RIVERBEND CROSSING FILING NO. 1

UTILITY CONSTRUCTION DRAWINGS

EL PASO COUNTY, COLORADO

GENERAL NOTES FOR WASTEWATER COLLECTION SYSTEM CONSTRUCTION:

GENERAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT (SSD) SEWER USE REGULATIONS (SUR), THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SSD POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT.
2. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR DETERMINING THE LOCATION AND PROVIDING FOR PROTECTION OF EXISTING UTILITIES AND DRAINAGE STRUCTURES. THE UTILITY NOTIFICATION CENTER OF COLORADO SHALL BE CONTACTED BY DIALING 811 OR 1-800-922-1987.
3. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WASTEWATER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED. IN THE CASE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.
4. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE MAINTAINED. NO PERSON, TOOL OR EQUIPMENT SHALL OPERATE CLOSER THAN 10 FEET TO ANY PORTION OF ANY ENERGIZED LINE WITHOUT FIRST COMPLYING WITH THE PROVISIONS OF COLORADO REVISED STATUTES 1973, SECTION 1, TITLE 9, ARTICLE 2.5, 102 AND 103.
5. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE UTILITY OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).
6. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

EARTHWORK

7. ALL EXCAVATION, PIPE EMBEDMENT AND TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS AND THE DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY GOVERNING WORK IN AND USE OF PUBLIC RIGHT-OF-WAYS.
8. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITY ALTERS EXISTING DRAINAGE CONFIGURATIONS, DRAINAGE PATTERNS SHALL BE RESTORED TO AS GOOD AS OR BETTER CONDITIONS THAN THOSE THAT EXISTED PRIOR TO THE CONSTRUCTION ACTIVITY.
9. COMPACTION SHALL BE IN COMPLIANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS. IN THOSE AREAS WHERE CUT PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY OR IN CASE OF CONFLICT IN THE REFERENCED STANDARDS, COMPLY WITH THE MORE STRINGENT SPECIFICATION.
10. ANY MATERIAL NOT SUITABLE FOR INCORPORATION INTO TRENCH BACKFILL OR STREET SUBGRADE SHALL BE REMOVED FROM THE SITE.
11. ANY SOIL THAT IS DISTURBED BELOW THE DESIGNATED SUBGRADE ELEVATIONS BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.

TRAFFIC CONTROL AND STREET SURFACE RESTORATION

12. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE AGENCY HAVING JURISDICTION OVER THE ROADWAY, SUBJECT TO THE ACCEPTANCE BY THE SECURITY SANITATION DISTRICT.

SANITARY SEWER SERVICE LINES

13. SANITARY SEWER SERVICE LINES MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS AND THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.
14. SANITARY SEWER SERVICE CONNECTIONS USING IN-LINE TEES OR SADDLE TAP TEES SHALL BE INSTALLED NO LESS THAN 5-FEET FROM ANY MANHOLE AND NO LESS THAN 3-FEET FROM AN ADJACENT SEWER SERVICE CONNECTION OR TAP.
15. THE CONTRACTOR SHALL NOTIFY THE SECURITY SANITATION DISTRICT 48-HOURS PRIOR TO COMMENCING EXCAVATION FOR A SANITARY SEWER SERVICE LINE AND COORDINATE THE REQUIRED INSPECTIONS.
16. CLEANOUTS SHALL BE INSTALLED WHERE HORIZONTAL DEFLECTIONS IN ALIGNMENT OCCUR IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.
17. ALL SERVICE LINE INSTALLATIONS SHALL BE INSPECTED BY THE SECURITY SANITATION DISTRICT PRIOR TO BACKFILLING.
18. SANITARY SEWER SERVICE LINES SHALL BE INSTALLED WITH AN ABSOLUTE MINIMUM SLOPE OF 2% UNLESS SPECIFICALLY AUTHORIZED BY THE SECURITY SANITATION DISTRICT IN WRITING.

GENERAL CONSTRUCTION NOTES

19. SHOP DRAWING SUBMITTALS SHALL BE MADE TO THE SECURITY SANITATION DISTRICT FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.
20. ALL SEWER MAIN AND SERVICE LINE WORK SHALL BE UNDERTAKEN UTILIZING CLASS "B" BEDDING. REFER TO THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE REQUIRED PIPELINE EMBEDMENT.
21. ANY SIGNS, DELINEATOR POSTS, MAILBOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION.
22. IN THOSE AREAS WHERE NEW PIPELINE CONSTRUCTION IMPACTS EXISTING FENCING, THE CONTRACTOR SHALL REMOVE THE FENCING AS NECESSARY. ALL FENCING REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN A CONDITION AS GOOD AS OR BETTER THAN ORIGINALLY FOUND.
23. EXISTING PROPERTY CORNERS AND SECTION MONUMENTATION SHALL NOT BE DISTURBED. IN THE EVENT ANY EXISTING PROPERTY MONUMENTATION IS DISTURBED DURING THE COURSE OF CONSTRUCTION, IT SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF COLORADO.
24. THE CONTRACTOR SHALL SET ALL MANHOLE RINGS AND COVERS OUTSIDE OF PAVED ROADWAYS OR HARDSCAPED AREAS 2-INCHES ABOVE THE FINISH GRADE AND INSTALL A CARSONITE MARKER POST AT EACH MANHOLE. THE CONTRACTOR SHALL COORDINATE WITH THE SECURITY SANITATION DISTRICT FOR THE PLACEMENT OF THE CARSONITE MARKERS AT ALL OFF-ROAD MANHOLE LOCATIONS.
25. IN PAVED ROADS OR HARDSCAPED SURFACES, MANHOLE RINGS SHALL BE SET ¼-INCH BELOW FINISH GRADE. CARE SHALL BE TAKEN IN FINAL GRADING TO PRECLUDE PONDING OF SURFACE WATER OVER MANHOLE RINGS AND COVERS.
26. THE CONTRACTOR SHALL REVIEW THE DETAILS IN THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS AND STANDARD DRAWINGS FOR MANHOLE WALL THICKNESS, BASE DIAMETER AND THICKNESS, STEEL REQUIREMENTS AND WATERPROOFING REQUIREMENTS. MANHOLE BASES SHALL BE PRECAST UNITS UNLESS APPROVED IN ADVANCE BY THE SECURITY SANITATION DISTRICT.
27. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONCRETE/GROUT FILLETS IN THE MANHOLES WITH THE SECURITY SANITATION DISTRICT TO ENSURE PROPER PERFORMANCE AND ACHIEVEMENT OF DESIGN INTENT. FULL DEPTH, EQUAL TO THE PIPE DIAMETER, FLOW CHANNELS ARE REQUIRED.
28. THE CONTRACTOR IS TO UNDERTAKE HIS WORK IN ACCORDANCE WITH OSHA'S CONFINED SPACE ENTRY REQUIREMENTS.
29. NEW MATERIALS SHALL BE USED FOR ALL WORK UNLESS NOTED OTHERWISE ON THE DRAWINGS.
30. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES. FINAL GRADING IS SUBJECT TO REVIEW AND APPROVAL.
31. THE SUBGRADE UNDERNEATH ALL STRUCTURES SHALL BE ADEQUATELY STABILIZED IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS.
32. ALL SANITARY SEWER COLLECTION SYSTEM COMPONENTS ARE SUBJECT TO PRESSURE TESTING IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS. PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT, ALL SANITARY SEWER LINES SHALL BE PROFESSIONALLY CLEANED, INSPECTED BY INTERNAL VIDEO CAMERA AND WRITTEN RECORDS AND DIGITAL VIDEO DISK (DVD) RECORDINGS FURNISHED TO THE SECURITY SANITATION DISTRICT FOR REVIEW AND APPROVAL.
33. THE PIPELINE INSTALLATION SHALL GENERALLY BE ACCOMPLISHED FROM THE LOWEST PORTION OF THE PROJECT PROCEEDING UPHILL.
34. FLAT TOP LIDS ON PRECAST CONCRETE MANHOLES ARE REQUIRED FOR ALL MANHOLES 5.0 FEET AND LESS IN DEPTH. ECCENTRIC CONES ARE TO BE INSTALLED ON ALL MANHOLES WITH DEPTHS GREATER THAN 5.0 FEET.
35. THE CONTRACTOR SHALL THICKEN FILLETS IN MANHOLES AT THE DIRECTION OF THE SECURITY SANITATION DISTRICT WHERE THE UPSTREAM LINES HAVE EXCESSIVE GRADES.
36. ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE IN CONFORMANCE WITH ASTM D3034 (GREEN IN COLOR) AND INSTALLED PER ASTM D2321. PIPE STANDARD DIMENSION RATIO (SDR) OR PIPE STIFFNESS (PS) MAY VARY AND SHALL BE SHOWN ON THE CONSTRUCTION DRAWINGS.
37. WHERE THE NEW SANITARY SEWER MAIN IS LESS THAN 18 VERTICAL INCHES UNDER A WATER MAIN, THE CONTRACTOR SHALL INSTALL A 20-FOOT LONG SEGMENT OF DUCTILE IRON PIPE (DIP) IN THE SANITARY SEWER MAIN CENTERED ON THE WATER MAIN CROSSING. THE DIP SHALL BE CONNECTED TO THE PVC SANITARY SEWER MAIN WITH WATERTIGHT FERNCO TYPE COUPLINGS ENCASED IN REINFORCED CONCRETE 12-INCHES LONG, 6-INCHES THICK, MATCH INVERTS OF THE DIP AND PVC PIPE.
38. ALL DUCTILE IRON PIPING UTILIZED WITHIN THE SECURITY SANITATION DISTRICT SHALL HAVE AN INTERIOR COATING OR LINING IN ACCORDANCE WITH THE REQUIREMENTS OF THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS SPECIFICALLY DESIGN, APPLIED AND INSTALLED FOR CORROSION CONTROL.
39. THE SANITARY SEWER PIPELINE SHALL BE INSTALLED IN STRAIGHT ALIGNMENTS BETWEEN MANHOLES UNLESS OTHERWISE APPROVED BY THE SECURITY SANITATION DISTRICT.
40. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WASTEWATER PIPELINES OR MANHOLES AS A RESULT OF THEIR CONSTRUCTION ACTIVITY.
41. ALL PIPELINES SHALL BE "AS BUILT" SURVEYED AND "AS BUILT" DRAWINGS SUBMITTED TO THE SECURITY SANITATION DISTRICT FOR REVIEW AND ACCEPTANCE. PAPER OR "HARD COPY" DRAWINGS AND ELECTRONIC AUTOCAD FILES ARE REQUIRED. REFER TO THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE REQUIRED ELECTRONIC FILE FORMAT, HORIZONTAL COORDINATE SYSTEM AND VERTICAL DATUM.
42. THE CONTRACTOR SHALL PROCURE AND FAMILIARIZE HIMSELF WITH THE SECURITY SANITATION DISTRICT (SSD) SEWER USE REGULATIONS (SURS), THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SSD POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION. A COPY OF THE DISTRICT'S SEWER USE REGULATIONS AND DESIGN CRITERIA AND STANDARD SPECIFICATIONS SHALL BE ON-SITE ANY TIME CONSTRUCTION IS BEING ACCOMPLISHED.
43. MANHOLE ENTRY PERMIT: THE SECURITY SANITATION DISTRICT WILL AUTHORIZE THE CONTRACTOR TO ENTER DISTRICT-OWNED MANHOLES; HOWEVER, THE DISTRICT WILL NOT ISSUE AN "ENTRY PERMIT" TO THE CONTRACTOR FOR ANY CONFINED SPACE. PRIOR TO ANY ENTRY, THE CONTRACTOR SHALL PROVIDE HIS OWN PERSONNEL CAPABLE AND QUALIFIED TO ISSUE AN ENTRY PERMIT AND SHALL BE EQUIPPED FOR ENTRY INTO CONFINED SPACES. THE SECURITY SANITATION DISTRICT WILL ASSUME NO RESPONSIBILITY FOR THE CONTRACTOR'S ENTRY INTO DISTRICT-OWNED MANHOLES.
44. ALL MANHOLES SHALL HAVE A FOUR (4) FOOT INSIDE DIAMETER UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
45. THE WARRANTY FOR COMPLETED WORK SHALL EXTEND FOR A TWO-YEAR PERIOD FROM THE DATE OF ACCEPTANCE OF THE PROJECT BY THE DISTRICT.
46. ALL SANITARY SEWER MAINS AND SERVICE LINES SHALL HAVE A 12 GAUGE COPPER CLAD STEEL INSULATED TRACER WIRE TAPED TO THE TOP OF PIPE. THE INSULATED COVERING SHALL HAVE A 45 MIL HIGH MOLECULAR WEIGHT, POLYETHYLENE MATERIAL, COLORED GREEN. THE TRACER WIRE SHOULD HAVE A MINIMUM VOLT RATING OF 30.

GENERAL NOTES FOR WATER DISTRIBUTION SYSTEM CONSTRUCTION:

A. GENERAL

1. "DISTRICT MAINS" AS DEFINED IN SECTION 2.01 (A) OF THE SECURITY WATER DISTRICT (SWD) STANDARD SPECIFICATIONS WILL BE LOCATED WITHIN PUBLIC RIGHT-OF-WAY AND/OR EASEMENTS AS DETERMINED BY THE SECURITY WATER DISTRICT. PUBLIC RIGHT-OF-WAYS MUST BE APPROVED BY THE LOCAL LAND USE AUTHORITY IN THE SUBDIVISION PLAT OR OTHERWISE BY DEDICATION AND ACCEPTANCE.
2. THE SECURITY WATER DISTRICT MUST RECEIVE SIGNED AND RECORDED COPIES OF ALL EASEMENT AGREEMENTS PRIOR TO THE START OF CONSTRUCTION.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS, THE SECURITY WATER DISTRICT DESIGN CRITERIA AND THE SECURITY WATER DISTRICT POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT.
4. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR DETERMINING THE LOCATION AND PROVIDING FOR PROTECTION OF EXISTING UTILITIES AND DRAINAGE STRUCTURES. THE UTILITY NOTIFICATION CENTER OF COLORADO SHALL BE CONTACTED BY DIALING 811 OR 1-800-922-1987.
5. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WATER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED. IN THE CASE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.
6. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE MAINTAINED. NO PERSON, TOOL OR EQUIPMENT SHALL OPERATE CLOSER THAN 10 FEET TO ANY PORTION OF ANY ENERGIZED LINE WITHOUT FIRST COMPLYING WITH THE PROVISIONS OF COLORADO REVISED STATUTES 1973, SECTION 1, TITLE 9, ARTICLE 2.5, 102 AND 103.
7. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE UTILITY OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).
8. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

B. EARTHWORK

1. ALL EXCAVATION, PIPE EMBEDMENT AND TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY GOVERNING WORK IN AND USE OF PUBLIC RIGHT-OF-WAYS.
2. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITY ALTERS EXISTING DRAINAGE CONFIGURATIONS, DRAINAGE PATTERNS SHALL BE RESTORED TO AS GOOD AS OR BETTER CONDITIONS THAN THOSE THAT EXISTED PRIOR TO THE CONSTRUCTION ACTIVITY.
3. COMPACTION SHALL BE IN COMPLIANCE WITH THE SECURITY WATER DISTRICT SPECIFICATIONS. IN THOSE AREAS WHERE CUT PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY OR IN CASE OF CONFLICT IN THE REFERENCED STANDARDS, COMPLY WITH THE MORE STRINGENT SPECIFICATION.
4. ANY MATERIAL NOT SUITABLE FOR INCORPORATION INTO TRENCH BACKFILL OR STREET SUBGRADE SHALL BE REMOVED FROM THE SITE.
5. ANY SOIL THAT IS DISTURBED BELOW THE DESIGNATED SUBGRADE ELEVATIONS BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS.

C. TRAFFIC CONTROL AND STREET SURFACE RESTORATION

1. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE AGENCY HAVING JURISDICTION OVER THE ROADWAY, SUBJECT TO THE ACCEPTANCE BY THE SECURITY WATER DISTRICT.

D. WATER MAINS & APPURTENANCES

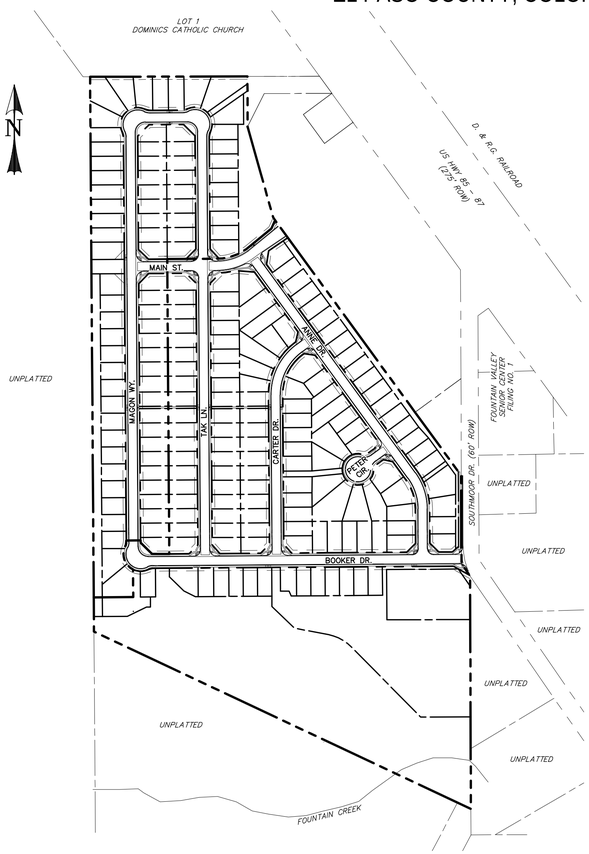
1. POTHOLING OR EXCAVATION FOR WATER MAINS CROSSING, EXISTING UTILITIES OR OBSTRUCTIONS SHALL BE PERFORMED IN THE DESIGN STAGE OF THE PLAN PREPARATION. THE LOCATION OF CONNECTION OF NEW WATER MAINS TO THE EXISTING DISTRIBUTION SYSTEM FACILITIES SHALL BE EXCAVATED AND HORIZONTAL AND VERTICAL LOCATION OF EXISTING FACILITIES DETERMINED BY PRECISE SURVEY. THE POTHOLE AND SURVEY DATA SHALL BE SHOWN ON THE FINAL APPROVED WATER MAIN PLANS AND/OR DRAWINGS.
2. THE CONTRACTOR IS REQUIRED TO NOTIFY THE SECURITY WATER DISTRICT INSPECTOR OFFICE TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION. THE SECURITY WATER DISTRICT WILL BE NOTIFIED FIVE WORKING DAYS PRIOR TO ANY SHUT DOWN OF EXISTING SERVICE DUE TO CONSTRUCTION.
3. REUSE OF ANY MATERIALS OR REJECTION OF ANY NEW MATERIALS SHALL BE AT THE SOLE DISCRETION OF THE SECURITY WATER DISTRICT'S INSPECTOR. THE SECURITY WATER DISTRICT'S DECISION SHALL BE FINAL.
4. ALL STREET VALVE BOXES SHALL BE TYLER/UNION SLIP TYPE (664-A, 267+368 IS REFERENCE TO LEVEL ONE ASSEMBLY, LESS LID WHICH IS A 5-1/4" DROP LID MARKED "WATER"). STREET VALVE BOXES SHALL BE SET 0" – 1/4" BELOW FINAL PAVEMENT SURFACE ELEVATION. FINAL SURFACE ELEVATION SHALL BE CONSTRUCTED AS ASSEMBLY IS DESIGNED (TOP SECTION FLANGE WILL BEAR APPLIED LOADING. DROP-IN INSERTS SHALL NOT BE USED.)
5. DO NOT DROP PIPE AND FITTINGS WHEN OFF-LOADING. DO NOT STORE PIPE AND ASSOCIATED MATERIALS DIRECTLY ON THE GROUND.
6. ALL WATER MAINS AND APPURTENANCES DELIVERED TO THE SITE FOR INSTALLATION SHALL BE KEPT CLEAN. THE ENDS OF PIPES AND FITTINGS SHALL BE COVERED UNDER PROTECTIVE COVERINGS AT THE TIME OF DELIVERY TO PROTECT THE INNER SURFACES FROM COMING INTO CONTACT WITH MOISTURE, DIRT, DUST, DEBRIS AND ANIMALS AND SHALL REMAIN PROTECTED UNTIL INSTALLATION IS COMPLETE.

E. WATER SERVICE LINES

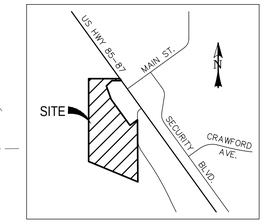
1. SERVICE LINES SHALL BE INSTALLED WITH WET TAPS FOR CORPORATION STOPS. LINES ONE (1) INCH AND SMALLER DIAMETER SHALL BE DIRECT TAPPED (CC THREADED). TAPS ONE AND A HALF (1-½) INCH AND LARGER REQUIRE A TWELVE (12) INCH LONG, CC THREADED, FUSION EPOXY COATED, STEEL TAPPING SLEEVE OR CUT IN TEE.
2. EACH BUSINESS, EACH RESIDENCE, AND EACH UNIT OF A DUPLEX HAVING SEPARATE WATER FACILITIES SHALL HAVE A SEPARATE METER AND WATER SERVICE LINE FROM THE MAIN TO THE METER ASSEMBLY.
3. EXISTING BUSINESSES OR RESIDENCES THAT MODIFY, EXPAND OR SPLIT SPACE THAT NOW HAVE ONE SERVICE LINE, SHALL INSTALL A NEW SERVICE LINE AND METER ASSEMBLY ALL THE WAY TO THE MAIN IF THERE IS TO BE A SEPARATE BUSINESS OR RESIDENCE.
4. TAPPING PERMITS MUST BE APPLIED FOR AT THE SECURITY WATER DISTRICT OFFICE LOCATED AT 231 SECURITY BOULEVARD, PHONE 719-392-3475, AND PAID FOR AT LEAST 24 HOURS PRIOR TO TAPPING.
5. ALL SERVICE TAPS ON WATER MAINS WITHIN THE SECURITY WATER DISTRICT DISTRIBUTION SYSTEM SHALL BE ACCOMPLISHED BY THE CONTRACTOR, WHO SHALL NOTIFY THE SECURITY WATER DISTRICT 24 HOURS PRIOR TO TAPPING. PROPERTY CORNERS SHALL BE CLEARLY MARKED BY CONTRACTOR OR OWNER PRIOR TO TAPPING.
6. SERVICE LINE MATERIAL SHALL BE DRISCOPLEX® 5100 ULTRA-LINE® POLYETHYLENE (PE) PIPE, SDR-7, (OR SECURITY WATER DISTRICT APPROVED) ACCOMPANIED BY A #6 BARE COPPER LOCATION WIRE. CURB STOPS AND CORPORATION STOPS SHALL BE FORD BRASS, CURB STOP BOXES SHALL BE TYLER, BOTTOM SLIP JOINT AND TOP SCREW JOINT.
7. SERVICE LINES SHALL ENTER THE LOT AS CLOSE AS POSSIBLE TO 90-DEGREES TO THE FRONT PROPERTY LINE. SERVICE LINES SHALL HAVE NO LESS THAN 10-FEET OF SEPARATION FROM SEWER SERVICES AND NO LESS THAN 6-FEET OF SEPARATION FROM ALL OTHER UTILITIES. BENCHING OF WATER SERVICE LINES ABOVE SEWER SERVICES IN A COMMON DITCH IS NOT PERMITTED. CURB STOPS SHALL BE SET AT A DEPTH OF 4-FEET TO FINAL GRADE OR AT SIDEWALK ELEVATION. CURB STOPS SHALL NOT BE LOCATED IN SIDEWALKS OR DRIVEWAYS.
8. DRAWINGS FOR NON-RESIDENTIAL SERVICE INSTALLATIONS SHALL HAVE A DETAIL OF THE UTILITY ROOM SHOWING METER(S), PRV, BACKFLOW DEVICE, ISOLATION VALVES, FLOOR DRAINS, AND OTHER REQUIRED APPURTENANCES. BACKFLOW DEVICES SHALL BE TESTED BY A CERTIFIED BACKFLOW TECHNICIAN PRIOR TO INITIAL ACCEPTANCE BY THE SECURITY WATER DISTRICT. THE SECURITY WATER DISTRICT SHALL RECEIVE COPIES OF TEST RESULTS ON SECURITY WATER DISTRICT TEST FORMS AVAILABLE AT THE SECURITY WATER DISTRICT OFFICE.

F. GENERAL CONSTRUCTION NOTES

1. SHOP DRAWING SUBMITTALS SHALL BE MADE TO THE SECURITY WATER DISTRICT FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.
2. ALL WATER MAINS AND SERVICE LINE WORK SHALL BE UNDERTAKEN UTILIZING CLASS "B" BEDDING. REFER TO THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS FOR THE REQUIRED PIPELINE EMBEDMENT.
3. ANY SIGNS, DELINEATOR POSTS, MAILBOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION.
4. IN THOSE AREAS WHERE NEW PIPELINE CONSTRUCTION IMPACTS EXISTING FENCING, THE CONTRACTOR SHALL REMOVE THE FENCING AS NECESSARY. ALL FENCING REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN A CONDITION AS GOOD AS OR BETTER THAN ORIGINALLY FOUND.
5. EXISTING PROPERTY CORNERS AND SECTION MONUMENTATION SHALL NOT BE DISTURBED. IN THE EVENT ANY EXISTING PROPERTY MONUMENTATION IS DISTURBED DURING THE COURSE OF CONSTRUCTION, IT SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF COLORADO.
6. THE CONTRACTOR SHALL SET ALL VALVE RISER BOXES OUTSIDE OF PAVED ROADWAYS OR HARDSCAPED AREAS 2-INCHES ABOVE THE FINISH GRADE AND INSTALL A CARSONITE MARKER POST AT EACH VALVE. CONTRACTOR SHALL COORDINATE WITH THE SECURITY WATER DISTRICT FOR THE PLACEMENT OF THE CARSONITE MARKERS AT ALL LOCATIONS.
7. NEW MATERIALS SHALL BE USED FOR ALL WORK UNLESS NOTED OTHERWISE ON THE DRAWINGS.
8. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES. FINAL GRADING IS SUBJECT TO REVIEW AND APPROVAL.
9. THE SUBGRADE UNDERNEATH ALL STRUCTURES SHALL BE ADEQUATELY STABILIZED IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS.
10. ALL WATER MAINS ARE SUBJECT TO PRESSURE TESTING IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS. PRIOR TO FINAL ACCEPTANCE BY THE SECURITY WATER DISTRICT, ALL WATER MAINS MUST BE PRESSURE TESTED, DISINFECTED, AND AN ACCEPTABLE BACTERIOLOGICAL TEST RECEIVED AND PROVIDED TO THE SECURITY WATER DISTRICT FOR ACCEPTANCE.
11. THE PIPELINE INSTALLATION SHALL GENERALLY BE ACCOMPLISHED BY PUSHING SPIGOT ENDS INTO BELL ENDS OF THE PIPE.
12. ALL WATER MAINS INSTALLED WITHIN THE SECURITY WATER DISTRICT SHALL BE DUCTILE IRON PIPE (DIP) IN ACCORDANCE WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS.
13. WHERE THE NEW WATER MAIN IS LESS THAN 18 VERTICAL INCHES OVER A SANITARY SEWER MAIN, THE WATER LINE SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT REQUIREMENTS.
14. ALL DUCTILE IRON PIPING UTILIZED WITHIN THE SECURITY WATER DISTRICT DISTRIBUTION SYSTEM SHALL HAVE AN EXTERIOR COATING AND AN INTERIOR LINING IN ACCORDANCE WITH THE REQUIREMENTS OF THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS.
15. THE WATER MAIN PIPELINE SHALL BE INSTALLED IN STRAIGHT ALIGNMENTS UNLESS OTHERWISE APPROVED BY THE SECURITY WATER DISTRICT.
16. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WATER DISTRIBUTION SYSTEM PIPELINES AS A RESULT OF THEIR CONSTRUCTION ACTIVITY.
17. ALL PIPELINES SHALL BE "AS BUILT" SURVEYED AND "AS BUILT" DRAWINGS SUBMITTED TO THE SECURITY WATER DISTRICT FOR REVIEW AND ACCEPTANCE. PAPER OR "HARD COPY" DRAWINGS AND ELECTRONIC AUTOCAD FILES ARE REQUIRED. REFER TO THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS FOR THE REQUIRED ELECTRONIC FILE FORMAT, HORIZONTAL COORDINATE SYSTEM AND VERTICAL DATUM.
18. THE CONTRACTOR SHALL PROCURE AND FAMILIARIZE HIMSELF WITH THE SECURITY WATER DISTRICT STANDARD SPECIFICATIONS, THE SECURITY WATER DISTRICT DESIGN CRITERIA AND THE SECURITY WATER DISTRICT POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION. A COPY OF THE SECURITY WATER DISTRICT'S STANDARD SPECIFICATIONS SHALL BE ON-SITE ANY TIME CONSTRUCTION IS BEING ACCOMPLISHED.
19. THE WARRANTY FOR COMPLETED WORK SHALL EXTEND FOR A ONE-YEAR PERIOD FROM THE DATE OF THE PRELIMINARY ACCEPTANCE OF THE PROJECT BY THE SECURITY WATER DISTRICT.



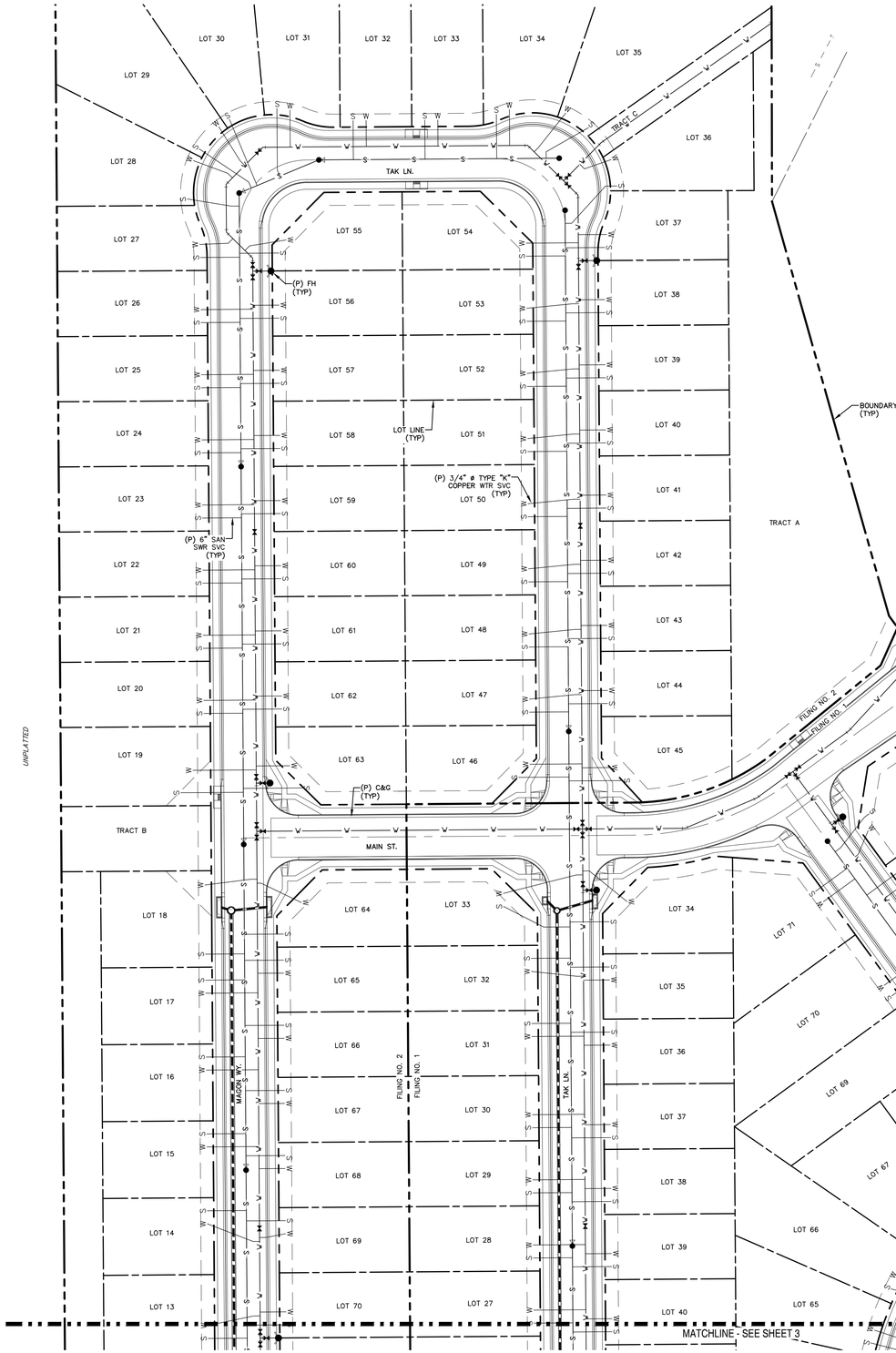
SITE MAP
SCALE: N.T.S.

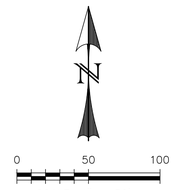


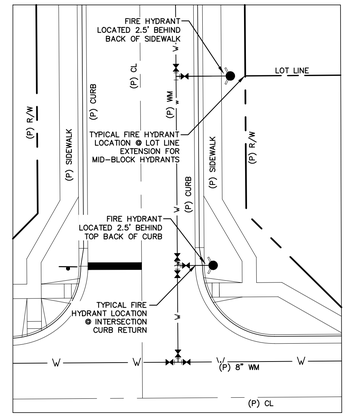
VICINITY MAP
SCALE: N.T.S.

SECURITY SANITATION DISTRICT STATEMENT

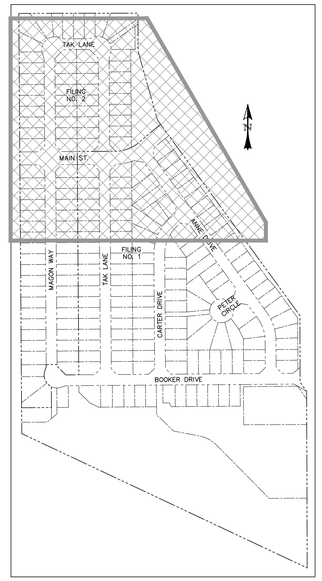
THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THE INSTALLATION OF THESE PROPOSED SEWER FACILITIES WILL BE MADE IN ACCORDANCE WITH SANITATION DISTRICT SPECIFICATIONS. ANY CHANGES REQUIRED TO MEET THE ABOVE STIPULATIONS SHALL BE AT THE EXPENSE O







TYPICAL FIRE HYDRANT LOCATION DETAIL
N.T.S.



LOCATION MAP
SCALE: N.T.S.

LEGEND

EXISTING	(E)
PROPOSED	(P)
CURB AND GUTTER	C&G
EASEMENT	ESMT
FIRE HYDRANT	FH
MANHOLE	MH
SANITARY	SAN
SEWER	SWR
STORM	STM
WATER	WTR
BOUNDARY	
RIGHT-OF-WAY	
LOT LINE	
EASEMENT	
(E) SANITARY MAIN, MH	
(E) WATER MAIN, BOV, VALVE, FH	
(E) UG ELECTRIC	
(E) UG TELEPHONE	
(E) STORM SEWER, INLET, MH	
(P) SANITARY MAIN, MH	
(P) SANITARY SEWER SERVICE	
(P) SANITARY FORCE MAIN (DESIGN BY OTHERS)	
(P) STORM SEWER, INLET, MH	
(P) WATER MAIN, VALVE, FH	
(P) WATER SERVICE	

EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)439-2124

RIVERBEND CROSSING

UTILITY SERVICE PLAN

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17–114		2 OF 18	

N:\Catamount Projects\Projects\17-114 Riverbend Development\Mxd's_Sheets\17-114-11x17p-02-UUP - UUP.dt - Friday, August 4, 2023 10:39:14 AM - dtodd

MATCHLINE - SEE SHEET 2

(F) COMMERCIAL DEVELOPMENT

UNPLATTED

UNPLATTED

FOUNTAIN VALLEY SCHOOL DISTRICT FILING NO. 1

SOUTHMOOR DR. (80' ROW)

TRACT D

TRACT E

TRACT E

TRACT F

TRACT D

TRACT B

TRACT I

TRACT J

TRACT H

TRACT G

TRACT C

TRACT A

TRACT K

FILING NO. 2

FILING NO. 1

MAGON WY.

TAK LN.

CARTER DR.

PETER DR.

ANNE DR.

BOOKER DR.

LOT LINE (TYP)

BOUNDARY (TYP)

(P) 6" SAN SWR SVC (TYP)

(P) FH (TYP)

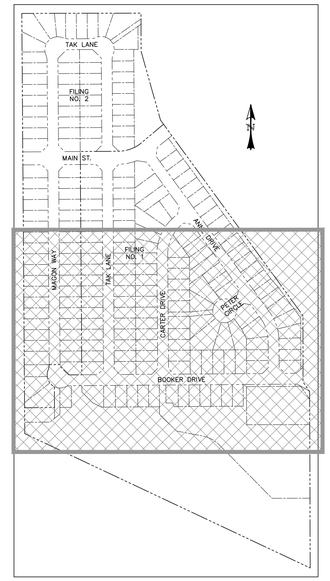
(P) 3/4" ø TYPE "K" COPPER WTR SVC (TYP)

(P) C&G (TYP)

(E) RCP (TYP)

(E) BLDG

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17 LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 24 LOT 25 LOT 26 LOT 27 LOT 28 LOT 29 LOT 30 LOT 31 LOT 32 LOT 33 LOT 34 LOT 35 LOT 36 LOT 37 LOT 38 LOT 39 LOT 40 LOT 41 LOT 42 LOT 43 LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49 LOT 50 LOT 51 LOT 52 LOT 53 LOT 54 LOT 55 LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68 LOT 69 LOT 70 LOT 71 LOT 72 LOT 73 LOT 74 LOT 75 LOT 76 LOT 77 LOT 78 LOT 79 LOT 80 LOT 81 LOT 82 LOT 83 LOT 84 LOT 85 LOT 86 LOT 87 LOT 88 LOT 89 LOT 90 LOT 91 LOT 92 LOT 93 LOT 94 LOT 95 LOT 96 LOT 97 LOT 98 LOT 99 LOT 100 LOT 101 LOT 102 LOT 103 LOT 104 LOT 105 LOT 106 LOT 107 LOT 108 LOT 109 LOT 110 LOT 111 LOT 112 LOT 113 LOT 114 LOT 115 LOT 116 LOT 117 LOT 118 LOT 119 LOT 120 LOT 121 LOT 122 LOT 123 LOT 124 LOT 125 LOT 126 LOT 127



LOCATION MAP
SCALE: N.T.S.

N

0 50 100
SCALE: 1" = 50'

LEGEND

EXISTING	(E)
PROPOSED	(P)
CURB AND GUTTER	C&G
EASEMENT	ESMT
FIRE HYDRANT	FH
MANHOLE	MH
SANITARY	SAN
SEWER	SWR
STORM	STM
WATER	WTR
BOUNDARY	
RIGHT-OF-WAY	
LOT LINE	
EASEMENT	
(E) SANITARY MAIN, MH	
(E) WATER MAIN, BOV, VALVE, FH	
(E) UG ELECTRIC	
(E) UG TELEPHONE	
(E) STORM SEWER, INLET, MH	
(P) SANITARY MAIN, MH	
(P) SANITARY SEWER SERVICE	
(P) SANITARY FORCE MAIN (DESIGN BY OTHERS)	
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(P) WATER MAIN, VALVE, FH	
(P) WATER SERVICE	

EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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SUITE 120W #204
SYOSSET, NY 11791

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COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

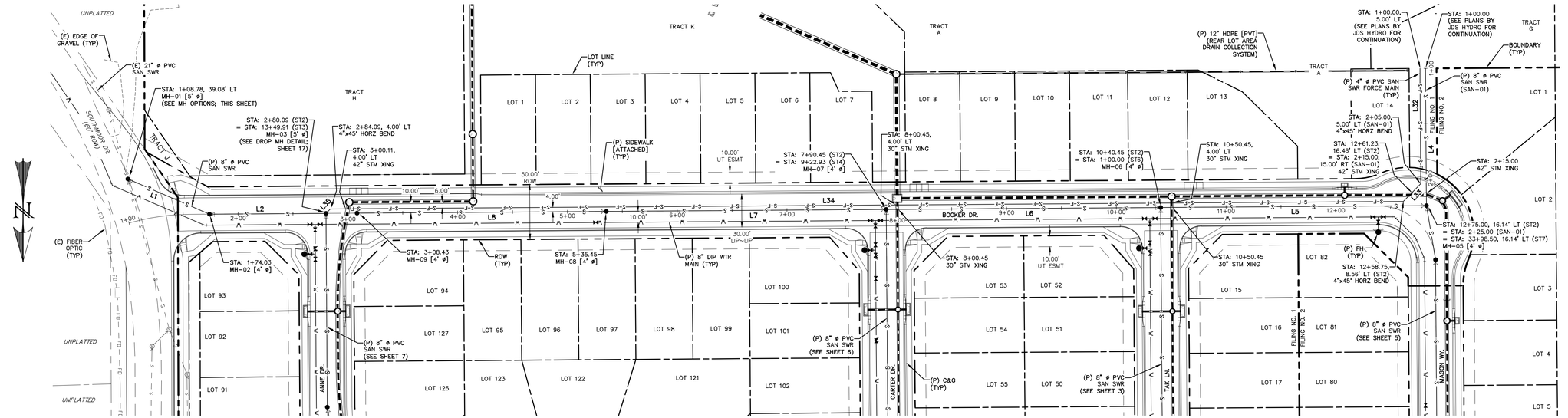
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

RIVERBEND CROSSING

UTILITY SERVICE PLAN

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17-114		3 OF 18	

G:\Catamount Projects\Projects\17-114 Riverbend Development\Misc_Projects\17-114-17x18-USP - USP.dgn - Friday, August 6, 2021 10:39:49 AM - jbond



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N66° 39' 45"W	81.02
L2	N89° 35' 49"E	106.06
L4	N0° 24' 11"W	125.00
L5	S89° 35' 49"W	242.04

LINE TABLE		
LINE	BEARING	DISTANCE
L6	S89° 35' 49"W	250.00
L7	N89° 35' 49"E	255.00
L8	N89° 35' 49"E	227.02

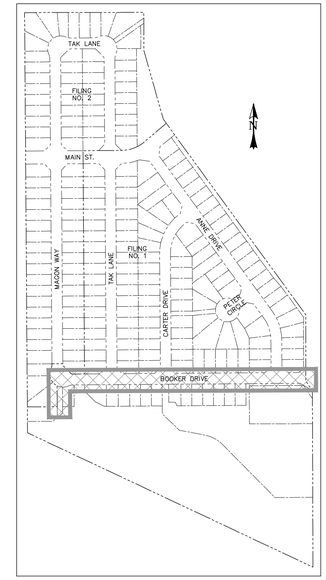
LINE TABLE – FORCE MAIN		
LINE	BEARING	DISTANCE
L32	N0° 24' 11"W	105.00
L33	N44° 35' 49"E	22.63
L34	N89° 35' 49"E	977.41
L35	N44° 35' 49"E	5.66

BOOKER DRIVE
STA: 1+00 ~ 12+75

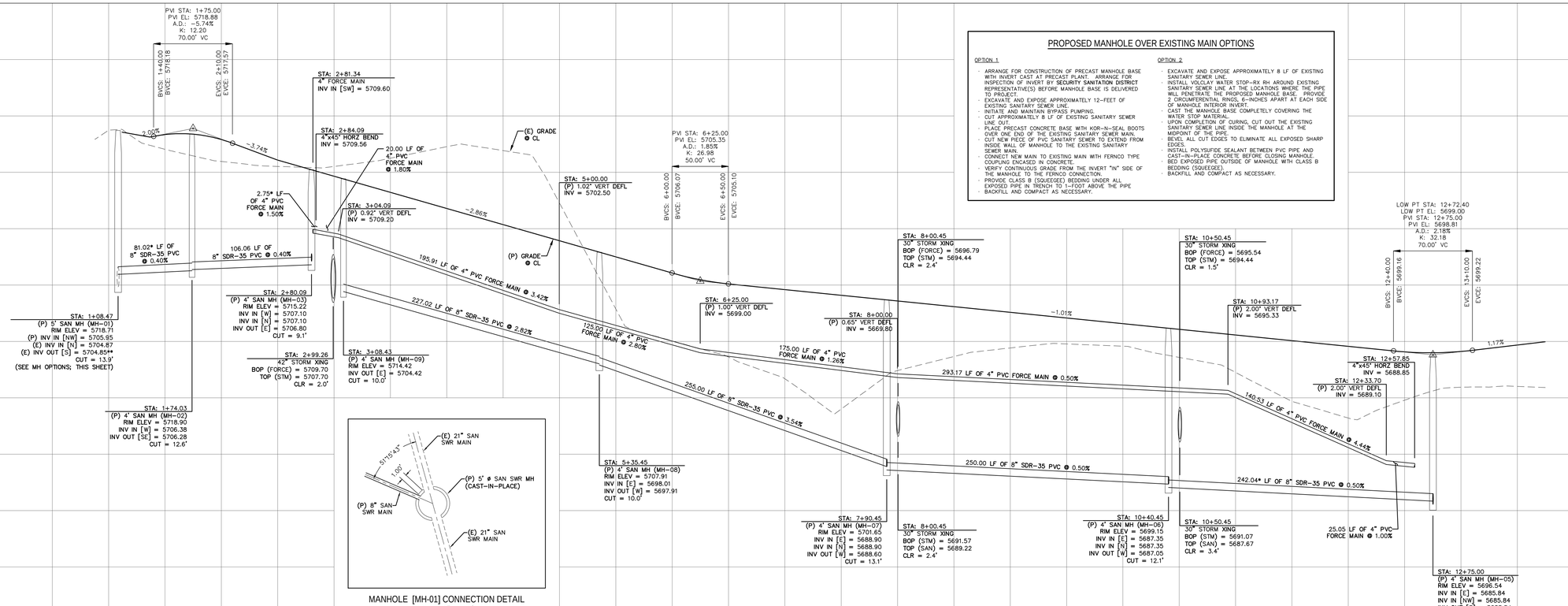
NOTES:

1. ALL PROPOSED SANITARY SEWER TO BE SDR-35 PVC.
* PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.
** THE LOCATION OF ALL EXISTING UTILITIES (HORIZONTAL & VERTICAL) SHALL BE FIELD VERIFIED PRIOR TO BEGINNING OF CONSTRUCTION.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



LOCATION MAP
SCALE: N.T.S.



MANHOLE [MH-01] CONNECTION DETAIL
SCALE: 1" = 10'

PROPOSED MANHOLE OVER EXISTING MAIN OPTIONS

OPTION 1
- ARRANGE FOR CONSTRUCTION OF PRECAST MANHOLE BASE WITH INVERT CAST AT PRECAST PLANT. ARRANGE FOR INSPECTION OF INVERT BY SECURITY SANITATION DISTRICT REPRESENTATIVE(S) BEFORE MANHOLE BASE IS DELIVERED TO PROJECT.
- EXCAVATE AND EXPOSE APPROXIMATELY 12-FEET OF EXISTING SANITARY SEWER LINE.
- INITIATE AND MAINTAIN BYPASS PUMPING.
- CUT APPROXIMATELY 8 LF OF EXISTING SANITARY SEWER LINE OUT.
- PLACE PRECAST CONCRETE BASE WITH KOR-N-SEAL BOOTS OVER ONE END OF THE EXISTING SANITARY SEWER MAIN.
- CUT NEW PIECE OF PVC SANITARY SEWER TO EXTEND FROM INSIDE WALL OF MANHOLE TO THE EXISTING SANITARY SEWER MAIN.
- CONNECT NEW MAIN TO EXISTING MAIN WITH FERNCO TYPE COUPLING ENCASED IN CONCRETE.
- VERIFY CONTINUOUS GRADE FROM THE INVERT "IN" SIDE OF THE MANHOLE TO THE FERNCO CONNECTION.
- PROVIDE CLASS B (SQUEEGEE) BEDDING UNDER ALL EXPOSED PIPE IN TRENCH TO 1-FOOT ABOVE THE PIPE
- BACKFILL AND COMPACT AS NECESSARY.

OPTION 2
- EXCAVATE AND EXPOSE APPROXIMATELY 8 LF OF EXISTING SANITARY SEWER LINE.
- INSTALL VOLCLAY WATER STOP-RX RH AROUND EXISTING SANITARY SEWER LINE AT THE LOCATIONS WHERE THE PIPE WILL PENETRATE THE PROPOSED MANHOLE BASE. PROVIDE 2 CIRCUMFERENTIAL RINGS, 6-INCHES APART AT EACH SIDE OF MANHOLE INTERIOR INVERT.
- CAST THE MANHOLE BASE COMPLETELY COVERING THE WATER STOP MATERIAL.
- UPON COMPLETION OF CURING, CUT OUT THE EXISTING SANITARY SEWER LINE INSIDE THE MANHOLE AT THE MIDPOINT OF THE PIPE.
- BEVEL ALL CUT EDGES TO ELIMINATE ALL EXPOSED SHARP EDGES.
- INSTALL POLYSUFIDE SEALANT BETWEEN PVC PIPE AND CAST-IN-PLACE CONCRETE BEFORE CLOSING MANHOLE.
- BED EXPOSED PIPE OUTSIDE OF MANHOLE WITH CLASS B BEDDING (SQUEEGEE).
- BACKFILL AND COMPACT AS NECESSARY.

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19
2	UPDATE EL PASO COUNTY SIGNATURE BLOCK	8/1/25

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For more details visit: www.call811.com

STREET NAME ABBREVIATIONS:

MAIN STREET	= ST1
BOOKER DRIVE	= ST2
ANNE DRIVE	= ST3
CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC - FL	= CDS

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6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

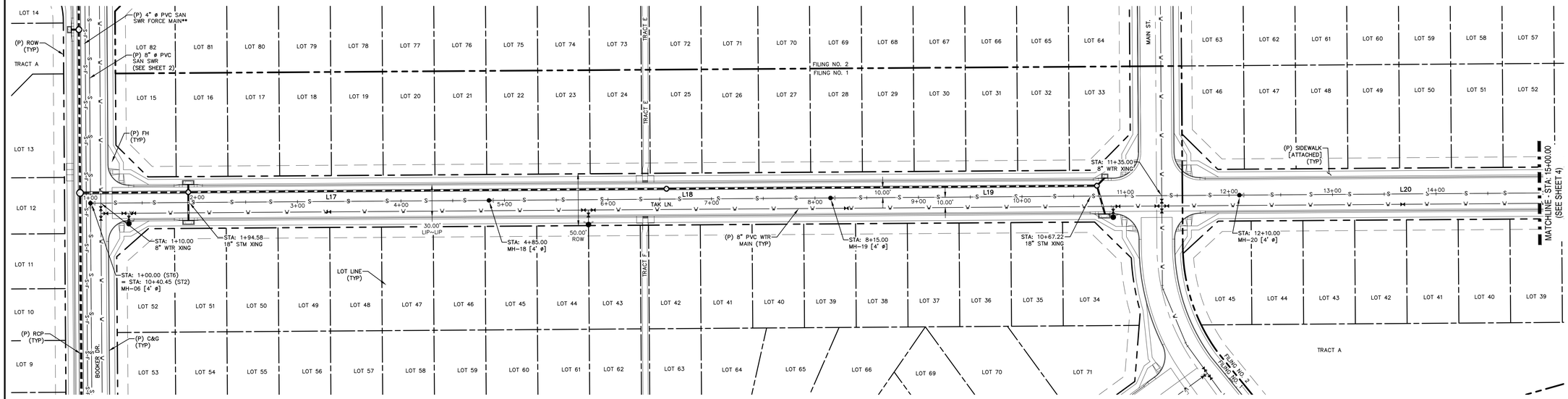
PREPARED UNDER DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
DAVID L. MUJARES, COLORADO PE #40510
10/19/20
DATE

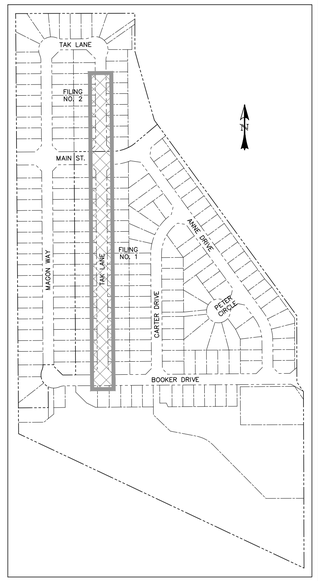
CATAMOUNT ENGINEERING
101 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

RIVERBEND CROSSING
BOOKER BLVD
SANITARY SEWER PLAN & PROFILE

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17-114		4 OF 18	

G:\Catamount Projects\Projects\25-440 Riverbend 2025\SWS_Sheets\SITE\17-114-LOC-SH.dgn - 8.5" x 11" - Landscape - Wednesday, February 19, 2025 1:01:27 PM - dlund
G:\Catamount Projects\Projects\25-440 Riverbend 2025\SWS_Sheets\SHT





LOCATION MAP
SCALE: N.T.S.

LINE TABLE		
LINE	BEARING	DISTANCE
L17	N0° 24' 10.53"W	385.00
L18	N0° 24' 10.53"W	330.00
L19	N0° 24' 10.53"W	395.00
L20	N0° 24' 10.53"W	400.00

TAK LANE
STA: 1+00 ~ 15+00

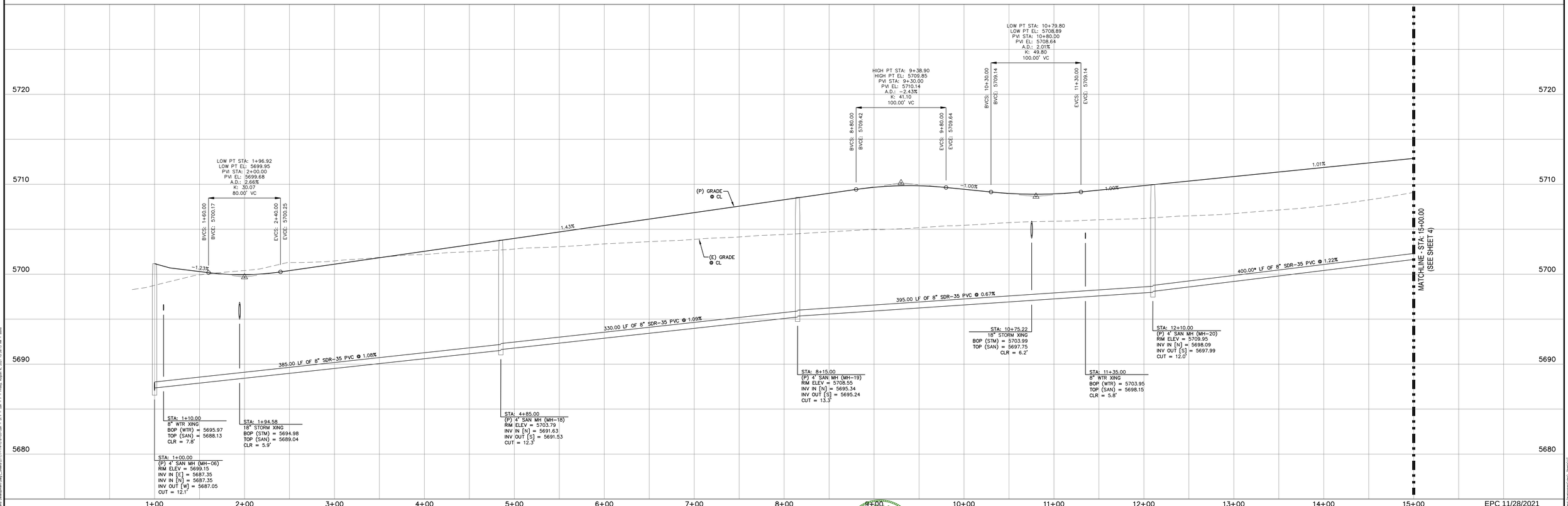
NOTES:

1. ALL PROPOSED SANITARY SEWER TO BE SDR-35 PVC.

* PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.

** PLANS BY JDS HYDRO; SHOWN FOR REFERENCE.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



EPC 11/28/2021

REV.	DESCRIPTION	DATE
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ANNE DRIVE	= ST3
CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MASON WAY	= ST7
CUL-DE-SAC - FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

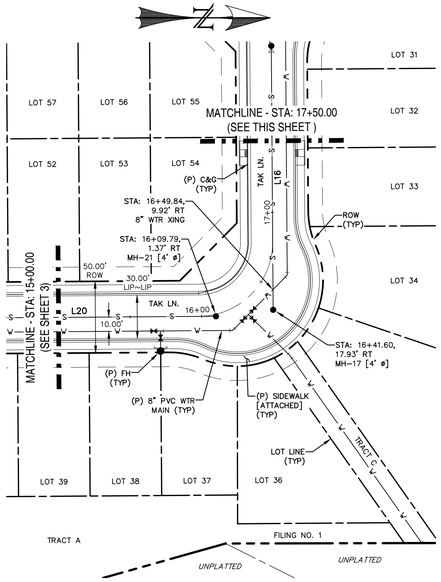
PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)428-2124

RIVERBEND CROSSING
TAK LANE
SANITARY SEWER PLAN & PROFILE

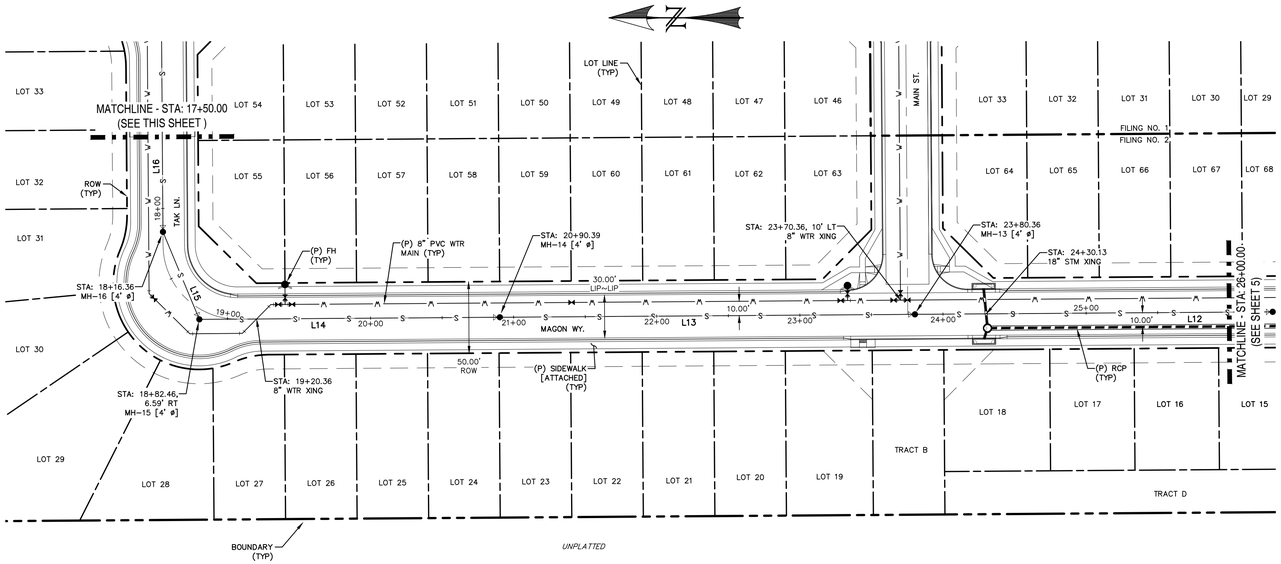
DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER	SHEET
17-114	5 OF 18

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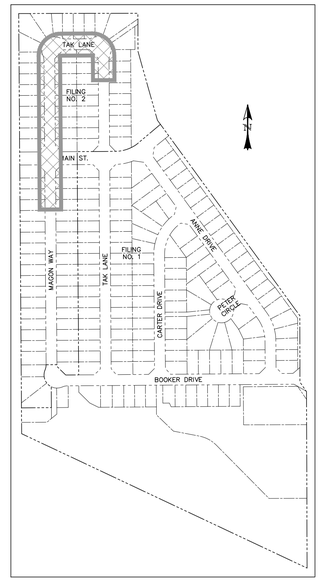


TAK LANE
STA: 15+00 ~ 17+50

LINE TABLE		
LINE	BEARING	DISTANCE
L12	N0° 24' 10.53"W	250.00
L13	N0° 24' 10.53"W	290.00
L14	N0° 24' 10.53"W	210.00
L15	N67° 25' 03.15"E	66.22
L16	N89° 35' 49.47"E	184.43
L20	N0° 24' 10.53"W	400.00



MAGON WAY
STA: 17+50 ~ 26+00



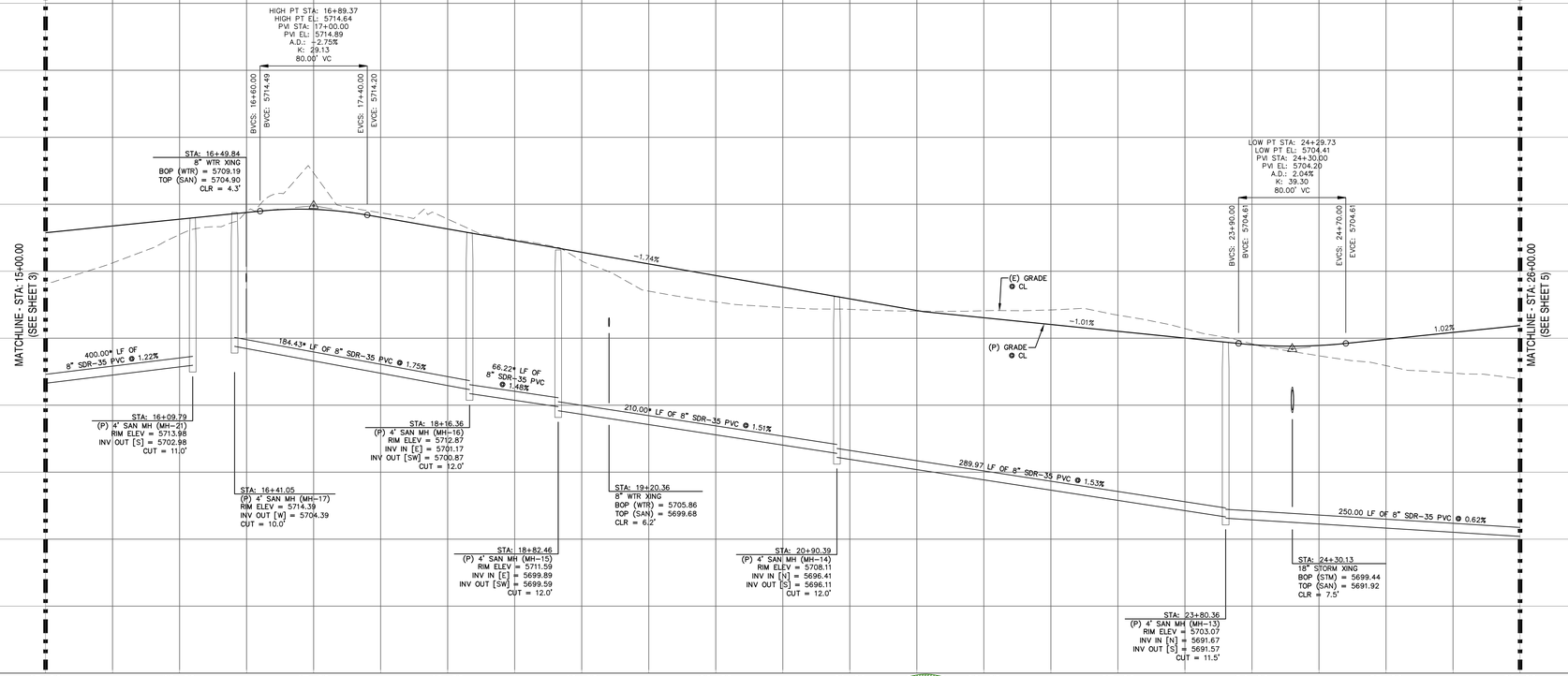
LOCATION MAP
SCALE: N.T.S.

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0 50 100
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VERTICAL SCALE: 1" = 5'



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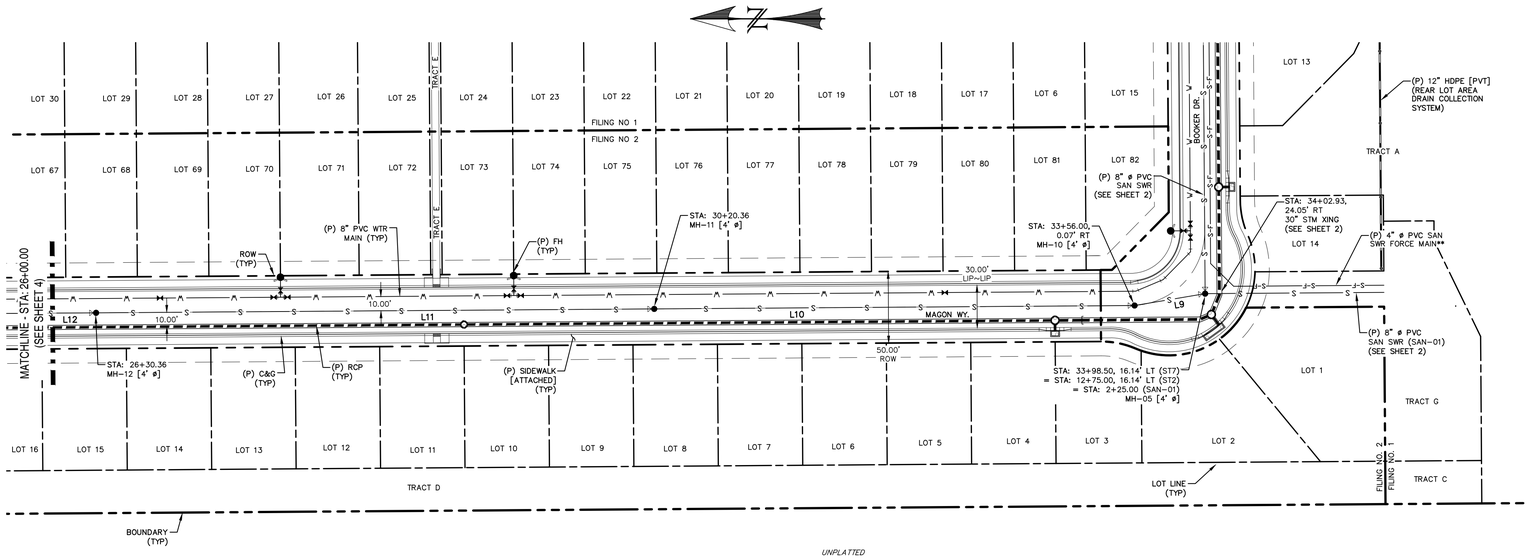
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

RIVERBEND CROSSING
TAK LANE & MAGON WAY SANITARY SEWER PLAN & PROFILE

EPC 11/28/2021

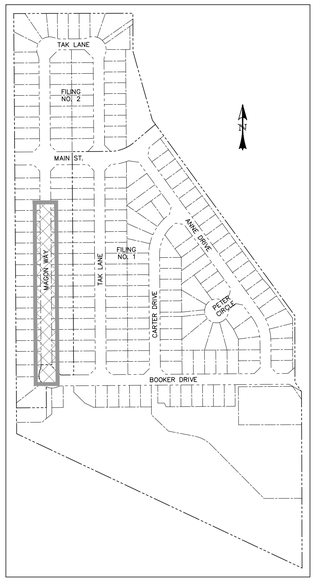
DESIGNED BY:	DRAWN BY:
MGP	MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER: 17-114	SHEET: 6 OF 18

© Catamount Engineers (Projects)\17-114 Riverbend Development\Civil_Sheets\[17-114 plan&P Sani - 6 of 7 - Friday, August 6, 2021 10:39:34 AM - dwg]



LINE TABLE		
LINE	BEARING	DISTANCE
L9	N9° 33' 41.17"W	50.00
L10	N0° 24' 10.53"W	335.64
L11	N0° 24' 10.53"W	390.00
L12	N0° 24' 10.53"W	250.00

MAGON WAY
STA: 26+50 ~ 36+00



LOCATION MAP
SCALE: N.T.S.

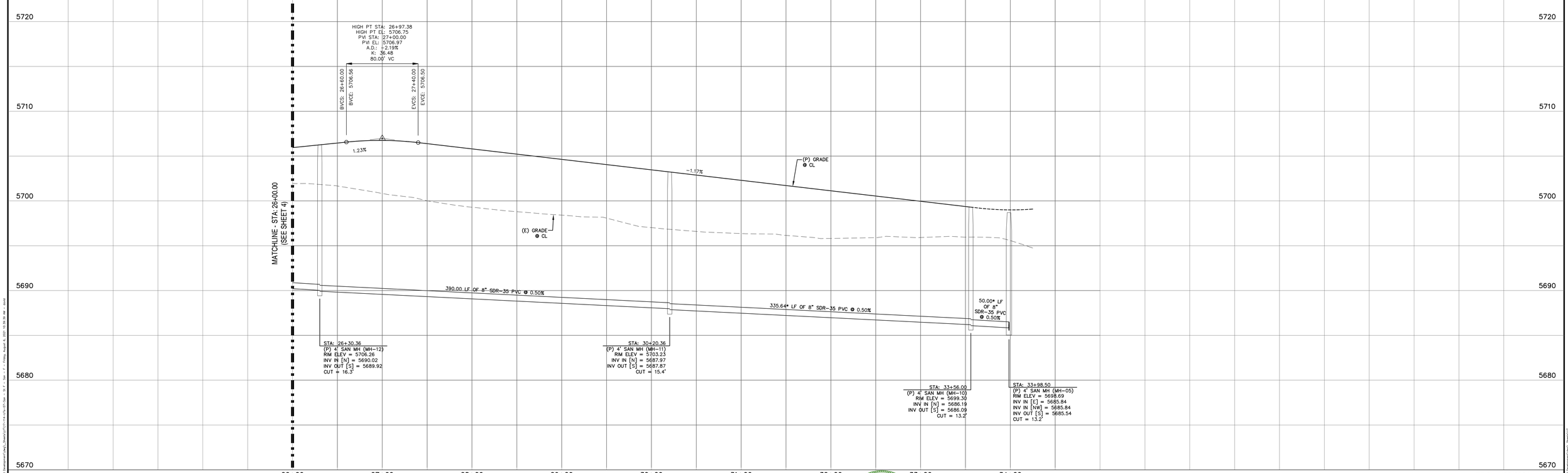
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VERTICAL SCALE: 1" = 5'



EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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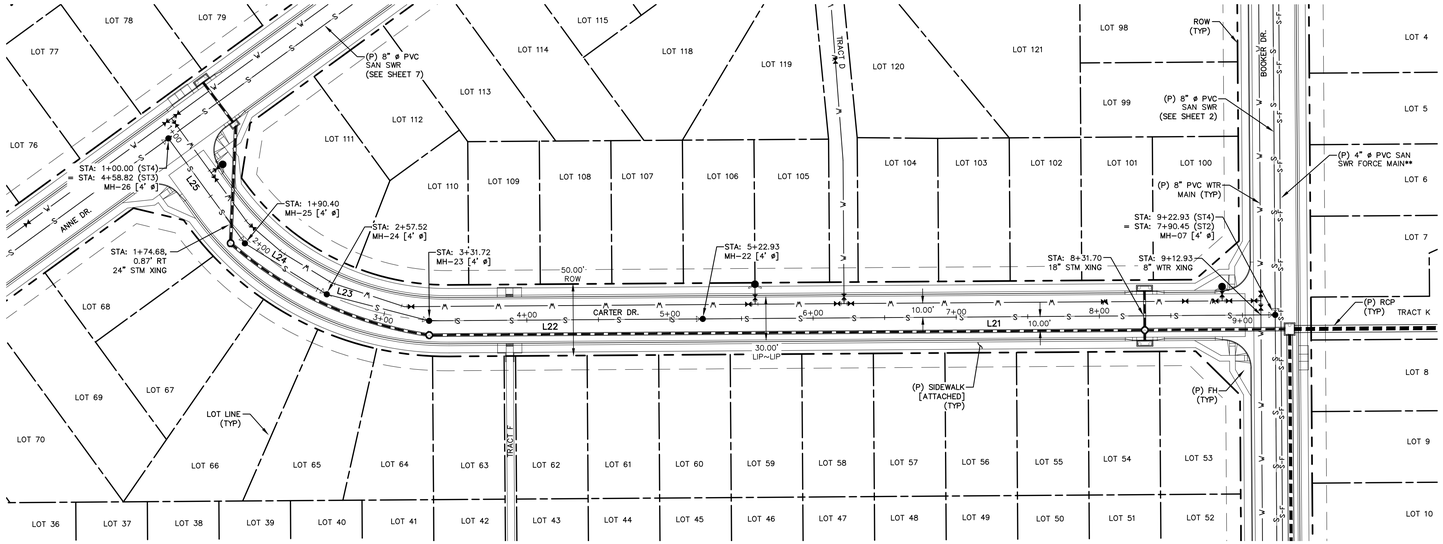
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COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

RIVERBEND CROSSING
MAGON WAY SANITARY SEWER PLAN & PROFILE

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER: 17-114	SHEET: 7 OF 18

G:\Commercial Projects\Projects\17-114 Riverbend Development\dwg_Sheets\17-114-Utility Plan.dwg - 19.2" = 1in - 1" = 1'Utility August 6, 2021 10:39:39 AM - dwgt
G:\Commercial Projects\Projects\17-114 Riverbend Development\dwg_Sheets\17-114-Utility Plan.dwg - 19.2" = 1in - 1" = 1'Utility August 6, 2021 10:39:39 AM - dwgt



CARTER DRIVE
STA: 1+00 ~ 9+25

LINE TABLE		
LINE	BEARING	DISTANCE
L21	N0° 24' 10.53"W	400.00
L22	N0° 24' 10.53"W	191.23
L23	N14° 31' 58.87"E	73.86

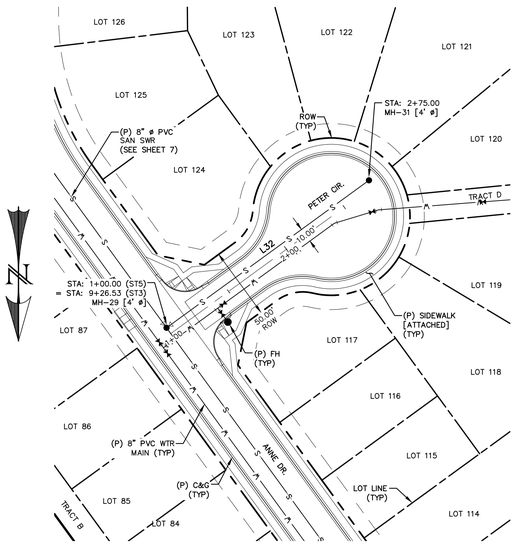
LINE TABLE		
LINE	BEARING	DISTANCE
L24	N31° 53' 38.12"E	67.37
L25	N53° 54' 47.15"E	90.75
L32	S53° 55' 25.22"W	175.00

NOTES:

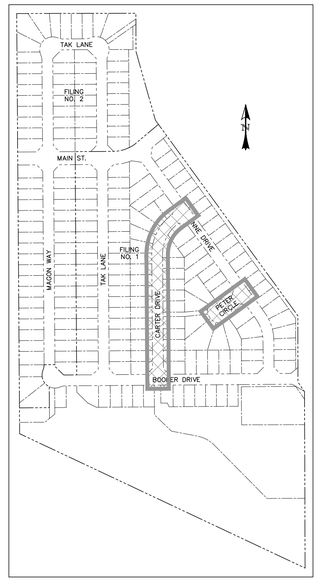
1. ALL PROPOSED SANITARY SEWER TO BE SDR-35 PVC.

* PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.

** PLANS BY JDS HYDRO; SHOWN FOR REFERENCE.

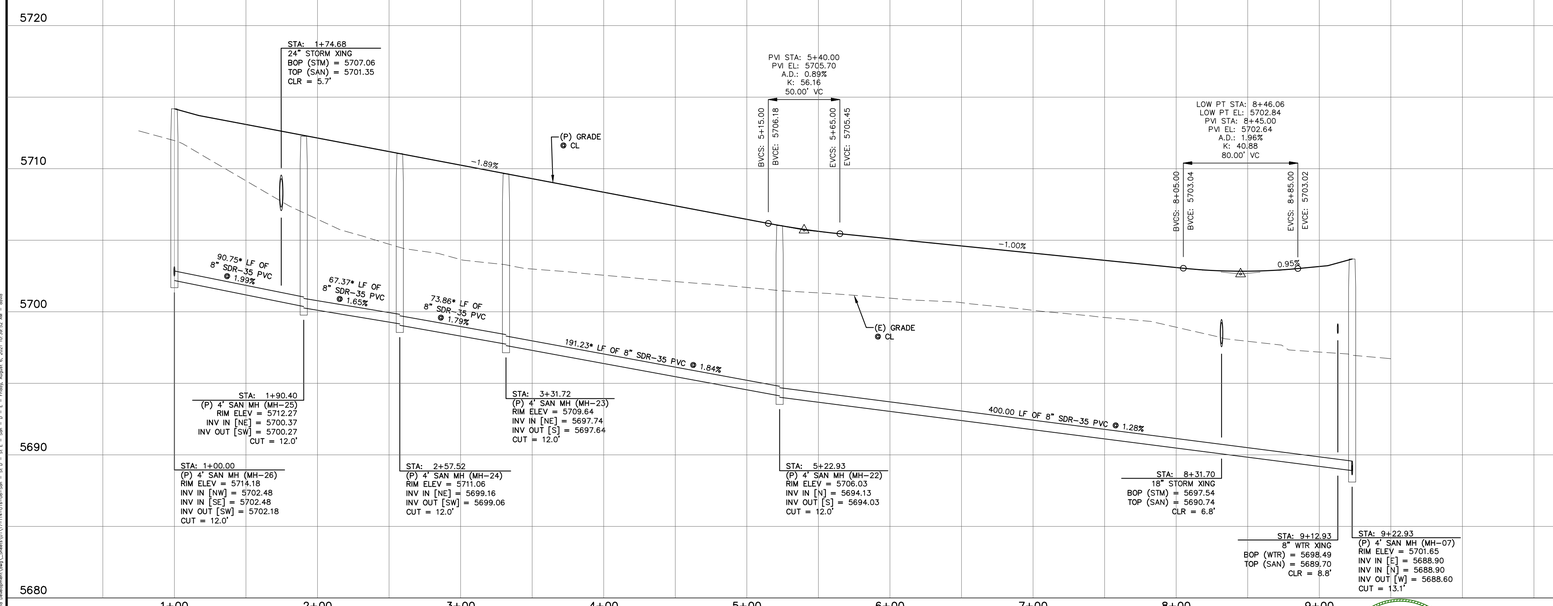


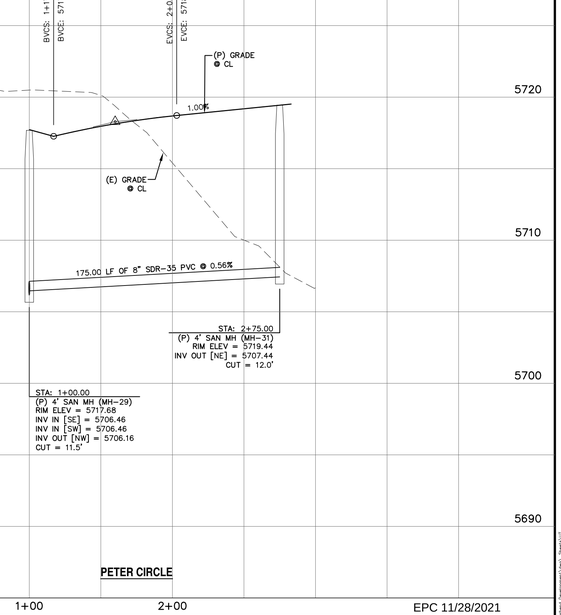
PETER CIRCLE
STA: 1+00 ~ 3+00



LOCATION MAP
SCALE: N.T.S.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'





PETER CIRCLE

EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

811 Know what's below. Call 72 hours before you dig. For more details visit: www.call811.com

STREET NAME ABBREVIATIONS:

MAIN STREET	= ST1
BOOKER DRIVE	= ST2
ANNE DRIVE	= ST3
CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC - FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

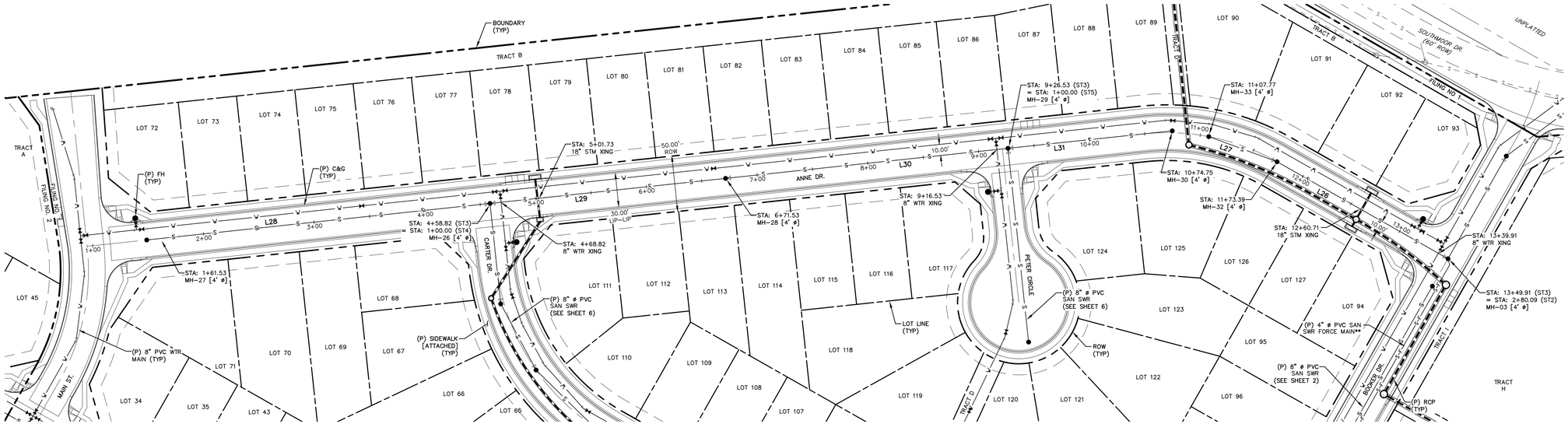
PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED CIVIL ENGINEER DAVID L. MIJARES 40510
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

RIVERBEND CROSSING
CARTER DRIVE & PETER CIRCLE SANITARY SEWER PLAN & PROFILE

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17-114		8 OF 18	

N:\Catamount Projects\Projects\17-114 Riverbend Development\Civil_Sheets\17-114 c3d to 2dp - 8.5 x 11 - Sun - 8.5 x 11 - Friday, August 6, 2021 10:39:32 AM - dsoll



ANNE DRIVE
STA: 1+00 ~ 13+40

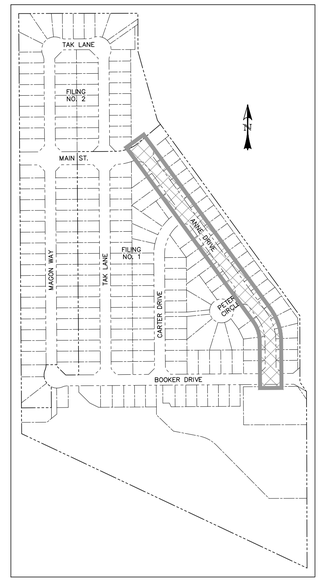
LINE TABLE		
LINE	BEARING	DISTANCE
L26	N0° 24' 10.53"W	160.00
L27	S9° 48' 07.66"E	65.32
L28	S36° 04' 34.78"E	297.30

LINE TABLE		
LINE	BEARING	DISTANCE
L29	S36° 04' 34.78"E	212.70
L30	S36° 04' 34.78"E	255.00
L31	N36° 04' 34.78"W	148.37

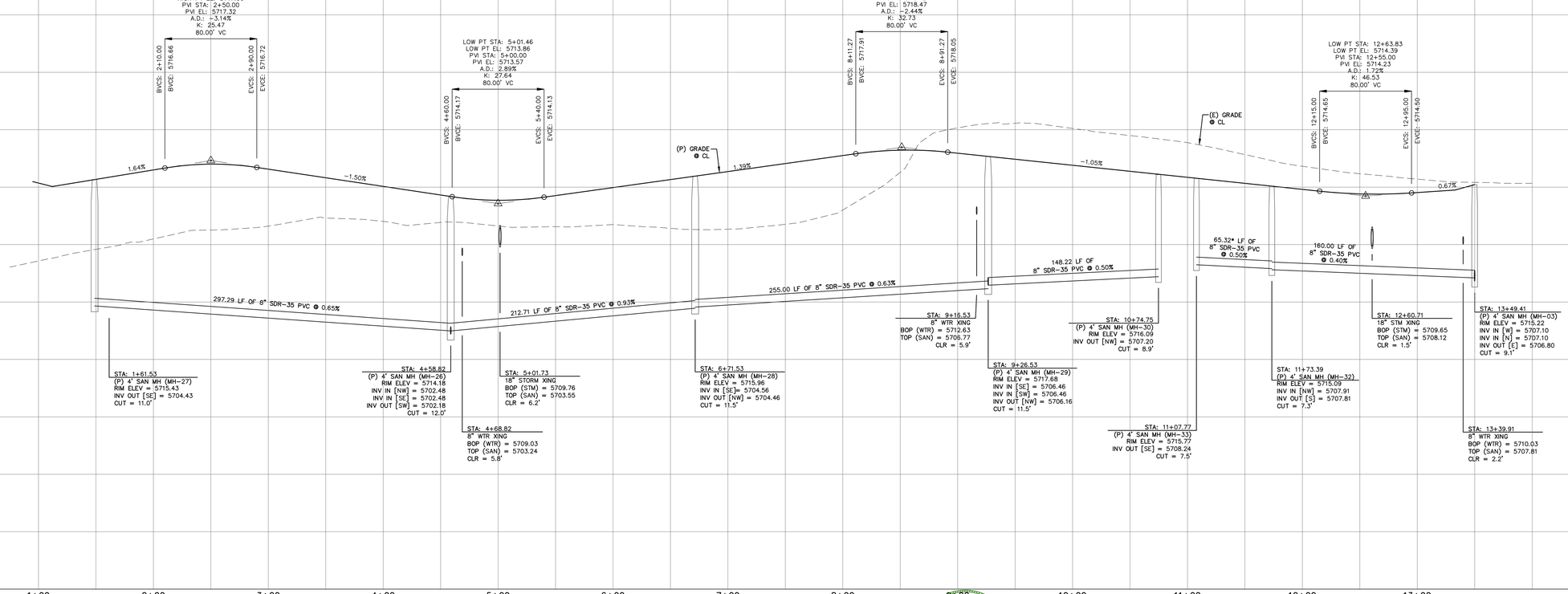
NOTES:

1. ALL PROPOSED SANITARY SEWER TO BE SDR-35 PVC.
* PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.
** PLANS BY JDS HYDRO; SHOWN FOR REFERENCE.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



LOCATION MAP
SCALE: N.T.S.



REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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STREET NAME ABBREVIATIONS:

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BOOKER DRIVE	= ST2
ANNE DRIVE	= ST3
CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC - FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED
DAVID L. MIJARES
40510
PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE# 40510
10/19/20
DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

RIVERBEND CROSSING
ANNE DRIVE SANITARY SEWER PLAN & PROFILE

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER 17-114	SHEET 9 OF 18

EPC 11/28/2021

N:\Catamount Projects\2017\17-114 Riverbend Development\dwg_Sheets\17-114 c3a-09.dwg, 10/19/2020 8:48:31 AM, dtaft

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N34° 27' 20"W	205.56
L2	S23° 12' 20"E	59.77
L3	N66° 39' 45"W	91.33
L4	S89° 35' 49"W	100.64

LINE TABLE		
LINE	BEARING	DISTANCE
L5	S89° 35' 49"W	46.76
L7	S89° 35' 49"W	463.60
L8	S89° 35' 49"W	47.00
L10	S89° 35' 49"W	203.00

LINE TABLE		
LINE	BEARING	DISTANCE
L11	S89° 35' 49"W	47.00
L13	S89° 35' 49"W	161.00
L14	N0° 24' 11"W	13.75
L15	S89° 35' 49"W	14.76

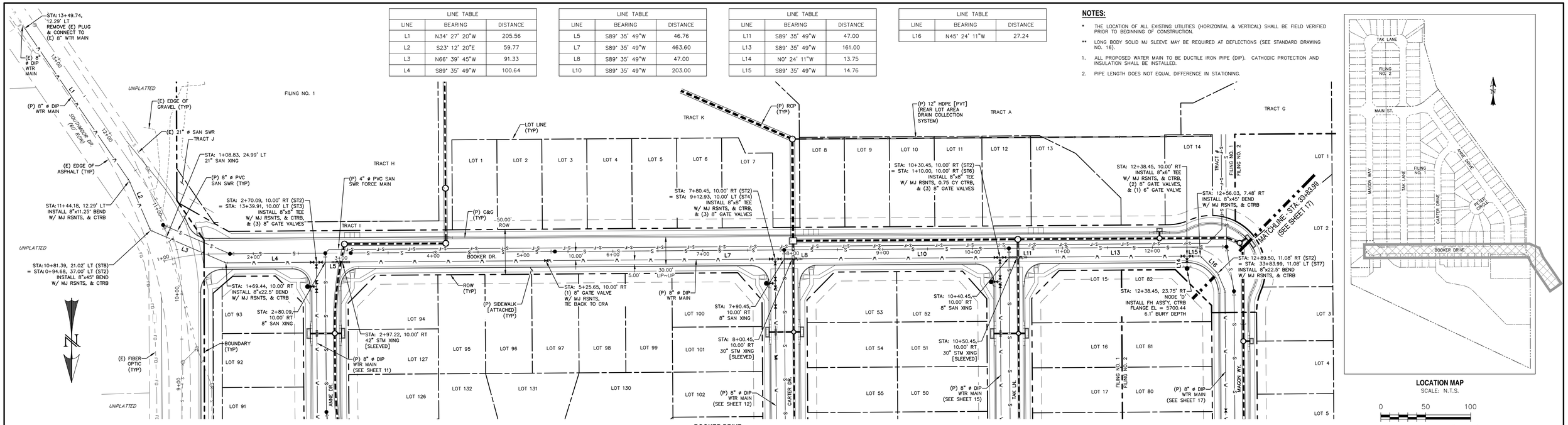
LINE TABLE		
LINE	BEARING	DISTANCE
L16	N45° 24' 11"W	27.24

NOTES:

* THE LOCATION OF ALL EXISTING UTILITIES (HORIZONTAL & VERTICAL) SHALL BE FIELD VERIFIED PRIOR TO BEGINNING OF CONSTRUCTION.

** LONG BODY SOLID MJ SLEEVE MAY BE REQUIRED AT DEFLECTIONS (SEE STANDARD DRAWING NO. 16).

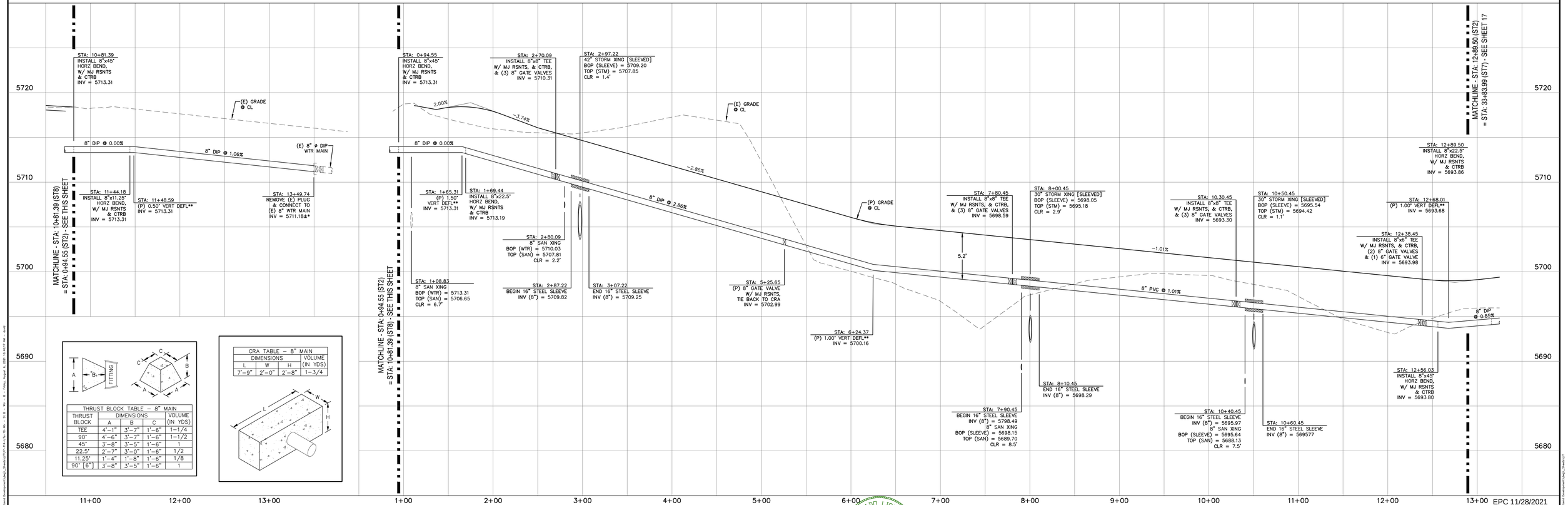
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2. PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.



BOOKER DRIVE
STA: 1+00 ~ 12+75

LOCATION MAP
SCALE: N.T.S.

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'–1"	3'–7"	1'–6"	1–1/4
90°	4'–6"	3'–7"	1'–6"	1–1/2
45°	3'–8"	3'–5"	1'–6"	1
22.5°	2'–7"	3'–0"	1'–6"	1/2
11.25°	1'–4"	1'–8"	1'–6"	1/8
90° [6"]	3'–8"	3'–5"	1'–6"	1

CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'–9"	2'–0"	2'–8"	1–3/4

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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STREET NAME ABBREVIATIONS:

MAIN STREET	= ST1
BOOKER DRIVE	= ST2
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CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
SOUTHMOOR DRIVE	= ST8
CUL-DE-SAC	= FL

PREPARED FOR:

AVATAR EQUITIES, LLC

6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.

COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER

DAVID L. MIJARES, COLORADO PE #40510

10/19/20
DATE

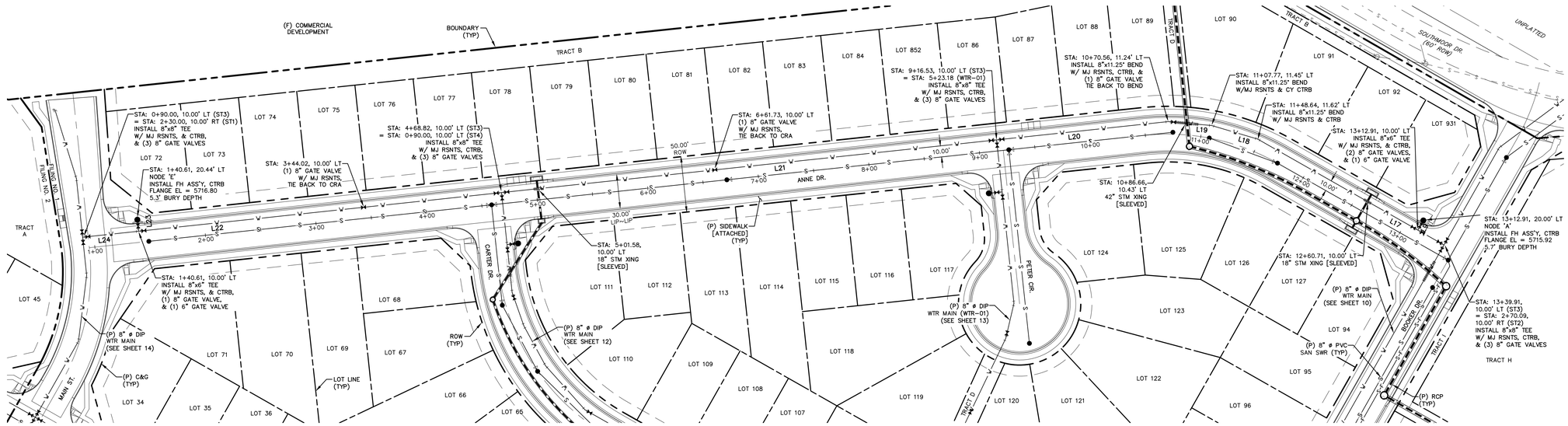
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

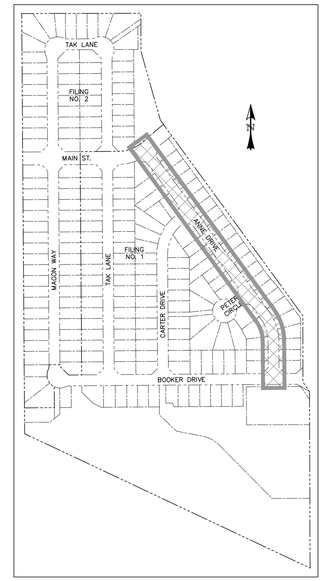
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17–114		10 OF 18	

EPC 11/28/2021

S:\Commercial Projects\Projects\17-114 Riverbend Development\dwg_Sheets\[ST17-114-10to18.dwg] 10 @ 1 - Friday, August 6, 2021 10:49:17 AM - dwolf





LOCATION MAP
SCALE: N.T.S.

LINE TABLE		
LINE	BEARING	DISTANCE
L9	N89° 35' 49"E	10.00
L17	N0° 24' 11"W	192.64
L18	N13° 34' 35"W	43.15
L19	N24° 49' 35"W	39.26

LINE TABLE		
LINE	BEARING	DISTANCE
L20	N36° 04' 35"W	155.21
L21	N36° 04' 35"W	447.70
L22	N36° 04' 35"W	328.21
L23	N53° 55' 25"E	10.44

LINE TABLE		
LINE	BEARING	DISTANCE
L24	N36° 04' 35"W	50.61

ANNE DRIVE
STA: 1+00 ~ 13+40

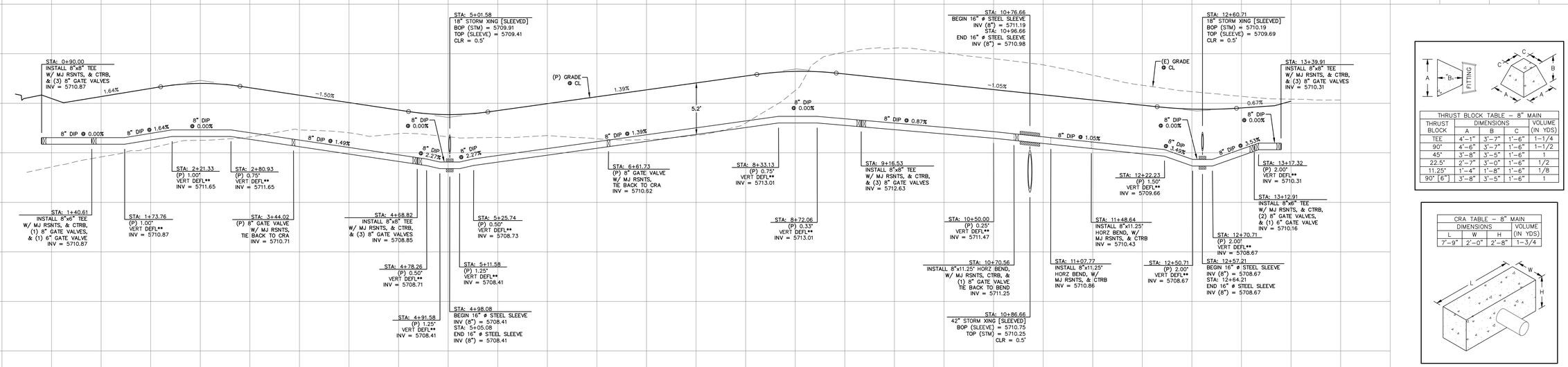
NOTES:

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1. ALL PROPOSED WATER MAIN TO BE DUCTILE IRON PIPE (DIP). CATHODIC PROTECTION AND INSULATION SHALL BE INSTALLED.
2. PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'-1"	3'-7"	1'-6"	1-1/4
90°	4'-6"	3'-7"	1'-6"	1-1/2
45°	3'-8"	3'-5"	1'-6"	1
22.5°	2'-7"	3'-0"	1'-6"	1/2
11.25°	1'-4"	1'-8"	1'-6"	1/8
90° [6"]	3'-8"	3'-5"	1'-6"	1

CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'-9"	2'-0"	2'-8"	1-3/4

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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MAIN STREET	= ST1
BOOKER DRIVE	= ST2
ANNE DRIVE	= ST3
CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC – FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

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COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE# 40510
10/19/20
DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

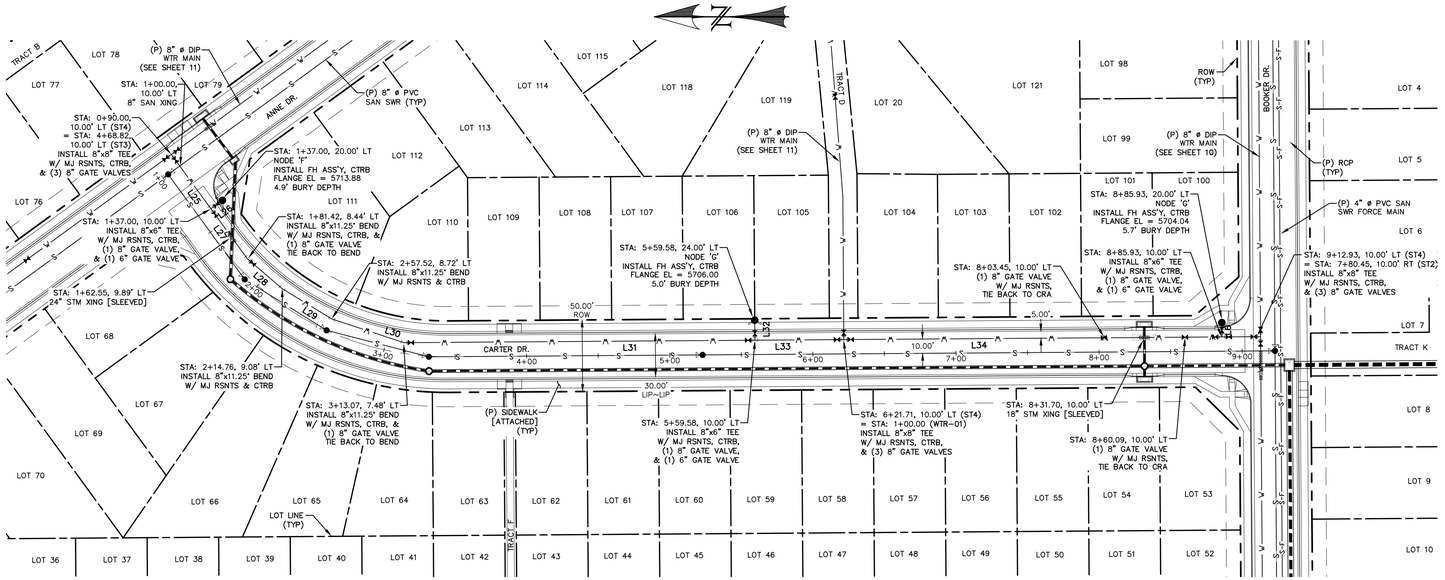
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

EPC 11/28/2021

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER: 17-114	SHEET: 11 OF 18

G:\Catamount Projects\Projects\17-114 Riverbend Development\Civil_Sheets\17-114 (26x11 ARCH - 24 x 36 - 1 - Friday, August 6, 2021 10:49:28 AM - dwd)

LINE TABLE		
LINE	BEARING	DISTANCE
L6	N89° 35' 49"E	10.00
L25	S53° 55' 25"W	47.00
L26	S36° 04' 35"E	10.00
L27	S53° 55' 25"W	43.27
L28	S40° 40' 25"W	31.86
L29	S31° 25' 25"W	40.78
L30	S18° 10' 25"W	53.14
L31	S0° 24' 11"E	245.16
L32	N89° 35' 49"E	14.00
L33	S0° 24' 11"E	62.13
L34	S0° 24' 11"E	291.22



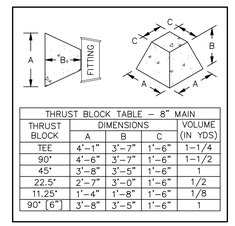
CARTER DRIVE
STA: 1+00 ~ 9+25

NOTES:

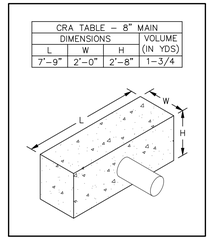
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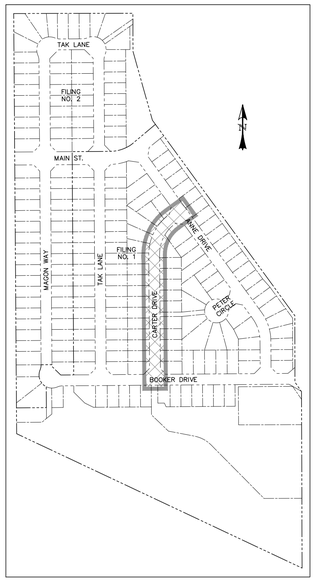
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THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'–1"	3'–7"	1'–6"	1–1/4
90°	4'–6"	3'–7"	1'–6"	1–1/2
45°	3'–8"	3'–5"	1'–6"	1
22.5°	2'–7"	3'–0"	1'–6"	1/2
11.25°	1'–4"	1'–8"	1'–6"	1/8
90° (6")	3'–8"	3'–5"	1'–6"	1

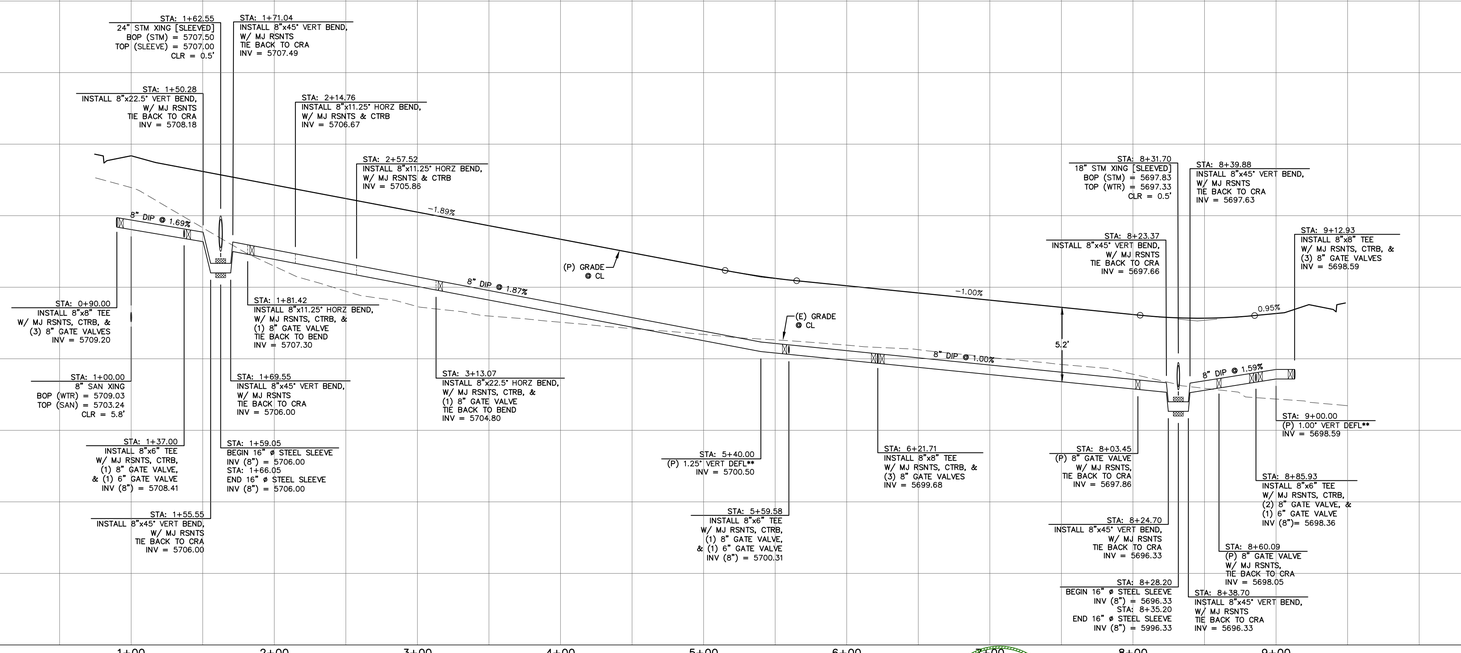


CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'–9"	2'–0"	2'–8"	1–3/4



LOCATION MAP
SCALE: N.T.S.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC – FL	= CDS

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6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

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DAVID L. MIJARES, COLORADO REG. #40510 — 10/19/20 DATE

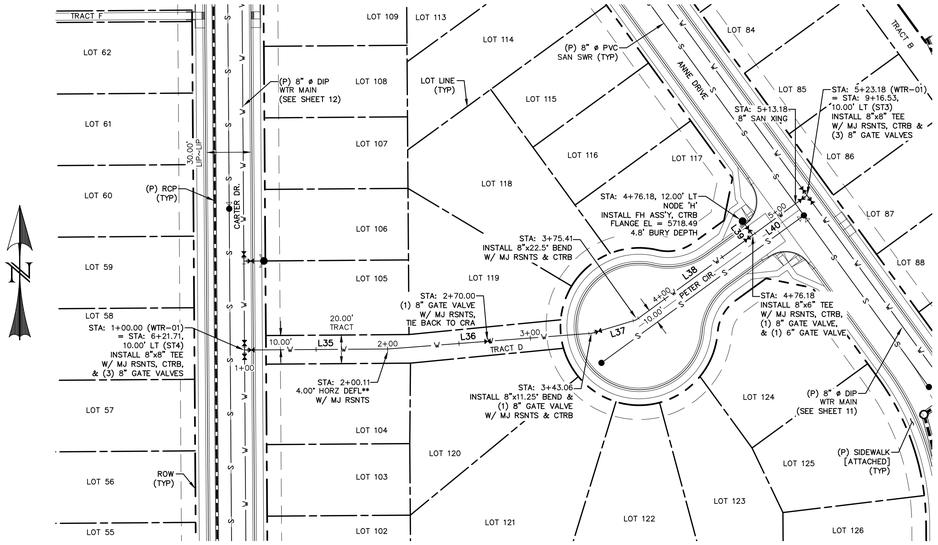
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE, PO BOX 221, WOODLAND PARK, CO 80866, (719)426-2124

RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER: 17–114	SHEET: 12 OF 18

N:\Catamount Projects\17-114 Riverbend Development\Civil\17-114 Cover Sheet.dwg, 10/19/2020 10:50:58 AM, dwolf
N:\Catamount Projects\17-114 Riverbend Development\Civil\17-114 Utility Plan & Profile.dwg, 10/19/2020 10:50:58 AM, dwolf

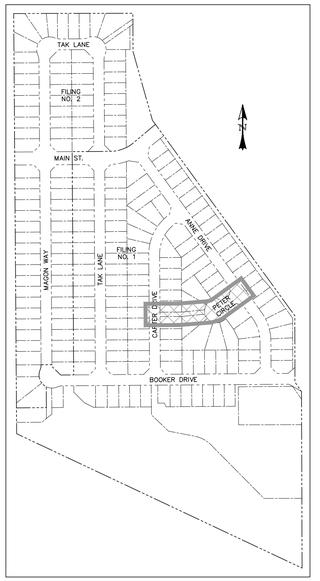
LINE TABLE		
LINE	BEARING	DISTANCE
L35	N89° 35' 49"E	100.11
L36	N85° 35' 49"E	142.95
L37	N73° 12' 02"E	32.35
L38	N53° 55' 25"E	100.76
L39	N36° 04' 35"W	12.00
L40	N53° 55' 25"E	47.00



WTR-01
STA: 1+00 ~ 5+25

THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'-1"	3'-7"	1'-6"	1-1/4
90°	4'-6"	3'-7"	1'-6"	1-1/2
45°	3'-8"	3'-5"	1'-6"	1
22.5°	2'-7"	3'-0"	1'-6"	1/2
11.25°	1'-4"	1'-8"	1'-6"	1/8
90° [6"]	3'-8"	3'-5"	1'-6"	1

CRA TABLE – 8" MAIN				
DIMENSIONS				VOLUME (IN YDS)
L	W	I	H	
7'-9"	2'-0"	2'-8"	1-3/4	



LOCATION MAP
SCALE: N.T.S.

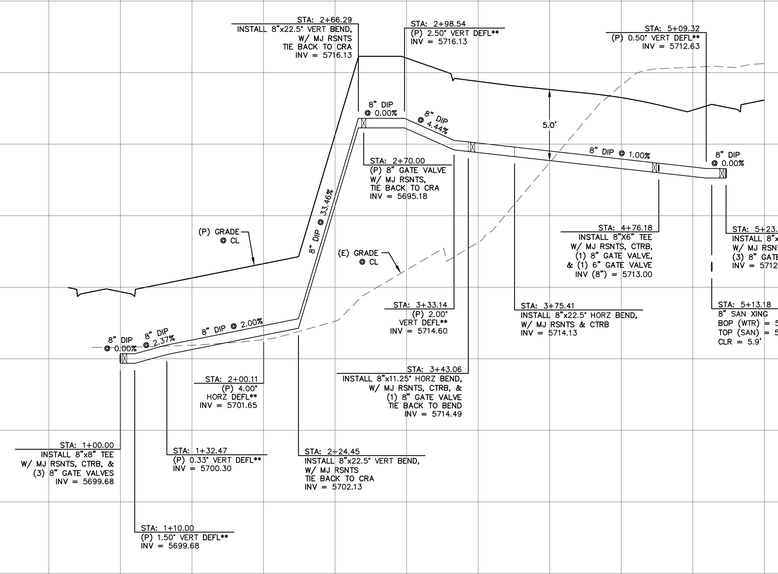
NOTES:

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2. PIPE LENGTH DOES NOT EQUAL DIFFERENCE IN STATIONING.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

811 Know what's below. Call 72 hours before you dig.
For more details visit: www.call811.com

STREET NAME ABBREVIATIONS:

MAIN STREET	= ST1
BOOKER DRIVE	= ST2
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CARTER DRIVE	= ST4
PETER CIRCLE	= ST5
TAK LANE	= ST6
MAGON WAY	= ST7
CUL-DE-SAC – FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
DAVID L. MIJARES, COLORADO REG. #40510 — DATE 10/19/20
COLORADO LICENSED CIVIL L. MIJARES 40510 PROFESSIONAL ENGINEER

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE PO BOX 221 WOODLAND PARK, CO 80866 (719)426-2124

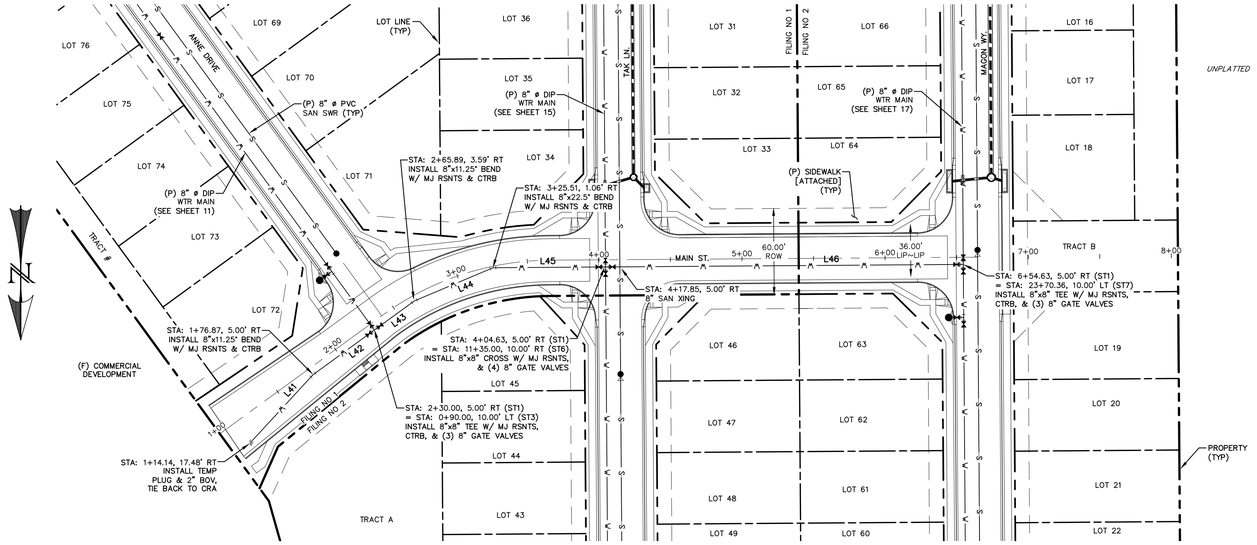
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

EPC 11/28/2021

DESIGNED BY: MGP	DRAWN BY: MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER: 17–114	SHEET: 13 OF 18

N:\Catamount Projects\Projects\17-114 Riverbend Development\Civil_Sheets\17-114 (13-18) - 20 ft - 1 - Friday, August 6, 2021 10:43:48 AM - dwd

LINE TABLE		
LINE	BEARING	DISTANCE
L41	S42° 40' 10"W	63.96
L42	S53° 55' 10"W	53.13
L43	S53° 55' 10"W	34.40
L44	S67° 05' 49"W	59.74
L45	S89° 35' 49"W	78.65
L46	S89° 35' 49"W	250.00



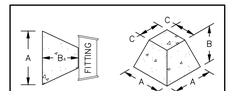
MAIN STREET
STA: 1+00 ~ 8+25

NOTES:

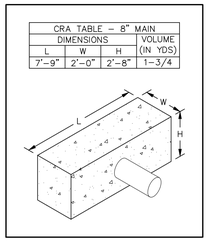
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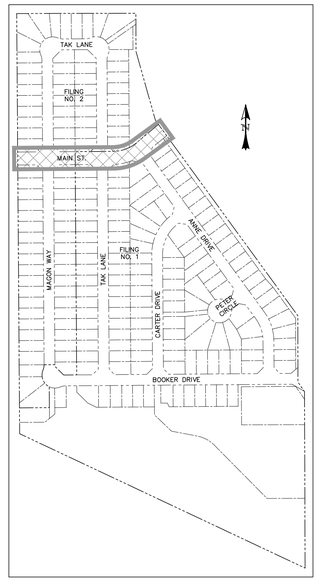
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THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'-1"	3'-7"	1'-6"	1-1/4
90°	4'-6"	3'-7"	1'-6"	1-1/2
45°	3'-8"	3'-5"	1'-6"	1
22.5°	2'-7"	3'-0"	1'-6"	1/2
11.25°	1'-4"	1'-8"	1'-6"	1/8
90° [6"]	3'-8"	3'-5"	1'-6"	1

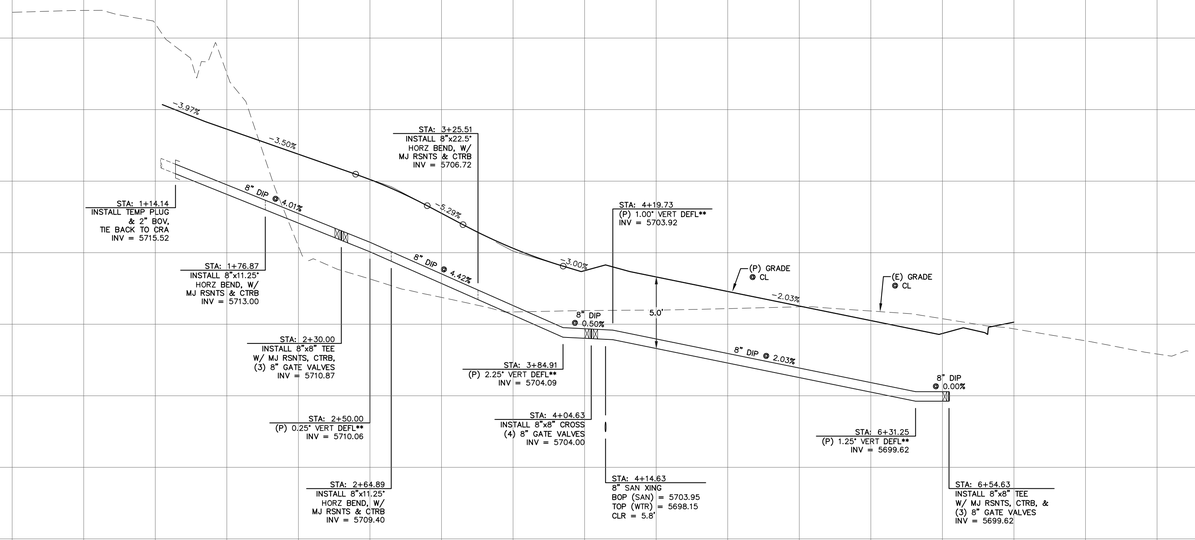


CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'-9"	2'-0"	2'-8"	1-3/4



LOCATION MAP
SCALE: N.T.S.

0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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CUL-DE-SAC – FL	= CDS

PREPARED FOR:
AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
DAVID L. MIJARES, COLORADO PE #40510 DATE

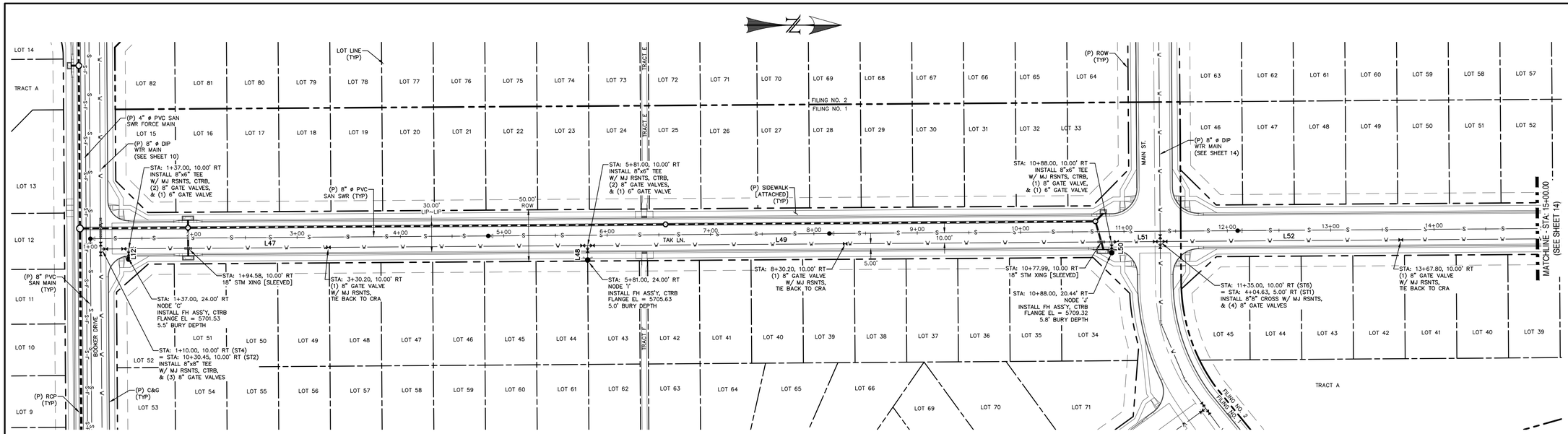
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

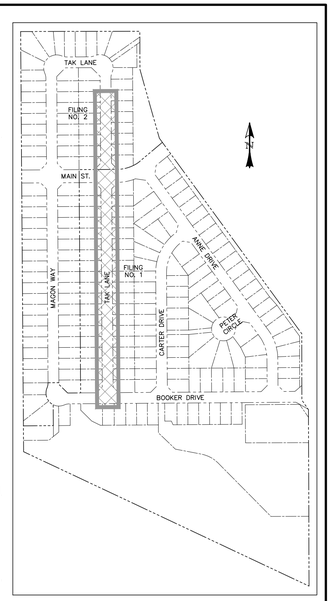
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

EPC 11/28/2021

DESIGNED BY:	DRAWN BY:
MGP	MGP
SCALE: 1" = 50'	DATE: 10/19/20
JOB NUMBER	SHEET
17–114	14 OF 18

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LOCATION MAP
SCALE: N.T.S.

TAK LANE
STA: 1+00 ~ 15+00

LINE TABLE		
LINE	BEARING	DISTANCE
L12	N89° 35' 49"E	10.00
L47	S0° 24' 11"E	471.00
L48	N89° 35' 49"E	14.00

LINE TABLE		
LINE	BEARING	DISTANCE
L49	N0° 24' 11"W	503.39
L50	N89° 35' 49"E	10.44
L51	N0° 24' 11"W	50.61

LINE TABLE		
LINE	BEARING	DISTANCE
L52	N0° 24' 11"W	436.21

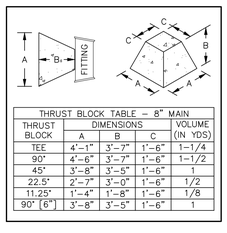
NOTES:

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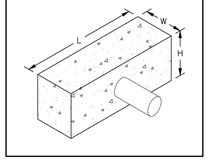
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0 50 100
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THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'-1"	3'-7"	1'-6"	1-1/4
90°	4'-6"	3'-7"	1'-6"	1-1/2
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22.5°	2'-7"	3'-0"	1'-6"	1/2
11.25°	1'-4"	1'-8"	1'-6"	1/8
90° (6")	3'-8"	3'-5"	1'-6"	1



CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'-9"	2'-0"	2'-8"	1-3/4

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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MAGGN WAY	= ST7
CUL-DE-SAC – FL	= CDS

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AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO REGISTERED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

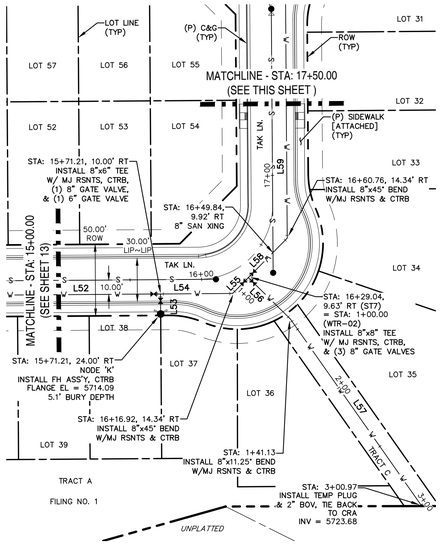
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

EPC 11/28/2021

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17-114		15 OF 18	

W:\Catamount Projects\Projects\17-114 Riverbend Development\Dwg\Sheets\17-114-15p.dwg - 15 P - Friday, August 6, 2021 10:41:08 AM - dave
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TAK LANE
STA: 15+00 ~ 17+50

WTR-02
STA: 1+00 ~ 3+00

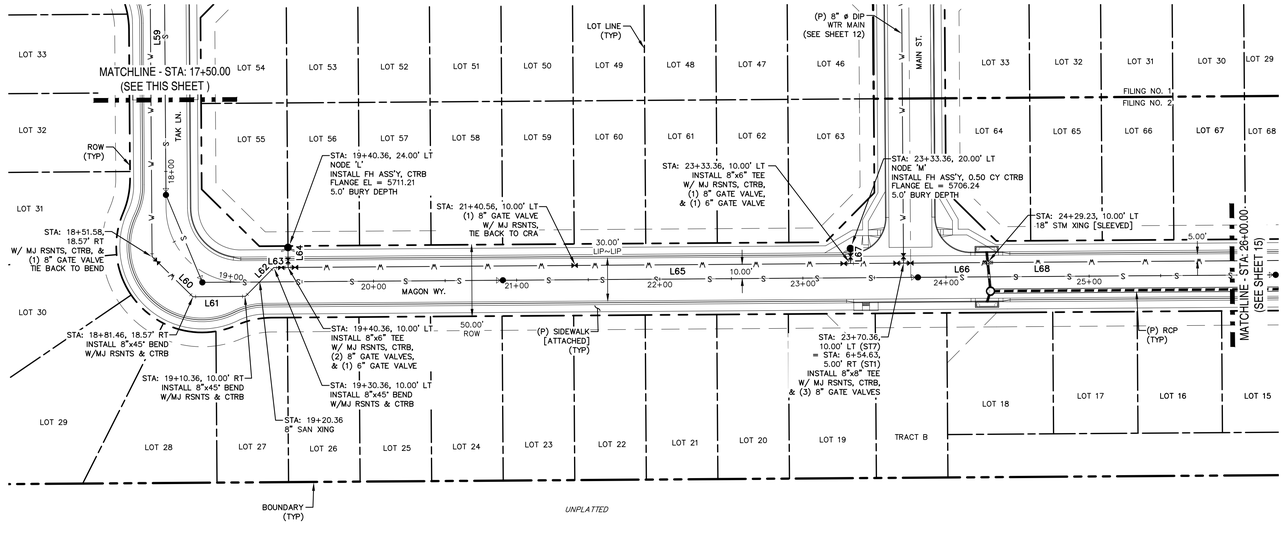
LINE TABLE		
LINE	BEARING	DISTANCE
L52	N0° 24' 11"W	436.21
L53	N89° 35' 49"E	14.00
L54	N0° 24' 11"W	50.40
L55	N45° 24' 11"W	15.59
L56	N44° 35' 49"E	41.13
L57	N54° 54' 33"E	159.84
L58	N45° 24' 11"W	38.70
L59	S89° 35' 49"W	203.33
L60	S44° 35' 49"W	40.00
L61	S0° 24' 11"E	36.72
L62	S45° 24' 11"E	28.28
L63	S0° 24' 11"E	10.00
L64	N89° 35' 49"E	14.00
L65	S0° 24' 11"E	430.00
L66	S0° 24' 11"E	50.61
L67	N89° 35' 49"E	10.44
L68	S0° 24' 11"E	344.39

NOTES:

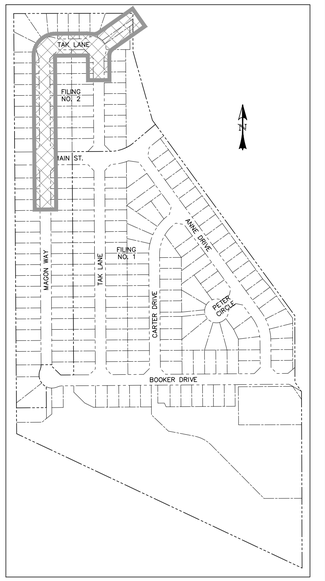
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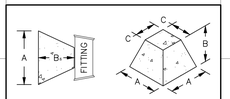


TAK LANE & MAGON WAY
STA: 17+50 ~ 26+00

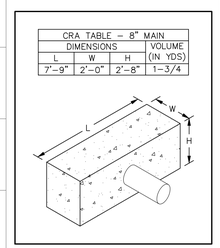


LOCATION MAP
SCALE: N.T.S.

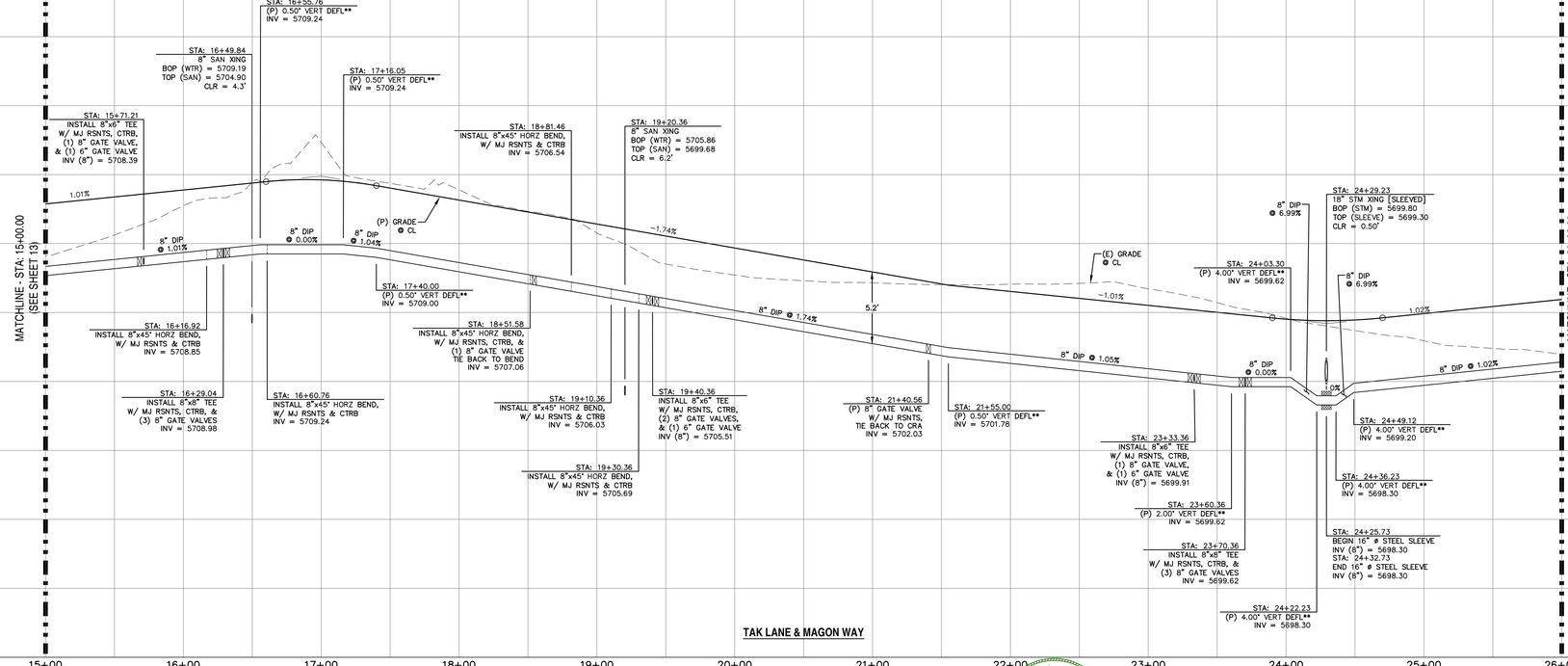
0 50 100
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



THRUST BLOCK TABLE – 8" MAIN				
THRUST BLOCK	DIMENSIONS			VOLUME (IN YDS)
	A	B	C	
TEE	4'–1"	3'–7"	1'–6"	1–1/4
90°	4'–6"	3'–7"	1'–6"	1–1/2
45°	3'–8"	3'–5"	1'–6"	1
22.5°	2'–7"	3'–0"	1'–6"	1/2
11.25°	1'–4"	1'–8"	1'–6"	1/8
90° (6")	3'–8"	3'–5"	1'–6"	1



CRA TABLE – 8" MAIN			
DIMENSIONS			VOLUME (IN YDS)
L	W	H	
7'–9"	2'–0"	2'–8"	1–3/4



REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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TAK LANE	= ST6
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CUL-DE-SAC – FL	= CDS

PREPARED FOR:
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6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

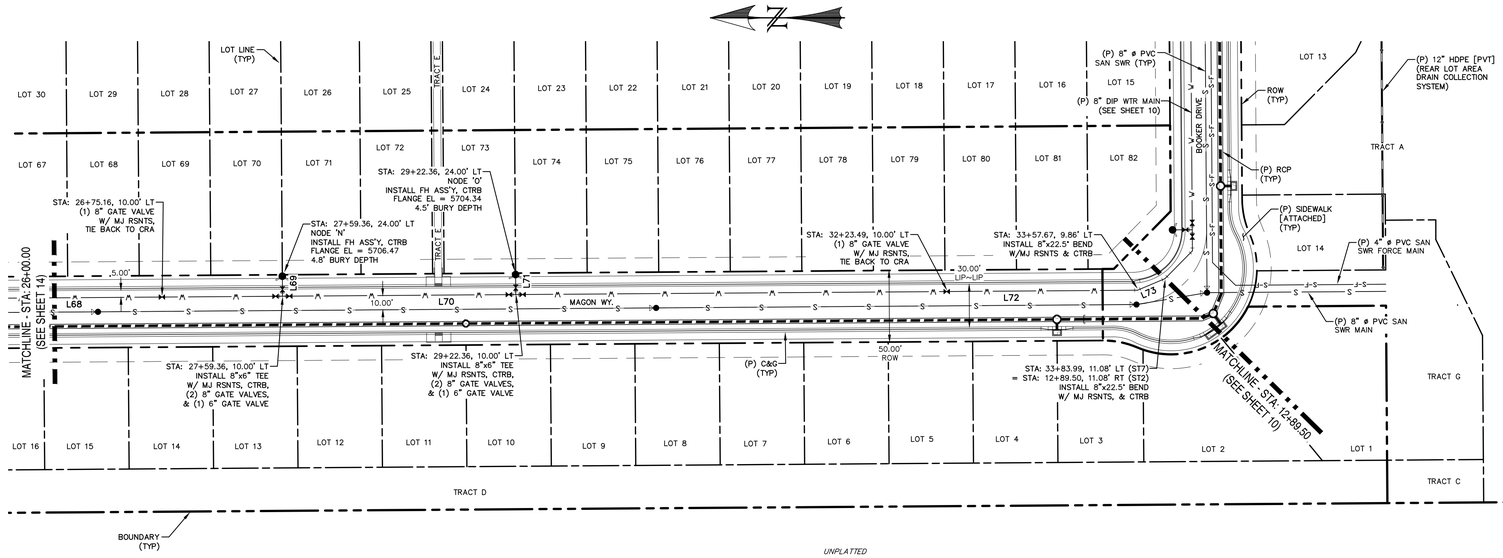
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

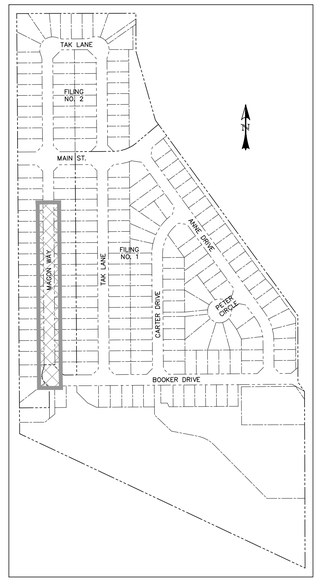
DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER	17–114	SHEET	16 OF 18

EPC 11/28/2021

© Catamount Engineering\Projects\17-114 Riverbend Development\dwg_Sheets\[17-114 cvr.dwg]Layout: 16 of 18 - WTR - P + P Friday, August 6, 2021 10:37:37 AM - dwgref

LINE TABLE		
LINE	BEARING	DISTANCE
L68	S0° 24' 10.53"E	338.39
L69	N89° 35' 49.47"E	14.00
L70	S0° 24' 10.53"E	163.00
L71	N89° 35' 49.47"E	14.00
L72	S0° 24' 10.53"E	434.49
L73	S22° 54' 10.53"E	20.83





LOCATION MAP
SCALE: N.T.S.

MAGON WAY
STA: 26+00 ~ 33+50

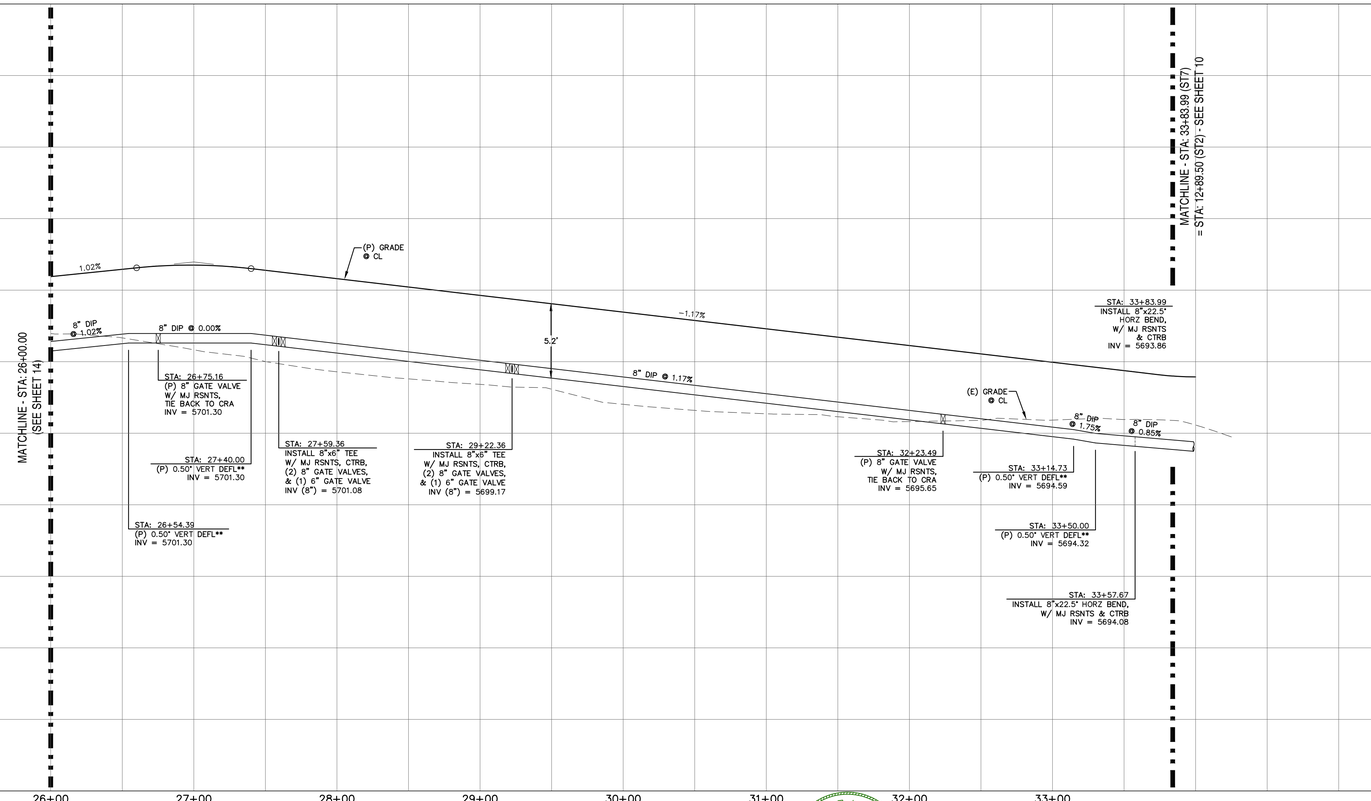
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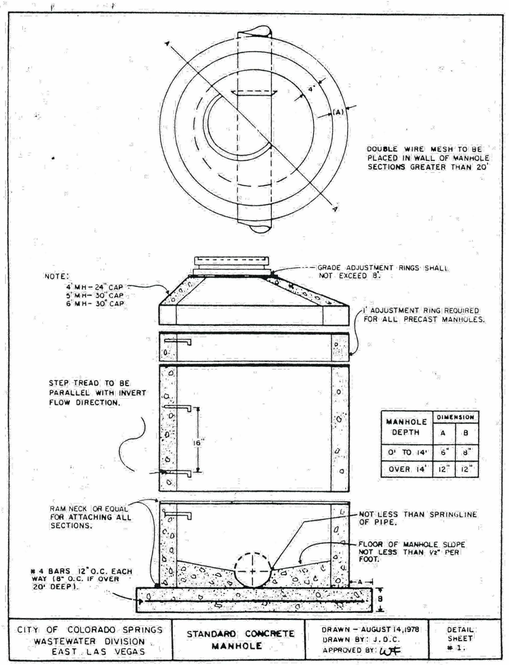
CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

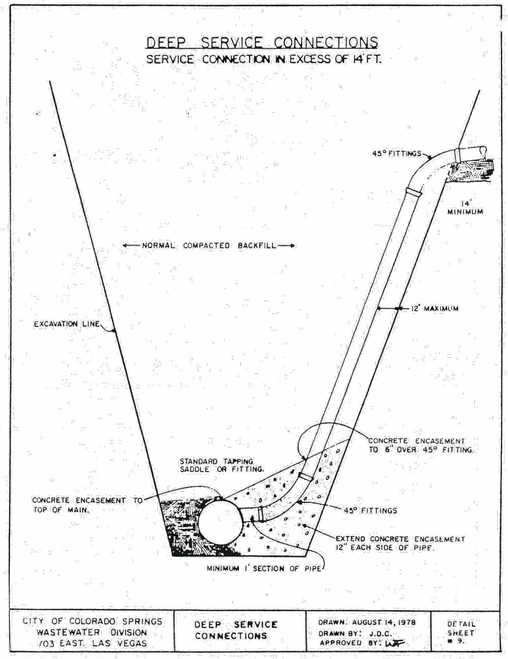
RIVERBEND CROSSING
WATER MAIN PLAN & PROFILE

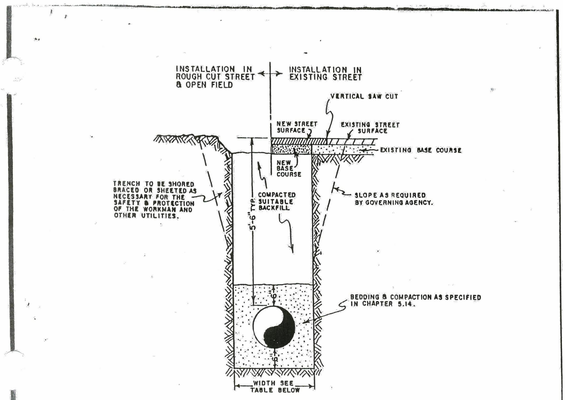
EPC 11/28/2021

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	1" = 50'	DATE:	10/19/20
JOB NUMBER		SHEET	
17-114		17 OF 18	

M:\Catamount Projects\Projects\17-114 Riverbend Development\Dwgs_Sheets\17-114 Utility Plan - 1 of 1 - Friday, August 6, 2021 10:41:14 AM - dcruz
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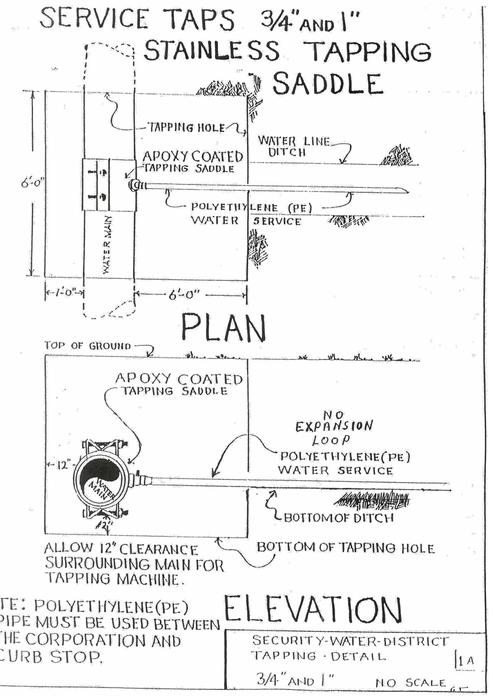


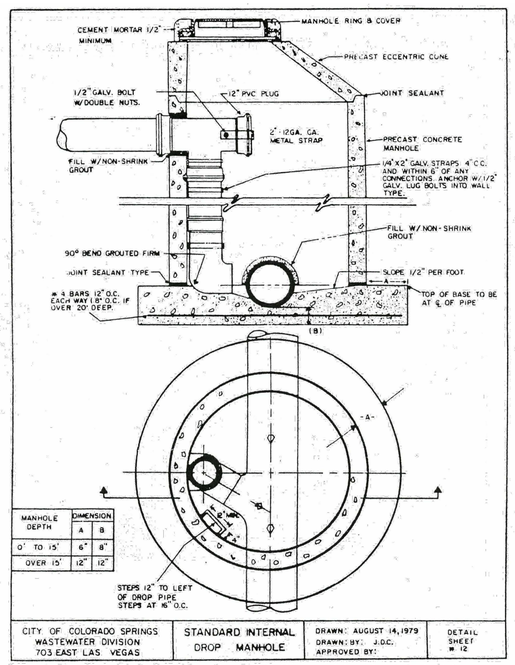
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
12"	2'-1"	3'-1"
16"	2'-6"	3'-6"
20"	2'-10"	3'-10"
24"	3'-2"	4'-2"
36"	4'-2"	5'-2"

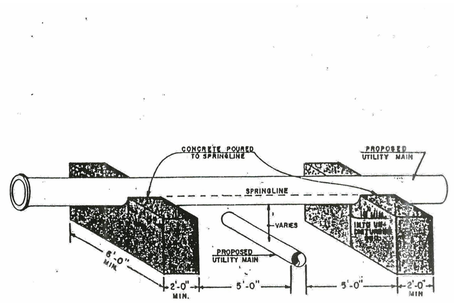
AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE WATER District.

UNDER NO CIRCUMSTANCES WILL PIPE BE LAID IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETLY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

Security Water District
TRENCH CROSS SECTION
DRAWN B. MAC DATE
APPR'D DATE SHEET OF SCALE

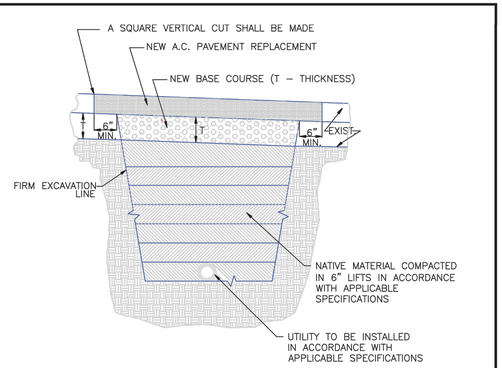






NOTE:
1. BLOCKS WILL BE REINFORCED WITH NO. 6 REBAR, SET ON 12" CENTERS
2. NO JOINTS OF UTILITY MAIN ALLOWED BETWEEN CONCRETE BRIDGING BLOCKS

Security Water District
BRIDGING DETAIL
DRAWN E. BUCK DATE 3/10/04 SURV'S DATE
APPR'D DATE SHEET SCALE
CHK'D HEAD NO



NOTES:

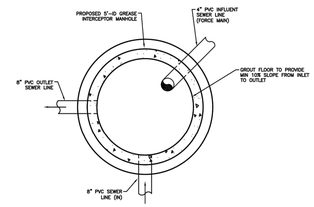
1. THIS DETAIL MAY BE USED FOR PAVEMENT CUTS LESS THAN 200 SQ. FT.
2. EXISTING PAVEMENT MAY BE ROUGH CUT INITIALLY IN CONJUNCTION WITH TRENCHING.
3. A SQUARE VERTICAL CUT SHALL BE MADE IN THE EXISTING A.C. PAVEMENT AFTER PLACEMENT OF BACKFILL PRIOR TO PAVEMENT REPLACEMENT.
4. THICKNESS OF NEW A.C. PAVEMENT REPLACEMENT SHALL MATCH EXISTING (4" MIN.)
5. THICKNESS OF NEW BASE COURSE SHALL BE MINIMUM OF 6" OR EQUAL TO EXISTING, WHICHEVER IS GREATER.

SCALE: NOT TO SCALE

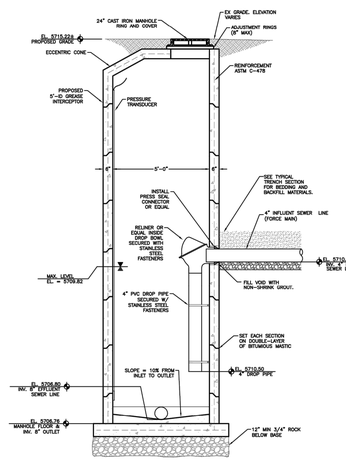
8/11/11
DATE APPROVED:
André P. Brackin
DEPARTMENT OF TRANSPORTATION

Utility Trench Repair Detail
Asphalt Pavement
Standard Drawing
REVISION DATE: 11/10/04
FILE NAME: SD_4-20

EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



PLAN VIEW



DROP MANHOLE DETAIL
SCALE: N.T.S.

EPC 11/28/2021

REV.	DESCRIPTION	DATE
1	ADDRESS AGENCY COMMENTS	06/19/19

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AVATAR EQUITIES, LLC
6800 JERICHO TURNPIKE
SUITE 120W #204
SYOSSET, NY 11791

PREPARED UNDER MY DIRECT SUPERVISION FOR AND BEHALF OF CATAMOUNT ENGINEERING.
COLORADO LICENSED DAVID L. MIJARES 40510 PROFESSIONAL ENGINEER
DAVID L. MIJARES, COLORADO PE #40510 — 10/19/20 DATE

CATAMOUNT ENGINEERING
321 W. HENRIETTA AVE WOODLAND PARK, CO 80866
PO BOX 221 (719)426-2124

RIVERBEND CROSSING
UTILITY DETAIL SHEET

DESIGNED BY:	MGP	DRAWN BY:	MGP
SCALE:	VARIES	DATE:	10/19/20
JOB NUMBER	17-114	SHEET	18 OF 18

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N:\Catamount Projects\2017\17-114 Riverbend Development\Utility_Details\17-114 Utility Details.dwg, Friday, August 9, 2019 10:41:39 AM, AutoCAD