MINERAL PARK		SUBMIT COLOR AND SIZE FOR APPROVAL
DG-4	WALKING TRACK	SEE PLANS	NEW COMPACT DECOMPOSED GRANITE JOGGING PATH. ⅜" MINUS FINES TO A MINIMUM DEPTH OF 2" COMPACT TO 95%.	KALAMAZOO MINERAL PARK		
DG-5	MAINTENANCE YARD	SEE PLANS	CRUSHED STONE #3. WASHED (1" TO 2") 1-1/2" NOMINAL. 3" DEPTH			

Construction Notes

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4) SEE ELECTRICAL PLANS FOR ELECTRICAL INFORMATION.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT

HUCKLEBERRY PARK
- ADDITION -

Product Legend

STAMP

VOID

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm bb
FILE	G-1 G-2
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	G2

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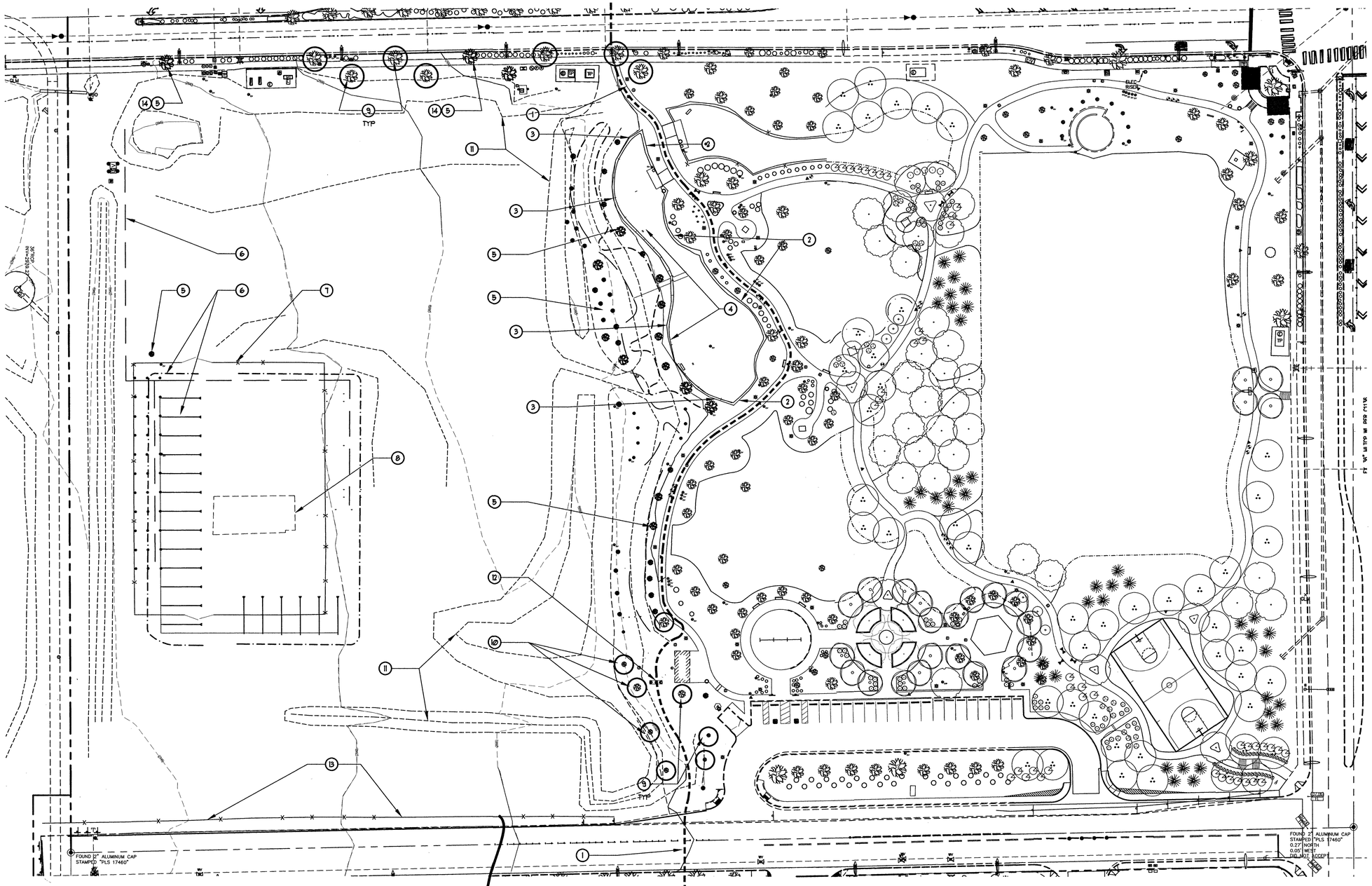

Overall Site Plan Demolition

Scale: 1"=40'-0"

STREET CAPS & NORTH DETAIL

take out no less.

- 4" LIGHT POLES W/ LIGHTING AT TENNIS COURTS.
- MOVE LIGHTS BY DG TRAIL TO OTHER SIDE OF TRAIL.

1. PHASE TWO WEST OF THIS LINE NEW CONSTRUCTION.
2. PROTECT IN PLACE EXISTING EAST DOG PARK FENCE.
3. REMOVE EXISTING WEST DOG PARK FENCE. RECYCLE REMAINS IF POSSIBLE
4. SEE IR1 AND IR2 FOR DEMO AND NEW IRRIGATION FOR DOG PARK EXPANSION.
5. REMOVE EXISTING TREES
6. REMOVE EXISTING IRRIGATION, SEE IR1 FOR DETAILS
7. REMOVE EXISTING MAINTENANCE FENCE. COORDINATE W. OWNER TO RECYCLE, OR REMOVE.
8. REMOVE CONCRETE
9. PROTECT IN PLACE EXISTING TREES IN FIRST PHASE EXCEPT DISIGNATED ONES TO BE REMOVED.
10. PROTECT IN PLACE EXISTING TREES, CONTRACTOR TO WATER DURING PRIOR TO NEW IRRIG INSTALL. SEE DTL. 4/A2
11. EXCESS FILL TO BE RELOCATED PER BLM PERMIT SEE CIVIL FOR QUANTITIES
12. DEMO (3) BOLLARDS. THIS WILL BE DONE BY HOA FACILITIES.
13. FENCE TO REMAIN DURING CONSTRUCTION FOR CONSTRUCTION FENCE. CONTRACTOR TO REMOVE AT COMPLETION OF PROJECT. COORDINATE WITH OWNER.
14. THE EXISTING IRRIGATION LINE COULD BE DISRUPTED IN THE CONSTRUCTION OF THE CURB CUTS. CONTRACTOR IS TO CONFIRM THE LATERALS ARE REPAIRED AND SLEEVED PRIOR TO COVERING UP. SEE IRRIG SPECS FOR SLEEVE SIZES.

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Overall Existing And Demolition Plan

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	MS
FILE	A-1
DATE	12/11/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	D1

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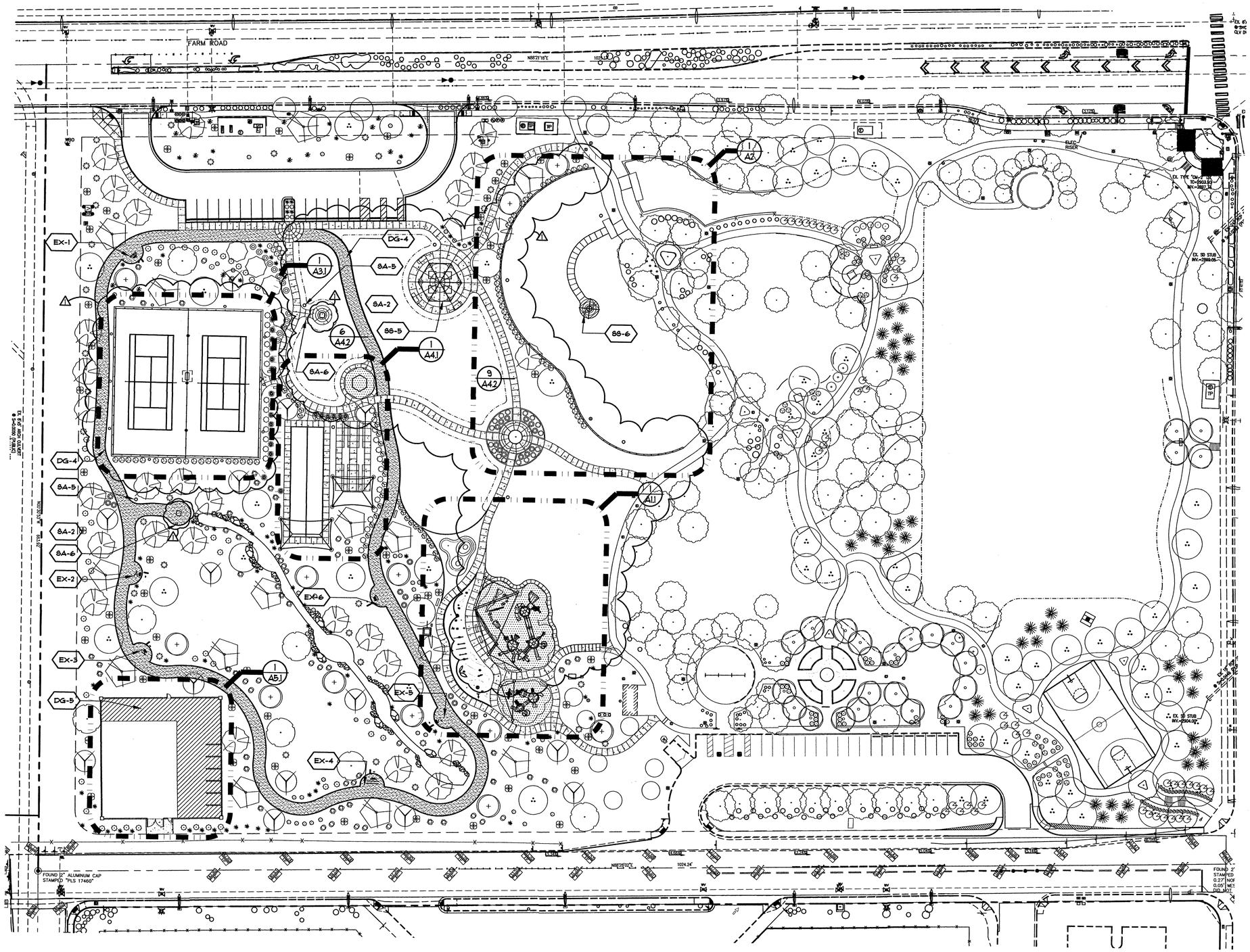

Overall Site Reference Plan

Scale: 1" = 40'-0"

SEE SHEET G2

- EX-1 DIP STATION
- EX-2 HYPER EXTENTION
- EX-3 SIT UP
- EX-4 PARRALLEL BAR
- EX-5 STEP UP
- EX-6 BODY CURL
- DG-4 WALKING TRACK
- DG-5 MAINTENANCE YARD GRAVEL
- SB-5 36' HEXAGON METAL SHADE SHELTER
- SB-6 12' SQUARE METAL SHADE SHELTER
- SA-2 46" TABLE
- SA-3 BENCH
- SA-5 TRASH RECEPTACLES
- SA-6 INDIVIDUAL BBQ

SEE SHEET L2
FOR LANDSCAPE MATERIAL

CONTROL JOINTS:
EQUAL SPACES CLOSE TO 5', BETWEEN CURVES AND TANGENTS PROJECTED FROM CENTER OF CURVES. TYP.

CITY OF LAS VEGAS NEVADA

REVISIONS
6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

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planning

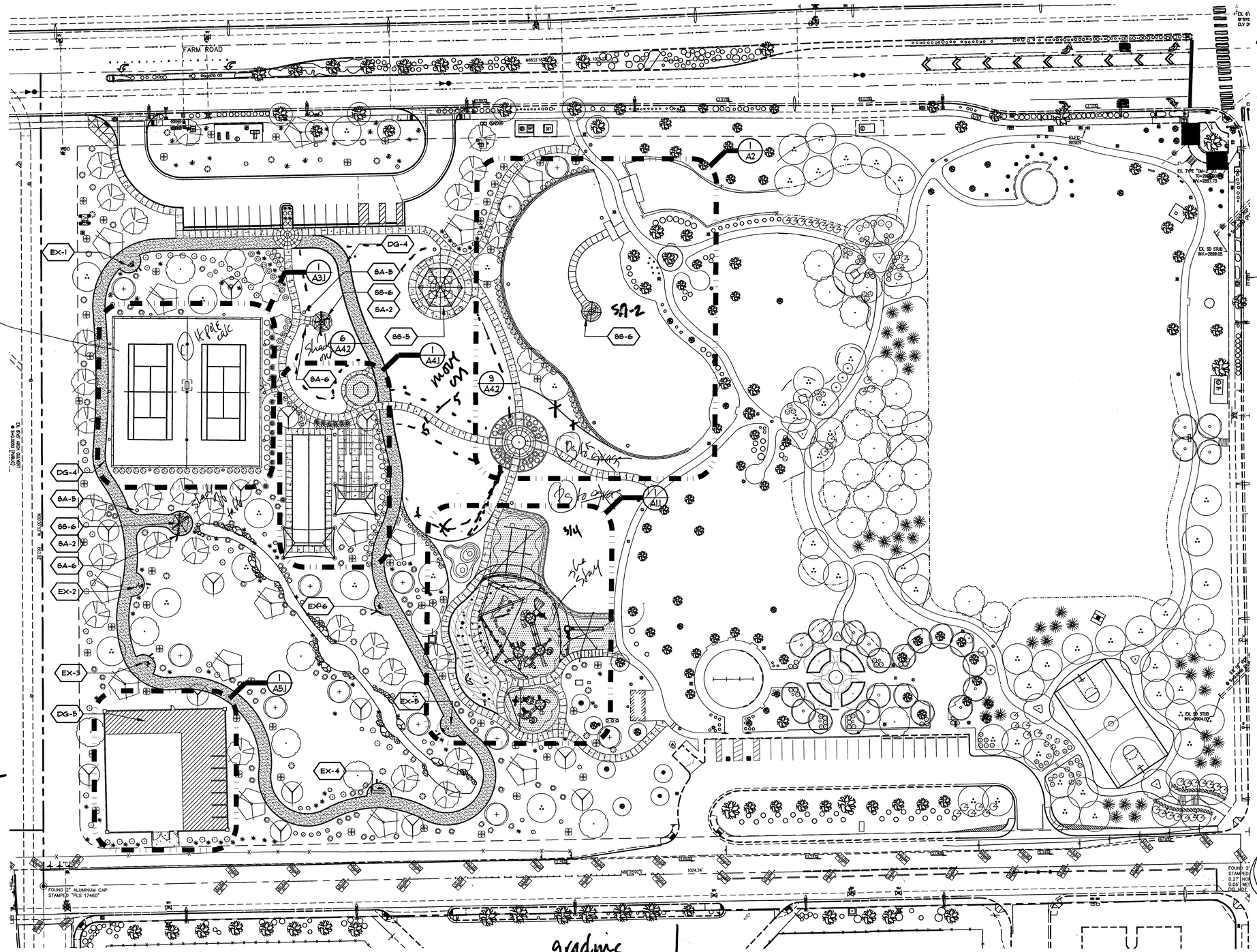
24" to 15" trees plant

6" poles to 4" on tennis ct w/ st.

15 g tree

1 g plant

get rid of gabion



SEE SHEET G2

- EX-1 DIP STATION
- EX-2 HYPER EXTENTION
- EX-3 SIT UP
- EX-4 PARRALLEL BAR
- EX-5 STEP UP
- EX-6 BODY CURL
- DG-4 WALKING TRACK
- DG-5 MAINTENANCE YARD GRAVEL
- SS-5 36' HEXAGON METAL SHADE SHELTER
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- SA-5 TRASH RECEPTACLES
- SA-6 INDIVIDUAL BBQ

SEE SHEET L2 FOR LANDSCAPE MATERIAL

CONTROL JOINTS:
EQUAL SPACES CLOSE TO 5', BETWEEN CURVES AND TANGENTS PROJECTED FROM CENTER OF CURVES. TYP.

Overall Site Reference Plan
Scale: 1"=40'-0"

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DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm bb
FILE	
DATE	12/17/2018
SCALE	1" = 40'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A0

DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL, WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND SHALL NOT BE USED BY THE OWNER ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE DESIGN PROFESSIONAL. ALL UNPUBLISHED COPYRIGHTS AND OTHER RIGHTS OF INTELLECTUAL PROPERTY RESERVED. ANY REPRODUCTION OF THE DRAWINGS AND SPECIFICATIONS ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS RETAINED BY THE CLIENT MAY BE UTILIZED ONLY FOR OCCUPYING THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT © A © 633.780

Confirm that NV Energy is in Bid set or ck Hay

JF

4" pole from elec to Struc photometrs

grading permit

LD sched
Hortic cad
elec cad
Playground cad

fence electronic

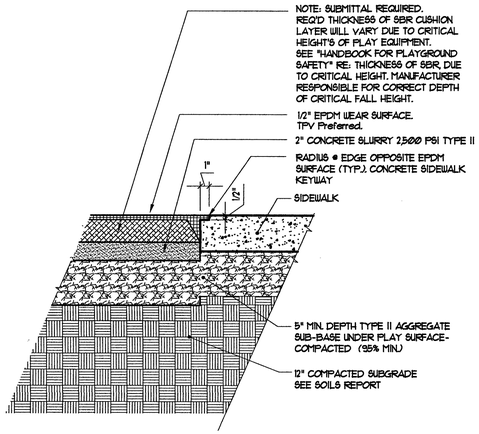
move wrig back from 5' side walks

4" post light in tennis court instead of 6" get specs too (I ask Franklin for a 4" pole)

spencer

get rid of east shade sail

slab 4" thk walk



2 **Safety Surface Section**
Scale: 3/4" = 1'-0"

PLAYGROUND EQUIPMENT, SHADE SAILS AND POST COLORS TO BE SELECTED AT SUBMITTAL TIME BY THE ARCHITECT.

SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

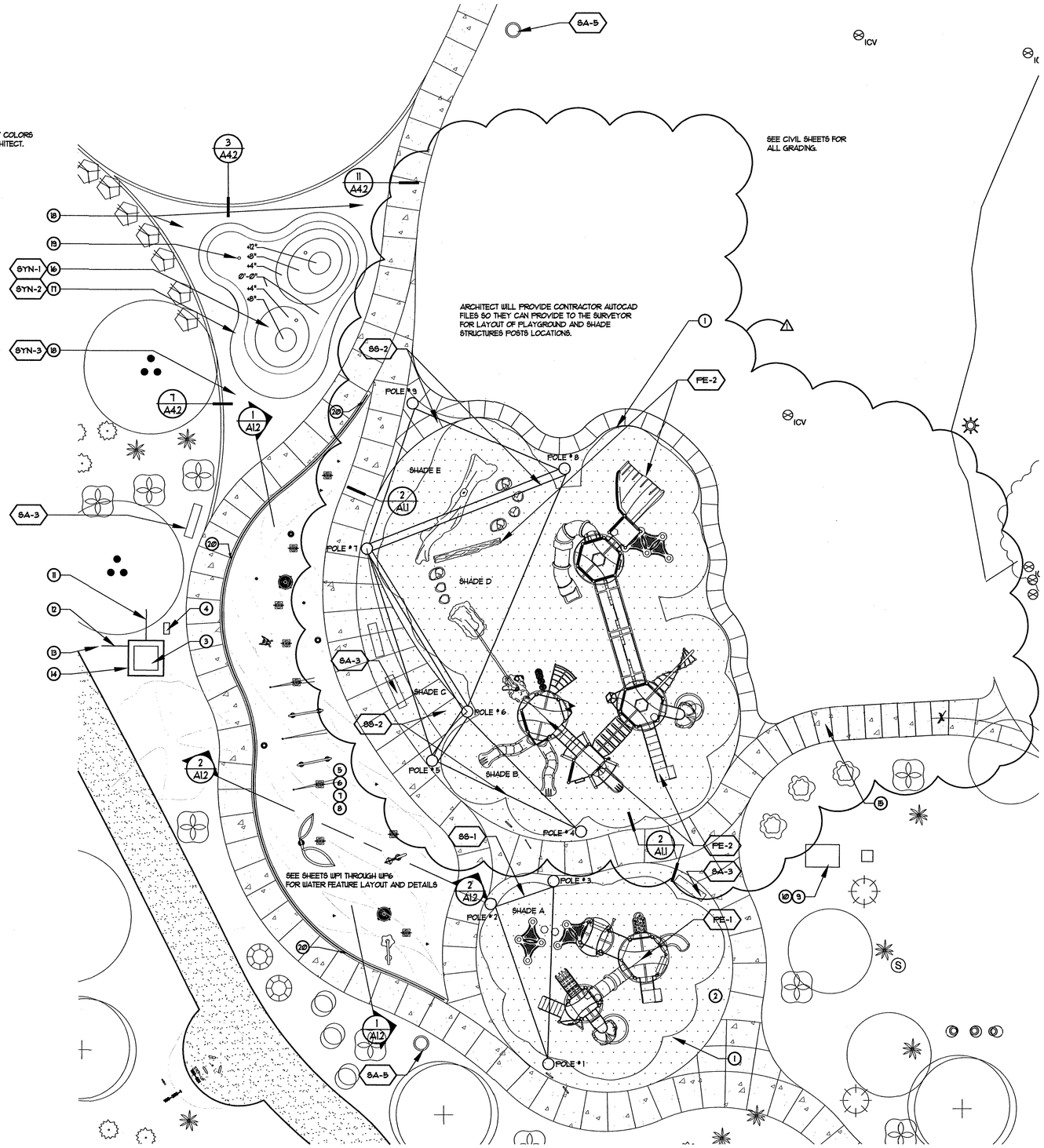
SS-1	SHADE SAILS 2-5 YEAR PLAY AREA
SS-2	SHADE SAILS 5-12 YEAR PLAY AREA
PE-1	PLAYGROUND EQUIPMENT 2-5 YEAR
PE-2	PLAYGROUND EQUIPMENT 5-12 YEAR
PE-3	NOT USED
PE-4	NOT USED
SOD-1	FESCUE
SYN-1	SYNTHETIC GRASS SHORT 1/2" TO 3/8"
SYN-2	SYNTHETIC GRASS FRINGE 1"
SYN-3	SYNTHETIC GRASS LONG 2"
SA-3	BENCH
SA-5	TRASH RECEPTACLE

Key Notes:

1. FALLZONE LIMITS
2. SAFETY SURFACE COLOR TO MATCH SISTER PARK KNICKERBOCKER. SEE DETAIL 2/A11
3. ALUMINUM SUBTERRANEAN COMMAND CENTER 1-10 VALVES. COMBINE SOME TOYS. 3' DEEP ROCK BED FOR DRAINAGE BENEATH VAULT.
4. CONTROLLER IN STRONG BOX ON CONCRETE PAD. SEE DTL. 4/LIP3
5. 6" TYPE V SULFATE RESISTANT CEMENT
6. MEDIUM BROOM FINISH (MOCKUP APPROVAL REQUIRED) AND FINAL FINISH OF SAFETY GROOVE JOINTS.
7. 1/2" FIBER EXPANSION JOINTS WITH ZIP STRIP FILL WITH ELASTOMERIC SEALANT TO MATCH CONCRETE.
8. 6" TYPE II AGGREGATE BASE 95% COMPACTION
9. 500 GALLON SAND OIL SEPARATOR, SAMPLE BOX AND SEWAR CONNECTION FOR WATER FEATURE. SEE CIVIL
10. SEE CIVIL FOR 6" DRAIN LINE, SLOPE CLEANOUT LOCATIONS AND DETAILED CONNECTION TO NEW SAND OIL INTERCEPTOR.
11. ELECTRICAL SERVICE LINE 120 VAC 10 AMP SERVICE. SEE L4/LP2 FOR ELECTRICAL LAYOUT. SEE ELECTRICAL DRAWINGS
12. SEE SHEET 2/LP2 FOR WATER FEATURE PLUMBING. WATER LINE SEE NOTE 4 ON IR0 AND IR2
13. NEW RPPA SEE NOTE 4 ON IR0 AND IR2
14. 3'-0" DEEP ROCK BED FOR DRAINAGE BENEATH VAULT.
15. SEE DETAIL 3/A12 FOR STAIR SECTION
16. PUTTING GREEN LENGTH SYNTHETIC TURF - REF. 1/A42 (SYN-1)
17. HATCHED AREA - PUTTING GREEN FRINGE LENGTH SYNTHETIC TURF - REF. 1/A42 (SYN-2)
18. CHIPPING GREEN 2" LENGTH SYNTHETIC TURF - REF. 2/A42 (SYN-3)
19. PUTTING GREEN HOLE. TOTAL OF 3 HOLES. REF. 4/A42
20. WATER FEATURE HANDRAIL. DTL. 2/A12

Construction Notes:

1. PLAYGROUND EQUIPMENT DESIGN AND MODEL NUMBERS SHOWN ARE BASED ON MIRACLE PLAYGROUND.
2. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, AND UTILIZED IN THE FINAL DESIGN.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS OF PLAY AREA, ORIENTATION, AND LOCATION OF ALL EXISTING EQUIPMENT AND SITE FURNISHINGS PRIOR TO ORDERING.
4. CONTRACTOR TO COORDINATE FOOTING SIZE AND COMPONENT ATTACHMENTS FOR WATER FEATURE AND PLAY EQUIPMENT.
5. ELECTRICAL AND PLUMBING CONNECTIONS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND LOCAL CODES.
6. SEE SP DRAWINGS FOR GRID AND TOY LOCATION, PIPING AND ELECTRICAL.



1 **Playground and Water Play Feature**
Scale: 1"= 10'-0"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

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PHONE: (702) 229-6276
FAX: (702) 384-4846

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

STAMP

HUCKLEBERRY PARK
- ADDITION -

Play Area - Enlarged Plan, Legends, Details

DRAWN	ns / bb
FILE	A11
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A1.1

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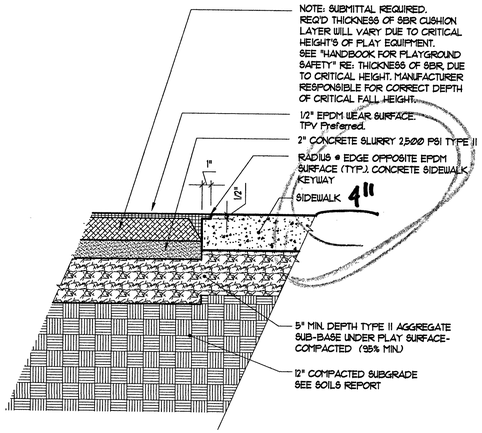

2 Safety Surface Section

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

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SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

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SS-2	SHADE SAILS 5-12 YEAR PLAY AREA
PE-1	PLAYGROUND EQUIPMENT 2-5 YEAR
PE-2	PLAYGROUND EQUIPMENT 5-12 YEAR
~~PE-3~~	PLAYBOOSTER NOT USED
~~PE-4~~	ZIP-LINE NOT USED
SOD-1	FESCUE
SYN-1	SYNTHETIC GRASS SHORT ¾" TO ⅞"
SYN-2	SYNTHETIC GRASS FRINGE 1"
SYN-3	SYNTHETIC GRASS LONG 2"
SA-3	BENCH
SA-5	TRASH RECEPTACLE

Key Notes:

1. FALLZONE LIMITS
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18. CHIPPING GREEN 2" LENGTH SYNTHETIC TURF - REF. 2/A42 SYN-3
19. PUTTING GREEN HOLE. TOTAL OF 3 HOLES. REF. 4/A42
20. WATER FEATURE HANDRAIL. DTL. 2/A12

Construction Notes:

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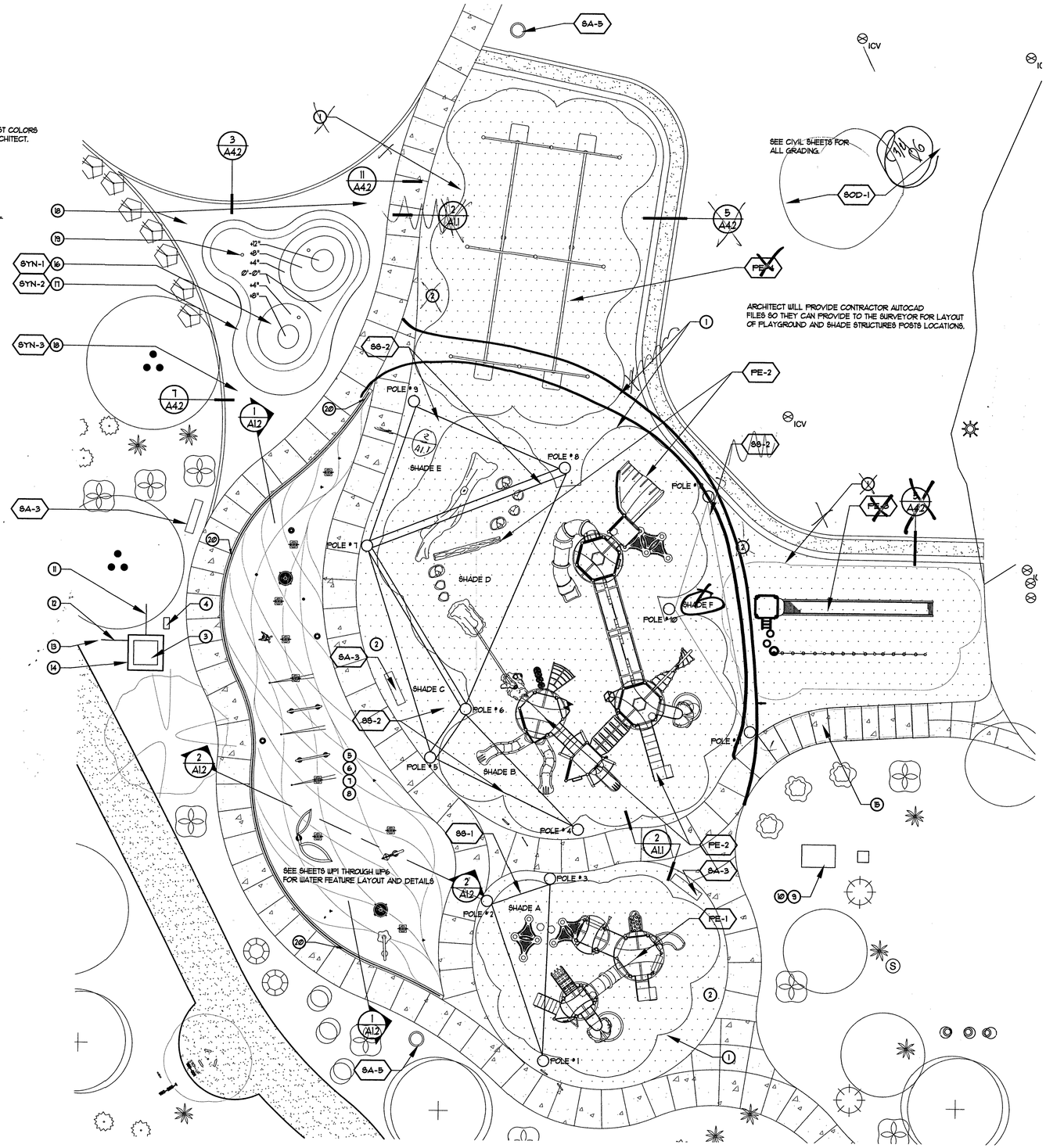
6. SEE SP DRAWINGS FOR GRID AND TOY LOCATION, PIPING AND ELECTRICAL.



1 Playground and Water Play Feature

Scale: 1"= 10'-0"

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CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

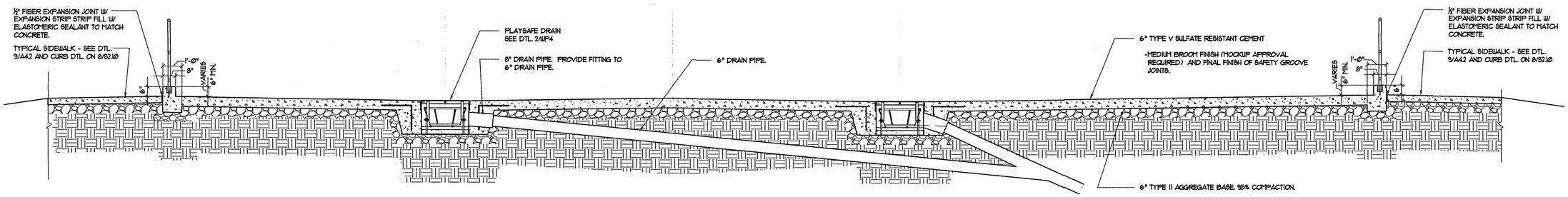
Play Area - Enlarged Plan, Legends, Details

STAMP

VOID

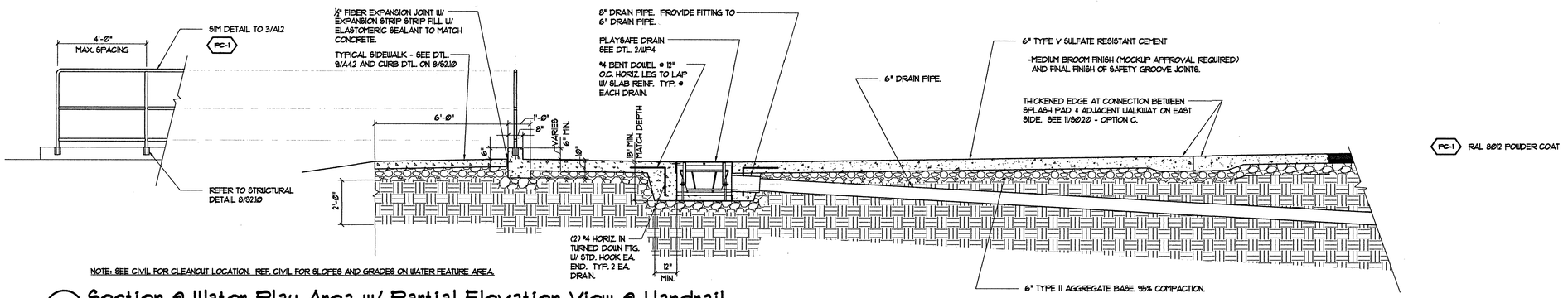
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
FILE	A1.1
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A1.1



1 Section @ Water Play Area

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

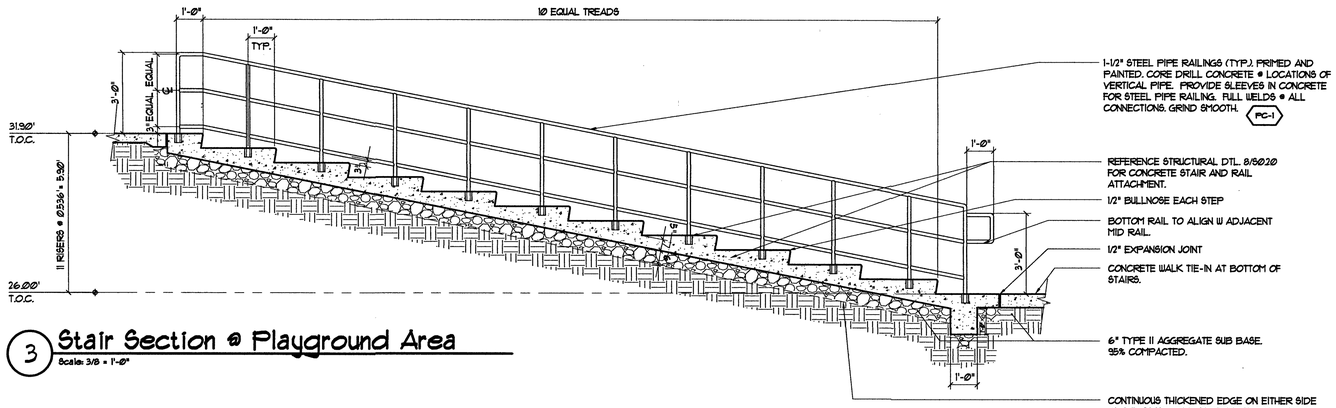


NOTE: SEE CIVIL FOR CLEANOUT LOCATION. REF. CIVIL FOR SLOPES AND GRADES ON WATER FEATURE AREA.

FC-1 RAL 8012 POWDER COAT

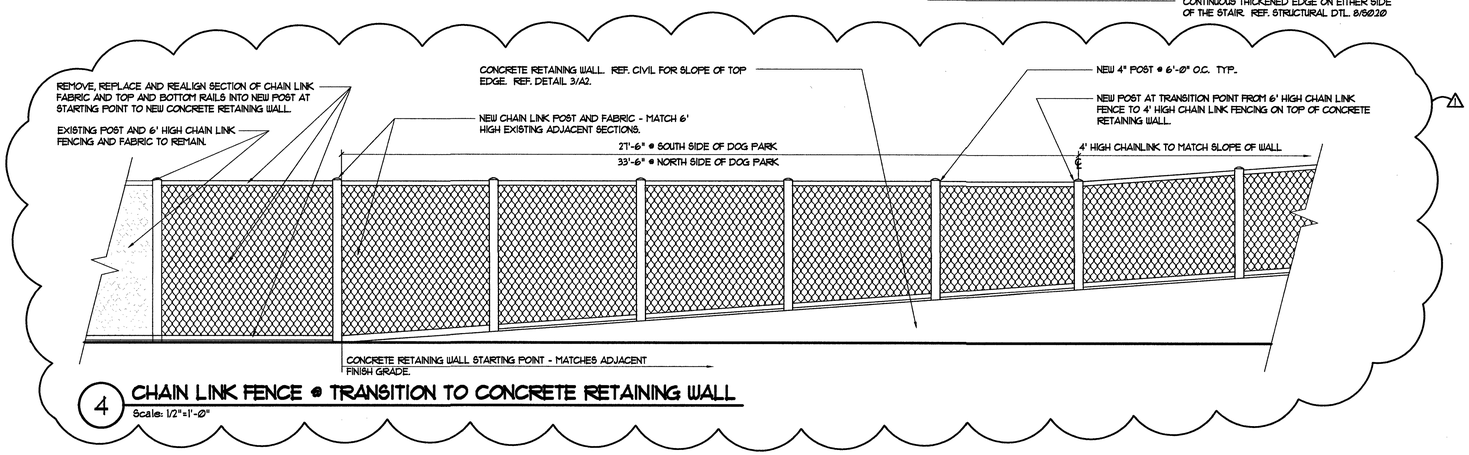
2 Section @ Water Play Area w/ Partial Elevation View @ Handrail

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



3 Stair Section @ Playground Area

Scale: 3/8 = 1'-0"



4 CHAIN LINK FENCE @ TRANSITION TO CONCRETE RETAINING WALL

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

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Water Play Area - Sections, Stair Section

STAMP

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DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm / bb
FILE	A12
DATE	12/11/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	A1.2

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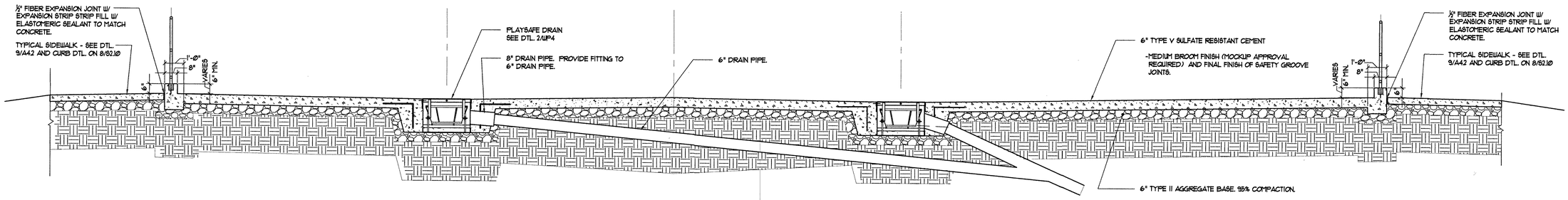
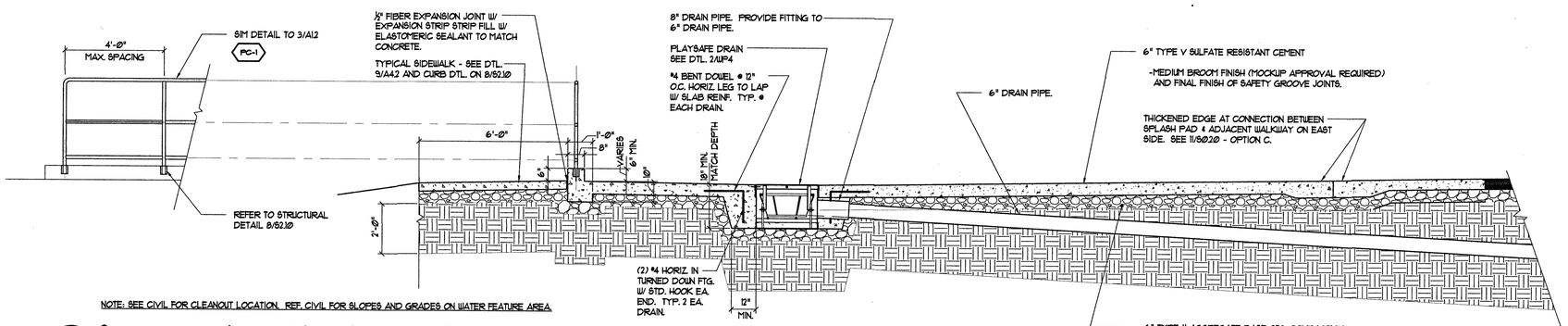


1 Section @ Water Play Area

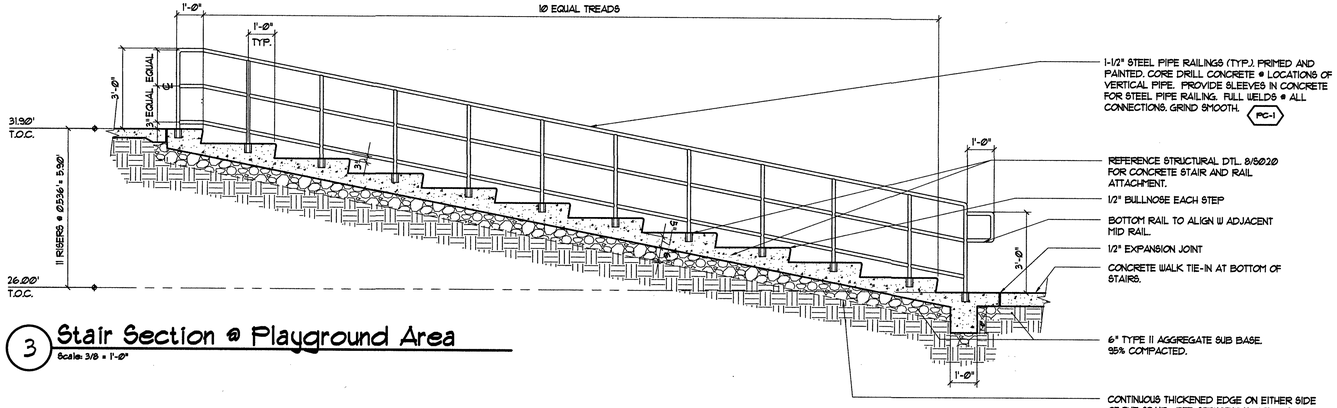
Scale: 3/8" = 1'-0"



NOTE: SEE CIVIL FOR CLEANOUT LOCATION. REF. CIVIL FOR SLOPES AND GRADES ON WATER FEATURE AREA.

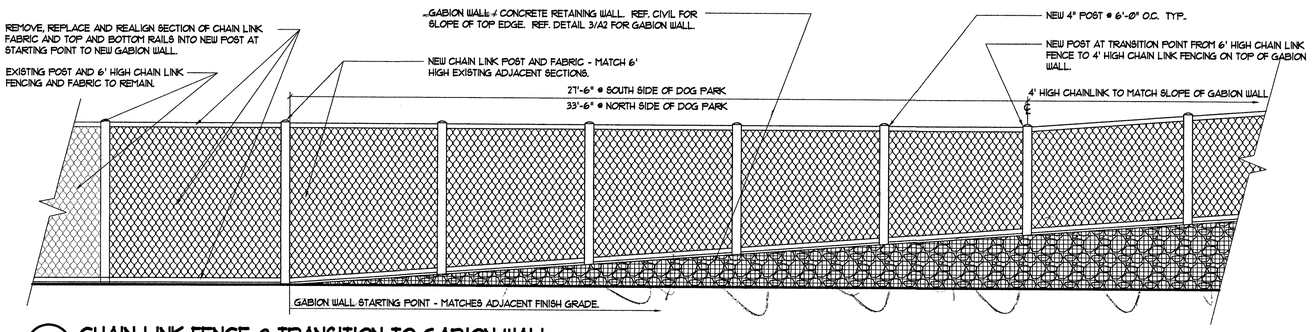
2 Section @ Water Play Area w/ Partial Elevation View @ Handrail

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



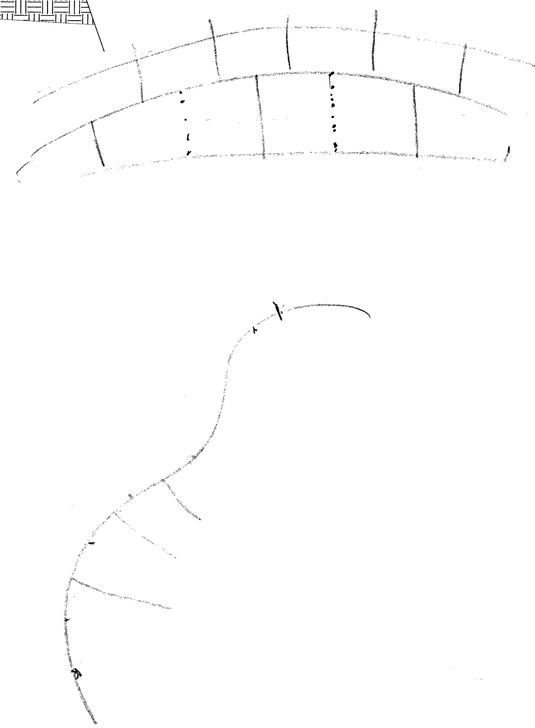
3 Stair Section @ Playground Area

Scale: 3/8 = 1'-0"



4 CHAIN LINK FENCE @ TRANSITION TO GABION WALL

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



PC-1 RAL 8012 POWDER COAT

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Water Play Area - Sections, Stair Section

STAMP

VOID

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
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FAX: (702) 384-4846

DRAWN	mm / bb
FILE	A12
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A1.2

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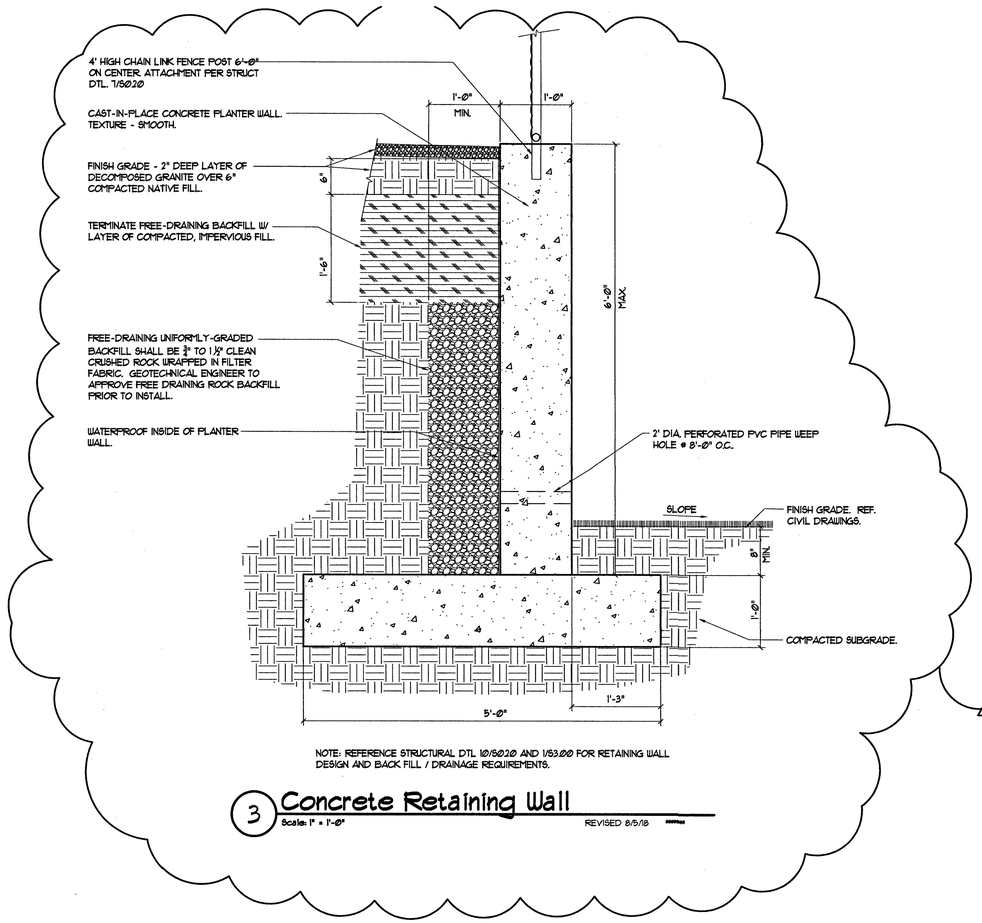
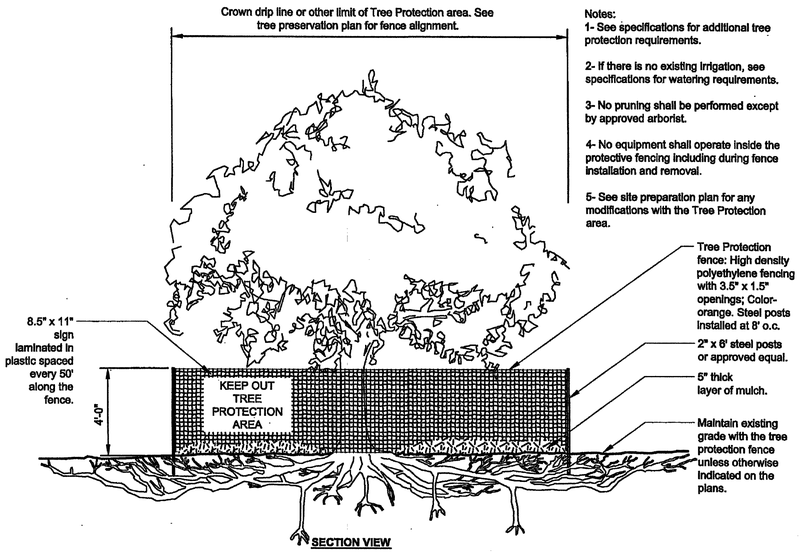


NOTE: REFERENCE STRUCTURAL DTL 10/S020 AND 1/S300 FOR RETAINING WALL DESIGN AND BACK FILL / DRAINAGE REQUIREMENTS.

3 Concrete Retaining Wall

Scale: 1" = 1'-Ø"

REVISED 8/5/18



SECTION VIEW

Notes:

1- See specifications for additional tree protection requirements.

2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection area.

4 Tree Protection Exhibit

Scale: nts

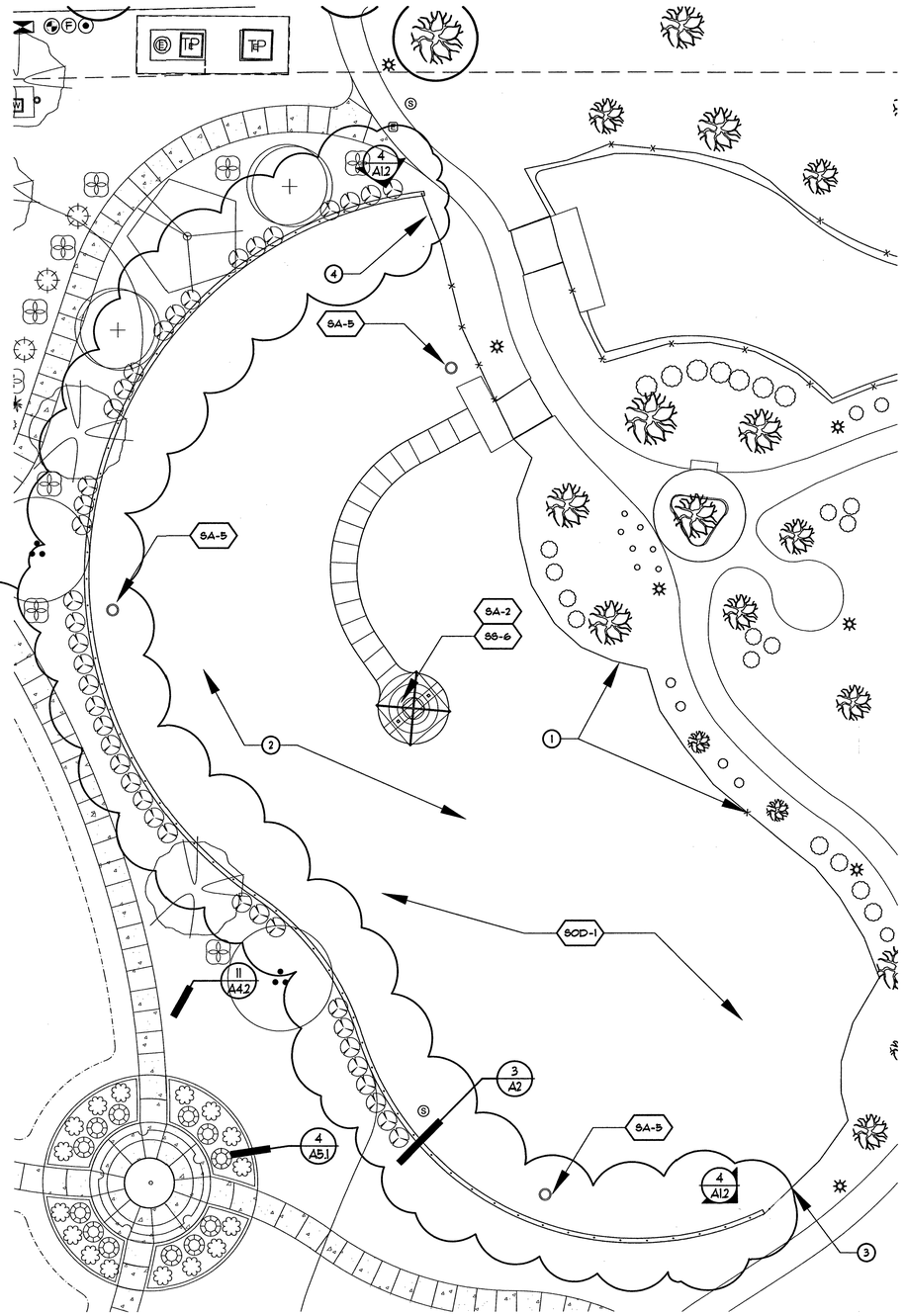
URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

Key Notes:

1. PROTECT IN PLACE EXISTING EAST DOG PARK FENCE.
2. SEE IR1 FOR DEMO
   SEE IR2 FOR NEW IRRIGATION
3. THE EXISTING FENCE NEEDS TO BE ALIGNED WITH THE NEW FENCE. REMOVE ADJACENT EXISTING SECTION AND REPLACE NEW POST TO RE-ALIGN THE EXISTING FENCE WITH THE NEW.
4. THE EXISTING EAST DOG FENCE NEEDS ADDITIONAL FENCE PANEL TO CLOSE THE CONNECTION WITH THE NEW FENCE.

SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

- SS-6 — 12' SQUARE METAL SHADE STRUCTURE
- SOD-1 — FESCUE GRASS
- SA-2 — 46" TABLE
- SA-5 — TRASH RECEPTACLE



1 New Dog Park-Enlarged

Scale: 1/16" = 1'-Ø"

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Dog Park - Existing / Demo and New
Enlarged Plans, Details

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

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LAS VEGAS, NEVADA 89106
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DRAWN	mm & bb
FILE	
DATE	12/11/2018
SCALE	varies
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A2

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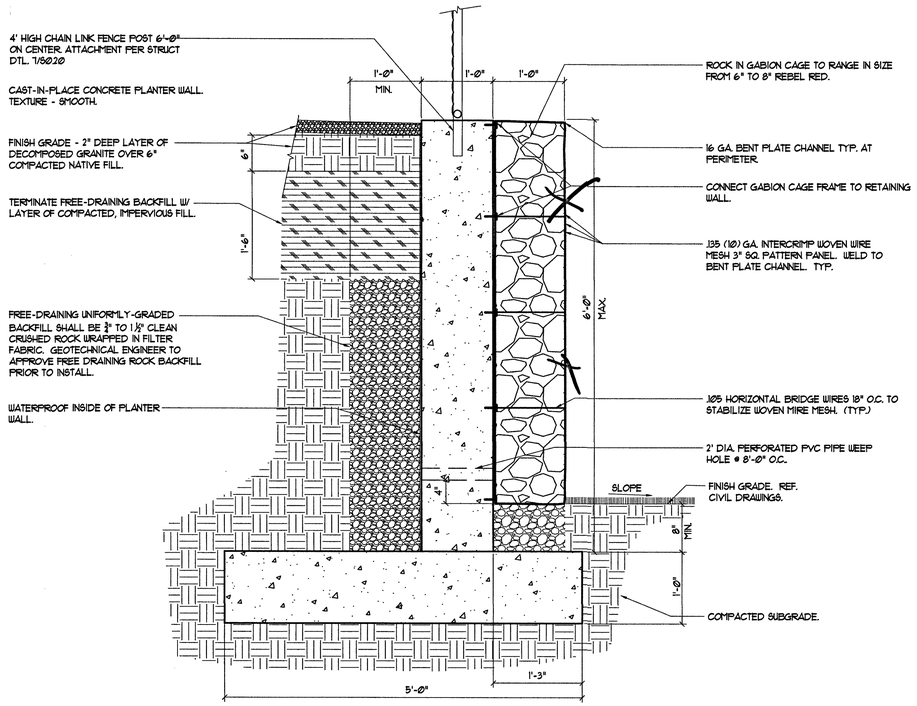
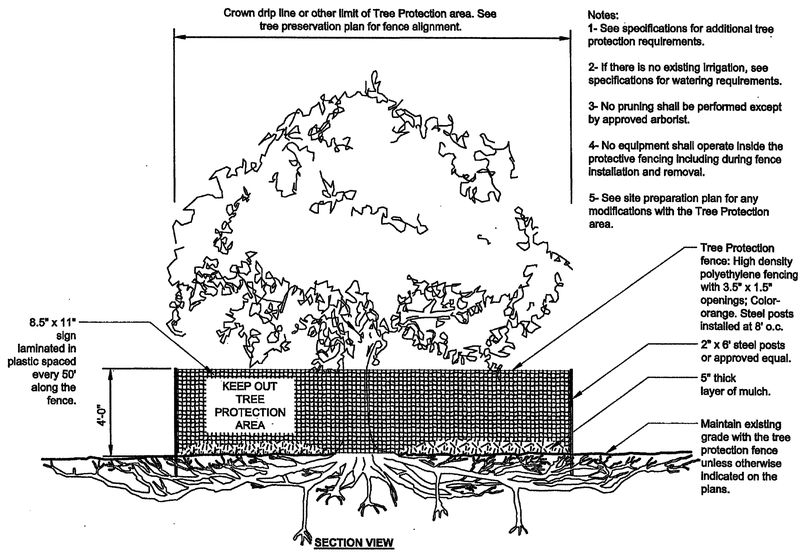
DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS



NOTE: REFERENCE STRUCTURAL DTL 10/SD2.0 AND 1/S3.00 FOR RETAINING WALL DESIGN AND BACK FILL / DRAINAGE REQUIREMENTS.

3 Gabion Wall

Scale: 1" = 1'-0" REVISED 8/5/18



Notes:
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4 Tree Protection Exhibit

Scale: nts

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

Key Notes:

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   SEE IR2 FOR NEW IRRIGATION
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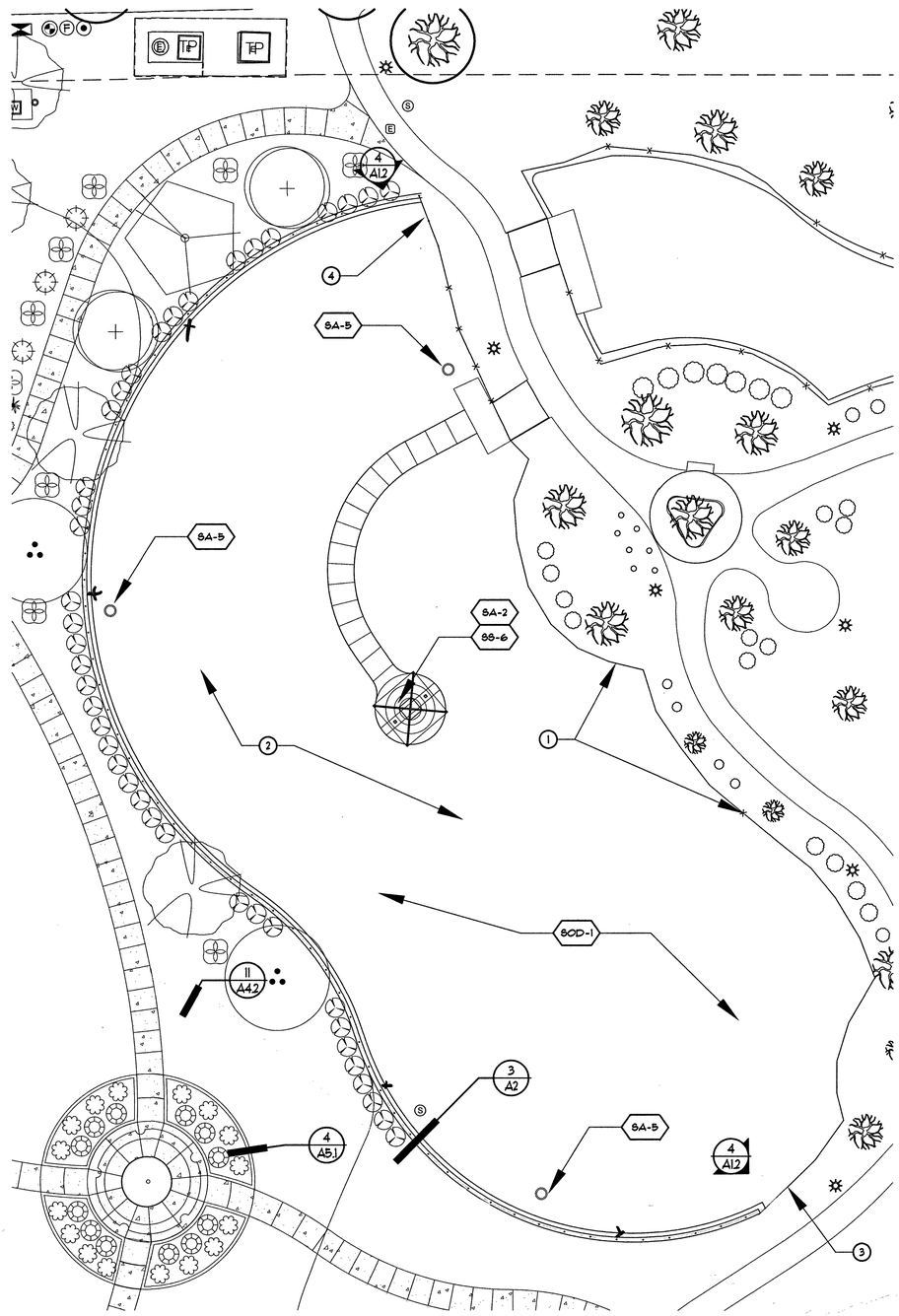
SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

- SS-6 — 12' SQUARE METAL SHADE STRUCTURE
- SOD-1 — FESCUE GRASS
- SA-2 — 46" TABLE
- SA-5 — TRASH RECEPTACLE



1 New Dog Park-Enlarged

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

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Dog Park - Existing / Demo and New Enlarged Plans, Details

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm & bb
FILE	
DATE	12/17/2018
SCALE	varies
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A2

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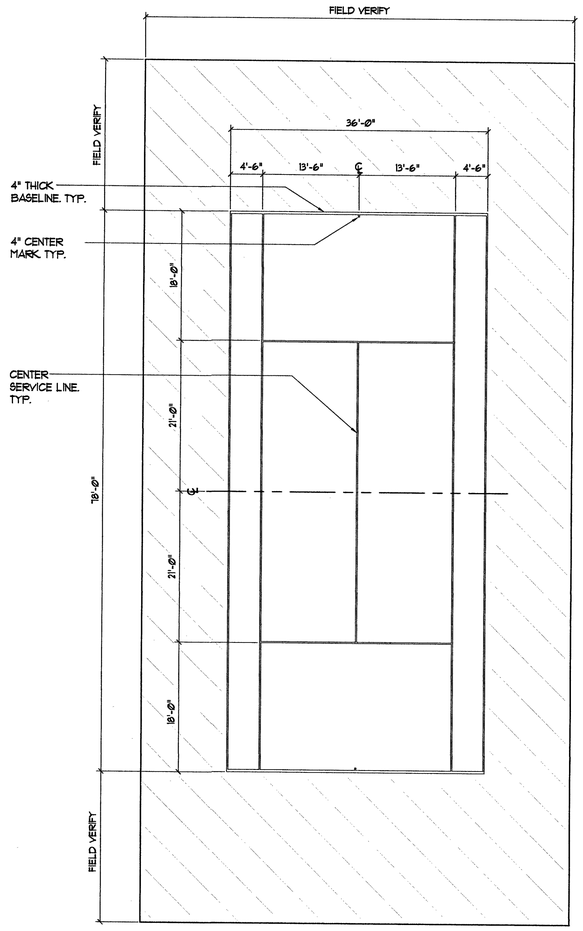


2 Typical Tennis Court Striping & Dimensions Plan

Scale: 1"=10'-0"

Striping Notes:

- PLAYING LINES IN ACCORDANCE WITH AMERICAN SPORTS BUILDERS ASSOCIATION SPECIFICATIONS AND THE U.S. TENNIS ASSOCIATION.

- ALL DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES, EXCEPT THE CENTER SERVICE LINE AND CENTER MARK.

- ALL LINES ARE 2" THICK UNLESS NOTED OTHERWISE.

Nets and Accessories Specifications:

PROVIDE COMPLETE WITH ALL NETS, POSTS,TIE DOWNS AND HARDWARE, BY LA STEELCRAFTS PRODUCTS INC., EDWARDS SPORTS PRODUCTS, OR PRE-APPROVED EQUAL.

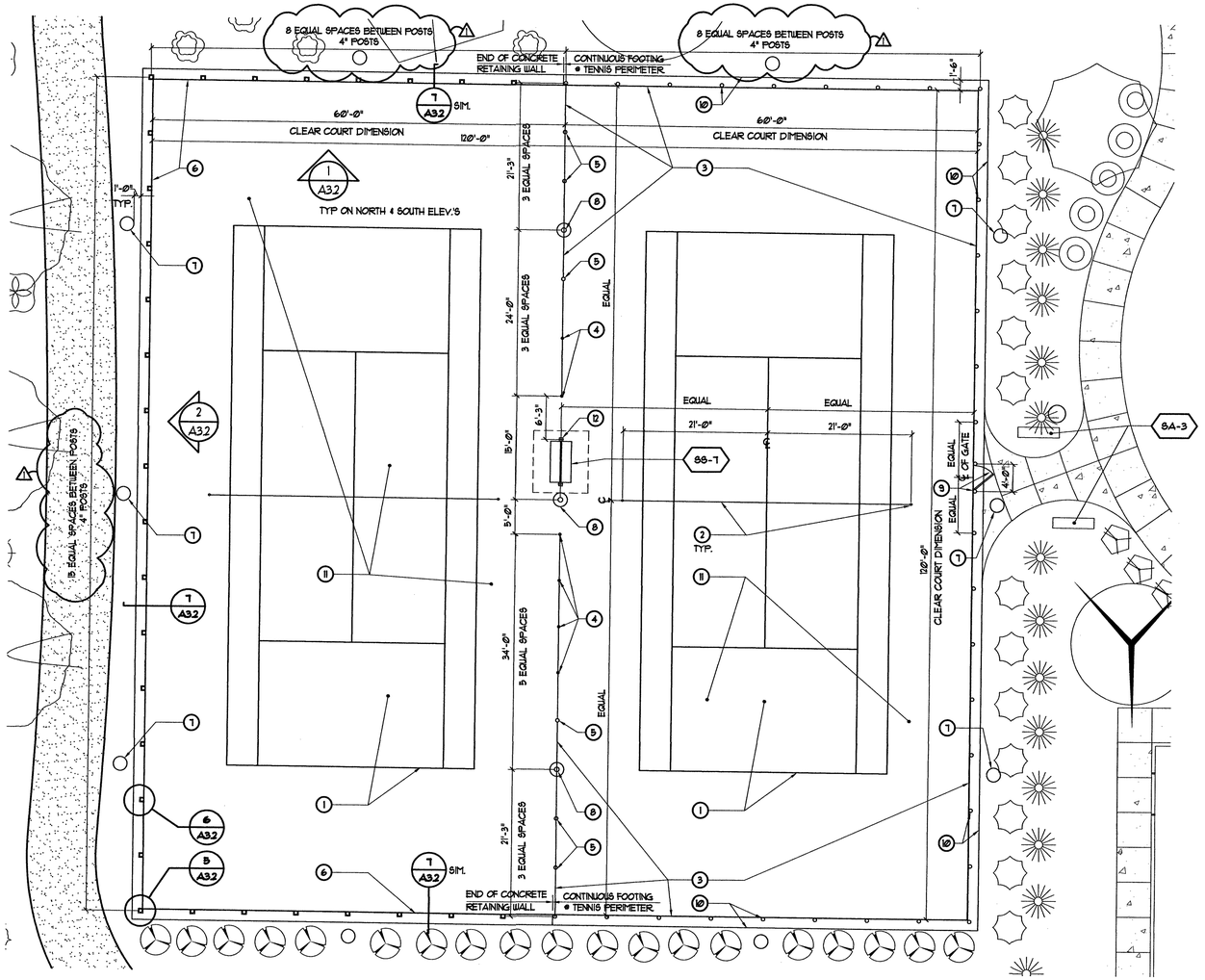
- NET POSTS: 3 ½" diameter, Model NG-400 with NG-500 internal tamper proof tightener (Steelcraft)
- NET POST SLEEVES: LA Steelcraft E Series (w/ locking cap).
- NET WITH FIBERGLASS SIDE POCKETS: LA Steelcraft TN-36.
- CENTER TIE DOWN: LA Steelcraft tie down strap and anchor.

Wind Screen Specifications:

WINDSCREEN AT PERIMETER OF THE TENNIS COURTS AND HIGH CHAINLINK FENCE AREA BETWEEN COURTS. WINDSCREEN PRODUCT PER THE FOLLOWING SPECIFICATIONS:

MANUFACTURED BY NJP SPORTS 1 (818) 247-3914 OR 1 (800) 774-4657, OR TENN-AIR 1 (800) 766-3631 OR APPROVED EQUAL. THE WINDSCREEN SHALL BE FIRE RETARDANT OPEN MESH, SEAMLESS POLYPROPYLENE AND FABRICATED IN 9 FOOT HEIGHT WITH OPTIONAL #250 REINFORCED WIND TAPE AND #251 REINFORCED WIND TAB HEIGHT. ALL HEMS ARE TO BE BOUND WITH 2 3/4" BINDING TAPE WITH #1 BRASS GROMMETS EVERY 12". COLOR: GREEN.

PHYSICAL PROPERTIES:
WEIGHT: 4.6 OZ/SQ. YD.
SHADE: 80-85%
TENSILE STRENGTH: WRAP 325LBS, FILL 200LBS
TRAPEZOID TEAR: WARP 150LBS, FILL 90
THICKNESS: 13MILS
YARN TYPE: 930 DENIER UV/FR



1 Tennis Courts - Enlarged Plan

Scale: 1"=10'-0"

Tennis Court Construction Notes:

- ALL CYCLONE FENC POSTS UNLESS NOTED OTHERWISE ARE 10'-0" HIGH. REF. DETAILS ON SHEET A3.2 AND STRUCTURAL PLANS FOR POST SIZE AND GAUGE.

- SEE STRUCTURAL DRAWINGS FOR POST-TENSION CONCRETE SLAB DESIGN AND EXPANSION JOINT INFORMATION.

- REFERENCE SPECIFICATIONS.

Product Legend (see sheet G-2):

SS-7 TENNIS SHADE SHELTER - 8'X 9'

SA-3 BENCHES

Key Notes:

1. TENNIS COURT STRIPING LAYOUTS AND DIMENSIONS ARE IDENTICAL FOR EACH COURT. TOP SURFACE VARIATION SHALL NOT EXCEED ⅛" IN 10 FT. WHEN MEASURED IN ANY DIRECTION WITH A STRAIGHT EDGE. COURT SLOPE SHALL BE 1" IN 10 FT., ALL IN ONE PLANE. REF. STRIPING PLAN AND NOTES. REF. TENNIS COURT TOP COAT SURFACE SPECIFICATIONS.
2. TENNIS COURT NET AND POSTS. REF. SPECIFICATIONS (THIS PAGE). SEE STRUCTURAL DTL. 5/S2.10 & CENTER ANCHOR ATTACHMENT DTL. 2/S2.10.
3. WIND SCREENS TYPICAL AT ALL 10'-0" CHAIN LINK FENCE. SCREEN STARTING AT 6" ABOVE TOP OF SLAB. SCREEN HEIGHT 9'-0". REF. SPECIFICATIONS (THIS PAGE) FOR WIND SCREEN INFORMATION AND SPECIAL ATTACHMENTS.
4. 4" DIAMETER X 4'-0" HIGH POSTS AND CHAIN LINK FENCING. NO WINDSCREENS AT 4'-0" HIGH CHAINLINK FENCING. REF. STRUCTURAL DTL. 3/S2.10
5. 4" DIAMETER X 10'-0" HIGH POSTS AND CHAIN LINK FENCING. REF. DTL. 3/A3.2 & 3/S2.10 FOR CHAINLINK FENCE CONSTRUCTION.
6. CONCRETE RETAINING WALL. REF. STRUCTURAL DTL. 6/S2.10. SEE CIVIL FOR HEIGHTS.
7. CONCRETE PIER FOOTING @ BASE OF ELECTRICAL LIGHT POLE. - FACE OF FOOTING 1'-0" FROM FACE OF CONCRETE RETAINING WALL. TYP. @ ALL PERIMETER TENNIS COURT LIGHTING. SEE ELECTRICAL DTL. 2/E4.01.
8. ELECTRICAL LIGHT POLE. REF. ELECTRICAL FOR POLE HEIGHT, STANDARD FOOTINGS AND FIXTURE TYPE. REF. STRUCTURAL DTL. 9/S2.10 FOR COMBINATION OF FOOTING AND POST TENSION SLAB CONDITION. PLEXIPAVE TENNIS SURFACING TO COVER FOOTING TOP.
9. TENNIS COURT GATE. REF. DTL. 4/A3.2.
10. CONTINUOUS CONCRETE CURB. TOP SURFACE FLUSH WITH TOP OF POST TENSION SLAB. 4" DIAMETER POSTS AT CHAIN LINK FINISH FLUSH WITH INSIDE EDGE OF CONCRETE CURB. SEE DTL. 4/S2.10
11. 5" THICK POST-TENSION SLAB. REFER TO STRUCTURAL 1/S0.30. AND S2.10
12. TENNIS SHADE SHELTER SEE STRUCTURAL DTL. 7/S2.10

CITY OF LAS VEGAS NEVADA

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1 6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Tennis Courts - Enlarged Plan,
Stripping Dimensional Plan

STAMP

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DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
FILE	A31
DATE	12/11/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A3.1

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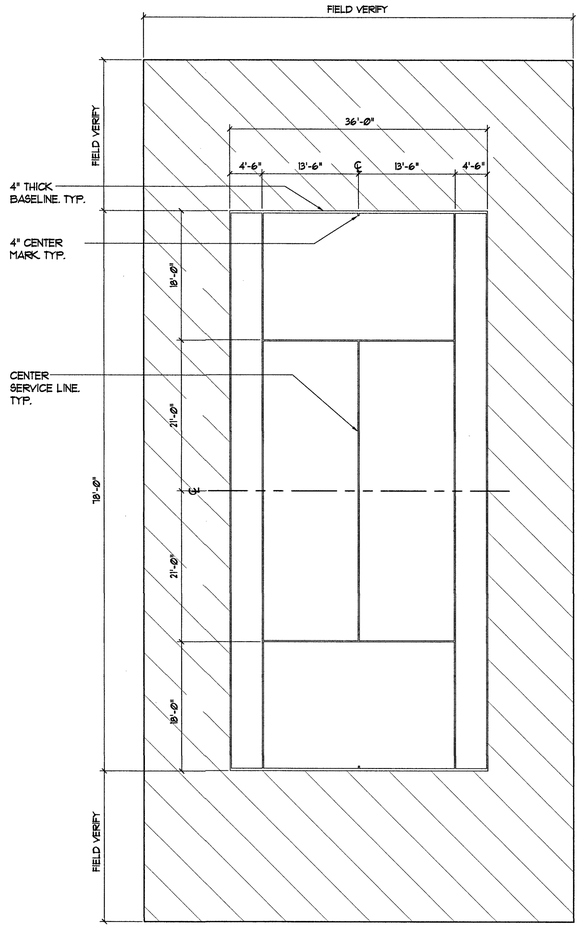

2 Typical Tennis Court Striping & Dimensions Plan

Scale: 1"=10'-0"

Striping Notes:

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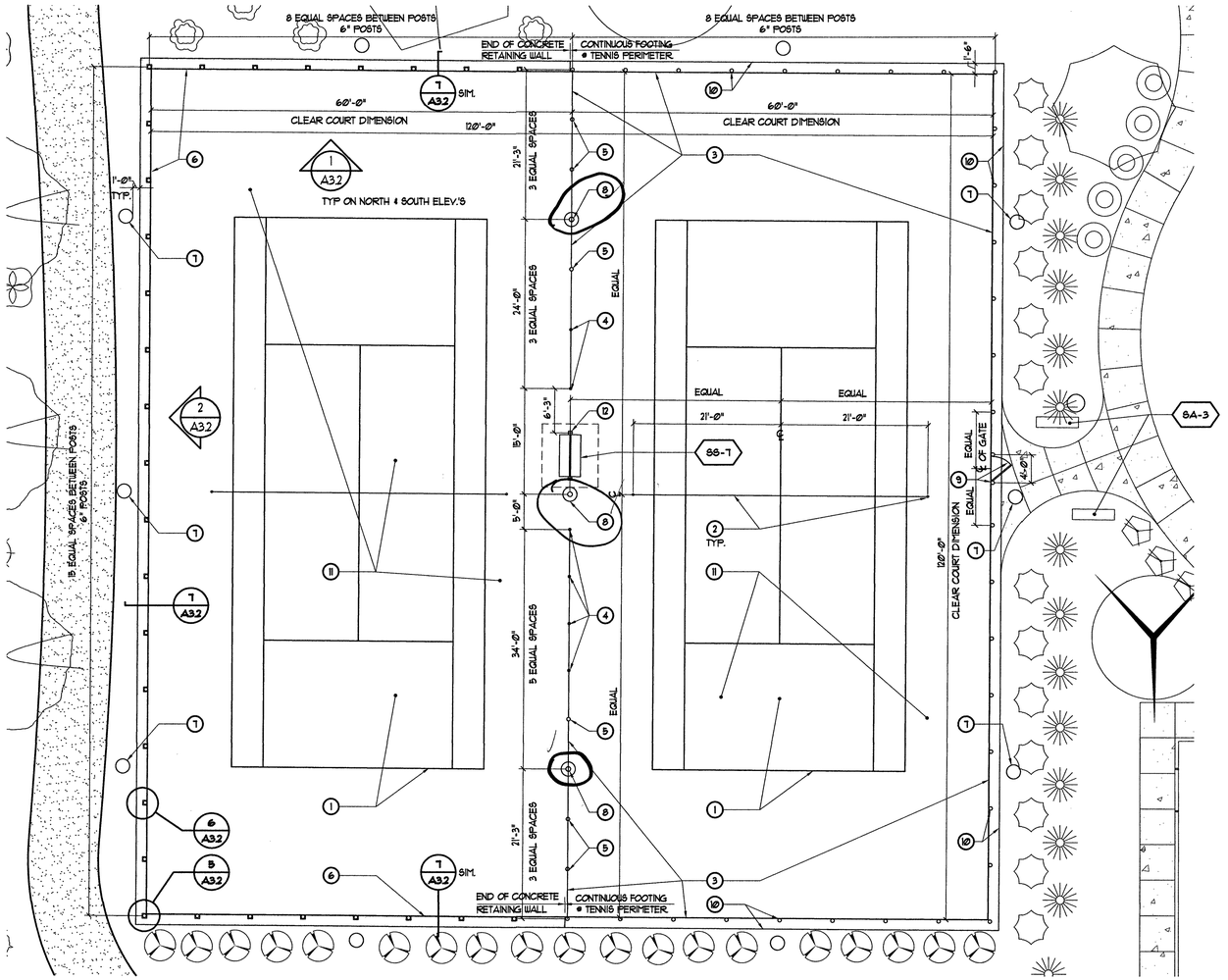
WEIGHT: 46 OZ/SQ. YD.
SHADE: 80-85%
TENSILE STRENGTH: WRAP 325LBS, FILL 200LBS
TRAPEZOID TEAR: WARP 150LBS, FILL 90
THICKNESS: 13MILS
YARN TYPE: 930 DENIER UV/FR



1 Tennis Courts - Enlarged Plan

Scale: 1"=10'-0"

Tennis Court Construction Notes:

- ALL CYCLONE FENC POSTS UNLESS NOTED OTHERWISE ARE 10'-0" HIGH. REF. DETAILS ON SHEET A3.2 AND STRUCTURAL PLANS FOR POST SIZE AND GAUGE.

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- REFERENCE SPECIFICATIONS.

Product Legend (see sheet G-2):

SS-7 TENNIS SHADE SHELTER - 8'X 9'

SA-3 BENCHES

Key Notes:

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5. 6" DIAMETER X 10'-0" HIGH POSTS AND CHAIN LINK FENCING. REF. DTL. 3/A3.2 & 3/S2.10 FOR CHAINLINK FENCE CONSTRUCTION.
6. CONCRETE RETAINING WALL. REF. STRUCTURAL DTL. 6/S2.10. SEE CIVIL FOR HEIGHTS.
7. CONCRETE PIER FOOTING @ Base OF ELECTRICAL LIGHT POLE. - FACE OF FOOTING 1'-0" FROM FACE OF CONCRETE RETAINING WALL. TYP. @ ALL PERIMETER TENNIS COURT LIGHTING. SEE ELECTRICAL DTL. 2/E4.01.
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11. 5" THICK POST-TENSION SLAB. REFER TO STRUCTURAL 1/S0.30. AND S2.10
12. TENNIS SHADE SHELTER SEE STRUCTURAL DTL. 7/S2.10

4" post coord w/ JF elec.

set w spacers to make 4" instead of 6"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
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PHONE: (702) 229-6276
FAX: (702) 384-4846

REVISIONS

CONSULTANT

HUCKLEBERRY PARK
- ADDITION -

Tennis Courts - Enlarged Plan,
Stripping Dimensional Plan

STAMP

2010

DRAWN	ms / bb
FILE	A3.1
DATE	12/11/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	A3.1

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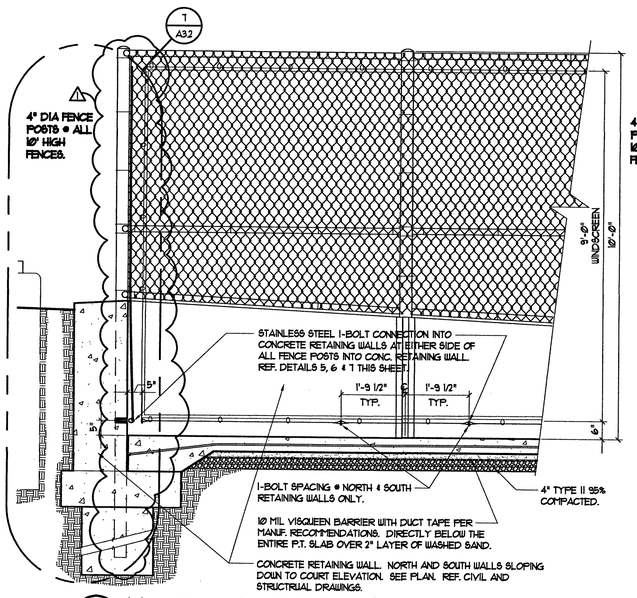
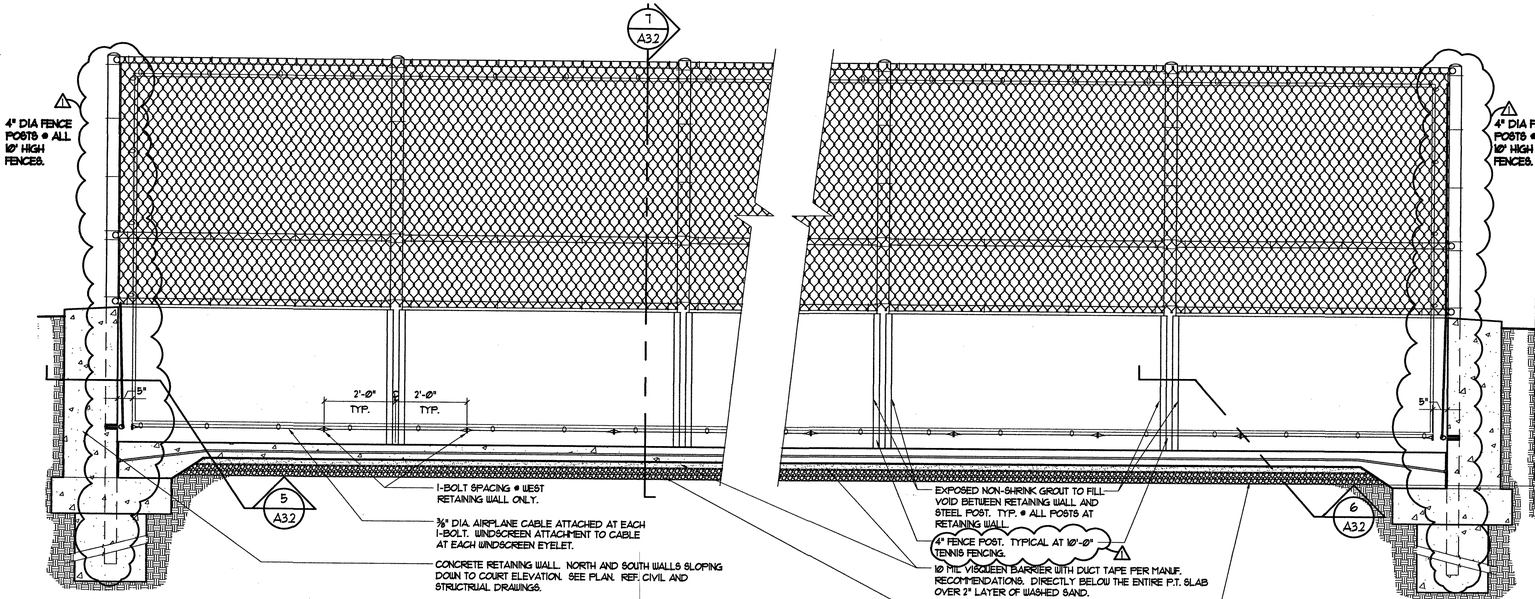
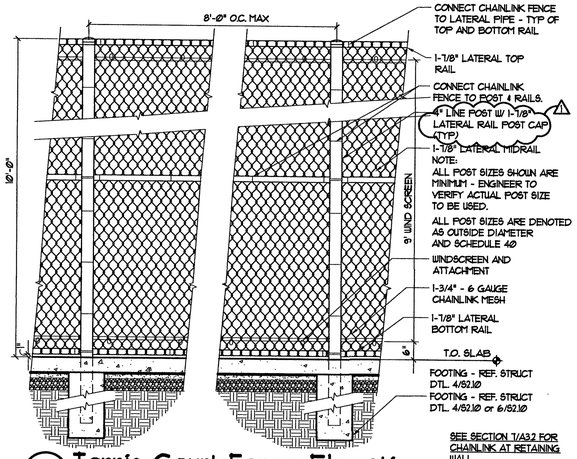


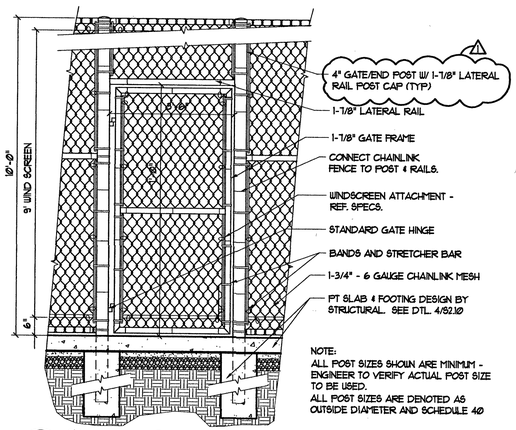
1 **Elevation @ North Wall from Tennis Court (South Sim.)**
Scale: 1/2"=1'-0"



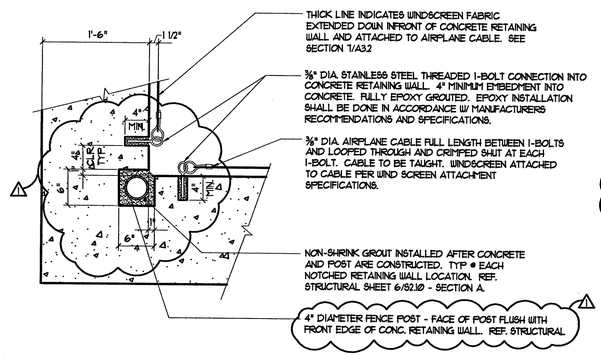
2 **Elevation @ West Wall from Tennis Court**
Scale: 1/2"=1'-0"



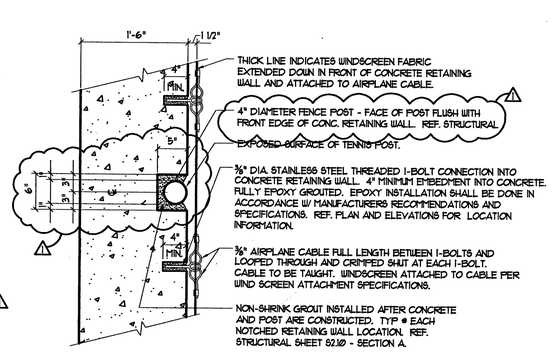
3 **Tennis Court Fence Elevation**
Scale: 1/2" = 1'-0" STI16800-41 A2.2-01



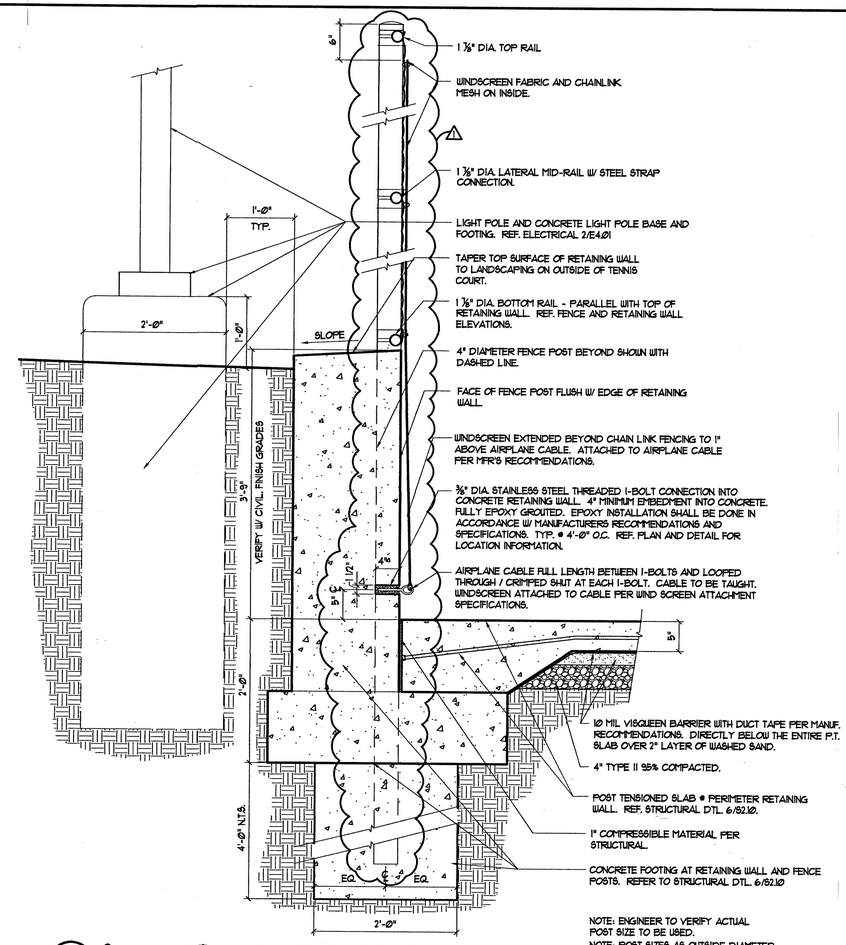
4 **Tennis Court Fence Gate Elevation**
Scale: 1/2" = 1'-0" STI16800-42 A2.2-02



5 **Enlarged Plan / Sect. @ Corner Post / Retain'g Wall**
Scale: 1"=1'-0"



6 **Enlarged Plan / Sect. @ Post / Retain'g Wall**
Scale: 1"=1'-0"



7 **Section @ Tennis Court Retaining Wall**
Scale: 1"=1'-0"

CITY OF LAS VEGAS NEVADA

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1 6/4/2019 VE REVISIONS

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Tennis Courts - Partial Fence Elevations, Details, Section @ Retaining Wall

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DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
FILE	A3.2
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A3.2

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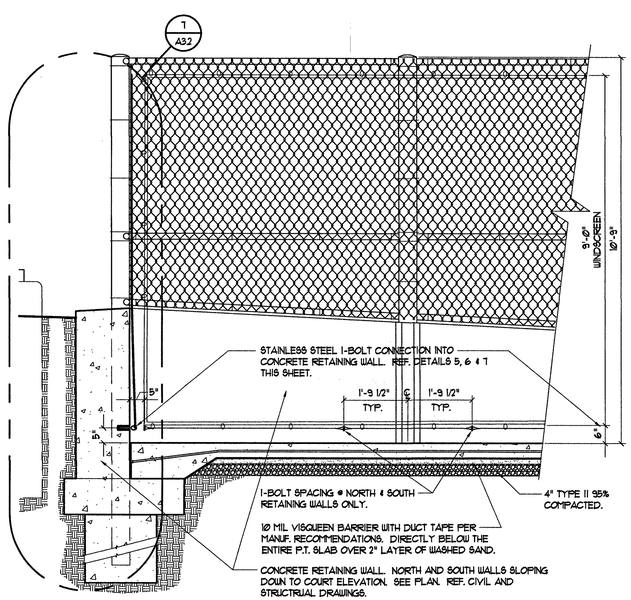
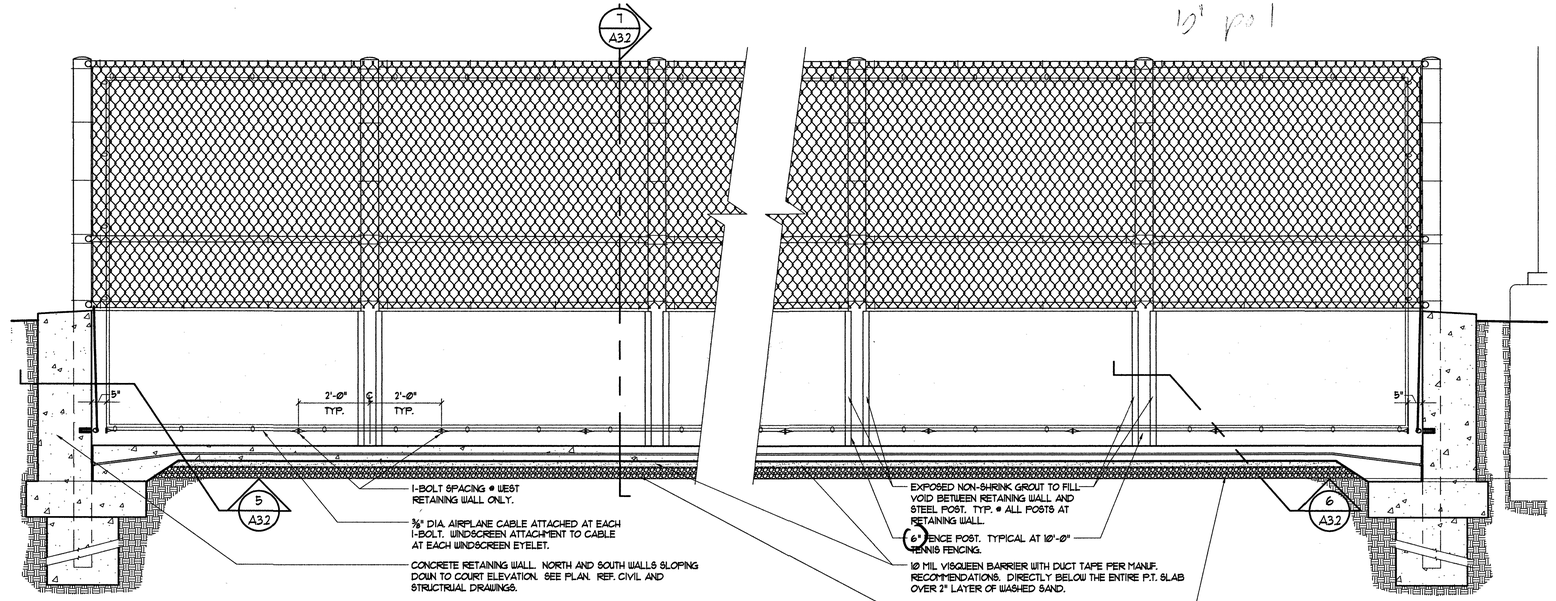


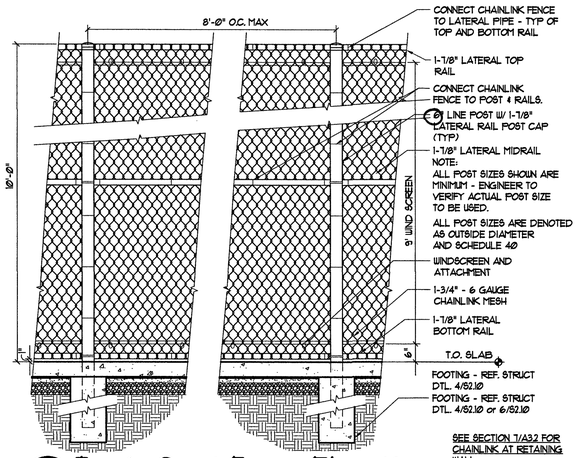
1 Elevation @ North Wall from Tennis Court (South Sim.)

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



2 Elevation @ West Wall from Tennis Court

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

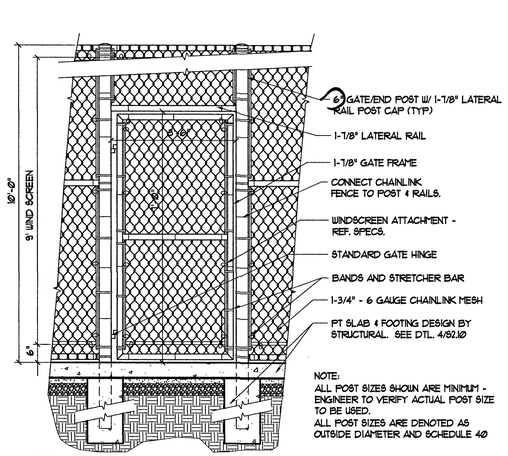


SEE SECTION 7/A3.2 FOR CHAINLINK AT RETAINING WALL.

3 Tennis Court Fence Elevation

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

ST116800-41 A2.2-01

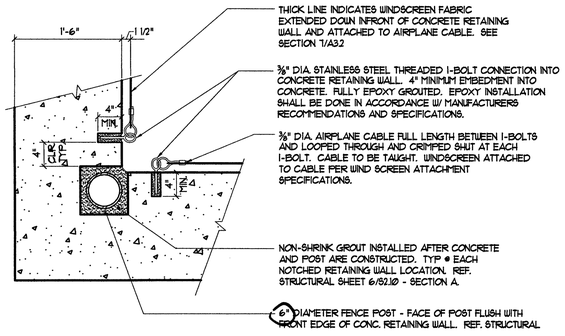


NOTE:
ALL POST SIZES SHOWN ARE MINIMUM - ENGINEER TO VERIFY ACTUAL POST SIZE TO BE USED.
ALL POST SIZES ARE DENOTED AS OUTSIDE DIAMETER AND SCHEDULE 40

4 Tennis Court Fence Gate Elevation

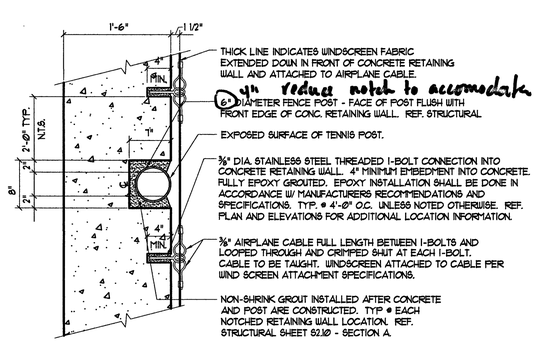
Scale: 1/2" = 1'-0"

ST116800-42 A2.2-02



5 Enlarged Plan / Sect. @ Corner Post / Retain'g Wall

Scale: 1"=1'-0"



reduce notch to accomodate

6 Enlarged Plan / Sect. @ Post / Retain'g Wall

Scale: 1"=1'-0"

NOTE: ENGINEER TO VERIFY ACTUAL POST SIZE TO BE USED.
NOTE: POST SIZES AS OUTSIDE DIAMETER AND SCHEDULE 40

coordinate w/ specs

7 Section @ Tennis Court Retaining Wall

Scale: 1"=1'-0"

CITY OF LAS VEGAS NEVADA

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Tennis Courts - Partial Fence Elevations, Details, Section @ Retaining Wall

STAMP

OWNER: CITY OF LAS VEGAS
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SHT NO	A3.2

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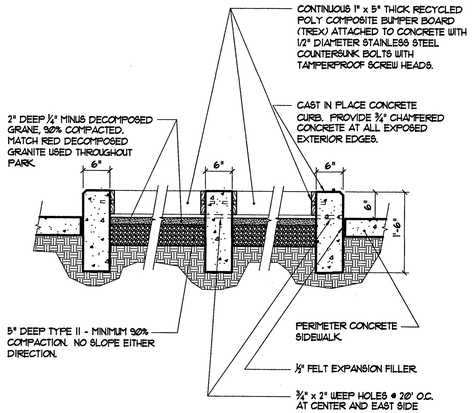
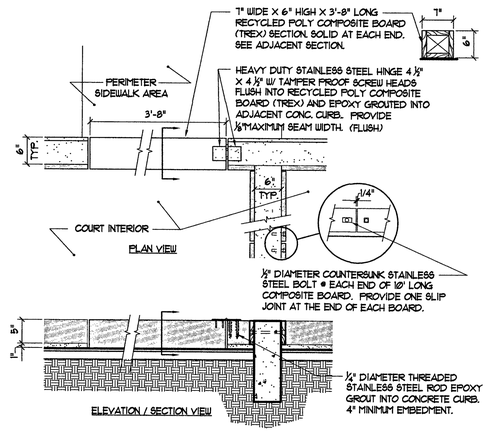


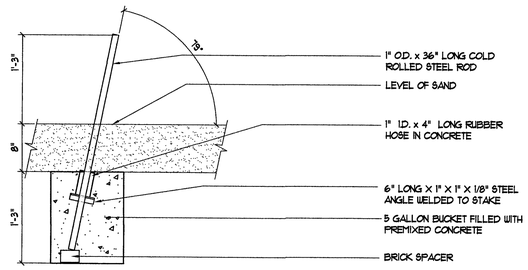
2 Bocce Ball Court Section

Scale: 3/4" = 1'-0" 10/8/2018



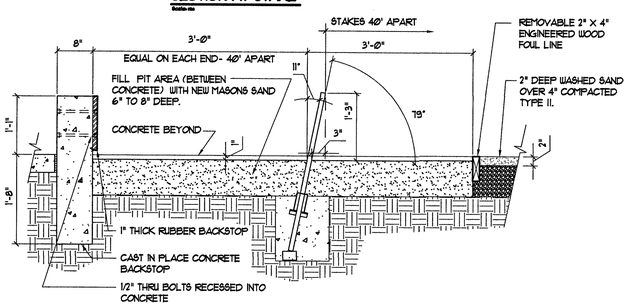
3 Bocce Ball - ADA Access Detail

Scale: 3/4" = 1'-0" 10/8/2018



SECTION AT STAKE

Scale: nts



SECTION AT PIT AREA & CONTROL JOINTS

Scale: nts

4 Horseshoe Pit Stake

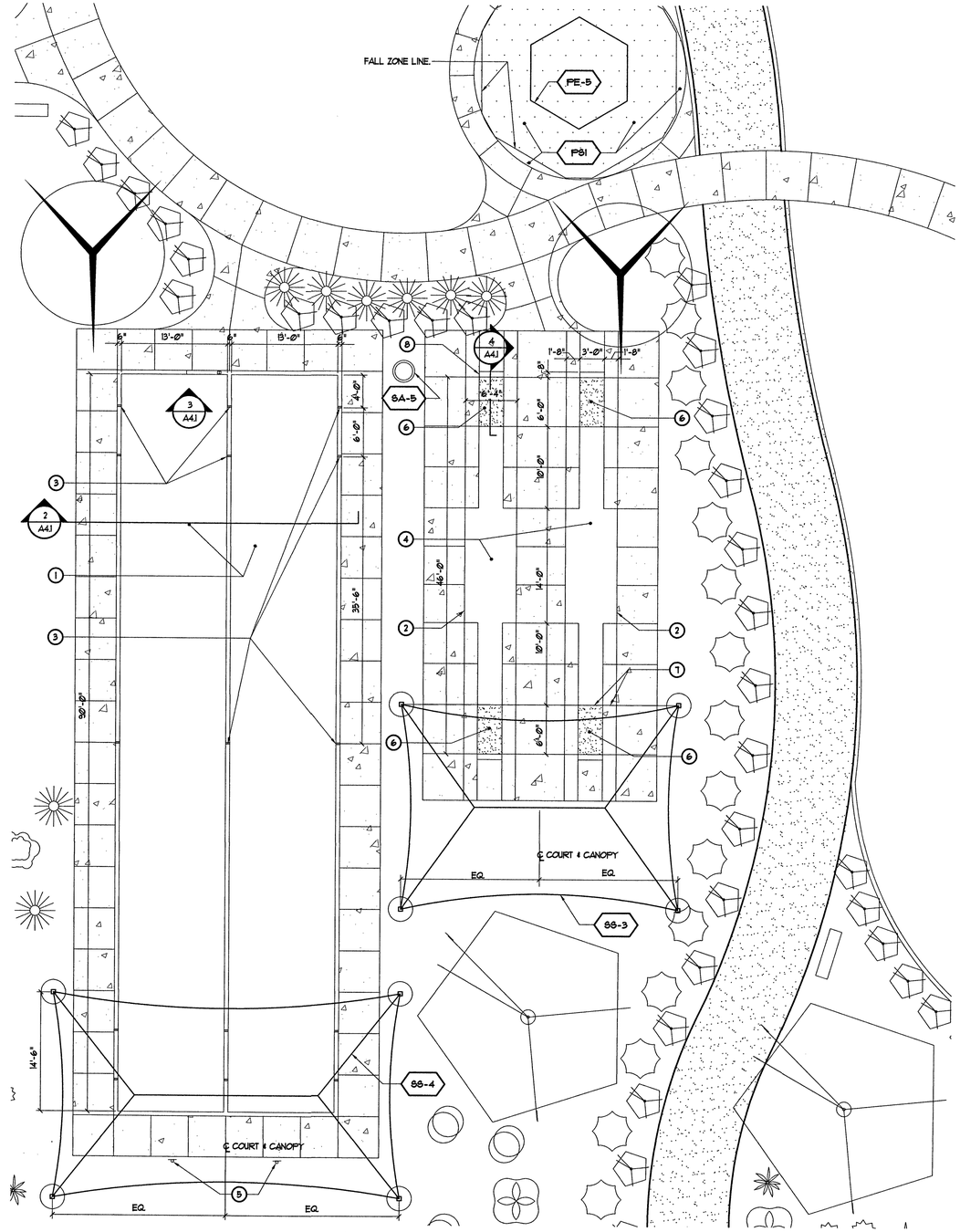
Scale: NOTED

Construction Notes:

1. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, AND UTILIZED IN THE FINAL DESIGN.

Product Legend (see sheet G-2):

- PE-5 CLIMBING NET CUBE
- PS1 SAFFETY SURFACE
- SS-3 FABRIC SHADE SHELTER - HORSE SHOE PITS
- SS-4 FABRIC SHADE SHELTER - BOCCE COURTS
- SA-5 TRASH RECEPTACLES



1 Horse Shoe and Bocce Courts / Cube Climber - Enlarged Plan

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

Key Notes:

1. BOCCE COURTS - SEE DETAILS 2/A4.1 AND 3/A4.1.
2. HORSE SHOE COURTS / PITS - SEE DETAIL THIS SHEET - 4/A4.1
3. 2" WIDE PAINT LINES @ TOP AND OUTSIDE FACE OF CONCRETE CURBS PER BOCCE STANDARD LAYOUT (4' FOOT LINE, 10' FOOT LINE AND CENTER LINE ON EITHER SIDE OF EACH COURT. TYP.
4. WASHED SAND 2" THICK @ INTERIOR OF COURTS.
5. BOCCE COURT SCOREBOARD. 1 @ EACH COURT. CENTERED ON EACH COURT. MODEL: LOVEGNE BOCCE SCOREBOARD, MFR. MANSION TENNIS. PROVIDE MOUNTING POLE EMBEDED INTO 8" DIAMETER X 2'-0" DEEP CONCRETE FOOTING.

   DIMENSIONS 6" WIDE X 25" HEIGHT X ½" THICK.
6. HORSE SHOE PIT AREA - 6" TO 8" DEPTH OF MASON SAND.
7. CENTERLINE OF NORTH COLUMNS ALIGNED WITH FRONT EDGE OF HORSE SHOE SAND PIT / FOUL LINE.

   CENTERLINE OF NORTH COLUMNS ALIGNED WITH FRONT EDGE OF HORSE SHOE SAND PIT / FOUL LINE.
8. CAST-IN-PLACE CONCRETE BACKSTOP AT HORSE PIT.

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4646

DRAWN	ns / bb
FILE	A-4.1
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A4.1

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Horseshoe Courts, Bocce Courts -
Enlarged Plans, Details

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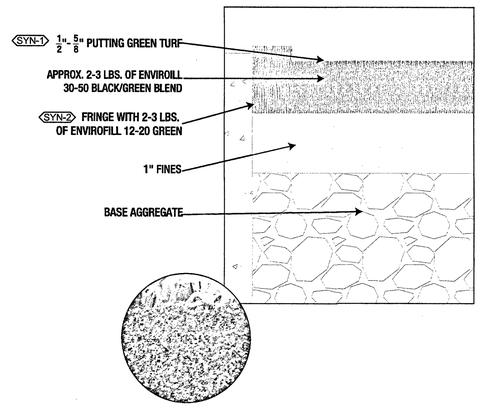
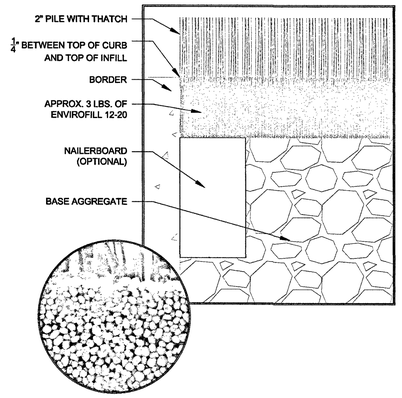


SYN-1 SYNTHETIC GRASS SHORT (PUTTING SURFACE) - 1/2" TO 5/8" LENGTH

SYN-2 SYNTHETIC GRASS FRINGE (PUTTING FRINGE) - 1" LENGTH

1 Synthetic Turf @ Putting Surface and Fringe

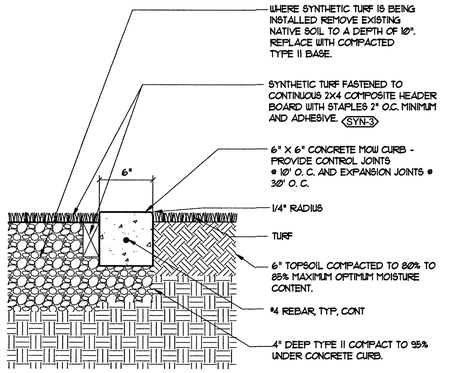
Scale: N.T.S.



SYN-3 SYNTHETIC GRASS LONG (LAWN) - 2" PILE

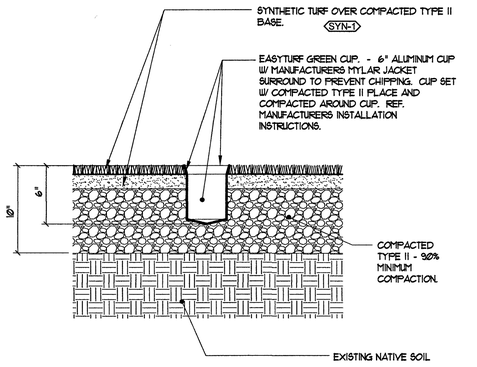
2 Synthetic Grass @ Chipping Area

Scale: N.T.S.



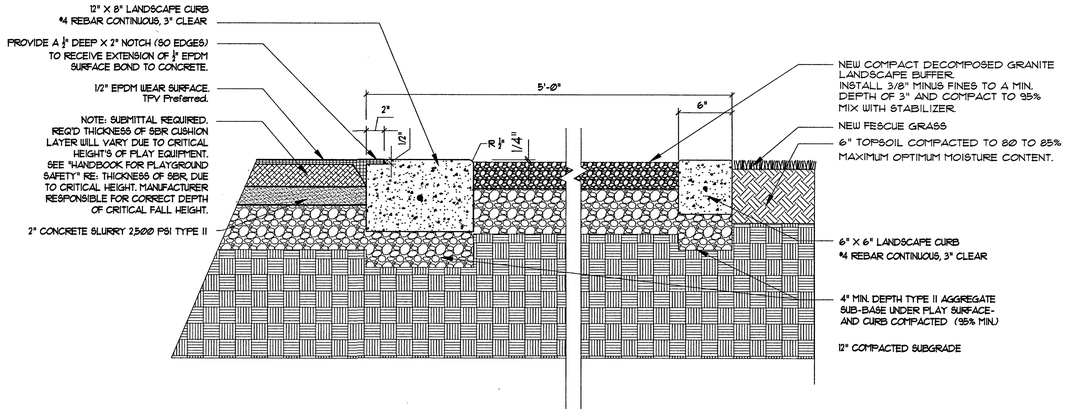
3 Synthetic Turf Edge Detail

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



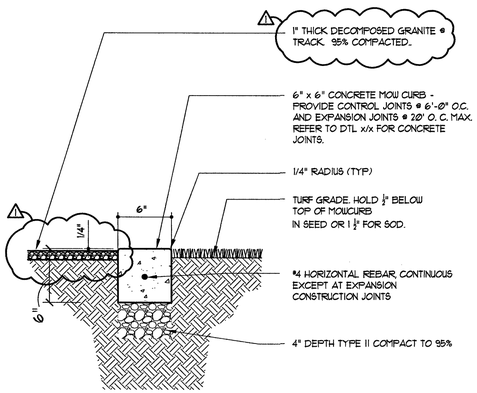
4 Synthetic Turf / Golf Hole Dtl.

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



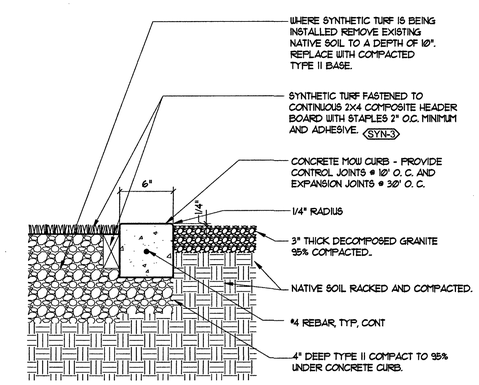
5 Curb @ Safety Surface

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



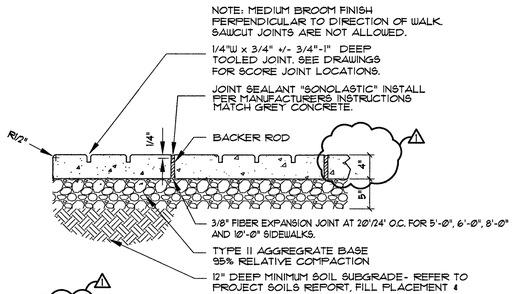
6 Curb @ DG Trail

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



3 Curb @ Synthetic Turf and DG

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



NOTE: 3', 5', 6' 8' AND 10' WIDE PERIMETER SIDEWALK TO HAVE TOOLED SCORE JOINTS EVERY 5' O.C. OR CLOSEST TO EQUAL DISTANCE TO EACH PANEL. SEE PLANS FOR SCORING DESIGNS.
PLAZA RAMADA AREAS TO HAVE EXPANSION JOINTS EVERY 100- 150 SF. MAX. TOOLED SCORE JOINTS EVERY 25-30 SF. CONSTRUCT 1/2" R EASED EDGE ALONG ALL SIDES OF PAVEMENT. SEE PLANS FOR SCORING DESIGN.
ALL CONCRETE WILL BE CLASS A TYPE V Fc 4500 PSI
SEE SPECIFICATION, GEOTECH INFORMATION PROVIDED.
CONTRACTOR TO PROVIDE SHOP DRAWINGS PLANS INDICATING CONTROL AND EXPANSION JOINTS FOR OWNER APPROVAL.

9 Concrete Joints

Scale: 1" = 1'-0"

SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

SYN-1 SYNTHETIC GRASS SHORT (PUTTING SURFACE) - 1/2" TO 5/8" LENGTH

SYN-2 SYNTHETIC GRASS FRINGE (PUTTING FRINGE) - 1" LENGTH

SYN-3 SYNTHETIC GRASS LONG (LAWN) - 2" PILE

DEPARTMENT OF PUBLIC WORKS

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

HUCKLEBERRY PARK - ADDITION -

Site Amenity Details

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm / bb
FILE	A-4
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A4.2

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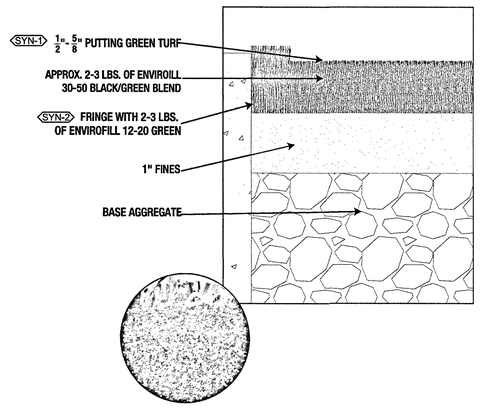
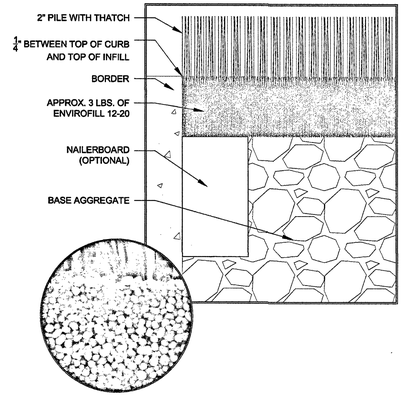


SYN-1 SYNTHETIC GRASS SHORT (PUTTING SURFACE) - 1/2" TO 5/8" LENGTH

SYN-2 SYNTHETIC GRASS FRINGE (PUTTING FRINGE) - 1" LENGTH

1 Synthetic Turf @ Putting Surface and Fringe

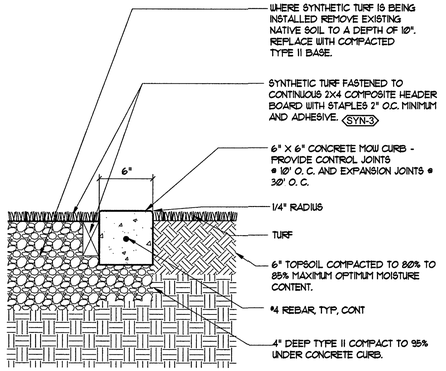
Scale: N.T.S.



SYN-3 SYNTHETIC GRASS LONG (LAWN) - 2" PILE

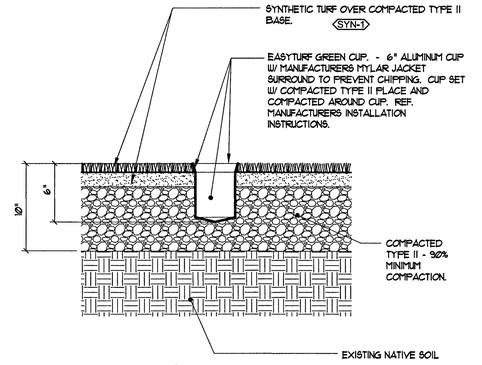
2 Synthetic Grass @ Chipping Area

Scale: N.T.S.



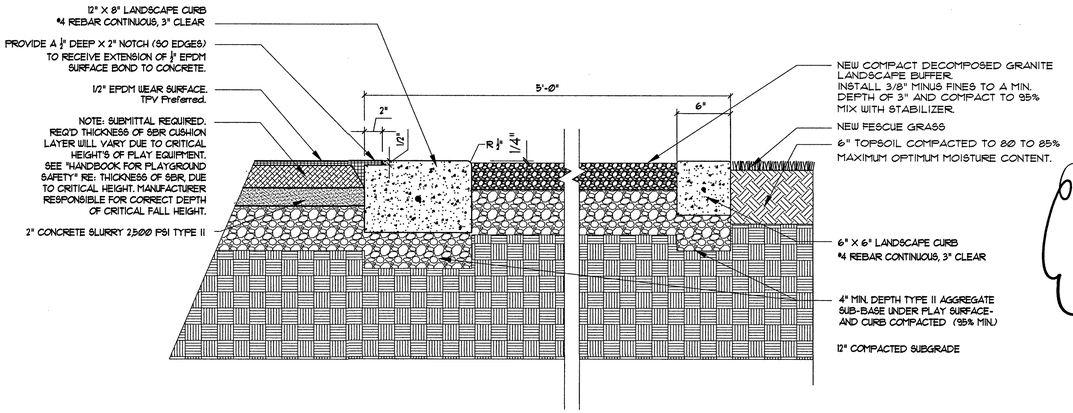
3 Synthetic Turf Edge Detail

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



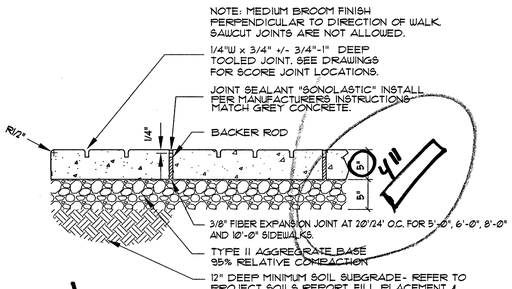
4 Synthetic Turf / Golf Hole Dtl.

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



5 Curb @ Safety Surface

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



NOTE: 5', 6' 8' AND 10' WIDE PERIMETER SIDEWALK TO HAVE TOOLED SCORE JOINTS EVERY 5' O.C. OR CLOSEST TO EQUAL DISTANCE TO EACH TANGENT. SEE PLANS FOR SCORING DESIGNS.
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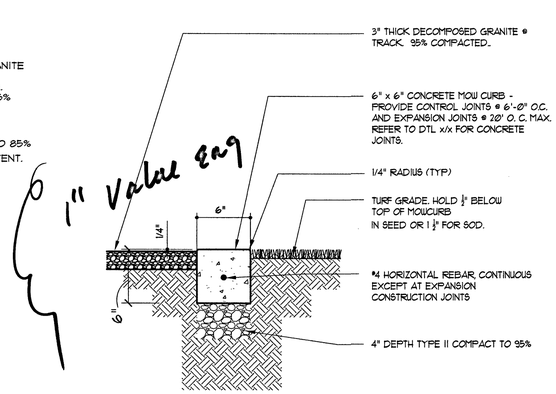
ALL CONCRETE WILL BE CLASS A TYPE V Fc 4500 PSI

SEE SPECIFICATION, GEOTECH INFORMATION PROVIDED.

CONTRACTOR TO PROVIDE SHOP DRAWINGS PLANS INDICATING CONTROL AND EXPANSION JOINTS FOR OWNER APPROVAL.

9 Concrete Joints

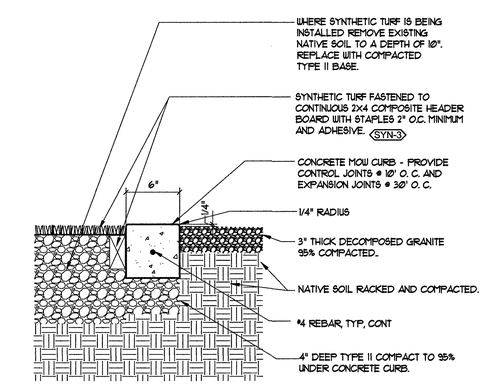
Scale: 1" = 1'-0"



1" Value eng

6 Curb @ DG Trail

Scale: 1 1/2" = 1'-0" xxxxx-xx



3 Curb @ Synthetic Turf and DG

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

SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

SYN-1 SYNTHETIC GRASS SHORT (PUTTING SURFACE) - 1/2" TO 5/8" LENGTH

SYN-2 SYNTHETIC GRASS FRINGE (PUTTING FRINGE) - 1" LENGTH

SYN-3 SYNTHETIC GRASS LONG (LAWN) - 2" PILE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK - ADDITION -

Site Amenity Details

STAMP

OWNER: CITY OF LAS VEGAS DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm / bb
FILE	A-4
DATE	12/1/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A4.2

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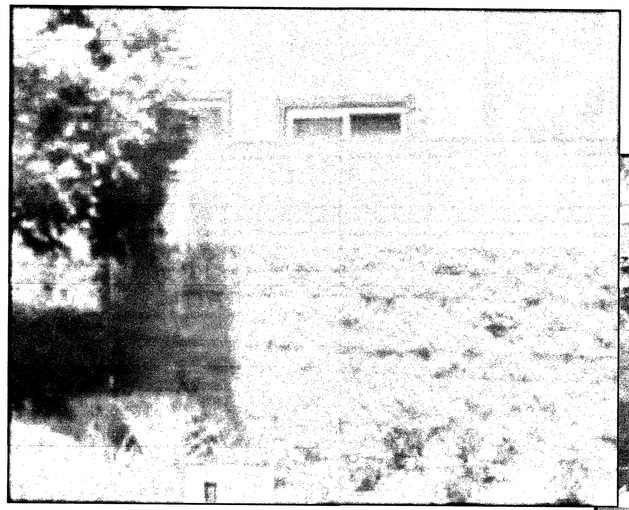
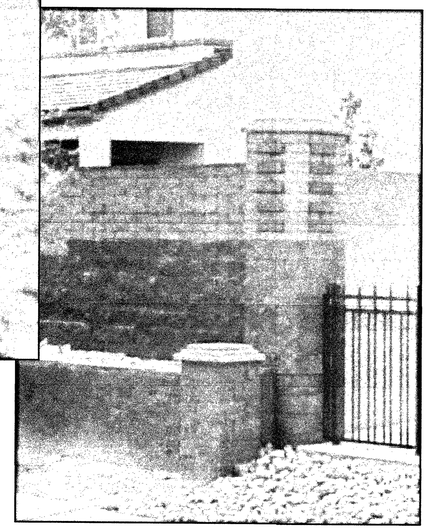
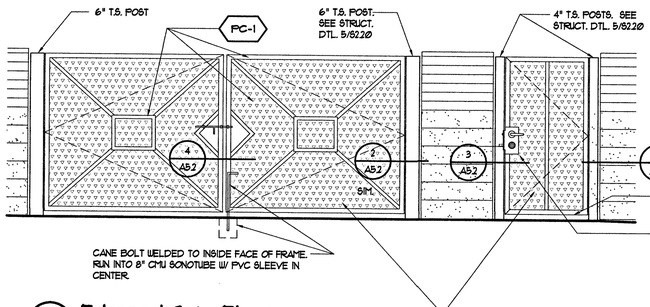




Existing Block walls and column to match

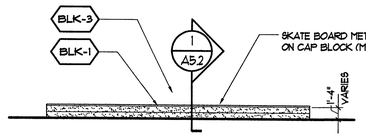


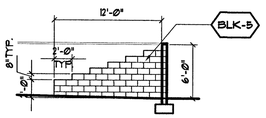
3 Enlarged Gate Elevation
Scale: 3/8"=1'-0"

Legend

- BLK-1 — 8" X 8" X 16" SPLIT FACE Color: Mountains Edge Brown CMU Grout Tri-Delta #214
- BLK-2 — 8" X 4" X 16" TRIM BLOCK Founders Finish Color: Anthem
- BLK-3 — 8" X 2" X 16" BLOCK CAP Color: Mountains Edge Brown
- BLK-4 — COLUMN CAP Match Community Column Cap
- BLK-5 — 8" X 8" X 16" SMOOTH FACE Color: Mountains Edge Brown
- FC-1 — PAINT COLOR RAL 8012 Powder Coat / Rot Braun

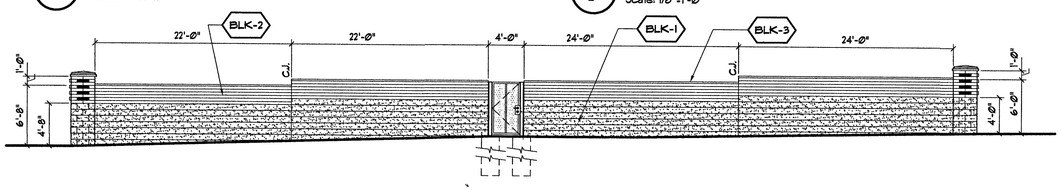
GROUT COLOR: MATCH COLOR OF BLOCK FOR ALL GROUT.



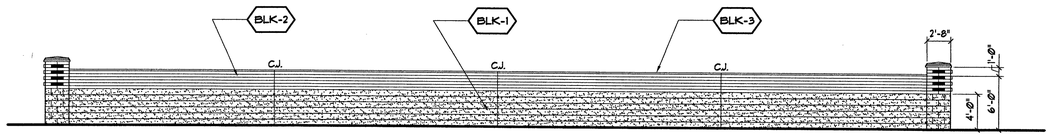


4 Low Planter Wall - Partial Elevation
Scale: 1/8"=1'-0"

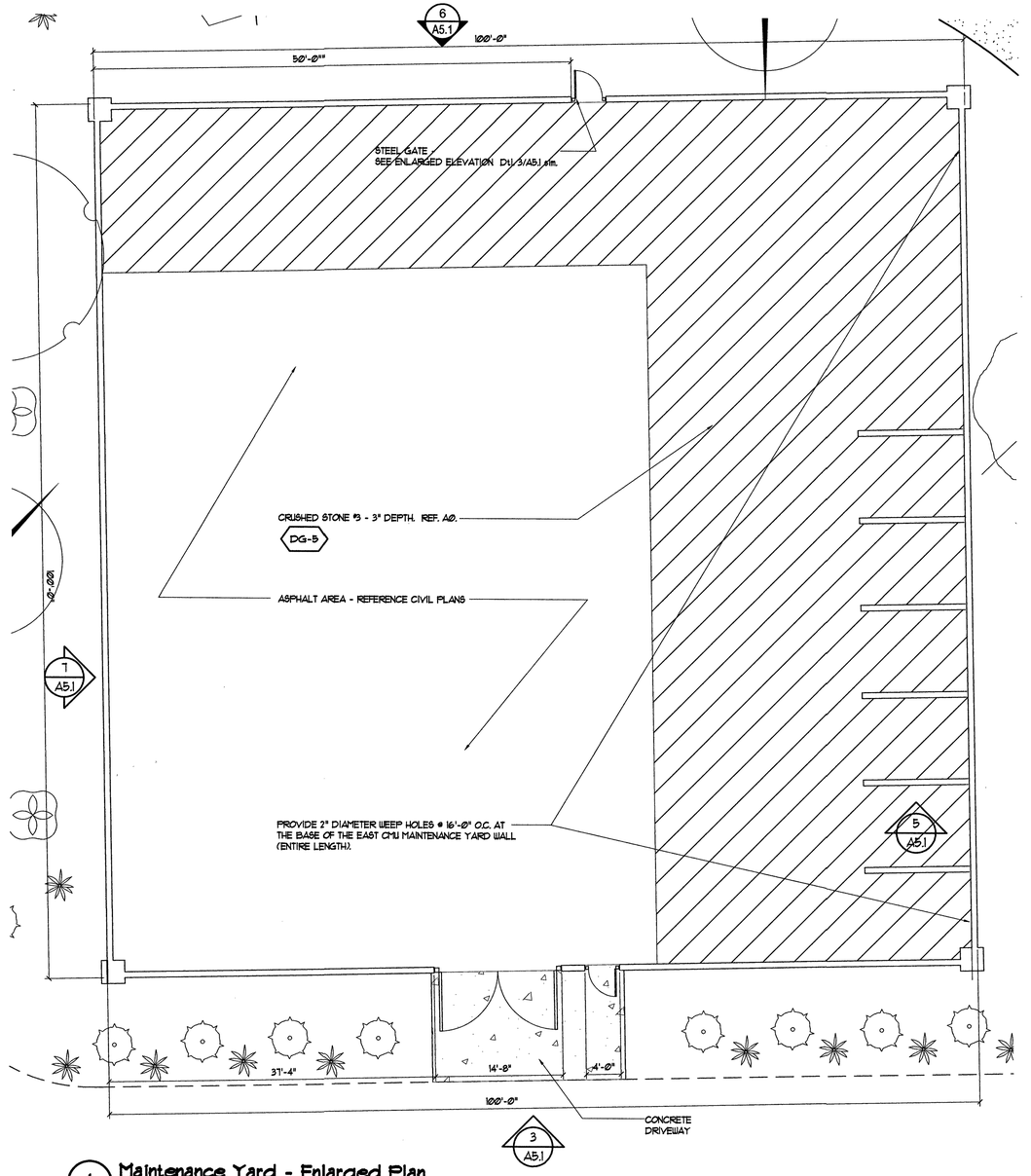
5 Maintenance Yard Side (West) Elevation
Scale: 1/8"=1'-0"



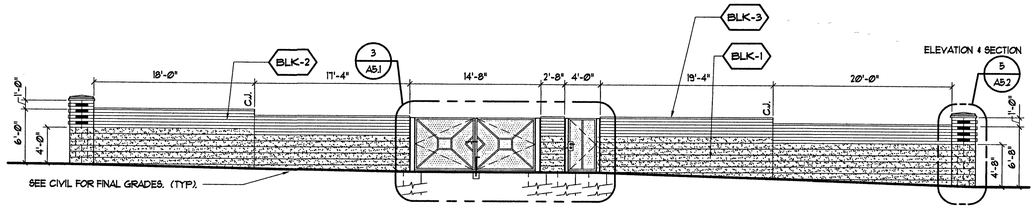
6 Maintenance Yard Side (North) Elevation
WALL HEIGHT TO BE 6'-0" +/-. PROVIDE EXPANSION JOINTS @ EACH OF THE CMU STEP DOWNS. TYP.
Scale: 1/8"=1'-0"



7 Maintenance Yard Side (West) Elevation
Scale: 1/8"=1'-0"



1 Maintenance Yard - Enlarged Plan
Scale: 1/8"=1'-0"



2 Maintenance Yard Front (South) Elevation
Scale: 1/8"=1'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Maintenance Yard - Enlarged Plan, Elevations and Existing Photos

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
FILE	A5.1
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A5.1

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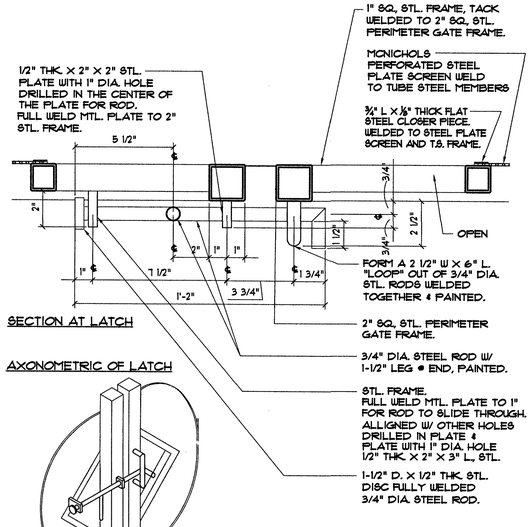
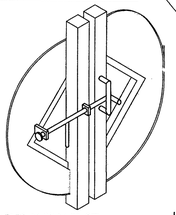
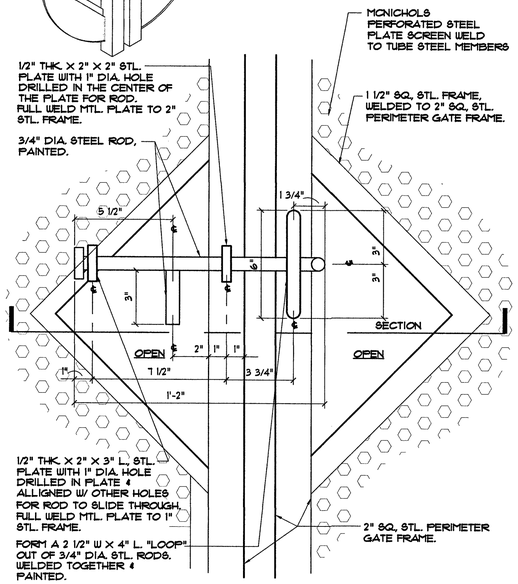


SECTION AT LATCH

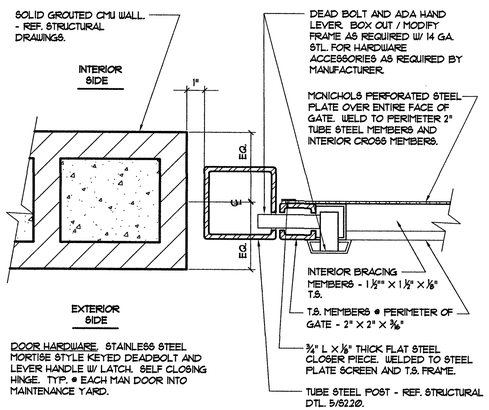
AXONOMETRIC OF LATCH





4 Gate Latch Detail

Scale: 3"=1'-0"



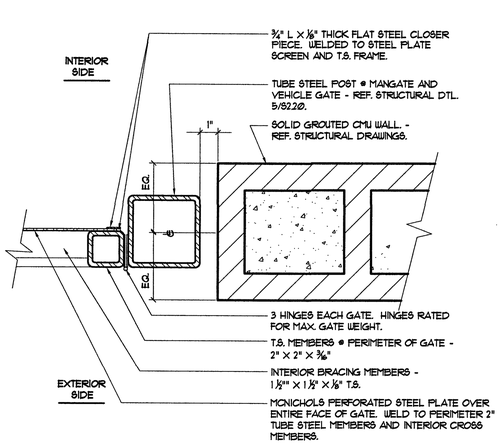
DOOR HARDWARE. STAINLESS STEEL MORTISE STYLE KEYED DEADBOLT AND LEVER HANDLE W/ LATCH. SELF CLOSING HINGE. TYP. @ EACH MAN DOOR INTO MAINTENANCE YARD.

3 Latch @ Man Gate

Scale: 3"=1'-0"

LATCH SIDE

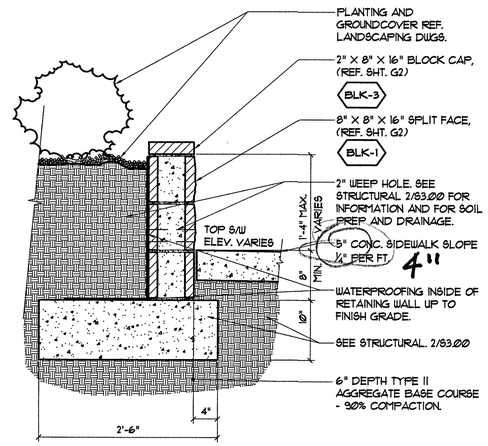
xx-xx



2 Hinge @ ManGate (Vehicle gate sim)

Scale: 3"=1'-0"

xx-xx



1 Section @ Low Planter Wall

Scale: 1"=1'-0"

03000-16

ELEVATION

5 Section @ Maintenance Yard Corner Pilaster (typ.)

Scale: 1"=1'-0"

CITY OF LAS VEGAS NEVADA

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Wall Details, Miscellaneous Details

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DEPARTMENT OF PUBLIC WORKS

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
FILE	A5.2
DATE	12/17/2018
SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A5.2

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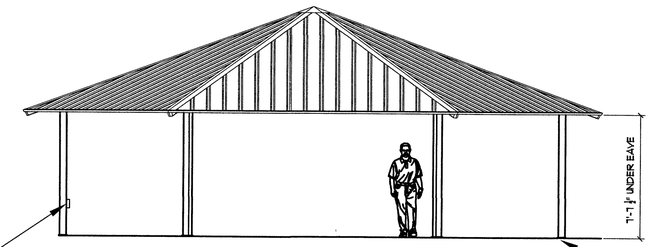
GENERAL NOTES:

1. METAL ROOFING: STANDING SEAM
   - 24 GAUGE
   - GALVALUME COATED
   - KYNAR 500 PAINTED
2. FINISH COLORS:
   MATCH COLORS TO EXISTING 36' RAMADA
   PROVIDE SAMPLES DURING SUBMITTALS

AUXILIARY VIEW

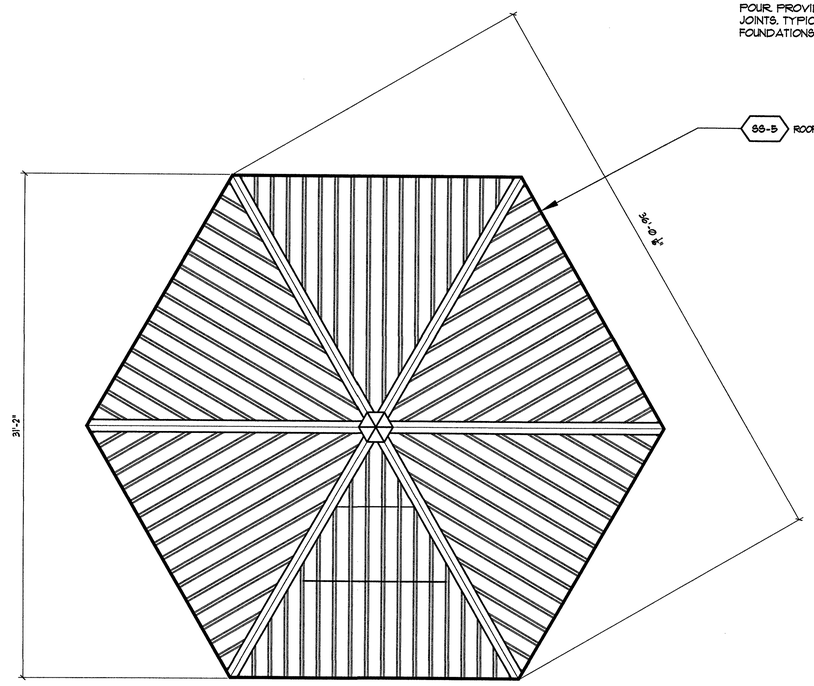
EAVE CHANNEL TRIM IS REINFORCED WITH 18 GA. GALVANIZED INNER CHANNEL FOR ADDITIONAL EAVE SUPPORT.



ELEVATION

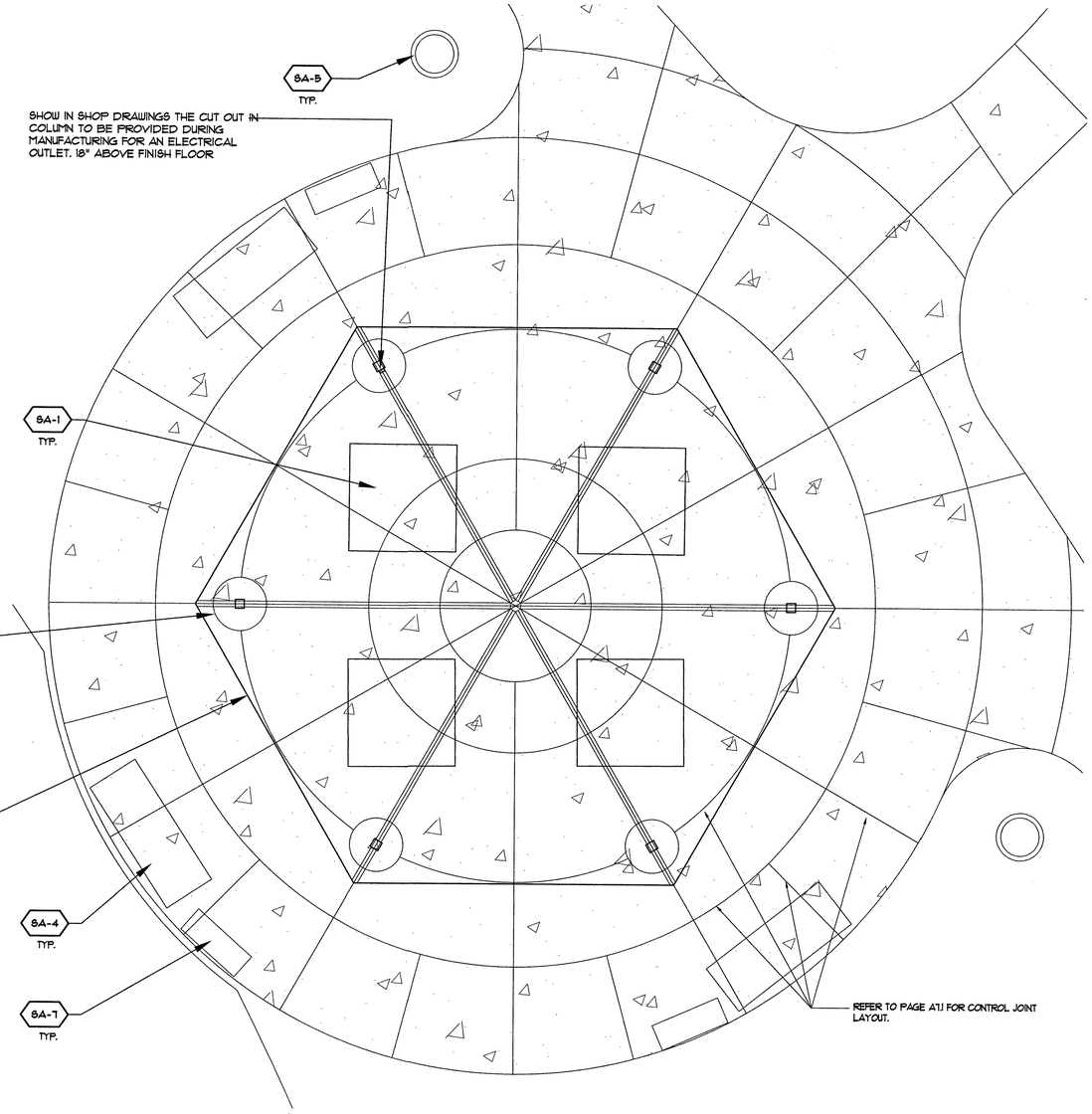
SHOW IN SHOP DRAWINGS THE CUT OUT IN COLUMN TO BE PROVIDED DURING MANUFACTURING FOR AN ELECTRICAL OUTLET. 18" ABOVE FINISH FLOOR

PROVIDE DEFERRED SUBMITTAL WITH ALL ENGINEERING OF RAMADA, CONNECTIONS AND FOUNDATIONS SIGNED BY ENGINEER.
FOUNDATIONS TO BE POURED INDEPENDENTLY FROM SLAB POUR. PROVIDE EXPANSION JOINTS. TYPICAL AT ALL 6 FOUNDATIONS.



2 36' Hexagon Shade Shelter Roof Plan SS-5
Scale: Not to Scale

SHOW IN SHOP DRAWINGS THE CUT OUT IN COLUMN TO BE PROVIDED DURING MANUFACTURING FOR AN ELECTRICAL OUTLET. 18" ABOVE FINISH FLOOR



1 36' Hexagon Shade Shelter Plan SS-5
Scale: 1/4" = 1'-0

SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

SA-1	PICNIC TABLE 6'-0" SQ. AT RAMADA
SA-4	PICNIC LAYOUT TABLE
SA-5	TRASH RECEPTACLES
SA-7	BBQ GRILL GROUP
SS-5	36' HEXAGON METAL SHADE SHELTER

CITY OF LAS VEGAS NEVADA

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HUCKLEBERRY PARK
- ADDITION -

36' Hexagon Shade Structure - Enlarged Plan, Dimensions and Notes

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DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
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SCALE	Full Scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	A6.1

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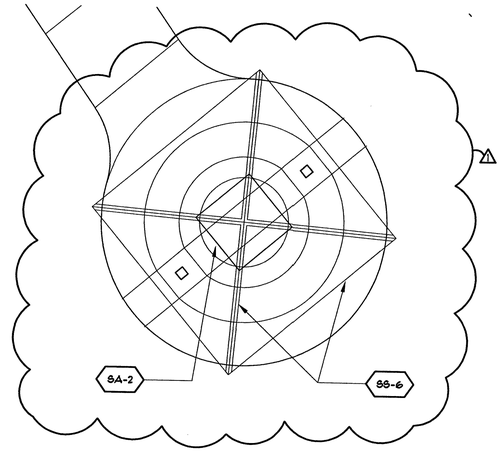
GENERAL NOTES

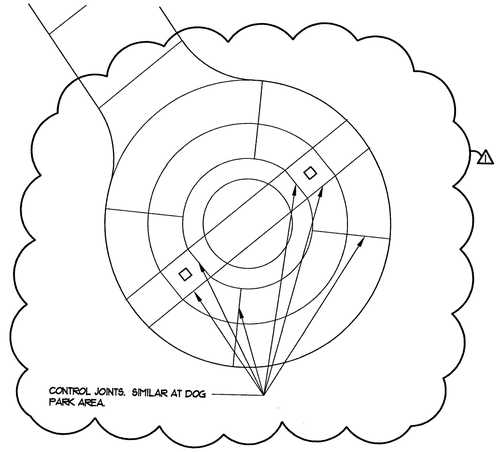
1. METAL ROOFING: STANDING SEAM
   - 24 GAUGE
   - GALVALUME COATED
   - KYNAR 500 PAINTED
2. FINISH COLORS:
   ROOF: MATCH EXISTING RAMADA ROOF AND FRAME.

   DEFERRED SUBMITTAL REQUIRED
   OWNER WILL PICK COLORS AT SUBMITTAL TIME

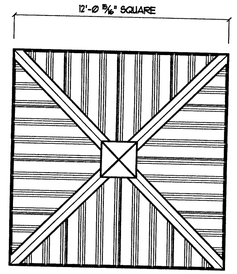


SS-6

3 Sun Shelter Plan
Scale: 1/4"=1'-0"

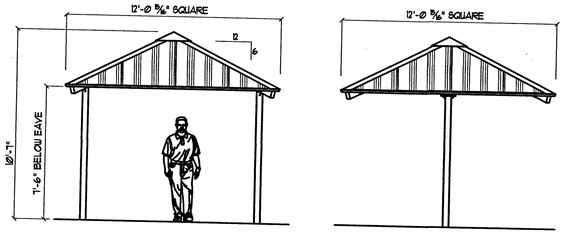


5 Plan View of Control Joints (Dog Park Area)
Scale: 1/4"=1'-0"



ROOF PLAN

DEFERRED SUBMITTAL REQUIRED
OWNER WILL PICK COLORS AT SUBMITTAL TIME



FRONT ELEVATION

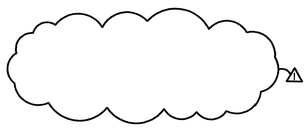
SS-6

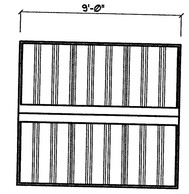
SIDE ELEVATION

4 Sun Shelter Elevations
Scale: 1/4"=1'-0"

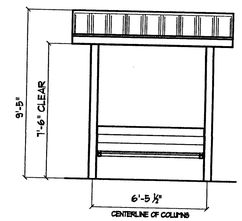
SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

- SS-6 12' SQUARE METAL SHADE SHELTER
- SS-7 8'X 9' METAL SHADE SHELTER
- SA-2 PICNIC TABLE 46"

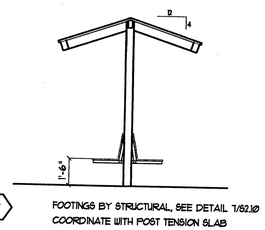




ROOF PLAN



FRONT ELEVATION



SS-7

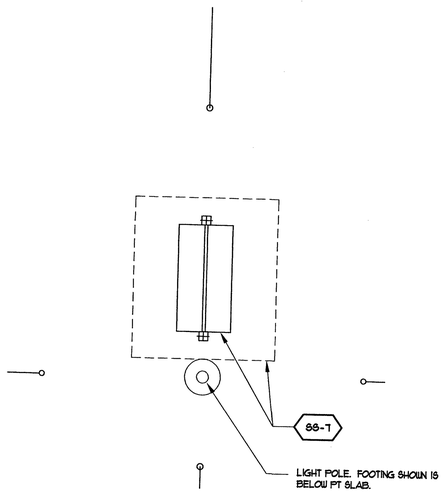
FOOTINGS BY STRUCTURAL, SEE DETAIL 7/S2.0
COORDINATE WITH POST TENSION SLAB

SIDE ELEVATION

DEFERRED SUBMITTAL REQUIRED
OWNER WILL PICK COLORS AT SUBMITTAL TIME

SS-7

2 Tennis Bench Elevations
Scale: 1/4"=1'-0"



SS-7

1 Tennis Bench Plan
Scale: 1/4"=1'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

CONSULTANT

PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Tennis and Sun Shade Shelters
and Control Joint Plan & Sun Shelter

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CLV DWG NO	650.108-1
HANSEN NO	71157
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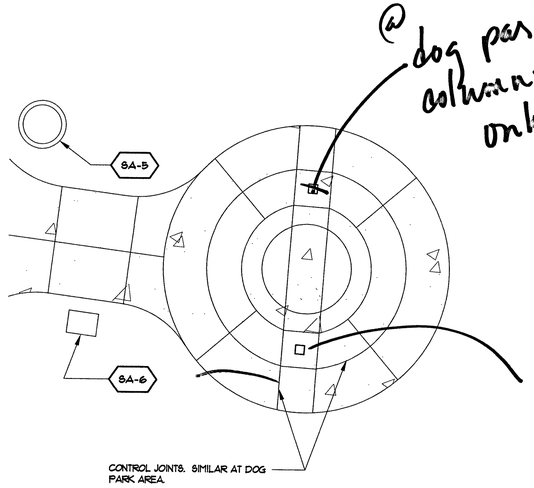
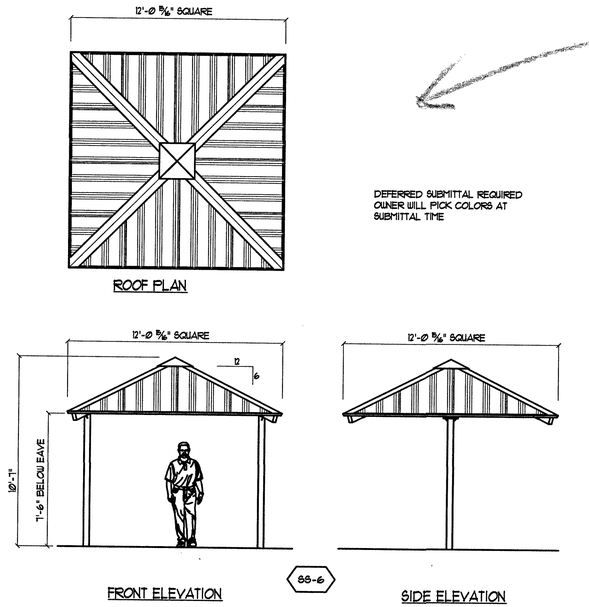


5 **Plan View of Control Joints (Near Tennis Courts)**
Scale: 1/4"=1'-Ø"



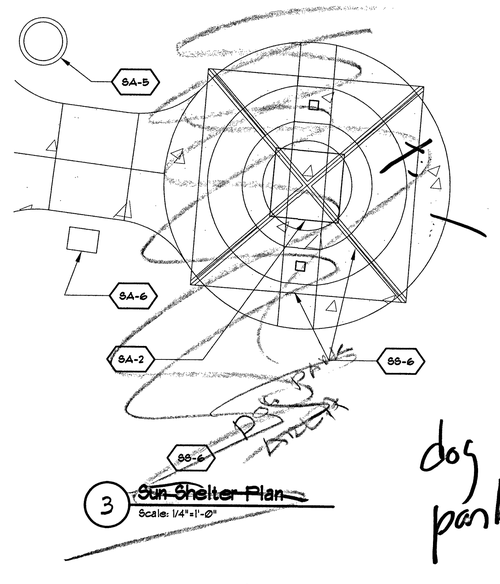
4 **Sun Shelter Elevations**
Scale: 1/4"=1'-Ø"

GENERAL NOTES

1. METAL ROOFING: STANDING SEAM
   - 24 GAUGE
   - GALVALUME COATED
   - KYNAR 500 PAINTED
2. FINISH COLORS:
   ROOF: MATCH EXISTING RAMADA ROOF AND FRAME.

   DEFERRED SUBMITTAL REQUIRED
   OWNER WILL PICK COLORS AT SUBMITTAL TIME

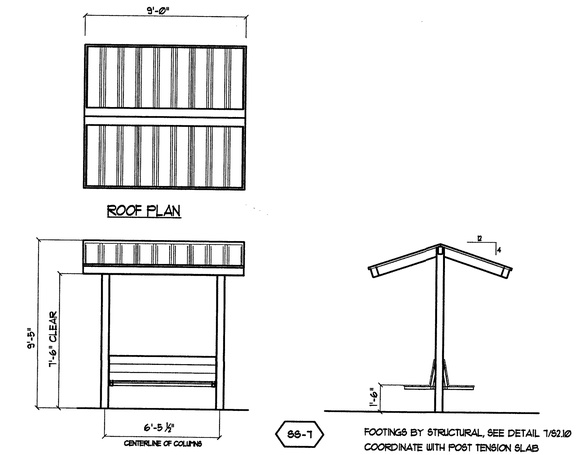
DEFERRED SUBMITTAL REQUIRED
OWNER WILL PICK COLORS AT SUBMITTAL TIME



3 ~~Sun Shelter Plan~~
Scale: 1/4"=1'-Ø"

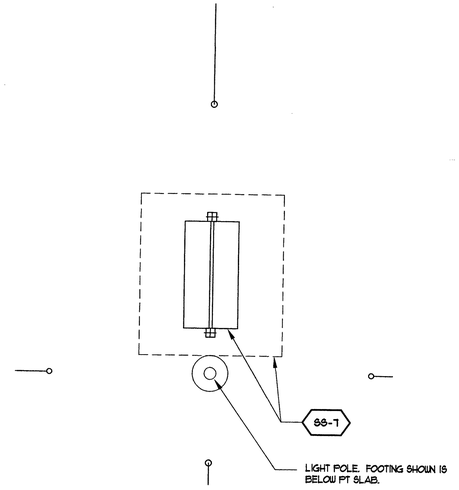
SEE SHEET G-2.0 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

- 88-6 12' SQUARE METAL SHADE SHELTER
- 88-7 8'X 9' METAL SHADE SHELTER
- 8A-2 PICNIC TABLE 46"
- 8A-5 TRASH RECEPTACLES
- 8A-6 BAR-B-QUE GRILL INDIVIDUAL



DEFERRED SUBMITTAL REQUIRED
OWNER WILL PICK COLORS AT SUBMITTAL TIME

2 **Tennis Bench Elevations**
Scale: 1/4"=1'-Ø"



1 **Tennis Bench Plan**
Scale: 1/4"=1'-Ø"

CITY OF LAS VEGAS NEVADA

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HUCKLEBERRY PARK
- ADDITION -

Tennis and Sun Shade Shelters
and Control Joint Plan & Sun Shelter

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DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

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HANSEN NO	71157
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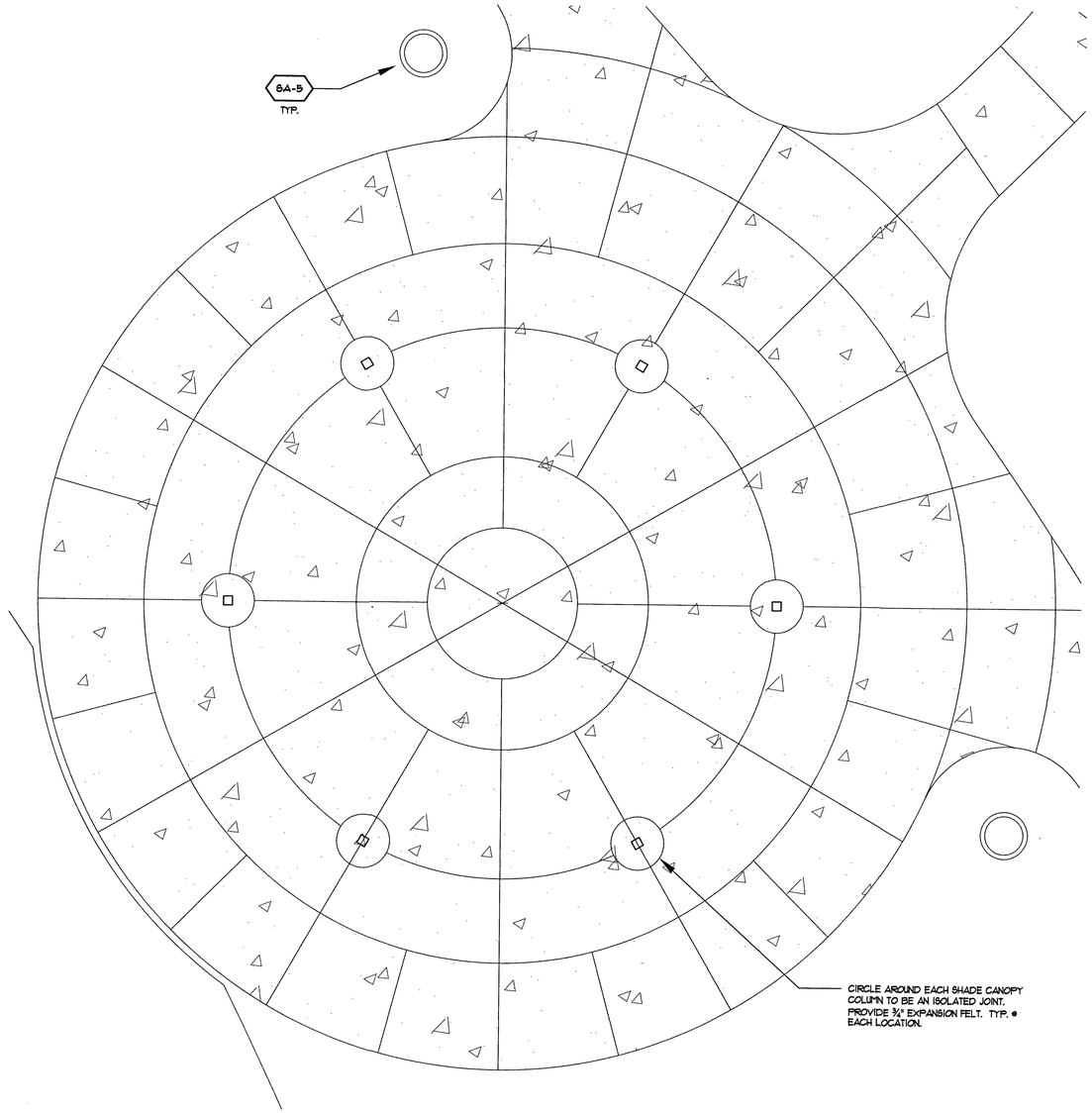
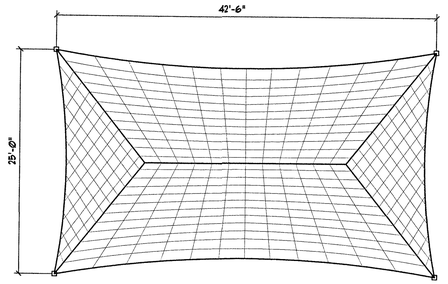


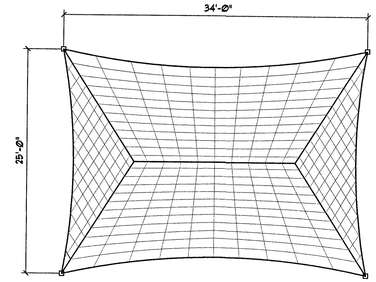
2 Plan View of Concrete Joints (36' Hexagon Area)
Scale: 1/4"=1'-0"

SEE SHEET G-20 PRODUCT LEGEND FOR SYMBOL AND FULL DESCRIPTION.

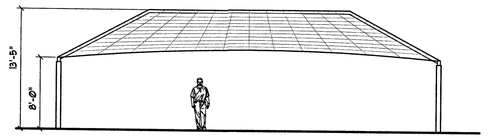
- 8B-3 HORSESHOE PITS - 25'-0" X 34'-0" HIPPED ROOF SHADE FABRIC SHELTERS
- 8B-4 BOCCE COURTS - 25'-0" X 42'-6" HIPPED ROOF SHADE FABRIC SHELTERS
- 6A-5 TRASH RECEPTACLES



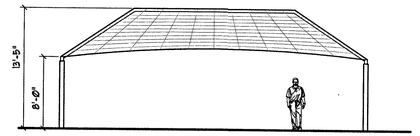
BOCCE ROOF VIEW
Scale: Not to Scale



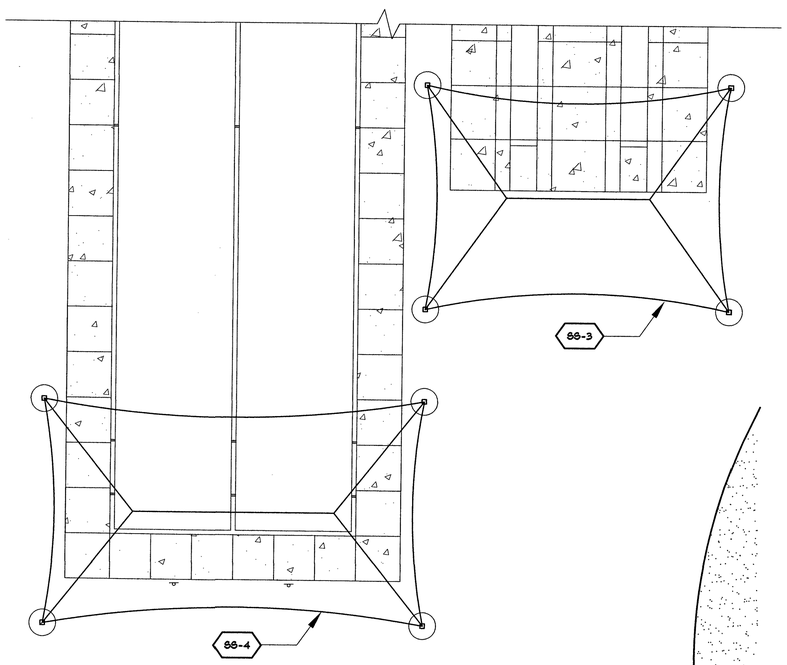
HORSESHOE ROOF VIEW
Scale: Not to Scale



BOCCE ELEVATION
Scale: Not to Scale
8B-4



HORSESHOE ELEVATION
Scale: Not to Scale
8B-3



1 Bocce and Horseshoe Shade Shelters
Scale: 1/8"=1'-0"

GENERAL NOTES:

BASIS OF DESIGN: USA SHADE - DEFERRED SUBMITTAL REQUIRED WITH ALL ENGINEERING.

FRAME: STEEL FRAMED POSTS AND BEAMS - POWDER COATED

ROOF FABRIC: SHADESURE FABRIC.
COLOR TO BE SELECTED AT SUBMITTAL.

CITY OF LAS VEGAS NEVADA

REVISIONS

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Horseshoe / Bocce Fabric Shade Shelters
and Control Joint Plan @ Hexagon Area

STAMP

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DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	ms / bb
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SCALE	Full Scale
BID NO	NA
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HANSEN NO	11157
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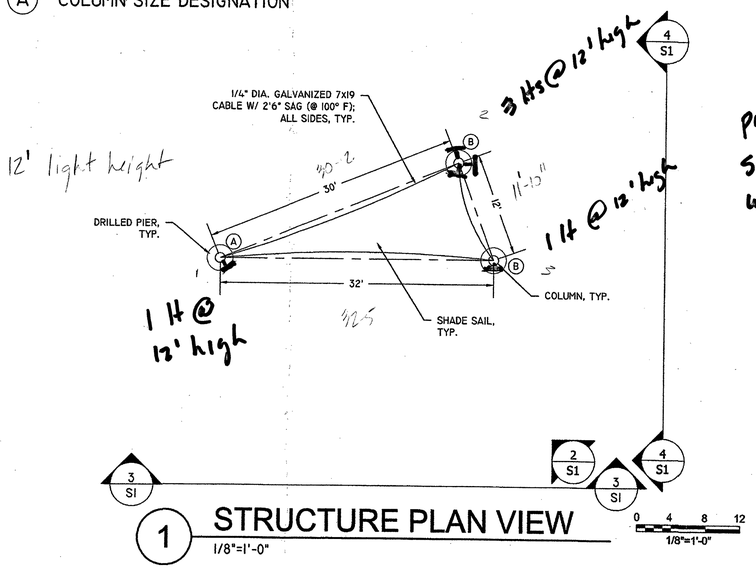
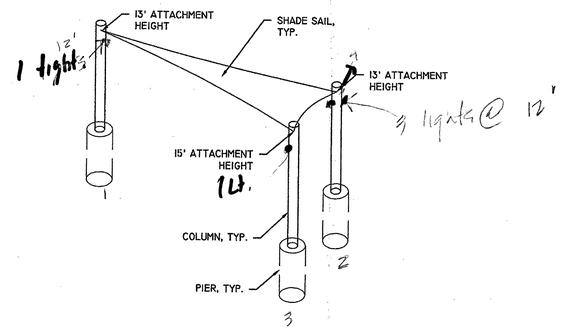
LEGEND

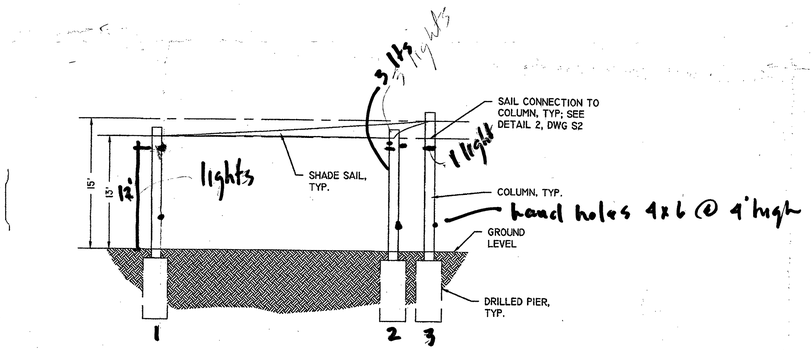
(A) COLUMN SIZE DESIGNATION



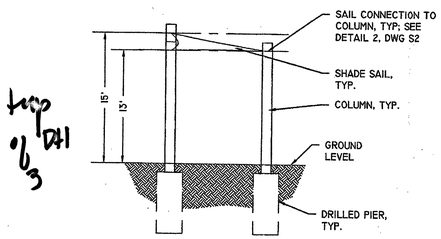
1 STRUCTURE PLAN VIEW
1/8"=1'-0"



2 ISOMETRIC VIEW
NOT TO SCALE



3 ELEVATION VIEW
1/8"=1'-0"
0 4 8 12
1/8"=1'-0"



4 ELEVATION VIEW
1/8"=1'-0"
0 4 8 12
1/8"=1'-0"

SOUTH PLAY STRUCTURE SHADE CANOPY

JOHN E. SKOWDT Exp. 6/30/20 CIVIL No. 29561 REGISTERED PROFESSIONAL ENGINEER-STATE OF NEVADA
7/11/19

FJS ENGINEERING
230 W BASELINE RD, STE 107
TEMPE, AZ 85282
T: 480.550.6565
CONTACT@FJSENGINEERING.COM
NV FIRM #22937
FJS ENGINEERING
STRUCTURAL | CIVIL DESIGN | CONSULTING

REVISIONS

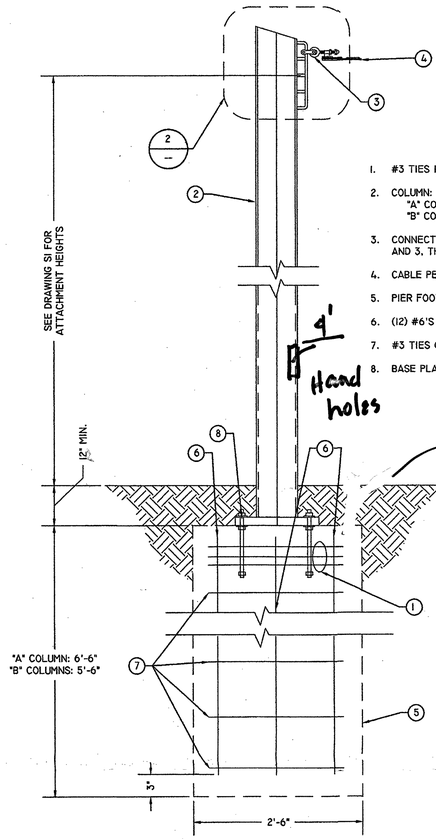
DATE	REV.	DESCRIPTION

SHADE STRUCTURE
SHADE 'N NET
5711 W. WASHINGTON
PHOENIX, AZ 85043
1-800-290-3387
WWW.SHADE-N-NET.COM

HUCKLEBERRY PARK
10325 FARM RD.
LAS VEGAS, NV 89166

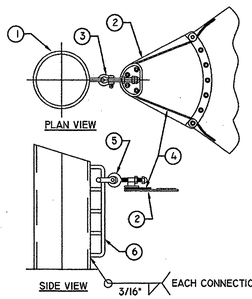
DESIGNER:	JS	SCALE:	AS SHOWN
DRAWN BY:	LB	APPROVED:	TBD
DATE:	07/20/2019	PROJ. NO.:	SNAZ-19-30

S1



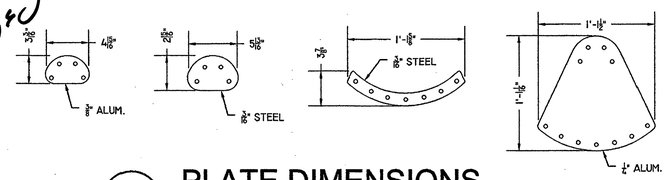
1. #3 TIES IN TOP 5"
2. COLUMN:
   "A" COLUMN: HSS8.625x0.375
   "B" COLUMNS: HSS8.625x0.250
3. CONNECTION TO COLUMN; SEE DETAILS 2 AND 3, THIS SHEET
4. CABLE PER PLANS
5. PIER FOOTING
6. (12) #6'S VERTICAL @ EQUAL SPACING
7. #3 TIES @ 12" O.C.
8. BASE PLATE PER DETAIL 4, THIS SHEET

1 PIER AND COLUMN DETAIL
NOT TO SCALE

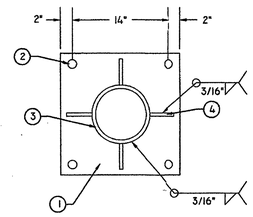


1. HSS COLUMN
2. PLATE ASSEMBLY; SEE DETAIL 3 THIS SHEET
3. ½" SHACKLE
4. ⅜" DIAMETER 7x19 CABLE
5. ½" DIAMETER EYEBOLT
6. ⅜" DIAMETER STEEL ROD

2 CABLE TO COLUMN CONNECTION
NOT TO SCALE



3 PLATE DIMENSIONS
NOT TO SCALE



1. BASE PLATE: I8XI8XI
2. (4) 1" DIA, 24" LENGTH ANCHOR BOLTS PER ASTM FI554
3. HSS COLUMN
4. 3/8" THICK CHAMFERED STIFFENER PLATES TYP.

4 BASE PLATE
NOT TO SCALE

Foundation FG shall be 3.5" below rubberized play surface

Hand Holes

4"x6" stainless steel & tamperproof on all poles w/ light in alignment w/ pull box

Light fixture and mounting hardware by contractor to pull box opening by mfr.

Lights to be mounted on poles

Light Fixtures will be mounted to the poles by electrical contractor with the intent to mount to upper hand hole locations

please provide this submittal to electrical contractor to begin coordination of work

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE FOLLOWING, UNLESS OTHERWISE SPECIFIED:

ACI SP-66; ACI DETAILING MANUAL - 2004
CRSI MSP-I; MANUAL OF STANDARD PRACTICE, 28TH EDITION, 2009

TYPICAL REINFORCING STEEL:

DEFORMED BARS (NON-WELDABLE) _____ ASTM A615, GRADE 60
DEFORMED BARS (WELDABLE) _____ ASTM A706, GRADE 60

ALL REINFORCING BAR HOOKS INDICATED ON THE DRAWINGS SHALL BE ACI STANDARD HOOKS CONFORMING TO THE BEND DIMENSION REQUIREMENTS OF ACI 318, UNLESS SPECIFICALLY NOTED OTHERWISE.

REINFORCING BARS SHALL BE COLD BENT. BARS EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT WHEN SPECIFICALLY INDICATED ON THE DRAWINGS.

THE CONTRACTOR SHALL NOT CUT REINFORCEMENT UNLESS INDICATED BY SECTION OR DETAIL. AT LOCATIONS OF CONFLICT, SPREAD THE REINFORCEMENT TO ACCOMODATE PLACEMENT. ADD ADDITIONAL BARS IF NECESSARY TO MAINTAIN SPACING REQUIREMENTS.

ALL WELDED REINFORCING SHALL BE IN ACCORDANCE WITH AWS DI.4. TACK WELDING IS NOT PERMITTED.

#11 AND SMALLER BARS MAY BE SPLICED USING MECHANICAL CONNECTIONS OR CONTACT LAP SPLICES. BAR LAPS SHALL BE SECURELY WIRED TOGETHER.

SHALL BE CHAMFERED 3/4 INCH, UNLESS SPECIFICALLY NOTED OTHERWISE.

DESIGN CRITERIA:

RISK CATEGORY: III
BASIC WIND SPEED: 105 MPH
EXPOSURE CATEGORY: C
ENCLOSURE CLASSIFICATION: OPEN
ROOF LIVE LOAD: 5 PSF

STRUCTURAL STEEL:

ALL STEEL SHALL CONFORM TO ASTM STANDARD A - 36, EXCEPT AS FOLLOWS:

1. BOLTS AND PLAIN ANCHORS: ASTM - 307 AND ASTM - F1554 - 55.
2. TUBE STEEL: ASTM A - 500 GRADE B.
3. PIPE STEEL: ASTM A35 GR B
4. STRANDED CABLE WITH ZINC COATING: CLASS A, MINIMUM TENSILE STRENGTH EQUALS 200 KSI

WELDING:

ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) PREQUALIFIED BY AWS DI.I. WPS NOT PREQUALIFIED BY AWS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS DI.I PRIOR TO USE ON THE PROJECT. WELDERS SHALL BE QUALIFIED FOR EACH WPS USED ON THE PROJECT BY AN AWS CERTIFIED TESTING AGENCY AND IN ACCORDANCE WITH AWS DI.I.

CODES AND STANDARDS:

2018 INTERNATIONAL BUILDING CODE W/ SOUTHERN NEVADA AMENDMENTS
ASCE 7 - 16: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING, UNLESS OTHERWISE SPECIFIED:

   ACI 301-10; SPECIFICATIONS FOR STRUCTURAL CONCRETE
   ACI 318-11; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

2. CONCRETE PROPERTIES:
   CEMENT TYPE: V (SULFATE RESISTING)
   MAXIMUM WATER/CEMENT RATIO: 0.45
   MINIMUM COVER: 3 INCHES

APPLICATION:	MINIMUM 28 DAY COMPRESSIVE STRENGTH
FOUNDATIONS	4,500 PSI

3. WHEN THE SIDES OF GRADE BEAMS OR PIER CAPS ARE EARTH-FORMED, EACH SIDE SHALL BE WIDENED AT LEAST 3 INCHES MORE THAN THE REQUIRED DIMENSION. THE MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE INCREASED ACCORDINGLY BY THE SAME AMOUNT.
4. EXPOSED EDGES OF CONCRETE (BEAMS, COLUMNS, WALLS, ETC.) SHALL BE CHAMFERED 3/4 INCH, UNLESS SPECIFICALLY NOTED OTHERWISE.

JOHN E. SKWIOT
Exp. 6/30/20
CIVIL
PROFESSIONAL ENGINEER - STATE OF NEVADA
No. 20561
7/01/19

SOUTH PLAY STRUCTURE SHADE CANOPY

FJS ENGINEERING
230 W BASELINE RD, STE 107
TEMPE, AZ 85282
T: 480.550.6565
CONTACT@FJSENGINEERING.COM
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REVISIONS

DATE	REV.	DESCRIPTION

SHADE STRUCTURE
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5711 W. WASHINGTON
PHOENIX, AZ 85043
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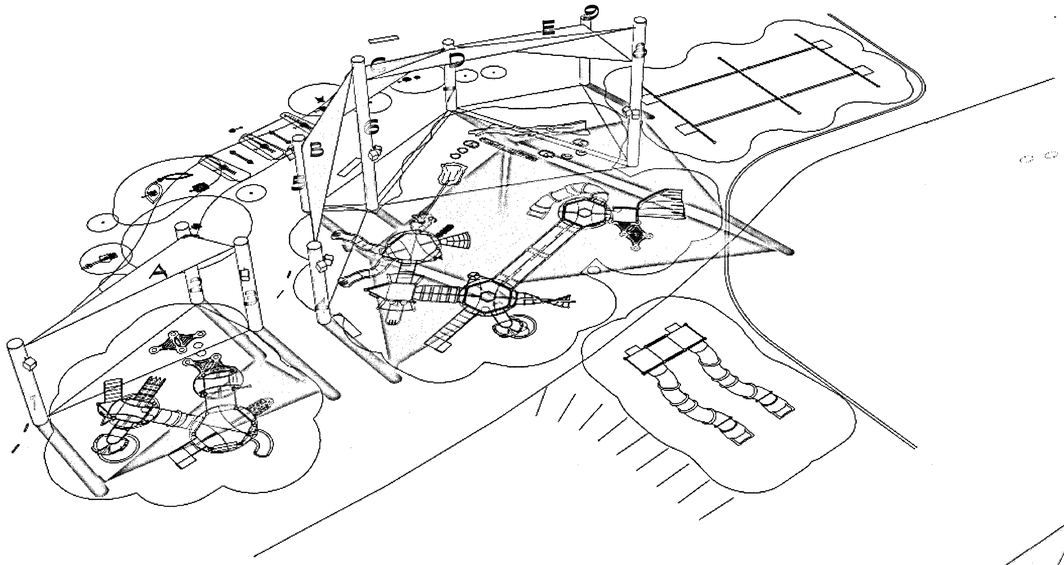
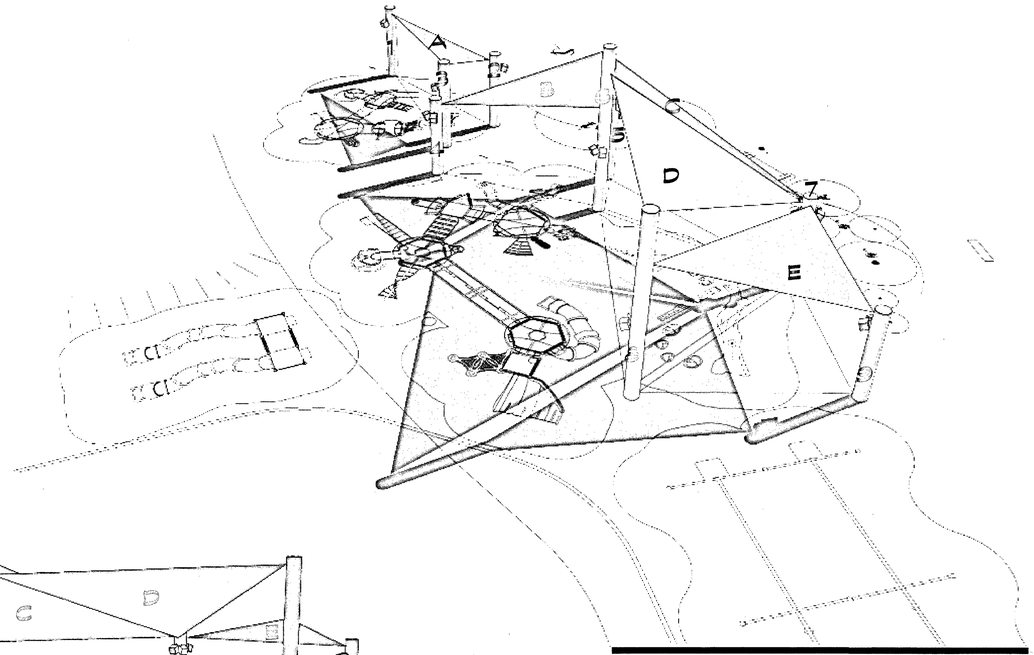
HUCKLEBERRY PARK
10325 FARM RD.
LAS VEGAS, NV 89166

DESIGNER:	JS	SCALE:	AS SHOWN
DRAWN BY:	LB	APPROVED:	TBD
DATE:	07/20/2019	PROJ. NO.:	SNAZ-19-30

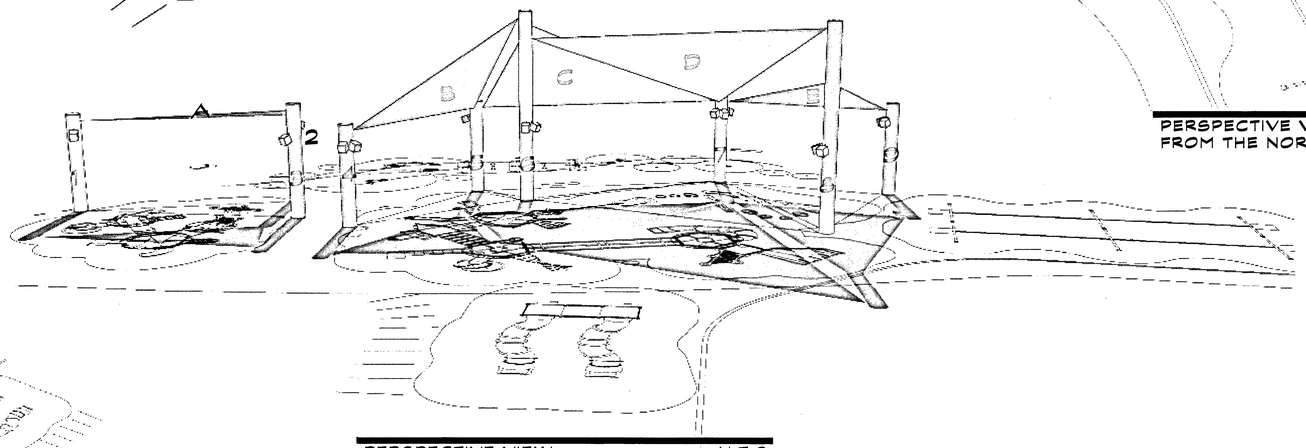
S2



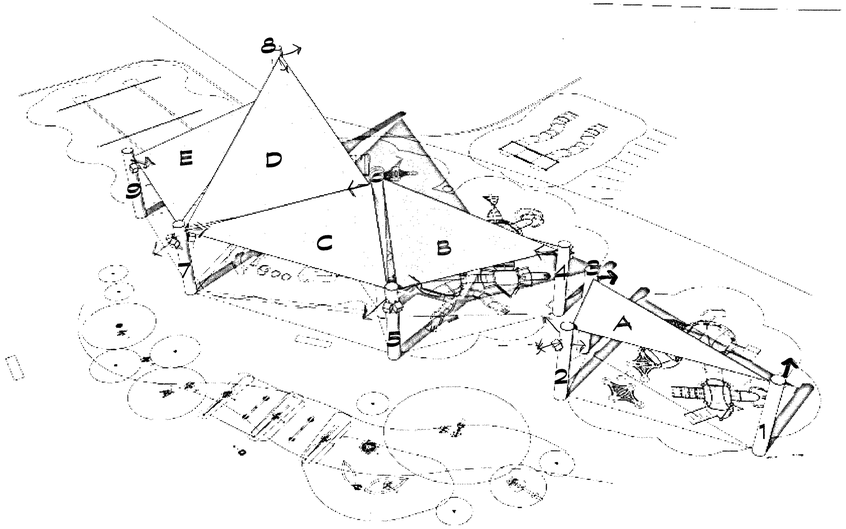
PERSPECTIVE VIEW
FROM THE SOUTHEAST N.T.S.



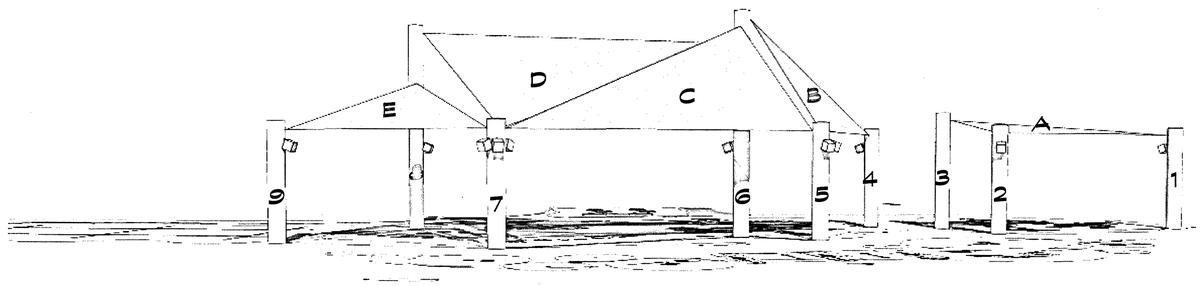
PERSPECTIVE VIEW
FROM THE NORTHEAST N.T.S.



PERSPECTIVE VIEW
FROM THE EAST N.T.S.



PERSPECTIVE VIEW
FROM THE SOUTHWEST N.T.S.



PERSPECTIVE VIEW
FROM THE WEST N.T.S.

CITY OF LAS VEGAS
NEVADA

DEPARTMENT OF
PUBLIC WORKS
CAPITAL PROJECT
MANAGEMENT

NO.	DATE	SHEET	REVISIONS

PROJECT
HUCKLEBERRY PARK
PLAYGROUND
SHADE ADDITION

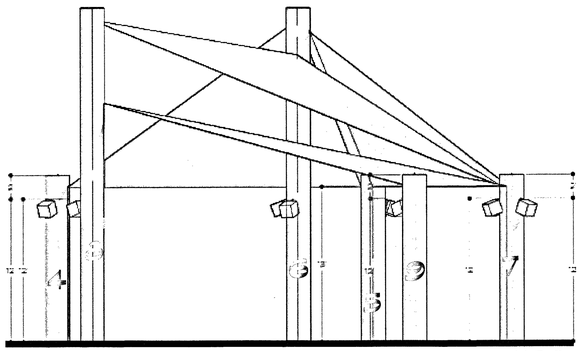
SHEET
OVERALL PERSPECTIVE VIEWS

H# 71157
DATE: 06/10/2019
SUBMITTAL STAGE: 100%
BID# N. A.
DESIGNED BY: jhe
DRAWN BY: jhe
CHECKED BY: MS

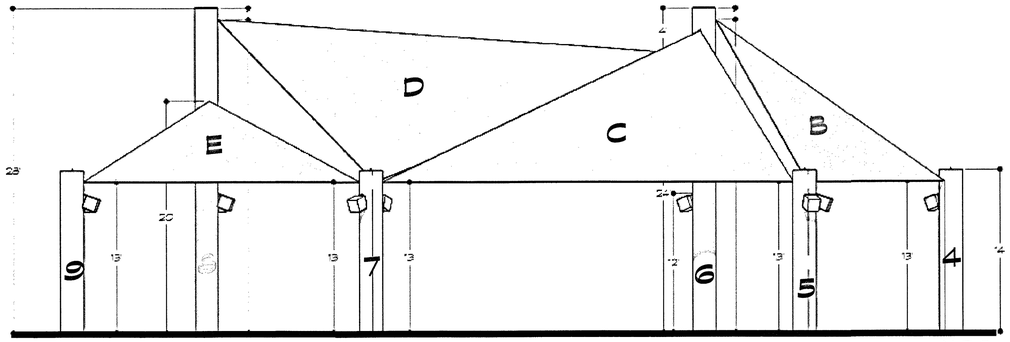
PREPARED BY

DEFERRED
SUBMITTAL
REQUIRED

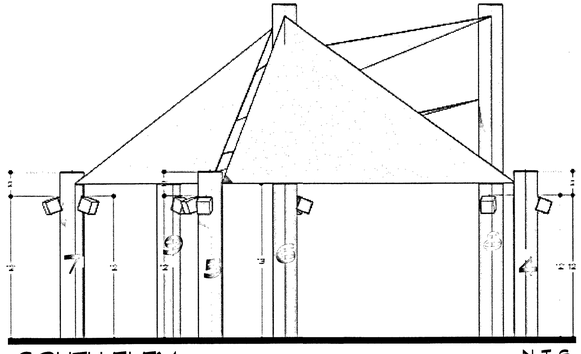
SHEET
A8.1
1 OF 3
DRAWING NO.
650.108-1



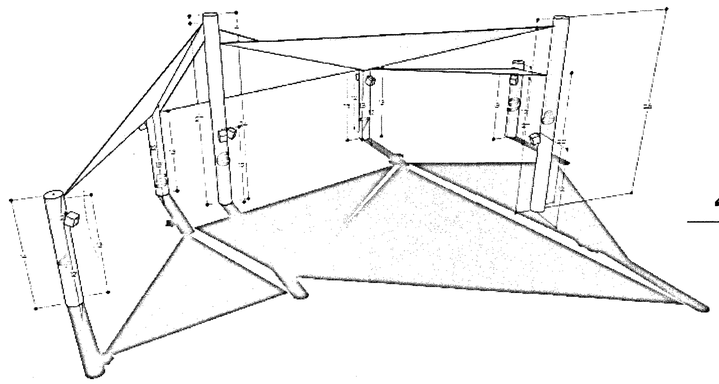
NORTH ELEV. N.T.S.



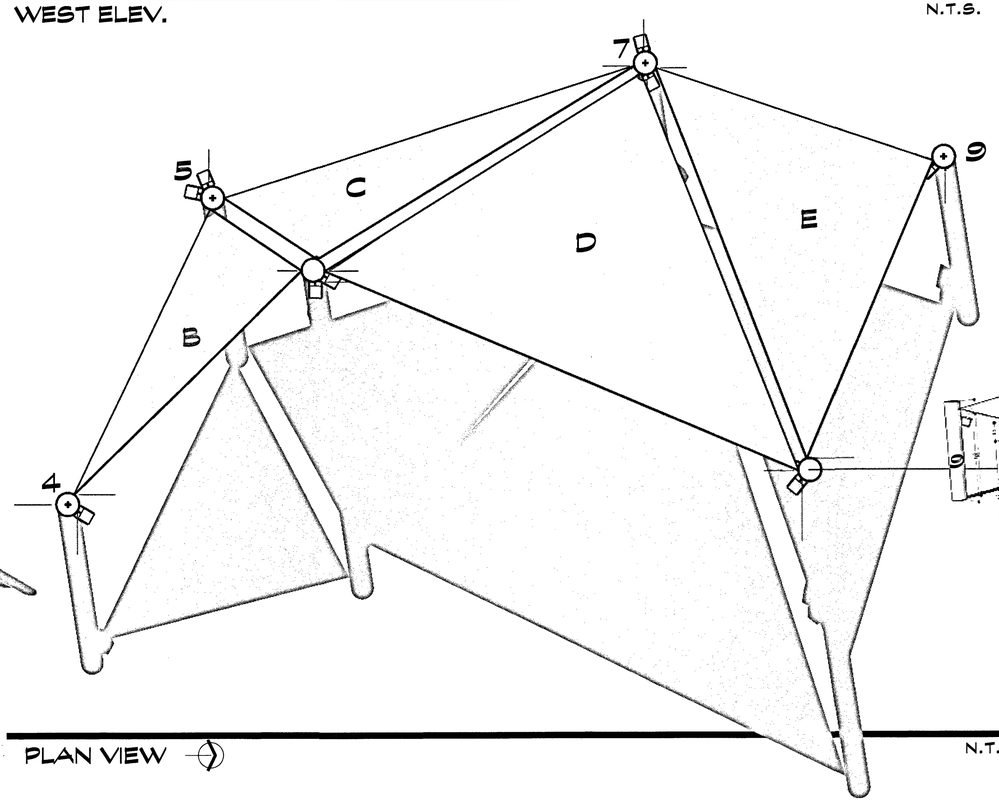
WEST ELEV. N.T.S.



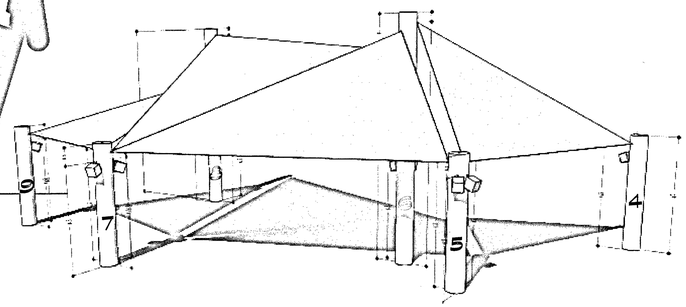
SOUTH ELEV. N.T.S.



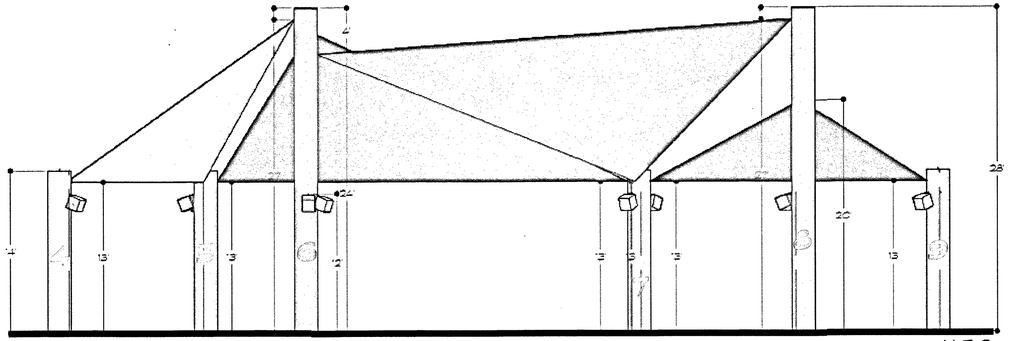
PERSPECTIVE VIEW FROM THE SOUTHEAST N.T.S.



PLAN VIEW N.T.S.



PERSPECTIVE VIEW FROM THE SOUTHWEST N.T.S.



EAST ELEV. N.T.S.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

NO.	DATE	SHEET	REVISIONS

PROJECT: HUCKLEBERRY PARK PLAYGROUND SHADE

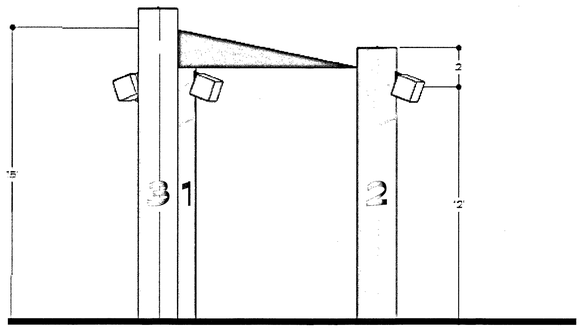
SHEET: SHADE ADDITION AT MAIN PLAY STRUCTURE

H#	71157
DATE:	12/17/2018
SUBMITTAL STAGE:	100%
BID#	N. A.
DESIGNED BY:	jhe
DRAWN BY:	jhe
CHECKED BY:	MS

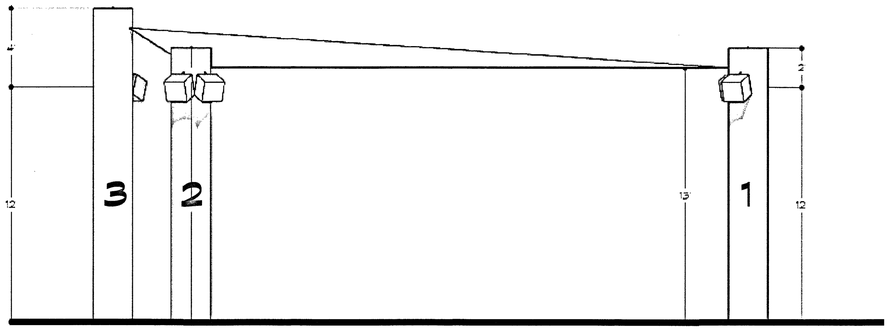
PREPARED BY

DEFERRED SUBMITTAL REQUIRED

SHEET A8.2
2 OF 3
DRAWING NO. 650.108-1



NORTH ELEV. N.T.S.



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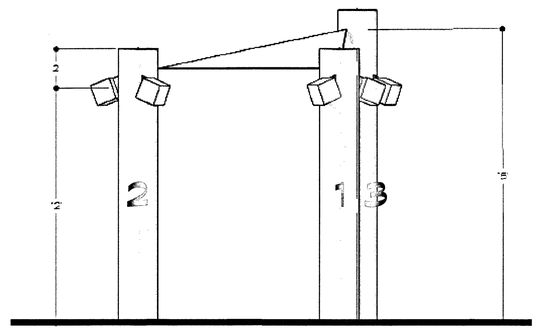

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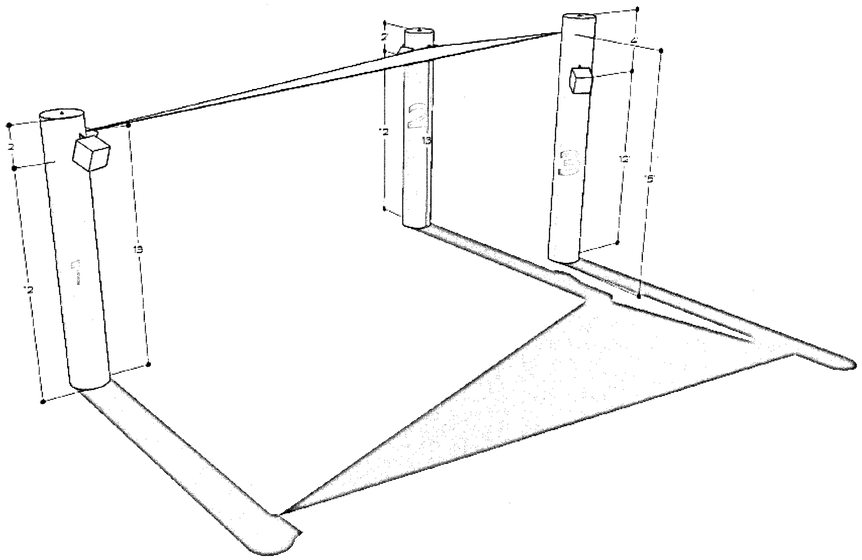
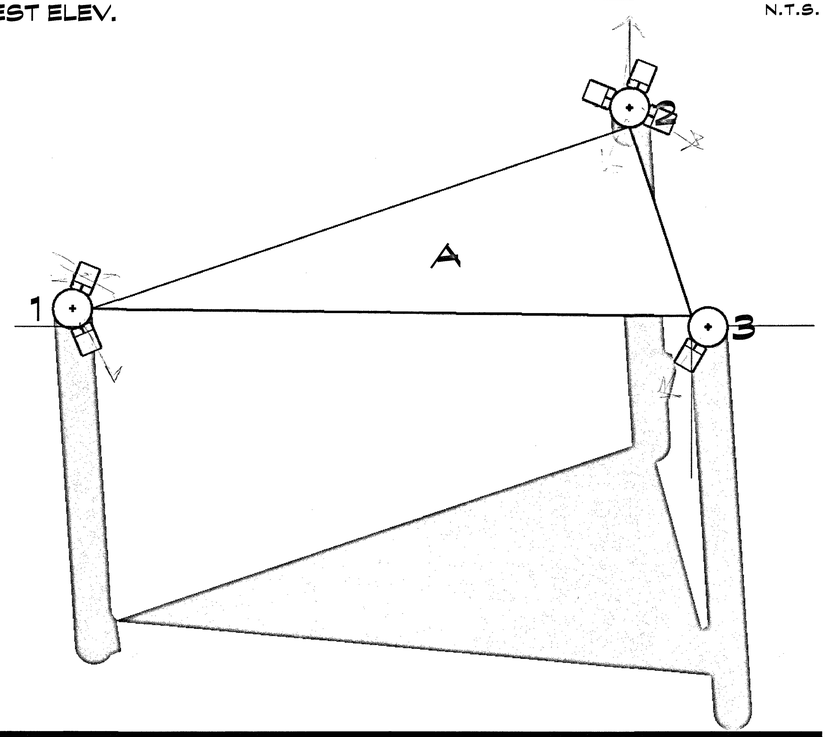
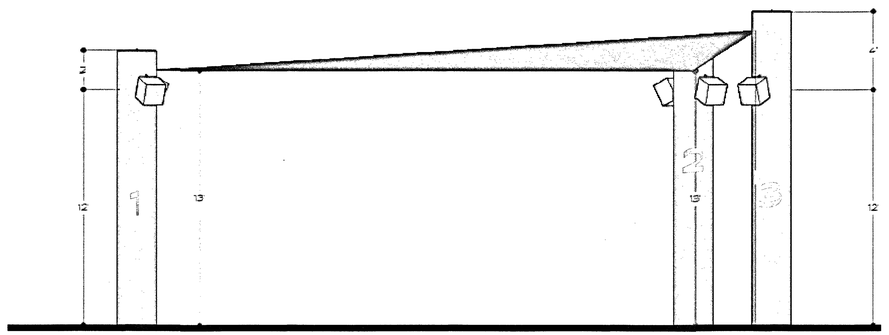


PERSPECTIVE VIEW
FROM THE SOUTHEAST N.T.S.



PLAN VIEW N.T.S.



EAST ELEV. N.T.S.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

NO.	DATE	SHEET	REVISIONS

PROJECT
HUCKLEBERRY PARK
PLAYGROUND SHADE

SHEET
SHADE ADDITION
SOUTH PLAY STRUCTURE

H# 71157
DATE: 12/17/2018
SUBMITTAL STAGE: 100%
BID# N. A.
DESIGNED BY: jhe
DRAWN BY: jhe
CHECKED BY: MS

PREPARED BY

DEFERRED
SUBMITTAL
REQUIRED

SHEET
A8.3
3 OF 3
DRAWING NO.
650.108-1

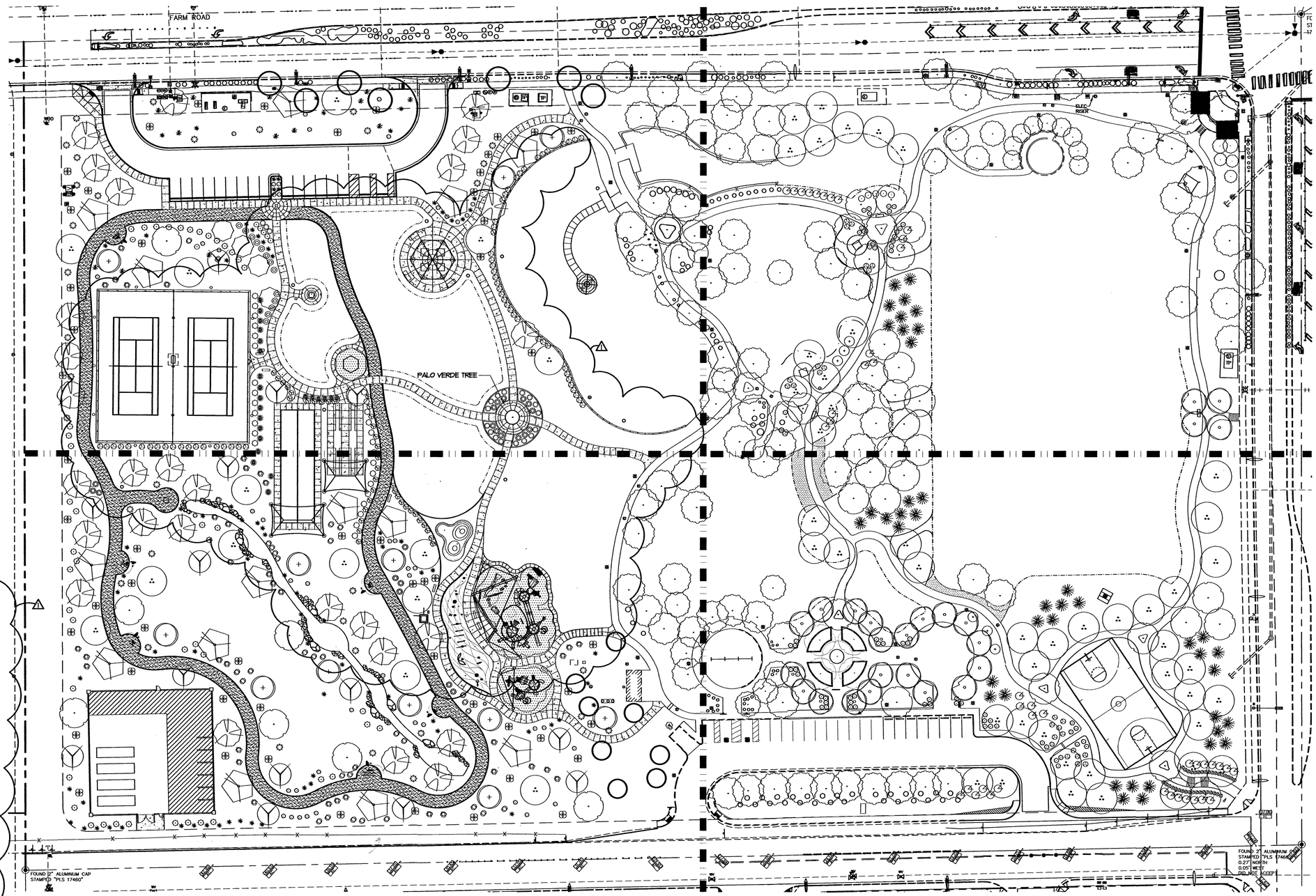
PLANT LEGEND

TREES			
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" BOX
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" BOX
	CHILEAN MESQUITE	PROSOPIS CHILENSIS	24" BOX
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" BOX
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" BOX
	TEXAS OLIVE	WHITE CORDIA	24" BOX
	SWAN HILL	OLEA EUROPAEA	24" BOX

SHRUBS				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	1 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	1 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	1 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	1 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELA EQUISETIFORMIA	1 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	1 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	1 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	1 GALLON	5'
	YELLOW YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	BAY LAURELS	PRUNUS LAUROCERASUS ROTUNDIFOLIA	1 GALLON	3' to 5'
	GOPHER PLANT	EUPHORBIA RIGIDA	1 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	1 GALLON	3'
	DESERT CARPET	PROSTATE ACACIA	1 GALLON	15' spread
	CARPET ROSES		1 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	1 GALLON	3' to 5'
	5' BOULDER	REBEL RED - SEE SHEET L2 FOR DECOMPOSED GRANITE LAYOUT		
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		

Area 1 - Sheet L1.1

Area 4 - Sheet L1.4



Area 2 - Sheet L1.2

Area 3 - Sheet L1.3

Landscape Areas

Scale: 1"=40'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS

6/4/2019 VE REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
Areas

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mms
FILE	L0
DATE	12/17/2018
SCALE	1"=40'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L0

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PLANT LEGEND

TREES			
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" Box
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" Box Multi Trunk
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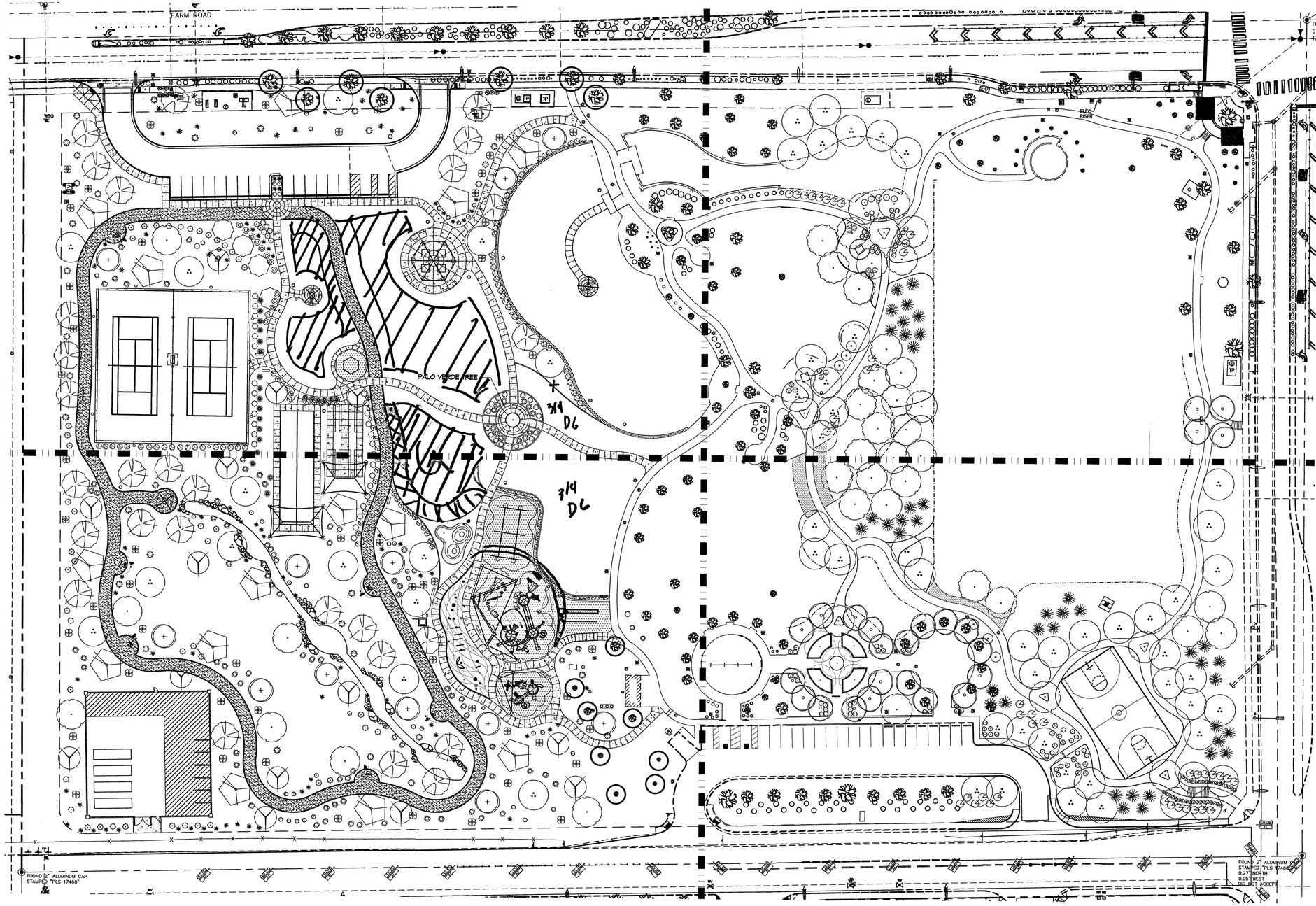
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" Box Multi Trunk
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" Box Multi Trunk
	TEXAS OLIVE	WHITE CORDIA	24" Box
	SWAN HILL	OLEA EUROPAEA	24" Box

SHRUBS				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	5 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	5 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	5 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	5 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	5 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELA EQUISETIFORMIA	5 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	5 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	5 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	5 GALLON	5'
	YELLOW YUCCA	HESPERALOE PARVIFLORA	5 GALLON	3'
	BAY LAURELS	PRUNUS LAUROCERASUS ROTUNDIFOLIA	5 GALLON	3' to 5'
	GOPHER PLANT	EUPHORBIA RIGIDA	5 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	5 GALLON	3'
	DESERT CARPET	PROSTATE ACACIA	5 GALLON	15' spread
	CARPET ROSES		5 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	5 GALLON	3' to 5'
	5' BOULDER	REBEL RED - SEE SHEET L2 FOR DECOMPOSED GRANITE LAYOUT		
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		

Area 1 - Sheet L1.1

Area 4 - Sheet L1.4



Area 2 - Sheet L1.2

Area 3 - Sheet L1.3

Landscape Areas

Scale: 1"=40'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
Areas

STAMP

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DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mns
FILE	L0
DATE	12/17/2018
SCALE	1"=40'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L0

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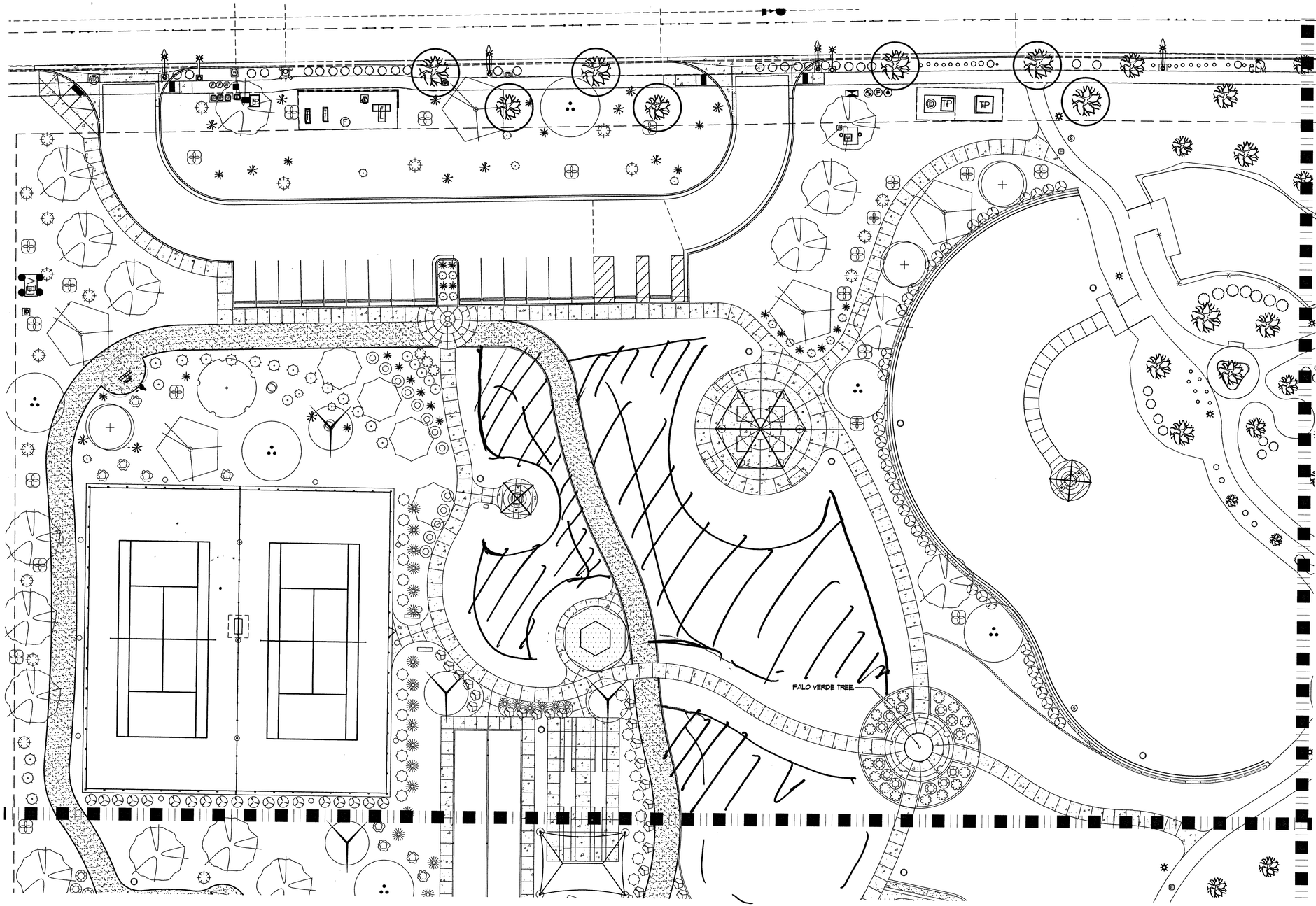
ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED. COPYRIGHT

PLANT LEGEND

TREES			
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" Box 159
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" Box Multi Trunk 159
	CHILEAN MESQUITE	PROSOPIS CHILENSIS	24" Box Multi Trunk 4
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" Box Multi Trunk 4
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" Box Multi Trunk 4
	TEXAS OLIVE	WHITE CORDIA	24" Box 4
	SWAN HILL	OLEA EUROPAEA	24" Box 1

SHRUBS				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	5 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	5 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	5 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	5 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	5 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELA EQUISETIFORMIA	5 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	5 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	5 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	5 GALLON	5'
	YELLOW YUCCA	HESPERALOE PARVIFLORA	5 GALLON	3'
	BAY LAURELS	PRUNUS LAUROCERASUS ROTUNDIFOLIA	5 GALLON	3' to 5'
	GOPHER PLANT	EUPHORBIA RIGIDA	5 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	5 GALLON	3'
	DESERT CARPET	PROSTATE ACACIA	5 GALLON	15' spread
	CARPET ROSES		5 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	5 GALLON	3' to 5'
	5' BOULDER	REBEL RED - SEE SHEET L2 FOR DECOMPOSED GRANITE LAYOUT		
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		

16.



Landscape Plan - Area 1

Scale: 1"=20'-0"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

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HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 1 -

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LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	rms
FILE	L0
DATE	12/17/2018
SCALE	1"=20'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L1.1

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PLANT LEGEND

TREES			
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" BOX
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" BOX
	CHILEAN MESQUITE	PROSOPIS CHILENSIS	24" BOX
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" BOX
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" BOX
	TEXAS OLIVE	WHITE CORDIA	24" BOX
	SWAN HILL	OLEA EUROPAEA	24" BOX

SHRUBS				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	1 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	1 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	1 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	1 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELA EQUISETIFORMIA	1 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	1 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	1 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	1 GALLON	5'
	YELLOW YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	BAY LAURELS	PRUNUS LAUROCERASUS ROTUNDIFOLIA	1 GALLON	3' to 5'
	GOPHER PLANT	EUPHORBIA RIGIDA	1 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	1 GALLON	3'
	DESERT CARPET	PROSTATE ACACIA	1 GALLON	15' spread
	CARPET ROSES		1 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	1 GALLON	3' to 5'
	5' BOULDER	REBEL RED - SEE SHEET L2 FOR DECOMPOSED GRANITE LAYOUT		
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		

PALO VERDE TREE

Landscape Plan - Area 1

Scale: 1"=20'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

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HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 1 -

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FAX: (702) 384-4846

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FILE	L0
DATE	12/17/2018
SCALE	1"=20'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L1.1

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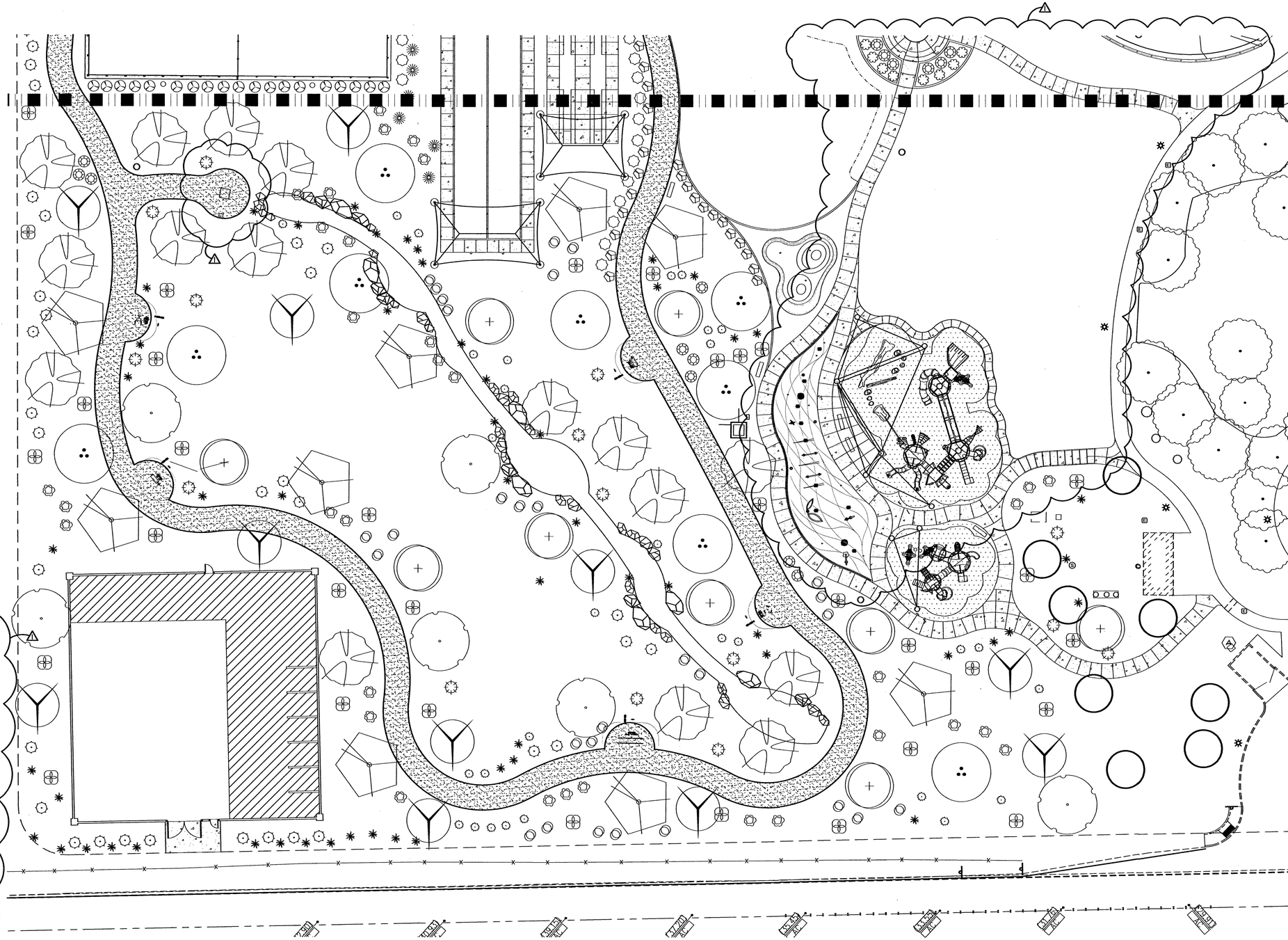
PLANT LEGEND

TREES			
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" BOX
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" BOX
	CHILEAN MESQUITE	PROSOPIS CHILENSIS	24" BOX
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" BOX
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" BOX
	TEXAS OLIVE	WHITE CORDIA	24" BOX
	SWAN HILL	OLEA EUROPAEA	24" BOX

SHRUBS				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	1 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	1 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	1 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	1 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELIA EQUISETIFORMIA	1 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	1 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	1 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	1 GALLON	5'
	YELLOW YUCCA	HESPERALOE PARVIFLORA	1 GALLON	3'
	BAY LAURELS	PRUNUS LAUROCERASUS ROTUNDIFOLIA	1 GALLON	3' to 5'
	GOPHER PLANT	EUPHORBIA RIGIDA	1 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	1 GALLON	3'
	DESERT CARPET	PROSTATE ACACIA	1 GALLON	15' spread
	CARPET ROSES		1 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	1 GALLON	3' to 5'
	5' BOULDER	REBEL RED. SEE SHEET L2 FOR DECOMPOSED GRANITE LAYOUT		
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		



Landscape Plan - Area 2

Scale: 1"=20'-0"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS
6/4/2019 VE REVISIONS

CONSULTANT

HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 2 -

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FAX: (702) 384-4846

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FILE	L0
DATE	12/17/2018
SCALE	1" = 20'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	L1.2

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PLANT LEGEND

TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE
	SHOESTRING ACACIA	ACACIA STENOPHYLLA	24" Box
	DESERT MUSEUM PALO VERDE	PARKINSONIA (CERCIDIUM)	24" Box Multi Trunk
	CHILEAN MESQUITE	PROSOPIS CHILENSIS	24" Box Multi Trunk
	THORNLESS HONEY MESQUITE	PROSOPIS GLANDULOSA THORNLESS	24" Box Multi Trunk
	DESERT WILLOW 'PINK DAWN'	CHILOPSIS LINEARIS	24" Box Multi Trunk
	TEXAS OLIVE	WHITE CORDIA	24" Box
	SWAN HILL	OLEA EUROPAEA	24" Box

SHRUBS

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	
	YELLOW BELLS	TECOMA STANS	5 GALLON	6' x 6'
	YAUPON HOLLY	ILEX VOMITORIA	5 GALLON	15' to 30'
	RED YUCCA	HESPERALOE PARVIFLORA	5 GALLON	3'
	RED BIRD OF PARADISE	CAESALPINIA PULCHERRIMA	5 GALLON	8' x 8'
	TEXAS RANGER	LEUCOPHYLLUM FRUTESCENS	5 GALLON	5'
	CORAL FOUNTAIN GRASS	RUSSELA EQUISETIFORMIA	5 GALLON	6' to 4'
	VALENTINE BUSH	EREMOPHILA MACULATA	5 GALLON	3' to 4'
	PAMS PINK HONEYSUCKLE	LONICERA AMERICANA	5 GALLON	4' to 6'
	RIO BRAVO RANGERS	LEUCOPHYLLUM LANGMANIAE	5 GALLON	5'
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	GOPHER PLANT	EUPHORBIA RIGIDA	5 GALLON	3'
	LANTANA YELLOW	CHAPEL HILL	5 GALLON	3'
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	CARPET ROSES		5 GALLON	
	BLUE RUELLIA	RUELLIA CAERULEA	5 GALLON	3' to 5'
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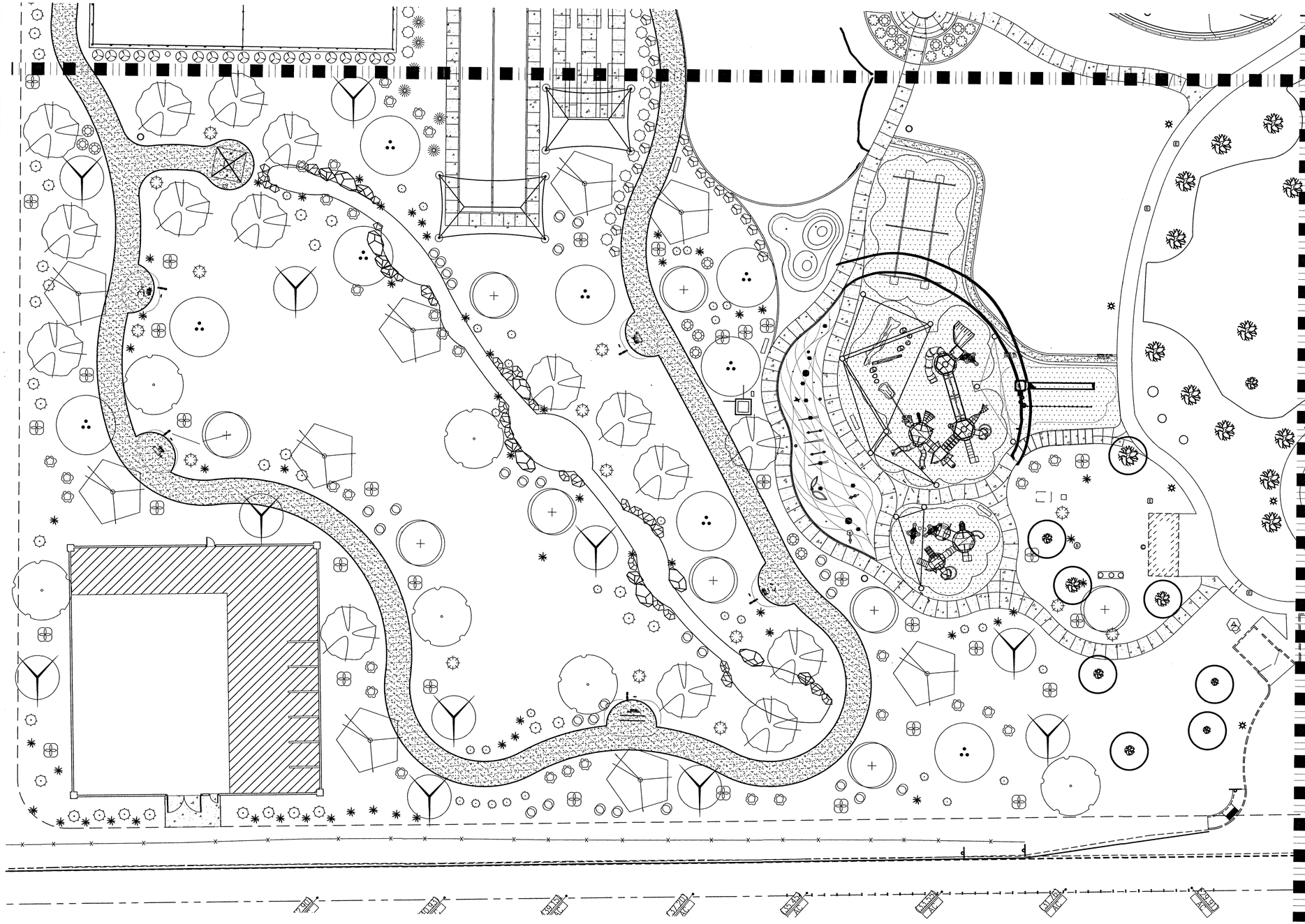
	3' BOULDER	REBEL RED SEE SHEET L2 FOR DECOMPOSED GRANITE TYPE LAYOUT		



Landscape Plan - Area 2

Scale: 1"=20'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS

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DEPARTMENT OF

HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 2 -

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
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FAX: (702) 384-4846

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FILE	L0
DATE	12/17/2018
SCALE	1" = 20'-0"
BID NO	NA
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HANSEN NO	11157
SHT NO	L1.2

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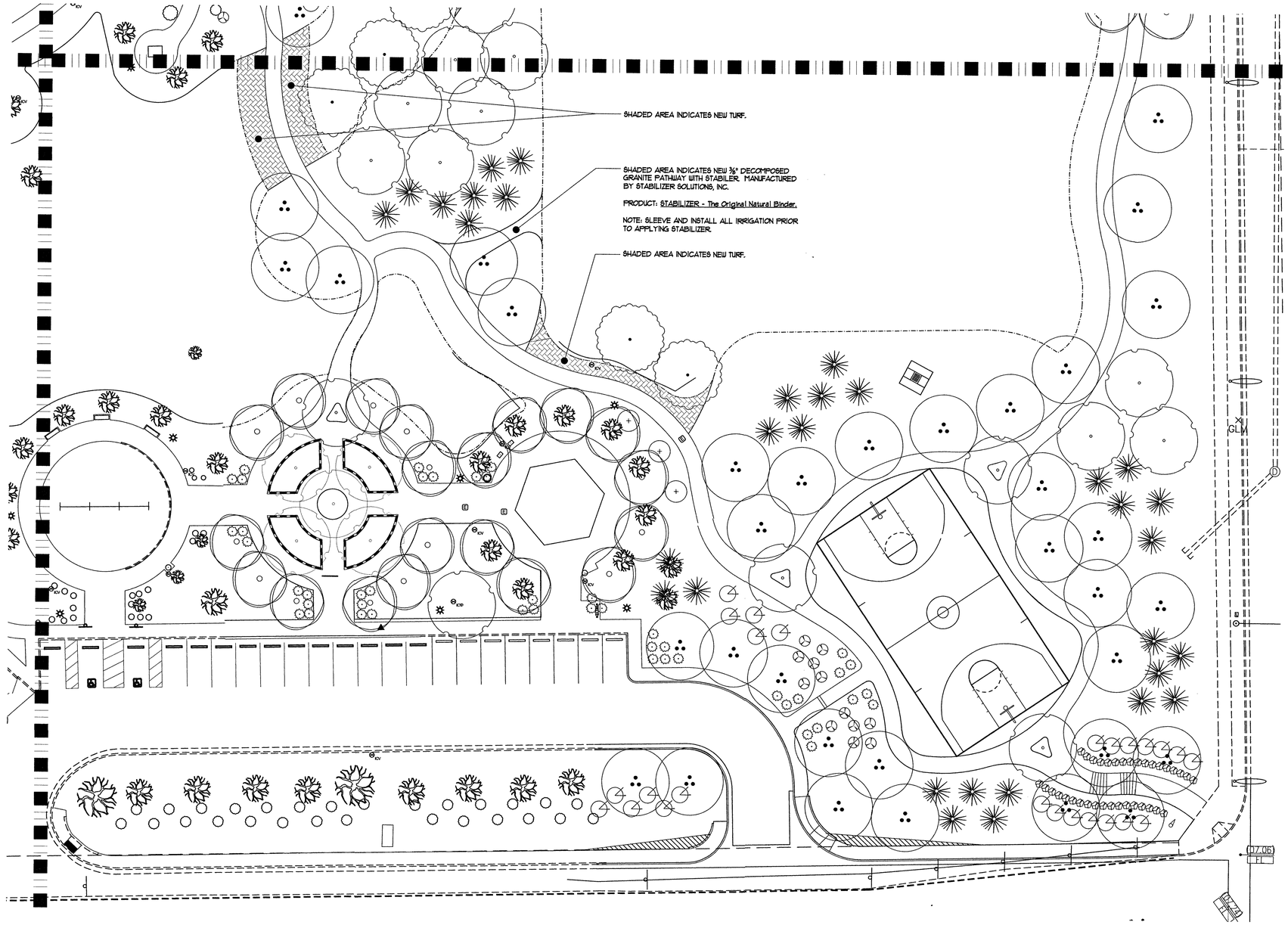

Landscape Plan - Area 3

Scale: 1"=20'-0"

NO NEW PLANTING IN THIS AREA

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

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HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 3 -

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333 N. RANCHO DRIVE
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FAX: (702) 384-4846

DRAWN	mms
FILE	L0
DATE	12/7/2018
SCALE	1"=20'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L13

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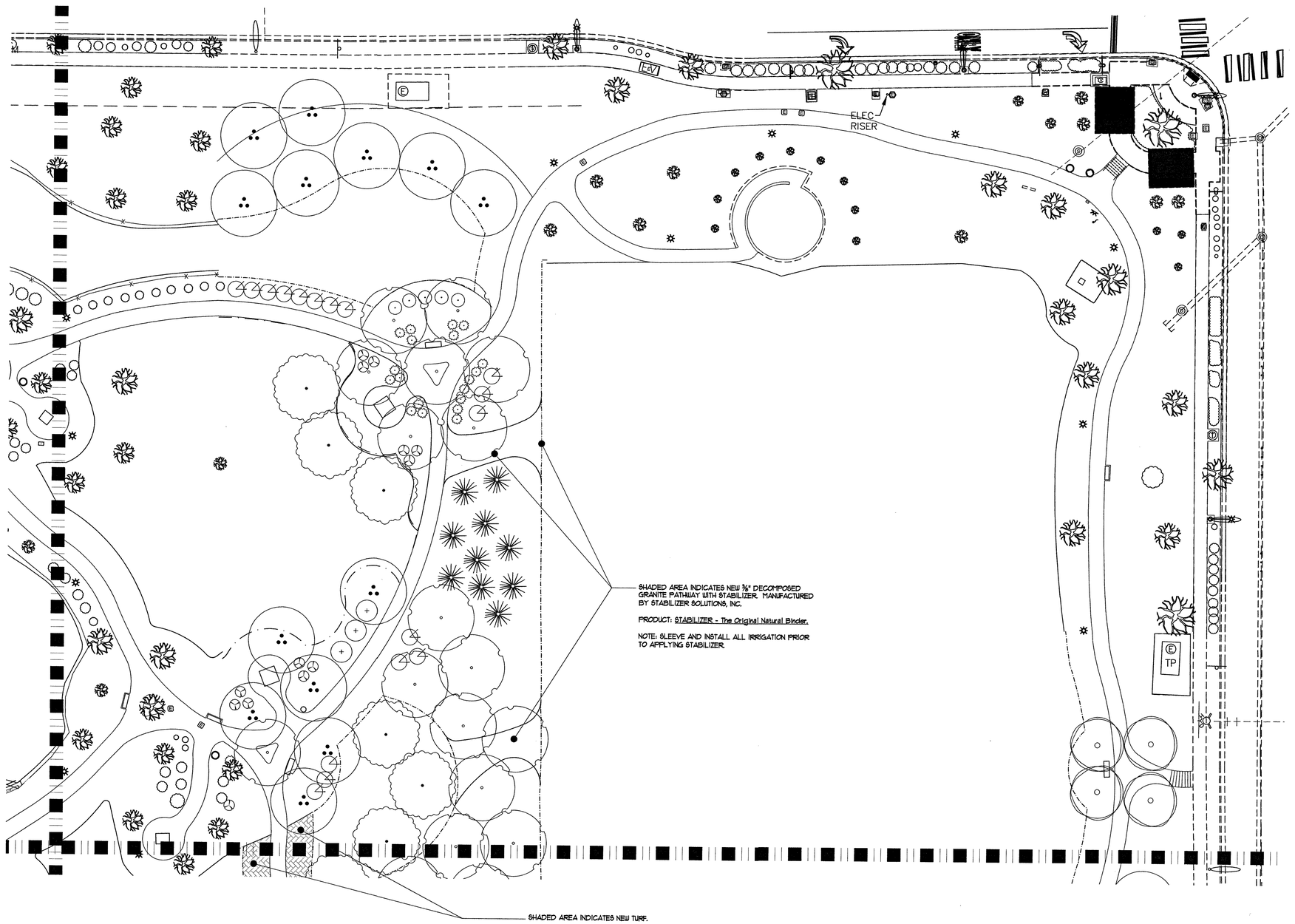

Landscape Plan area 4

Scale: 1"=20'-0"

NO NEW PLANTING IN THIS AREA

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

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HUCKLEBERRY PARK
- ADDITION -

Landscape Planting Plan and Legend
- Area 4 -

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FAX: (702) 384-4846

DRAWN	mrs
FILE	L0
DATE	12/11/2018
SCALE	1"=20'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L1.4

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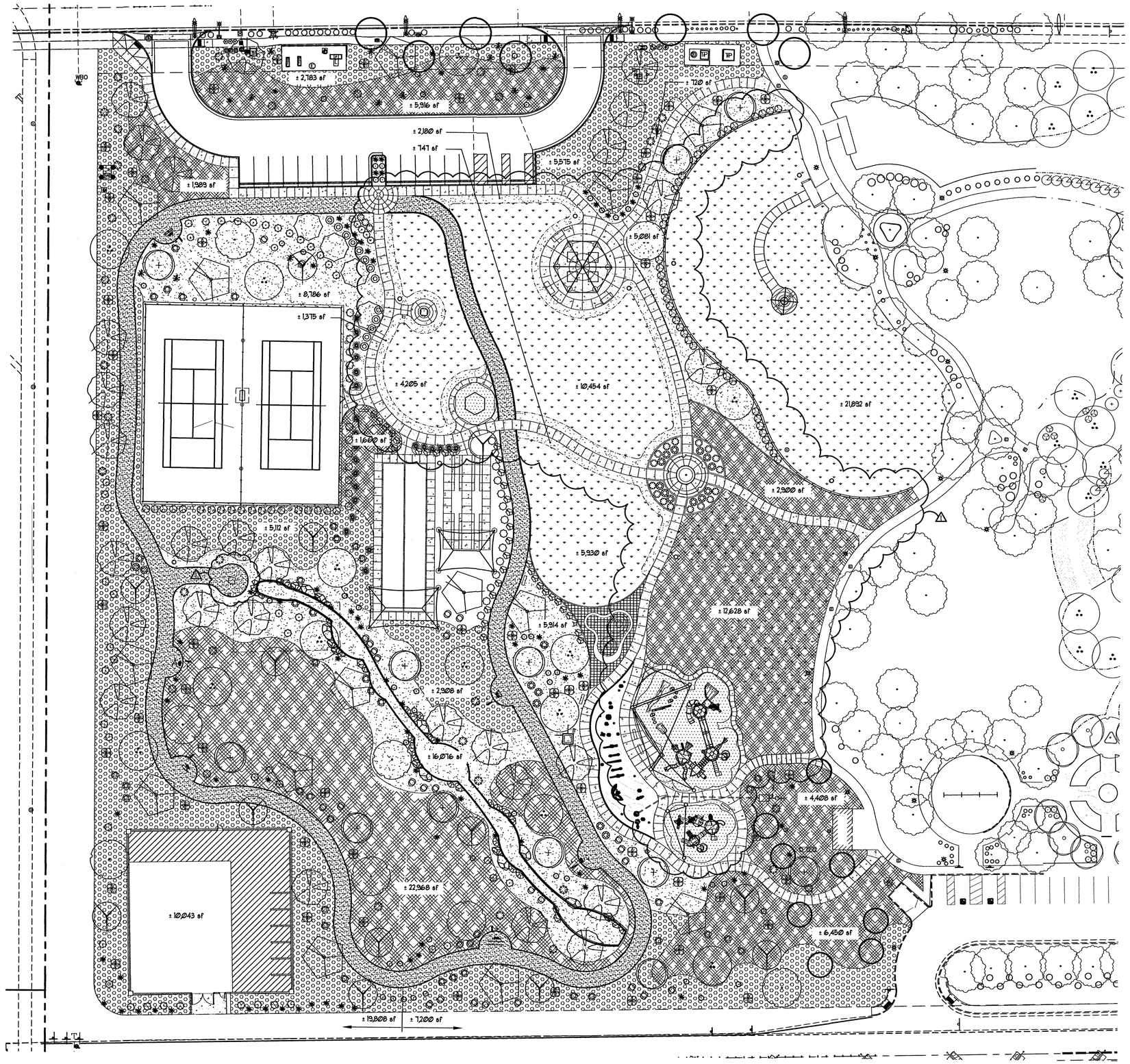

1 **Decomposed Granite Layout**
Scale: 1"=30'-0"

LANDSCAPE MATERIALS LEGEND			
SYMBOL	COLOR	SIZE	TOTAL SF
	REBEL RED	3" TO 6"	± 43,386
	REBEL RED	3/4"	± 57,259
	REBEL RED	1/4"	± 50,922
	FESCUE GRASS		± 42,481
	SYNTHETIC TURF		± 1,306
	WALKING TRAIL 95% COMPACTED		± 15,079

QUANTITIES ARE NOT FOR USE FOR CONSTRUCTION.
ACTUAL QUANTITIES ARE TO BE VERIFIED BY CONTRACTOR DURING CONSTRUCTION.

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 VE REVISIONS

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Decomposed Granite Plan

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mb
FILE	L2 DG Layout
DATE	12/17/2018
SCALE	1" = 30'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L-2

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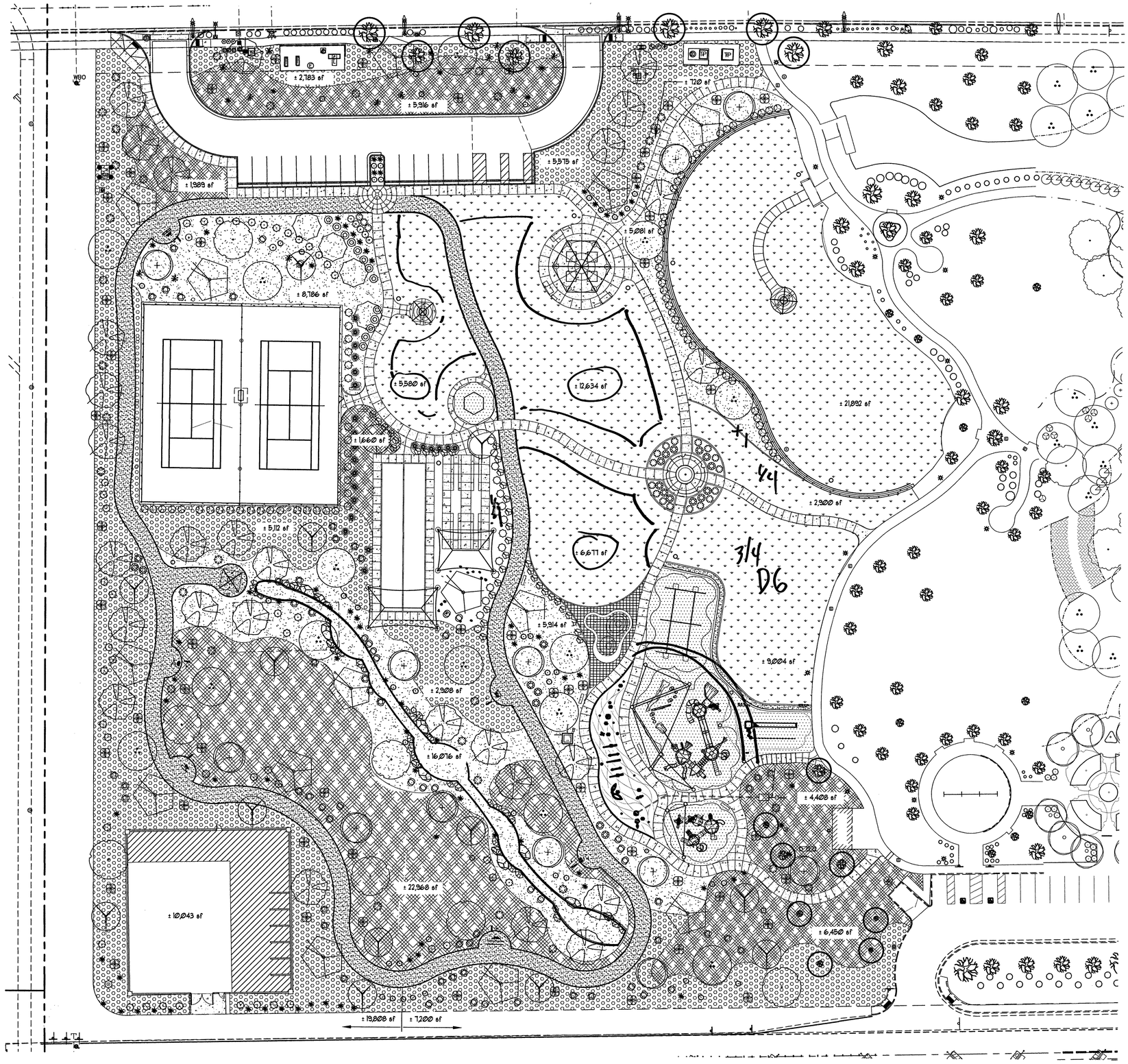

1 **Decomposed Granite Layout**
Scale: 1"=30'-0"

LANDSCAPE MATERIALS LEGEND			
SYMBOL	COLOR	SIZE	TOTAL SF
	REBEL RED	3" TO 6"	± 43,386
	REBEL RED	3/4"	± 41,731
	REBEL RED	1/4"	± 46,620
	FESCUE GRASS		± 58,687
	SYNTHETIC TURF		± 1,306
	WALKING TRAIL 95% COMPACTED		± 15,079

CITY OF LAS VEGAS NEVADA

REVISIONS

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DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Decomposed Granite Plan

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FAX: (702) 384-4845

DRAWN	mb
FILE	L2 DG Layout
DATE	12/11/2018
SCALE	1" = 30'-0"
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L-2

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Planting Notes:

1. GENERAL - ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY AND COUNTY CODES, AND THESE PLANS.
   - A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, COORDINATION, SCHEDULING, UTILITY VERIFICATION AND DAMAGE TO OTHER TRADES AND / OR UTILITIES, AS PER CONTRACT GENERAL CONDITIONS.
   - B. THE CONTRACTOR SHALL CAREFULLY INSPECT THE SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK UNDER THIS CONTRACT.
   - C. ALL IRRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO THE BEGINNING ANY GROUND COVER PLANTING WORK.
   - D. THE OWNER'S REPRESENTATIVE WILL INSPECT THE PLANTING WORK PRIOR TO STARTING WORK. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AND COORDINATE ALL INSPECTIONS.
   - E. THE QUALITY OF WORKMANSHIP AND MATERIALS SHALL BE OF THE HIGHEST STANDARDS. CO-OPERATION AND FLEXIBILITY IS EXPECTED OF THE CONTRACTOR TOWARD WORKING WITH THE OWNER / OWNER'S REPRESENTATIVE IN PRODUCING THE BEST POSSIBLE PRODUCT.
2. SCOPE OF WORK - FURNISH ALL MATERIAL, LABOR, TRANSPORTATION, EQUIPMENT AND PROPERTY TO COMPLETE THE LANDSCAPING OF THE PLANTING AREAS SHOWN ON THE DRAWINGS, OR REASONABLY IMPLIED TO COMPLETE THE CONSTRUCTION, INCLUDED AS A PART OF THE WORK, BUT NOT NECESSARILY LIMITED BY IT, ARE THE FOLLOWING ITEMS.
   - A. FINE GRADING OF ALL PLANTING AREAS.
   - B. PREPARATION OF ALL PLANTING AND TREE HOLES.
   - C. FURNISHING AND INSTALLATION OF ALL REQUIRED PLANTING BACKFILL MATERIALS, TREE STAKES AND MISCELLANEOUS MATERIALS
   - D. FURNISHING AND INSTALLATION OF ALL PLANT MATERIALS.
   - E. CLEAN-UP AND WEEDING OF ALL LANDSCAPE AREAS.
   - F. GUARANTEE OF ALL PLANT MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
3. THE CONTRACTOR SHALL REMOVE ALL WEEDS, ROCKS OVER 1" DIAMETER, DEBRIS, AND OTHER EXTRANEOUS MATERIAL FROM THE JOB SITE IN A LEGAL MANNER PRIOR TO PROCEEDING WITH ANY WORK UNDER THIS CONTRACT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXPORT OR IMPORT OF SOIL NECESSARY TO PROVIDE ROUGH GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADE IN PLANTING AREAS WITH 1% MINIMUM FLOW.
5. FINISH GRADES SHALL BE 1" BELOW ADJACENT CURBS IN GROUND COVER AREAS.
6. ALL TREES AND SHRUBS SHALL BE PLANTED PER THESE NOTES AND AS DETAILED. ALL PLANT MATERIAL SHALL BE OF THE HIGHEST QUALITY AND LARGEST REASONABLE SIZE AVAILABLE FOR THE SPECIFIED CONTAINER SIZE (WITHOUT BEING ROOT BOUND). SHRUB MATERIALS SHALL BE VIGOROUSLY GROWING, HEALTHY PLANT MATERIAL, FULL AND BUSHY. THE OWNER'S REPRESENTATIVE WILL APPROVE ALL PLANT MATERIAL WHEN SPOTTED FOR PLANTING AND WILL NOT HESITATE TO REJECT ANY MATERIAL OF QUESTIONABLE QUALITY, OR OF LESS THAN THE LARGEST REASONABLE SIZE MATERIAL AVAILABLE.
7. THE OWNER'S REPRESENTATIVE SHALL APPROVE THE LOCATION OF ALL THE FIVE GALLON PLANT MATERIAL AS APPROXIMATELY SPOTTED IN THE FIELD BY THE CONTRACTOR. ALL BOXED MATERIAL AND FIELD GROWN MATERIAL SHALL BE STAKED FOR LOCATION APPROVAL PRIOR TO PLANT PIT EXCAVATION.
8. UPON COMPLETION OF EACH PHASE OF PLANTING WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE SITE OF ALL ACCUMULATED RUBBISH, DEBRIS, AND OTHER EXTRANEOUS MATERIAL.
9. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE SUBMITTAL OF A SOIL SAMPLE WITH AN AGRICULTURAL SOILS SCIENTIST, AND RECEIVE A REPORT, A COPY OF THE REPORT SHALL BE SENT TO THE OWNER'S REPRESENTATIVE.

   BASED ON THIS SOILS ANALYSIS AND FERTILIZER RECOMMENDATION, IF ADDITIONAL FERTILIZER IS REQUIRED, THE CONTRACTOR IS REQUIRED TO SUPPLY IT.

   THIS TEST SHALL INCLUDE RECOMMENDATIONS FOR SOIL AMENDMENT, PLANTING BACKFILL, AND MAINTENANCE FERTILIZATION.
10. SUBMITTALS - THE CONTRACTOR IS TO SUBMIT COPIES OF ALL RECEIPTS FOR MATERIALS USED ON THE PROJECT. THESE INCLUDE PLANTS, BACKFILL, FERTILIZERS AND TABLETS, MULCHES, ETC. ALL RECEIPTS MUST LIST THE ITEM, QUANTITY, JOB LOCATION, DATE, AND THE SUPPLIER.

Soil Mix

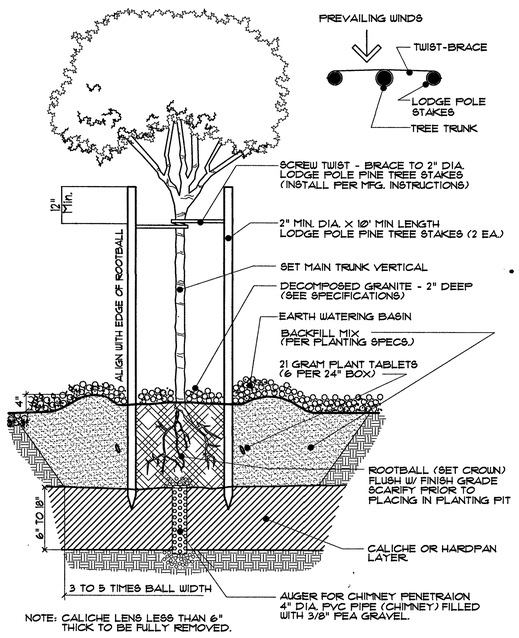
General: Prior to delivery of topsoil, furnish the Owner with a written statement giving the location from which the topsoil is to be obtained and an agricultural analysis of the topsoil to be used. Provide an agricultural soils test for both import and native soils to be used.

Topsoil: Use this topsoil mixture to replace the excavation at all new park landscape construction within this project.

Composition: All soil used for plantings, whether on-site or import shall be sandy or loamy sands from well-drained sites, free from refuse, root, heavy clay, stones larger than one inch in largest direction, gravel, sticks, brush litter and other deleterious substances. Soil must have less than ten (10) percent clay content and more than seventy-five (75) percent sand content. Soil Salinity-Ece shall be no greater than four mmhos/cm, Water holding capacity of soil shall be between 40 percent and 55 percent, Boron- less than one ppm, minimum pH value of 6 and maximum 8.5.

Backfill Composition: 70 percent sandy loam soil by volume. Soil that is sandy loam in makeup as approved for use by the Landscape Architect as demonstrated by a soils test may be taken from the plant pit for use as backfill material or imported soil of a quality acceptable by the Landscape Architect meeting or exceeding the quality of onsite soils as demonstated by a soils test shall by provided.
10 percent peat moss by volume.
10 percent wood chips by volume.
10 percent soil conditioner by volume.
Gro-Power Planting Tablets for extended feeding / soil conditioning at rate recommended by manufacturer.
The specified backfill materials shall be premixed using a soil grinder or equal, then turned several times with a front-end loader to a uniform, evenly blend consistency, free of all pockets of unblended material and any clods or stones greater than 1 inch in diameter. Backfill mix shall be delivered to each planting pit after
mixing has occurred.

Another acceptable backfill mix shall be a pre-mix listed under the trade name "Nutri Mulch". This product is available through:
Nutri Mulch, Organic Soil Conditioner, P.O. Box 368 Moroni, Utah 84646
(800) 748-8280



NOTE: CALICHE LENS LESS THAN 6" THICK TO BE FULLY REMOVED.

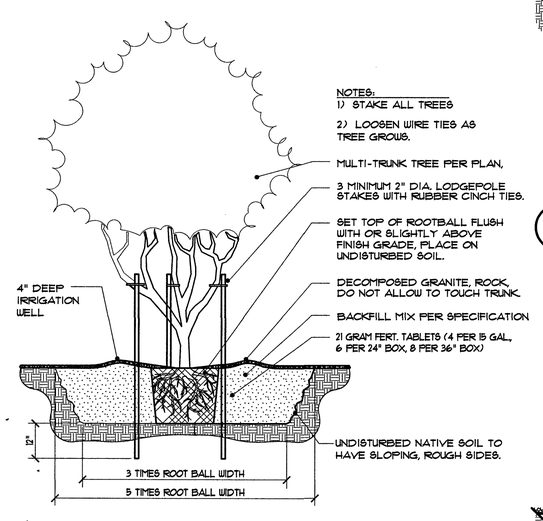
7 Tree Planting (In Caliche)

Scale: N.T.S.

DECOMPOSED GRANITE:
Install a minimum of 2" layer of 1/4" minus decomposed granite for ground cover in landscaped areas and planters to Match Rebel Red by Kalamazoo Materials Inc. Provide sample for approval.

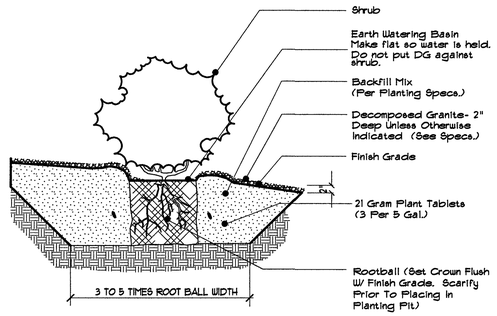
Before placing granite, compact sub-grade to 80% and apply a pre-emergent herbicide to soil, after placing granite, rake smooth, wet entire depth, allow to dry. Apply a secondary application of pre-emergent herbicide to top of granite. Keep top of granite 1" below adjacent curbs, do not allow granite or herbicides to touch the trunk of any plant. Install after plant material installation is completed.

MANUFACTURERS:
DECOMPOSED GRANITE SOURCE:
KALAMAZOO MATERIALS INC.



6 Multi-Trunk Tree Planting

Scale: 1" = 1'-0"



Note: Untangle Matted Roots By Loosening All Roots At Edge Of Rootball With Water From Hose. Do Not Crack Rootball.

9 Shrub Planting on slope

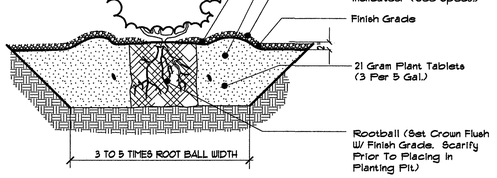
Scale: N.T.S. 07300-03

3 Tree Planting

Scale: N.T.S. 07300-02

2 Tree Planting on slope

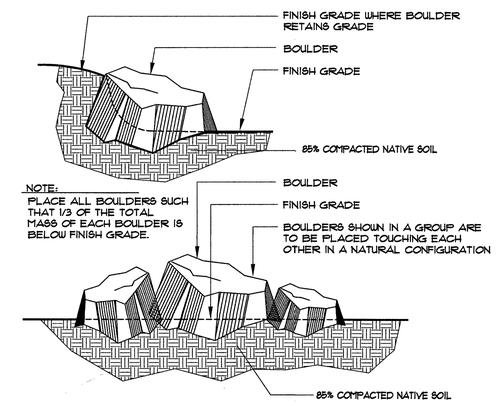
Scale: N.T.S. 07300-02



Note: Untangle Matted Roots By Loosening All Roots At Edge Of Rootball With Water From Hose. Do Not Crack Rootball.

5 Shrub Planting

Scale: N.T.S. 07300-03



1 Boulder Setting

Scale: 1" = 1'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS
1 Plan Review Comments 12-19-13

CONSULTANT

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm
FILE	
DATE	12/11/2018
SCALE	Full scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	L3

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Planting Details

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GENERAL DESCRIPTION

THIS PROJECT REPRESENTS THE PHASE TWO BUILD-OUT FOR A PRIVATELY MAINTAINED PARK SITE IN LAS VEGAS, NEVADA. THE PHASE ONE PORTION OF THE PARK WAS DESIGNED IN 2014 BY OTHER CONSULTANTS AND INCLUDES AN IRRIGATION WATER SOURCE FROM THE LAS VEGAS VALLEY WATER DISTRICT POTABLE WATER DISTRIBUTION SYSTEM CAPABLE OF PROVIDING 150 GPM FOR IRRIGATION PURPOSES VIA THREE EXISTING PARALLEL 1.5" 'IRRIGATION-ONLY' WATER METERS AND BACKFLOW PREVENTERS WHICH ARE MANIFOLDED TOGETHER INTO A SINGLE 3" MAINLINE PIPE DOWNSTREAM OF THE BACKFLOW ASSEMBLIES. THE PHASE ONE IRRIGATION SYSTEM ALSO INCLUDED A MUNRO BOOSTER PUMPING SYSTEM DESIGNED TO DELIVER 150 GPM AT A MINIMUM DISCHARGE PRESSURE OF 80 PSI.

THIS CONSTRUCTION PHASE WILL CONNECT TO THE EXISTING IRRIGATION MAINLINE DOWNSTREAM OF THE BOOSTER PUMP. A SEPARATE IRRIGATION CONTROLLER AND MAINLINE NETWORK IS DESIGNED TO SERVICE THE PHASE TWO IRRIGATION SYSTEM, SEPARATELY FROM THE PHASE ONE IRRIGATION SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE FLOW AND PRESSURE CAPABILITY OF THE EXISTING WATER SOURCE AND BOOSTER PUMPING SYSTEM PRIOR TO CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING MUNRO PUMPING SYSTEM'S NATIONAL SERVICE REPRESENTATIVE, MARK WILLIAMS (970.270.0400) PRIOR TO CONSTRUCTION TO CONDUCT A FIELD SERVICE EVALUATION OF THE EXISTING PUMPING SYSTEM, AND TO ASSIST WITH SETTING UP THE PUMP STATION TO OPERATE ON A 'PRESSURE START' RATHER THAN A 'PUMP START RELAY' FROM THE CONTROLLERS. THIS WILL ENABLE ACTIVATION OF THE BOOSTER PUMP ON-DEMAND RATHER THAN FROM AN ELECTRICAL SIGNAL FROM EITHER CONTROLLER.

AN EXISTING 1.5" DOMESTIC WATER METER WAS INSTALLED UNDER PHASE ONE TO SERVICE THE EXISTING RESTROOM AND DRINKING FOUNTAINS AT THE SITE. THE EXISTING DOMESTIC WATER METER WILL ALSO SERVICE THE NEW WATER PLAY EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT. A NEW WATER PLAY SERVICE LINE WILL BE CONNECTED TO THE EXISTING DOMESTIC SERVICE LINE DOWNSTREAM OF THE EXISTING BACKFLOW PREVENTER, AND A NEW BACKFLOW PREVENTER AND BOOSTER PUMPING SYSTEM WILL BE INSTALLED UNDER THIS CONTRACT TO SERVICE THE NEW WATER PLAY CONTROL SYSTEM MANIFOLD, WHICH WILL BE DESIGNED BY OTHER CONSULTANTS.

A FULLY AUTOMATED SPRINKLER/DRIP IRRIGATION SYSTEM IRRIGATES TURFGRASS AREAS, AS WELL AS TREE, SHRUB, AND GROUND COVER PLANTING AREAS. POP-UP SPRINKLERS IRRIGATE TURFGRASS. SINGLE-OUTLET POINT-SOURCE DRIP EMITTERS IRRIGATE SHRUBS AND TREES INSTALLED UNDER THIS CONTRACT SEPARATE DRIP VALVES ARE PROVIDED TO CONTROL IRRIGATION TO TREES AND SHRUBS.

A NEW PEDESTAL-MOUNTED IRRIGATION CONTROLLER IS SPECIFIED TO SERVICE THE IRRIGATION SYSTEM INSTALLED UNDER THIS CONTRACT.

A NEW FLOW SENSOR AND MASTER VALVE WILL BE INSTALLED ON THE PHASE TWO IRRIGATION MAINLINE TO ENABLE SYSTEM MONITORING AND MAINLINE SHUT-DOWN IN THE EVENT OF A RECOGNIZED ALARM CONDITION, SUCH AS A MAINLINE PIPE BREAK.

ISOLATION GATE VALVES ARE SPECIFIED TO ISOLATE SECTIONS OF THE MAINLINE NETWORK FOR REPAIRS OR MAINTENANCE. QUICK COUPLING VALVES ARE SPECIFIED THROUGHOUT THE SITE FOR INCIDENTAL WATERING AND HARDSCAPE WASHDOWN.

GENERAL NOTES

1. THE SYSTEM DESIGN ASSUMES A MINIMUM STATIC PRESSURE AND MAXIMUM FLOW DEMAND AS SHOWN ON THE PLANS FOR THE POINT-OF-CONNECTION (P.O.C.). THE CONTRACTOR MUST VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO OWNER'S REPRESENTATIVE.
2. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
3. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
4. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
5. THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
   A. IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR GRAPHIC CLARITY. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES. INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHEREVER POSSIBLE.
   B. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.
6. PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
   A. TWO OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVE.
   B. TWO OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
7. SELECT NOZZLES FOR SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND UNIFORM COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF EACH SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
8. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE TO BE INSTALLED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED REQUIRES HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR.
9. CONNECT ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM AND WATER PLAY BOOSTER PUMPING SYSTEM IN ACCORDANCE WITH THE INTERNATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
10. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED:
    A. IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
11. INSTALL VAN NOZZLES WHERE SPRAY ANGLES ARE LESS OR GREATER THAN WHAT A FIXED ARC SPRAY NOZZLE CAN IRRIGATE WITHOUT EXCESSIVE OVERSPRAY.

FLAG NOTES

(1) PHASE TWO IRRIGATION POINT OF CONNECTION
EXCAVATE AND EXPOSE EXISTING PVC IRRIGATION 3" MAINLINE PIPE AT THIS APPROXIMATE LOCATION. CONNECT TO PIPE USING APPROPRIATE DUCTILE-IRON GASKETED TEE AND REPAIR COUPLING. INSTALL NEW PVC IRRIGATION MAINLINE PIPE TO SERVICE PHASE TWO IRRIGATION SYSTEM AS SHOWN. COORDINATE EXACT PLACEMENT OF MASTER VALVE AND FLOW SENSOR ASSEMBLY WITH THE OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.

(2) PHASE TWO IRRIGATION CONTROLLER
INSTALL PEDESTAL-MOUNTED CONTROLLER AT THIS APPROXIMATE LOCATION. COORDINATE ELECTRICAL SERVICE FOR CONTROLLER WITH APPROPRIATE SUBCONTRACTOR DURING CONSTRUCTION (REFER TO ELECTRICAL DRAWINGS). PROVIDE CONDUIT AND CONDUCTORS, AND CONTROLLER GROUNDING COMPONENTS AS REQUIRED AND MAKE CONNECTIONS BETWEEN ELECTRICAL SERVICE AND CONTROLLER IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

(3) INSTALL THREE SPARE CONTROL WIRES AND ONE SPARE COMMON WIRE FROM THE IRRIGATION CONTROLLER TO THIS REMOTE CONTROL VALVE ASSEMBLY FOR USE IN THE EVENT OF A FUTURE CONTROL WIRE FAILURE. PROVIDE A 3-FOOT COILED LENGTH OF EACH SPARE WIRE IN ALL REMOTE CONTROL VALVE BOXES ALONG WIRE ROUTING.

(4) WATER PLAY POINT OF CONNECTION AND BOOSTER PUMP
EXCAVATE AND EXPOSE EXISTING DOMESTIC WATER LINE DOWNSTREAM OF EXISTING BACKFLOW PREVENTER AT THIS APPROXIMATE LOCATION. CONNECT TO PIPE USING APPROPRIATE TEE AND REPAIR COUPLING. INSTALL NEW PVC SUPPLY PIPE TO NEW WATER PLAY BACKFLOW PREVENTER AND BOOSTER PUMP AS SHOWN.

INSTALL NEW WATER PLAY BOOSTER PUMP AT THIS APPROXIMATE LOCATION. COORDINATE ELECTRICAL SERVICE FOR BOOSTER PUMP WITH APPROPRIATE SUBCONTRACTOR DURING CONSTRUCTION (REFER TO ELECTRICAL DRAWINGS). PROVIDE CONDUIT AND CONDUCTORS, AND GROUNDING COMPONENTS AS REQUIRED AND MAKE CONNECTIONS BETWEEN ELECTRICAL SERVICE AND BOOSTER PUMP IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. COORDINATE LOCATION AND ALIGNMENT OF EQUIPMENT WITH OWNER'S REPRESENTATIVE ON SITE PRIOR TO CONSTRUCTION.

(5) INSTALL CAPPED PVC WATER SUPPLY LINE FOR WATER PLAY MECHANICAL SYSTEM AT THIS APPROXIMATE LOCATION. COORDINATE WITH WATER PLAY SYSTEM CONTRACTOR FOR LOCATION AND CONNECTION TO MECHANICAL SYSTEM DURING CONSTRUCTION.

LEGEND

- CL 200 PVC SLEEVING: REFER TO SPECIFICATIONS FOR SIZING
- SCH 40 PVC MAINLINE PIPE (SIZE AS SHOWN)
- BOOSTER PUMP SUPPLY PIPE: 3" SCH 40 PVC
- SCH 40 PVC SPRINKLER LATERAL PIPE: 1" UNLESS OTHERWISE NOTED
- 1" SCH 40 PVC TREE DRIP LATERAL PIPE: INSTALL EIGHT EVENLY SPACED RAIN BIRD XBT-20 PER TREE
- 1" SCH 40 PVC SHRUB DRIP LATERAL PIPE: INSTALL ONE RAIN BIRD XBT-20 PER SHRUB
- UNCONNECTED PIPE CROSSING
- POINT-OF-CONNECTION (P.O.C.) ASSEMBLY
- (P) WATER PLAY BOOSTER PUMP: REFER TO DETAIL
- WATER PLAY BACKFLOW PREVENTER 1.5" FEBCO 825YA IN GUARDSHACK GS-1 ENCLOSURE
- IRRIGATION MASTER VALVE: 2" GRISWOLD 2160 (NORMALLY OPEN)
- (F) IRRIGATION FLOW SENSOR: WEATHERMATIC SLFSI-T15
- ISOLATION GATE VALVE: NIBCO T-113-K, SIZE TO MATCH MAINLINE
- QUICK COUPLING VALVE: RAIN BIRD 44-LRC
- AIR\VACUUM RELIEF VALVE: 2" WATERMAN AV-150
- DRIP REMOTE CONTROL VALVE: HUNTER ICZ-101-LF-40
- FLUSH CAP: REFER TO DETAILS
- SPRINKLER REMOTE CONTROL VALVE: HUNTER ICV WITH SPEARS PVC COMPACT BALL VALVE

POP-UP SPRINKLER: RAIN BIRD U-SERIES ON 1804-SAM-PRS @ 30 PSI

RADIUS:	8'	FLOW (GPM):	Q-0.26	H-0.52	F-1.05
RADIUS:	10'	FLOW (GPM):	Q-0.39	H-0.79	F-1.58
RADIUS:	12'	FLOW (GPM):	Q-0.65	H-1.30	F-2.60
RADIUS:	15'	FLOW (GPM):	Q-0.92	H-1.85	F-3.70

(1)

POP-UP ROTOR SPRINKLER: HUNTER I-20-06-SS-PRS @ 45 PSI

MPR	NOZZLE	FLOW(GPM)		
	25	Q-1	H-1.98	F-3.82
	30	Q-1.4	H-2.96	F-5.78
	35	Q-1.92	H-3.81	F-7.58

(A) WEATHERMATIC SL4800 CONTROLLER WITH SMARTLINK AIRCARD AND SLW5 WIRELESS WEATHER STATION. INSTALL IN STAINLESS STEEL STRONG BOX SB-16SS

A3 / 73 / 2" / 25min

- VALVE STATION
- FLOW (GPM)
- VALVE SIZE (INCHES)
- xxmin = ESTIMATED TIME TO APPLY 0.33", T=TREE VALVE, S= SHRUB VALVE

VALVE BOXES: CARSON WITH LOCKING T STYLE LID. GREEN LID IN TURF, TAN LID IN D.G. SUPPLY STAINLESS STEEL BOLTS

PEAK SEASON IRRIGATION RUN TIME SCHEDULE

Station	Plant Type	Applied Depth (in.)	Flow (gpm)	Area (Sq. Ft.)	Pr (In./h)	Run Time (minutes)
A01	TURF	0.33	42	4086	1.0	20
A02	TURF	0.33	60	6394	0.9	22
A03	TURF	0.33	80	8077	1.0	21
A04	TURF	0.33	35	4617	0.7	27
A05	TURF	0.33	73	8773	0.8	25
A06	TURF	0.33	7	262	2.6	8
A07	TURF	0.33	49	3944	1.2	17
A08	TURF	0.33	56	5879	0.9	22
A09	TREE	N/A	4	N/A	N/A	Field Adjust
A10	SHRUB	N/A	4	N/A	N/A	Field Adjust
A11	SHRUB	N/A	6	N/A	N/A	Field Adjust
A12	TREE	N/A	9	N/A	N/A	Field Adjust
A13	TREE	N/A	7	N/A	N/A	Field Adjust
A14	SHRUB	N/A	4	N/A	N/A	Field Adjust
A15	TREE	N/A	5	N/A	N/A	Field Adjust
A16	SHRUB	N/A	4	N/A	N/A	Field Adjust
A17	TREE	N/A	5	N/A	N/A	Field Adjust
A18	TREE	N/A	N/A	N/A	N/A	Field Adjust
A19	SHRUB	N/A	N/A	N/A	N/A	Field Adjust

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CITY OF LAS VEGAS NEVADA

PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS

REVISIONS
1 6/4/2019 - VE REVISIONS

CONSULTANT
Aqua Engineering Inc.
Innovative Water Solutions

HUCKLEBERRY PARK
- ADDITION -

IRRIGATION COVER SHEET

STAMP
PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT W. PEREZ
No. 016292
EXPIRES: 12/31/2020
AGRICULTURAL
CIVIL

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	IRO

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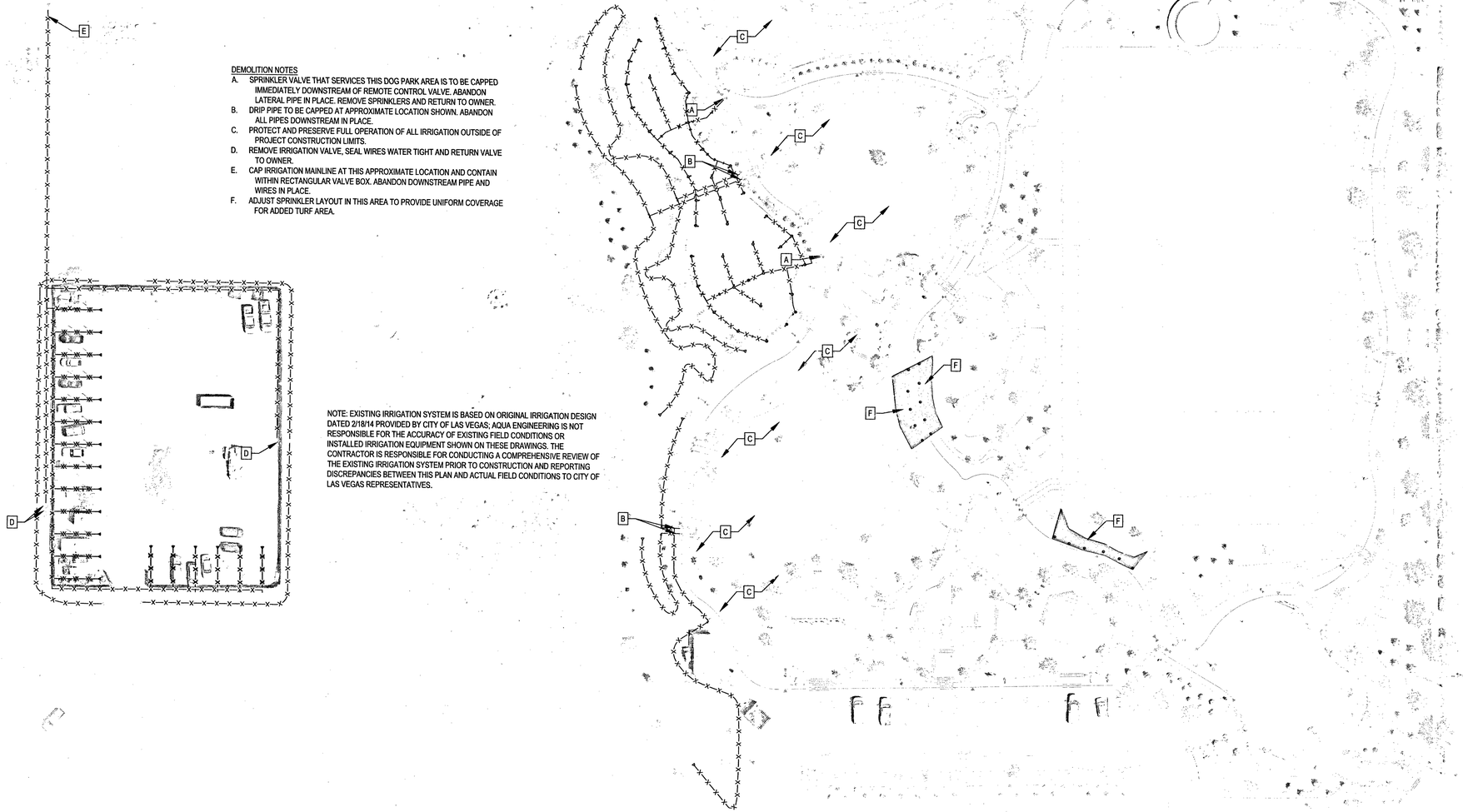

DEMOLITION NOTES

A. SPRINKLER VALVE THAT SERVICES THIS DOG PARK AREA IS TO BE CAPPED IMMEDIATELY DOWNSTREAM OF REMOTE CONTROL VALVE. ABANDON LATERAL PIPE IN PLACE. REMOVE SPRINKLERS AND RETURN TO OWNER.
B. DRIP PIPE TO BE CAPPED AT APPROXIMATE LOCATION SHOWN. ABANDON ALL PIPES DOWNSTREAM IN PLACE.
C. PROTECT AND PRESERVE FULL OPERATION OF ALL IRRIGATION OUTSIDE OF PROJECT CONSTRUCTION LIMITS.
D. REMOVE IRRIGATION VALVE, SEAL WIRES WATER TIGHT AND RETURN VALVE TO OWNER.
E. CAP IRRIGATION MAINLINE AT THIS APPROXIMATE LOCATION AND CONTAIN WITHIN RECTANGULAR VALVE BOX. ABANDON DOWNSTREAM PIPE AND WIRES IN PLACE.
F. ADJUST SPRINKLER LAYOUT IN THIS AREA TO PROVIDE UNIFORM COVERAGE FOR ADDED TURF AREA.

NOTE: EXISTING IRRIGATION SYSTEM IS BASED ON ORIGINAL IRRIGATION DESIGN DATED 2/18/14 PROVIDED BY CITY OF LAS VEGAS; AQUA ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF EXISTING FIELD CONDITIONS OR INSTALLED IRRIGATION EQUIPMENT SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE REVIEW OF THE EXISTING IRRIGATION SYSTEM PRIOR TO CONSTRUCTION AND REPORTING DISCREPANCIES BETWEEN THIS PLAN AND ACTUAL FIELD CONDITIONS TO CITY OF LAS VEGAS REPRESENTATIVES.

Irrigation Demo Plan

Scale: 1"=40'-0"

File: G:\CLV\2018DMCALL\Huckleberry\P-HuckleBerry.dwg printed by Ron Perez on 7/9/2019 8:14:18 AM using AutoCAD Version: 23.1a (LMS Tech)

CITY OF LAS VEGAS NEVADA

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Aqua Engineering Inc.
Innovative Water Solutions

HUCKLEBERRY PARK
- ADDITION -

IRRIGATION DEMOLITION PLAN

STAMP

PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT W. BECRAFT
12-17-2018
AGRICULTURAL
No. 016270

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

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LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
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DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
RED NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	R1

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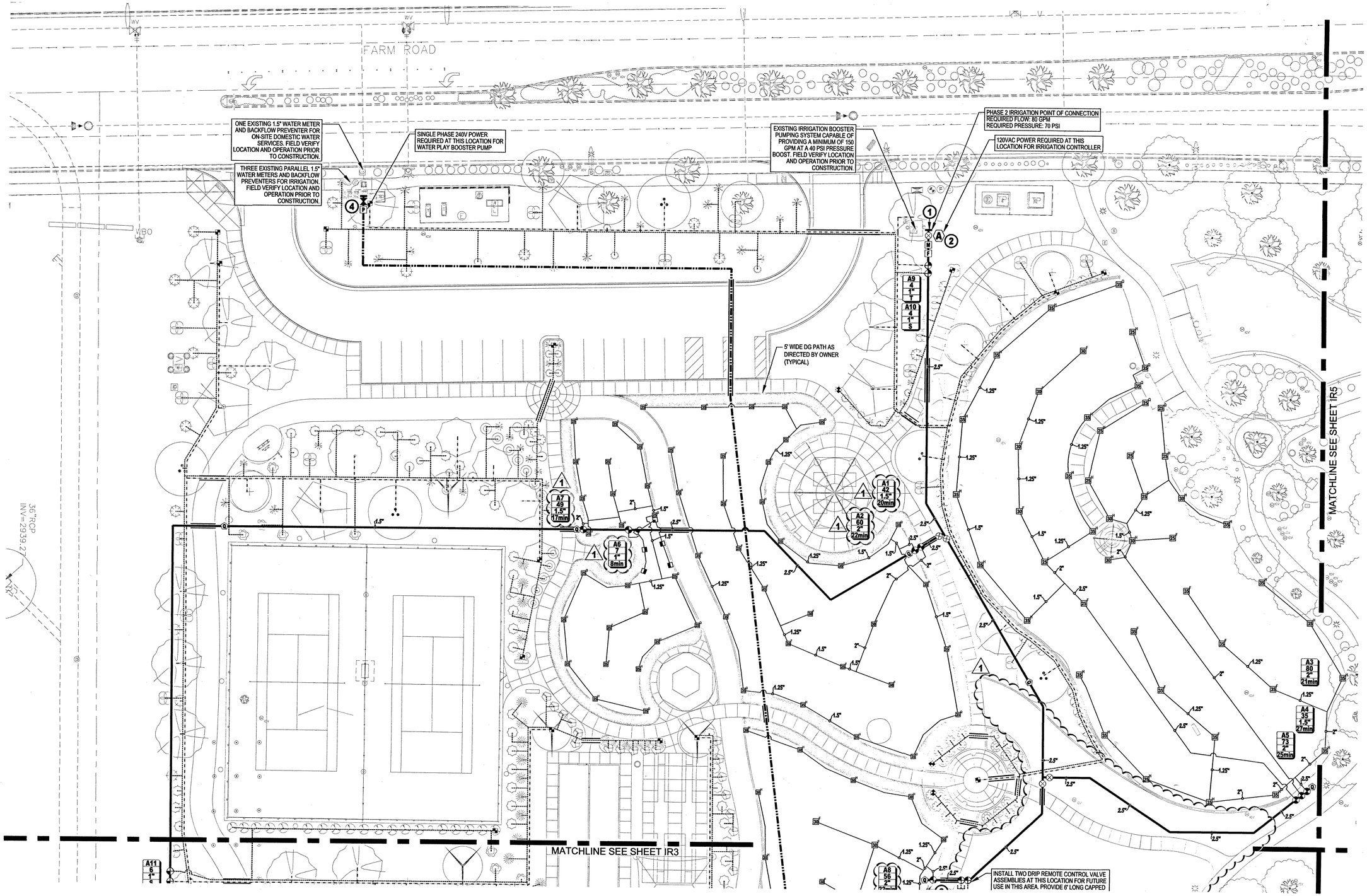

Irrigation Plan Area 1

20' 0' 10' 20' 40'
1" = 20'
SCALE MUST MEASURE 1 INCH OR DRAWING IS NOT TO SCALE.

CITY OF LAS VEGAS NEVADA

REVISIONS
1 6/4/2019 - VE REVISIONS

CONSULTANT
Aqua Engineering Inc.
Innovative Water Solutions

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

IRRIGATION PLAN

STAMP
PROFESSIONAL ENGINEER - STATE OF NEVADA
ROBERT W. BECKER
No. 016291
EXP. 12/31/2020
AGRICULTURAL
No. 016291

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-1846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	IR2

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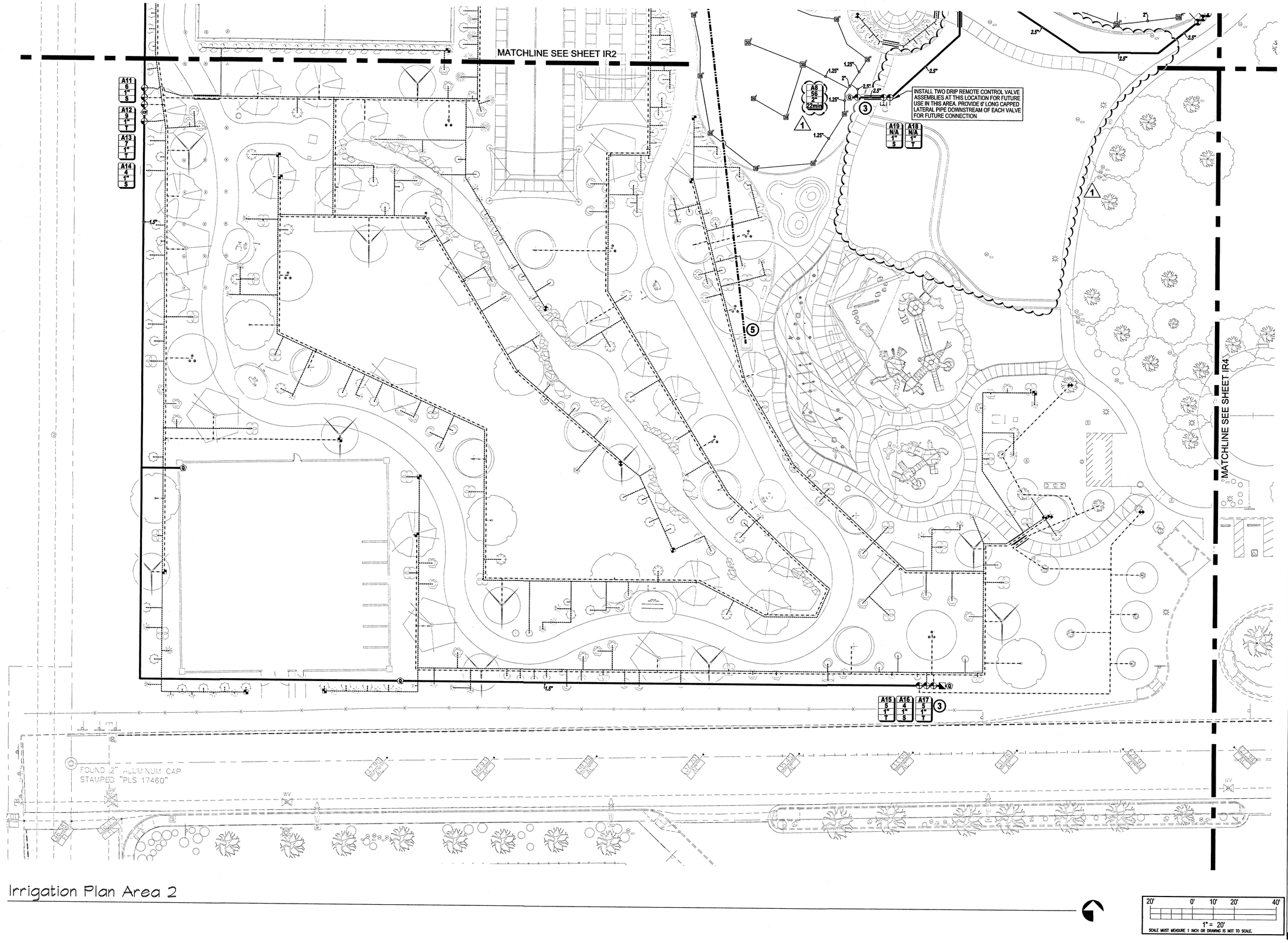

Irrigation Plan Area 2

20' 0' 10' 20' 40'
1" = 20'
SCALE MUST MEASURE 1 INCH OR DRAWING IS NOT TO SCALE.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

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HUCKLEBERRY PARK
- ADDITION -

IRRIGATION PLAN

STAMP

PROFESSIONAL ENGINEER
ROBERT W. JOHNSON
No. 8029
Exp: 12/31/2020
STATE OF NEVADA

PROFESSIONAL LANDSCAPE ARCHITECT
KEVIN SHEA
No. 016288
STATE OF NEVADA

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
SED NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	IR3

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MATCHLINE SEE SHEET IR5

MATCHLINE SEE SHEET IR3

EXISTING IRRIGATION SYSTEM TO REMAIN OPERATIONAL ON THIS SHEET. REFER TO DEMOLITION PLAN FOR REQUIRED FIELD ADJUSTMENTS TO EXISTING IRRIGATION SYSTEM.

EX. 36" MLTCP /L PE

FOUND 2" ALUMINUM CAP STAMPED "PLS 17468" 0.27' NORTH 0.05' WEST DID NOT ACCEPT

Irrigation Plan Area 3

20' 0' 10' 20' 40'

1" = 20'

SCALE MUST MEASURE 1 INCH OR DRAWING IS NOT TO SCALE.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

1	6/4/2019 - VE REVISIONS

CONSULTANT

Aqua Engineering Inc.
Innovative Water Solutions

HUCKLEBERRY PARK - ADDITION -

IRRIGATION PLAN

STAMP

NATIONAL ENGINEER REGISTRY — ROBERT W. BECKARD — No. 015276 — STATE OF NEVADA — PROFESSIONAL ENGINEER — AGRICULTURAL — Exp. 12/31/2020

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	IR4

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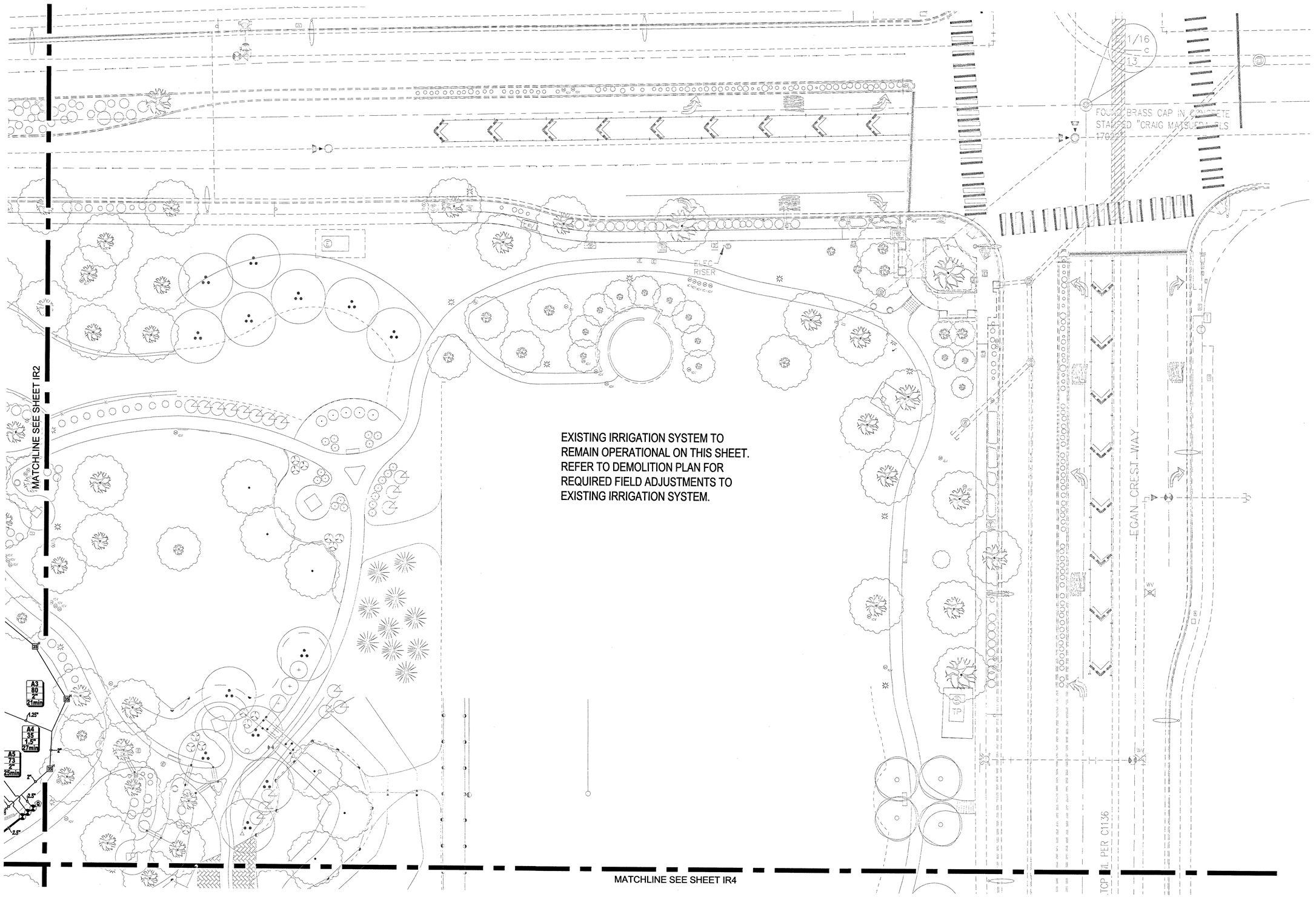

EXISTING IRRIGATION SYSTEM TO REMAIN OPERATIONAL ON THIS SHEET. REFER TO DEMOLITION PLAN FOR REQUIRED FIELD ADJUSTMENTS TO EXISTING IRRIGATION SYSTEM.

Irrigation Plan Area 4

20' 0' 10' 20' 40'
1" = 20'
SCALE MUST MEASURE 1 INCH OR DRAWING IS NOT TO SCALE.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS
1 6/4/2019 - VE REVISIONS

CONSULTANT
Aqua Engineering Inc.
Innovative Water Solutions

HUCKLEBERRY PARK
- ADDITION -
IRRIGATION PLAN

STAMP
PROFESSIONAL ENGINEER
ROBERT W. BECKARD
Exp:12/31/2020
STATE OF NEVADA
No.016284

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.1081
HANSEN NO	71157
SHT NO	IR5

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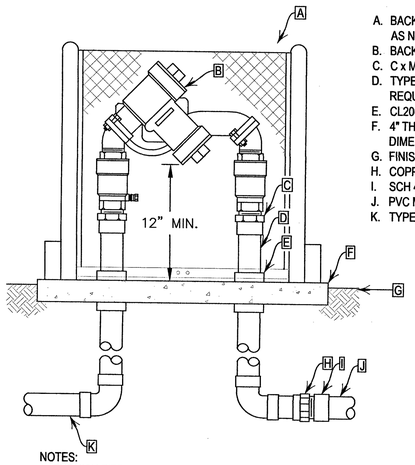
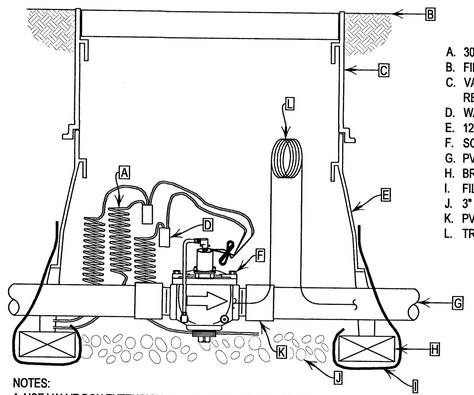


A. BACKFLOW PREVENTER ENCLOSURE (SIZE AS NECESSARY)
B. BACKFLOW PREVENTION DEVICE
C. C x M COPPER ADAPTER (1 OF 2)
D. TYPE K COPPER PIPE (TYPICAL) (LENGTH AS REQUIRED)
E. CL200 PVC PIPE SLEEVE (1 OF 2)
F. 4" THICK CONCRETE PAD 6" LARGER IN ALL DIMENSIONS THAN ENCLOSURE
G. FINISH GRADE/TOP OF MULCH
H. COPPER FEMALE ADAPTER
I. SCH 40 PVC MALE ADAPTER
J. PVC MAINLINE
K. TYPE K COPPER PIPE

NOTES:
1. FURNISH FITTINGS AND PIPING SIZED IDENTICALLY WITH NOMINAL BACKFLOW PREVENTION DEVICE.
2. SUBMIT SHOP DRAWINGS SPECIFYING ENCLOSURE SIZE AND SHOWING RELATIVE LAYOUT OF EQUIPMENT.

1 BACKFLOW ASSEMBLY

N.T.S.

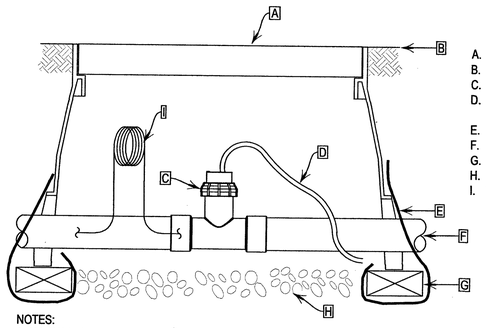


A. 30" LENGTH OF COILED WIRE
B. FINISH GRADE
C. VALVE BOX EXTENSION (HEIGHT AS REQUIRED)
D. WATER PROOF CONNECTION (1 OF 2)
E. 12" STANDARD VALVE BOX WITH COVER
F. SOLENOID VALVE
G. PVC PIPE
H. BRICK (1 OF 4)
I. FILTER FABRIC
J. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
K. PVC SCH 40 MALE ADAPTER
L. TRACING WIRE

NOTES:
1. USE VALVE BOX EXTENSION AS NECESSARY TO ACHIEVE MINIMUM DIMENSIONS ABOVE ASSEMBLY.
2. NOMINAL SIZE OF ALL COMPONENTS ARE TO BE THE SAME NOMINAL SIZE AS THE SOLENOID VALVE (SIZED AS SHOWN).
3. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
4. DO NOT CUT OUT ENDS OF VALVE BOX UNNECESSARILY.
5. POSITION VALVE BOX OVER VALVE TO ALLOW ACCESS TO SOLENOID.
6. INSTALL SO THAT GRAVEL IS ONLY IN CONTACT WITH BOTTOM OF VALVE ASSEMBLY.

2 MASTER VALVE ASSEMBLY

N.T.S.

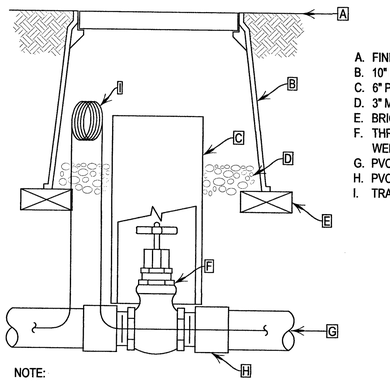


A. 12" VALVE BOX WITH COVER
B. FINISH GRADE/TOP OF MULCH
C. FLOW SENSOR
D. SENSOR CABLE PER MANUFACTURER'S RECOMMENDATIONS
E. FILTER FABRIC
F. PVC PIPE
G. BRICK (1 OF 4)
H. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
I. TRACING WIRE

NOTES:
1. ALLOW 10 PIPE DIAMETERS UPSTREAM AND 5 PIPE DIAMETERS DOWNSTREAM OF STRAIGHT RUN OF PIPE TO ACHIEVE PROPER FLOW REGIME.
2. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
3. DO NOT CUT OUT ENDS OF VALVE BOX UNNECESSARILY.
4. INSTALL SO THAT GRAVEL IS ONLY IN CONTACT WITH BOTTOM OF SENSOR ASSEMBLY.

3 FLOW SENSOR ASSEMBLY

N.T.S.

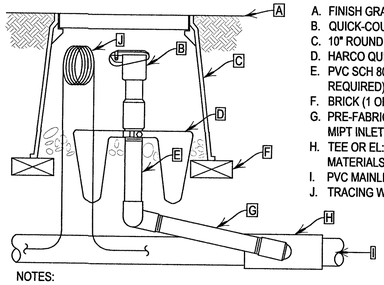


A. FINISH GRADE/TOP OF MULCH
B. 10" ROUND VALVE BOX WITH COVER
C. 6" PVC CL 200 PIPE (LENGTH AS REQUIRED)
D. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
E. BRICK (1 OF 2)
F. THREADED BRONZE GATE VALVE WITH SOLID WEDGE, NON-RISING STEM
G. PVC MAINLINE
H. PVC SCH 40 MALE ADAPTER (1 OF 2)
I. TRACING WIRE

NOTE:
1. NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL MAINLINE SIZE.

4 ISOLATION GATE VALVE ASSEMBLY

N.T.S.

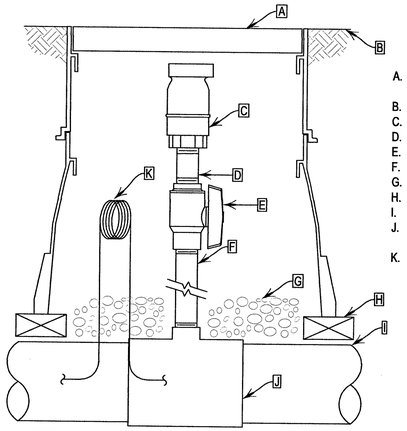


A. FINISH GRADE/TOP OF MULCH
B. QUICK-COUPLING VALVE
C. 10" ROUND VALVE BOX WITH COVER
D. HARCO QUICK COUPLER ANCHOR
E. PVC SCH 80 TOE NIPPLE (LENGTH AS REQUIRED)
F. BRICK (1 OF 2)
G. PRE-FABRICATED UNITIZED SWING JOINT 1" MIPT INLET X SOC OUTLET
H. TEE OR EL: SEE SPECIFICATIONS FOR MATERIALS
I. PVC MAINLINE PIPE
J. TRACING WIRE

NOTES:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.
2. INSTALLATION HEIGHT OF QUICK COUPLER VALVE IN VALVE BOX MUST ASSURE PROPER OPERATION OF QUICK COUPLER KEY.
3. INSTALL SWING JOINT LAY ARM BETWEEN 30° AND 45° OF LATERAL PIPE IN ORDER TO ABSORB DOWNWARD IMPACT.

5 QUICK COUPLING VALVE ASSEMBLY

N.T.S.



A. JUMBO VALVE BOX WITH EXTENSION AND COVER (HEIGHT AS REQUIRED)
B. FINISH GRADE/TOP OF MULCH
C. AIR VACUUM RELIEF VALVE
D. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
E. PVC SCH 40 BALL VALVE (SIZE 2")
F. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
G. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
H. BRICK (1 OF 4)
I. PVC MAINLINE PIPE
J. TEE OR EL: SEE SPECIFICATIONS FOR MATERIALS
K. TRACING WIRE

NOTES:
1. OPEN BALL VALVE IN ASSEMBLY 1/4 TURN UNTIL IRRIGATION SYSTEM IS FULLY CHARGED WITH WATER.
2. CLOSE VALVE DURING WINTERIZATION AND OPEN 1/2 TURN AFTER WINTERIZATION OF SYSTEM TO PROTECT VALVE DURING FREEZING WEATHER.
3. REPLACE PVC BALL VALVE WITH BRASS BALL VALVE IN THE EVENT AN AIR VACUUM RELIEF VALVE WITH MALE INLET IS USED.

6 AIR\VACUUM RELIEF VALVE ASSEMBLY

N.T.S.

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS
1 6/4/2019 - VE REVISIONS

CONSULTANT
Aqua Engineering Inc.
Innovative Water Solutions

HUCKLEBERRY PARK - ADDITION -

IRRIGATION DETAILS

STAMP
PROFESSIONAL ENGINEER STATE OF NEVADA
ROBERT W. BECKARD
Exp: 12/31/2020
No. 016291

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.10841
HANSEN NO	71157
SHT NO	IR6

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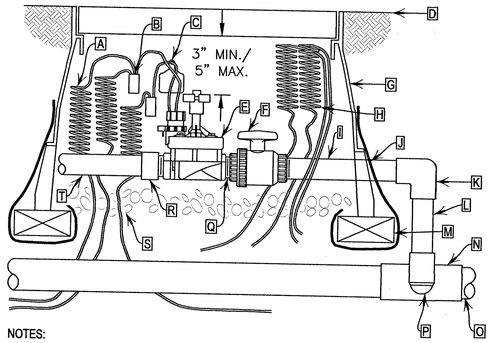
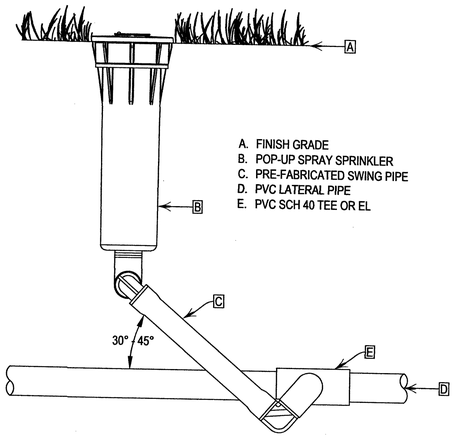


A. 30" LENGTH OF COILED WIRE
B. WATERPROOF CONNECTION (1 OF 2)
C. CHRISTY ID TAG
D. FINISH GRADE
E. REMOTE CONTROL VALVE (SIZED AS SHOWN ON DRAWINGS)
F. PVC BALL VALVE
G. 12" STANDARD VALVE BOX WITH COVER
H. SPARE WIRE
I. PVC SCH 80 TOE NIPPLE (LENGTH AS REQUIRED)
J. FILTER FABRIC
K. PVC SCH 40 EL
L. PVC SCH 40 PIPE (LENGTH AS REQUIRED)
M. BRICK (1 OF 4)
N. TEE OR EL: SEE SPECIFICATIONS FOR MATERIALS
O. PVC MAINLINE
P. PVC SCH 80 TOE NIPPLE (LENGTH AS REQUIRED, HIDDEN) AND PVC SCH 40 EL
Q. PVC SCH 80 CLOSE NIPPLE
R. PVC SCH 40 MALE ADAPTER
S. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
T. PVC LATERAL PIPE

NOTES:
1. USE VALVE BOX EXTENSION AS NECESSARY TO ACHIEVE MINIMUM DIMENSIONS ABOVE ASSEMBLY.
2. NOMINAL SIZE OF ALL COMPONENTS ARE TO BE THE SAME NOMINAL SIZE AS THE SOLENOID VALVE (SIZED AS SHOWN).
3. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
4. TRANSITION TO PROPER LATERAL PIPE BURIAL DEPTH USING 45° ELBOW FITTINGS DOWNSTREAM OF REMOTE CONTROL VALVE ASSEMBLY.
5. DO NOT CUT OUT ENDS OF VALVE BOX UNNECESSARILY.
6. POSITION VALVE BOX OVER VALVE TO ALLOW ACCESS TO SOLENOID AND PROPER OPERATION OF BALL VALVE.

1 REMOTE CONTROL VALVE ASSEMBLY

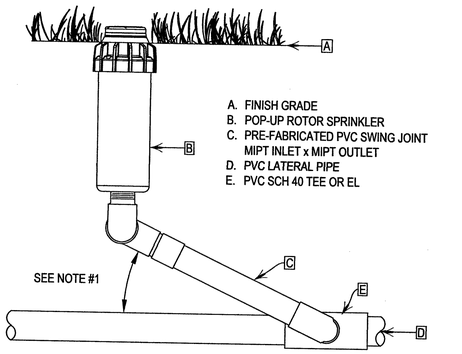
N.T.S.



A. FINISH GRADE
B. POP-UP SPRAY SPRINKLER
C. PRE-FABRICATED SWING PIPE
D. PVC LATERAL PIPE
E. PVC SCH 40 TEE OR EL

2 POP-UP SPRAY SPRINKLER ASSEMBLY

N.T.S.

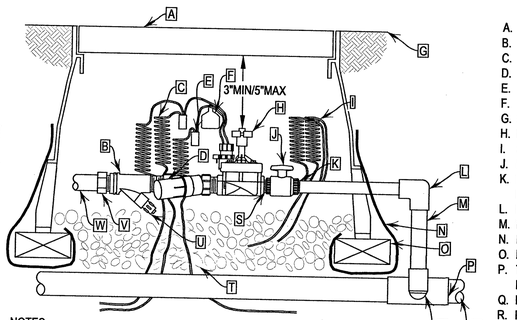


A. FINISH GRADE
B. POP-UP ROTOR SPRINKLER
C. PRE-FABRICATED PVC SWING JOINT MIPT INLET x MIPT OUTLET
D. PVC LATERAL PIPE
E. PVC SCH 40 TEE OR EL

NOTE:
1. INSTALL SWING JOINT LAY ARM BETWEEN 30° AND 45° OF LATERAL PIPE TO ABSORB DOWNWARD IMPACT.

3 POP-UP ROTOR SPRINKLER ASSEMBLY

N.T.S.

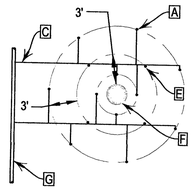


A. JUMBO VALVE BOX WITH COVER
B. PRESSURE REGULATING DEVICE
C. 30" LENGTH OF COILED WIRE
D. FILTRATION DEVICE
E. WATERPROOF CONNECTION (1 OF 2)
F. CHRISTY ID TAG
G. FINISH GRADE/TOP OF MULCH
H. REMOTE CONTROL VALVE
I. SPARE WIRE
J. PVC BALL VALVE
K. PVC SCH 80 TOE NIPPLE (LENGTH AS REQUIRED)
L. PVC SCH 40 EL
M. PVC SCH 40 PIPE (LENGTH AS REQUIRED)
N. FILTER FABRIC
O. BRICK (1 OF 4)
P. TEE OR EL: SEE SPECIFICATIONS FOR MATERIALS
Q. PVC MAINLINE
R. PVC SCH 80 TOE NIPPLE (LENGTH AS REQUIRED, HIDDEN) AND PVC SCH 40 EL
S. PVC SCH 80 CLOSE NIPPLE
T. 3" MINIMUM DEPTH OF WASHED PEA GRAVEL
U. PRESSURE REGULATING DEVICE
V. PVC SCH 40 MALE ADAPTER
W. PVC MANIFOLD PIPE

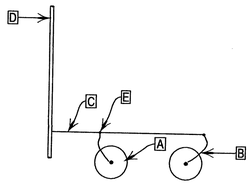
NOTES:
1. USE VALVE BOX EXTENSION AS NECESSARY TO ACHIEVE MINIMUM DIMENSIONS ABOVE ASSEMBLY.
2. NOMINAL SIZE OF ALL COMPONENTS ARE TO BE THE SAME NOMINAL SIZE AS THE SOLENOID VALVE (SIZED AS SHOWN).
3. INSTALL FILTER FABRIC AROUND EXTERIOR OF VALVE BOX. USE DUCT TAPE TO SECURE FABRIC TO PIPE AND VALVE BOX.
4. TRANSITION TO PROPER LATERAL PIPE BURIAL DEPTH USING 45° ELBOW FITTINGS DOWNSTREAM OF REMOTE CONTROL VALVE ASSEMBLY.
5. DO NOT CUT OUT ENDS OF VALVE BOX UNNECESSARILY.
6. POSITION VALVE BOX OVER VALVE TO ALLOW ACCESS TO SOLENOID AND PROPER OPERATION OF BALL VALVE.

4 DRIP REMOTE CONTROL VALVE ASSEMBLY

N.T.S.



PLAN VIEW
SINGLE-OUTLET EMITTER
TREES (TYPICAL)



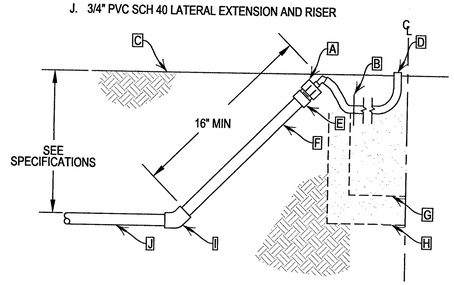
PLAN VIEW
SINGLE OUTLET EMITTER
SHRUBS AND GROUNDCOVER (TYPICAL)

A. EMISSION POINT (TYP)
B. 1/4" FLEXIBLE VINYL DISTRIBUTION TUBING, 6' MAX. LENGTH (TYPICAL)
C. EMITTER LATERAL (TYPICAL)
D. SHRUB LATERAL - SIZE AS NOTED ON DRAWINGS
E. SINGLE-OUTLET EMITTER
F. TREE ROOTBALL
G. TREE LATERAL - SIZE AS NOTED ON DRAWINGS

NOTES:
1. EMITTER TUBING EMISSION POINTS SHALL BE EQUALLY SPACED AND LOCATED TO DIRECT WATER FLOW TO THE PERIMETER OF THE DRIP LINE.
2. REFER TO IRRIGATION LEGEND FOR TYPE & QUANTITY OF EMITTERS PER PLANT.
3. LOCATE EMITTERS UPHILL OF PLANT CENTER.
4. SECURE EMITTER TUBING TO FINISH GRADE WITH TUBING STAKE.

5 TYPICAL DRIP LAYOUT

N.T.S.



A. SINGLE-PORT OR MULTI-PORT EMITTER: SET EMITTER BODY 2" BELOW FINISH GRADE
B. 1/4" TUBING STAKE
C. FINISHED GRADE
D. 1/4" FLEXIBLE VINYL HOSE EMITTER TUBING BURY 2" BELOW FINISH GRADE, TERMINATE END 2" ABOVE FINISH GRADE AT PLANT ROOT BALL.
E. 3/4" PVC SCH 40 REDUCING MALE ADAPTER
F. 3/4" PVC SCH 40 LATERAL EXTENSION AND RISER
G. ROOT BALL
H. PLANT PIT
I. 3/4" PVC SCH 40 45° ELL
J. 3/4" PVC SCH 40 LATERAL EXTENSION AND RISER

6 SHRUB EMITTER ASSEMBLY

N.T.S.

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Innovative Water Solutions

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- ADDITION -

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	R_P
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.1084-1
HANSEN NO	71157
SHT NO	127

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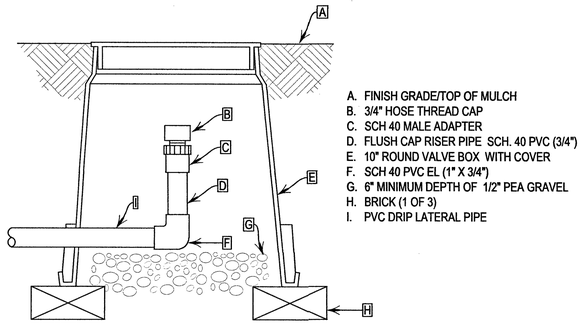
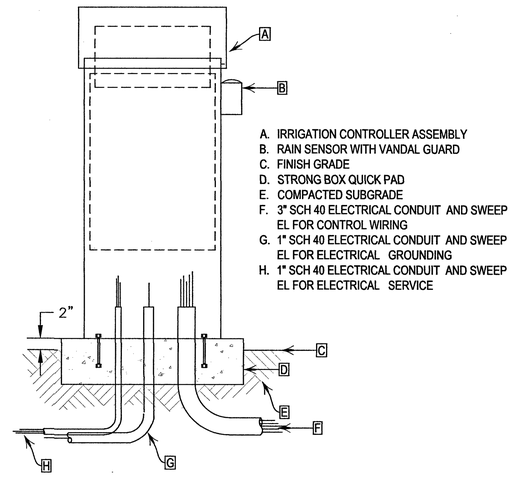


A. FINISH GRADE/TOP OF MULCH
B. 3/4" HOSE THREAD CAP
C. SCH 40 MALE ADAPTER
D. FLUSH CAP RISER PIPE SCH. 40 PVC (3/4")
E. 10" ROUND VALVE BOX WITH COVER
F. SCH 40 PVC EL (1" X 3/4")
G. 6" MINIMUM DEPTH OF 1/2" PEA GRAVEL
H. BRICK (1 OF 3)
I. PVC DRIP LATERAL PIPE

1 FLUSH CAP ASSEMBLY

N.T.S.

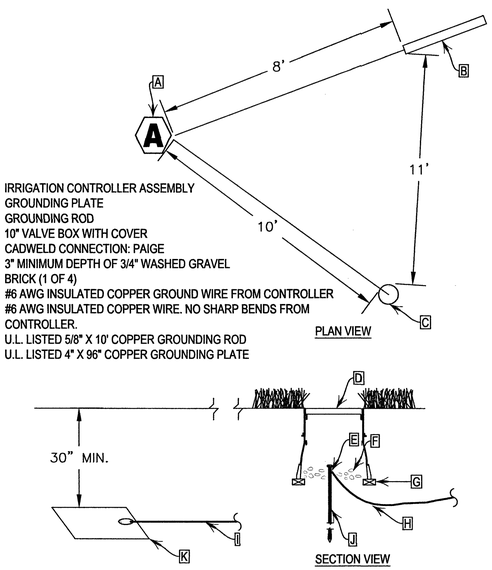


A. IRRIGATION CONTROLLER ASSEMBLY
B. RAIN SENSOR WITH VANDAL GUARD
C. FINISH GRADE
D. STRONG BOX QUICK PAD
E. COMPACTED SUBGRADE
F. 3" SCH 40 ELECTRICAL CONDUIT AND SWEEP EL FOR CONTROL WIRING
G. 1" SCH 40 ELECTRICAL CONDUIT AND SWEEP EL FOR ELECTRICAL GROUNDING
H. 1" SCH 40 ELECTRICAL CONDUIT AND SWEEP EL FOR ELECTRICAL SERVICE

NOTE:
1. PROVIDE PRE-WIRED U.L. LISTED CONTROLLER ASSEMBLY.

2 CONTROLLER ASSEMBLY

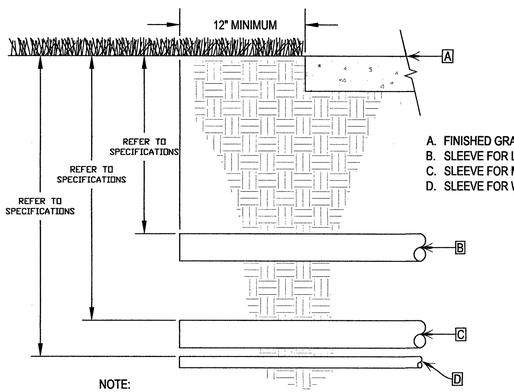
N.T.S.



A. IRRIGATION CONTROLLER ASSEMBLY
B. GROUNDING PLATE
C. GROUNDING ROD
D. 10" VALVE BOX WITH COVER
E. CADWELD CONNECTION: PAIGE
F. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
G. BRICK (1 OF 4)
H. #6 AWG INSULATED COPPER GROUND WIRE FROM CONTROLLER
I. #6 AWG INSULATED COPPER WIRE. NO SHARP BENDS FROM CONTROLLER.
J. U.L. LISTED 5/8" X 10' COPPER GROUNDING ROD
K. U.L. LISTED 4" X 96" COPPER GROUNDING PLATE

3 CONTROLLER GROUNDING SCHEMATIC

N.T.S.

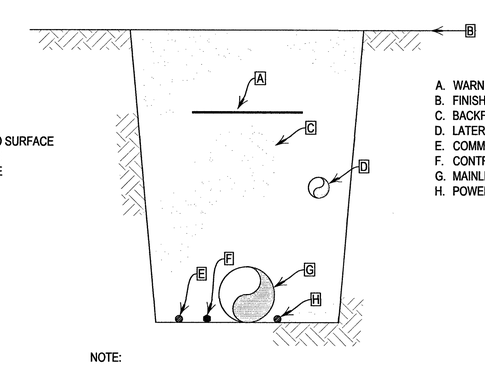


A. FINISHED GRADE OF PAVED SURFACE
B. SLEEVE FOR LATERAL PIPE
C. SLEEVE FOR MAINLINE PIPE
D. SLEEVE FOR WIRING

NOTE:
1. INSTALL SLEEVE SO THAT ITS LOWEST ELEVATION OCCURS AT ONE OR BOTH ENDS - NOT ALONG ITS LENGTH.

4 SLEEVING

N.T.S.

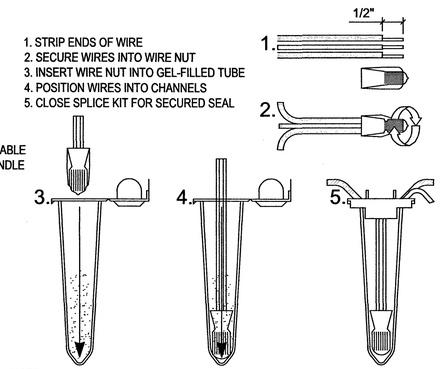


A. WARNING TAPE
B. FINISH GRADE
C. BACKFILL
D. LATERAL PIPE
E. COMMUNICATION CABLE
F. CONTROL WIRE BUNDLE
G. MAINLINE PIPE
H. POWER WIRE

NOTE:
1. REFER TO IRRIGATION SPECIFICATIONS FOR COVERAGE DEPTH TO BURIED PIPE AND WIRE.

5 TRENCHING

N.T.S.

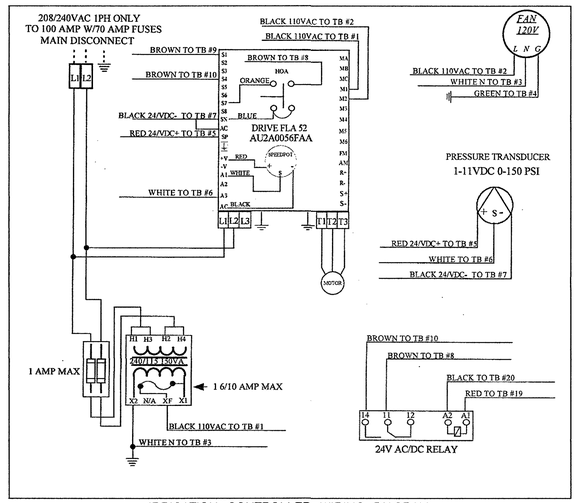


1. STRIP ENDS OF WIRE
2. SECURE WIRES INTO WIRE NUT
3. INSERT WIRE NUT INTO GEL-FILLED TUBE
4. POSITION WIRES INTO CHANNELS
5. CLOSE SPLICE KIT FOR SECURED SEAL

NOTE:
1. VISUALLY CHECK THAT CONNECTOR IS BELOW LOCKING "FINGERS".

6 WIRESPLICE

N.T.S.



IRRIGATION CONTROLLER WIRING DIAGRAM
FOR EXISTING IRRIGATION BOOSTER PUMP
*CONTACT MARK WILLIAMS FOR WIRING
ASSISTANCE (970) 270-0400

6 IRRIGATION CONTROLLER PUMP WIRING DIAGRAM

N.T.S.

CITY OF LAS VEGAS NEVADA

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Innovative Water Solutions

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- ADDITION -

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Exp. 12/31/2020
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No. 016291

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
FAX: (702) 384-4846

DRAWN	RJP
FILE	
DATE	12/17/2018
SCALE	AS SHOWN
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	IR8

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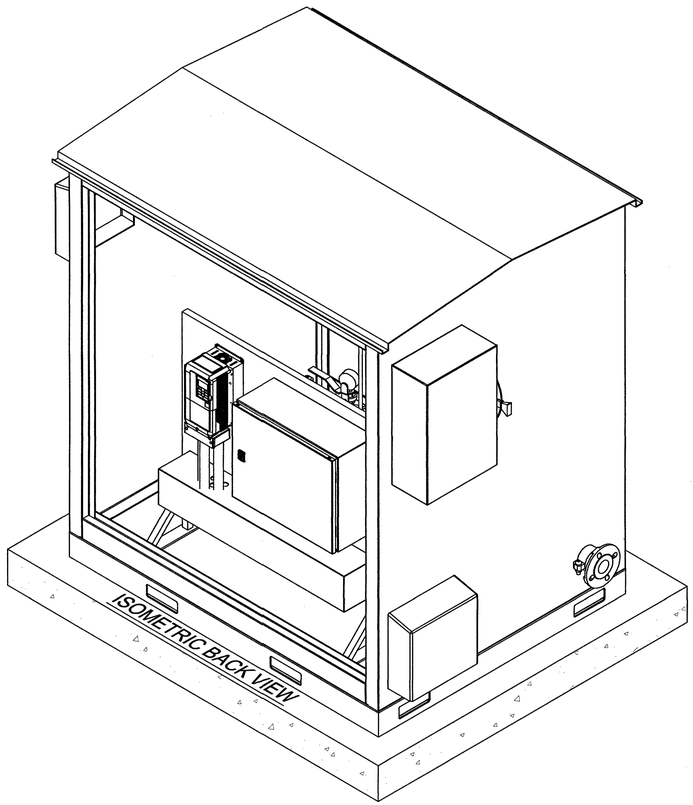
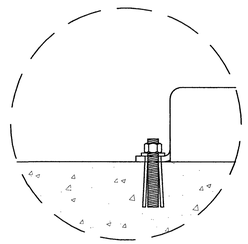
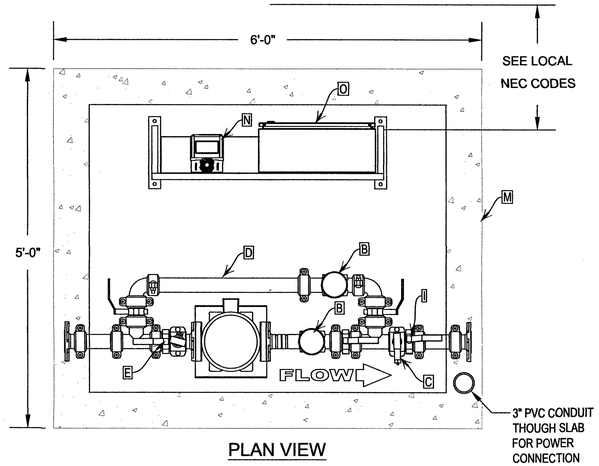
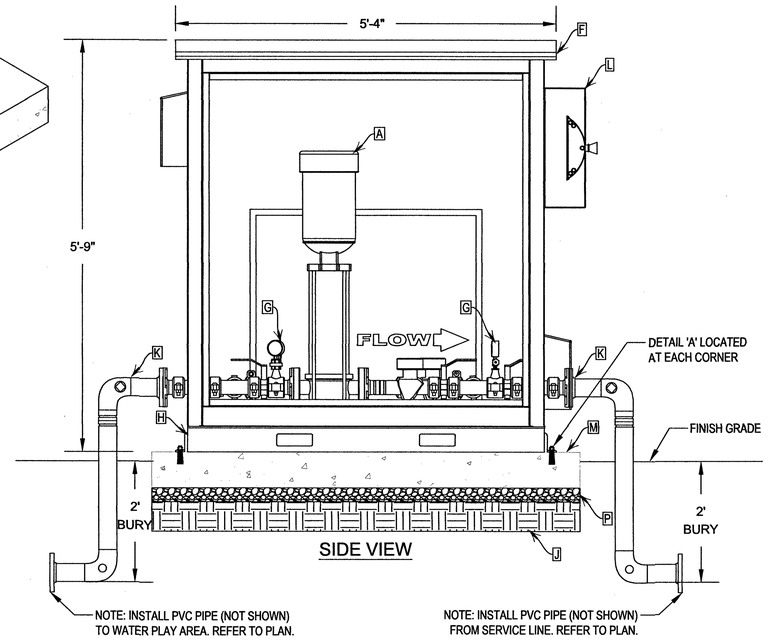




DETAIL A
CONCRETE ANCHOR BOLTS (x4)
LOCATIONS (EACH CORNER)



PLAN VIEW



SIDE VIEW

EQUIPMENT LIST

A. BOOSTER PUMP
   *FLOW: 50 GPM
   *PRESSURE: 27 PSI INLET, 30 PSI BOOST, 57 PSI DISCHARGE
   *2 HP, 240 VAC, SINGLE PHASE, 10 FULL LOAD AMPS
   *MANUFACTURER: MUNRO
   *MODEL: SCSUL08-57-50-2-A-D-X-X-X-2-5-X-X
   *CONTACT JUSTIN MCDANIEL FOR ORDERING. PHONE: (970) 260-3758.

B. CHECK VALVE

C. PRESSURE TRANSDUCER WITH GAUGE

D. BYPASS VALVE AND PIPING

E. PUMP INTAKE BUTTERFLY VALVE

F. VENTILATED MARINE GRADE ALUMINUM ENCLOSURE

G. PRESSURE GAUGE

H. STAINLESS STEEL BASE (UNPAINTED)

I. PUMP DISCHARGE BUTTERFLY VALVE

J. COMPACT SUBGRADE BELOW CONCRETE PAD TO 95% S.P.D

K. FLANGED DROP PIPE - SCH. 40 STEEL (PROVIDED BY MUNRO)

L. DEAD-FRONT ELECTRICAL DISCONNECT WITH CONDUIT

M. CONCRETE PAD SIZED 6" LARGER ON EACH SIDE THAN THE BOOSTER PUMP ENCLOSURE: 5000 PSI CONCRETE, 6" THICK, REINFORCED WITH #4 REBAR PLACED 12" ON CENTER BOTH WAYS. PLACE REBAR 2" FROM BOTTOM OF PAD. PLACE TOP OF PAD 1" ABOVE FINISH GRADE. SLOPE PAD AWAY FROM BOOSTER PUMP ENCLOSURE.

N. CONTROL PANEL - VFD, AIR COOLED WITH THERMOSTATIC FAN. REFER TO SPECIFICATIONS.

O. CONTROL PANEL ENCLOSURE

P. 4" DEPTH COMPACTED SUBBASE (TYPE 1 LIMESTONE) FOR CONCRETE PAD

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Innovative Water Solutions

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HUCKLEBERRY PARK
- ADDITION -

WATER PLAY BOOSTER PUMP ASSEMBLY

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333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-5276
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SPECIFICATIONS FOR CONSTRUCTION

1 GENERAL NOTES

1.1 THESE DESIGN DOCUMENTS WERE PREPARED BY 'VORTEX AQUATIC STRUCTURES INTERNATIONAL' FOR THE USE OF THEIR CLIENT ONLY. THE MATERIAL USED AND IDENTIFIED IN THEM REFLECTS VORTEX AQUATIC STRUCTURES INTERNATIONAL'S BEST JUDGMENT IN LIGHT OF THE INFORMATION AVAILABLE AT THE TIME OF PREPARATION. FOR THE PURPOSE OFTHESE DESIGN DOCUMENTS, 'VORTEX AQUATIC STRUCTURES INTERNATIONAL' IS SYNONYMOUS WITH 'VORTEX'.

1.2 VORTEX ACCEPTS NO RESPONSIBILITY FOR DAMAGES, IF ANY, SUFFERED BY ANY THIRD PARTY AS A RESULT OF DECISIONS MADE OR ACTIONS BASED ON THESE DESIGN DOCUMENTS WITHOUT THE PREVIOUS CONSULTATION TO VORTEX.

1.3 ALL WORK, MATERIALS AND THEIR ASSEMBLIES SHALL CONFORM TO THE STANDARDS, REGULATIONS AND CODES CURRENTLY IN FORCE FOR ALL TRADES, AISC, ACNOR, EN, OR IBC.

1.4 THESE DESIGN DOCUMENTS DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. WHEN APPLICABLE, THE CONTRACTORS SHALL SUPERVISE AND DIRECT ALL THE WORKAND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES AND SEQUENCES AS PER STANDARD BEST PRACTICES.

1.5 DO NOT SCALE DRAWINGS.

1.6 USE ONLY THOSE MARKED "ISSUED FOR CONSTRUCTION".

1.7 THE CONTRACTOR SHALL REVIEW THESE DESIGN DOCUMENTS AND REPORT ANY CONFLICTS OR OMISSIONS TO THE VORTEX IMMEDIATELY.

1.8 TEMPORARY SUPPORTS, WHICH WILL BE REQUIRED DURING CONSTRUCTION, SUCH AS FORMWORK, BRACING, SHORING, ETC. ARE NOT SHOWN ON THESE DRAWINGS AND ARE THERESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SAFE CONSTRUCTION PROCEDURES ARE FOLLOWED.

1.9 THE FOLLOWING SPECIFICATIONS ARE VORTEX'S MINIMUM RECOMMENDATIONS TO OBTAIN A QUALITY PRODUCT. THE CONTRACTOR SHALL FOLLOW THE LOCAL CODES IF MORE RESTRICTIVE.

2 EXCAVATION

2.1 ANY SHORING OR TEMPORARY SHORING NOT SHOWN ON DRAWINGS WILL BE EXECUTED, IN A SAFE MANNER, BY THE GENERAL CONTRACTOR.

2.2 IT IS THE RESPONSIBILITY OF OTHERS TO VERIFY THE EXISTENCE OF ANY UNDERGROUND SERVICES ETC.

2.3 IF AVAILABLE, REFER TO SOIL REPORT FOR BACKFILL REQUIREMENTS. ALL BACKFILL (FOR SLAB ON GRADE, ETC.) MUST BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF AQUALIFIED PROFESSIONAL. USE ONLY FREE DRAINING, GRANULAR, MINERAL, INERT AND NON- REACTIVE FILL.

3 FOUNDATIONS

3.1 REFER TO SOIL REPORT FOR RECOMMENDATIONS.

3.2 ALL FOOTINGS SHALL REST ON A HOMOGENEOUS LAYER OF UNDISTURBED SOIL OR ENGINEERED BACKFILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPA (2000 PSF) AND MAXIMUM DIFFERENTIAL SETTLEMENT OF 19 MM (0.75"). ALL ORGANIC MATERIAL SHALL BE REMOVED.

3.3 IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE SOIL AT ALL FOOTING LOCATIONS BE VERIFIED BY A QUALIFIED SOILS EXPERT BEFORE POURING FOOTINGS TO ENSUREFOOTINGS REST ON APPROPRIATE STRATA.

3.4 WHEN APPLICABLE, FOLLOW GEOTECHNICAL EXPERT RECOMMENDATIONS FOR ALL EXTERIOR FOOTINGS TO ENSURE FROST PROTECTION.

4 CONCRETE

4.1 ALL CONCRETE MATERIALS, PROCEDURES, TOLERANCES & WORKMANSHIP SHALL CONFORM TO THE LATEST ISSUES OF ACI-318 OR ACNOR CAN3-A23.1 & A23.2, DEPENDING ON PROJECT LOCATION.

4.2 CONCRETE THAT HAS BEEN IN THE TRUCKS LONGER THAN 2 HOURS SHALL BE REJECTED. DO NOT ADD WATER TO THE CONCRETE IN THE TRUCKS OR ON THE SITE UNDER ANY CIRCUMSTANCES.

4.3 USE MAXIMUM 76 MM (3") SLUMP, 19 MM (3/4") AGGREGATE, UNLESS OTHERWISE-NOTED. USE 5-7% AIR ENTRAINMENT FOR CONCRETE EXPOSED TO WEATHER ONLY.

4.4 ALL GROUT SHALL BE NON-SHRINK TYPE WITH A MINIMUM 28 DAYS STRENGTH OF 35.0 MPA (5000 PSI). USE 25 MM (1") GROUT UNDER ALL STEEL COLUMN BASE PLATES.

4.5 CONCRETE STRENGTH @ 28 DAYS TO BE:

4.5.1 FOUNDATIONS (FOOTINGS): 25.0 MPA (3625 PSI), UNLESS OTHERWISE NOTED.

4.5.2 INTERIOR SLAB ON GRADE: 25.0 MPA (3625 PSI), UNLESS OTHERWISE NOTED.

4.5.3 EXTERIOR SLAB ON GRADE: 32.0 MPA (4640 PSI), UNLESS OTHERWISE NOTED.

4.6 MINIMAL RE-BAR COVER:

4.6.1 CONCRETE POURED ON-GRADE = 76MM (3") COVER

4.6.2 CONCRETE POURED INTO FORMWORK BUT EXPOSED TO SOIL AND WEATHER FOR REBAR 15M (#4) AND UNDER = 50MM (2") COVER

5 REINFORCING STEEL

5.1 DEPENDING ON PROJECT LOCATION, ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 (BARS 15M (#4) TO BE GRADE 60 WITH SUPPLEMENTARY REQUIREMENTS ON S1. BARS SMALLER THAN 15M (#4), TO BE GRADE 40); OR TO ACNOR GRADE G30.12 [FY = 400MPA (60,000 PSI), UNLESS OTHERWISE NOTED].

5.2 USE CONCRETE, PLASTIC OR STEEL SUPPORT BARS, AS PER ACI (MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES). THE RE-BAR PLACER MUST REMAIN ON-SITE DURING POURS TO VERIFY CORRECT POSITIONING OF RE-BARS. SLANT UPPER REINFORCING STEEL IN LINE WITH THE SLOPE OF THE SLAB, IF APPLICABLE.

5.3 BARS SHALL BE SECURELY WIRED PER LATEST EDITION OF CRSI (RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS).

5.4 ALL REINFORCING STEEL IS TO BE KEPT CLEAN AND FREE OF MUD, SNOW, ICE, AND ANY CONTAMINANTS.

5.5 VERTICAL AND CONTINUOUS REBAR SHALL BE LAPPED TO DEVELOP FULL TENSILE CAPACITY OF THE BAR. FOR 15M (#4) BARS MINIMUM LAP OF 610 MM (24").

6 EXTERIOR / INTERIOR SLAB ON GRADE

6.1 FOLLOW THE GEOTECHNICAL EXPERT RECOMMENDATIONS FOR PREPARATION OF SOIL BEFORE POURING THE CONCRETE. ALL GRANULAR MATERIAL SHALL BE MOISTENED IMMEDIATELY BEFORE POURING THE CONCRETE. WATER AS NEEDED. DO NOT USE A VAPOR BARRIER.

6.2 NO TRUCKS ARE PERMITTED ON THE CONSTRUCTION SITE (OF THE SLAB) AFTER THE FINAL COMPACTION, EITHER BEFORE OR DURING, THE POUR.

6.3 SLAB TO BE MINIMUM 6 INCHES THICK, REINFORCED WITH 10M (#3) @ 300 MM (12") C/C REBAR PLACED IN BOTH DIRECTIONS AT MID-HEIGHT OF THE SLAB, UNLESS OTHERWISE NOTED ON PLANS.

6.4 REFER TO CONCRETE SECTION FOR MINIMUM COMPRESSIVE STRENGTH AND AIR-ENTRAINMENT REQUIREMENTS.

6.5 FINISHING WILL BE MEDIUM BROOM.

6.6 CONTROL JOINTS (SAW-CUTS) TO BE LOCATED IN EACH DIRECTION, AT REGULAR INTERVALS, WITH A MAXIMUM DISTANCE OF 3 METERS (10 FEET). SHALL BE MINIMUM 3 MM (1/8") WIDE AND SHALL PENETRATE THE SLAB TO A MINIMUM DEPTH OF 1/3 OF THE THICKNESS OF THE SLAB. CONTROL JOINTS SHOULD BE DONE AS SOON AS POSSIBLE WITHOUT DAMAGING THE CONCRETE,BUT NO LATER THAN 18 HOURS AFTER POURING.

6.7 WHEN POSSIBLE AND TO AVOID SHRINKAGE CRACKING, HUMIDITY SHALL BE MAINTAINED FOR 7 DAYS DURING THE CURING PERIOD OF THE SLAB. WATER AND USE POLYETHYLENE CLOTH OR BAG. THE CONCRETE MUST DRY UNIFORMLY.

7 CONCRETE WORK IN COLD OR HOT WEATHER (MINIMUM REQUIREMENTS)

7.1 COLD WEATHER REQUIREMENTS APPLY WHEN THE MEAN AIR IS LESS THAN 5 DEGREES CELSIUS (40 DEGREES FAHRENHEIT).

7.2 GENERAL REQUIREMENTS FOR COLD WEATHER CONCRETE WORK SHALL BE AS PER ACI 306R-88; OR AS PER THE NBC'S LATEST REQUIREMENTS INCLUDING THE LATEST ISSUE OF CSA STANDARD CAN3-A23.1.

7.3 ALL SNOW AND ICE SHALL BE REMOVED FROM FORMS AND REBAR WITH STEAM AND COMPRESSED AIR BEFORE POURING. DO NOT USE DE-ICING SALT (CALCIUM CHLORIDE) OR ANY OTHER SALTS UNDER ANY CIRCUMSTANCES.

7.4 CONCRETE SHALL HAVE A MINIMUM TEMPERATURE OF 20 DEGREES CELSIUS AND A MAXIMUM TEMPERATURE OF 25 DEGREES CELSIUS WHILE POURING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THESE REQUIREMENTS ARE SATISFIED. ANY CONCRETE THAT DOES NOT CONFORM MUST BE REJECTED.

7.5 THE SURFACE OF POURED CONCRETE SHALL BE PROTECTED BY MEANS OF SUITABLE COVERINGS AND INSULATION (TO BE DETERMINED BY TEMPERATURE) DURING THE CURING PROCESS.

7.6 GENERAL REQUIREMENTS FOR HOT WEATHER CONCRETE WORK SHALL BE AS PER ACI 305R-99; OR AS PER LOCAL CODE REQUIREMENTS.

8 PIPING

8.1 WDS CONFIGURATION IS SCHEMATIC AND MAY BE MOVED OR ADJUSTED ON SITE BY VORTEX CERTIFIED INSTALLER TO ADJUST FOR SITE CONDITIONS

8.2 ANY REQUIRED WATER METER ON THE CITY WATER MAIN IS NOT PROVIDED BY VORTEX.

8.3 ALL PIPE LINES TO FEATURES TO HAVE A 1% MINIMUM RECOMMENDED SLOPE FOR PROPER WINTERIZATION.

8.4 ALL LINE SIZING (FEATURE CONNECTION TABLE) ASSUMES A MAXIMUM DISTANCE OF 100 FEET BETWEEN THE WATER DISTRIBUTION MANIFOLD AND THE FURTHEST PLAY PRODUCT. DISTANCES ABOVE 100 FEET MAY REQUIRE AN INCREASE IN LINE SIZING. PLEASE CONTACT VORTEX.

8.5 THE LINE DIAMETER FROM DRAIN SHALL BE 8" BASED ON THE MAXIMUM APPROXIMATE FLOW AT 1% SLOPE. FINAL LOCATION OF DRAIN AND LINE ROUTING ARE TO BE DETERMINED BY OTHERS.

8.6 PRESSURE LINES ARE RECOMMENDED TO BE SCHEDULE 80 PVC, AND NON-PRESSURE LINES TO BE SCHEDULE 40, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

8.7 DRAINAGE LINES ARE RECOMMENDED TO BE SDR 35, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

8.8 PIPING SHOULD BE INSPECTED AFTER TRANSPORTATION FOR CUTS, SCRATCHES, GOUGES OR SPLITS; DAMAGED SECTIONS MUST BE DISCARDED OR CUT OUT.

8.9 PIPE SHALL BE INSTALLED BELOW THE FROST LEVEL NOT LESS THAN 12" (ASTM F-645) UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

8.10 PIPE INSTALLATION MINIMUM COVER SHOULD BE EVALUATED ACCORDING TO ASTM D-2774, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

8.11 SPECIAL CONSIDERATIONS SHOULD BE TAKEN FOR THERMAL CONDITIONS, EXPANSION AND CONTRACTIONS DUE TO TEMPERATURE SHOULD BE EVALUATED BEFORE THE INSTALLATION BY THE CONTRACTOR.

8.12 VALVE NUMBER 1 IS LOCATED TO THE LEFT OF THE MANIFOLD WHEN FACING SOLENOIDS.

8.13 MINIMUM 50 PSI REQUIRED AT THE INLET OF THE BACKFLOW PREVENER & PRESSURE REGULATOR.

8.14 MAXIMUM FLOW CAPACITY OF MANIFOLD IS 72 GPM.

9 ELECTRICAL

9.1 WIRING FROM THE CONTROLLER TO EACH ACTIVATOR SHALL BE #22 AWG. A TOTAL OF FIVE (5) CONDUCTORS PER ACTIVATOR.

9.2 ALL CONNECTIONS TO THE CONTROLLER AND OTHER VORTEX ELECTRICAL PANEL SHALL BE PERFORMED USING AN APPROVED NEMA 4X CONNECTOR.

9.3 WIRE FROM MAIN POWER TO VORTEX PANEL TO BE DETERMINED BY OTHERS RESPECTING THE LOCAL CODE.

9.4 MAINTAIN A MINIMUM CLEARANCE ZONE OF 36" IN FRONT OF ELECTRICAL PANEL, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.

9.5 USE #8 BARE COPPER BONDING WIRE BETWEEN FEATURES TO A GROUNDING ROD IN THE SOIL, TIED INTO REBAR GRID, OR AS PER LOCAL CODE.

9.6 IF CONTROLLER IS REMOTE LOCATED, CONDUCTORS # 18 AWG, AT 10' LONG PROVIDED FOR THE CONTROLLER. ADDITIONAL CONDUCTORS LENGTH, MIN. #16 AWG TO BE PROVIDED BY INSTALLER.

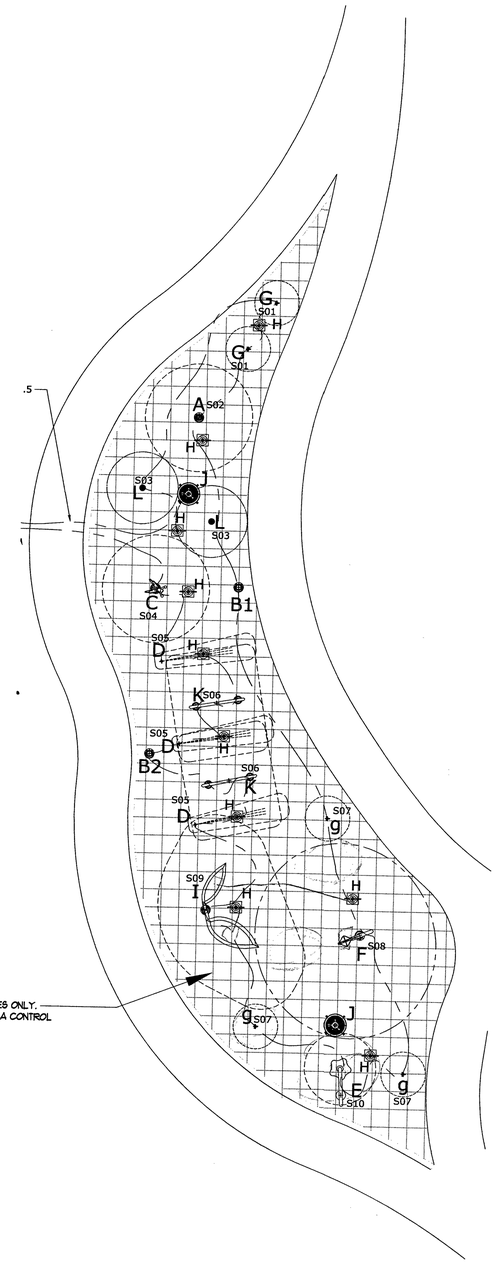
10 SPECIAL NOTE

10.1 NO PVC MALE OR FEMALE ADAPTER PERMITTED WHEN CONNECTING PLAY PRODUCTS.

10.2 MAXIMUM SPLASHPAD SEQUENCE SHALL BE REDUCED TO 20-30GPM AT ANY OPERATIONAL TIME.

Grid Size 2' x 2'

ACTIVATOR	MANIFOLD OUTPUT REF.	FEATURE REF.	PRODUCT	QTY	GPM	LINE SIZE	SOLINOID VALVE	FEATURE ANCHOR DETAIL
B1	S01	G	Jet Stream No 1 VOR 7512	2	5	1"	1" Std.	4/WP5
	S02	A	Aqua Dome No 1 VOR 555	1	14	1.5"	1" Std.	1/WP6 1/WP5
	S03	L	Water Jelly No 1 VOR 7010	2	12	1"	1" Std.	5/WP5
	S04	C	Butterfly No. 1 VOR 7792	1	6.5	1"	1" Std.	3/WP6 1/WP5
B2	S05	D	Directional Jet No 1 VOR 305	3	9	1"	1" Std.	
	S06	K	Spray Loop VOR 519	2	15	1"	1" Std.	2/WP5 3/WP5
	S07	g	Jet Stream No 1 VOR 7512	3	7.5	1"	1" Std.	4/WP5
	S08	F	Flower No 7 VOR 7559	1	4	1"	1" Std.	5/WP6 1/WP5
	S09	I	Leaf No 3 VOR 7672	1	10	1"	1" Std.	6/WP6 1/WP5
	S10	E	Flower No 1 VOR 7549	1	15	1.5"	1.5" Std.	4/WP6 1/WP5
		B	Bollard Activator No 3 VOR 611 B1 & B2	2				2/WP6 1/WP5
		H	Led Light Ul-Na VOR 7056	10				1/WP4
		J	Playsafe Drain No 1 VOR -1001.4000	2				2/WP4



GRID IS FOR LAYOUT PURPOSES ONLY. SEE A11 FOR WATER PLAY AREA CONTROL JOINTS.

1 Spray Zone and Feature Plan
Scale: 1/8" = 1'-0"

CITY OF LAS VEGAS NEVADA

REVISIONS
Plan Review Comments 12-13-13

CONSULTANT

PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Water Play Area
Spray Zones and Feature Plan

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	
FILE	
DATE	12/17/2018
SCALE	Full scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	WP1

DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS SHALL BE RETURNED UPON REQUEST AND ARE NOT TO BE USED ON ANY OTHER PROJECT A C 823.780

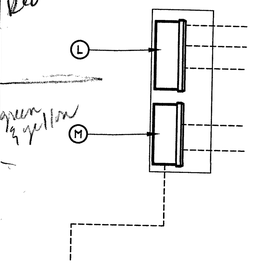
THESE PLANS ARE PREPARED FOR THE CLIENT AND FOR THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT OR CLIENT

Grid Size 2' x 2'

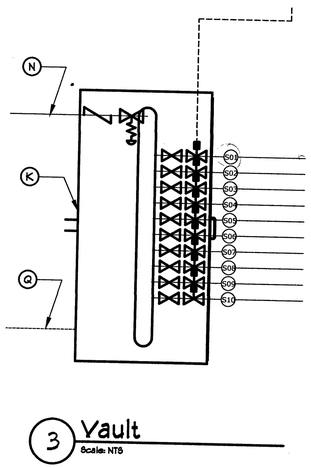
ACTIVATOR	MANIFOLD OUTPUT REF.	FEATURE REF.	PRODUCT	QTY	GPM	LINE SIZE	SOLINOID VALVE	FEATURE ANCHOR DETAIL
B1	S01	G	Jet Stream No 1 VOR 7512	2	5	1"	1" Std.	4/WP5
	S02	A	Aqua Dome No 1 VOR 555	1	14	1.5"	1" Std.	1/WP6 1/WP5
	S03	L	Water Jelly No 1 VOR 7010	2	12	1"	1" Std.	5/WP5
	S04	C	Butterfly No. 1 VOR 7792	1	6.5	1"	1" Std.	3/WP6 1/WP5
B2	S05	D	Directional Jet No 1 VOR 305	3	9	1"	1" Std.	
	S06	K	Spray Loop VOR 519	2	15	1"	1" Std.	2/WP5 3/WP5
	S07	g	Jet Stream No 1 VOR 7512	3	7.5	1"	1" Std.	4/WP5
	S08	F	Flower No 7 VOR 7559	1	4	1"	1" Std.	5/WP6 1/WP5
	S09	I	Leaf No 3 VOR 7672	1	10	1"	1" Std.	6/WP6 1/WP5
	S10	E	Flower No 1 VOR 7549	1	15	1.5"	1.5" Std.	4/WP6 1/WP5
		B	Bollard Activator No 3 VOR 611 B1 & B2	2				2/WP6 1/WP5
		H	Led Light Ul-Na VOR 7056	10				1/WP4
		J	Playsafe Drain No 1 VOR -1001.4000	2				2/WP4
		K	Water Distribution System 30489D18054R03	1				1/WP3 1b /WP3
		L	Maestro PRO 24 Out / 12 in, (120V, 1 phase, 60 Hz & 10 Amps Breaker)	1				4/WP3 2/WP3
		M	LED Power Pack UL Certified, 24 Lights (120V, 1 phase, 60 Hz & 10 Amps Breaker)	1				4/WP3 3/WP3
		N	Water Supply Line See Note 4 on Sht. IR0	1				
		P	To Municipal Sewer Line	1				
		Q	4" typ drainline with strainer connected to drainage system (P) Below Frost Line	1				
			Pressure Regulator (by Vortex)	1				
			Backflow Preventer (by owner) See Note 4 on Sht. IR0	1				
			Solenoid Valve	10				
			Ball Valve	10				

red

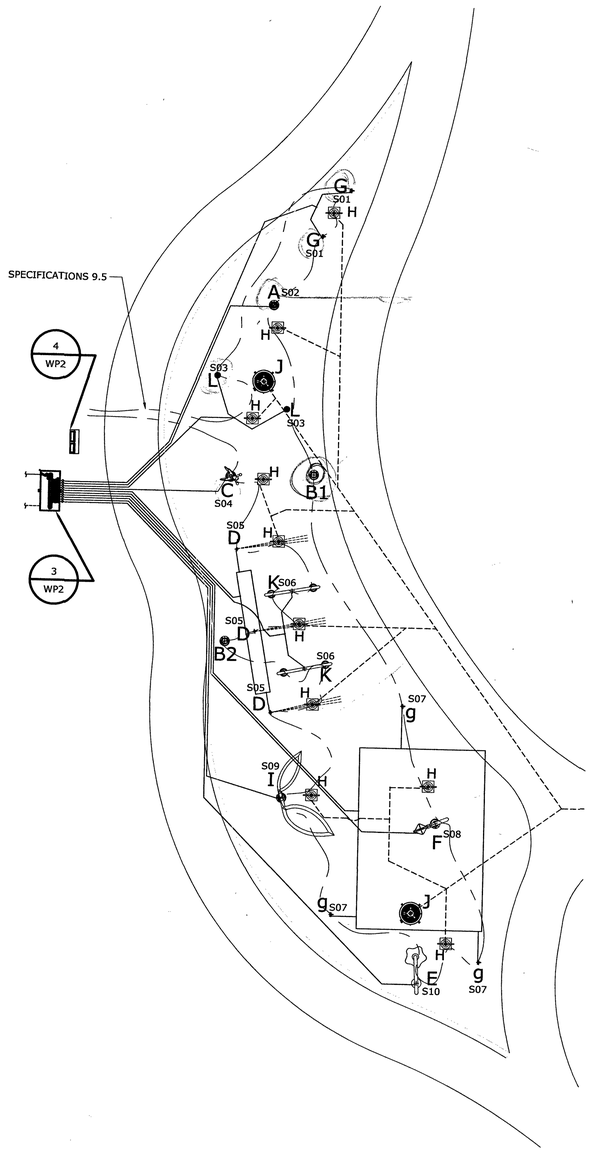
green & yellow



4 Controller Layout
Scale: NTS

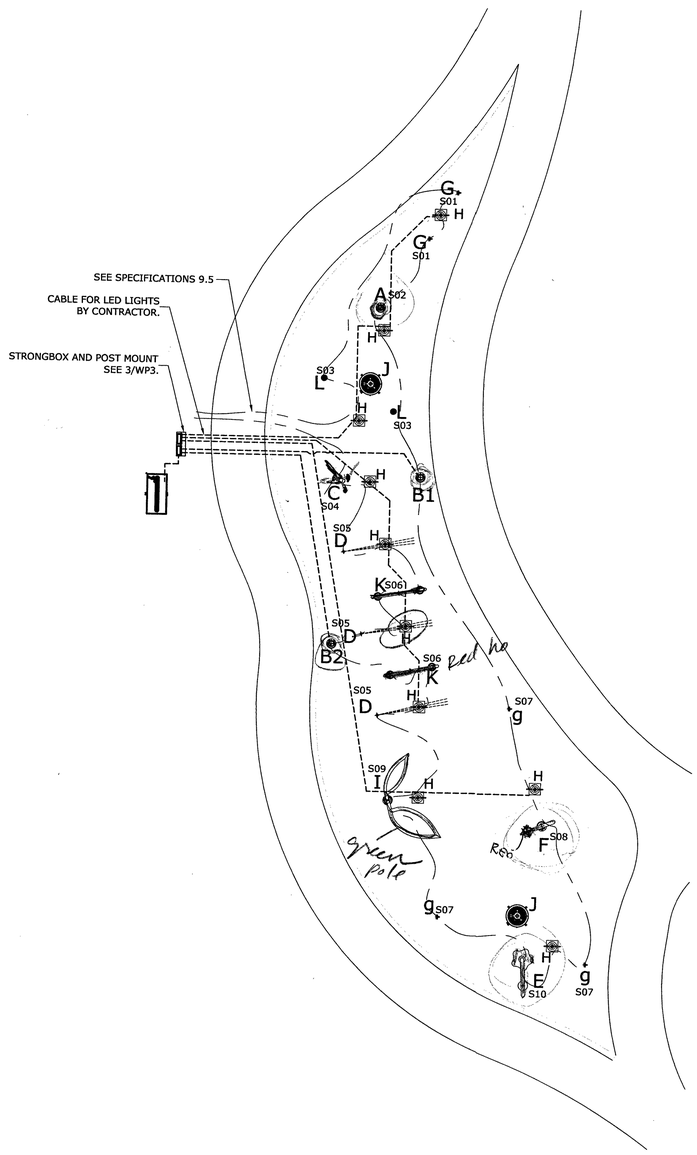


3 Vault
Scale: NTS



2 Water Feature Plumbing Layout
Scale: 1/8" = 1'-0"

1. REFER TO SPECS ON WP-1
2. COORDINATE THIS DRAWING WITH ARCHITECTURAL, CIVIL, PLUMBING AND ELECTRICAL



1 Water Feature Electrical & Bonding Layout
Scale: 1/8" = 1'-0"

Electrical line ----------

CITY OF LAS VEGAS NEVADA

REVISIONS
1 Plan Review Comments 12-18-18

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Water Play Area
Electrical and Plumbing

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm
FILE	
DATE	12/17/2018
SCALE	Full scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	WP2

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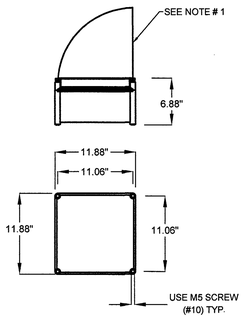
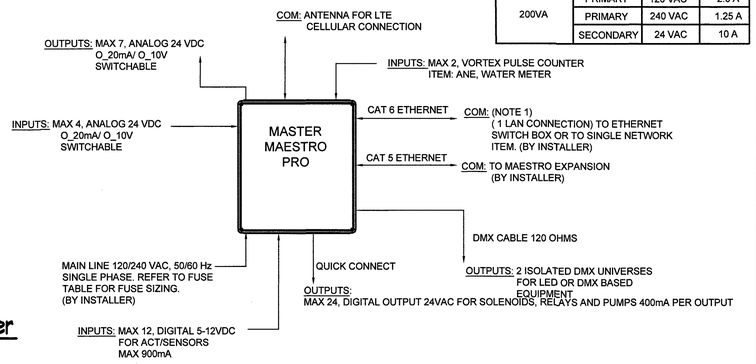
NOTE:
1 - ENSURE ENOUGH CLEARANCE
FOR THE DOOR OPENING



REFER TO THE PIPING AND ELECTRICAL
SHEET FOR THE CONTROLLER NUMBER

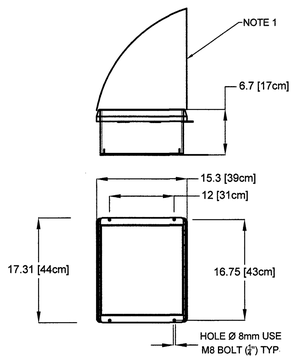
NOTE:
1 - A MAXIMUM OF 1 ETHERNET CAT6 CONNECTIONS IS AVAILABLE PER MAESTRO PRO.
IF MORE ETHERNET LAN CONNECTIONS ARE NEEDED, THEN IT REQUIRES AN ETHERNET SWITCH BOX (SOLD SEPARATELY).
2 - FOR DIGITAL INPUT, 12 OR 5 VDC SUPPLIED BY MAESTRO. REFER TO THE CORRESPONDING SCHEMATIC
DRAWING MANUAL FOR WIRING DETAILS.
3 - MAESTRO IS DHCP ADDRESSED BY CONNECTED LAN DEVICE.
4- WHEN USED WITH EXPANSION UNITS, AN ETHERNET CABLE IS REQUIRED BETWEEN EACH UNIT.
5- WATER TIGHT CONNECTIONS WITH MAESTRO PRO DONE BY INSTALLER.

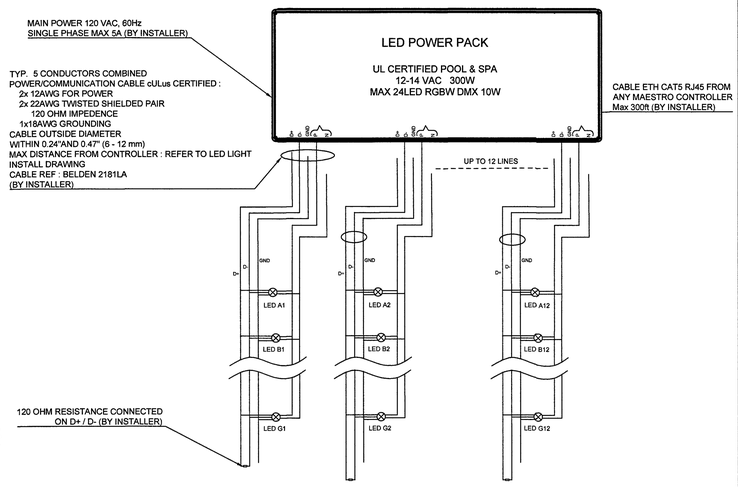
FUSES			
TRANSFO POWER	TRANSFO SIDE	VOLTAGE	AMP
200VA	PRIMARY	120 VAC	2.5 A
	PRIMARY	240 VAC	1.25 A
	SECONDARY	24 VAC	10 A



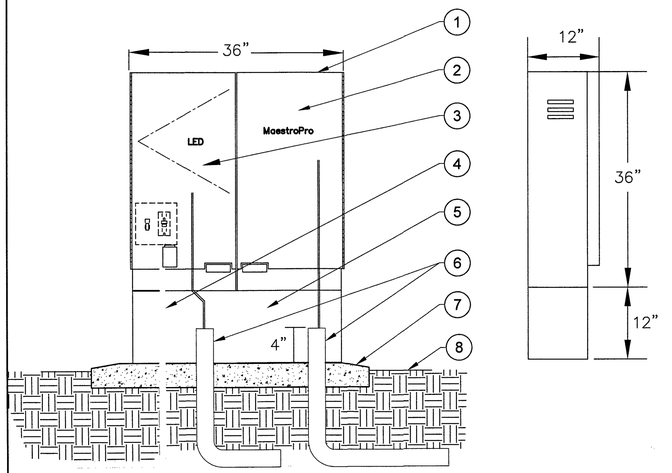
2 MaestroPro Controller
Scale: N/A

NOTE:
1 - ENSURE ENOUGH CLEARANCE
FOR THE DOOR OPENING



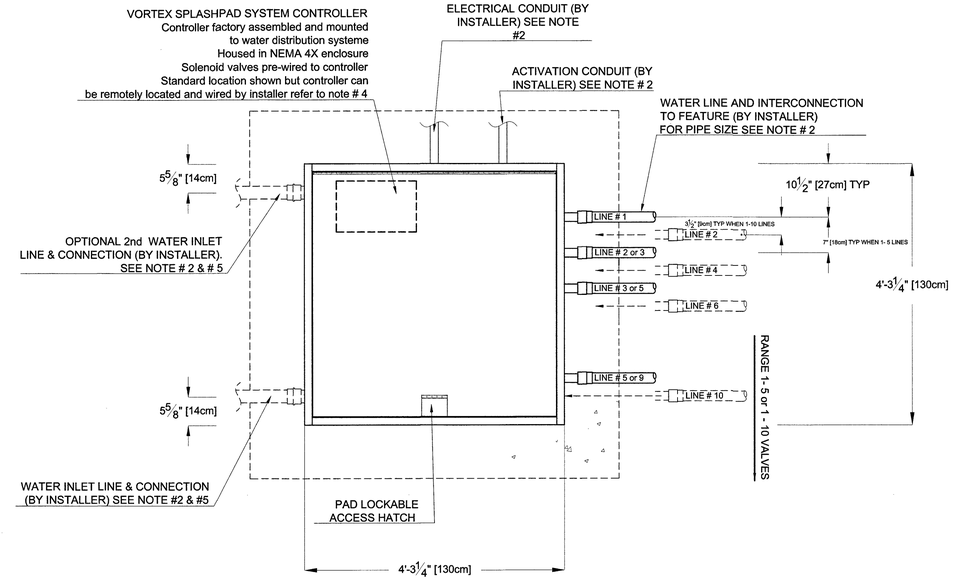


3 LED Power Pck 12 Vac
Scale: N/A



1. Strongbox Enclosure Double Door Front Entry SB-3655
2. MAESTROPRO Controller Dtl 2/WP3
3. LED Controller Dtl 3/WP3
4. 120 - Volt Service in Conduit.
5. Pedestal Riser Part No. PED-3655
6. PVC Conduit out to control valves
7. Poured Concrete Base 6" min. thickness extending 4" beyond outside dimensions of enclosure with ⅛ slope
8. Finish Grade

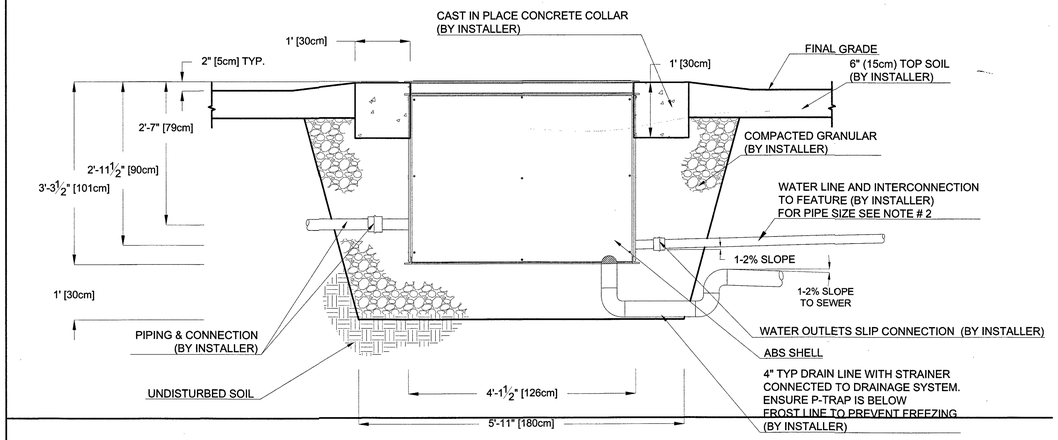
4 Strongbox Pedestal Dual Cabinet
Scale: 1" = 1'-0"



1 Plan - Subterranean Command Center (1-10)
Scale: N/A

CONTROLLER: SEE DETAIL 4/WP3

NOTE:
1. A COMMON NEUTRAL MAY BE USED FOR UP TO TEN ELECTRIC VALVES FOR REMOTE LOCATION CONTROLLER.
2. SEE PIPING AND ELECTRICAL SCHEMATIC DETAIL.
3. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
4. IF CONTROLLER IS REMOTE LOCATED, CONDUCTORS # 18 AWG AT 10' LONG PROVIDED FOR THE CONTROLLER AND JUNCTION BOX BY VORTEX. ADDITIONAL CONDUCTORS LENGTH, MIN. #16 AWG, TO BE PROVIDED BY INSTALLER. FOR QUANTITY AND SIZE, SEE PIPING AND ELECTRICAL SCHEMATIC DETAIL. GROUNDING OF JUNCTION BOX DONE BY INSTALLER.
5. WATER INLET CAN BE 1x2", 1x3", 2x2" OR 2x3". 2" FEMALE NPT CONNECTION OR 3" FEMALE NPT CONNECTION INSIDE COMMAND CENTER IS PROVIDED BY VORTEX.
6. BY INSTALLER/BY CONTRACTOR MAY REFER TO SERVICE PROVIDERS OTHER THAN THE EQUIPMENT MANUFACTURER.PLEASE REFER TO PROJECT SPECIFICATION FOR DETAILS OF RESPONSIBILITY.



1b Section - Subterranean Command Center
Scale: N/A

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -
Water Play Area
Vault and Controller Details

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	BBreed
FILE	A-6.3
DATE	12/17/2018
SCALE	Full scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	WP3

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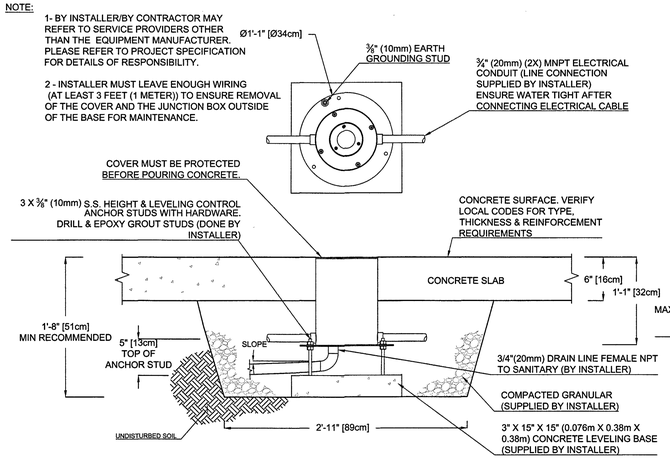
NOTE:

1- BY INSTALLER/BY CONTRACTOR MAY REFER TO SERVICE PROVIDERS OTHER THAN THE EQUIPMENT MANUFACTURER. PLEASE REFER TO PROJECT SPECIFICATION FOR DETAILS OF RESPONSIBILITY.

2 - INSTALLER MUST LEAVE ENOUGH WIRING (AT LEAST 3 FEET (1 METER)) TO ENSURE REMOVAL OF THE COVER AND THE JUNCTION BOX OUTSIDE OF THE BASE FOR MAINTENANCE.

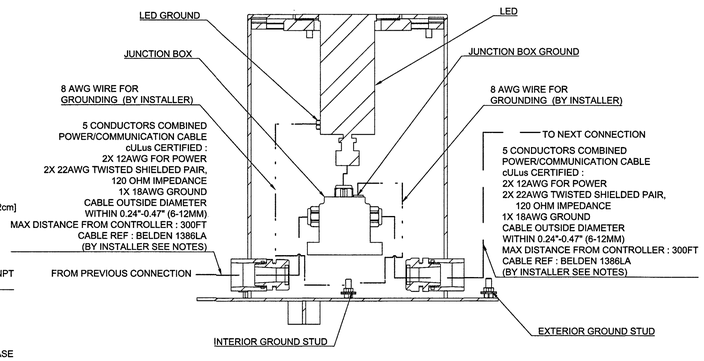


1 LED Light Fixture @ Water Play Area

Scale: N/A

NOTE:

1- OPTIONALLY, THE SUBMERSIBLE UL LISTED JUNCTION BOX SHALL BE FILLED WITH POTTING COMPOUND PER ARTICLE 680 OF THE NATIONAL ELECTRIC CODE.



LED Light RGBW DMX

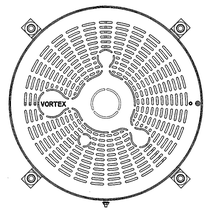
Scale: N/A

LED quantity in same group	Current consumption per conductor (Amp) @12AWG	WIRE GAGE (AWG) PER TOTAL LINES LENGTH (ft)				
		50 ft	100 ft	150 ft	200 ft	300 ft
1	0.840	12 AWG	12 AWG	12 AWG	12 AWG	12 AWG
2	1.680	12 AWG	12 AWG	12 AWG		
3	2.520	12 AWG	12 AWG			
4	3.360	12 AWG				
5	4.200	12 AWG				
6	5.040	12 AWG				
7	5.880	12 AWG				

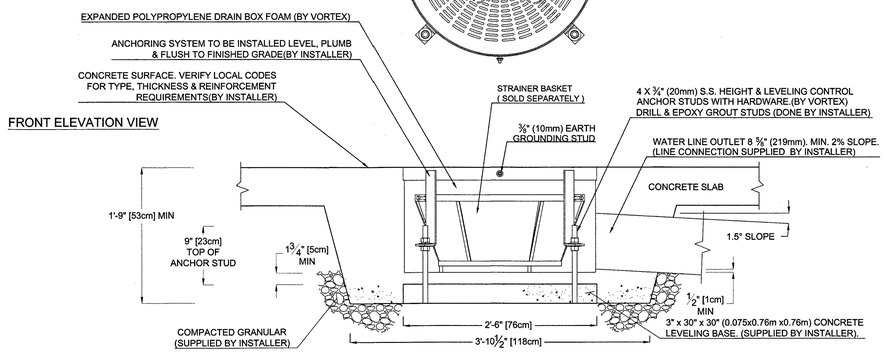
NOTES TO THE INSTALLER :

1. CABLE SPECIFICATION GIVEN BY VORTEX MUST BE RESPECTED (REFER TO INSTALLATION DRAWING).
2. ALL LEDS CONNECTED IN PARALLEL.
3. MAXIMUM OF 7 LEDS PER LINE FOR A MAXIMUM OF 24 LEDS LIGHTS PER POWER PACK.
4. CABLE SPECIFICATIONS, IN REGARDS TO THE QUANTITY OF LEDS PER LINES, ARE SPECIFIED IN THE TABLE ABOVE
5. VALUES SPECIFIED IN THE TABLES ABOVE ARE CALCULATED CONSIDERING THAT THE WIRING WOULD BE INSTALLED ON AN HORIZONTAL PLANE.
6. VORTEX CAN SUPPLY THE RECOMMENDED CABLE (REFER TO INSTALLATION DRAWING). IN SUCH A CASE, THE CONSTRUCTOR MUST PROVIDE THE EXACT CABLES LENGTH FOR THE PROJECT.
7. ALL WIRES AND CABLES SHALL BE BRAND NEW AND APPROVED ACCORDING TO LOCAL CODE.
8. FAILURE TO FOLLOW VORTEX APPLICATION GUIDELINES, DRAWINGS, WIRING DIAGRAM & CABLE SPECIFICATIONS WILL VOID PRODUCT WARRANTY.

PLAN VIEW



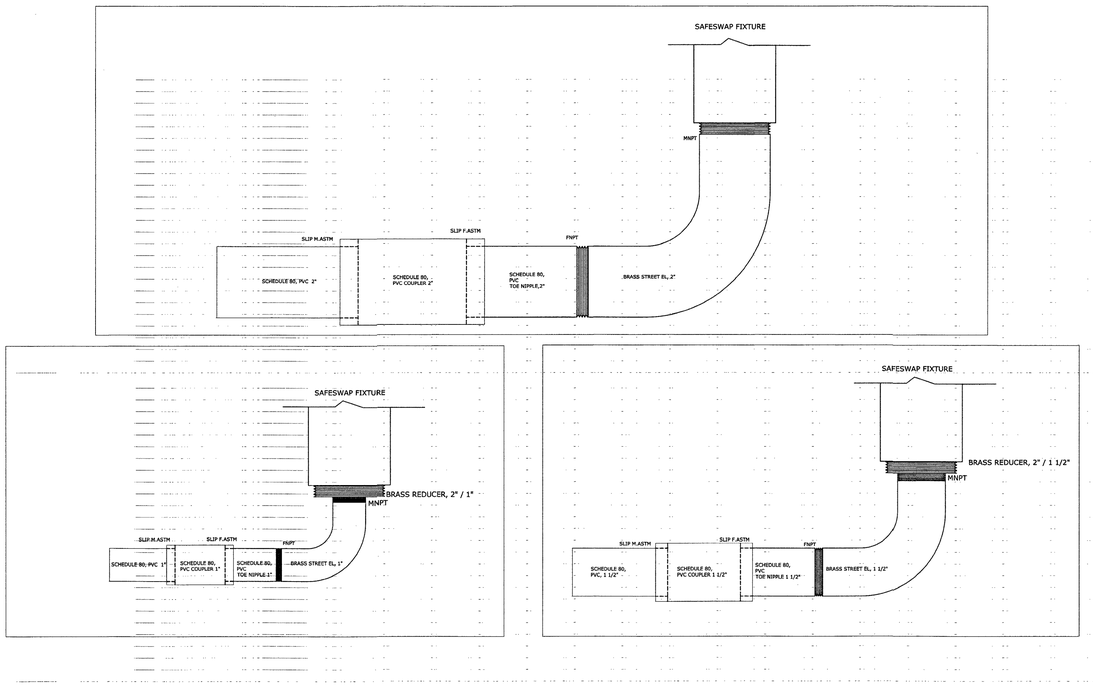
FRONT ELEVATION VIEW



VOR-1001.4000 PLAYSAFE DRAIN, No1 (Construction Detail)

2 Main Surface Drain (Typical - Total of 2)

Scale: N/A



3 Standard Pipe Connection Detail

Scale: N/A

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT

HUCKLEBERRY PARK
- ADDITION -

Water Play Area
Led Lights, Drain and Feature Pipe Details

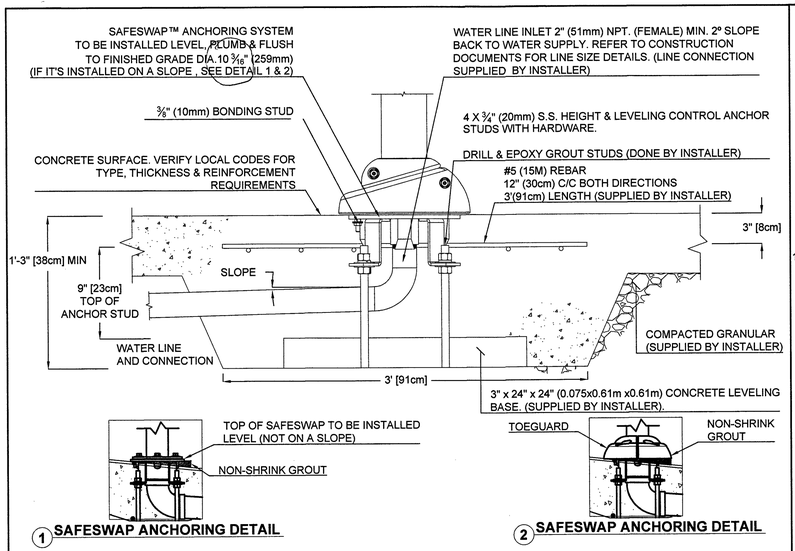
STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

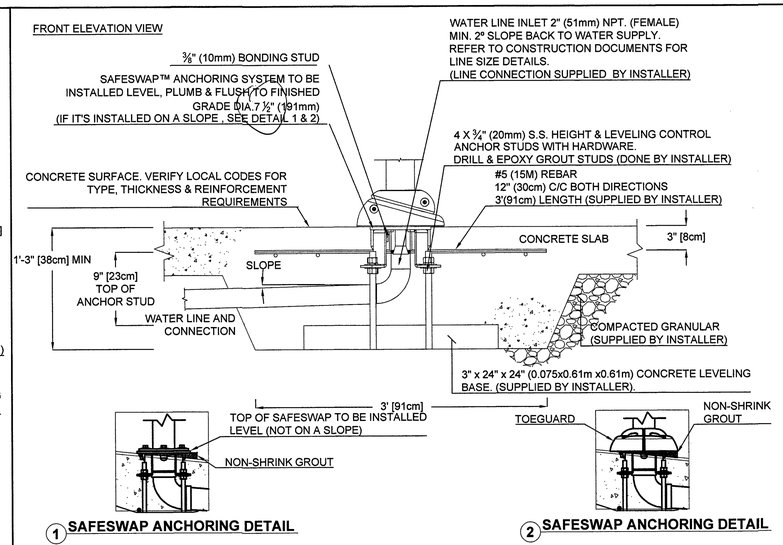
DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	BBread
FILE	A-63
DATE	12/17/2018
SCALE	Full scale
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	WP4

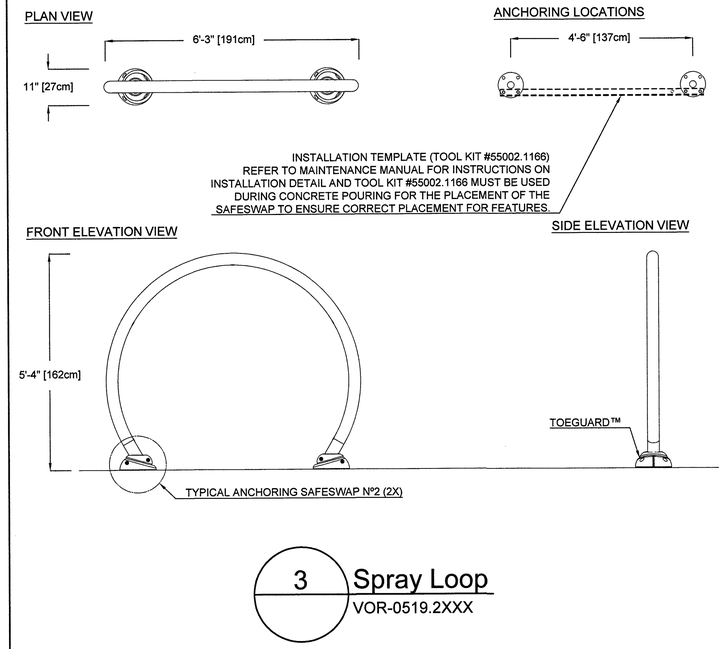
DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS SIGNED BY THE CLIENT MAY BE UTILIZED ONLY FOR OCCUPYING THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT N.A.C. 623.760



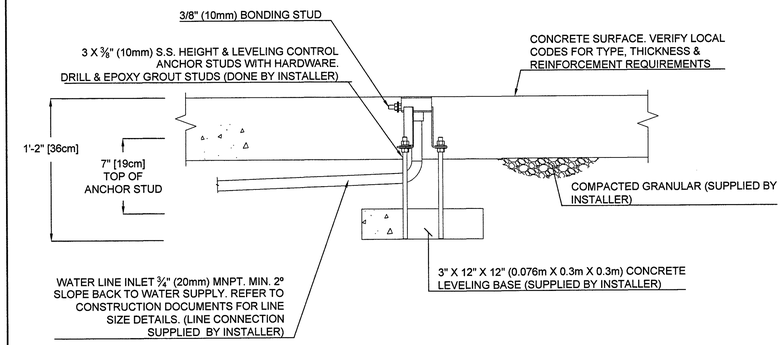
1 Safeswap No.1 Anchor typ.
VOR-55000.0430



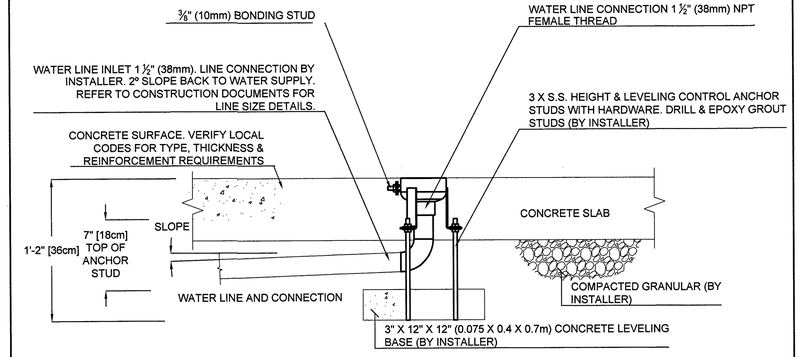
2 Safeswap No.2 Anchor typ.
VOR-55000.0570



3 Spray Loop
VOR-0519.2XXX



4 Ground feature Anchor typ. 3/4"



5 Ground Feature Anchor Typ. 1 1/2"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

REVISIONS

CONSULTANT

HUCKLEBERRY PARK
- ADDITION -

Water Play Area
Anchor Details

STAMP

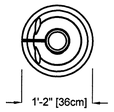
OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm
FILE	
DATE	12/17/2018
SCALE	nts
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	11157
SHT NO	WP5

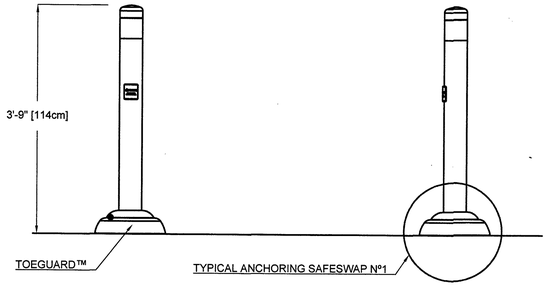
DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS. ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS RETAINED BY THE CLIENT MAY BE UTILIZED ONLY FOR OCCUPYING THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT N A F C 633.780

PLAN VIEW



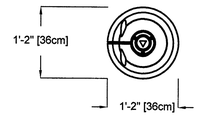
FRONT ELEVATION VIEW

SIDE ELEVATION VIEW



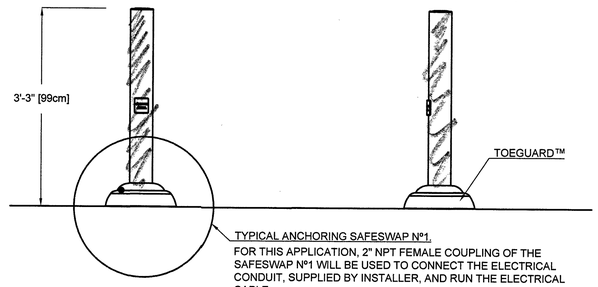
1 Aqua Dome No1
VOR-555.2XXX

PLAN VIEW



FRONT ELEVATION VIEW

SIDE ELEVATION VIEW

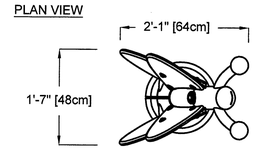


TYPICAL ANCHORING SAFESWAP N°1.
FOR THIS APPLICATION, 2" NPT FEMALE COUPLING OF THE SAFESWAP N°1 WILL BE USED TO CONNECT THE ELECTRICAL CONDUIT, SUPPLIED BY INSTALLER, AND RUN THE ELECTRICAL CABLE.

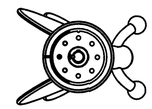
ELECTRICAL CABLE SPECIFICATION
M12-5PIN CONNECTOR CABLE, 22AWG, MAXIMUM O.D. : 0.25"
(SUPPLIED UP TO 75M WITH ACTIVATOR BY VORTEX)

2 Bollard Activator No3
VOR-0611.2XXX

PLAN VIEW

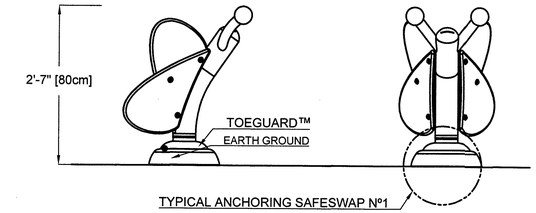


ANCHORING DETAIL



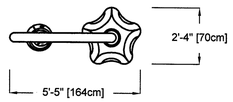
FRONT ELEVATION VIEW

SIDE ELEVATION VIEW



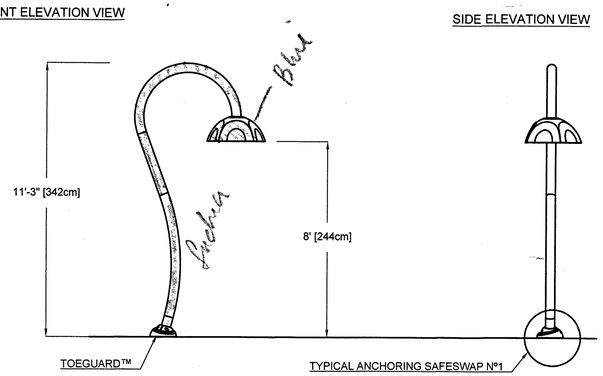
3 Butterfly No1
VOR-7792.2XXX

PLAN VIEW



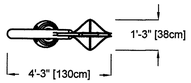
FRONT ELEVATION VIEW

SIDE ELEVATION VIEW



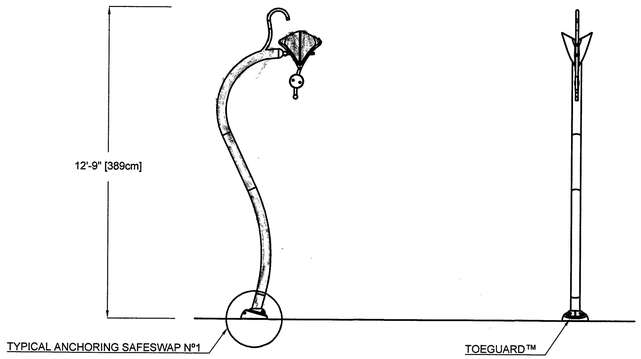
4 Flower No1
VOR-7549.2XXX

PLAN VIEW



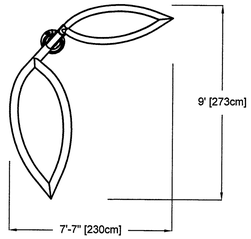
FRONT ELEVATION VIEW

SIDE ELEVATION VIEW



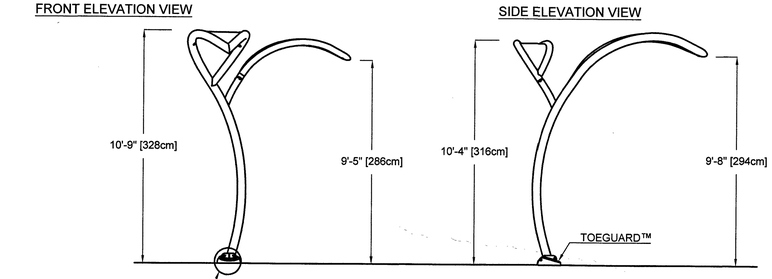
5 Flower No7
7559.2XXX

PLAN VIEW



FRONT ELEVATION VIEW

SIDE ELEVATION VIEW



6 Leaf No3
VOR-7672.2XXX

Water Features
Scale: N/A

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

DEPARTMENT OF PUBLIC WORKS

HUCKLEBERRY PARK
- ADDITION -

Water Play Area
Water Features

STAMP

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	mm
FILE	
DATE	12/17/2018
SCALE	n.t.s
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	WP6

DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS. ANY USE OR REPRODUCTION IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AND SPECIFICATIONS RETAINED BY THE CLIENT MAY BE UTILIZED ONLY FOR OCCUPYING THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT N.R.S. 623.700

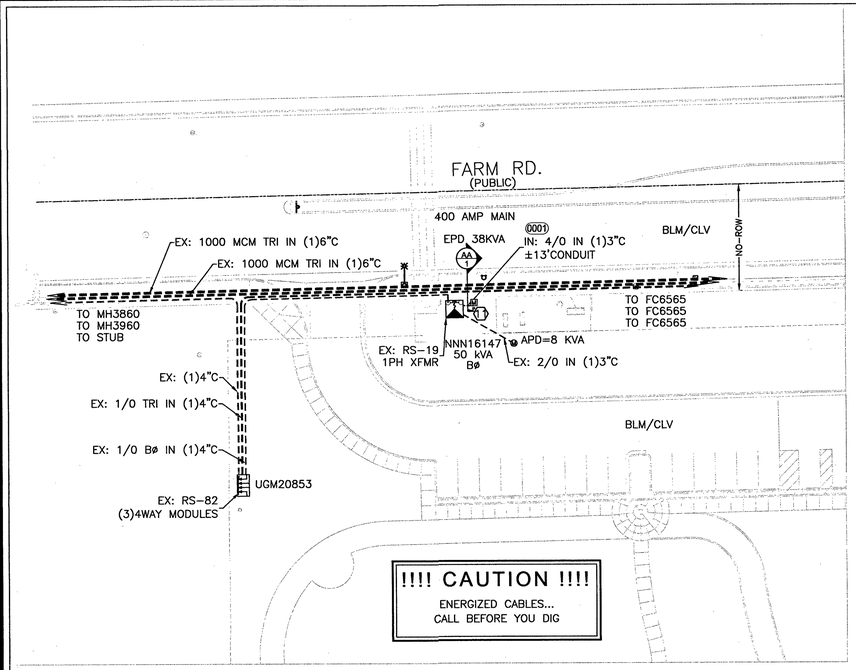
Schedule						
Symbol	Label	Qty	Manufacturer	Catalog Number	Description	Lamp Number	Lamp Lumens	LLF	Wattage
	(E)	4	MR1 LED 42C 530 40K SR2 MVOLT		MR1 AREA LIGHT 42 LEDs 530 mA DRIVE CURRENT 40K COLOR TEMP TYPE 2 DISTRIBUTION	1	7147	0.9	75
	S1	16	MR2 LED 60C 700 40K T4M		OMEGA ARCHITECTURAL ASM-MOUNTED LED AREA LUMINAIRE WITH 60 4000K LEDS OPERATED AT 700mA AND PRECISION MOLDED ACRYLIC TYPE IV LENS	1	15006	0.9	132
	S2	33	MR1 LED 42C 530 40K SR2 MVOLT		MR1 AREA LIGHT 42 LEDs 530 mA DRIVE CURRENT 40K COLOR TEMP TYPE 2 DISTRIBUTION	1	7147	0.9	75
	S3	1	MR2 LED 60C 700 40K T4M		OMEGA ARCHITECTURAL ASM-MOUNTED LED AREA LUMINAIRE WITH 60 4000K LEDS OPERATED AT 700mA AND PRECISION MOLDED ACRYLIC TYPE IV LENS	1	15006	0.9	264
	S4	9	DSX2 LED P7 40K TFTM MVOLT HS		DSX2 LED P7 40K TFTM MVOLT with HOUSE SIDE SHIELD	1	35865	0.9	398
	S5	10	BLX-S-8-73-14SL-3K-UNV		37 In L x 33 In W x 6 In H LED LUMINAIRE	1	129416	0.9	1102
	S5A	3	BLX-S-4-73-70L-3K-UNV		37 In L x 17 In W x 6 In H LED LUMINAIRE	1	62019	0.9	1082
	S6	22	DSXF2 LED P1 40K MFL		DSXF2 LED P1 40K MFL	1	Absolute	0.9	54
	S7	12	VAP 4000LM FST MD 40K 80CRI		VAP LED with BLT Gen 2 Boards	1	3887	0.9	32.9

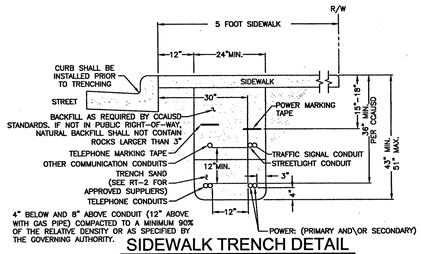
Calculation Summary					
Label	Type	Avg	Min	Max	Avg/Min
Beyond Property	+	0.1 fc	0.0 fc	N/A	N/A
Bocce Ball Court	+	22.7 fc	10.3 fc	3.2:1	2.2:1
Dog Park	+	2.6 fc	0.2 fc	58.0:1	13.0:1
Horshoe Pit	+	20.1 fc	12.9 fc	2.0:1	1.6:1
Large Playground and Zipline	+	14.5 fc	1.5 fc	40.8:1	9.7:1
Large Ramada	+	12.6 fc	3.1 fc	4.8:1	2.6:1
Maintenance Yard	+	11.1 fc	3.0 fc	5.8:1	3.7:1
Parking Lot	+	2.9 fc	0.4 fc	14.0:1	4.8:1
Parking Lot Pathway	+	3.1 fc	0.2 fc	13.7:1	5.2:1
Pathway 4-way Concrete	+	3.6 fc	0.5 fc	10.8:1	6.0:1
Pathway Maintenance Dirt	+	4.7 fc	21.0 fc	21.0:1	4.7:1
Pathway Playground	+	7.8 fc	38.9 fc	0.3:1	129.7:1
Pathway Small	+	4.9 fc	10.0 fc	2.5:1	4.0:1
Pathway Tennis Court East Dirt	+	17.1 fc	40.3 fc	1.9:1	21.2:1
Pathway Tennis Court West Concrete	+	17.6 fc	41.7 fc	3.0:1	13.9:1
Pathway Tennis Court West Dirt	+	4.8 fc	9.3 fc	1.5:1	6.2:1
Ramada Dog Park	+	14.4 fc	19.3 fc	11.1 fc	1.7:1
Ramada North	+	18.9 fc	21.3 fc	17.3 fc	1.2:1
Ramada South	+	17.6 fc	25.4 fc	11.5 fc	2.2:1
Small Playground	+	19.3 fc	53.6 fc	2.1 fc	17.3:1
Splash Pad	+	14.6 fc	38.1 fc	4.1 fc	9.3:1
Tennis Court East	+	57.2 fc	66.1 fc	39.7 fc	1.7:1
Tennis Court West	+	57.5 fc	66.4 fc	39.5 fc	1.7:1

VISUAL

HUCKLEBERRY PARK

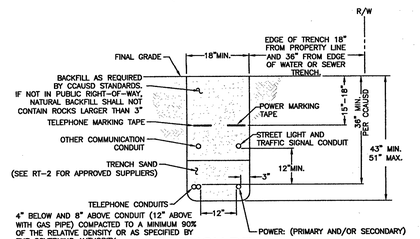
Designer	J. FRANKLIN
Date	2/3/2019
Scale	Not to Scale
Drawing No.	
Summary	





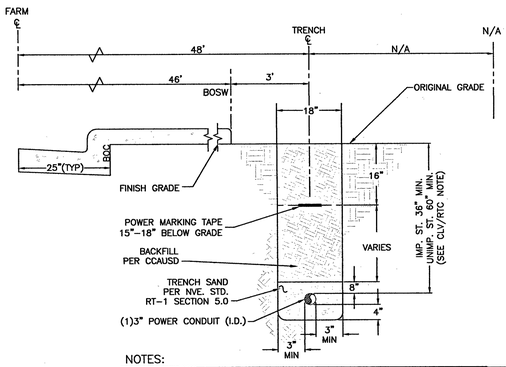
SIDEWALK TRENCH DETAIL

NVE U.G. STD. RT-7 (REV. 10/27/2014)
(RESIDENTIAL OR COMMERCIAL)



TRENCH DETAIL

NVE U.G. STD. RT-12 (REV. 10/27/2014)
(RESIDENTIAL AND COMMERCIAL)



NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S).
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.

UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.

NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL

1-3" CONDUITS
SECTION "AA"

METER LOCATION & ACCESS REQUIREMENTS

(NV ENERGY STANDARDS RPI-15 & RPI-G)

THIS STANDARD SPECIFIES THE REQUIREMENTS FOR THE LOCATION OF ALL NVENERGY (NVE) METERS AND SERVICE EQUIPMENT WITH THE EXCEPTION OF SINGLE-FAMILY RESIDENTIAL METERS (SEE RPI-2 FOR RESIDENTIAL METERS). REQUIREMENTS IN THIS STANDARD FACILITATE ACCESS TO SERVICE EQUIPMENT BY NVE PERSONNEL FOR PERFORMING OPERATIONS AND MAINTENANCE FUNCTIONS AS WELL AS FOR FIRE AND POLICE AGENCIES IN EMERGENCY SITUATIONS.

METER AND SERVICE ENTRANCE INSTALLATIONS MUST CONFORM TO THE LATEST REVISIONS OF RPI-G AND, SPECIFICALLY, THE "METER ACCESS" AND "METER LOCATIONS" SECTIONS OF RPI-G. THE STANDARD SERVICE POINT WILL BE LOCATED AT THE CORNER OF THE BUILDING NEAREST THE NV ENERGY SUPPLY. ALTERNATE SERVICE POINTS AND METER ROOMS, ALTHOUGH NOT PREFERRED, MAY, AT THE DISCRETION OF NVENERGY, BE ALLOWED PROVIDED THAT THEY MEET THE REQUIREMENTS OF SECTION 6 "ACCESS TO SERVICE EQUIPMENT" AND SECTION 8 "METER ROOMS".

ELECTRIC METER AND SERVICE EQUIPMENT INSTALLATIONS MUST BE READILY ACCESSIBLE TO AUTHORIZED REPRESENTATIVES OF NVE FOR READING, TESTING, AND INSPECTION AT ALL TIMES. CUSTOMER CONTACT WILL NOT BE REQUIRED FOR METER READING. PERMANENT VEHICLE ACCESS TO THE SERVICE EQUIPMENT IS REQUIRED FOR THE INSTALLATION AND MAINTENANCE OF SERVICE CABLES AND METERING EQUIPMENT.

THE SERVICE EQUIPMENT MUST BE ACCESSIBLE 24 HOURS/7 DAYS WITHOUT REQUIRING PASSAGE THROUGH RESTRICTED AREAS OR REQUIRING CUSTOMER CONTACT.

SERVICES 600V AND LESS, THE VEHICLE ACCESS WILL BE A MINIMUM 12' WIDE, 20' HIGH DIRECT PATH TO THE METERING EQUIPMENT.

ALL SERVICES GREATER THAN 600V (PRIMARY SERVICE) OR WHERE THE SERVICES INCLUDE THE INSTALLATION OF THREE-PHASE TRANSFORMERS, SWITCH OR FUSE CABINETS, CAPACITOR BANKS, OR OTHER LARGE EQUIPMENT, THE VEHICLE ACCESS WILL BE A MINIMUM 23' WIDE, WITH NO OVERHEAD OBSTRUCTION.

CONSTRUCTION / INSPECTION REQUIREMENTS

WORK MUST CONFORM TO NVE ELECTRIC SERVICE STANDARDS, AVAILABLE AT:
www.nvenergy.com/business/newconstruction/newconstructionS/servicestandards.cfm

NVE INSPECTOR MUST BE PRESENT TO INSPECT TRENCHING (SCHEDULE AT LEAST 72 HOURS IN ADVANCE) AT EACH OF THE FOLLOWING STAGES:
1. BOTTOM SAND AND CONDUIT INSTALLED
2. TOP SAND INSTALLED
3. BACKFILL INSTALLED

CONDUIT MUST BE MANDRILLED PRIOR TO RELEASE (COORDINATE WITH INSPECTOR).

NVE STAND BY CREW IS REQUIRED WHEN WORKING AT AN ENERGIZED VAULT OR TRANSFORMER. CALL STAND BY NUMBER (SEE TITLE BLOCK) TO SCHEDULE.

NVE ELECTRICAL INSTALLATION WILL NOT BE SCHEDULED UNTIL AFTER THE NVE INSPECTOR HAS COMPLETED THE OFFICIAL RELEASE.

METER(S) WILL NOT BE SET UNTIL ALL OF THE FOLLOWING ARE COMPLETE:
- [INSTRUMENT-RATED ONLY] METERING EQUIPMENT HAS BEEN SUBMITTED TO NVE METERING ENGINEER AND APPROVED. (submittals_southern@nvenergy.com)
- APPLICATION FOR METER SET HAS BEEN SUBMITTED TO NVE'S NEW DEVELOPMENT CENTER. FORM AVAILABLE AT: www.nvenergy.com/brochures_arch/new_construction/meter_set.pdf
- THE LOCAL BUILDING AUTHORITY HAS INSPECTED AND APPROVED THE METERING EQUIPMENT.
- METERING EQUIPMENT IS ACCESSIBLE AND CLEARLY IDENTIFIED WITH PERMANENT MARKINGS. ADDRESSES, SUITE NUMBERS, AND STREET SIGNS ARE POSTED IN PERMANENT LOCATIONS (SEE RPI-G).

TRACK PROJECT STATUS ONLINE WITH NVE'S DEVELOPER DASHBOARD:
www.nvenergy.com/business/newconstruction/newconstructionS/developerdashboard.cfm

TRANSFORMER CONNECTED LOAD		
TRANSFORMER #: NNN16147		
APD	EPD	TOTAL
B ø 8	38	46

SOURCE FC OR RISER	PROJECT CONNECTED LOAD (3ø) PH.	EX: KVA	ADDED KVA	TOTAL KVA	LOOP FC OR RISER
FC6565	A	0	0	0	
UGM20853	B	50	0	50	
ELK1208	C	0	0	0	

RTC NOTES:

BACKFILL AND RIGHT OF WAY RESTORATION SHALL CONFORM TO CLARK COUNTY UNIFORM STANDARD DRAWINGS

(1)	500.1	0 TO 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT
(2)	500.2	0 TO 5 YEARS PAVEMENT RESTORATION TRANSVERSE CUT
(3)	500.3	OVER 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT. GREATER THAN 60' R.O.W
(4)	500.4	OVER 5 YRS PAVEMENT RESTORATION LONGITUDINAL CUT. 60' R.O.W OR LESS
(5)	500.5	OVER 5 YRS PAVEMENT RESTORATION TRANSVERSE ALL R.O.W WIDTHS
(6)	501	TYPICAL UNDERGROUND UTILITY LOCATIONS IN RESIDENTIAL STREETS 60' OR LESS R.O.W.
(7)	501.1	TYPICAL UTILITY UNDERGROUND LOCATIONS IN STREETS WITH GREATER THAN 60' R.O.W.
(8)	503	METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL – PAVED AREAS
(9)	503.1	METHOD A FOR FLEXIBLE PIPE TRENCH BACKFILL – PAVED AREAS
(11)		BACKFILL IN UNPAVED AREA AS REQUIRED BY LOCAL CODE OR AS APPROVED BY AGENCY.
(12)	234	SIDEWALK
(13)	506	UTILITY POTHOLE REPAIR
(14)	216	"L" TYPE CURB AND GUTTER

NV ENERGY SCHEDULING NOTE: DAY (LANE BLOCKS)

THIS PROJECT WAS ESTIMATED WITH THE ASSUMPTION THAT ALL THE WORK BEING PERFORMED ON THIS PROJECT BY NV ENERGY CREWS CAN BE DONE DURING THE DAYTIME AND WILL REQUIRE TRAFFIC CONTROL.

GOVERNMENT APPROVAL OF THESE DRAWINGS DOES NOT INDICATE APPROVAL OF TRAFFIC CONTROL. PLEASE REFER TO THE BARRICADE PLAN FOR APPROVED TRAFFIC CONTROL REQUIREMENTS.

NVE STANDARDS

T,R,S: 19-59-13

APN: 12613701015

NOTICE:

THIS EXHIBIT IS THE EXCLUSIVE AND CONFIDENTIAL PROPERTY OF NV ENERGY AND MAY NOT BE USED, REPRODUCED OR DISTRIBUTED WITHOUT THE EXPRESSED, WRITTEN APPROVAL OF NV ENERGY.

THE IMAGES HEREON ARE NOT ORTHOPHOTOGRAPHIC. ANY LOCATIONS DEPICTED HEREON ARE APPROXIMATE ONLY. THIS EXHIBIT WAS CREATED FOR GENERAL PRESENTATION AND DISCUSSION PURPOSES ONLY AND IS NOT PURPORTED TO REPRESENT ANY MEASURE OF ACCURACY. THIS EXHIBIT IS NOT TO BE UTILIZED IN ANY MANNER NOT CONSISTENT WITH THE INTENT OF ITS' CREATION AS STATED ABOVE.

FIRE HYDRANT CLEARANCE:

6' RADIUS FROM CENTER OF HYDRANT TO ALL ABOVE GROUND PADS AND/OR EQUIPMENT AND ALL MANHOLES AND SWITCHBOXES.
6' RADIUS FROM CENTER OF HYDRANT TO ALL UNDERGROUND HANDHOLES, PULLBOXES AND SPLICEBOXES. ALL PER NVEnergy STD. RS-5

NVEnergy REQUIRES 24 HOUR ACCESS TO EQUIPMENT

CUSTOMER NOTE:

UNLESS OTHERWISE NOTED, ALL CONDUIT, BENDS AND SUBSTRUCTURES ARE THE RESPONSIBILITY OF THE CUSTOMERS CONTRACTOR, OR ASSIGNED DCA CONTRACTOR (RESIDENTIAL ONLY)

NVE WILL NOT VERIFY THE EXISTING CONDUIT. CUSTOMER TO ENSURE ITS INTEGRITY AND REPAIR IF NECESSARY.

NOTE:

NPC FACILITIES (SUBSTRUCTURES) ARE NOT TO BE WITHIN 5' OF STREET LIGHT BASES, AND NPC CONDUITS ARE NOT TO CONFLICT WITH STREET LIGHT BASES

GENERAL NOTES:

ANY NOTES LOCATED IN DRAWING AREA TAKE PRECEDENCE OVER STANDARD NOTES.

REFER TO A CURRENT NVEnergy ELECTRIC SERVICE REQUIREMENTS HANDBOOK FOR FURTHER CLARIFICATION OF NVEnergy STANDARDS.

THE APPLICANT SHALL INFORM THE INSPECTOR AT LEAST 48 HOURS BEFORE COMMENCING ANY ITEM OF CONSTRUCTION OR INSTALLATION OF MATERIAL TO ENABLE PROPER INSPECTION OF MATERIALS AND WORKMANSHIP. MAIN TRENCH WIRE PULLS TO BE SCHEDULED 72 HOURS IN ADVANCE OF INSTALLATION. APPLICANT'S PROJECT WILL NOT BE SCHEDULED UNTIL FINAL APPROVAL FROM NVEnergy UNDERGROUND & ELECTRICAL INSPECTORS.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC SERVICE REQUIREMENTS HANDBOOK, AS CURRENTLY ADOPTED BY NVEnergy. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.

THIS DRAWING ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES.

APPLICANT SHALL FIELD DETERMINE POSITION AND DEPTH OF EXISTING UTILITY EQUIPMENT PRIOR TO COMMENCING CONSTRUCTION.

USE CAUTION PRIOR TO EXCAVATION. CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES AND DRAINAGE CHANNELS.

CALL NVEnergy UNDERGROUND INSPECTORS 48 HOURS PRIOR TO START OF CONSTRUCTION FOR TRENCH INSPECTION BEFORE COVERING TRENCH.

ALL NVEnergy CABLE TO BE INSTALLED BEHIND CURB, UNLESS OTHERWISE STATED.

APPLICANT IS RESPONSIBLE FOR STAKING OF PROPERTY CORNERS & ELEVATIONS.

ALL HANDHOLES AND PULLBOXES SHALL BE INSTALLED TO FINISHED GRADE OR 6" ABOVE IF GRADE IS NOT ESTABLISHED.

ANY SUBSTRUCTURE VAULT INSTALLED IN GRAVEL, GRASS, OR BARE GROUND WILL REQUIRE A CONCRETED 8" WIDE AND 6" DEEP COLLAR AROUND BOX IN ACCORDANCE TO RS-G6.

2" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE FIBERGLASS IF CONDUIT LENGTH IS OVER 500')

3" & 4" PLASTIC CONDUIT BENDS (90', 45') WITH 36" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

6" PLASTIC CONDUIT BENDS (90', 45') WITH 48" MIN. RADIUS. (USE RGS IF CONDUIT LENGTH IS OVER 100')

WHEN INSTALLING CONDUIT IN FIELD, USE APPROPRIATE BENDS TO COMPLETE THE INSTALLATION.

DEFLECTION OF CONDUIT BENDS AND CONDUIT NOT TO EXCEED NVEnergy STANDARDS.

EXISTING STUB-OUT/CONDUIT INSTALLED BY PREVIOUS CONTRACTOR / DEVELOPER. NVEnergy DOES NOT GUARANTEE LOCATION, LENGTH, OR ACCESSIBILITY OF EXISTING STUB-OUT/CONDUIT. IF UTILIZING ANY PORTION OF EXISTING CONDUIT, IT MUST BE MANDRELED PRIOR TO FINAL RELEASE.

PREVIOUSLY MANDRELED CONDUIT WHICH HAS BEEN IN THE GROUND FOR OVER 6 MONTHS MUST BE RE-MANDRILLED PRIOR TO FINAL RELEASE.

WHEN NVEnergy FACILITIES ARE TO BE REMOVED, NVEnergy WILL REMOVE ALL WIRES AND EQUIPMENT. NVEnergy IS NOT RESPONSIBLE FOR THE REMOVAL OF CONDUIT RUNS OR SUBSTRUCTURES FROM THE PROPERTY.

NO COVERED PARKING IN FRONT OF EQUIPMENT.

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE.

CIVIL LINETYPE LEGEND

CENTERLINE
PROPERTY LINE/ROW
CURB
EDGE OF PAVEMENT
EDGE OF SIDEWALK
SEWER LINE
WATER LINE
COHW WATER LINE
LVVWD WATER LINE
SNWA WATER LINE
GAS LINE
TELEPHONE LINE
CABLE TV LINE
CABLE TV LINE
STORM DRAIN LINE
FIRE HYDRANT — SERVICE INDICATOR
SIGNAL LIGHT — STREET LIGHT

APPROVED FOR PERMITTING

THIS APPROVAL IS FOR WORK IN CC R/W & EASEMENT ONLY. OBTAINING PERMISSIONS OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

NIGHT WORK: YES☐ NO☒

ENCROACHMENT PERMIT # _____

APPROVAL BY: _____ DATE

CLARK COUNTY PUBLIC WORKS
PERMIT REQUIRED*

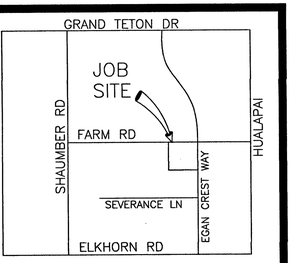
DEVELOPER/CONTRACTOR SHALL OBTAIN A COUNTY PERMIT BEFORE ANY EXCAVATION WORK WITHIN CLARK COUNTY RIGHT-OF-WAY

HTE_____

DATE_____

* NVE INSPECTOR WILL VERIFY COUNTY PERMIT FOR WORK DONE WITHIN COUNTY RIGHT-OF-WAY

ENERGIZING AND SETTING OF ELECTRIC METER MAY BE DELAYED IF OFF-SITE RESTORATION IS NOT COMPLETED TO THE SATISFACTION OF CLARK COUNTY INSPECTOR



VICINITY MAP

(NOT TO SCALE)

EVERY EFFORT HAS BEEN MADE TO IDENTIFY ALL NVE FACILITIES. THE CUSTOMER SHALL CONFIRM THE EXISTENCE AND LOCATION OF THESE FACILITIES.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
CALL 1-702-402-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

STANDARD

PROJECT PURPOSE:

PROVIDE 1-PHASE 120/240 VOLT SERVICE TO NEW PARK LIGHTING & IRRIGATION ADDITION

EXHIBIT 'A'

NVEnergy INFORMATION:
COORDINATOR: KING, JANE
PHONE: (707)275-6263 D.F. LOWELL, KEN
DESIGNER: DEGUZMAN, JAKE
DCA: N/A
INSPECTOR: 702-402-3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT

JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A

CUSTOMER INFORMATION:
APPLICANT: PROVIDENCE MASTER HOMEOWNERS ASSOCIATION
ENGINEER: TJK CONSULTING ENG'RS
CONTACT: FRANKLIN, JOHN ** 702-871-3621
APPROVAL DATE: 05/09/2019

GOVERNMENT INFORMATION:
AGENCY: CLV
APPROVAL DATE: ----- |

FOR EACH SERVICE POINT (POINT OF DELIVERY), ENERGY FOR EACH TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. ENERGY FOR ALL NON-TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. CONTACT NVE METER OPERATIONS FOR MULTIPLE RATE CLASS INSTALLATIONS.

NVEnergy.

j611314

HUCKLEBERRY PARK ADDITION

10325 FARM RD.

PROJ #3003296310	SCALE: 1"=30'
SHEET # 1 OF 1	DATE: 3/8/2019

6/10/2019 7:51 AM

0 REVISION(S)

Sharing of this drawing and the information contained herein shall be only to individuals/parties who have entered into an agreement with Applicant for the completion of work associated with this specific project. Use for purposes other than this specific project requires the written consent of NV Energy.

ABBREVIATIONS:

A	AMPERE
AL	ALUMINUM
AFCI	ARC FAULT CURRENT INTERRUPTER
AIC	AVAILABLE INCOMING CURRENT
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ANN	ANNUNCIATOR
ARCH	ARCHITECT, ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AV	AUDIO/VIDEO
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CLG	CEILING
CO	CONDUIT ONLY
CP	CIRCULATING PUMP
DISC	DISCONNECT
DIST	DISTRIBUTION
DS	SAFETY DISCONNECT SWITCH
DWG	DRAWING
(E)	EXISTING
EA	EACH
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FLR	FLOOR
FIXT	FIXTURE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPT
GFP	GROUND FAULT PROTECTOR
GND	GROUND
GRS	GALVANIZED RIGID STEEL (CONDUIT)
HP	HORSEPOWER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IR	INFRARED
I/O	INPUT/OUTPUT
IP	INTERNET PROTOCOL
IR	INFRRED
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LAN	LOCAL AREA NETWORK
LTG	LIGHT, LIGHTING
LV	LOW VOLTAGE
MAX	MAXIMUM
MECH	MECHANICAL
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCCB	MOLDED CASE CIRCUIT BREAKER
MCS	MOLDED CASE SWITCH
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTS	MANUAL TRANSFER SWITCH
MTR	MOTOR, MOTORIZED
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OVERHEAD
PA	PUBLIC ADDRESS
PH, Ø	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE (CONDUIT)
PWR	POWER
RCPT	RECEPTACLE
REF	REFERENCE
RM	ROOM
RTU	ROOFTOP UNIT
SCHED	SCHEDULE
SEC	SECONDARY
SPEC	SECIFICATION
SPKR	SPEAKER
SPLT-CKT	SPLIT CIRCUIT
SWBD	SWITCHBOARD
TBD	TO BE DETERMINED
T-STAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
VOIP	VOICE OVER INTERNET PROTOCOL
V	VOLTS
VA	VOLT AMPERES
VFD	VARIABLE FREQUENCY DRIVE
WAN	WIDE AREA NETWOR
W	WATT
WAN	WIDE AREA NETWORK
WP	WEATHER PROOF
XFMR	TRANSFORMER
'	FEET
"	INCHES
#	NUMBER

LEGEND: (NOT ALL SYMBOLS ARE USED)

- PANELBOARD SURFACE MOUNTED
- PANELBOARD FLUSH MOUNTED
- SWITCHBOARD
- TC — TERMINAL CABINET
- T — TRANSFORMER
- P — PULLBOX
- MOTOR STARTER
- COMBINATION MOTOR STARTER
- COMBINATION MOTOR STARTER VENDOR FURNISHED
- F — DISCONNECT SWITCH "F" INDICATES FUSIBLE
- DISCONNECT SWITCH VENDOR FURNISHED
- CONTACTOR
- CONTACTOR VENDOR FURNISHED
- TTB — TELEPHONE TERMINAL BOARD 4 X 8 X 3/4" FIRE TREATED PLYWOOD
- TTC — TELEPHONE TERMINAL CABINET
- A — FLUORESCENT FIXTURE - LETTER DENOTES TYPE (LOWER CASE LETTER DENOTES SWITCHING), NUMBER DENOTES CIRCUIT
- A — WALL MOUNTED FIXTURE (FLUORESCENT SHOWN) - LETTER DENOTES TYPE
- O_A — HID OR INCANDESCENT FIXTURE - LETTER DENOTES TYPE
- A — FLUORESCENT STRIP FIXTURE - LETTER DENOTES TYPE
- A — TRACK LIGHTING - LETTER DENOTES TYPE
- A — EMERGENCY LIGHTING UNIT - LETTER DENOTES TYPE
- A — EXIT FIXTURE - SHADED AREA DENOTES LIGHTED FACE, ARROWS DENOTE DIRECTION - LETTER DENOTES TYPE
- A — EMERGENCY OR NIGHT LIGHT CONNECTED FIXTURE (FLUORESCENT SHOWN) - LETTER DENOTES TYPE
- $\square_A$ — POLE MOUNTED AREA LIGHT - LETTER DENOTES TYPE
- SPORTS FIELD POLE ASSEMBLY
- SINGLE RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- QUADRUPLEX RECEPTACLE 18" AFF UNO
- ISOLATED GROUND TYPE (ORANGE) DUPLEX RECEPTACLE AT 18" AFF UNO.
- ISOLATED GROUND TYPE (ORANGE) QUADRUPLEX RECEPTACLE AT 18" AFF UNO.
- $\square_C$ — COUNTER HEIGHT RECEPTACLE (VERIFY HEIGHT)
- GFI DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
- SWITCHED DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
- (#) — ELECTRIC SHEET NOTE DESIGNATION
- AHU 2 — MECHANICAL EQUIPMENT CROSS REFERENCE
- $\triangle_2$ — SPECIAL PURPOSE RECEPTACLE - NUMBER REFERS TO RECEPTACLE SCHEDULE
- (C) — CLOCK OUTLET
- 24 — MULTIOUTLET ASSEMBLY - ARROW HEADS INDICATE EXTENT, NUMBERS INDICATE SPACING IN INCHES
- S — SINGLE POLE SWITCH 48" AFF UNO
- S_3 — THREE WAY SWITCH 48" AFF UNO
- S_4 — FOUR WAY SWITCH 48" AFF UNO
- S_K — KEY OPERATED SWITCH
- S_D — DIMMER OPERATED SWITCH
- S_P — SWITCH WITH PILOT LIGHT
- S_M — MOTION SENSING SWITCH
- S_T — TIMER SWITCH
- CONTROL STATION
- TELEPHONE OUTLET 18" AFF UNO
- PAY TELEPHONE OUTLET 48" AFF UNO
- FLOOR MOUNTED TELEPHONE OUTLET
- COMPUTER OUTLET OR SPECIAL PURPOSE COMMUNICATIONS
- R — RADIO OUTLET
- PC — PHOTOELECTRIC CELL
- TC — TIME CLOCK

- BRANCH CIRCUIT CONSISTING OF 2#12 IN MINIMUM SIZE CONDUIT NOT INCLUDING GROUND WIRE
- HOME RUN TO PANELBOARD OR DEVICE - NUMBER OF ARROW HEADS INDICATES NUMBER OF CIRCUITS
- BRANCH CIRCUIT - SHORT SLASHES INDICATE NUMBER OF PHASE OR SWITCH LEGS, LONG SLASHES INDICATE NUMBER OF NEUTRALS, LONG SLASH W/ A DOT INDICATES A SEPARATE ISOLATED GROUND WIRE.
- CONDUIT IN SLAB OR UNDERGROUND
- CONDUIT SEALING FITTING (USED FOR CLARITY ONLY)
- INTERRUPTER SWITCH
- FUSE
- CIRCUIT BREAKER
- DRAWOUT CIRCUIT BREAKER
- (M) — METERING
- KWH D — KILOWATT HOUR DEMAND METER
- TRANSFORMER
- MOTOR OUTLET
- (G) — GENERATOR
- GROUND ROD
- SV — SOLENOID VALVE
- (S) — SPEAKER
- M — MOTION DETECTOR
- TV — CCTV SURVEILLANCE CAMERA OUTLET
- TV — TELEVISION OUTLET
- F — PULL STATION
- FS — FLOW SWITCH
- TS — TAMPER SWITCH
- H — HORN
- S — HORN / STROBE
- S — STROBE
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- DH — DOOR HOLDER
- S X — SMOKE DETECTOR LETTER (X) INDICATES TYPE.
  - D DUCT MOUNT
  - I IONIZATION
  - P PHOTOELECTRIC
- H X — HEAT DETECTOR LETTER (X) INDICATES TYPE.
  - R RATE OF RISE
  - F FIXED TEMPERATURE
- F — FIREMAN PHONE
- SD — SMOKE /FIRE DAMPER
- FS — CONTROL DEVICE. LETTERS INDICATE TYPE:
  - FLS = FLOAT SWITCH, FS = FLOW SWITCH
  - FTS = FOOT SWITCH, LS = LIMIT SWITCH
  - PE = PNEUMATIC SWITCH, PS = PRESSURE SWITCH
  - TS = TEMPERATURE SWITCH
- T — THERMOSTAT
- J — JUNCTION BOX (USED FOR CLARITY ONLY)
- A — AMMETER
- AS — AMMETER SWITCH
- V — VOLTMETER
- VS — VOLTMETER SWITCH
- (#) — RELAY OR CONTROL DEVICE. NUMBER REPRESENTS STANDARD DEVICE FUNCTION
- ST — SHUNT TRIP
- GFI — GROUND FAULT INTERRUPTER

PHASE	DESCRIPTION
– – – – – – – –	EXISTING WORK SHOWN LIGHT AND DASHED
– – – – – – – –	DEMO WORK SHOWN DARK AND DASHED
————	WORK SHOWN DARK
– — – — – —	FUTURE WORK SHOWN LIGHT AND DASHED

GENERAL NOTES:

A. WORK ASSOCIATED WITH THE ELECTRICAL CONTRACTOR'S TRADE MAY BE SHOWN ON OTHER DISCIPLINE'S DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL DRAWINGS ASSOCIATED WITH THIS PROJECT, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, AND LOW VOLTAGE. ANY ADDITIONAL COST RESULTING FROM THE FAILURE TO INCLUDE ALL SUCH ITEMS SHALL BE INCURRED BY THE CONTRACTOR.

B. THE CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING WITH OTHER TRADES PRIOR TO ROUGH-IN TO AVOID INSTALLATION CONFLICTS. EQUIPMENT AND DEVICE LOCATION ADJUSTMENTS IN ANY DIRECTION FROM THAT OF WHAT IS SHOWN ON DRAWINGS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

C. THE INTENT OF THE PROJECT DRAWINGS AND SPECIFICATIONS IS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO APPROVE OR DISAPPROVE INSTALLATION METHODS AND MATERIALS PROPOSED BY THE CONTRACTOR WHICH DEVIATE FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INCUR ALL ADDITIONAL EXPENSES ASSOCIATED WITH REVISIONS TO PROJECT DRAWINGS OR SPECIFICATIONS WHERE REQUIRED TO ACCOMMODATE THE CONTRACTOR'S PROPOSED CHANGES. THE PROJECT AS-BUILT DRAWINGS SHALL BE UPDATED TO ACCURATELY REFLECT ANY INSTALLATIONS THAT DEVIATE FROM THE ORIGINAL CONSTRUCTION DRAWING SET.

D. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE NECA STANDARDS AND TO THE SATISFACTION OF THE OWNER, ARCHITECT, AND ENGINEER.

E. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID (WHERE APPLICABLE).

F. DRAWINGS ARE BASED ON THE MOST ACCURATE INFORMATION AVAILABLE DURING THE PLANNING AND DESIGN PHASE OF THE PROJECT. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FINAL LOCATIONS OF ALL EQUIPMENT, DEVICES (INCLUDING LIGHTING FIXTURES AND MECHANICAL EQUIPMENT) WITH THE ARCHITECT AND THE OWNER PRIOR TO ROUGH-IN. EQUIPMENT AND DEVICE LOCATION ADJUSTMENTS IN ANY DIRECTION FROM THAT OF WHAT IS SHOWN ON THE DRAWINGS, SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

G. DO NOT SCALE THE ELECTRICAL DRAWINGS. FIELD VERIFY LOCATIONS AND DIMENSIONS PRIOR TO ROUGH-IN.

H. ROUTING OF RACEWAYS WHERE SHOWN ON DRAWINGS IS DIAGRAMMATIC. FINAL ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON ACTUAL FIELD CONDITIONS.

I. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND PATCHING SURFACES AS REQUIRED WHERE NEW DEVICES OR EQUIPMENT WILL BE INSTALLED. PATCHING SHALL MATCH EXISTING ADJACENT SURFACES. PATCHING MATERIAL AND FINISH TYPE SHALL BE APPROVED BY THE ARCHITECT.

J. THE CONTRACTOR SHALL PROVIDE SHORT CIRCUIT AND OVERCURRENT PROTECTION FOR MECHANICAL EQUIPMENT PER THE EQUIPMENT NAMEPLATE AND MANUFACTURER'S RECOMMENDATIONS. SHOULD THE ACTUAL EQUIPMENT BEING PROVIDED DIFFER FROM INFORMATION SHOWN ON THE ELECTRICAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IN WRITING (PRIOR TO THE PURCHASING AND INSTALLING) FOR FURTHER DIRECTION.

K. PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS SHALL BE SEALED TO MAINTAIN ORIGINAL RATING. PROVIDE FIRE RATED CALKING FOR CONDUIT PENETRATIONS THAT PENETRATE RATED WALLS, AND FIRE RATED PUTTY PADS OR OTHER APPROVED MEANS FOR RECESSED BOXES THAT PENETRATE RATED WALLS.

L. WHERE SHUT-DOWNS OF EXISTING FACILITY POWER SYSTEMS ARE REQUIRED, THE CONTRACTOR SHALL SUBMIT A REQUEST IN WRITING TO THE ARCHITECT AND ENGINEER A MINIMUM OF 5 WORKING DAYS IN ADVANCE.

SHEET INDEX

NUMBER	TITLE	PERMIT 12/17/2018	VE REVISIONS 07/17/2019
E0.01	GENERAL INFORMATION	●	●
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E1.01	ELECTRICAL SITE PLAN - AREA 1	●	●
E1.02	ELECTRICAL SITE PLAN - AREA 2	●	●
E4.01	ENLARGED PLANS AND DIAGRAMS	●	
E4.02	ENLARGED PLANS AND DIAGRAMS	●	●
E5.01	ONE LINE DIAGRAM AND SCHEDULES	●	●

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REVISIONS

CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
www.tjkengineers.com

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HUCKLEBERRY PARK
- ADDITION -
GENERAL INFORMATION

STAMP

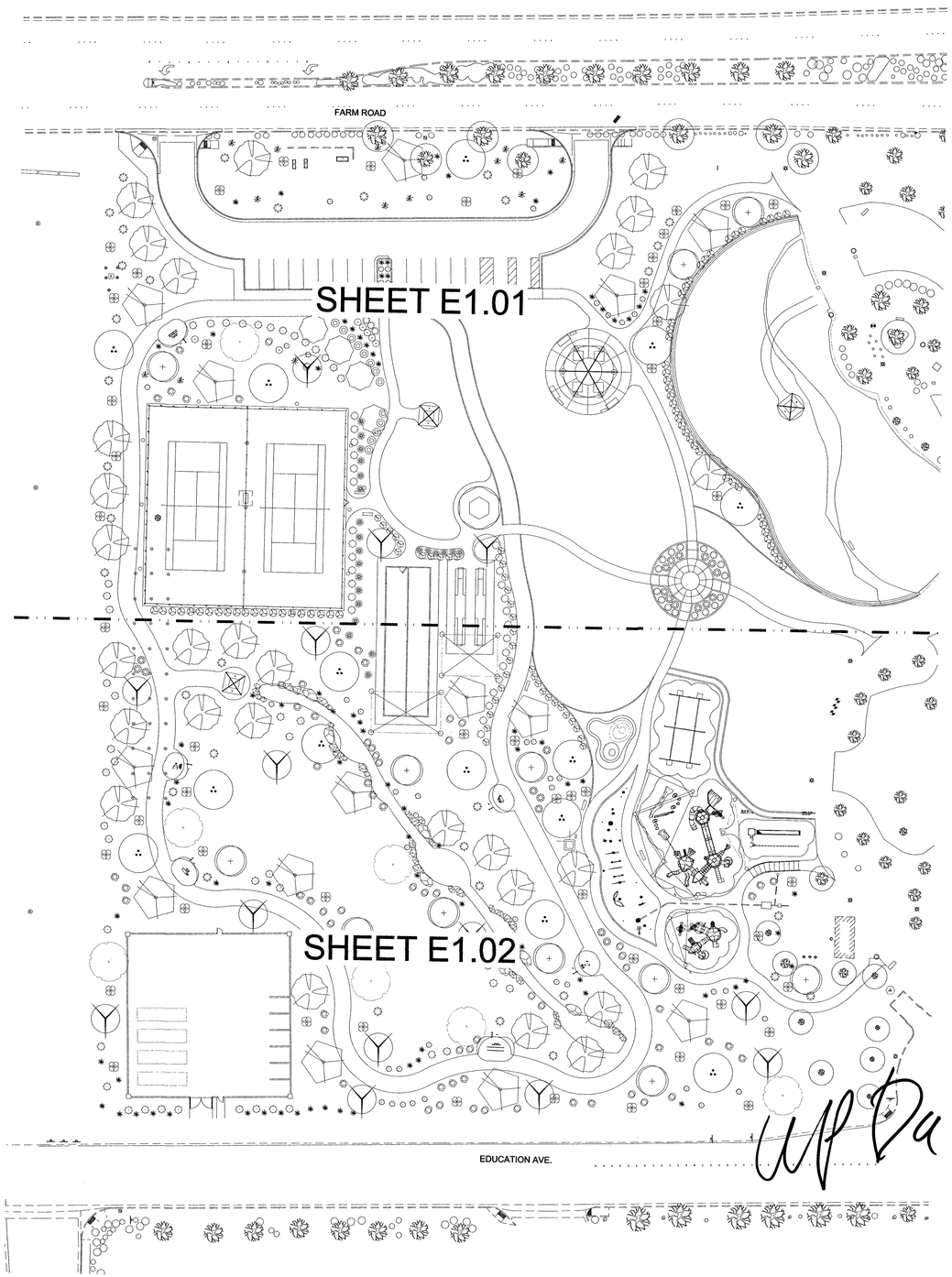
PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13948
07/17/2019

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	TJK
FILE	
DATE	12/17/18
SCALE	AS NOTED
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	E0.01

COPIES OF THE DRAWINGS AND SPECIFICATIONS PREPARED BY THE CONSULTANT APPEARS ON THE DRAWINGS AND SPECIFICATIONS ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT IS STRICTLY PROHIBITED COPIES OF THE DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND MAY BE UTILIZED ONLY FOR DEVELOPING THE PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT A.A.C. 623-390



1 OVERALL SITE PLAN

SCALE: 1" = 40'-0"

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tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
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OVERALL SITE PLAN

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ROGELIO ESPARZA
EXP. 12-31-20
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No. 23765
02/13/2019

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GENERAL SHEET NOTES:

A. REFER TO POWER COMPANY DRAWINGS FOR EXACT TRANSFORMER LOCATION AND ADDITIONAL REQUIREMENTS. PROVIDE BOLLARDS AS REQUIRED BY POWER COMPANY FOR TRANSFORMER IMPACT PROTECTION.

B. REFER TO SINGLE LINE DIAGRAM FOR FEEDER SIZES.

C. REFERENCE LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

D. EXTERIOR RECEPTACLES SHALL BE WEATHER PROOF WITH CAST ALUMINUM WHILE-IN-USE COVERS.

E. EXTERIOR DISCONNECT SWITCHES SHALL BE NEMA-3R RATED.

F. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL/ TIMECLOCK, OR MOTION SENSOR AS INDICATED ON DRAWINGS (UNLESS NOTED OTHERWISE).

G. ALL POLE MOUNTED RECEPTACLES SHALL BE SWITCHED WITH ASSOCIATED POLE MOUNTED LIGHT FIXTURE (UNLESS NOTED OTHERWISE).

H. ALL SPLICING SHALL BE MADE WITH WATERTIGHT SPLIT-BOLT CONNECTIONS AND WITHIN A RECESSED PULLBOX / HANDHOLE.

I. SITE LIGHTING CIRCUITS SHALL BE NO LESS THAN #10 CONDUCTORS IN 1 1/4" CONDUIT.

KEYNOTES:

1. REFER TO DIAGRAM 1/E4.02 FOR CONTINUATION.
2. REFER TO DIAGRAM 2/E4.02 FOR CONTINUATION.
3. CONNECT TO CIRCUIT AS INDICATED VIA TIMECLOCK. REFER TO LIGHTING CONTACTOR DIAGRAM 6/E4.02 FOR ADDITIONAL INFORMATION.
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5. PROVIDE TRANSFORMER PAD PER NV ENERGY REQUIREMENTS. COORDINATE FINAL LOCATION AND INSTALLATION REQUIREMENTS WITH NV ENERGY REPRESENTATIVE PRIOR TO ROUGH-IN.
6. COORDINATE FINAL ELECTRICAL REQUIREMENTS AND LOCATION OF IRRIGATION CONTROLLER WITH ARCHITECT PRIOR TO ROUGH-IN.
7. COORDINATE FINAL ELECTRICAL REQUIREMENTS AND LOCATION OF SPLASH PAD BOOSTER PUMP WITH ARCHITECT PRIOR TO ROUGH-IN.

MATCHLINE SEE SHEET E1.02

1 ELECTRICAL SITE PLAN - AREA 1
SCALE: 1" = 20'-0"

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tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
www.tjkengineers.com

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ELECTRICAL SITE PLAN - AREA 1

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THOMAS M ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13946
07/17/2019

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DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
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LAS VEGAS, NEVADA 89106
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BID NO	NA
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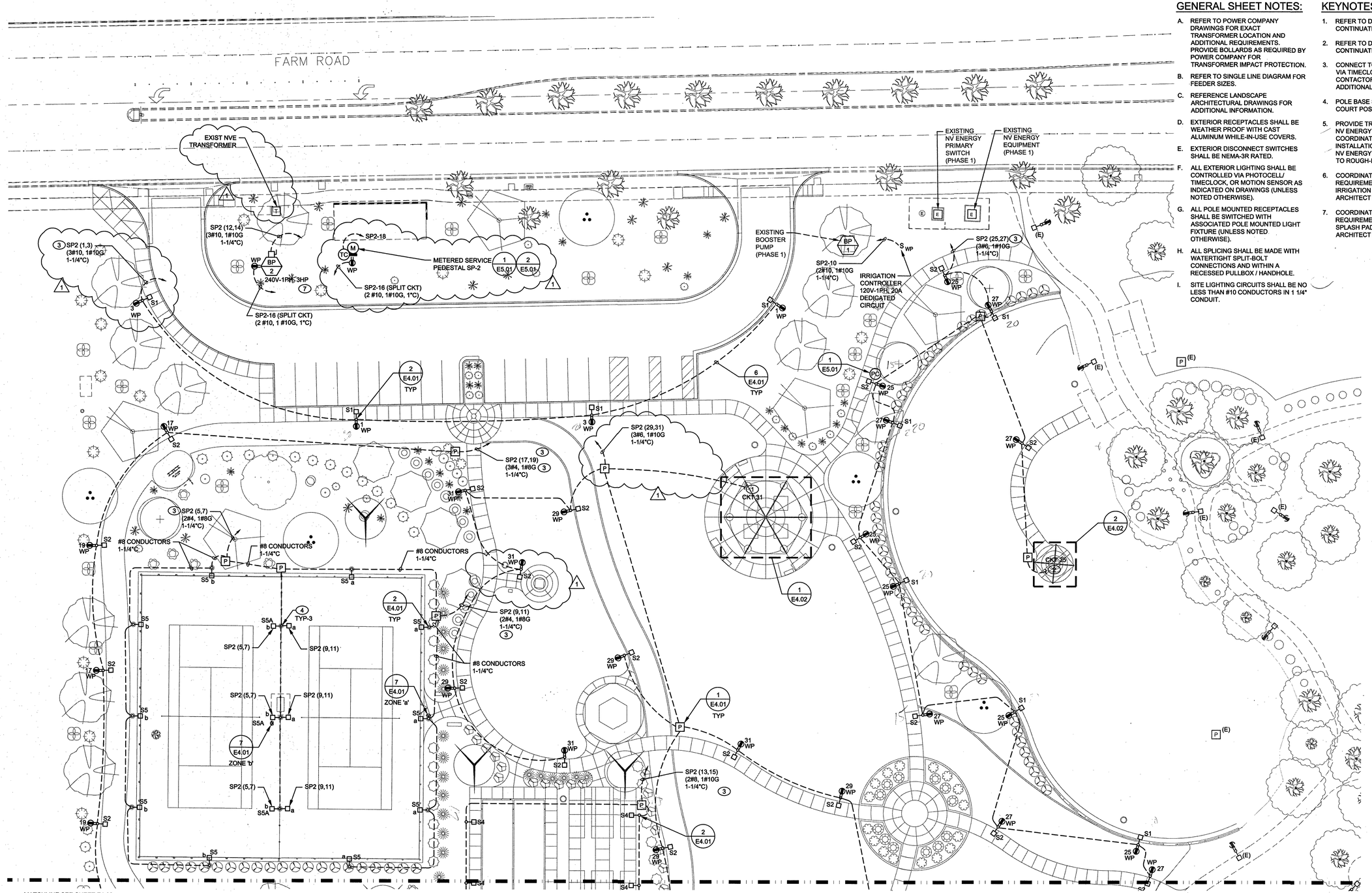
HANSEN NO	71157
SHT NO	E1.01

DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWINGS AND SPECIFICATIONS AND SHALL NOT BE USED BY THE CLIENT OR ANY OTHER PROJECT IN A C 2017/760
THESE DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF THE DESIGN PROFESSIONAL AND ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF THE DESIGN PROFESSIONAL. ALL REPRODUCTIONS OF THESE DRAWINGS AND SPECIFICATIONS ARE TO BEAR THE NOTICE OF COPYRIGHT AS STIPULATED BY LAW. VISUAL CONTACT WITH THESE DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. THE DESIGN PROFESSIONAL'S NAME AND ADDRESS SHALL REMAIN ON THE DRAWINGS AND SPECIFICATIONS AT ALL TIMES. ANY UNAUTHORIZED USE OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE AT THE CLIENT'S SOLE RISK AND WITHOUT LIABILITY TO THE DESIGN PROFESSIONAL. THE CLIENT SHALL INDEMNIFY AND HOLD HARMLESS THE DESIGN PROFESSIONAL AND HIS CONSULTANTS FROM ALL CLAIMS AND SUITS ARISING FROM THE UNAUTHORIZED USE OF THESE DRAWINGS AND SPECIFICATIONS. THE DRAWINGS AND SPECIFICATIONS ARE NOT TO BE USED BY THE CLIENT OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN AGREEMENT OF THE DESIGN PROFESSIONAL. THE DRAWINGS AND SPECIFICATIONS ARE NOT TO BE USED BY THE CLIENT OR OTHERS FOR BIDDING OR CONSTRUCTION PURPOSES BY THE CLIENT UNTIL THEY ARE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT IN A C 2017/760



GENERAL SHEET NOTES:

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B. REFER TO SINGLE LINE DIAGRAM FOR FEEDER SIZES.

C. REFERENCE LANDSCAPE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

D. EXTERIOR RECEPTACLES SHALL BE WEATHER PROOF WITH CAST ALUMINUM WHILE-IN-USE COVERS.

E. EXTERIOR DISCONNECT SWITCHES SHALL BE NEMA-3R RATED.

F. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL/ TIMECLOCK, OR MOTION SENSOR AS INDICATED ON DRAWINGS (UNLESS NOTED OTHERWISE).

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I. SITE LIGHTING CIRCUITS SHALL BE NO LESS THAN #10 CONDUCTORS IN 1 1/4" CONDUIT.

KEYNOTES:

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7. COORDINATE FINAL ELECTRICAL REQUIREMENTS AND LOCATION OF SPLASH PAD BOOSTER PUMP WITH ARCHITECT PRIOR TO ROUGH-IN.

1 ELECTRICAL SITE PLAN - AREA 1

SCALE: 1" = 20'-0"

CITY OF LAS VEGAS NEVADA

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CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
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- ADDITION -

ELECTRICAL SITE PLAN - AREA 1

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13946
07/17/2019

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
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DATE	12/17/18
SCALE	AS NOTED
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	E1.01

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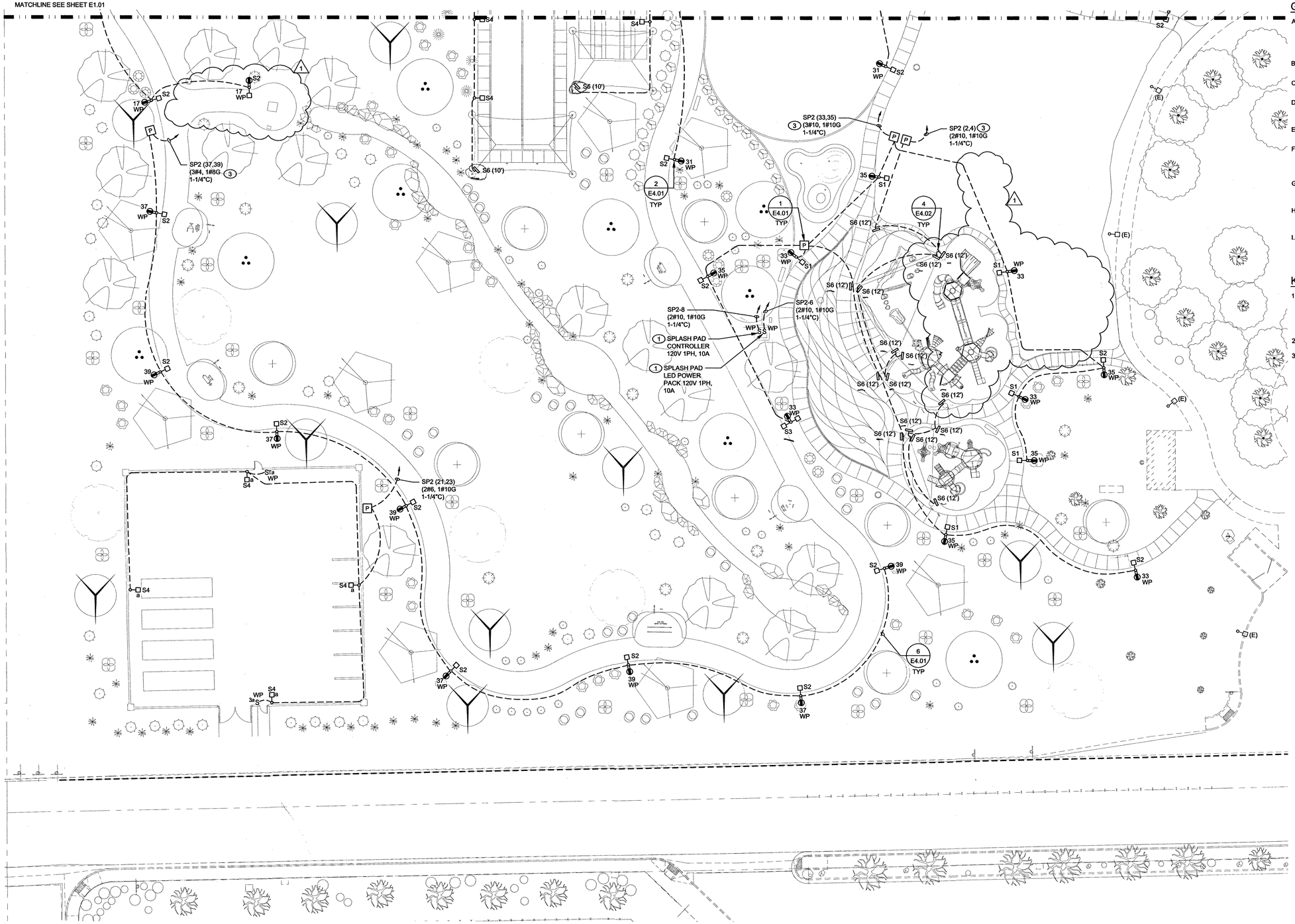

1 ELECTRICAL SITE PLAN - AREA 2

SCALE: 1" = 20'-0"

GENERAL SHEET NOTES:

A. REFER TO POWER COMPANY DRAWINGS FOR EXACT TRANSFORMER LOCATION AND ADDITIONAL REQUIREMENTS. PROVIDE BOLLARDS AS REQUIRED BY POWER COMPANY FOR TRANSFORMER IMPACT PROTECTION.

B. REFER TO SINGLE LINE DIAGRAM FOR FEEDER SIZES.

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I. SITE LIGHTING CIRCUITS SHALL BE NO LESS THAN #10 CONDUCTORS IN 1 1/4" CONDUIT.

KEYNOTES:

1. SPLASH PAD EQUIPMENT PROVIDED BY SPLASH PAD CONTRACTOR. ELECTRICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS AND DEVICE LOCATIONS PRIOR TO PURCHASE OF MATERIALS AND ROUGH-IN.
2. REFER TO DIAGRAM 2/E4.02 FOR CONTINUATION.
3. CONNECT TO CIRCUIT AS INDICATED VIA TIMECLOCK. REFER TO LIGHTING CONTACTOR DIAGRAM 6/E4.02 FOR ADDITIONAL INFORMATION.

CITY OF LAS VEGAS NEVADA

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CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
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www.tjkengineers.com

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HUCKLEBERRY PARK
- ADDITION -

ELECTRICAL SITE PLAN - AREA 2

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PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13946
07/17/2019

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
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FAX: (702) 384-4846

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DATE	12/17/18
SCALE	AS NOTED
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	E1.02

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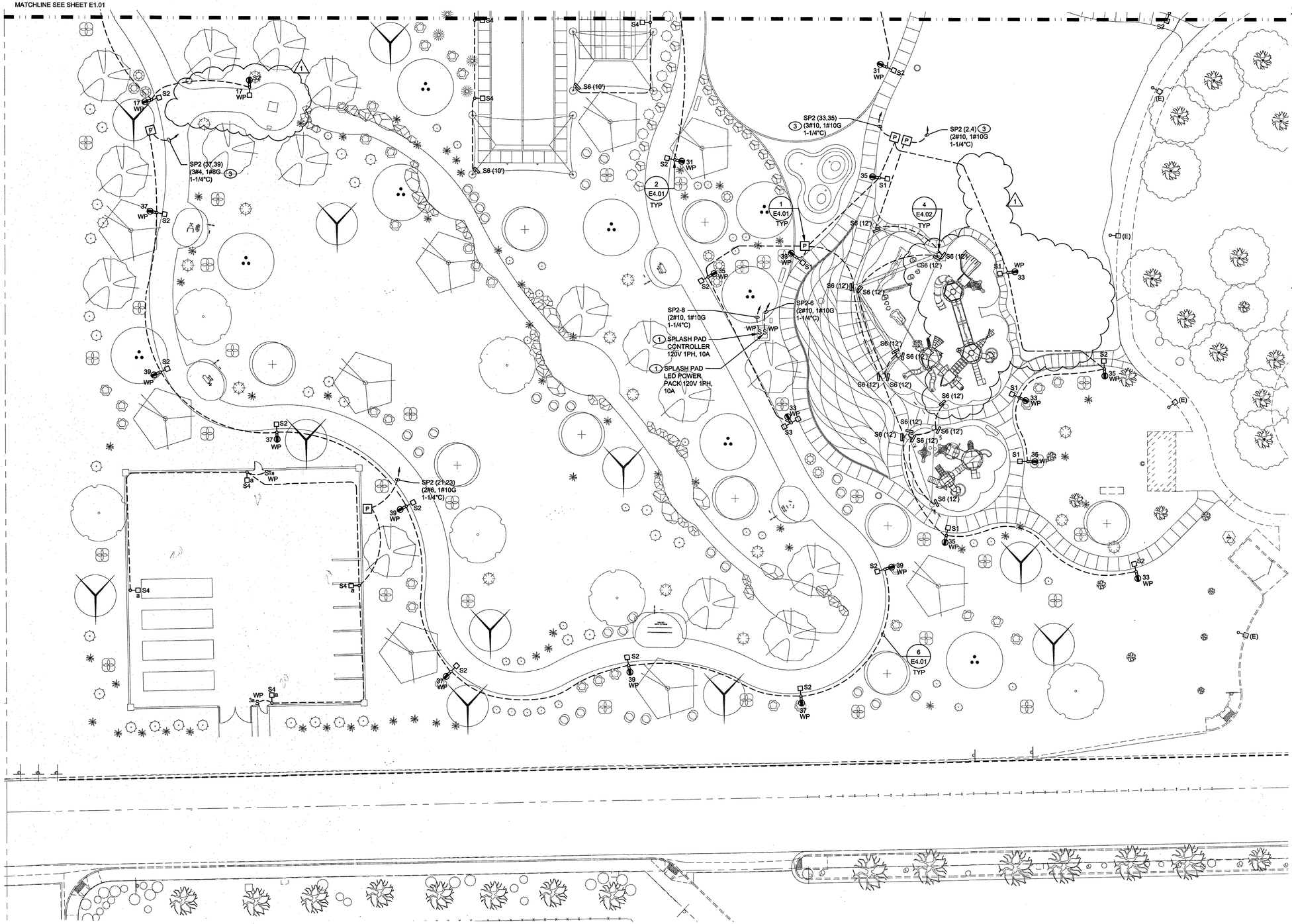
MATCHLINE SEE SHEET E1.01



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1 ELECTRICAL SITE PLAN - AREA 2

SCALE: 1" = 20'-0"

CITY OF LAS VEGAS NEVADA

DEPARTMENT OF PUBLIC WORKS

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Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
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ELECTRICAL SITE PLAN - AREA 2

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PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13945
07/17/2019

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
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CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	E1.02

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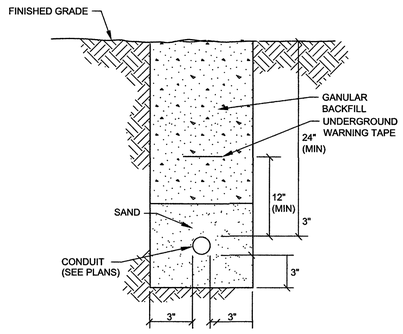
GENERAL DIAGRAM NOTES

1. REFER TO ELECTRICAL SITE PLAN DRAWINGS FOR CONDUIT AND CONDUCTOR SIZES.

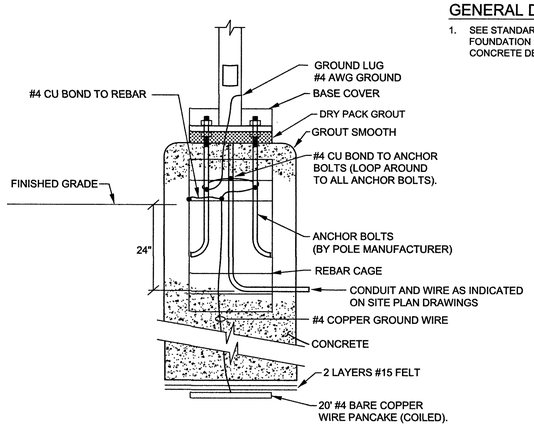


6 CONDUIT TRENCH DIAGRAM

SCALE: NOT TO SCALE

GENERAL DIAGRAM NOTES

1. SEE STANDARD DIAGRAM (2/E4.01) FOR FOUNDATION DESIGN OF REBAR AND CONCRETE DEPTHS.



3 LIGHT POLE CONCRETE BASE GROUNDING DIAGRAM

SCALE: NOT TO SCALE

GENERAL DIAGRAM NOTES

A. CONCRETE PULLBOX / HANDHOLE SHALL BE CHRISTY N09 OR APPROVED EQUAL. PULLBOX LID SHALL BE PEDESTRIAN-RATED REINFORCED CONCRETE WITH LOCK-DOWN BOLTS. LID TO HAVE POLYMER FACE FACTORY IMPRINTED WITH 'LIGHTING' FOR LIGHTING CIRCUITS OR 'ELECTRIC' FOR POWER CIRCUITS.

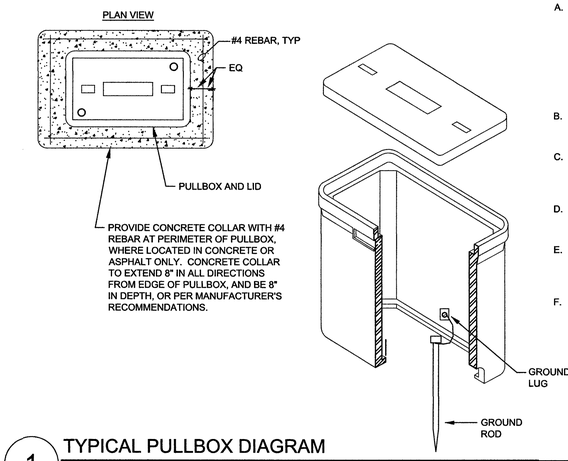
B. EXTEND ALL CONDUITS A MINIMUM OF 3" ABOVE BOTTOM OF BOX, ALL WIRES A MINIMUM OF 24" OUTSIDE OF BOX.

C. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON APPROVED SPLICES, AND PULLBOX INSTALLATION AND GROUNDING REQUIREMENTS.

D. TERMINATION CONNECTORS/SPLICES SHALL BE APPROVED FOR WET LOCATIONS.

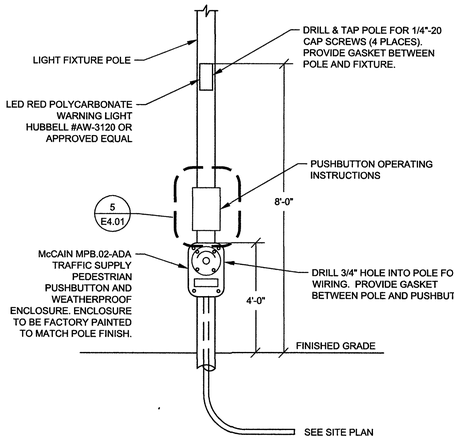
E. PULLBOX SHALL BE PLACED ON 6" OF GRAVEL BASE OR PER MANUFACTURER'S RECOMMENDATIONS PROPER DRAINAGE.

F. PULLBOX SHALL BE INSTALLED LEVEL AND FLUSH WITH GRADE, LONG SIDE PARALLEL TO ADJACENT SIDEWALK, ETC.. COORDINATE FINAL LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.



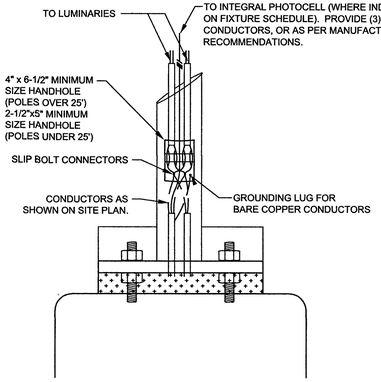
1 TYPICAL PULLBOX DIAGRAM

SCALE: NOT TO SCALE



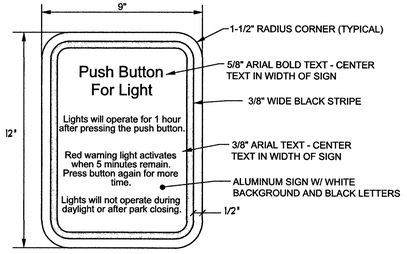
7 PUSH BUTTON AND WARNING LIGHT MOUNTING DIAGRAM

SCALE: NOT TO SCALE



4 LIGHT POLE HANDHOLE DIAGRAM

SCALE: NOT TO SCALE

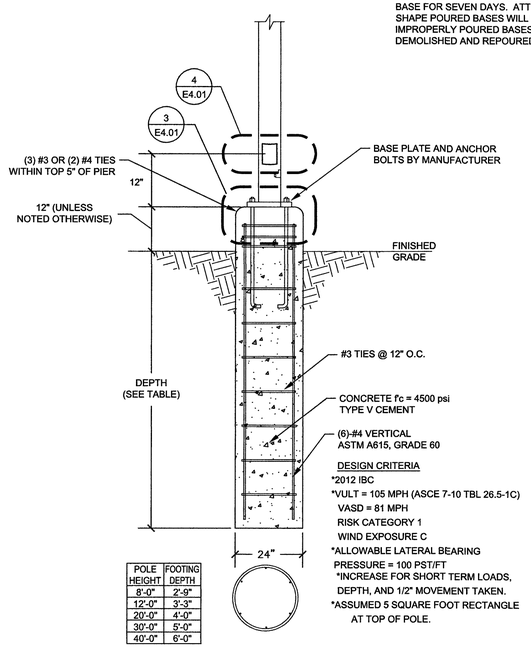


5 PUSHBUTTON OPERATING INSTRUCTIONS DIAGRAM

SCALE: NOT TO SCALE

NOTES:

1. HANDHOLE SHALL BE LOCATED ON BACK SIDE OF POLE (EITHER SIDE OF POLE WHEN RECEPTACLE OPTION IS PROVIDED), NEVER ON THE FRONT FACING SIDE OF THE POLE.
2. POUR ENTIRE BASE IN ONE POUR TO BASE PLATE AND SLOPE TOP AWAY FROM POLE. STRIP SONOTUBE FORMS OFF WHILE CONCRETE IS STILL GREEN (APPROXIMATELY FOUR HOURS AFTER POUR) AND STONE RUB TO PROVIDE A SMOOTH, SEAMLESS SURFACE APPEARANCE, AND THEN A LIGHT BROOM FINISH. WET CURE BASE FOR SEVEN DAYS. ATTEMPTS TO FILL AND SHAPE POURED BASES WILL NOT BE ALLOWED; IMPROPERLY POURED BASES MUST BE DEMOLISHED AND REPOURED.



POLE HEIGHT	FOOTING DEPTH
8'-0"	2'-9"
12'-0"	3'-3"
20'-0"	4'-0"
30'-0"	5'-0"
40'-0"	6'-0"

DESIGN CRITERIA
*2012 IBC
*VULT = 105 MPH (ASCE 7-10 TBL 26.5-1C)
VASD = 81 MPH
RISK CATEGORY 1
WIND EXPOSURE C
*ALLOWABLE LATERAL BEARING PRESSURE = 100 PST/FT
*INCREASE FOR SHORT TERM LOADS, DEPTH, AND 1/2" MOVEMENT TAKEN.
*ASSUMED 5 SQUARE FOOT RECTANGLE AT TOP OF POLE.

2 LIGHT POLE CONCRETE BASE DIAGRAM

SCALE: NOT TO SCALE

CITY OF LAS VEGAS NEVADA

REVISIONS

CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
www.tjkengineers.com

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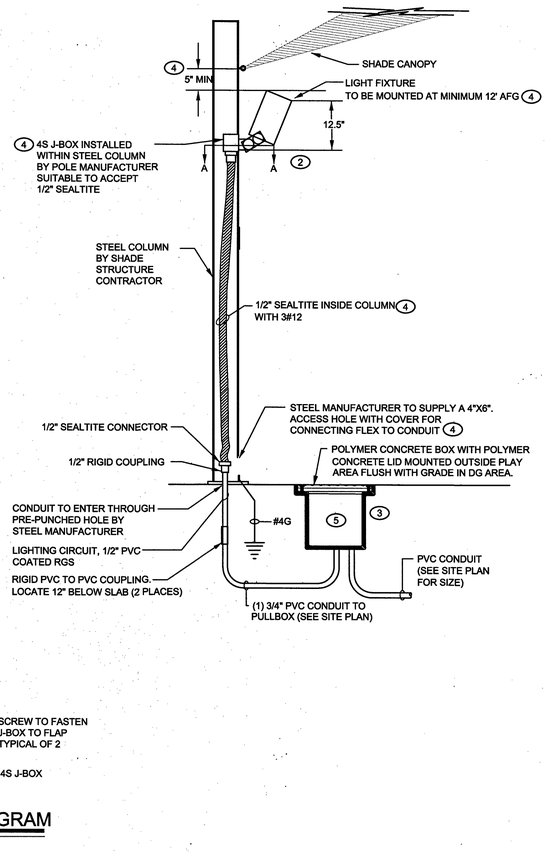
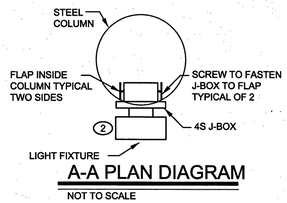
DIAGRAM KEYNOTES

1. CONDUIT TO BE ROUTED INSIDE COLUMN. COORDINATE CONDUIT INSTALLATION WITH SHELTER CONSTRUCTION. CONDUIT TO BE ATTACHED TO COLUMN.
2. VERIFY WITH MANUFACTURER FOR PROPER INSTALLATION OF FIXTURE ON POLE PRIOR TO INSTALLATION. SEE A-A PLAN ON SAME SHEET.
3. PULLBOXES SHALL BE LOCATED IN THE LANDSCAPE/UNPAVED AREA NEXT TO CONCRETE SLAB. DO NOT PUT IN CONCRETE.
4. COORDINATE WITH SHADE MANUFACTURE FOR CONDUIT ROUTE WITHIN COLUMNS, LOCATION OF HAND HOLES AND FIXTURE PLACEMENT TO THE SHADE ATTACHMENTS.
5. SEE 1/ E4.01 FOR PULLBOX DIAGRAM





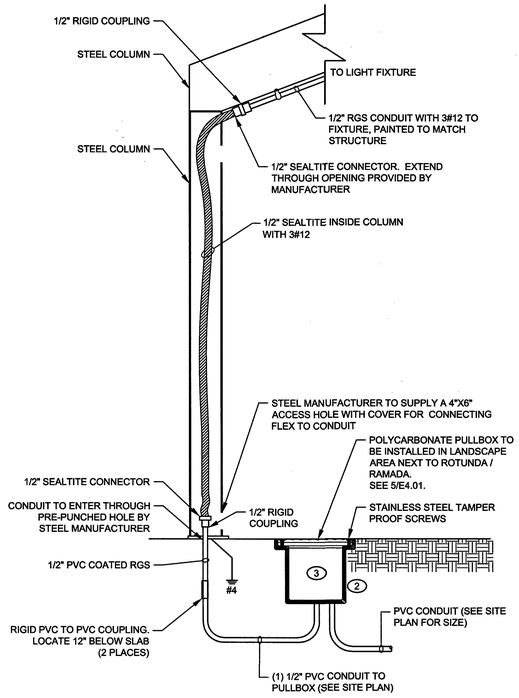
A-A PLAN DIAGRAM
NOT TO SCALE

4 FABRIC SHADE STRUCTURE - CONDUIT MOUNTING DIAGRAM

SCALE: NOT TO SCALE

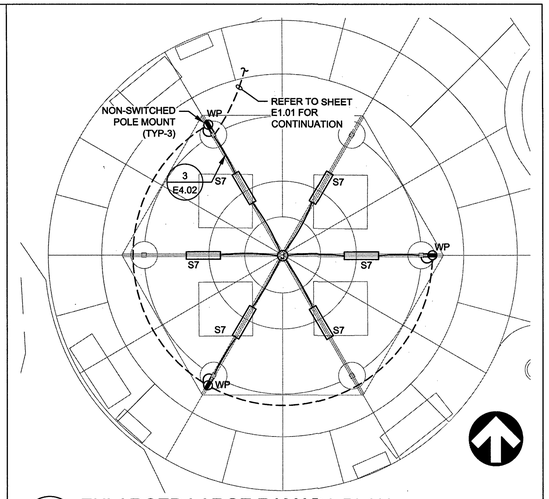
DIAGRAM KEYNOTES

1. CONDUIT TO BE ROUTED INSIDE COLUMN. COORDINATE CONDUIT INSTALLATION WITH SHELTER CONSTRUCTION. CONDUIT TO BE ATTACHED TO COLUMN.
2. PULLBOXES SHALL BE LOCATED IN THE LANDSCAPE/ UNPAVED AREA NEXT TO CONCRETE SLAB. DO NOT PUT IN CONCRETE.
3. SEE 1/ E4.01 FOR PULLBOX DIAGRAM.



3 METAL SHADE STRUCTURE - CONDUIT MOUNTING DIAGRAM

SCALE: NOT TO SCALE

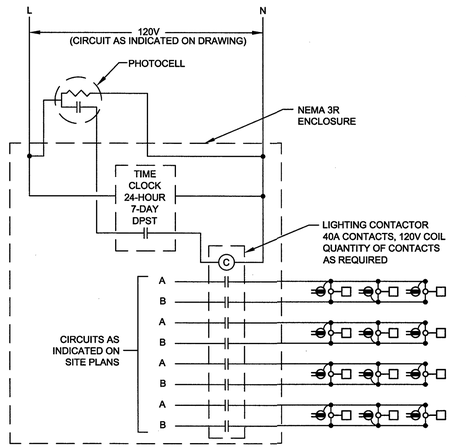


1 ENLARGED LARGE RAMADA PLAN

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

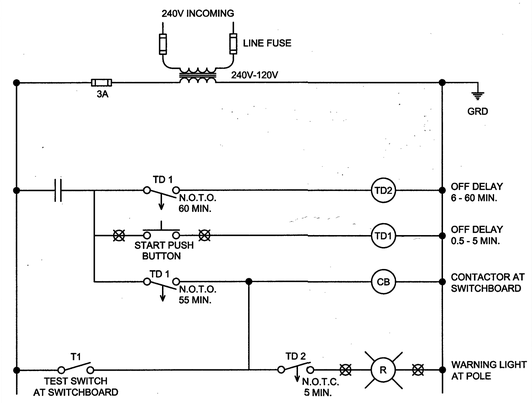
2 ENLARGED SMALL RAMADA PLAN (TYPICAL)

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



6 LIGHTING CONTACTOR DIAGRAM

SCALE: NOT TO SCALE



5 LIGHTING CONTROL DIAGRAM-TENNIS COURTS

SCALE: NOT TO SCALE

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CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
www.tjkengineers.com

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333 N. RANCHO DRIVE
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SP-2

LOCATION: EXTERIOR
SUPPLY FROM: NVE
MIN. BUS CAPACITY (A): 400
MAIN BREAKER: YES

VOLTAGE 120/240V
PHASES: SINGLE
WIRES: THREE
NOTES:

ENCLOSURE TYPE: NEMA 3R
MOUNTING: PEDESTAL
AIC RATING (A): 25000.00

NOTES	CKTS	LOAD	LOAD DESCRIPTION	CKT BRK TRIP	CONNECTED LOAD (VA)			CKT BRK TRIP	LOAD DESCRIPTION	LOAD	CKTS	NOTES
	1	L	PARKING LOT LIGHTS	20/2	810	A	925	20/2	PLAY GROUND LIGHTS	L	2	
	3	L			810	B	925			L	4	
	5	L	TENNIS COURT LIGHTS	40/2	3567	A	1200	20/1	SPLASH PAD CONTROLLER	R	6	
	7	L			3567	B	1200	20/1	SPLASH PAD LED POWER	R	8	
	9	L	TENNIS COURT LIGHTS	40/2	3567	A	500	20/1	IRRIGATION CONTROLLER	R	10	
	11	L			3567	B	1155	20/2	BOOSTER PUMP BP-1	M	12	
	13	L	HORSESHOE & BOCCE BALL LIGHTS	20/2	990	A	1155			M	14	
	15	L			990	B	180	20/1	MAINTENANCE RECEPTACLE	R	16	
	17	L	PATHWAY LIGHTS	20/2	1525	A	300	20/1	LIGHTING CONTACTOR	O	18	
	19	L			1525	B		20/1	SPARE		20	
	21	L	MAINTENANCE YARD LIGHTS	20/2	980	A		20/1	SPARE		22	
	23	L			980	B		20/1	SPARE		24	
	25	L	PATHWAY LIGHTS	20/2	1565	A		20/1	SPARE		26	
	27	L			1565	B		20/1	SPARE		28	
	29	L	PATHWAY LIGHTS	20/2	1415	A		20/1	SPARE		30	
	31	L			1415	B		20/1	SPARE		32	
	33	L	PATHWAY LIGHTS	25/2	2070	A		20/1	SPARE		34	
	35	L			2070	B		20/1	SPARE		36	
	37	L	PATHWAY LIGHTS	25/2	1500	A		20/1	SPARE		38	
	39	L			1500	B		20/1	SPARE		40	
	41		SPARE	20/1		A		20/1	SPARE		42	

	CONNECTED VA		DEMAND VA
TOTAL RECEPTACLE (R)	3,080	100%	3,080
TOTAL MOTOR (M) LOAD	2,310	138%	3,176
TOTAL LIGHTING (L) LOAD @ 125%	37,828	125%	47,285
TOTAL KITCHEN (K) LOAD @100%	0	0%	0
TOTAL FIXED (F) LOAD	0	0%	0
TOTAL OTHER (O) LOAD	300	100%	300
TOTAL ELEVATOR (EL) LOAD @ 100%	0	0%	0
TOTAL	43,518		53,841

AMP/PHASE	
CONNECT	A | 92 B | 89.4
DEMAND	A | 225.7 B | 225.7
TOTAL CONNECTED AMP	181
TOTAL DEMAND AMP	224
PERCENT LOADED	56%

NOTES:
1. EXISTING BREAKER
2. PROVIDE SHUNT TRIP DEVICE.
3. PROVIDE GFCI DEVICE.
4. PROVIDE RED CIRCUIT BREAKER
5. PROVIDE SUB-FEED BREAKER.
6. CONTROLLED VIA RELAY.
7. EXISTING LOAD REMOVED. REUSE EXISTING BREAKER.
8. CIRCUIT BREAKER CONTROLLED BY OTHER EQUIPMENT.
9. PROVIDE NEW BREAKER. MOUNTING HARDWARE, MATCH TYPE AND AIC RATING.

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CONTACTOR SCHEDULE

CONTACTOR NUMBER	RATING (AMPS)	NUMBER OF POLES	VOLTAGE	CIRCUITS CONTROLLED	DESCRIPTION OF CIRCUITS CONTROLLED
C1	30	2	240	SP2-1,3	REFER TO PANEL SCHEDULE
C2	40	2	240	SP2-5,7	REFER TO PANEL SCHEDULE
C3	40	2	240	SP2-9,11	REFER TO PANEL SCHEDULE
C4	30	2	240	SP2-13,15	REFER TO PANEL SCHEDULE
C5	30	2	240	SP2-17,19	REFER TO PANEL SCHEDULE
C6	30	2	240	SP2-21,23	REFER TO PANEL SCHEDULE
C7	30	2	240	SP2-25,27	REFER TO PANEL SCHEDULE
C8	30	2	240	SP2-29,31	REFER TO PANEL SCHEDULE
C9	30	2	240	SP2-33,35	REFER TO PANEL SCHEDULE
C10	30	2	240	SP2-37,39	REFER TO PANEL SCHEDULE
C11	30	2	240	SP2-2,4	REFER TO PANEL SCHEDULE
C12	30	2	240	SPARE	REFER TO PANEL SCHEDULE

NOTES:
1. RELAY PANEL SHALL BE COMPLETE WITH INTEGRAL ASTRONOMICAL TIME CLOCK AND RELAYS AS SCHEDULED.
2. LIGHTING CONTROL SYSTEM SHALL BE COMPLETE AND OPERATIONAL.
3. VERIFY LOW VOLTAGE CABLE PER MANUFACTURER REQUIREMENTS PRIOR TO BID.
4. PROVIDE OVERRIDE SWITCH FOR EACH CONTACTOR
5. TIMECLOCK OFF, PHOTOCELL ON

FEEDER SCHEDULE - DISTRIBUTION EQUIPMENT

ALL CONDUIT AND CONDUCTOR VOLTAGE DROP WAS BASED ON DESIGN ESTIMATE AND DOES NOT REFLECT FIELD CONDITIONS. CONTRACTOR TO VERIFY ALL CONDUIT/CONDUCTOR WIRE SIZES FOR VOLTAGE DROP IN THE FIELD IF LONGER THAN WHAT HAS BEEN ESTIMATED. THE OWNER DOES NOT GUARANTEE THE ACCURACY OF QUANTITIES STATED ON THE DRAWINGS. V19

FEEDER ID	DISTRIBUTION EQUIPMENT NAME	BUS AMPACITY	DISTANCE (ESTIMATE - FT)	TYPE	FEEDER SIZE	CONDUIT TYPE	VOLTAGE DROP (%)	MINIMUM AIC (AMPS) CALCULATED
NVE	SWITCHBOARD SP-2	400	25	BY NVE	(1) 4"C, CABLES BY UTILITY	NONMETALIC	0.31%	22,796

LIGHTING FIXTURE SCHEDULE

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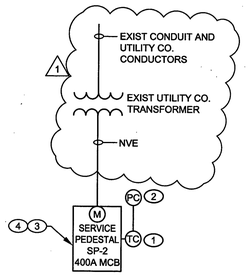
FIXT ID	TYPE	MANUFACTURER AND CATALOG NO.	LAMPS No.	LAMPS WATT	LAMPS TYPE	CKT VOLTS	FIXTURE NOTES
S1	POLE MOUNT SINGLE HEAD	HEAD: LITHONIA MR2-LED-60C-700-40K-T4M-240-RPA-BL50-DF-DBLXD POLE: LITHONIA RSS-20-5B-DM19AS-TP-FDLXA-DBLXD, [19'-0"], 5" DIA. ROUND STRAIGHT STEEL. GFI, WP RECEPTACLE (WITH WHILE-IN-USE COVER) MOUNTED 12" FROM TOP OF POLE ON BACK SIDE. POLE BASE SHALL EXTEND TO 12" ABOVE FINISHED GRADE (FIXTURE SHALL BE MOUNTED AT 20'-0" ABOVE FINISHED GRADE)	N/A	132	LED	240	15,600 LUMENS. PROVIDE INTEGRAL SENSOR FOR STEP DIMMING. FIXTURE SHALL BE WIRED FOR 50% OUTPUT UNDER NORMAL OPERATING CONDITIONS AND 100% OUTPUT UPON SENSING MOTION. ON / OFF CONTROL VIA TIMECLOCK AND PHOTOCELL.
S2	POLE MOUNT SINGLE HEAD	HEAD: LITHONIA MR1-LED-42C-530-40K-SR2-240-RPA-BL50-DF-DBLXD POLE: LITHONIA RSS-14-5B-DM19AS-TP-FDLXA-DBLXD, [14'-0"], 5" DIA. ROUND STRAIGHT STEEL. GFI, WP RECEPTACLE (WITH WHILE-IN-USE COVER) MOUNTED 12" FROM TOP OF POLE ON BACK SIDE. POLE BASE SHALL EXTEND TO 12" ABOVE FINISHED GRADE (FIXTURE SHALL BE MOUNTED AT 15'-0" ABOVE FINISHED GRADE)	N/A	75	LED	240	7,150 LUMENS. PROVIDE INTEGRAL SENSOR FOR STEP DIMMING. FIXTURE SHALL BE WIRED FOR 50% OUTPUT UNDER NORMAL OPERATING CONDITIONS AND 100% OUTPUT UPON SENSING MOTION. ON / OFF CONTROL VIA TIMECLOCK AND PHOTOCELL.
S3	POLE MOUNT DUAL HEAD	HEAD: LITHONIA MR2-LED-60C-700-40K-T4M-240-RPA-DF-BL50-DBLXD POLE: LITHONIA RSS-20-5B-DM28AS-TP-FDLXA-DBLXD, [19'-0"] 5" DIA. ROUND STRAIGHT STEEL. GFI, WP RECEPTACLE (WITH WHILE-IN-USE COVER) MOUNTED 12" FROM TOP OF POLE ON BACK SIDE. POLE BASE SHALL EXTEND TO 12" ABOVE FINISHED GRADE (FIXTURE SHALL BE MOUNTED AT 20'-0" ABOVE FINISHED GRADE)	N/A	132 EACH HEAD	LED	240	15,600 LUMENS EACH HEAD. PROVIDE INTEGRAL SENSOR FOR STEP DIMMING. FIXTURE SHALL BE WIRED FOR 50% OUTPUT UNDER NORMAL OPERATING CONDITIONS AND 100% OUTPUT UPON SENSING MOTION. ON / OFF CONTROL VIA TIMECLOCK AND PHOTOCELL.
S4	POLE MOUNT SINGLE HEAD	HEAD: LITHONIA DSXZ-LED-P7-40K-TFTM-240-RPA-BL50-DF-DBLXD POLE: LITHONIA RSS-20-5B-DM19AS-TP-FDLXA-DBLXD, [19'-0"] , 5" DIA. ROUND STRAIGHT STEEL. POLE BASE SHALL EXTEND 12" ABOVE FINISHED GRADE (FIXTURE SHALL BE MOUNTED AT 20'-0" ABOVE FINISHED GRADE)	N/A	398	LED	240	45,950 LUMENS. ON / OFF CONTROL VIA TIMECLOCK AND PHOTOCELL (MAINTENANCE YARD IS LOCAL MANUAL SWITCH ONLY - REFER TO SITE PLAN).
S5	POLE MOUNT SINGLE HEAD	HEAD: VISIONAIRE BLXI-8-T3-14SL-4K-UNV-BOA-BK-RPP-DS POLE: VISIONAIRE RNTS-5R-7-28-12BC-136-S1-BK-MOD (HH 2.5" x 5"), 27'-0", 5" DIA. ROUND STRAIGHT STEEL. POLE BASE SHALL EXTEND 12" ABOVE FINISHED GRADE (FIXTURE SHALL BE MOUNTED AT 28'-0" ABOVE FINISHED GRADE)	N/A	1102	LED	240	143,300 LUMENS. AUTO-OFF CONTROL VIA TIMECLOCK AND PHOTOCELL, WITH LOCAL PUSH BUTTON OVERRIDE TO TURN LIGHTS ON DURING PARK HOURS. FUSE HOLDER SHALL BE LOCATED AT BASE OF POLE.
S5A	POLE MOUNT DUAL HEAD	HEAD: VISIONAIRE BLXI-4-T3-70L-4K-UNV-BOA-BK-RPP-DS POLE: VISIONAIRE RNTS-5R-7-28-12BC-136-D2-BK-MOD (HH 2.5" x 5"), 28'-0", 5" DIA. ROUND STRAIGHT STEEL. POLE BASE SHALL BE FLUSH WITH POST TENSION TENNIS COURT SURFACE (FIXTURE SHALL BE MOUNTED AT 28'-0" ABOVE FINISHED SURFACE)	N/A	541 EACH HEAD	LED	240	68,700 LUMENS EACH HEAD. AUTO-OFF CONTROL VIA TIMECLOCK AND PHOTOCELL. WITH LOCAL PUSH BUTTON OVERRIDE TO TURN LIGHTS ON DURING PARK HOURS. FUSE HOLDER SHALL BE LOCATED AT BASE OF POLE.
S6	FLOOD LIGHT	LITHONIA DSXF2-LED-P1-40K-MFL-240-XX-VG-DBLXD	N/A	54	LED	240	7,400 LUMENS. AUTO-OFF CONTROL VIA TIMECLOCK AND PHOTOCELL. RIGIDLY MOUNT TO PLAY STRUCTURE (REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON MOUNTING). PROVIDE ALL HARDWARE FOR A COMPLETE AND OPERABLE INSTALLATION. REFER TO SITE PLAN FOR FIXTURE MOUNTING HEIGHTS.
S7	4' SURFACE MOUNT VAPORTITE	LITHONIA VAP-LED-4000LM-FST-MD-MVOLT-GZ10-40K-80CRI-SF-MSI102L3VWL	N/A	33	LED	120	4500 LUMENS. PROVIDE INTEGRAL MOTION SENSOR FOR AUTOMATIC BI-LEVEL AND ON / OFF CONTROL (FIXTURE LOCATED AT RAMADAS).

GENERAL NOTES:
A. ALL LAMPS/LED MODULES SHALL BE PROVIDED BY THE CONTRACTOR AND BE OF THE SAME MANUFACTURER, UNO.
B. INCLUDE IN BASE BID ALL LABOR AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION OF ALL FIXTURES INDICATED ON DRAWINGS.
C. PROVIDE ALL REQUIRED JUNCTION BOXES FOR LIGHTING INSTALLATION.
D. CONTRACTOR IS RESPONSIBLE TO VERIFY TYPE OF CONSTRUCTION AT EACH FIXTURE LOCATION AND PROVIDE THE REQUIRED TRIMS AND MOUNTING ACCESSORIES/KITS FOR APPLICATION.
E. PROVIDE ALL NECESSARY SUPPORTS INDEPENDENT OF CEILING SYSTEM AS REQUIREDX PER CODES AND ORDINANCES.
F. RECESSED FIXTURES IN FIRE RATED CEILINGS AND AIR PLENUMS SHALL BE APPROVED FOR THE FIRE RATINGS OF THE CEILING OR SHALL BE FULLY ENCLOSED IN A FIRE RATED HOUSING OR STRUCTURE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
G. COORDINATE EXACT LOCATION AND MOUTING HEIGHT OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL, INTERIOR DESIGN AND LIGHTING DESIGN DRAWINGS IN ADDITION TO OTHER TRADES PRIOR TO ROUGH-IN.
H. VERIFY EXIT SIGN LOCATIONS AND DIRECTIONAL ARROWS WITH ARCHITECT'S FINAL EGRESS PLAN PRIOR TO ORDERING EQUIPMENT.
I. WHERE A BATTERY BACKUP IS INDICATED, PROVIDE TEST SWITCH INTEGRAL TO FIXTURE HOUSING, REMOTE TEST SWITCHES ARE NOT ACCEPTABLE.
J. PROVIDE SEPARATE NEUTRAL CONDUCTORS TO EACH DIMMED CIRCUIT SWITCH LEG. DO NOT SHARE NEUTRAL CONDUCTORS IN DIMMED CIRCUITS.
K. PROVIDE AN UNSWITCHED CONDUCTOR TO ALL EXIT SIGNS AND EMERGENCY BATTERY BACK UP.
L. LED FIXTURES TO COMPLY WITH UL 1598, ANSI C62, NFPA 70. TEST ACCORDING TO IES LM-79 AND LM-80. COMPLY WITH IESNA TM-16-05 AND RP-16.
M. MINIMUM CRI GREATER THAN 80 AND HAVE A MAX 3-STEP MACADAM ELLIPSE.
N. LED DRIVERS TO COMPLY WITH UL "RECOGNIZED COMPONENT" STATUS AND TYPE TL PROGRAM. COMPLY WITH ANSW C82.SS11, C82.77. UL CLASS 2 DRIVERS TO COMPLY WITH UL 1310.
O. CONTRACTOR SHALL CUT POLES TO LENGTH AS NECESSARY.
P. TIME DELAY FOR AUTOMATIC BI-LEVEL FIXTURES AT PICNIC AND TOTLOT AREAS SHALL BE SET TO 20 MINUTES. ALL OTHER AUTOMATIC BI-LEVEL FIXTURES SHALL BE SET TO 5 MINUTES.
Q. CONTRACTOR SHALL PROVIDE ONE ADDITIONAL SPARE LED DRIVER PER FIXTURE TYPE, PER CITY OF LAS VEGAS DESIGN STANDARDS.

SUBSTITUTIONS OF LIGHTING FIXTURES AND LIGHTING CONTROL DEVICES:
1. SUBSTITUTED LIGHTING FIXTURES OR CONTROL DEVICES SHALL BE OF EQUAL QUALITY, COST, AND BENEFIT TO THE OWNER AS THOSE SPECIFIED WITHIN THE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY OF THE LIGHTING DESIGN FOR SUBSTITUTED LIGHTING FIXTURES AND CONTROL DEVICES.
3. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR THE ENGINEER AND OWNER'S REVIEW:
   - PROJECT-SPECIFIC LIGHT FIXTURE CUT SHEETS
   - LIGHTING PHOTOMETRIC CALCULATIONS - CALCULATION PARAMETERS TO BE COORDINATED WITH THE ENGINEER OF RECORD
   - PROJECT-SPECIFIC LIGHTING CONTROL DEVICE CUT SHEETS
   - LIGHTING CONTROL DEVICE LAYOUT
4. SUBSTITUTIONS SHALL NOT RESULT IN ANY ADDITIONAL COSTS TO THE OWNER.
5. ANY ADDITIONAL SERVICES REQUIRED BY THE ENGINEER OF RECORD RESULTING FROM THE CONTRACTOR'S SUBSTITUTION REQUEST, SUCH AS ENERGY CODE CALCULATIONS AND DRAWING REVISIONS, WILL BE AT THE CONTRACTOR'S EXPENSE ON A TIME AND MATERIAL BASIS.

DIAGRAM KEYNOTES

1. PROVIDE TIMECLOCK WITH 40A CONTACTS AS INDICATED TO BE ELECTRICALLY HELD, NORMALLY CLOSED LIGHTING CONTACTOR MOUNTED IN NEMA 3R JUNCTION BOX WITH HINGED LOCKABLE COVER. PROVIDE (1) TIME CLOCK INTERMATIC ET90115C.
2. PROVIDE PHOTOCELL TORK 2007 TO CONTROL ALL EXTERIOR LIGHTING ON SERVICE PEDESTAL. INSTALL PHOTOCELL ON TOP OF NEAREST LIGHT POLE. INSTALL PER MANUFACTURER'S REQUIREMENTS AND TO COMPLY WITH LOCAL AND REGIONAL STANDARDS. PHOTOCELL TO BE FACING NORTH. PROVIDE A PHOTOCELL OVERRIDE SWITCH INSIDE THE PEDESTAL MARKED "LIGHTING ON/OFF".
3. PROVIDE METERED PEDESTAL, MILBANK 3P3B SERIES OR APPROVED EQUAL, WITH EUSERC UTILITY COMPARTMENTS, METER SOCKET, AND 42 CIRCUIT PANELBOARD. REFER TO SITE PLAN DRAWING FOR LOCATION.
4. REFER TO DIAGRAM 2, THIS SHEET FOR SERVICE PEDESTAL DIAGRAM.



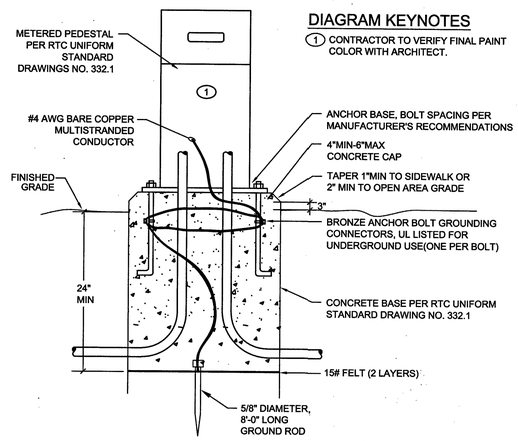
SEE PANEL SCHEDULE FOR CIRCUITING

1 ELECTRICAL ONE LINE DIAGRAM

SCALE: NOT TO SCALE

DIAGRAM KEYNOTES

1. CONTRACTOR TO VERIFY FINAL PAINT COLOR WITH ARCHITECT.



2 SERVICE PEDESTAL DIAGRAM

SCALE: NOT TO SCALE

CITY OF LAS VEGAS NEVADA

REVISIONS

1	VE REVISIONS	6-4-19

CONSULTANT

tjk consulting engineers, inc.
8728 Spanish Ridge Avenue
Suite 100
Las Vegas, NV 89148
P: 702.871.3621
F: 702.871.8353
www.tjkengineers.com

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PUBLIC WORKS DEPARTMENT OF

HUCKLEBERRY PARK
- ADDITION -

ONE LINE DIAGRAM AND SCHEDULES

ANY REUSE OF THESE PLANS AND SPECIFICATIONS WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR ENGINEER IS PROHIBITED AND WILL BE AT USER'S SOLE RISK. ACCEPTANCE OF THESE PLANS AND SPECIFICATIONS CONSTITUTES AGREEMENT TO THE FOREGOING. ALL DRAWINGS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE DESIGN PROFESSIONAL WHETHER THE PROJECT FOR WHICH THEY WERE PREPARED IS EXECUTED OR NOT. THE DRAWINGS AND SPECIFICATIONS ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT. ALL RIGHTS RESERVED. COPYRIGHT © 2019 TJK CONSULTING ENGINEERS, INC. ALL RIGHTS RESERVED. UNPUBLISHED WORK. THIS DRAWING IS PROTECTED UNDER THE COPYRIGHT LAWS OF THE UNITED STATES. ANY UNAUTHORIZED USE, REPRODUCTION, OR DISTRIBUTION OF THIS DRAWING, OR ANY PORTION THEREOF, MAY RESULT IN SEVERE CIVIL AND CRIMINAL PENALTIES. ANY UNAUTHORIZED USE OF THIS DRAWING IS AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE ARCHITECT OR ENGINEER. ANY USE OF THIS DRAWING BY THE OWNER OR ANY OTHER PARTY FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY WERE PREPARED AND NOT FOR THE CONSTRUCTION OF ANY OTHER PROJECT N.R.S. 623.280

STAMP

PROFESSIONAL ENGINEER STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-20
ELECTRICAL
No. 13946
07/17/2019

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS

DEVELOPMENT SERVICES CENTER
333 N. RANCHO DRIVE
LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4846

DRAWN	TJK
FILE	
DATE	12/17/18
SCALE	AS NOTED
BID NO	NA
CLV DWG NO	650.108-1
HANSEN NO	71157
SHT NO	E5.01

GENERAL REQUIREMENTS

DRAWINGS

THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKERS WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

MISCELLANEOUS ITEMS

CALCULATION AND DESIGN OF MISCELLANEOUS NON-STRUCTURAL ITEMS, SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS AND PREFABRICATED STRUCTURAL ITEMS, SUCH AS FLOOR AND ROOF TRUSSES, ARE NOT INCLUDED AND ARE TO BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.

CONSTRUCTION MEANS AND METHODS

THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING, FORM-WORK, ETC... AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY (INCLUDING UTILITIES) DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL BE PLACED ON THE STRUCTURE SUCH THAT THE DESIGN LOADS ARE NOT EXCEEDED.

DIMENSIONS, INSERTS AND OPENINGS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, CONDITIONS, AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED BEFORE START OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WHERE DISCREPENCIES OCCUR IN THESE DRAWINGS, NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STUCTURAL NOTES AND TYPICAL DETAILS.

CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL WITH APPROPRIATE TRADIES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

STANDARDS

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE EDITION REFERENCED IN THE GOVERNING BUILDING CODE.

TYPICAL DETAILS AND NOTES

TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.

SHOP DRAWINGS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS. SHOP DRAWINGS ARE REVIEWED ONLY FOR GENEREAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. REVIEW DOES NOT INDICATE THAT THE SHOP DRAWINGS ARE CORRECT OR COMPLETE. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS SHALL BE CLOUDED. ANY OF THE AFOREMENTIONED SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW UNLESS SPECIFICALLY NOTED ACCORDINGLY. THE SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE ORIGINAL CONTRACT DRAWINGS. ANY ENGINEERING PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN APPROPRIATELY REGISTERED ENGINEER. ENGINEERING SYSTEM SOLUTIONS SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF ENGINEERING DESIGNS PERFORMED BY OTHERS. FIVE WORKING DAYS SHALL BE ALLOWED FOR THE ENGINEER'S REVIEW. CONTRACTOR SHALL PROVIDE A COPY OF EACH SUBMITTAL FOR ENGINEERING SYSTEM SOLUTIONS RECORDS.

SHOP DRAWINGS SHALL REFERENCE DATE AND DELTA (IF ANY) OF CONTRACT DRAWINGS.

MOLD

MOLD CONCERNS AND PREVENTION IS OUT OF ENGINEERING SYSTEM SOLUTIONS SCOPE OF SERVICES. ENGINEERING SYSTEM SOLUTIONS SHALL BE HELD HARMLESS, TO THE EXTENT OF THE LAW, FOR ALL MOLD PREVENTION AND MOLD RELATED CONCERNS.

BASIS FOR DESIGN

GOVERNING BUILDING CODE	2018 IBC (W SOUTHERN NEVADA AMENDMENTS)
DEAD LOAD	
STRUCTURE SELF-WEIGHT CONCRETE	150 PCF
VARYING COVER WITH A SOIL BACKFILL DENSITY	130 PCF
SOILS	
SOIL BEARING PRESSURE (D+L)	3000 PSF
SOIL BEARING PRESSURE (+W OR +E)	4000 PSF
BEARING INCREASE PER FT/MAX	500/4000 PSF
MINIMUM FOOTING EMBEDMENT DEPTH	12 INCHES
ACTIVE EARTH PRESSURE - LEVEL BACKFILL	35 PCF
PASSIVE EARTH PRESSURE / MAX	300/1500 PCF
COEFFICIENT OF FRICTION FOR LATERAL SLIDING RESISTANCE	0.40
SEISMIC	
SITE CLASS	C
SEISMIC DESIGN CATEGORY	C
SDS (SHORT PERIOD)	0.365
LATERAL FORCE WITH LEVEL BACKFILL	6.57H^2
LATERAL FORCE APPLICATION HEIGHT	0.6H
*SEISMIC NOT REQ'D FOR RETAINING WALLS PER SO NV 2012 IBC AMENDMENTS	
WIND	
BASIC WIND SPEED	115 MPH
EXPOSURE	C

FOUNDATION

DESIGN RECOMMENDATIONS

FIRM: KLEINFELDER; REPORT NO. 20192258.001A; DATE: NOVEMBER 9, 2018

CONSTRUCTION

ALL SITE PREPARATION, GRADING, COMPACTION TESTS, INSPECTIONS, ETC. SHALL BE FOLLOWED WITH STRICT ADHERENCE AND SHALL BE COMPLETED PRIOR TO ANY CONCRETE PLACEMENT. SEE ACI 325.3 FOR FURTHER REQUIREMENTS.

ENGINEERING SYSTEM SOLUTIONS ASSUMES NO LIABILITY FOR GROUNDWATER OR OTHER MEANS OF FLOODING.

FOOTING EMBEDMENT

ALL FOOTINGS SHALL EXTEND BELOW GRADE THE MINIMUM EMBEDMENT DEPTH AS NOTED ON THE FOUNDATION PLAN.

GRADE IS DEFINED AS FOLLOWS

THE LOWEST OF THE FOLLOWING (BEFORE LANDSCAPING):

- BUILDING PAD SUBGRADE
- LOWEST SURROUNDING SOIL GRADE WITHIN 5'-0" OF BUILDING

SLAB ON GRADE

SUPPORT PER THE GEOTECHNICAL RECOMMENDATIONS.

FOLLOW ACI 302.1 RECOMMENDATIONS FOR PLACING CONCRETE, CURING, AND QUALITY CONTROL.

BACKFILL

BACKFILL SHALL NOT BE PLACED AGAINST EXTERIOR WALLS UNTIL THE INTERIOR FLOOR SYSTEM CAN ADEQUATELY BRACE THE WALL.

BACKFILL AND RECOMPACT ALL TRENCHES PER THE GEOTECHNICAL REPORT. (MIN 90% DRY DENSITY)

DRAINAGE

PROVIDE ADEQUATE DRAINAGE AWAY FROM THE STRUCTURE.

CONCRETE

MATERIAL

MINIMUM 28 DAY COMPRESSIVE STRENGTH FOR SLAB ON GRADE, FOOTING, AND WALLS IS 4500 PSI.

CEMENT SHALL BE TYPE V.

MAXIMUM W/C RATIO SHALL BE 0.45.

CONCRETE SLUMP SHALL BE 4-6 INCHES.

ALL CONCRETE SHALL BE NORMAL WEIGHT OF 145 POUND PER CUBIC FOOT UNLESS NOTED OTHERWISE, USING HARD ROCK AGGREGATES CONFORMING TO ASTM C33. MAXIMUM AGGREGATE SIZE FOR STRUCTURAL ELEMENTS SHALL NOT EXCEED 3/4".

BATCHING, MIXING, AND TRANSPORTING

BATCHING, MIXING, AND TRANSPORTING CONCRETE SHALL BE PER ACI 301.

CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE ENGINEER OF RECORD.

PORTLAND CEMENT SHALL CONFORM TO ACI 301.

WATER SHALL NOT BE ADDED AT THE JOB SITE SUCH THAT THE APPROVED MIX DESIGN W/C RATIO IS EXCEEDED.

FORM WORK

FORM WORK SHALL BE PER ACI 301.

PLACING

PLACING OF CONCRETE SHALL BE PER ACI 301.

PLACING OF CONCRETE BY MEANS OF PUMPING SHALL BE PER ACI 301.

WHERE THERE IS A RISK OF PREMATURE DRYING, SUCH AS IN HOT OR WINDY WEATHER, CURING MEASURES SHALL BE IMPLEMENTED PER THE RECOMMENDATIONS OF ACI 301.

CONSOLIDATION

CONSOLIDATION OF CONCRETE SHALL BE PER ACI 301.

EMBEDDED ITEMS

EMBEDDED ITEMS SHALL BE PLACED PER ACI 301.

CONDUITS AND PIPES SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

EMBEDDED CONDUITS, PIPES, AND SLEEVES SHALL NOT BE LARGER IN DIAMETER THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, BEAM, OR WALL IN WHICH THEY ARE EMBEDDED AND SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS OR ELEMENT WIDTHS ON CENTER.

NO ALUMINUM EMBEDS SHALL BE IN DIRECT CONTACT WITH CONCRETE.

COLD WEATHER CONCRETING

WHEN THE AIR TEMPERATURE IS BELOW 40°F, COLD WEATHER CONCRETE PROCEDURES SHALL BE USED PER ACI 301.

A CONSTRUCTION PLAN SHALL BE SUBMITTED TO THE ENGINEER DETAILING THE PROTECTION PROCEDURES PRIOR TO PLACEMENT OF CONCRETE.

HOT WEATHER CONCRETING

PRIOR TO CONCRETE PLACEMENT, TOP 3 INCHES OF SUB-BASE SHALL BE WETTED SUFFICIENTLY TO SATURATE SUB-BASE WITHOUT ANY STANDING WATER.

CONCRETE PLACEMENT TEMPERATURE MAY NOT EXCEED 90° FAHRENHEIT WHEN MEASURED IN ACCORDANCE WITH ASTM C1064.

STEEL FORMS AND REINFORCEMENT SHALL BE COOLED PRIOR TO CONCRETE PLACEMENT WHEN STEEL TEMPERATURES EXCEED 120° FAHRENHEIT.

MIX WATER, AGGREGATES, CONVEYING AND PLACING EQUIPMENT OR ANY COMBINATION OF THE ABOVE SHALL BE COOLED IF NECESSARY TO MAINTAIN PROPER CONCRETE PLACING TEMPERATURE.

SLAB ON GRADE

CONTRACTOR SHALL FOLLOW ACI 301 AGGREGATE SPECIFICATION INCLUDING #8 AND #4 AGGREGATES TO PROVIDE A WELL-GRADED AGGREGATE MIX. MAXIMUM AGGREGATE SIZE SHALL NOT EXCEED 1 1/2".

CONTRACTOR SHALL PROVIDE CONTROL JOINTS. SEE TYPICAL CONTROL JOINT IN CONCRETE SLAB ON GRADE DETAIL.

REINFORCING STEEL

REINFORCING BARS SHALL BE DEFORMED, EXCEPT AS NOTED IN ACI 301.

USE OF EPOXY-COATED BARS IS NOT PERMITTED.

GRADE

ALL WELDED BARS SHALL BE GRADE 60, REFER TO ASTM STANDARD A706.

#4 BARS OR LARGER SHALL BE GRADE 60, REFER TO ASTM STANDARD A615.

#3 BARS OR SMALLER SHALL BE GRADE 40, REFER TO ASTM STANDARD A615.

CLEAR COVER

ALL DIMENSIONS NOT NOTED AS "CLR" ARE TO THE CENTER OF THE BAR.

FOR CLEAR COVER REQUIREMENTS REFER TO TYPICAL DETAIL "MINIMUM COVER FOR REINFORCING STEEL".

REINFORCEMENT SUPPORTS

REINFORCEMENT SUPPORT SHALL BE PROVIDED TO MAINTAIN CLEAR DIMENSIONS SHOWN ON PLANS AND SHALL CONFORM TO ONE OF THE FOLLOWING SUPPORT TYPES: WIRE, COATED WIRE, PRECAST CONCRETE, PLASTIC.

REINFORCEMENT SUPPORT SHALL COMPLY WITH ACI 301.

LAP SPLICING

UNLESS NOTED OTHERWISE TACK WELDING OF REINFORCING BARS NOT ALLOWED.

FOR LAP LENGTH REQUIREMENTS REFER TO TYPICAL DETAIL "LAP LENGTH SCHEDULE".

MECHANICAL SPLICE COUPLERS

MECHANICAL SPLICE COUPLERS SHALL HAVE CURRENT ICC-ES APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE STRENGTH OF THE BAR.

WELDING

WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL CONFORM TO AWS D1.4.

BENDING

BENDING SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE UNBENT AND REBENT. #5 BAR AND SMALLER MAY BE COLD FIELD BENT. #6 BAR AND LARGER SHALL NOT BE FIELD BENT WITHOUT PRIOR APPROVAL FROM ENGINEER.

PLACE AND DETAIL

ALL BARS SHALL BE DETAILED AND PLACED PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

CONCRETE MASONRY

MASONRY DESIGN STRENGTH

THE COMPRESSIVE STRENGTH OF MASONRY IN EACH ELEMENT SHALL EQUAL OR EXCEED THE STRENGTHS NOTED BELOW.

ALL WALLS 1500 PSI

THE CONTRACTOR IS PERMITTED TO SELECT ONE OF THE TWO METHODS BELOW TO VERIFY COMPLIANCE WITH THE SPECIFIED MASONRY COMPRESSIVE DESIGN STRENGTH.

1. UNIT STRENGTH METHOD. SEE TYPICAL MASONRY UNIT STRENGTH METHOD TABLE FOR UNIT STRENGTHS

2. PRISM TEST METHOD. PER ASTM C1314

CONCRETE MASONRY UNITS

UNITS SHALL BE HOLLOW, NORMAL WEIGHT, LOAD-BEARING UNITS CONFORMING TO ASTM C90.

MASONRY UNITS SHALL BE A MINIMUM OF 4-INCHES TALL

ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION WITH ALL VERTICAL CELLS IN ALIGNMENT UNLESS NOTED OTHERWISE.

MORTAR

MORTAR MIX SHALL CONFORM TO REQUIREMENTS OF ASTM C270 AND ASTM C780 FOR FIELD TESTING.

THICKNESS OF BED JOINTS SHALL NOT EXCEED 5/8".

GROUT

GROUT SHALL CONFORM TO REQUIREMENTS OF ASTM C476.

SUFFICIENT WATER SHALL BE USED FOR GROUT TO ACHIEVE SLUMP OF 8" - 11" AND TO FLOW INTO ALL CELLS OF THE MASONRY WITHOUT SEGREGATION.

ALL CELLS IN CONCRETE BLOCK CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT.

HOLD GROUT DOWN 1 1/2" BELOW TOP OF UNIT AT GROUT POUR JOINTS.

HORIZONTAL REINFORCING

PROVIDE BENT BARS PER TYPICAL DETAILS TO MATCH AND LAP HORIZONTAL BOND BEAM REINFORCING AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY UNLESS NOTED OTHERWISE.

VERTICAL REINFORCING

PLACE (2) VERTICAL BARS FULL HEIGHT, (1) EACH FACE IN CELL, AT WALL INTERSECTIONS, CORNERS, WALL OPENINGS, AND AT EACH SIDE OF CONTROL JOINTS.

DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH DOWELS TO MATCH AND LAP VERTICAL REINFORCING.

MISCELLANEOUS

CONTROL JOINT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT BUT SHALL NOT EXCEED 24'-0" ON CENTER MAXIMUM, UNLESS NOTED OTHERWISE.

LAP REINFORCING BARS PER TYPICAL MASONRY REBAR LAP SCHEDULE.

POST-TENSIONED FOUNDATIONS

THE INFORMATION IN THIS SECTION APPLIES ONLY TO THE CONSTRUCTION OF POST-TENSIONED SLABS AND FOUNDATIONS ON GROUND. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR EMBEDDED HARDWARE, ANCHOR BOLTS, HOLDOWNS, POST BASES, AND OTHER SUCH ITEMS DESIGNED AND SPECIFIED BY OTHERS

DESIGN OF POST-TENSIONED SLABS ON GROUND (PTSG) HAS BEEN PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS PROVIDED BY THE POST-TENSIONING INSTITUE (PTI) AS PUBLISHED IN THEIR 1996 SECOND EDITION OF "DESIGN AND CONSTUCTION OF POST-TENSIONED SLABS ON GROUND". ACCORDINGLY, ALL PTSG FOUNDATIONS, AS SPECIFIED BY THESE CONSTRUCTION DOCUMENTS, SHALL FALL WITHIN THE LIMITATIONS AND SPECIFICATIONS AS CONTAINED IN THE ABOVE-REFERENCED DESIGN MANUAL. CONTRACTOR AND OWNER SHALL BE RESPONSIBLE TO ENSURE STRICT COMPLIANCE TO ALL PTI SPECIFICATIONS, TO BE PROVIDED IN CONJUNCTION WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT, FOR ALL SITE PREPARATIONS, CONSTRUCTION AND POST-CONSTRUCTION MAINTENANCE OF SLABS, FOUNDATIONS, AND SURROUNDING AREA.

TENDON PLACEMENT

PLACING OF TENDONS AND MILD REINFORCING SHALL BE AS FOLLOWS:

ALL TENDON INTERSECTIONS SHALL BE CENTERED IN CONCRETE SLAB DEPTH, UNLESS NOTED OTHERWISE.

INTERIOR TENDONS ARE TO BE PLACED AT THE APPROXIMATE LOCATION DIMENSIONED ON PLAN. TENDONS MAY BE MOVED LATERALLY 12 INCHES MAXIMUM FROM SPECIFIED PLAN LOCATIONS TO AVOID EMBEDS, BLOCK OUTS, ETC. THE MINIMUM RADIUS OF CURVATURE TO ACHIEVE A VERTICAL OR HORIZONTAL TRANSITION IN THE TENDON AUGNMENT SHALL BE 10 FEET. TENDON LOCATIONS NOT SHOWN ON PLAN SHALL BE PLACED AT APPROXIMATE EQUAL SPACES BETWEEN DIMENSIONED CONTROL POINTS.

SECURE ALL TENDONS AT EACH INTERSECTION AND/OR 4 FEET 6 INCHES ON CENTER MAXIMUM WITH THE APPROPRIATE TENDON SUPPORT. PLASTIC CHAIRS WHICH PROVIDE SADDLE OR SIDE CLIPS FOR THE TENDONS NEED ONLY BE TIED AT EVERY THIRD INTERSECTION. BLOCKS OR OTHER CHAIRS WHICH ALLOW THE TENDON TO MOVE LATERALLY SHALL BE TIED AT EACH INTERSECTION. TIE ALL TENDON INTERSECTIONS AT THE PERIMETER OF THE SLAB.

SECURE THE TENDON DEAD AND STRESSING END ANCHORS TO FORM BOARDS WITH NAILS. REMOVE PLASTIC TENDON SHEATHING WITHIN 3 INCHES OF BACK OF ANCHOR.

TENDON SUPPORTS PLACED ON SAND SHALL HAVE AN ADEQUATE BEARING SURFACE TO MAINTAIN POSITION DURING CONCRETE PLACEMENT.

PLACEMENT OF MILD REINFORCING SHALL BE COORDINATED WITH PLACEMENT OF POST-TENSIONING TENDONS. PROPER TENDON PLACEMENT MAINTAINS PRIORITY.

CONCRETE PLACEMENT

PLACEMENT OF CONCRETE SHALL BE AS FOLLOWS:

CONCRETE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT TENDON PLACEMENTS ARE NOT DISTURBED DURING CONCRETE PLACEMENT.

PROVIDE PROPER CONCRETE COVER AND CONSOLIDATION AROUND ANCHORAGES, BOTH DEAD AND STRESSING, PER DETAILS.

TENDON STRESSING

STRESSING OF TENDONS SHALL BE AS FOLLOWS:

ALL JACKS USED TO STRESS TENDONS SHALL BE RECENTLY (WITHIN 60 DAYS) CALIBRATED. EACH JACK SHALL BE ACCOMPANIED WITH A CERTIFIED CALIBRATION SHEET CORRELATING HYDRAULIC PRESSURE TO TENDON FORCE.

STRESSING OF TENDONS MAY PROCEED WHEN THE CONCRETE COMPRESSIVE STRENGTH REACHES 2000 POUNDS PER SQUARE INCH MINIMUM. IT IS RECOMMENDED TO STRESS TENDONS AS EARLY AS POSSIBLE TO REDUCE POTENTIAL SHRINKAGE CRACKS. STRESS TENDONS BEFORE PLACING SECOND FLOOR OR ROOF SHEATHING. PARTIAL STRESSING (25 PERCENT OF TOTAL FORCE) THE DAY AFTER CONCRETE PLACEMENT IS RECOMMENDED FOR ALL TENDONS. SINCE THE SLAB DOES NOT HAVE THE STRENGTH TO SUPPORT HEAVY LOADS PRIOR TO FULL TENDON STRESSING, THE CONTRACTOR SHALL EXERCISE CARE TO ENSURE THAT THE SLABS ARE NOT OVERLOADED PRIOR TO FULLY STRESSING TENDONS.

TENDONS SHALL BE CLEARLY MARKED SO THAT ELONGATIONS CAN BE MEASURED AND RECORDED.

TOTAL MAXIMUM JACKING FORCE SHALL NOT EXCEED 33,000 POUNDS. TENDON STRESSING OPERATOR SHALL MAINTAIN RIGID CONTROL OF PRESSURE READINGS.

ALL TENDON STRESSING OPERATIONS SHALL BE SUPERVISED BY PERSONS PROPERLY TRAINED AND EXPERIENCED IN POST-TENSIONING OPERATIONS. IT IS RECOMMENDED THAT OPERATORS DO NOT STAND BEHIND THE HYDRAULIC JACK DURING STRESSING.

CONTROL JOINTS

POST-TENSIONED CONCRETE SLABS ON GROUND SHALL NOT HAVE CONTROL JOINTS UNLESS SPECIFICALLY NOTED ON PLANS, OR PER THE FOLLOWING EXCEPTION:

TOOLED CONTROL JOINTS MAY BE INSTALLED AT THE CONTRACTOR'S OPTION PROVIDED THAT THE SLAB THICKNESS, AS SPECIFIED PER PLAN, IS MEASURED FROM THE BOTTOM OF THE TOOLED CONTROL JOINT. TENDON PLACEMENT SHALL BE AS SPECIFIED PER PLAN OR DETAILS WITHIN THIS SLAB THICKNESS.

PRESTRESSING STEEL

PRESTRESSING STEEL SHALL CONFORM WITH ASTM A416, GRADE 270, SEVEN-WIRE LOW RELAXATION WITH THE FOLLOWING MINIMUM PROPERTIES:

ULTIMATE TENSILE STRENGTH = 41.3 KIPS

CROSS-SECTIONAL AREA = 0.153 SQUARE INCHES

MODULUS OF ELASTICITY = 27,000 KIPS PER SQUARE INCH

EFFECTIVE FORCE = 27 KIPS

TRANSFER FORCE = 28.9 KIPS

STANDARD ABBREVIATIONS

℄	CENTERLINE
(E)	EXISTING
AB	ANCHOR BOLT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ARCH	ARCHITECTURAL
ASD	ALLOWABLE STRESS DESIGN
BLDG	BUILDING
BLKG	BLOCKING
BN	BOUNDARY NAILING OR FASTENERS
BO	BOTTOM OF
BOT	BOTTOM
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
EA	EACH
ELEV	ELEVATION
EN	EDGE NAILING
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
FDN	FOUNDATION
FF	FINISH FLOOR
FLR	FLOOR
FN	FIELD NAILING
FT	FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GSN	GENERAL STRUCTURAL NOTES
GT	GIRDER TRUSS
HI	HIGH
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
K	KIP (1,000 LBS)
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
LONG	LONGITUDINAL
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LT	LIGHT
MAX	MAXIMUM
MECH	MECHANICAL
MFD	MANUFACTURED
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NTS	NOT TO SCALE
O.C.	ON CENTER
OPP	OPPOSITE HAND
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PREFAB	PREFABRICATION
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
REINF	REINFORCING
REQ'D	REQUIRED
RME	ROOF MOUNTED EQUIPMENT
SCHED	SCHEDULE
SIM	SIMILAR
SMS	SHEET METAL SCREW
SPEC	SPECIFICATION
STD	STANDARD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

STRUCTURAL LEGEND

RME XX#	ROOF MOUNTED EQUIPMENT
ELEV: 1'- 0" T.O. STEEL	SPOT ELEVATION
1 S1.1	SECTION CUT LINE
1 S1.1	ELEVATION CALLOUT
T.O. FLR 95' - 0"	ELEVATION
STEP 1	STEP IN ELEVATION
F2.0	COLUMN FOOTING
WF 1.5	WALL FOOTING
CP1	CONCRETE PILE
GB1	GRADE BEAM
CW1	CONCRETE WALL
CC1	CONCRETE COLUMN
CB1	CONCRETE BEAM
CMF 1	CONCRETE MOMENT FRAME
	ONE WAY CONCRETE SLAB
	TWO WAY CONCRETE SLAB
MW1	MASONRY WALL
ML1	MASONRY LINTEL
MP1 MJ1 (8) #5-48"	MASONRY PILASTER
MASONRY JAMB	MASONRY JAMB
C1 C2	STEEL COLUMN (W, HSS)
W12X26	STEEL BEAM
	STEEL MOMENT CONNECTION
	STEEL DRAG CONNECTION
	STEEL DOUBLE ANGLE CONNECTION
	STEEL DIAGONAL BRACING
	STEEL BAR GRATING
MF1	STEEL MOMENT FRAME
	CONCRETE OVER METAL DECK
	METAL DECK
	STUD BEARING WALL
SW-10 (1'-0")	STUD SHEAR WALL
P1	WOOD POST
	WOOD BEAM OR HEADER
CS16	STRAP AT OPENING PER TYPICAL DETAIL
HDU4 TD1	HOLDOWN/ TIE DOWN
	WOOD SHEATHING
	WOOD DECKING
	HANGER
2X4 AT 12" O.C.	JOIST / TRUSS ARROW
	OVERBUILD FRAMING, SEE TYPICAL DETAIL
	NON- STRUCTURAL STUD WALL
	STUD WALL ABOVE
	LEDGER

NOTE: NOT ALL SYMBOLS MAY BE USED

SHEET INDEX

SHEET NO.	SHEET TITLE	REVISION
S0.00	GENERAL STRUCTURAL NOTES	
S0.10	GENERAL STRUCTURAL NOTES	
S0.20	TYPICAL CONCRETE DETAILS	
S0.30	TYPICAL CONCRETE DETAILS	
S0.40	TYPICAL MASONRY DETAILS	
S1.00	SITE PLAN	
S2.00	TENNIS COURT PLAN	
S2.10	TENNIS COURT SECTIONS	
S2.20	MAINTENANCE YARD PLAN AND SECTIONS	
S3.00	SECTIONS	

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CONSULTANT

4077 EUREKA ROAD, STE. #101 | 3433 N RANCHO DRIVE | 4943 NORTH 29TH EAST, STE A
PHONE: (916) 780-2939 | PHONE: (702) 914-5107 | PHONE: (208) 523-9874

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LAS VEGAS, NEVADA 89106
PHONE: (702) 229-6276
FAX: (702) 384-4845

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SPECIAL INSPECTIONS

SPECIAL INSPECTION INDEPENDENT OF THE CONTRACTOR, ARCHITECT, AND ENGINEER OF RECORD SHALL BE PROVIDED BY OWNER ACCORDING TO IBC CHAPTER 17. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, NOT THE SHOP DRAWINGS. THE SPECIAL INSPECTOR SHALL SEND REPORTS TO THE OWNER, BUILDING OFFICIAL, ARCHITECT, ENGINEER, AND CONTRACTOR FOR CORRECTION. THE SPECIAL INSPECTOR SHALL SUBMIT A BI-WEEKLY AND A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN CONFORMANCE WITH THE PLANS, SPECIFICATIONS, AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

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

CONCRETE		
VERIFICATION AND INSPECTION	**CONT**	**PERIODIC**
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.		■
2. INSPECTION OF REINFORCING STEEL WELDING:		
A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.		■
B. OTHER REINFORCING STEEL.		■
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.		■
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		■
5. VERIFYING USE OF REQUIRED DESIGN MIX.		■
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.	■	
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	■	
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		■
9. INSPECTION OF PRESTRESSED CONCRETE:		
A. APPLICATION OF PRESTRESSING FORCES.	■	
10. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.		■
11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		■
POST-TENSIONED CONCRETE		
VERIFICATION AND INSPECTION	**CONT**	**PERIODIC**
INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	■	
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES	■	
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS		■
SOILS		
VERIFICATION AND INSPECTION	**CONT**	**PERIODIC**
VERIFY MATERIALS BELOW FOOTING ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		■
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		■
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		■
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	■	
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY		■
VERIFICATION AND INSPECTION OF STRUCTURAL STEEL (PER AISC 360-10)		
INSPECTION TASKS PRIOR TO WELDING		TABLE N5.4-1
INSPECTION TASKS DURING WELDING		TABLE N5.4-2
INSPECTION TASKS AFTER WELDING		TABLE N5.4-3
INSPECTION TASKS PRIOR TO BOLTING		TABLE N5.6-1
INSPECTION TASKS DURING BOLTING		TABLE N5.6-2
INSPECTION TASKS AFTER BOLTING		TABLE N5.6-3
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT		TABLE N6.1

STRUCTURAL STEEL

GENERAL

DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AS CONTAINED IN THE "AISC MANUAL OF STEEL CONSTRUCTION", CURRENT EDITION.

MEMBERS

STRUCTURAL STEEL MEMBERS SHALL CONFORM WITH THE ASTM STANDARDS AND MATERIAL PROPERTIES PER TYPICAL DETAIL "STEEL MEMBERS' ASTM STANDARDS AND PROPERTIES" UNLESS NOTED OTHERWISE.

FABRICATION

SHOP DRAWINGS SHALL SHOW MEMBER LAYOUT, SIZE, LENGTH, BOLT HOLE SIZES AND LOCATIONS, CONNECTION DETAILS, GRADE, AND ERECTION PROCEDURES CONFORMING TO AISC SPECIFICATIONS.

FABRICATORS SHALL BE PRE-QUALIFIED, APPROVED, AND RECOGNIZED BY THE BUILDING OFFICIAL AND CONTRACTOR AS COMPETENT TO COMPLETE REQUIRED FABRICATED ITEMS.

WELDING

WELDING PROCEDURES, ELECTRODES, AND WELDER QUALIFICATIONS SHALL CONFORM TO THE "CODE FOR WELDING IN BUILDING CONSTRUCTION", AMERICAN WELDING SOCIETY (AWS) AND THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS".

ALL WELDS SHALL USE A FILLER MATERIAL WITH A TENSILE STRENGTH OF 70 KSI.

ALL WELDS INVOLVING REINFORCING BARS SHALL FOLLOW AISC SPECIFICATIONS.

WELDING OR TACK WELDING OF HIGH STRENGTH BOLTS (ASTM A325 OR A490) IS NOT PERMITTED.

ALL EXPOSED BUTT WELDS SHALL BE GROUND SMOOTH.

ALL CJP WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE SEISMIC FORCE RESISTING SYSTEM SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS AT MINUS 20° F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION. USING 7018 ROD FULFILLS THIS REQUIREMENT.

FOR ALL WELDS REQUIRING CONTINUOUS INSPECTION, FABRICATOR OR ERECTOR SHALL SUBMIT A WELDING PROCEDURE TO THE ENGINEER.

BOLTING

ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHTENED AS DEFINED PER AISC UNLESS NOTED OTHERWISE IN DRAWINGS. SEE DRAWINGS FOR BOLTS THAT ARE REQUIRED TO BE PRE-TENSIONED OR SLIP CRITICAL AS DEFINED PER AISC. ALL BOLTS SHALL BE INSTALLED USING AN APPROVED AISC PROCEDURE.

ALL BOLTED CONNECTIONS SHALL BE PRETENSIONED AS DEFINED PER AISC UNLESS NOTED OTHERWISE IN DRAWINGS. ALL PRETENSIONED BOLTS SHALL BE TWIST-OFF-TYPE TENSION CONTROL ASSEMBLIES OR WASHER-TYPE INDICATING DEVICES AND BE INSTALLED USING AN APPROVED AISC PROCEDURE. WASHER-TYPE INDICATING DEVICES SHALL NOT BE USED ON 5/8"Ø BOLTS OR LESS.

GROUT

GROUT SHALL BE 5,000 PSI (MINIMUM) NON-SHRINK FLOWABLE GROUT AND INSTALLED BEFORE ADDING VERTICAL LOAD.

HOT DIP GALVANIZING

ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123. FASTENERS SHALL BE HOT DIP GALVANIZED PER ASTM F2329.

ALL TOUCH-UP OF GALVANIZED ITEMS TO BE PER ASTM A780.

PAINT AND SURFACE PREPARATION

PAINTING AND SURFACE PREPARATION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS AS CONTAINED IN THE LATEST EDITION OF THE "AISC MANUAL OF STEEL CONSTRUCTION", AND SHALL CONFORM TO THE SPECIFICATION OF THE OWNER/ARCHITECT.

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KEN D. MASTIN, SUITE 101 | 6421 MASTIN, SUITE 101 | BOISE, IDAHO 83704 | PHONE: (208) 322-4974

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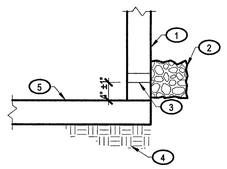
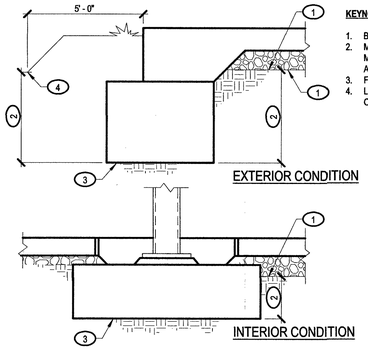
KEYNOTES:

1. CONC WALL PER PLAN
2. (2) CUBIC FT OF FREE DRAIN MATERIAL WRAPPED IN FILTER FABRIC AT EA WEEP HOLE
3. 2"Ø WEEP HOLE EA SIDE OF STRUCTURE, LOCATE PER PLAN
4. SUBGRADE PREPARATION PER TYP DETAIL
5. STRUCTURE INVERT AS OCCURS



9 S0.20 TYPICAL WEEP HOLE DRAIN REQUIREMENTS

TCV101



KEYNOTES:

1. BUILDING PAD SUBGRADE
2. MIN EMBEDMENT DEPTH PER FDN PLAN MEASURED FROM LOWER OF KEYNOTES 1 AND 4
3. FTG PER PLAN
4. LOWEST SURROUNDING SOIL WITHIN 5' - 0" OF BLDG BEFORE LANDSCAPING

5 S0.20 FOOTING EMBEDMENT DEPTH

TDC105

REBAR LAP LENGTH SCHEDULE
NORMAL-WEIGHT CONCRETE (145 PCF)

BAR	MIN CLR COVER	MIN BAR SPACING	f'c >= 2500 PSI		f'c >= 4000 PSI	
			TOP *	OTHER	TOP *	OTHER
#3	1.5	4.5	20	16	16	14
#4	1.5	4.0	26	20	20	16
#5	1.5	3.8	32	24	26	20
#6	2.0	3.0	46	36	38	28
#7	2.0	3.5	68	52	54	42
#8	2.0	3.0	102	78	82	62
#9	2.0	3.4	116	88	92	70
#10	2.0	3.8	130	100	102	80
#11	2.0	4.2	144	110	114	88

NOTES:

A. VALUES IN TABLE ARE IN INCHES. LENGTHS BASED ON 60 GRADE REINF (NOT COATED) WITH CLASS B LAP SPLICES
B. TOP REINF IS DEFINED AS HORIZ REINF W/ MORE THAN 12" OF CONC BELOW
C. CONC STRENGTH SELECTED IN TABLE SHALL NOT EXCEED DESIGN CONC STRENGTH

1 S0.20 CONCRETE REBAR LAP SCHEDULE

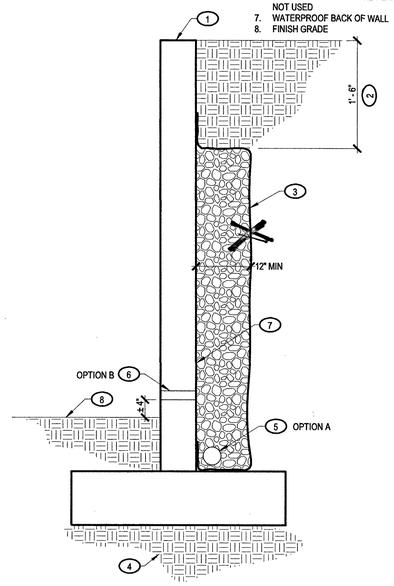
TDC101

NOTES:

A. CONTRACTOR SHALL CONSULT GEOTECH REPORT PRIOR TO SELECTING OPTION A OR OPTION B FOR WALL DRAIN SYSTEM
B. BACKFILL DETAIL IS A MIN. ADDL REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT SHALL BE FOLLOWED WHEN A REPORT IS PROVIDED
C. MFD ALTERNATIVES TO A FREE-DRAINING ROCK SYSTEM SHALL BE REVIEWED AND PRE-APPROVED BY GEOTECHNICAL ENGINEER

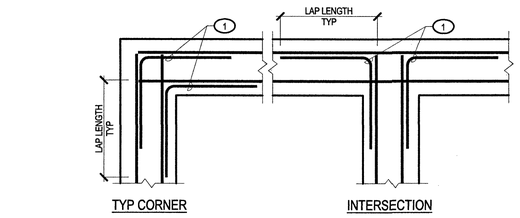
KEYNOTES:

1. RETAINING WALL PER PLAN
2. TERMINATE FREE-DRAINING BACKFILL W/ LAYER OF COMPACTED, IMPERVIOUS FILL
3. FREE-DRAINING UNIFORMLY-GRADED BACKFILL SHALL BE 3/4" TO 1 1/2" CLEAN CRUSHED ROCK WRAPPED IN FILTER FABRIC
4. COMPACTED SUBGRADE PER GSN
5. **OPTION A:** 4" Ø PERFORATED PIPE DRAIN SYSTEM. CONTRACTOR SHALL ENSURE THAT PIPE DAYLIGHTS OR TERMINATES AT SUMP PIT
6. **OPTION B:** PROVIDE 2"Ø WEEP HOLE AT 8'-0" O.C. W/ FILTER FABRIC WHERE PERFORATED PIPE IS NOT USED
7. WATERPROOF BACK OF WALL
8. FINISH GRADE



10 S0.20 TYPICAL RETAINING WALL BACKFILL AND DRAINAGE

TDC405



6 S0.20 TYPICAL CONCRETE FOOTING REINFORCING AT INTERSECTIONS

TDC106

MININUM REINFORCING COVER

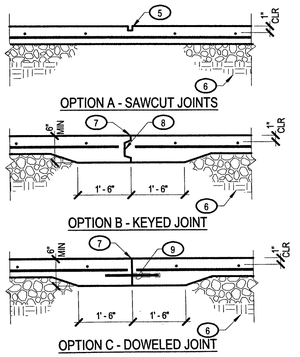
STRUCTURAL ELEMENT	COVER	TOLERANCE
FOOTING AND SLAB ON GRADE	3"	3/8"
WALLS (#5 OR SMALLER)	1 1/2"	3/8"
WALLS (#6 OR LARGER)	2"	1/2"
BEAMS AND COLUMNS	1 1/2"	3/8"
ELEVATED SLABS	3/4"	3/8"

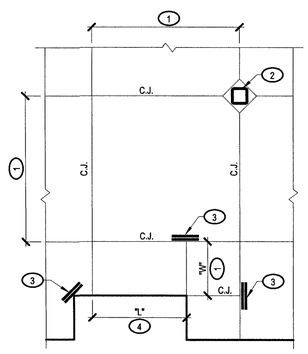
2 S0.20 MINIMUM COVER FOR REINFORCING STEEL

TDC102

JOINT SPACING SCHEDULE

SLAB THICKNESS	MAX SPACING
4"	8'
5"	10'
6"	12'
7"	14'
8"	15'





KEYNOTES:

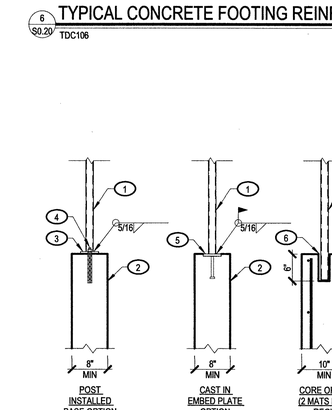
1. JOINT SPACING PER SCHED
2. ALIGN CONTROL JOINTS W/ COL (WHERE OCCURS)
3. PROVIDE (2) #4x48 MID-HT SLAB BARS ADJACENT TO ALL DISCONTINUOUS JOINT LOCATIONS
4. WHERE CONTROL JOINT SECTIONS ARE RECTANGULAR, THE LENGTH "L" SHALL NOT EXCEED 1.5 TIMES THE WIDTH "W"
5. SAWCUT JOINT DEPTH EQ TO 1/4 SLAB THICKNESS
6. COMPACTED SUBGRADE PER GSN
7. CONSTRUCTION JOINT
8. 2x4 CONT TAPERED KEY
9. 1/2"Øx12" SMOOTH DOWEL AT 24" O.C. WRAP TO PREVENT BOND TO CONC (CENTER IN SLAB THICKNESS AT JOINT)

NOTES:

A. C.J. DENOTES CONTROL JOINT
B. USE DOWELED OR KEYED JOINT AT SLOPE TRANSITIONS IN RAMPS AT CONC SLAB ON GRADE OR CONSTRUCTION JOINTS
C. SAWCUTS SHALL BE MADE SOON ENOUGH TO PREVENT SHRINKAGE CRACKING, BUT NOT SO SOON AS TO CAUSE SPALLING
D. ZIP STRIP OR TOOLED JOINT MAY BE USED IN LIEU OF SAWCUT

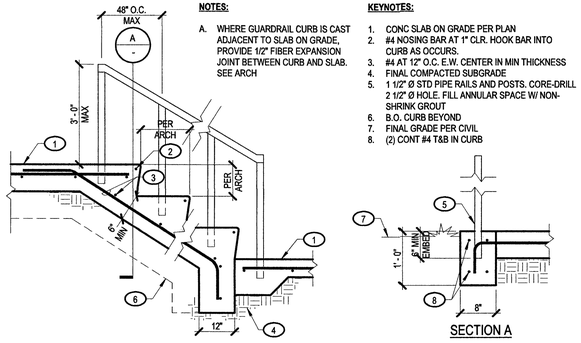
11 S0.20 TYPICAL CONTROL JOINT IN CONCRETE SLAB ON GRADE

TDC301



7 S0.20 TYPICAL FENCE ATTACHMENT TO CONCRETE

TCV151



NOTES:

A. WHERE GUARDRAIL CURB IS CAST ADJACENT TO SLAB ON GRADE, PROVIDE 1/2" FIBER EXPANSION JOINT BETWEEN CURB AND SLAB. SEE ARCH

KEYNOTES:

1. CONC SLAB ON GRADE PER PLAN
2. #4 NOSING BAR AT 1" CLR. HOOK BAR INTO CURB AS OCCURS.
3. #4 AT 12" O.C. E.W. CENTER IN MIN THICKNESS
4. FINAL COMPACTED SUBGRADE
5. 1 1/2" Ø STD PIPE RAILS AND POSTS. CORE-DRILL 2 1/2" Ø HOLE. FILL ANNULAR SPACE W/ NON-SHRINK GROUT
6. B.O. CURB BEYOND
7. FINAL GRADE PER CIVIL
8. (2) CONT #4 T&B IN CURB

8 S0.20 CONCRETE STAIR ON GRADE

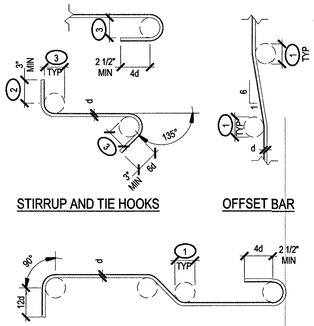
C104

KEYNOTES:

1. FENCE PER ARCHITECTURAL. MAIN POSTS SHALL BE 6'-0" MAX HT AT 6'-0" O.C. MAX
2. CONC WALL
3. PL 1/2x4x0'-8"
4. (2) 1/2" Ø THREADED ROD. DRILL AND EPOXY MIN 6 1/2" EMBED
5. EMBED PL 1/2x4x0'-8" W/ (2) 1/2" Ø x 6" HSA
6. CORE - DRILL 2 1/2" Ø HOLE. FILL ANNULAR SPACE W/ NON-SHRINK GROUT

NOTES:

A. EPOXY INSTALLATION PER MFR RECOMMENDATIONS AND SPECS. SPECIAL INSPECTION REQ'D
B. ALL EXPOSED STEEL MEMBERS AND ANCHORS SHALL BE GALVANIZED
C. WHERE FENCE POSTS NOT SPECIFIED, MINIMUM SECTION SHALL BE PIPE 1 1/2 STD



KEYNOTES:

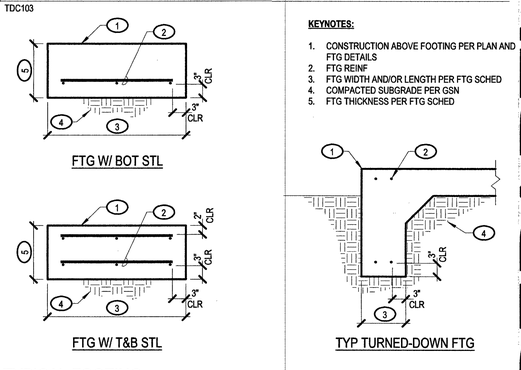
1. MIN FINISHED BEND DIA: 6d FOR #3 THRU #8; 8d FOR #9, #10 AND #11; 10d FOR #14 AND #18
2. EXTENSION FOR STIRRUPS AND TIES ONLY: 90°: 6d FOR #5 AND SMALLER, 12d FOR #6 THRU #8 ; 135°: 6d (3" MIN)
3. MIN FINISHED BEND DIA FOR STIRRUPS AND TIES ONLY: 4d FOR #5 AND SMALLER; 6d FOR #6 THRU #8

NOTES:

A. d = BAR DIA
B. ALL REINF SHALL BE BENT COLD UNO ON PLANS OR DETAILS
C. REINF SHALL NOT BE UN-BENT AND RE-BENT UNO

3 S0.20 STANDARD REBAR BENDING DETAILS

TDC103



KEYNOTES:

1. CONSTRUCTION ABOVE FOOTING PER PLAN AND FTG DETAILS
2. FTG REINF
3. FTG WIDTH AND/OR LENGTH PER FTG SCHED
4. COMPACTED SUBGRADE PER GSN
5. FTG THICKNESS PER FTG SCHED

4 S0.20 TYPICAL FOOTING

TDC104

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CLV DWG NO	
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KEYNOTES:

1. #4x48" BAR CENTERED IN SLAB AT EA CORNER OF OPENING OR AT REENTRANT CORNER, TYP
2. TENDONS AT MAX SPACING PER PLAN, TYP
3. CONC SLAB PER PLAN. SEE PLAN FOR ACTUAL LAYOUT
4. EDGE TENDON AS OCCURS. EDGE TENDONS SHALL BE PLACED 6" FROM ALL SLAB EDGES, TYP
5. ALL TENDONS BETWEEN EDGE TENDONS SHALL BE EQUALLY SPACED BETWEEN EDGE TENDONS WITHOUT EXCEEDING THE MAX SPACING INDICATED ON THE PLANS

NOTES:

A. ALL TENDONS 120 FT OR SHORTER ARE STRESSED FROM ONE END ONLY
B. *TAKEN FROM PTI CONSTRUCTION AND MAINTENANCE MANUAL FOR POST-TENSIONED SLAB-ON-GRADE FOUNDATIONS TABLE 16.1
C. ** IT IS RECOMMENDED THAT TENDONS OVER 120 FT LONG BE STRESSED FROM BOTH ENDS. THE PROCEDURE IS TO STRESS BOTH ENDS TO FULL STRESSING FORCE. THE ELONGATION AT EACH END IS ADDED TOGETHER TO GET THE TOTAL ELONGATION

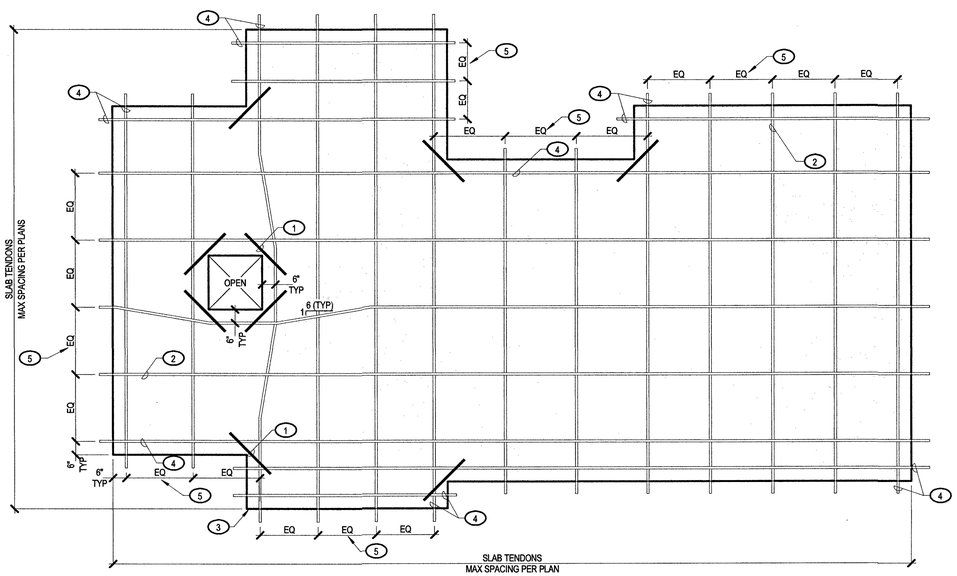
DESIGN CRITERIA:

A. STRAND: 1/2" DIA, 270 KSI, LOW RELAXATION
B. MODULUS OF ELASTICITY (Es) = 29,000 KSI
C. SEATING LOSS = 3/8" (NO POSITIVE SEATING)

TABLE OF TENDON ELONGATION VALUES* FOR SLAB-ON-GROUND

TENDON LENGTH (OUT-OUT OF CONCRETE) (FT)	FIELD MEASUREMENTS		
	-10% TOLERANCE (IN)	ELONGATION (IN)	+10% TOLERANCE (IN)
10	7/16	1/2	9/16
12	5/8	11/16	3/4
14	3/4	7/8	15/16
16	15/16	1	1 1/8
18	1 1/8	1 1/4	1 3/8
20	1 1/4	1 3/8	1 1/2
22	1 3/8	1 1/2	1 3/4
24	1 1/2	1 3/4	1 7/8
26	1 3/4	1 7/8	2 1/8
28	1 7/8	2 1/8	2 1/4
30	2	2 1/4	2 1/2
32	2 1/8	2 3/8	2 5/8
34	2 3/8	2 5/8	2 7/8
36	2 1/2	2 3/4	3
38	2 5/8	3	3 1/4
40	2 3/4	3 1/8	3 3/8
42	3	3 1/4	3 5/8
44	3 1/8	3 1/2	3 3/4
46	3 1/4	3 5/8	4
48	3 3/8	3 3/4	4 1/8
50	3 1/2	4	4 3/8
52	3 5/8	4 1/8	4 1/2
54	3 7/8	4 1/4	4 3/4
56	4	4 3/8	4 7/8
58	4 1/8	4 5/8	5
60	4 1/4	4 3/4	5 1/4
62	4 3/8	5	5 1/2
64	4 1/2	5 1/8	5 5/8
66	4 3/4	5 1/4	5 3/4
68	4 7/8	5 3/8	6
70	5	5 1/2	6 1/8
72	5 1/8	5 3/4	6 3/8
74	5 3/8	6	6 1/2
76	5 1/2	6 1/8	6 5/8
78	5 5/8	6 1/4	6 7/8
80	5 3/4	6 3/8	7

TENDON LENGTH (OUT-OUT OF CONCRETE) (FT)	FIELD MEASUREMENTS		
	-10% TOLERANCE (IN)	ELONGATION (IN)	+10% TOLERANCE (IN)
82	6	6 1/2	7 1/4
84	6 1/8	6 3/4	7 3/8
86	6 1/4	6 7/8	7 1/2
88	6 3/8	7	7 3/4
90	6 1/2	7 1/8	7 7/8
92	6 5/8	7 3/8	8
94	6 3/4	7 1/2	8 1/4
96	6 7/8	7 5/8	8 3/8
98	7	7 3/4	8 5/8
100	7 1/8	8	8 3/4
102	7 1/4	8 1/8	9
104	7 3/8	8 1/4	9 1/8
106	7 1/2	8 3/8	9 1/4
108	7 3/4	8 5/8	9 1/2
110	7 7/8	8 3/4	9 5/8
112	8	8 7/8	9 7/8
114	8 1/8	9	10
116	8 1/4	9 1/4	10 1/8
118	8 3/8	9 3/8	10 3/8
120	8 1/2	9 1/2	10 1/2
125**	9 1/4	10	11
130**	9 3/8	10 3/8	11 3/8
135**	9 5/8	10 3/4	11 7/8
140**	10	11 1/8	12 1/4
145**	10 3/8	11 1/2	12 3/4
150**	10 3/4	12	13 1/8
155**	11 1/8	12 3/8	13 5/8
160**	11 1/2	12 3/4	14
165**	11 7/8	13 1/8	14 1/2
170**	12 1/4	13 1/2	15
175**	12 5/8	14	15 3/8
180**	13	14 3/8	15 7/8
185**	13 3/8	14 3/4	16 1/4
190**	13 5/8	15 1/8	16 5/8
195**	14	15 1/2	17 1/8
200**	14 3/8	16	17 1/2



1 S0.30 TYPICAL POST TENSION SLAB-ON-GRADE CONSTRUCTION
TDC311

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MASONRY UNIT STRENGTH METHOD 2012 IBC 2105			
CONCRETE MASONRY COMPRESSIVE STRENGTH (f'm)	COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS (psi)		GROUT COMPRESSIVE STRENGTH f'g (psi)
	TYPE M OR S MORTAR	TYPE N MORTAR	
1500	1900	2150	2000
2000	2800	3050	2000
2500	3750	4050	2500
3000	4800	5250	3000

1 S0.40 MASONRY UNIT STRENGTH METHOD SCHEDULE

TDM101

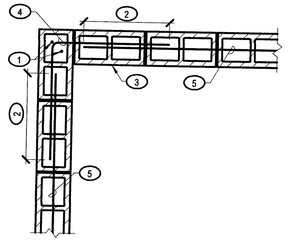
NOTES:

A. LAP REINF BARS AS SHOWN IN TABLE. STAGGER HORIZ REINF LAP SPLICES A MIN OF 60 BAR DIA (UNO)
B. LENGTHS SHOWN ACCOMODATE A 2 1/2" MIN CLR COVER
C. f'm = 1500 PSI

MASONRY REINFORCING LAP SCHEDULE	
BAR	LAP LENGTH
#3	20"
#4	24"
#5	36"
#6	60"

2 S0.40 MASONRY REBAR LAP SCHEDULE - LRFD

TDM103



KEYNOTES:

1. (2) #5 VERT MIN IN CORNER W/ (2) FDN DOWELS TO MATCH AND LAP
2. LAP PER "MASONRY REBAR LAP SCHEDULE - LRFD" DETAIL
3. MASONRY WALL PER PLAN
4. CORNER BAR TO MATCH QUANTITY, SIZE AND SPACE OF HORIZ REINF IN WALL
5. HORIZ REINF PER PLAN AND SCHED

NOTES:

A. GROUT SOLID (5) CELLS AT CORNER
B. 90° CORNER SHOWN, ALSO APPLICABLE AT OTHER CORNER ANGLES
C. SINGLE HORIZ BAR SHOWN. PROVIDE DBL HORIZ BAR WHERE SPECIFIED ON PLANS

3 S0.40 PLAN - TYPICAL MASONRY CORNER

TDM201

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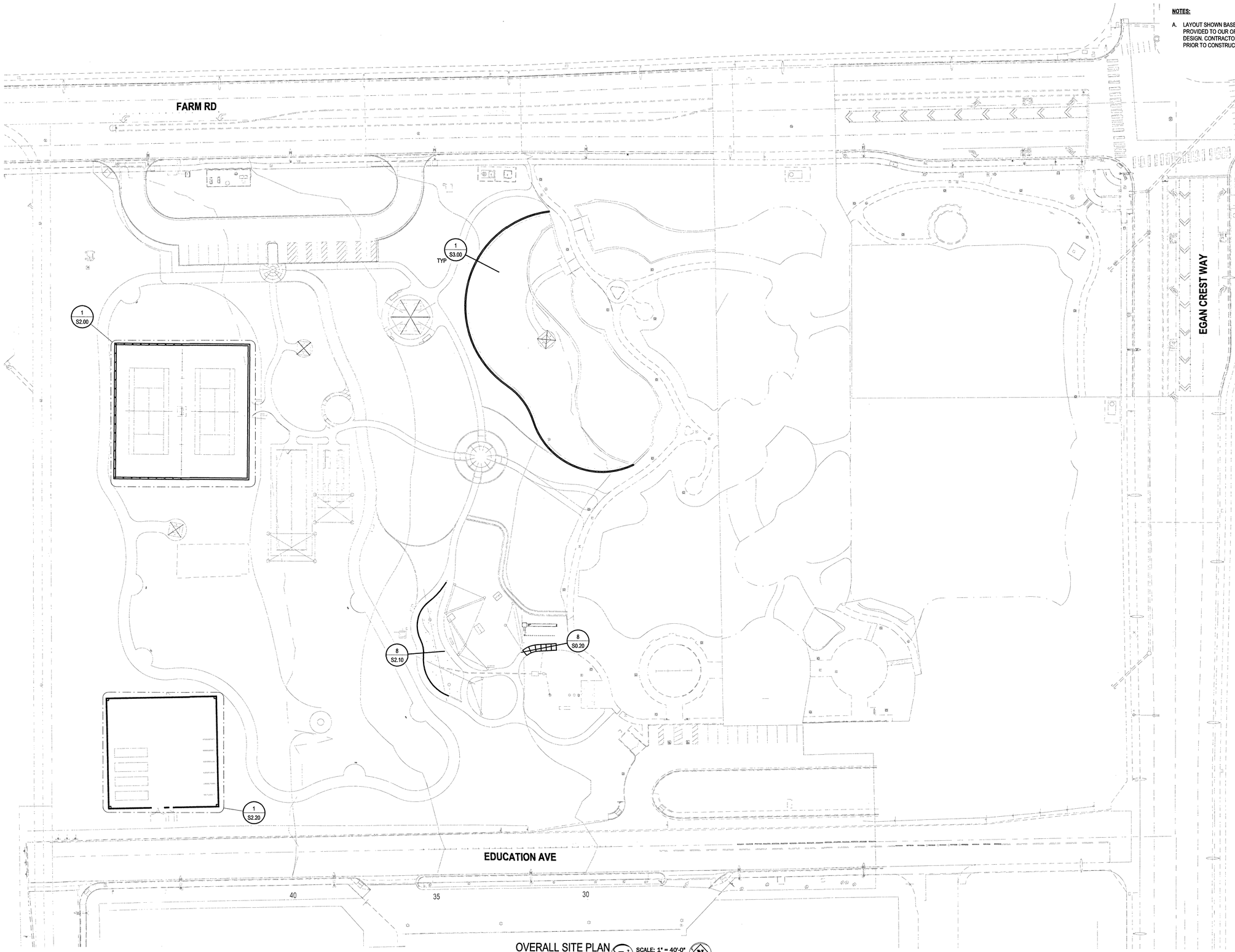
NOTES:

A. LAYOUT SHOWN BASED UPON PLANS PROVIDED TO OUR OFFICE AT TIME OF DESIGN. CONTRACTOR SHALL CONFIRM PRIOR TO CONSTRUCTION



OVERALL SITE PLAN SCALE: 1" = 40'-0"

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SITE PLAN

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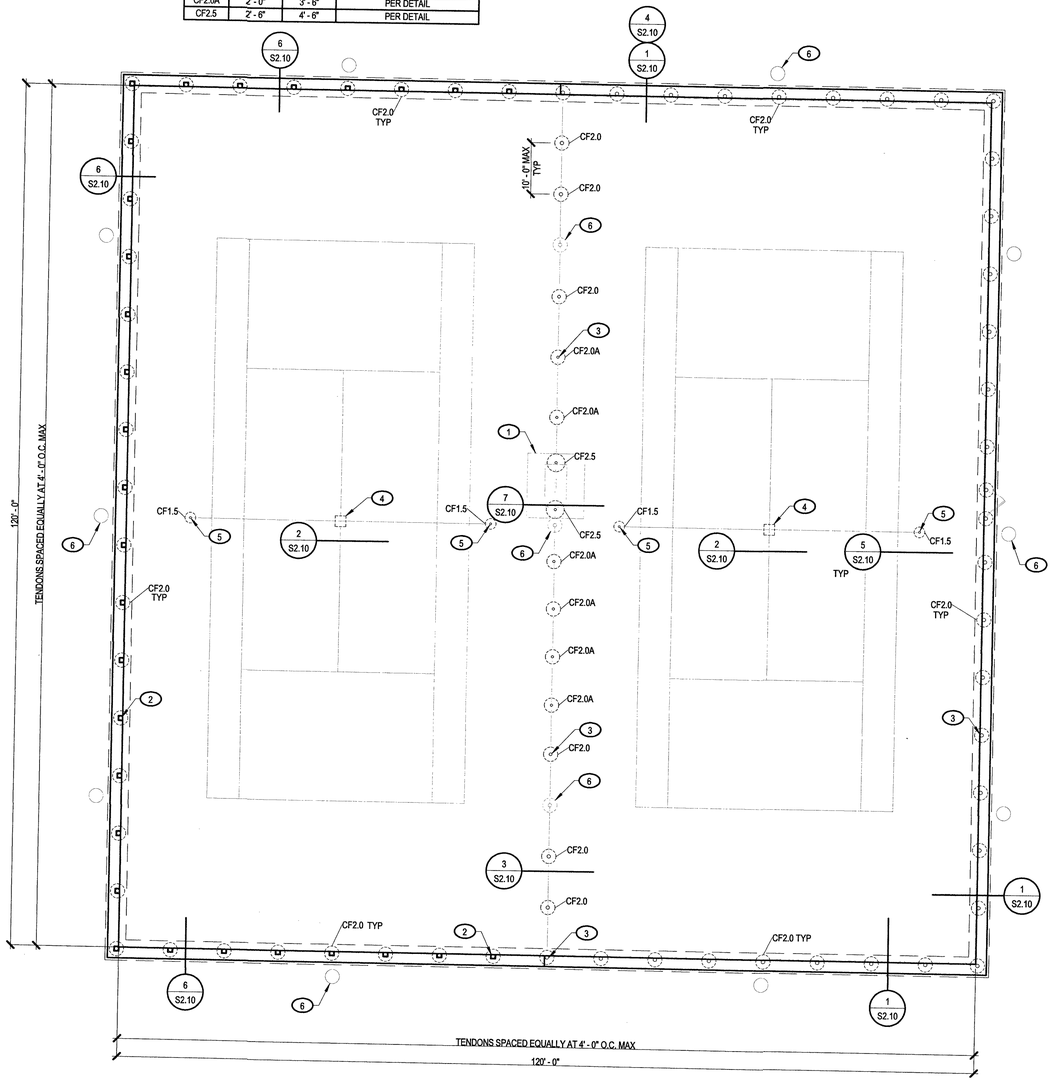
CAISSON FOOTING SCHEDULE

MARK	DIAMETER	DEPTH	FOOTING REINFORCING
CF1.5	1' - 6"	2' - 6"	PER DETAIL
CF2.0	2' - 0"	4' - 0"	PER DETAIL
CF2.0A	2' - 0"	3' - 6"	PER DETAIL
CF2.5	2' - 6"	4' - 6"	PER DETAIL



1 S2.00 TENNIS COURT FOUNDATION AND POST-TENSIONING PLAN

FOUNDATION PLAN NOTES

EMBEDMENT

A. MIN EMBEDMENT DEPTH: 12". ALL FTGS SHALL EXTEND BELOW GRADE THE MIN EMBEDMENT DEPTH AS NOTED. GRADE SHALL BE DEFINED AS T.O. LOWEST ADJACENT COMPACTED SUBGRADE

CONCRETE

A. TYP POST-TENSIONED SLAB SHALL BE 5" THICK AT TENNIS COURTS. POST-TENSIONED SLAB SHALL BE PLACED OVER 10 MIL MIN VAPOR BARRIER OVER 2" SAND OVER SUBBASE AS SPECIFIED IN THE APPROVED GEOTECHNICAL REPORT REFERENCED IN THE GSN. TENDONS AT EDGE OF SLAB SHALL BE WITHIN 6" OF EDGE. SEE TYPICAL POST-TENSIONED SLAB CONSTRUCTION DETAIL.

B. CONTINUE WALL AND FTG REINF INTO WALLS AND FTGS THAT ARE PERPENDICULAR TO EA OTHER PER TYP DETAILS.

MISCELLANEOUS

A. TYP DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS.

B. CONTRACTOR TO VERIFY ALL DIMS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCIES W/ THE ARCHITECT.

C. CONTRACTOR TO VERIFY LOCATION OF ALL INSERTS IN SLAB W/ APPROVED MECH, PLUMBING, AND ELECTRICAL DWGS PRIOR TO CONSTRUCTION. SEE ARCH FOR DRAIN LOCATIONS.

D. NOT ALL NOTES MAY BE USED ON THIS SHEET.

E. ADEQUATE DRAINAGE AWAY FROM STRUCTURE SHALL BE PROVIDED. SEE APPROVED ARCH/CIVIL DWGS.

F. BACKFILL AT UTILITY TRENCHES SHALL BE PLACED AND COMPACTED PER THE GEOTECHNICAL REPORT.

KEYNOTES

1. SHADE STRUCTURE BY OTHERS. FDN PER DETAILS
2. FENCE POLE. NOTCH INTO RETAINING WALL PER DETAILS
3. FENCE POLE PER DETAILS
4. NET ANCHOR. SEE DETAIL
5. TENNIS NET POLE
6. LIGHT POLE PER ARCH. SEE 9/S2.10 FOR LIGHT POLE AT TENNIS COURT

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TENNIS COURT PLAN

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LAS VEGAS, NEVADA 89106
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SHT NO	S2.00

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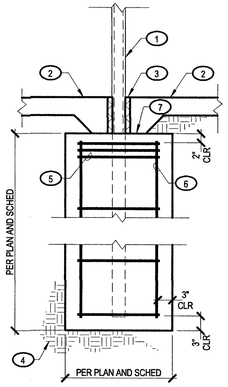
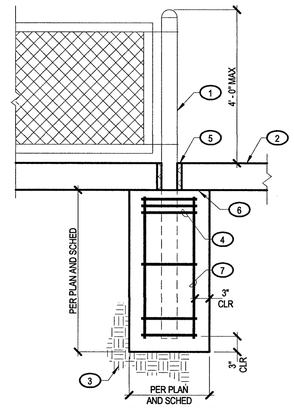


KEYNOTES:

1. SHADE STRUCTURE POLE BY OTHERS. EXTEND TO B.O. FTG
2. PT SLAB ON GRADE PER PLAN
3. 1" COMPRESSIBLE MATERIAL AROUND POLE AT PT SLAB
4. PIER EXCAVATION PER RECOMMENDATIONS IN GSN
5. (3) #3 TIES IN TOP 5" AND AT 12" O.C.
6. (6) #5 VERT BARS EVENLY SPACED
7. CONTRACTOR TO PROVIDE BOND BREAKER BETWEEN T.O. CAISSON AND B.O. PT SLAB

7/S2.10 FOOTING AT SHADE STRUCTURE



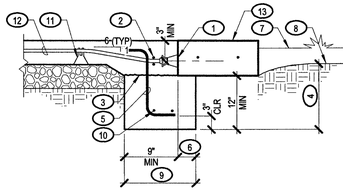
KEYNOTES:

1. 3 1/2" STEEL POST AND NET HARDWARE PER LA STEELCRAFT PRODUCTS OR APPROVED EQ
2. TOP OF PT SLAB
3. PIER EXCAVATION PER RECOMMENDATIONS IN GSN
4. (3) #3 TIES IN TOP 5" AND AT 12" O.C. THEREAFTER
5. 1" COMPRESSIBLE MATERIAL AROUND POST AT PT SLAB
6. CONTRACTOR TO PROVIDE BOND BREAKER BETWEEN T.O. CAISSON AND B.O. PT SLAB
7. (4) #4 VERT BARS EVENLY SPACED

NOTES:

A. FDN DESIGNED FOR A 550# TENSION LOAD AT TOP OF POST

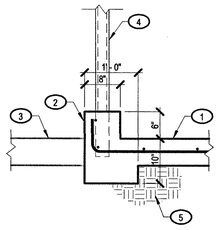
5/S2.10 CAISSON FOOTING AT TENNIS COURT



KEYNOTES:

1. GROUT POCKET W/ NON-SHRINK GROUT AT STRESSING END
2. #3x12" HAIRPIN TYP AT EA TENDON ANCHOR. SEE DIMS BELOW
3. ROUGHEN CONSTRUCTION JOINT AT OPTIONAL TWO-POUR
4. FTG EMBEDMENT PER PLAN NOTE
5. #4 DOWELS AT 24" O.C. AT OPTIONAL TWO-POUR JOINT. CENTER AT JOINT
6. WIDENED STRIP FTG PER CONTRACTOR OPTION. 3" MIN
7. T.O. FINISHED GRADE
8. T.O. FINAL COMPACTED SUBGRADE
9. 16" MIN FDN WIDTH, UNO ON PLAN
10. (1) #5 BAR CONT
11. PLASTIC CHAIR OT DOBIE BLOCK AT EA TENDON INTERSECTION
12. PT TENDON
13. 18" WIDE x 8" DEEP CURB. REINF W/ (2) CONT #4 AT T.O. CURB AS SHOWN

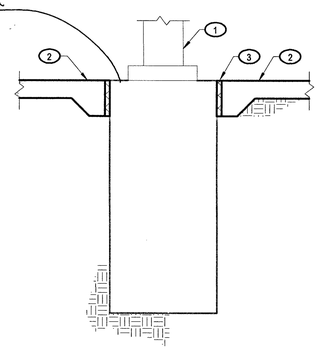
1/S2.10 EDGE OF SLAB



KEYNOTES:

1. 6" THICK CONC SLAB PER LANDSCAPE PLAN. REINF W/ #4 BARS AT 12" O.C., CENTERED IN SLAB THICKNESS
2. CONC CURB AS OCCURS
3. CONC FLATWORK BY OTHERS
4. POST, FENCING AND ATTACHMENT PER LANDSCAPE DWGS OR FENCE CONTRACTOR. MAX HT AND SPACING = 4' - 0" MAX. VERIFY W/ LANDSCAPE PLANS. ATTACH PER TYP FENCE ATTACHMENT DETAIL
5. PROPERLY PREPARED SUBGRADE PER GEOTECH REPORT

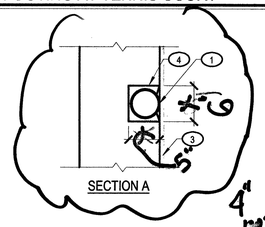
8/S2.10 POLE FOOTING AT WATER PLAY AREA HANDRAIL

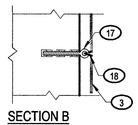


KEYNOTES:

1. LIGHTPOLE POST AND FTG PER CONTRACTOR
2. PT SLAB ON GRADE PER PLAN
3. 1" COMPRESSIBLE MATERIAL AROUND POLE AT PT SLAB

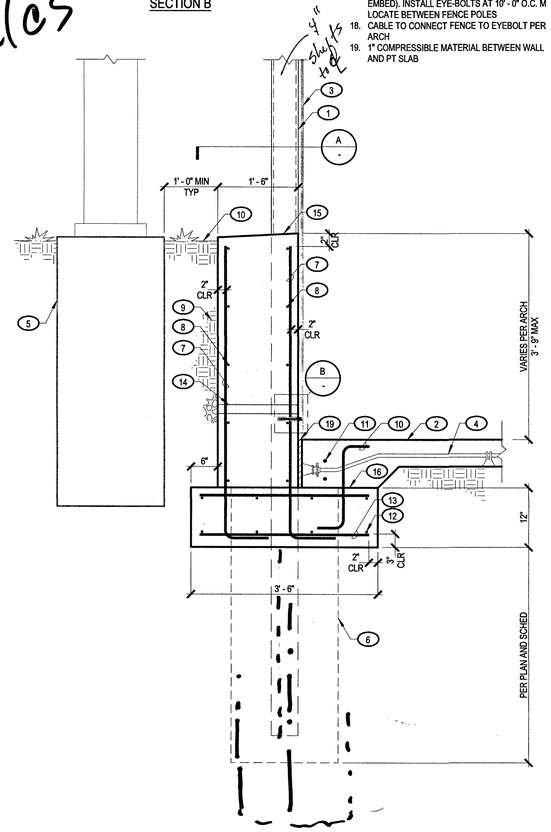
9/S2.10 LIGHT POLE AT TENNIS COURT





KEYNOTES:

1. POST, FENCING, AND ATTACHMENT PER LANDSCAPE DWGS OR FENCE CONTRACTO
2. PT SLAB PER PLAN
3. FENCE AND ATTACHMENT TO POLE PER AS
4. FILL VOID W/ NON-SHRINK GROUT
5. LIGHT POLE AND FDN BY OTHERS
6. FOOTING AT FENCE POLE PER PLAN AND D 4/S2.00 AS OCCURS. VERT BARS TO HOOK I WALL FTG.
7. #4 VERT AT 12" O.C. EA FACE W/ STD HOOK FTG
8. #4 HORIZ AT 12" O.C. EA FACE
9. BACKFILL MATERIAL AND PROCEDURE PER DETIL
10. FINISHED GRADE PER CIVIL
11. HAIR PIN PER 8/S2.00
12. #4 LONG AT 12" O.C. T&B
13. #4 TRANS AT 12" O.C. T&B
14. WEEPHOLE, ROCK POCKET, AND FILTER FAB PER TYP DETAIL
15. SLOPE TO DRAIN
16. CONTRACTOR TO PROBIDE BOND BREAKER BETWEEN T.O. FTG AND B.O. PT SLAB
17. 3/8" Ø STAINLESS STEEL EYEBOLT. DRILL AND EPOXY W/ SIMPSON SET-XP (ICC-ES ESR 2508, INSTALLED PER MFR INSTRUCTIONS (4" MIN EMBED). INSTALL EYE-BOLTS AT 10' - 0" O.C. M LOCATE BETWEEN FENCE POLES
18. CABLE TO CONNECT FENCE TO EYEBOLT PER ARCH
19. 1" COMPRESSIBLE MATERIAL BETWEEN WALL AND PT SLAB

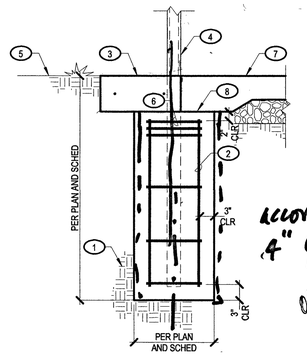


6/S2.10 RETAINING WALL AT TENNIS COURT

CUSTOM

KEYNOTES:

1. PIER EXCAVATION PER RECOMMENDATIONS IN GSN
2. (6) #4 VERT BARS EVENLY SPACED
3. 18"x8" DEEP CONT CONC CURB SIM TO 1/S2.10
4. POST, FENCING AND ATTACHMENT PER LANDSCAPE DWGS OR FENCE CONTRACTOR HT AND SPACING = 10' - 0" MAX. VERIFY W/ LANDSCAPE PLANS
5. TOP OF LEVEL FINSIHED GRADE OR COMPACTED SUBGRADE
6. (3) #3 TIES IN TOP 5" AND AT 12" O.C.
7. PT SLAB ON GRADE PER PLAN
8. CONTRACTOR TO PROVIDE BOND BREAKER BETWEEN T.O. CAISSON AND B.O. PT SLAB



accomodate 4" ø ok

We think this is graphically ok

4/S2.10 POLE FOOTING AT 10' - 0" O.C. MAX TENNIS COURT FENCE

Marlene Siska

From: Spencer George <spencer.george@es2eng.com>
Sent: Tuesday, July 09, 2019 3:14 PM
To: Marlene Siska
Cc: Bruce Breed
Subject: RE: Huckleberry Park - VE Structural Revisions

Follow Up Flag: Follow up
Due By: Thursday, July 11, 2019 11:30 AM
Flag Status: Flagged

EXTERNAL EMAIL

Good Afternoon Marti,

I called and left a voice message for you. Please call back when you get a chance so we can discuss.

Looks like there are a few elements in need of revision.

1. Calc perimeter pole at 4" instead of the 6" pole in our calcs. We don't specify a pole size on our drawings, so no change to our details required for this change.
   a. I don't know that I'd adjust the notch on the wall from what is shown. Maybe we reduce it down to 6"x6". It'll give a little more grout material in the void. Sometimes if the grout section becomes very thin, it may crack eventually.
2. Remove the gabion basket and associated attachment information from detail 1/S3.00.

Respectfully,

Spencer George, PE, SE
Engineering System Solutions, ES²
702.616.3107
www.es2eng.com/commercial

From: Marlene Siska <msiska@LasVegasNevada.GOV>
Sent: Tuesday, July 2, 2019 3:34 PM
To: Spencer George <spencer.george@es2eng.com>
Cc: Bruce Breed <bbreed@LasVegasNevada.GOV>
Subject: FW: Huckleberry Park - VE Structural Revisions

Hi Spencer, I hope you are well.

I know we discussed the structural changes on Huckleberry. You didn't think that there was any significant changes. I agree except on the dtl 6/S2.10. I thought the center line needed to to be adjusted. We marked it up in red on the attached sheet.
Bruce outlined the small adjustments we would like to see in our permit revision 1 dated 6-4-2019.

Bruce outlined these below in yellow!

1

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TENNIS COURT SECTIONS

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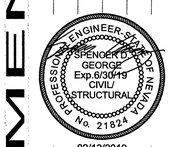

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FAX: (702) 384-4846

DRAWN	Author
FILE	18.2044
DATE	12/17/2018
SCALE	N/A
BID NO	
CLV DWG NO	
HANSEN NO	
SHT NO	S2.10

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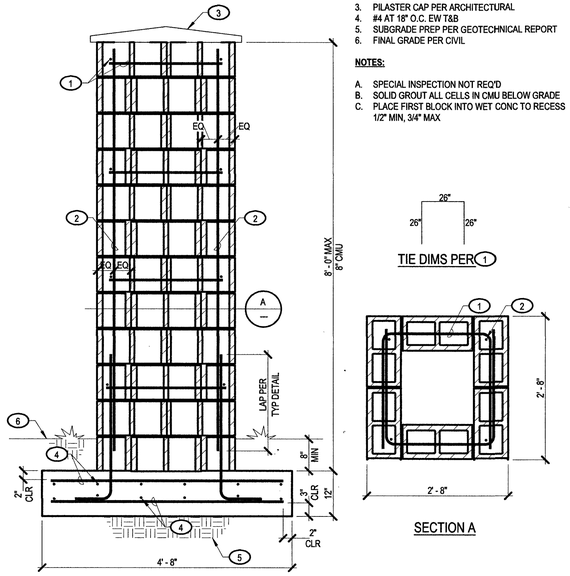


KEYNOTES:

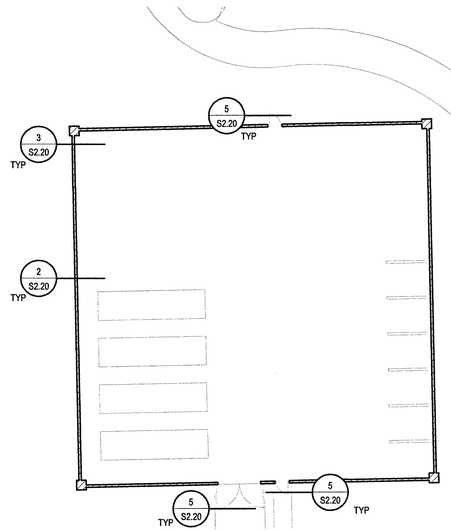
1. #4 TIES PER DIMS BELOW EVERY (3) COURSES. BREAKOUT 4"x4" HOLE IN FACE TO ALLOW GROUT TO FREELY FLOW BETWEEN ADJACENT CELLS.
2. #4 VERT AT EA CORNER W/ HOOKED FOUNDATION DOWEL TO LAP AND MATCH. HOOK FROM FTG TO EXTEND 30" MIN ABOVE TOP OF FTG
3. PILASTER CAP PER ARCHITECTURAL
4. #4 AT 18" O.C. EW T&B
5. SUBGRADE PREP PER GEOTECHNICAL REPORT
6. FINAL GRADE PER CIVIL

NOTES:

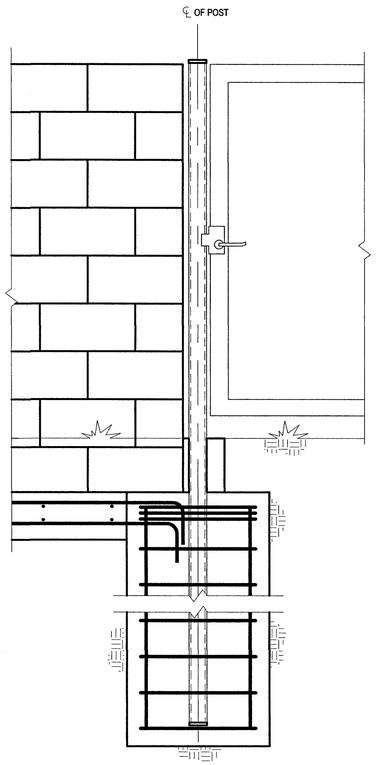
A. SPECIAL INSPECTION NOT REQ'D
B. SOLID GROUT ALL CELLS IN CMU BELOW GRADE
C. PLACE FIRST BLOCK INTO WET CONC TO RECESS 1/2" MIN, 3/4" MAX

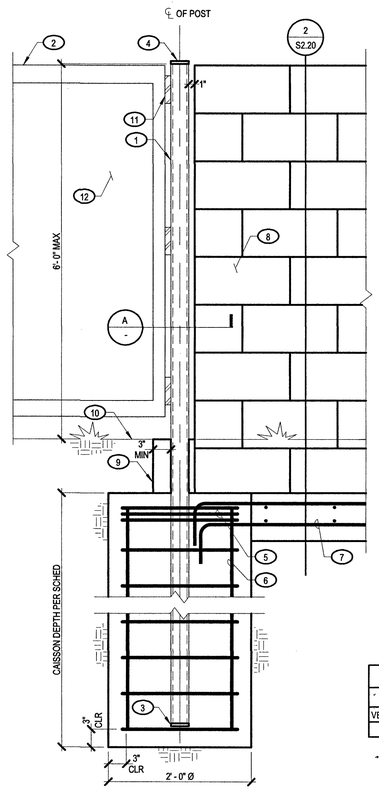
SECTION A

3 S2.20 PERIMETER FENCE PILASTER
W702R



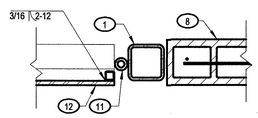
1 S2.20 ENLARGED MAINTENANCE YARD - PLAN VIEW





KEYNOTES:

1. GATE POLE PER SCHEDULE
2. GATE AND ATTACHMENT BY OTHERS. MAX WEIGHT: PER SCHEDULE
3. 1/4" CAP PL AT B.O. STEEL POST
4. 3/8" CAP PL AT T.O. STEEL POST
5. (3) #3 CLOSED TIES W/IN TOP 4" AND AT 8" O.C. THEREAFTER
6. (6) #4 VERT DOWELS SPACED EVENLY AROUND FTG
7. EXTEND WALL FTG LONG BARS INTO CAISSON AND TERMINATE W/ STD HOOK
8. CMU WALL PER DETAIL
9. CURB PEDESTAL AT POST
10. FINAL GRADE PER CIVIL
11. GATE MFR TO PROVIDE GATE HINGES RATED FOR MAX GATE WT. PROVIDE (3) HINGES PER GATE
12. MCNICHOLS PERFORATED METAL OVER GATE UP TO 2" T.S. PERIMETER



SECTION A

GATE CONSTRUCTION SCHEDULE				
GATE	WIDTH	MAX WT	CAISSON DEPTH	COL
VEHICLE GATE	7' - 4"	1500#	6' - 0"	HSS6x6x3/8
MAN GATE	4' - 0"	750#	4' - 5"	HSS4x4x1/4

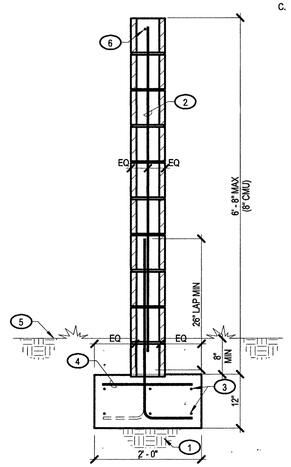
5 S2.20 VEHICLE AND MAN GATES CONSTRUCTION
CUSTOM

KEYNOTES:

1. SUBGRADE PREP PER GEOTECHNICAL REPORT
2. #4 VERT AT 32" O.C. W/ HOOKED DOWEL AT FDN TO MATCH AND LAP, ALT HOOK DIRECTION. HOOK FROM FOOTING TO EXTEND 30" MIN ABOVE TOP OF FTG.
3. (3) #4 LONG T&B
4. #4 TRANS AT 18" O.C. IN TOP OF FTG
5. FINAL GRADE PER CIVIL
6. #4 CONT AT T.O. WALL IN SOLID GROUTED COURSE

NOTES:

A. SPECIAL INSPECTION NOT REQ'D
B. SOLID GROUT ALL CELLS IN CMU BELOW GRADE
C. PLACE FIRST BLOCK INTO WET CONC TO RECESS 1/2" MIN, 3/4" MAX



2 S2.20 6'-0" CMU FENCE WALL
W701

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DRAWN	TAL
FILE	18.2044
DATE	12/17/2018
SCALE	N/A
BID NO	
CLV DWG NO	
HANSEN NO	
SHT NO	S2.20

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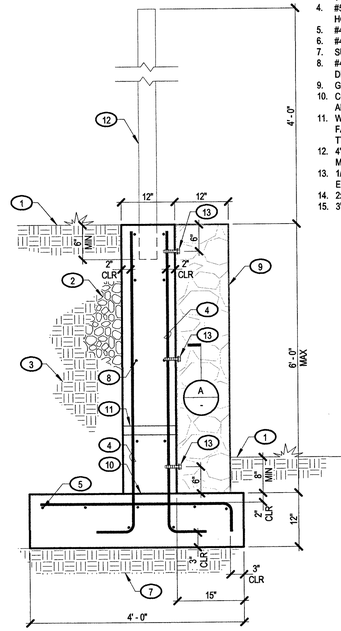
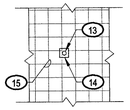
KEY NOTES:

1. FINAL GRADE PER CIVIL
2. PROVIDE GRANULAR FREE DRAIN MATERIAL AND NON-WOVEN GEOTEXTILE FABRIC PER TYP RETAINING WALL BACKFILL DETAIL
3. BACKFILL MATERIAL AND PROCEDURE PER TYP DETAIL
4. #5 VERT DOWEL AT 18" O.C. EA FACE W/ STD HOOK INTO FTG
5. #4 LONG AT 12" O.C. LAP 18" MIN
6. #4 TRANS AT 18" O.C. W/ STD HOOK
7. SUBGRADE PREPARATION PER TYP DETAIL
8. #4 HORIZ AT 18" O.C. EA FACE, LAP PER TYP DETAIL
9. GABION BASKET PER ARCH
10. CONSTRUCTION JOINT. ROUGHEN TO 1/4" - AMPLITUDE
11. WEEP HOLE, ROCK POCKET, AND FILTER FABRIC PER TYP DETAIL. MAX SPACING PER TYP DETAIL
12. 4" Ø CHAIN LINK FENCE POST AT 6' - 0" O.C. MAX. ATTACHMENT TO WALL PER TYP DETAIL
13. 1/4" Ø STAINLESS STEEL STRONGBOLT 2 (ICC-ES ESR 3037) W/ 2" MIN EMBED AT 48" O.C.
14. 2x2x3/16" PL WASHER
15. 3" WIREMESH PER ARCH

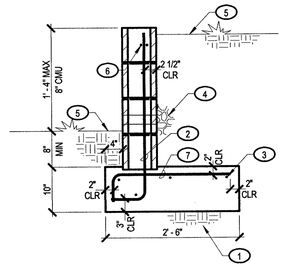




SECTION A

1 S3.00 GABION WALL SECTION

W202R



KEYNOTES:

1. SUBGRADE PREP PER GEOTECH REPORT
2. #4 AT 24" O.C. VERT W/ HOOKED DOWEL AT FDN
3. (3) #4 HORIZ
4. WEEPHOLE, ROCK POCKET, AND FILTER FABRIC PER TYP DETAIL
5. FINAL GRADE PER CIVIL
6. (2) #4 CONT AT T.O. WALL IN SOLID GROUTED COURSE
7. #4 TRANS AT 12" O.C. W/ STD HOOK

NOTES:

A. SPECIAL INSPECTION NOT REQ'D
B. SOLID GROUT ALL CELLS IN CMU BELOW GRADE
C. PLACE FIRST BLOCK INTO WET CONC TO RECESS 1/2" MIN, 3/4" MAX

2 S3.00 1'-4" CMU RETAINING WALL

W703R

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SCALE	N/A
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CLV DWG NO	
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