

DEPARTMENT OF PUBLIC WORKS

Mayor:

CAROLYN G. GOODMAN

City Council:

STAVROS S. ANTHONY (Mayor Pro-Tem)

LOIS TARKANIAN

STEVEN D. ROSS

RICKI Y. BARLOW

BILL COFFIN

BOB BEERS

City Manager:

ELIZABETH N. FRETWELL

Director of Public Works:

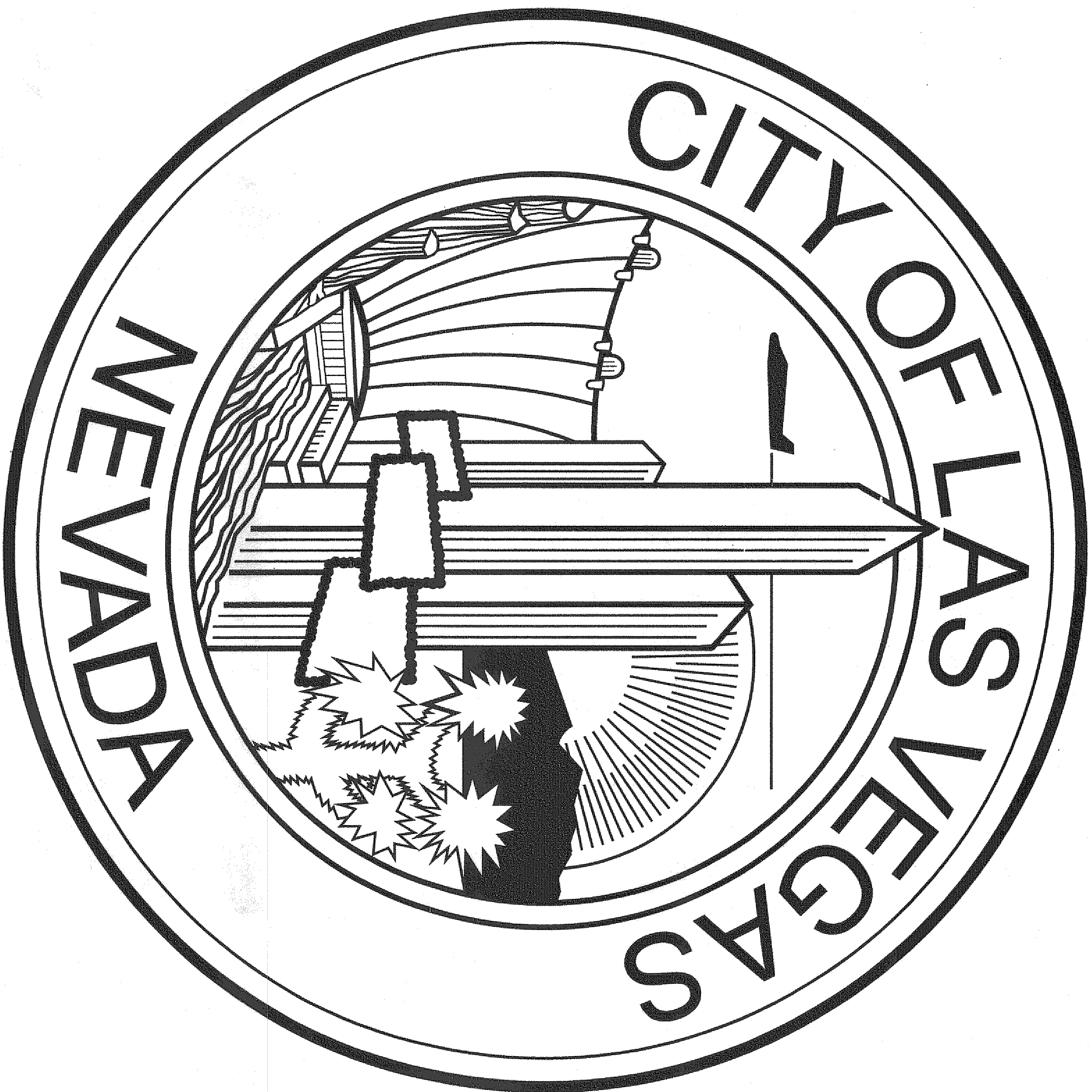
JORGE CERVANTES, P.E., P.T.O.E.

City Engineer:

DAVID N. BOWERS, P.E., P.T.O.E.

Funded By:

CITY OF LAS VEGAS



ALL AMERICAN PARK IMPROVEMENTS

Reviewed By:

CIVIL CITY ENGINEER

2/12/13
DATE

CIVIL PROJECT MANAGER

3/12/13
DATE

CIVIL CONSTRUCTION MANAGER

3/12/13
DATE

REVISIONS			
NO.	DATE	SHEET	

PREPARED BY



DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

PREPARED FOR

CITY OF LAS VEGAS

H# 45161

BID# 13.45161

DATE: MARCH 2013

DESIGNED BY: GJJ

SUBMITTAL STAGE:

DRAWN BY: GJJ

100% - FINAL

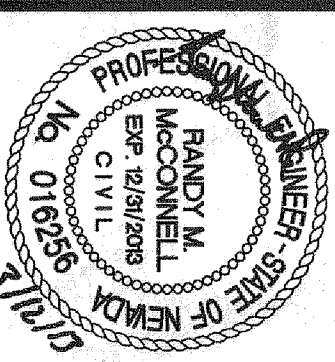
CHECKED BY: RMM

TITLE

ALL AMERICAN PARK
IMPROVEMENTS

SHEET

COVER SHEET



SHEET

CV

1 of 24

DRAWING NO. 65062-1

RECORD
AS-BUILT

"ASBUILT DRAWINGS"

[illegible]

NO WORK SHALL BEGUN UNTIL THE WATER PLANS HAVE BEEN APPROVED BY THE LVWD. THE FOLLOWING WATER PLAN APPROVAL NOTICE SHALL BE GIVEN TO THE LVWD COMMUNICATIONS SUPPORT DIVISION FOR REVIEW AND APPROVAL PRIOR TO ANY CONSTRUCTION, FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN 2-00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.

ALL WORK SHALL CONFORM TO LVWD STANDARD PLATES, DRAWING AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM CODEBOOKS, THE LATEST EDITION OF ALL APPLICABLE STANDARDS AND/OR CONSULTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.

ALL WORK, EXCEPT AS NOTIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSHORE IMPROVEMENT. CLARK COUNTY AREA A SINGLE PREPARED MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVWD.

ALL SERVICE LATENTALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER JOINTING WITH LVWD APPROVED SERVICE SADDLES.

ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AIR CURB OUTLETS.

ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDDCS.

ALL WATER FACILITIES SHALL BE FILLED, DISINTEGRATED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVWD DISTRIBUTION SYSTEM.

THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 756-3152 OR 258-9802. TWO (2) WORKING DAYS PRIOR TO METER PICKUP.

ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDCS SECTION 3.14.01, AND APPROVED BY THE LVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.

ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVWD PRE-APPROVED MATERIALS AND FINISHES LIST. NO DEVIATION FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

TELEPHONE TOLL BEFORE YOU DIG AT 811* OR 1-800-227-2600

THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVWD) MINICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSIGNED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACED ASHPLT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVWD TO THE MINICIPAL FACILITIES WILL PATCH THE PLACED ASPHALT APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

ANY DECORATIVE PAIVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNERS ASSOCIATION, OR THE INDIVIDUAL HOMEOWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE AGENCY HAVING JURISDICTION, DECORATIVE SURFACE MATERIALS, AND FINISHES TO BE MATCHED TO THE EXISTING SURFACE. IF THE PRIVATE STREET, IF DISTURBED BY THE LVWD DURING A PUBLIC OR PRIVATE STREET, IT TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IT SHALL BE REPAIRED BY LVWD WITH A APPROPRIATELY SIZED PLASTER FINISH. THE CONTRACTOR SHALL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAIVING SURFACE WITHIN THE STREET. THE LVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC), LOCATION/NOTHING SHALL BE IN ACCORDANCE WITH THE CITY ENGINEER AND DEVIATION FROM THE PLACEMENT OF CITY ENGINEER AND DEVIATION FROM THE PLACEMENT OF COMPLIANCE WITH SECTION 623 OF THE SPECIFICATIONS.

ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.

ALL ENTRY POINT SHALL HAVE RAIL STRONGS AND A AB AND TRAGED WERE INSTALLED PER SECTION 623 OF THE SPECIFICATIONS PRIOR TO BACKFILLING AND FINAL INSPECTION.

ANY STRUCTURE SUCH AS BOX, WALLS, CHAIN LINK FENCES, RETAINMENT WALLS, ETC., SHALL LEAVE MINIMUM CLEARANCE IN CONFORMANCE WITH THE CITY ENGINEER AND DEVIATION FROM THE PLACEMENT OF COMPLIANCE WITH SECTION 623 OF THE SPECIFICATIONS.

NO TIME CLOSER ENCLOSURES THE STREET LIGHTING POLE.

AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWINGS NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.

SERVICE POINTS SHALL BE COMPARTMENTED WITH AN ENERGY AND WHERE POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT OR AS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED, CONDUIT PLAYS OR IN THE SPECIAL PROVISIONS.

STREET LIGHTING AND TRAFFIC SIGNAL EQUIPMENT REMOVED AND / OR DESTROYED TO BE SALVAGED SHALL BE DELIVERED BY THE CONTRACTOR TO THE APPROPRIATE CITY SERVICE YARD WITH A MEANS TO UNLOAD. A SET UP DURING TIME AND LOCATION. REPAIR OF ANY DAMAGE TO EQUIPMENT DURING THIS PROCESS WILL BE THE CONTRACTORS RESPONSIBILITY. AT NO ADDITIONAL COST TO THE CITY.

EAT, FEBRUARY 10, 2010

1. ALL CONSTRUCTION SIGNING, BARRICADEING, AND TRAFFIC DIRECTION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

2. FROM THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING.

3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE ADVANCE WARNING SIGNS SHALL BE PLACED AT THE BEGINNING OF THE CONSTRUCTION ZONE, THE ENCLOSURES ADJACENT TO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER PERMANENT SIGNS ARE INSTALLED.

4. WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCOUCHED A NEED FOR A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTITIES A ZONE FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE STUDENT GUARD RAIL SIGNS THAT BE PRESENT FOR THE FULL DURATION OF THE PLANNED CONSTRUCTION WORK. THE GUARD RAIL SIGNS ARE LIKELY TO BE PRESENT.

5. IF THE IMPROVEMENTS NECESSITATE THE UTILIZATION TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE, NY CLASS B REFLECTIVE SHEETING OR APPROVED EQUIVALENT. ALL TRAFFIC SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SIGNING MANUAL. ALL TRAFFIC SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SIGNING MANUAL. ALL TRAFFIC SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE STANDARD SIGNING MANUAL.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE INSTALLED, THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTION OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.

10. THE CONTRACTORS SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. ALL WORKERS SHALL BE REQUIRED TO WEAR PROPERLY MAINTAINED AND INSPECTED FLUORESCENT ORANGE SAFETY VESTS AND/OR VESTS WITH REFLECTIVE MATERIALS TO REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO MINIMIZE THE INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRAVELING PUBLIC OF ANY INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON MAIN STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

13. SIGNS SHALL BE OBTAINED BY CONTRACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS (PE) DIVISION. FEES FOR THE USE OF THESE OFFICERS SHALL BE RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

15. THE CONTRACTOR SHALL CONDUCT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS. THE CONTRACTOR SHALL PROVIDE A DRAINING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT PARKINGS AND STORAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING EXISTING LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

CITY OF LAS VEGAS GRADING NOTES

IN THE EVENT THAT ANY UNOBSERVED CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTICED FOR DIRECTION.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFFSITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.

CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, ARGUATE SHOING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.

THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.

CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED.

	HORIZONTAL	VERTICAL
A. PAVEMENT AREA SUBGRADE	0.1%	+0.0 TO -0.1'
B. ENGINEERED FILL	0.5%	+0.1 TO -0.1'

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.

ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES, INCLUDING CONSTRUCTION OF TEMPORARY STRUCTURES, IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.

THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE, AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.

IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION CONSTRUCTION (CEN VERSION).

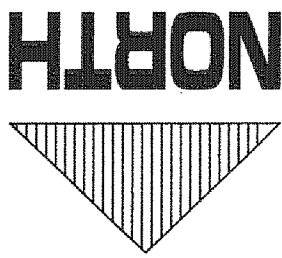
DATE JULY 2008 (CEN VERSION)

APPROX. BACK OF CURB	AT PLASTIC CONCRETE	MS/PS	MULTI-LAYER COMPOSITE PIPE
APPROX. BACK OF CURB	ASBESTOS CEMENT PIPE	MS	NOT TO SCALE
APPROX. BACK OF CURB	AUTORIZATION TO ENTER PROPERTY	NE	NV ENERGY
APPROX. BACK OF CURB	APPROXIMATE	O.C.	ON CENTER
APPROX. BACK OF CURB	BACK OF CURB RADIUS	OPP	OVERHEAD POWER LINE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	P.P.	PARALLEL
APPROX. BACK OF CURB	BACK OF CURB RADIUS	P.P.	PROJECT IN PLACE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	PT	POWER POLE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	PREC	POINT OF TANGENCY
APPROX. BACK OF CURB	BACK OF CURB RADIUS	PL	POINT OF REVERSE CURVE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	PL	POLYBOX
APPROX. BACK OF CURB	BACK OF CURB RADIUS	PL	PROPERTY LINE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	R	RADIUS
APPROX. BACK OF CURB	BACK OF CURB RADIUS	RT	RIGHT
APPROX. BACK OF CURB	BACK OF CURB RADIUS	R/W	RIGHT OF WAY
APPROX. BACK OF CURB	BACK OF CURB RADIUS	SCOP	STEEL CYLINDER CONCRETE PIPE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	SD	STORM DRAIN
APPROX. BACK OF CURB	BACK OF CURB RADIUS	SE	SQUARE FOOT
APPROX. BACK OF CURB	BACK OF CURB RADIUS	STA	STATION
APPROX. BACK OF CURB	BACK OF CURB RADIUS	STD	STANDARD
APPROX. BACK OF CURB	BACK OF CURB RADIUS	SY	SQUARE YARD
APPROX. BACK OF CURB	BACK OF CURB RADIUS	S/W	SIDEWALK
APPROX. BACK OF CURB	BACK OF CURB RADIUS	T	TELEPHONE LINE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	TC	TOP OF CURB
APPROX. BACK OF CURB	BACK OF CURB RADIUS	TEL	TELEPHONE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	TRANS.	TRANSITION
APPROX. BACK OF CURB	BACK OF CURB RADIUS	T.C.	TRAFFIC
APPROX. BACK OF CURB	BACK OF CURB RADIUS	TS	TRAFFIC SIGNAL
APPROX. BACK OF CURB	BACK OF CURB RADIUS	TYP.	TYPICAL
APPROX. BACK OF CURB	BACK OF CURB RADIUS	UNIFORM STD	UNIFORM STD DRAWING
APPROX. BACK OF CURB	BACK OF CURB RADIUS	UNIFORM STD	UNIFORM STD SPECIFICATIONS
APPROX. BACK OF CURB	BACK OF CURB RADIUS	W	WATER LINE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	WM	WATER METER
APPROX. BACK OF CURB	BACK OF CURB RADIUS	WW	WATER VALVE
APPROX. BACK OF CURB	BACK OF CURB RADIUS	W/	WITH
APPROX. BACK OF CURB	BACK OF CURB RADIUS	△	INCLUDED DELTA ANGLE

SHEET GN 2 of 24 DRAWING NO.		TITLE ALL AMERICAN PARK IMPROVEMENTS	PREPARED FOR CITY OF LAS VEGAS		PREPARED BY 		NO. DATE REVISIONS
			SHEET GENERAL NOTES, ABBREVIATIONS, LEGEND SHEET INDEX AND VICINITY MAP	H# 45161 DATE: MARCH 2013 SUBMITTAL STAGE: 100% - FINAL			

CALL BEFORE CONSTRUCTION			
BEFORE YOU DIG	USA NORTH	811 OR 800-277-2800	
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300	
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS CITY OF LAS VEGAS T.E.F.O.	702-455-7511 702-229-6611	
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929	

UTILITY DISCLAIMER:
ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY OF UTILITIES TO AVOID DAMAGE TO THE LATTER.



NORTHING=623202.99
EASTING=239476.06
"OB" 10+00.00
CHARLESTON BOULEVARD
"WB" 36+90.93
WARBONNET WAY

NORTHING=620397.98
EASTING=239666.18
"OB" 10+00.00
OAKLEY BOULEVARD
"WB" 10+00.00
WARBONNET WAY

OAKLEY BOULEVARD

"OB" ALIGNMENT

N 89° 8' 32" W - 1328.89'

OAKLEY BOULEVARD

"OB" ALIGNMENT

"OB" 23+29.89
OAKLEY BOULEVARD
NORTHING=620378.09
EASTING=240994.93
"BD" 10+00.00
BUFFALO DRIVE

GRADING PLANS
FIELDS 1 THRU 5
SEE SHEETS
FLD1 THRU FLD5

ADDITIVE / ALTERNATE 2
DEMOLITION PLAN A2
SHEET DEMO-A2
AND
SITE IMPROVEMENT PLAN A2
SHEET SITE-A2

GRADING PLAN
FIELD 1
SEE SHEET FLD1

GRADING PLAN
FIELD 2
SEE SHEET FLD2

GRADING PLAN
FIELD 3
SEE SHEET FLD3

GRADING PLAN
FIELD 4
SEE SHEET FLD4

GRADING PLAN
FIELD 5
SEE SHEET FLD5

BASE BID ITEMS
DEMOLITION PLAN 1
SHEET DEMO-1
AND
SITE IMPROVEMENT PLAN 1
SHEET SITE-1

S 3° 52' 17" E - 2829.89'
BUFFALO DRIVE

"BD" ALIGNMENT

"OB" 23+27.80
CHARLESTON BOULEVARD
NORTHING=623201.52
EASTING=240803.86
"BD" 38+29.89
BUFFALO DRIVE

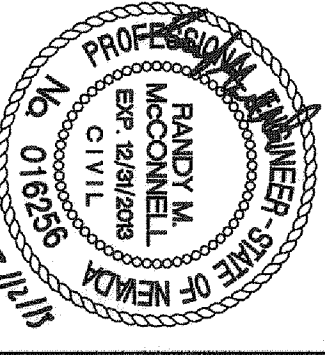
CHARLESTON BOULEVARD

CHARLESTON BOULEVARD

S 89° 56' 12" E - 1327.80'

ADDITIVE / ALTERNATE 1
DEMOLITION PLAN A1
SHEET DEMO-A1
AND
SITE IMPROVEMENT PLAN A1
SHEET SITE-A1

RECORD
AS-BUILT



SHEET
HC
3 of 24
DRAWING NO.
650.62-1

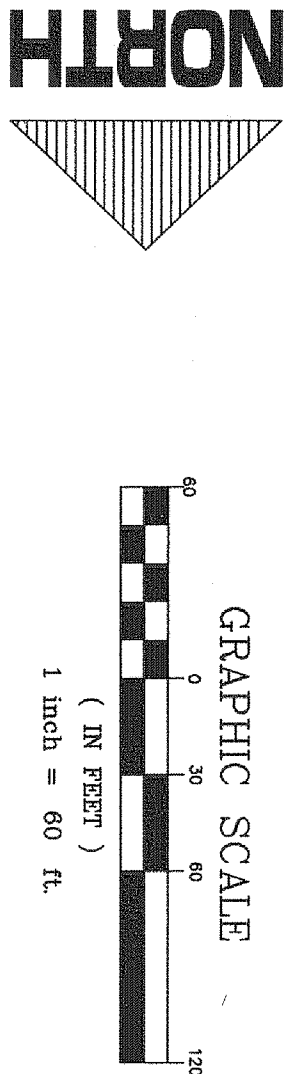
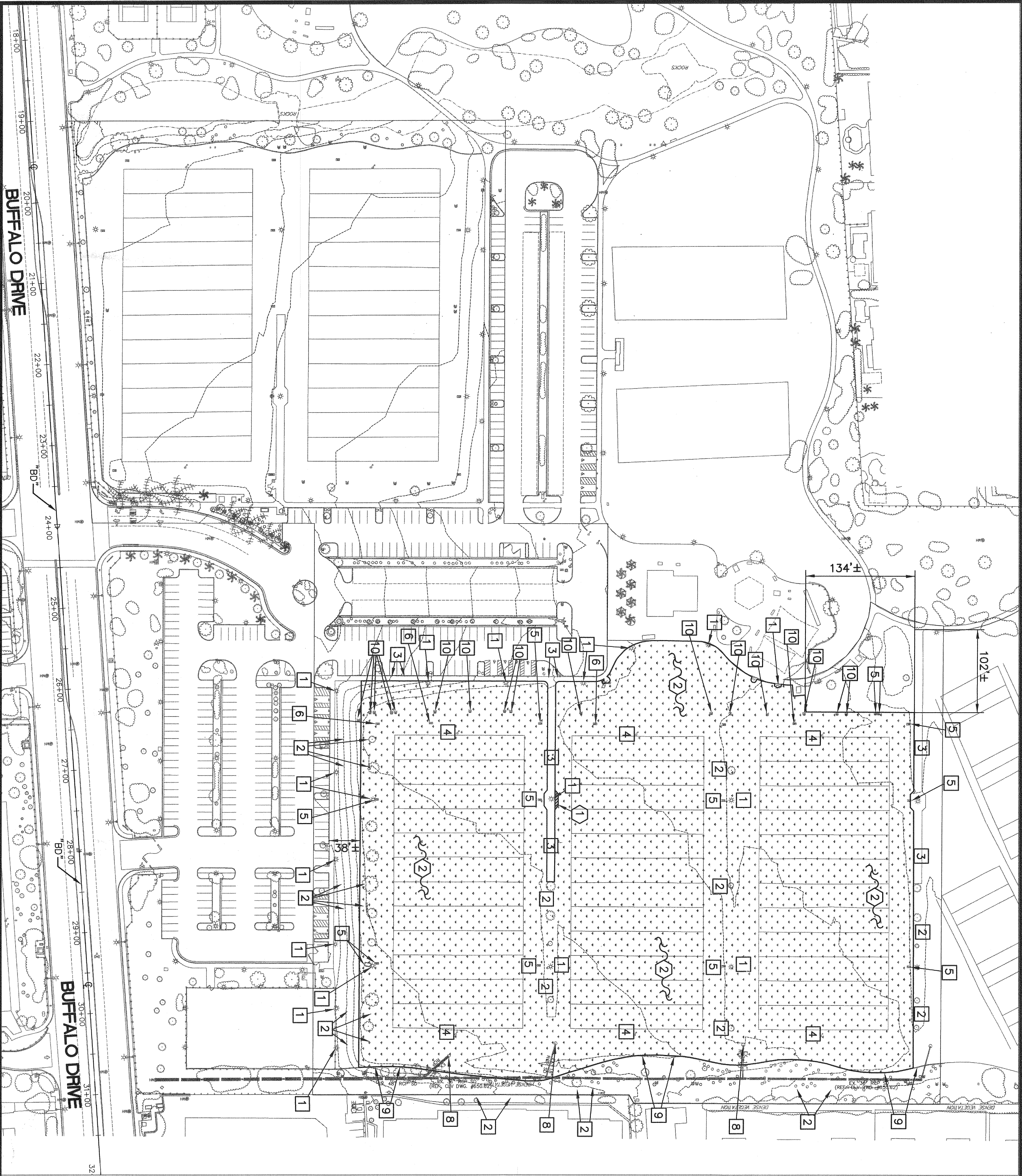
TITLE
ALL AMERICAN PARK
IMPROVEMENTS
SHEET
HORIZONTAL CONTROL
AND KEY MAP

PREPARED FOR
CITY OF LAS VEGAS
H# 45161
DATE: MARCH 2013
SUBMITTAL STAGE:
100% - FINAL

BID# 13.45161
DESIGNED BY: GJJ
DRAWN BY: GJJ
CHECKED BY: RMM

PREPARED BY
CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS



DEMOLITION NOTES:

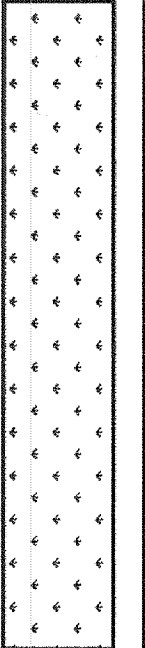
- 1 SAWCUT, REMOVE AND DISPOSE EXISTING CONCRETE WALK
- 2 REMOVE AND DISPOSE EXISTING GRASS AND SOIL. REMOVE GRASS AND SOIL TO 10" BELOW EXISTING GRADE AS REQUIRED FOR THE INSTALLATION OF SYNTHETIC TURF (SEE DETAIL "A" ON DETAIL SHEET DET). REMOVE GRASS AND SOIL TO 4" BELOW GRADE AS REQUIRED FOR THE INSTALLATION OF DECOMPOSED GRANITE (SEE DETAIL "B" ON DETAIL SHEET DET).

CLARIFICATION NOTES:

- 1 PROTECT-IN-PLACE EXISTING PARK FIELD LIGHT POLE
- 2 PROTECT-IN-PLACE EXISTING TREES, LANDSCAPING AND DECOMPOSED GRANITE
- 3 PROTECT-IN-PLACE EXISTING SIDEWALK/WALKWAY
- 4 PROTECT-IN-PLACE EXISTING GOAL POSTS
- 5 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (PHOTO LINES)
- 6 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (POLE LINES ONLY)
- 7 PROTECT-IN-PLACE EXISTING FIRE HYDRANT
- 8 PROTECT-IN-PLACE EXISTING STORM DRAIN DROP INLET
- 9 PROTECT-IN-PLACE EXISTING CONCRETE CURB
- 10 SEE IRRIGATION PLANS (IR SHEETS) FOR IRRIGATION SYSTEM MODIFICATIONS

GRAPHICS LEGEND:

LIMITS OF GRASS REMOVAL



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BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2829

RECORD AS-BUILT

4/24/18

SHEET 4 of 24
DEMO-1
DRAWING NO. 650.62-1

UNIVERSITY OF NEVADA
Randy M. McConnell
Professional Engineer
No. 0168550
State of Nevada

ALL AMERICAN PARK IMPROVEMENTS
DEMOLITION PLAN 1

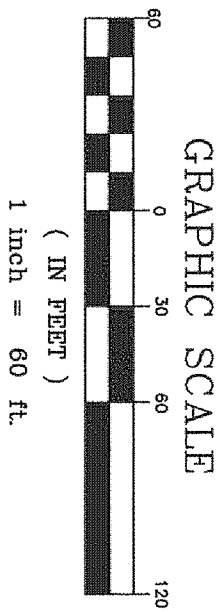
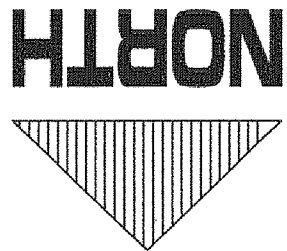
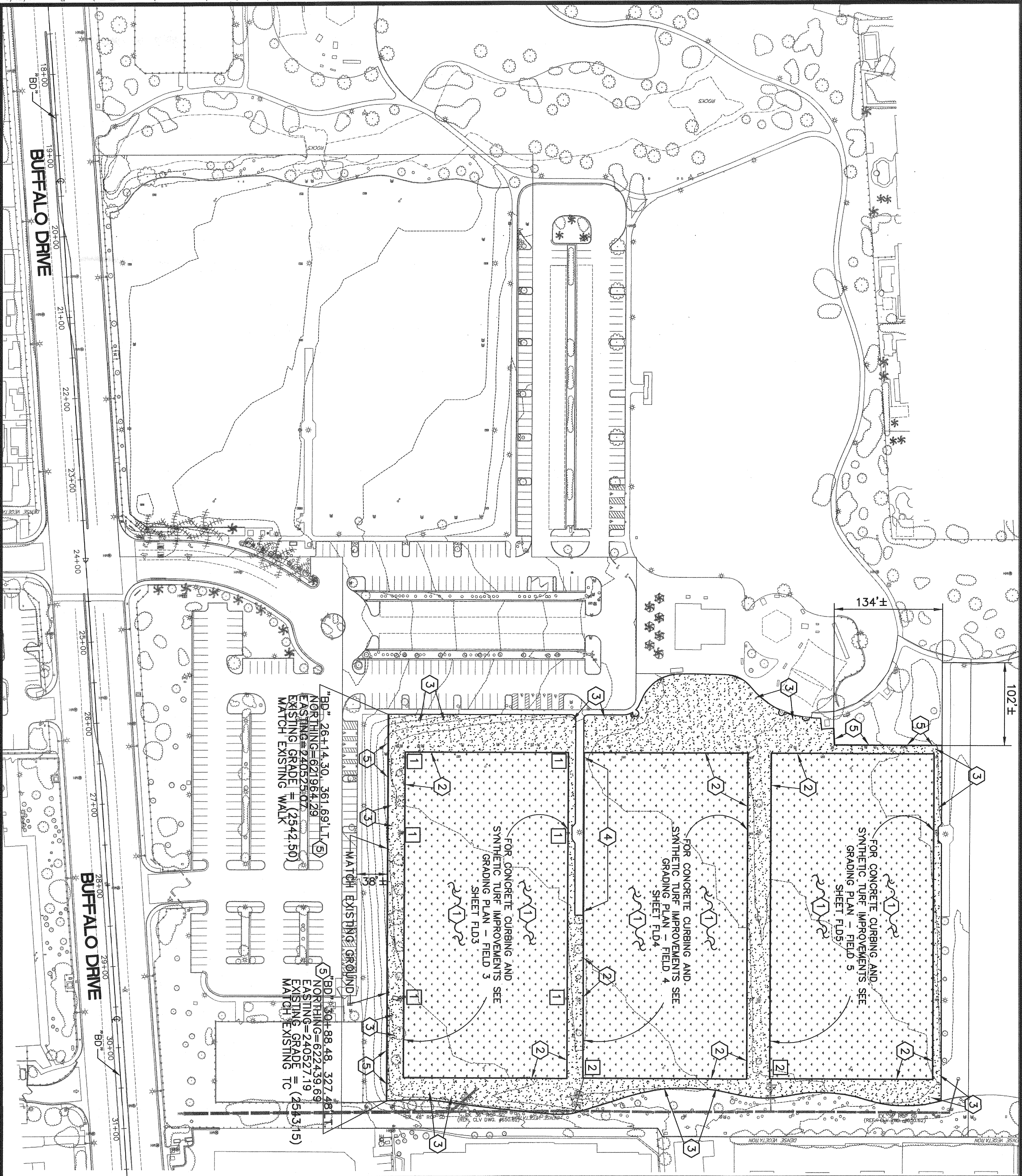
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SUBMITTAL STAGE:	DRAWN BY: GJJ
100% - FINAL	CHECKED BY: RMM

PREPARED BY

CITY OF LAS VEGAS

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS



CONSTRUCTION NOTES:

1. INSTALL SYNTHETIC TURF PER DETAIL "A" ON DETAIL SHEET DET
2. CONSTRUCT CONCRETE PERIMETER CURB PER DETAIL "A" ON DETAIL SHEET DET
3. INSTALL DECOMPOSED GRANITE PER DETAIL "B" ON DETAIL SHEET DET
4. CONSTRUCT CONCRETE GAP FILL PER DETAIL "C" ON DETAIL SHEET DET
5. CONSTRUCT CONCRETE MOW CURB PER DETAIL "D" ON DETAIL SHEET DET

CLARIFICATION NOTES:

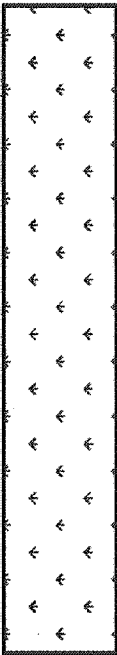
1. WHERE PULBOYS FALL IN THE CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
2. WHERE STORM DRAIN DROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.

GRAPHICS LEGEND:

LIMITS OF DECOMPOSED GRANITE INSTALLATION



LIMITS OF SYNTHETIC TURF



UTILITY DISCLAIMER:

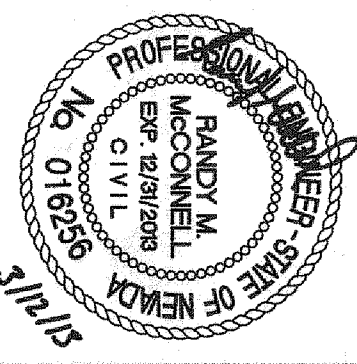
ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON IN THEIR PROPER LOCATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS. VARIATIONS THROUGHOUT THE PROJECT AREA, THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY OF UTILITIES TO AVOID DAMAGE TO THE LATTER.

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU OVERHEAD	CLARK COUNTY TRAFFIC OPERATIONS CITY OF LAS VEGAS NV ENERGY	702-455-7511 702-229-8611 702-227-2929

RECORD AS-BUILT

9/12/13



TITLE

ALL AMERICAN PARK IMPROVEMENTS

SITE IMPROVEMENTS 1

SHEET

PREPARED FOR

CITY OF LAS VEGAS

H# 45161

DATE: MARCH 2013

SUBMITTAL STAGE:

100% - FINAL

BID# 13.45161

DESIGNED BY: GJJ

DRAWN BY: GJJ

CHECKED BY: RMM

PREPARED BY



DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

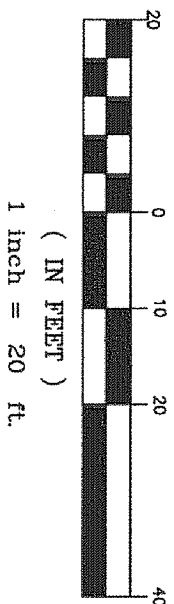
NO.	DATE	REVISIONS

CLARIFICATION NOTE

- WHERE IRRIGATION PULLBOX OR ELECTRICAL PULLBOX FALL IN CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
- WHERE STORM DRAIN DROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.
- FG OF FIELD REPRESENTS BASE OF SYNTHETIC TURF (TOP OF SAND).

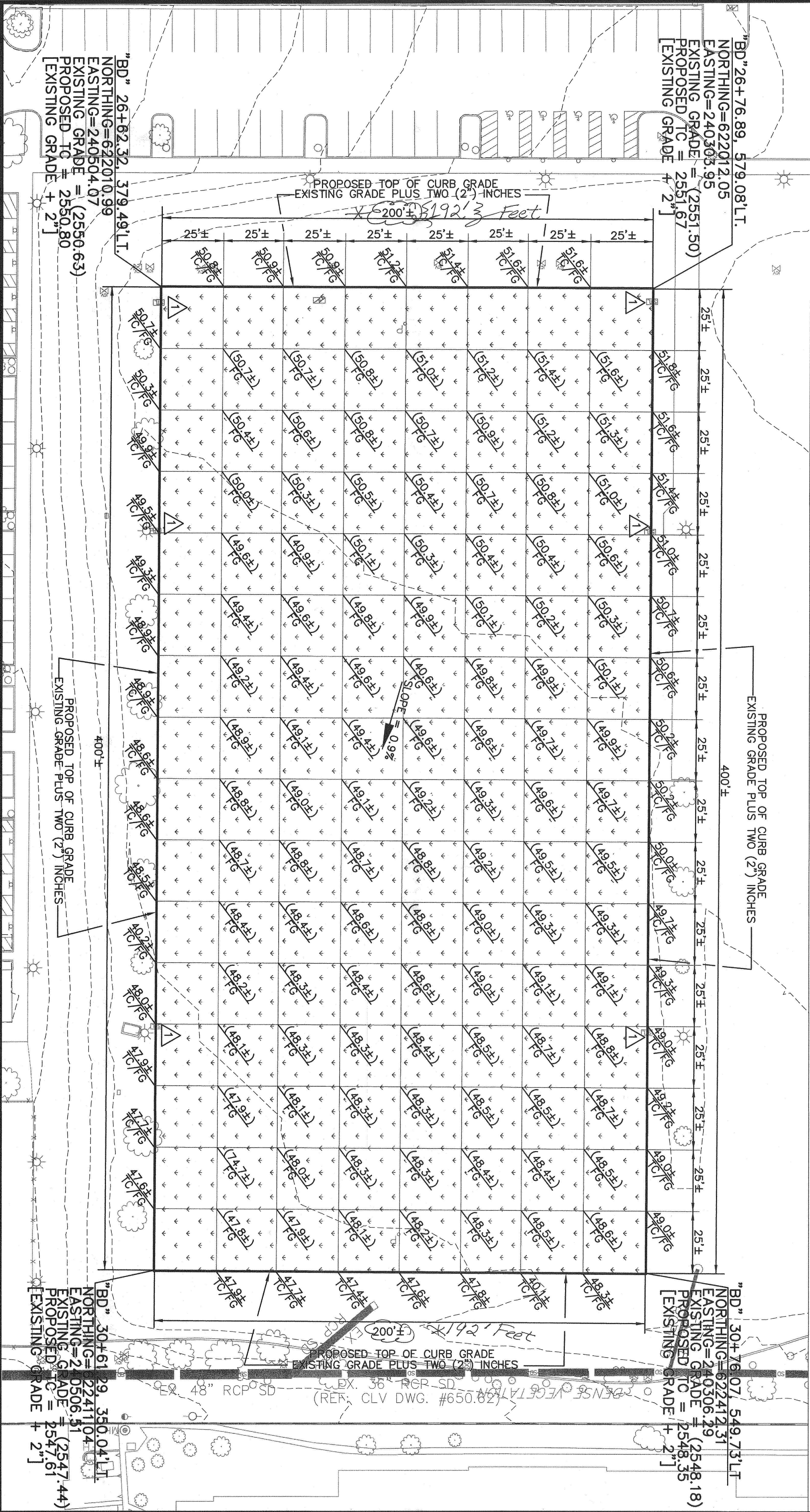
UTILITY DISCLAIMER

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CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T. CLARK COUNTY TRAFFIC OPERATIONS	702-432-5300 702-455-7511
BEFORE YOU OVERHEAD	CITY OF LAS VEGAS NV ENERGY	702-229-6611 702-227-2929



	TITLE	ALL AMERICAN PARK IMPROVEMENTS		PREPARED FOR	CITY OF LAS VEGAS		PREPARED BY		DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT	NO. DATE	REVISIONS
	SHEET	GRADING PLAN FIELD 3		H# 45161	BID# 13.45161	DESIGNED BY: GJJ	CHECKED BY: RMM				
			DATE: MARCH 2013			DRAWN BY: GJJ					
			SUBMITTAL STAGE: 100% - FINAL								

RECORD
AS-BUILT
9/24/13

SHEET
FLD3
6 of 24
DRAWING NO.
650.62-1

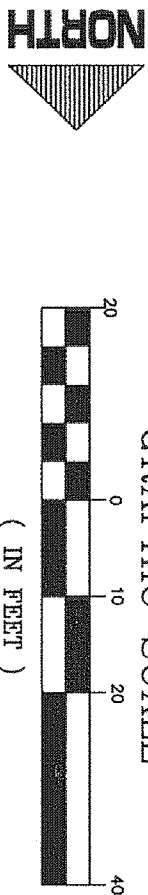
CLARIFICATION NOTE

- 1 WHERE IRRIGATION PULLBOX OR ELECTRICAL PULLBOX FALL IN CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET. SHEET DET.
- 2 WHERE STORM DRAIN DROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.
- 3 FG OF FIELD REPRESENTS BASE OF SYNTHETIC TURF (TOP OF SAND).

UTILITY DISCLAIMER

ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY OF UTILITIES TO AVOID DAMAGE TO THE LATTER.

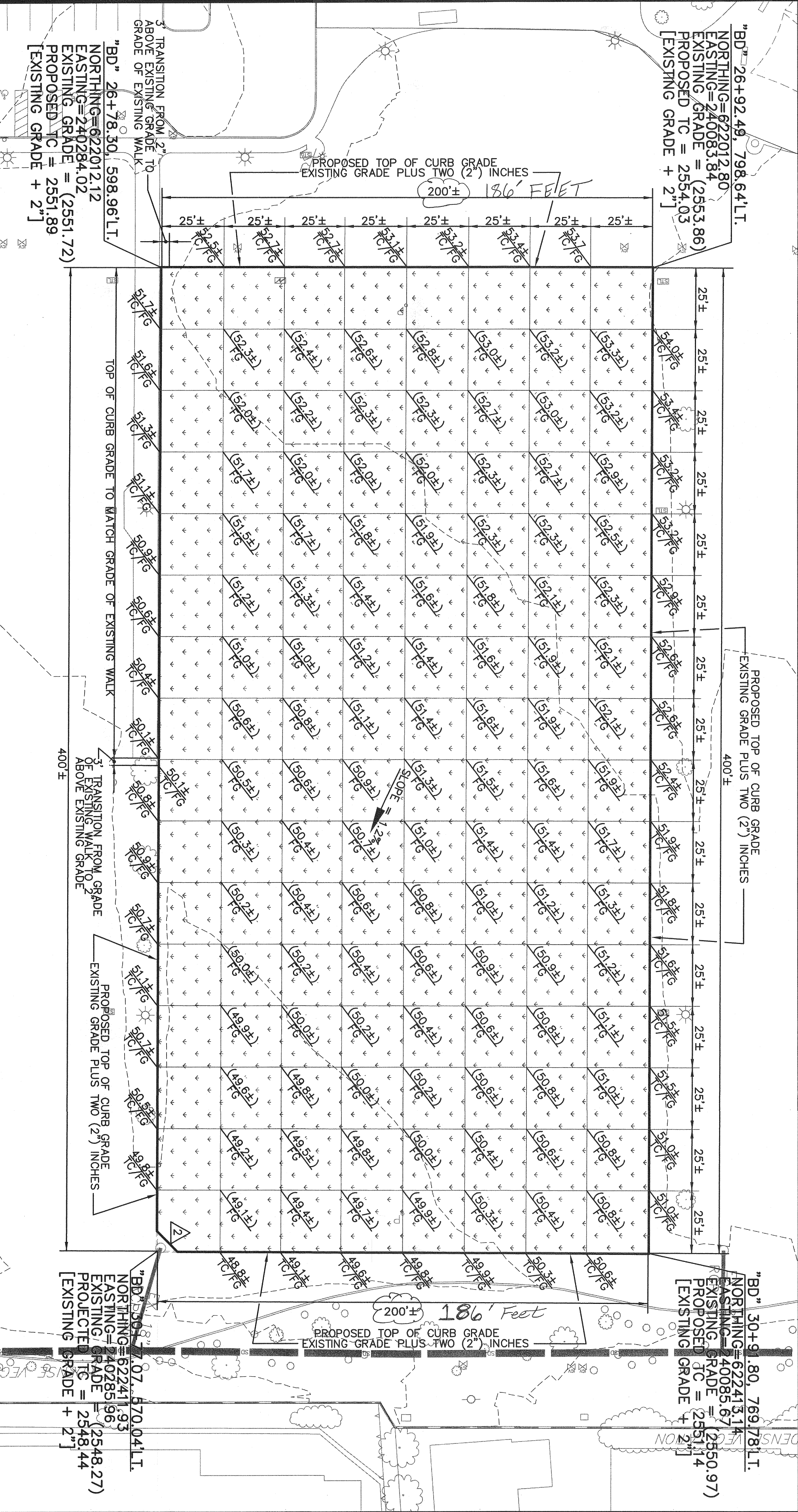
CALL BEFORE CONSTRUCTION			
BEFORE YOU DIG	USA NORTH	811 OR	
	F.A.S.T.	800-227-2600	
BEFORE YOU UNDERGROUND	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511	
	CITY OF LAS VEGAS T.E./O.	702-229-6811	
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929	



GRAPHIC SCALE

(IN FEET)

1 inch = 20 ft.



NO.	DATE	REVISIONS

PREPARED BY

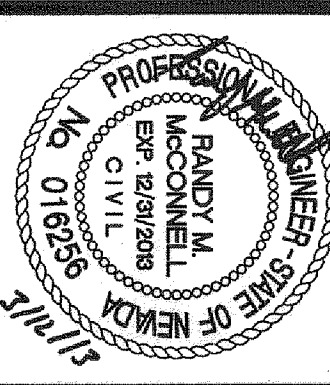
DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

PREPARED FOR
CITY OF LAS VEGAS
H# 45161
DATE: MARCH 2013
SUBMITTAL STAGE:
100% - FINAL

TITLE
ALL AMERICAN PARK IMPROVEMENTS
SHEET
GRADING PLAN FIELD 4

DESIGNED BY: GJJ
DRAWN BY: GJJ
CHECKED BY: RMM

SHEET
FLD4
7 of 24
DRAWING NO.
650.62-1



RECORD
AS-BUILT

9/14/13

CLARIFICATION NOTE

- 1. WHERE IRRIGATION PULLBOX OR ELECTRICAL PULLBOX FALL IN CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
- 2. WHERE STORM DRAIN DROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.
- 3. FG OF FIELD REPRESENTS BASE OF SYNTHETIC TURF (TOP OF SAND).

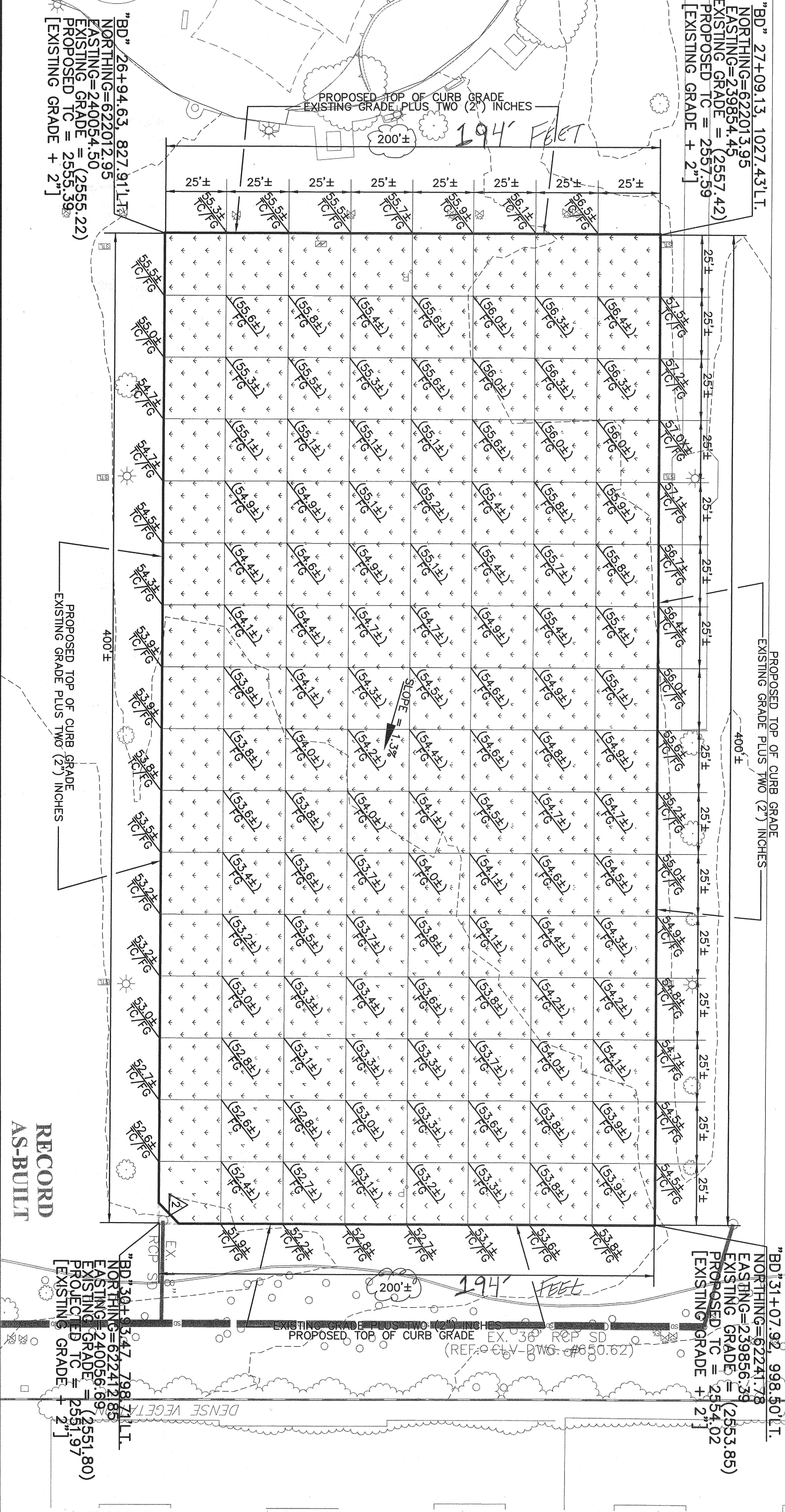
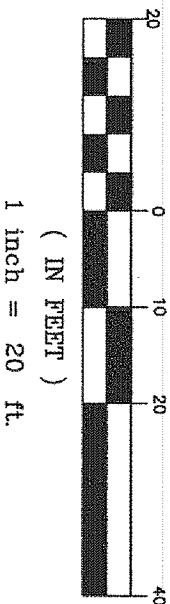
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CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7911
	CITY OF LAS VEGAS I.E.O.	702-228-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2828

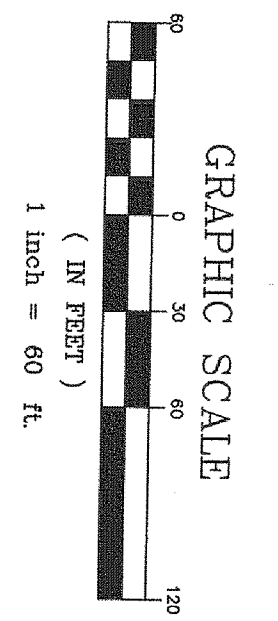
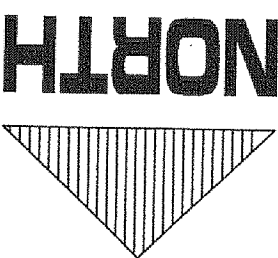
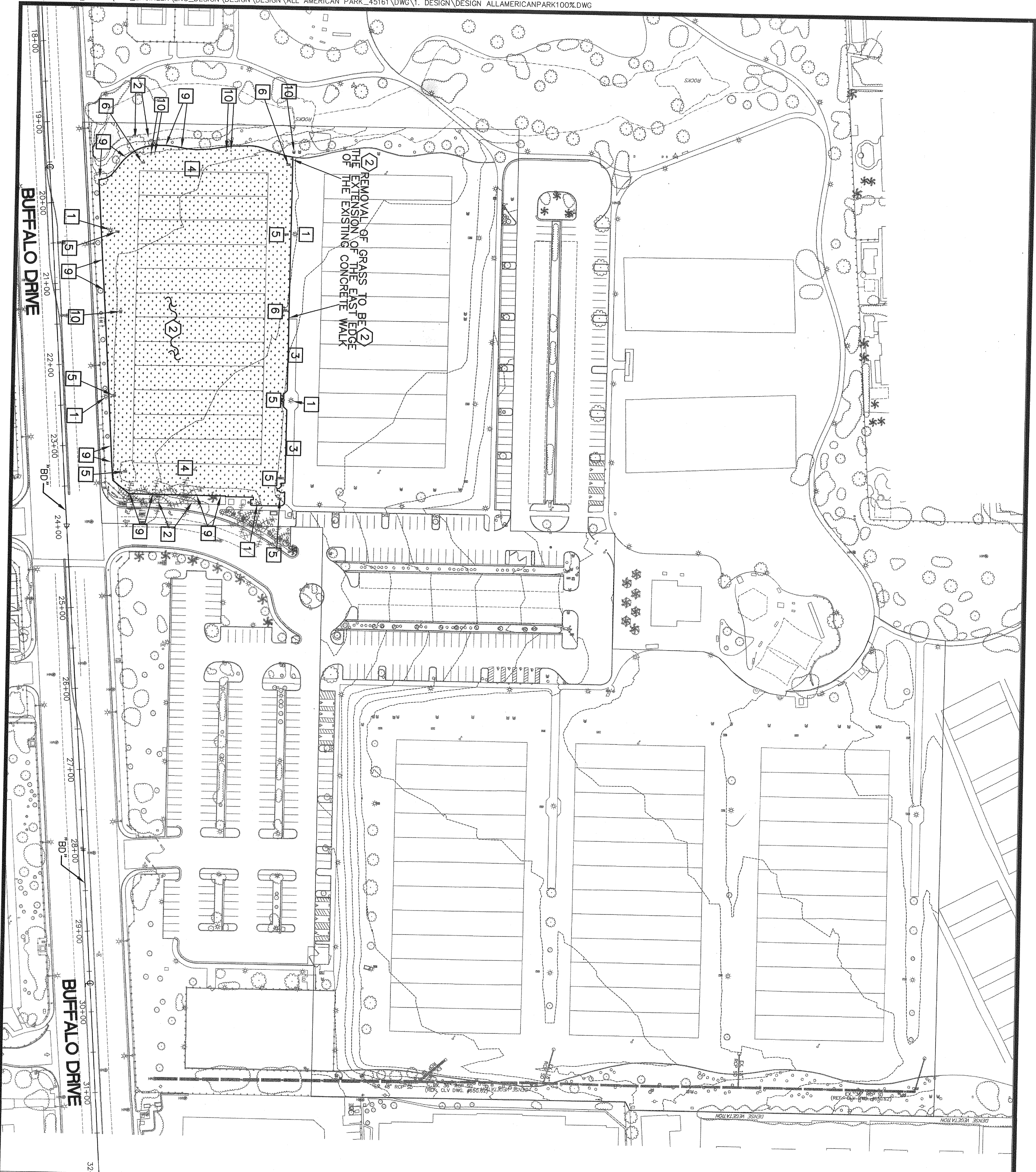
GRAPHIC SCALE



RECORD
AS-BUILT

SHEET FLD5 8 of 24 DRAWING NO. 650.62-1		TITLE	ALL AMERICAN PARK IMPROVEMENTS		PREPARED FOR	CITY OF LAS VEGAS		PREPARED BY		DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT	NO. DATE REVISIONS
		SHEET	GRADING PLAN FIELD 5	H# 45161	BD# 13.45161						
				DATE: MARCH 2013	DESIGNED BY: GJJ						
				SUBMITTAL STAGE: 100% - FINAL	DRAWN BY: GJJ CHECKED BY: RMM						

2/11
2/24/13



DEMOLITION NOTES:

ADDITIVE / ALTERNATE 1

- 2 REMOVE AND DISPOSE EXISTING GRASS AND SOIL. REMOVE GRASS AND SOIL TO 10" BELOW EXISTING GRADE AS REQUIRED FOR THE INSTALLATION OF SYNTHETIC TURF (SEE DETAIL TO 4" BELOW SHEET DET). REMOVE GRASS AND SOIL TO 4" BELOW EXISTING GRADE AS REQUIRED FOR THE INSTALLATION OF DECOMPOSED GRANITE (SEE DETAIL TO 4" ON DETAIL SHEET DET).

CLARIFICATION NOTES:

- 1 PROTECT-IN-PLACE EXISTING PARK FIELD LIGHT POLE
2 PROTECT-IN-PLACE EXISTING TREES, LANDSCAPING AND DECOMPOSED GRANITE
3 PROTECT-IN-PLACE EXISTING SIDEWALK/WALKWAY
4 PROTECT-IN-PLACE EXISTING GOAL POSTS
5 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (HOT/LIVE WIRES)
6 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (PULL WIRES ONLY)
9 PROTECT-IN-PLACE EXISTING CONCRETE CURB
10 SEE IRRIGATION PLANS (IR SHEETS) FOR IRRIGATION SYSTEM MODIFICATIONS

GRAPHICS LEGEND:



LIMITS OF GRASS REMOVAL

UTILITY DISCLAIMER:

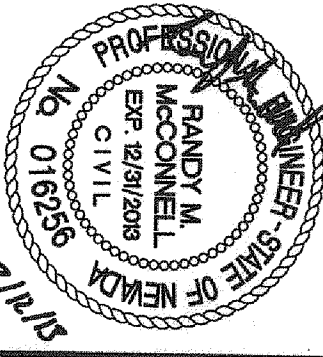
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CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2800
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS I.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2829

RECORD AS-BUILT

SHEET DEMO-A1 9 of 24 DRAWING NO. 650.62-1

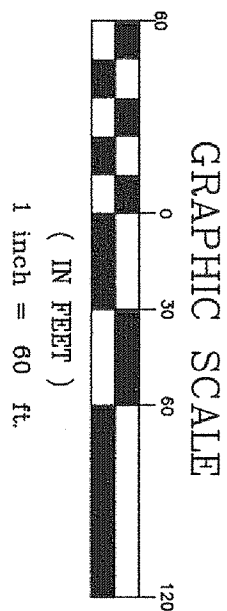
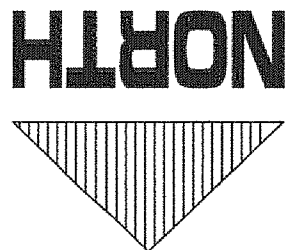
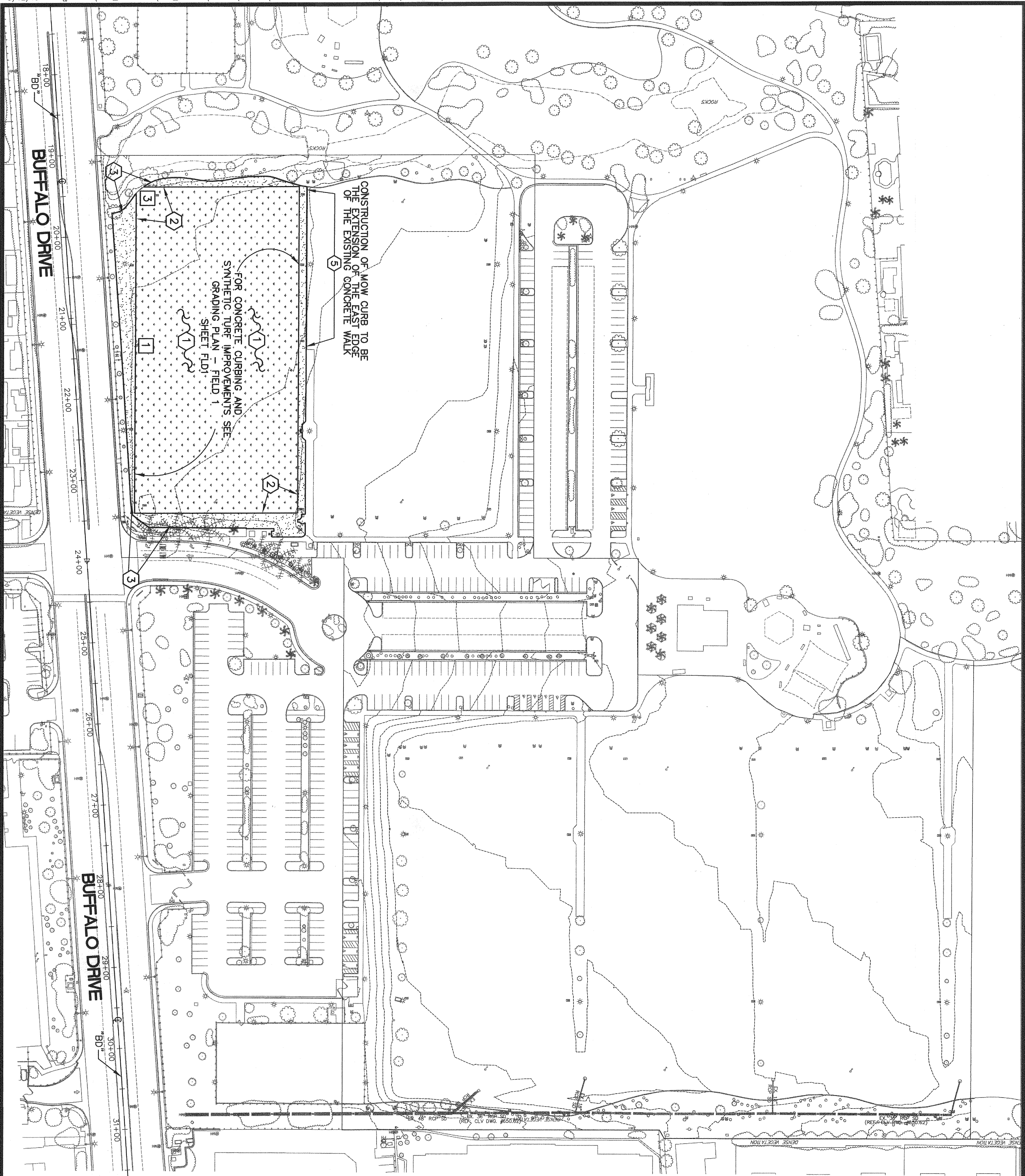


TITLE ALL AMERICAN PARK IMPROVEMENTS SHEET ADDITIVE / ALTERNATE 1 DEMOLITION PLAN A1

PREPARED FOR CITY OF LAS VEGAS H# 45161 DATE: MARCH 2013 SUBMITTAL STAGE: 100% - FINAL BID# 13.45161 DESIGNED BY: GJJ DRAWN BY: GJJ CHECKED BY: RMM

PREPARED BY CITY OF LAS VEGAS DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS



CONSTRUCTION NOTES:

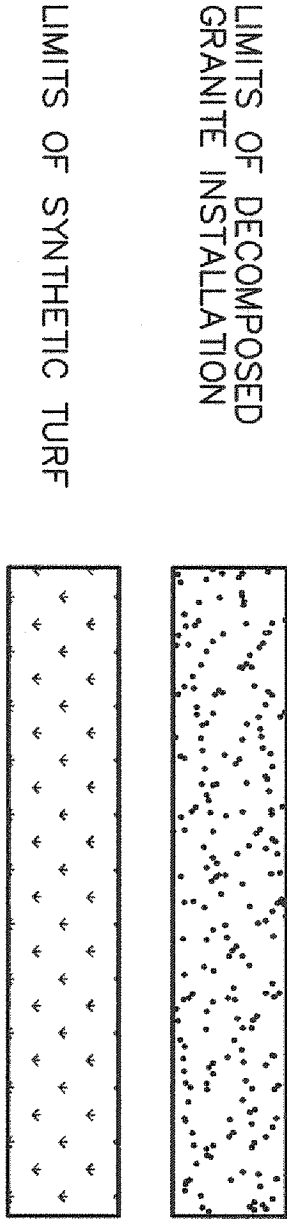
ADDITIVE / ALTERNATE 1

- 1 INSTALL SYNTHETIC TURF PER DETAIL "A" ON DETAIL SHEET DET
- 2 CONSTRUCT CONCRETE PERIMETER CURB PER DETAIL "A" ON DETAIL SHEET DET
- 3 INSTALL DECOMPOSED GRANITE PER DETAIL "B" ON DETAIL SHEET DET
- 5 CONSTRUCT CONCRETE MOW CURB PER DETAIL "D" ON DETAIL SHEET DET

CLARIFICATION NOTES:

- 1 WHERE PULBOYS FALL IN THE CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
- 2 WHERE STORM DRAIN PROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.
- 3 CONSTRUCT CURB DRAIN PER DETAIL "G" ON DETAIL SHEET DET.

GRAPHICS LEGEND:



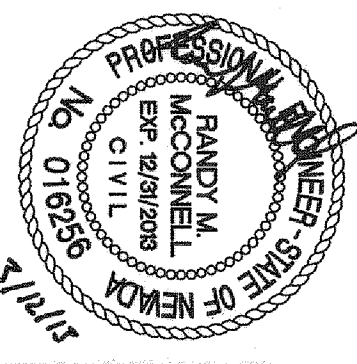
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CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2860
BEFORE YOU UNDERGROUND	F.A.S.T. CLARK COUNTY TRAILER OPERATIONS CITY OF LAS VEGAS	702-432-5300 702-455-7511 702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

RECORD AS-BUILT



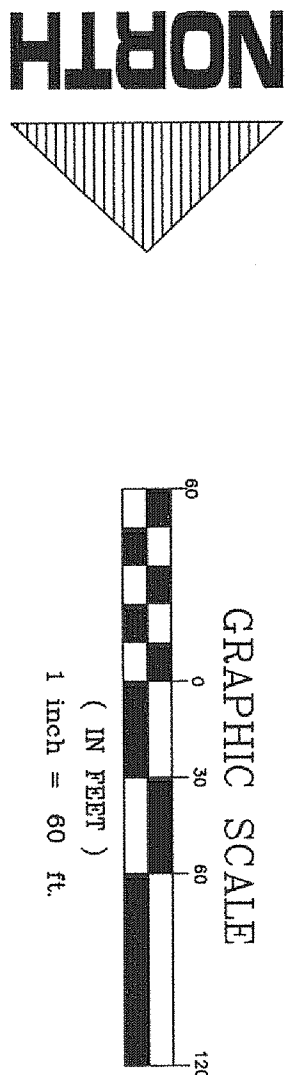
TITLE	ALL AMERICAN PARK IMPROVEMENTS
SHEET	ADDITIVE / ALTERNATIVE 1 SITE IMPROVEMENTS A1

PREPARED FOR	CITY OF LAS VEGAS
H# 45161	BID# 13.45161
DATE: MARCH 2013	DESIGNED BY: GJJ
SUBMITTAL STAGE:	DRAWN BY: GJJ
100% - FINAL	CHECKED BY: RMM

PREPARED BY	CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS	CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS

SHEET SITE-A1 10 of 24 65062-1



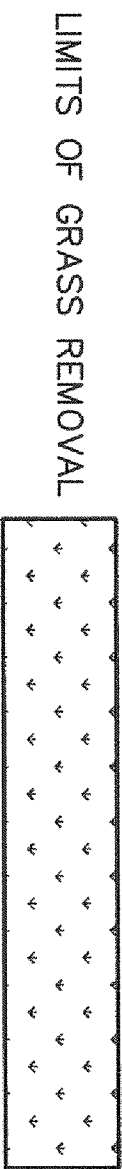
DEMOLITION NOTES:

- ADDITIVE / ALTERNATE 2**
- 2 REMOVE AND DISPOSE EXISTING GRASS AND SOIL. REMOVE GRASS AND SOIL TO 10" BELOW EXISTING GRADE AS REQUIRED FOR THE INSTALLATION OF SYNTHETIC TURF (SEE DETAIL "A" ON DETAIL SHEET DET). REMOVE GRASS AND SOIL TO 4" BELOW GRADE AS REQUIRED FOR THE INSTALLATION OF DECOMPOSED GRANITE (SEE DETAIL "B" ON DETAIL SHEET DET).

CLARIFICATION NOTES:

- 1 PROTECT-IN-PLACE EXISTING PARK FIELD LIGHT POLE
2 PROTECT-IN-PLACE EXISTING TREES, LANDSCAPING AND DECOMPOSED GRANITE
3 PROTECT-IN-PLACE EXISTING SIDEWALK/WALKWAY
4 PROTECT-IN-PLACE EXISTING GOAL POSTS
5 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (HOT/LIVE WIRES)
6 PROTECT-IN-PLACE EXISTING LIGHTING SYSTEM PULLBOX (POLE WIRES-ONLY)
7 PROTECT-IN-PLACE EXISTING FIRE HYDRANT
8 PROTECT-IN-PLACE EXISTING STORM DRAIN DROP INLET
9 PROTECT-IN-PLACE EXISTING CONCRETE CURB
10 SEE IRRIGATION PLANS (IR SHEETS) FOR IRRIGATION SYSTEM MODIFICATIONS

GRAPHICS LEGEND:



LIMITS OF GRASS REMOVAL

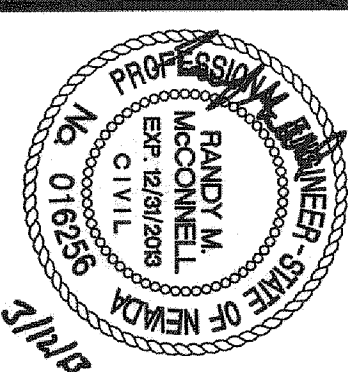
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CALL BEFORE CONSTRUCTION			
BEFORE YOU DIG	USA NORTH	811 OR 800-227-2600	
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300	
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511	
	CITY OF LAS VEGAS T.E.R.O.	702-229-6611	
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929	

RECORD AS-BUILT 9/24/13

SHEET 12 of 24 DEMO-A2 ISSUING NO 65062-1

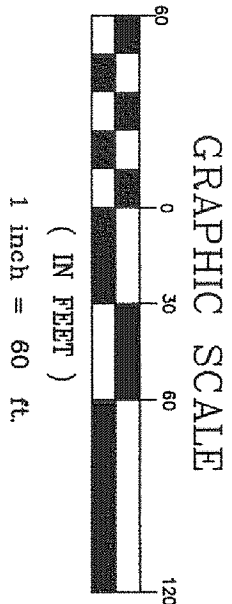
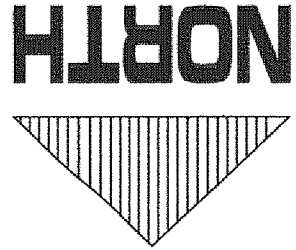
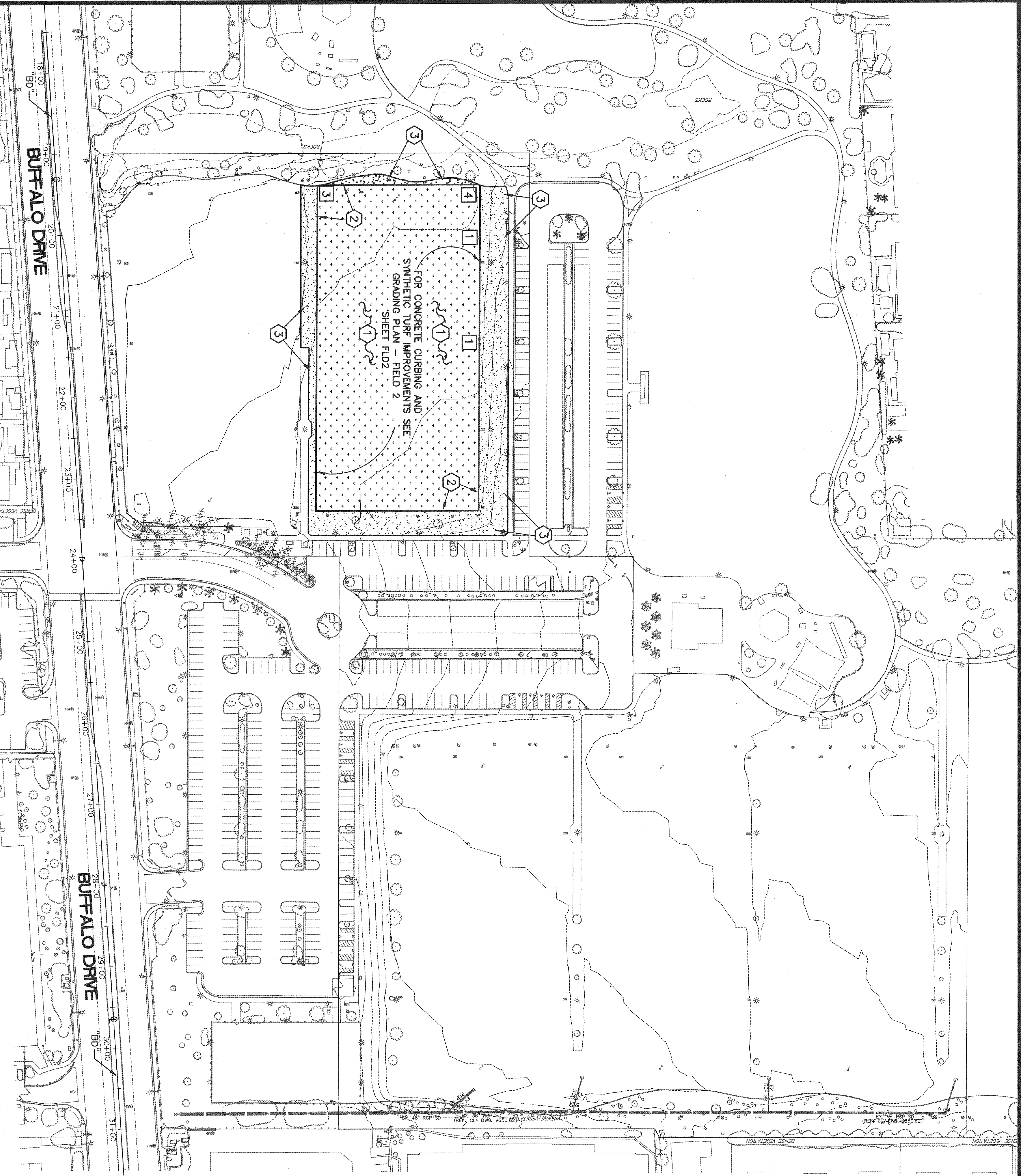


TITLE ALL AMERICAN PARK IMPROVEMENTS
SHEET ADDITIVE / ALTERNATE 2 DEMOLITION PLAN A2

PREPARED FOR	
CITY OF LAS VEGAS	
H# 45161	BID# 13.45161
DATE: MARCH 2013	DESIGNED BY: GJJ
SUBMITTAL STAGE:	DRAWN BY: GJJ
100% - FINAL	CHECKED BY: RMM

PREPARED BY	
	
DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT	

NO.	DATE	REVISIONS



CONSTRUCTION NOTES:

- ADDITIVE / ALTERNATE 2**
- 1 INSTALL SYNTHETIC TURF PER DETAIL "A" ON DETAIL SHEET DET
- 2 CONSTRUCT CONCRETE PERIMETER CURB PER DETAIL "A" ON DETAIL SHEET DET
- 3 INSTALL DECOMPOSED GRANITE PER DETAIL "B" ON DETAIL SHEET DET

CLARIFICATION NOTES:

- 1 WHERE PULBOYS FALL IN THE CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
- 2 WHERE STORM DRAIN DROP INLET FALL IN CURB LINE, REFERENCE DETAIL "F" ON DETAIL SHEET DET.
- 3 CONSTRUCT CURB DRAIN PER DETAIL "G" ON DETAIL SHEET DET.
- 4 CONSTRUCT CURB FILLET PER DETAIL "H" ON DETAIL SHEET DET.

GRAPHICS LEGEND:

- LIMITS OF DECOMPOSED GRANITE INSTALLATION
- LIMITS OF SYNTHETIC TURF

UTILITY DISCLAIMER:

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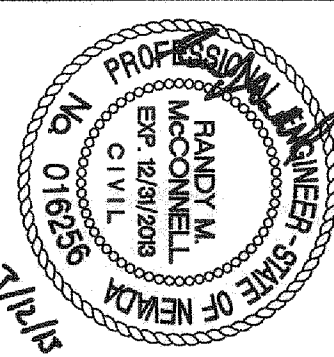
CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	811 OR 800-227-2660
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5330
	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
	CITY OF LAS VEGAS T.E.F.O.	702-229-6611
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929

RECORD AS-BUILT

9/24/13

SHEET
13 of 24
DRAWING NO.
650.62-1



TITLE
ALL AMERICAN PARK IMPROVEMENTS
SHEET
ADDITIVE / ALTERNATIVE 2 SITE IMPROVEMENTS A2

PREPARED FOR CITY OF LAS VEGAS	BID# 13.45161
H# 45161	DESIGNED BY: GJJ
DATE: MARCH 2013	DRAWN BY: GJJ
SUBMITTAL STAGE: 100% - FINAL	CHECKED BY: RMM

PREPARED BY	
DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT	

NO.	DATE	REVISIONS

CLARIFICATION NOTE:

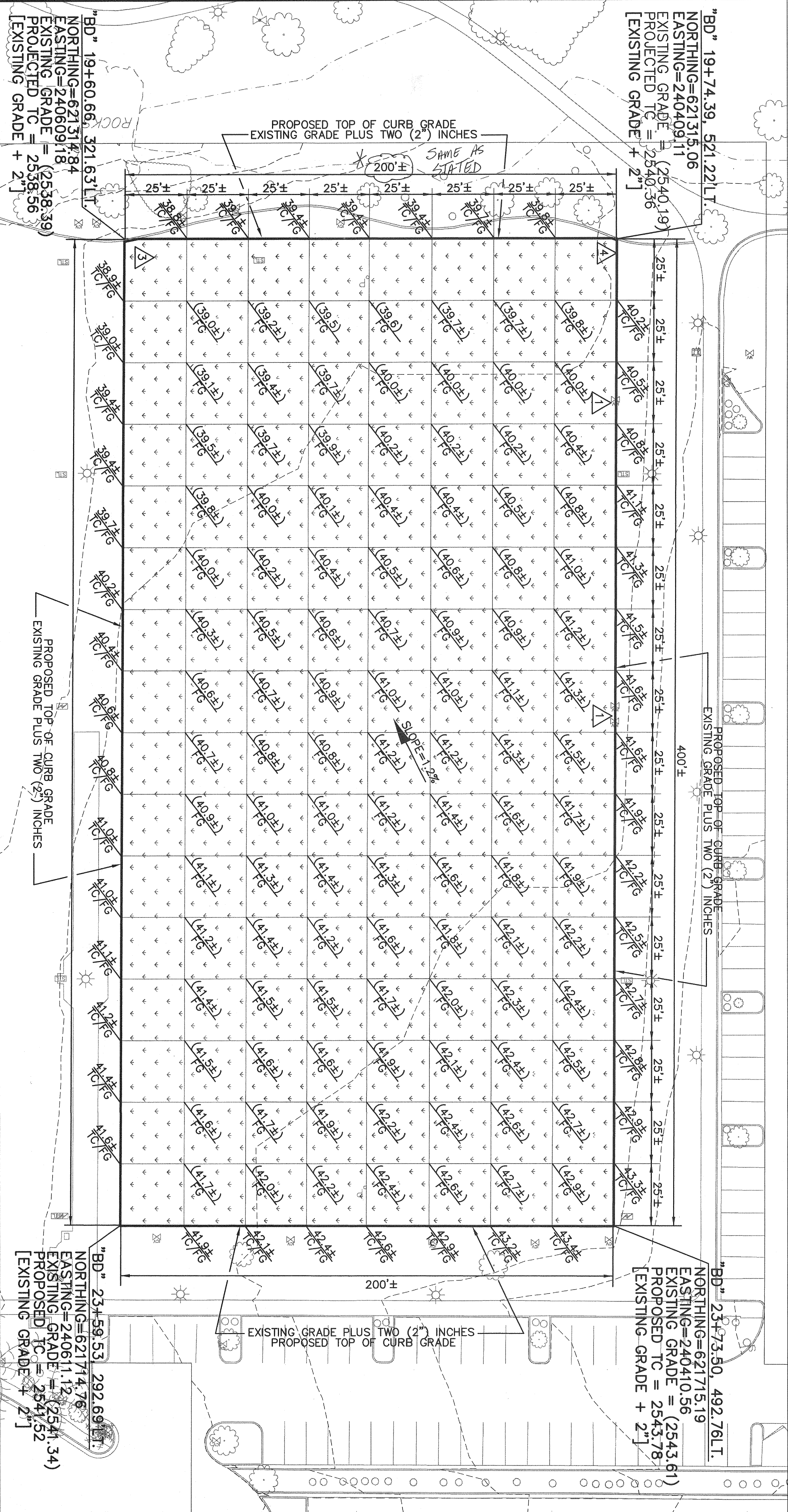
- WHERE IRRIGATION PULLBOX OR ELECTRICAL PULLBOX FALL IN CURB LINE, REFERENCE DETAIL "E" ON DETAIL SHEET DET.
- CONSTRUCT CURB DRAIN OPENING PER DETAIL "G" ON DETAIL SHEET DET.
- CONSTRUCT CURB FILLET PER DETAIL "H" ON DETAIL SHEET DET.
- FG OF FIELD REPRESENTS BASE OF SYNTHETIC TURF (TOP OF SAND).

UTILITY DISCLAIMER:

ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. THE DEPTH BELOW GRADE OF THE VARIOUS UTILITIES DEPICTED ON THE PLANS VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING THE SUBBASE IN THE VICINITY OF UTILITIES TO AVOID DAMAGE TO THE LATTER.

CALL BEFORE CONSTRUCTION

BEFORE YOU DIG	USA NORTH	800-227-2600
BEFORE YOU UNDERGROUND	F.A.S.T.	702-432-5300
BEFORE YOU CITY OF LAS VEGAS	CLARK COUNTY TRAFFIC OPERATIONS	702-455-7511
BEFORE YOU OVERHEAD	NV ENERGY	702-227-2929



TITLE

ALL AMERICAN PARK IMPROVEMENTS

SHEET

ADDITIVE / ALTERNATE 2 GRADING PLAN - FIELD 2

PREPARED FOR

CITY OF LAS VEGAS

H# 45161

DATE: MARCH 2013

SUBMITTAL STAGE:

100% - FINAL

BID# 13.45161

DESIGNED BY: GJJ

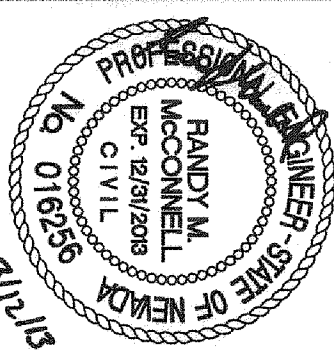
DRAWN BY: GJJ

CHECKED BY: RMM

PREPARED BY

DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS



SHEET

FLD2

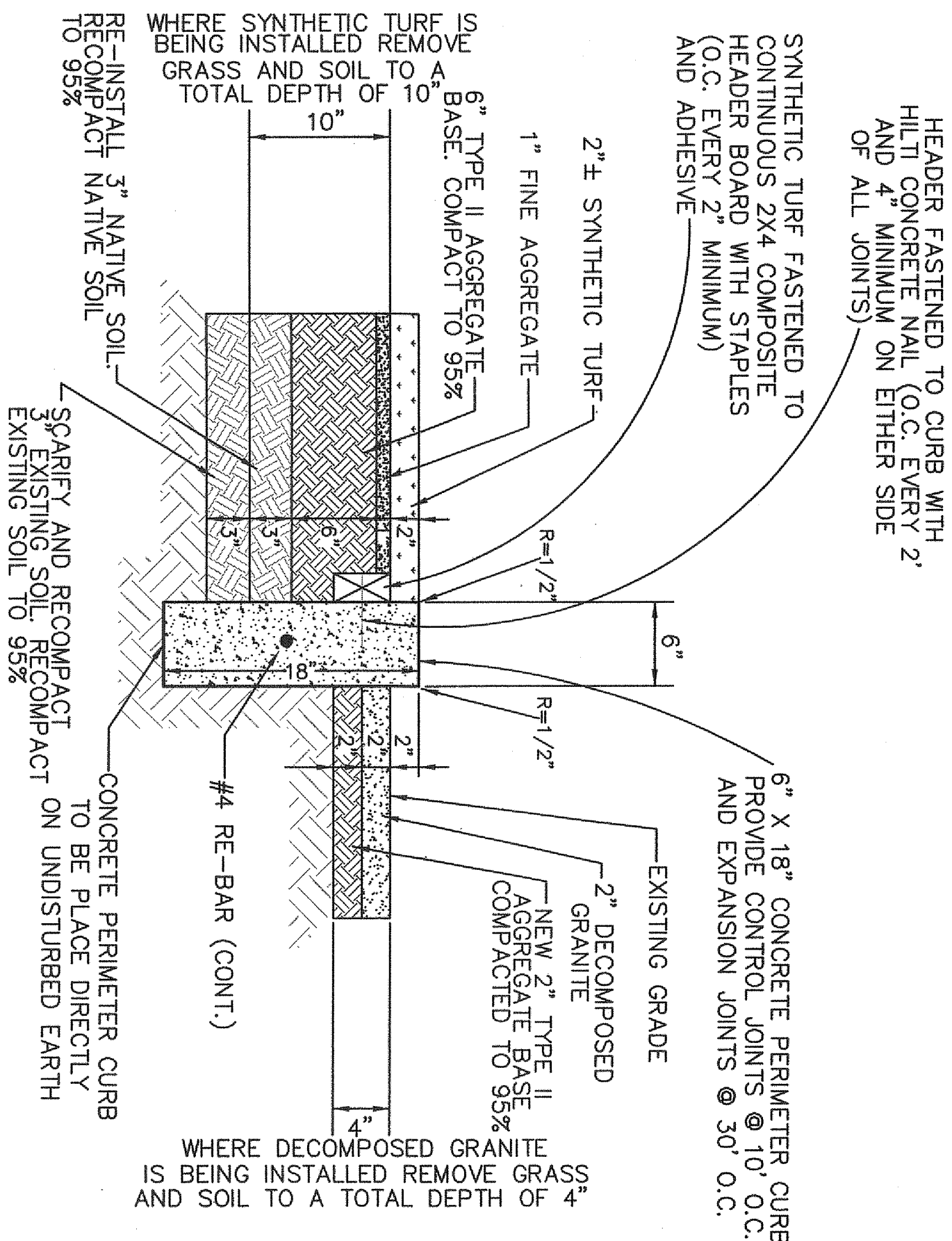
14 of 24

DRAWING NO. 650.62-1

RECORD AS-BUILT

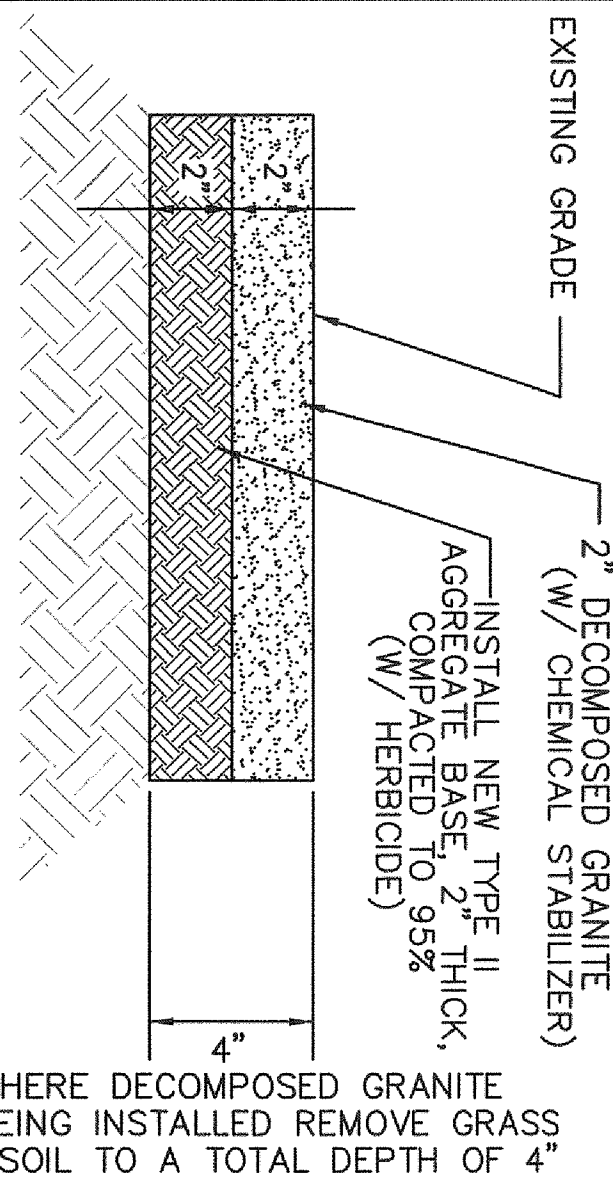
6/21/13

NOTE:
INSTALL 1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT ALL TRANSITIONS, AT ALL ANGLE POINTS AND AT 30' MAX.



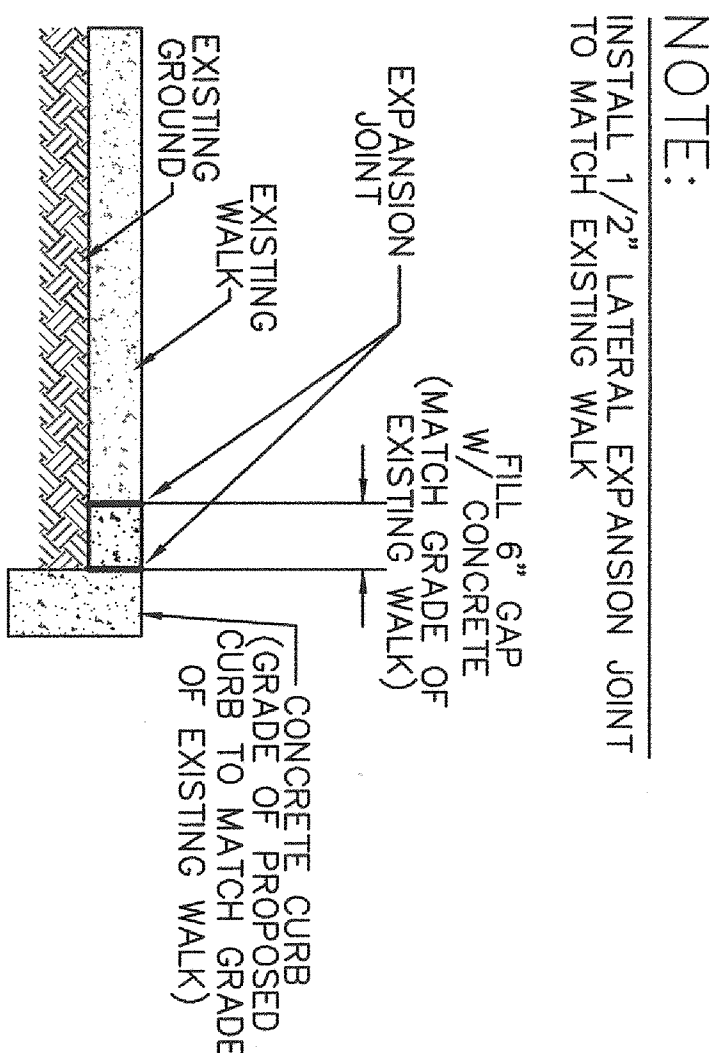
DETAIL 'A' - SYNTHETIC TURF AND CONCRETE PERIMETER CURB

NOT TO SCALE



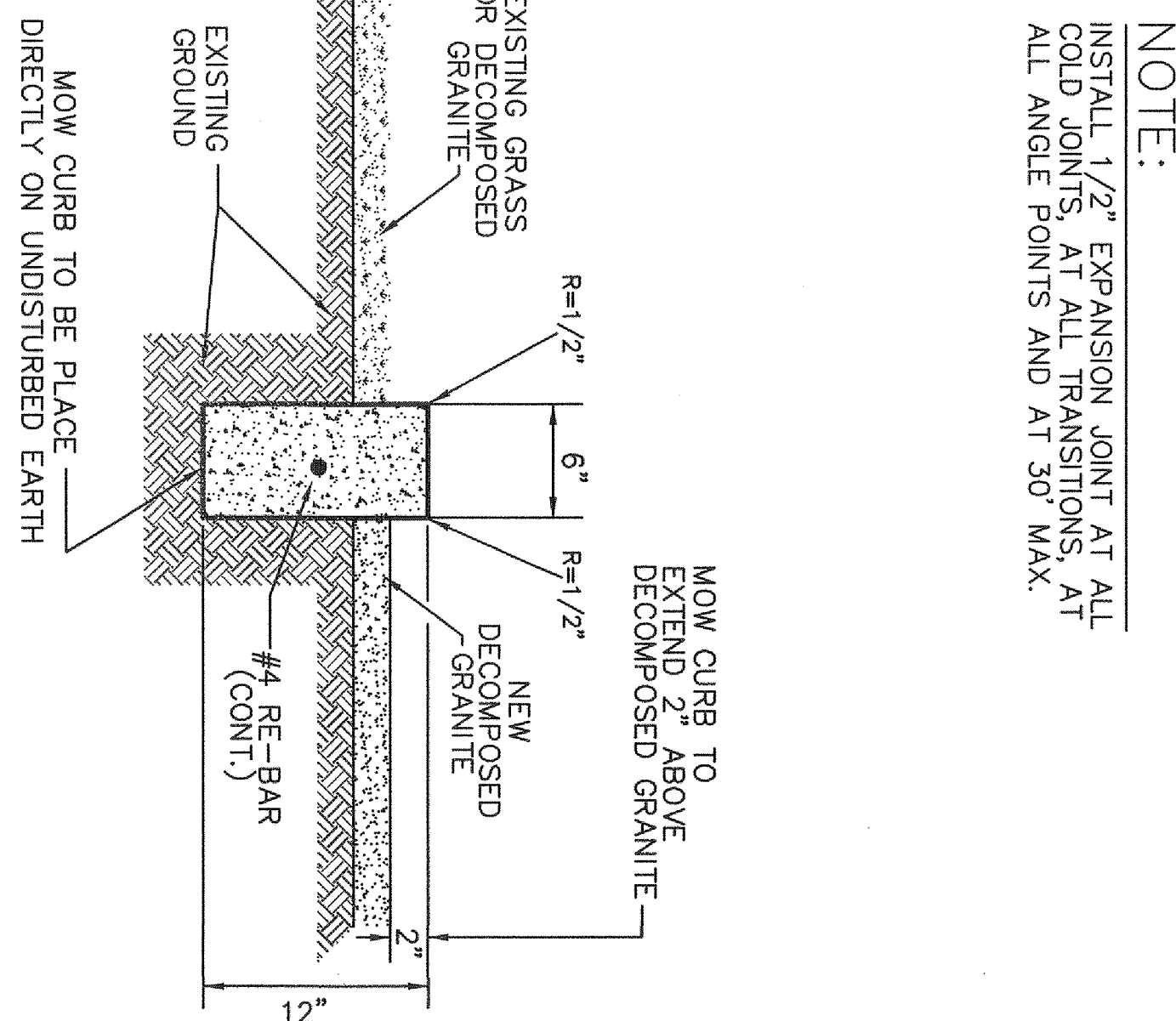
DETAIL 'B' - DECOMPOSED GRANITE

NOT TO SCALE



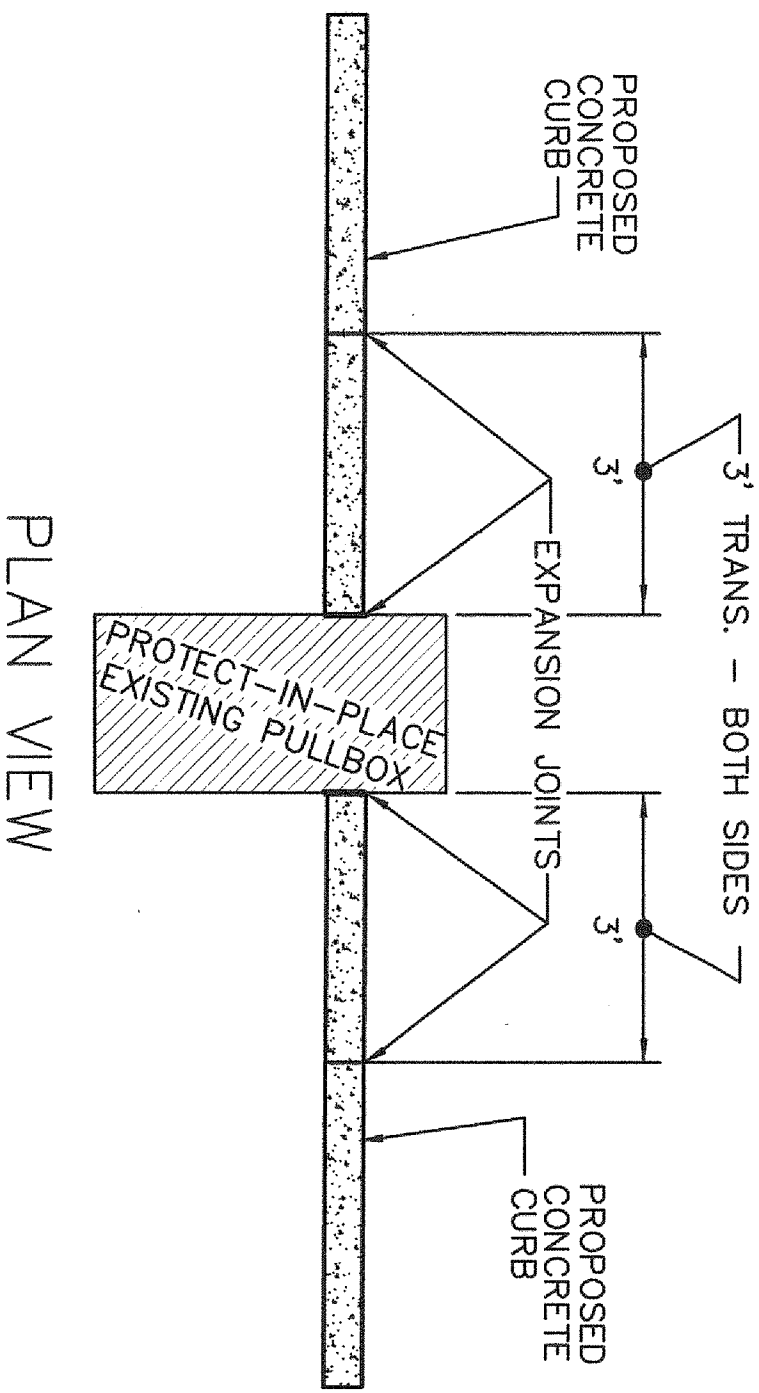
DETAIL 'C' - CONCRETE GAP FILL

NOT TO SCALE



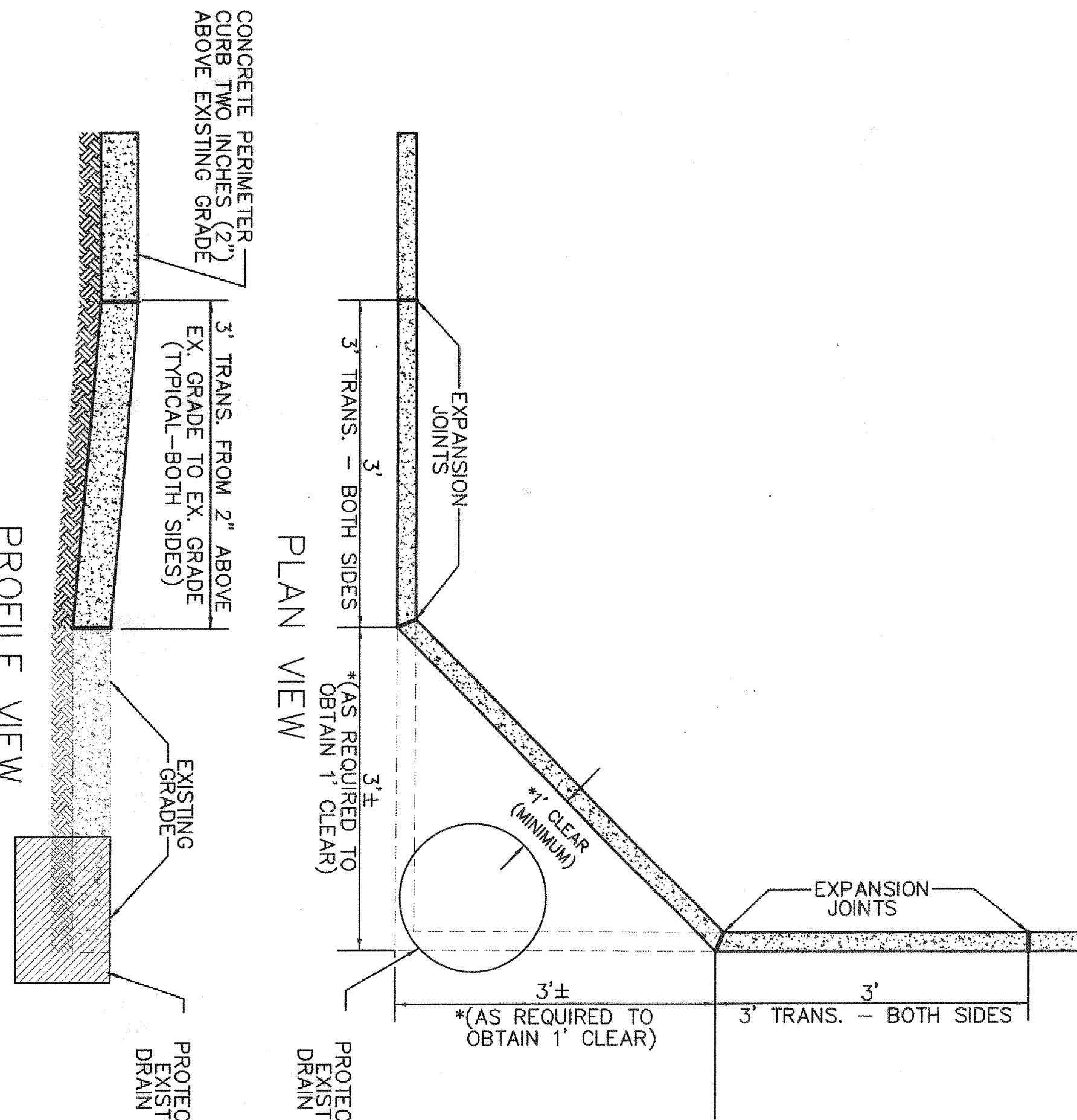
DETAIL 'D' - CONCRETE MOW CURB

NOT TO SCALE



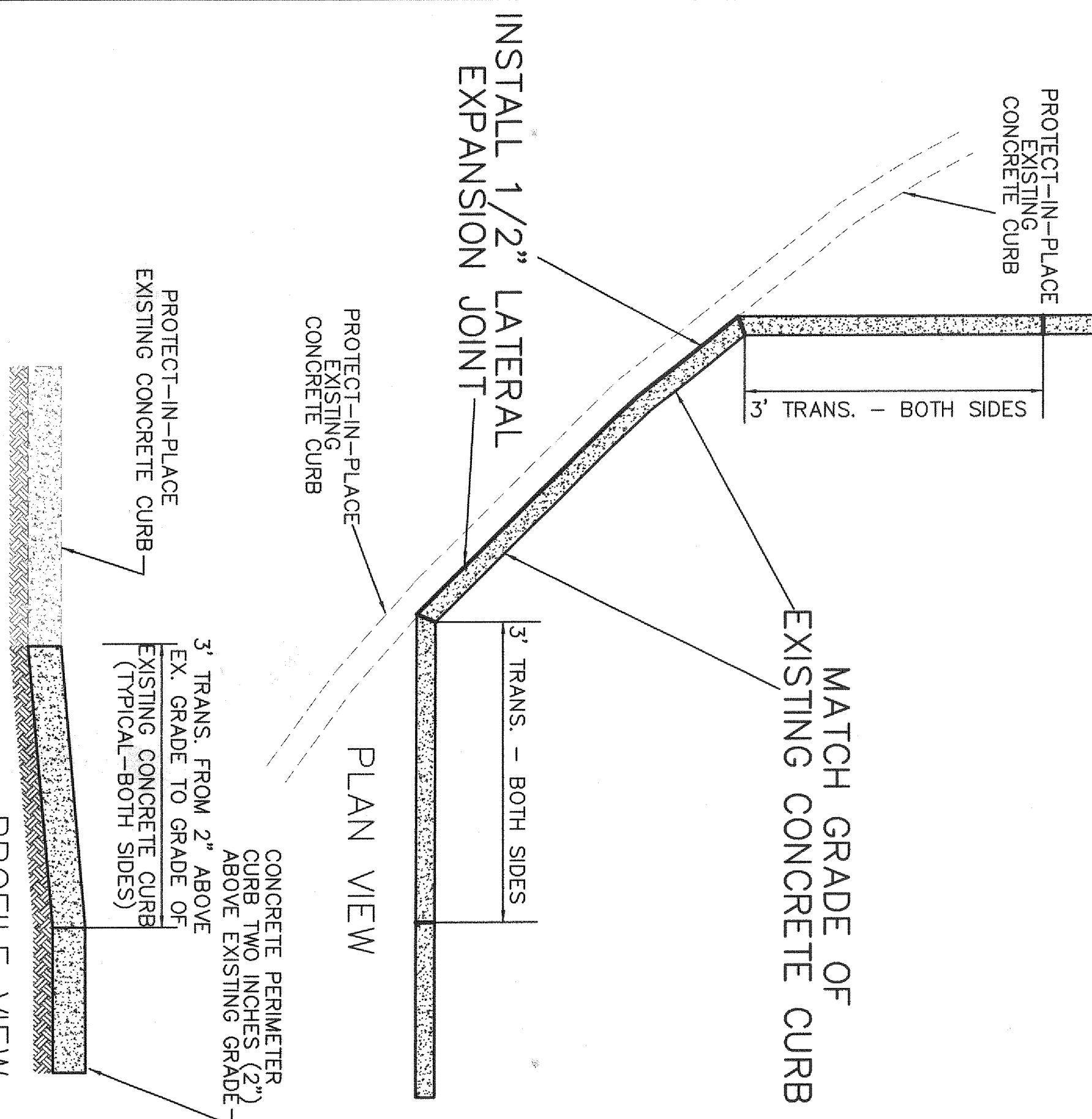
DETAIL 'E' - PULLBOX IN CURB LINE

NOT TO SCALE



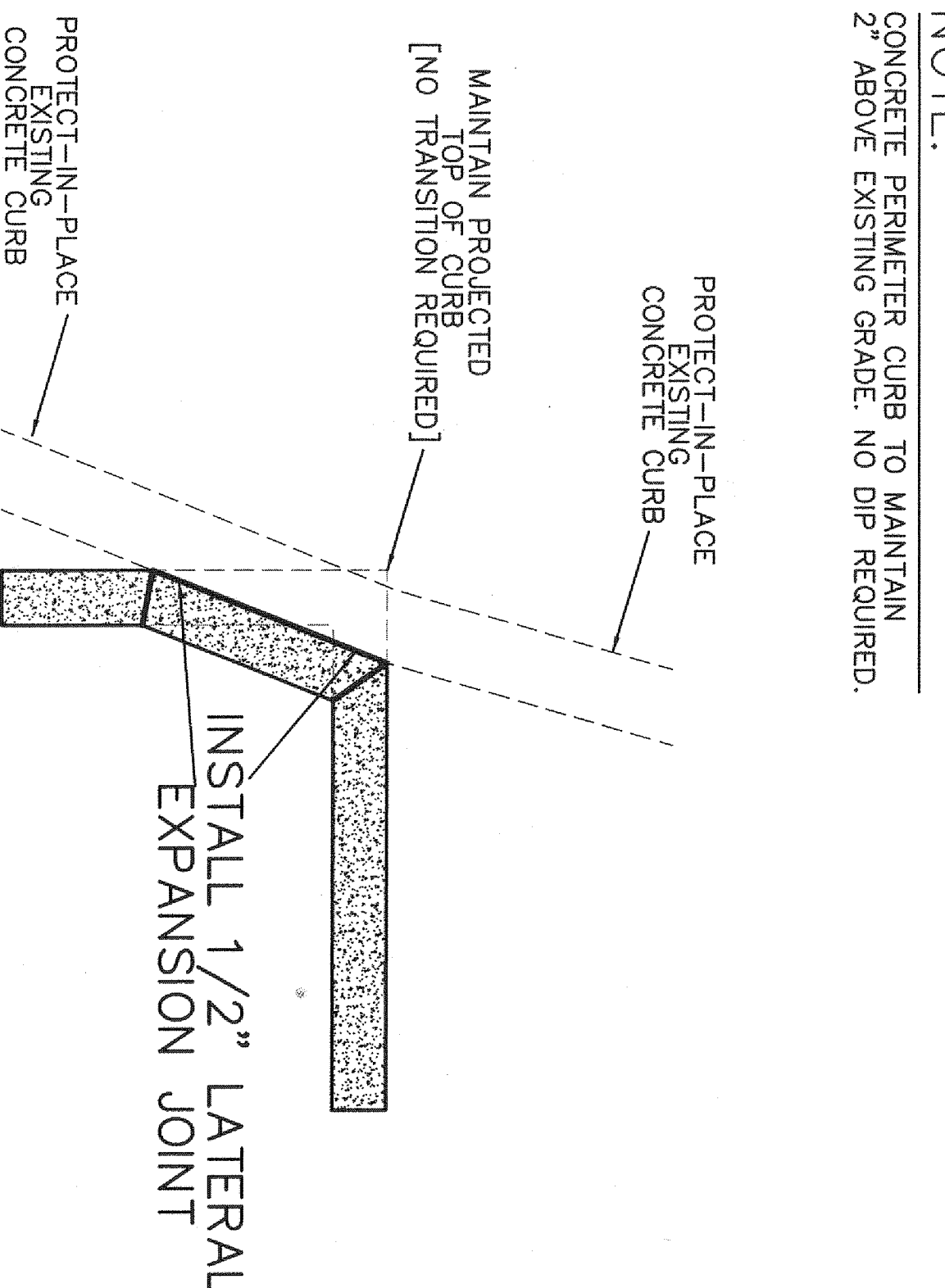
DETAIL 'F' - DROP INLET IN CURB LINE

NOT TO SCALE



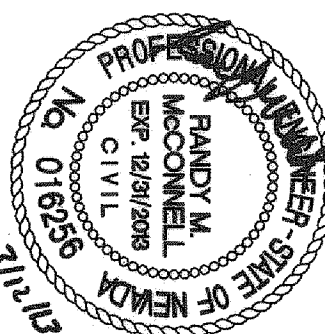
DETAIL 'G' - CURB DRAIN

NOT TO SCALE



DETAIL 'H' - CURB FILLET

NOT TO SCALE



TITLE
ALL AMERICAN PARK IMPROVEMENTS
SHEET
DETAIL SHEET

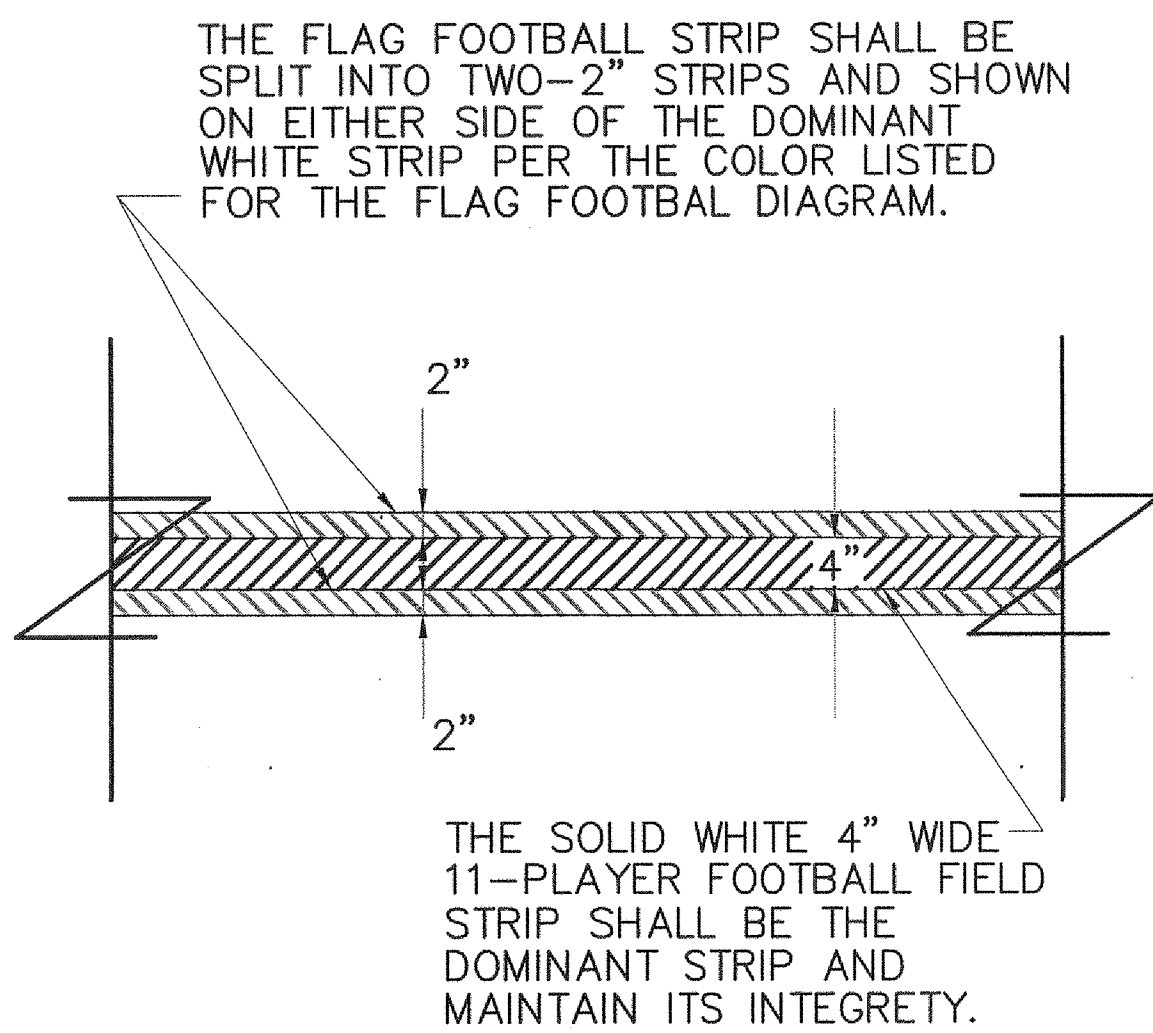
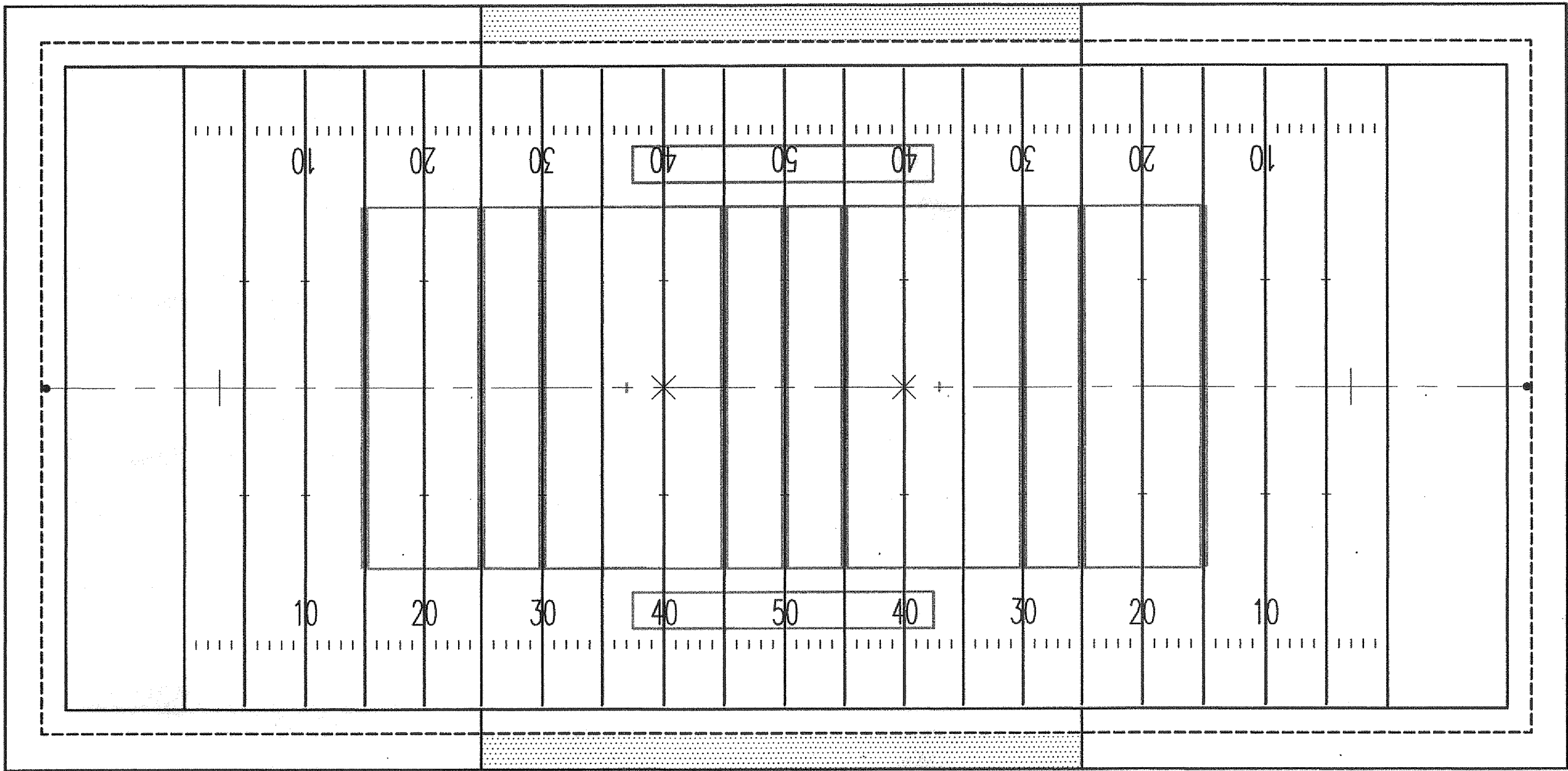
PREPARED FOR
CITY OF LAS VEGAS
H# 45161
DATE: MARCH 2013
SUBMITTAL STAGE:
100% - FINAL

PREPARED BY
CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

NO.	DATE	REVISIONS

RECORD
BUILT

9/11/15
a/cj/15



DETAIL "A" NOT TO SCALE

COMPOSITE FIELD:
BOTH FIELD DIAGRAMS SUPERIMPOSED ON TOP OF EACH OTHER. (TYPICAL) SCALE: 1"=30'

NOTES:

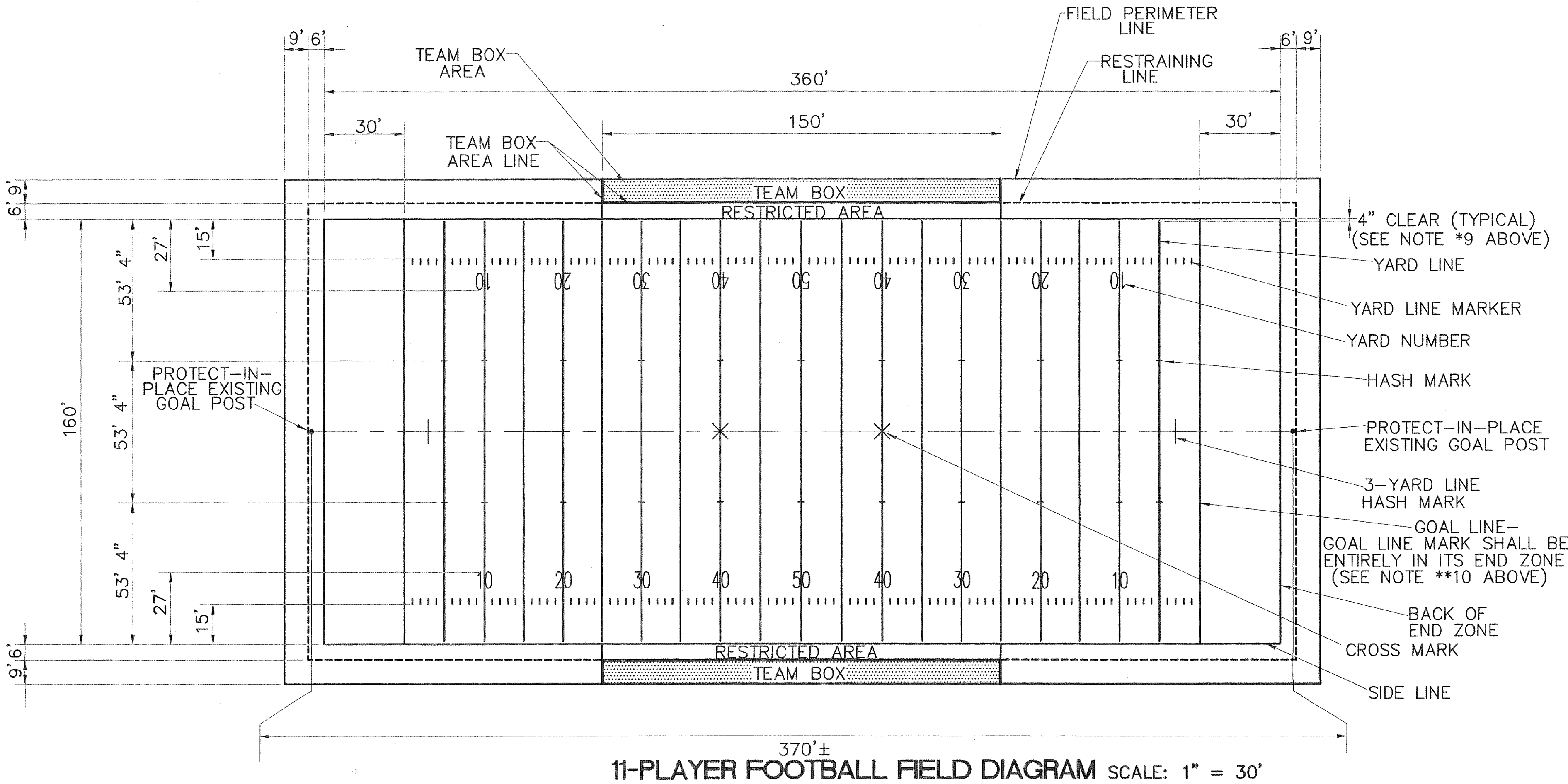
1. PROTECT-IN-PLACE EXISTING GOAL POSTS.
2. THE EXISTING GOAL POSTS ARE APPROXIMATELY 270' APART.
3. WHERE FLAG FOOTBALL FIELD STRIPING IS OBSCURED BY THE 11-PLAYER FOOTBALL FIELD STRIPING SEE DETAIL "A" ON THIS SHEET.

11-PLAYER FOOTBALL FIELD DIAGRAM

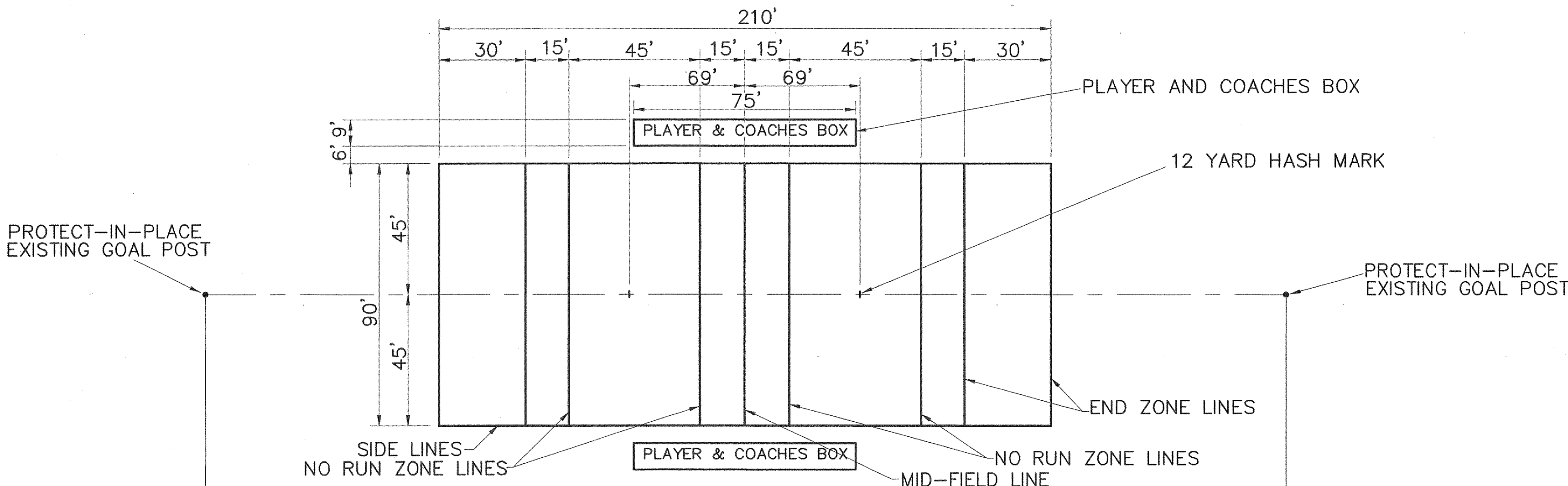
1. UNLESS OTHERWISE NOTED ALL LINES (YARD LINE, BACK OF GOAL LINE AND FIELD PERIMETER LINE) SHALL BE SOLID WHITE CONTINUOUS LINES 4" WIDE.
2. THE RESTRAINING LINE SHALL BE A 4" WIDE WHITE 12" DASHED LINE SEPARATED AT 24" INTERVALS.
3. HASH MARK - 24" LONG X 4" WIDE
4. TEAM AREA BOX LINE - 4" WIDE, RED SOLID LINE.
5. CROSS MARKS - 4" WIDE X 4' LONG
6. 3-YARD HASH LINE - 4" WIDE X 24" (MIN.) LONG
7. YARD NUMBER - WHITE, 6' HIGH X 4' WIDE.
8. YARD LINE MARKERS - WHITE LINES 4" WIDE X 24" LONG.
- *9. YARD LINES SHALL BE MARKED WITH A CONTINUOUS LINE EVERY 5 YARDS BEGINNING AND ENDING 4 INCHES FROM EACH SIDELINE.
- **10. GOAL LINE SHALL BE A SOLID BLUE LINE AND 4" WIDE. GOAL LINE SHALL BE ENTIRELY IN ITS END ZONE.

FLAG FOOTBALL FIELD DIAGRAM

1. ALL SIDE LINES, END ZONE LINES AND MID-FIELD LINES SHALL BE SOLID RED CONTINUOUS LINES 4" WIDE.
2. ALL NO RUN ZONE LINES SHALL BE SOLID BLUE CONTINUOUS LINES 4" WIDE.
3. PLAYER AND COACHES BOX STRIPING SHALL BE SOLID RED CONTINUOUS LINES 4" WIDE.
4. 12 YARD HASH MARK SHALL BE A SOLID RED LINE 4" WIDE BY 2' LONG.



11-PLAYER FOOTBALL FIELD DIAGRAM SCALE: 1" = 30'



FLAG FOOTBALL FIELD DIAGRAM SCALE: 1" = 30'

RECORD
AS-BUILT
4/24/13

SHEET FS 16 of 24 DRAWING NO. 650.62-1		TITLE ALL AMERICAN PARK IMPROVEMENTS SHEET FIELD STRIPING PLAN	PREPARED FOR CITY OF LAS VEGAS		 DEPARTMENT OF PUBLIC WORKS CAPITAL PROJECT MANAGEMENT	NO. DATE REVISIONS
			H# 45161	BID# 13.45161		
			DATE: MARCH 2013	DESIGNED BY: GJJ		
			SUBMITTAL STAGE: 100% - FINAL	DRAWN BY: GJJ CHECKED BY: RMM		

GENERAL DESCRIPTION

THE EXISTING IRRIGATION SYSTEM IS MODIFIED TO COMPLIMENT THE NEW SYNTHETIC TURF AND DECOMPOSED GRANITE AREAS OF THE PARK. AUTOMATED TURF IRRIGATION IS REMOVED FROM THE NEW NON TURF AREAS. THE LAWN IRRIGATION AT THE EDGES OF THE NEW NON TURF AREAS IS MODIFIED TO COMPLIMENT THE REMAINING IRRIGATION IN THOSE AREAS.

TREES IN PREVIOUSLY LAWN IRRIGATED AREAS WILL BE IRRIGATED BY BUBBLER.

NEW QUICK COUPLING VALVES ARE INSTALLED TO PROVIDE TREE HAND WATERING AND SYNTHETIC TURF MAINTENANCE.

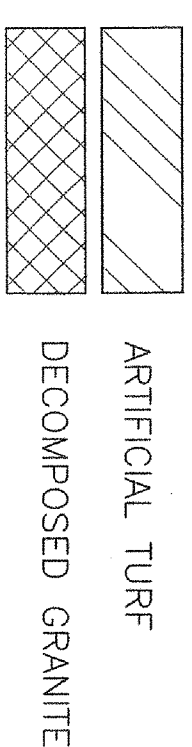
DEMOLITION WILL CONSIST OF REMOVING THE THE SPRINKLERS AND VALVES AS INDICATED IN SUCH A MANNER THAT THEY MAY BE REUSED AND TURNED OVER TO THE CITY OF LAS VEGAS REPRESENTATIVE. PIPE AND CONTROL WIRE NO LONGER USED WILL BE ABANDONED IN PLACE. SWING JOINTS AND OTHER CONNECTING PIPE FROM THE ABANDONED MAINLINE TO THE VALES WILL BE LEGALLY DISPOSED OF OFF SITE.

THE THREE FIELDS TO THE NORTH ARE THE BASE BID, AND THE TWO FIELDS TO THE SOUTH ARE ADD ALTERNATE #1 AND #2.

INSTALLATION GENERAL NOTES

1. THE IRRIGATION SYSTEM DESIGN ASSUMES THE IRRIGATION CONTROLLERS ARE CONTROL WIRE ARE IN WORKING ORDER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION THAT THE CONTROL SYSTEM IS ACTUATING THE REMOTE CONTROL VALVES DOWN STREAM OF THE MAINLINE PIPE STUB-OUTS SHOWN ON THE PLAN. NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.
2. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
3. COORDINATE LOCATION AND MARKING. ("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 CONSTRUCTION PROJECT REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION.
5. THE DRAWINGS ARE DIAGRAMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - A. IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS, OR WITHIN HARDSCAPE, FOR GRAPHIC CLARITY. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, UTILITIES, HARDSCAPE SURFACES AND ARCHITECTURAL FEATURES. INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
 - B. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS IS NOT PERMITTED.
6. SELECT NOZZLES FOR ROTARY SPRINKLERS WITH ARC AND RADIUS WHICH PROVIDE COMPLETE AND UNIFORM COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE FOR EACH SPRAY AND ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE.
7. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED:
 - A. IF A SECTION OF UNSIZED LATERAL PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED LATERAL 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.

HATCH KEY



LEGEND

- SLEEVING: SCH 40 PVC PIPE (6--INCH SIZE UNLESS OTHERWISE INDICATED)
- COMMUNICATION CABLE ROUTING (TWO-WIRE PATH). PAGE ELECTRIC PE-89 OR APPROVED EQUAL.
- MAINLINE PIPE: CLASS 200 PVC (3-INCH SIZE AND LARGER) SCH 40 PVC (2.5--INCH AND SMALLER)
- LATERAL PIPE TO SPRINKLERS: SCH 40 PVC (1--INCH SIZE UNLESS OTHERWISE INDICATED)
- TREE EMITTER LATERAL PIPE: SCH 40 PVC (3/4-INCH SIZE UNLESS OTHERWISE INDICATED) SEE EMITTER PLACEMENT DETAIL FOR EMITTER LATERAL PIPE SIZING AND INSTALLATION
- SHRUB EMITTER LATERAL PIPE: SCH 40 PVC (3/4-INCH SIZE UNLESS OTHERWISE INDICATED) SEE EMITTER PLACEMENT DETAIL FOR EMITTER LATERAL PIPE SIZING AND INSTALLATION
- LATERAL PIPE TO BUBBLERS: SCH 40 PVC (1--INCH SIZE UNLESS OTHERWISE INDICATED)
- EMITTER PIPE SIZE TRANSITION NODE
- UNCONNECTED PIPE CROSSING
- POINT-OF-CONNECTION (P.O.C.)
- ISOLATION GATE VALVE ASSEMBLY
- QUICK COUPLING VALVE ASSEMBLY
- REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER AND BUBBLER LATERALS
 - POP-UP SPRAY SPRINKLER: RAIN BIRD 1806 W/ 15 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 15 FEET FLOW (GPM): 0 - 0.93 H - 1.05 F - 3.70
 - POP-UP SPRAY SPRINKLER: RAIN BIRD 1806 W/ 12 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 12 FEET FLOW (GPM): 0 - 0.65 H - 1.30 F - 2.60
 - POP-UP SPRAY SPRINKLER: RAIN BIRD 1806 W/ 10 SERIES NOZZLE PRESSURE: 30 PSI RADIUS: 10 FEET FLOW (GPM): 0 - 0.39 H - 0.79 F - 1.57
 - HUNTER 1-20 W/ #4 NOZZLE PRESSURE: 60 PSI RADIUS: 44 FEET FLOW: 4.6 GPM
 - POP-UP ROTARY PART CIRCLE SPRINKLER: HUNTER 1-25--ADS W/ #15 NOZZLE PRESSURE: 60 PSI RADIUS: 59 FEET FLOW: 14.3 GPM
 - POP-UP ROTARY PART CIRCLE SPRINKLER: HUNTER 1-25--ADS W/ #7 NOZZLE PRESSURE: 60 PSI RADIUS: 48 FEET FLOW: 7.5 GPM
 - PALM TREE BUBBLER ASSEMBLY: RAIN BIRD 1402 PRESSURE: 30 PSI FLOW: 1.0 GPM
 - REMOTE CONTROL VALVE ASSEMBLY FOR DRIP LATERALS
 - FLUSH CAP ASSEMBLY
 - LATERAL LINE CHECK VALVE ASSEMBLY
 - IRRIGATION CONTROLLER ASSEMBLY:
 - A: RAIN BIRD ESP-32-SAT-SS, 32 STATION SATELLITE, 28 STATIONS USED
 - B: RAIN BIRD ESP-32-SAT-SS, 32 STATION SATELLITE, 30 STATIONS USED
 - C: RAIN BIRD ESP-32-SAT-SS, 32 STATION SATELLITE, 30 STATIONS USED
 - D: RAIN BIRD ESP-32-SAT-SS, 32 STATION SATELLITE, 27 STATIONS USED
 - CLUSTER CONTROL UNIT (CCU) ASSEMBLY (BY TURF EQUIPMENT SUPPLY, SEE SPECIFICATIONS)
 - CCU: RAIN BIRD CCU-28-SS
 - INDICATES CONTROLLER AND CONTROLLER STATION NUMBER
 - INDICATES LATERAL DISCHARGE IN GPM
 - SPK=SPRINKLER LATERAL
 - T=TREE EMITTER LATERAL
 - S=SHRUB EMITTER LATERAL
 - BUB=PALM BUBBLER LATERAL

NOTE: IRRIGATION COMPONENTS SHOWN AS SHADED ON THE IRRIGATION DRAWINGS ARE CONSIDERED EXISTING AND ARE NOT INSTALLED UNDER THIS CONTRACT. ALL EXISTING IRRIGATION COMPONENTS SHOWN ON THE DEMOLITION PLANS HAVE NOT BEEN SHADED.

FLAG NOTES

- 1 EXCAVATE AND EXPOSE THE EXISTING MAINLINE PIPE AT THE APPROXIMATE LOCATION SHOWN. CONNECT TO THE EXISTING MAINLINE PIPE USING DUCTILE IRON TEE AND/OR REPAIR COUPLINGS. INSTALL THRUST BLOCK, BACKFILL HOLES, AND COMPACT TO MATCH EXISTING CONDITIONS.
- 2 EXCAVATE AND EXPOSE THE EXISTING LATERAL PIPE AT THE APPROXIMATE LOCATION SHOWN. CONNECT TO THE EXISTING LATERAL PIPE USING PVC SCH 40 SOLVENT WELD TEE AND REPAIR COUPLINGS. BACKFILL HOLES, AND COMPACT TO MATCH EXISTING CONDITIONS.
- 3 INSTALL NEW VALVES FOR ZONES 34 AND 36 AT THE LOCATION INDICATED IN ACCORDANCE THE DETAILS AND SPECIFICATIONS.
- 4 EXCAVATE AND EXPOSE EXISTING DRIP PIPE AT LOCATION INDICATED, ATTACH NEW PIPE USING PVC SCH 40 SOLVENT WELD FITTINGS. BACKFILL HOLE AND COMPACT TO MATCH SURROUNDING CONDITIONS.
- 5 PROVIDE AND INSTALL NEW QUICK COUPLING VALVE AT LOCATION INDICATED PER THE IRRIGATION DRAWINGS AND SPECIFICATIONS.

DEMOLITION FLAG NOTES

- 61 EXCAVATE AND EXPOSE THE EXISTING MAINLINE PIPE AT THE APPROXIMATE LOCATIONS INDICATED. CUT PIPE AT LOCATION INDICATED ON DRAWINGS. PROVIDE AND INSTALL DUCTILE IRON PLUG AND RESTRAIN WITH JOINT RESTRAINTS AND THRUST BLOCKS. BACKFILL HOLES AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
- 62 EXCAVATE AND EXPOSE EXISTING LATERAL PIPE AT APPROXIMATE LOCATION INDICATED. CUT LATERAL PIPE AND CAP USING A PVC SCH 40 SOLVENT WELD CAP. BACKFILL HOLES AND COMPACT TO MATCH EXISTING CONDITIONS. MARK LOCATION WITH 6-INCH ROUND VALVE BOX.
- 63 EXCAVATE AND EXPOSE EXISTING REMOTE CONTROL VALVE ASSEMBLY AT APPROXIMATE LOCATION SHOWN. REMOVE REMOTE CONTROL VALVE ASSEMBLY AND TURN OVER TO OWNER'S REPRESENTATIVE. IF SPRINKLER IS WITHIN THE SPRINKLER DEMOLITION BOUNDARY, PIPE IS TO BE ABANDONED IN PLACE. BACKFILL HOLES AND COMPACT TO EXISTING CONDITIONS.
- 64 EXCAVATE AND EXPOSE EXISTING SPRINKLER ASSEMBLY AT APPROXIMATE LOCATION SHOWN. REMOVE SPRINKLER ASSEMBLY AND TURN OVER TO CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE. IF SPRINKLER IS WITHIN THE SPRINKLER DEMOLITION BOUNDARY, PIPE IS TO BE ABANDONED IN PLACE. BACKFILL HOLES AND COMPACT TO EXISTING CONDITIONS.
- 65 VERIFY OPERATION OF ALL REMOTE CONTROL VALVES AND SPRINKLERS IN THIS AREA PRIOR TO DEMOLITION OR CONSTRUCTION. EXCAVATE AND EXPOSE EXISTING SPRINKLERS, REMOTE CONTROL VALVE ASSEMBLIES, AND VALVE BOXES WITHIN DEMOLITION BOUNDARY INDICATED. REMOVE ASSEMBLIES AND TURN OVER TO CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE. CAP PVC RISER ON SUPPLY SIDE OF REMOTE CONTROL VALVE WITH PVC SCH 40 CAP. ABANDON LATERAL PIPE IN PLACE. VERIFY WHICH IRRIGATION CONTROLLER OPERATES THE REMOTE CONTROL VALVES AND PROTECT WIRING FOR FUTURE USE. REPAIR ANY EXISTING IRRIGATION SYSTEM COMPONENT DAMAGED BY THE NEW CONSTRUCTION.

QUANTITY OF SPRINKLERS TO BE REMOVED PER VALVE	
VALVE ID	SPRINKLERS
A5	8
A6	7
A7	8
A8	7
A9	8
A16	4
A17	3
A18	4
B1	8
B2	8
B3	8
B4	8
B5	8
B6	7
B7	8
B8	7
B9	8
B10	8
B11	4
B12	8
B15	8

NOTED TO CONTRACTOR: THE USER OF THIS INFORMATION, CONTRACTOR, SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES.

Call before you Dig

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UNDERGROUND SERVICE ALERT (USA)

Call before you call OVERHEAD

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UTAH POWER DIVISION & ELECTRIC SERVICES DIVISION

RECORD AS-BUILT

9/11/13

Aqua Engineering Inc.

315 E. Henderson Blvd. Suite 200
Provo, UT 84601
801.225.5555
aquaengineering.com

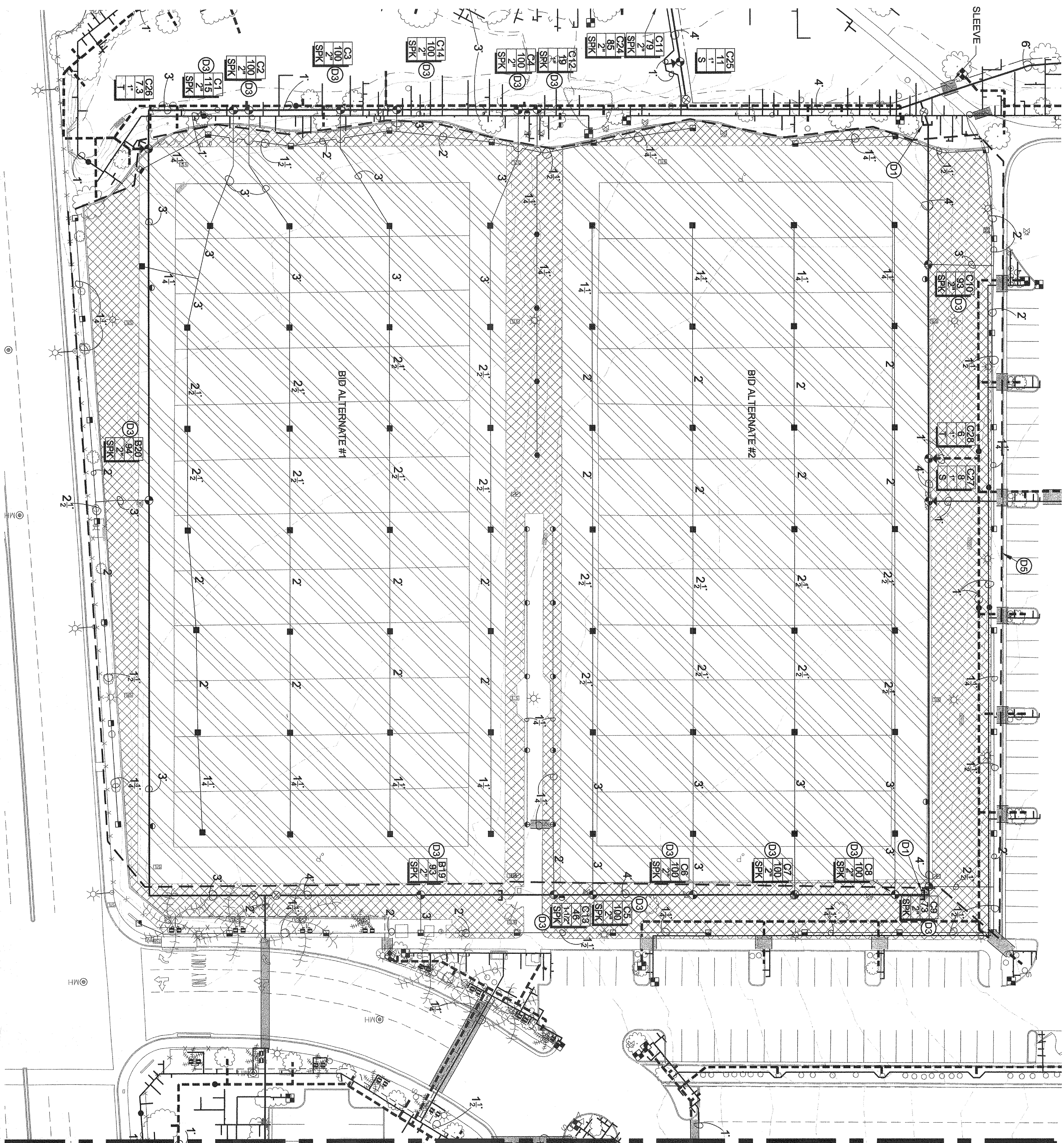
Water Solutions

ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION NOTES AND LEGEND

DATE	JD/CAT
PLANS SHEET	630-02-1
DATE	2/15/2013
PROJECT	ALL AMERICAN PARK
SHEET NO.	IR-1
SHEET	17 OF 24

DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES

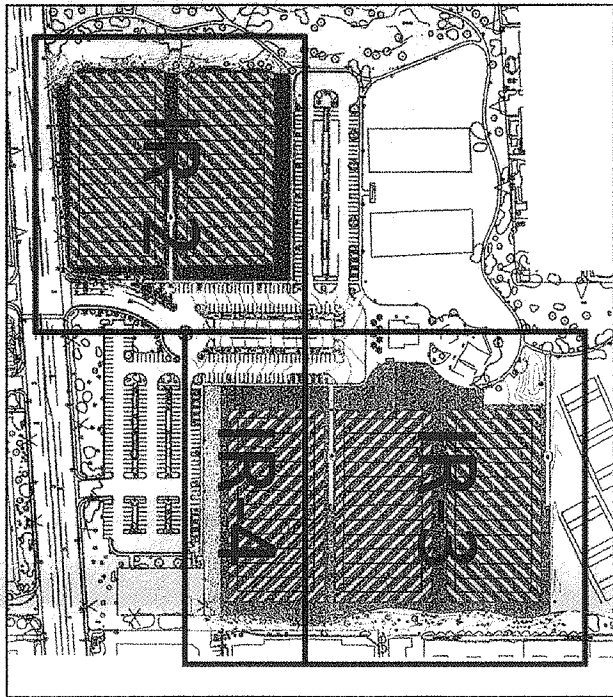
400 EAST STEWART AVENUE
LAS VEGAS, NEVADA 89101
PHONE: (702) 382-3232
FAX: (702) 386-9200



MATCHLINE SEE SHEET IR-4

BID ALTERNATES	
QUANTITY OF SPRINKLERS TO BE REMOVED PER VALVE	
VALVE ID	SPRINKLERS
BID ALT 1	8
C1	7
C2	7
C3	7
C4	7
C14	7
B19	7
B20	7
BID ALT 2	7
C5	7
C6	7
C7	7
C8	7
C9	6
C10	7
C12	4
C13	10

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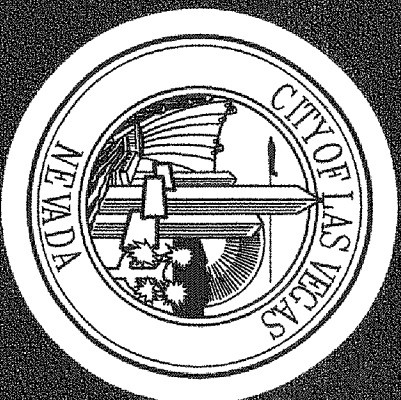
Aqua Engineering Inc.
Innovative Water Solutions

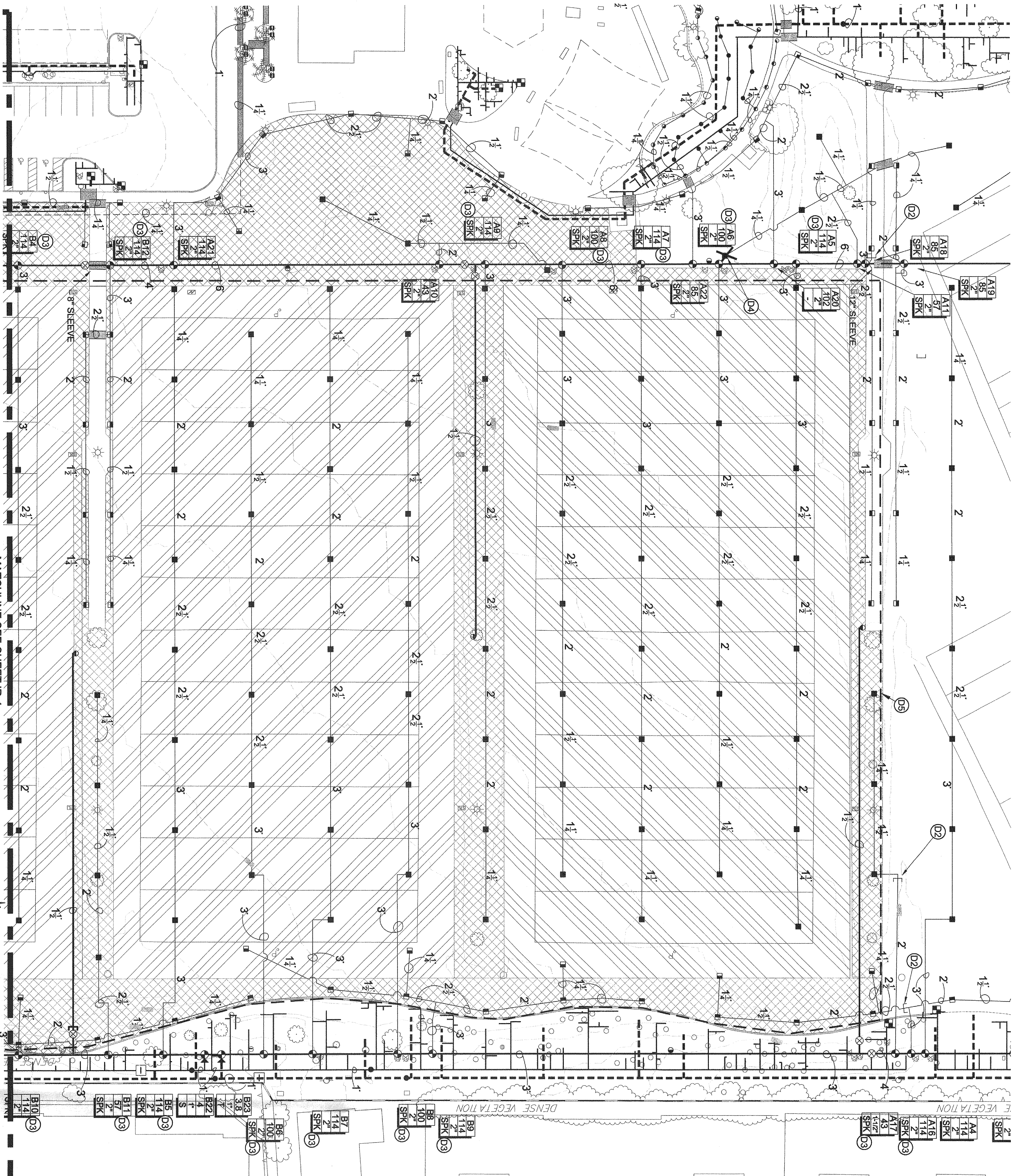


375 E. Homewood Road, Building 2-02
Fort Collins, CO 80525-3186
970.228.8988 office
970.228.3855 fax
www.aquaengineering.com

DEPARTMENT OF PUBLIC WORKS ARCHITECTURAL SERVICES		400 EAST STEWART AVENUE LAS VEGAS, NEVADA 89101 TEL: (702) 362-5232 FAX: (702) 362-5233 TDD: (702) 366-9106	
PROJECT ALL AMERICAN PARK		PROJECT MANAGER SARI TOPPAN, AIA, NCARB	
SHEET NO.	IR-2	DRAWING ID / C&M	DATE 630.62-1 2/15/2013
SHEET 18 OF 24		REVISIONS 13 45161.TIF	

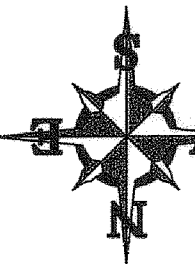
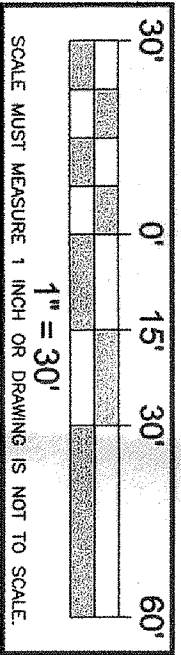
ALL AMERICAN PARK TURF REPLACEMENT IRRIGATION DEMOLITION PLAN





MATCHLINE SEE SHEET IR-4

BASE BID

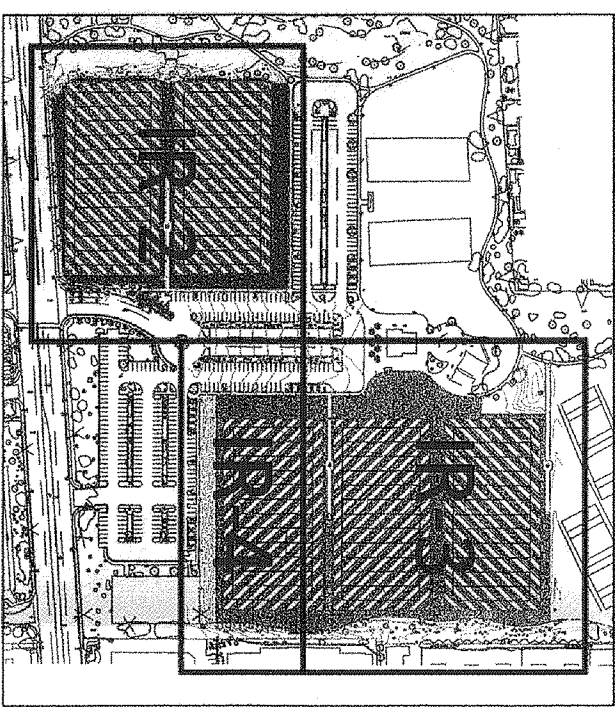


USE OF ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS PREPARED IS THE USER'S RESPONSIBILITY. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE REGULATIONS AND ORDINANCES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM THE FIELD AND FOR VERIFYING THE ACCURACY OF THE INFORMATION OBTAINED. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM THE FIELD AND FOR VERIFYING THE ACCURACY OF THE INFORMATION OBTAINED.

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Call before you Dig
1-800-277-2600
UNDERGROUND SERVICE ALERT (USA)

Call before you OVERHEAD
1-702-593-6111
NEVADA POWER TRANSMISSION & SAFETY SERVICES (NP&SS)

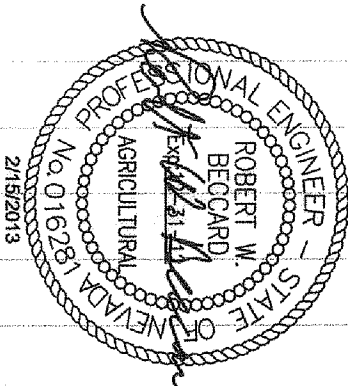


RECORD AS-BUILT

9/27/13

[Handwritten signature]

ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION DEMOLITION PLAN



DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES
400 EAST STEWART AVENUE
LAS VEGAS, NEVADA 89101
TEL: (702) 382-3232
FAX: (702) 382-3108

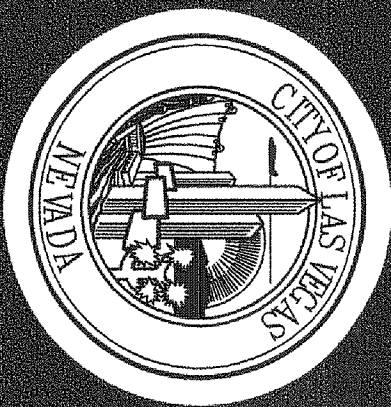
PROJECT NUMBER
SAY TOLMAN AIA NCARB

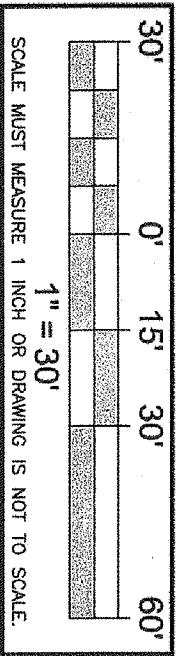
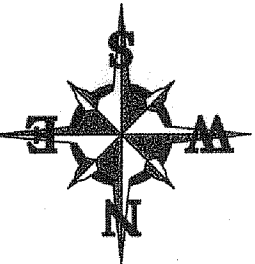
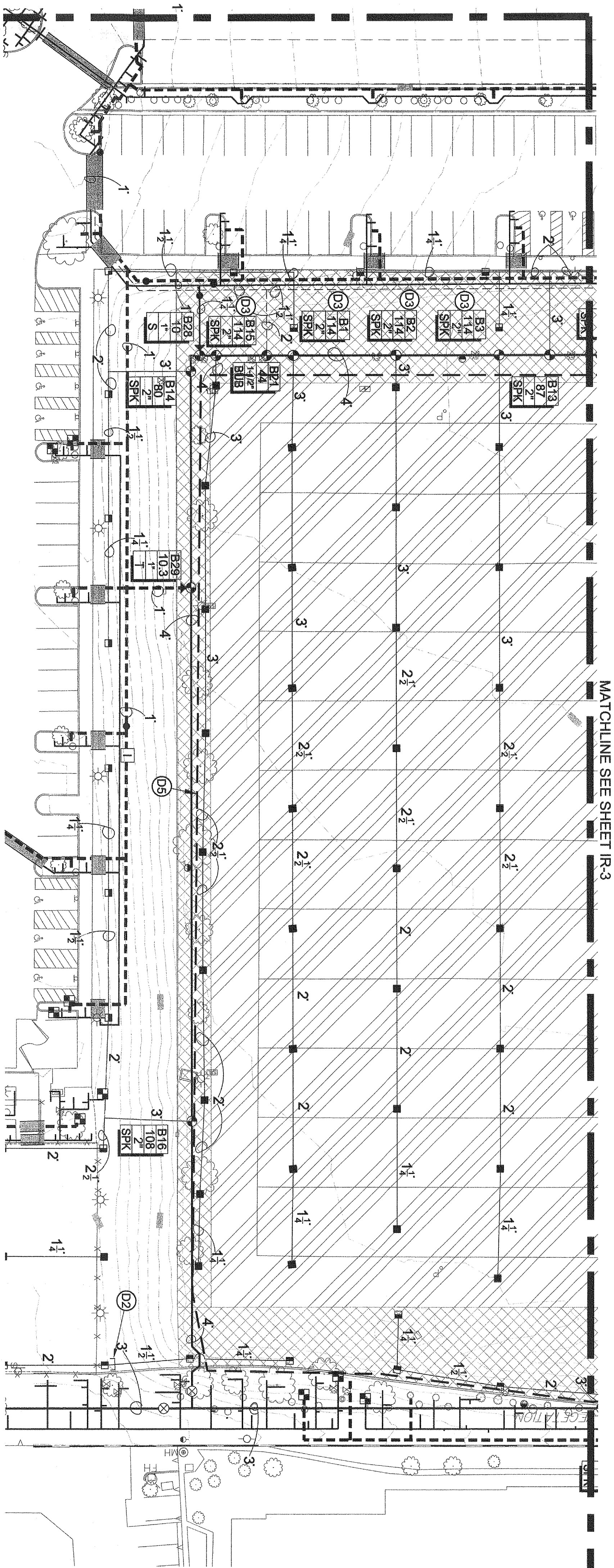
DATE
2/15/2013

PROJECT
ALL AMERICAN PARK

SHEET
IR-3

SHEET 19 OF 24



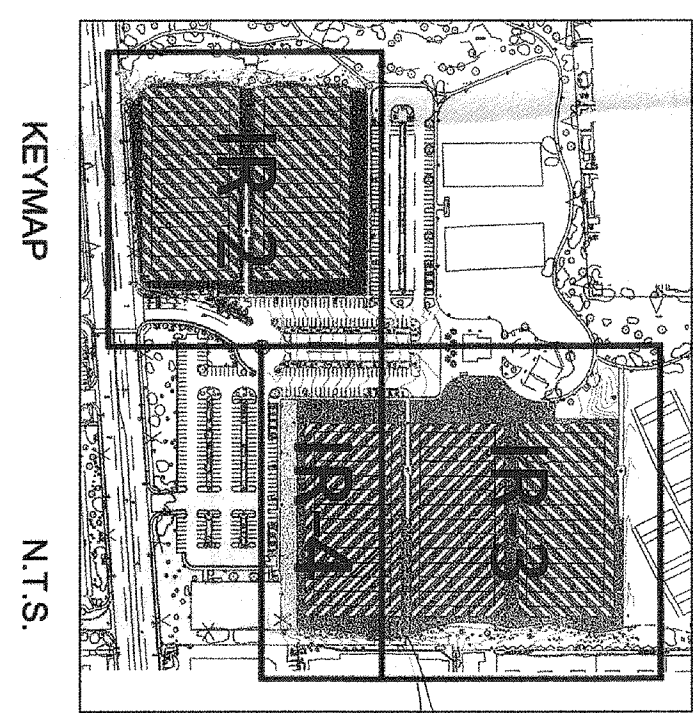


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Call before you Dig
1-800-277-7600
UNDERGROUND SERVICE ALERT (U.S.A.)

Call before you OVERHEAD
1-702-593-6111
NEVADA POWER ENGINEERING & SAFETY SERVICES, INC.

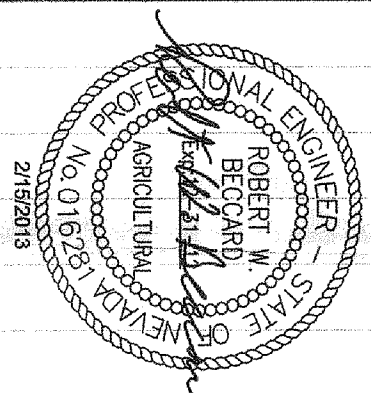


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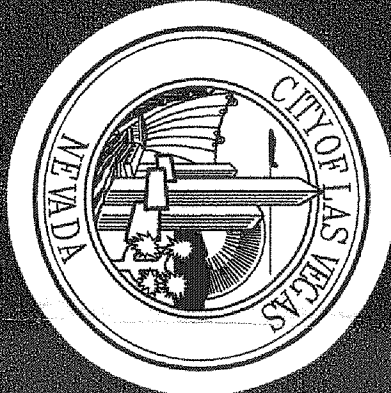
9/24/13

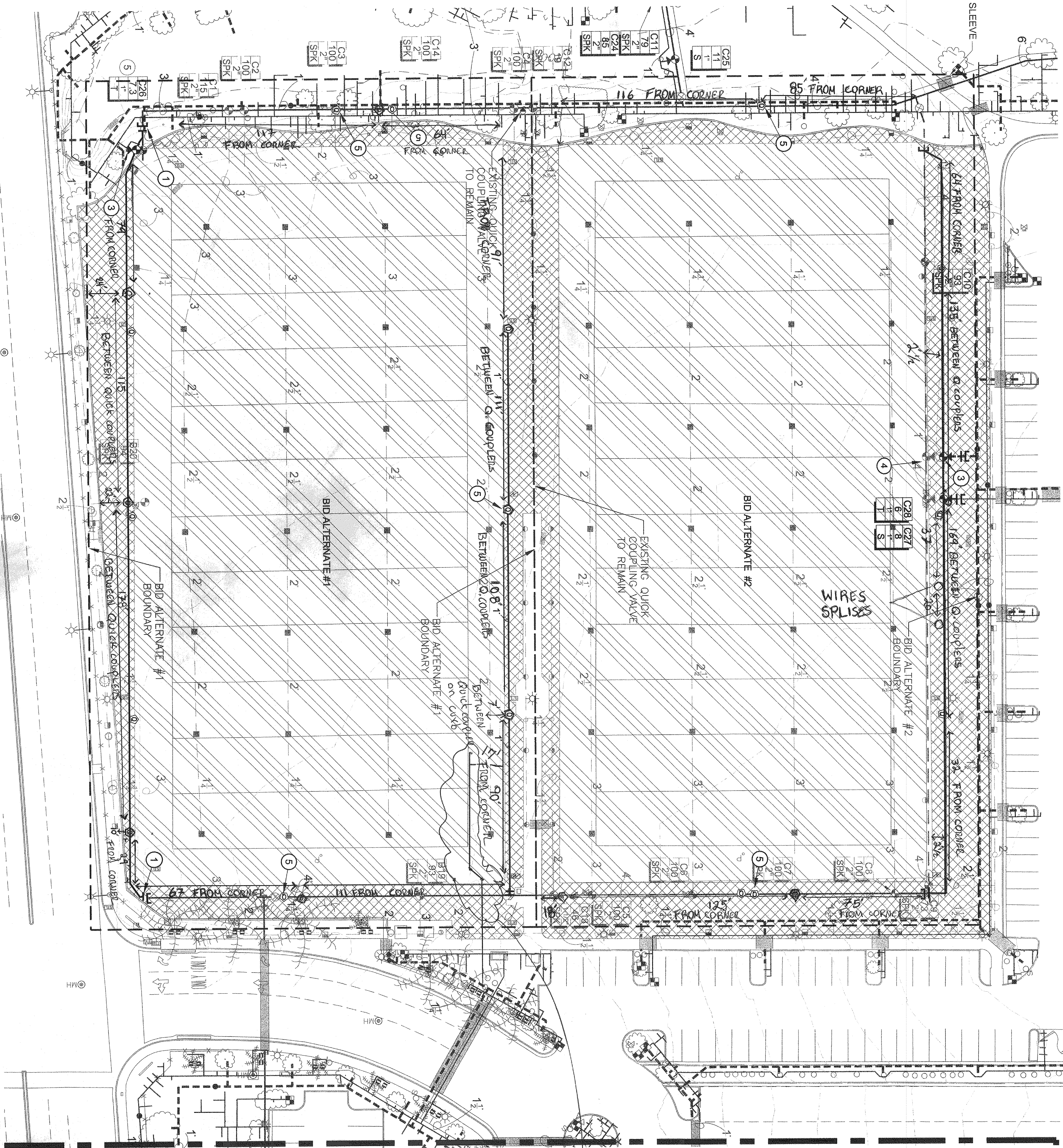
Aqua Engineering Inc.
3715 E. Henderson Road, Suite 200
Henderson, NV 89123-3800
702.228.8800
www.aquaengineering.com

PROJECT	ALL AMERICAN PARK
DATE	2/15/2013
DESIGNED BY	JL/CAM
CHECKED BY	650-62-1
PROJECT MANAGER	SM TOTHAN AA NCARB
DEPARTMENT OF PUBLIC WORKS	
ARCHITECTURAL SERVICES	
400 EAST STEWART AVENUE	
SPRINGFIELD, NV 89501	
PHONE: (702) 722-6535	
FAX: (702) 382-3122	
TEL: (702) 382-3122	

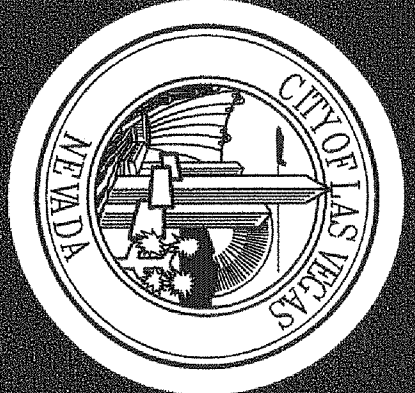


ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION DEMOLITION PLAN

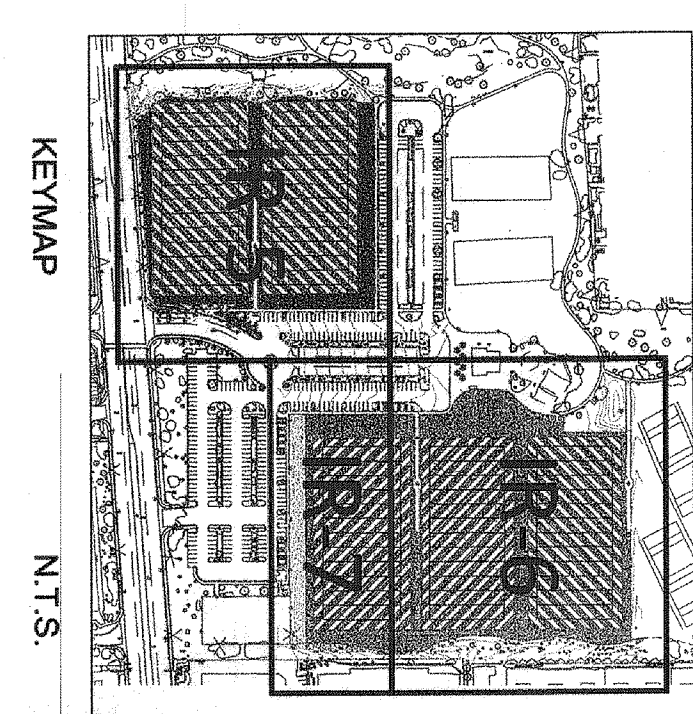
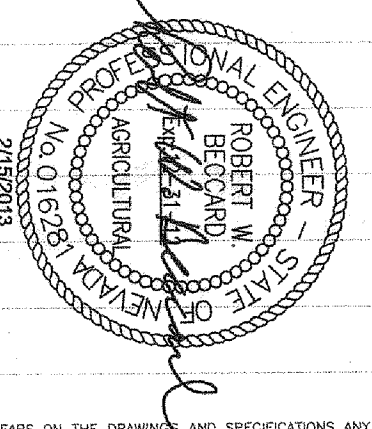




* NOTE:
grading contractor hit 3" potale
line that feeds South (Spray
Feature and Restroom.) It was
repaired Same Day as per City
and signed off prior to bidding
City paid for Repair on
Change Order. Super intended
Jeff McCord
* Note line was
17' Ft. off curb - 702 449. 2633



ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION PLAN



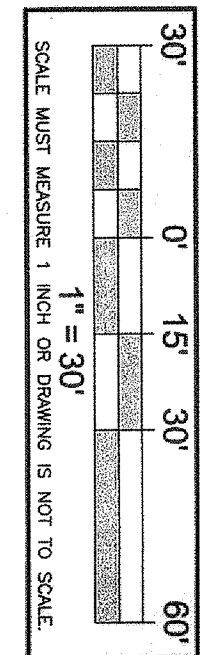
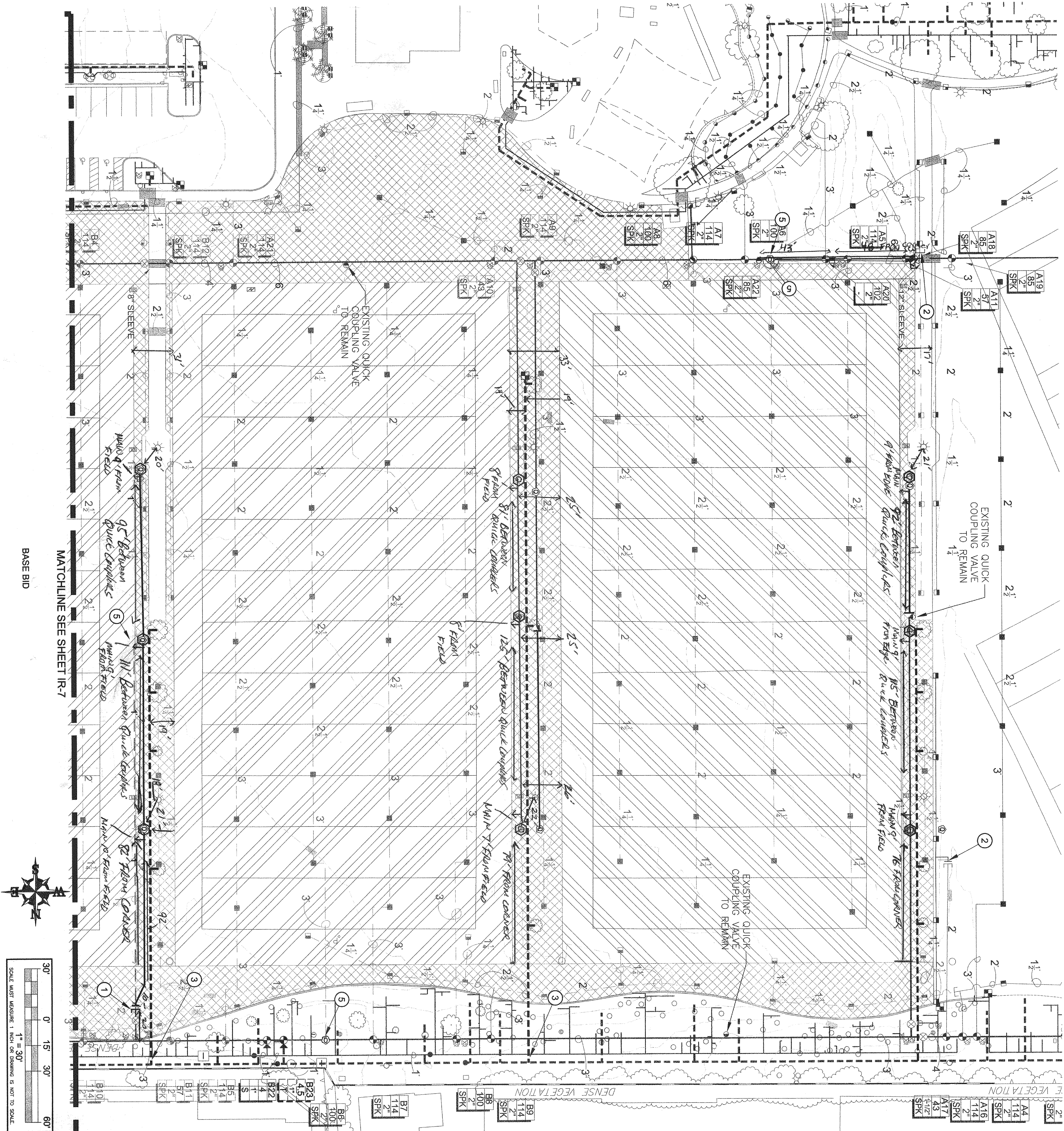
Call before you Dig
1-800-277-2800
NATIONAL SERVICE CENTER (U.S.A.)

Call before you OVERHEAD
1-702-593-6111
NEVADA POWER CORPORATION & SAFETY SERVICES DEPARTMENT

SAFETY IS CONSTRUCTION.
BEFORE YOU DIG, CALL THE NEVADA POWER CORPORATION & SAFETY SERVICES DEPARTMENT AT 1-800-277-2800. A FREE SERVICE TO THE CONSTRUCTION INDUSTRY. IT'S THE ONLY WAY TO AVOID THE COSTLY AND DANGEROUS CONSEQUENCES OF UNDETECTED UTILITY LINES. CALLING BEFORE YOU DIG IS THE ONLY WAY TO AVOID THE COSTLY AND DANGEROUS CONSEQUENCES OF UNDETECTED UTILITY LINES. CALLING BEFORE YOU DIG IS THE ONLY WAY TO AVOID THE COSTLY AND DANGEROUS CONSEQUENCES OF UNDETECTED UTILITY LINES.

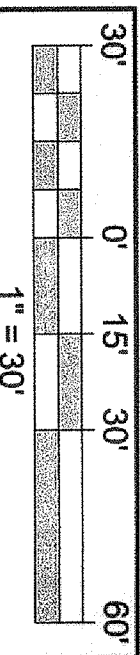
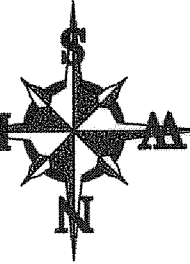
Agua Engineering Inc.
375 E. Henderson Blvd. Suite 200
Las Vegas, NV 89101
702.382.2332
www.aguaengineering.com

PROJECT	ALL AMERICAN PARK
SHEET	IR-5
DATE	2/15/2013
BY	JL/CJM
CHECKED	JL/CJM
APPROVED	JL/CJM
PROJECT MANAGER	SM TOLMAN, AIA, NCARB
DESIGNED BY	650.62-1
SCALE	1" = 30'
PROJECT NO.	13.4561.1F
CLIENT	LAS VEGAS, NEVADA, 89101 702.382.2332 (702) 382-2332 (702) 382-2332
DESIGNED BY	650.62-1
SCALE	1" = 30'
PROJECT NO.	13.4561.1F
CLIENT	LAS VEGAS, NEVADA, 89101 702.382.2332 (702) 382-2332 (702) 382-2332



BASE BID

MATCHLINE SEE SHEET IR-7

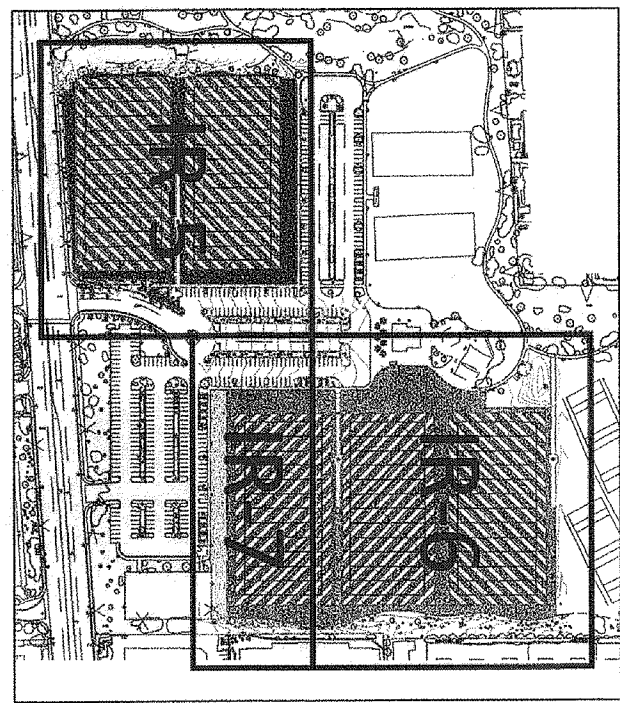


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Call before you Dig
1-800-227-2600
UNDERGROUND SERVICE ALERT (U.S.A.)

Call before you OVERHEAD
1-702-593-6111
UTILITY SERVICES DEPARTMENT



KEYMAP

N.T.S.

RECORD
AS-BUILT

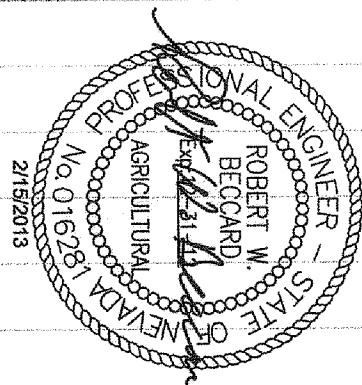
9/24/13

Aqua Engineering Inc.
Irrigation
Water Solutions

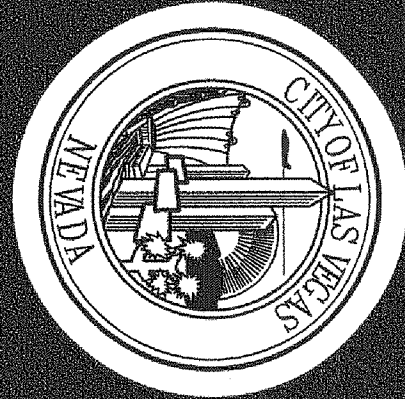
505 E. Main Street, Suite 200
Boulder, CO 80501
303.440.8888
www.aquaengineering.com

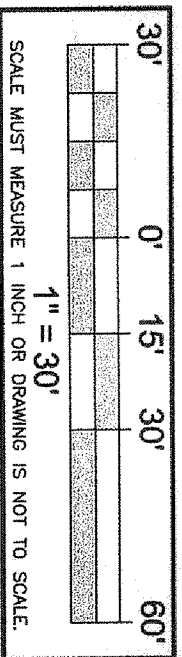
PROJECT: ALL AMERICAN PARK
SHEET: 22 OF 24
IR-6

DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES
400 EAST STEWART AVENUE
BOULDER, CO 80501
PHONE: (303) 229-5535
FAX: (303) 386-9108



ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION PLAN





Avoid cutting underground utility lines. It's costly

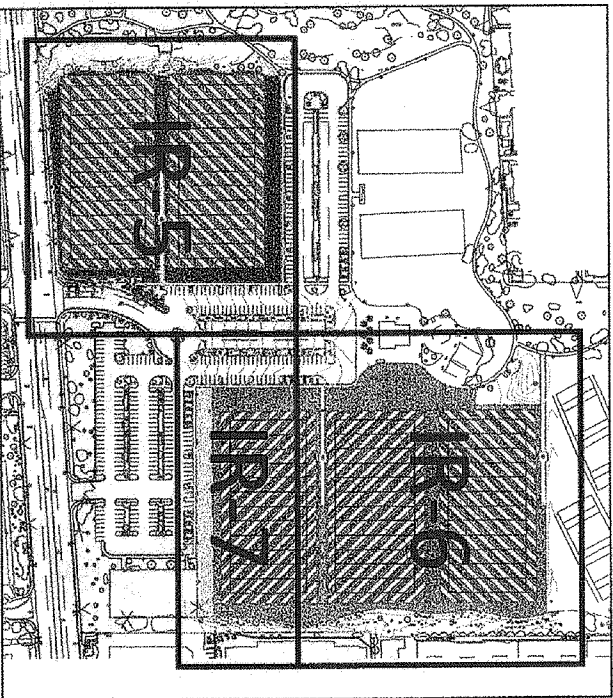
Call before you Dig

1-800-227-2600

UNDERGROUND SERVICE ALERT (U.S.A.)

STATISTIC CONSULTING, INC. HAS
DEVELOPED A NEW, EASY-TO-USE, MASTER CURRENT
LOCATION RECORD (M-CR) THAT THE MASTER CURRENT
DATA AVAILABLE. THE CONSTRUCTOR SHALL
VERIFY THE LOCATION OF ALL UTILITIES SHOWN OR NOT SHOWN ON THESE
PLANS WITH RESPECT TO LINE AND GRADE
PRIOR TO CONSTRUCTION.

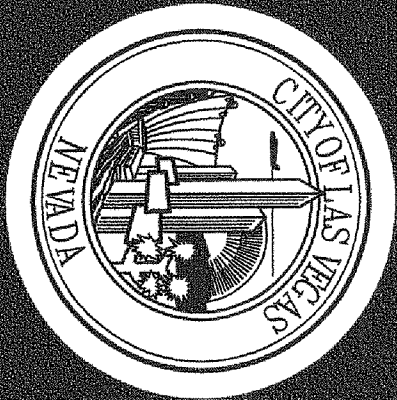
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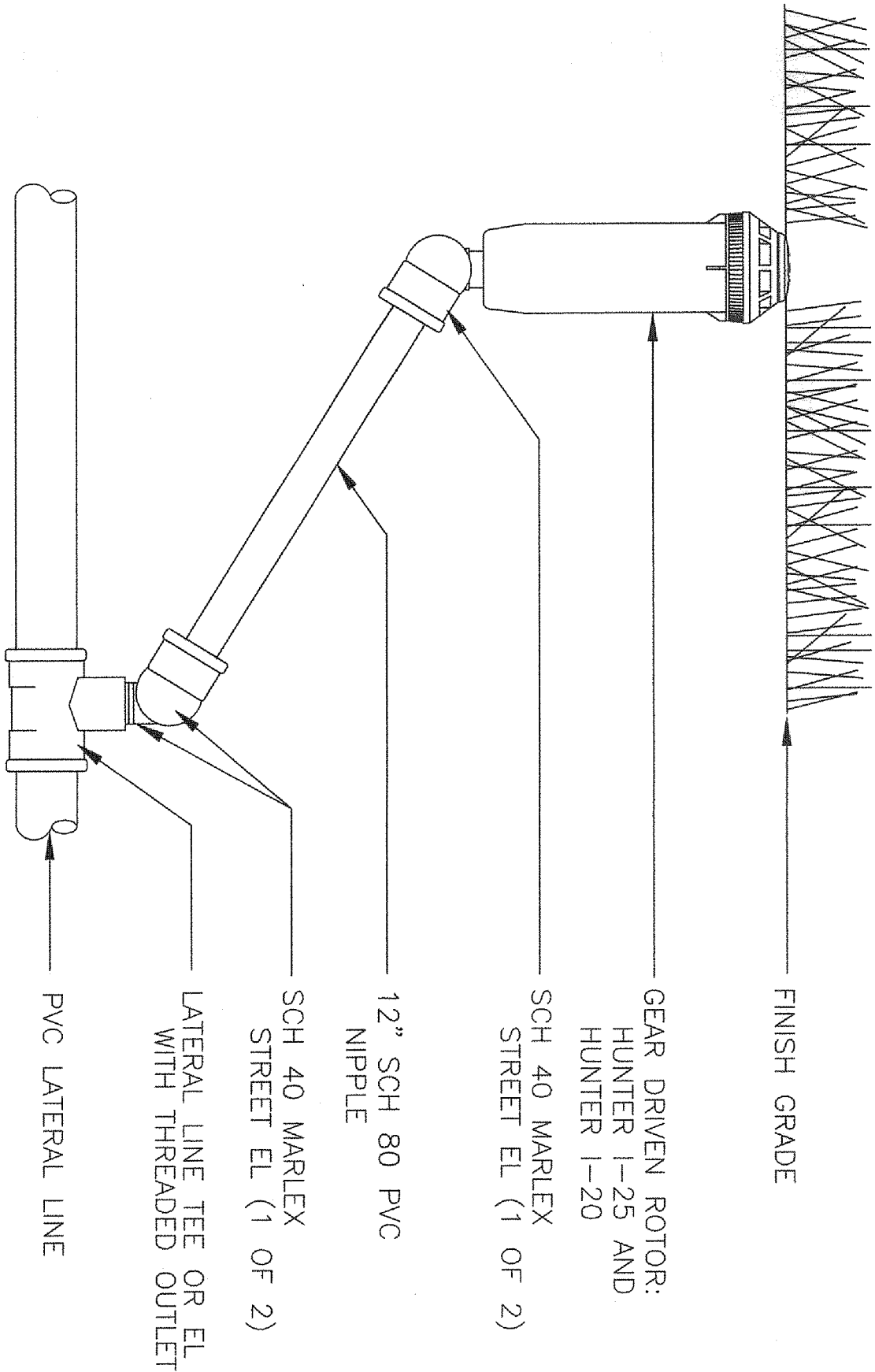
ALL AMERICAN PARK TURF REPLACEMENT IRRIGATION PLAN

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3 POP-UP ROTOR SPRINKLER ASSEMBLY

NTS

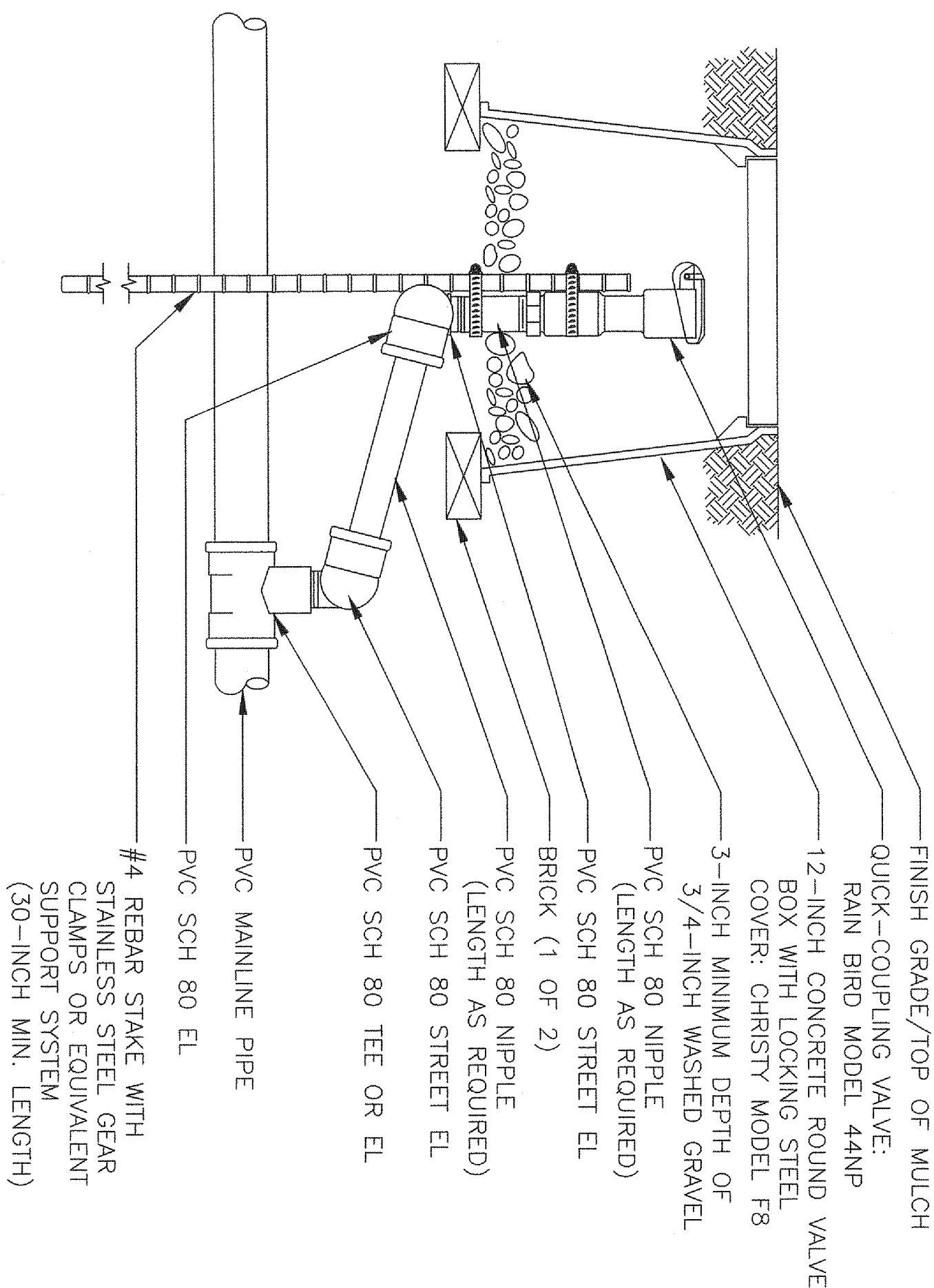
NOTE:
SIZE OF SWING JOINT COMPONENTS SHALL MATCH SIZE OF SPRINKLER INLET.



1 QUICK COUPLING VALVE ASSEMBLY

NTS

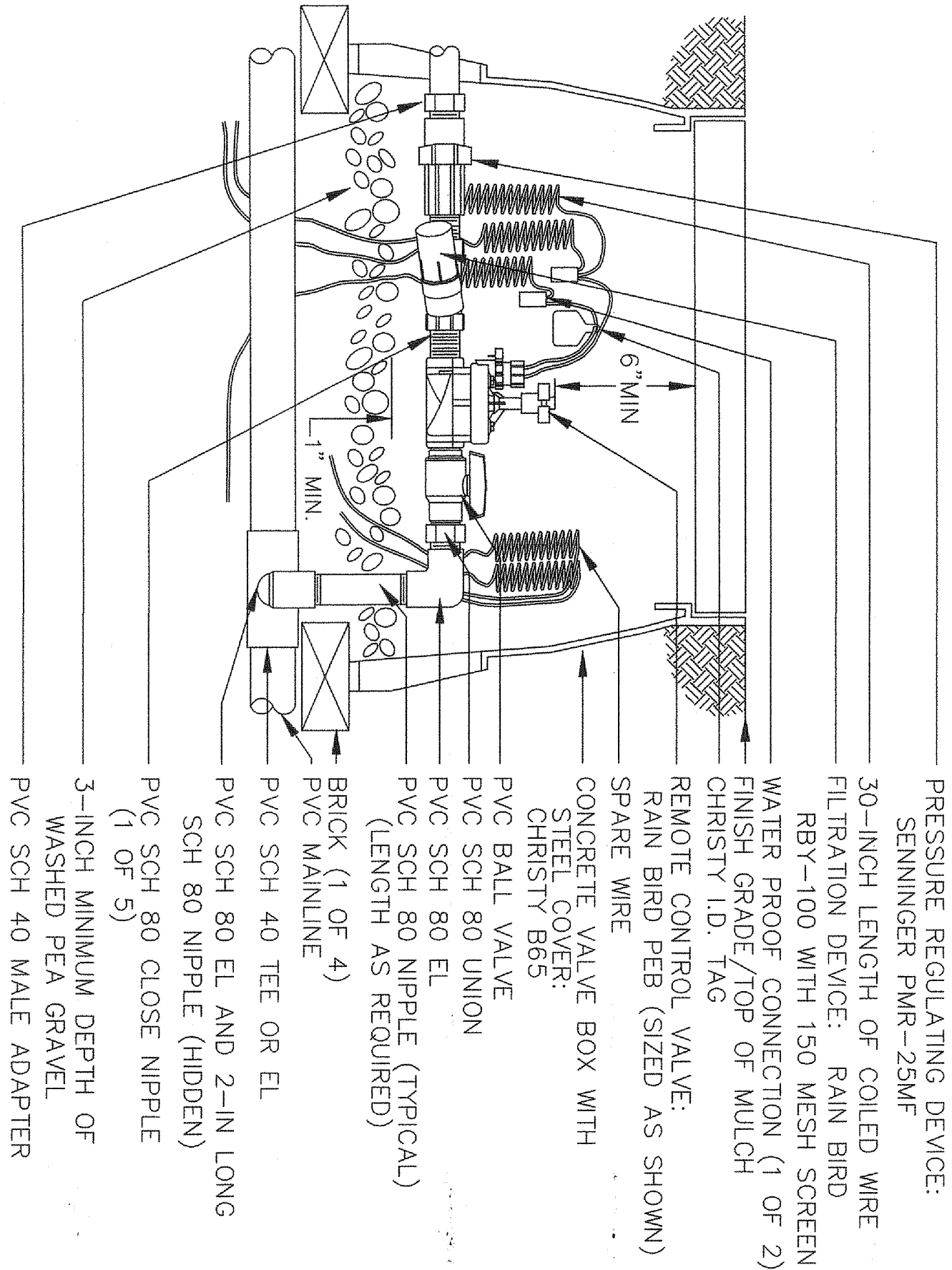
- NOTES:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.
 2. FOR MAINLINE PIPE SIZES WHERE DUCTILE IRON FITTINGS ARE CALLED FOR IN THE SPECIFICATIONS, DELETE PVC SERVICE TEE SHOWN AND USE DUCTILE SERVICE TEE.



2 DRIP REMOTE CONTROL VALVE ASSEMBLY

NTS

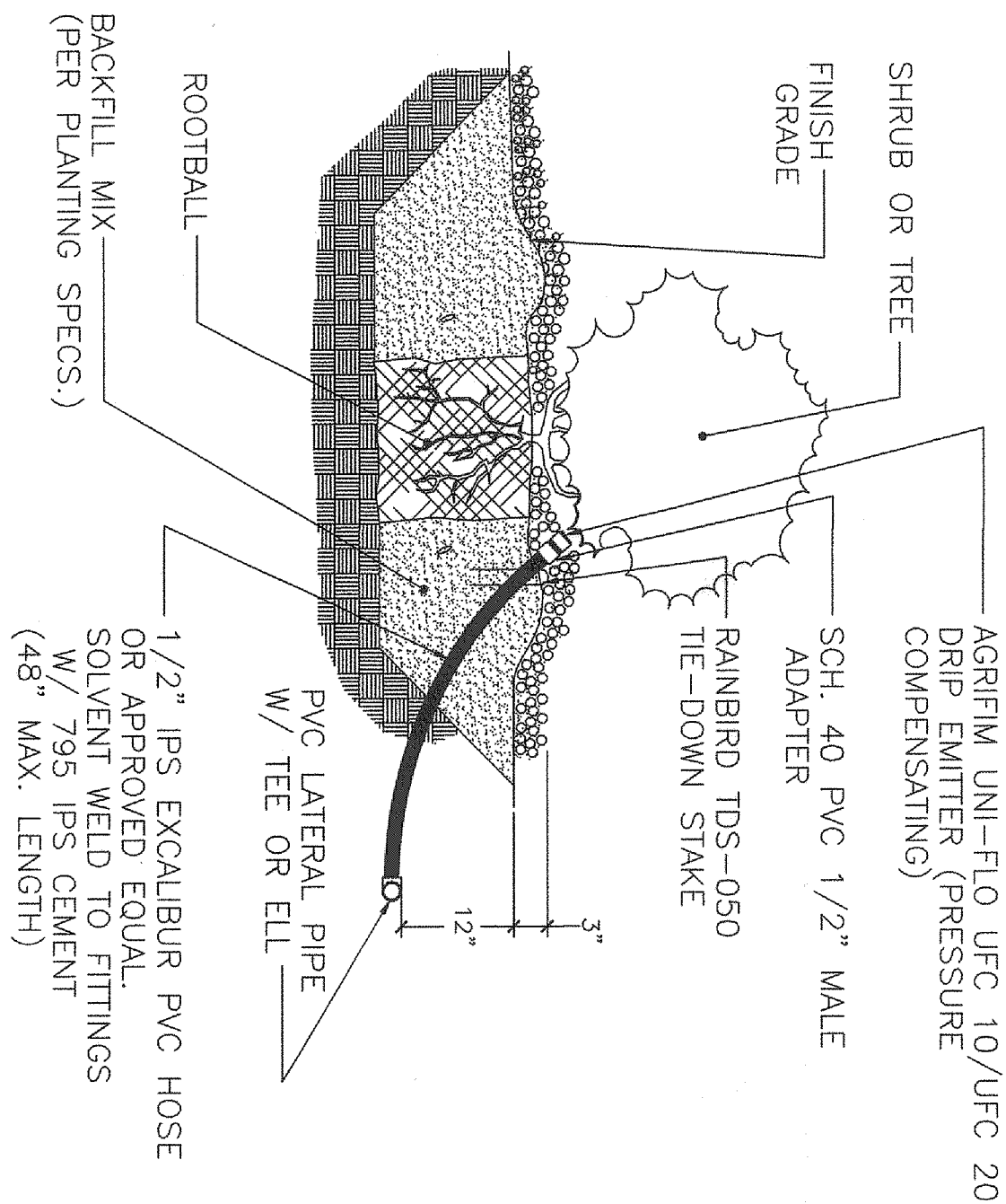
- NOTE:
1. FOR MAINLINE PIPE SIZES WHERE DUCTILE IRON FITTINGS ARE REQUIRED PER THE SPECIFICATIONS, DELETE PVC SERVICE TEE SHOWN AND USE DUCTILE IRON SERVICE TEE.



4 TYPICAL TREE EMITTER PLACEMENT

NTS

- NOTES:
1. INSTALL EMITTERS ON THE UPHILL SIDE OF THE ROOTBALL AT SLOPE LOCATIONS. EQUALLY SPACE THE REQUIRED NUMBER OF EMITTERS AROUND THE PERIMETER OF THE PLANT. (AT EDGE OF ROOTBALL)
 2. INSTALL FOUR EMITTERS PER TREE.



NOTE TO CONTRACTOR: THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF THE DESIGN PROFESSIONAL WHOSE STAMP OF CERTIFICATION APPEARS ON THE DRAWING. 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.C. 623.780.

1-800-227-2600
1-702-593-6111
SAFETY SERVICES DEPARTMENT

Call before you Dig
Call before you Overhead

RECORD AS-BUILT

9/14/12

Aqua Engineering Inc.
375 E. Henderson Blvd. Suite 202
Fort Collins, CO 80525-5148
970.226.8855 fax
www.aquaengineering.com

DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES

400 EAST STEWART AVENUE
LAS VEGAS, NEVADA 89101
TEL: (702) 582-3232
FAX: (702) 582-3232
TDD: (702) 582-9108

PROJECT MANAGER
SAM TIZIAN AA NCARB

DATE
2/15/2013

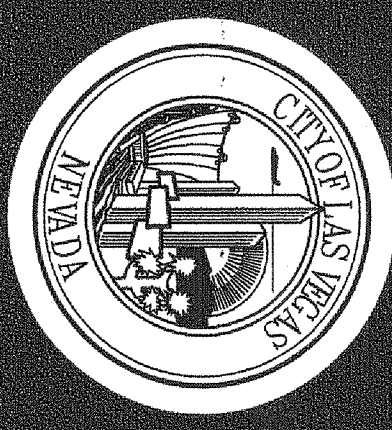
PROJECT
ALL AMERICAN PARK

SHEET NO
IR-8

SHEET 24 OF 24

PROFESSIONAL ENGINEER
ROBERT W. BRYAN
STATE OF NEVADA
LICENSE NO. 016762
2/15/2013

ALL AMERICAN PARK
TURF REPLACEMENT
IRRIGATION DETAILS



WARRANTIES AND OPERATION & MAINTENANCE MANUALS

FOR:

**ALL AMERICAN PARK
ATHLETIC TURF CONVERSION
Bid No. 13.45161-TB**

**1551 S. BUFFALO DRIVE
LAS VEGAS, NEVADA 89117**

RICHARDSON CONSTRUCTION, INC.

2207 W. GOWAN ROAD, 2ND FLOOR, NORTH LAS VEGAS, NEVADA 89032

PHONE: (702) 647-2200 / FAX: (702) 647-7340

LICENSE NO. 27944 AB GENERAL ENG. & BLDG LIMIT: UNLIMITED; 72865 C14 STEEL REINFORCING & ERECTION LIMIT: \$3 MILLION

ALL AMERICAN PARK
SYNTHETIC TURF CONVERSION
1551 S. Buffalo Drive, Las Vegas, Nevada 89117

TABLE OF CONTENTS

GUARANTEE/WARRANTIES

SECTION 100 – GENERAL REQUIREMENTS

- RICHARDSON CONSTRUCTION, INC.

SECTION 213 - IRRIGATION

- Instant Jungle Landscape, Inc.

SECTION 501 – PORTLAND CEMENT CONCRETE / SECTION 613 CONCRETE CURB, WALK,
GUTTERS, DRIVEWAYS AND ALLEY INTERSECTIONS

- J & J Enterprises, Inc.

SECTION 32 18 13 – SYNTHETIC GRASS SURFACING

- CG & B Enterprises / UBU Sports, Inc.

OPERATION & MAINTENANCE MANUALS

SECTION 32 18 13 – SYNTHETIC GRASS SURFACING

- CG & B Enterprises
 - “A Missile” Test Reports (ASTM F1936)
 - UBU Sports, Inc. Care & Maintenance Manual

RICHARDSON CONSTRUCTION, INC.
2207 W. GOWAN ROAD, 2ND FLOOR, NORTH LAS VEGAS, NEVADA 89032
PHONE: (702) 647-2200 / FAX: (702) 647-7340

LICENSE NO. 27944 AB GENERAL ENG. & BLDG LIMIT: UNLIMITED; 72865 C14 STEEL REINFORCING & ERECTION LIMIT: \$3 MILLION

ALL AMERICAN PARK SYNTHETIC TURF CONVERSION

Bid No. 13.45161-TB

1551 S. Buffalo Drive, Las Vegas, Nevada 89117

CONTACT SHEET

OWNER:

City of Las Vegas, Public Works - Construction
333 N. Rancho Drive, 8th Floor, Las Vegas, Nevada 89106
Telephone: (702) 229-2383 / Fax: (702) 382-3901
Contact: Peter Dunne
Email: pdunne@LasVegasNevada.Gov

ARCHITECT:

City of Las Vegas, Public Works - Capital Management
333 N. Rancho Drive, Las Vegas, Nevada 89106
Telephone: (702) 229-6276 / Fax: (702) 382-0848
Contact: Randy M. McConnell, Civil P.E.
Email: rburson@jvcarchitects.net

CONTRACTOR:

Richardson Construction, Inc.
2207 W. Gowan Road, 2nd Flr., North Las Vegas, Nevada 89032
Telephone: (702) 647-2200 / Fax: (702) 647-7340
Contact: Tony Mateus, Project Manager
Email: tony@rclv.net

SUPPLIERS

Synthetic Turf

UBU Sports, Inc.
3525 Old Dixie Highway, Dalton, Georgia, 30721
Telephone: (800) 828-8700 / Fax: (800) 828-1300
Contact: *Customer Service Department*
Email: info@ubusports.com

RICHARDSON CONSTRUCTION, INC.
2207 W. GOWAN ROAD, 2ND FLOOR, NORTH LAS VEGAS, NEVADA 89032
PHONE: (702) 647-2200 / FAX: (702) 647-7340

**SOUTHERN NEVADA VETERANS MEMORIAL CEMETERY
EXPANSION PHASE II**

Bid No. 09-C18A

1900 Buchanan Boulevard, Boulder City Nevada 89005

Page 2 of 2

SUBCONTRACTORS

Asphalt Paving

J & J Enterprises, Inc.
5920 West Cougar Avenue, Las Vegas, Nevada 89139
Telephone: (702) 361-2914 / Fax: (702) 596-9838
Contact: Joseph Wyson
Email: brian@jandjasphalt.com

Irrigation

Instant Jungle Landscape, Inc.
4141 Cannoli Circle, Las Vegas, Nevada 89103
Telephone.: (702) 367-9453 / Fax: (702) 367-6297
Contact: Launa Spendlove
Email: instantjunglelv@gmail.com

Synthetic Turf

CG&B Enterprises
221 Sunpac Avenue
Telephone.: (702) 565-6564 / Fax: (702) 565-6727
Contact: Mike McComb
Email: MMcComb@concretegradingbuilding.com

RICHARDSON CONSTRUCTION, INC.

2207 W. GOWAN ROAD, 2ND FLOOR, NORTH LAS VEGAS, NEVADA 89032

PHONE: (702) 647-2200 / FAX: (702) 647-7340

LICENSE No. 27944 AB GENERAL ENG. & BLDG LIMIT: UNLIMITED; 72865 C14 STEEL REINFORCING & ERECTION LIMIT: \$3 MILLION

ALL AMERICAN PARK SYNTHETIC TURF CONVERSION

Bid No. 13.45161-TB

1551 S. Buffalo Drive, Las Vegas, Nevada 89117

FORM OF GUARANTEE

We hereby guarantee that the Bid No. 13.45161-TB All American Park Synthetic Turf Conversion located at 1551 S. Buffalo Drive, Las Vegas, Nevada 89117, which we have constructed, has been done in accordance with the plans and specifications; that the work installed will fulfill the requirements included in the Contract Documents. We agree to repair or replace any or all of our work together with any adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or materials within a period of one (1) year from date of substantial completion of the above-mentioned structure by Owner, ordinary wear and tear, and unusual abuse or neglect excepted.

In the event of our failure to comply with the above-mentioned conditions within a reasonable period of time, as determined by the Owner, after being notified in writing by the Owner, we, collectively or separately, do hereby authorize the Owner to proceed to have said defects repaired and made good at our expense, and we will honor and pay the costs and charges therefore upon demand.

DATE OF SUBSTANTIAL COMPLETION:

SIGNED:

GENERAL CONTRACTOR

RICHARDSON CONSTRUCTION, INC.

By: _____

Name: Louis S. Richardson

Title: President

Date: October 21, 2013

Local Representative to be contacted for service:

Name: Tony Mateus

Address: 2207 W. Gowan Road, 2nd Floor
North Las Vegas, Nevada 89032-7961

Email: tony@rclv.net

Phone No.: Cell No: (702) 894-8900 / Fax No.: (702) 647-7340

RICHARDSON CONSTRUCTION, INC.

SERVICE DISABLED VETERAN – OWNED BUSINESS

2207 W. GOWAN ROAD, 2ND FLOOR, NORTH LAS VEGAS, NEVADA 89032

PHONE: (702) 647-2200 / FAX: (702) 647-7340

Instant Jungle Landscape, Inc.

GUARANTEE

We hereby guarantee that the Irrigation Materials

(Description of work or materials)

which we have installed or delivered at All American Park Synthetic Turf Conversion

(Name and address of project)

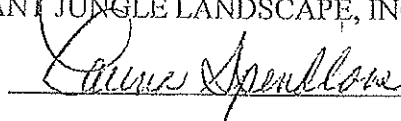
all work has been done in accordance with the plans and specifications and that the work as installed or delivered will fulfill the requirements of the guarantee included in the specifications. We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced in so doing, that may prove to be defective in its workmanship or material within a period of 1 year from the date of substantial completion without any expense whatsoever to the Owner. Defects resulting from neglect by Owner, abuse or damage by others, or unusual phenomena or incidents that are beyond our control will be void of this warranty agreement.

"Act of God" may be an acceptable reason for guarantee to be void. However, Instant Jungle Landscape, Inc. must make every reasonable attempt to prevent potential damage. "Act of God" damage will include unseasonable freeze, winds above 60 MPH, and flooding from excessive rain.

In the event of our failure to comply with the above-mentioned conditions within five (5) calendar days after being notified in writing by the Owner, we, collectively or separately, do hereby authorize said Owner to proceed to have said defects repaired and made good at our expense and will honor and pay the costs and charges upon demand. When correction work has begun, it shall be carried through to completion.

INSTANT JUNGLE LANDSCAPE, INC.

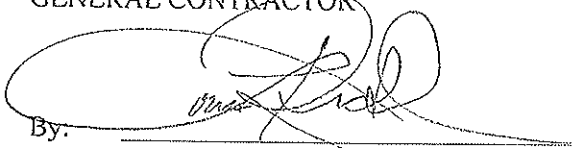
By:



Date: 10/15/13

GENERAL CONTRACTOR

By:



Date:

10/21/2013
(Notice of Completion Filing Date)

4141 Cannoli Circle, Las Vegas, Nevada 89103 • 367-WILD (9453) • Fax 367-6297
Lic. #0052950



GUARANTEE/WARRANTY FOR: All American Park

GENERAL CONTRACTOR: Richardson Construction
2207 W. Gowan Rd. 2nd Fl.
Las Vegas, Nevada 89032

WORK PERFORMED: Asphalt & Concrete

We hereby guarantee/warranty that the labor and/or materials which we have installed in the above referenced project, has been done in accordance with the drawings and specifications and that the work as installed will fulfill the requirements of the said guarantee/warranty included in the specifications. We agree to repair or replace any of all of our work, together with any other adjacent work which may be displaced by so doing that may prove to be defective in its workmanship or material within a period of one (1) year from the effective date of the final acceptance of the above mentioned structure by the Owner. Ordinary wear and tear, and unusual abuse or neglect is not applicable to this agreement.

In the event of our failure to comply with the above mentioned conditions within a reasonable period of time, as determined by the owner, after being notified in writing, we collectively, do hereby authorize the Owner to proceed to have said defects repaired and made good at our expense, and we will honor and pay the costs and charges therefore upon demand.

BY:

Joseph Wyson, President

DATE: October 29, 2013, 2013

LICENSE NO: 0027081A

Local J & J Enterprises Services, Inc. representative to be contacted for services:

Jade Rosenberg
J & J Enterprises Services, Inc.
5920 W. Cougar Avenue
Las Vegas, NV 89139

Office: 702-361-2914
Mobile: 702-596-9838

CERTIFICATE OF WARRANTY

This is to certify that the policy of insurance listed below has been issued, is in full force and effect as of the date of this Certificate and complies with the requirements of the protection program offered to buyers of UBU synthetic turf surfaces.

TYPE OF POLICY	NAME OF INSURER	POLICY NUMBER	EFFECTIVE DATE OF WARRANTY	EXPIRY DATE OF WARRANTY
8-Year Prepaid Insured Warranty	Colony National Great American	103GL000056400 XS2386879	10/24/2013 (DATE OF SUBSTANTIAL COMPLETION)	10/24/2021

NAME OF WARRANTOR **UBU Sports Inc.**

NAME OF WARRANTY HOLDER **City of Las Vegas**

ADDRESS OF WARRANTOR (Local Authorized Representative)

ADDRESS OF WARRANTY HOLDER **495 South Main Street**

CG&B Enterprises Inc.

Las Vegas, NV 89110

221 Sunpac Avenue Henderson, NV 89011

LOCATION TO WHICH THIS CERTIFICATE APPLIES **All American Park Improvements Phase II**

UBU PRODUCT INSTALLED **S5-R**

331

Buffalo Drive & Oakley Blvd Las Vegas, NV

This Certificate of Warranty verifies the authenticity of the terms and conditions of the accompanying Limited Warranty as set out in the enclosed document.

THIS CERTIFICATE DOES NOT AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE POLICY LISTED ABOVE AND IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICY AND THE LIMITED WARRANTY AS SET OUT IN THE ENCLOSED DOCUMENT.

AUTHORIZED SIGNATURE OF WARRANTOR

Nov 5, 2013

DATE OF ISSUE

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/08/2013

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PRODUCER Scott Danahy Naylor Co. Inc. 300 Spindrift Drive Williamsville, NY 14221 716 633-3400		CONTACT NAME: PHONE (A/C, No, Ext): 716 633-3400 FAX (A/C, No): 716-633-4306 E-MAIL: ADDRESS:	
INSURED UBU Sports, Inc 3525 Old Dixie Highway Dalton, GA 30721		INSURER(S) AFFORDING COVERAGE INSURER A: Colony National Insurance Co. INSURER B: Great American E&S Ins. Co. INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVO	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Per occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMPOP AGG \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ HIRED AUTOS ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	UMBRELLA LIAB ☐ OCCUR ☒ EXCESS LIAB ☒ CLAIMS-MADE DED ☐ RETENTION \$		XS2386879	07/15/2013	07/15/2014	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				WC STATUTORY LIMITS ☐ OTHER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Warranty Coverage		103GL000056400	07/15/2013	07/15/2014	5,000,000 Ea Occurrence \$10,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

*Policy provides coverage for warranties issued during the policy period for eight years from completion date of project.

RE: All American Park Improvements Phase II (Field 1), Buffalo Drive & Oakey Blvd., Las Vegas, NV 89110,

SF: 72,000; Completion date:

10/24/13

CERTIFICATE HOLDER

CANCELLATION

City of Las Vegas
 495 South Main Street
 Las Vegas, NV 89110

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

William Scott Jr

Client#: 33882

TURFI

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/08/2013

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PRODUCER: Scott Danahy Naylor Co. Inc. 300 Spindrift Drive Williamsville, NY 14221 716 633-3400	CONTACT NAME: PHONE (A/C, No, Ext): 716 633-3400 FAX (A/C, No): 716-633-4306 E-MAIL: ADDRESS:
INSURED: UBU Sports, Inc 3525 Old Dixie Highway Dalton, GA 30721	INSURER(S) AFFORDING COVERAGE INSURER A: Colony National Insurance Co. INSURER B: Great American E&S Ins. Co. INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES

CERTIFICATE NUMBER:

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INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY					EACH OCCURRENCE \$
	COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	CLAIMS-MADE ☐ OCCUR ☐					MED EXP (Any one person) \$
						PERSONAL & ADV INJURY \$
						GENERAL AGGREGATE \$
	GEN'L AGGREGATE LIMIT APPLIES PER:					PRODUCTS - COMP/OP AGG \$
	POLICY ☐ PRO-JECT ☐ LOC ☐					\$
	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$
	ANY AUTO					BODILY INJURY (Per person) \$
	ALL OWNED AUTOS					BODILY INJURY (Per accident) \$
	HIRED AUTOS					PROPERTY DAMAGE (Per accident) \$
						\$
B	UMBRELLA LIAB		XS2386879	07/15/2013	07/15/2014	EACH OCCURRENCE \$5,000,000
	X EXCESS LIAB	X CLAIMS-MADE				AGGREGATE \$5,000,000
	DED	RETENTION \$				\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					WC STATUTORY LIMITS
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N				OTHER
	If yes, describe under DESCRIPTION OF OPERATIONS below	N/A				E.L. EACH ACCIDENT \$
						E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$
A	Warranty Coverage		103GL000056400	07/15/2013	07/15/2014	5,000,000 Ea Occurrence \$10,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

*Policy provides coverage for warranties issued during the policy period for eight years from completion date of project.

RE: All American Park Improvements Phase II, (Field #2), Buffalo Drive & Oakley Blvd., Las Vegas, NV 89110

SF: 80,000; Completion date: 10/24/13

CERTIFICATE HOLDER

CANCELLATION

City of Las Vegas 495 South Main Street Las Vegas, NV 89110	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>William Scott Jr</i>

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Client#: 33882

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DATE (MM/DD/YYYY)

11/08/2013

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PRODUCER Scott Danahy Naylor Co. Inc. 300 Spindrift Drive Williamsville, NY 14221 716 633-3400		CONTACT NAME: PHONE (A/C, No, Ext): 716 633-3400 E-MAIL: ADDRESS:		FAX (A/C, No): 716-633-4306
INSURED UBU Sports, Inc 3525 Old Dixie Highway Dalton, GA 30721		INSURER(S) AFFORDING COVERAGE INSURER A: Colony National Insurance Co. INSURER B: Great American E&S Ins. Co. INSURER C: INSURER D: INSURER E: INSURER F:		NAIC #

COVERAGES

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INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	UMBRELLA LIAB ☐ OCCUR ☒ EXCESS LIAB ☒ CLAIMS-MADE ☐ DED ☐ RETENTION \$			XS2386879	07/15/2013	07/15/2014	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$ WC STATUTORY LIMITS ☐ OTHER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ Y/N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						
A	Warranty Coverage			103GL000056400	07/15/2013	07/15/2014	5,000,000 Ea Occurrence \$10,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

*Policy provides coverage for warranties issued during the policy period for eight years from completion date of project.

RE: All American Park Improvements Phase II, (Field #3), Buffalo Drive & Oakley Blvd., Las Vegas, NV 89110;

SF: 77,200; Completion date: 10/24/13

CERTIFICATE HOLDER

CANCELLATION

City of Las Vegas 495 South Main Street Las Vegas, NV 89110	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>William Scott Jr</i>
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Client#: 33882

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PRODUCER Scott Danahy Naylor Co. Inc. 300 Spindrift Drive Williamsville, NY 14221 716 633-3400	CONTACT NAME: PHONE (A/C, No, EXT): 716 633-3400 FAX (A/C, No): 716-633-4306 E-MAIL: ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: Colony National Insurance Co. INSURER B: Great American E&S Ins. Co. INSURER C: INSURER D: INSURER E: INSURER F:
INSURED UBU Sports, Inc 3525 Old Dixie Highway Dalton, GA 30721	NAIC #

COVERAGES

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	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC					EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Per occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMPROP AGG
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ HIRED AUTOS ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
B	☐ UMBRELLA LIAB ☒ EXCESS LIAB ☐ DED ☐ RETENTION \$	☐ OCCUR ☒ CLAIMS-MADE	XS2386879	07/15/2013	07/15/2014	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	☐ Y ☒ N/A				WC STATUTORY LIMITS E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT
A	Warranty Coverage		103GL000056400	07/15/2013	07/15/2014	5,000,000 Ea Occurrence \$10,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

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RE: All American Park Improvements Phase II, (Field 4), SF: 76,000; Completion date: 10/24/13

CERTIFICATE HOLDER

CANCELLATION

City of Las Vegas 495 South Main Street Las Vegas, NV 89110	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>William S. Smith</i>
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Client#: 33882

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DATE (MM/DD/YYYY)

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PRODUCER Scott Danahy Naylor Co. Inc. 300 Spindrift Drive Williamsville, NY 14221 716 633-3400		CONTACT NAME: PHONE (A/C, No, Ext): 716 633-3400 E-MAIL: ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: Colony National Insurance Co. INSURER B: Great American E&S Ins. Co. INSURER C: INSURER D: INSURER E: INSURER F:		FAX (A/C, No): 716-633-4306 NAIC #
INSURED UBU Sports, Inc 3525 Old Dixie Highway Dalton, GA 30721				

COVERAGES

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	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COM/OP AGG \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ HIRED AUTOS ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	UMBRELLA LIAB ☒ EXCESS LIAB ☐ DED ☐ RETENTION \$	☐ OCCUR ☒ CLAIMS-MADE	XS2386879	07/15/2013	07/15/2014	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐ N/A				WC STATUTORY LIMITS ☐ OTH-ER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Warranty Coverage		103GL000056400	07/15/2013	07/15/2014	5,000,000 Ea Occurrence \$10,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

*Policy provides coverage for warranties issued during the policy period for eight years from completion date of project.

RE: All American Park Improvements Phase II, (Field #5), SF: 76,000; Completion date: 10/24/13

CERTIFICATE HOLDER

CANCELLATION

City of Las Vegas 495 South Main Street Las Vegas, NV 89110	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>William Scott Jr</i>
---	--



"Expect The Best"

ENTERPRISES INC.

GENERAL ENGINEERING & BUILDING CONTRACTOR



ground base for emulenes

11-6-13

Richardson Construction Co.
2207 West Gowan Rd
North Las Vegas, NV 89030

RE: All American Park Bid No. 13.45161
Acceptance of Base

To whom it may concern;

Let this letter serve that CG&B, the Mfg. Representative for the UBU S5-R Synthetic Turf that was most recently installed at All American Park did accept the base prepared by J&J Asphalt for Fields 1 thru 5.

We accepted the base material as specified in the specifications to be $\frac{1}{4}$ " in 10'. This was verified before the synthetic turf product was placed for Fields 1 thru 5.

Sincerely,

Michael J McComb
President

221 SUNPAC AVENUE - HENDERSON, NV 89011

(702) 565-6564 - FAX (702) 565-6727

NV LIC#39691,39692,39700,45897,74561 - UTAH LIC#6716828-5501 - IDAHO LIC#003649

SECTION 32 18 13
O&M's

ACADEMY SPORTS TURF

ASTM F1936 Test Report

This test is performed in accordance with ASTM F1936-98, a Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field. The results reported herein reflect the performance of the tested playing field surface at the time of testing and the temperature and ambient conditions reported. Performance will vary with the temperature, moisture content and other factors.

The test is performed using an "A missile", testing device-Triax 2000, Model # 3014M2, Serial # 1338, manufactured by Playground Clearing House, USA, Inc., in conformance with the technical requirements of ASTM F355 procedure C.

ASTM Standards are available from www.astm.org

Agency requesting the tests	Field Site	Installer of Surface
Name: CG & B Enterprises	Name: ALL AMERICAN PARK Upper Center Field	Name: Academy Sports Turf
Address: 221 Sunpac Avenue	Address: 1651 S. Buffalo Dr.	Address: 3740 S. Jason St.
City: Henderson State: NV	City: Las Vegas State: NV	City: Englewood State: CO
Zip/Postal: 89011	Zip/Postal:	Zip/Postal: 80110
Contact name: Michael McComb	Contact name:	Contact name: Paul Kelley
Contact phone: 702-565-6564	Contact phone:	Contact phone: 303-789-3172

Date of test: October 29, 2013 **Description of surface(s):** Synthetic Turf System Playfield **Manufacturer:** UBU Sports

Product name: S5-R **Date installed:** **Pile Height:** 2 1/2" **Thickness of Infill:** 1 1/4"

Site Orientation: End A – South End B – North Sideline C – East Sideline D – West

Evenness (comment on wear patterns and disruption): New Install: X Minor: Normal: Excessive:

Weather condition of test: **Surface condition:** Frozen: Dry: X Wet:

Temperature: ambient air: 65 degrees **Surface temperature taken 1/2" depth :** N/A

Other conditions or observations

The drop height each test location is 2' and the velocity at the point of impact shall be 11.35 ±0.56 ft/s. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

The ASTM F1936 requires that the average G-max of the second and third drops at a single test point shall not exceed 200 average G-max. If a turf system is tested in accordance with the Test Method ASTM F355, Procedure C, as specified, and the average G-max of 1 or more of the tested points reported is in excess of 200 average G-max, the surface system should be replaced in full or in part.

Test locations and results

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
1		Point 1 – South End of field, 5 yard line, 40 feet in from.	11.3	91
2		East side line toward center of field	11.3	103
3			11.3	108
Av. 2&3	42 mm			106
4		Point 2 – South End of field, 12 yard line, Center of Field	11.1	104
5			11.3	116
6			11.3	120
Av. 5&6	38 mm			118
7		Point 3 – South End of field, 25 yard line, 30 feet in from	11.2	92
8		East sideline toward center of the field	11.2	105
9			11.3	110
Av. 8&9	42 mm			107

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-m ax
10		Point 4 – South End of field, 35 yard line, 50 feet in from	11.3	96
11		East sideline toward center of the field	11.3	110
12			11.3	115
Av. 11&12	40 mm			112
13		Point 5 – South End of field, 45 yard line, 30 feet in from	11.3	93
14		East sideline toward center of the field	11.3	105
15			11.3	109
Av. 14&15	42 mm			107
16		Point 6 – Center of Field	11.2	102
17			11.2	113
18			11.3	117
Av. 17&18	40 mm			115
19		Point 7 – North End of field, 40 yard line, 15 feet in from	11.3	90
20		East sideline toward center of the field	11.3	103
21			11.3	108
Av. 20&21	45 mm			106
22		Point 8 – North End of field, 30 yard line, 50 feet in from	11.3	96
23		East sideline toward center of the field	11.3	109
24			11.2	114
Av. 23&24	42 mm			111
25		Point 9 - North End of field, 20 yard line, 40 feet in from	11.3	94
26		East sideline toward center of the field	11.3	108
27			11.3	114
Av. 26&27	42 mm			111
28		Point 10 – North End of field, 10 yard line, East sideline	11.3	101
29		4 feet out of bounds	11.3	117
30			11.1	113
Av. 29&30	40 mm			115
31		Point 11 – North End of field, Goal line, Center of Field	11.2	103
32			11.2	111
33			11.1	117
Av. 32&33	40 mm			114
34		Point 12 – North end of field, End Zone, Random drop point	11.3	93
35			11.3	111
36			11.2	118
Av. 35&36	40 mm			114
37		Point 13 – North End of field, 10 yard line, 30 feet in from	11.2	85
38		West side line toward center of field	11.2	104
39			11.1	106
Av. 38&39	45 mm			105
40		Point 14 – North End of field, 25 yard line, 40 feet in from	11.3	97
41		West sideline toward center of the field	11.3	112
42			11.3	118
Av. 41&42	40 mm			115
43		Point 15 – North End of field, 35 yard line, 50 feet in from	11.2	110
44		West sideline toward center of field	11.2	112
45			11.3	118
Av 44&45	40 mm			115

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop Location	Velocity Ft/Sec	G-max
46		Point 16 - Center of Field, 50 yard line, West side line	11.3	119
47		4 feet out of bounds	11.3	130
48			11.3	134
Av. 47&48	39 mm			132
49		Point 17 - South End of field, 40 yard line, 15 feet in from	11.3	98
50		West side line toward center of field	11.3	111
51			11.3	116
Av. 50&51	40 mm			114
52		Point 18 South End of field, 30 yard line, 40 feet in from	11.3	99
53		West side line toward center of field	11.3	112
54			11.3	117
Av. 53&54	40 mm			114
55		Point 19 - South End of field, 15 yard line, 50 feet in from	11.3	85
56		West side line toward center of the field	11.3	96
57			11.2	101
Av. 56&57	45 mm			99
58		Point 20 - South End of field, Random point in the End Zone	11.2	96
59			11.3	110
60			11.3	114
Av. 59&60	42 mm			112

Overall Average

112

Test Performed by: Ed Brugman
Academy Sports Turf
303-789-3172

ACADEMY SPORTS TURF

ASTM F1936 Test Report

This test is performed in accordance with ASTM F1936-98, a Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field. The results reported herein reflect the performance of the tested playing field surface at the time of testing and the temperature and ambient conditions reported. Performance will vary with the temperature, moisture content and other factors.

The test is performed using an "A missile", testing device-Triax 2000, Model # 3014M2, Serial # 1338, manufactured by Playground Clearing House, USA, Inc., in conformance with the technical requirements of ASTM F355 procedure C.

ASTM Standards are available from www.astm.org

Agency requesting the tests	Field Site	Installer of Surface
Name: CG & B Enterprises	Name: ALL AMERICAN PARK Lower West Field	Name: Academy Sports Turf
Address: 221 Sunpac Avenue	Address: 1651 S. Buffalo Dr.	Address: 3740 S. Jason St.
City: Henderson State: CO	City: Las Vegas State: NV	City: Englewood State: CO
Zip/Postal: 89011	Zip/Postal:	Zip/Postal: 80110
Contact name: Michael McComb	Contact name:	Contact name: Paul Kelley
Contact phone: 702-565-6564	Contact phone:	Contact phone: 303-789-3172

Date of test: October 29, 2013 **Description of surface(s):** Synthetic Turf System Playfield **Manufacturer:** UBU Sports

Product name: S5-R **Date installed:** **Pile Height:** 2 1/2" **Thickness of Infill:** 1 3/4"

Site Orientation: End A – South End B – North Sideline C – East Sideline D – West

Evenness (comment on wear patterns and disruption): New Install: X Minor: Normal: Excessive:

Weather condition of test: **Surface condition:** Frozen: Dry: X Wet:

Temperature: ambient air: 65 degrees **Surface temperature taken 1/2" depth:** N/A

Other conditions or observations

The drop height each test location is 2' and the velocity at the point of impact shall be 11.35 ±0.56 ft/s. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

The ASTM F1936 requires that the average G-max of the second and third drops at a single test point shall not exceed 200 average G-max. If a turf system is tested in accordance with the Test Method ASTM F355, Procedure C, as specified, and the average G-max of 1 or more of the tested points reported is in excess of 200 average G-max, the surface system should be replaced in full or in part.

Test locations and results

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
1		Point 1 – North End of field, Random drop point in the End Zone.	11.3	84
2			11.3	99
3			11.3	106
Av. 2&3	45 mm			103
4		Point 2 –North End of field, at the Goal Line, Center of Field	11.3	101
5			11.2	111
6			11.2	114
Av. 5&6	42 mm			112
7		Point 3 – North End of field, 10 yard line, 30 feet in from	11.2	92
8		West sideline toward center of the field	11.2	106
9			11.1	108
Av. 8&9	42 mm			107

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
10		Point 4 – North End of field, 25 yard line, 50 feet in from	11.2	98
11		West sideline toward center of the field	11.2	112
12			11.2	117
Av. 11&12	40 mm			114
13		Point 5 – North End of field, 35 yard line, 60 feet in from	11.3	88
14		West sideline toward center of the field	11.3	104
15			11.3	110
Av. 14&15	42 mm			107
16		Point 6 – North End of field, 45 yard line, 30 feet in from	11.2	86
17		West sideline toward center of the field	11.2	96
18			11.3	100
Av. 17&18	45 mm			98
19		Point 7 – Center of the Field	11.2	101
20			11.2	116
21			11.2	120
Av. 20&21	40 mm			118
22		Point 8 – South End of field, 40 yard line, 15 feet in from	11.3	104
23		West sideline toward center of the field	11.2	121
24			11.3	124
Av. 23&24	39 mm			122
25		Point 9 - South End of field, 30 yard line, 50 feet in from	11.3	92
26		West sideline toward center of the field	11.3	105
27			11.2	110
Av. 26&27	42 mm			107
28		Point 10 – South End of field, 20 yard line, 40 feet in from	11.2	93
29		West sideline toward center of the field	11.3	108
30			11.3	115
Av. 29&30	40 mm			112
31		Point 11 – South End of field, 10 yard line, West sideline	11.2	106
32		4 feet out of bounds	11.2	117
33			11.3	119
Av. 32&33	40 mm			118
34		Point 12 – North End of field, 12 yard line, Center of field	11.2	96
35			11.2	111
36			11.2	115
Av. 35&36	40 mm			113
37		Point 13 – South End of field, random drop point in the End Zone	11.2	95
38			11.2	109
39			11.2	114
Av. 38&39	42 mm			111
40		Point 14 – South End of field, 5 yard line, 40 feet in from	11.2	84
41		East sideline toward center of the field	11.3	96
42			11.2	102
Av. 41&42	45 mm			99
43		Point 15 – South End of field, 25 yard line, 30 feet in from	11.2	93
44		East sideline toward center of field	11.2	107
45			11.2	113
Av 44&45	42 mm			110

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop Location	Velocity Ft/Sec	G-Max
46		Point 16 - South End of field, 35 yard line, 50 feet in from	11.3	90
47		East sideline toward center of the field	11.3	102
48			11.3	108
Av. 47&48	45 mm			105
49		Point 17 - Center of Field, 50 yard line, East side line	11.3	106
50		4 feet out of bounds	11.3	124
51			11.3	127
Av. 50&51	38 mm			125
52		Point 18 - North End of field, 40 yard line, 15 feet in from	11.3	95
53		East side line toward center of field	11.2	105
54			11.3	108
Av. 53&54	42 mm			107
55		Point 19 - North End of field, 30 yard line, 40 feet in from	11.2	87
56		East side line toward center of the field	11.3	99
57			11.3	104
Av. 56&57	45 mm			102
58		Point 20 - North End of field, 15 yard line, 50 feet in from	11.3	77
59		East side line toward center of the field	11.3	90
60			11.2	96
Av. 59&60	45 mm			93

Overall Average:

109

Tests Performed by: Ed Brugman

Academy Sports Turf

303-789-3172

ACADEMY SPORTS TURF

ASTM F1936 Test Report

This test is performed in accordance with ASTM F1936-98, a Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field. The results reported herein reflect the performance of the tested playing field surface at the time of testing and the temperature and ambient conditions reported. Performance will vary with the temperature, moisture content and other factors.

The test is performed using an "A missile", testing device-Triax 2000, Model # 3014M2, Serial # 1338, manufactured by Playground Clearing House, USA, Inc., in conformance with the technical requirements of ASTM F355 procedure C.

ASTM Standards are available from www.astm.org

Agency requesting the tests	Field Site	Installer of Surface
Name: CG & B Enterprises	Name: ALL AMERICAN PARK Upper West Field	Name: Academy Sports Turf
Address: 221 Sunpac Avenue	Address: 1651 S. Buffalo Dr.	Address: 3740 S. Jason St.
City: Henderson State: NV	City: Las Vegas State: NV	City: Englewood State: CO
Zip/Postal: 89011	Zip/Postal:	Zip/Postal: 80110
Contact name: Michael McComb	Contact name:	Contact name: Paul Kelley
Contact phone: 702-565-6564	Contact phone:	Contact phone: 303-789-3172

Date of test: October 29, 2013 **Description of surface(s):** Synthetic Turf System Playfield **Manufacturer:** UBU Sports

Product name: S5-R **Date installed:** **Pile Height:** 2 1/2" **Thickness of Infill:** 1 1/4"

Site Orientation: End A – South End B – North Sideline C – East Sideline D – West

Evenness (comment on wear patterns and disruption): New Install: X Minor: Normal: Excessive:

Weather condition of test: **Surface condition:** Frozen: Dry: X Wet:

Temperature: ambient air : 65 degrees **Surface temperature taken 1/2" depth :** N/A

Other conditions or observations

The drop height each test location is 2' and the velocity at the point of impact shall be 11.35 ± 0.56 ft/s. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

The ASTM F1936 requires that the average G-max of the second and third drops at a single test point shall not exceed 200 average G-max. If a turf system is tested in accordance with the Test Method ASTM F355, Procedure C, as specified, and the average G-max of 1 or more of the tested points reported is in excess of 200 average G-max, the surface system should be replaced in full or in part.

Test locations and results

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
1		Point 1 – South End of field, Random drop point in the End Zone.	11.3	100
2			11.3	114
3			11.3	119
Av. 2&3	40 mm			116
4		Point 2 – South End of field, at the Goal Line, Center of Field	11.3	104
5			11.3	118
6			11.3	124
Av. 5&6	40 mm			121
7		Point 3 – South End of field, 10 yard line, 30 feet in from	11.3	102
8		East sideline toward center of the field	11.2	117
9			11.3	122
Av. 8&9	39 mm			119

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
10		Point 4 – South End of field, 25 yard line, 50 feet in from	11.3	102
11		East sideline toward center of the field	11.3	117
12			11.3	124
Av. 11&12	39 mm			120
13		Point 5 – South End of field, 35 yard line, 60 feet in from	11.3	97
14		East sideline toward center of the field	11.3	113
15			11.1	119
Av. 14&15	40 mm			116
16		Point 6 – South End of field, 45 yard line, 30 feet in from	11.3	99
17		East sideline toward center of the field	11.3	113
18			11.3	118
Av. 17&18	40 mm			115
19		Point 7 – Center of the Field	11.2	105
20			11.2	118
21			11.3	123
Av. 20&21	39 mm			120
22		Point 8 – North End of field, 40 yard line, 15 feet in from	11.3	91
23		East sideline toward center of the field	11.3	105
24			11.3	109
Av. 23&24	42 mm			107
25		Point 9 - North End of field, 30 yard line, 50 feet in from	11.3	88
26		East sideline toward center of the field	11.3	98
27			11.2	102
Av. 26&27	45 mm			100
28		Point 10 – North End of field, 20 yard line, 40 feet in from	11.3	98
29		East sideline toward center of the field	11.3	113
30			11.3	119
Av. 29&30	40 mm			116
31		Point 11 – North End of field, 10 yard line, East sideline	11.3	108
32		4 feet out of bounds	11.3	119
33			11.3	123
Av. 32&33	39 mm			126
34		Point 12 – North End of field, 12 yard line, Center of field	11.3	102
35			11.3	116
36			11.3	120
Av. 35&36	40 mm			118
37		Point 13 – North End of field, random drop point in the End Zone	11.2	101
38			11.2	115
39			11.3	121
Av. 38&39	38 mm			118
40		Point 14 – North End of field, 5 yard line, 40 feet in from	11.3	103
41		West sideline toward center of the field	11.3	118
42			11.3	122
Av. 41&42	40 mm			120
43		Point 15 – North End of field, 25 yard line, 30 feet in from	11.3	97
44		West sideline toward center of field	11.2	113
45			11.2	118
Av 44&45	40 mm			115

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop Location	Velocity Ft/Sec	G-max
46		Point 16 - North End of field, 35 yard line, 50 feet in from	11.3	106
47		West sideline toward center of the field	11.3	119
48			11.3	124
Av. 47&48	38 mm			121
49		Point 17 - Center of Field, 50 yard line, West side line	11.3	122
50		4 feet out of bounds	11.3	124
51			11.3	126
Av. 50&51	36 mm			125
52		Point 18 - South End of field, 40 yard line, 15 feet in from	11.3	94
53		West side line toward center of field	11.3	106
54			11.3	112
Av. 53&54	42 mm			109
55		Point 19 - South End of field, 30 yard line, 40 feet in from	11.2	105
56		West side line toward center of the field	11.3	118
57			11.3	123
Av. 56&57	38 mm			120
58		Point 20 - South End of field, 15 yard line, 50 feet in from	11.3	98
59		West side line toward center of the field	11.3	113
60			11.3	117
Av. 59&60	40 mm			115

Overall Average

116

Test Performed by: Ed Brugman
Academy Sports Turf
303-789-3172

ACADEMY SPORTS TURF

ASTM F1936 Test Report

This test is performed in accordance with ASTM F1936-98, a Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field. The results reported herein reflect the performance of the tested playing field surface at the time of testing and the temperature and ambient conditions reported. Performance will vary with the temperature, moisture content and other factors.

The test is performed using an "A missile", testing device-Triax 2000, Model # 3014M2, Serial # 1338, manufactured by Playground Clearing House, USA, Inc., in conformance with the technical requirements of ASTM F355 procedure C.

ASTM Standards are available from www.astm.org

Agency requesting the tests	Field Site	Installer of Surface
Name: CG & B Enterprises	Name: ALL AMERICAN PARK Lower East Field	Name: Academy Sports Turf
Address: 221 Sunpac Avenue	Address: 1651 S. Buffalo Dr.	Address: 3740 S. Jason St.
City: Henderson State: NV	City: Las Vegas State: NV	City: Englewood State: CO
Zip/Postal: 89011	Zip/Postal:	Zip/Postal: 80110
Contact name: Michael McComb	Contact name:	Contact name: Paul Kelley
Contact phone: 702-565-6564	Contact phone:	Contact phone: 303-789-3172

Date of test: October 29, 2013 **Description of surface(s):** Synthetic Turf System Playfield **Manufacturer:** UBU Sports

Product name: S5-R **Date installed:** **Pile Height:** 2 1/2' **Thickness of Infill:** 1 1/4"

Site Orientation: End A – South End B – North Sideline C – East Sideline D – West

Evenness (comment on wear patterns and disruption): New Install: X Minor: Normal: Excessive:

Weather condition of test: **Surface condition:** Frozen: Dry: X Wet:

Temperature: ambient air: 65 degrees **Surface temperature taken 1/2" depth:** N/A

Other conditions or observations

The drop height each test location is 2' and the velocity at the point of impact shall be 11.35 ± 0.56 ft/s. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

The ASTM F1936 requires that the average G-max of the second and third drops at a single test point shall not exceed 200 average G-max. If a turf system is tested in accordance with the Test Method ASTM F355, Procedure C, as specified, and the average G-max of 1 or more of the tested points reported is in excess of 200 average G-max, the surface system should be replaced in full or in part.

Test locations and results

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
1		Point 1 – South End of field, Random drop point in the End Zone.	11.3	88
2			11.3	103
3			11.3	109
Av. 2&3	42 mm			106
4		Point 2 – South End of field, at the Goal Line, Center of Field	11.3	102
5			11.3	115
6			11.3	118
Av. 5&6	40 mm			116
7		Point 3 – South End of field, 10 yard line, 30 feet in from	11.2	100
8		East sideline toward center of the field	11.2	116
9			11.3	122
Av. 8&9	40 mm			119

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
10		Point 4 – South End of field, 25 yard line, 50 feet in from	11.2	102
11		East sideline toward center of the field	11.2	114
12			11.2	118
Av. 11&12	40 mm			116
13		Point 5 – South End of field, 35 yard line, 60 feet in from	11.3	95
14		East sideline toward center of the field	11.3	111
15			11.3	117
Av. 14&15	40 mm			114
16		Point 6 – South End of field, 45 yard line, 30 feet in from	11.2	93
17		East sideline toward center of the field	11.3	104
18			11.3	108
Av. 17&18	45 mm			106
19		Point 7 – Center of the Field	11.3	105
20			11.3	115
21			11.3	119
Av. 20&21	40 mm			117
22		Point 8 – North End of field, 40 yard line, 15 feet in from	11.3	100
23		East sideline toward center of the field	11.3	113
24			11.3	119
Av. 23&24	40 mm			116
25		Point 9 - North End of field, 30 yard line, 50 feet in from	11.3	94
26		East sideline toward center of the field	11.3	108
27			11.3	112
Av. 26&27	42 mm			110
28		Point 10 – North End of field, 20 yard line, 40 feet in from	11.3	95
29		East sideline toward center of the field	11.3	106
30			11.3	111
Av. 29&30	42 mm			108
31		Point 11 – North End of field, 10 yard line, East sideline	11.2	85
32		4 feet out of bounds	11.3	100
33			11.3	105
Av. 32&33	45 mm			103
34		Point 12 – North End of field, 12 yard line, Center of field	11.2	90
35			11.2	100
36			11.3	101
Av. 35&36	45 mm			100
37		Point 13 – North End of field, random drop point in the End Zone	11.2	93
38			11.2	103
39			11.2	108
Av. 38&39	45 mm			106
40		Point 14 – North End of field, 5 yard line, 40 feet in from	11.3	90
41		West sideline toward center of the field	11.3	103
42			11.3	106
Av. 41&42	45 mm			104
43		Point 15 – North End of field, 25 yard line, 30 feet in from	11.3	93
44		West sideline toward center of field	11.3	105
45			11.2	110
Av 44&45	45 mm			107

ACADEMY SPORTS TURF

Drop #	Infill	Drop location	Velocity	G-max
46		Point 16 - North End of field, 35 yard line, 50 feet in from	11.3	96
47		West sideline toward center of the field	11.3	109
48			11.3	115
Av. 47&48	40 mm			112
49		Point 17 - Center of Field, 50 yard line, West side line	11.3	91
50		4 feet out of bounds	11.2	101
51			11.3	106
Av. 50&51	38 mm			104
52		Point 18 - South End of field, 40 yard line, 15 feet in from	11.3	92
53		West side line toward center of field	11.3	105
54			11.3	111
Av. 53&54	45 mm			108
55		Point 19 - South End of field, 30 yard line, 40 feet in from	11.3	95
56		West side line toward center of the field	11.3	110
57			11.3	114
Av. 56&57	45 mm			112
58		Point 20 - South End of field, 15 yard line, 50 feet in from	11.3	98
59		West side line toward center of the field	11.3	109
60			11.3	113
Av. 59&60	42 mm			111

Overall Average

110

Test Performed by: Ed Brugman
Academy Sports Turf
303-789-3172

ACADEMY SPORTS TURF

ASTM F1936 Test Report

This test is performed in accordance with ASTM F1936-98, a Standard Specification for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field. The results reported herein reflect the performance of the tested playing field surface at the time of testing and the temperature and ambient conditions reported. Performance will vary with the temperature, moisture content and other factors.

The test is performed using an "A missile", testing device-Triax 2000, Model # 3014M2, Serial # 1338, manufactured by Playground Clearing House, USA, Inc., in conformance with the technical requirements of ASTM F355 procedure C.

ASTM Standards are available from www.astm.org

Agency requesting the tests	Field Site	Installer of Surface
Name: CG & B Enterprises	Name: ALL AMERICAN PARK Upper East Field	Name: Academy Sports Turf
Address: 221 Sunpac Avenue	Address: 1651 S. Buffalo Dr.	Address: 3740 S. Jason St.
City: Henderson State: NV	City: Las Vegas State: NV	City: Englewood State: CO
Zip/Postal : 89011	Zip/Postal:	Zip/Postal: 80110
Contact name: Michael McComb	Contact name:	Contact name: Paul Kelley
Contact phone: 702-565-6564	Contact phone:	Contact phone: 303-789-3172

Date of test: October 29, 2013 **Description of surface(s):** Synthetic Turf System Playfield **Manufacturer:** UBU Sports

Product name: S5-R **Date installed:** **Pile Height:** 2 1/2" **Thickness of Infill:** 1 1/4"

Site Orientation: End A – South End B – North Sideline C – East Sideline D – West

Evenness (comment on wear patterns and disruption): New Install: X Minor: Normal: Excessive:

Weather condition of test: **Surface condition:** Frozen: Dry: X Wet:

Temperature: ambient air: 65 degrees **Surface temperature taken 1/2" depth :** N/A

Other conditions or observations

The drop height each test location is 2' and the velocity at the point of impact shall be 11.35 ± 0.56 ft/s. The drop height is physically measured. The drops are performed from the same drop height to the same point on the surface.

The ASTM F1936 requires that the average G-max of the second and third drops at a single test point shall not exceed 200 average G-max. If a turf system is tested in accordance with the Test Method ASTM F355, Procedure C, as specified, and the average G-max of 1 or more of the tested points reported is in excess of 200 average G-max, the surface system should be replaced in full or in part.

Test locations and results

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
1		Point 1 – South End of field, Random drop point in the End Zone.	11.3	101
2			11.3	114
3			11.3	119
Av. 2&3	40 mm			116
4		Point 2 – South End of field, at the Goal Line, Center of Field	11.3	96
5			11.2	105
6			11.1	109
Av. 5&6	42 mm			107
7		Point 3 – South End of field, 10 yard line, 30 feet in from	11.3	96
8		East sideline toward center of the field	11.3	108
9			11.3	113
Av. 8&9	40 mm			110

ACADEMY SPORTS TURF

Drop #	Infill Depth	Drop location	Velocity Ft/sec	G-max
10		Point 4 – South End of field, 25 yard line, 50 feet in from	11.2	101
11		East sideline toward center of the field	11.3	116
12			11.1	121
Av. 11&12	38 mm			118
13		Point 5 – South End of field, 35 yard line, 60 feet in from	11.3	94
14		East sideline toward center of the field	11.3	107
15			11.3	111
Av. 14&15	42 mm			109
16		Point 6 – South End of field, 45 yard line, 30 feet in from	11.3	99
17		East sideline toward center of the field	11.3	115
18			11.3	121
Av. 17&18	39 mm			118
19		Point 7 – Center of the Field	11.2	91
20			11.3	102
21			11.3	105
Av. 20&21	42 mm			103
22		Point 8 – North End of field, 40 yard line, 15 feet in from	11.3	101
23		East sideline toward center of the field	11.3	116
24			11.3	119
Av. 23&24	39 mm			117
25		Point 9 - North End of field, 30 yard line, 50 feet in from	11.3	99
26		East sideline toward center of the field	11.3	114
27			11.3	120
Av. 26&27	39 mm			117
28		Point 10 – North End of field, 20 yard line, 40 feet in from	11.3	96
29		East sideline toward center of the field	11.3	113
30			11.3	118
Av. 29&30	39 mm			115
31		Point 11 – North End of field, 10 yard line, East sideline	11.3	95
32		4 feet out of bounds	11.3	106
33			11.3	109
Av. 32&33	42 mm			108
34		Point 12 – North End of field, 12 yard line, Center of field	11.2	86
35			11.3	98
36			11.2	101
Av. 35&36	45 mm			99
37		Point 13 – North End of field, random drop point in the End Zone	11.2	88
38			11.2	100
39			11.2	104
Av. 38&39	45 mm			102
40		Point 14 – North End of field, 5 yard line, 40 feet in from	11.3	85
41		West sideline toward center of the field	11.3	99
42			11.3	104
Av. 41&42	45 mm			101
43		Point 15 – North End of field, 25 yard line, 30 feet in from	11.2	93
44		West sideline toward center of field	11.3	105
45			11.2	110
Av 44&45	42 mm			107

Drop #	Infill	Drop location	Velocity	G-max
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ACADEMY SPORTS TURF

	Depth		Ft/sec	
46		Point 16 - North End of field, 35 yard line, 50 feet in from	11.3	97
47		West sideline toward center of the field	11.3	111
48			11.3	115
Av. 47&48	40 mm			113
49		Point 17 - Center of Field, 50 yard line, West side line	11.3	105
50		4 feet out of bounds	11.3	114
51			11.2	117
Av. 50&51	41 mm			115
52		Point 18 - South End of field, 40 yard line, 15 feet in from	11.3	85
53		West side line toward center of field	11.3	98
54			11.3	101
Av. 53&54	45 mm			100
55		Point 19 - South End of field, 30 yard line, 40 feet in from	11.3	88
56		West side line toward center of the field	11.3	100
57			11.3	105
Av. 56&57	45 mm			102
58		Point 20 - South End of field, 15 yard line, 50 feet in from	11.3	89
59		West side line toward center of the field	11.3	104
60			11.3	111
Av. 59&60	42 mm			108

Overall Average:

110

Test Performed by: Ed Brugman
Academy Sports Turf
303-789-3172



CARE & MAINTENANCE MANUAL

THE PREAMBLE

UBU Sports™ created this manual with the purpose of providing potential customers with the necessary knowledge, background, information, understanding, and insight concerning the proper care and maintenance of a synthetic turf playing surface.

The index provided as part of the document allows for quick access to the various subject matter covered within the document. The various matters are grouped together under headings to facilitate better comprehension of the subject matter.

Our hope is that the information provided will educate and provide important insight that will assist you in making informed decisions.

The Care and Maintenance Manual provided will arm each UBU Sports™ customer with the adequate information to ensure the successful and safe use of their synthetic turf playing surface throughout its entire useful life.

CARE AND MAINTENANCE MANUAL

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INTRODUCTION TO CARE & MAINTENANCE

Your Synthetic Turf Playing Surface represents a significant financial investment and is a critical element of your sport, physical education and/or recreational program. Proper care and maintenance recommendations contained in this manual will allow you to realize the full potential of your playing surface. Following these simple suggestions will significantly extend the life and performance of the product.

Keep it clean.

Do not abuse it. Example; vehicle traffic, heavy static loads, fireworks, etc.

Make all minor repairs to your surface promptly.

Consult with a UBU Sports™ certified professional if your repairs and/or renovations are complicated.

NOTE: This manual is intended for customer use. It is important that the people who are responsible for field maintenance are thoroughly familiar with its contents and refer to it regularly.

The contents in this manual represent the most current information regarding suggested procedures for the proper care and maintenance of UBU Sports™ Synthetic Surfaces. All information has been presented in good faith and is believed to be accurate.

UBU Sports™ makes no representations, warranties or guarantees of any kind, expressed or implied, regarding the information contained herein and disclaims all liability for any loss or damage arising out of its use.

We hope you find the UBU Sports™ care and maintenance manual as informative and insightful as we found it enjoyable to provide. While reading the manual if you should have any questions please contact UBU Sports™ directly at 1-800-828-8700, by fax at 1-800-828-1300 or email at maintenance@ubusports.com.

USAGE GUIDE

The following is a list of designed uses of typical UBU Sports™ Synthetic Systems: each UBU Sports™ surface is designed to maximize the performance of an intended sport specific use.

PRODUCT RECOMMENDATIONS BY SPORT

PRODUCT NAME	PRODUCT #	FOOTBALL	SOCCER	BASEBALL	LACROSSE	FIELD HOCKEY	MULTI-USE	INDOOR
SPEED S5-M	US5164APAM	BEST	BEST	BEST	BEST	.	BEST	BETTER
SPEED S4-M	US4151APAM	BETTER	BETTER	BETTER	GOOD	GOOD	BETTER	GOOD
SPEED M6-M	US6164ATHM	BEST	BEST	BEST	BETTER	.	BEST	BETTER
SPEED M4-M	US4951ATHM	BETTER	BETTER	BETTER	GOOD	.	BETTER	GOOD
INTENSITY S5-R	UI5164APAR	BEST	BETTER	BETTER	BETTER	.	BETTER	BEST
INTENSITY S4-R	UI4151APAR	BETTER	GOOD	BEST	GOOD	.	BETTER	BETTER
INTENSITY M6-R	UI6164ATHR	BEST	BETTER	BETTER	BETTER	.	BETTER	BEST
INTENSITY M4-R	UI4951ATHR	BETTER	GOOD	BEST	GOOD	.	BETTER	BETTER
BALANCE SP82-M	UB8251APAM	BETTER	BEST	BEST	BETTER	GOOD	BEST	BETTER
BALANCE SP82-R	UB8251APAR	BEST	BETTER	BETTER	GOOD	.	BETTER	BEST
BALANCE SP82-P	UB8251APAP	GOOD	GOOD	GOOD	GOOD	.	GOOD	.
BALANCE MN65-M	UB6538ATHM	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
BALANCE MN65-R	UB6538ATHR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
BALANCE MN65-P	UB6538ATHP	GOOD	GOOD	GOOD	GOOD	.	GOOD	.
BALANCE MN69-M	UB6944ATHM	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
BALANCE MN69-R	UB6944ATHR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
BALANCE MN69-P	UB6944ATHP	GOOD	GOOD	GOOD	GOOD	.	GOOD	.
BALANCE MP80-M	UB8044ATHM	BETTER	BEST	BEST	BETTER	GOOD	BEST	BETTER
BALANCE MP80-R	UB8044ATHR	BEST	BETTER	BETTER	GOOD	GOOD	BETTER	GOOD
BALANCE MP80-P	UB8044ATHP	GOOD	GOOD	GOOD	GOOD	.	GOOD	.
BALANCE MP69-M	UB6932ATHM	GOOD	GOOD	GOOD	GOOD	BETTER	GOOD	BETTER
BALANCE MP69-R	UB6932ATHR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
BALANCE MN69-P	UB6932ATHP	GOOD	GOOD	GOOD	GOOD	.	GOOD	.
RANGE P20-S	UR2032APVS	.	.	.	.	.	.	.
RANGE P28-S	UR2838APVS	.	.	.	.	.	.	.
MOTION M48-N	UM4814ATPN	.	.	.	.	.	.	.
MOTION M48-P	UM4814ATPP	BETTER CONVERTIBLE	BETTER CONVERTIBLE	.	BEST CONVERTIBLE	BEST CONVERTIBLE	BEST CONVERTIBLE	BEST CONVERTIBLE
MOTION N38-N	UM3811ATPN	.	.	.	.	.	.	.
MOTION N38-P	UM3811ATPP	GOOD CONVERTIBLE	GOOD CONVERTIBLE	.	BETTER CONVERTIBLE	BETTER CONVERTIBLE	BETTER CONVERTIBLE	BETTER CONVERTIBLE
MOTION P36-S	UM3625APVS	.	.	.	.	.	.	.

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PROTECTING YOUR SURFACE

It is good business to protect the investment in your playing surface. To do this most effectively, **KEEP IT CLEAN**. The following maintenance precautions are advised:

- Control access to field
- Keep your surface free of litter, mud and debris. Provide ample garbage receptacles.
- Post signs prohibiting smoking and carrying food or drink onto the field.
- Properly monitor the use of motorized vehicles on your surface.
- Repair minor damage promptly.
- Follow suggested maintenance and cleaning procedures.

GENERAL CLEANING AND STAIN REMOVAL

For outdoor surfaces, rain is your best cleanser. Rainfall gently cleans the fibers of dust, pollen and airborne pollutants in a way that is difficult to duplicate. In areas where rainfall is scarce – or during prolonged periods of drought – an occasional watering is beneficial to cleanse the synthetic surface.

Listed below are the suggested precautionary maintenance practices:

- Keep trash and litter containers on site.
- Route fields access traffic in such a way to minimize mud/dirt tracking on the field.
- Set up drinks for athletes during practice breaks off the synthetic surface if possible.
- Enforce a smoke free environment and discourage the use of chewing tobacco, gum and sunflower seeds.

DAILYCARE: Daily Care is truly on going care, it does not necessarily mean care each and every day. The amount and frequency of daily care is dependant on not only on the surface selected, but also by the volume of use and the type of use. UBU Sports™ recommends that every UBU Sports® surfacing system be periodically vacuumed to remove litter and dust etc...

LITTER REMOVAL

For Non-Infilled Systems,

Light trash (paper, peanut shells, sunflower seeds, athletic tape etc.) and airborne dust can be removed easily with a lawn sweeper, maintenance sweeper or a motorized vacuum.

For Infilled Systems,

Light trash (paper, peanut shells, sunflower seeds, athletic tape, etc) can be removed most easily by gently using a shop vacuum and angling the hose so not to vacuum up the infilled material.

When using machines, several points should be observed:

Sweepers

The sweeper should have synthetic fiber bristles such as nylon or polypropylene. The minimum brush length should be 2.5". The maximum bristle diameter should be .030". The brush must contain no metal or wire! Metal fibers can fall out and cause injuries to players and can also damage the surface.

Brush Setting

The brush setting should be monitored. The actual setting will of course depend on the model and type of sweeper. The sweeper will work best, however, when the brush is set so that it barely touches the tips of the turf fibers.

DO NOT SET THE BRUSH SO LOW THAT IT DIGS INTO THE TURF FIBER PILE OR BACKING. Too low a setting can damage the turf. Vacuum cleaners are not recommended to remove mud. Contact your local UBU Sports[®] representative if you have any questions about the type of machine to use or brush settings.

Temperature Limitations

Never use a motorized vacuum sweeper during the heat of the day if the ambient temperature exceeds 90 degrees F.

Turf Loading Limitations

Brushing and brush cleaning may require several trips over the field to finish the operation. Any sweeper that weighs more than 300 lbs. should have pneumatic tires with a maximum tire pressure of 35 pounds per square inch (psi). Do not park vehicles on the turf, especially in the heat of the day, or leave vehicles on wet turf for long periods of time.

Exhaust Fumes

For indoor use we recommend either electric or propane. The type of fuel or power used by a sweeper is of no major importance for outdoor use. However, if the sweeper has an internal combustion engine, make certain that the hot engine exhaust is not discharged down toward the playing surface. Hot objects can damage the field and engine exhaust may soil it. Check to make sure that the sweeper is designed in such a way that a hot muffler or exhaust pipe cannot drop directly onto the surface.

Oil Spillage, etc..

Care should be taken to prevent lubricating oil, gasoline, grease, transmission fluids, battery acid, brake fluid, etc. From dripping, leaking or spilling on the turf surface during sweepings. Such spills can discolor the turf and damage the fibers and turf backing. Proper care and maintenance procedures should be observed in this regard. Battery acid and other fluids should not be allowed on the surface. Never change or add fluids to maintenance equipment while on the surface.

CAUTION: Because electrically powered units may not be properly grounded, do not use them on wet or damp surfaces.

Frequency

The removal of loose rubbish and surface dust should be performed on an as needed basis, generally about once a week depending on usage.

DO: It is good business to protect the investment in your UBU Sports Surfacing System. To do this most effectively, Keep it Clean. UBU Sports® surfacing systems are designed to resist both wear and exposure to the elements. The effectiveness of their materials, design and construction is demonstrated by the long life of fields under heavy use in many climates - north and south, wet and dry, hot and humid / cold and dry. The following are the most obvious precautions:

- Control Access to your UBU Sports™ surfacing system.
- Keep your UBU Sports™ surfacing system and close adjacent areas clean and free of litter, mud and debris.
- Post signs prohibiting smoking and carrying food or drink onto your UBU Sports surfacing system.
- Observe load limits for static and rolling loads, especially when the surface is wet.
- Repair minor damage promptly.
- Follow suggested care and maintenance procedures.
- Contact your local UBU Sports™ representative for assistance with repairs, renovation work, or any further technical details.

DON'T: DO NOT ABUSE UBU SPORTS™ SURFACING SYSTEM WITH:

- Vehicle traffic
- Heavy static loads
- Fireworks
- Storage of materials such as drums, lumber, equipment, etc.
- Unnecessary vehicle traffic
- Golfing, shot putting, javelin or discus throwing, and the use of long spike track shoes.
- Open flames, Welding, etc.
- Use of wire brush in any form
- Use of cleaning equipment, materials, and methods not authorized by UBU Sports™.
- High-pressure water sprays exceeding 500 PSI.
- Vehicles with non-pneumatic tires
- Introduction of infills or impregnated layers other than supplied or authorized by UBU Sports™.
- Do not allow the use of bikes, skateboards, lawn mowers, etc.
- Do not allow any unauthorized use
- Improper storage, in the case of a UBU Sports™ removable sports surfacing system.

GROOMING OF INFILLED TURF

UBU Sports™ recommends that every UBU Sports® surfacing system have routine brushing every 80 to 200 hours of usage. Routine brushing is accomplished with a "drag broom" suitable for brushing the surface. If you do not have a "drag broom" please contact your local UBU Sports® representative to purchase one.

Infilled surfaces do require grooming. Additional Grooming may be necessary only when and if the Infill has become displaced due to excessive use in certain areas of the surface such as a goal and heavy traffic areas.

Routine Brushing:

Routine brushing keeps the surface free from debris, but also maintains your UBU Sports™ surfacing system at its optimum performance. Routine Brushing simultaneously achieves three objectives:

1. Keeps impregnated layer uniform in its distribution
2. Ensures that the exposed part of the fiber is uniform in its direction and stays erect
3. Helps remove litter, leaves, dirt, etc.

The realized benefits from routine brushing are:

1. Consistent footing and ball bounce throughout the surface
2. Maximum aesthetic appeal
3. Lengthened life expectancy

STAIN REMOVAL

General Instructions

UBU Sports® fibers are among the most stain resistant in the industry. Most "stains" are not true "stains" but rather residue of foreign matter that must be promptly and thoroughly removed.

The first rule in spot removal is promptness. It is always easier to clean up a fresh spill than one that has dried and hardened. Remove any solid or paste-like deposit with a spatula or table knife. Blot up excess liquids with a thick stack of paper towels or a dry absorbent such as "kitty litter" or Fullers Earth. Dry absorbents can then be swept or vacuumed up.

UBU Sports® surfaces have good resistance to staining. However, it is important to realize they are only one part of a sophisticated system of various components designed for overall field performance. Some cleaning agents that are safe for the fiber can be harmful to other components of the system.

NYLON FIBERS

Cleaning agents are grouped into two sets, one of which can be used in liberal amounts directly on the turf surface, and the second of which should only be applied by rubbing a cloth soaked in the cleaner, in order to minimize penetration of possibly harmful agents below the turf fibers.

In the first group of cleaners, which generally can be applied to Non Infilled Systems without any special precautions, are the following:

- 1) A warm, mild solution of granular household detergent such as Tide or ALL in water, or any neutral low sudsing detergent that is recommended for fine fabrics. Use approximately one teaspoon to one pint of water. This will handle most stains, as the list below indicates.

Beer	Cola	Ice Cream	Mustard
Blood	Cocoa	Ketchup	Tea
Butter	Food Coloring	Margarine	Energy Drinks
Coffee	Grape Juice	Milk	Tomato Juice

- 2) A three percent solution of ammonia in water for more severe cleaning problems. (NOTE: household ammonia is three percent. Industrial aqua ammonia is 33%. Dilute nine parts water to one part industrial ammonia, or the available supply as appropriate.) *Thoroughly flush the surface, rinse with an ample amount of cold water afterwards.*
- 3) Clean, dry absorbents such as paper towels or commercial "kitty litter" can be used for applicable stains.

In the second group of cleaners, where agents must be applied sparingly, care must be taken to avoid penetration beneath the turf fibers. Cleaners will eat away at the turf backing.

- 1) Sponge with Perchloroethylene (Dry Cleaning solution). Blot with absorbent towels. Mineral spirits or a grease spot – remover will also work. In general cleaners in this category should qualify as suitable for use on nylon carpets. This will be effective with stains listed below:

Asphalt	Chewing Gum*	Motor oil	Suntan Oil
Ball-point Ink	Floor Wax	Paraffin wax	
Crayon	Lipstick	Rubber Cleat Mark's	
Cooking Oil	Motor Grease	Shoe Polish	

*Chewing gum is a common hazard and can be removed by freezing. Spray with refrigerant aerosol and scrape to remove residue. Aerosol packs of refrigerant are available from carpet cleaning suppliers for this purpose.

- 2) A mixture of white distilled vinegar in an equal amount of water, to neutralize animal waste. Flush thoroughly with water after application.
- 3) A one- percent solution of hydrogen peroxide in water, to treat fungus or mold spots. Apply with a sponge, flush thoroughly with water after application.
- 4) Sponge with acetone to remove nail polish.
- 5) To remove oil paints, blot immediately. Sponge with turpentine or paint remover (apply sparingly). Blot with detergent and water. Re-sponge with cold water to remove detergent. Scrape excess. Sponge with Perchechloroethylene (dry cleaning solvent). Repeat steps as necessary.

STAIN REMOVAL

POLYPROPYLENE & POLYETHYLENE FIBERS

Polypropylene & Polyethylene fibers are among the most stain resistant fibers known to man. Hence, most "stains" on UBU Sports™ polypropylene and polyethylene fields are not true stains but rather residues of foreign matter which must be promptly and thoroughly removed. (This is not the case with nylon and other fibers on the market.)

Most "stains" on polypropylene or polyethylene fields can be removed with water or soap and water. The first rule is promptness. It is much easier to clean up a fresh oil spill before it has time to dry and harden. Remove any solid or paste-like deposit promptly using a dull knife or spatula-like tool. Blot up excess liquids with a stack of towels, cloth or paper. Dry absorbent clay based materials, such as cat litter absorbers ("kitty litter") can be very useful and should be stored on site. Such dry absorbers can be swept or vacuumed up.

Procedure for Removing "Stains" and Other Blemishes

Cleaning agents are grouped into two sets, one of which can be used in liberal amounts directly on the turf surface, and the second of which should only be applied by rubbing a cloth soaked in the cleaner, in order to minimize penetration of possibly harmful agents below the turf fibers.

In the first group of cleaners, which generally can be applied to Infilled Systems without any special precautions, are the following:

1) "Water Borne" Residues

Most "stains" commonly associated with Polypropylene and Polyethylene playing fields can be classified as "water borne" stains. These stains are best removed using a warm mild solution of granular household detergent (non abrasive) and water.

TYPICAL WATER BORNE "STAINS"

Acid Drinks Alcohol Alkali Colors Beer Blood	Butter Chocolate/Cocoa Coffee Cola Dye	Food Coloring Fruit Juice/Gatorade Glue Ice Cream Ketchup	Latex Paint Margarine Milk Mustard Tea	Energy Urine Water
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1. Brush the residue with a stiff brush.
2. Scrub the area with soap and water.
3. Rinse the area thoroughly with clear water to remove all traces of soap.
4. Dry with absorbent towel(s), if necessary.

A three percent solution of ammonia in water may be used in lieu of household detergent for more stubborn residues or stains.

In the second group of cleaners, where agents must be applied sparingly, care must be taken to avoid penetration into the turf fibers. Cleaners will eat away at the turf backing, are as follows:

1) Sponge with Perchlorethylene (Dry cleaning solution). Blot with absorbent towels. Mineral spirits or a grease spot-remover will also work. This will be effective with stains listed below:

Asphalt	Chewing Gum*	Motor Oil	Suntan Oil
Ball-point	Floor Wax	Paraffin wax	
Crayon	Lipstick	Rubber Cleat Marks	
Cooking Oil	Motor Grease	Shoe Polish	

*Chewing gum is a common hazard and can be removed by freezing. Spray with refrigerant aerosol and scrape to remove residue. Aerosol packs of refrigerant are available from carpet cleaning suppliers for this purpose.

- 2) A mixture of white distilled vinegar in an equal amount of water, to neutralize animal waste. Flush thoroughly with water after application.
- 3) A one- percent solution of hydrogen peroxide in water, to treat fungus or mold spots. Apply with a sponge Flush thoroughly with water after application.
- 4) Sponge with acetone to remove nail polish.
- 5) To remove oil paints, blot immediately. Sponge with turpentine or paint remover (apply sparingly). Blot with detergent and water. Re-Sponge with cold water to remove detergent. Scrape excess. Sponge with perchloroethylene (dry cleaning solvent). Repeat steps as necessary.

CAUTION: Do not use high pressure water spray with stream force in excess of 500 psi (pounds per square inch) as this can severely damage the turf or redistribute the infill and create a safety hazard for players. Mineral Spirits and other petroleum-based solvents are flammable, therefore do not smoke or permit open flames near where these are being used. Be sure the area is well ventilated where solvent cleaners are used. For more difficult stains, it may be necessary to clean with both the detergent solution and the dry-cleaning fluid. For such stains as paint, shoe dye and model airplane glue – a commercial carpet cleaner should be consulted.

Avoid the use of any solution containing bleach, highly caustic detergent cleaners (pH above 9), high acid cleaners (pH below 5) on any UBU Sports™ surface, as they can cause damage or discoloration to its components.

Important Reminder: When trying any type of cleaning solution on your surface always try it on a scrap piece of turf or a small area on the outside of the field, not a highly visible area. Let the cleaner sit for a day to make certain that it doesn't damage the surface.

FIELD MARKING, LOGO'S, ADVERTISING AND DECORATION

PAINTED LINE AND MARKING SYSTEM

NOTE: Inlaid Line and Marking System are preferred for optimum performance. Inlaid Line and Marking Systems are constructed utilizing the same material specifications, and are to be inset in such a manner to ensure a good bond, an even finished surface and physical strength equal to the material prior to introduction of the line and marking system. Permanent inlaid line and marking systems are more attractive than painted systems because of the reduction in maintenance and quality of image.

Alternative painting of line and marking systems and their care is explained below.

Many facility owners like to use elaborate line and marking systems, including facility logos, league logos, sponsor logos, mid-field and end-zone designs in assorted colors. Others prefer the simpler approach of sharp, well-defined game markings with no extraneous markings. In either instance, the materials and techniques used in applying paints will determine the life of the markings and the ease of removal when these need to be changed. In marking, do not apply paint too heavily. Light applications give good visibility and adequate life and are less abrasive than excessive layers of caked-on paint.

Dry Markings

Temporary markings can be applied by using the same chalk dust used for natural turf fields. In some uses, the chalk dust is slurred with water for wet application. Chalk dust markings, however, tend to be picked up and spread by the feet of players on the field, leaving tracks in unmarked areas.

Chalk markings are easily washed away or spread by water. They may be obliterated by a hard rain-shower. The only advantage for chalk markings is low cost.

Chalk markings are not recommended for infilled systems!

Paints

Regardless of the type of paint used and design required, best results will be obtained when paint is applied to a clean, dry, dust-and-grease-free base. It is extremely important that old, degraded paint and dirt be washed off any area that is to be repainted if the best appearance and traffic resistance are to be obtained.

Your local UBU Sports™ representative has special developed tools and methods for painting, paint removal and cleaning of synthetic surfaces. If your field needs this type of attention, contact a UBU Sports™ certified representative for quotations and scheduling. If, however, you elect to perform these operations yourself, the following guidelines will assist you.

Temporary Paint

The recommended paints in this category are designed to be easily removable after usage in a limited number of sports events. Usually, the removal can be achieved by brushing the painted area with a solution of mild detergent and flushing thoroughly with water afterwards.

Top quality acrylic latex water-based exterior paint such as Sherwin Williams White and Yellow paint. One day curing of these paints, at moderate temperature, is sufficient.

Prolonged curing has no major effect on durability. The above-mentioned paint should be diluted in the ratio of one gallon of paint to one gallon of water prior to use.

Top Quality Resin Based Permanent Paint

Resin based permanent paint is highly durable, once applied and cured, this paint is more difficult to remove than temporary paint and thus it is imperative that use be restricted to carefully chosen areas.

For each of the above paints, it is recommended that 24-48 hours be allowed for complete cure. Paint should always be applied to dry turf at moderate temperatures.

Striping and Painting

The application procedure for applying temporary & permanent paint is as follows.

Remove excess paint existing on field. Test application procedure before going on the field. (Use a scrap of turf fastened to asphalt, plywood or use a corner of the field.) Use no more paint than absolutely necessary.

Keep on hand and readily available 8% solution of ammonia to clean up spills before they solidify. Directions for preparing this ammonia solution are given later in the section that covers paint removal.

The paint should be applied lightly to the tips of the turf fibers – not the entire length of every fiber. Applying the paint too heavily makes for a very rough, abrasive surface and will make the removal job very difficult.

An air-spray system is recommended over an airless one because it gives closer control, especially if intricate designs are involved.

Approved Air-spray guns include the following:

- DeVilbiss with 505E fluid tip, an ES needle and a #53 air cap.
- A Grayco assembly with 161-188 fluid tip, a 164-870 needle and a 161-192 air cap.

When applying paint, use large templates and cardboard or wood windshields to minimize paint over-spray.

For logos and other markings, always use a guide such as templates or straight edges. Do not lay out emblems whose design encourages double coverage. For example, for red letters with a white border, do not paint a solid white letter and then paint a small red letter on top. Instead, paint the red letter and then add a narrow white border. Double coverage's are unnecessary as well as difficult to remove.

Painting a UBU Sports™ surfacing systems with brushes or rollers is not recommended. Spraying equipment is recommended for the following four reasons:

1. Spraying can make a more uniform paint application.
2. A more intricate template can be used if the paint is sprayed.
3. Paint can be applied more rapidly with spray techniques.
4. Paint can be removed more easily from areas that have been correctly sprayed than from areas on which the paint has been rolled.

Paint removal

The main key to efficient removal of temporary paint from surfaces is the initial control in the application. The use of excessive amounts of paints is wasteful, presents abrasion hazards to players and requires extra work in removal.

Equipment needed for Paint Removal

Use a street broom, deck brush, small sprayer or watering can, water hose, medium-sized tank or bucket for mixing, and a couple of wet vacuums.

Materials Needed

Paint removal method requires the use of 8% ammonia.

The solution should be prepared in advance and access to water outlets provided. The 8% ammonia solution is prepared from aqua ammonia (33% ammonia) by diluting with three parts water to one part aqua ammonia.

CAUTION: Aqua ammonia is a strong chemical. Follow the seller's instruction for handling – including eye protection, avoiding skin contact, etc. Ammonia is very corrosive to copper alloys do not use brass nozzles or fittings. For mixing, use galvanized watering cans and a sprayer tank at all times.

Procedures

Hose down the painted area with water until the surface is saturated. Using a sprayer or a watering can, apply the ammonia solution on the painted area. It is important that the ammonia solution be metered out uniformly at the rate of one gallon per 45 to 50 square feet. Scrub the wet area with a street broom until the ammonia solution turns to foam. A sweeping motion similar to sweeping a floor is sufficient. During this step, the paint will start to loosen and the pigment will begin to run. However, do not shorten the sweeping at this point.

Wait about 10 minutes to allow the foamed ammonia to work. Apply the same amount of ammonia solution on the area a second time. Thoroughly scrub the area with a street broom. This scrubbing is not intended to be a light scrub, scrub vigorously.

Hose down the area with water and simultaneously pick up the water and dislodged paint residue with the wet vacuum. Do not let the water and paint residue seep across the field. If the residue and water start to spread, stop the hosing and let the wet vacuum catch up. Repeat the process if necessary. However, if the paint was applied lightly and uniformly, repeating the process should not be necessary.

If the paint stubbornly adheres to the turf, take the following additional steps: Repeat steps as above. Blast or fracture the paint loose with hot water from an industrial high pressure hot water sprayer. Set the water temperature at 150 degrees F. Do not spray the water at "point blank" range – keep the wand at least 30cm from the turf. Use 10 gallons of hot water per minute and a water pressure of no more than 21 kg/cm squared. No solvent is required.

Wet vacuum the residue and water or immediately flood the field.

Rinse the area thoroughly with lots of water and pick up rinse water rapidly to avoid unsightly spots or paint residue.

LOAD LIMITS

If proper steps are taken, almost any requirement can be accommodated, but certain precautions are necessary. Protection of the shock-absorbing underpad of the playing surface is especially important. Underpads are composite materials that contain nitrogen gas in numerous closed cells. Over extended periods of excessive compression, some of the nitrogen can diffuse through the cell walls, resulting in a marginal loss of volume. The cell walls themselves are not affected unless the overload is severe enough to cause separation or rupture.

As a general rule, no long term static load of more than 3 psi (300 lbs./sq.ft), nor any transient rolling load of more than 30 psi be applied to any UBU Sports[®] surface (foam pad or elastic layer underpad). Rolling loads of up to 30 psi are acceptable on an occasional basis. (The loading of a pneumatic-tired vehicle is approximately equal to the air pressure in its tires.)

It is good practice to eliminate any unnecessary long-term static loads. Sheets of ¾ inch exterior plywood or pieces of 2 x 10 lumber may be used to spread major static loads and thus minimize the risk of damage to the turf system. **NOTE:** Under static loads, the surface should first be covered with a load spreader such as polyethylene sheeting to keep it clean. New plywood may contain materials that will leach out and stain the turf if it is exposed to water therefore a polypropylene barrier should be used under the plywood to prevent this from happening.

SNOW AND ICE MANAGEMENT

Snow and ice are not harmful to UBU Sports™ surfacing systems and can generally be left to melt and run off on their own accord. Sometimes, however, it becomes essential to clear away snow and ice to permit scheduled use of the surface. When this happens, the working principle for snow is to leave it in place until as near to time of use as possible. Doing so will minimize the risk of ice build up from cold wind blowing across a damp snow-cleared surface. Ice removal is more difficult, especially if a heavy layer has built up following freezing rains (see below). Two methods are used for snow removal:

Snow Blowers

If the snow is dry and powdery, it can be swept or blown from the field using a rotary brush or snow blower. Be sure that any machinery used is set so as not to dig into the turf or gouge the surface.

If using a blower:

1. The first pass of the blower should be down the center of the field.
2. Second pass should be made at the edge of either side of the first pass and the blower must be adjusted so that the snow is deposited in the truck.
3. The blower then continues down one side and up the other accompanied by the truck.
4. Clean off remaining snow with a mechanical broom.

Snow Plows

Snow that is wet and sticky may be more easily pushed off the field by using a snow blade with a 4 to 6 inch wide rubber tip mounted on a Jeep or light tractor. If such a blade is used, extreme care should be taken to avoid digging into the surface. The best blade setting is one that barely "kisses" the top of the surface and rolls the snow ahead of the blade. In this procedure, the snow itself will maintain contact with the surface. Wood, metal or other rigid surface blades should not be used. Adjust the blade to proper height taking care that it will not gouge or dig into the surface. UBU Sports® recommends wheels on each side of the blade to ensure the blade can not possibly dig into the surface.

If using a Plow:

1. Push snow into piles.
2. Scoop into truck using front-end-loader., also with rubber tipped blade. Use extreme caution.
3. Use a rotary mechanical broom to clean off the remaining snow.

Severe cases of ice can be removed by using a small lawn roller to break up the ice and then proceed as above. It is recommended that all of the equipment used as described above be moved on pneumatic tires. LUGS, STUDS AND CHAINS ARE DAMAGING AND SHOULD NOT BE USED. Snow removal equipment may be stopped momentarily on the surface, but DO NOT PARK SUCH EQUIPMENT ON THE FIELD OVERNIGHT OR FOR SEVERAL HOURS. Tire pressure should be below 35 psi. IMPORTANT: Keep tarps or field covers off the field in freezing weather. They are difficult to remove when frozen to the surface. Avoid using a tarp on the field during freezing weather. Tarps can freeze to the turf by means of condensation and thus can be very difficult to remove for a scheduled event.

Ice Removal

In some cases it will be desirable to go over the surface with a lawn roller or rotary street broom to break up and sweep away frost or ice. If the day is sunny and the frost or ice not excessive, it tends to melt readily over synthetic surfaces, especially with player foot traffic to aid in the process.

In the event of extreme cold weather and a heavy layer of ice, there is little choice but to use chemicals to assist in getting rid of it. It should be remembered that any ice-melting chemical put on the field will leave residues, which may leave the surface slippery or sticky. Such residues should be washed off the turf as soon as weather permits.

Many chemicals commonly used for ice melting are irritating to human skin, corrosive to equipment and/or harmful to your UBU Sports™ surfacing system. Among these are such old standbys as rock salt, ammonium nitrate and calcium chloride. These chemicals should NOT be used on UBU Sports™ surfacing systems because they might irritate players' skin, corrode equipment or damage the surface. The only ice melter found to date that is safe, inexpensive and non-corrosive is fertilizer grade urea.

When a surface has been subjected to a freezing rain or is heavily frost-coated, thawing can be hastened by broadcast application of prilled, fertilizer grade urea. The spread rate will be determined in some measure by the amount of ice present, but 100 pounds per 3000 square feet is a good starting point. After spreading, the urea should be allowed to remain in place for half an hour or more to melt the ice. It should then be removed from the field (along with the water it has picked up) with a squeegee. Urea will be less effective as the temperature drops below 10 degrees to 12 degrees Fahrenheit. (-9 degrees to -11 degrees C) and it is ineffective below 0 degrees Fahrenheit (18 degrees C).

A thick residue of urea will be left behind after the field is squeegeed or swept. In wet weather this film will make the field somewhat slippery. As soon as danger of a hard freeze is past, the field should be washed down with liberal amounts of water to remove traces of the urea.

WARNING: DO NOT USE COMMON SALT, ROCK SALT, CALCIUM CHLORIDE, AMMONIUM NITRATE or other corrosive or irritating chemicals to melt ice on your UBU Sports™ surfacing system. Their presence can damage equipment, be harmful to Personnel and your UBU Sports™ surfacing system itself.

Urea may be a mild eye irritant. If it gets into a player's eyes, it should be washed out with liberal amounts of water.

Warning – UBU Sports™ does not recommend snow removal from any surface that utilize an impregnated layer. Snow removal is strictly at the owner's risk.

WATERING OUTDOOR SYNTHETIC TURF SURFACES

Some owners have found it desirable to deliberately wet their synthetic turf surfaces, especially in periods of very hot weather.

Wetting the surface provides moisture for cooling the field before evaporation takes place. It also acts as a lubricant to the turf but it must be noted it may also lower traction to a slight degree. On a hot sunny day outdoor playing surfaces can receive enough radian energy to evaporate about a quart of water per square yard per hour. As the moisture evaporates the temperature of the synthetic turf will match that of natural grass in the same area.

A full sized soccer, hockey or football field may evaporate up to 1200 gallons of water per hour in extremely hot weather. If you decide to water your field, be careful to distribute the water evenly. If water is put on the field, it should not be from a polluted supply.

SPECIAL EVENTS ON NON-REMOVABLE SPORTS SURFACING SYSTEMS

Facilities with synthetic surfaces are often used for graduation ceremonies at many Colleges and Universities. The basic precaution is to keep long-term static loads below 300 pounds per square foot by the use of plywood or other load spreaders. Normally, 4' x 8' foot sheets of $\frac{3}{4}$ inch plywood do a good job of load spreading, provided the load is not applied too near the edges of each panel. Polyethylene film should be laid over the turf under the load spreaders to avoid staining or spoilage of the turf.

Any chairs placed directly on the playing field surface should be inspected to be sure that the tips of the legs couldn't damage the turf. Metal chair legs should be protected with rubber tips. The legs of wooden chairs should be free of any sharp edges that may tear the turf or damage the underpad. It is strongly advised to not use chairs with peg legs but rather sled bases to assist in spreading the load.

**WE STRONGLY CAUTION AGAINST PLACING CHAIRS DIRECTLY ON SURFACES
WITH ELASTIC LAYER UNDERPAD.**

SHOWS AND CIRCUSES ON NON-REMOVABLE SPORTS SURFACING SYSTEMS

Events such as equestrian shows and circuses fall outside the recommended lists of designed activities for synthetic surfaces, although a number of them have been held successfully without incident. If events of this nature are to be held, precautions regarding static loads are especially important. Provisions should also be made for the prompt removal of animal waste. Activities involving an open flame on the playing surface should be strictly prohibited.

Rock Shows and Concerts "Rock and Roll" concerts have become popular events in recent years. These events also fall outside the recommended list of designed uses for most surface installations. The problem of surface loading to support stages and show equipment is obvious, but can generally be overcome with proper load spreaders. Unfortunately, a much more serious problem is control of crowd behavior. In the case of all non-designed uses for UBU Sports™ synthetic turf systems, the Owner should be aware that any resulting damage to the turf is not covered by UBU Sports™ warranties. The above-mentioned three categories all fall under this listing of non-designed uses.

MINOR REPAIRS TO UBU SPORTS SURFACES

Your playing surface has been carefully engineered to provide many years of service. In the case of vandalism or unusual abuse, limit your maintenance staff to performing minor repair. For more serious problems, consult your local UBU Sports™ representative.

When to Repair

To properly maintain a synthetic playing field: be aware of the day to day activities, usage and condition of the facility. It is very important that any minor damage be repaired immediately because a small problem may eventually grow into a major repair. In addition to routine awareness of field conditions, once or twice a year each field should be given a careful and thorough inspection, preferably in the spring with a follow-up in early fall. All seams should be inspected and any loose areas noted and repaired. Go over the body of each panel of fabric and note any rips and/or tears. Assess the status of the under-padding and the condition of the surface. In the case of an older and/or heavily used field, inspections should be made more frequently.

Why a Spring inspection?

Fields endure their heaviest scheduled activity during the fall months. Once your inspection has been completed you may require the assistance of a professional UBU Sports™ crew. Your local UBU Sports™ representative is always available to assist in the case of an emergency, but planned visits permit more efficient and cost effective service. If repairs are required they are easier to make in warm, dry weather. Adhesives will hold better and cure faster when there is more opportunity to leave the repaired area undisturbed. Gluing repairs should not be attempted if the field is wet.

What Are "Minor Repairs?"

A Minor Repair would be an open spot in a sewn or glued seam, where the loose area in the seam extends from a few inches to one or two feet (along a glued seam line where at least one of the turf edges is still attached to the seam tape).

Cuts, rips or tears in the surface fabric that are less than six inches or so in length do not generally require a special trip by our service staff and can be repaired by the owner without much effort. These can also be regarded as minor unless allowed to become larger. All of these problems can be handled by sewing or adhering the repairs.

To repair minor seam openings or loose seam areas:

1. For infilled systems vacuum sand or rubber from the turf to be repaired.
2. Be sure that the fabrics to be adhered are dry, free from loose sand, dirt, old adhesive and other foreign matter.
3. Clean the area to be repaired and wipe the opening with methyl-ethyl-ketone (MEK), toluene, or if neither is available, with mineral spirits.
4. Position the fabric to check for satisfactory final placement.
5. Be sure the seaming tape to which the fabric will be adhered is itself adhered to the underlying pad. (If system uses an underlying pad)
6. Trowel a small amount of adhesive from an adhesive bottle on to the seaming tape. Avoid excessive adhesive to reduce the possibility of bleed through or bleed out.
7. Spread the adhesive with a trowel and trowel so that the entire fabric is coated lightly and evenly.
8. Press the fabric into the adhesive bed uniformly.
9. Weight down the area and allow to cure at least 24 hours.
10. For in-filled systems, Spread appropriate rubber or sand on the repaired area and brush into the turf thoroughly until even with surrounding playing areas.

Warning: MEK, (methylbenzene) toluene and mineral spirits are highly flammable and vapors can be harmful. Use in an open, ventilated area. **DO NOT** use near an open flame or any other sources of ignition.

SMOKING SHOULD BE STRICTLY PROHIBITED IN THIS AREA!

CIGARETTE BURNS

A lit cigarette can damage any turf system. On nylon surfaces, the cigarette may scorch and blacken the turf. Use a hand held metal brush (such as is used to remove paint) and brush the spot vigorously to separate the fibers. If brushing the turf does not remove the damage, take a razor knife and cut the fused area away.

"HOLLOW" SPOTS IN INFILLED SYSTEMS

These are areas in the turf where the level of infill (sand/rubber) may be slightly lower than on the surface overall. They are generally discovered several weeks after the initial placement of the infill in the turf. These areas generally cannot be seen but can be "felt" when walking on the turf – they feel like depressions or low spots on the surface.

To correct these areas:

Take a bucket of matching infill (sand/rubber), locate the spot and apply several thin layers of infill to the area and brush into the fibers with a stiff street broom or small hand held fiber scrub brush (such as is used to hand scrub floors.) Brush in several Directions. Cross brush the entire field again, to finish.

MAINTENANCE OF REMOVABLE SPORTS SURFACING SYSTEMS

Removable sports surfacing systems require special care and attention. Following is the proper procedure for installation, removal and storage, do's and don'ts for the use of a removable surface.

PROCEDURES

UBU Sports™ removable surfacing systems require special care and procedures to ensure its longevity and continued proper use. For maximum performance and longevity of investment, UBU Sports™ surfacing systems should always be installed over an approved subfloor.

INITIAL INSTALLATION PROCEDURES

The Initial Installation of your UBU Sports™ surfacing system will be performed by a certified UBU Sports™ crew. During this initial installation UBU Sports™ will determine the alignment and set the installation pattern for the surface. Your facilities staff will be required to work with a Certified Installer of UBU Sports™ to perform the initial installation. All future installations and the procedures for aligning the surface will be determined during this initial installation. Once the surface is aligned and subsequently laid to cover the entire playing surface. A Certified UBU Sports™ Installation Crew will trim the perimeter of the playing surface to ensure a professional fit. At the completion of the initial installation, of your UBU Sports™ surfacing system, the following things will occur:

1. The owner and facility representative will walk the entire surface with your local UBU Sports™ Certified Installation Superintendent to ensure the installation is complete and to the satisfaction of all involved.
2. The owner or a representative for the owner will sign the WORKMANSHIP SATISFACTORY COMPLETION FORM, which will signify that your UBU Sports™ surfacing system has been installed to the owners satisfaction and requesting on behalf of the owner that his warranty be put into effect.
3. The local UBU Sports™ Certified Installation Superintendent will conduct an on site surface maintenance seminar. This seminar will cover all relevant aspects of your UBU Sports™ surfacing system. It will encompass in detail the proper procedure and methods to care for the surface.

Following the proper methods and procedures for the care of your UBU Sports™ surfacing system is crucial to the surfaces longevity, appearance and above all player safety.

RECOMMENDED INSTALLATION PROCEDURES

Since removable systems spend over 90% of the surfaces life rolled up and in storage it is imperative that proper storage procedures and methods be followed. For more information on storage, see the section on Storage below.

UBU Sports® makes every effort to construct your surface for storage and use. Surfaces will require time to breath and relax before attachment of the Velcro system. The following procedures should be followed to ensure the proper reinstallation of the UBU Sports™ surfacing system:

1. Starting at the furthest entrance from the playing surface the rolls should be placed and unrolled.
2. As the rolls are placed they should be rolled out independently, then floated onto the previous roll. Each roll should overlap the previous roll by just less then 50% of the rolls width.
3. Once all the rolls are placed to breath, the surface should be allowed to breath for a minimum of 4 hours.
4. At the completion of the breathing period the last roll to be placed should be floated back to the first position in front of the playing surfaces entrance. All equipment should be off the playing surface area prior to starting this procedure.
5. All green ad panel blanks should be removed as the rolls are placed into there final position. The green ad panels can then be stored, until the surfaces use is complete, and then reinserted for storage again.
6. Each seam as it is attached should be checked for a professional fit to ensure proper appearance and above all player safety.
7. Once the entire surface has been fit into place the ad panels should be inserted properly. Each custom Ad Panel should be checked for proper fit and to above all ensure player safety.
8. The installation of your UBU Sports™ removable surfacing system is now complete.
9. The facility staff should now trouble shoot the playing surface to ensure player safety.
10. Troubleshooting: Any ripples, echo ripples, or deviations should have applied and sustained pressure to force the playing surface level. These types of deviations in playing surface level, are caused by improper storage methods, and or improper surface removal from the previous use.

Note: Player safety is the ultimate requirement of the facilities installation staff. Playing conditions of any sports surface is the number one priority. If your facilities staff has any questions or experiences any concerns they should contact your local UBU Sports™ representative immediately for assistance.

RECOMMENDED REMOVAL PROCEDURES

The removal of the surface is typically taken for granted, it is the removal however that determines not only the life of the surface, but more importantly the condition of the playing surfaces next use. The key elements of a successful removal are, proper separation of the Velcro, rolling the surface up tight and consistently, and then proper storage. The following procedures should be followed to ensure a proper surface removal for storage.

1. Prior to removal ensure the entire surface is clean and free of debris.
2. Removal all custom ad panels and replace with green blanks for storage. Removed Ad Panels should be stored flat, in a temperature and moisture controlled environment.
3. Start at the opening to the playing surface and with the appropriate number of attendants, separate the Velcro seam. This needs to be carefully done and by sliding your hand along the seam and careful and gently separating the contact. Facilities can purchase Cordura strips to be inserted between the two panels to keep them separated.
4. Once the Velcro seam has been separated and the Cordura strip inserted the panel can be floated apart.
5. Once separated the panels should be rolled up using approved cores. While rolling up the panels, it is imperative to ensure the roll is tight, rolled consistently, and straight. If not rolled straight, the edges will not line up and this will cause potential damage during storage.
6. Carefully remove the rolled up panel from the floor using a forklift with a carpet boom, and place into its storage position. It is important to not stack rolls during storage as this will create echo ripples and make the surface unsafe for play.
7. For more information on Storage refer to the section below, or consult your local UBU Sports™ representative.

STORAGE OF UBU SPORTS REMOVABLE SPORTS SURFACING SYSTEMS

Storage is the key to maintaining your UBU Sports™ removable surfacing system in a safe and professional condition. Since the surface spends over 90% of its life in storage, this is the crucial element of care. Please follow the guidelines below to ensure proper storage:

1. Always store the surface in a temperature and humidity controlled environment.
2. The storage environment should have proper protection from weather, and a temperature above 55 Degrees Fahrenheit should be maintained.
3. The UBU Sports™ removable surfacing system should be rolled unto approved cores.
4. The surface should be rolled tight, consistent and straight.
5. The rolls should be stored on a finished floor, or UBU Sports™ rounded storage carts. The panels should never be stacked onto each other. For creative storage solutions contact your local UBU Sports™ representative.
6. Custom ad panels should be stacked onto each other, on an appropriately sized Ad Panel skid. Ad Panels should always be stored flat.
7. Cores that are damaged should be replaced immediately.

Storing your surface properly will ensure player safety and the surfaces long life.

Do:

It is good business to protect the investment in your UBU Sports™ removable surfacing system. To do this most effectively, Keep it Clean. The following are the most obvious precautions:

- Control Access to your UBU Sports™ surfacing system.
- Keep your UBU Sports™ surfacing system and close adjacent areas clean and free of litter, mud and debris.
- Post signs prohibiting smoking and carrying food or drink onto your UBU Sports™ surfacing system.
- Observe load limits for static and rolling loads, especially when the surface is wet.
- Repair minor damage promptly.
- Maintain surface at all times at a temperature not less than 55 Degrees Fahrenheit and not more than 90 Degrees Fahrenheit.
- Keep the surface dry. Moisture will breakdown the surfaces adhesive layer.
- Follow suggested care and maintenance procedures.
- Contact your local UBU Sports® representative for assistance with repairs, renovation work, or any further technical details.
- Separate Velcro gently, and use proper procedures and methods.
- Always follow proper storage procedures and methods.

UBU Sports™ removable surfacing system are designed to resist both wear and perform professionally under proper conditions. The effectiveness of their materials, design and construction is demonstrated by the long life of fields under heavy use in many applications. Use it and take care of it.

Don't:

Do not abuse your UBU Sports™ removable surfacing system with:

- Use of the surface for anything other than its intended use at time of purchase.
- Vehicle traffic
- Storing the surface improperly
- Heavy static loads
- Tugging the Velcro or panels apart. Always use proper separation methods as detailed in this document. Contact your UBU Sports™ representative with any questions. This procedure is very important to the long life of the field.
- Fireworks
- Storage of materials such as drums, lumber, equipment, etc. on surface
- Unnecessary vehicle traffic
- Golfing, shot putting, javelin or discus throwing, and the use of long spike track shoes.
- Open flames, Welding, etc.
- Use of wire brush in any form

- Use of cleaning equipment, materials, and methods not authorized by UBU Sports™.
- High-pressure water sprays exceeding 1000 PSI.
- Vehicles with non-pneumatic tires
- Introduction of in fills or impregnated layers other than supplied or authorized by UBU Sports™.
- Allowing the use of bikes, skateboards, lawn mowers, etc.
- Repairing or maintaining the surface with anything other than materials approved or supplied by UBU Sports™.
- Allowing any unauthorized use
- Improper storage methods when storing your UBU Sports™ removable surfacing system

CONCLUSION

Since 1989, UBU Sports® has refined our installation techniques, developed and manufactured Synthetic Surfaces that are extremely advanced in material and design. Compared to natural grass surfaces, our synthetic materials could be considered virtually "maintenance free". However, your surface will perform, look and feel better for a longer period of time if the maintenance procedures outlined in this manual are followed closely. The manual attempts to address and answer the most frequently asked questions regarding your surface. However, there are always new demands, uncertainties and unanticipated occurrences that may arise. Please, do not hesitate to call us!

Prohibited Activities on a Sports Surfacing System:

- Storage of materials such as drums, lumber, equipment, etc.
- Unnecessary vehicle traffic
- Golfing, shot putting, javelin or discus throwing, and the use of long spike track shoes associated with cinder tracks.
- Open flame, fireworks, welding, etc.
- Use of wire brushes in any form.
- Heavy loads exceeding more than the static load of a BW60 bomag roller.
- Use of cleaning equipment, methods or materials not authorized.
- High-pressure water sprays exceeding 1000 psi.
- Vehicles with non-pneumatic tires
- Introduction of infills that varies from the UBU Sports® specifications.

Key points to remember

- Keep the field clean.
- Cross-brush the turf surface as often as required.
- Post "NO SMOKING" signs around the turf. Some people break the rules, but most will follow them. Surfaces do not burn readily, but will scorch as a result of cigarettes and burning matches.
- Do not park vehicles or equipment on the field for hours or overnight.
- Do not abuse the surface by overloading it. Place plywood on surface to protect and to displace weight of heavy loads over a larger area.
- If you have a roll up system, take care during installation, roll up and storage as to not damage the turf, pad or velcro.
- Call for help or advice when you have questions about your field and its use. Your representative can assist with your questions and inquiries and we are always eager to help you experience your field to its fullest potential.
- Follow the exact recommendations and procedures shown in this manual, will assure that your UBU Sports® surface will give you years of good service with minimal maintenance.