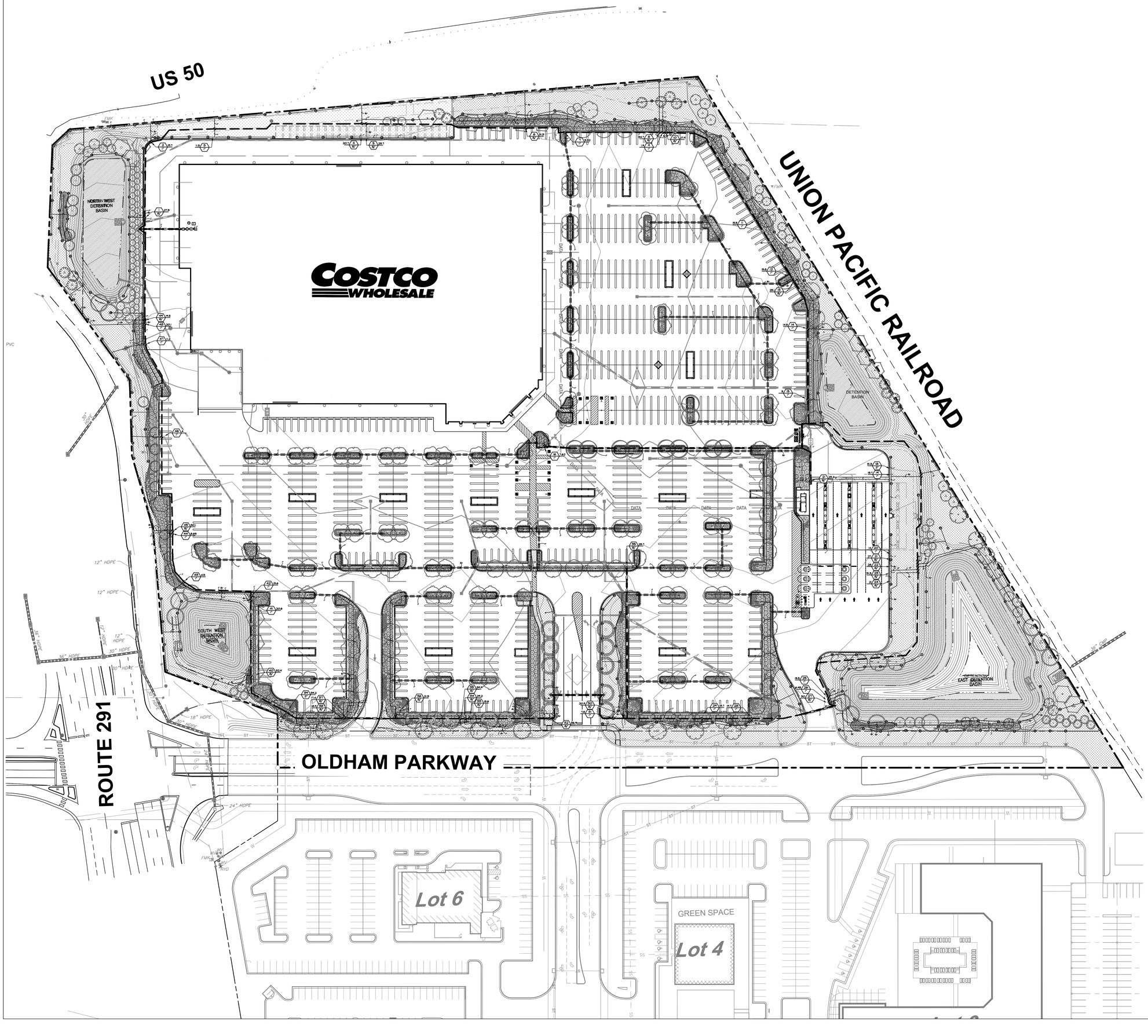


CONSULTANT

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-652-0350
WWW.KIMLEY-HORN.COM

MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

SEAL AND SIGNATURES

STATE OF MISSOURI
ASHLEY M SERR
NUMBER 2012036305
REGISTERED LANDSCAPE ARCHITECT

12/18/2025

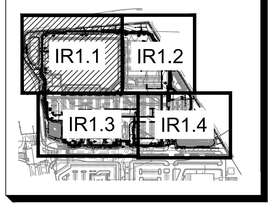
COSTCO WHOLESALE
WAREHOUSE SITE
SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

IR1.0
OVERALL IRRIGATION PLAN

AS INDICATED

KEY MAP



NOTE: SEE SHEET IR2.0 FOR FULL IRRIGATION SCHEDULE.

DETENTION BASIN

ROUTE 291

MATCHLINE - SEE SHEET IR1.2

MATCHLINE - SEE SHEET IR1.3

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL
5 10 15 8 12 17	HUNTER PROS-04-PRS30-CV ADJ SERIES

SYMBOL	MANUFACTURER/MODEL
01	HUNTER PGP-ADJ 01
02	HUNTER PGP-ADJ 02
03	HUNTER PGP-ADJ 03
04	HUNTER PGP-ADJ 04
05	HUNTER PGP-ADJ 05
06	HUNTER PGP-ADJ 06
07	HUNTER PGP-ADJ 07
08	HUNTER PGP-ADJ 08
09	HUNTER PGP-ADJ 09
10	HUNTER PGP-ADJ 10
11	HUNTER PGP-ADJ 11
12	HUNTER PGP-ADJ 12

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICZ-101-40
	HUNTER ICZ-151-XL-40
	AREA TO RECEIVE DRIPLINE NETAFIM TLDL-06-18

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICV-G
	HUNTER HQ-44LRC
	SHUT OFF GATE VALVE
MV	HUNTER ICV-G 2"
BF	FEBCO 825Y 2"
C	HUNTER A2C-75D-P
D	HUNTER ICD-100
SEN	HUNTER ICD-SEN
RS	HUNTER WSS
FS	HUNTER HFS-208

IRRIGATION LATERAL LINE: PVC SCHEDULE 40

IRRIGATION MAINLINE: PVC SCHEDULE 40

PIPE SLEEVE: PVC SCHEDULE 40

Valve Callout
Valve Number
Valve Flow
Valve Size

IRRIGATION KEYNOTES

2. FURNISH & INSTALL 4" DIA. SCHEDULE 40 PIPE SLEEVE
3. FURNISH & INSTALL 3" DIA. SCHEDULE 40 PIPE SLEEVE
4. FURNISH & INSTALL 2" DIA. SCHEDULE 40 PIPE SLEEVE
6. CONTROLLER IS APPROXIMATE AND IS SHOWN AS DIAGRAMMATIC. CONTROLLER TO BE LOCATED WITHIN WATER SERVICE UTILITY ROOM. REFER TO ELECTRICAL PLANS FOR 110/120C, SINGLE PHASE POWER FOR CONTROLLER.
7. APPROXIMATE LOCATION OF RAIN SENSOR. CONTRACTOR TO AVOID OVERHEAD OBSTRUCTIONS AND OVERSPRAY ASSOCIATED WITH RAIN SENSOR FALSE READINGS. CONTRACTOR TO CONFIRM FINAL LOCATION IN THE FIELD WITH OWNER'S REPRESENTATIVE.
8. CONTRACTOR TO PROVIDE CONNECTION FROM CONTROLLER TO FLOW SENSOR
9. COSTCO FLOW METER, REFER TO PLUMBING PLANS
10. FURNISH AND INSTALL WINTERIZATION BLOW OUT QUICK COUPLER AND BALL VALVE
11. IRRIGATION MAINLINE IS DRAWN DIAGRAMMATIC FOR CLARITY. INSTALL MAINLINE 6" FROM BACK OF CURB WHEN POSSIBLE WITHIN GREEN SPACE. COORDINATE WITH OTHER DISCIPLINES TO AVOID CONFLICTS, TYP.
12. AREA FOR DRIPLINE. ALL DRIP ZONES TO HAVE MINIMUM 12" SETBACK (CLEAR-ZONE) BETWEEN DRIPLINE AND TURF GRASS OR PAVEMENT EDGE, TYP.
13. PROPERTY LINE
14. LOOPED MAINLINE GATE VALVE
15. FUTURE PARKING EXPANSION

CONSULTANT

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-652-0350
WWW.KIMLEY-HORN.COM
MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SEAL AND SIGNATURES

STATE OF MISSOURI
ASHLEY M SERR
NUMBER 2012036305
PROFESSIONAL LANDSCAPE ARCHITECT
12/18/2025

COSTCO WHOLESALE

WAREHOUSE SITE
SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

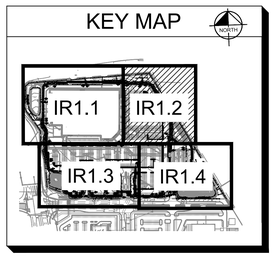
DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

IR1.1

IRRIGATION PLAN

AS INDICATED

KEY MAP



NOTE: SEE SHEET IR2.0 FOR FULL IRRIGATION SCHEDULE.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL
5 10 12 8 15 17	HUNTER PROS-04-PRS30-CV ADJ SERIES

SYMBOL	MANUFACTURER/MODEL
21	HUNTER PGP-ADJ 01
22	HUNTER PGP-ADJ 02
23	HUNTER PGP-ADJ 03
24	HUNTER PGP-ADJ 04
25	HUNTER PGP-ADJ 05
26	HUNTER PGP-ADJ 06
27	HUNTER PGP-ADJ 07
28	HUNTER PGP-ADJ 08
29	HUNTER PGP-ADJ 09
10	HUNTER PGP-ADJ 10
11	HUNTER PGP-ADJ 11
12	HUNTER PGP-ADJ 12

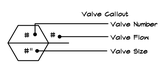
SYMBOL	MANUFACTURER/MODEL
	HUNTER ICZ-101-40
	HUNTER ICZ-151-XL-40
	AREA TO RECEIVE DRIPLINE NETAFIM TLDL-06-18

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICV-G
	HUNTER HQ-44LRC
	SHUT OFF GATE VALVE
MV	HUNTER ICV-G 2"
BF	FEBCO 825Y 2"
C	HUNTER A2C-75D-P
D	HUNTER ICD-100
SEN	HUNTER ICD-SEN
RS	HUNTER WSS
FS	HUNTER HFS-208

IRRIGATION LATERAL LINE: PVC SCHEDULE 40

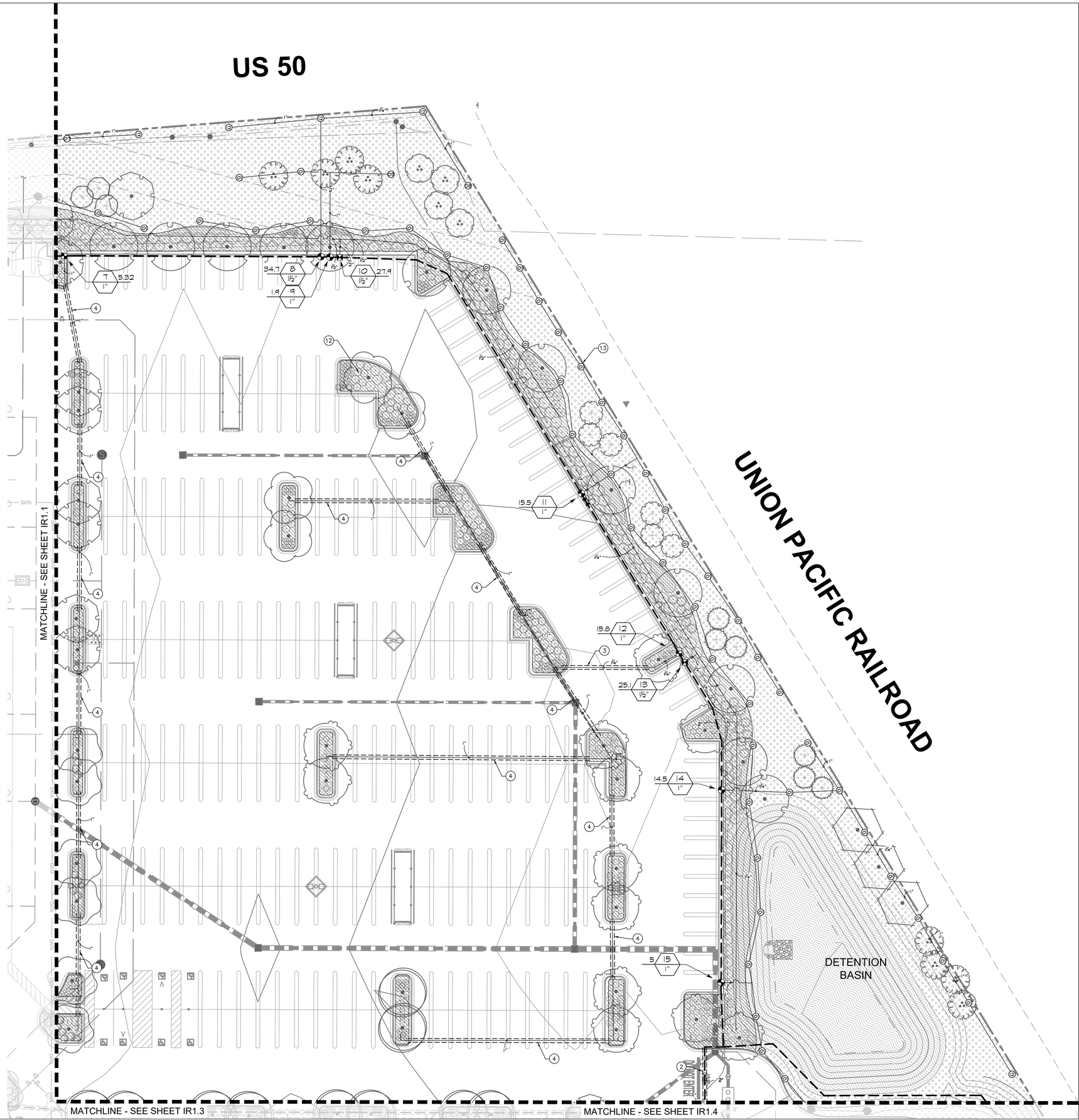
IRRIGATION MAINLINE: PVC SCHEDULE 40

PIPE SLEEVE: PVC SCHEDULE 40



IRRIGATION KEYNOTES

2. FURNISH & INSTALL 4" DIA. SCHEDULE 40 PIPE SLEEVE
3. FURNISH & INSTALL 3" DIA. SCHEDULE 40 PIPE SLEEVE
4. FURNISH & INSTALL 2" DIA. SCHEDULE 40 PIPE SLEEVE
6. CONTROLLER IS APPROXIMATE AND IS SHOWN AS DIAGRAMMATIC. CONTROLLER TO BE LOCATED WITHIN WATER SERVICE UTILITY ROOM. REFER TO ELECTRICAL PLANS FOR 110/120C, SINGLE PHASE POWER FOR CONTROLLER.
7. APPROXIMATE LOCATION OF RAIN SENSOR. CONTRACTOR TO AVOID OVERHEAD OBSTRUCTIONS AND OVERSPRAY ASSOCIATED WITH RAIN SENSOR FALSE READINGS. CONTRACTOR TO CONFIRM FINAL LOCATION IN THE FIELD WITH OWNER'S REPRESENTATIVE.
8. CONTRACTOR TO PROVIDE CONNECTION FROM CONTROLLER TO FLOW SENSOR
9. COSTCO FLOW METER, REFER TO PLUMBING PLANS
10. IRRIGATION STUB OUT, SEE UTILITY AND PLUMBING PLANS
11. IRRIGATION MAINLINE IS DRAWN DIAGRAMMATIC FOR CLARITY. INSTALL MAINLINE 6" FROM BACK OF CURB WHEN POSSIBLE WITHIN GREEN SPACE. COORDINATE WITH OTHER DISCIPLINES TO AVOID CONFLICTS, TYP.
12. AREA FOR DRIPLINE. ALL DRIP ZONES TO HAVE MINIMUM 12" SETBACK (CLEAR-ZONE) BETWEEN DRIPLINE AND TURF GRASS OR PAVEMENT EDGE, TYP.
13. PROPERTY LINE
14. LOOPED MAINLINE GATE VALVE



CONSULTANT

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-652-0350
WWW.KIMLEY-HORN.COM
MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SEAL AND SIGNATURES

STATE OF MISSOURI
ASHLEY M SERR
NUMBER 2012036305
PROFESSIONAL ENGINEER
12/18/2025

COSTCO WHOLESALE
WAREHOUSE SITE
SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

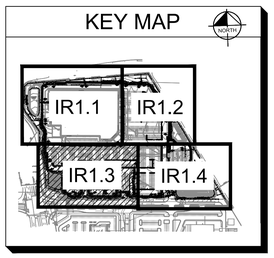
DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

IR1.2

IRRIGATION PLAN

AS INDICATED

KEY MAP



NOTE: SEE SHEET IR2.0 FOR FULL IRRIGATION SCHEDULE.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL
B B B B B B B B B B B B	HUNTER PROS-04-PRS30-CV ADJ SERIES

SYMBOL	MANUFACTURER/MODEL
01	HUNTER PGP-ADJ 01
02	HUNTER PGP-ADJ 02
03	HUNTER PGP-ADJ 03
04	HUNTER PGP-ADJ 04
05	HUNTER PGP-ADJ 05
06	HUNTER PGP-ADJ 06
07	HUNTER PGP-ADJ 07
08	HUNTER PGP-ADJ 08
09	HUNTER PGP-ADJ 09
10	HUNTER PGP-ADJ 10
11	HUNTER PGP-ADJ 11
12	HUNTER PGP-ADJ 12

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICZ-101-40
	HUNTER ICZ-151-XL-40
	AREA TO RECEIVE DRIPLINE NETAFIM TLDL-06-18

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICV-G
	HUNTER HQ-44LRC
	SHUT OFF GATE VALVE
MV	HUNTER ICV-G 2"
BF	FEBCO 825Y 2"
C	HUNTER A2C-75D-P
D	HUNTER ICD-100
SEN	HUNTER ICD-SEN
RS	HUNTER WSS
FS	HUNTER HFS-208

IRRIGATION LATERAL LINE: PVC SCHEDULE 40

IRRIGATION MAINLINE: PVC SCHEDULE 40

PIPE SLEEVE: PVC SCHEDULE 40

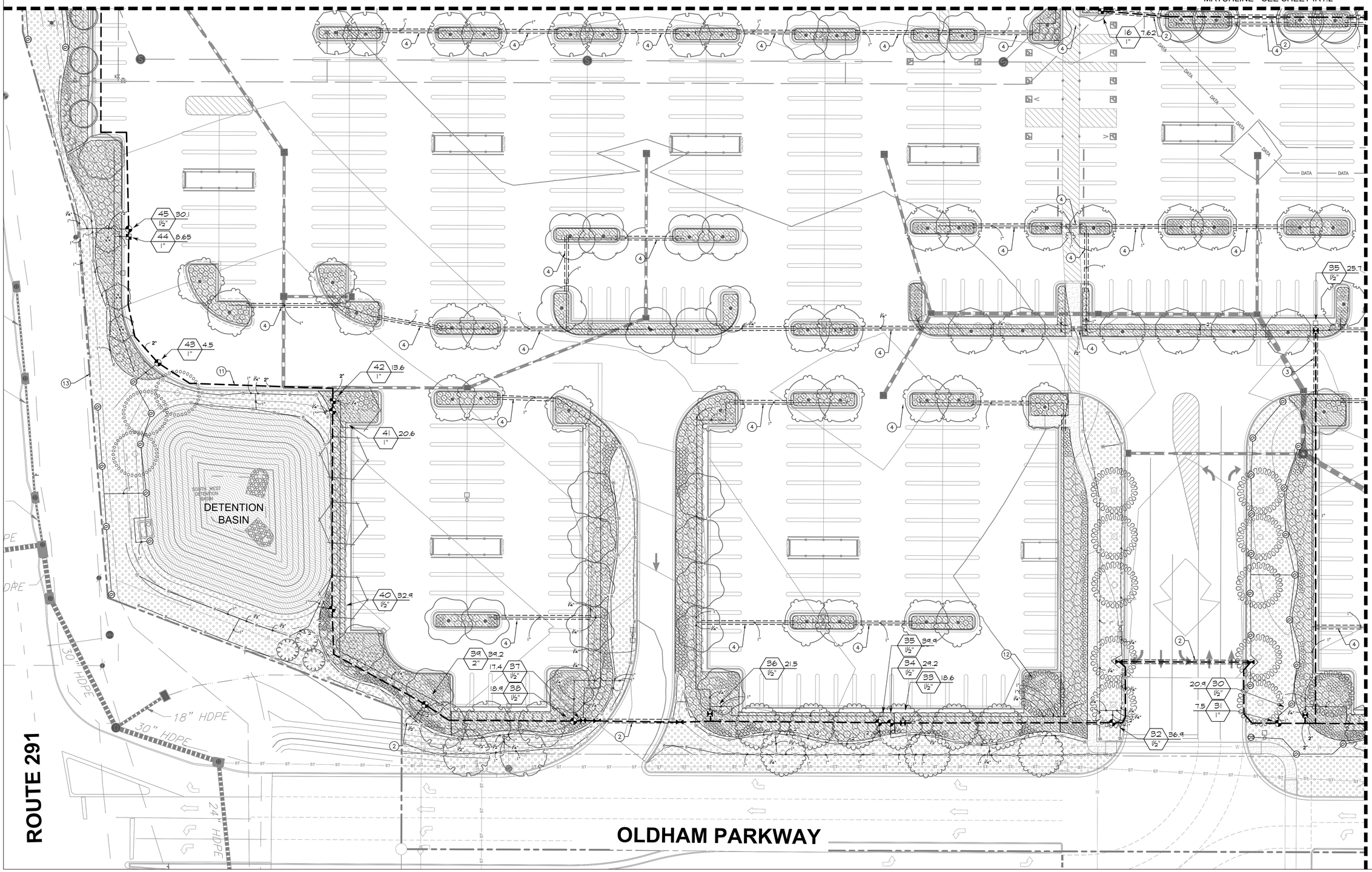
Valve Callout
Valve Number
Valve Flow
Valve Size

IRRIGATION KEYNOTES

3. FURNISH & INSTALL 3" DIA. SCHEDULE 40 PIPE SLEEVE
4. FURNISH & INSTALL 2" DIA. SCHEDULE 40 PIPE SLEEVE
11. IRRIGATION MAINLINE IS DRAWN DIAGRAMMATIC FOR CLARITY. INSTALL MAINLINE 6" FROM BACK OF CURB WHEN POSSIBLE WITHIN GREEN SPACE. COORDINATE WITH OTHER DISCIPLINES TO AVOID CONFLICTS, TYP.
12. AREA FOR DRIPLINE. ALL DRIP ZONES TO HAVE MINIMUM 12" SETBACK (CLEAR-ZONE) BETWEEN DRIPLINE AND TURF GRASS OR PAVEMENT EDGE, TYP.
13. PROPERTY LINE

MATCHLINE - SEE SHEET IR1.1

MATCHLINE - SEE SHEET IR1.2



MATCHLINE - SEE SHEET IR1.4

CONSULTANT
Kimley»Horn
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-632-0350
WWW.KIMLEY-HORN.COM
MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SEAL AND SIGNATURES

STATE OF MISSOURI
ASHLEY M SERR
NUMBER 2012036305
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
12/18/2025

COSTCO WHOLESALE
WAREHOUSE SITE
SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

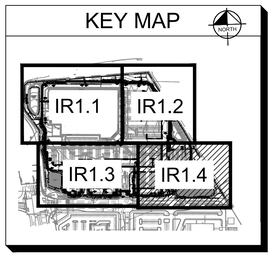
DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

IR1.3

IRRIGATION PLAN

AS INDICATED

KEY MAP



NOTE: SEE SHEET IR2.0 FOR FULL IRRIGATION SCHEDULE.

MATCHLINE - SEE SHEET IR1.2

MATCHLINE - SEE SHEET IR1.3

UNION PACIFIC RAILROAD

OLDHAM PARKWAY

DETENTION BASIN

EAST DETENTION BASIN

36" CMP

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL
5 6 7 8 9 10 12 15 17	HUNTER PROS-04-PRS30-CV ADJ SERIES

SYMBOL	MANUFACTURER/MODEL
01	HUNTER PGP-ADJ 01
02	HUNTER PGP-ADJ 02
03	HUNTER PGP-ADJ 03
04	HUNTER PGP-ADJ 04
05	HUNTER PGP-ADJ 05
06	HUNTER PGP-ADJ 06
07	HUNTER PGP-ADJ 07
08	HUNTER PGP-ADJ 08
09	HUNTER PGP-ADJ 09
10	HUNTER PGP-ADJ 10
11	HUNTER PGP-ADJ 11
12	HUNTER PGP-ADJ 12

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICZ-101-40
	HUNTER ICZ-151-XL-40
	AREA TO RECEIVE DRIPLINE NETAFIM TLDL-06-18

SYMBOL	MANUFACTURER/MODEL
	HUNTER ICV-G
	HUNTER HQ-44LRC
	SHUT OFF GATE VALVE
MV	HUNTER ICV-G 2"
BF	FEBCO 825Y 2"
C	HUNTER A2C-75D-P
D	HUNTER ICD-100
SEN	HUNTER ICD-SEN
RS	HUNTER WSS
FS	HUNTER HFS-208
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40

Valve Callout
Valve Number
Valve Flow
Valve Size

(2) FURNISH & INSTALL 4" DIA. SCHEDULE 40 PIPE SLEEVE

(3) FURNISH & INSTALL 3" DIA. SCHEDULE 40 PIPE SLEEVE

(4) FURNISH & INSTALL 2" DIA. SCHEDULE 40 PIPE SLEEVE

(11) IRRIGATION MAINLINE IS DRAWN DIAGRAMMATIC FOR CLARITY. INSTALL MAINLINE 6" FROM BACK OF CURB WHEN POSSIBLE WITHIN GREEN SPACE. COORDINATE WITH OTHER DISCIPLINES TO AVOID CONFLICTS, TYP.

(12) AREA FOR DRIPLINE. ALL DRIP ZONES TO HAVE MINIMUM 12" SETBACK (CLEAR-ZONE) BETWEEN DRIPLINE AND TURF GRASS OR PAVEMENT EDGE, TYP.

(13) PROPERTY LINE

CONSULTANT

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.

805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-652-0350
WWW.KIMLEY-HORN.COM
MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SEAL AND SIGNATURES

STATE OF MISSOURI
ASHLEY M SERR
NUMBER
PROFESSIONAL ENGINEER
12/18/2025

COSTCO WHOLESALE

WAREHOUSE SITE
SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

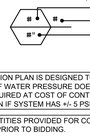
IR1.4

IRRIGATION PLAN

AS INDICATED

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
5 10 12 15 17	HUNTER PROS-04-PRS30-CV ADJ SERIES TURF SPRAY, 30 PSI REGULATED 4IN. POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	173
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**
01	HUNTER PGP-ADJ 01 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	186
02	HUNTER PGP-ADJ 02 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	11
03	HUNTER PGP-ADJ 03 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	8
04	HUNTER PGP-ADJ 04 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	18
05	HUNTER PGP-ADJ 05 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	9
06	HUNTER PGP-ADJ 06 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	4
07	HUNTER PGP-ADJ 07 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	11
08	HUNTER PGP-ADJ 08 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	3
09	HUNTER PGP-ADJ 09 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	9
10	HUNTER PGP-ADJ 10 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	4
11	HUNTER PGP-ADJ 11 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	1
12	HUNTER PGP-ADJ 12 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE AND FULL CIRCLE. STANDARD ANGLE RED NOZZLE.	21
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**
	HUNTER ICZ-101-40 DRIP CONTROL ZONE KIT. 1IN. ICV GLOBE VALVE WITH 1IN. HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.	7
	HUNTER ICZ-151-XL-40 DRIP CONTROL ZONE KIT. 1-1/2IN. ICV GLOBE VALVE WITH 1IN. HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 20 GPM TO 60 GPM. 120 MESH STAINLESS STEEL SCREEN. 1-1/2IN. INLET X SINGLE 2IN. OUTLET	9
	AREA TO RECEIVE DRIPLINE NETAFIM TLDL-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. SURFACE AND SUB SURFACE INSTALLATIONS. UV RESISTANT.	41,604 LF
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**
MV	HUNTER ICV-G 1IN., 1-1/2IN., 2IN., AND 3IN. PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	34
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1IN. NPT INLET, 2-PIECE BODY.	2
	SHUT OFF GATE VALVE	9
MV	HUNTER ICV-G 2" 1IN., 1-1/2IN., 2IN., AND 3IN. PLASTIC ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	1
BF	FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER	1
C	HUNTER A2C-75D-P 75-STATION DECODER CONTROLLER IN PLASTIC WALL MOUNT CONTROLLER.	1
D	HUNTER ICD-100 SINGLE STATION DECODER W/SURGE SUPPRESSION AND GROUND WIRE. TO BE INSTALLED ON UNIVERSAL DECODER STAKE KIT (DECSTAKE10).	50
SEN	HUNTER ICD-SEN 2-INPUT SENSOR DECODER WITH SURGE SUPPRESSION AND GROUND WIRE. TO BE INSTALLED ON UNIVERSAL DECODER STAKE KIT (DECSTAKE10).	1
RS	HUNTER WSS WIRELESS SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, CONNECTS TO HUNTER PCC, PRO-C, AND I-CORE CONTROLLERS, INSTALL AS NOTED. INCLUDES 10 YEAR LITHIUM BATTERY AND RUBBER MODULE COVER, AND GUTTER MOUNT BRACKET.	1
FS	HUNTER HFS-208 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 2IN. SCHEDULE 80 SENSOR BODY, 24 VAC, 2 AMP.	1
M	WATER METER 2" CONTRACTOR TO FIELD VERIFY EXISTING STATIC PRESSURE PRIOR TO CONSTRUCTION. NOTIFY OWNER/OWNER'S REPRESENTATIVE IF INSUFFICIENT PRESSURE IS DISCOVERED ON SITE.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	18,132 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40	4,461 LF
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING FOR CONSTRUCTION.	2,573 LF



THIS IRRIGATION PLAN IS DESIGNED TO THE FOLLOWING STATS: 70 PSI AVAILABLE STATIC PRESSURE. IF WATER PRESSURE DOES NOT MEET DESIGN SPECIFICATIONS A BOOSTER PUMP WILL BE REQUIRED AT COST OF CONTRACTOR. CONTACT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF SYSTEM HAS +/- 5 PSI THAN DESIGN PRESSURE.

ABOVE QUANTITIES PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO CONFIRM ALL QUANTITIES PRIOR TO BIDDING.

REFERENCE MAXIMUM LATERAL DRIPLINE CHART TO DETERMINE MINIMUM NUMBER OF POINTS OF CONNECTION PER DRIP LINE ZONE.

WHERE LAYOUT FLEXIBILITY EXISTS CENTER FEED LAYOUTS MUST BE USED. THIS ALLOWS FOR EVEN FLOW OF WATER THROUGH THE ZONE.

DRIP INDICATOR TO BE PLACED IN ALL DRIP AREAS AT THE FURTHEST POINT OF EACH DRIP RUN.

ZONES LOWER THAN THE CAPACITY OF THE FLOW SENSOR ARE TO BE WIRED IN THE CONTROLLER WITH ANOTHER ZONE SO THAT THE FLOW SENSOR READS BOTH ZONES AS ONE ZONE IN ORDER TO MEET THE FLOW SENSOR'S LOWEST GPM REQUIREMENT. DRIP ZONES REQUIRED TO REMAIN PIPED AS SEPARATE ZONES.

GENERAL IRRIGATION NOTES

1. TEST EXISTING STATIC PRESSURE ON SITE PRIOR TO CONSTRUCTION. SHOULD EXISTING SITE PRESSURE BE BELOW 52 PSI, CONTACT THE IRRIGATION DESIGNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IRRIGATION SYSTEM IS DIAGRAMMATIC, CONTRACTOR TO VERIFY AND DESIGN PER ACTUAL PRESSURE, PER LOCAL CODES, AND PER SITE REQUIREMENTS. FIELD VERIFY LOCATION OF COMPONENTS WITH ACTUAL CONDITIONS PRIOR TO INSTALLATION, ADJUST AS NEEDED FOR COMPLETE COVERAGE. SYSTEM TO INCLUDE ALL PLUMBING AND ELECTRICAL, INCLUDING CONDUIT, SLEEVING, AND WEATHER-PROOF ENCLOSURES. SYSTEM SHALL BE COMPLETE. PROVIDE RELATED PRODUCT SHEETS FOR OWNER OR LANDSCAPE ARCHITECT APPROVAL. CONTRACTOR TO PROVIDE "AS-BUILT" DRAWINGS OF IRRIGATION SYSTEM AT THE COMPLETION OF THE PROJECT. SYSTEM SHALL HAVE A ONE-YEAR WARRANTY ON PARTS AND LABOR. SEE SITE IRRIGATION SPECIFICATION SECTION FOR ADDITIONAL REQUIREMENTS, IF APPLICABLE.
3. COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE 100% COVERAGE WITH MINIMUM OVERSPRAY. MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
4. ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS PRIOR TO COMMENCEMENT OF OPERATIONS ON-SITE. SEND COPIES OF THE PERMITS TO THE OWNER/GENERAL CONTRACTOR.
5. LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES. ALL PIPE 1.5" OR GREATER SHALL BE SDR 26 CLASS 200 FOR MAINLINE AND CLASS 160 FOR LATERLINE PVC PIPE(DO NOT EXCEED 35 GPM FOR 1.5" AND 58 GPM FOR 2"). ALL PIPE 1.25" OR 1" SHALL BE 100 POLY PIPE OR CLASS 160 PVC PIPE, AS INDICATED(DO NOT EXCEED 13 GPM FOR 1" AND 22 GPM FOR 1.25"). PIPE SIZE TO BE IDENTIFIED BY CONTRACTOR PER ZONE REQUIREMENTS. DEPTH OF PIPE TO BE APPROXIMATELY 18" FOR MAINLINE AND 12" FOR LATERAL LINES, OR AS REQUIRED, FIELD VERIFY. LOCATE IRRIGATION PIPE AWAY FROM PLANT MATERIAL.
6. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF 14 GAUGE, U.L. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". CONTRACTOR TO CONFIRM WIRE SIZE PRIOR TO INSTALLATION. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF WIRE CONNECTOR UL APPROVED AND FILLED WITH SILICONE.
7. IRRIGATION VALVES AND VALVE BOXES SHALL BE LOCATED IN LANDSCAPE BEDS OR GROUNDCOVER AREAS WHENEVER POSSIBLE. ALL REMOTE VALVE BOXES SHALL BE SET FLUSH AND CONTAIN ONE CUBIC FOOT OF CLEAN GRAVEL BENEATH VALVE, FLOW SENSORS, AND QUICK COUPLERS. LABEL REMOTE BOXES WITH ONE-INCH ALPHA NUMERIC NOTATION CORRESPONDING TO THE APPLICABLE ALPHA CONTROLLER AND NUMERIC STATION. USE 10" ROUND VALVE BOXES FOR QUICK COUPLING VALVES. USE REGULAR RECTANGULAR BOX FOR REMOTE CONTROL VALVES. USE JUMBO RECTANGULAR BOX FOR DRIP VALVES UNLESS NOTED OTHERWISE. DOUBLE CHECK ASSEMBLY SHALL BE BOXED ACCORDING TO LOCAL CODES.
8. USE PVC SWING JOINT ASSEMBLIES TO CONNECT ALL SPRAY AND ROTOR HEADS.
9. CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK.
10. SLEEVES BY GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. SEE SLEEVING DETAIL. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT TO PLACED WITHIN SLEEVES AS NOTED. MINIMUM 4" PVC SCHEDULE 40 SLEEVING UNDER ALL WALKS AND PAVEMENTS FOR IRRIGATION PIPE AND WIRES. PROVIDE 12" LENGTH OF #3 REBAR AT EACH TEMPORARILY SEALED END, STAND PIPE, OR OTHER APPROVED METHODS FOR FUTURE LOCATING. EXTEND SLEEVING AT LEAST 1 FOOT BEYOND EDGE OF PAVEMENT. PROVIDE PVC STAND PIPE FOR LOCATING ENDS OF SLEEVING. PROVIDE MINIMUM TWO SIZES LARGER THAN PIPE SIZE. PROVIDE ADDITIONAL SLEEVING AS NEEDED. SLEEVE DEPTH MINIMUM 18" INCHES OR AS REQUIRED. COORDINATE AND PLACE SLEEVING PRIOR TO PAVEMENT INSTALLATION. DIRECTIONAL BORE UNDER PAVEMENT IN EXISTING CONDITIONS TO REMAIN.
11. DRIP LINE SHALL BE PLACED A MINIMUM OF 2" UNDER MULCH.
12. ADJUST SPRAY NOZZLES FOR "HEAD-TO-HEAD" COVERAGE AND ADJUST FOR MINIMUM OVERSPRAY ONTO PAVEMENT. NO OVERSPRAY IS PERMITTED ONTO STREETS OR SIDEWALKS. PROVIDE 1" VALVES FOR SPRAY AND ROTOR ZONES FOR 30 GPM OR LESS, AND 1.5" VALVES FOR ZONES GREATER THAN 31 GPM. DRIP ZONES PROVIDE 3/4" OR 1" VALVES PER AMOUNT OF ZONE.
13. SUPPLY AND CONSTRUCT IRRIGATION SYSTEM WITH ALL MATERIALS AND PER MANUFACTURER SPECIFICATIONS SHOWN ON THIS PLAN. IF CONTRACTOR PREFERS MATERIALS THAT DIFFER FROM THE THIS PLAN, THEY SHALL BE APPROVED BY THE OWNER / IRRIGATION DESIGNER PRIOR TO CONSTRUCTION.
14. VERIFY CONTROLLER AND RAIN SENSOR LOCATION AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH OWNER. CONTROLLER TO BE COMMERCIAL TYPE, SIZED FOR NUMBER OF ZONES, CAPABLE OF 2-WIRE TECHNOLOGY, INCLUDING DECODER MODULE AND SURGE PROTECTION. SYSTEM TO BE 2-WIRE TECHNOLOGY WITH REQUIRED GROUNDING(LIGHTING PROTECTION). MOUNT AND CONNECT CONTROLLER AND OTHER CONTROLLER ACCESSORIES, SUCH AS HAND HELD REMOTE, WEATHER/RAIN/FREEZE SENSOR, FLOW SENSOR, AND OTHER ITEMS. THIS ALSO INCLUDES PAINTED CONDUIT AND MOUNTING BOARDS AND HARDWARE FOR ALL EXPOSED AREA, AS DIRECTED BY OWNER. INSTALL WEATHER/RAIN/FREEZE SENSOR ON EXTERIOR WEATHER EXPOSED VERTICAL SURFACE(S) PER OWNER'S APPROVAL.
15. EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
16. IRRIGATION LATERAL LINES, MAIN LINES AND EQUIPMENT MAY BE SHOWN OUTSIDE PROPERTY LINES ON THIS PLAN, ALL IRRIGATION LINES AND EQUIPMENT ARE TO BE WITHIN AND INSTALLED WITHIN THE LIMITS OF THE PROPERTY LINE.
17. IRRIGATION REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE. FIRST YEAR WINTERIZATION AND SPRING START UP OF SYSTEM SHALL BE PERFORMED BY IRRIGATION CONTRACTOR, UNLESS INDICATED OTHERWISE.
18. ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
19. MAINLINE, VALVES, AND WIRING ARE SHOWN ON DRAWINGS FOR CLARITY, SHOULD BE LOCATED IN ACCESSIBLE GREEN SPACE. COORDINATE WITH ALL DISCIPLINES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH OTHER IMPROVEMENTS.
20. SET SPRAY HEADS 4" FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
21. PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT. "AS-BUILT" DRAWINGS TO BE COLOR CODED BY ZONE ON 8.5" X 11", LAMINATED, AND PLACED IN CONTROLLER.
22. ALL DRIP ZONES SHALL BE INSTALLED WITH A SELF-FLUSHING DISC FILTER, OR APPROVED EQUAL. DRIP IRRIGATION TO FOLLOW MANUFACTURERS RECOMMENDATION FOR TYPE, SIZE, AND LOCATION PER LANDSCAPE CONDITION. EACH DRIP ZONE SHALL HAVE ZONE VALVE, PRESSURE REDUCER, AND FILTER, AIR RELIEF VALVE, RIPPLY LATERAL LINES, DRIP TUBING WITH EMBEDDED EMITTERS, AND OTHER RELATED ITEMS. DRIP TUBING SHALL BE ANCHORED AND UNDER LANDSCAPE MULCH, HIDDEN FROM VIEW, WITH EMITTERS LOCATED AT PLANT LOCATIONS. DRIP TUBING SHALL ALSO BE LOOPED AND INTERCONNECTED, WITH NO DEAD-ENDS. ANY ADDITIONAL EMITTERS, AS NOTED ON PLAN.
23. INSTALL ALL IRRIGATION COMPONENTS AS PER MANUFACTURERS REQUIREMENTS.
24. IRRIGATION HEADS AND COMPONENTS SHALL BE LOCATED A MINIMUM OF 24" FROM ALL BUILDINGS TO AVOID ADVERSE PERFORMANCE OF FOUNDATIONS AND SLABS.
25. NO LATERALS LESS THAN 3/4" DIAMETER.
26. SOME AREAS MAY REQUIRE RISER EXTENSIONS FOR SPRINKLERS OR A FIXED RISER WITH A SHRUB HEAD OR SHRUB ADAPTER TO OBTAIN PROPER COVERAGE. ROTOR NOZZLES TO PROVIDE PROPER COVERAGE AND MATCH PRECIPITATION, AS REQUIRED. FIELD ADJUST AS NEEDED. SPRAY HEADS IN TURF AREAS TO BE 6" POP-UPS AND IN LANDSCAPE BEDS TO BE 12" POP-UPS. INSTALL ROTOR AND SPRAY HEADS TO LATERAL LINE WITH FLEX TUBING OR SWING JOINTS. BUBBLERS TO BE ON 6" POP-UP.
16. CONTRACTOR TO SCHEDULE AND PROGRAM CONTROLLER AND VALVES FOR APPROPRIATE LANDSCAPE WATER REQUIREMENTS. VERIFY WITH OWNER AS TO TIME AND SPECIFIC REQUIREMENTS.
17. ALL WIRING, BACKFLOW PREVENTOR, AND PLUMBING AS PER LOCAL CODE. WATER CONNECTION BY MECHANICAL AND UTILITY CONTRACTOR. VERIFY AND ADD BOOSTER PUMP AS REQUIRED. VERIFY POWER CONNECTION WITH ELECTRICAL.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC
1	HUNTER ICV-G	1-1/2"	TURF ROTOR	27.5	106.8	35.3	48.9
2	HUNTER ICV-G	1"	TURF ROTOR	13.7	215.9	38.8	51.6
3	HUNTER ICV-G	1"	TURF ROTOR	11.3	312.1	33.3	46.2
4	HUNTER ICV-G	1-1/2"	TURF ROTOR	20.7	522.5	33.1	47.1
5	HUNTER ICV-G	1-1/2"	TURF ROTOR	23.7	528.6	33.2	47.8
6	HUNTER ICV-G	1-1/2"	TURF ROTOR	31.3	754.0	34.3	51.6
7	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	5.32	815.9	26.9	39.5
8	HUNTER ICV-G	1-1/2"	TURF ROTOR	34.7	949.3	33.8	52.9
9	HUNTER ICV-G	1"	TURF ROTOR	1.9	954.0	32.2	44.7
10	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	27.86	959.1	24.3	41.0
11	HUNTER ICV-G	1"	TURF ROTOR	15.5	1,150	34.4	48.2
12	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	15.83	1,248	34.3	48.2
13	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	25.09	1,253	24.7	40.7
14	HUNTER ICV-G	1"	TURF ROTOR	14.5	1,324	38.7	52.4
15	HUNTER ICV-G	1"	TURF ROTOR	5	1,424	32.7	45.4
16	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	7.62	1,865	28.6	41.6
17	HUNTER ICV-G	2"	TURF ROTOR	31.5	1,656	33.4	51.6
18	HUNTER ICV-G	1"	TURF ROTOR	15.7	1,660	34.5	48.4
19	HUNTER ICV-G	1"	TURF ROTOR	14	1,781	33.9	47.4
20	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	23.4	1,556	25.7	41.6
21	HUNTER ICV-G	1-1/2"	TURF ROTOR	27	1,556	34.3	50.8
22	HUNTER ICV-G	1-1/2"	TURF ROTOR	28	1,789	37.3	54.2
23	HUNTER ICV-G	1-1/2"	TURF ROTOR	31.5	1,793	33.4	51.5
24	HUNTER ICV-G	1-1/2"	TURF ROTOR	21	1,797	35.2	50.0
25	HUNTER ICV-G	1"	TURF ROTOR	15.5	1,775	37.5	51.3
26	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	6.93	1,770	29.0	41.8
27	HUNTER ICV-G	1-1/2"	TURF ROTOR	30	1,767	37.5	55.0
28	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	19.7	1,639	34.4	49.0
29	HUNTER ICV-G	1"	TURF ROTOR	13.7	1,568	34.8	48.4
30	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	20.93	1,462	25.9	40.8
31	HUNTER ICV-G	1"	TURF ROTOR	7.5	1,443	34.1	47.0
32	HUNTER ICV-G	1-1/2"	TURF SPRAY	36.87	1,282	35.6	56.1
33	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	18.64	1,169	24.5	38.8
34	HUNTER ICV-G	1-1/2"	TURF SPRAY	29.18	1,162	33.7	51.1
35	HUNTER ICV-G	1-1/2"	TURF SPRAY	39.87	1,156	33.8	55.3
36	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	25.65	1,156	26.2	43.5
37	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	21.54	1,070	26.0	40.9
38	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	17.39	996.9	23.5	37.6
39	HUNTER ICV-G	1-1/2"	TURF SPRAY	18.86	991.9	33.7	48.0
40	HUNTER ICV-G	2"	TURF SPRAY	39.23	909.4	33.0	53.7
41	HUNTER ICV-G	1-1/2"	TURF SPRAY	32.85	828.8	33.8	51.8
42	HUNTER ICV-G	1"	TURF SPRAY	20.63	722.2	34.7	49.0
43	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	13.59	716.8	32.8	46.1
44	HUNTER ICV-G	1"	TURF ROTOR	4.5	612.6	32.8	45.4
45	HUNTER ICZ-101-40	1"	AREA FOR DRIPLINE	8.65	539.6	27.8	40.6
46	HUNTER ICV-G	1-1/2"	TURF SPRAY	30.13	535.5	32.9	49.1
47	HUNTER ICV-G	1"	TURF ROTOR	4	389.6	32.5	45.1
48	HUNTER ICV-G	1"	TURF ROTOR	11.2	253.1	34.0	46.8
49	HUNTER ICZ-151-XL-40	1-1/2"	AREA FOR DRIPLINE	19.26	218.6	25.8	39.0
	Common Wire				4,461		

IRRIGATION SPECIFICATIONS

A. EXTENT:

INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE IRRIGATION SYSTEM. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: (1) TRENCHING AND BACKFILL (2) AUTOMATICALLY CONTROLLED LOW VOLUME IRRIGATION SYSTEM. (3) TEST ALL SYSTEMS AND MAKE OPERATIVE. (4) "AS-BUILT" DRAWINGS.

B. GENERAL:

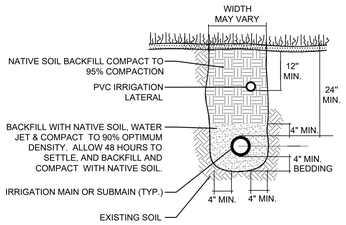
1. PERMITS AND FEES: OBTAIN ALL PERMITS AND PAY REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK. INSPECTIONS REQUIRED BY LOCAL ORDINANCES DURING THE COURSE OF CONSTRUCTION SHALL BE ARRANGED AS REQUIRED. ON COMPLETION OF THE WORK, SATISFACTORY EVIDENCE SHALL BE FURNISHED TO THE OWNER'S CONSTRUCTION REPRESENTATIVE TO SHOW THAT ALL WORK HAS BEEN INSTALLED IN ACCORDANCE WITH THE STATE AND LOCAL BUILDING/ PLUMBING CODE AND ALL OTHER CODE REQUIREMENTS.
2. APPROVAL: WHEREVER THE TERMS "APPROVE" OR "APPROVED" ARE USED IN THE SPECIFICATIONS, THEY SHALL MEAN THE APPROVAL OF THE OWNER'S CONSTRUCTION REPRESENTATIVE IN WRITING.
3. BEFORE ANY WORK IS STARTED, A CONFERENCE SHALL BE HELD BETWEEN THE CONTRACTOR AND THE OWNER'S CONSTRUCTION REPRESENTATIVE CONCERNING THE WORK UNDER THIS CONTRACT.
4. COORDINATION: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS TO ENABLE THE WORK TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE
5. INSPECTION OF SITE:
   A. REVIEW CONDITIONS. SUBMISSION OF PROPOSAL IS CONSIDERED EVIDENCE THAT THE EXAMINATION HAS BEEN CONDUCTED. SHOULD UTILITIES NOT SHOWN ON THE PLANS BE FOUND DURING EXCAVATIONS, PROMPTLY NOTIFY THE OWNER'S CONSTRUCTION REPRESENTATIVE FOR INSTRUCTIONS AS TO FURTHER ACTION. FAILURE TO DO SO WILL MAKE CONTRACTOR LIABLE FOR ANY AND ALL DAMAGE THERETO ARISING FROM HIS OPERATIONS SUBSEQUENT TO DISCOVERY OF SUCH UTILITIES NOT SHOWN IN PLANS.
   B. MAKE NECESSARY ADJUSTMENTS IN THE LAYOUT AS MAY BE REQUIRED TO CONNECT TO EXISTING STUBOUTS, SHOULD SUCH STUBS NOT BE LOCATED EXACTLY AS SHOWN, AND AS MAY BE REQUIRED TO WORK AROUND EXISTING WORK AT NO INCREASE IN COST TO THE OWNER'S CONSTRUCTION REPRESENTATIVE.
6. PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS: THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SITE CONDITIONS TO REMAIN. SHOULD DAMAGE BE INCURRED, THE REPAIR THE DAMAGE TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
7. THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD, OR DELETE ANY MATERIAL OR WORK AS THE WORK PROGRESSES. ADJUSTMENTS TO THE CONTRACT PRICE SHALL BE NEGOTIATED IF DEEMED NECESSARY BY THE OWNER ON A PER DIEM BASIS.
8. THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORK WHICH DOES NOT CONFORM TO THE CONTRACT DOCUMENTS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AT THE EARLIEST TIME POSSIBLE.
9. WORK SCHEDULE: WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT TO THE OWNER A WORK SCHEDULE.
10. "AS-BUILT" IRRIGATION DRAWINGS: PREPARE AN "AS-BUILT" DRAWING ON A FULL-SIZE PLAN SET TO SHOW DEVIATIONS FROM THE BID DOCUMENTS MADE DURING CONSTRUCTION AFFECTING THE MAIN LINE PIPE, CONTROLLER LOCATIONS, REMOTE CONTROL VALVES AND QUICK COUPLING VALVES. THE DRAWINGS TO BE ALSO INDICATE AND SHOW APPROVED SUBSTITUTIONS OF SIZE, MATERIAL AND MANUFACTURERS NAME AND CATALOG NAME AND CATALOG NUMBER. THE DRAWINGS ARE TO BE DELIVERED TO THE TENANT'S CONSTRUCTION REPRESENTATIVE BEFORE FINAL ACCEPTANCE OF WORK.
11. FINAL ACCEPTANCE: FINAL ACCEPTANCE OF THE WORK MAY BE OBTAINED FROM THE OWNER'S CONSTRUCTION REPRESENTATIVE UPON THE SATISFACTORY COMPLETION OF ALL WORK.
12. GUARANTEE: ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE AGAINST ALL DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP. GUARANTEE SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES RESULTING FROM LEAKS OR OTHER DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP TO THE SATISFACTION OF THE TENANT'S CONSTRUCTION REPRESENTATIVE. REPAIRS, IF REQUIRED, SHALL BE DONE PROMPTLY AT NO COST TO THE OWNER.
13. A LAMINATED PLAN (8 1/2 X 11) SHOWING THE DIFFERENT IRRIGATION ZONES IN COLOR, PREPARED BY THE IRRIGATION CONTRACTOR, SHALL BE POSTED IN THE MECHANICAL ROOM OR WITHIN CONTROLLER CABINET.

C. MATERIALS:

1. GENERAL: ALL MATERIALS THROUGHOUT THE SYSTEM SHALL BE NEW AND IN PERFECT CONDITION.
2. PLASTIC PIPING: ALL MAIN LINES AND LATERAL LINES SHALL BE SCHEDULE 40 VINYL CHLORIDE (PVC) PIPE AND SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS: ASTM D 1785, ASTM D-2241, AWWA-C-900, OR AWWA C-905. SDR-PR PIPE SHALL HAVE A MINIMUM WALL THICKNESS AS REQUIRED BY SDR-26. PVC GASKETS FITTINGS SHALL CONFORMING TO ASTM D 3139. GASKETS SHALL CONFORM TO ASTM F 477. SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2466. THREADED PVC PIPE FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2464. CONFORMING TO ASTM D-1784 AND D-2241
3. PLASTIC FITTINGS: ALL SOLVEN

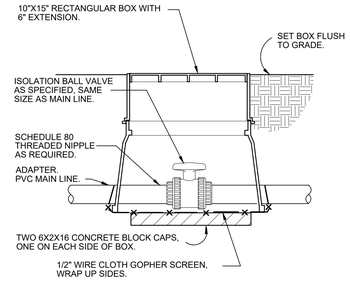
NOTE: SEE SHEET 1R2.0 FOR FULL IRRIGATION SCHEDULE, NOTES, & DETAILS

NOTE: SEE SHEET 1R2.1 FOR ADDITIONAL IRRIGATION DETAILS



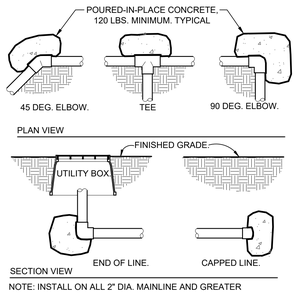
A TRENCHING DETAIL

N.T.S.



B SHUT OFF VALVE

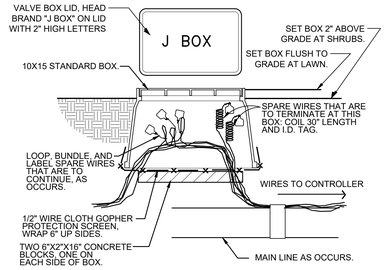
N.T.S.



NOTE: INSTALL ON ALL 2" DIA. MAINLINE AND GREATER

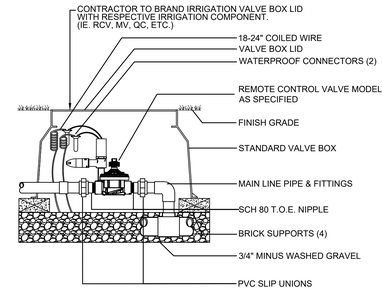
C THRUST BLOCKING

N.T.S.



D WIRE BUNDLE JUNCTION BOX

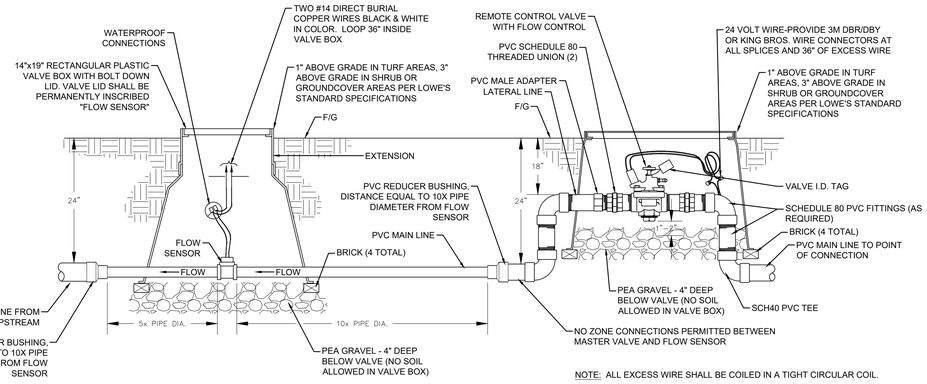
N.T.S.



NOTE: APPLY TEFLON TAPE TO ALL THREADED PIPE CONNECTIONS.

E REMOTE CONTROL VALVE

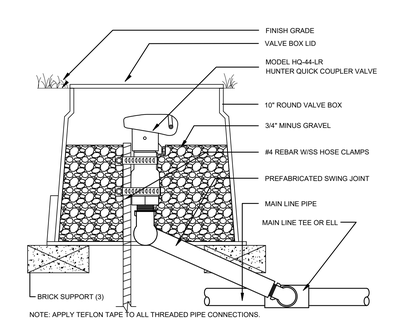
N.T.S.



NOTE: ALL EXCESS WIRE SHALL BE COILED IN A TIGHT CIRCULAR COIL.

F MASTER VALVE & FLOW SENSOR

N.T.S.

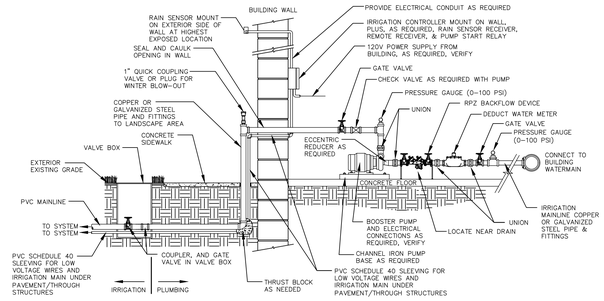


NOTE: APPLY TEFLON TAPE TO ALL THREADED PIPE CONNECTIONS.

G QUICK COUPLER VALVE

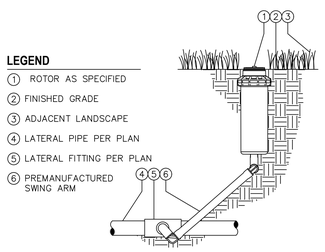
N.T.S.

NOTES:
1. THIS DIAGRAM IS FOR DESIGN INTENT ONLY. CONTRACTOR TO REFER TO ARCHITECTURE AND INTERIOR PLUMBING PLANS FOR IRRIGATION STUBOUT.
2. IF BOOSTER PUMP IS SPECIFIED PER PLANS AND IS APPLICABLE, CONTRACTOR TO POWER TO BOOSTER PUMP AND COORDINATE BOOSTER PUMP FINAL LOCATION WITH THE INTERIOR PLUMBING PLANS.



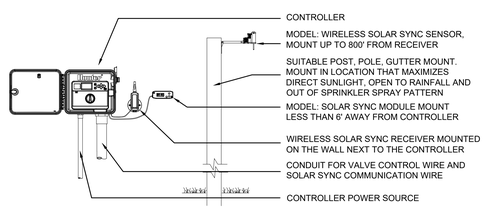
H SCHEMATIC DIAGRAM OF IRRIGATION STUBOUT CONNECTION

N.T.S.



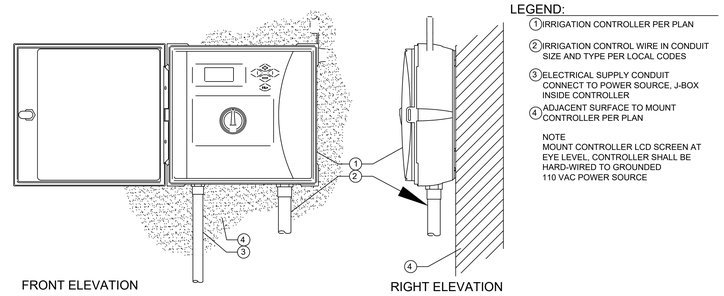
I POP-UP ROTOR WITH SWING ARM

N.T.S.



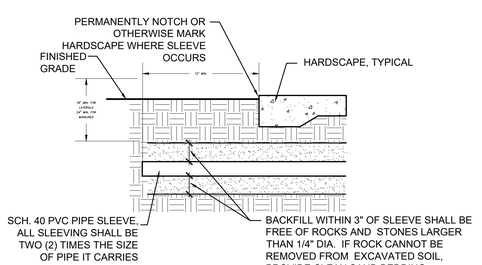
J SOLAR SYNC WEATHER SENSOR

N.T.S.



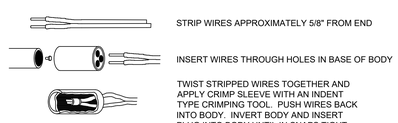
K IRRIGATION CONTROLLER

N.T.S



L PIPE SLEEVE

N.T.S.



NOTES:
1. ONE CONNECTOR HANDLES #10 AWG, #12 AWG AND #14 AWG WIRES.
2. WIRE CONNECTORS WILL ACCEPT THREE WIRE OR TWO WIRE CONNECTIONS.
3. WIRE CONNECTOR SHALL BE 3M DBR/DBY OR KING BROS.

M WIRE CONNECTORS

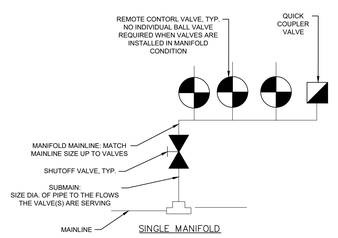
N.T.S.

PVC PIPE SIZE	SOLVENT WELD SCH. 40 FITTINGS	BELL AND GASKET FITTINGS	SOCKETED PIPE
1/2"	2"	--	2"
3/4"	2"	--	2"
1"	2 1/2"	--	2 1/2"
1 1/4"	3"	--	3"
1 1/2"	3"	3"	3"
2"	4"	4"	4"
2 1/2"	6"	6"	6"
3"	6"	6"	6"
4"	8"	8"	8"

CONTRACTOR TO INSTALL CROSSOVER SLEEVES TO BE (2) TWO TIMES THE DIA. SIZE OF THE PIPE IT IS SERVING UNLESS OTHERWISE NOTED IN THIS SCHEDULE.

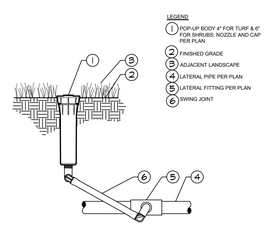
N PIPE SLEEVE SIZE SCHEDULE

N.T.S.



O TYPICAL VALVE MANIFOLD LAYOUT

N.T.S.



P POP-UP SPRAY BODY WITH SWING JOINT

N.T.S.

CONSULTANT

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
805 PENNSYLVANIA AVENUE, SUITE 150
KANSAS CITY, MO 64105
PHONE: 816-652-0350
WWW.KIMLEY-HORN.COM
MO CERTIFICATE OF AUTHORITY #: 2012036305
EXPIRES 12/31/26

NORTH ARROW AND SCALE

SEAL AND SIGNATURES

ASHLEY M SERR NUMBER 2012036305 STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER

12/18/2025

COSTCO WHOLESALE

WAREHOUSE SITE

SEC OF HWY 50 AND ROUTE 291
LEE'S SUMMIT, MO

DATE	ISSUED FOR	REV
07/18/2025	GREEN INK	
09/23/2025	PRELIMINARY DEVELOPMENT RESUBMITTAL	
12/22/2025	PERMIT	

IR2.1

IRRIGATION DETAILS

AS INDICATED