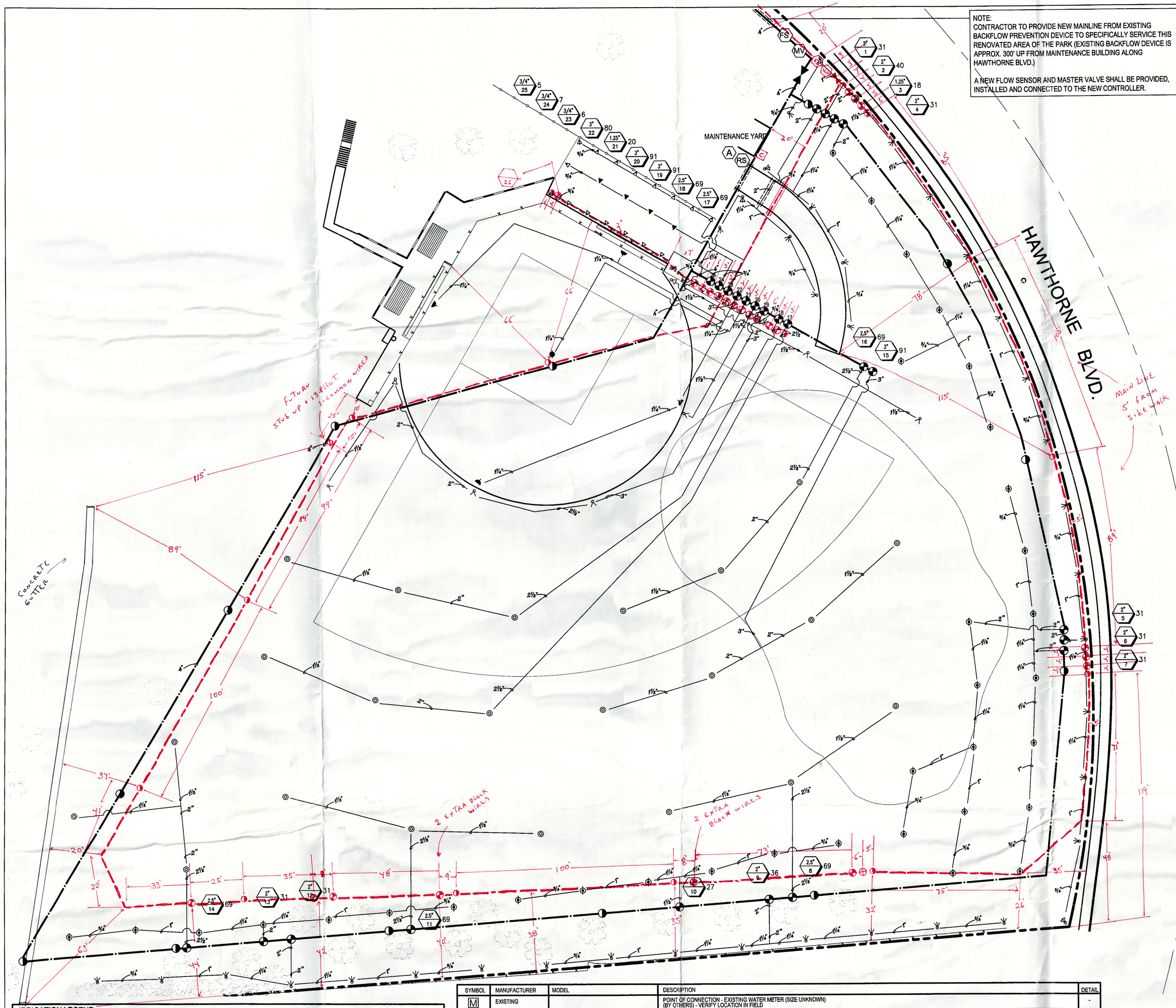

NOTE:
CONTRACTOR TO PROVIDE NEW MAINLINE FROM EXISTING BACKFLOW PREVENTION DEVICE TO SPECIFICALLY SERVICE THIS RENOVATED AREA OF THE PARK (EXISTING BACKFLOW DEVICE IS APPROX. 300' UP FROM MAINTENANCE BUILDING ALONG HAWTHORNE BLVD.)

A NEW FLOW SENSOR AND MASTER VALVE SHALL BE PROVIDED, INSTALLED AND CONNECTED TO THE NEW CONTROLLER.

IRRIGATION NOTES:

1. THIS IRRIGATION DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. SEE DETAILS FOR VERTICAL AND HORIZONTAL ALIGNMENT OF ALL PIPING AND EQUIPMENT.
2. SET ALL VALVES AND QUICK COUPLERS NEXT TO WALKS OR PAVED SURFACES.
3. ALL SPRINKLER HEADS ARE TO HAVE TRIPLE SWING JOINTS (EXCEPT WHERE NOTED ON PLANS).
4. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF THE SAID REJECTION.
5. FINAL LOCATION OF THE AUTOMATIC CONTROLLER AND WEATHER AND/OR RAIN SENSOR SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
6. PROVIDE SEPARATE WIRE COLORS FOR EACH IRRIGATION VALVE FROM CONTROLLER TO VALVES.
7. PVC SHALL BE LAID WITH HORIZONTAL CONNECTINS.
8. SCHEDULE 40 OR ABOVE ONLY ON PVC. NO CLASS 200.
9. PRESSURE TEST ON ALL MAINLINES 4 HOURS AT 150 PSI. CALL INSPECTOR PRIOR TO STARTING TEST.
10. REPORT PRESSURE READING TO LANDSCAPE ARCHITECT OR RECORD PRIOR TO STARTING CONSTRUCTION.
11. BEFORE COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL OBTAIN AN UNDERGROUND SERVICE ALERT I.D. NUMBER BY CALLING 1-800-422-4133. TWO (2) WORKING DAYS SHALL BE ALLOWED AFTER THE I.D.NUMBER IS OBTAINED AND BEFORE THE EXCAVATION WORK IS STARTED SO THAT UTILITY OWNERS CAN BE NOTIFIED.
12. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
13. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH ZERO OVER SPRAY (RUN-OFF) ONTO WALKS, STREETS, ETC. THE CITY PROHIBITS OVERSPRAY ONTO ROADS AND SIDEWALKS. ADJUST RADIUS AND ARC FOR FULL COVERAGE WITHOUT OVERSPRAY.
14. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE GRADE DIFFERENCES, LOCATION OF WALLS, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS UNDER ROADWAYS AND PAVING, ETC. THE SPRINKLER SYSTEM DESIGN IS BASED ON A SYSTEM DESIGN PRESSURE INDICATED IN THE PRESSURE LOSS CALCULATION AND A MAXIMUM FLOW DEMAND OF 91 G.P.M. THE CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE ARCHITECT.
15. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT THERE ARE UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES IN THE AREA. DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
16. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
17. THE INTENT OF THE DESIGN IS TO PROVIDE 100% COVERAGE TO ALL PLANTING AREAS. AS PART OF THE SCOPE OF WORK, PROVIDE ANY ADDITIONAL HEADS, SPECIAL NOZZLES, OR PATTERNS TO ACHIEVE PROPER COVERAGE WITH A MINIMUM OF OVER SPRAY AT NO ADDITIONAL COST TO THE OWNER.
18. INSTALLATION FOR THE CONTROL WIRES SHALL FOLLOW MAINLINE ROUTING.
19. SLEEVE MAIN AND LATERAL LINES UNDER PAVED SURFACES WITH PIPE 2X PIPE DIAMETER.
20. NEW SLEEVING TO BE INSTALLED 36" BELOW GRADE UNDER ROADWAYS. DEPTH T BE COORDINATED IN THE FIELD WITH EXISTING UTILITY LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITY LINES.
21. NEW SLEEVING UNDER ROADWAYS SHALL BE INSTALLED BY DIRECTION BORING. NO CUTTING OF EXISTING PAVEMENT, CURB, OR GUTTER WHICH SHALL BE PROTECTED IN PLACE.
22. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR LANDSCAPE TO REMAIN CAUSED BY CONTRACTOR'S ACTIONS.
23. LOCATE "AS-BUILT" VALVE CHART IN CONTROLLER - REDUCE AND ENCASE IN PLASTIC.
24. THE CONTRACTOR SHALL GUARANTEE THE INSTALLED IRRIGATION SYSTEM FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK. SHOULD ANY TROUBLE DEVELOP WITHIN THE TIME SPECIFIED DUE TO INFERIOR OR FAULTY MATERIAL OR WORKMANSHIP, THE TROUBLE SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER.
25. CHECK VALVES SHALL BE INSTALLED IN-LINE OR IN-HEAD TO PREVENT LOW HEAD DRAINAGE.
26. ALL VALVE BOXES SHALL BE PERMANENTLY ETCHED TO INDICATE EQUIPMENT INSTALLED.
27. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING THIS SECTION OF WORK.
28. WHEN INSTALLATION OF THE IRRIGATION SYSTEM IS COMPLETED, PERFORM A COVERAGE TEST IN THE PRESENCE OF OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT TO DETERMINE THAT COVERAGE FOR PLANTING AND TURF AREAS IS COMPLETE AND ADEQUATE. WHERE INADEQUATE COVERAGE OCCURS DUE TO DEVIATIONS FROM PLANS, OR SITE CONDITIONS DIFFER AND THE SYSTEM HAS BEEN INSTALLED WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE, THE IRRIGATION CONTRACTOR SHALL PROVIDE NECESSARY MATERIAL AND PERFORM WORK TO CORRECT ALL INADEQUACIES WITHOUT ADDITIONAL COST. *THESE TESTS AND CORRECTIONS SHALL BE ACCOMPLISHED BEFORE ANY SHRUBS, GROUND COVER OR TURF IS PLANTED.*
29. THIS SYSTEM CONNECTS TO AN EXISTING IRRIGATION SYSTEM AND POINT OF CONNECTION. A NEW FLOW SENSOR, MASTER VALVE, SHUT OFF VALVES, REMOTE CONTROL VALVES, QUICK COUPLERS AND A NEW CONTROLLER SHALL BE PROVIDED UNDER THE SCOPE OF WORK OF THE FIELD RENOVATIONS.
30. EXISTING FIELD IRRIGATION SHALL BE ABANDONED IN PLACE. EXISTING IRRIGATION OUTSIDE OF THE FIELD RENOVATION SHALL BE MAINTAINED IN PROPER AND CONSTANT WORKING CONDITION THROUGHOUT THE DURATION OF THE RENOVATIONS.
31. REMOVE ALL EXISTING (AND ABANDONED) IRRIGATION VALVES AND HEADS DURING DEMOLITION AND RETURN TO CITY PROJECT MANAGER. RESTORE AREA TO GRADE AND REPAIR TURF. REMOVE AND DISPOSE OF ANY ABANDONED EQUIPMENT AS ENCOUNTERED. CAP ALL LINES.

POINT-OF-CONNECTION

METER SIZE: EXISTING, SIZE UNKNOWN
STATIC PRESSURE (HIGH/LOW): STATIC 64 PSI @ BACKFLOW INLET, 51 PSI @ BACKFLOW OUTLET
CONTACT: EMILIO BLANCO, CITY OF RPV PUBLIC WORKS (310) 544-5336
SYSTEM DESIGN PRESSURE: REFER TO PRESSURE LOSS CALCULATION, SHEET L-4.
THIS IS A POTABLE SYSTEM.

IRRIGATION MAINLINE NOTE:
MAINLINE IS SHOWN OUTSIDE OF PLANTING AREA AND PROPERTY LINE FOR GRAPHIC CLARITY ONLY. MAINLINE SHALL BE INSTALLED WITHIN PROPERTY BOUNDARIES AND WITHIN PLANTING AREA WHEREVER POSSIBLE. WHERE MAINLINE MUST RUN UNDER PAVING OR ACROSS ROADS, INSTALL IN SCH. 40 PVC SLEEVES (TWICE THE DIAMETER OF THE MAINLINE PIPE MIN., OR AS SHOWN).

GENERAL VALVE/QUICK COUPLER NOTE:
CONTRACTOR SHALL NOT INSTALL ANY VALVES OR QUICK COUPLERS IN HARDSCAPE AREAS. CONTRACTOR SHALL INSTALL THESE ITEMS IN PLANTER AREAS ONLY.

SLEEVING NOTE:
CONTRACTOR TO TERMINATE ALL MAINLINE, WIRE AND LATERAL SLEEVES 12" BEYOND HARDSCAPE INTO PLANTER AREA. NO SLEEVES TO BE TERMINATED UNDER HARDSCAPE. CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING LIMITS OF HARDSCAPE PRIOR TO INSTALLING SLEEVES.

PRESSURE LOSS CALCULATION:
SEE SHEET L-4 FOR PRESSURE LOSS CALCULATION.

IRRIGATION LEGEND

SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	P.S.I.	RAD.	G.P.M.	PRECIP.	DETAIL
	HUNTER	MPR-40+MP-2000-90-210	6" POPUP SPRAY HEAD (90,180)	40 40	20' 19'	.40 .74	.44 (T) .45 (T)	H
	HUNTER	MPR-40+MP-2000-360	6" POPUP SPRAY HEAD	40	19'	1.47	.45 (T)	H
	HUNTER	I-20-06-SS-LA4.5	6" POPUP ROTOR (TURF)	50	35'	4.4	.80 (T)	I
	HUNTER	I-40-04-SS-45	4" POPUP ROTOR (OUTFIELD)	60	66'	22.7	1.16 (T)	J
	HUNTER	I-40-04-SS-HS-44	4" POPUP ROTOR (INFIELD)	60	63'	20	1.12 (T)	K
			PROPERTY BOUNDARY (PER CIVIL DRAWINGS)					

SIZE / # GPM

SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	DETAIL
M	EXISTING		POINT OF CONNECTION - EXISTING WATER METER (SIZE UNKNOWN) (BY OTHERS) - VERIFY LOCATION IN FIELD	-
	EXISTING	BACKFLOW ASSEMBLY	EXISTING 4" BACKFLOW ASSEMBLY VERIFY LOCATION ALONG HAWTHORNE BLVD. IN FIELD	-
FS	CALSENSE	FM-2	FLOW SENSOR (FOR FLOWS BETWEEN 6 - 166 GPM) INSTALL IN CARSON VALVE BOX (OR EQUAL)	A
MV	SUPERIOR	950 DW	3" MASTER VALVE, NORMALLY CLOSED, (PER CITY REQUEST) INSTALL IN CARSON VALVE BOX (OR EQUAL)	A
	SUPERIOR	950 DW	REMOTE CONTROL VALVE - SIZE AS NOTED ON PLANS INSTALL IN CARSON VALVE BOX (OR EQUAL)	B1,B2
A	HYDROPOINT	Weather/TRAK ET PRO 2 WITH PRO MAX-UA CONNECTIVITY GREEN PRODUCT SALES PART NUMBER: 1CABHPS-35/FS-2/P-SW-1007/ HP35P4B-5/ANT-PCANT/BK/ MP-16/SP/RSE/RMPMUA	36 STATION CONTROLLER WITH HEAVY DUTY STAINLESS STEEL PEDESTAL CABINET, INSTALL WITH TWO-WAY COMMUNICATION UPGRADE KIT, AND NORMALLY OPEN RAIN SWITCH, WITH 3-YR. ET EVERYWHERE SERVICE FOR THIS LOCATION; PROVIDE ONE PRO MAX-UA REMOTE CONTROL FOR THIS CONTROLLER ASSEMBLY. CONTRACTOR IS RESPONSIBLE FOR CONNECTING ALL NEW VALVES TO NEW CONTROLLER "A". COORDINATE WITH CITY'S MAINTENANCE SUPERINTENTENT: EMILIO BLANCO AT (310) 544-5336. CONTROLLER ASSEMBLY AVAILABLE FROM: GREEN PRODUCT SALES, MARK DELANGE (909) 810-1272, EMAIL: MARKDELANGE@VERIZON.NET.	G
RS	HUNTER	RAIN-CLIK	RAIN SENSOR, INSTALL IN VANDAL RESISTANT SENSOR ENCLOSURE, INSTALL PER MFG. RECOMMENDATIONS ON MAINTENANCE BLDG., CONDUIT AND CONDUIT MOUNTINGS ARE REQUIRED.	-
	RAINBIRD	44LRC	QUICK COUPLER, 1", INSTALL IN CARSON VALVE BOX	G
	SPEARS	TUBV-E PVC	PVC SHUT-OFF VALVE, LINE SIZE	C
	ANY APPROVED	SCH. 40	PRESSURE PVC MAIN LINE - SEE PLAN FOR SIZE.	E
	ANY APPROVED	SCH. 40	NON-PRESSURE PVC LATERAL LINE - SEE PLAN FOR SIZE	E
	ANY APPROVED	SCH. 40	PVC SLEEVE - TWICE LINE SIZE	F

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TRAFFIC		
WATER		
SEWER		
PLANNING		

APPROVED BY

RAY HOLLAND
DIRECTOR OF PUBLIC WORKS
CITY OF RANCHO PALOS VERDES
DATE _____

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& PLANNING
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(818) 882-8394 Fax
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CHATSWORTH, CA 91311
mail@withersandsandgren.com

SHEET TITLE: IRRIGATION PLAN

PROJECT TITLE:
ROBERT E. RYAN PARK
FIELD IMPROVEMENTS
29359 HAWTHORNE BLVD.
RANCHO PALOS VERDES, CA

REVISIONS	DATE
1.	
2.	
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8.	

DRAWN BY: DH/PBN
CHECKED BY: LW
PROJECT NO. 0808
DATE: 12/17/2010

LICENSED LANDSCAPE ARCHITECT — CHRISTOPHER M. WITHERS — Signature 8/31/2011 — Renewal Date 12/17/2010 — Date — STATE OF CALIFORNIA

SHEET 6 OF 7
L-3