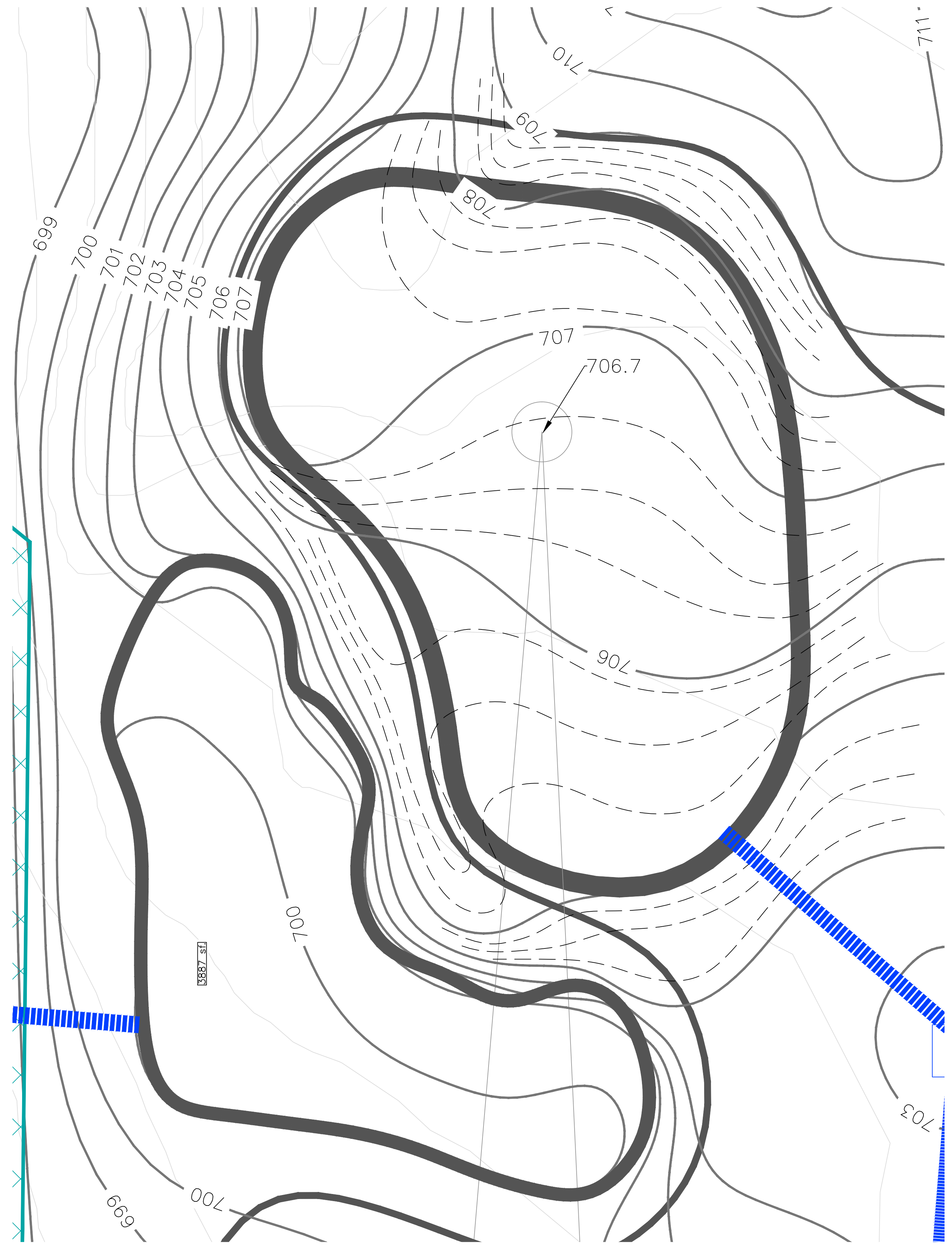
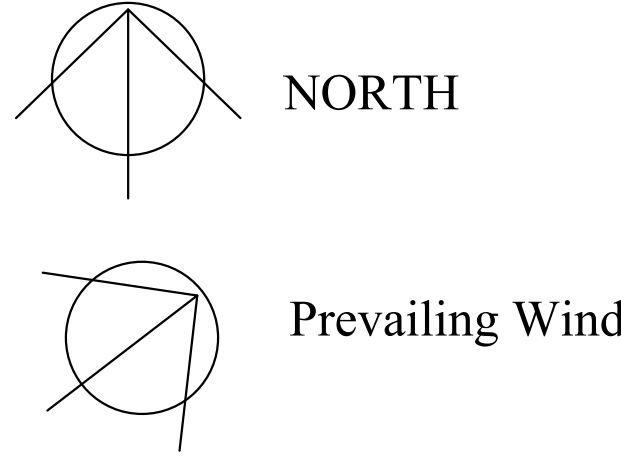
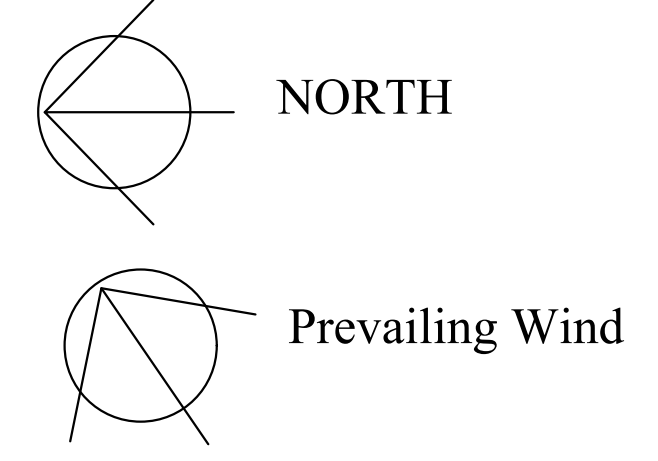


Hole 5 Green - 6,717 sf.



Hole 6 Green - 6,712 sf.



1.10.25
9.30.24
9.16.24

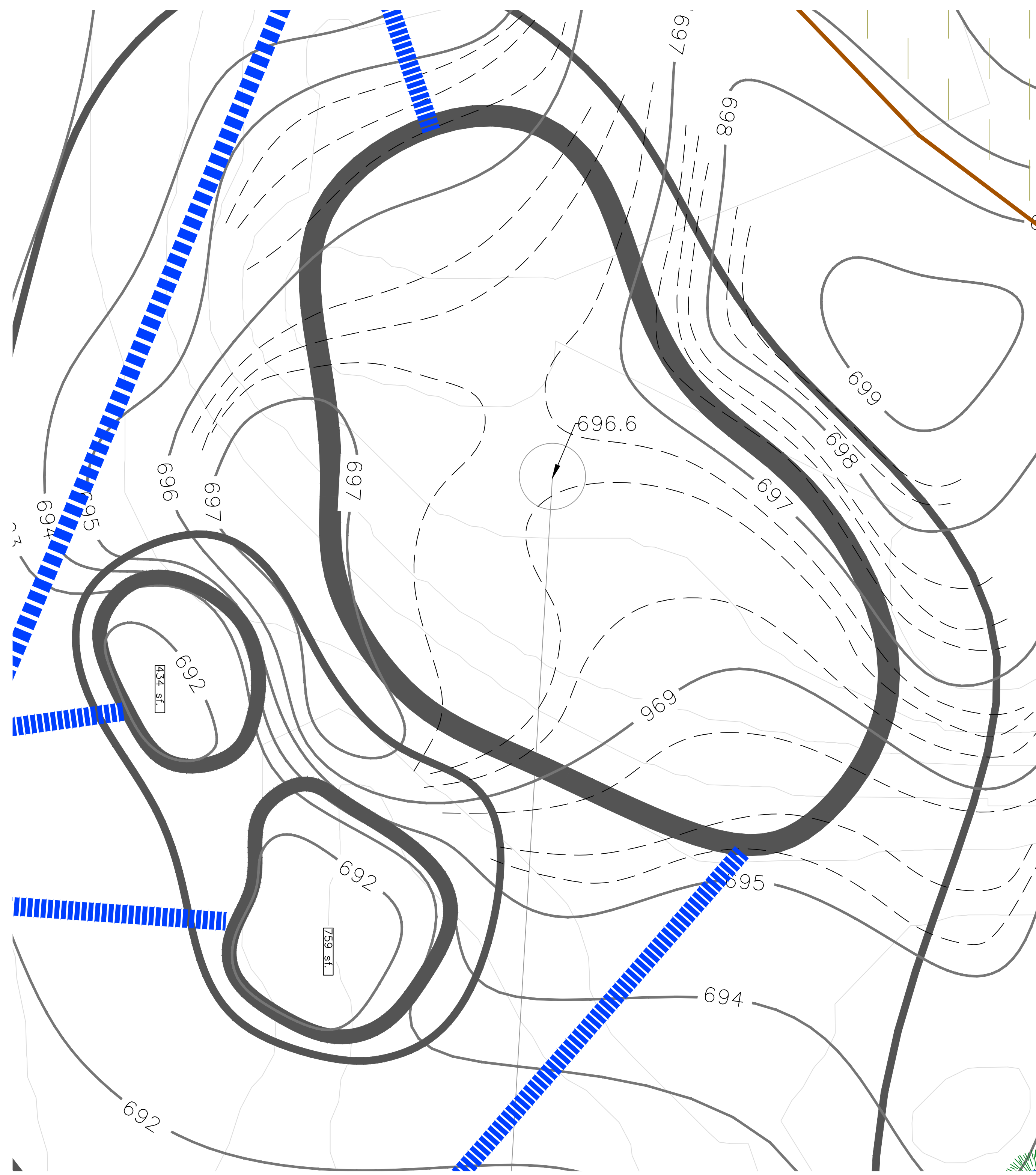
1"=10'



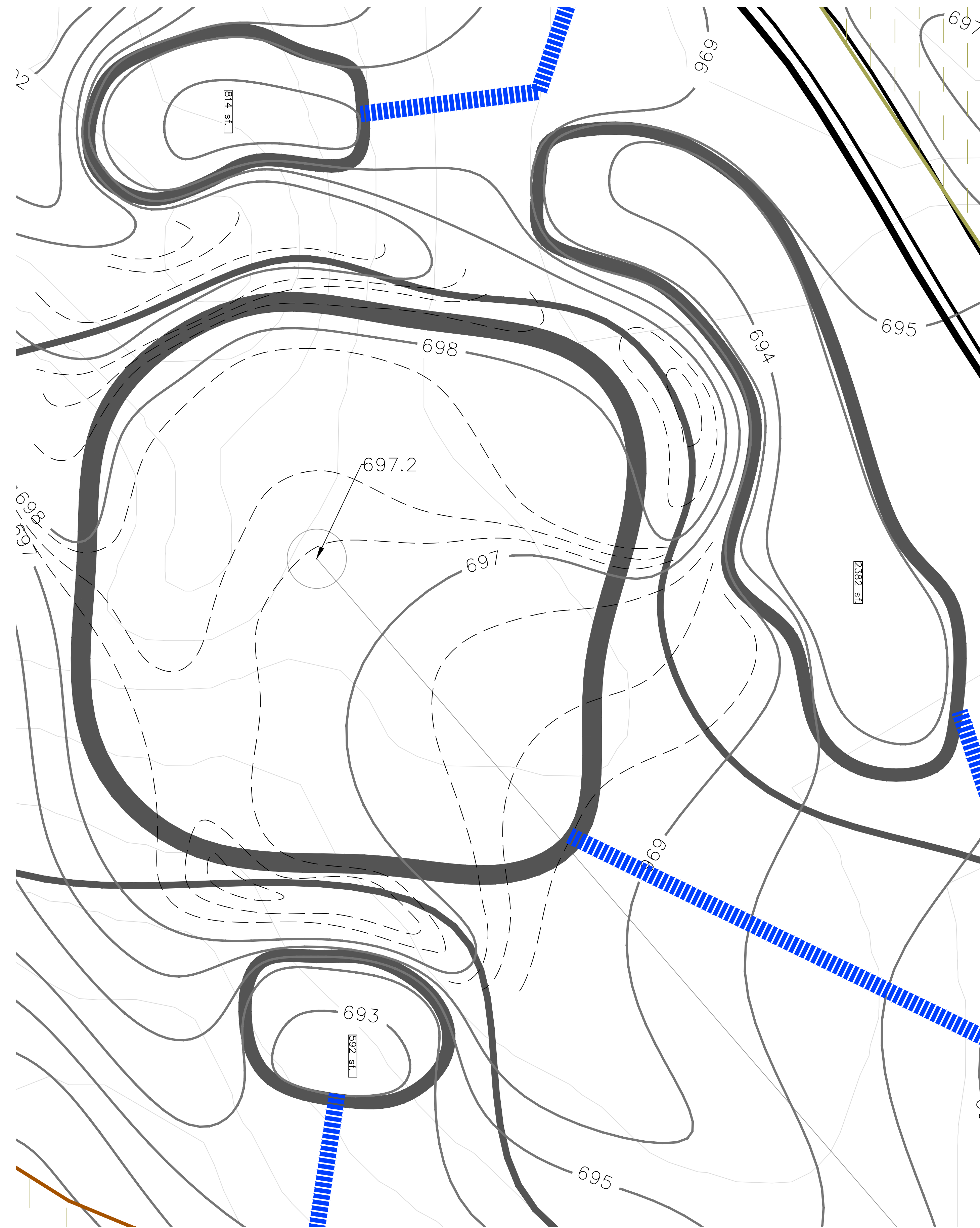
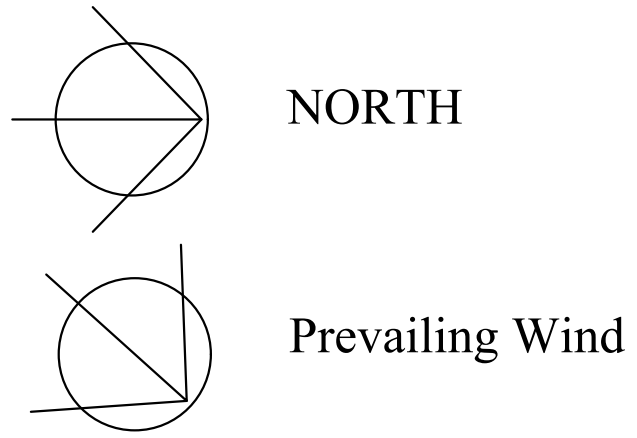
Maple Meadows Golf Club
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Maple Meadows Golf Course
Green Details
5, 6

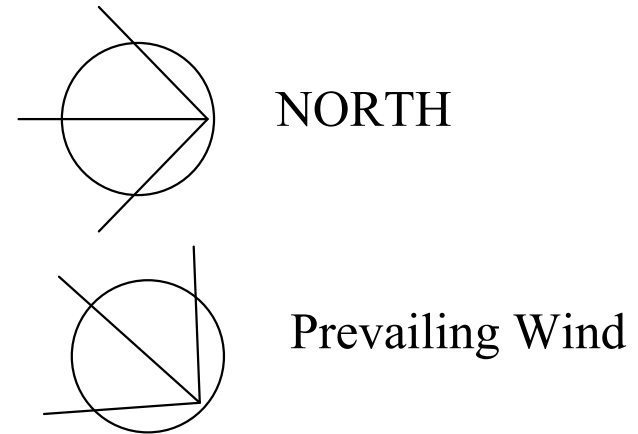




Hole 7 Green - 5,220 sf.



Hole 8 Green - 6,603 sf.



1.10.25
9.30.24
9.16.24

1"=10'



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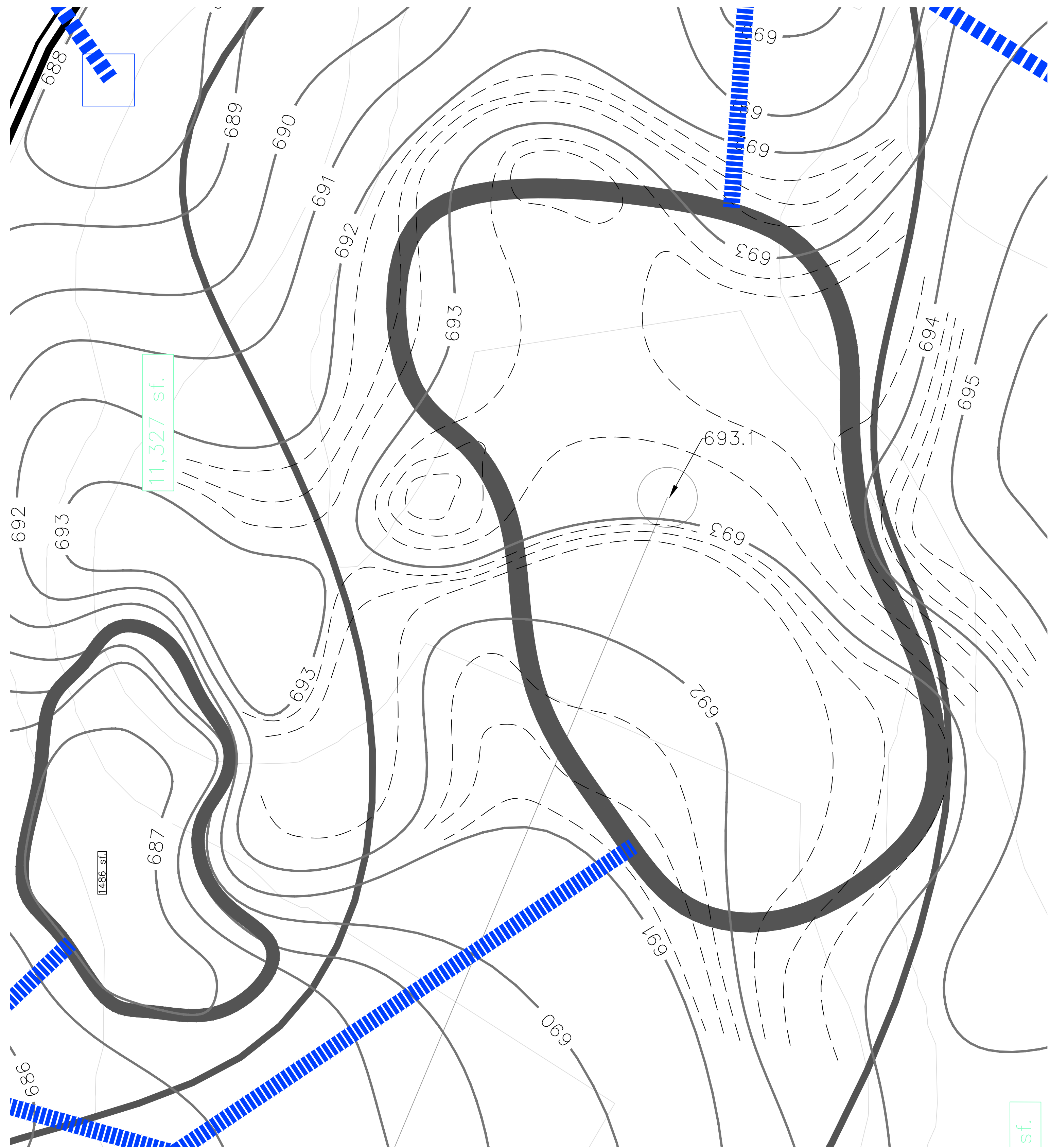
Maple Meadows Golf Course

Green Details
7, 8

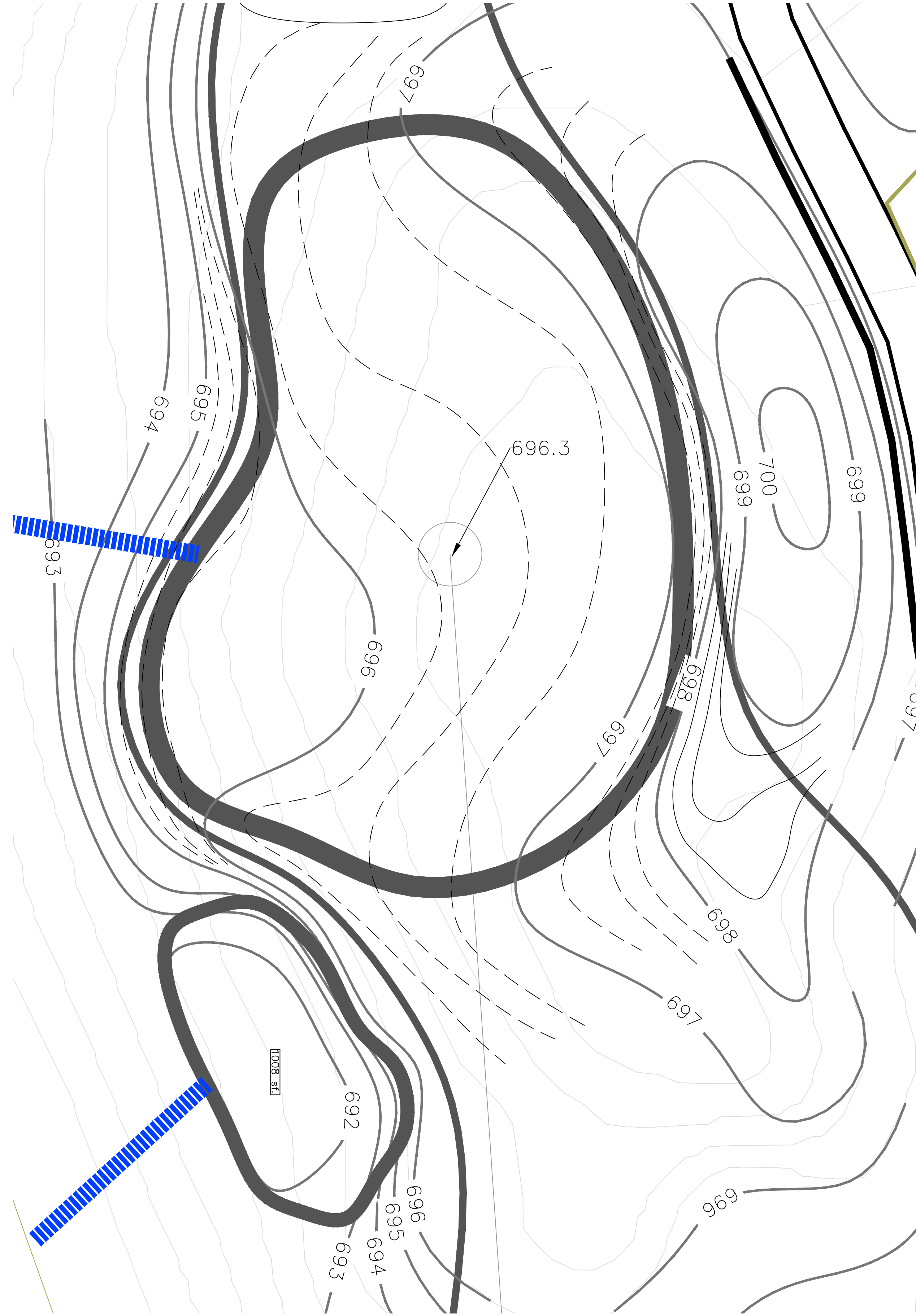
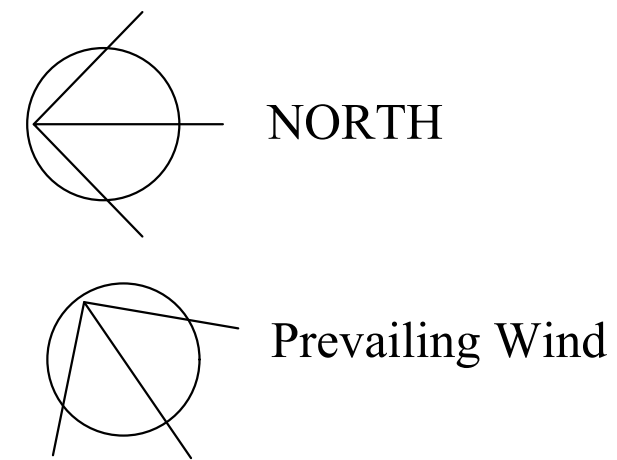


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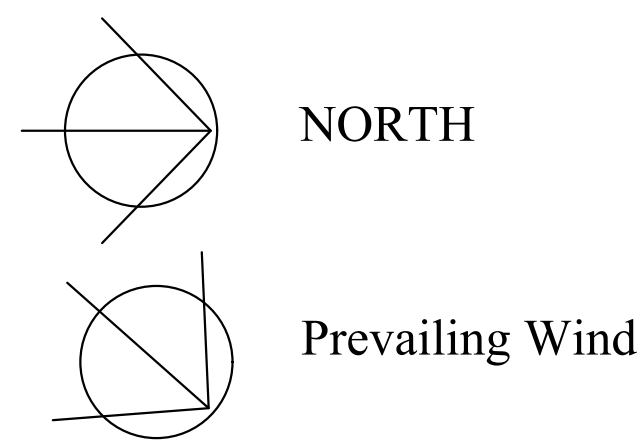
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Hole 9 Green - 6,160 sf.



Hole 10 Green - 6,335 sf.



1.10.25
9.30.24
9.16.24

1"=10'

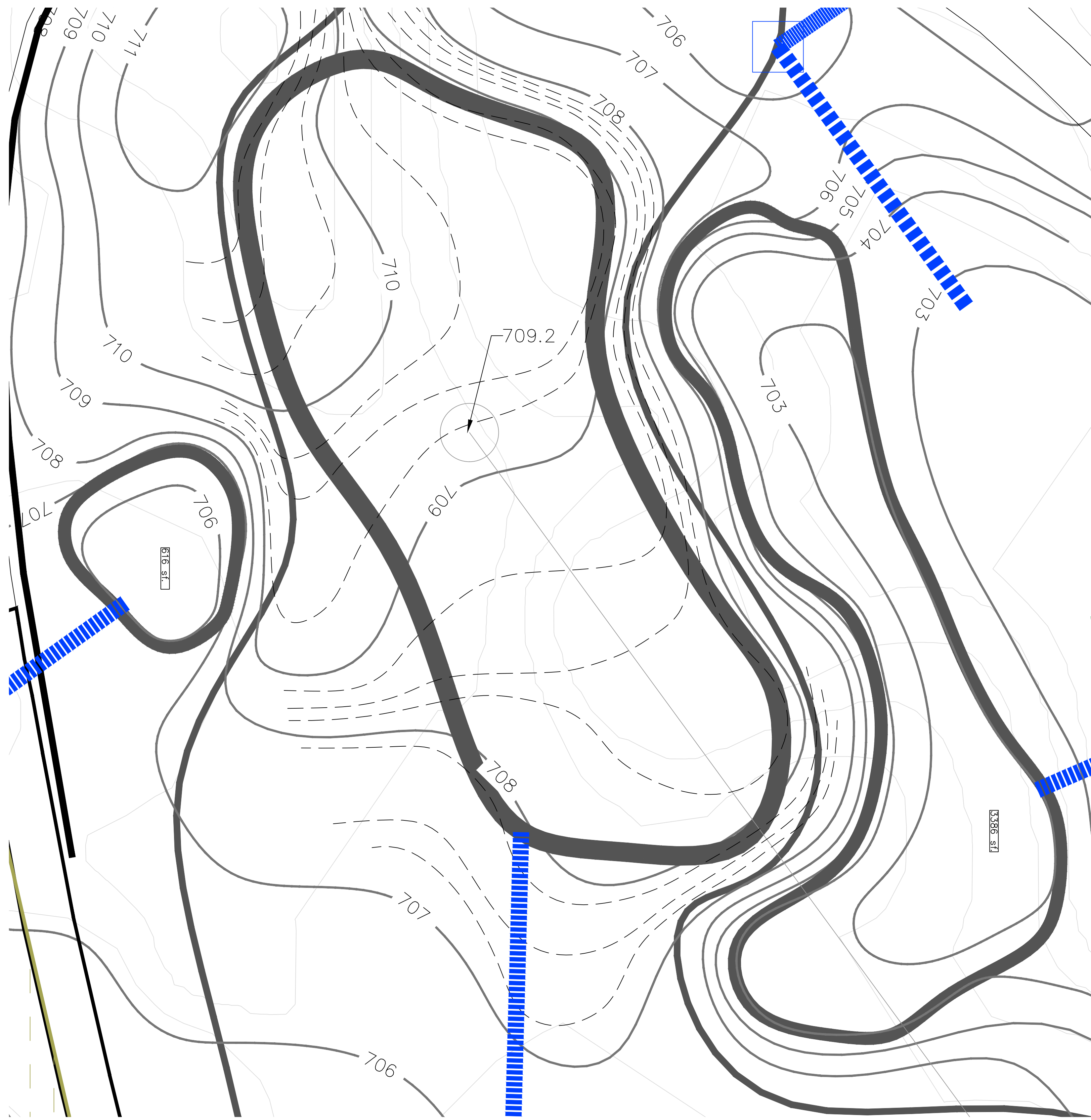


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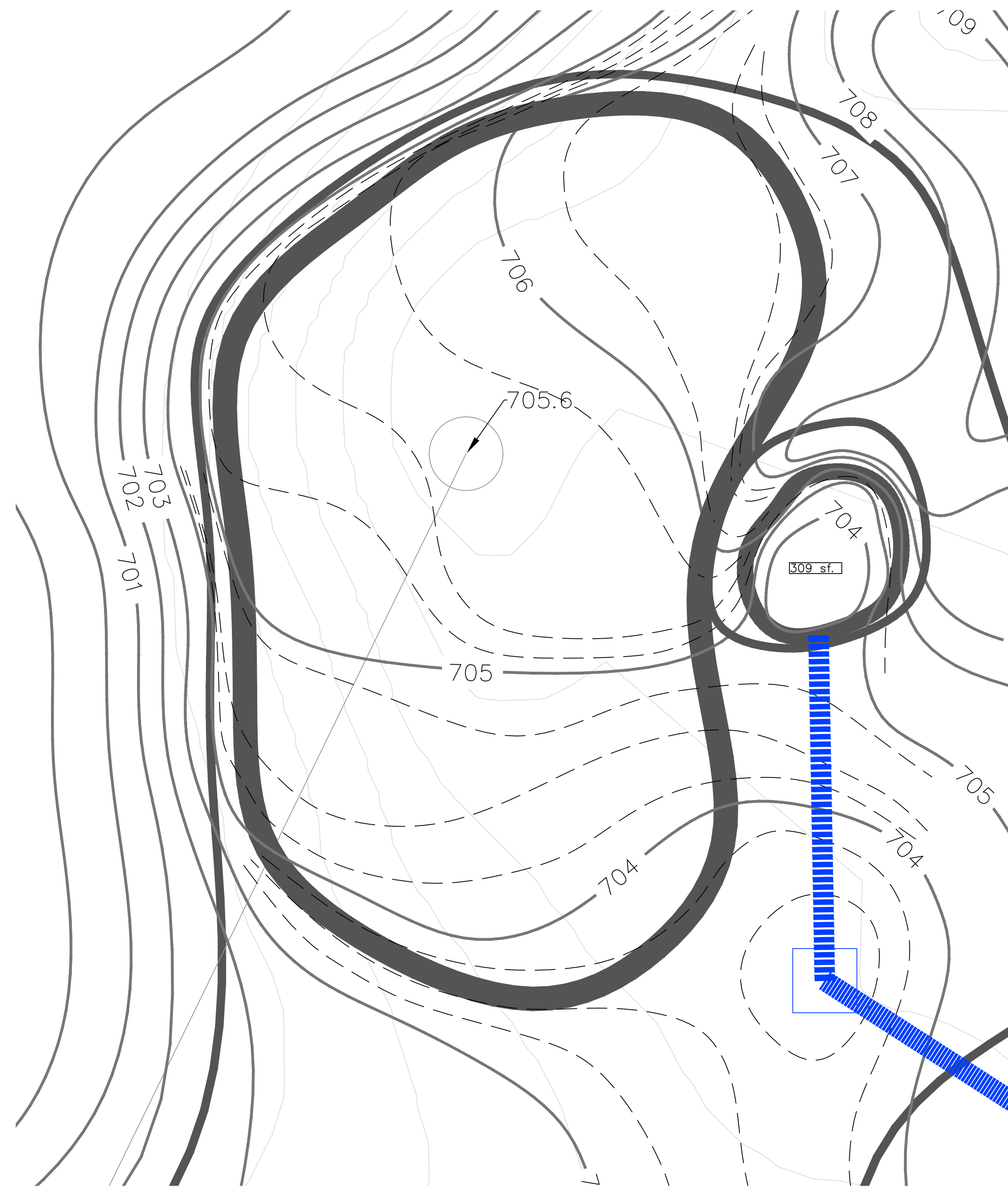
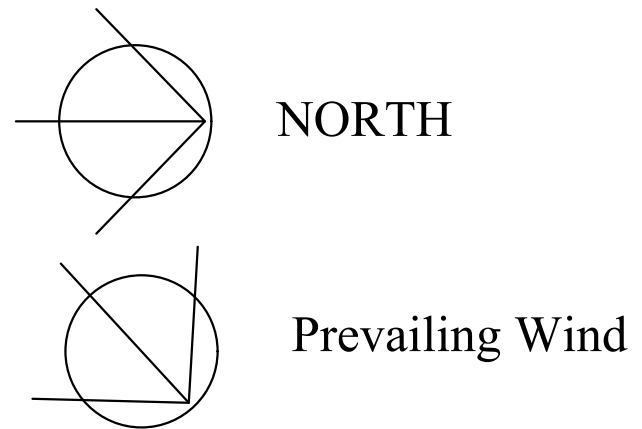
Maple Meadows Golf Course

Green Details
9, 10

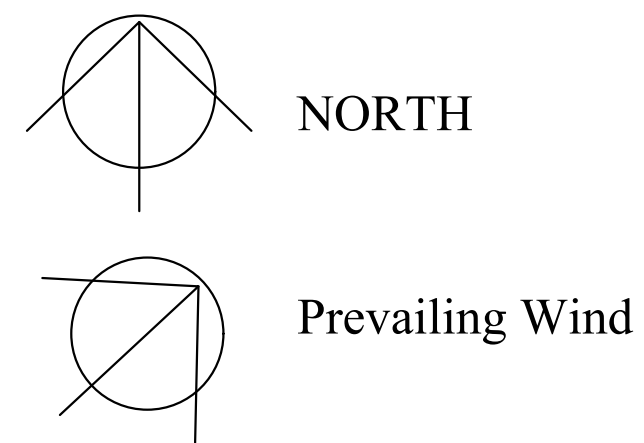




Hole 11 Green - 5,912 sf.



Hole 12 Green - 6,164 sf.



1.10.25
9.30.24
9.16.24

1"=10'

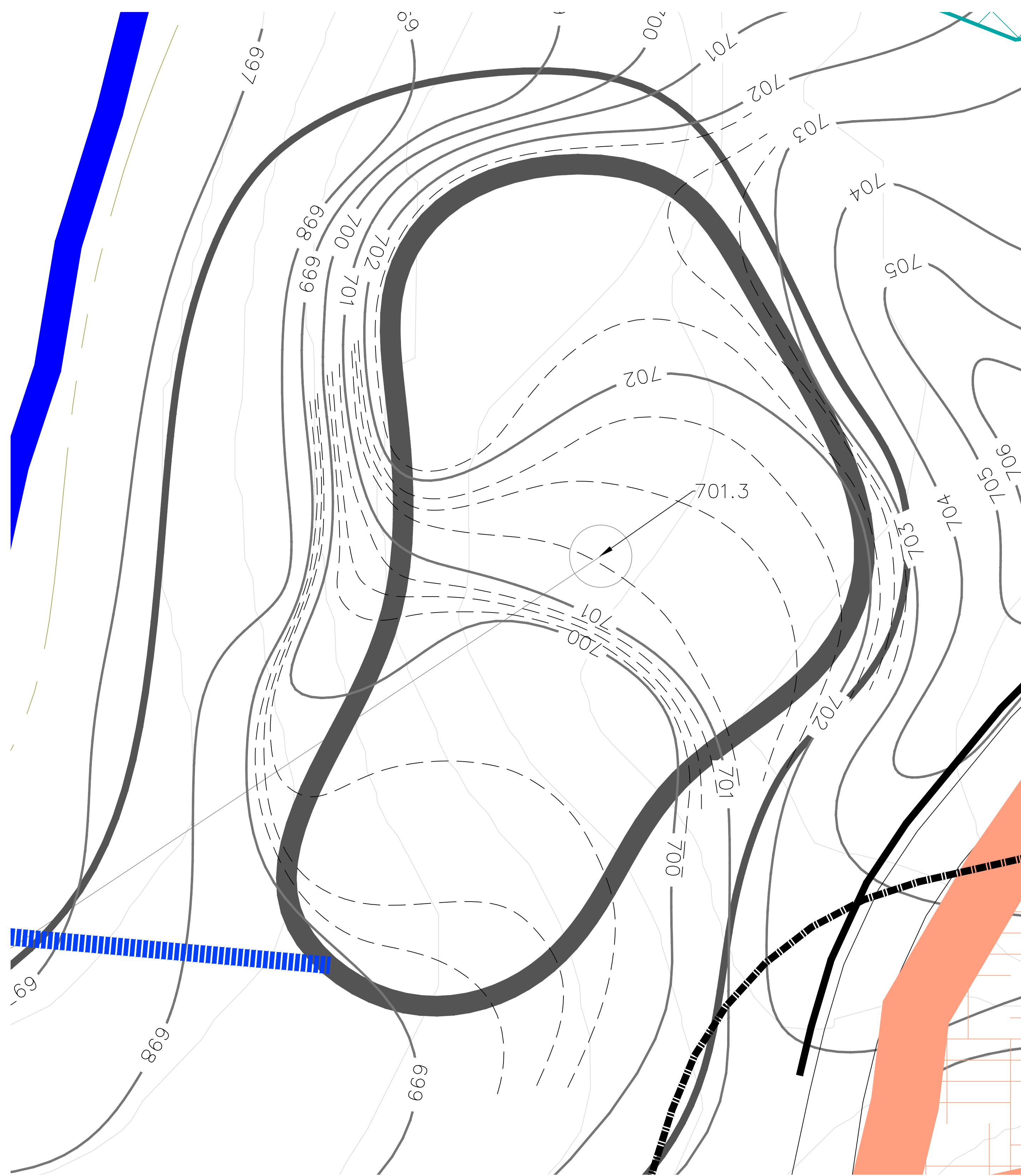


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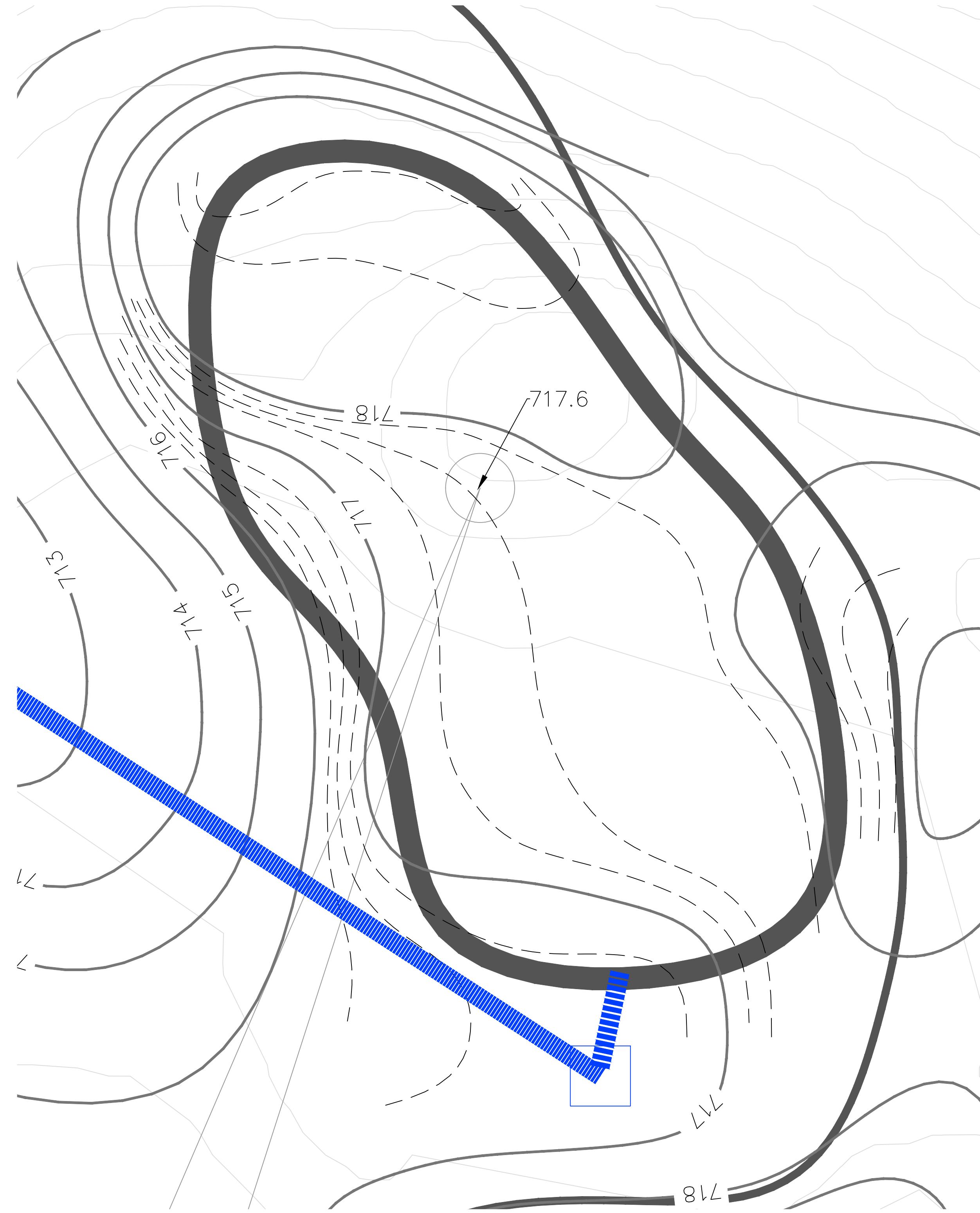
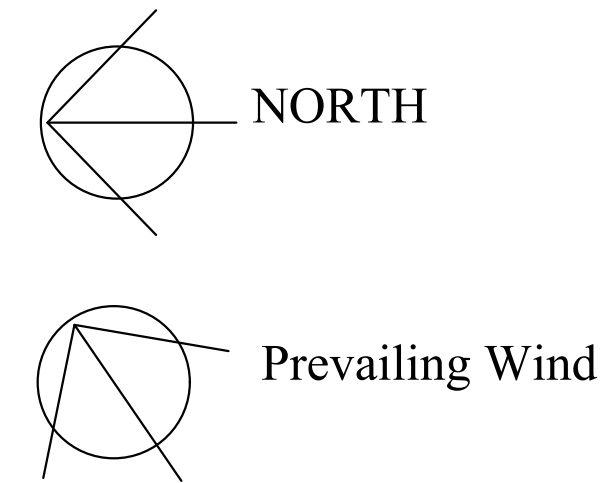
Maple Meadows Golf Course
Green Details
11, 12



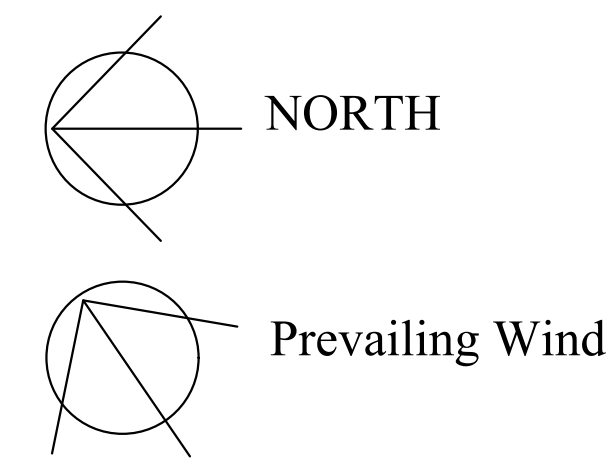
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Hole 13 Green - 6,700 sf.



Hole 14 Green - 5,965 sf.



1.10.25
9.30.24
9.16.24

1"=10'

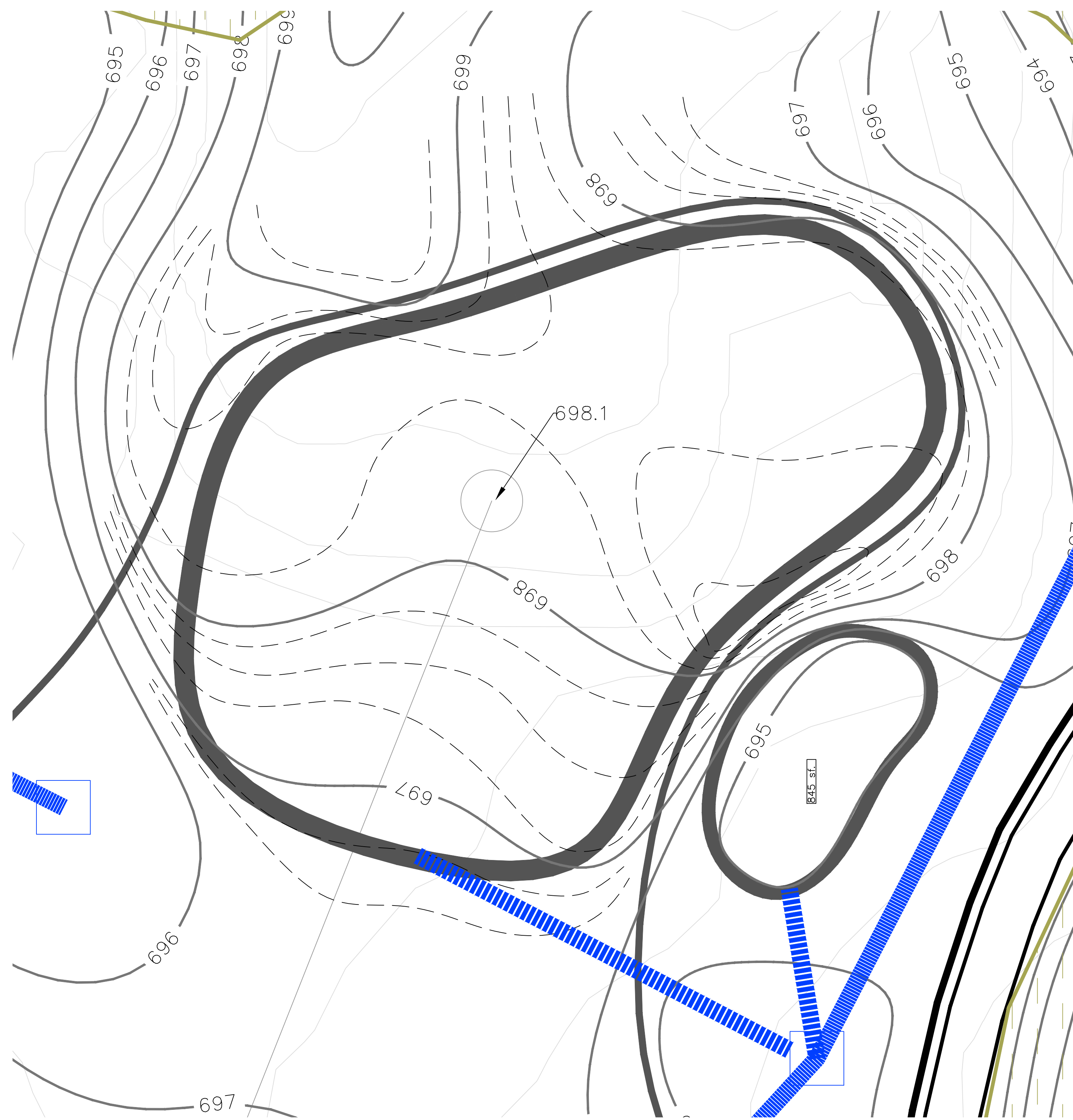


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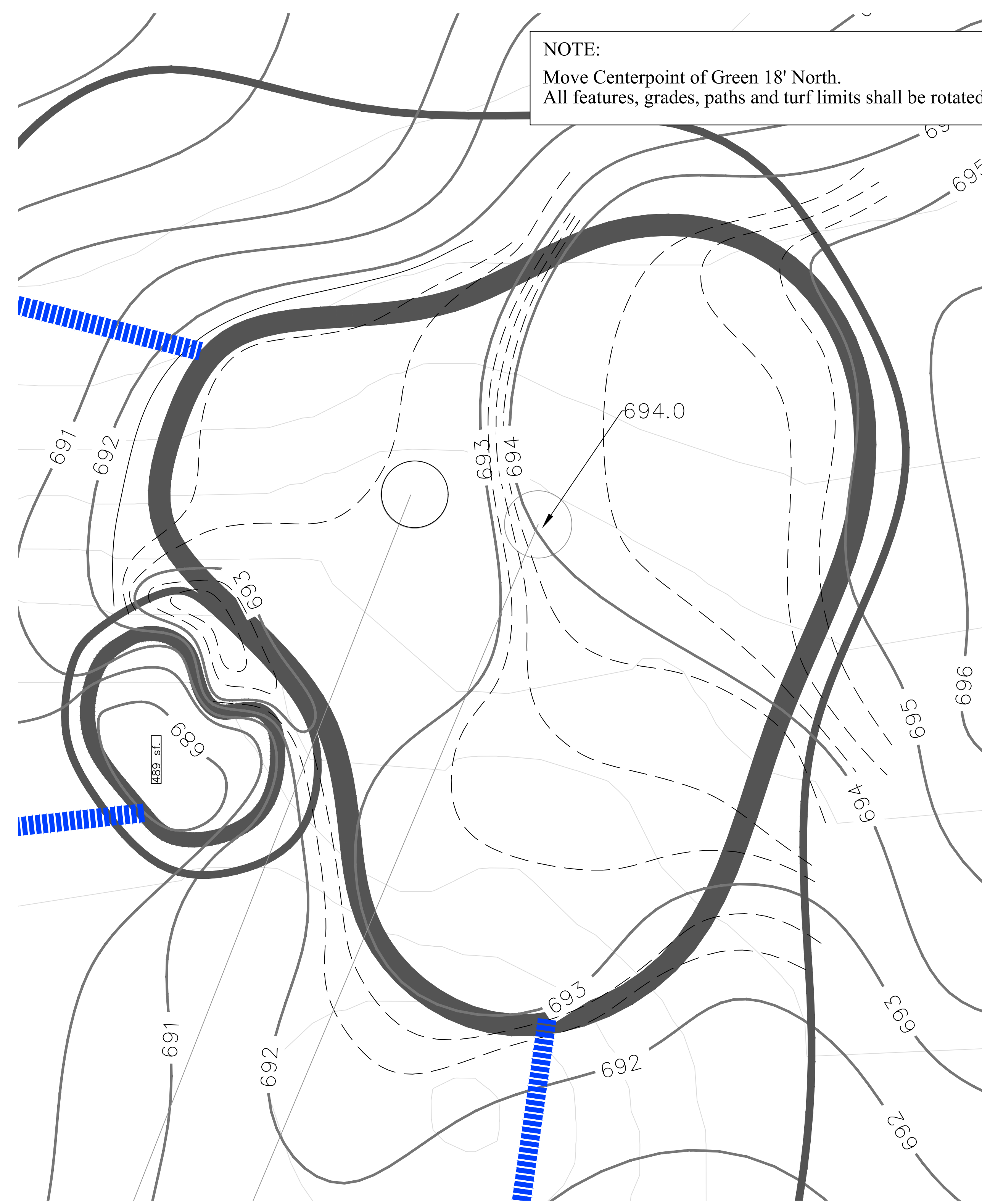
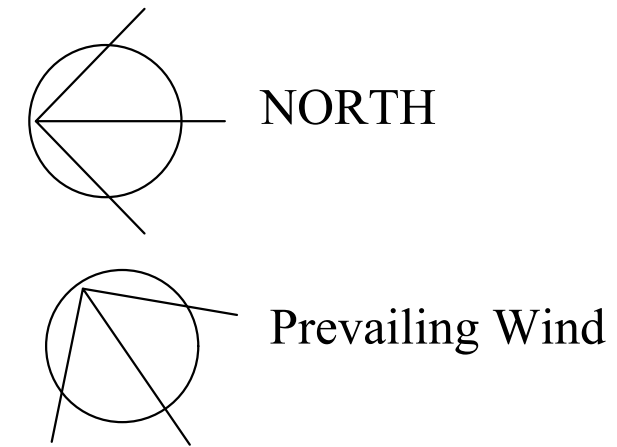
Maple Meadows Golf Course
Green Details
13, 14



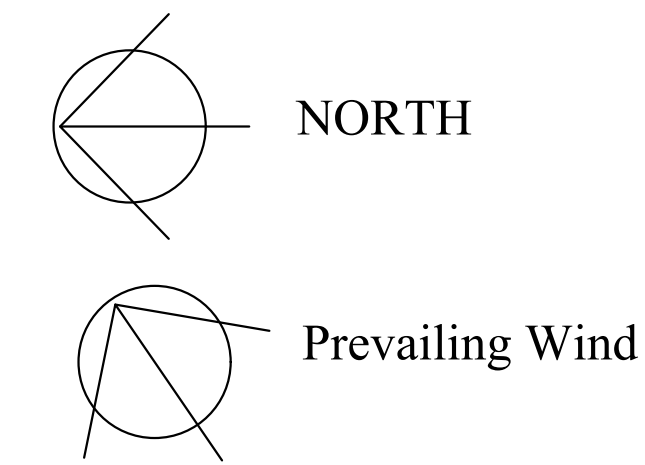
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Hole 15 Green - 7,147 sf.



Hole 16 Green - 7,084 sf.



NOTE:
Move Centerpoint of Green 18' North.
All features, grades, paths and turf limits shall be rotated accordingly.

1.10.25
9.30.24
9.16.24

1"=10'



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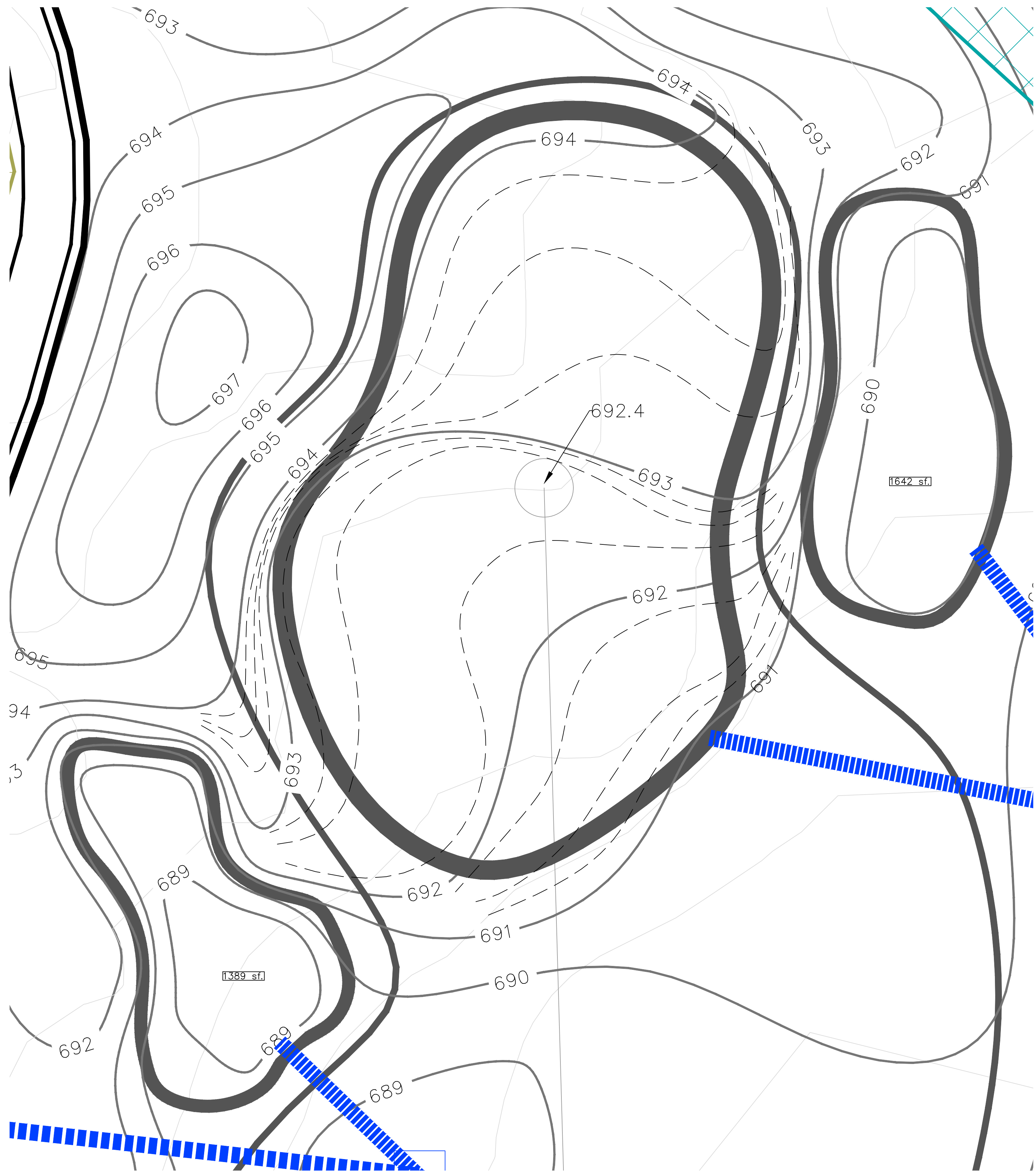
Maple Meadows Golf Course
Green Details
15, 16



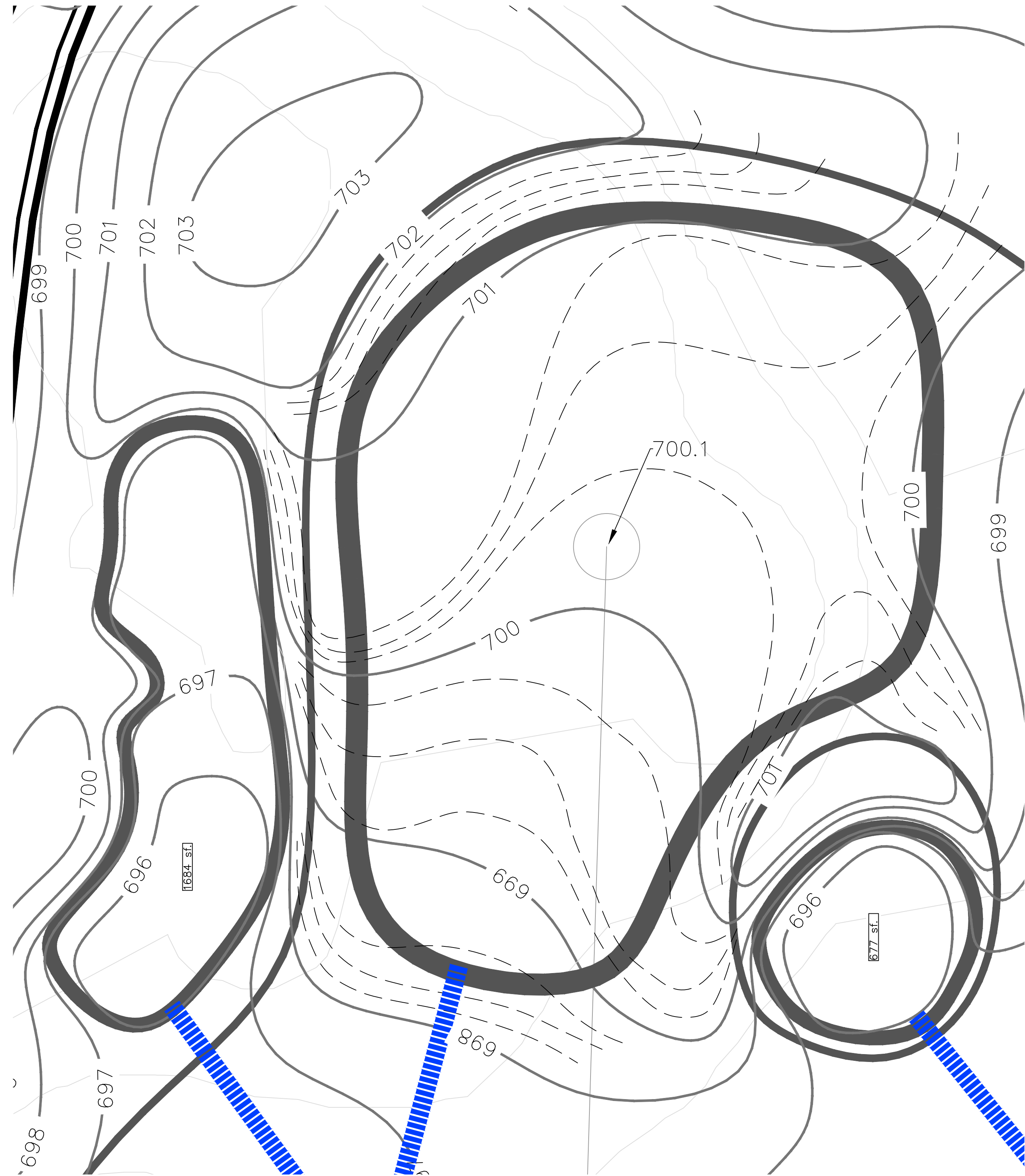
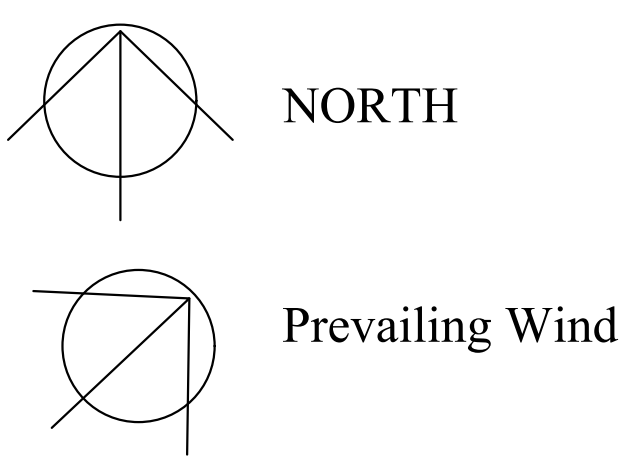
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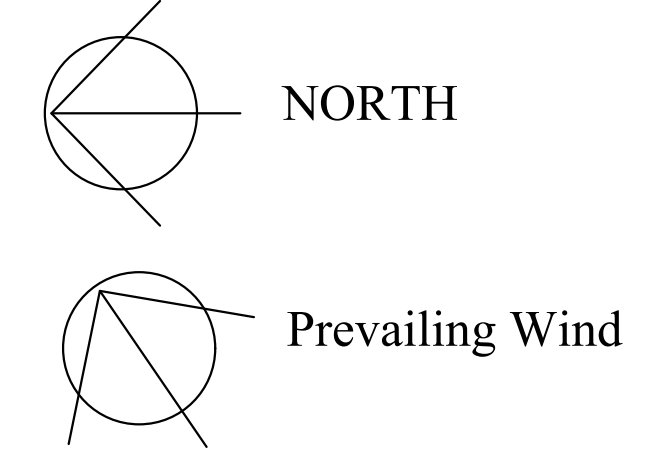
20/24



Hole 17 Green - 6,700 sf.



Hole 18 Green - 6,674 sf.



1.10.25
9.30.24
9.16.24

1"=10'



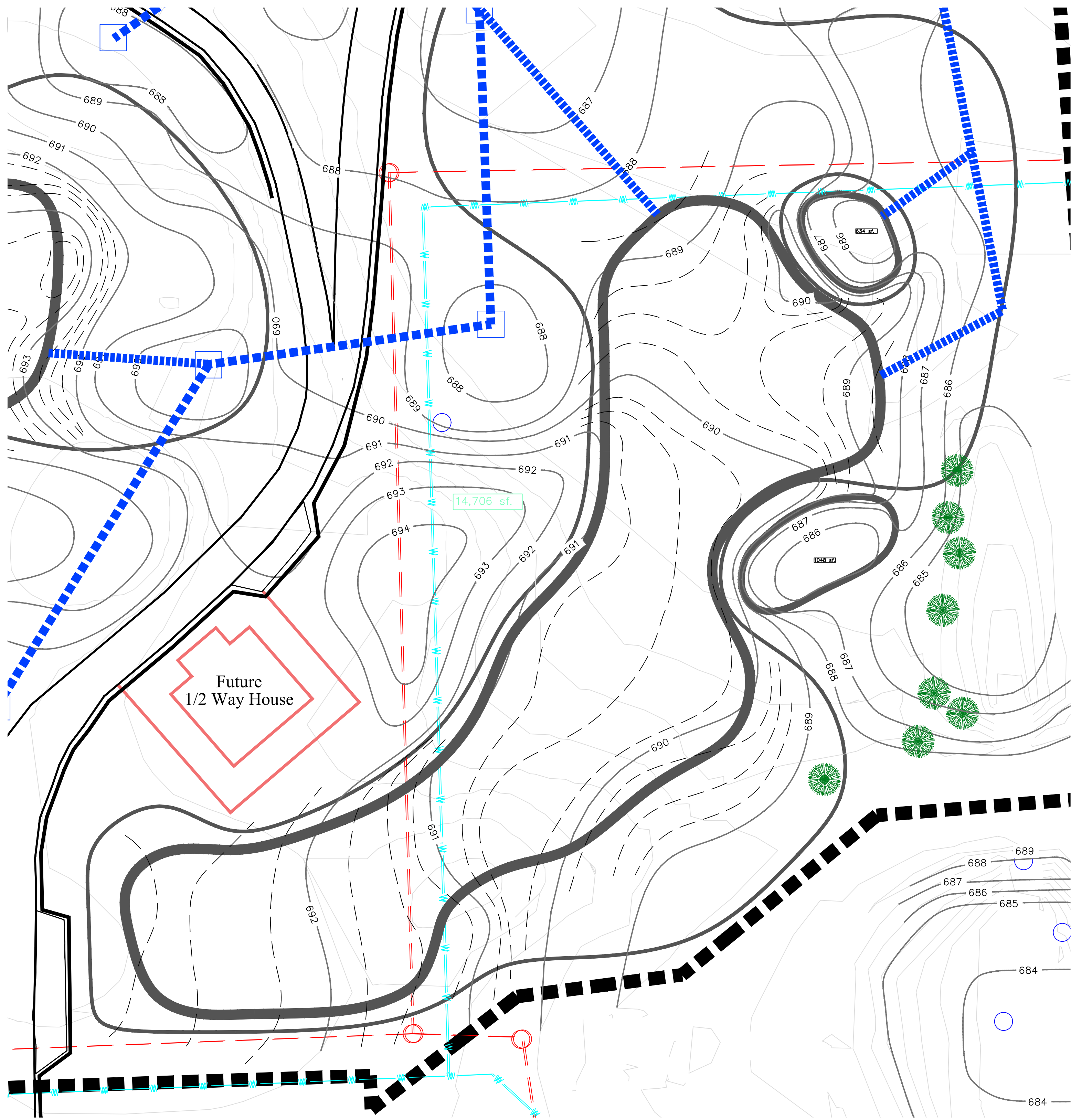
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Forest Preserve District
DuPage County
272 S Addison Rd.
Wood Dale, Illinois
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Maple Meadows Golf Course

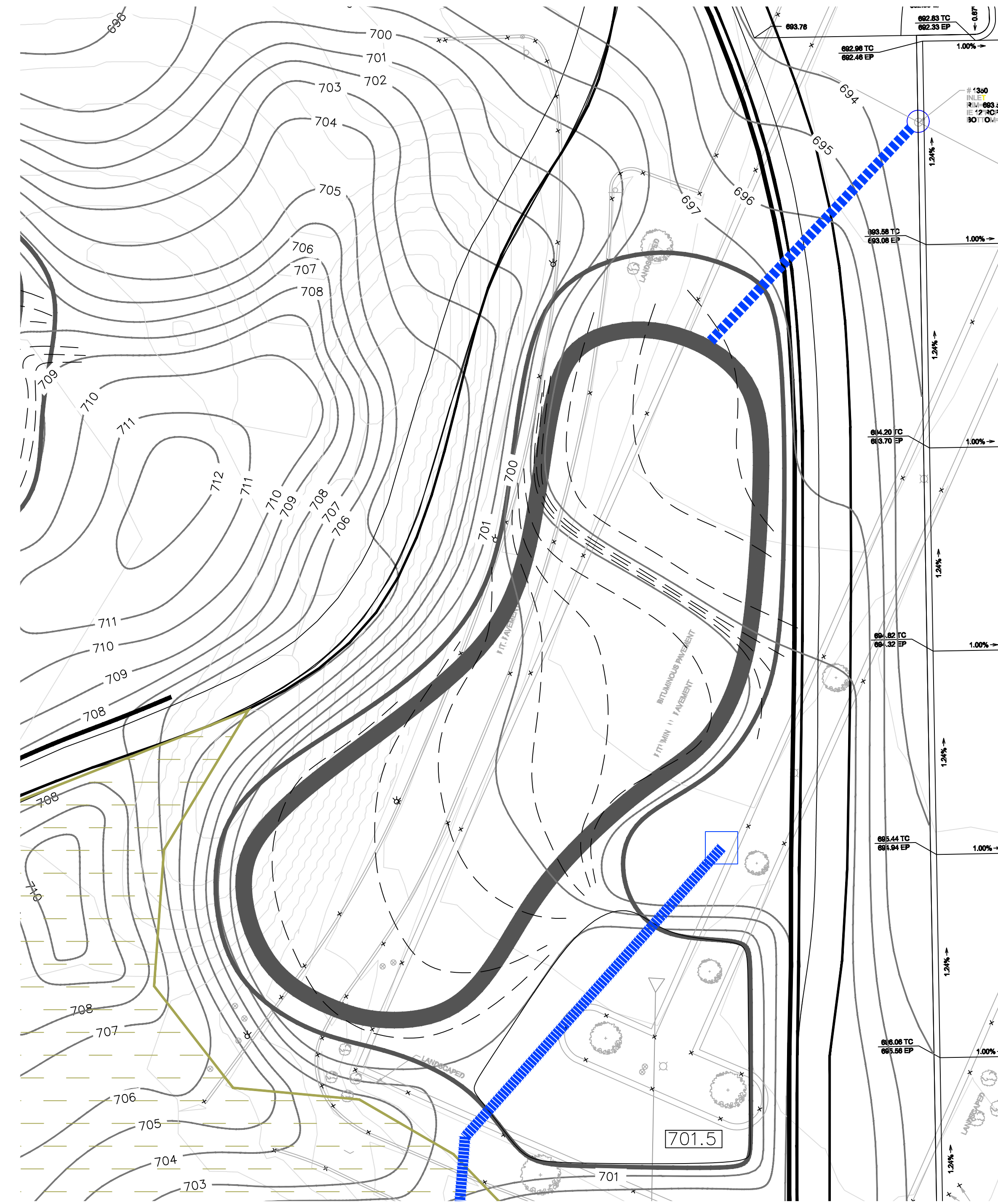
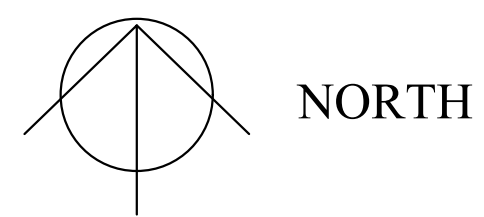
Green Details
17, 18



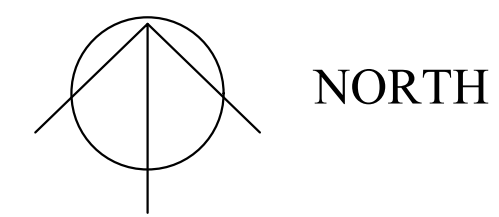
21/24



Practice Green 1 [north] - 19,422 sf.



Practice Green 2 [south] - 6,674 sf.



1.10.25
9.30.24
9.16.24

1"=20'



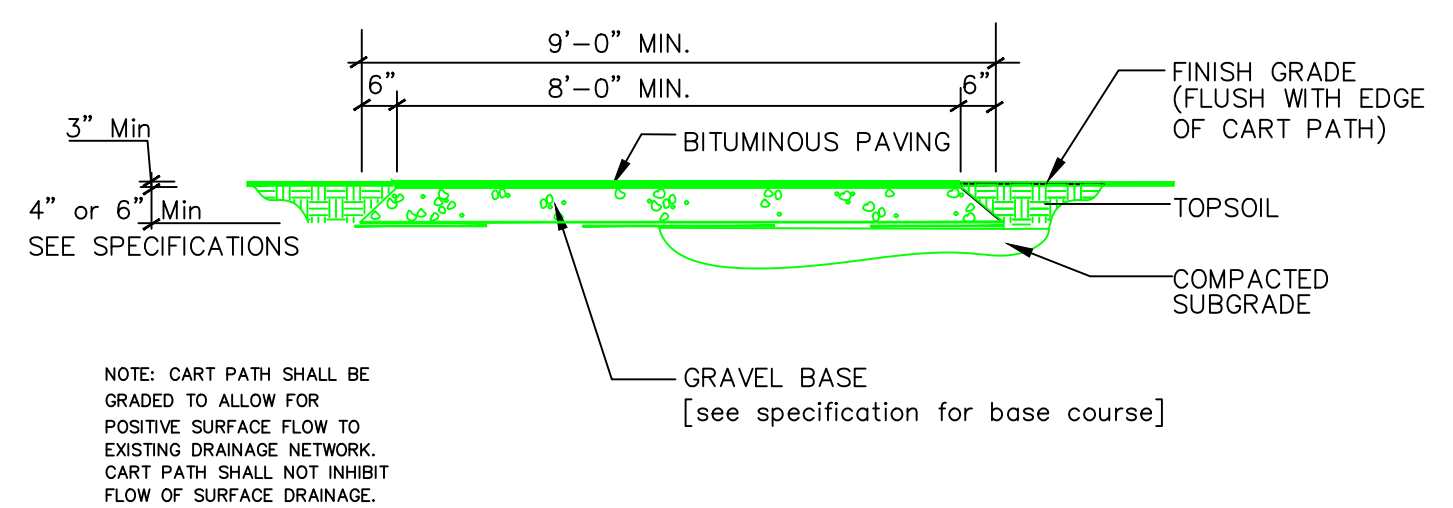
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Maple Meadows Golf Course
Green Details
Practice



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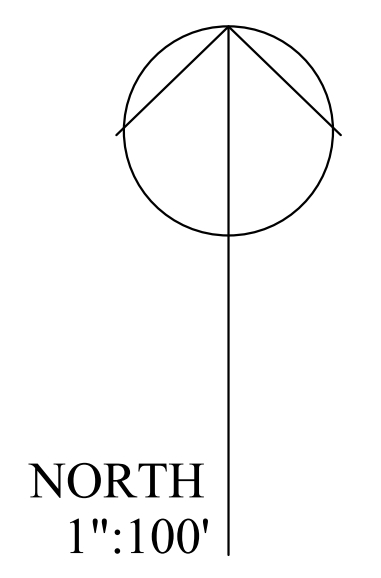
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CART PATH
N.T.S.

Cart Paths: 206,048 sf.
Path Curbing: 9,199 lf.

1.10.25
9.30.24
9.16.24

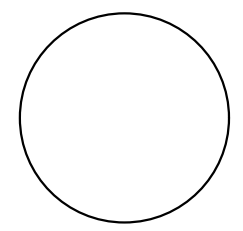


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Maple Meadows Golf Course

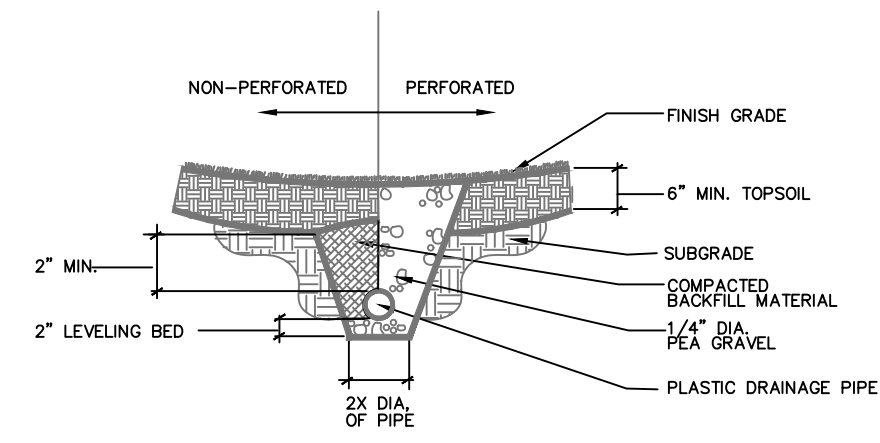
Cart Path Plans





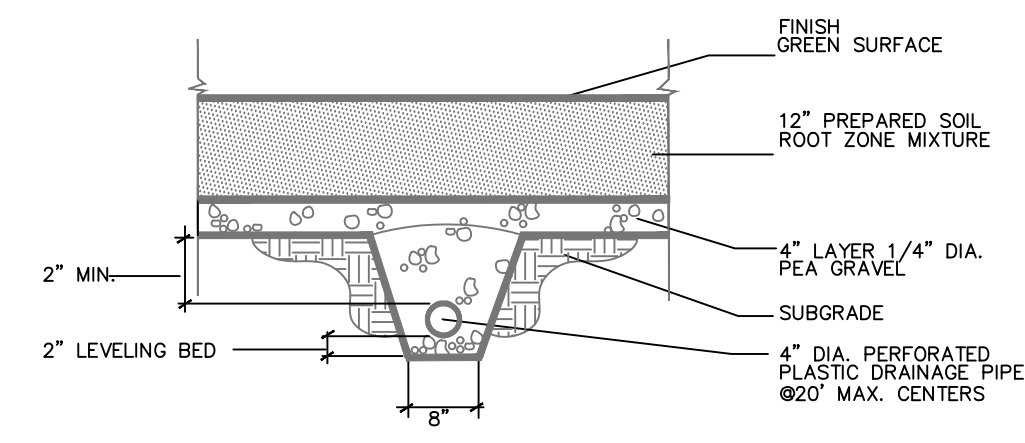
1.10.25
9.30.24
9.16.24

NORTH



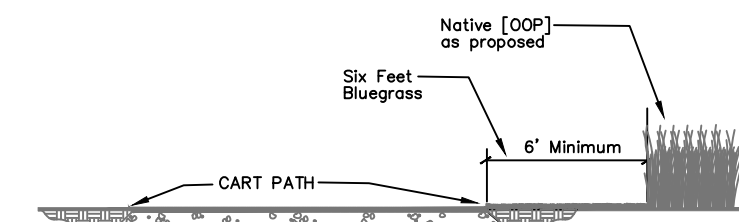
ROUGH AND FAIRWAY DRAINAGE

N.T.S.



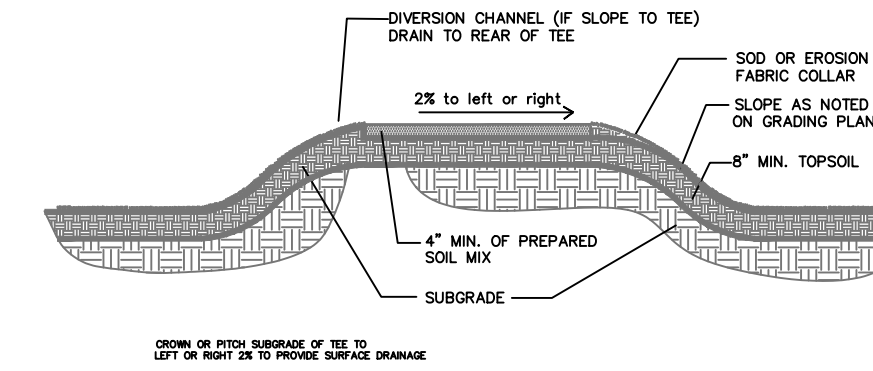
GREEN CONSTRUCTION - USGA

N.T.S.



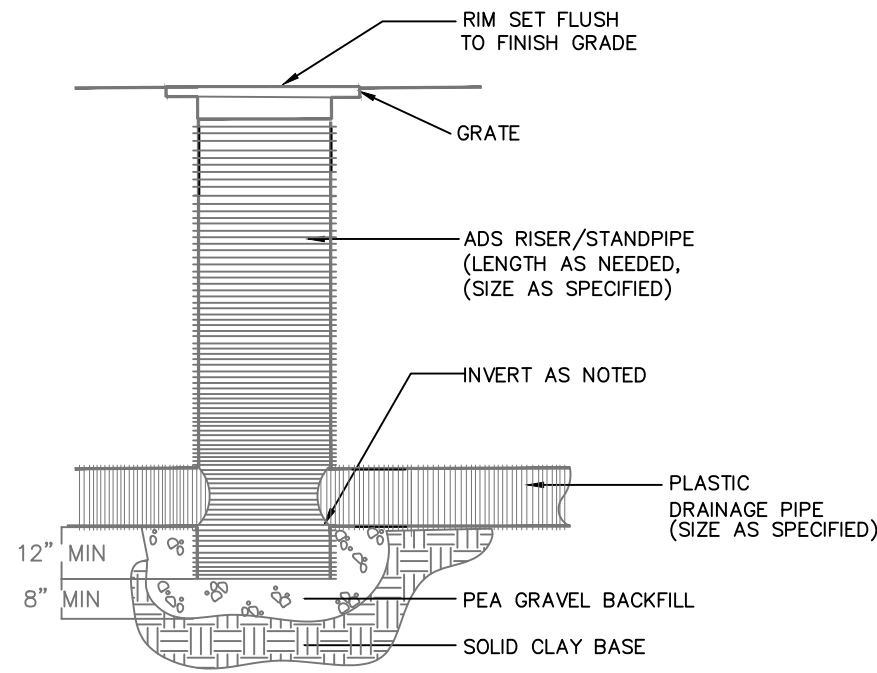
CART PATH

N.T.S.



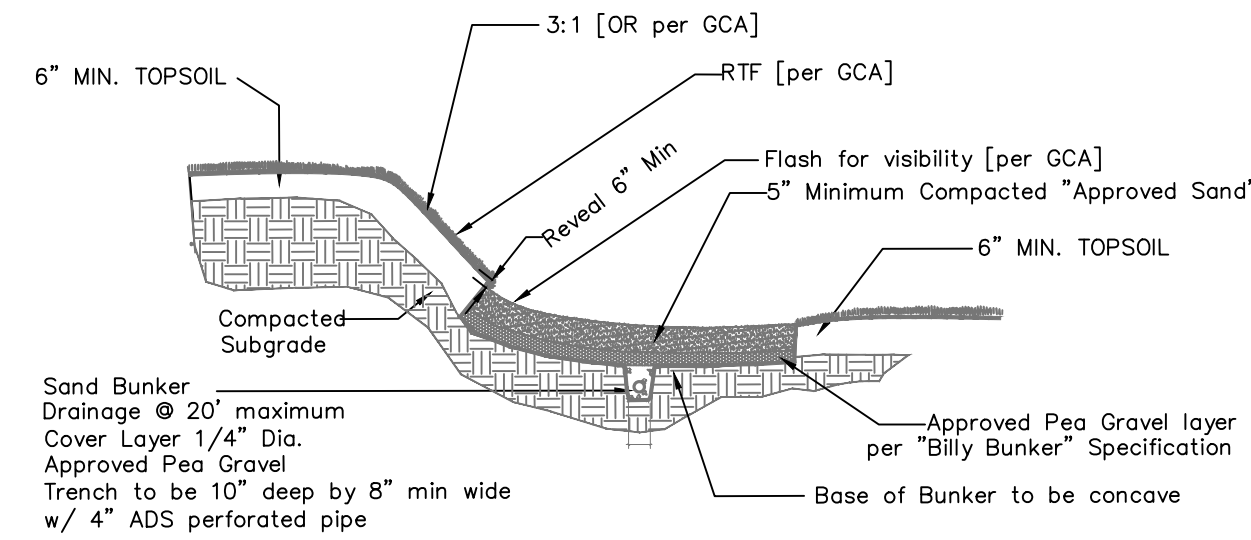
TEE CONSTRUCTION

N.T.S.



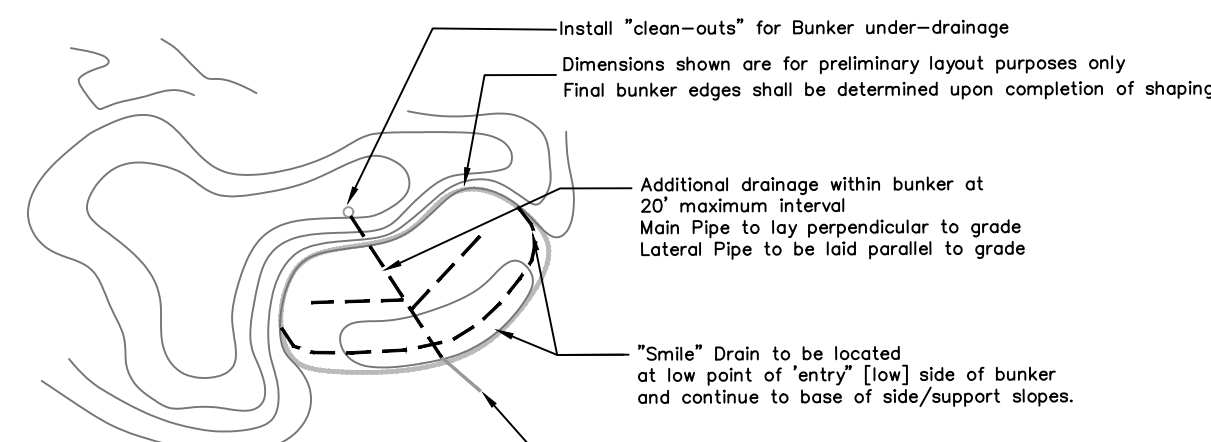
STANDPIPE | CATCH BASIN

N.T.S.



SAND BUNKER CONSTRUCTION - Better Billy Bunker

N.T.S.



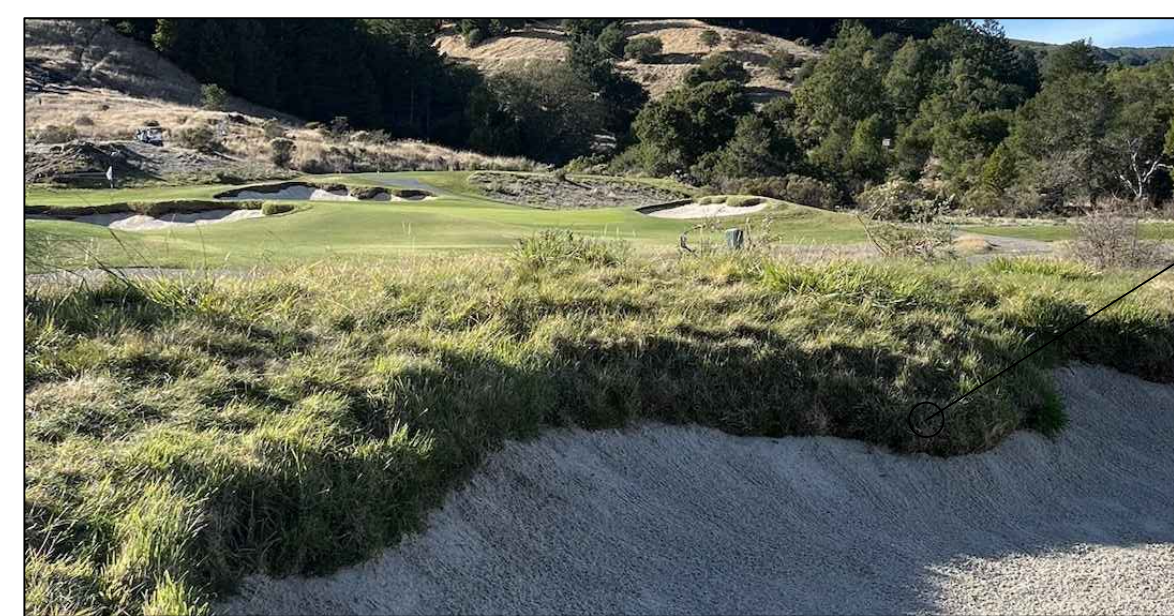
SAND BUNKER CONSTRUCTION

N.T.S.

Occasional 'tongue' or 'finger' spilling into bunker [by GCA]



Bunker Built into Grade



RTF Sod on Bunker Face

High Flash w Irregular 'Broken' Edge



Irregular 'Broken' Edge

Slightly cupped [saucered] with High Flash



Slightly cupped with High Flash



Minimum 6" Reveal on Face of Bunker - Steeper Reveal per GCA



Occasional Steep Grass slope with shallow sand face per GCA



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Construction Details & Notes



24/24

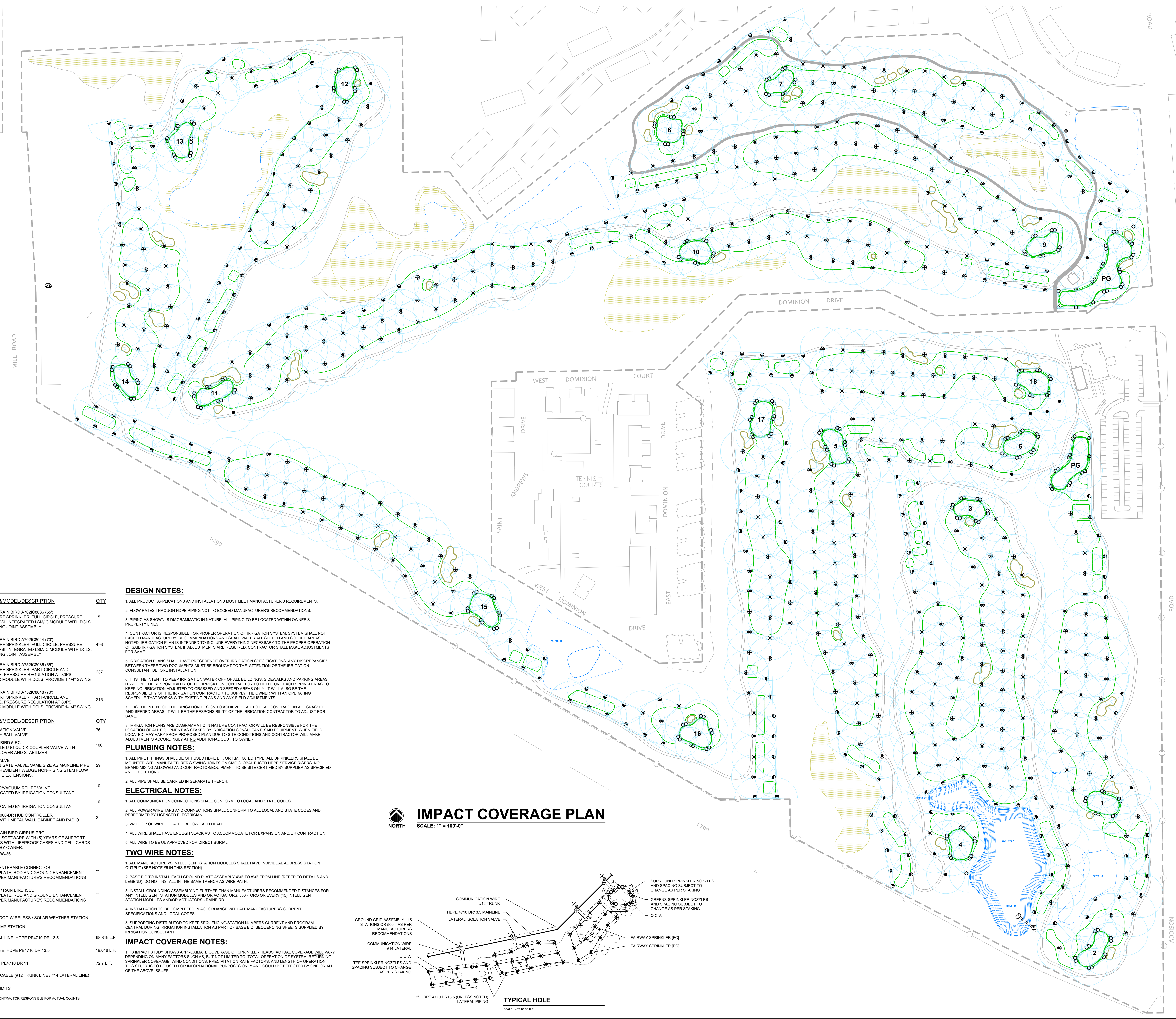
MAPLE MEADOWS GOLF COURSE

<u>SHEET</u>	<u>DESCRIPTION</u>
LI-0	COVER
LI-1	IMPACT COVERAGE PLAN
LI-2	HYDRAULIC PIPING PLAN
LI-3A	ELECTRICAL SCHEMATIC PLAN [TORO]
LI-3B	ELECTRICAL SCHEMATIC PLAN [RAIN BIRD]
LI-4A	SITE IRRIGATION PLAN [TORO]
LI-4B	SITE IRRIGATION PLAN [RAIN BIRD]
LI-5	IRRIGATION DETAILS
LI-6	IRRIGATION DETAILS
LI-7	IRRIGATION PUMP DETAILS

NOTE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW OF THE ABOVE AND ANY OTHER PLANS THAT PERTAIN TO THE COORDINATION OF THE IRRIGATION CONSTRUCTION, WHETHER THEY BE NOTED OR NOT.

2. IRRIGATION PLANS AND SPECIFICATIONS ARE DIAGRAMMATIC IN NATURE AND ARE NOT A LIST OF INSTRUCTIONS FOR CONSTRUCTION, BUT RATHER TO ILLUSTRATE A DESIGN INTENT. THEREFORE ANY AND ALL CHANGES, CONFLICTS, DISCREPANCIES, OMISSIONS, AND QUESTIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE SAID IRRIGATION CONSULTANT DURING THE BIDDING AND CONSTRUCTION PERIOD IN WRITING.



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
●	TORO INF34-338-5 / RAIN BIRD A702C8036 (65) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	15
⊙	TORO INF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
○	TORO INF35-338-6 / RAIN BIRD A752C8036 (65) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE. PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	237
⊖	TORO INF35-358-6 / RAIN BIRD A752C8048 (70) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE. PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	215
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
⊕	AQUAFUSE PE ISOLATION VALVE 3" 360 DEGREE POLY BALL VALVE	76
⊖	TORO 474-00 / RAIN BIRD 5-RC ONE-PIECE, 1" SINGLE LUG QUICK COUPLER VALVE WITH STANDARD METAL COVER AND STABILIZER	100
⊖	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED. RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS.	29
⊖	AIR RELIEF VALVE BERMAD C30 (2") AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	DRAIN/FILL VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	TORO DEC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	2
⊖	TORO LX-05-5-08 / RAIN BIRD CIRRHUS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE iPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊖	INTAKE SCREEN - S85-36	1
⊖	PAIGE 270-RX RE-ENTERABLE CONNECTOR WITH 36" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊖	TORO DEC-SG-LINE / RAIN BIRD ISCD WITH 36" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊖	WEATHER STATION SPECTRUM WATCHDOG WIRELESS / SOLAR WEATHER STATION	1
⊖	WATERTRONICS PUMP STATION	1
⊖	IRRIGATION LATERAL LINE: HDPE PE4710 DR 13.5	68,819 L.F.
⊖	IRRIGATION MAINLINE: HDPE PE4710 DR 13.5	19,648 L.F.
⊖	PIPE SLEEVE: HDPE PE4710 DR 11	72.7 L.F.
⊖	PAIGE MAXI COMM. CABLE (#12 TRUNK LINE / #14 LATERAL LINE)	-
⊖	IRRIGATION ZONE LIMITS	-

DESIGN NOTES:

- ALL PRODUCT APPLICATIONS AND INSTALLATIONS MUST MEET MANUFACTURER'S REQUIREMENTS.
- FLOW RATES THROUGH HDPE PIPING NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
- PIPING AS SHOWN IS DIAGNAMTIC IN NATURE. ALL PIPING TO BE LOCATED WITHIN OWNER'S PROPERTY LINES.
- CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF IRRIGATION SYSTEM. SYSTEM SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS AND SHALL WATER ALL SEEDED AND SODDED AREAS. NOTED: IRRIGATION PLAN IS INTENDED TO INCLUDE EVERYTHING NECESSARY TO THE PROPER OPERATION OF SAID IRRIGATION SYSTEM. IF ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL MAKE ADJUSTMENTS FOR SAME.
- IRRIGATION PLANS SHALL HAVE PRECEDENCE OVER IRRIGATION SPECIFICATIONS. ANY DISCREPANCIES BETWEEN THESE TWO DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF THE IRRIGATION CONSULTANT BEFORE INSTALLATION.
- IT IS THE INTENT TO KEEP IRRIGATION WATER OFF OF ALL BUILDINGS, SIDEWALKS AND PARKING AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FIELD TUNE EACH SPRINKLER AS TO KEEPING IRRIGATION ADJUSTED TO GRASSES AND SEEDED AREAS ONLY. IT WILL ALSO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO SUPPLY THE OWNER WITH AN OPERATING SCHEDULE THAT WORKS WITH EXISTING PLANS AND ANY FIELD ADJUSTMENTS.
- IT IS THE INTENT OF THE IRRIGATION DESIGN TO ACHIEVE HEAD TO HEAD COVERAGE IN ALL GRASSED AND SEEDED AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ADJUST FOR SAME.
- IRRIGATION PLANS ARE DIAGNAMTIC IN NATURE. CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATION OF ALL EQUIPMENT AS STAKED BY IRRIGATION CONSULTANT. SAID EQUIPMENT, WHEN FIELD LOCATED, MAY VARY FROM PROPOSED PLAN DUE TO SITE CONDITIONS AND CONTRACTOR WILL MAKE ADJUSTMENTS ACCORDINGLY AT NO ADDITIONAL COST TO OWNER.

PLUMBING NOTES:

- ALL PIPE FITTINGS SHALL BE OF FUSED HDPE, E.F. OR F.M. RATED TYPE. ALL SPRINKLERS SHALL BE MOUNTED WITH MANUFACTURER'S SWING JOINTS ON CMF GLOBAL FUSED HDPE SERVICE RISERS. NO BRAND MIXING ALLOWED AND CONTRACTOR EQUIPMENT TO BE SITE CERTIFIED BY SUPPLIER AS SPECIFIED - NO EXCEPTIONS.
- ALL PIPE SHALL BE CARRIED IN SEPARATE TRENCH.

ELECTRICAL NOTES:

- ALL COMMUNICATION CONNECTIONS SHALL CONFORM TO LOCAL AND STATE CODES.
- ALL POWER WIRE TAPS AND CONNECTIONS SHALL CONFORM TO ALL LOCAL AND STATE CODES AND PERFORMED BY LICENSED ELECTRICIAN.
- 24" LOOP OF WIRE LOCATED BELOW EACH HEAD.
- ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
- ALL WIRE TO BE UL APPROVED FOR DIRECT BURIAL.

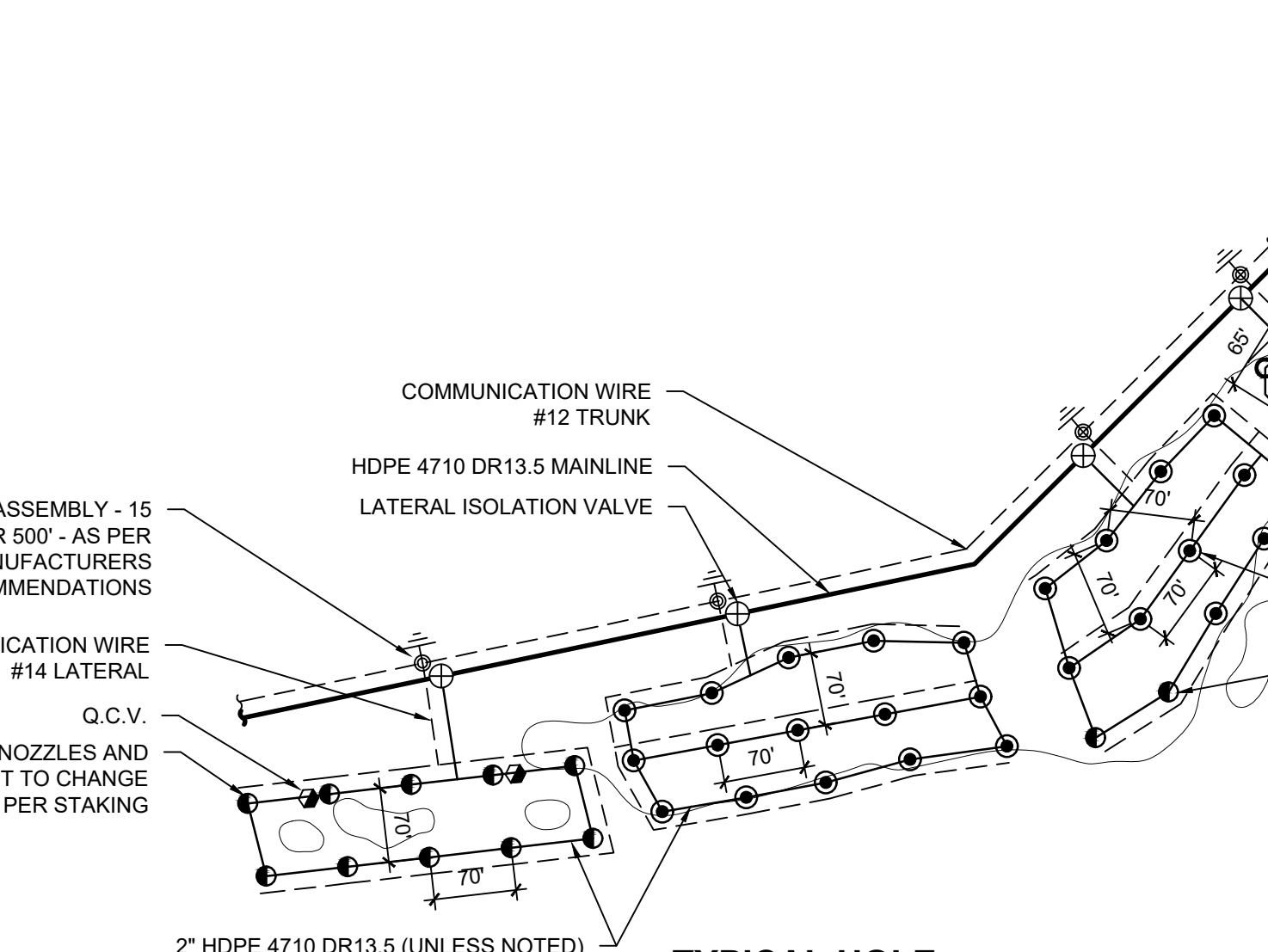
TWO WIRE NOTES:

- ALL MANUFACTURER'S INTELLIGENT STATION MODULES SHALL HAVE INDIVIDUAL ADDRESS STATION OUTPUT (SEE NOTE #5 IN THIS SECTION).
- BASE BID TO INSTALL EACH GROUND PLATE ASSEMBLY 4'-0" TO 8'-0" FROM LINE (REFER TO DETAILS AND LEGEND). DO NOT INSTALL IN THE SAME TRENCH AS WIRE PATH.
- INSTALL GROUNDING ASSEMBLY NO FURTHER THAN MANUFACTURER'S RECOMMENDED DISTANCES FOR ANY INTELLIGENT STATION MODULES AND/OR ACTUATORS. 500'-TORO OR EVERY (15) INTELLIGENT STATION MODULES AND/OR ACTUATORS - RAINBIRD.
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURER'S CURRENT SPECIFICATIONS AND LOCAL CODES.
- SUPPORTING DISTRIBUTOR TO KEEP SEQUENCING STATION NUMBERS CURRENT AND PROGRAM CENTRAL DURING IRRIGATION INSTALLATION AS PART OF BASE BID. SEQUENCING SHEETS SUPPLIED BY IRRIGATION CONSULTANT.

IMPACT COVERAGE NOTES:

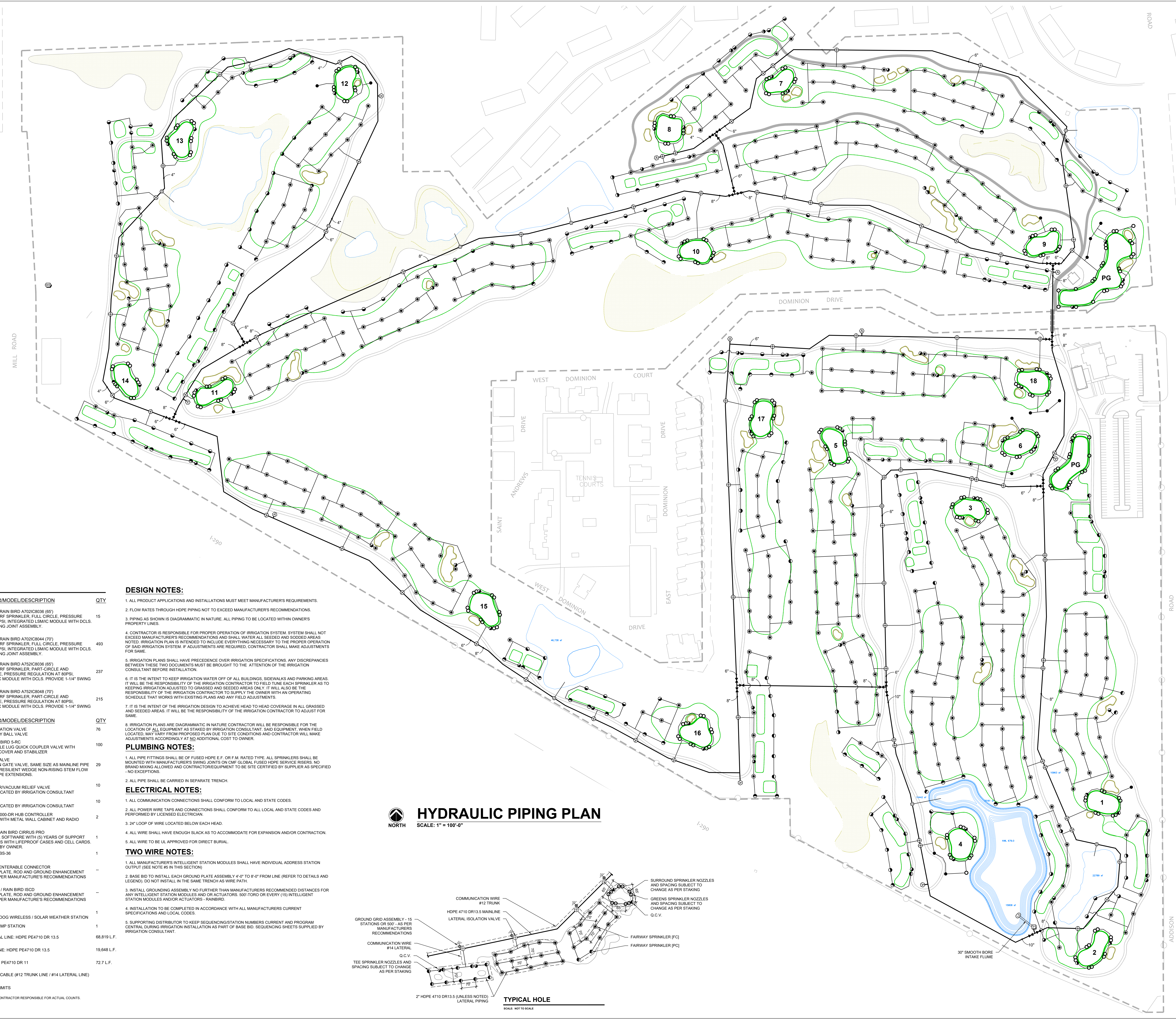
THIS IMPACT STUDY SHOWS APPROXIMATE COVERAGE OF SPRINKLER HEADS. ACTUAL COVERAGE WILL VARY DEPENDING ON MANY FACTORS SUCH AS, BUT NOT LIMITED TO: TOTAL OPERATION OF SYSTEM, RETURNING SPRINKLER COVERAGE, WIND CONDITIONS, PRECIPITATION RATE FACTORS, AND LENGTH OF OPERATION. THIS STUDY IS TO BE USED FOR INFORMATIONAL PURPOSES ONLY AND COULD BE EFFECTED BY ONE OR ALL OF THE ABOVE ISSUES.

IMPACT COVERAGE PLAN
 SCALE: 1" = 100'-0"



TYPICAL HOLE
 SCALE: NOT TO SCALE

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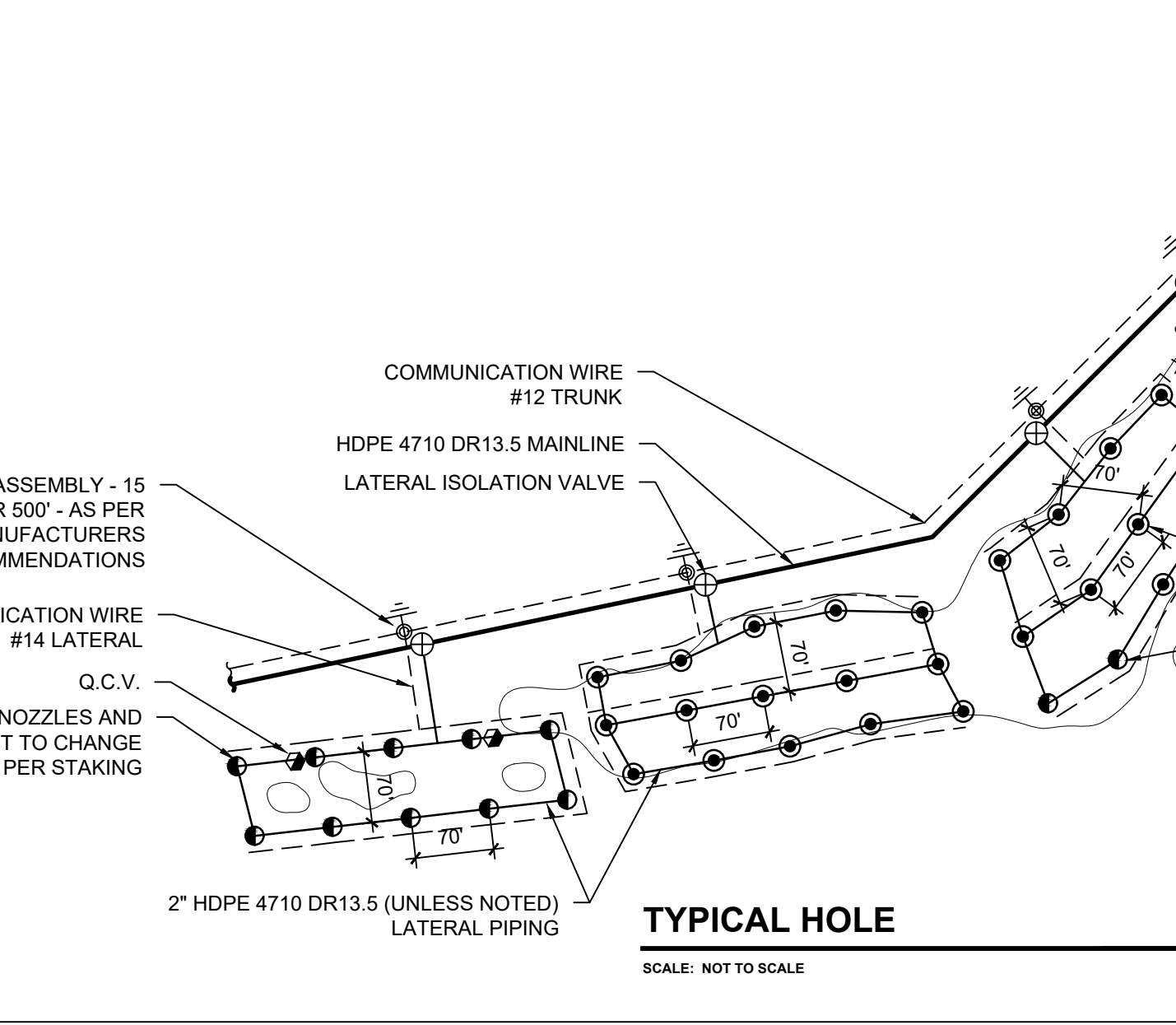


IRRIGATION SCHEDULE

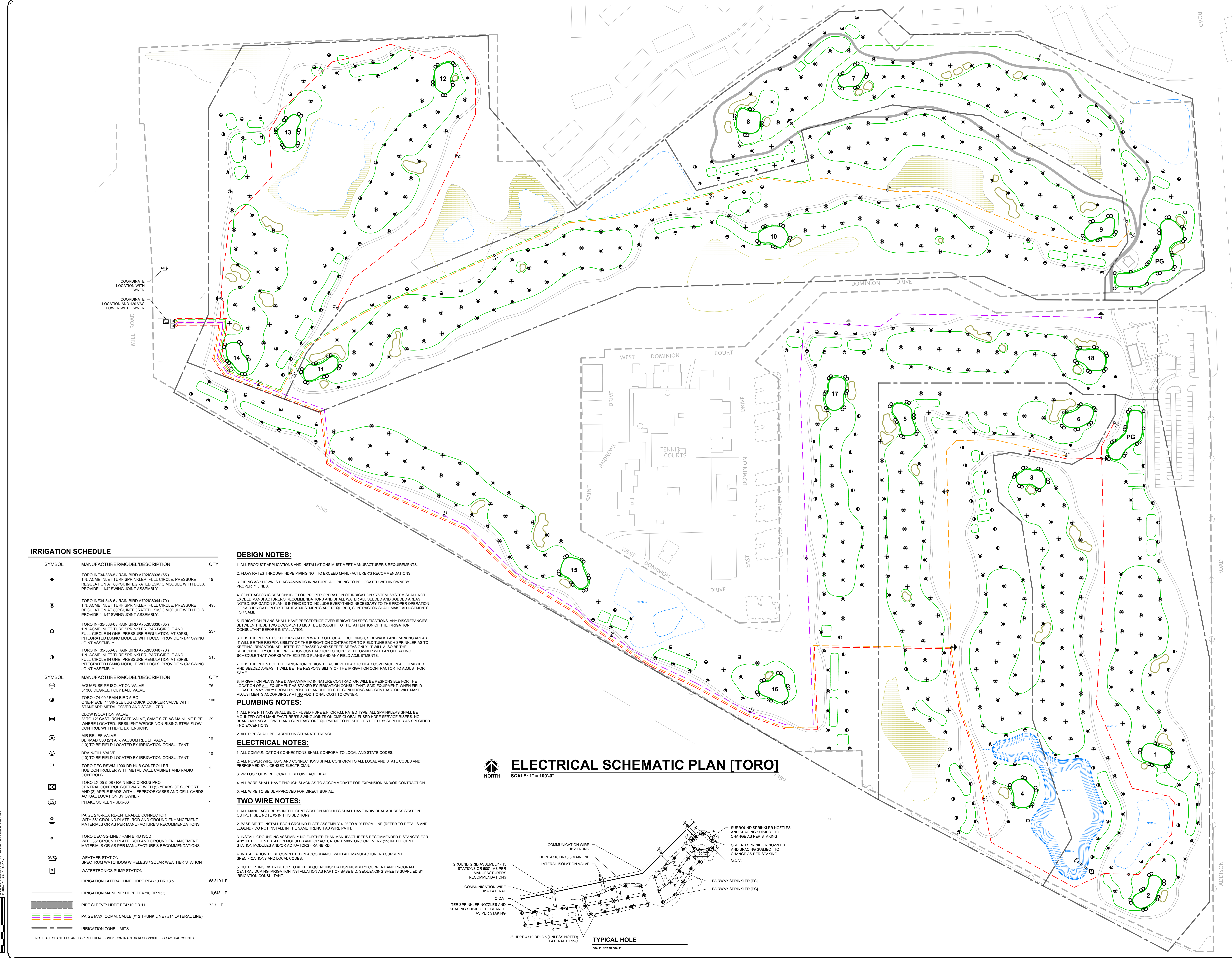
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
●	TORO INF34-338-5 / RAIN BIRD A702C8036 (65) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	15
○	TORO INF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
○	TORO INF35-338-6 / RAIN BIRD A752C8036 (65) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	237
○	TORO INF35-308-6 / RAIN BIRD A752C8048 (70) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	215
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
⊕	AQUAFUSE PE ISOLATION VALVE 3" 300 DEGREE POLY BALL VALVE	76
⊕	TORO 474-00 / RAIN BIRD 5-RC ONE-PIECE, 1" SINGLE LUG QUICK COUPLER VALVE WITH STANDARD METAL COVER AND STABILIZER	100
⊕	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED, RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS	29
⊕	AIR RELIEF VALVE BERMAD C30 (2) AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊕	DRAIN/FILL VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊕	TORO DEC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	2
⊕	TORO LX-05-S-00 / RAIN BIRD CIRRIUS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE iPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊕	INTAKE SCREEN - SBS-36	1
⊕	PAIGE 270-RX-RE-ENTERABLE CONNECTOR WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊕	TORO DEC-SG-LINE / RAIN BIRD ISCD WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊕	WEATHER STATION SPECTRUM WATCHDOG WIRELESS / SOLAR WEATHER STATION	1
⊕	WATERTRONICS PUMP STATION	1
---	IRRIGATION LATERAL LINE: HDPE PE4710 DR 13.5	68,819 L.F.
---	IRRIGATION MAINLINE: HDPE PE4710 DR 13.5	19,648 L.F.
---	PIPE SLEEVE: HDPE PE4710 DR 11	72.7 L.F.
---	PAIGE MAXI COMM. CABLE (#12 TRUNK LINE / #14 LATERAL LINE)	-
---	IRRIGATION ZONE LIMITS	-

- DESIGN NOTES:**
- ALL PRODUCT APPLICATIONS AND INSTALLATIONS MUST MEET MANUFACTURER'S REQUIREMENTS.
 - FLOW RATES THROUGH HDPE PIPING NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
 - PIPING AS SHOWN IS DIAGRAMMATIC IN NATURE. ALL PIPING TO BE LOCATED WITHIN OWNER'S PROPERTY LINES.
 - CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF IRRIGATION SYSTEM. SYSTEM SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS AND SHALL WATER ALL SEEDED AND SOODED AREAS. NOTED: IRRIGATION PLAN IS INTENDED TO INCLUDE EVERYTHING NECESSARY TO THE PROPER OPERATION OF SAID IRRIGATION SYSTEM. IF ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL MAKE ADJUSTMENTS FOR SAME.
 - IRRIGATION PLANS SHALL HAVE PRECEDENCE OVER IRRIGATION SPECIFICATIONS. ANY DISCREPANCIES BETWEEN THESE TWO DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF THE IRRIGATION CONSULTANT BEFORE INSTALLATION.
 - IT IS THE INTENT TO KEEP IRRIGATION WATER OFF OF ALL BUILDINGS, SIDEWALKS AND PARKING AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FIELD TUNE EACH SPRINKLER AS TO KEEPING IRRIGATION ADJUSTED TO GRASSES AND SEEDS ONLY. IT WILL ALSO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO SUPPLY THE OWNER WITH AN OPERATING SCHEDULE THAT WORKS WITH EXISTING PLANS AND ANY FIELD ADJUSTMENTS.
 - IT IS THE INTENT OF THE IRRIGATION DESIGN TO ACHIEVE HEAD TO HEAD COVERAGE IN ALL GRASSED AND SEEDS AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ADJUST FOR SAME.
 - IRRIGATION PLANS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATION OF ALL EQUIPMENT AS STAKED BY IRRIGATION CONSULTANT. SAID EQUIPMENT, WHEN FIELD LOCATED, MAY VARY FROM PROPOSED PLAN DUE TO SITE CONDITIONS AND CONTRACTOR WILL MAKE ADJUSTMENTS ACCORDINGLY AT NO ADDITIONAL COST TO OWNER.
- PLUMBING NOTES:**
- ALL PIPE FITTINGS SHALL BE OF FUSED HDPE E.F. OR F.M. RATED TYPE. ALL SPRINKLERS SHALL BE MOUNTED WITH MANUFACTURER'S SWING JOINTS ON CMF GLOBAL FUSED HDPE SERVICE RISERS. NO BRAND MIXING ALLOWED AND CONTRACTOR/EQUIPMENT TO BE SITE CERTIFIED BY SUPPLIER AS SPECIFIED - NO EXCEPTIONS.
 - ALL PIPE SHALL BE CARRIED IN SEPARATE TRENCH.
- ELECTRICAL NOTES:**
- ALL COMMUNICATION CONNECTIONS SHALL CONFORM TO LOCAL AND STATE CODES.
 - ALL POWER WIRE TAPS AND CONNECTIONS SHALL CONFORM TO ALL LOCAL AND STATE CODES AND PERFORM BY LICENSED ELECTRICIAN.
 - 24" LOOP OF WIRE LOCATED BELOW EACH HEAD.
 - ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
 - ALL WIRE TO BE UL APPROVED FOR DIRECT BURIAL.
- TWO WIRE NOTES:**
- ALL MANUFACTURER'S INTELLIGENT STATION MODULES SHALL HAVE INDIVIDUAL ADDRESS STATION OUTPUT (SEE NOTE #5 IN THIS SECTION).
 - BASE BID TO INSTALL EACH GROUND PLATE ASSEMBLY 4'-0" TO 8'-0" FROM LINE (REFER TO DETAILS AND LEGEND). DO NOT INSTALL IN THE SAME TRENCH AS WIRE PATH.
 - INSTALL GROUNDING ASSEMBLY NO FURTHER THAN MANUFACTURER'S RECOMMENDED DISTANCES FOR ANY INTELLIGENT STATION MODULES AND OR ACTUATORS. 500-TORO OR EVERY (15) INTELLIGENT STATION MODULES AND/OR ACTUATORS - RAINBIRD.
 - INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURER'S CURRENT SPECIFICATIONS AND LOCAL CODES.
 - SUPPORTING DISTRIBUTOR TO KEEP SEQUENCING STATION NUMBERS CURRENT AND PROGRAM CENTRAL DURING IRRIGATION INSTALLATION AS PART OF BASE BID. SEQUENCING SHEETS SUPPLIED BY IRRIGATION CONSULTANT.

HYDRAULIC PIPING PLAN
SCALE: 1" = 100'-0"



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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
●	TORO NF34-338-5 / RAIN BIRD A702C8036 (65) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	15
⊙	TORO NF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
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⊖	TORO NF35-308-6 / RAIN BIRD A752C8048 (70) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	215
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⊖	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED, RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS	29
A	AIR RELIEF VALVE BERMAD C30 (2") AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	DRAIN/PILL VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	TORO DEC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	2
⊖	TORO LX-05-S-00 / RAIN BIRD CIRRUS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE iPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊖	INTAKE SCREEN - SBS-36	1
⊖	PAIGE 270-RXC RE-ENTERABLE CONNECTOR WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
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⊖	WEATHER STATION SPECTRUM WATCHDOG WIRELESS / SOLAR WEATHER STATION	1
⊖	WATERTRONICS PUMP STATION	1
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---	IRRIGATION MAINLINE: HDPE PE4710 DR 13.5	19,648 L.F.
---	PIPE SLEEVE: HDPE PE4710 DR 11	72.7 L.F.
---	PAIGE MAXI COMM. CABLE (#12 TRUNK LINE / #14 LATERAL LINE)	-
---	IRRIGATION ZONE LIMITS	-

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PLUMBING NOTES:

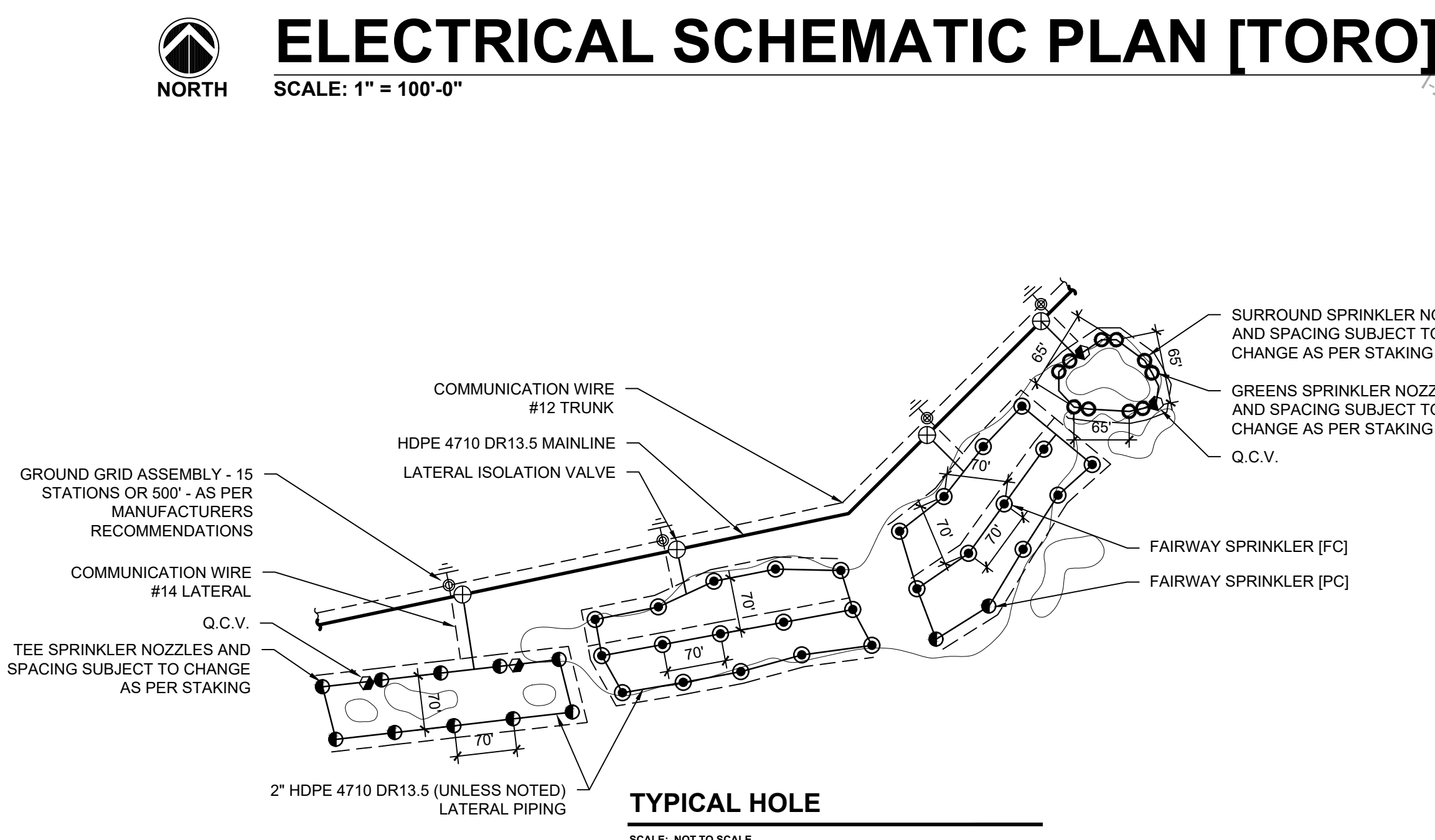
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- ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
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TWO WIRE NOTES:

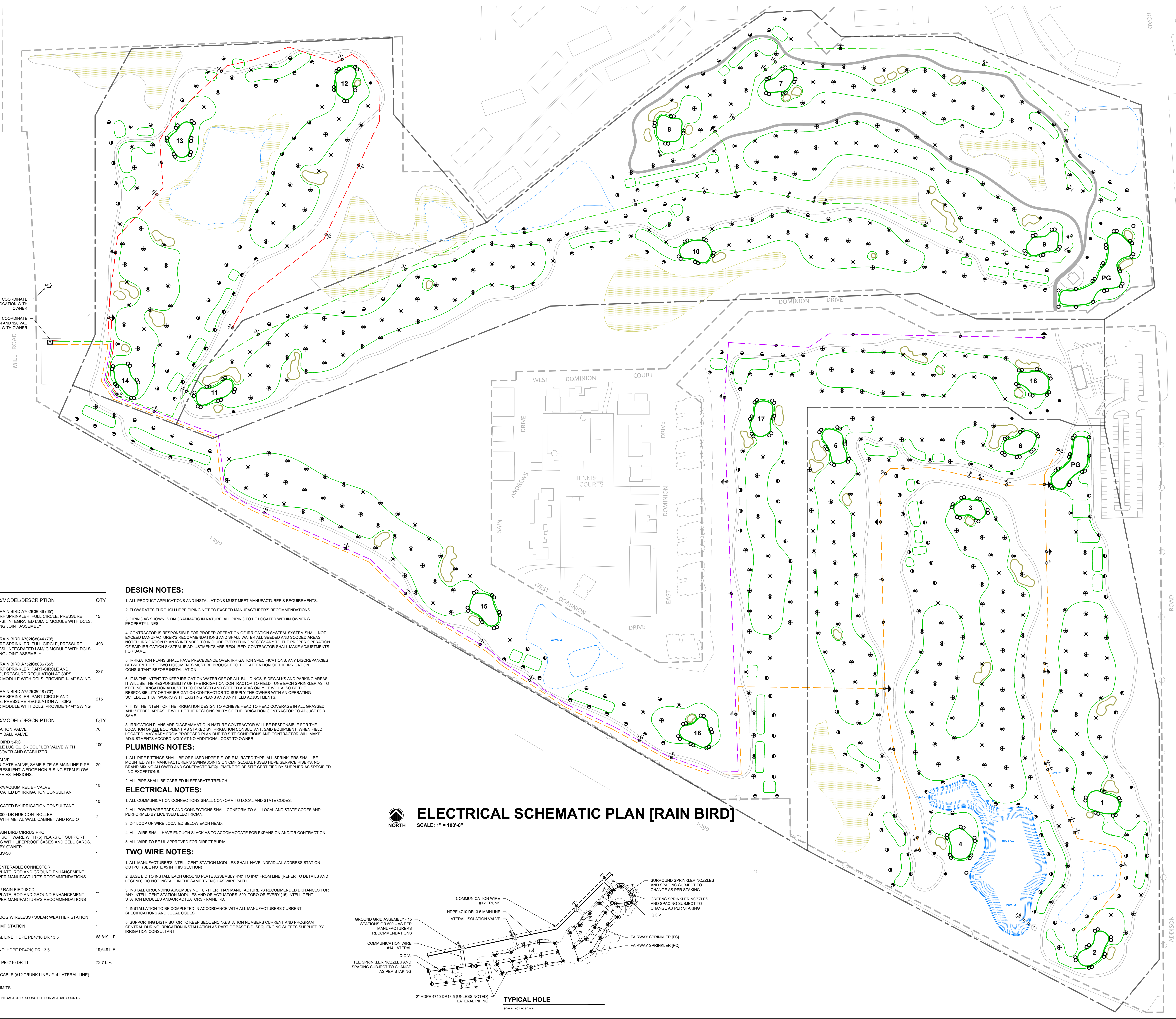
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ELECTRICAL SCHEMATIC PLAN [TORO]
SCALE: 1" = 100'-0"



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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
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○	TORO NF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
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⊕	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED, RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS	29
⊕	AIR RELIEF VALVE BERMAD C30 (2") AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊕	DRAIN/FLUSH VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊕	TORO DIC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	2
⊕	TORO LX-05-S-08 / RAIN BIRD CIRRUS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE IPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊕	INTAKE SCREEN - SBS-36	1
⊕	PAIGE 270-RXC RE-ENTERABLE CONNECTOR WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
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⊕	IRRIGATION ZONE LIMITS	-

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PLUMBING NOTES:

1. ALL PIPE FITTINGS SHALL BE OF FUSED HDPE E.F. OR F.M. RATED TYPE. ALL SPRINKLERS SHALL BE MOUNTED WITH MANUFACTURER'S SWING JOINTS ON CMF GLOBAL FUSED HDPE SERVICE RISERS. NO BRAND MIXING ALLOWED AND CONTRACTOR/EQUIPMENT TO BE SITE CERTIFIED BY SUPPLIER AS SPECIFIED - NO EXCEPTIONS.
2. ALL PIPE SHALL BE CARRIED IN SEPARATE TRENCH.

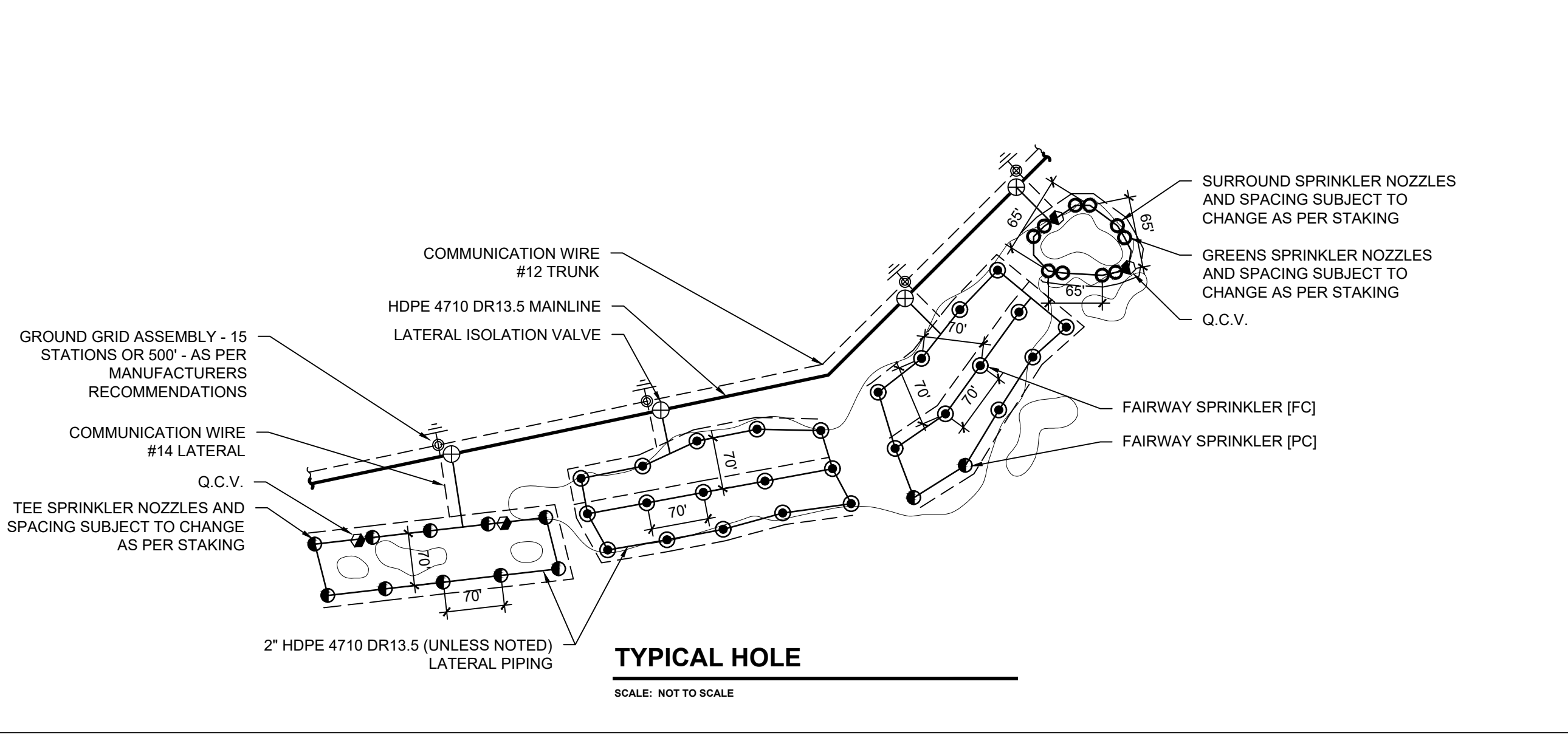
ELECTRICAL NOTES:

1. ALL COMMUNICATION CONNECTIONS SHALL CONFORM TO LOCAL AND STATE CODES.
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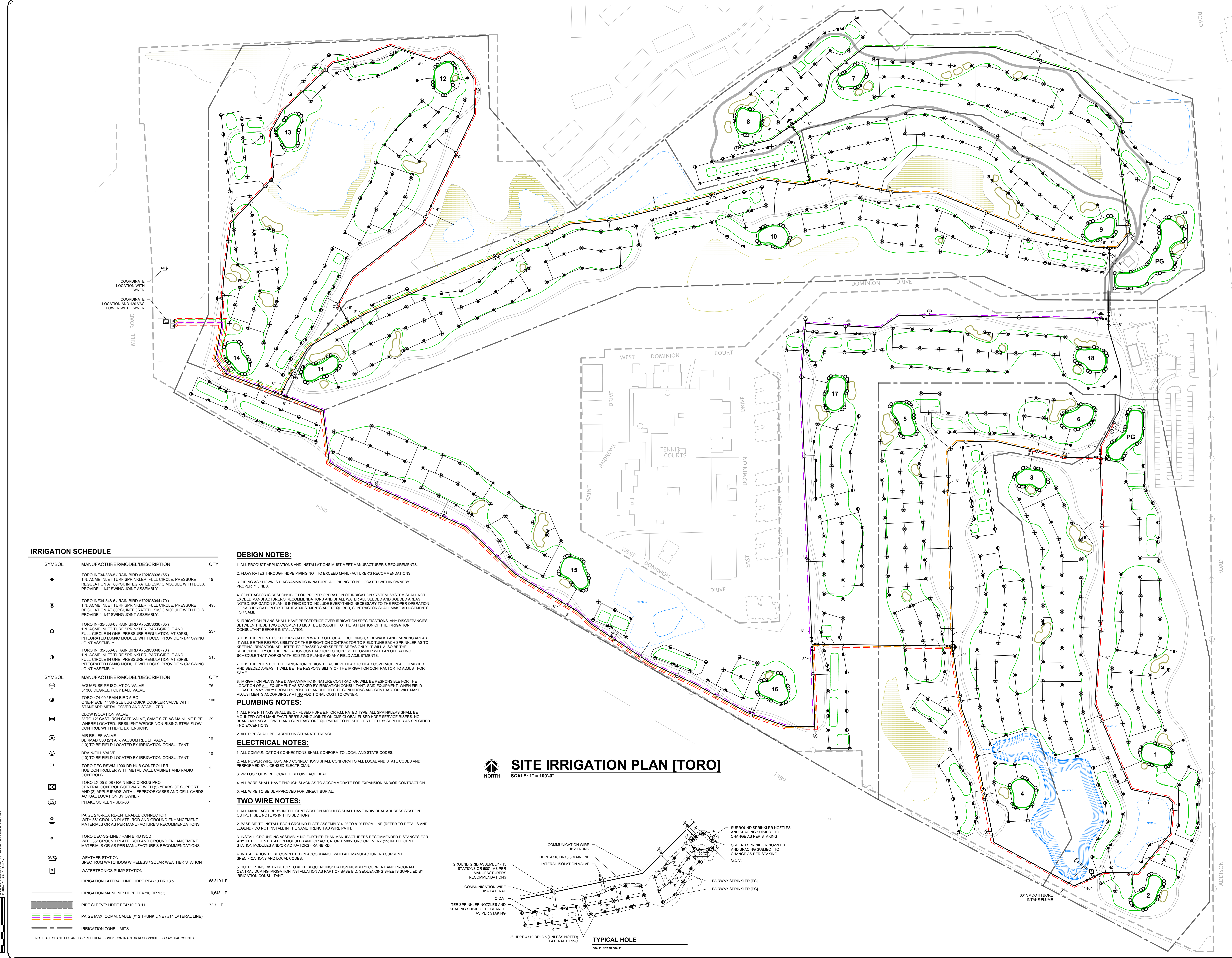
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ELECTRICAL SCHEMATIC PLAN [RAIN BIRD]
 SCALE: 1" = 100'-0"



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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
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⊙	TORO NF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
○	TORO NF35-338-6 / RAIN BIRD A752C8036 (65) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	237
⊖	TORO NF35-308-6 / RAIN BIRD A752C8048 (70) 1IN. ACME INLET TURF SPRINKLER, PART-CIRCLE AND FULL-CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	215
⊕	AQUAFUSE PE ISOLATION VALVE 3" 300 DEGREE POLY BALL VALVE	76
⊖	TORO 474-00 / RAIN BIRD 5-RC ONE-PIECE, 1" SINGLE LUG QUICK COUPLER VALVE WITH STANDARD METAL COVER AND STABILIZER	100
⊖	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED, RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS	29
A	AIR RELIEF VALVE BERMAD C30 (2) AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	DRAIN/FLUSH VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊖	TORO DEC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	2
⊖	TORO LX-05-S-00 / RAIN BIRD CIRRUS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE IPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊖	INTAKE SCREEN - SBS-36	1
⊖	PAIGE 270-RX-RE-ENTERABLE CONNECTOR WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊖	TORO DEC-SG-LINE / RAIN BIRD ISCD WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	-
⊖	WEATHER STATION SPECTRUM WATCHDOG WIRELESS / SOLAR WEATHER STATION	1
⊖	WATERTRONICS PUMP STATION	1
---	IRRIGATION LATERAL LINE: HDPE PE4710 DR 13.5	68,819 L.F.
---	IRRIGATION MAINLINE: HDPE PE4710 DR 13.5	19,648 L.F.
---	PIPE SLEEVE: HDPE PE4710 DR 11	72.7 L.F.
---	PAIGE MAXI COMM. CABLE (#12 TRUNK LINE / #14 LATERAL LINE)	-
---	IRRIGATION ZONE LIMITS	-

DESIGN NOTES:

1. ALL PRODUCT APPLICATIONS AND INSTALLATIONS MUST MEET MANUFACTURER'S REQUIREMENTS.
2. FLOW RATES THROUGH HDPE PIPING NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
3. PIPING AS SHOWN IS DIAGNAMMATIC IN NATURE. ALL PIPING TO BE LOCATED WITHIN OWNER'S PROPERTY LINES.
4. CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF IRRIGATION SYSTEM. SYSTEM SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS AND SHALL WATER ALL SEEDED AND SOODED AREAS. NOTED: IRRIGATION PLAN IS INTENDED TO INCLUDE EVERYTHING NECESSARY TO THE PROPER OPERATION OF SAID IRRIGATION SYSTEM. IF ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL MAKE ADJUSTMENTS FOR SAME.
5. IRRIGATION PLANS SHALL HAVE PRECEDENCE OVER IRRIGATION SPECIFICATIONS. ANY DISCREPANCIES BETWEEN THESE TWO DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF THE IRRIGATION CONSULTANT BEFORE INSTALLATION.
6. IT IS THE INTENT TO KEEP IRRIGATION WATER OFF OF ALL BUILDINGS, SIDEWALKS AND PARKING AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FIELD TUNE EACH SPRINKLER AS TO KEEPING IRRIGATION ADJUSTED TO GRASSES AND SEEDS ONLY. IT WILL ALSO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO SUPPLY THE OWNER WITH AN OPERATING SCHEDULE THAT WORKS WITH EXISTING PLANS AND ANY FIELD ADJUSTMENTS.
7. IT IS THE INTENT OF THE IRRIGATION DESIGN TO ACHIEVE HEAD TO HEAD COVERAGE ALL GRASSED AND SEEDDED AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ADJUST FOR SAME.
8. IRRIGATION PLANS ARE DIAGNAMMATIC IN NATURE. CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATION OF ALL EQUIPMENT AS STAKED BY IRRIGATION CONSULTANT. SAID EQUIPMENT, WHEN FIELD LOCATED, MAY VARY FROM PROPOSED PLAN DUE TO SITE CONDITIONS AND CONTRACTOR WILL MAKE ADJUSTMENTS ACCORDINGLY AT NO ADDITIONAL COST TO OWNER.

PLUMBING NOTES:

1. ALL PIPE FITTINGS SHALL BE OF FUSED HDPE E.F. OR F.M. RATED TYPE. ALL SPRINKLERS SHALL BE MOUNTED WITH MANUFACTURER'S SWING JOINTS ON CMF GLOBAL FUSED HDPE SERVICE RISERS. NO BRAND MIXING ALLOWED AND CONTRACTOR/EQUIPMENT TO BE SITE CERTIFIED BY SUPPLIER AS SPECIFIED - NO EXCEPTIONS.
2. ALL PIPE SHALL BE CARRIED IN SEPARATE TRENCH.

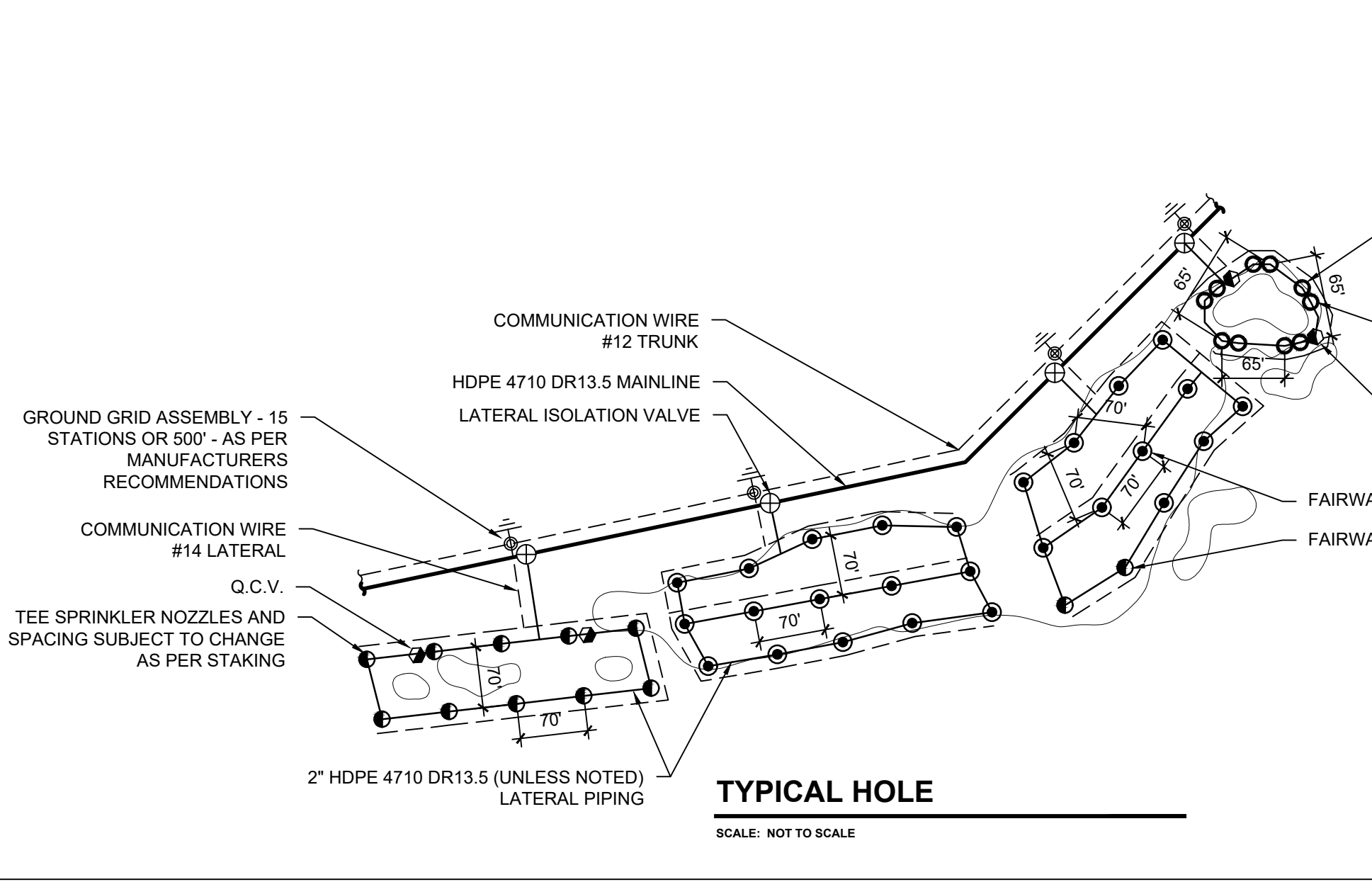
ELECTRICAL NOTES:

1. ALL COMMUNICATION CONNECTIONS SHALL CONFORM TO LOCAL AND STATE CODES.
2. ALL POWER WIRE TAPS AND CONNECTIONS SHALL CONFORM TO ALL LOCAL AND STATE CODES AND PERFORMED BY LICENSED ELECTRICIAN.
3. 24" LOOP OF WIRE LOCATED BELOW EACH HEAD.
4. ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
5. ALL WIRE TO BE UL APPROVED FOR DIRECT BURIAL.

TWO WIRE NOTES:

1. ALL MANUFACTURER'S INTELLIGENT STATION MODULES SHALL HAVE INDIVIDUAL ADDRESS STATION OUTPUT (SEE NOTE #5 IN THIS SECTION).
2. BASE BID TO INSTALL EACH GROUND PLATE ASSEMBLY 4'-0" TO 8'-0" FROM LINE (REFER TO DETAILS AND LEGEND). DO NOT INSTALL IN THE SAME TRENCH AS WIRE PATH.
3. INSTALL GROUNDING ASSEMBLY NO FURTHER THAN MANUFACTURER'S RECOMMENDED DISTANCES FOR ANY INTELLIGENT STATION MODULES AND OR ACTUATORS. 500'-TORO OR EVERY (15) INTELLIGENT STATION MODULES AND/OR ACTUATORS - RAINBIRD.
4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURER'S CURRENT SPECIFICATIONS AND LOCAL CODES.
5. SUPPORTING DISTRIBUTOR TO KEEP SEQUENCING STATION NUMBERS CURRENT AND PROGRAM CENTRAL DURING IRRIGATION INSTALLATION AS PART OF BASE BID. SEQUENCING SHEETS SUPPLIED BY IRRIGATION CONSULTANT.

SITE IRRIGATION PLAN [TORO]
 SCALE: 1" = 100'-0"



NOTE: ALL QUANTITIES ARE FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE FOR ACTUAL COUNTS.

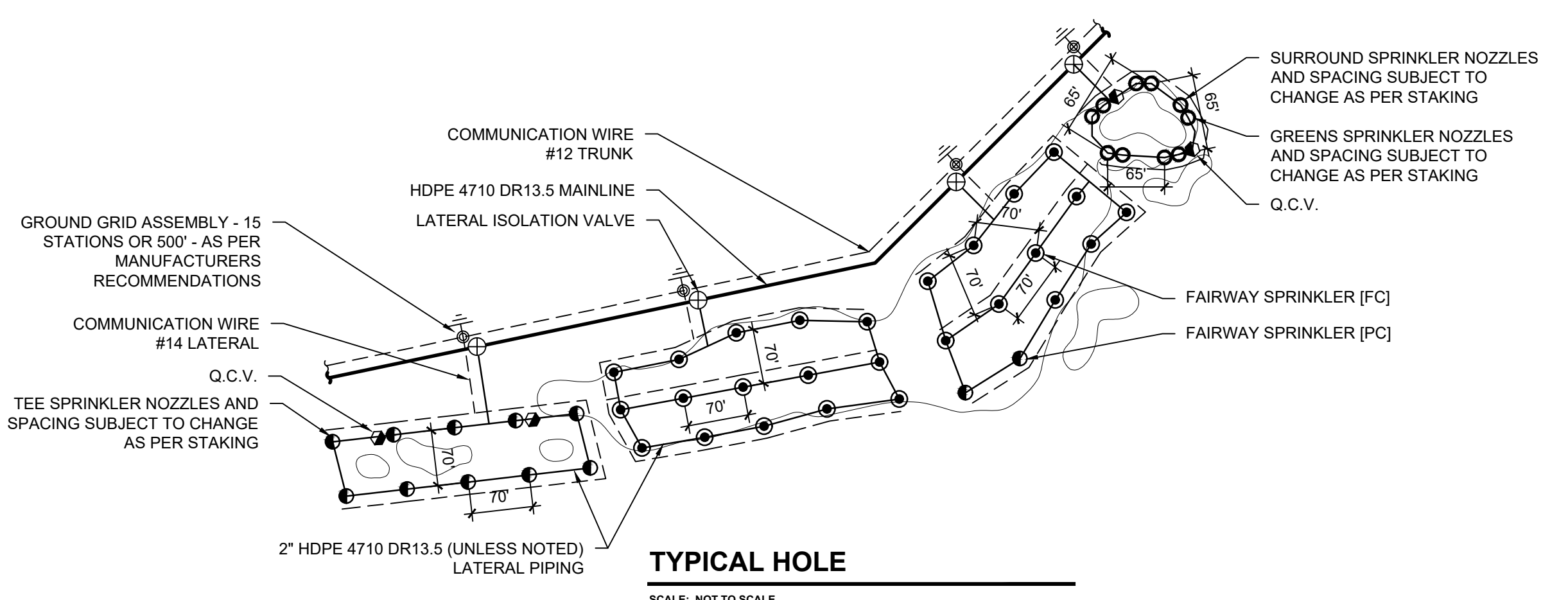


IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
●	TORO INF34-338-5 / RAIN BIRD A702C8036 (65) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	15
○	TORO INF34-348-6 / RAIN BIRD A702C8044 (70) 1IN. ACME INLET TURF SPRINKLER, FULL CIRCLE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	493
○	TORO INF35-338-6 / RAIN BIRD A752C8036 (65) 1IN. ACME INLET TURF SPRINKLER, PART CIRCLE AND FULL CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	237
○	TORO INF35-308-6 / RAIN BIRD A752C8048 (70) 1IN. ACME INLET TURF SPRINKLER, PART CIRCLE AND FULL CIRCLE IN ONE, PRESSURE REGULATION AT 80PSI, INTEGRATED LSMIC MODULE WITH DCLS. PROVIDE 1-1/4" SWING JOINT ASSEMBLY.	215
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
⊕	AQUAFUSE PE ISOLATION VALVE	76
⊕	3" 300 DEGREE POLY BALL VALVE	100
⊕	TORO 474-00 / RAIN BIRD 5-RC ONE-PIECE, 1" SINGLE LUG QUICK COUPLER VALVE WITH STANDARD METAL COVER AND STABILIZER	29
⊕	CLOW ISOLATION VALVE 3" TO 12" CAST IRON GATE VALVE, SAME SIZE AS MAINLINE PIPE WHERE LOCATED, RESILIENT WEDGE NON-RISING STEM FLOW CONTROL, WITH HDPE EXTENSIONS	10
⊕	AIR RELIEF VALVE BERMAD C30 (2) AIR/VACUUM RELIEF VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	10
⊕	DRAIN/PULL VALVE (10) TO BE FIELD LOCATED BY IRRIGATION CONSULTANT	2
⊕	TORO DIC-RSWM-1000-DR HUB CONTROLLER HUB CONTROLLER WITH METAL WALL CABINET AND RADIO CONTROLS	1
⊕	TORO LX-05-S-00 / RAIN BIRD CIRROS PRO CENTRAL CONTROL SOFTWARE WITH (5) YEARS OF SUPPORT AND (2) APPLE iPADS WITH LIFEPROOF CASES AND CELL CARDS. ACTUAL LOCATION BY OWNER.	1
⊕	INTAKE SCREEN - SBS-36	1
⊕	PAIGE 270-RX-RE-ENTERABLE CONNECTOR WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	68,819 L.F.
⊕	TORO DEC-5G-LINE / RAIN BIRD ISCD WITH 38" GROUND PLATE, ROD AND GROUND ENHANCEMENT MATERIALS OR AS PER MANUFACTURER'S RECOMMENDATIONS	19,648 L.F.
⊕	WEATHER STATION SPECTRUM WATCHDOG WIRELESS / SOLAR WEATHER STATION	1
⊕	WATERTRONICS PUMP STATION	1
⊕	IRRIGATION LATERAL LINE: HDPE PE4710 DR 13.5	72.7 L.F.
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⊕	PAIGE MAXI COMM. CABLE (#12 TRUNK LINE / #14 LATERAL LINE)	
⊕	IRRIGATION ZONE LIMITS	

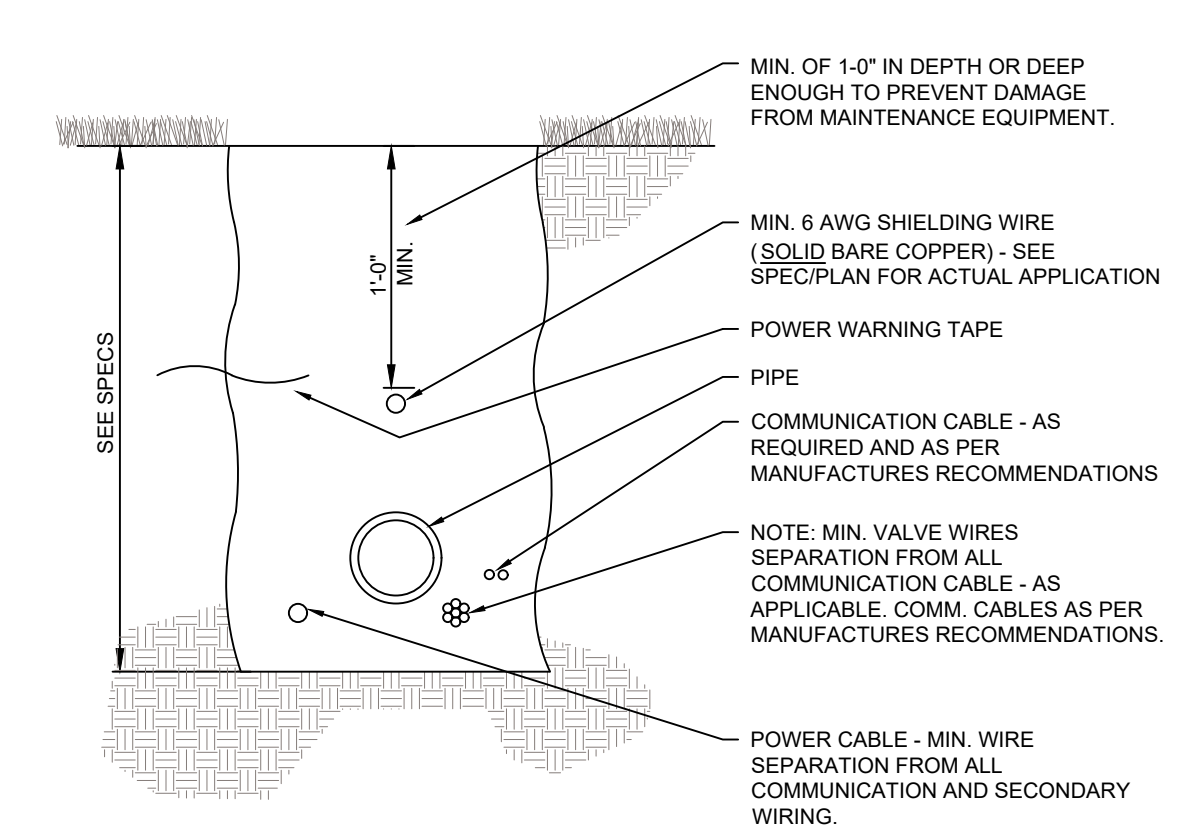
- DESIGN NOTES:**
1. ALL PRODUCT APPLICATIONS AND INSTALLATIONS MUST MEET MANUFACTURER'S REQUIREMENTS.
 2. FLOW RATES THROUGH HDPE PIPING NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
 3. PIPING AS SHOWN IS DIAGNAMATIC IN NATURE. ALL PIPING TO BE LOCATED WITHIN OWNER'S PROPERTY LINES.
 4. CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF IRRIGATION SYSTEM. SYSTEM SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS AND SHALL WATER ALL SEEDED AND SOODED AREAS. NOTED: IRRIGATION PLAN IS INTENDED TO INCLUDE EVERYTHING NECESSARY TO THE PROPER OPERATION OF SAID IRRIGATION SYSTEM. IF ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL MAKE ADJUSTMENTS FOR SAME.
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- PLUMBING NOTES:**
1. ALL PIPE FITTINGS SHALL BE OF FUSED HDPE E.F. OR F.M. RATED TYPE. ALL SPRINKLERS SHALL BE MOUNTED WITH MANUFACTURER'S SWING JOINTS ON CMF GLOBAL FUSED HDPE SERVICE RISERS. NO BRAND MIXING ALLOWED AND CONTRACTOR/EQUIPMENT TO BE SITE CERTIFIED BY SUPPLIER AS SPECIFIED - NO EXCEPTIONS.
 2. ALL PIPE SHALL BE CARRIED IN SEPARATE TRENCH.
- ELECTRICAL NOTES:**
1. ALL CONNECTION CONNECTIONS SHALL CONFORM TO LOCAL AND STATE CODES.
 2. ALL POWER WIRE TAPS AND CONNECTIONS SHALL CONFORM TO ALL LOCAL AND STATE CODES AND PERFORM BY LICENSED ELECTRICIAN.
 3. 24" LOOP OF WIRE LOCATED BELOW EACH HEAD.
 4. ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
 5. ALL WIRE TO BE UL APPROVED FOR DIRECT BURIAL.
- TWO WIRE NOTES:**
1. ALL MANUFACTURER'S INTELLIGENT STATION MODULES SHALL HAVE INDIVIDUAL ADDRESS STATION OUTPUT (SEE NOTE #5 IN THIS SECTION).
 2. BASE BID TO INSTALL EACH GROUND PLATE ASSEMBLY 4'-0" TO 8'-0" FROM LINE (REFER TO DETAILS AND LEGEND). DO NOT INSTALL IN THE SAME TRENCH AS WIRE PATH.
 3. INSTALL GROUNDING ASSEMBLY NO FURTHER THAN MANUFACTURER'S RECOMMENDED DISTANCES FOR ANY INTELLIGENT STATION MODULES AND OR ACTUATORS. 500-TORO OR EVERY (15) INTELLIGENT STATION MODULES AND/OR ACTUATORS - RAINBIRD.
 4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH ALL MANUFACTURERS CURRENT SPECIFICATIONS AND LOCAL CODES.
 5. SUPPORTING DISTRIBUTOR TO KEEP SEQUENCING STATION NUMBERS CURRENT AND PROGRAM CENTRAL DURING IRRIGATION INSTALLATION AS PART OF BASE BID. SEQUENCING SHEETS SUPPLIED BY IRRIGATION CONSULTANT.

SITE IRRIGATION PLAN [RAIN BIRD]
SCALE: 1" = 100'-0"

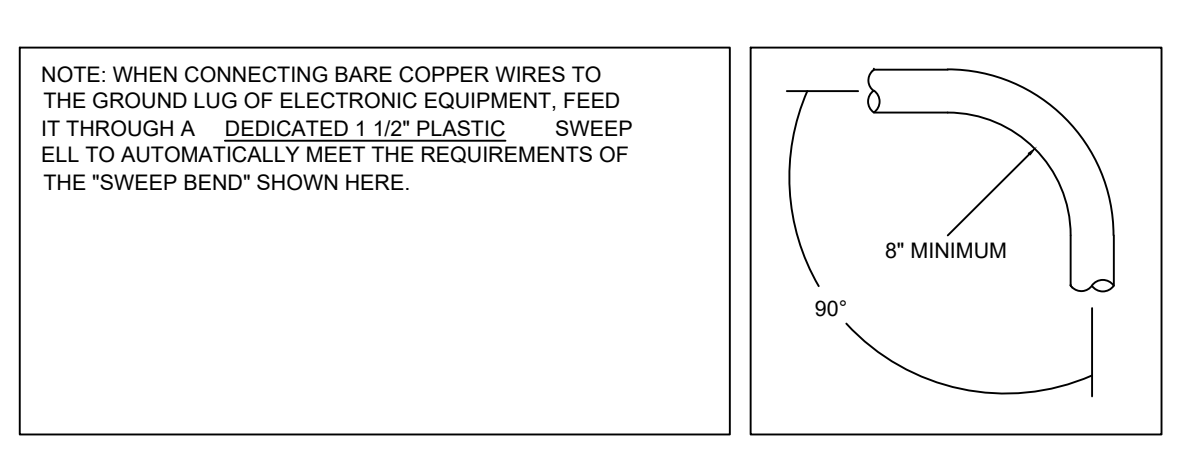


NOTE: ALL QUANTITIES ARE FOR REFERENCE ONLY. CONTRACTOR RESPONSIBLE FOR ACTUAL COUNTS.

SHIELDING
 THE BONDING CONDUCTORS ARE TO BE INSTALLED IN SUCH A WAY SO THAT THEY ALSO ACT AS SHIELDING CONDUCTORS. THIS BECOMES A NETWORK OF SOLID BARE COPPER WIRE OVER ALL THE MAIN BUNDLES OF OTHER WIRES AND CABLES AS SHOWN IN THE DETAIL.

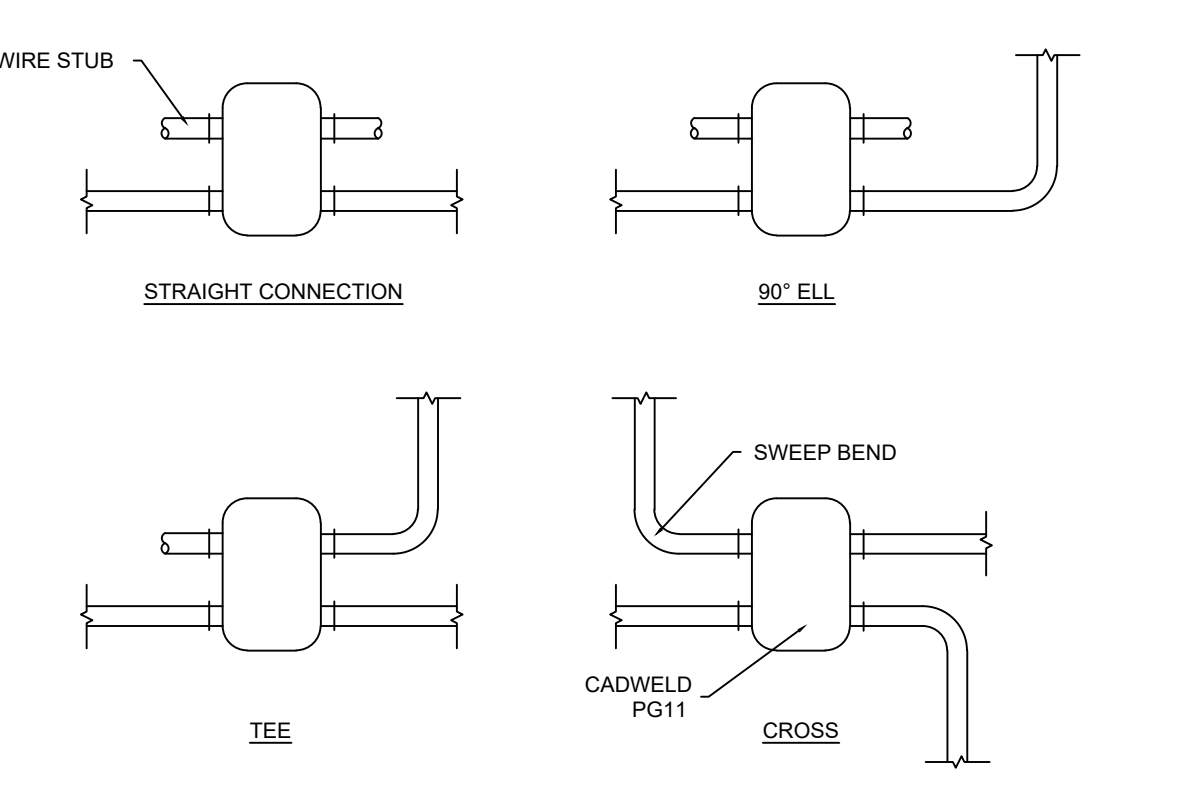


THE BARE WIRE IS TO BE INSTALLED AS CLOSE TO THE SURFACE AS POSSIBLE, YET BEING SUFFICIENTLY BELOW THE GROUND LEVEL AS TO PREVENT DAMAGE FROM MAINTENANCE EQUIPMENT SUCH AS AERATORS, AND IT IS TO BE PLACED ABOVE ALL OTHER VALVE, POWER, COMMUNICATION WIRES AND CABLES. PER DETAIL AND INSTALLED IN ALL TRENCHES AS SHOWN ON THE ELECTRICAL PLAN DRAWINGS. IT IS NOT NECESSARY TO INSTALL THIS CONDUCTOR OVER A SHORT WIRE RUNS LESS THAN 100 FEET AWAY FROM THE MAIN WIRE BUNDLES. THE CONDUCTOR IS LAD IN AS STRAIGHT A LINE AS POSSIBLE, AND WHEN NECESSARY TO MAKE BENDS, DO SO IN A SWEEPING MOTION USING THE FOLLOWING DETAIL AS A GUIDELINE.

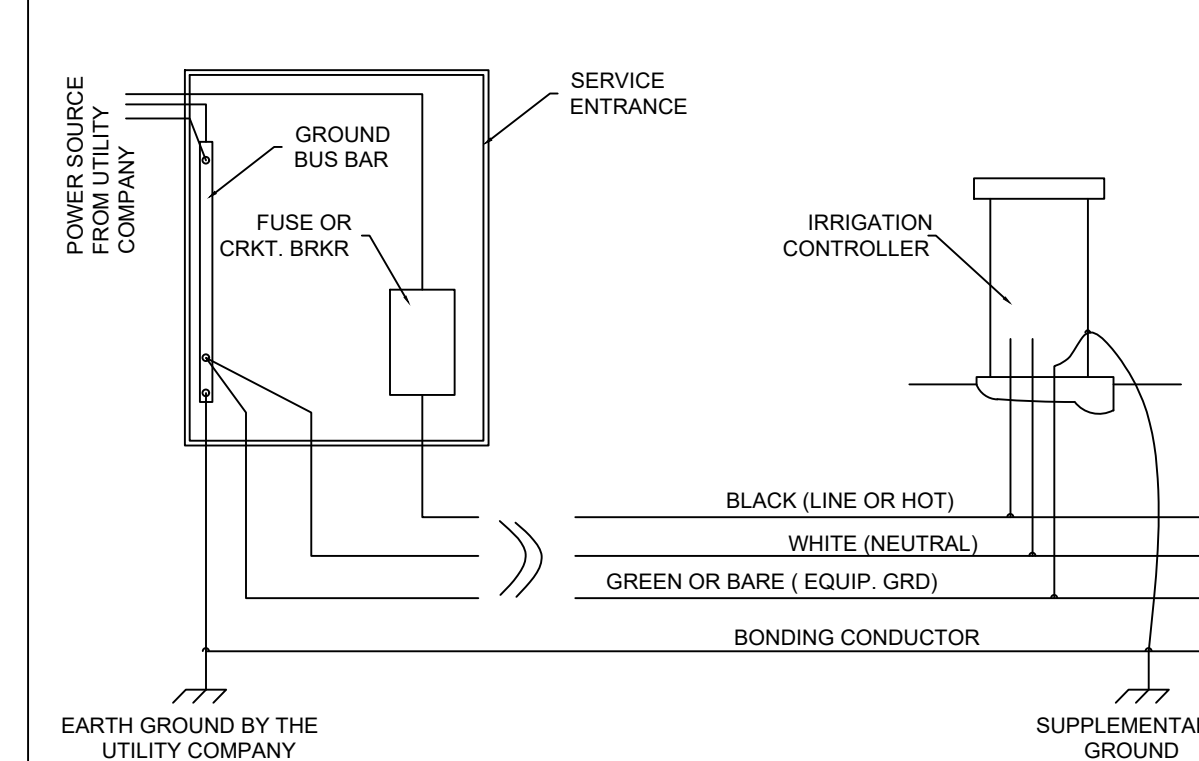


THE SHIELD NETWORK IS TO BE CONNECTED TO THE SERVICE ENTRANCE EARTH GROUND, TO ALL ELECTRIC EQUIPMENT GROUND LUGS, AND ALL EQUIPMENT SUPPLEMENTARY GROUNDING ELECTRODES. ONE SUCH NETWORK IS NECESSARY FOR EACH POWER SOURCE. DO NOT INTERCONNECT THE EQUIPMENT GROUND WIRES FROM DIFFERENT POWER SOURCES.

WHEN JOINING BARE COPPER WIRES, DO SO USING AN ERICO PG11L "ONE-SHOT" KIT AS SHOWN IN THE DETAILS [PAGE ELECTRIC PART NUMBER 1820074]



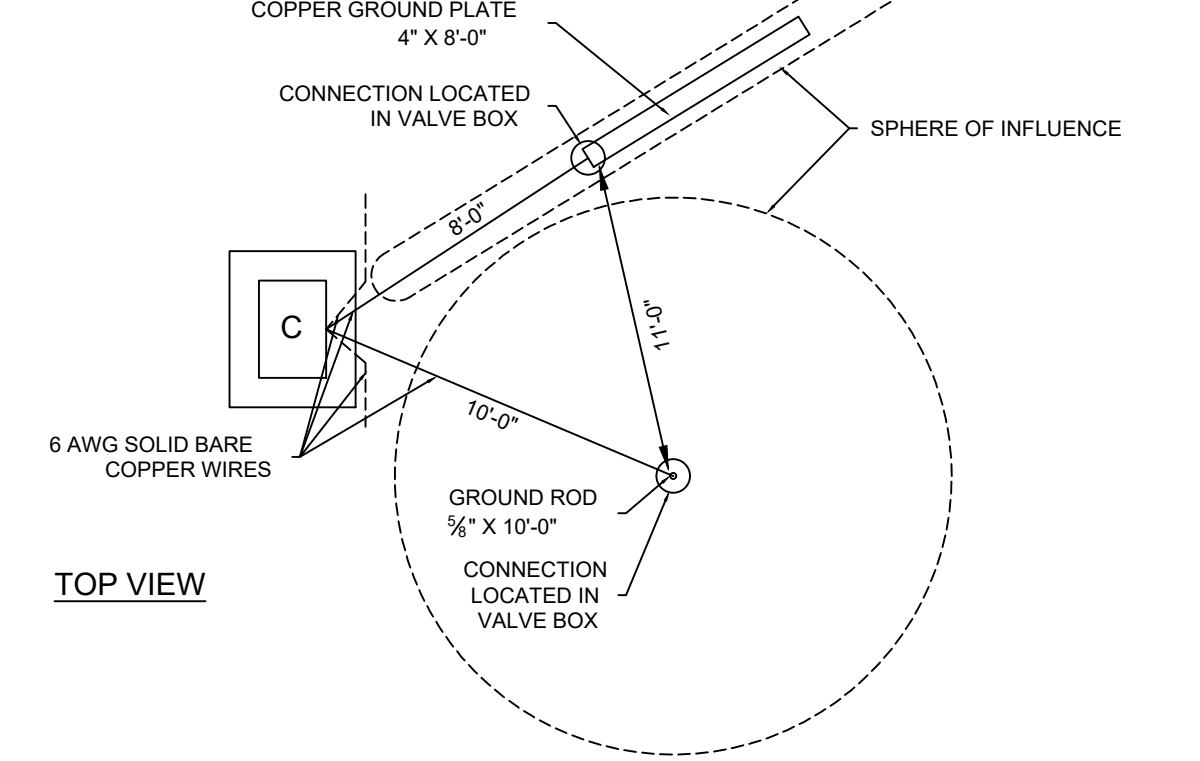
BONDING
 THE ABOVE GROUNDING CIRCUIT IS REFERRED TO AS "SUPPLEMENTARY GROUNDING" IN THE NEC AND FOR SAFETY REASONS, THE NEC REQUIRES THAT ALL SUPPLEMENTARY GROUNDS BE "BONDED" TO EACH OTHER AND TO THE SERVICE ENTRANCE GROUND (POWER SOURCE) AS SHOWN IN THE DETAIL. THIS IS ALSO "RECOMMENDED PRACTICE" OF IEEE STANDARD 1100-1999. NOTE THAT THIS IS IN ADDITION TO THE EQUIPMENT GROUND, WHICH IS COMMONLY REFERRED TO AS "THE GREEN WIRE". THE BLACK, WHITE AND GREEN WIRES MUST ALWAYS BE KEPT TOGETHER IN A TRENCH/CONDUIT/TRAY/ETC. SEE TRENCH DETAIL.



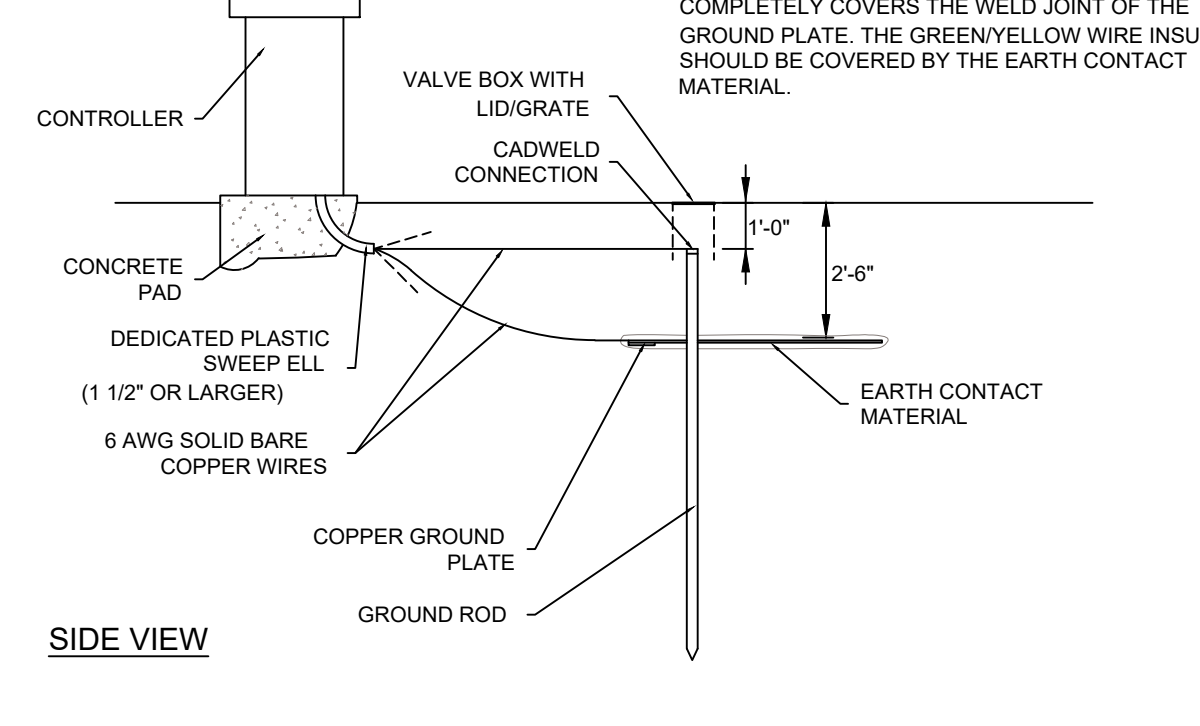
THE BONDING CONDUCTORS ARE TO BE 6 AWG SOLID BARE COPPER UNLESS THE SYSTEM POWER CONDUCTORS ARE LARGER THAN 1/0 AWG, IN WHICH CASE THEY ARE TO BE 4 AWG SOLID BARE COPPER. ALL SPLICES TO THE BONDING CONDUCTORS SHALL BE MADE USING A CADWELD "ONE-SHOT" KIT AS SHOWN IN THE DETAILS [PAGE ELECTRIC PART NUMBER 1820074]

EARTH GROUNDING
 IT IS THE RESPONSIBILITY OF THE INSTALLER TO CONNECT ALL ELECTRIC IRRIGATION EQUIPMENT FOR WHICH IS RESPONSIBLE TO EARTH IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NEC). GROUNDING COMPONENTS WILL INCLUDE THE ITEMS DESCRIBED IN THE FOLLOWING PARAGRAPHS AT A MINIMUM.

USE GROUNDING ELECTRODES THAT ARE LISTED OR MANUFACTURED TO MEET THE MINIMUM REQUIREMENTS OF ARTICLE 250.52 OF THE 2002 EDITION OF THE NEC. AT THE VERY MINIMUM, THE GROUNDING CIRCUIT WILL INCLUDE A COPPER-CLAD STEEL GROUND ROD & SOLID COPPER GROUND PLATE AND 100 POUNDS OF POWERSHET AND PER THE FOLLOWING DETAIL.



NOTES:
 1. CONNECT ALL 6 AWG WIRES INSIDE THE CONTROLLER. CONNECT ONE WIRE TO THE CONTROLLER GROUND LUG AND USE A #4 SPLIT BOLT TO CONNECT ALL WIRES TOGETHER.
 2. MAKE SURE THAT THE EARTH CONTACT MATERIAL COMPLETELY COVERS THE WELD JOINT OF THE GROUND PLATE. THE GREEN/YELLOW WIRE INSULATION SHOULD BE COVERED BY THE EARTH CONTACT MATERIAL.



GROUND RODS ARE TO HAVE A MINIMUM DIAMETER OF 5/8" AND A MINIMUM LENGTH OF 10 FEET. THESE ARE TO BE DRIVEN INTO THE GROUND IN A VERTICAL POSITION OR ON AN OBLIQUE ANGLE NOT TO EXCEED 45 DEGREES AT A LOCATION 10 FEET FROM THE ELECTRICAL EQUIPMENT, THE GROUND PLATE, OR THE WIRES AND CABLES CONNECTED TO SAID EQUIPMENT, AS SHOWN IN THE DETAIL ABOVE. THE ROD IS TO BE STAMPED WITH THE ALL LOGO (PAGE ELECTRIC PART NUMBER 1820074). A 6 AWG SOLID BARE COPPER WIRE (ABOUT 12 FEET LONG) SHALL BE CONNECTED TO THE ELECTRICAL EQUIPMENT GROUND LUG AS SHOWN IN THE DETAIL ABOVE.

THE COPPER GROUNDING PLATE ASSEMBLY (PAGE ELECTRIC PART NUMBER 1821996) MUST MEET THE MINIMUM REQUIREMENTS OF ARTICLE 250.50(D) OF THE NEC. THEY ARE TO BE MADE OF A COPPER ALLOY INTENDED FOR GROUNDING APPLICATIONS AND WILL HAVE MINIMUM DIMENSIONS OF 4" X 8" X 1/8" (OR A 20-FOOT CONTINUOUS LENGTH AND THICKNESS ALLOWED UNLESS USING EXOTHERMIC WELDING PROCESS) OF 6 AWG SOLID BARE COPPER WIRE IS TO BE ATTACHED TO THIS PLATE BY THE MANUFACTURER USING AN APPROVED WELDING PROCESS. THIS WIRE IS TO BE CONNECTED TO THE ELECTRICAL EQUIPMENT GROUND LUG AS SHOWN IN THE DETAIL. THE GROUND PLATE IS TO BE INSTALLED TO A MINIMUM DEPTH OF 30" AT A LOCATION 8 FEET FROM THE ELECTRICAL EQUIPMENT AND UNDERGROUND WIRES AND CABLES. TWO 50-POUND BASES OF POWERSHET (PAGE ELECTRIC PART NUMBER 1820189) EARTH CONTACT MATERIAL MUST BE SPREAD SO THAT IT SURROUNDS THE COPPER PLATE EVENLY ALONG ITS LENGTH WITHIN A 2" WIDE TRENCH. SALTS, FERTILIZERS, BENTONITE CLAY, CEMENT, LIME, GARBON, AND OTHER CHEMICALS ARE NOT TO BE USED TO IMPROVE SOIL CONDUCTIVITY BECAUSE THESE MATERIALS ARE CORROSIVE AND WILL CAUSE THE COPPER ELECTRODES TO ERODE AND BECOME LESS EFFECTIVE WITH TIME.

INSTALL ALL GROUNDING CIRCUIT COMPONENTS IN STRAIGHT LINES. WHEN NECESSARY TO MAKE BENDS, DO NOT MAKE SHARP TURNS. TO PREVENT THE ELECTRODE DISCHARGES ENERGY FROM REENTERING THE UNDERGROUND WIRES AND CABLES, ALL ELECTRODES SHALL BE INSTALLED AWAY FROM SAID WIRES AND CABLES. THE SPACING BETWEEN ANY TWO ELECTRODES SHALL BE AS SHOWN IN THE DETAIL OF PAGE 1, SO THAT THEY DON'T COMPLETE FOR THE SAME SOIL.

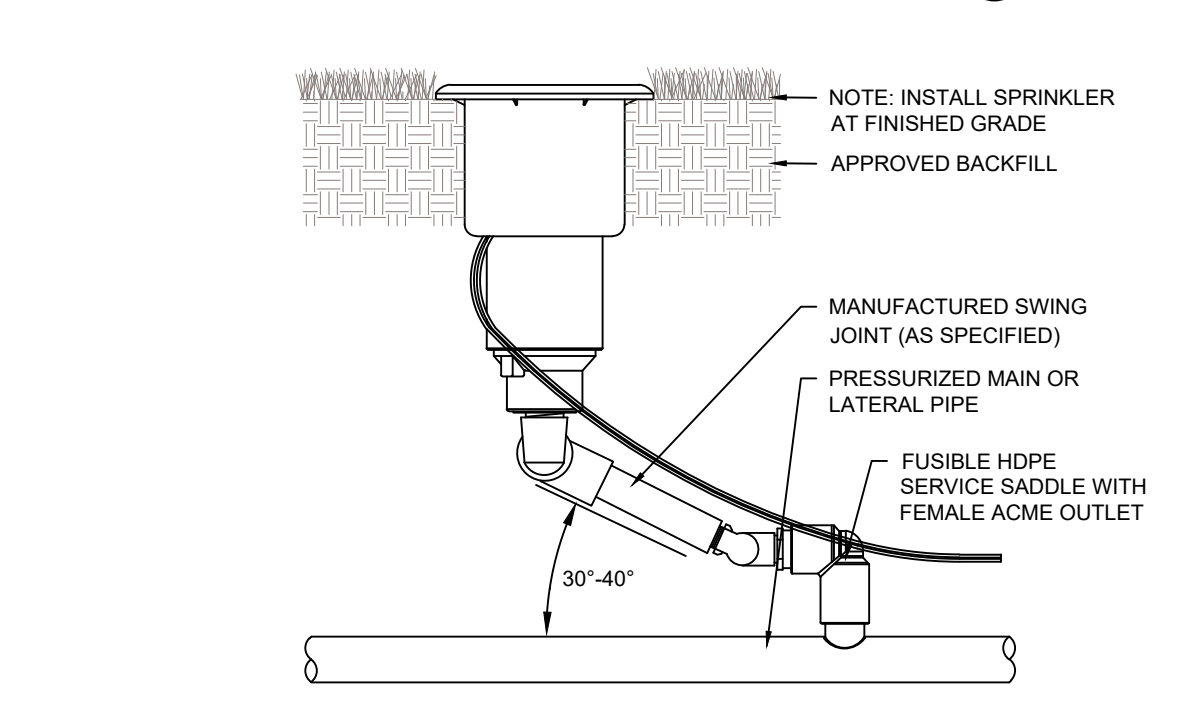
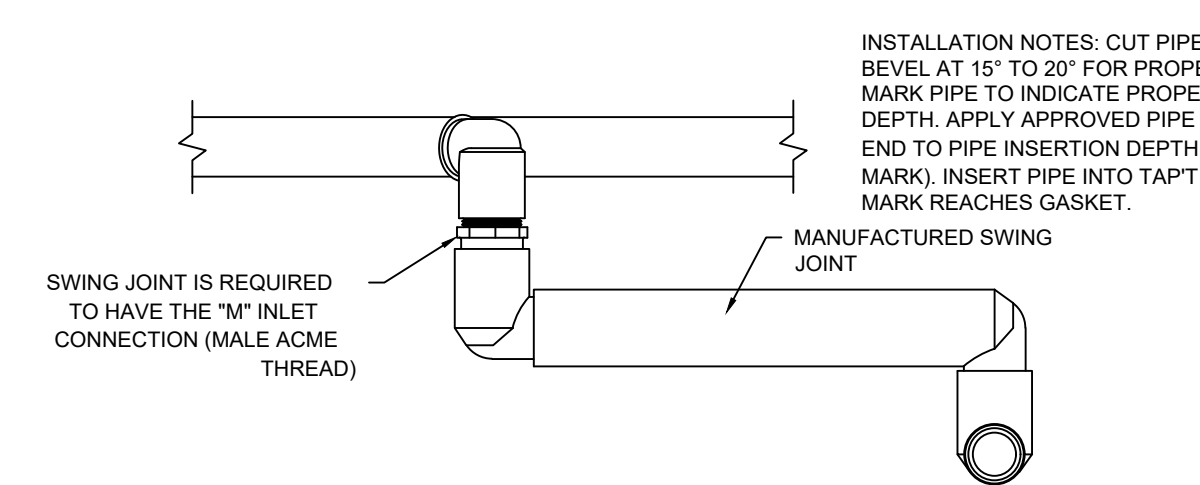
THE EARTH-TO-GROUND RESISTANCE OF THIS CIRCUIT TO BE MEASURED USING A MEGGER OR OTHER SIMILAR INSTRUMENTS, AND THE READING IS TO BE NO MORE THAN 10 OHMS. IF THE RESISTANCE IS MORE THAN 10 OHMS, ADDITIONAL GROUND PLATES AND THE SOIL SURROUNDING COPPER ELECTRODES BE KEPT AT A MINIMUM MOISTURE LEVEL OF 10% AT ALL TIMES BY DESIGNATING AN IRRIGATION STATION AT EACH CONTROL POINT LOCATION. THE IRRIGATED AREA SHOULD INCLUDE A CIRCUIT WITH A 10-FOOT RADIUS AROUND THE GROUND ROD AND A RECTANGLE MEASURING 1' FOOT X 24 FEET AROUND THE GROUND ROD AND A RECTANGLE MEASURING 1' FOOT X 24 FEET AROUND THE GROUND ROD.

ALL UNDERGROUND CIRCUIT CONNECTIONS ARE TO BE MADE USING AN EXOTHERMIC WELDING PROCESS BY UTILIZING PRODUCTS SUCH AS THE CADWELD "ONE-SHOT" KITS. SOLDER SHALL NOT BE ALLOWED TO MAKE CONNECTIONS. IN ORDER TO ENSURE THE PROTECTION OF THE "ONE-SHOT", THE CADWELD T330 WELDER MUST BE UTILIZED [PAGE ELECTRIC PART NUMBER 1820061]. THE 6 AWG BARE COPPER WIRES ARE TO BE INSTALLED IN A STRAIGHT A LINE AS POSSIBLE, AND IF IT IS NECESSARY TO MAKE A TURN OR A BEND IT SHALL BE DONE IN A SWEEPING CURVE WITH A MINIMUM RADIUS OF 8" AND A MINIMUM INCLUDED ANGLE OF 90°. MECHANICAL CLAMPS SHALL BE PERMITTED TEMPORARILY DURING THE RESISTANCE TEST PROCESS, BUT ARE TO BE REPLACED WITH CADWELD "ONE-SHOT" KITS IMMEDIATELY THEREAFTER.

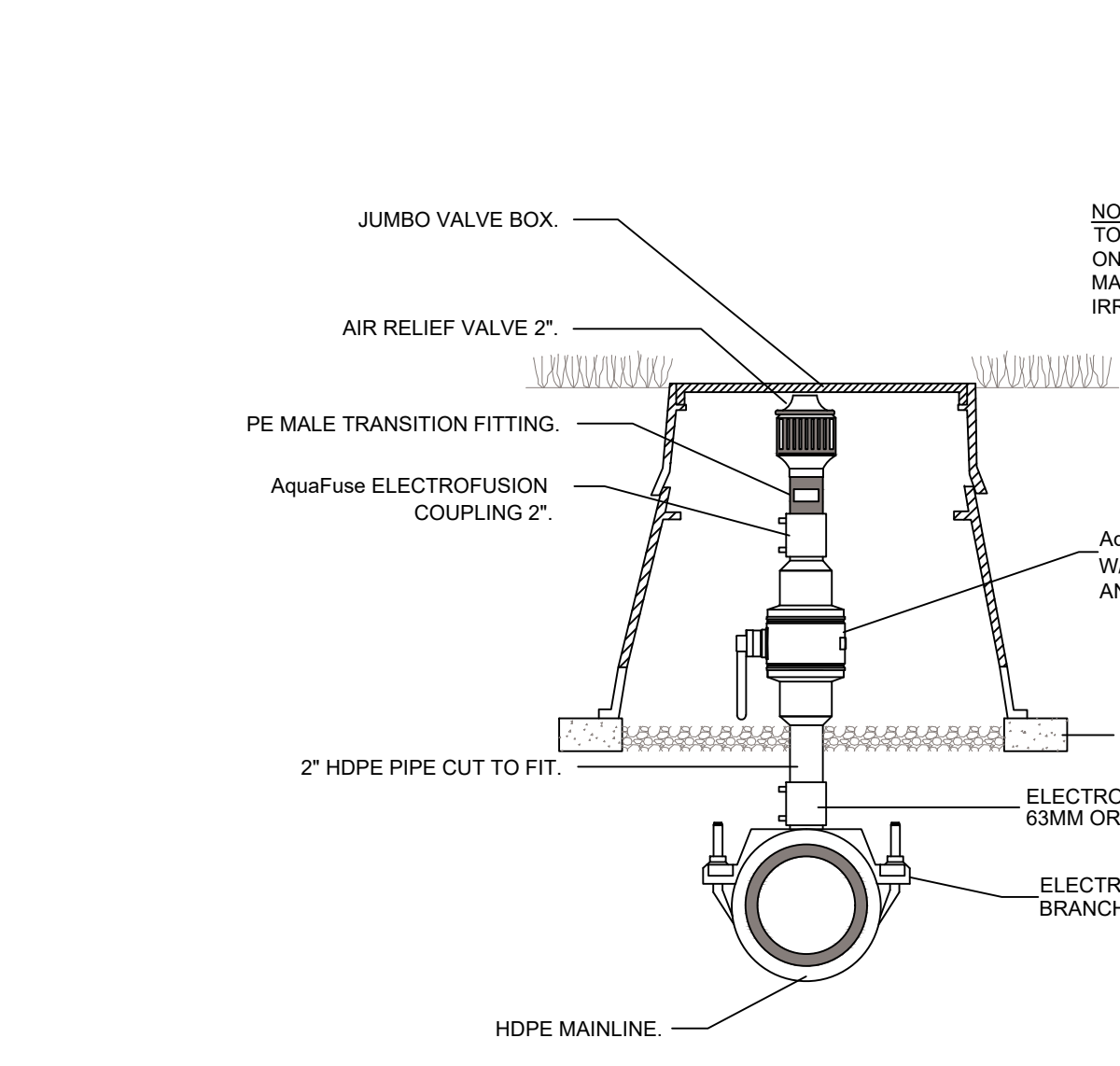
WIRES AND CABLES
 POWER WIRING (120 VAC OR 220 VAC):
 ALL POWER CABLES ARE TYPE TRAY CABLE. THEY ARE TO BE LISTED FOR DIRECT BURIAL AND RATED AT 600 VOLTS. THE CABLE SHALL INCLUDE THREE CONDUCTORS, WHICH ARE TO BE COLORED PER WIRE INDUSTRY STANDARD OR NUMBERED AS 1, 2, AND 3. THE SIZE OF THE "HOT" AND "COMMON" CONDUCTORS ARE TO BE AS SHOWN ON THE IRRIGATION PLANS, AND THE SIZE OF THE "GROUND" CONDUCTOR AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, OR LARGER. THE INNER COPPER CONDUCTORS SHALL BE COVERED WITH HIGH DIELECTRIC PVC AND NYLON. THE OUTER JACKET WILL BE BLACK PVC AND IS TO BE SUNLIGHT RESISTANT. [PAGE ELECTRIC CO. LP SPECIFICATION NUMBER P1990 FOR 1/0 AWG AND SMALLER AND SPECIFICATION NUMBER P72670 FOR 6 AWG AND LARGER.]

CONTROL VALVE WIRING (24 VOLT AC, NOMINAL):
 WIRES CONNECTING THE REMOTE CONTROL VALVES TO THE IRRIGATION CONTROLLER ARE SINGLE CONDUCTORS, TYPE PE. ITS CONSTRUCTION INCORPORATES A SOLID COPPER CONDUCTOR AND POLYETHYLENE PIPE INSULATION WITH A MINIMUM THICKNESS OF 1/16 INCHES. THE WIRES SHALL BE LISTED FOR DIRECT BURIAL IN IRRIGATION SYSTEMS AND BE RATED AT A MINIMUM OF 30 VAC. WIRE SIZES AND COLORS ARE DEFINED IN THE IRRIGATION PLANS AND OTHER SPECIFICATIONS. [PAGE ELECTRIC CO. LP SPECIFICATION NUMBER P7303.]

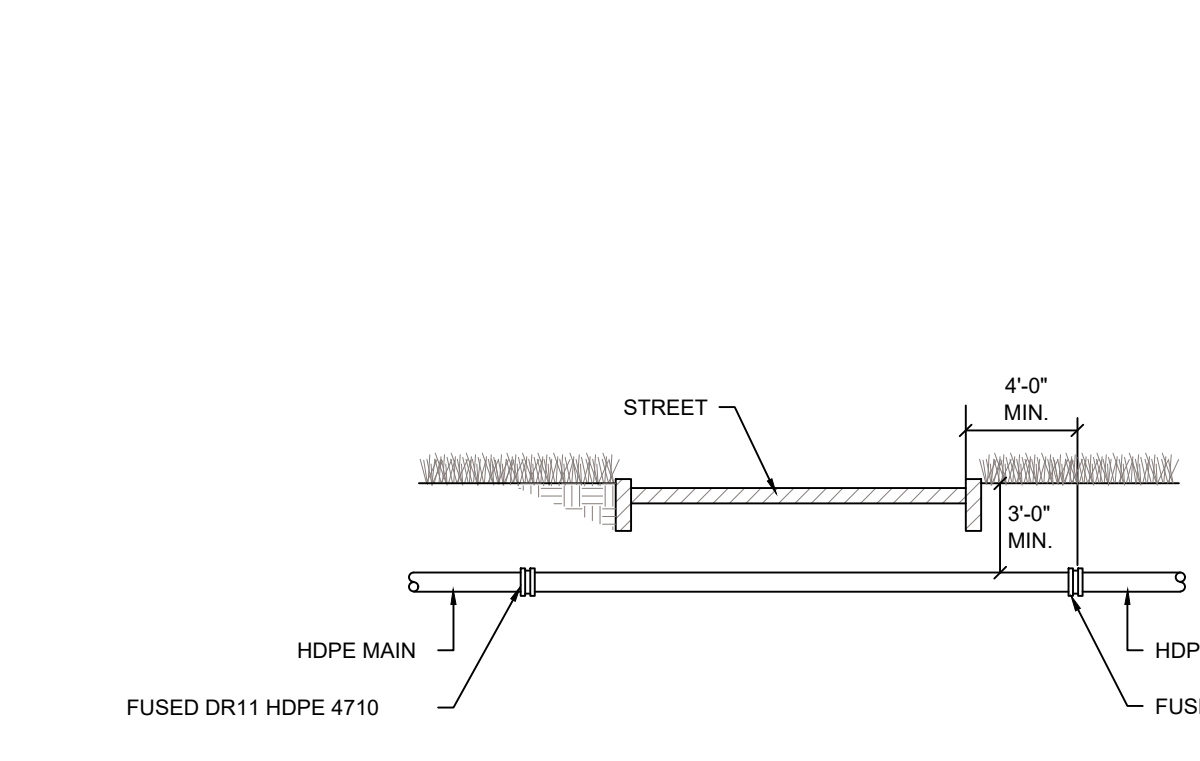
DISCLAIMER: ERIC DESIGN GROUP, LTD. HAS MADE EVERY EFFORT TO ENSURE THAT THE INFORMATION AND RECOMMENDATIONS CONTAINED WITHIN ARE CORRECT. HOWEVER, NEITHER ERIC DESIGN GROUP, LTD. NOR ANY OF ITS EMPLOYEES WARRANTS NOR ACCEPTS ANY LIABILITY FOR THE USE OF THIS INFORMATION. NATIONAL AND LOCAL ELECTRICAL CODES SHOULD ALWAYS BE FOLLOWED. WIRING, GROUNDING, SHIELDING, AND BONDING IRRIGATION SYSTEMS COMPONENTS OFTEN REQUIRE COMPETENT ENGINEER JUDGMENT ON A CASE-BY-CASE BASIS. COMPETENT ENGINEERING ASSISTANCE SHOULD BE SOUGHT FROM FIRMS SPECIALIZING IN THIS FIELD.



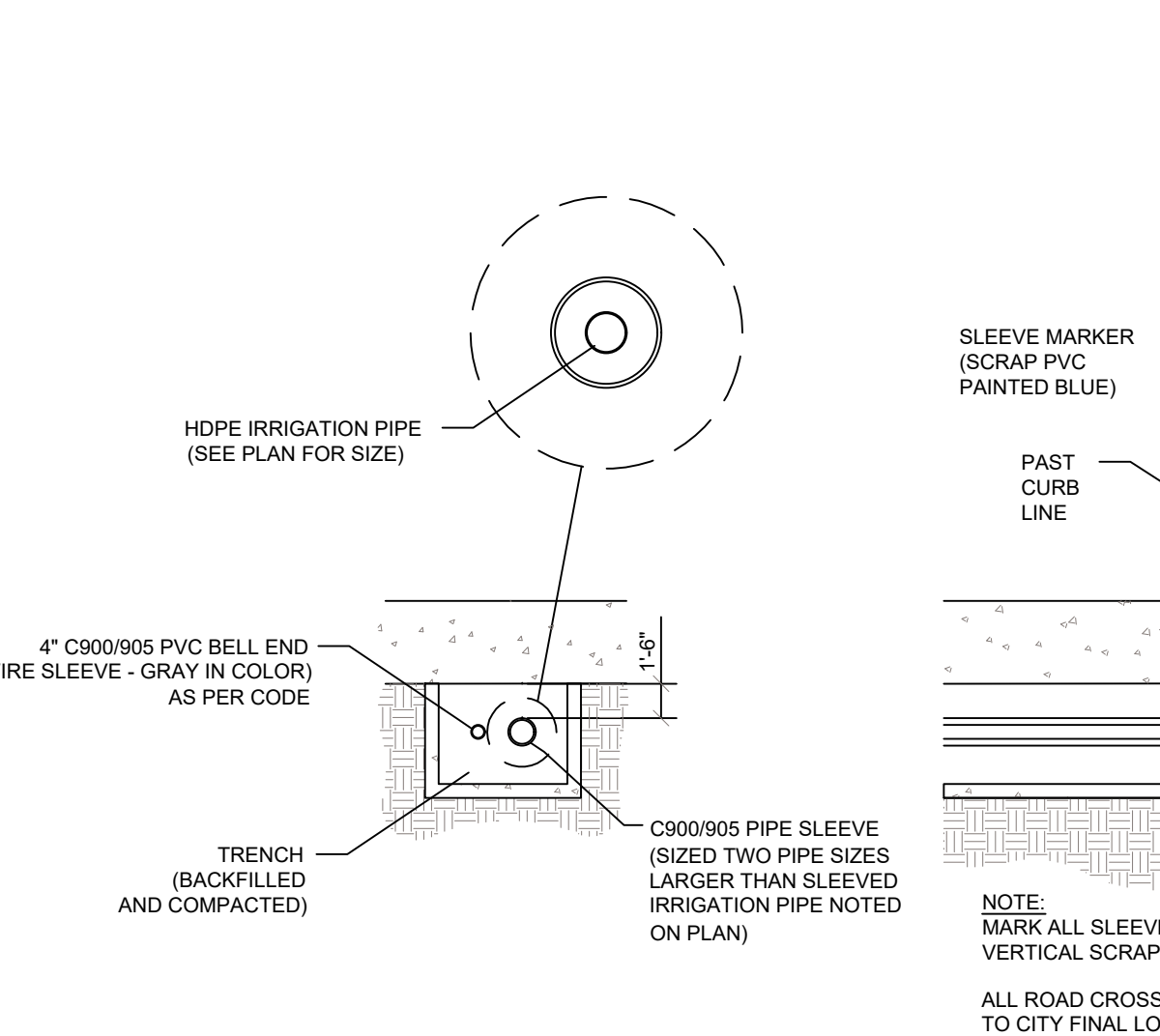
LARGE TURF GEARED ROTOR
 SCALE: NOT TO SCALE



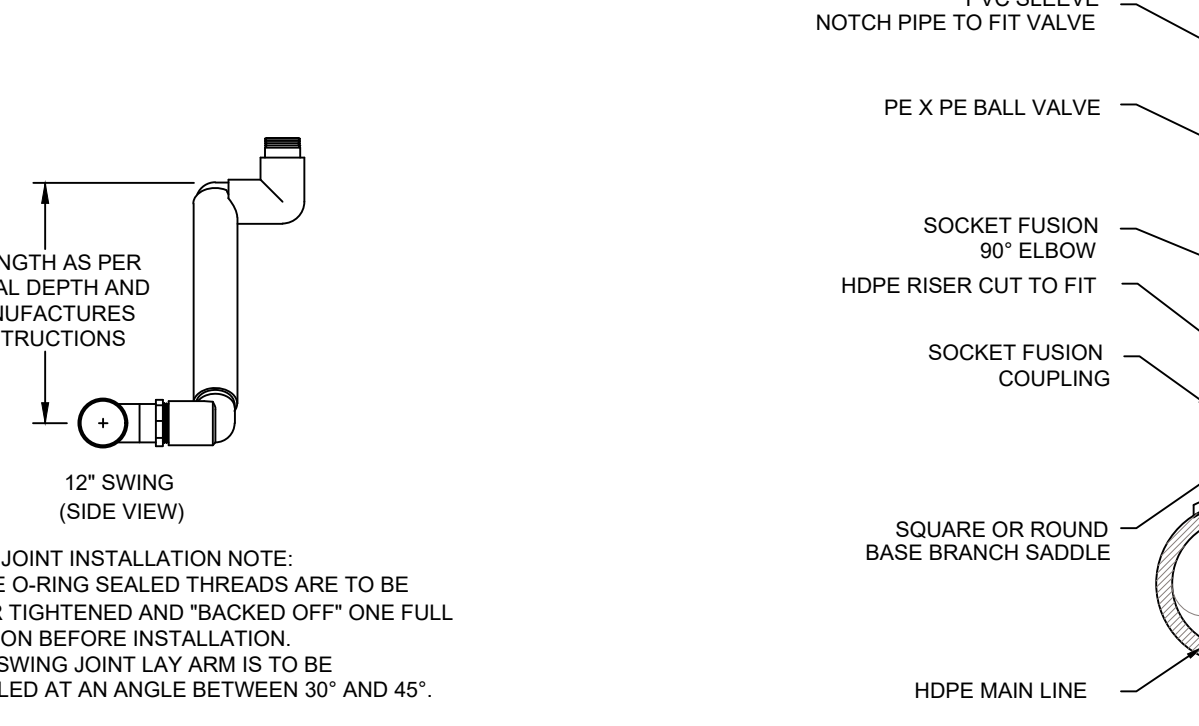
AIR RELEASE VALVE ASSEMBLY
 SCALE: NOT TO SCALE



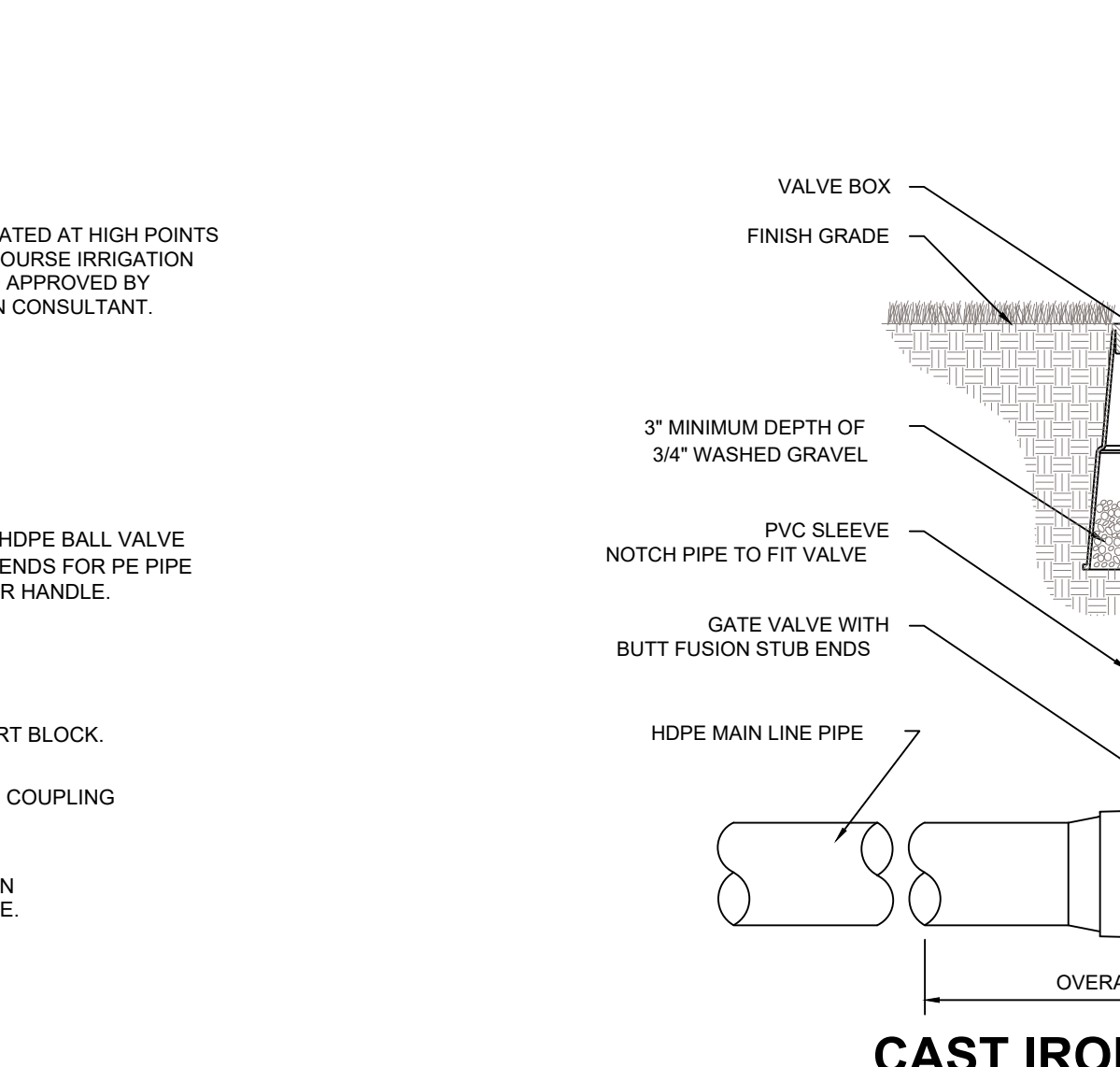
ROAD CROSSING DETAIL
 SCALE: NOT TO SCALE



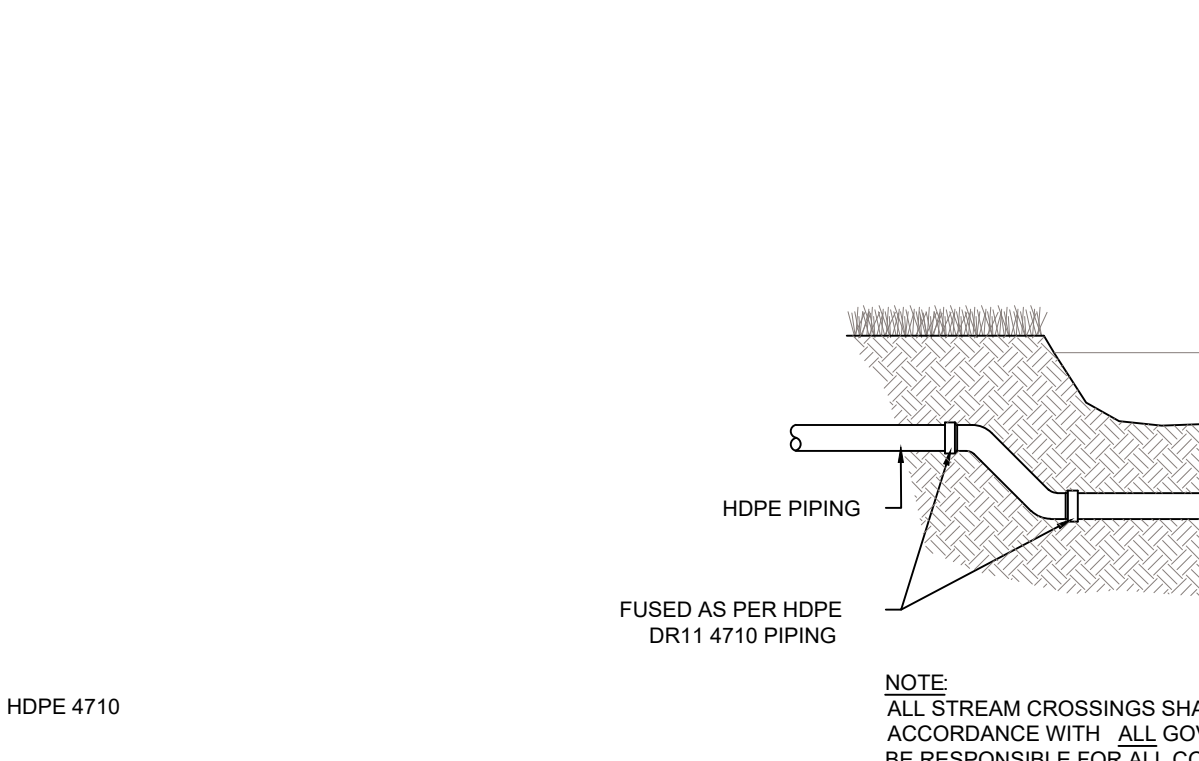
SLEEVING DETAIL
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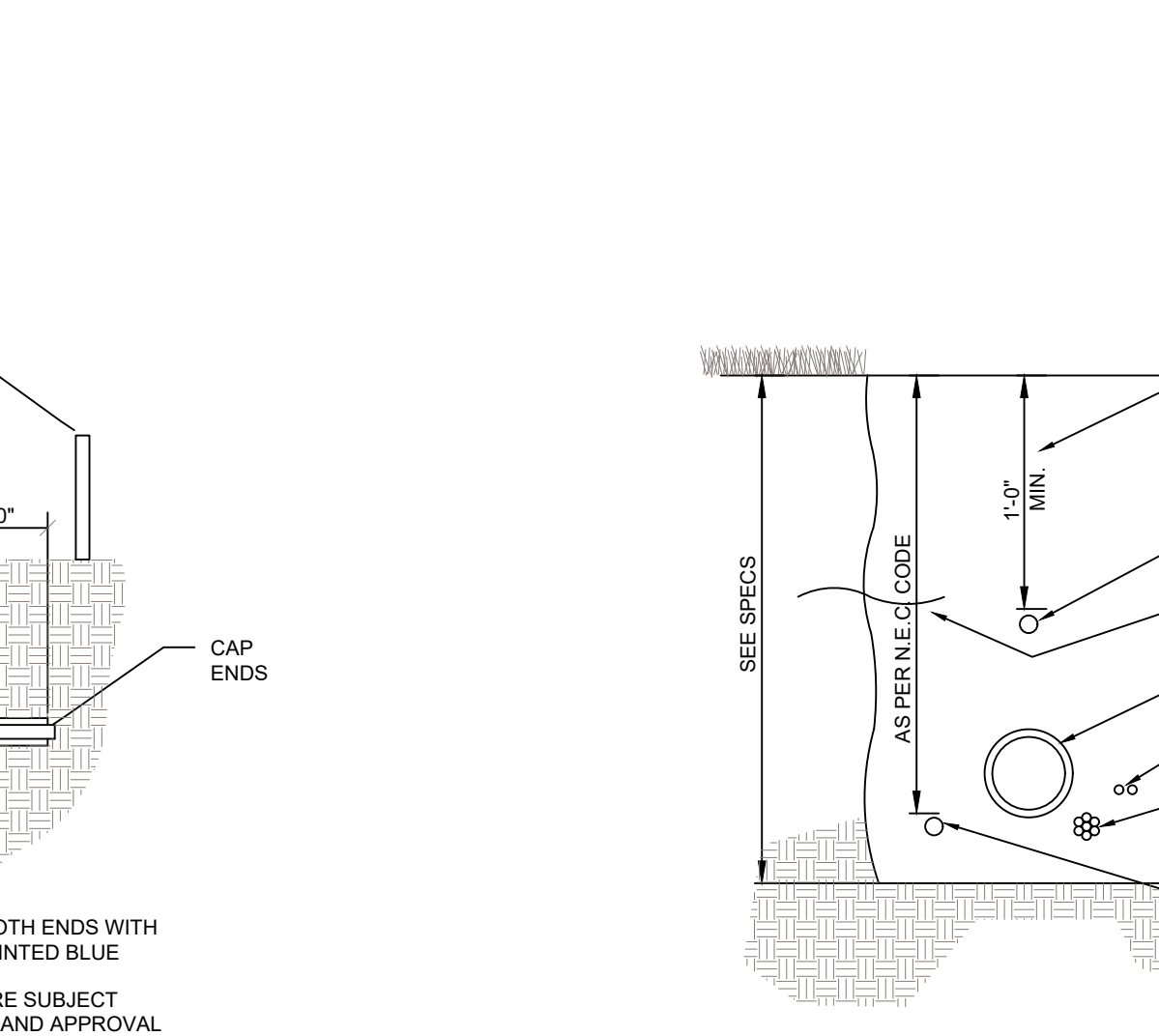
LATERAL ISOLATION VALVE
 SCALE: NOT TO SCALE



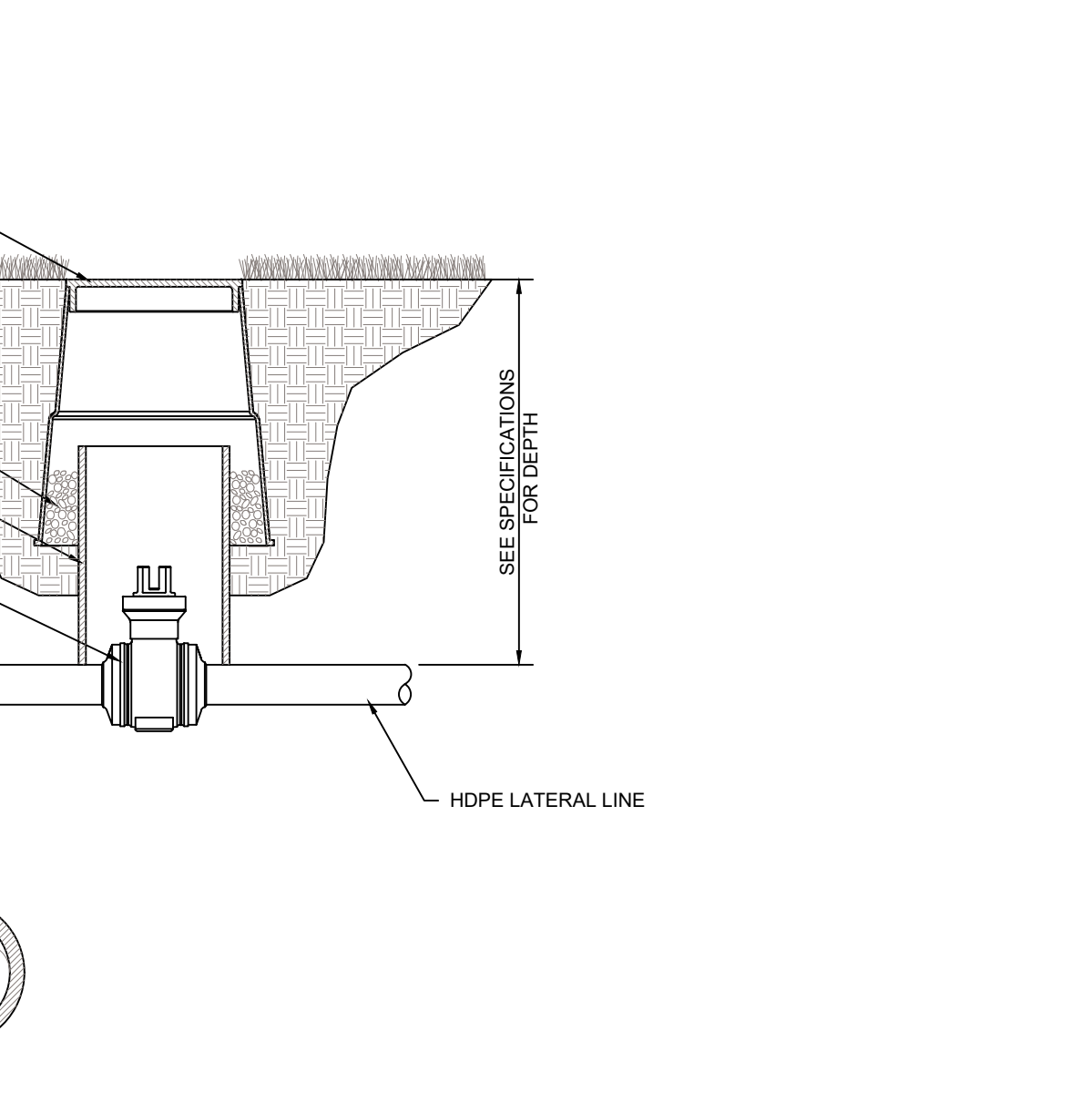
CAST IRON VALVE W/ HDPE EXTENSIONS
 SCALE: NOT TO SCALE



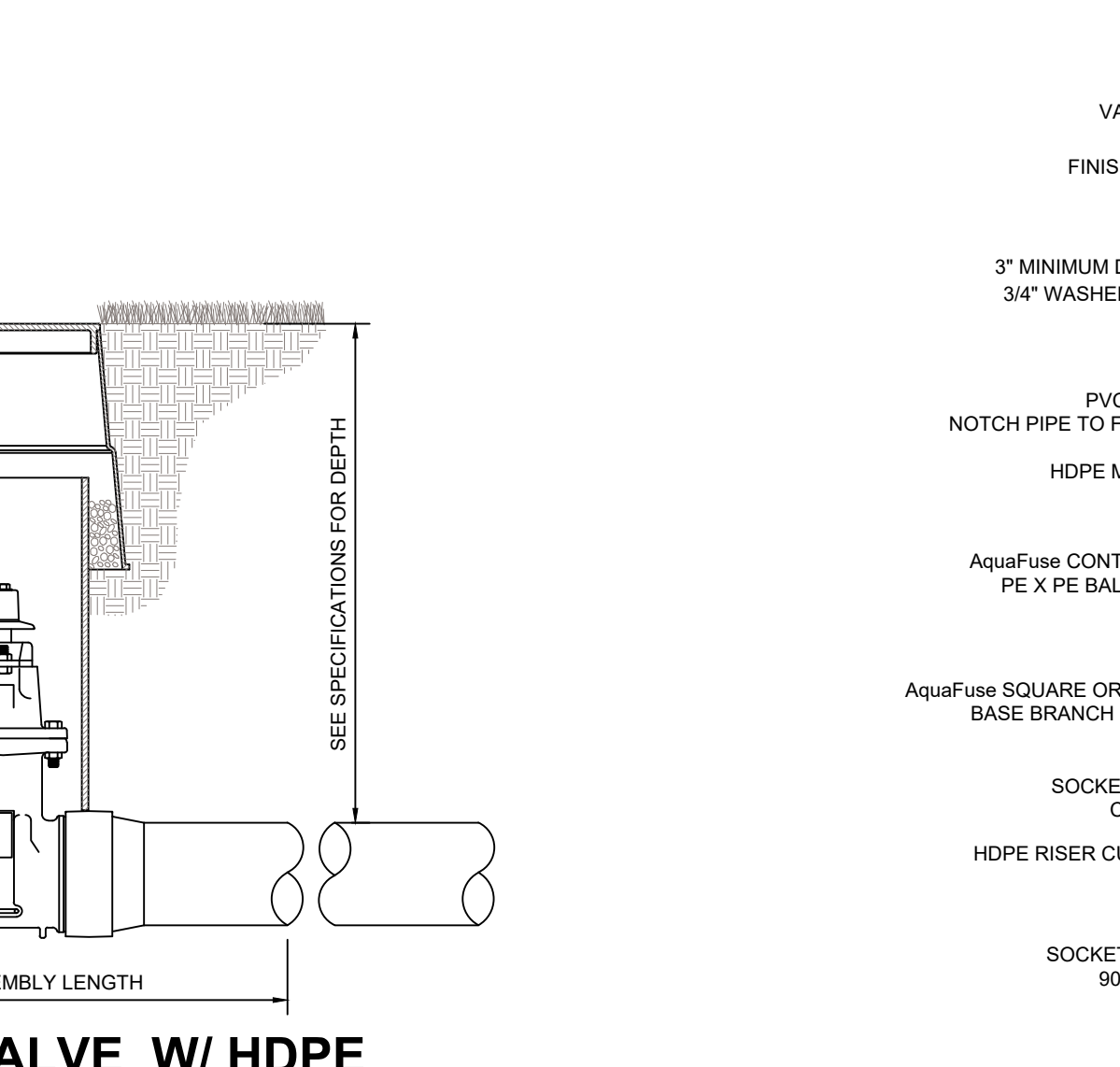
TRENCH CROSS SECTION
 SCALE: NOT TO SCALE



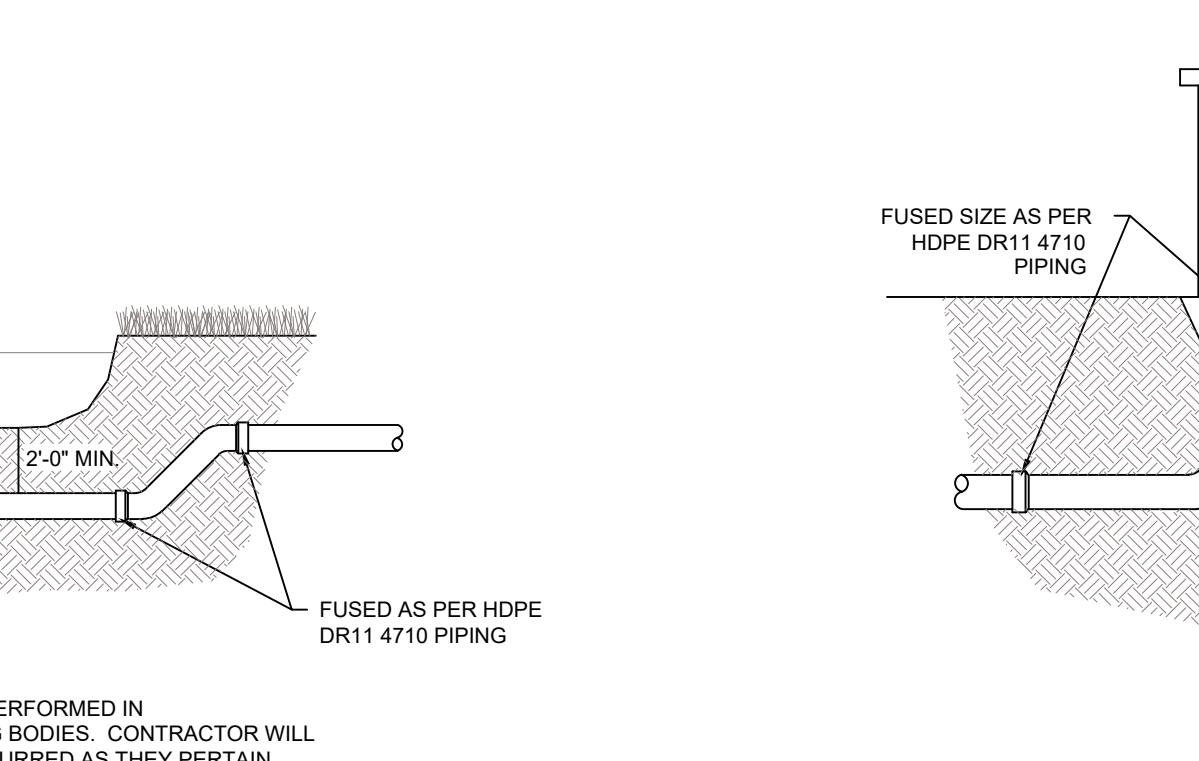
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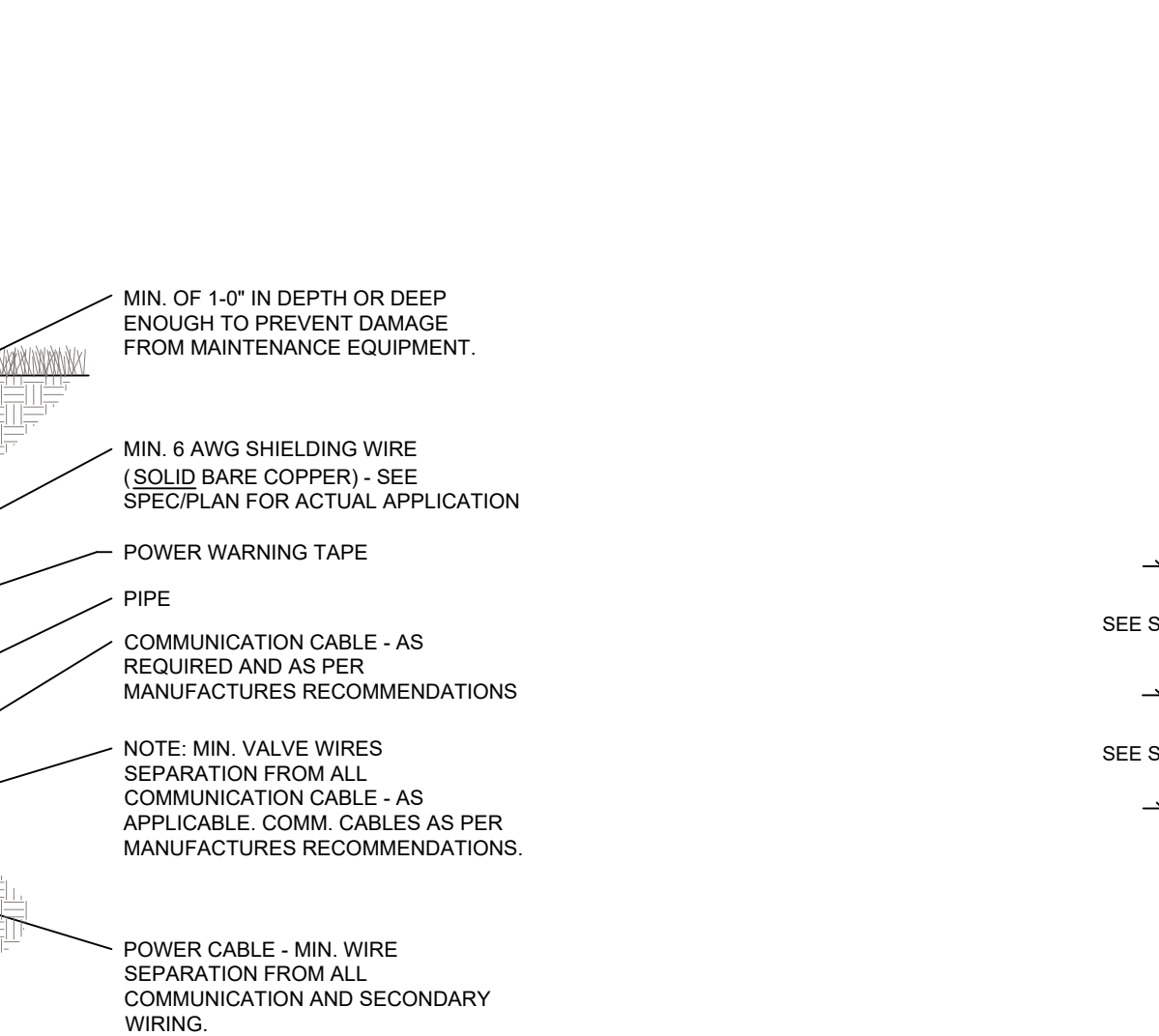
DRAIN/FILL VALVE DETAIL
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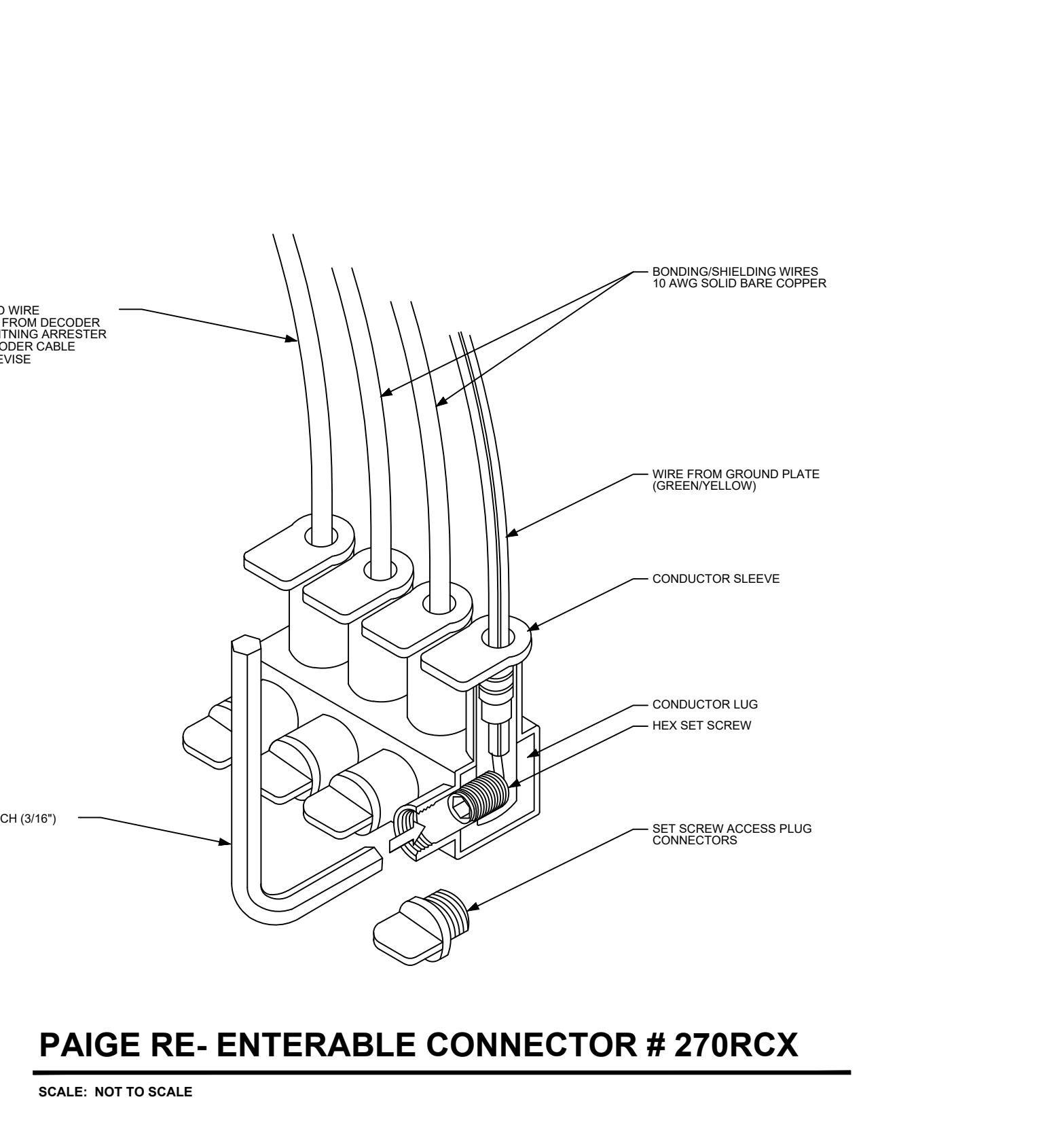
BRIDGE CROSSING DETAIL
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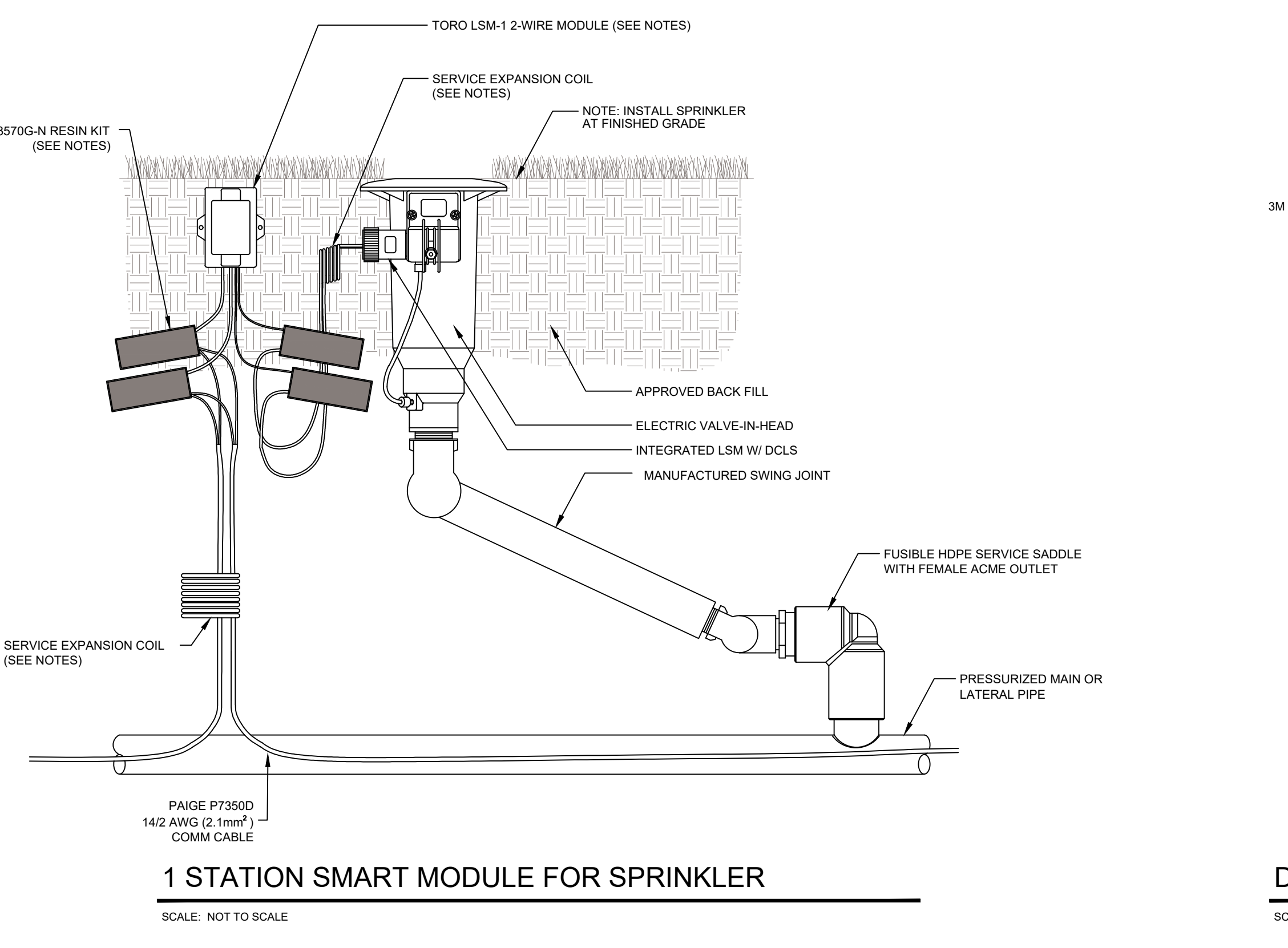
TRENCH CROSS SECTION
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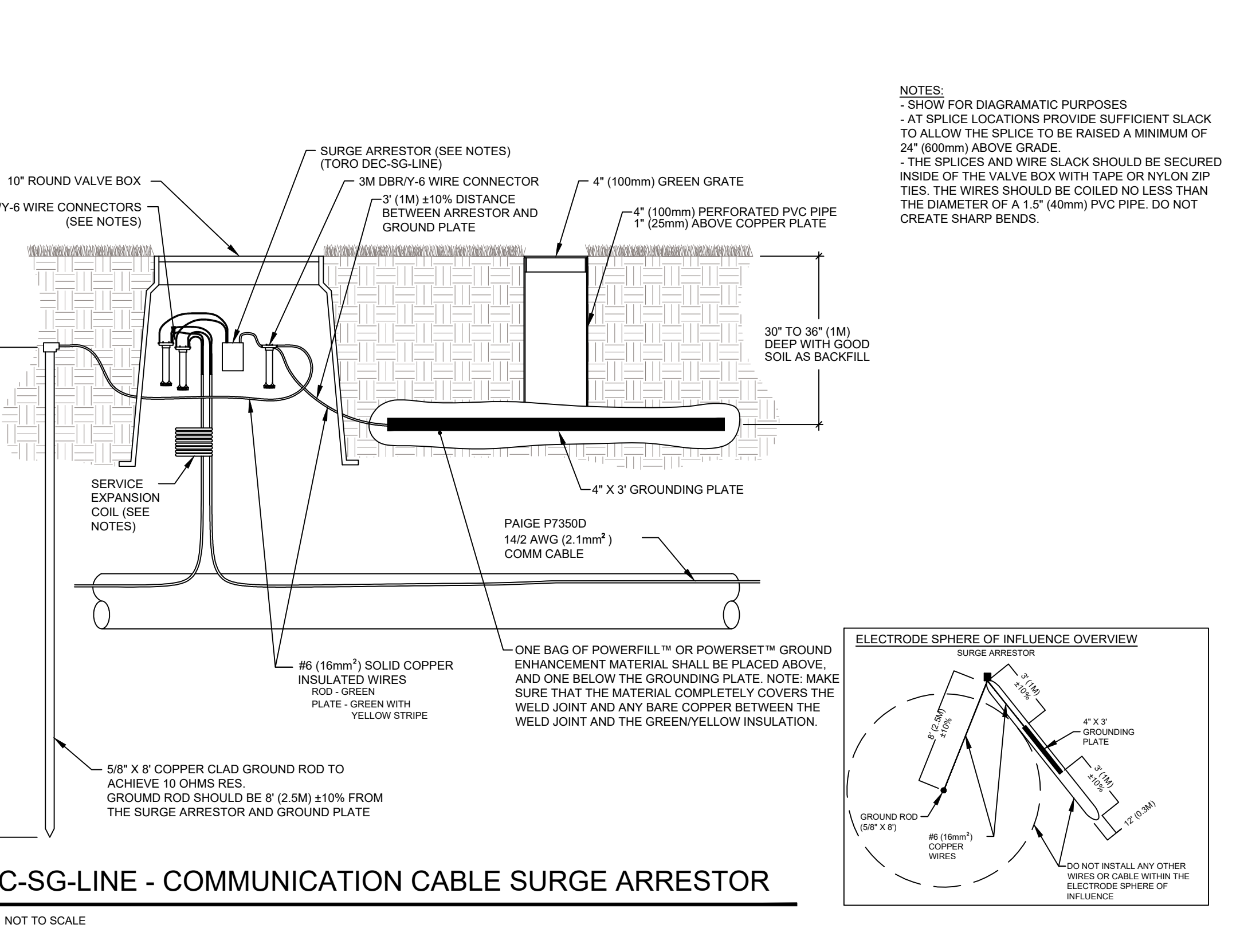
PEDESTAL-MOUNT CONTROLLER
 SCALE: NOT TO SCALE



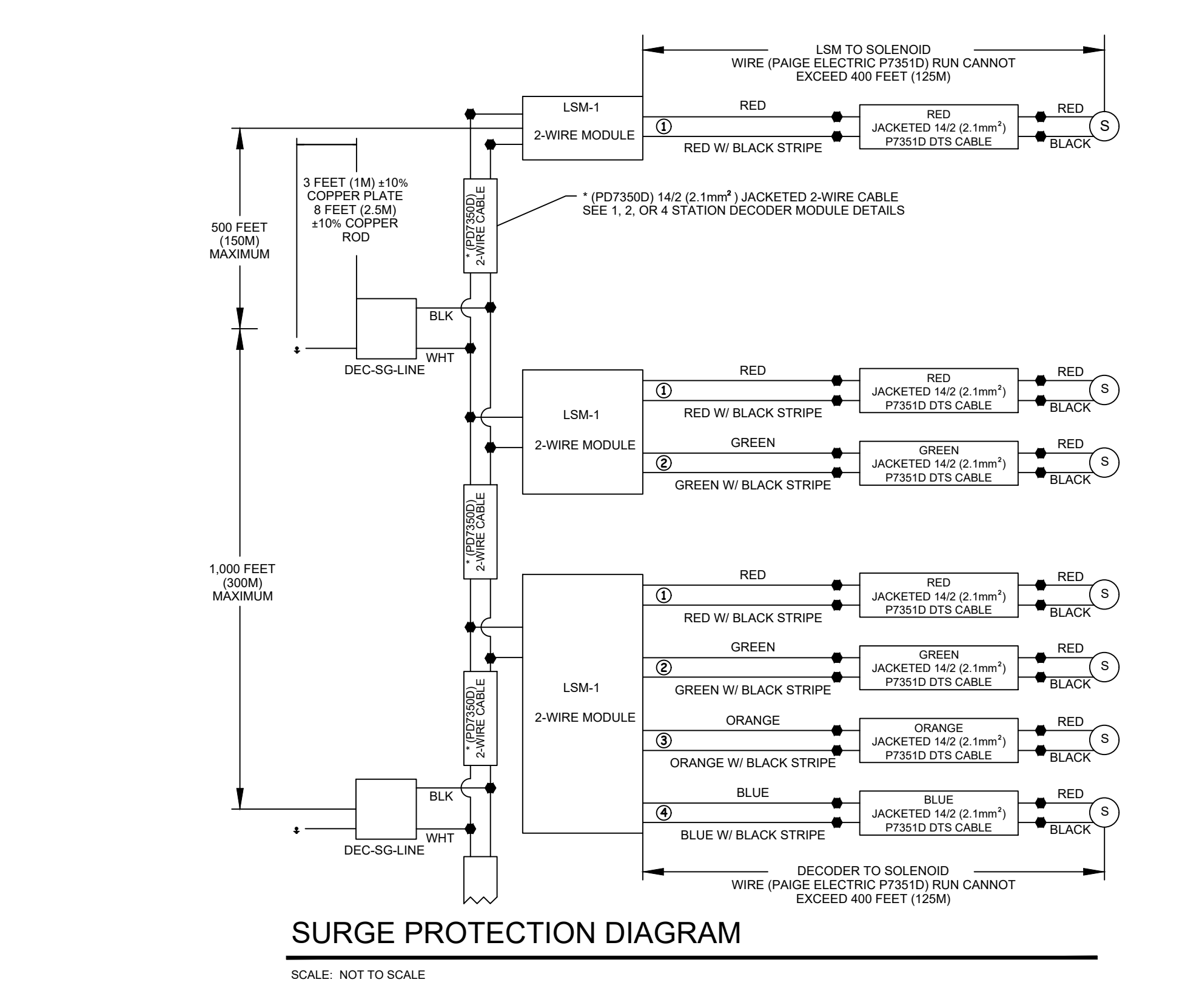
PAIGE RE-ENTERABLE CONNECTOR # 270RCX
 SCALE: NOT TO SCALE



1 STATION SMART MODULE FOR SPRINKLER
 SCALE: NOT TO SCALE

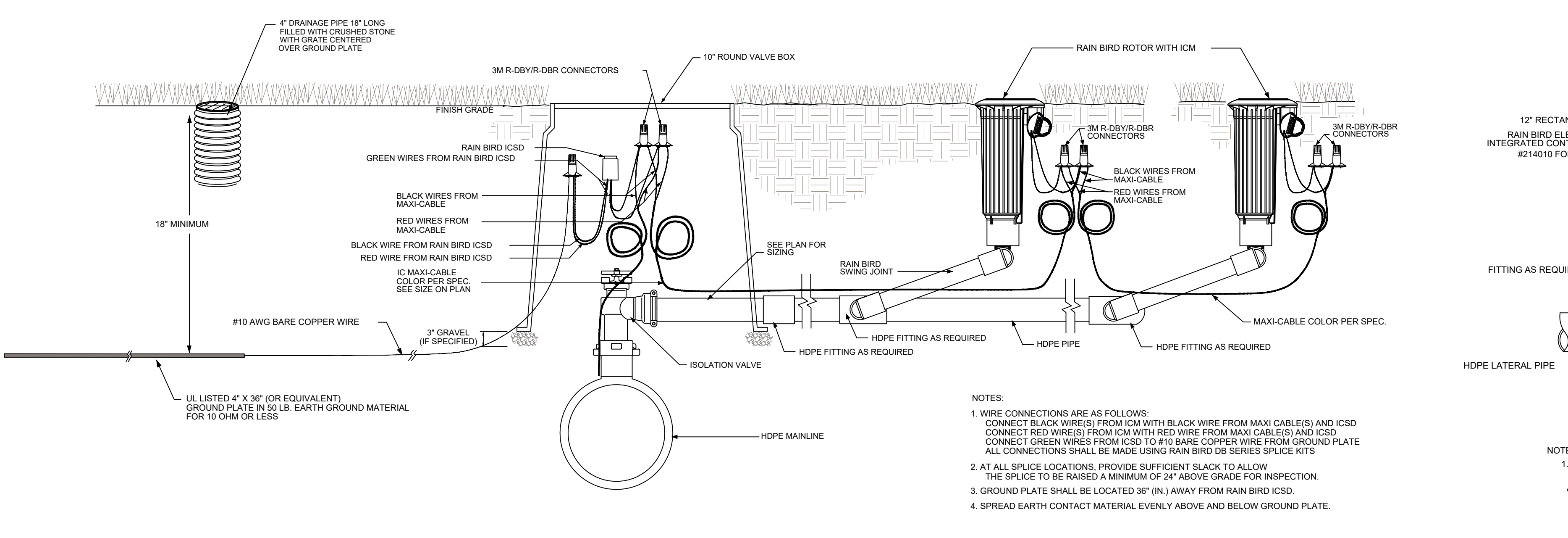


DEC-SG-LINE - COMMUNICATION CABLE SURGE ARRESTOR
 SCALE: NOT TO SCALE

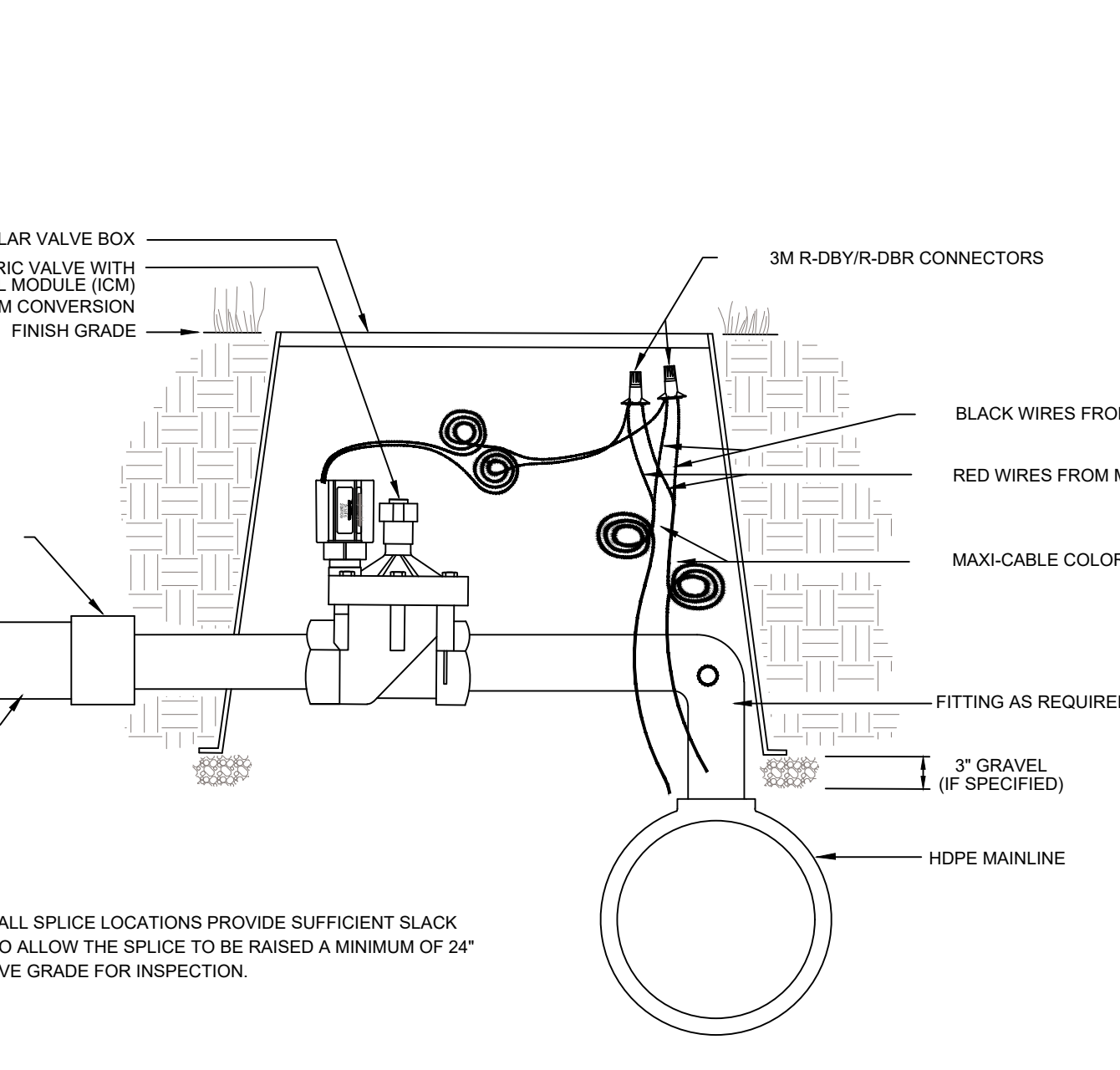


SURGE PROTECTION DIAGRAM
 SCALE: NOT TO SCALE

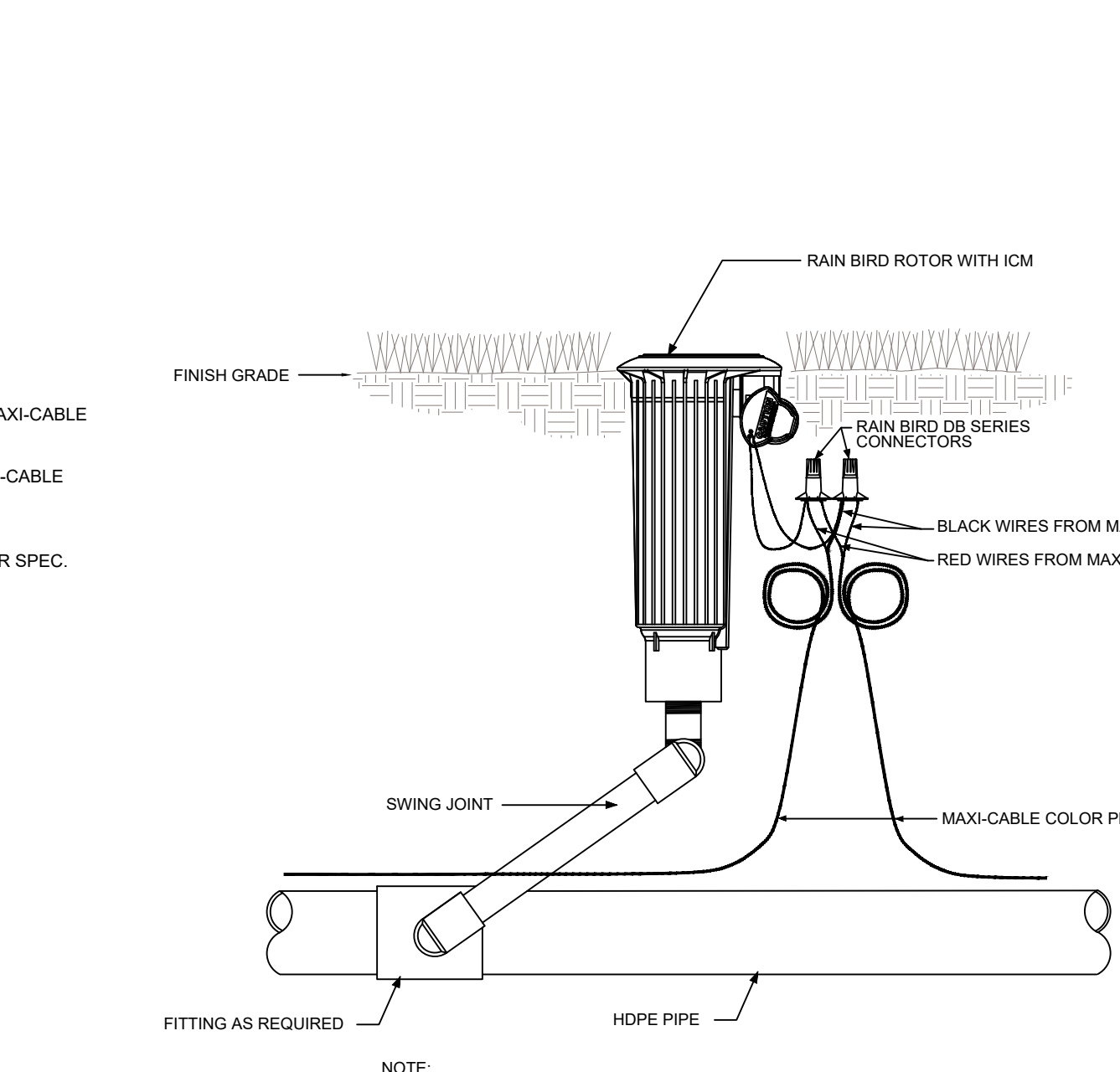
TORO SPECIFIC DETAILS



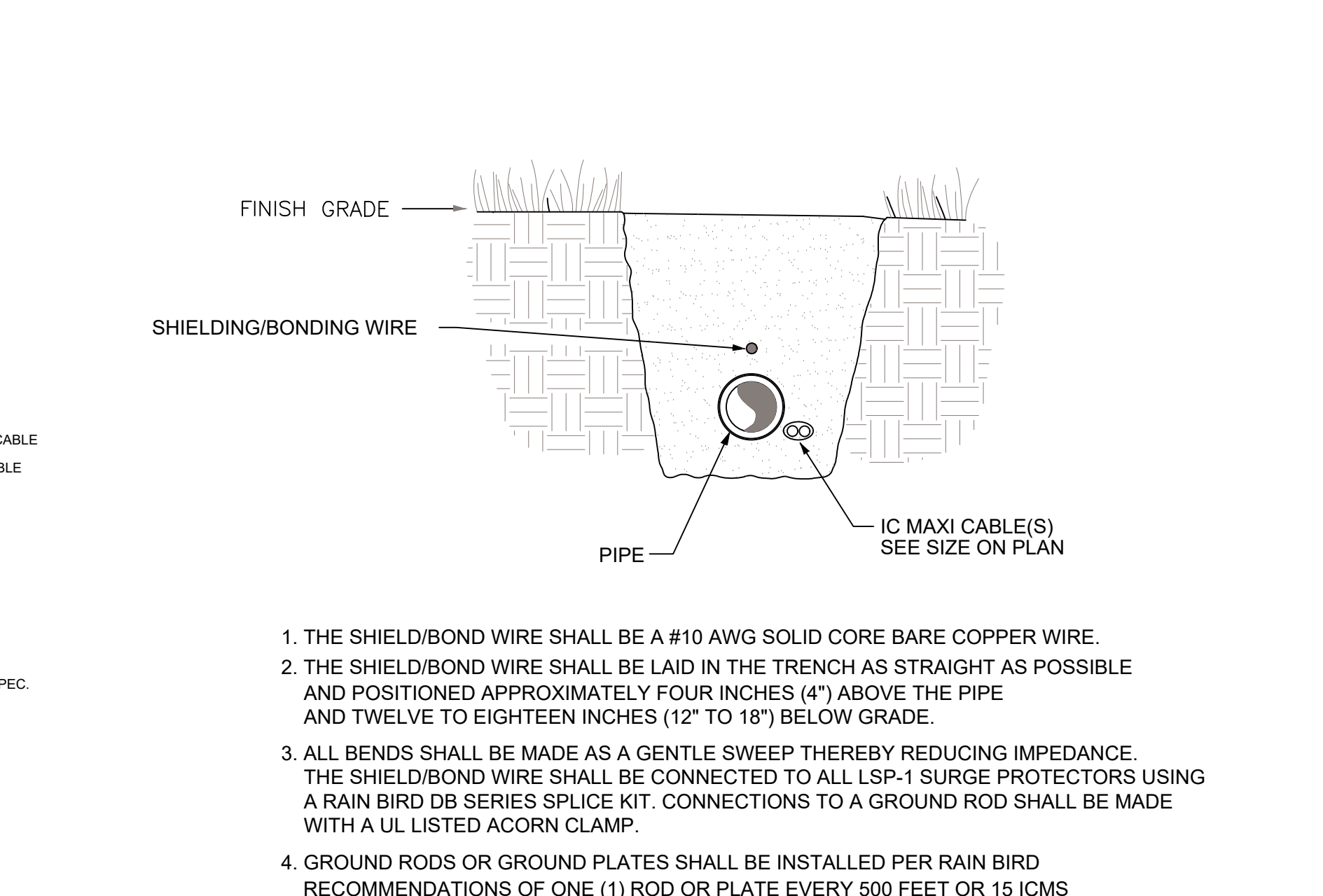
RAIN BIRD VALVE IN HEAD ROTOR WITH ICM AND ICSD SURGE DEVICE
 SCALE: NOT TO SCALE



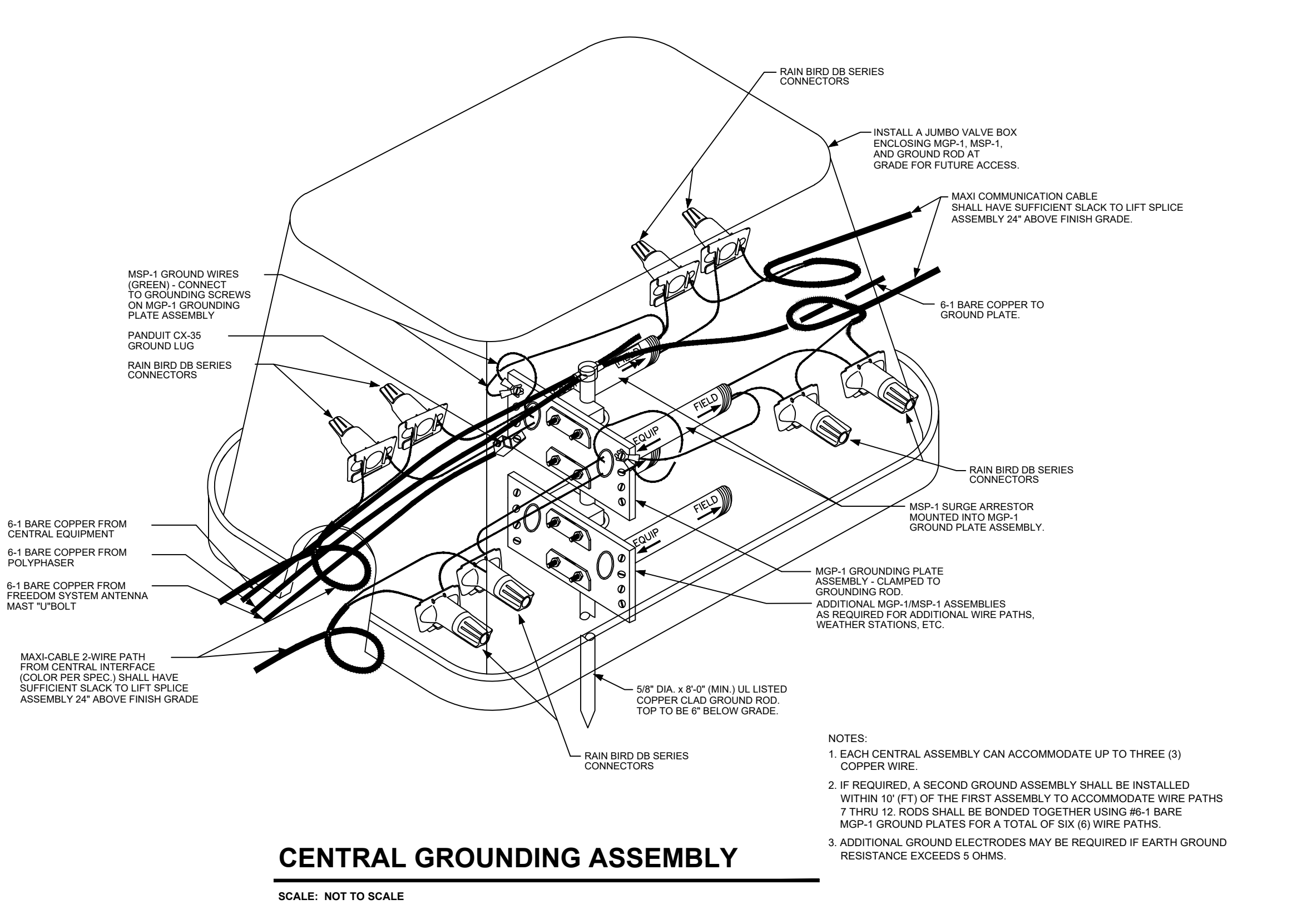
RAIN BIRD ELECTRIC VALVE WITH INTEGRATED CONTROL MODULE (ICM)
 SCALE: NOT TO SCALE



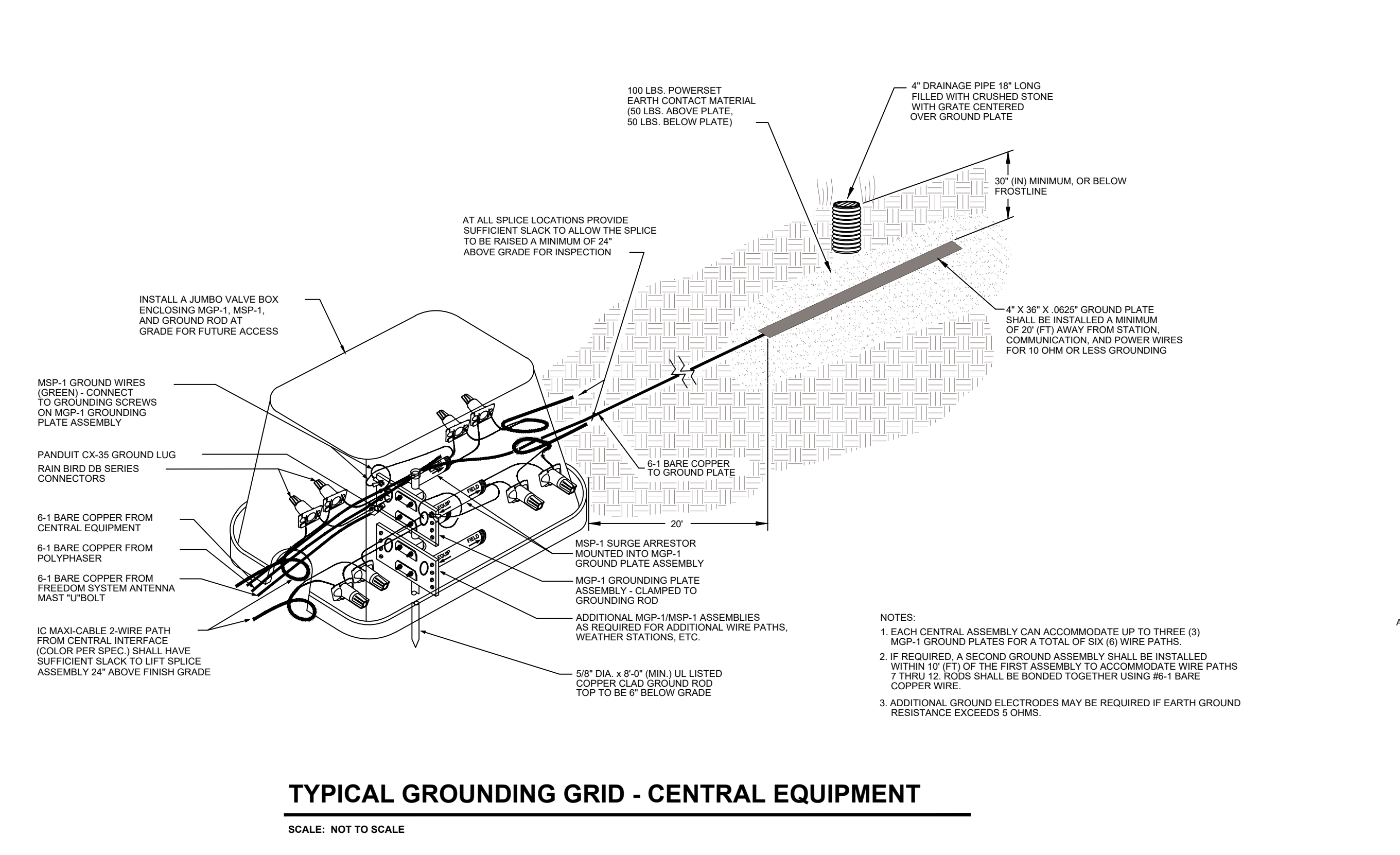
ICM WITH VALVE IN HEAD ROTOR
 SCALE: NOT TO SCALE



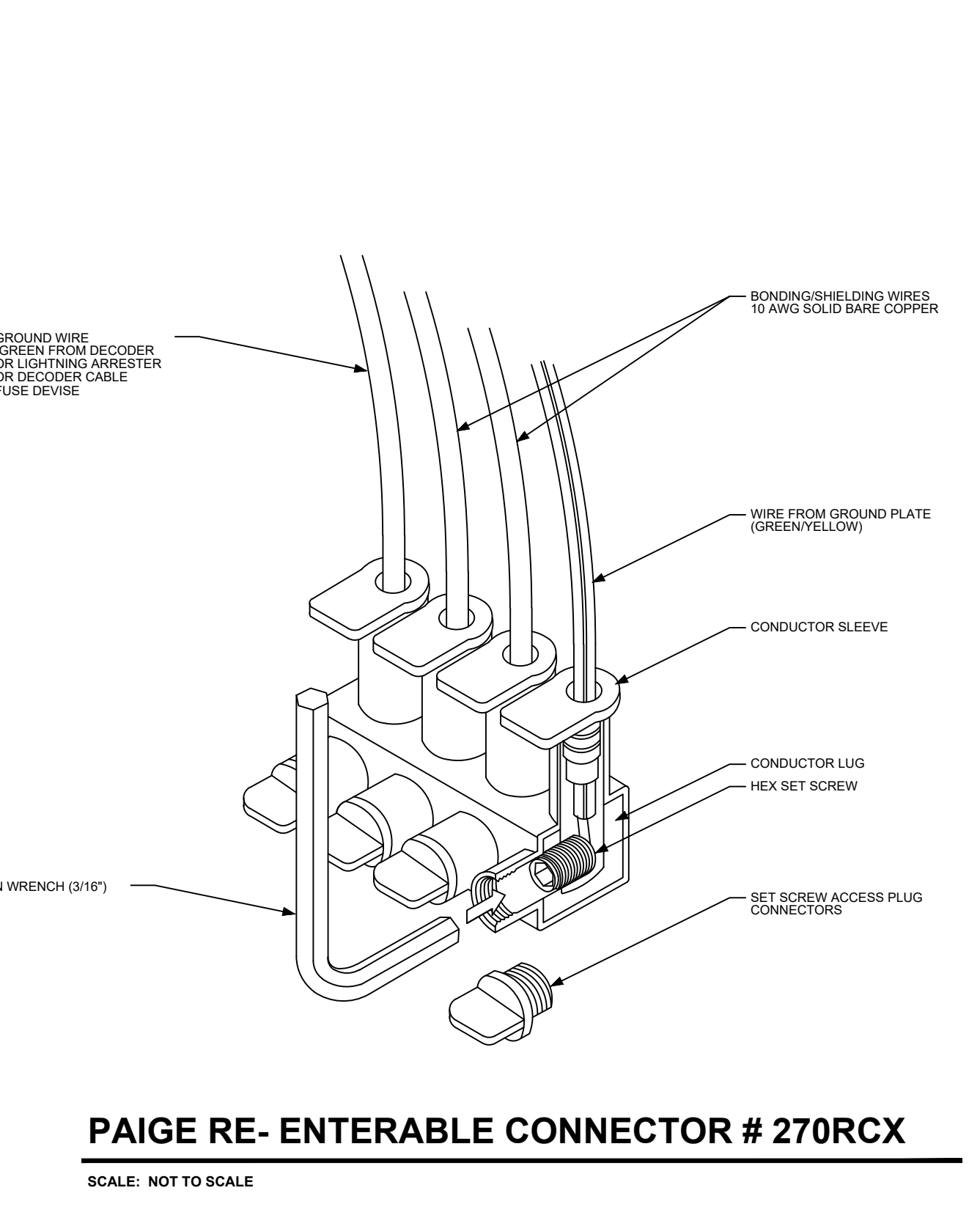
BOND WIRE FOR IC SYSTEM
 SCALE: NOT TO SCALE



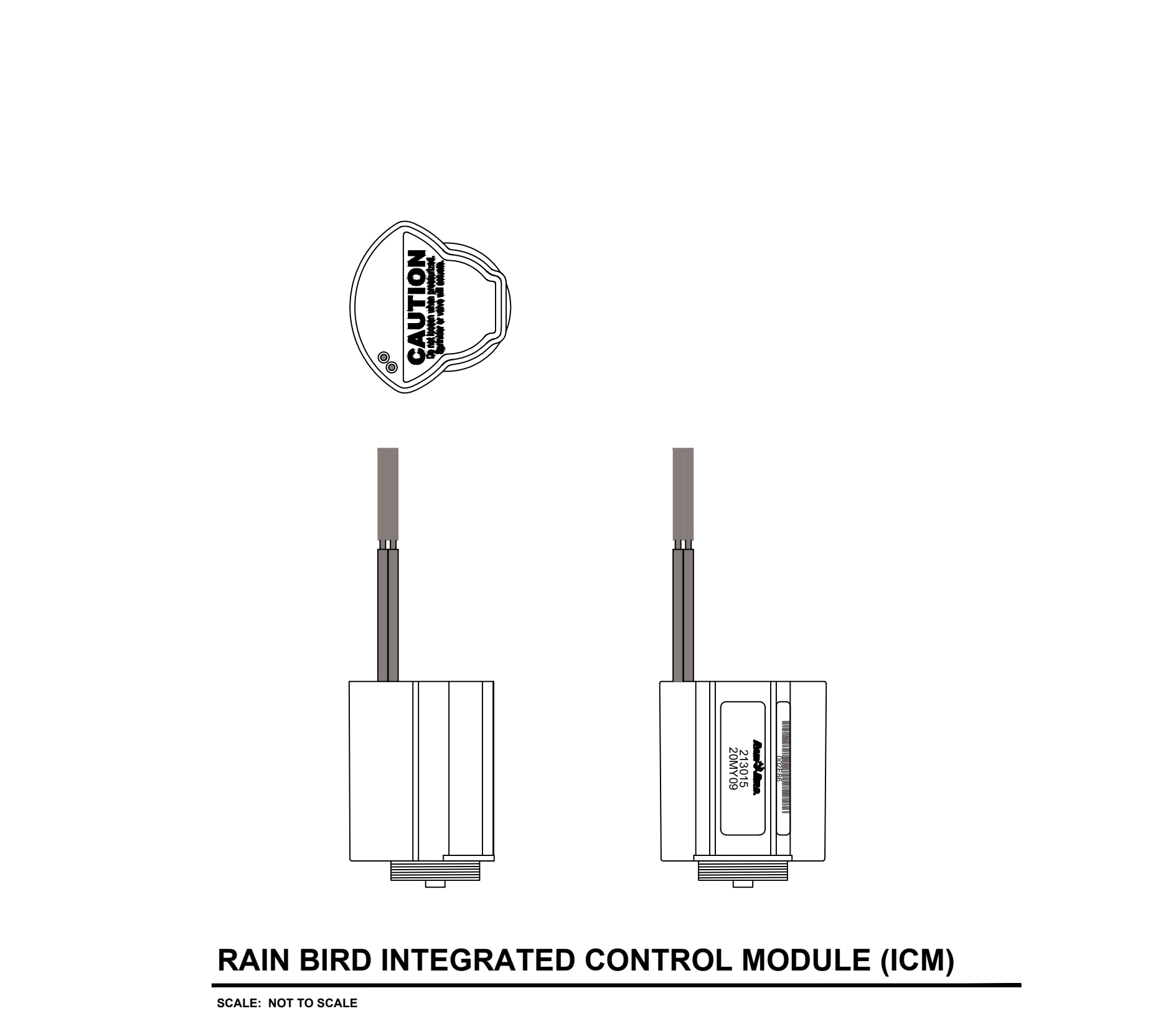
CENTRAL GROUNDING ASSEMBLY
 SCALE: NOT TO SCALE



TYPICAL GROUNDING GRID - CENTRAL EQUIPMENT
 SCALE: NOT TO SCALE



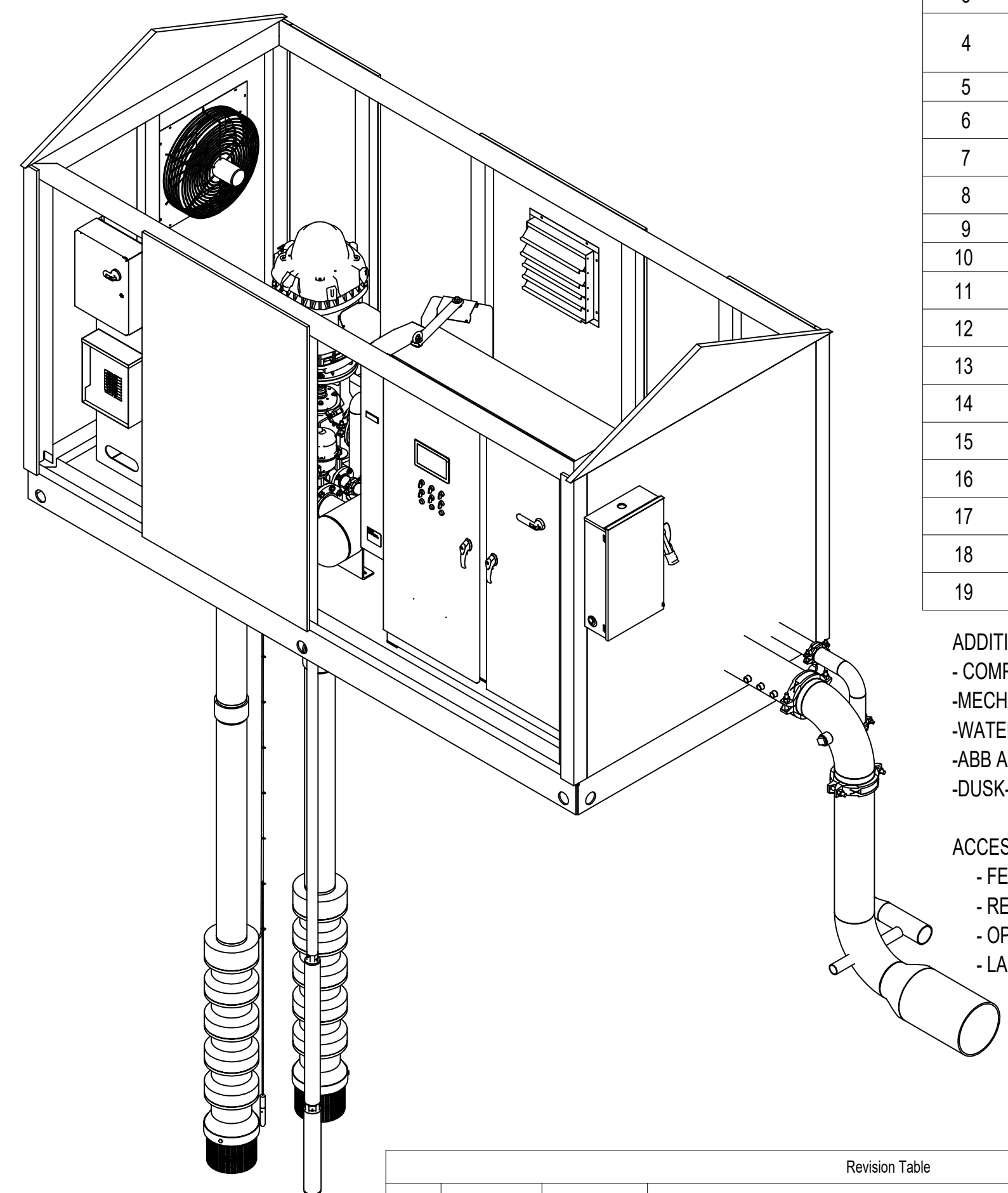
PAIGE RE-ENTERABLE CONNECTOR # 270RCX
 SCALE: NOT TO SCALE



RAIN BIRD INTEGRATED CONTROL MODULE (ICM)
 SCALE: NOT TO SCALE

RAIN BIRD SPECIFIC DETAILS

DESIGN SPECIFICATIONS	
MODEL #:	VTVE-7C-75X2/SST-480-3-1500-120
STATION PERFORMANCE:	1500 GPM @ 120 PSI
MAIN PUMP:	75 HP (QTY. 2)
JOCKEY PUMP:	SUSTAIN PUMP: 5 HP
POWER REQUIREMENTS:	480V, 3 PH, 60HZ, 205 FLA
EXHAUST FAN REQUIREMENTS:	2635 CFM
LIFTING WEIGHT:	
PIPE COATING:	EXTERNAL - SANDSTONE INTERNAL - DISCONNECT SIZE: 400A



STATION COMPONENTS	
ITEM #	DESCRIPTION
1	75HP MAIN PUMP AND MOTOR
2	5HP SUSTAIN PUMP
3	6" CHECK VALVE
4	5" PUMP DISCHARGE ISO VALVE W/ EBV
5	PRESSURE TRANSDUCER W/ GAUGE
6	8" FLOW SENSOR
7	3" PRESSURE RELIEF VALVE
8	8" STATION DISCHARGE ISO VALVE
9	CONTROL CABINET
10	HEAT EXCHANGER
11	8" LPD WYE W/ AUTOFLUSH
12	3-3/4" TOL
13	DRAIN
14	PAINTED STEEL BASE
15	WET WELL HATCH
16	LEVEL SENSOR
17	5KW HEATER
18	5KVA POWER SUPPLY
19	STAINLESS STEEL BOX SCREEN SBS-36

ADDITIONAL ITEMS:
 - COMPOSITE ENCLOSURE WINSULATION
 - MECHANICAL SEALS
 - WATERVISION 2.0 - 5YR SUBSCRIPTION
 - ABB ACS880 VFD W/ REMOTE KEYPAD
 - DUSK-TO-DAWN ENCLOSURE LIGHT

ACCESSORIES JUNCTION BOX CONTAINS:
 - FERTIGATION RUN RELAY
 - REMOTE START RELAY
 - OPTO-COUPLER
 - LAKE LEVEL FILLS - 2X DRY CONTACTS

ISOMETRIC VIEW

Revision Table					
1.	XXX	XXX	XXX	XXX	XXX
REV	DRAWN BY	DATE	DESCRIPTION	CHECKED BY	DATE

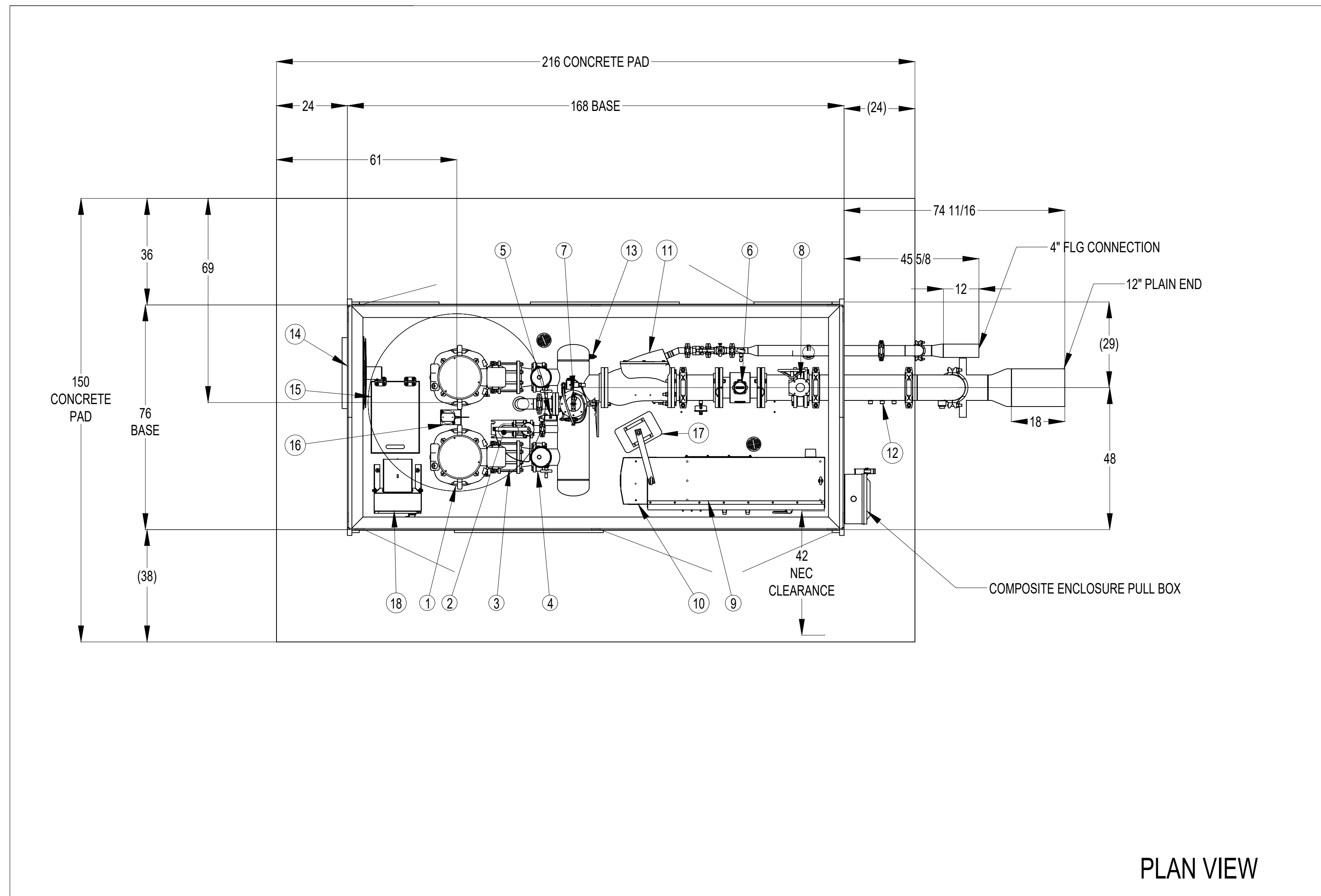
MAPLE MEADOWS GC
VTVE-7C-75X2/SST-480-3-1500-120

DRAWN BY: SVG DATE: 10/07/2024
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 SIZE: SCALE: DWG NO: REV: PAGE:
 A 1:42 PRVT13500 - 1 OF 3

APPROVED AS SUBMITTED
 APPROVED AS NOTED
 REVISE AND RESUBMIT

REVIEW BY: _____
 NAME: _____
 DATE: _____

DIMENSIONS AND SIZES OF EXISTING STRUCTURES, AND/OR COMPONENTS MUST BE VERIFIED TO WATERTRONICS BEFORE STATION CONSTRUCTION BEGINS. UNLESS SPECIFIED BY THE CUSTOMER, PUMP HOUSE/CONCRETE SLAB DIMENSIONS ARE RECOMMENDED MINIMUMS FOR NEC AND SERVICE CLEARANCE, AND ARE FOR ILLUSTRATION PURPOSES ONLY. PROJECT MANAGER SHALL BE CONSULTED ON FINAL DESIGN. THE PUMP STATION PROPOSED HEREIN IS DESIGNED TO BE PLACED IN A PUMP HOUSE FOR PROTECTION FROM THE ENVIRONMENT. IF A PUMP HOUSE IS NOT USED, WATERTRONICS MUST BE NOTIFIED AT TIME OF QUOTATION SO SPECIAL PROVISIONS CAN BE MADE.

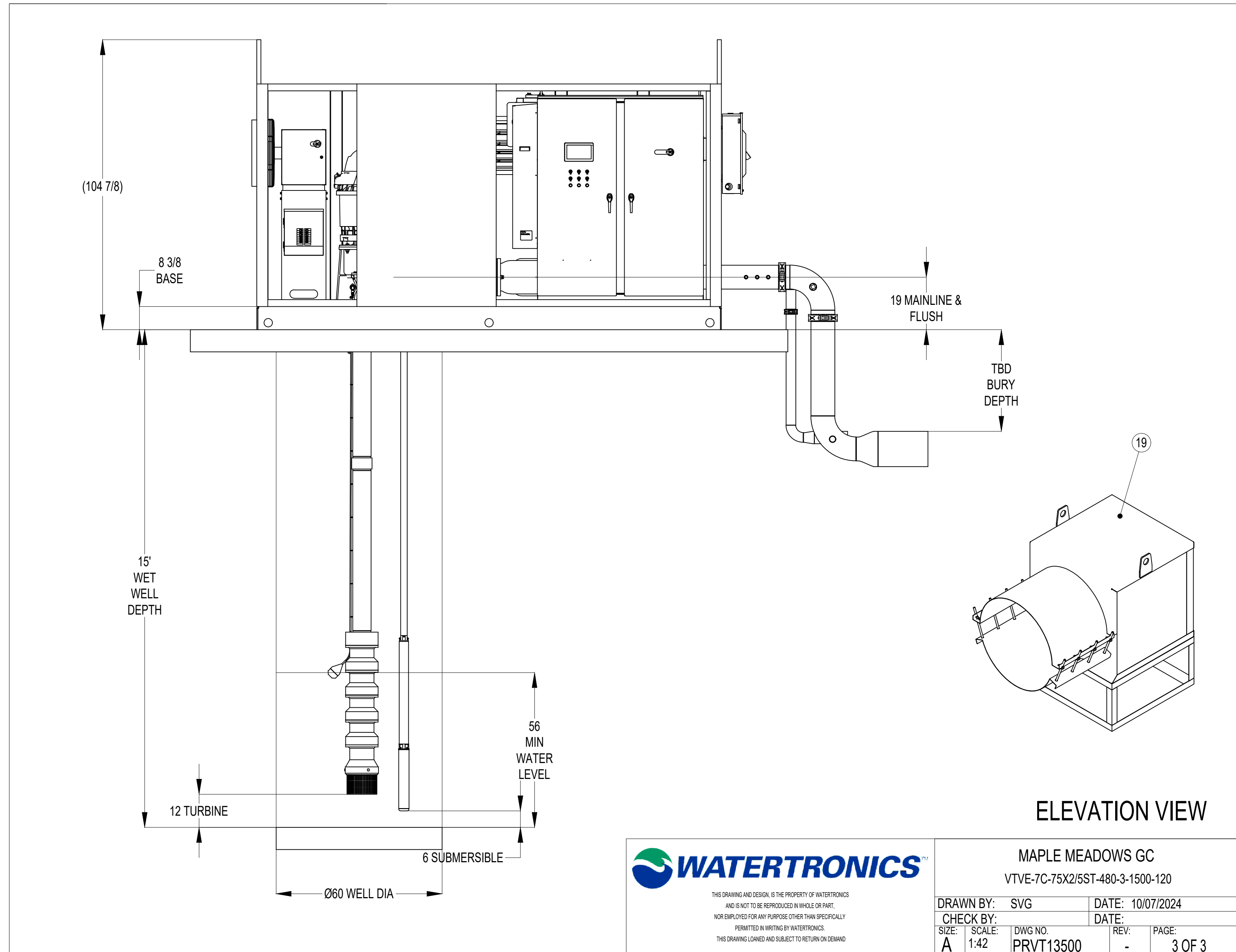


PLAN VIEW

Revision Table					
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MAPLE MEADOWS GC
VTVE-7C-75X2/SST-480-3-1500-120

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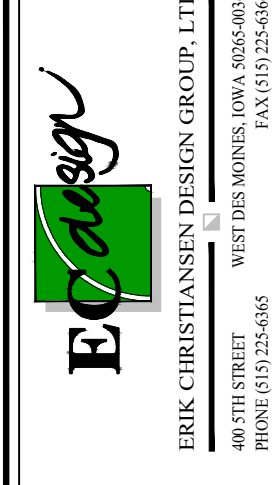


ELEVATION VIEW

Revision Table					
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MAPLE MEADOWS GC
VTVE-7C-75X2/SST-480-3-1500-120

DRAWN BY: SVG DATE: 10/07/2024
 CHECK BY: DATE:
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 A 1:42 PRVT13500 - 3 OF 3



MAPLE MEADOWS GOLF COURSE
WOOD DALE, IL

REVISIONS:
 1
 2
 3
 4

DRAWN BY: CM
 REVIEWED BY: LC

DRAWING TITLE:
IRRIGATION PUMP DETAILS
SCALE: NONE

DATE:
11/04/2024

SHEET #:
LI-7

REVIEW AND PROGRESS PRINT - NOT FOR CONSTRUCTION