#### CHATHAM COUNTY PURCHASING & CONTRACTING DEPARTMENT

ADDENDUM NO. 1 TO 20-0074-4

FOR: CHARLIE BROOKS PARK EXPANSION - PHASE 2				
PLEASE SEE THE FOLLOWING FOR ADDITIONS, CLARIFICATIONS AND/OR CHANGES:				
1. See attached REVISED Plan Sheets (5 sheets)				
IR-1 of IR-5				
IR-2 of IR-5				
IR-3 of IR-5				
IR-4 of IR-5				
IR-5 of IR-5				
2. See attached sheet (1 page) for Responses to Questions received and added suppliers.				
3. The Bid Opening date/time has been extended to 2pm, Tuesday, October 13, 2020.				
\$. Due to the bid opening extension, we will extend the receiving of additional question until 11am, October 6, 2020.				
BID OPENING HAS BEEN EXTENDED TO: 2PM, TUESDAY,				
OCTOBER 13, 2020				

THE PROPOSER IS RESPONSIBLE FOR MAKING THE NECESSARY CHANGES AND MUST ACKNOWLEDGE RECEIPT OF ADDENDUM.

10/1/20 DATE

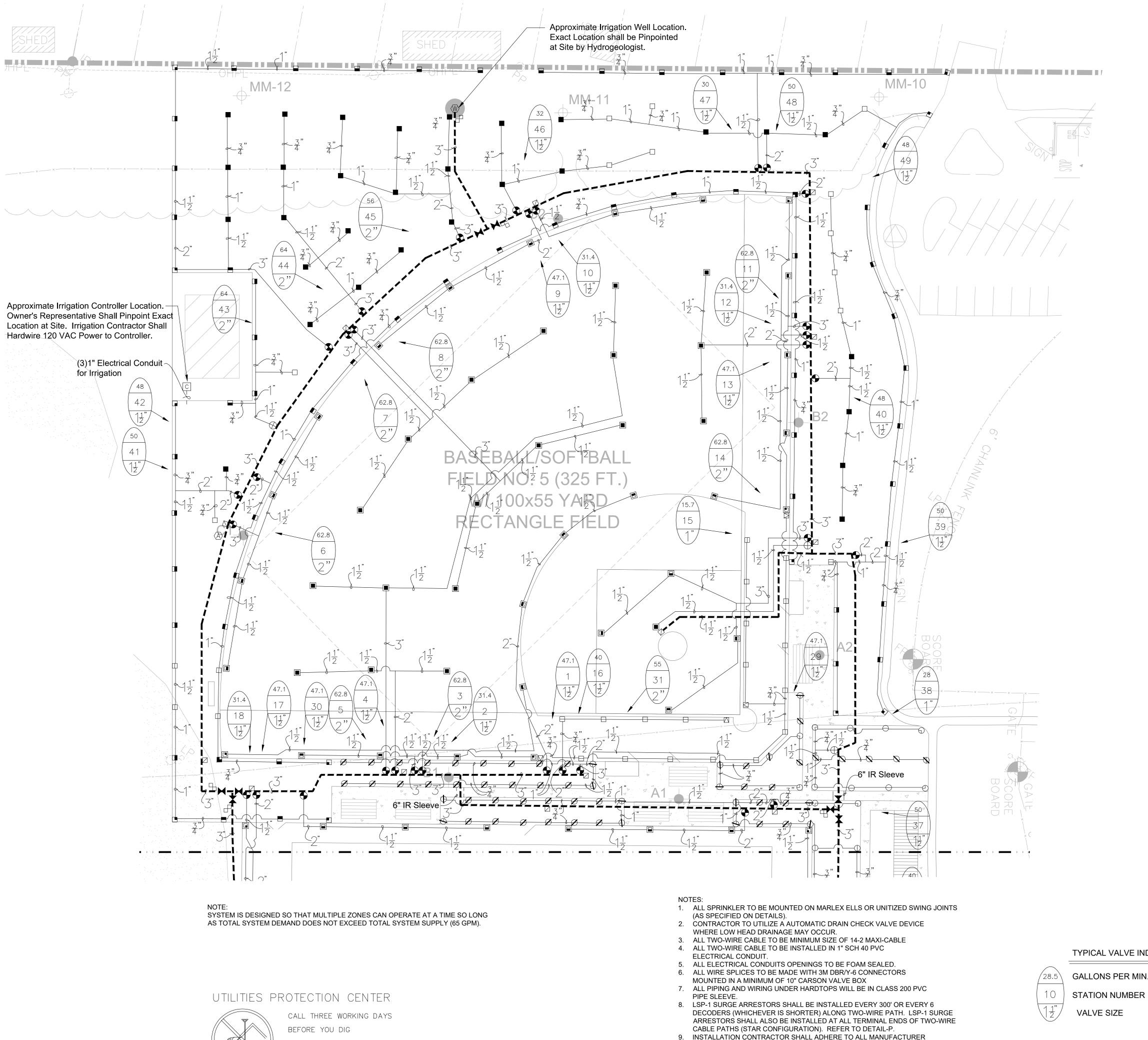
SENIOR PROCUREMENT SPECIALIST CHATHAM COUNTY

# Addendum 1 for Bid No. 20-0074-4 Responses to Questions Received:

- 1.Q) If when drilling the well, the driller encounters land fill materials and is forced to move and start a new hole, who is responsible for costs incurred?
  - A) If waste is present, it will be located at a fairly shallow depth. Explorations will be done at the well location prior to the beginning of drilling. If waste is encountered, then the well location will be adjusted to a place where it can be confirmed that there is no waste. The cost of the explorations should be included in the price of the well.
- 2. Q) Is the design intent with the well to have an open hole limestone well, or a gravel-packed sand well with well screens?
  - A) The intent is to have an open hole limestone well.
- 3. Q) Section 3.4 on page 21 of the ITB mentions an extended warranty. What is the duration of the extended warranty?
  - A) Only the Standard warranty is applicable for this contract (as indicated by an "X" on page 21 of the ITB)

#### NOTE:

Shade Structure by Superior Recreational Products shall be added to the list of suppliers for the shade structure over bleachers. Sturdisteel Company shall be added to the approved list of suppliers of aluminum bleachers.



THROUGHOUT GEORGIA

1-800-282-7411

## **IRRIGATION LEGEND**

- IRRIGATION WELL AND WELL PUMP CONTROLS. REFER TO DETAIL-Q PRODUCING 65 GPM @ 100 PSI DISHARGE. REQUIRES 460 VAC, 3 PHASE POWER.
- MANUAL DRAIN VALVE. SCH 80 PVC BALL VALVE. DETAIL-E.
- RAIN BIRD ESP-LXD CONTROLLER. 50 TOTAL STATIONS, 2-WIRE/DECODER BASED MODULAR CONTROLLER, FOUR PROGRAMS, PLASTIC, WALL MOUNTED. DETAIL-J,K,Q. IRRIGATION CONTRACTOR SHALL ALSO INSTALL A WIRELESS RAIN/FREEZE SENSOR FOR EACH CONTROLLER. NOTE: THERE ARE 49 ZONES SHOWN ON PLANS. IF ANY ZONES ARE ADDED DURING CONSTRUCTION, CONTRACTOR WILL NEED TO INSTALL A 75 STATION EXPANSION MODULE INTO CONTROLLER FOR ADDITIONAL VALVES.
  - RAIN BIRD 150-EFB-CP-PRS OR 200-EFB-CP-PRS BRASS ELECTRIC REMOTE CONTROL VALVE, 11/2" OR 2" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE AND PRESSURE REGULATION DEVICES, INSTALLED WITH RAIN BIRD SINGLE STATION DECODER. DETAIL-A.
  - RAIN BIRD 100-EFB-CP-PRS BRASS ELECTRIC REMOTE CONTROL VALVE, 1" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE AND PRESSURE REGULATION DEVICES. INSTALLED WITH RAIN BIRD SINGLE STATION DECODER. DETAIL-A.
- RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 **#** # # GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 15' RADIUS, FULL-4.0  $\bullet \bullet \bullet$ GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C.
  - RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.
  - RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

  - RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.
  - RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-D.
- HUNTER I-20 ADS LAWN ROTOR, 40' RADIUS, FULL-6.0 GPM, HALF-3.0 GPM, QUARTER-1.5 GPM, 40 PSI, DETAIL-B.
- HUNTER I-20 ADS LAWN ROTOR, 30' RADIUS, FULL-3.0 GPM, HALF-1.5 GPM, QUARTER-.75 GPM, 40 PSI, DETAIL-B.
- HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806- $\bigcirc \bigcirc \oplus$ SAM SPRINKLER IN LAWN, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-C.
- HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806- $\mathscr{D}\mathscr{B}\mathscr{D}$ SAM SPRINKLER IN LAWN, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-C.
  - HUNTER I-40-06-SS, WITH #15 NOZZLE, SPORTS TURF CLOSED CASE ROTOR, FULL CIRCLE ARC, 55' RADIUS @ 15.7 GPM, 60 PSI, RUBBER COVER, STAINLESS STEEL RISER, UTILIZE LASCO 1" UNITIZED SWING JOINTS, DETAIL-N.
- HUNTER I-40-06-SS, WITH #15 NOZZLE, SPORTS TURF CLOSED CASE ROTOR, PART CIRCLE ARC, 55' RADIUS @ 15.7 GPM, 60 PSI, RUBBER COVER,

KEYS AND MATCHING HOSE SWIVELS. DETAIL-L.

- STAINLESS STEEL RISER, UTILIZE LASCO 1" UNITIZED SWING JOINTS, DETAIL-N. RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV
- MAINLINE ISOLATION GATE VALVE, DOMESTIC DUCTILE IRON GASKETED, DETAIL-M.
- AIR VENT VALVE, BERMAD #4420, 2" SIZE. INSTALLATION CONTRACTOR TO INSTALL (2) AIR VENT VALVE ASSEMBLIES AT HIGH POINTS OF IRRIGATION MAINLINE. NOTE: AIR VENT VALVE ASSEMBLIES ARE SHOWN ON PLANS FOR REFERENCE/ACCOUNTABILITY PURPOSES ONLY. INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO FIELD ADJUST ACTUAL LOCATIONS AT SITE TO
- MAINLINE PIPE: 3" SIZE IF NOT NOTED. CLASS 200 PVC. ALL PIPE 2-1/2" AND LARGER SHALL BE UNIBELL GASKETED PVC PIPE AND HARCO PVC GASKETED FITTINGS. THRUST BLOCKS AND RESTRAINTS TO BE UTILIZED AS PER MANUFACTURER'S RECOMMENDATIONS FOR PIPE TYPE, PIPE SIZE, AND LOCAL ENVIRONMENTAL
  - IRRIGATION SLEEVE: CLASS 200 PVC, REFER TO SLEEVING PLAN. DETAIL-H.
  - LATERAL LINE PIPE: CLASS 200 PVC, SIZE NOTED.

PROJ. NO.

SCALE

DATE

ACTUAL MAINLINE HIGH POINTS. DETAIL-F.

— · — · — · — 3" ELECTRICAL CONDUIT SLEEVE.

### FOR BIDDING PURPOSES ONLY

ADDENDUM NO. 1 - REVISED SEPTEMBER 2020 - REDUCED PUMP CAPACITY

1" = 30'

JULY, 2020

# IRRIGATION PLAN NORTH

# IRRIGATION PLAN CHARLIE BROOKS PARK - PHASE 2

CHATHAM COUNTY BOARD OF COMMISSIONERS

CHATHAM COUNTY, GEORGIA HHNT

——HODGES, HARBIN, — NEWBERRY & TRIBBLE, INC.

17 PARK OF COMMERCE (912) 298-0230 BOULEVARD, SUITE 110 Consulting Engineers (912) 298-0234 (FAX) SAVANNAH, GEORGIA 31405 171116IE-R2 1705-038-01

SHEET IR-1 OF IR-5

TYPICAL VALVE INDICATOR

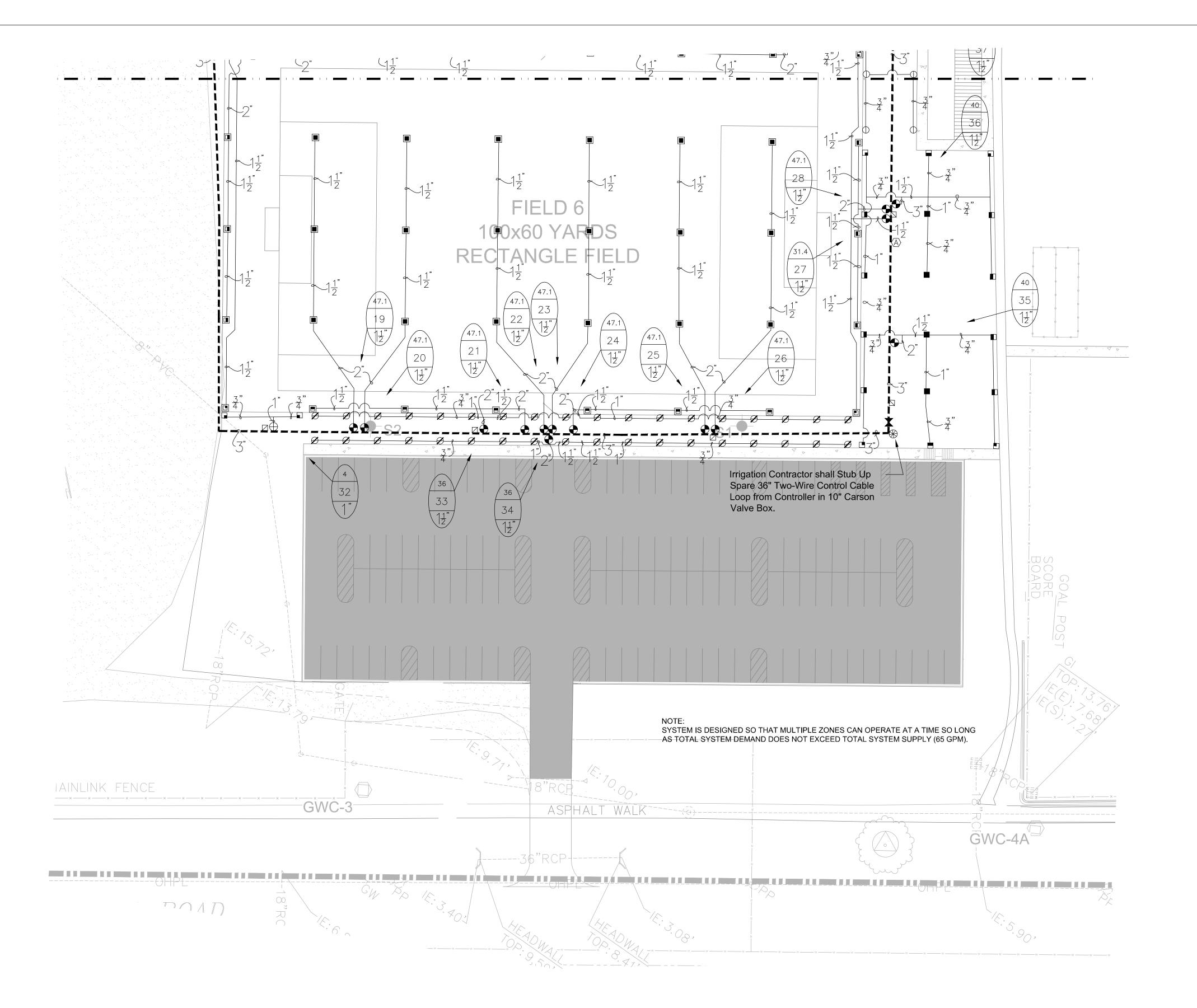
30' 15' 0'

GRAPHIC SCALE: 1"=30'

STATION NUMBER

SPECIFICATIONS FOR TWO-WIRE CONTROL SYSTEM INSTALLATION (WIRE

SIZING, WIRE LENGTH OF RUNS, GROUNDING, ETC).



1. ALL SPRINKLER TO BE MOUNTED ON MARLEX ELLS OR UNITIZED SWING JOINTS

(AS SPECIFIED ON DETAILS). 2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE

WHERE LOW HEAD DRAINAGE MAY OCCUR. 3. ALL TWO-WIRE CABLE TO BE MINIMUM SIZE OF 14-2 MAXI-CABLE

4. ALL TWO-WIRE CABLE TO BE INSTALLED IN 1" SCH 40 PVC

ELECTRICAL CONDUIT. 5. ALL ELECTRICAL CONDUITS OPENINGS TO BE FOAM SEALED.

6. ALL WIRE SPLICES TO BE MADE WITH 3M DBR/Y-6 CONNECTORS

MOUNTED IN A MINIMUM OF 10" CARSON VALVE BOX 7. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC

PIPE SLEEVE. 8. LSP-1 SURGE ARRESTORS SHALL BE INSTALLED EVERY 300' OR EVERY 6 DECODERS (WHICHEVER IS SHORTER) ALONG TWO-WIRE PATH. LSP-1 SURGE

9. INSTALLATION CONTRACTOR SHALL ADHERE TO ALL MANUFACTURER SPECIFICATIONS FOR TWO-WIRE CONTROL SYSTEM INSTALLATION (WIRE SIZING, WIRE LENGTH OF RUNS, GROUNDING, ETC).

### TYPICAL VALVE INDICATOR



GALLONS PER MIN.



STATION NUMBER VALVE SIZE

# IRRIGATION PLAN

ADDENDUM NO. 1 - REVISED SEPTEMBER 2020 - REDUCED PUMP CAPACITY

# CHARLIE BROOKS PARK - PHASE 2

# CHATHAM COUNTY BOARD OF COMMISSIONERS

CHATHAM COUNTY, GEORGIA



——HODGES, HARBIN,— NEWBERRY & TRIBBLE, INC.

17 PARK OF COMMERCE BOULEVARD, SUITE 110 Consulting Engineers SAVANNAH, GEORGIA 31405

PROJ. NO. 171116IE-R2 1705-038-01 SCALE 1" = 30' GRAPHIC SCALE: 1"=30' SHEET IR-2 OF IR-5 DATE JULY, 2020



BEFORE YOU DIG THROUGHOUT GEORGIA 1-800-282-7411

ARRESTORS SHALL ALSO BE INSTALLED AT ALL TERMINAL ENDS OF TWO-WIRE CABLE PATHS (STAR CONFIGURATION). REFER TO DETAIL-P.

# IRRIGATION LEGEND

- IRRIGATION WELL AND WELL PUMP CONTROLS. REFER TO DETAIL-Q PRODUCING 65 GPM @ 100 PSI DISHARGE. REQUIRES 460 VAC, 3 PHASE POWER.
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IRRIGATION SLEEVE: CLASS 200 PVC, REFER TO SLEEVING PLAN. DETAIL-H.

LATERAL LINE PIPE: CLASS 200 PVC, SIZE NOTED.

ACTUAL MAINLINE HIGH POINTS. DETAIL-F.

(912) 298-0230

30' 15' 0'

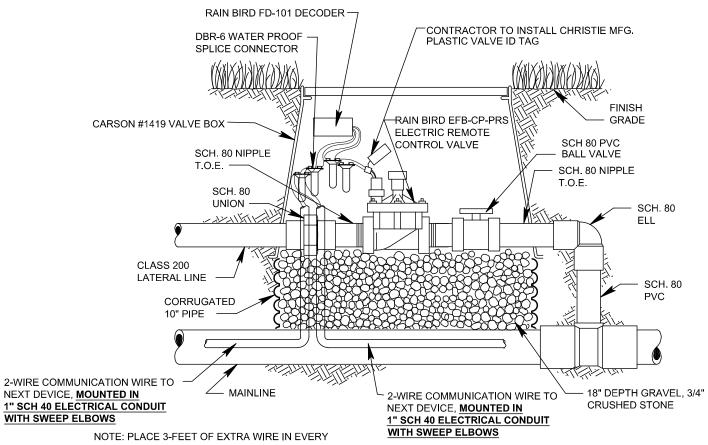
(912) 298-0234 (FAX)

— · — · — · — · — 3" ELECTRICAL CONDUIT SLEEVE.

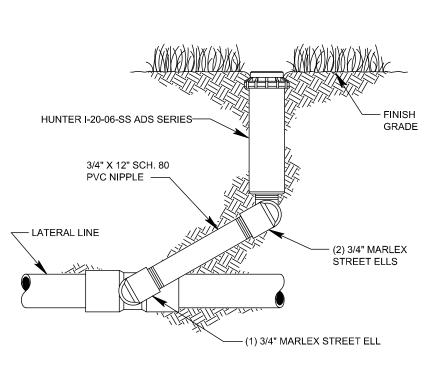
0.5 GPM, 40 PSI, DETAIL-C.

FOR BIDDING PURPOSES ONLY

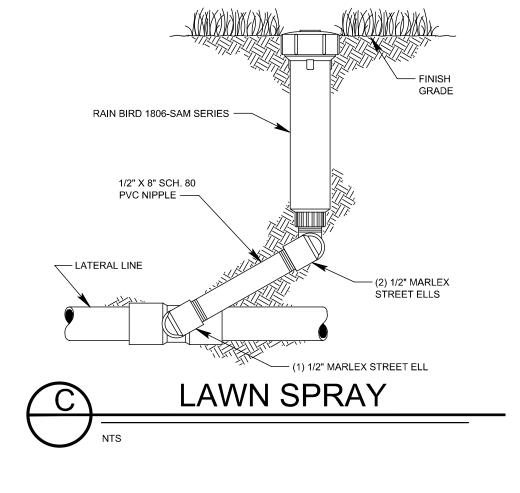
IRRIGATION PLAN SOUTH

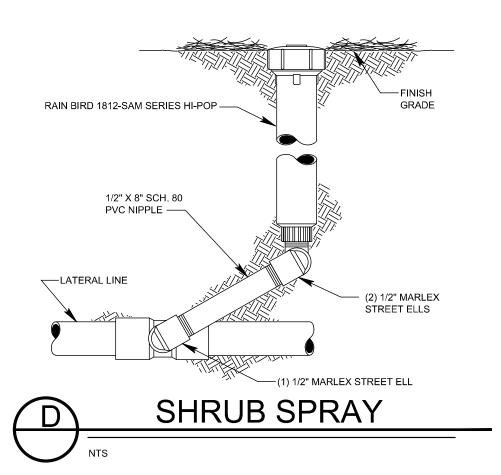


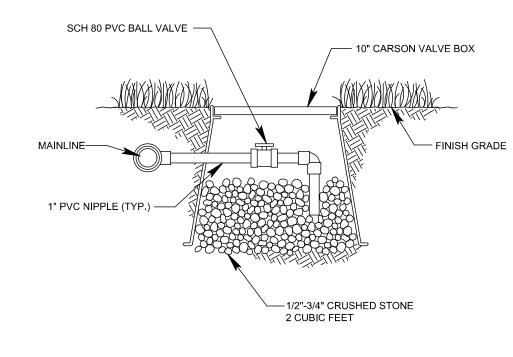




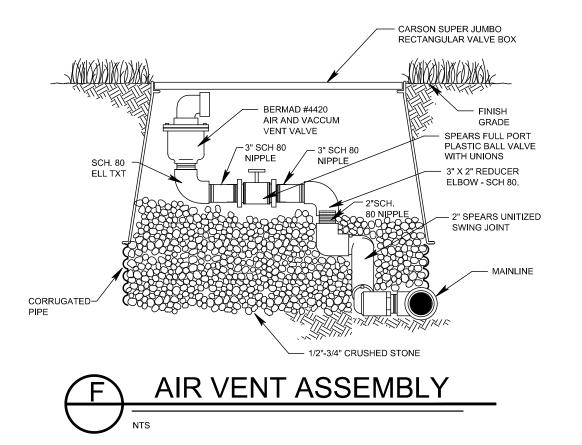












# **GENERAL NOTES**

- 1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE, CLASS 200 PVC FOR 4" AND LARGER).
- 2. ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER. (CLASS 200 PVC PIPE). 3. NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN
- BACKFILLING OF TRENCH. 4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
- 5. ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID
- TEFLON. 6. ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF
- SPRINKLER HEADS. 7. SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
- SHOWN ON DETAILS.
- 9. ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND
- FURNISHED BY THE CONTRACTOR. 10. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR

CONNECTIONS.

- 11. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEEDING WITH THE WORK.
- 12. ALL TWO-WIRE CONTROL WIRES SHALL BE #14-2 MAXI CABLE, INSTALLED IN 1" SCH 40 PVC ELECTRICAL CONDUIT.
- 13. CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO
- BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES. 14. CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING, i.e. VERIFY ROOT BALL SIZE FOR PLANTING.
- 15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).
- 16. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.

GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH

- 17. ALL SPRINKLERS TO BE INSTALLED AS DETAILED ON PLANS. 18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL
- VALVES. 19. 24 VOLT WIRE SHALL BE COLOR CODED PER SEPARATE WIRE RUNS. 20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED
- PAIGE WIRE GROUND PLATE ASSEMBLY. 21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION.

- 22. CONTROLLER GROUNDING MUST BE AS PER RAIN BIRD WIRE GROUNDING
- 23. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:
- A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.
- B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
- C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS. 24. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN PROPERTY BOUNDARIES. CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT
- MATERIALS EXISTING OR NEW. 8. ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS 25. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR
  - PROPER COVERAGE. 26. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS.
  - ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS. 27. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID
  - SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS AND SPECIFICATIONS. 28. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF
  - THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2010 FORMAT BEFORE FINAL ACCEPTANCE. 29. A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER
  - SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.
  - 30. PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE.
  - 31. UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN PRESSURE DURING DURATION OF TEST. A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE

B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE

32. IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"X11" LAMINATED SHEET(S), TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF CONTROLLER(S).

# 1. ALL SPRINKLER TO BE MOUNTED ON MARLEX ELLS OR UNITIZED SWING JOINTS

- (AS SPECIFIED ON DETAILS). 2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
- 3. ALL TWO-WIRE CABLE TO BE MINIMUM SIZE OF 14-2 MAXI-CABLE
- 4. ALL TWO-WIRE CABLE TO BE INSTALLED IN 1" SCH 40 PVC ELECTRICAL CONDUIT. 5. ALL ELECTRICAL CONDUITS OPENINGS TO BE FOAM SEALED.
- 6. ALL WIRE SPLICES TO BE MADE WITH 3M DBR/Y-6 CONNECTORS MOUNTED IN A MINIMUM OF 10" CARSON VALVE BOX 7. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC PIPE SLEEVE.
- 8. LSP-1 SURGE ARRESTORS SHALL BE INSTALLED EVERY 300' OR EVERY 6 DECODERS (WHICHEVER IS SHORTER) ALONG TWO-WIRE PATH. LSP-1 SURGE ARRESTORS SHALL ALSO BE INSTALLED AT ALL TERMINAL ENDS OF TWO-WIRE CABLE PATHS (STAR CONFIGURATION). REFER TO DETAIL-P. 9. INSTALLATION CONTRACTOR SHALL ADHERE TO ALL MANUFACTURER
- SPECIFICATIONS FOR TWO-WIRE CONTROL SYSTEM INSTALLATION (WIRE SIZING, WIRE LENGTH OF RUNS, GROUNDING, ETC).

# TYPICAL VALVE INDICATOR



GALLONS PER MIN. STATION NUMBER

**VALVE SIZE** 

# IRRIGATION LEGEND

IRRIGATION WELL AND WELL PUMP CONTROLS. REFER TO DETAIL-Q PRODUCING 65 GPM @ 100 PSI DISHARGE. REQUIRES 460 VAC, 3

MANUAL DRAIN VALVE. SCH 80 PVC BALL VALVE. DETAIL-E.

RAIN BIRD ESP-LXD CONTROLLER. 50 TOTAL STATIONS, 2-WIRE/DECODER BASED MODULAR CONTROLLER, FOUR PROGRAMS, PLASTIC, WALL MOUNTED. DETAIL-J.K.Q. IRRIGATION CONTRACTOR SHALL ALSO INSTALL A WIRELESS RAIN/FREEZE SENSOR FOR EACH CONTROLLER. NOTE: THERE ARE 49 ZONES SHOWN ON PLANS. IF ANY ZONES ARE ADDED DURING CONSTRUCTION, CONTRACTOR WILL NEED TO INSTALL A 75 STATION EXPANSION MODULE INTO CONTROLLER FOR ADDITIONAL VALVES.

RAIN BIRD 150-EFB-CP-PRS OR 200-EFB-CP-PRS BRASS ELECTRIC REMOTE CONTROL VALVE, 11/2" OR 2" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE AND PRESSURE REGULATION DEVICES, INSTALLED WITH RAIN BIRD SINGLE STATION DECODER. DETAIL-A.

RAIN BIRD 100-EFB-CP-PRS BRASS ELECTRIC REMOTE CONTROL VALVE, 1" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION BALL VALVE AND PRESSURE REGULATION DEVICES. INSTALLED WITH RAIN BIRD SINGLE STATION DECODER. DETAIL-A.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30'

RADIUS, 1.5 GPM, 30 PSI. DETAIL-C. RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15'

RADIUS, 1.0 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-D.

HUNTER I-20 ADS LAWN ROTOR, 40' RADIUS, FULL-6.0 GPM, HALF-3.0 GPM, QUARTER-1.5 GPM, 40 PSI, DETAIL-B.

HUNTER I-20 ADS LAWN ROTOR, 30' RADIUS, FULL-3.0 GPM, HALF-1.5 GPM, QUARTER-.75 GPM, 40 PSI, DETAIL-B.

HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 30' RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-C.

HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 20' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-

0.5 GPM, 40 PSI, DETAIL-C. HUNTER I-40-06-SS, WITH #15 NOZZLE, SPORTS TURF CLOSED CASE ROTOR, FULL CIRCLE ARC, 55' RADIUS @ 15.7 GPM, 60 PSI, RUBBER COVER, STAINLESS

STEEL RISER, UTILIZE LASCO 1" UNITIZED SWING JOINTS, DETAIL-N. HUNTER I-40-06-SS, WITH #15 NOZZLE, SPORTS TURF CLOSED CASE ROTOR, PART CIRCLE ARC, 55' RADIUS @ 15.7 GPM, 60 PSI, RUBBER COVER,

STAINLESS STEEL RISER, UTILIZE LASCO 1" UNITIZED SWING JOINTS, DETAIL-N.

RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-L.

MAINLINE ISOLATION GATE VALVE, DOMESTIC DUCTILE IRON GASKETED, DETAIL-M.

AIR VENT VALVE, BERMAD #4420, 2" SIZE. INSTALLATION CONTRACTOR TO INSTALL (2) AIR VENT VALVE ASSEMBLIES AT HIGH POINTS OF IRRIGATION MAINLINE. NOTE: AIR VENT VALVE ASSEMBLIES ARE SHOWN ON PLANS FOR REFERENCE/ACCOUNTABILITY PURPOSES ONLY. INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE TO FIELD ADJUST ACTUAL LOCATIONS AT SITE TO

ACTUAL MAINLINE HIGH POINTS. DETAIL-F. MAINLINE PIPE: 3" SIZE IF NOT NOTED. CLASS 200 PVC. ALL PIPE 2-1/2" AND LARGER SHALL BE UNIBELL GASKETED PVC PIPE AND HARCO PVC GASKETED FITTINGS. THRUST BLOCKS AND RESTRAINTS TO BE UTILIZED AS PER MANUFACTURER'S

RECOMMENDATIONS FOR PIPE TYPE, PIPE SIZE, AND LOCAL ENVIRONMENTAL

IRRIGATION SLEEVE: CLASS 200 PVC, REFER TO SLEEVING PLAN. DETAIL-H.

LATERAL LINE PIPE: CLASS 200 PVC, SIZE NOTED.

— · — · — · — · — 3" ELECTRICAL CONDUIT SLEEVE.

FOR BIDDING PURPOSES ONLY

ADDENDUM NO. 1 - REVISED SEPTEMBER 2020 - REDUCED PUMP CAPACITY

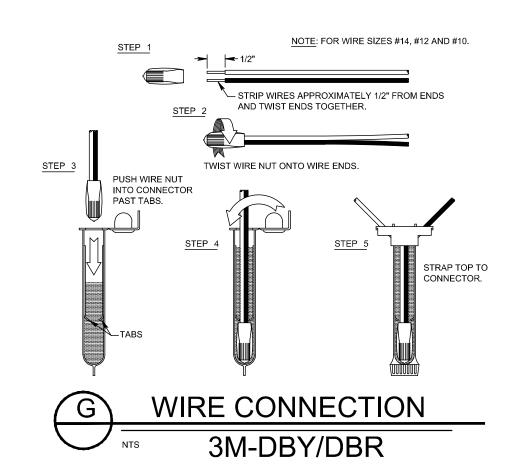
IRRIGATION GENERAL NOTES AND DETAILS IRRIGATION DETAILS CHARLIE BROOKS PARK - PHASE 2

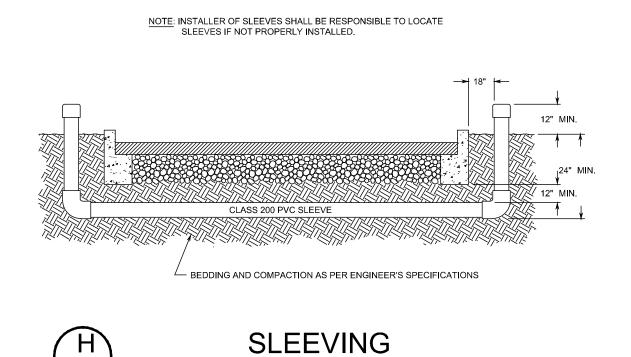
CHATHAM COUNTY BOARD OF COMMISSIONERS

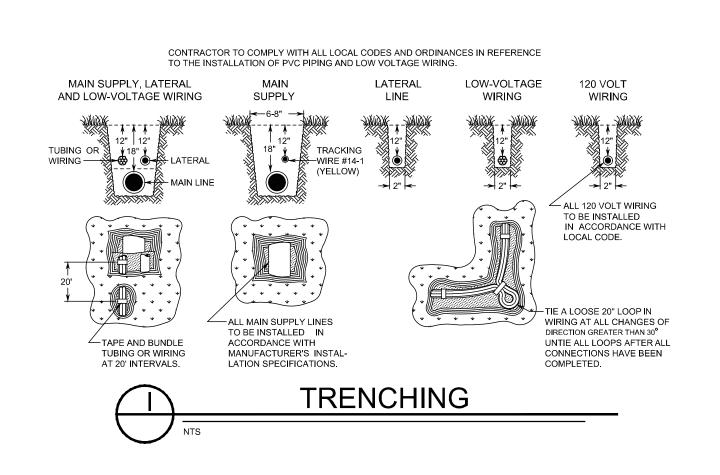


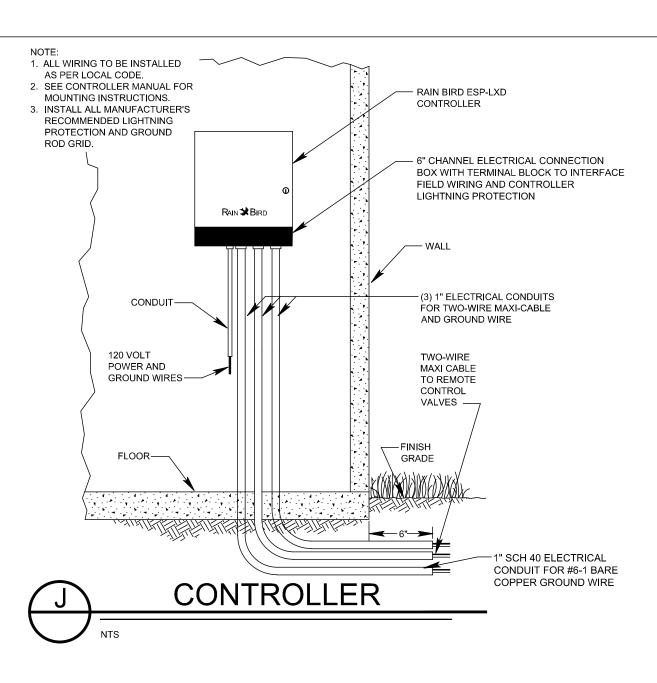
——HODGES, HARBIN,— 17 PARK OF COMMERCE NEWBERRY & TRIBBLE, INC. Consulting Engineers

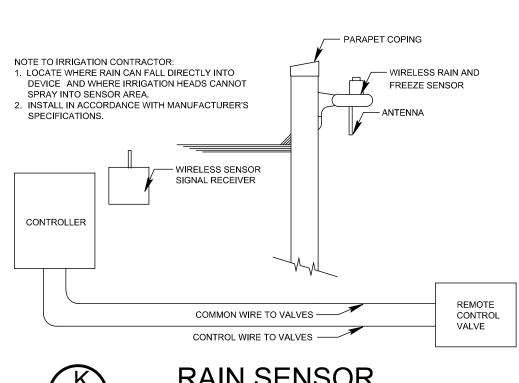
(912) 298-0230 BOULEVARD, SUITE 110 (912) 298-0234 (FAX) SAVANNAH, GEORGIA 31405 PROJ. NO. 171116IE-R2 1705-038-01 SCALE NOT TO SCALE SHEET IR-3 OF IR-5 DATE JULY, 2020

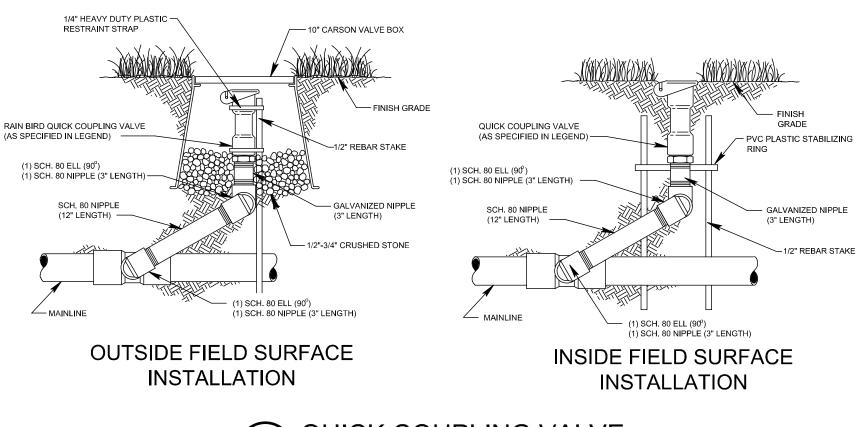


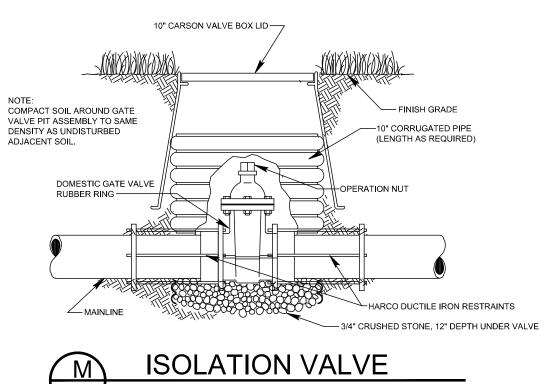


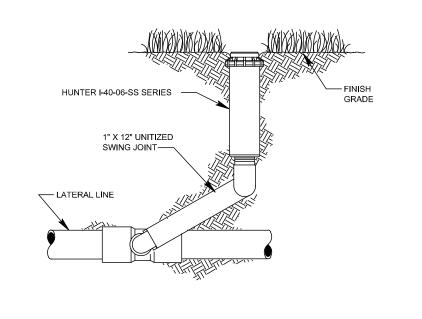










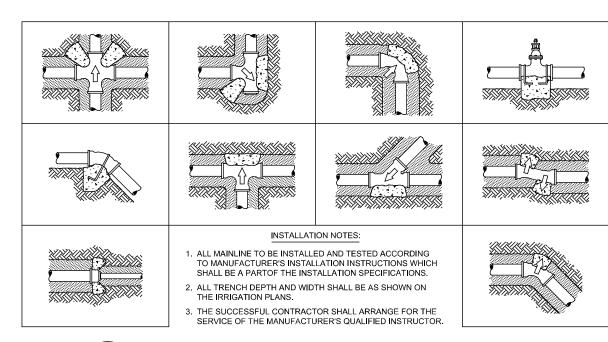


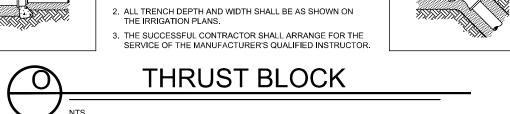


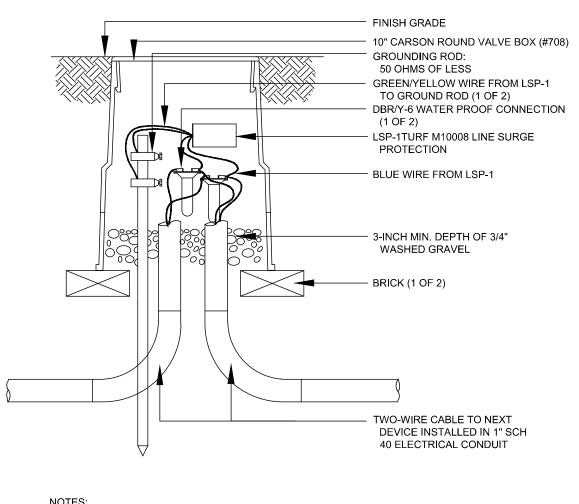






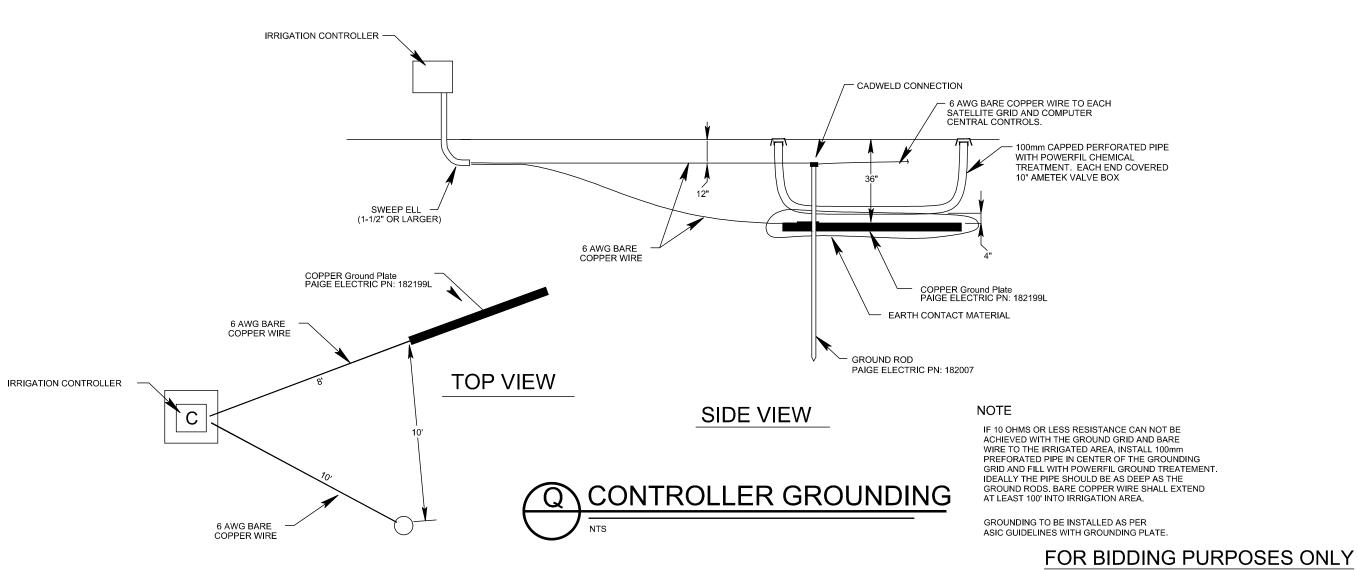






1. LSP-1 SHOULD BE INSTALLED EVERY 500 FT ON TWO-WIRE PATH OR EVERY 8 DECODERS (WHICHEVER IS SHORTER). 2. LSP-1 TO BE INSTALLED AT END OF WIRE RUN THAT TERMINES IN THE FIELD (STAR CONFIGURATION).





ADDENDUM NO. 1 - REVISED SEPTEMBER 2020 - REDUCED PUMP CAPACITY IRRIGATION DETAILS

# IRRIGATION DETAILS CHARLIE BROOKS PARK - PHASE 2

# CHATHAM COUNTY BOARD OF COMMISSIONERS

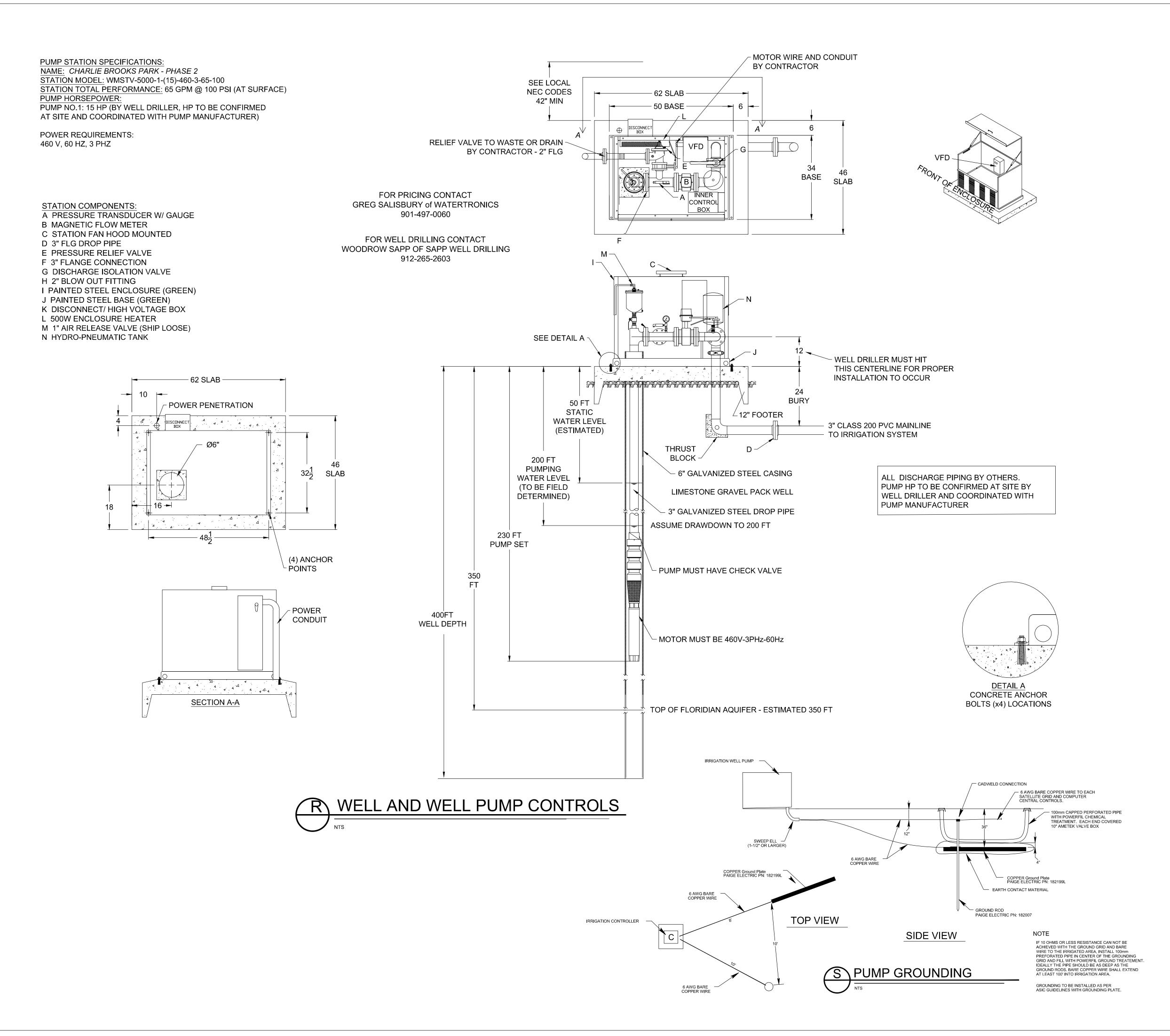
	HHNT		
(912) 298-0230 (912) 298-0234 (FAX)	—— HODGES, HARBIN,—— Newberry & Tribble, Inc.		17 PARK OF COMMERCE BOULEVARD, SUITE 110 SAVANNAH, GEORGIA 31405
	Consulting Engineers		
PROJ. NO.	1705-038-01	DWG.	171116IE-R2

SHEET IR-4 OF IR-5

NOT TO SCALE

JULY, 2020

SCALE



#### NOTES:

- 1. The Contractor shall be responsible for obtaining all required permits and approvals from Chatham County prior to installation of the irrigation well.
- 2. The well driller shall notify Chatham County and/or the Chatham County Health Department of the approximate distance from waste to the irrigation well, the direction of groundwater flow in the area, and that the landfill is unlined. Documentation of this notification shall be submitted to the Solid Waste Division of Georgia EPD.
- 3. All drilling equipment and tools shall be washed and steam cleaned prior to arrival at the site and immediately upon completion of the irrigation well.
- 4. The proposed irrigation well shall not be installed through waste. If waste is encountered during drilling of the well, the installation will be terminated and abandoned. The well will then be relocated to an area where there is no waste present. The well shall not be relocated more than fifty feet without approval from the Georgia Environmental Protection
- 5. If waste is encountered during drilling and the installation is to be terminated and abandoned the bore hole shall be tremie grouted with a low psi bentonite grout mixture (Portland Type II cement, 5-10 percent bentonite powder, and water) to within ten feet of the ground surface; the upper ten feet shall be filled with hydrated bentonite chips up to the ground surface.
- 6. A water well driller licensed in accordance with the Georgia water well standards act will install the well.
- 7. A professional geologist will properly document the installation of the well. Well construction documentation and lithologic logs will be provided to Georgia EPD upon well
- 8. Upon approval by EPD of the phase 2 design, successful drilling, and development of the proposed irrigation well, the facility groundwater monitoring plan will be revised to include semiannual monitoring of the irrigation well, including procedures used to collect these well samples.

#### **IRRIGATION WELL**

#### PROJECT DESCRIPTION:

The well drilling contractor is responsible for producing (1) well and controls that will service the irrigation system for the Charlie Brooks Park project in Chatham County, Georgia. The well shall supply 65 gallons per minute with a well discharge of 100 psi.

The following are phases that the contractor shall proceed to accomplish and identify these phases by line item in the wells installation.

#### Phase 1: Well Permitting (by Contractor)

The Contractor shall suplly all necessary paperwork for permitting to the necessary State and County Agencies for review and approval before any well work on site can begin.

#### Phase 2: Drill Test Well

The well driller shall drill a 6" test well for well water capacity and to obtain samples of water for tanning and/or staining elements. If excessive tanning and/or staining elements occur the well driller shall contact Irrigation Consultant to develop a water treatment system for Owner's approval.

### **Phase 3: Aquifer Test**

Well driller shall perform Aquifer test on each well for adequate capacity. Assess reliability capacity and pumping level. The aguifer test will be of a duration of at least 24 hours and will consist of measuring the pumping level and long term capacity test. The results will be used to evaluate the capacity of the well and selection of permanent pumping equipment.

### Phase 4: Well Drilling

(912) 298-0230

PROJ. NO.

(912) 298-0234 (FAX)

After approval of Phase 3 and 4, the well drill will then drill and case well with a 6" Galvanized Steel casing. Air test the well for preliminary assessment of capacity. To confirm the potential for producing the quantities of irrigation water desired, will be evaluated by stem tests at the time of drilling. For estimating purposes assume (1) 400' well, see details.

Pricing Per foot: Casing: Drill 6" Hole:

### Phase 5: Well Pumping System Installation

Carefully sized and selected well pumps shall be installed with electrical control package, 460 VAC, three phase power to operate the pump under constant pressure to the irrigation mainline, as per all electrical codes applied. Electrical equipment includes primary and secondary lightning protection with pump manufacturers approved ground grid. Then install Watertronics electronically controlled pumping system. Model and size noted on installation detail.

The well driller shall be responsible for submitting Intent To Drill Registration paper work and will assist Owner in pulling final permits. The well driller shall observe all local codes and ordinances and easements. Electrical supply to the site will be the responsibility of the site authority. The well driller shall be responsible for all clean up and site disturbance repair from well construction.

### FOR BIDDING PURPOSES ONLY

ADDENDUM NO. 1 - REVISED SEPTEMBER 2020 - REDUCED PUMP CAPACITY

IRRIGATION GENERAL NOTES AND DETAILS

# IRRIGATION DETAILS CHARLIE BROOKS PARK - PHASE 2

#### CHATHAM COUNTY BOARD OF COMMISSIONERS CHATHAM COUNTY, GEORGIA

HHNT——HODGES. HARBIN.— NEWBERRY & TRIBBLE, INC.

1705-038-01

17 PARK OF COMMERCE BOULEVARD, SUITE 110 **Consulting Engineers** SAVANNAH, GEORGIA 31405 171116IE-R2

SCALE NOT TO SCALE SHEET IR-5 OF IR-5

JULY, 2020